NuMicro® Family

Arm® Cortex®-M4-based Microcontroller

M480 Series
Datasheet

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1 GENERAL DESCRIPTION

The NuMicro® M480 series microcontroller is embedded with Arm® Cortex®-M4F core with secure boot and hardware cryptography which supports DSP instruction and integrated floating-point unit. The M480 series consists of six sub-series according to characteristics and applications. The M480 series supports Flash size up to 2560 KB and SRAM size up to 160 KB. The operating frequency is up to 192 MHz with 175/130 µA/ MHz dynamic power consumption and the standby current can be lower to 1 µA.

The M480 series supports secure boot functionality, which provides a constant digital signature of system software for identification during boot up to protect the integrity of Flash content from attack. The embedded hardware cryptography engine provides fast and easy encryption, decryption, ID certification, private key and public key features. Additionally, the M480 series supports 10/100Mbps Ethernet RMII, high-speed USB 2.0 OTG, dual 12-bit 5 MSPS SAR ADC, camera interface and versatile peripherals, eligible for IoT, industrial automation, sensor network, automotive device, RC aircraft, smart home, network gateway and consumer electronics.

The NuMicro® M480 series consists of six sub-series:

- NuMicro® M481 Base series: high performance, low power consumption, versatile high speed UART/SPI/I2C/PWM peripherals, eligible for data collector.
- NuMicro® M482 USB FS OTG series: Integrated USB 2.0 full speed interface with on-chip OTG PHY, eligible for gaming or PC accessories.
- NuMicro® M483 CAN series: Integrated 2 or 3 sets of CAN 2.0B interfaces, 2 sets of USB 2.0 interfaces, dual ADC and up to 9 sets of UART interfaces, eligible for IoV and industrial control
- NuMicro® M484 USB HS OTG series: Integrated 2 sets of USB 2.0 interface with op-chip full speed and high-speed OTG PHY, eligible for data concentrator of USB sensor.
- NuMicro® M485 Crypto series: Integrated hardware cryptography engine and random number generator for randomly fabricating the key for data encryption/decryption and certification, eligible for fingerprint module, smart payment and secure USB device.
- NuMicro® M487 Ethernet series: Integrated 10/100Mbps Ethernet MAC with industrial standard RMII interface for quickly implementing the network connection, eligible for industrial IoT gateway, UART-to-Ethernet converter, industrial automation, smart home, etc.

Series	USB Full Speed	USB High Speed	CAN 2.0B	Cryptography	Ethernet
M481					
M482	√				
M483	√	√	√		
M484	√	√			
M485	√	√		√	
M487	√	√	√	√	√

2 FEATURES

Core and System	
Arm® Cortex®-M4F	• Arm® Cortex® -M4F core, running up to 192 MHz • Built-in Memory Protection Unit (MPU) • Built-in Nested Vectored Interrupt Controller (NVIC) • Hardware IEEE 754 compliant Floating-point Unit (FPU) • DSP extension with hardware divider and single-cycle 32-bit hardware multiplier • 24-bit system tick timer • Programmble and maskable interrupt • Low Power Sleep mode by WFI and WFE instructions
Brown-out Detector (BOD)	• Eight-level BOD with brown-out interrupt and reset option. (3.0V/2.8V/2.6V/2.4V/2.2V/2.0V/1.8V/1.6V)
Low Voltage Reset (LVR)	• LVR with 1.5V threshold voltage level.
Security	• 96-bit Unique ID (UID). • 128-bit Unique Customer ID (UCID). • One built-in temperature sensor with 1°C resolution.
Memories	
Boot Loader (M48xID/M487KMCAN)	• Factory pre-loaded 32 KB mask ROM for secure boot procedure • Uses SHA-256 and AES-256 to validate data in APROM, LDROM and external SPI Flash • Nuvoton ISP (In-System-Programming) tool for firmware upgrade via UART and high speed USB device • ISP/IAP libraries
Boot Loader (M48xGC/M48xE8)	• Factory pre-loaded 8 KB mask ROM for secure boot procedure • Uses ECC to validate data in APROM, LDROM and external SPI Flash
Flash	• Dual bank 512/256 KB on-chip Application ROM (APROM) for Over-The-Air (OTA) upgrade. (M48xID) • Dual bank 512 KB on-chip Application ROM (APROM) for Over-The-Air (OTA) upgrade. (M487KMCAN) • Single bank 256/128 KB on-chip Application ROM (APROM). (M48xGC/M48xE8) • Four eXecute-Only-Memory regions for data protection. (M48xGC/M48xE8) • 192 MHz maximum frequency, with performance at zero wait

	cycle in continuous address read access • 4 KB on-chip Flash for user-defined loader (LDROM) • 8 KB non-readble Key Protection ROM (KPROM) for firmware programming protection • 4 KB non-readble Security Protection ROM (SPROM) for intelectual property protection • 3 KB One Time Programable (OTP) ROM for data security. (M48xID/M487KMCAN) • 2 KB One Time Programable (OTP) ROM for data security. (M48xGC/M48xE8) • All on-chip Flash support 4 KB page erase • Fast Flash programming verification with CRC • On-chip Flash programming with In-Chip Programming (ICP), In-System Programming (ISP) and In-Application Programming (IAP) capabilities • Configurable boot up sources including boot loader, user-defined loader (LDROM) or Application ROM (APROM) • Data Flash with configurable memory size • 2-wired ICP Flash updating through SWD interface • 32-bit/64-bit and multi-word Flash programming function
SRAM	• Up to 160 KB on-chip SRAM includes: (M48xID/ M487KMCAN) – 32 KB SRAM located in bank 0 that supports hardware parity check and retenion mode; Exception (NMI) generated upon a parity check error – 96/32 KB SRAM located in bank 1 – 32 KB SRAM located in bank 2 that can be used as cache for external SPI Flash memory • Up to 128/64 KB on-chip SRAM includes: (M48xGC/M48xE8) – 32 KB SRAM located in bank 0 that supports hardware parity check and retenion mode; Exception (NMI) generated upon a parity check error – 96/32 KB SRAM located in bank 1 • Byte-, half-word- and word-access • PDMA operation
Cyclic Redundancy Calculation (CRC)	• Supports CRC-CCITT, CRC-8, CRC-16 and CRC-32 polynomials • Programmable initial value and seed value • Programmable order reverse setting and one's complement setting for input data and CRC checksum • 8-bit, 16-bit, and 32-bit data width • 8-bit write mode with 1-AHB clock cycle operation • 16-bit write mode with 2-AHB clock cycle operation • 32-bit write mode with 4-AHB clock cycle operation • Uses DMA to write data with performing CRC operation

Peripheral DMA (PDMA)	• 16 independent and configurable channels for automatic data transfer between memories and peripherals • Basic and Scatter-Gather transfer modes • Each channel supports circular buffer management using Scatter-Gather Transfer mode • Stride function for rectangle image data movement • Fixed-priority and Round-robin priorities modes • Single and burst transfer types • Byte-, half-word- and word tranfer unit with count up to 65536 • Incremental or fixed source and destination address
Clocks	
External Clock Source	• 4~24 MHz High-speed eXternal crystal oscillator (HXT) for precise timing operation • 32.7688 kHz Low-speed eXternal crystal oscillator (LXT) for RTC function and low-power system operation • Supports clock failure detection for external crystal oscillators and exception generatation (NMI)
Internal Clock Source	• 48 MHz High-speed Internal RC oscillator (HIRC48M) dedicated for crystal-less USB. (M48xGC/M48xE8) • 12 MHz High-speed Internal RC oscillator (HIRC) trimmed to 2% accuracy that can optionally be used as a system clock • 10 kHz Low-speed Internal RC oscillator (LIRC) for watchdog timer and wakeup operation • Up to 480 MHz on-chip PLL, sourced from HIRC or HXT, allows CPU operation up to the maximum CPU frequency without the need for a high-frequency crystal
Real-Time Clock (RTC)	• Real-Time Clock with a separate power domain and independent V_{BAT} pin. (M48xGC/M48xE8) • The RTC clock source includes Low-speed external crystal oscillator (LXT) • The RTC block includes 80 bytes of battery-powered backup registers, which can be cleared by tamper pins. (M48xID/M487KMCAN) • The RTC block includes 20 bytes of battery-powered backup registers, which can be cleared by tamper pins. (M48xGC/M48xE8) • Supports 6 static and dynamic tamper pins • Able to wake up CPU from any reduced power mode • Supports ±5ppm within 5 seconds software clock accuracy compensation • Supports Alarm registers (second, minute, hour, day, month, year) • Supports RTC Time Tick and Alarm Match interrupt

	• Automatic leap year recognition • Supports 1 Hz clock output for calibration
Timers	
32-bit Timer	**TIMER** • Four sets of 32-bit timers with 24-bit up counter and one 8-bit pre-scale counter from independent clock source • One-shot, Periodic, Toggle and Continuous Counting operation modes • Supports event counting function to count the event from external pins • Supports external capture pin for interval measurement and resetting 24-bit up counter • Supports chip wake-up function, if a timer interrupt signal is generated **PWM** • Eight 16-bit PWM counters with 12-bit clock prescale • Supports 12-bit deadband (dead time) • Up, down or up-down PWM counter type • Supports brake function • Supports mask function and tri-state output for each PWM channel
Enhanced PWM (EPWM)	• Twelve 16-bit counters with 12-bit clock prescale for twelve 192 MHz PWM output channels • Up to 12 independent input capture channels with 16-bit resolution counter • Supports dead time with maximum divided 12-bit prescale • Up, down or up-down PWM counter type • Supports complementary mode for 3 complementary paired PWM output channels • Synchronous function for phase control • Counter synchronous start function • Brake function with auto recovery mechanism • Mask function and tri-state output for each PWM channel • Trigger EADC or DAC to start conversion immediately. • Trigger EADC to start conversion after a short delay. (M48xGC/M48xE8) • Hardware short-circuit output check. (M48xGC/M48xE8)
Basic PWM (BPWM)	• Two 16-bit counters with 12-bit clock prescale for twelve 192 MHz PWM output channels. • Up to 6 independent input capture channels with 16-bit resolution counter

	• Up, down or up-down PWM counter type • Counter synchronous start function • Mask function and tri-state output for each PWM channel • Able to trigger EADC to start conversion.
Watchdog	• 18-bit free running up counter for WDT time-out interval • Supports multiple clock sources from LIRC (default selection), HCLK/2048 and LXT with 8 selectable time-out period • Able to wake up system from Power-down or Idle mode • Time-out event to trigger interrupt or reset system • Supports four WDT reset delay periods, including 1026, 130, 18 or 3 WDT_CLK reset delay period • Configured to force WDT enabled on chip power-on or reset.
Window Watchdog	• Clock sourced from HCLK/2048 or LIRC; the window set by 6-bit counter with 11-bit prescale • Suspended in Idle/Power-down mode
Analog Interfaces	
Enhanced Analog-to-Digital Converter (EADC) **(M48xID/M487KMCAN)**	• One 12-bit, 19-ch 5 MSPS SAR EADC with up to 16 single-ended input channels or 8 differential input pairs; 10-bit accuracy is guaranteed. • Three internal channels for V_{BAT}, band-gap VBG input and Temperature sensor input • Supports external V_{REF} pin or internal reference voltage V_{REF}: 1.6V, 2.0V, 2.5V, and 3.0V. • Two power saving modes: Power-down mode and Standby mode • Supports calibration capability. • Analog-to-Digital conversion can be triggered by software enable, external pin, Timer 0~3 overflow pulse trigger or PWM trigger. • Configurable EADC sampling time. • Double data buffers for sample module 0~3. • PDMA operation.
Enhanced Analog-to-Digital Converter (EADC) **(M48xGC/M48xE8)**	• One 12-bit, 19-ch 5 MSPS SAR EADC with up to 16 single-ended input channels or 8 differential input pairs; 10-bit accuracy is guaranteed. • One 12-bit, 16-ch 5 MSPS SAR EADC with up to 16 single-ended input channels or 8 differential input pairs; 10-bit accuracy is guaranteed. • Three internal channels for V_{BAT}, band-gap VBG input and Temperature sensor input • Supports external V_{REF} pin or internal reference voltage V_{REF}: 1.6V, 2.0V, 2.5V, and 3.0V. • Two power saving modes: Power-down mode and Standby

	mode • Supports calibration capability. • Analog-to-Digital conversion can be triggered by software enable, external pin, Timer 0~3 overflow pulse trigger or PWM trigger. • Configurable EADC sampling time. • Double data buffers for sample module 0~3. • Supports simultaneously trigger mode. • PDMA operation.
Digital-to-Analog Converter (DAC)	• 12-bit, 1 MSPS voltage type DAC with 8-bit mode and 8μs rail-to-rail settle time. • Maximum output voltage AV_{DD} -0.2V at buffer mode • Digital-to-Analog conversion triggered by Timer0~3, EPWM0, EPWM1, external trigger pin to start DAC conversion or software. • Supports group mode for synchronized data update of two DACs. (M48xID/M487KMCAN) • PDMA operation
Analog Comparator (ACMP)	• Two rail-to-rail Analog Comparators. • Supports four multiplexed I/O pins at positive input. • Supports I/O pins, band-gap, DAC, and 16-level Voltage divider from AV_{DD} or V_{REF} at negative input • Supports four programmable propagation speeds for power saving • Supports wake up from Power-down by interrput • Supports triggers for brake events and cycle-by-cycle control for PWM • Supports window compare mode and window latch mode. • Supports programmable hysteresis window: 0mV, 10mV, 20mV and 30mV
Operational Amplifier (OPA) **(M48xID/M487KMCAN)**	• Three Operational Amplifiers with 0~AV_{DD} input voltage range. • OPA schmitt trigger buffer output used as the interrupt source of comparator.
Communication Interfaces	
Low-power UART	• Low-power UARTs with up to 17.45 MHz baud rate. • Auto-Baud Rate measurement and baud rate compensation function. • Supports low power UART (LPUART): baud rate clock from LXT(32.768 kHz) with 9600bps in Power-down mode even system clock is stopped. • 16-byte FIFOs with programmable level trigger

	• Auto flow control (nCTS and nRTS) • Supports IrDA (SIR) function • Supports LIN function on UART0 and UART1 • Supports RS-485 9-bit mode and direction control • Supports nCTS, incoming data, Received Data FIFO reached threshold and RS-485 Address Match (AAD mode) wake-up function in idle mode. • Supports hardware or software enables to program nRTS pin to control RS-485 transmission direction • Supports wake-up function • 8-bit receiver FIFO time-out detection function • Supports break error, frame error, parity error and receive/transmit FIFO overflow detection function • PDMA operation.
Smart Card Interface	• ISO-7816-3 which are compliant with ISO-7816-3 T=0, T=1 • Supports full duplex UART function. • 4-byte FIFOs with programmable level trigger • Programmable guard time selection (11 ETU ~ 266 ETU) • One 24-bit and two 8 bit time-out counters for Answer to Request (ATR) and waiting times processing • Auto inverse convention function • Stop clock level and clock stop (clock keep) function • Transmitter and receiver error retry function • Supports hardware activation, deactivation and warm reset sequence process • Supports hardware auto deactivation sequence after card removal.
I^2C	• Three sets of I^2C devices with Master/Slave mode • Supports Standard mode (100 kbps), Fast mode (400 kbps), Fast mode plus (1 Mbps) and High speed mode (3.4Mbps) • Supports 10 bits mode • Programmable clocks allowing for versatile rate control • Supports multiple address recognition (four slave address with mask option) • Supports SMBus and PMBus • Supports multi-address power-down wake-up function • PDMA operation
SPI Master (SPI Flash) (M48xID)	• Maximum 32 MB external SPI Flash memory with standard (1-bit), dual (2-bit) and quad (4-bit) transfer mode. • 32 KB cache memory for enhancing program execution performance. • 64-bit key length for code protection.

	• DMA mode for code transfer between SPI Flash memory and SRAM. • SPI Master function with 8-, 16-, 24-, and 32-bit length of transaction and burst mode operation, which can transmit/receive data up to four successive transactions in one transfer. • Supports eXcute-In-Place (XIP)
Quad SPI	• SPI Quad controller with Master/Slave mode, up to 96 MHz at 2.7V~3.6V stsyem voltage. • Supports Dual and Quad I/O Transfer mode • Supports one/two data channel half-duplex transfer. (M48xID/M487KMCAN) • Supports one data channel half-duplex transfer. (M48xGC/M48xE8) • Supports double data rate mode. (M48xGC/M48xE8) • Supports receive-only mode • Configurable bit length of a transfer word from 8 to 32-bit • Provides separate 8-level depth transmit and receive FIFO buffers • Supports MSB first or LSB first transfer sequence • Supports the byte reorder function • Supports Byte or Word Suspend mode • Supports 3-wired, no slave select signal, bi-direction interface • PDMA operation.
SPI/I²S	• SPI/I²S controllers with Master/Slave mode. • SPI/I²S provides separate 4-level of 32-bit (or 8-level of 16-bit) transmit and receive FIFO buffers. **SPI** • Up to 96 MHz in both Master/Slave mode @ 2.7V-3.6V • Configurable bit length of a transfer word from 8 to 32-bit. • MSB first or LSB first transfer sequence. • Byte reorder function. • Supports Byte or Word Suspend mode. • Supports one data channel half-duplex transfer. • Supports receive-only mode. **I²S** • Supports mono and stereo audio data with 8-, 16-, 24- and 32-bit audio data sizes. • Supports PCM mode A, PCM mode B, I²S and MSB justified data format. • PDMA operation.
I²S	• One set of I²S interface with Master/Slave mode.

	• Supports mono and stereo audio data with 8-, 16-, 24- and 32-bit word sizes. • Two 16-level FIFO data buffers, one for transmitting and the other for receiving. • Supports I²S protocols: Philips standard, MSB-justified, and LSB-justified data format. • Supports PCM protocols: PCM standard, MSB-justified, and LSB-justified data format. • PCM protocol supports TDM multi-channel transmission in one audio sample; the number of data channel can be set as 2, 4, 6 or 8. • PDMA operation.
Universal Serial Control Interface (USCI) **(M48xID/M487KMCAN)**	• Two sets of USCI,configured as UART, SPI or I²C function. • Supports single byte TX and RX buffer mode **UART** • Supports one transmit buffer and two receive buffers for data payload. • Supports hardware auto flow control function and programmable flow control trigger level. • 9-bit Data Transfer. • Baud rate detection by built-in capture event of baud rate generator. • Supports wake-up function. • PDMA operation. **SPI** • Supports Master or Slave mode operation. • Supports one transmit buffer and two receive buffer for data payload. • Supports additional receive/transmit 16 entries FIFO for data payload. • Configurable bit length of a transfer word from 4 to 16-bit (SPI Quad transmission only supports 8 to 16-bit of word length). • Supports MSB first or LSB first transfer sequence. • Supports Word Suspend function. • Supports 3-wire, no slave select signal, bi-direction interface. • Supports wake-up function: input slave select transition. • PDMA operation. **I²C** • Supports master and slave device capability. • Supports one transmit buffer and two receive buffer for data payload. • Communication in standard mode (100 kbps), fast mode (up to 400 kbps), and Fast mode plus (1 Mbps). • Supports 10-bit mode.

	• Supports 10-bit bus time out capability. • Supports bus monitor mode. • Supports power-down wake-up by data toggle or address match. • Supports multiple address recognition. • Supports device address flag. • Programmable setup/hold time.
Controller Area Network (CAN)	• CAN 2.0B controllers. • Each supports 32 Message Objects; each Message Object has its own identifier mask. • Programmable FIFO mode (concatenation of Message Object). • Disabled Automatic Re-transmission mode for Time Triggered CAN applications. • Supports power-down wake-up function.
Secure Digital Host Controller (SDHC)	• Secure Digital Host Controllers are compliant with SD Memory Card Specification Version 2.0. • Supports 50 MHz to achieve 200 Mbps at 3.3V operation. • Supports dedicated DMA master with Scatter-Gather function to accelerate the data transfer between system memory and SD/SDHC/SDIO card.
External Bus Interface (EBI)	• Supports up to three memory banks with individual adjustment of timing parameter. • Each bank supports dedicated external chip select pin with polarity control and up to 1 MB addressing space. • 8-/16-bit data width. • Supports byte write in 16-bit data width mode. • Configurable idle cycle for different access condition: Idle of Write command finish (W2X) and Idle of Read-to-Read (R2R). • Supports Address/Data multiplexed mode. • Supports address bus and data bus separate mode. • Supports LCD interface i80 mode. • PDMA operation.
GPIO	• Supports four I/O modes: Quasi bi-direction, Push-Pull output, Open-Drain output and Input only with high impendence mode. • Selectable TTL/Schmitt trigger input. • Configured as interrupt source with edge/level trigger setting. • Supports independent pull-up/pull-down control. • Supports high driver and high sink current I/O. • Supports software selectable slew rate control. • Supports 5V-tolerance function except analog I/O.

Control Interfaces	
Quadrature Encoder Interface (QEI)	• Two QEI phase inputs (QEI_A, QEI_B) and one Index input (QEI_INDEX). • Supports 2/4 times free-counting mode and 2/4 compare-counting mode. • Supports encoder pulse width measurement mode with ECAP.
Enhanced Capture (ECAP)	**Input Capture Timer/Counter** • Supports three input channels with independent capture counter hold register. • 24-bit Input Capture up-counting timer/counter supports captured events reset and/or reload capture counter. • Supports rising edge, falling edge and both edge detector options with noise filter in front of input ports. • Supports compare-match function.
Advanced Connectivity	
USB 2.0 Full Speed with on-chip transceiver	**USB 2.0 Full Speed OTG (On-The-Go)** • On-chip USB 2.0 full speed OTG transceiver. • Compliant with USB OTG Supplement 2.0 • Configurable as host-only, device-only or ID-dependent **USB 2.0 Full Speed Host Controller** • Compliant with USB Revision 1.1 Specification. • Compatible with OHCI (Open Host Controller Interface) Revision 1.0. • Supports full-speed (12Mbps) and low-speed (1.5Mbps) USB devices. • Supports Control, Bulk, Interrupt, Isochronous and Split transfers. • Integrated a port routing logic to route full/low speed device to OHCI controller. • Supports an integrated Root Hub. • Supports port power control and port over current detection. • Built-in DMA. **USB 2.0 Full Speed Device Controller** • Compliant with USB Revision 2.0 Specification. • Supports suspend function when no bus activity existing for 3 ms. • 12 configurable endpoints for configurable Isochronous, Bulk, Interrupt and Control transfer types. • 1024 bytes configurable RAM for endpoint buffer. • Remote wake-up capability.

	• Supports crystall-less features. (M48xGC/M48xE8) • USB 2.0 link power management. (M48xID/M487KMCAN)
USB 2.0 High Speed with on-chip transceiver **(M48xID/M487KMCAN)**	**USB 2.0 High Speed OTG (On-The-Go)** • On-chip USB 2.0 high speed OTG transceiver. • Compliant with USB OTG Supplement 2.0. • Configurable as host-only, device-only or ID-dependent. **USB 2.0 High Speed Host Controller** • Compliant with USB Revision 2.0 Specification. • Compatible with EHCI (Enhanced Host Controller Interface) Revision 1.0. • Compatible with OHCI (Open Host Controller Interface) Revision 1.0. • Supports high-speed (480Mbps), full-speed (12Mbps) and low-speed (1.5Mbps) USB devices. • Integrated a port routing logic to route full/low speed device to OHCI controller. • Supports an integrated Root Hub. • Built-in DMA. **USB 2.0 High Speed Device Controller** • Compliant with USB Revision 2.0 Specification. • Supports one dedicate control endpoint and 12 configurable endpoints; each can be Isochronous, Bulk or Interrupt and either IN or OUT direction. • 4096 bytes configurable RAM for endpoint buffer and up to 1024 bytes maximum packet size. • Three different operation modes of an in-endpoint: Auto Validation mode, Manual Validation mode and Fly mode. • Suspend, resume and remote wake-up capability. • Built-in DMA.
Ethernet MAC **(M48xID/M487KMCAN)**	• IEEE Std. 802.3 CSMA/CD protocol. • Ethernet frame time stamping for IEEE Std. 1588 – 2002 protocol. • Supports both half and full duplex for 10 Mbps or 100 Mbps operation. • RMII (Reduced Media Independent Interface) and serial management interface (MDC/MDIO). • Pause and remote pause function for flow control. • Long frame (more than 1518 bytes) and short frame (less than 64 bytes) reception. • CAM function for Ethernet MAC address recognition. • Supports Magic Packet recognition to wake system up from Power-down mode. • Built-in DMA.

Digital Camera Interface	
Camera Capture Interface (CCAP) **(M48xGC/M48xE8)**	• Supports CCIR601, CCIR656 and 4-bit interfaces for CMOS sensor. • Color format for data input supports YUV4:2:2 and RGB565. • Color format for data output supports YUV4:2:2, RGB565, RGB555 and Y-only. • Supports 1-bit Y(luminance) output with 8-bit threshold setting for image thresholding. • Supports image cropping and downscaling.
Cryptography Accelerator	
Elliptic Curve Cryptography (ECC) **(M48xID/M487KMCAN)**	• Hardware ECC accelerator. • Supports 192-bit and 256-bit key length. • Supports both prime field GF(p) and binary field GF(2^m). • Supports NIST P-192, P-224, P-256, P-384 and P-521 curve sizes. • Supports NIST B-163, B-233, B-283, B-409 and B-571 curve sizes. • Supports NIST K-163, K-233, K-283, K-409 and K-571 curve sizes. • Supports point multiplication, addition and doubling operations in GF(p) and GF(2^m). • Supports modulus division, multiplication, addition and subtraction operations in GF(p).
Advanced Encryption Standard (AES)	• Hardware AES accelerator. • Supports 128-bit, 192-bit and 256-bit key length and key expander, and is compliant with FIPS 197. • Supports ECB, CBC, CFB, OFB, CTR, CBC-CS1, CBC-CS2 and CBC-CS3 block cipher modes • Compliant with NIST SP800-38A and addendum.
Data Encryption Standard (DES) **(M48xID/M487KMCAN)**	• Hardware DES accelerator. • Supports ECB, CBC, CFB, OFB, and CTR block cipher mode. • Compliant with FIPS 46-3.
Triple Data Encryption Standard (3DES) **(M48xID/M487KMCAN)**	• Hardware Triple DES accelerator. • Supports two or three different keys in each round. • Supports ECB, CBC, CFB, OFB, and CTR block cipher mode. • Implemented based on X9.52 standard and compliant with FIPS SP 800-67.

Secure Hash Algorithm (SHA)	• Hardware SHA accelerator. • Supports SHA-160, SHA-224, SHA-256, SHA-384 and SHA-512. (M48xID/M487KMCAN) • Supports SHA-256. (M48xID/M487KMCAN) • Compliant with FIPS 180/180-2.
keyed-Hash Message Authentication Code (HMAC)	• Hardware HMAC accelerator. • Supports HMAC-SHA-160, HMAC-SHA-224, HMAC-SHA-256, HMAC-SHA-384, and HMAC-SHA-512. (M48xID/M487KMCAN) • Supports HMAC-SHA-256. (M48xID/M487KMCAN) • Compliant with FIPS 180/180-2.
True Random Number Generator (TRNG) **(M48xGC/M48xE8)**	• 800 random bits per second.

3 PARTS INFORMATION

3.1 Package Type

Part No.	QFN33	LQFP48	LQFP64	LQFP128	LQFP144
M481	M481ZGCAE M481ZIDAE M481ZE8AE	M481LGCAE M481LIDAE M481LE8AE	M481SGCAE M481SIDAE M481SE8AE M481SGCAE2A		
M482	M482ZGCAE M482ZIDAE M482ZE8AE	M482LGCAE M482LIDAE M482LE8AE	M482SGCAE M482SIDAE M482SE8AE	M482KGCAE M482KIDAE	
M483			M483SGCAE M483SIDAE M483SE8AE M483SGCAE2A	M483KGCAE M483KIDAE M483KGCAE2A	
M484			M484SIDAE M484SIDAE2U	M484KIDAE	
M485		M485LIDAE	M485SIDAE	M485KIDAE	
M487			M487SIDAE	M487KIDAE M487KMCAN	M487JIDAE

3.2 M480 Series Selection Guide

3.2.1 M481 Base Series (M481xIDAE)

PART NUMBER		M481		
		ZIDAE	LIDAE	SIDAE
Flash (KB)		512		
SRAM (KB)		160 (include 32 KB cache for XIP)		
ISP Loader ROM (KB)		4		
I/O		26	41	52
32-bit Timer		4		
Peripheral DMA		16		
Tamper		-	-	1
Connectivity	LPUART	6		
	ISO-7816	3		
	SPI Master	1 (Support XIP)		
	Quad SPI	1		
	SPI/I^{2}S	3	3	4
	I^{2}S	1		
	I^{2}C	3		
	USCI	2		
	CAN	-		
	LIN	2		
	SDHC	1	2	2
16-bit PWM		24		
QEI		1	2	2
ECAP		-	1	1
USB 2.0 FS OTG		-		
USB 2.0 HS OTG		-		
12-bit ADC		10	12	16
12-bit DAC		2		
Analog Comparator		2		
Operational Amplifier		1	2	2
Ethernet		-		
Cryptography		-		
External Bus Interface		-	√	√
Package		QFN 32	LQFP 48	LQFP 64

3.2.2 M481 Base Series (M481xGCAE / M481xE8AE)

PART NUMBER		M481						
		ZE8AE	ZGCAE	LE8AE	LGCAE	SE8AE	SGCAE	SGCAE2A
Flash (KB) (Support XOM)		128	256	128	256	128	256	256
SRAM (KB)		64	128	64	128	64	128	128
ISP Loader ROM (KB)		4						
I/O		26		41		52		52
32-bit Timer		4						
Peripheral DMA		16						
Tamper		-		-		1		1
Connectivity	LPUART	8						
	ISO-7816	1						
	SPI Master	-						
	Quad SPI	2						
	SPI/I²S	2		3		3		3
	I²S	1						
	I²C	3						
	USCI	-						
	CAN	-						
	LIN	2						
	SDHC	1						
16-bit PWM		24						
QEI		1		2		2		2
ECAP		-		1		1		1
USB 2.0 FS OTG		-						
USB 2.0 HS OTG		-						
12-bit ADC		10		12		16		**8+8**
12-bit DAC		1						
Analog Comparator		2						
Operational Amplifier		-						
Ethernet		-						
Cryptography		AES-256						
TRNG		√						
External Bus Interface		-		√		√		√
Camera Interface		-		-		√		√
Package		QFN33		LQFP 48		LQFP 64		LQFP 64

3.2.3 M482 USB FS OTG Series (M482xIDAE)

PART NUMBER		M482			
		ZIDAE	LIDAE	SIDAE	KIDAE
Flash (KB)		512			
SRAM (KB)		160 (include 32 KB cache for XIP)			
ISP Loader ROM (KB)		4			
I/O		26	41	52	100
32-bit Timer		4			
Peripheral DMA		16			
Tamper		-	-	1	6
Connectivity	LPUART	6			
	ISO-7816	3			
	SPI Master	1 (Support XIP)			
	Quad SPI	1			
	SPI/I²S	3	3	4	4
	I²S	1			
	I²C	3			
	USCI	2			
	CAN	-			
	LIN	2			
	SDHC	2			
16-bit PWM		24			
QEI		1	2	2	2
ECAP		-	1	1	2
USB 2.0 FS OTG		√			
USB 2.0 HS OTG		-			
12-bit ADC		10	12	16	16
12-bit DAC		2			
Analog Comparator		2			
Operational Amplifier		1	2	2	3
Ethernet		-			
Cryptography		-			
External Bus Interface		-	√	√	√
Package		QFN33	LQFP 48	LQFP 64	LQFP 128

3.2.4 M482 USB FS OTG Series (M482xGCAE / M482xE8AE)

PART NUMBER		M482						
		ZE8AE	ZGCAE	LE8AE	LGCAE	SE8AE	SGCAE	KGCAE
Flash (KB) (Support XOM)		128	256	128	256	128	256	256
SRAM (KB)		64	128	64	128	64	128	128
ISP Loader ROM (KB)		4						
I/O		26		41		52		100
32-bit Timer		4						
Peripheral DMA		16						
Tamper		-		-		1		6
Connectivity	LPUART	8						
	ISO-7816	1						
	SPI Master	-						
	Quad SPI	2						
	SPI/I²S	2		3		3		3
	I²S	1						
	I²C	3						
	USCI	-						
	CAN	-						
	LIN	2						
	SDHC	1						
16-bit PWM		24						
QEI		1		2		2		2
ECAP		-		1		1		2
USB 2.0 FS OTG		√ (Crystal-less)						
USB 2.0 HS OTG		-						
12-bit ADC		10		12		16		16
12-bit DAC		1						
Analog Comparator		2						
Operational Amplifier		-						
Ethernet		-						
Cryptography		AES-256						
TRNG		√						
External Bus Interface		-		√		√		√
Camera Interface		-		-		√		√
Package		QFN33		LQFP 48		LQFP 64		LQFP 128

3.2.5 M483 CAN Series (M483xIDAE)

PART NUMBER		M483	
		SIDAE	KIDAE
Flash (KB)		512	
SRAM (KB)		160 (include 32 KB cache for XIP)	
ISP Loader ROM (KB)		4	
I/O		44	100
32-bit Timer		4	
Peripheral DMA		16	
Tamper		1	6
Connectivity	LPUART	6	
	ISO-7816	3	
	SPI Master	1	
	Quad SPI	1	
	SPI/I²S	4	
	I²S	1	
	I²C	3	
	USCI	2	
	CAN	2	
	LIN	2	
	SDHC	2	
16-bit PWM		24	
QEI		2	
ECAP		1	2
USB 2.0 FS OTG		-	√
USB 2.0 HS OTG		√	
12-bit ADC		16	
12-bit DAC		2	
Analog Comparator		2	
Operational Amplifier		2	3
Ethernet		-	
Cryptography		-	
External Bus Interface		√	
Package		LQFP 64	LQFP 128

3.2.6 M483 CAN Series (M483xGCAE / M483xE8AE)

PART NUMBER		M483				
		SE8AE	SGCAE	SGCAE2A	KGCAE	KGCAE2A
Flash (KB) (Support XOM)		128	256	256	256	
SRAM (KB)		64	128	128	128	
ISP Loader ROM (KB)		4				
I/O		52		52	100	
32-bit Timer		4				
Peripheral DMA		16				
Tamper		1		1	6	
Connectivity	LPUART	8				
	ISO-7816	1				
	SPI Master	-				
	Quad SPI	2				
	SPI/I²S	3				
	I²S	1				
	I²C	3				
	USCI	-				
	CAN	3				
	LIN	2				
	SDHC	1				
16-bit PWM		24				
QEI		2				
ECAP		1		1	2	
USB 2.0 FS OTG		√ (Crystal-less)				
USB 2.0 HS OTG		-				
12-bit ADC		16		**8+8**	16	**16+8**
12-bit DAC		1				
Analog Comparator		2				
Operational Amplifier		-				
Ethernet		-				
Cryptography		AES-256				
TRNG		√				
External Bus Interface		√				
Camera Interface		√				
Package		LQFP 64		LQFP 64	LQFP 128	

3.2.7 M484 USB HS OTG Series

PART NUMBER		M484		
		SIDAE	SIDAE2U	KIDAE
Flash (KB)		512		
SRAM (KB)		160 (include 32 KB cache for XIP)		
ISP Loader ROM (KB)		4		
I/O		44	44	100
32-bit Timer		4		
Peripheral DMA		16		
Tamper		1	1	6
Connectivity	LPUART	6		
	ISO-7816	3		
	SPI Master	1		
	Quad SPI	1		
	SPI/I^{2}S	4		
	I^{2}S	1		
	I^{2}C	3		
	USCI	2		
	CAN	-		
	LIN	2		
	SDHC	2		
16-bit PWM		24		
QEI		2		
ECAP		1	1	2
USB 2.0 FS OTG		-	√	√
USB 2.0 HS OTG		√		
12-bit ADC		16		
12-bit DAC		2		
Analog Comparator		2		
Operational Amplifier		2	2	3
Ethernet		-		
Cryptography		-		
External Bus Interface		√		
Package		LQFP 64	LQFP 64	LQFP 128

3.2.8 M485 Crypto Series

PART NUMBER		M485		
		LIDAE	SIDAE	KIDAE
Flash (KB)		512		
SRAM (KB)		160 (include 32 KB cache for XIP)		
ISP Loader ROM (KB)		4		
I/O		41	44	100
32-bit Timer		4		
Peripheral DMA		16		
Tamper		-	1	6
Connectivity	LPUART	6		
	ISO-7816	3		
	SPI Master	1		
	Quad SPI	1		
	SPI/I^{2}S	3	4	4
	I^{2}S	1		
	I^{2}C	3		
	USCI	2		
	CAN	-		
	LIN	2		
	SDHC	2		
16-bit PWM		24		
QEI		2		
ECAP		1	1	2
USB 2.0 FS OTG		√	-	√
USB 2.0 HS OTG		-	√	√
12-bit ADC		12	16	16
12-bit DAC		2		
Analog Comparator		2		
Operational Amplifier		2	2	3
Ethernet		-		
Cryptography		√		
External Bus Interface		√		
Package		LQFP 48	LQFP 64	LQFP 128

3.2.9 M487 Ethernet Series

PART NUMBER		M487			
		SIDAE	KIDAE	JIDAE	KMCAN
Flash (KB)		512			2560
SRAM (KB)		160			
ISP Loader ROM (KB)		4			
I/O		44	100	114	94
32-bit Timer		4			
Peripheral DMA		16			
Tamper		1	6	6	6
Connectivity	LPUART	6			
	ISO-7816	3			
	SPI Master	1			-
	Quad SPI	1			
	SPI/I²S	4			
	I²S	1			
	I²C	3			
	USCI	2			
	CAN	2			
	LIN	2			
	SDHC	2			
16-bit PWM		24			
QEI		2			
ECAP		1	2	2	2
USB 2.0 FS OTG		-	√	√	√
USB 2.0 HS OTG		√			
12-bit ADC		16			
12-bit DAC		2			
Analog Comparator		2			
Operational Amplifier		2	3	3	3
Ethernet		√			
Cryptography		√			
External Bus Interface		√			
Package		LQFP 64	LQFP 128	LQFP 144	LQFP 128

3.3 M480 Selection Code

M4	81	Z	G	D	A	E	2A
Core	Series	Package	Flash Size	SRAM Size	Revision	Temperature	Peripheral
Cortex®-M4F	81: Base 82: USB FS 83: CAN 84: USB HS 85: Crypto 87: Ethernet	Z: QFN33 (5x5 mm) L: LQFP48 (7x7 mm) C: WLCSP S: LQFP64 (7x7 mm) O: QFN88 (10x10 mm) V: LQFP100 (14x14 mm) K: LQFP128 (14x14 mm) J: LQFP144 (20x20 mm)	A: 8 Kbytes B: 16 Kbytes C: 32 Kbytes D: 64 Kbytes E: 128 Kbytes F: 192 Kbytes G: 256 Kbytes H: 384 Kbytes I: 512 Kbytes M: 2560 Kbytes	1: 4 Kbytes 2: 8 Kbytes 3: 16 Kbytes 4: 20 Kbytes 5: 24 Kbytes 6: 32 Kbytes 7: 48 Kbytes 8: 64 Kbytes 9: 80 Kbytes A: 96 Kbytes B: 112 Kbytes C: 128 Kbytes D: 160 Kbytes		E:-40°C ~ 105°C N:-40°C ~ 85°C	2A: 2 EADCs 2U: 2 USB ports

4 PIN CONFIGURATION

4.1 Pin Configuration

Users can find pin configuration information in chapter 4 or by using NuTool - PinConfig. The NuTool - PinConfigure contains all NuMicro Family chip series with all part number, and helps users configure GPIO multi-function correctly and handily.

4.1.1 QFN-33 Pin Diagram

Corresponding Part Number: M481ZE8AE, M481ZGCAE, M481ZIDAE, M482ZE8AE, M482ZGCAE, M482ZIDAE

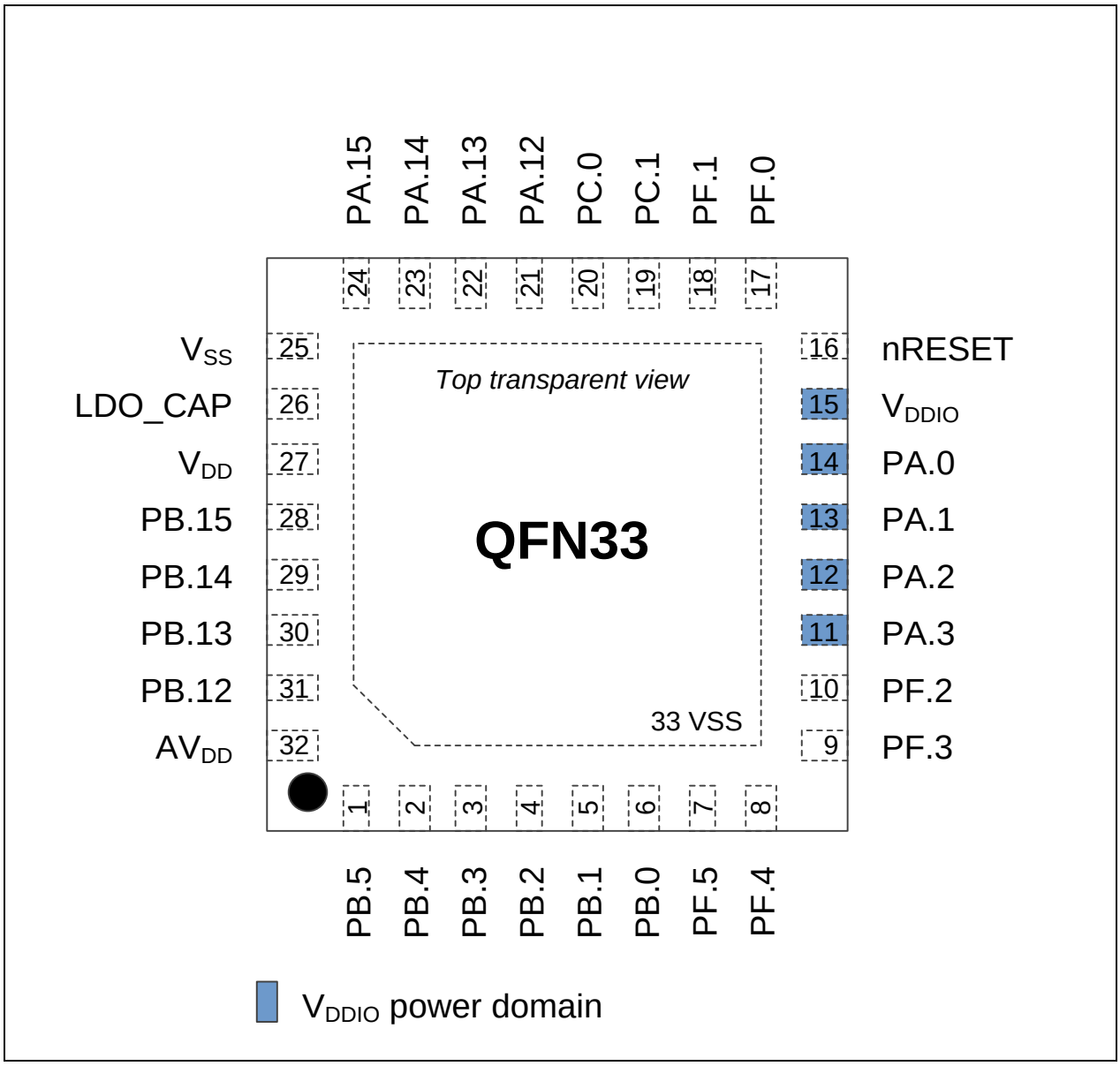

Figure 4-1 QFN-33 Pin Diagram (0/1 USB FS)

4.1.2 LQFP-48 Pin Diagram (0/1 USB FS)

Corresponding Part Number: M481LE8AE, M481LGCAE, M481LIDAE, M482LE8AE, M482LGCAE, M482LIDAE, M485LIDAE

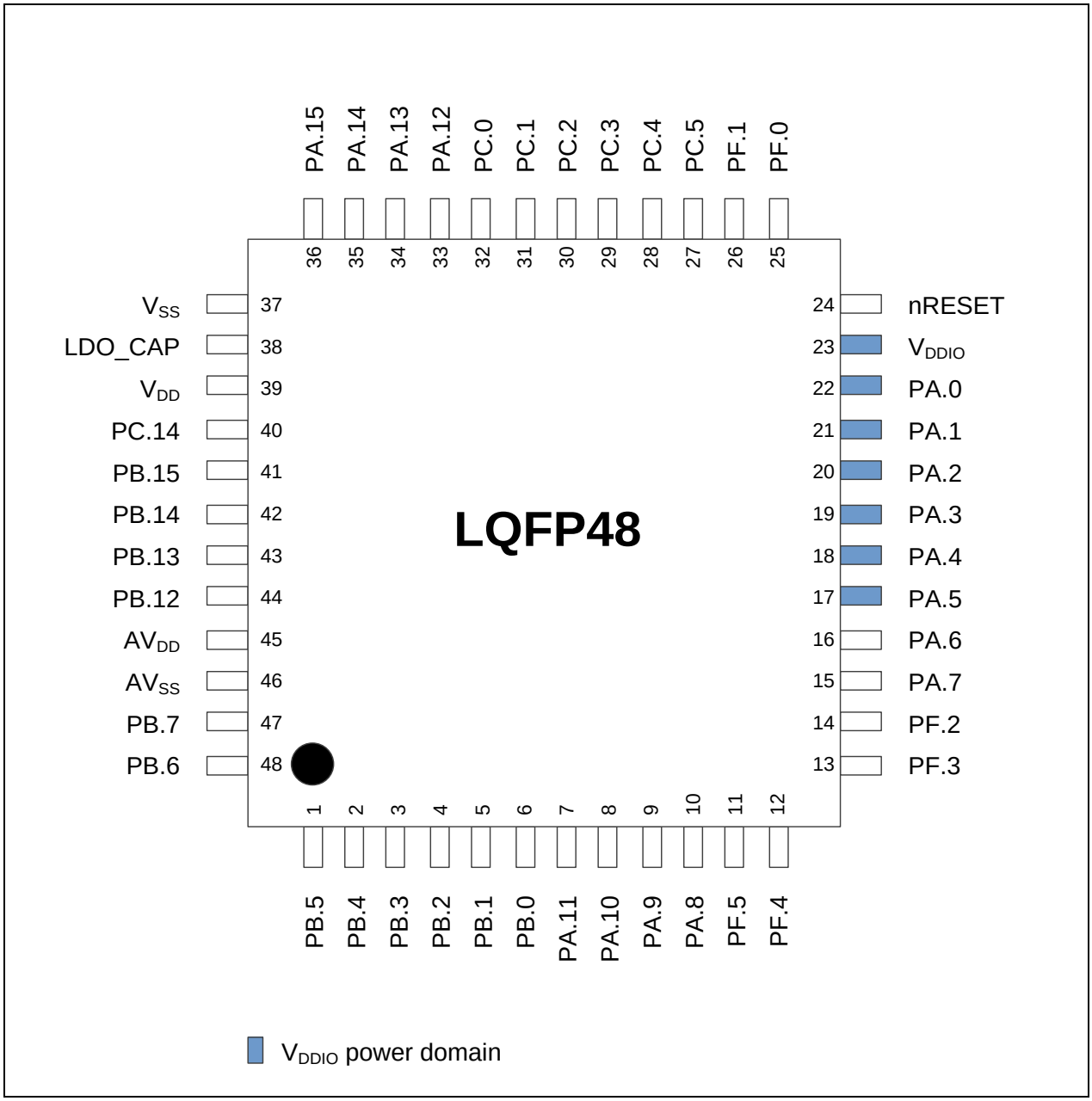

Figure 4-2 LQFP-48 Pin Diagram (0/1 USB FS)

4.1.3 LQFP-64 Pin Diagram (0/1 USB FS)

Corresponding Part Number: M481SIDAE, M482SIDAE

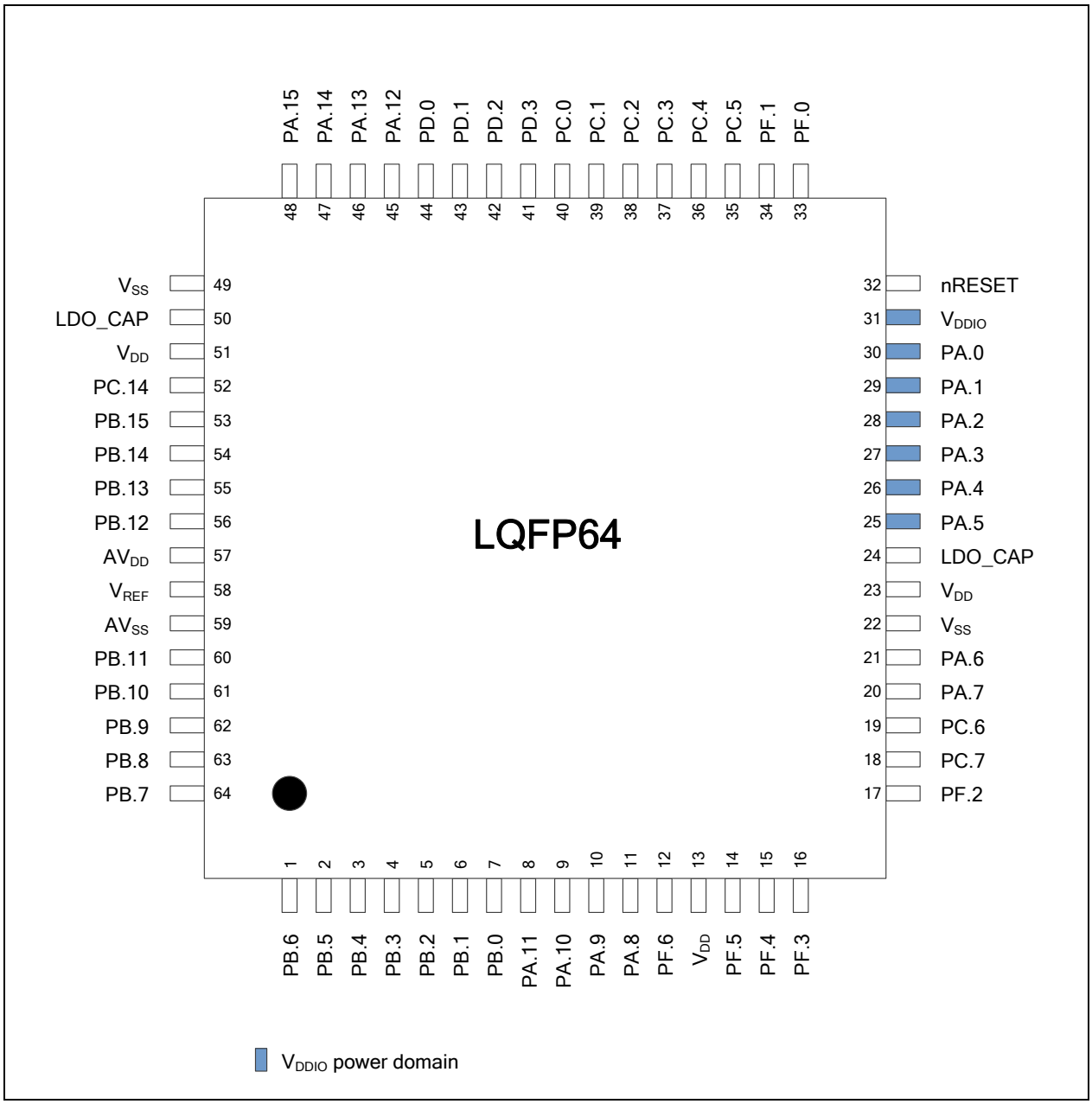

Figure 4-3 LQFP-64 Pin Diagram (0/1 USB FS)

4.1.4 LQFP-64 Pin Diagram (0/1 USB FS with V_{BAT})

Corresponding Part Number: M481SE8AE, M481SGCAE, M481SGCAE2A, M482SE8AE, M482SGCAE, M483SE8AE, M483SGCAE, M483SGCAE2A

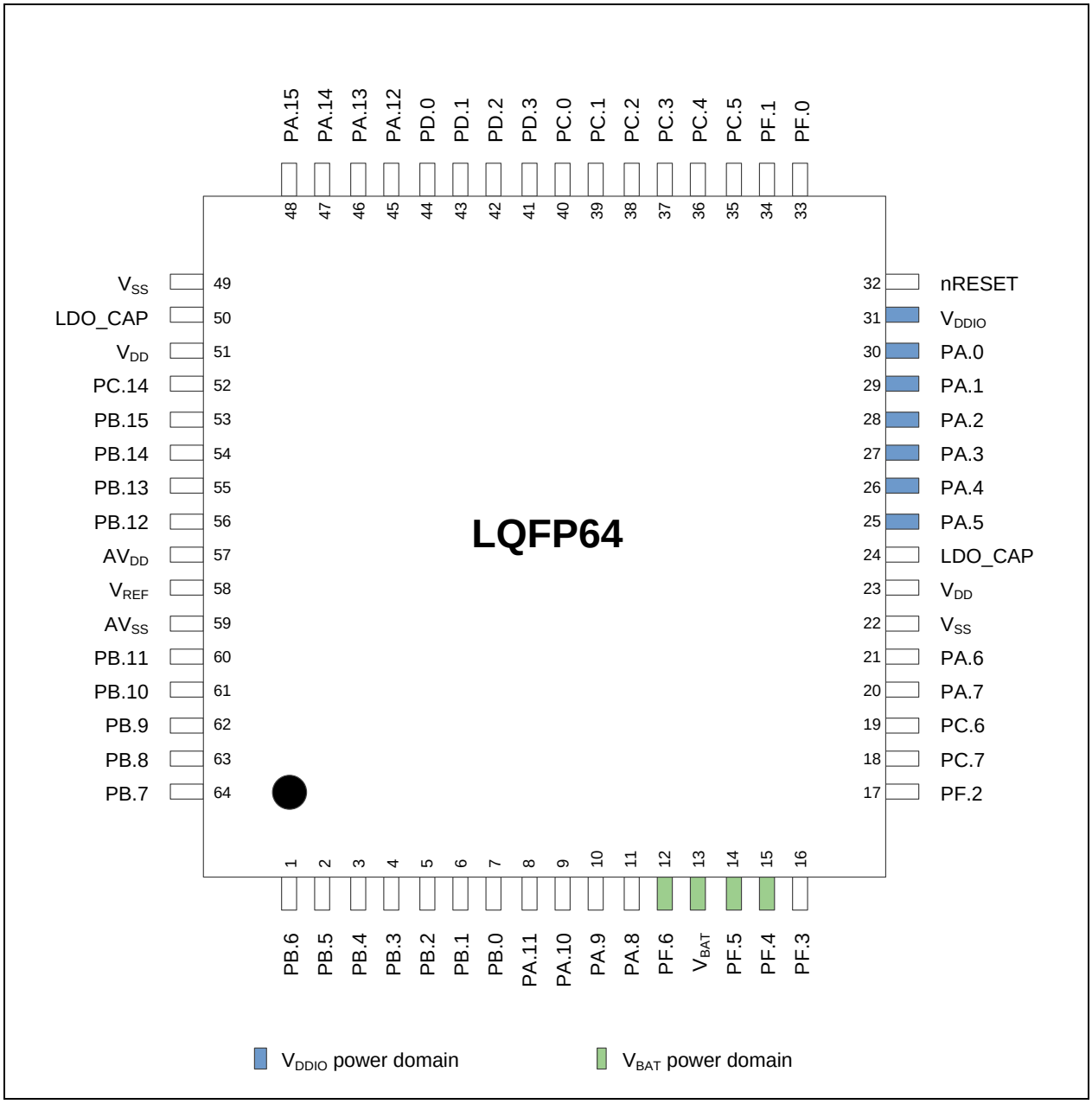

Figure 4-4 LQFP-64 Pin Diagram (0/1 USB FS with V_{BAT})

4.1.5 LQFP-64 Pin Diagram (1 USB HS)

Corresponding Part Number: M483SIDAE, M484SIDAE, M485SIDAE, M487SIDAE

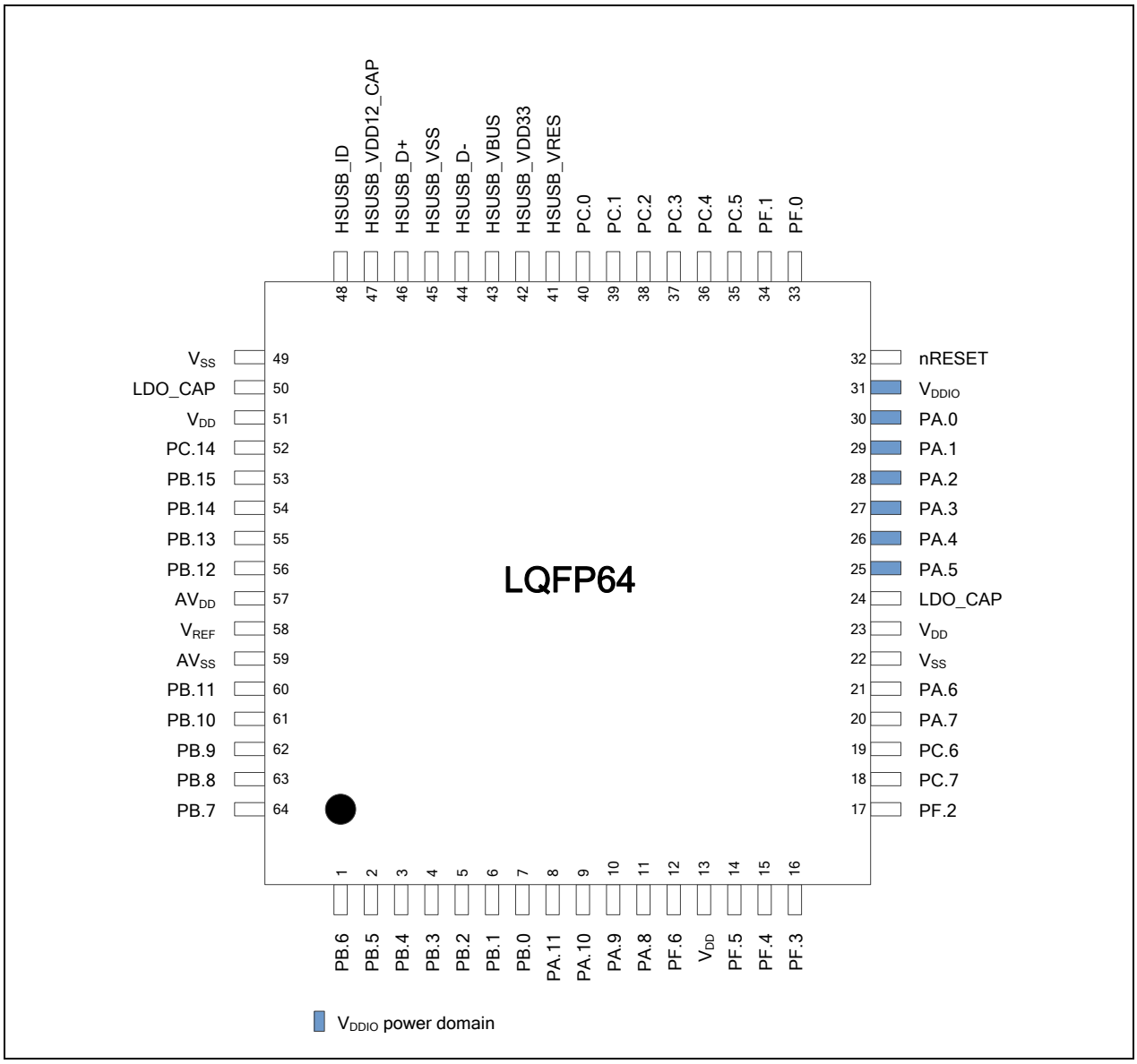

Figure 4-5 LQFP-64 Pin Diagram (1 USB HS)

4.1.6 LQFP-64 Pin Diagram (USB FS + USB HS)

Corresponding Part Number: M484SIDAE2U

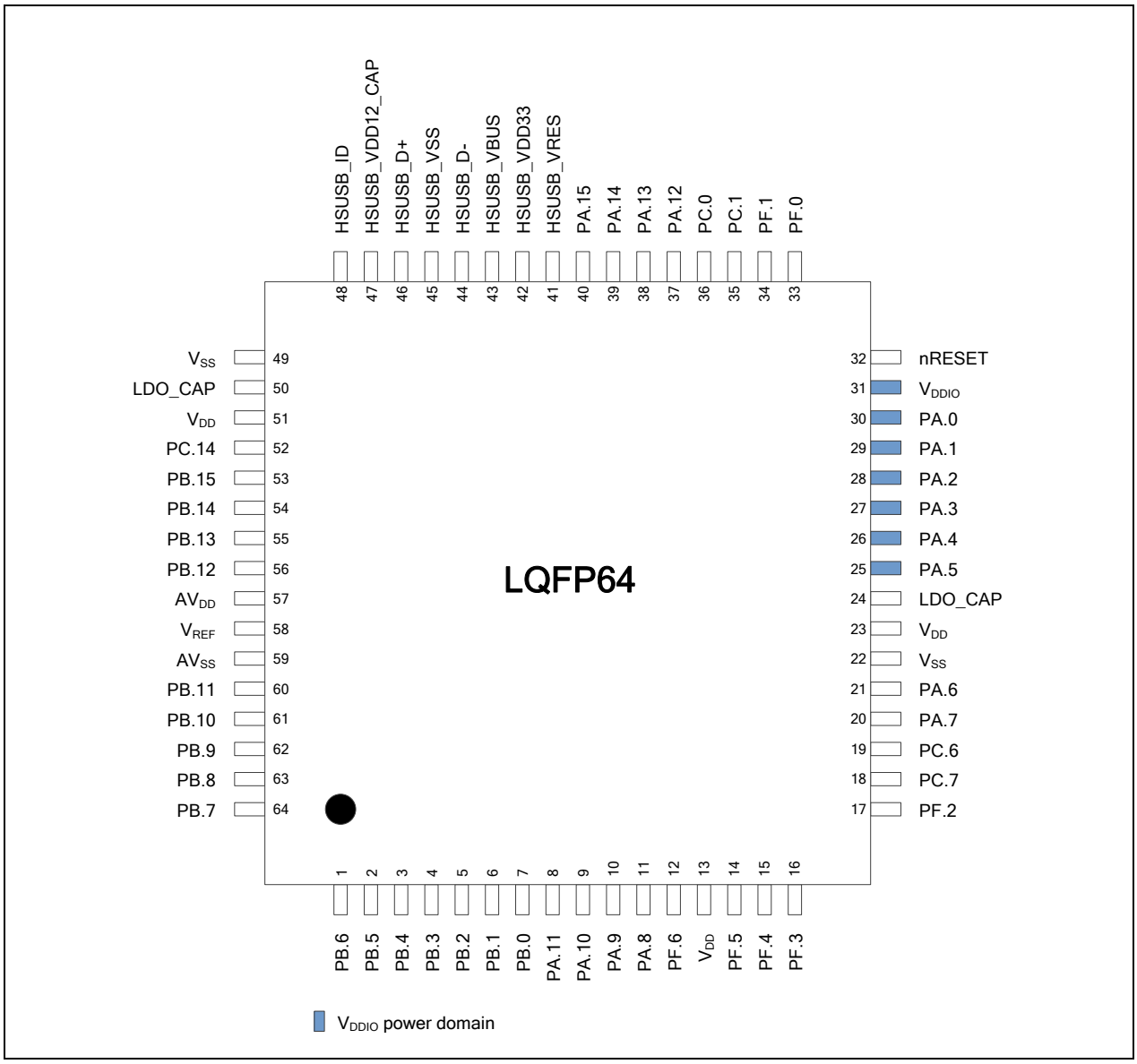

Figure 4-6 LQFP-64 Pin Diagram (USB FS + USB HS)

4.1.7 LQFP-128 Pin Diagram (1 USB FS)

Corresponding Part Number: M482KIDAE

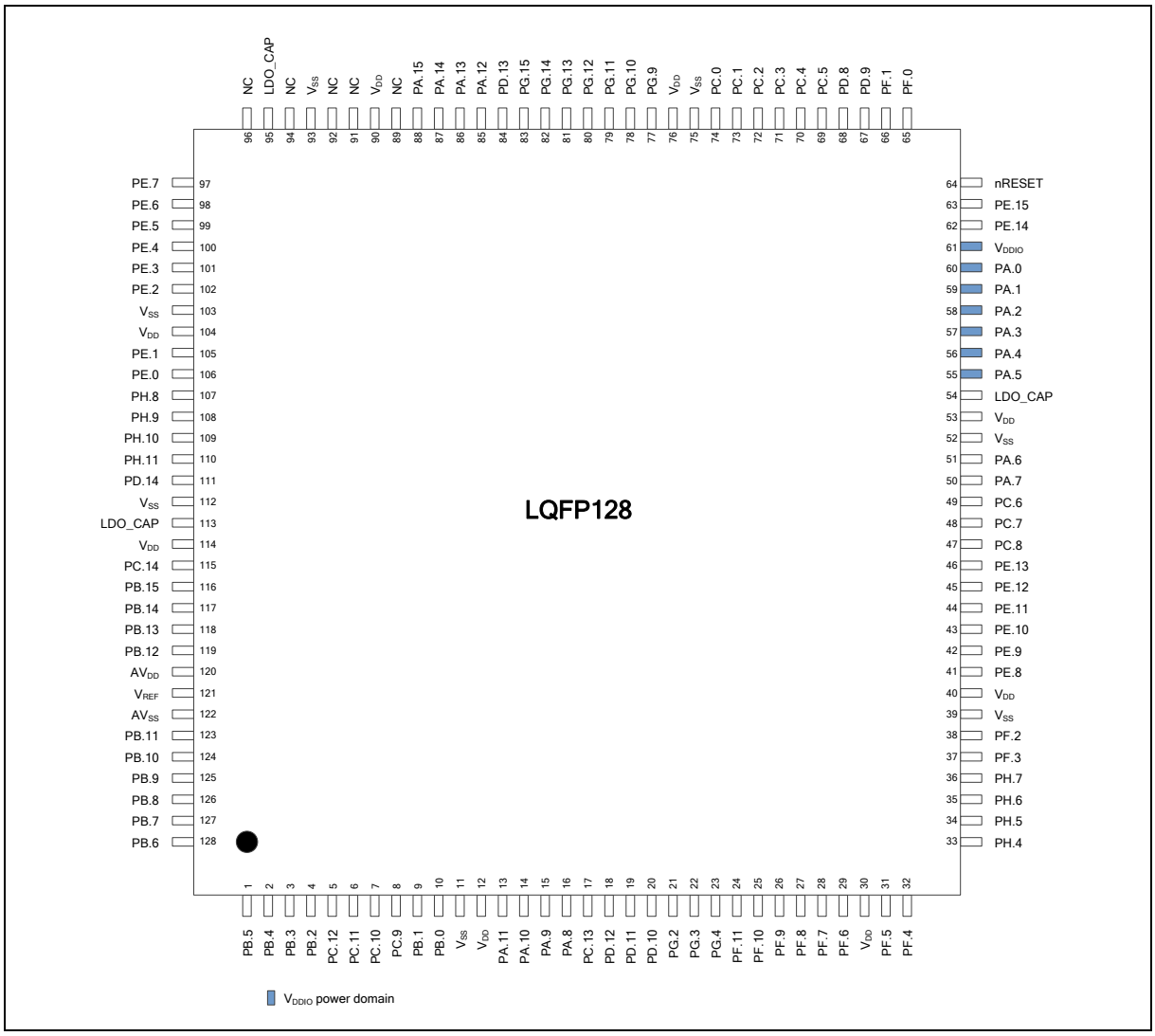

Figure 4-7 LQFP-128 Pin Diagram (1 USB FS)

4.1.8 LQFP-128 Pin Diagram (1 USB FS with V_{BAT})

Corresponding Part Number: M482KGCAE, M483KGCAE, M483KGCAE2A

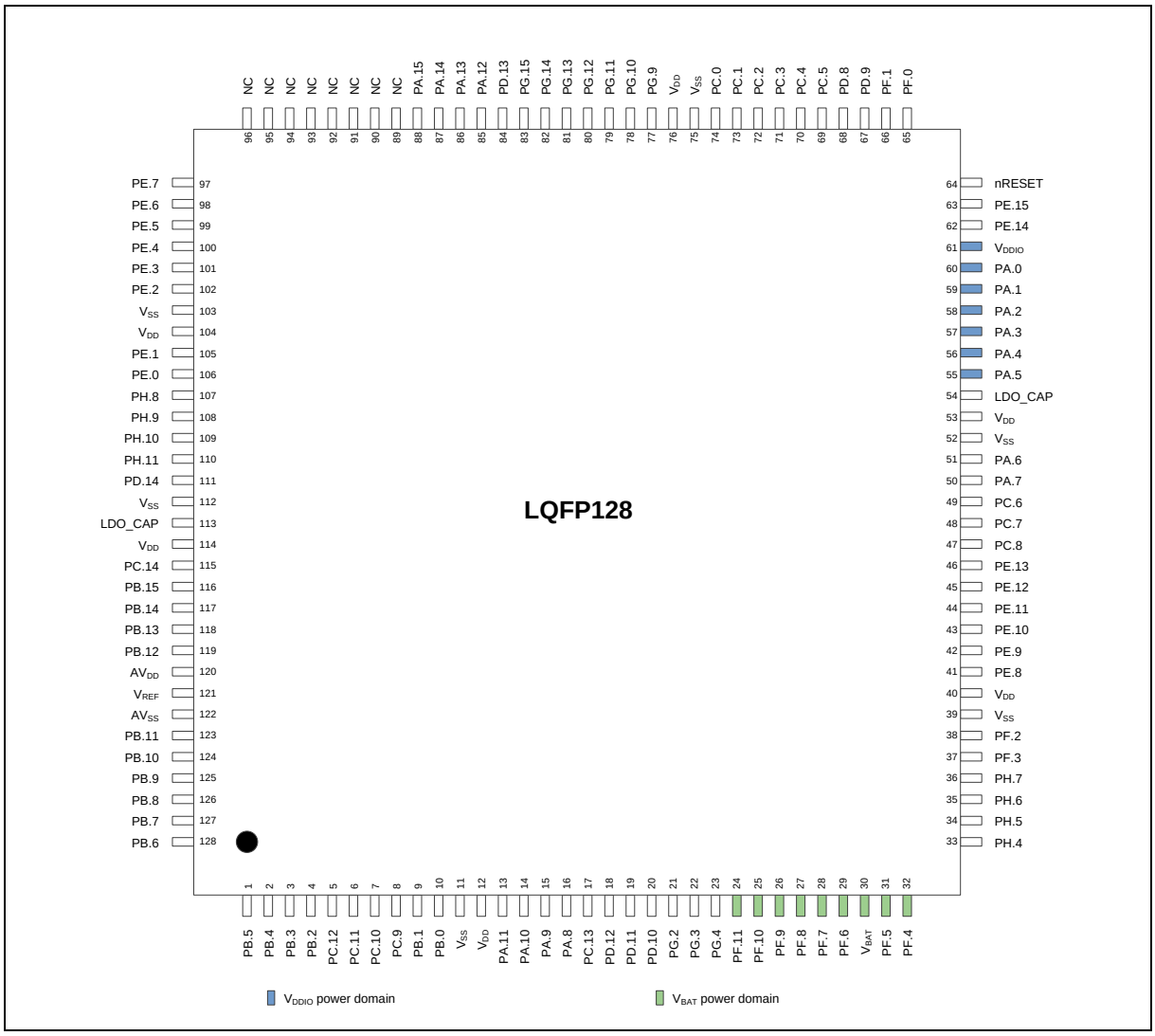

Figure 4-8 LQFP-128 Pin Diagram (1 USB FS)

4.1.9 LQFP-128 Pin Diagram (USB FS + USB HS)

Corresponding Part Number: M483KIDAE, M484KIDAE, M485KIDAE, M487KIDAE

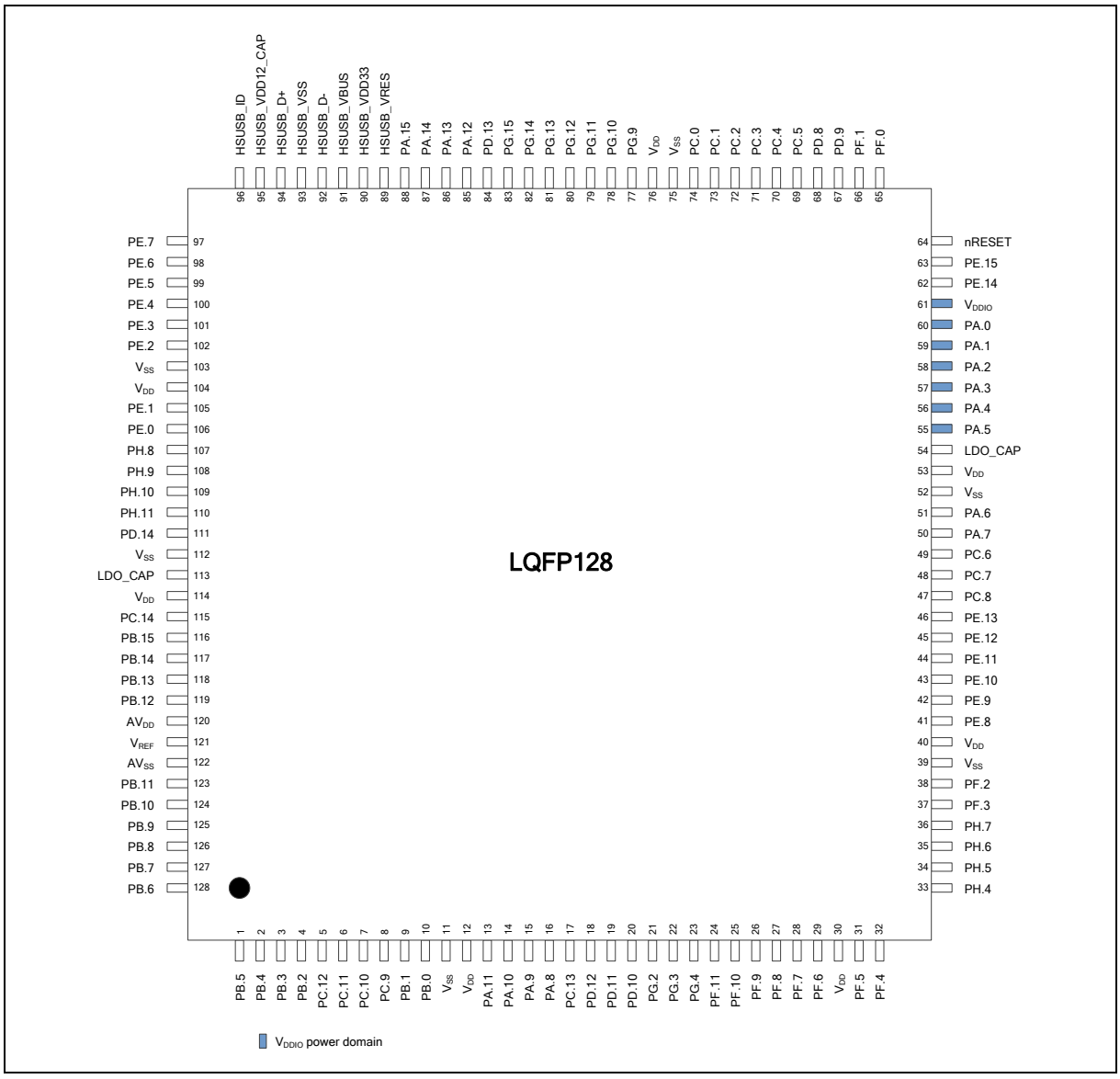

Figure 4-9 LQFP-128 Pin Diagram (USB FS + USB HS)

4.1.10 LQFP-128 Pin Diagram (USB FS + USB HS)

Corresponding Part Number: M487KMCAN

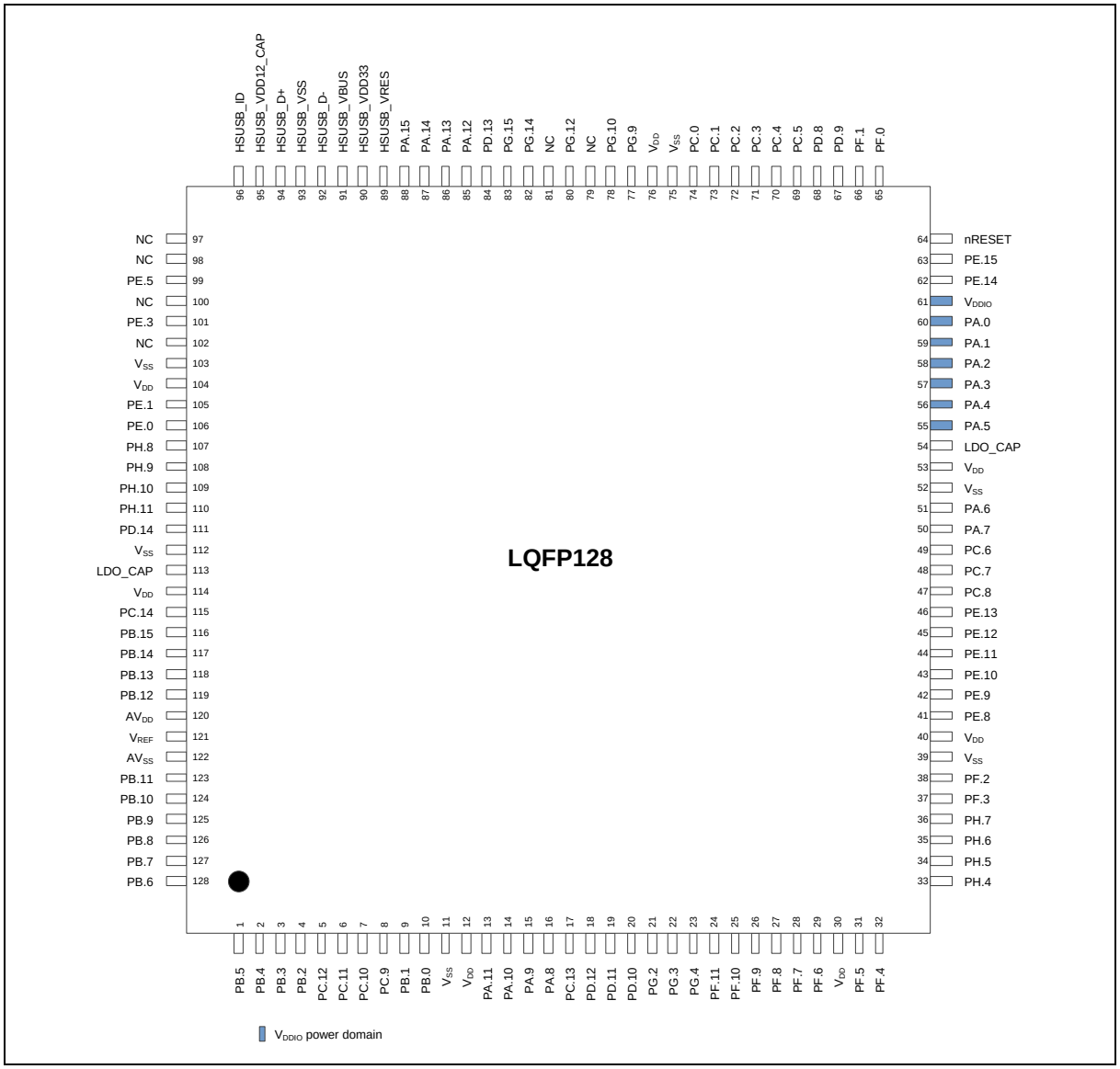

Figure 4-10 LQFP-128 Pin Diagram (USB FS + USB HS)

4.1.11 LQFP-144 Pin Diagram

Corresponding Part Number: M487JIDAE

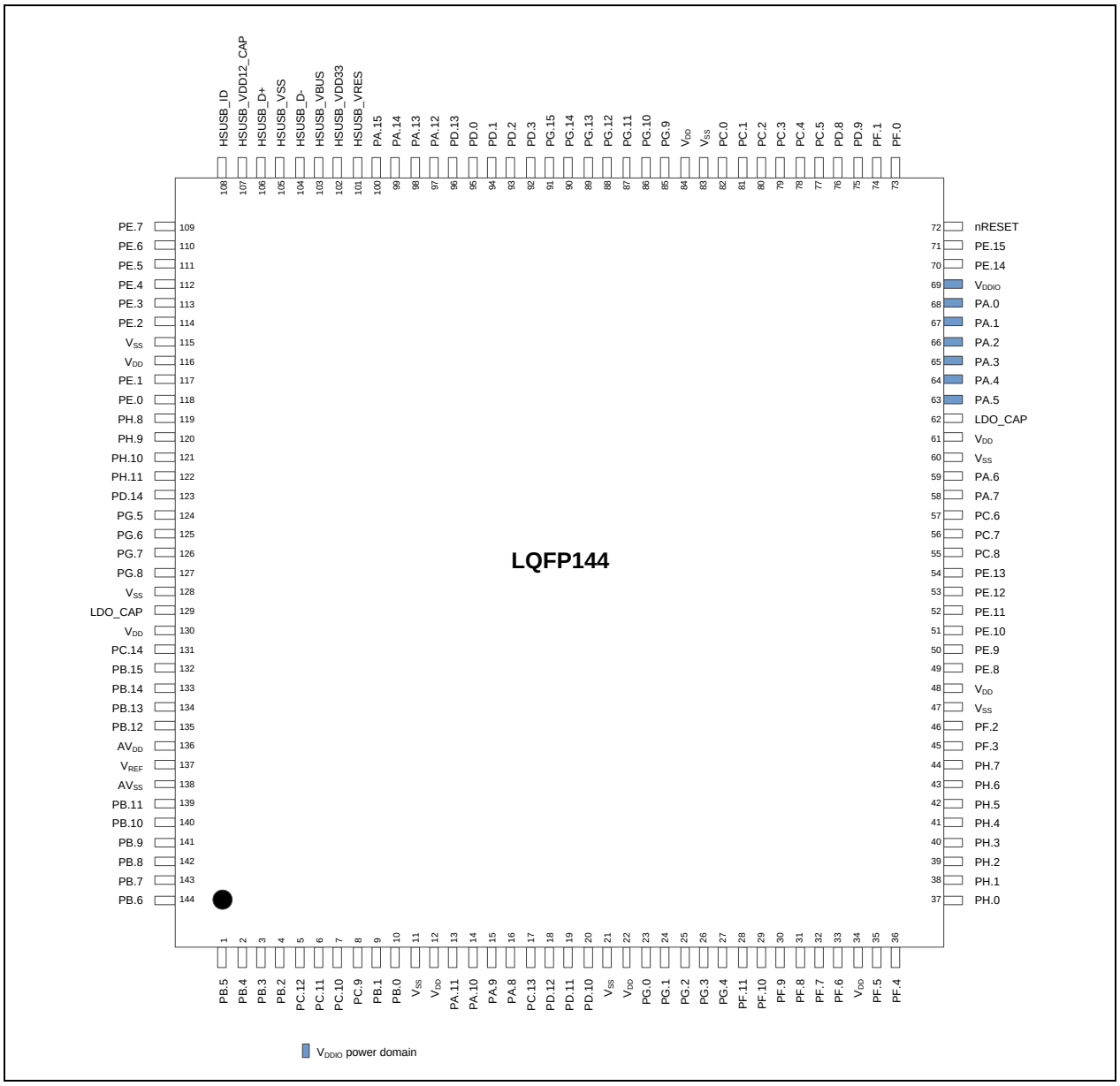

Figure 4-11 LQFP-144 Pin Diagram

4.2 M48xxIDAE Pin Description

4.2.1 M481 Series Pin Description

MFP* = Multi-function pin. (Refer to section SYS_GPx_MFPL and SYS_GPx_MFPH)

PA.0 MFP0 means SYS_GPA_MFPL[3:0] = 0x0.

PA.9 MFP5 means SYS_GPA_MFPH[7:4] = 0x5.

32 Pin	48 Pin	64 Pin	Pin Name	Type	MFP	Description
	48	1	PB.6	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH6	A	MFP1	EADC0 channel 6 analog input.
			EBI_nWRH	O	MFP2	EBI high byte write enable output pin
			USCI1_DAT1	I/O	MFP4	USCI1 data 1 pin.
			UART1_RXD	I	MFP6	UART1 data receiver input pin.
			SD1_CLK	O	MFP7	SD/SDIO1 clock output pin
			EBI_nCS1	O	MFP8	EBI chip select 1 output pin.
			BPWM1_CH5	I/O	MFP10	BPWM1 channel 5 output/capture input.
			EPWM1_BRAKE1	I	MFP11	EPWM1 Brake 1 input pin.
			EPWM1_CH5	I/O	MFP12	EPWM1 channel 5 output/capture input.
			INT4	I	MFP13	External interrupt 4 input pin.
			ACMP1_O	O	MFP15	Analog comparator 1 output pin.
1	1	2	PB.5	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH5	A	MFP1	EADC0 channel 5 analog input.
			ACMP1_N	A	MFP1	Analog comparator 1 negative input pin.
			EBI_ADR0	O	MFP2	EBI address bus bit 0.
			SD0_DAT3	I/O	MFP3	SD/SDIO0 data line bit 3.
			SPI1_MISO	I/O	MFP5	SPI1 MISO (Master In, Slave Out) pin.
			I^2C0_SCL	I/O	MFP6	I^2C0 clock pin.
			UART5_TXD	O	MFP7	UART5 data transmitter output pin.
			USCI1_CTL0	I/O	MFP8	USCI1 control 0 pin.
			SC0_CLK	O	MFP9	Smart Card 0 clock pin.
			I^2S0_BCLK	O	MFP10	I^2S0 bit clock output pin.
			EPWM0_CH0	I/O	MFP11	EPWM0 channel 0 output/capture input.
			TM0	I/O	MFP14	Timer0 event counter input/toggle output pin.
			INT0	I	MFP15	External interrupt 0 input pin.
2	2	3	PB.4	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH4	A	MFP1	EADC0 channel 4 analog input.
			ACMP1_P1	A	MFP1	Analog comparator 1 positive input 1 pin.

32 Pin	48 Pin	64 Pin	Pin Name	Type	MFP	Description
			EBI_ADR1	O	MFP2	EBI address bus bit 1.
			SD0_DAT2	I/O	MFP3	SD/SDIO0 data line bit 2.
			SPI1_MOSI	I/O	MFP5	SPI1 MOSI (Master Out, Slave In) pin.
			I^2C0_SDA	I/O	MFP6	I^2C0 data input/output pin.
			UART5_RXD	I	MFP7	UART5 data receiver input pin.
			USCI1_CTL1	I/O	MFP8	USCI1 control 1 pin.
			SC0_DAT	I/O	MFP9	Smart Card 0 data pin.
			I^2S0_MCLK	O	MFP10	I^2S0 master clock output pin.
			EPWM0_CH1	I/O	MFP11	EPWM0 channel 1 output/capture input.
			TM1	I/O	MFP14	Timer1 event counter input/toggle output pin.
			INT1	I	MFP15	External interrupt 1 input pin.
3	3	4	PB.3	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH3	A	MFP1	EADC0 channel 3 analog input.
			ACMP0_N	A	MFP1	Analog comparator 0 negative input pin.
			EBI_ADR2	O	MFP2	EBI address bus bit 2.
			SD0_DAT1	I/O	MFP3	SD/SDIO0 data line bit 1.
			SPI1_CLK	I/O	MFP5	SPI1 serial clock pin.
			UART1_TXD	O	MFP6	UART1 data transmitter output pin.
			UART5_nRTS	O	MFP7	UART5 request to Send output pin.
			USCI1_DAT1	I/O	MFP8	USCI1 data 1 pin.
			SC0_RST	O	MFP9	Smart Card 0 reset pin.
			I^2S0_DI	I	MFP10	I^2S0 data input pin.
			EPWM0_CH2	I/O	MFP11	EPWM0 channel 2 output/capture input.
			TM2	I/O	MFP14	Timer2 event counter input/toggle output pin.
			INT2	I	MFP15	External interrupt 2 input pin.
4	4	5	PB.2	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH2	A	MFP1	EADC0 channel 2 analog input.
			ACMP0_P1	A	MFP1	Analog comparator 0 positive input 1 pin.
			OPA0_O	A	MFP1	Operational amplifier 0 output pin.
			EBI_ADR3	O	MFP2	EBI address bus bit 3.
			SD0_DAT0	I/O	MFP3	SD/SDIO0 data line bit 0.
			SPI1_SS	I/O	MFP5	SPI1 slave select pin.
			UART1_RXD	I	MFP6	UART1 data receiver input pin.
			UART5_nCTS	I	MFP7	UART5 clear to Send input pin.

32 Pin	48 Pin	64 Pin	Pin Name	Type	MFP	Description
			USCI1_DAT0	I/O	MFP8	USCI1 data 0 pin.
			SC0_PWR	O	MFP9	Smart Card 0 power pin.
			I²S0_DO	O	MFP10	I²S0 data output pin.
			EPWM0_CH3	I/O	MFP11	EPWM0 channel 3 output/capture input.
			TM3	I/O	MFP14	Timer3 event counter input/toggle output pin.
			INT3	I	MFP15	External interrupt 3 input pin.
5	5	6	PB.1	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH1	A	MFP1	EADC0 channel 1 analog input.
			OPA0_N	A	MFP1	Operational amplifier 0 negative input pin.
			EBI_ADR8	O	MFP2	EBI address bus bit 8.
			SD0_CLK	O	MFP3	SD/SDIO0 clock output pin
			SPI1_I2SMCLK	I/O	MFP5	SPI1 I²S master clock output pin
			SPI3_I2SMCLK	I/O	MFP6	SPI3 I²S master clock output pin
			UART2_TXD	O	MFP7	UART2 data transmitter output pin.
			USCI1_CLK	I/O	MFP8	USCI1 clock pin.
			I²C1_SCL	I/O	MFP9	I²C1 clock pin.
			I²S0_LRCK	O	MFP10	I²S0 left right channel clock output pin.
			EPWM0_CH4	I/O	MFP11	EPWM0 channel 4 output/capture input.
			EPWM1_CH4	I/O	MFP12	EPWM1 channel 4 output/capture input.
			EPWM0_BRAKE0	I	MFP13	EPWM0 Brake 0 input pin.
6	6	7	PB.0	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH0	A	MFP1	EADC0 channel 0 analog input.
			OPA0_P	A	MFP1	Operational amplifier 0 positive input pin.
			EBI_ADR9	O	MFP2	EBI address bus bit 9.
			SD0_CMD	I/O	MFP3	SD/SDIO0 command/response pin
			UART2_RXD	I	MFP7	UART2 data receiver input pin.
			SPI0_I2SMCLK	I/O	MFP8	SPI0 I²S master clock output pin
			I²C1_SDA	I/O	MFP9	I²C1 data input/output pin.
			EPWM0_CH5	I/O	MFP11	EPWM0 channel 5 output/capture input.
			EPWM1_CH5	I/O	MFP12	EPWM1 channel 5 output/capture input.
			EPWM0_BRAKE1	I	MFP13	EPWM0 Brake 1 input pin.
	7	8	PA.11	I/O	MFP0	General purpose digital I/O pin.
			ACMP0_P0	A	MFP1	Analog comparator 0 positive input 0 pin.
			EBI_nRD	O	MFP2	EBI read enable output pin.

32 Pin	48 Pin	64 Pin	Pin Name	Type	MFP	Description
			SC2_PWR	O	MFP3	Smart Card 2 power pin.
			SPI2_SS	I/O	MFP4	SPI2 slave select pin.
			SD1_DAT3	I/O	MFP5	SD/SDIO1 data line bit 3.
			USCI0_CLK	I/O	MFP6	USCI0 clock pin.
			I^2C2_SCL	I/O	MFP7	I^2C2 clock pin.
			BPWM0_CH0	I/O	MFP9	BPWM0 channel 0 output/capture input.
			EPWM0_SYNC_OUT	O	MFP10	EPWM0 counter synchronous trigger output pin.
			TM0_EXT	I/O	MFP13	Timer0 event counter input/toggle output pin.
			DAC1_ST	I	MFP14	DAC1 external trigger input.
	8	9	PA.10	I/O	MFP0	General purpose digital I/O pin.
			ACMP1_P0	A	MFP1	Analog comparator 1 positive input 0 pin.
			OPA1_O	A	MFP1	Operational amplifier 1 output pin.
			EBI_nWR	O	MFP2	EBI write enable output pin.
			SC2_RST	O	MFP3	Smart Card 2 reset pin.
			SPI2_CLK	I/O	MFP4	SPI2 serial clock pin.
			SD1_DAT2	I/O	MFP5	SD/SDIO1 data line bit 2.
			USCI0_DAT0	I/O	MFP6	USCI0 data 0 pin.
			I^2C2_SDA	I/O	MFP7	I^2C2 data input/output pin.
			BPWM0_CH1	I/O	MFP9	BPWM0 channel 1 output/capture input.
			QEI1_INDEX	I	MFP10	Quadrature encoder 1 index input
			ECAP0_IC0	I	MFP11	Enhanced capture unit 0 input 0 pin.
			TM1_EXT	I/O	MFP13	Timer1 event counter input/toggle output pin.
			DAC0_ST	I	MFP14	DAC0 external trigger input.
	9	10	PA.9	I/O	MFP0	General purpose digital I/O pin.
			OPA1_N	A	MFP1	Operational amplifier 1 negative input pin.
			EBI_MCLK	O	MFP2	EBI external clock output pin.
			SC2_DAT	I/O	MFP3	Smart Card 2 data pin.
			SPI2_MISO	I/O	MFP4	SPI2 MISO (Master In, Slave Out) pin.
			SD1_DAT1	I/O	MFP5	SD/SDIO1 data line bit 1.
			USCI0_DAT1	I/O	MFP6	USCI0 data 1 pin.
			UART1_TXD	O	MFP7	UART1 data transmitter output pin.
			BPWM0_CH2	I/O	MFP9	BPWM0 channel 2 output/capture input.
			QEI1_A	I	MFP10	Quadrature encoder 1 phase A input

32 Pin	48 Pin	64 Pin	Pin Name	Type	MFP	Description
			ECAP0_IC1	I	MFP11	Enhanced capture unit 0 input 1 pin.
			TM2_EXT	I/O	MFP13	Timer2 event counter input/toggle output pin.
	10	11	PA.8	I/O	MFP0	General purpose digital I/O pin.
			OPA1_P	A	MFP1	Operational amplifier 1 positive input pin.
			EBI_ALE	O	MFP2	EBI address latch enable output pin.
			SC2_CLK	O	MFP3	Smart Card 2 clock pin.
			SPI2_MOSI	I/O	MFP4	SPI2 MOSI (Master Out, Slave In) pin.
			SD1_DAT0	I/O	MFP5	SD/SDIO1 data line bit 0.
			USCI0_CTL1	I/O	MFP6	USCI0 control 1 pin.
			UART1_RXD	I	MFP7	UART1 data receiver input pin.
			BPWM0_CH3	I/O	MFP9	BPWM0 channel 3 output/capture input.
			QEI1_B	I	MFP10	Quadrature encoder 1 phase B input
			ECAP0_IC2	I	MFP11	Enhanced capture unit 0 input 2 pin.
			TM3_EXT	I/O	MFP13	Timer3 event counter input/toggle output pin.
			INT4	I	MFP15	External interrupt 4 input pin.
		12	PF.6	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR19	O	MFP2	EBI address bus bit 19.
			SC0_CLK	O	MFP3	Smart Card 0 clock pin.
			I^2S0_LRCK	O	MFP4	I^2S0 left right channel clock output pin.
			SPI0_MOSI	I/O	MFP5	SPI0 MOSI (Master Out, Slave In) pin.
			UART4_RXD	I	MFP6	UART4 data receiver input pin.
			EBI_nCS0	O	MFP7	EBI chip select 0 output pin.
			TAMPER0	I/O	MFP10	TAMPER detector loop pin 0.
		13	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
7	11	14	PF.5	I/O	MFP0	General purpose digital I/O pin.
			UART2_RXD	I	MFP2	UART2 data receiver input pin.
			UART2_nCTS	I	MFP4	UART2 clear to Send input pin.
			BPWM0_CH4	I/O	MFP8	BPWM0 channel 4 output/capture input.
			EPWM0_SYNC_OUT	O	MFP9	EPWM0 counter synchronous trigger output pin.
			X32_IN	I	MFP10	External 32.768 kHz crystal input pin.
			EADC0_ST	I	MFP11	EADC0 external trigger input.
8	12	15	PF.4	I/O	MFP0	General purpose digital I/O pin.

32 Pin	48 Pin	64 Pin	Pin Name	Type	MFP	Description
			UART2_TXD	O	MFP2	UART2 data transmitter output pin.
			UART2_nRTS	O	MFP4	UART2 request to Send output pin.
			BPWM0_CH5	I/O	MFP8	BPWM0 channel 5 output/capture input.
			X32_OUT	O	MFP10	External 32.768 kHz crystal output pin.
9	13	16	PF.3	I/O	MFP0	General purpose digital I/O pin.
			EBI_nCS0	O	MFP2	EBI chip select 0 output pin.
			UART0_TXD	O	MFP3	UART0 data transmitter output pin.
			I^2C0_SCL	I/O	MFP4	I^2C0 clock pin.
			XT1_IN	I	MFP10	External 4~24 MHz (high speed) crystal input pin.
			BPWM1_CH0	I/O	MFP11	BPWM1 channel 0 output/capture input.
10	14	17	PF.2	I/O	MFP0	General purpose digital I/O pin.
			EBI_nCS1	O	MFP2	EBI chip select 1 output pin.
			UART0_RXD	I	MFP3	UART0 data receiver input pin.
			I^2C0_SDA	I/O	MFP4	I^2C0 data input/output pin.
			QSPI0_CLK	I/O	MFP5	QSPI0 serial clock pin.
			XT1_OUT	O	MFP10	External 4~24 MHz (high speed) crystal output pin.
			BPWM1_CH1	I/O	MFP11	BPWM1 channel 1 output/capture input.
		18	PC.7	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD9	I/O	MFP2	EBI address/data bus bit 9.
			SPI1_MISO	I/O	MFP4	SPI1 MISO (Master In, Slave Out) pin.
			UART4_TXD	O	MFP5	UART4 data transmitter output pin.
			SC2_PWR	O	MFP6	Smart Card 2 power pin.
			UART0_nCTS	I	MFP7	UART0 clear to Send input pin.
			I^2C1_SMBAL	O	MFP8	I^2C1 SMBus SMBALTER pin
			EPWM1_CH2	I/O	MFP11	EPWM1 channel 2 output/capture input.
			BPWM1_CH0	I/O	MFP12	BPWM1 channel 0 output/capture input.
			TM0	I/O	MFP14	Timer0 event counter input/toggle output pin.
			INT3	I	MFP15	External interrupt 3 input pin.
		19	PC.6	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD8	I/O	MFP2	EBI address/data bus bit 8.
			SPI1_MOSI	I/O	MFP4	SPI1 MOSI (Master Out, Slave In) pin.
			UART4_RXD	I	MFP5	UART4 data receiver input pin.
			SC2_RST	O	MFP6	Smart Card 2 reset pin.
			UART0_nRTS	O	MFP7	UART0 request to Send output pin.

32 Pin	48 Pin	64 Pin	Pin Name	Type	MFP	Description
			I²C1_SMBSUS	O	MFP8	I²C1 SMBus SMBSUS pin (PMBus CONTROL pin)
			EPWM1_CH3	I/O	MFP11	EPWM1 channel 3 output/capture input.
			BPWM1_CH1	I/O	MFP12	BPWM1 channel 1 output/capture input.
			TM1	I/O	MFP14	Timer1 event counter input/toggle output pin.
			INT2	I	MFP15	External interrupt 2 input pin.
	15	20	PA.7	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD7	I/O	MFP2	EBI address/data bus bit 7.
			SPI1_CLK	I/O	MFP4	SPI1 serial clock pin.
			SC2_DAT	I/O	MFP6	Smart Card 2 data pin.
			UART0_TXD	O	MFP7	UART0 data transmitter output pin.
			I²C1_SCL	I/O	MFP8	I²C1 clock pin.
			EPWM1_CH4	I/O	MFP11	EPWM1 channel 4 output/capture input.
			BPWM1_CH2	I/O	MFP12	BPWM1 channel 2 output/capture input.
			ACMP0_WLAT	I	MFP13	Analog comparator 0 window latch input pin
			TM2	I/O	MFP14	Timer2 event counter input/toggle output pin.
			INT1	I	MFP15	External interrupt 1 input pin.
	16	21	PA.6	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD6	I/O	MFP2	EBI address/data bus bit 6.
			SPI1_SS	I/O	MFP4	SPI1 slave select pin.
			SD1_nCD	I	MFP5	SD/SDIO1 card detect input pin
			SC2_CLK	O	MFP6	Smart Card 2 clock pin.
			UART0_RXD	I	MFP7	UART0 data receiver input pin.
			I²C1_SDA	I/O	MFP8	I²C1 data input/output pin.
			EPWM1_CH5	I/O	MFP11	EPWM1 channel 5 output/capture input.
			BPWM1_CH3	I/O	MFP12	BPWM1 channel 3 output/capture input.
			ACMP1_WLAT	I	MFP13	Analog comparator 1 window latch input pin
			TM3	I/O	MFP14	Timer3 event counter input/toggle output pin.
			INT0	I	MFP15	External interrupt 0 input pin.
		22	V_{SS}	P	MFP0	Ground pin for digital circuit.
		23	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
		24	LDO_CAP	A	MFP0	LDO output pin. **Note:** This pin needs to be connected with an external capacitor.
	17	25	PA.5	I/O	MFP0	General purpose digital I/O pin.

32 Pin	48 Pin	64 Pin	Pin Name	Type	MFP	Description
			SPIM_D2	I/O	MFP2	SPIM data 2 pin for Quad Mode I/O.
			QSPI0_MISO1	I/O	MFP3	QSPI0 MISO1 (Master In, Slave Out) pin.
			SPI1_I2SMCLK	I/O	MFP4	SPI1 I^2S master clock output pin
			SD1_CMD	I/O	MFP5	SD/SDIO1 command/response pin
			SC2_nCD	I	MFP6	Smart Card 2 card detect pin.
			UART0_nCTS	I	MFP7	UART0 clear to Send input pin.
			UART5_TXD	O	MFP8	UART5 data transmitter output pin.
			I^2C0_SCL	I/O	MFP9	I^2C0 clock pin.
			BPWM0_CH5	I/O	MFP12	BPWM0 channel 5 output/capture input.
			EPWM0_CH0	I/O	MFP13	EPWM0 channel 0 output/capture input.
			QEI0_INDEX	I	MFP14	Quadrature encoder 0 index input
	18	26	PA.4	I/O	MFP0	General purpose digital I/O pin.
			SPIM_D3	I/O	MFP2	SPIM data 3 pin for Quad Mode I/O.
			QSPI0_MOSI1	I/O	MFP3	QSPI0 MOSI1 (Master Out, Slave In) pin.
			SPI0_I2SMCLK	I/O	MFP4	SPI0 I^2S master clock output pin
			SD1_CLK	O	MFP5	SD/SDIO1 clock output pin
			SC0_nCD	I	MFP6	Smart Card 0 card detect pin.
			UART0_nRTS	O	MFP7	UART0 request to Send output pin.
			UART5_RXD	I	MFP8	UART5 data receiver input pin.
			I^2C0_SDA	I/O	MFP9	I^2C0 data input/output pin.
			BPWM0_CH4	I/O	MFP12	BPWM0 channel 4 output/capture input.
			EPWM0_CH1	I/O	MFP13	EPWM0 channel 1 output/capture input.
			QEI0_A	I	MFP14	Quadrature encoder 0 phase A input
11	19	27	PA.3	I/O	MFP0	General purpose digital I/O pin.
			SPIM_SS	I/O	MFP2	SPIM slave select pin.
			QSPI0_SS	I/O	MFP3	QSPI0 slave select pin.
			SPI0_SS	I/O	MFP4	SPI0 slave select pin.
			SD1_DAT3	I/O	MFP5	SD/SDIO1 data line bit 3.
			SC0_PWR	O	MFP6	Smart Card 0 power pin.
			UART4_TXD	O	MFP7	UART4 data transmitter output pin.
			UART1_TXD	O	MFP8	UART1 data transmitter output pin.
			I^2C1_SCL	I/O	MFP9	I^2C1 clock pin.
			BPWM0_CH3	I/O	MFP12	BPWM0 channel 3 output/capture input.
			EPWM0_CH2	I/O	MFP13	EPWM0 channel 2 output/capture input.

32 Pin	48 Pin	64 Pin	Pin Name	Type	MFP	Description
			QEI0_B	I	MFP14	Quadrature encoder 0 phase B input
12	20	28	PA.2	I/O	MFP0	General purpose digital I/O pin.
			SPIM_CLK	I/O	MFP2	SPIM serial clock pin.
			QSPI0_CLK	I/O	MFP3	QSPI0 serial clock pin.
			SPI0_CLK	I/O	MFP4	SPI0 serial clock pin.
			SD1_DAT2	I/O	MFP5	SD/SDIO1 data line bit 2.
			SC0_RST	O	MFP6	Smart Card 0 reset pin.
			UART4_RXD	I	MFP7	UART4 data receiver input pin.
			UART1_RXD	I	MFP8	UART1 data receiver input pin.
			I^2C1_SDA	I/O	MFP9	I^2C1 data input/output pin.
			BPWM0_CH2	I/O	MFP12	BPWM0 channel 2 output/capture input.
			EPWM0_CH3	I/O	MFP13	EPWM0 channel 3 output/capture input.
13	21	29	PA.1	I/O	MFP0	General purpose digital I/O pin.
			SPIM_MISO	I/O	MFP2	SPIM MISO (Master In, Slave Out) pin.
			QSPI0_MISO0	I/O	MFP3	QSPI0 MISO0 (Master In, Slave Out) pin.
			SPI0_MISO	I/O	MFP4	SPI0 MISO (Master In, Slave Out) pin.
			SD1_DAT1	I/O	MFP5	SD/SDIO1 data line bit 1.
			SC0_DAT	I/O	MFP6	Smart Card 0 data pin.
			UART0_TXD	O	MFP7	UART0 data transmitter output pin.
			UART1_nCTS	I	MFP8	UART1 clear to Send input pin.
			I^2C2_SCL	I/O	MFP9	I^2C2 clock pin.
			BPWM0_CH1	I/O	MFP12	BPWM0 channel 1 output/capture input.
			EPWM0_CH4	I/O	MFP13	EPWM0 channel 4 output/capture input.
			DAC1_ST	I	MFP15	DAC1 external trigger input.
14	22	30	PA.0	I/O	MFP0	General purpose digital I/O pin.
			SPIM_MOSI	I/O	MFP2	SPIM MOSI (Master Out, Slave In) pin.
			QSPI0_MOSI0	I/O	MFP3	QSPI0 MOSI0 (Master Out, Slave In) pin.
			SPI0_MOSI	I/O	MFP4	SPI0 MOSI (Master Out, Slave In) pin.
			SD1_DAT0	I/O	MFP5	SD/SDIO1 data line bit 0.
			SC0_CLK	O	MFP6	Smart Card 0 clock pin.
			UART0_RXD	I	MFP7	UART0 data receiver input pin.
			UART1_nRTS	O	MFP8	UART1 request to Send output pin.
			I^2C2_SDA	I/O	MFP9	I^2C2 data input/output pin.
			BPWM0_CH0	I/O	MFP12	BPWM0 channel 0 output/capture input.

32 Pin	48 Pin	64 Pin	Pin Name	Type	MFP	Description
			EPWM0_CH5	I/O	MFP13	EPWM0 channel 5 output/capture input.
			DAC0_ST	I	MFP15	DAC0 external trigger input.
15	23	31	V_{DDIO}	P	MFP0	Power supply for PA.0~PA.5.
16	24	32	nRESET	I	MFP0	External reset input: active LOW, with an internal pull-up. Set this pin low reset to initial state. **Note:** It is recommended to use 10 kΩ pull-up resistor and 10 uF capacitor on nRESET pin.
17	25	33	PF.0	I/O	MFP0	General purpose digital I/O pin.
			UART1_TXD	O	MFP2	UART1 data transmitter output pin.
			I^2C1_SCL	I/O	MFP3	I^2C1 clock pin.
			BPWM1_CH0	I/O	MFP12	BPWM1 channel 0 output/capture input.
			ICE_DAT	O	MFP14	Serial wired debugger data pin. **Note:** It is recommended to use 100 kΩ pull-up resistor on ICE_DAT pin.
18	26	34	PF.1	I/O	MFP0	General purpose digital I/O pin.
			UART1_RXD	I	MFP2	UART1 data receiver input pin.
			I^2C1_SDA	I/O	MFP3	I^2C1 data input/output pin.
			BPWM1_CH1	I/O	MFP12	BPWM1 channel 1 output/capture input.
			ICE_CLK	I	MFP14	Serial wired debugger clock pin. **Note:** It is recommended to use 100 kΩ pull-up resistor on ICE_CLK pin.
	27	35	PC.5	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD5	I/O	MFP2	EBI address/data bus bit 5.
			SPIM_D2	I/O	MFP3	SPIM data 2 pin for Quad Mode I/O.
			QSPI0_MISO1	I/O	MFP4	QSPI0 MISO1 (Master In, Slave Out) pin.
			UART2_TXD	O	MFP8	UART2 data transmitter output pin.
			I^2C1_SCL	I/O	MFP9	I^2C1 clock pin.
			UART4_TXD	O	MFP11	UART4 data transmitter output pin.
			EPWM1_CH0	I/O	MFP12	EPWM1 channel 0 output/capture input.
	28	36	PC.4	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD4	I/O	MFP2	EBI address/data bus bit 4.
			SPIM_D3	I/O	MFP3	SPIM data 3 pin for Quad Mode I/O.
			QSPI0_MOSI1	I/O	MFP4	QSPI0 MOSI1 (Master Out, Slave In) pin.
			SC1_nCD	I	MFP5	Smart Card 1 card detect pin.
			I^2S0_BCLK	O	MFP6	I^2S0 bit clock output pin.
			SPI1_I2SMCLK	I/O	MFP7	SPI1 I^2S master clock output pin
			UART2_RXD	I	MFP8	UART2 data receiver input pin.

32 Pin	48 Pin	64 Pin	Pin Name	Type	MFP	Description
			I²C1_SDA	I/O	MFP9	I²C1 data input/output pin.
			UART4_RXD	I	MFP11	UART4 data receiver input pin.
			EPWM1_CH1	I/O	MFP12	EPWM1 channel 1 output/capture input.
	29	37	PC.3	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD3	I/O	MFP2	EBI address/data bus bit 3.
			SPIM_SS	I/O	MFP3	SPIM slave select pin.
			QSPI0_SS	I/O	MFP4	QSPI0 slave select pin.
			SC1_PWR	O	MFP5	Smart Card 1 power pin.
			I²S0_MCLK	O	MFP6	I²S0 master clock output pin.
			SPI1_MISO	I/O	MFP7	SPI1 MISO (Master In, Slave Out) pin.
			UART2_nRTS	O	MFP8	UART2 request to Send output pin.
			I²C0_SMBAL	O	MFP9	I²C0 SMBus SMBALTER pin
			UART3_TXD	O	MFP11	UART3 data transmitter output pin.
			EPWM1_CH2	I/O	MFP12	EPWM1 channel 2 output/capture input.
	30	38	PC.2	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD2	I/O	MFP2	EBI address/data bus bit 2.
			SPIM_CLK	I/O	MFP3	SPIM serial clock pin.
			QSPI0_CLK	I/O	MFP4	QSPI0 serial clock pin.
			SC1_RST	O	MFP5	Smart Card 1 reset pin.
			I²S0_DI	I	MFP6	I²S0 data input pin.
			SPI1_MOSI	I/O	MFP7	SPI1 MOSI (Master Out, Slave In) pin.
			UART2_nCTS	I	MFP8	UART2 clear to Send input pin.
			I²C0_SMBSUS	O	MFP9	I²C0 SMBus SMBSUS pin (PMBus CONTROL pin)
			UART3_RXD	I	MFP11	UART3 data receiver input pin.
			EPWM1_CH3	I/O	MFP12	EPWM1 channel 3 output/capture input.
19	31	39	PC.1	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD1	I/O	MFP2	EBI address/data bus bit 1.
			SPIM_MISO	I/O	MFP3	SPIM MISO (Master In, Slave Out) pin.
			QSPI0_MISO0	I/O	MFP4	QSPI0 MISO0 (Master In, Slave Out) pin.
			SC1_DAT	I/O	MFP5	Smart Card 1 data pin.
			I²S0_DO	O	MFP6	I²S0 data output pin.
			SPI1_CLK	I/O	MFP7	SPI1 serial clock pin.
			UART2_TXD	O	MFP8	UART2 data transmitter output pin.
			I²C0_SCL	I/O	MFP9	I²C0 clock pin.

32 Pin	48 Pin	64 Pin	Pin Name	Type	MFP	Description
			EPWM1_CH4	I/O	MFP12	EPWM1 channel 4 output/capture input.
			ACMP0_O	O	MFP14	Analog comparator 0 output pin.
20	32	40	PC.0	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD0	I/O	MFP2	EBI address/data bus bit 0.
			SPIM_MOSI	I/O	MFP3	SPIM MOSI (Master Out, Slave In) pin.
			QSPI0_MOSI0	I/O	MFP4	QSPI0 MOSI0 (Master Out, Slave In) pin.
			SC1_CLK	O	MFP5	Smart Card 1 clock pin.
			I^2S0_LRCK	O	MFP6	I^2S0 left right channel clock output pin.
			SPI1_SS	I/O	MFP7	SPI1 slave select pin.
			UART2_RXD	I	MFP8	UART2 data receiver input pin.
			I^2C0_SDA	I/O	MFP9	I^2C0 data input/output pin.
			EPWM1_CH5	I/O	MFP12	EPWM1 channel 5 output/capture input.
			ACMP1_O	O	MFP14	Analog comparator 1 output pin.
		41	PD.3	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD10	I/O	MFP2	EBI address/data bus bit 10.
			USCI0_CTL1	I/O	MFP3	USCI0 control 1 pin.
			SPI0_SS	I/O	MFP4	SPI0 slave select pin.
			UART3_nRTS	O	MFP5	UART3 request to Send output pin.
			USCI1_CTL0	I/O	MFP6	USCI1 control 0 pin.
			SC2_PWR	O	MFP7	Smart Card 2 power pin.
			SC1_nCD	I	MFP8	Smart Card 1 card detect pin.
			UART0_TXD	O	MFP9	UART0 data transmitter output pin.
		42	PD.2	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD11	I/O	MFP2	EBI address/data bus bit 11.
			USCI0_DAT1	I/O	MFP3	USCI0 data 1 pin.
			SPI0_CLK	I/O	MFP4	SPI0 serial clock pin.
			UART3_nCTS	I	MFP5	UART3 clear to Send input pin.
			SC2_RST	O	MFP7	Smart Card 2 reset pin.
			UART0_RXD	I	MFP9	UART0 data receiver input pin.
		43	PD.1	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD12	I/O	MFP2	EBI address/data bus bit 12.
			USCI0_DAT0	I/O	MFP3	USCI0 data 0 pin.
			SPI0_MISO	I/O	MFP4	SPI0 MISO (Master In, Slave Out) pin.
			UART3_TXD	O	MFP5	UART3 data transmitter output pin.

32 Pin	48 Pin	64 Pin	Pin Name	Type	MFP	Description
			I²C2_SCL	I/O	MFP6	I²C2 clock pin.
			SC2_DAT	I/O	MFP7	Smart Card 2 data pin.
		44	PD.0	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD13	I/O	MFP2	EBI address/data bus bit 13.
			USCI0_CLK	I/O	MFP3	USCI0 clock pin.
			SPI0_MOSI	I/O	MFP4	SPI0 MOSI (Master Out, Slave In) pin.
			UART3_RXD	I	MFP5	UART3 data receiver input pin.
			I²C2_SDA	I/O	MFP6	I²C2 data input/output pin.
			SC2_CLK	O	MFP7	Smart Card 2 clock pin.
			TM2	I/O	MFP14	Timer2 event counter input/toggle output pin.
21	33	45	PA.12	I/O	MFP0	General purpose digital I/O pin.
			I²S0_BCLK	O	MFP2	I²S0 bit clock output pin.
			UART4_TXD	O	MFP3	UART4 data transmitter output pin.
			I²C1_SCL	I/O	MFP4	I²C1 clock pin.
			SPI2_SS	I/O	MFP5	SPI2 slave select pin.
			SC2_PWR	O	MFP7	Smart Card 2 power pin.
			BPWM1_CH2	I/O	MFP11	BPWM1 channel 2 output/capture input.
			QEI1_INDEX	I	MFP12	Quadrature encoder 1 index input
22	34	46	PA.13	I/O	MFP0	General purpose digital I/O pin.
			I²S0_MCLK	O	MFP2	I²S0 master clock output pin.
			UART4_RXD	I	MFP3	UART4 data receiver input pin.
			I²C1_SDA	I/O	MFP4	I²C1 data input/output pin.
			SPI2_CLK	I/O	MFP5	SPI2 serial clock pin.
			SC2_RST	O	MFP7	Smart Card 2 reset pin.
			BPWM1_CH3	I/O	MFP11	BPWM1 channel 3 output/capture input.
			QEI1_A	I	MFP12	Quadrature encoder 1 phase A input
23	35	47	PA.14	I/O	MFP0	General purpose digital I/O pin.
			I²S0_DI	I	MFP2	I²S0 data input pin.
			UART0_TXD	O	MFP3	UART0 data transmitter output pin.
			SPI2_MISO	I/O	MFP5	SPI2 MISO (Master In, Slave Out) pin.
			I²C2_SCL	I/O	MFP6	I²C2 clock pin.
			SC2_DAT	I/O	MFP7	Smart Card 2 data pin.
			BPWM1_CH4	I/O	MFP11	BPWM1 channel 4 output/capture input.
			QEI1_B	I	MFP12	Quadrature encoder 1 phase B input

32 Pin	48 Pin	64 Pin	Pin Name	Type	MFP	Description
24	36	48	PA.15	I/O	MFP0	General purpose digital I/O pin.
			I^2S0_DO	O	MFP2	I^2S0 data output pin.
			UART0_RXD	I	MFP3	UART0 data receiver input pin.
			SPI2_MOSI	I/O	MFP5	SPI2 MOSI (Master Out, Slave In) pin.
			I^2C2_SDA	I/O	MFP6	I^2C2 data input/output pin.
			SC2_CLK	O	MFP7	Smart Card 2 clock pin.
			BPWM1_CH5	I/O	MFP11	BPWM1 channel 5 output/capture input.
			EPWM0_SYNC_IN	I	MFP12	EPWM0 counter synchronous trigger input pin.
25	37	49	V_{SS}	P	MFP0	Ground pin for digital circuit.
26	38	50	LDO_CAP	A	MFP0	LDO output pin. **Note:** This pin needs to be connected with an external capacitor.
27	39	51	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
	40	52	PC.14	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD11	I/O	MFP2	EBI address/data bus bit 11.
			SC1_nCD	I	MFP3	Smart Card 1 card detect pin.
			SPI0_I2SMCLK	I/O	MFP4	SPI0 I^2S master clock output pin
			USCI0_CTL0	I/O	MFP5	USCI0 control 0 pin.
			QSPI0_CLK	I/O	MFP6	QSPI0 serial clock pin.
			EPWM0_SYNC_IN	I	MFP11	EPWM0 counter synchronous trigger input pin.
			TM1	I/O	MFP13	Timer1 event counter input/toggle output pin.
28	41	53	PB.15	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH15	A	MFP1	EADC0 channel 15 analog input.
			EBI_AD12	I/O	MFP2	EBI address/data bus bit 12.
			SC1_PWR	O	MFP3	Smart Card 1 power pin.
			SPI0_SS	I/O	MFP4	SPI0 slave select pin.
			USCI0_CTL1	I/O	MFP5	USCI0 control 1 pin.
			UART0_nCTS	I	MFP6	UART0 clear to Send input pin.
			UART3_TXD	O	MFP7	UART3 data transmitter output pin.
			I^2C2_SMBAL	O	MFP8	I^2C2 SMBus SMBALTER pin
			EPWM1_CH0	I/O	MFP11	EPWM1 channel 0 output/capture input.
			TM0_EXT	I/O	MFP13	Timer0 event counter input/toggle output pin.
29	42	54	PB.14	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH14	A	MFP1	EADC0 channel 14 analog input.

32 Pin	48 Pin	64 Pin	Pin Name	Type	MFP	Description
			EBI_AD13	I/O	MFP2	EBI address/data bus bit 13.
			SC1_RST	O	MFP3	Smart Card 1 reset pin.
			SPI0_CLK	I/O	MFP4	SPI0 serial clock pin.
			USCI0_DAT1	I/O	MFP5	USCI0 data 1 pin.
			UART0_nRTS	O	MFP6	UART0 request to Send output pin.
			UART3_RXD	I	MFP7	UART3 data receiver input pin.
			I²C2_SMBSUS	O	MFP8	I²C2 SMBus SMBSUS pin (PMBus CONTROL pin)
			EPWM1_CH1	I/O	MFP11	EPWM1 channel 1 output/capture input.
			TM1_EXT	I/O	MFP13	Timer1 event counter input/toggle output pin.
			CLKO	O	MFP14	Clock Out
30	43	55	PB.13	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH13	A	MFP1	EADC0 channel 13 analog input.
			DAC1_OUT	A	MFP1	DAC1 channel analog output.
			ACMP0_P3	A	MFP1	Analog comparator 0 positive input 3 pin.
			ACMP1_P3	A	MFP1	Analog comparator 1 positive input 3 pin.
			EBI_AD14	I/O	MFP2	EBI address/data bus bit 14.
			SC1_DAT	I/O	MFP3	Smart Card 1 data pin.
			SPI0_MISO	I/O	MFP4	SPI0 MISO (Master In, Slave Out) pin.
			USCI0_DAT0	I/O	MFP5	USCI0 data 0 pin.
			UART0_TXD	O	MFP6	UART0 data transmitter output pin.
			UART3_nRTS	O	MFP7	UART3 request to Send output pin.
			I²C2_SCL	I/O	MFP8	I²C2 clock pin.
			EPWM1_CH2	I/O	MFP11	EPWM1 channel 2 output/capture input.
			TM2_EXT	I/O	MFP13	Timer2 event counter input/toggle output pin.
31	44	56	PB.12	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH12	A	MFP1	EADC0 channel 12 analog input.
			DAC0_OUT	A	MFP1	DAC0 channel analog output.
			ACMP0_P2	A	MFP1	Analog comparator 0 positive input 2 pin.
			ACMP1_P2	A	MFP1	Analog comparator 1 positive input 2 pin.
			EBI_AD15	I/O	MFP2	EBI address/data bus bit 15.
			SC1_CLK	O	MFP3	Smart Card 1 clock pin.
			SPI0_MOSI	I/O	MFP4	SPI0 MOSI (Master Out, Slave In) pin.
			USCI0_CLK	I/O	MFP5	USCI0 clock pin.
			UART0_RXD	I	MFP6	UART0 data receiver input pin.

32 Pin	48 Pin	64 Pin	Pin Name	Type	MFP	Description
			UART3_nCTS	I	MFP7	UART3 clear to Send input pin.
			I²C2_SDA	I/O	MFP8	I²C2 data input/output pin.
			SD0_nCD	I	MFP9	SD/SDIO0 card detect input pin
			EPWM1_CH3	I/O	MFP11	EPWM1 channel 3 output/capture input.
			TM3_EXT	I/O	MFP13	Timer3 event counter input/toggle output pin.
32	45	57	AV_{DD}	P	MFP0	Power supply for internal analog circuit.
		58	V_{REF}	A	MFP0	ADC reference voltage input. **Note:** This pin needs to be connected with a 1uF capacitor.
	46	59	AV_{SS}	P	MFP0	Ground pin for analog circuit.
		60	PB.11	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH11	A	MFP1	EADC0 channel 11 analog input.
			EBI_ADR16	O	MFP2	EBI address bus bit 16.
			UART0_nCTS	I	MFP5	UART0 clear to Send input pin.
			UART4_TXD	O	MFP6	UART4 data transmitter output pin.
			I²C1_SCL	I/O	MFP7	I²C1 clock pin.
			SPI0_I2SMCLK	I/O	MFP9	SPI0 I²S master clock output pin
			BPWM1_CH0	I/O	MFP10	BPWM1 channel 0 output/capture input.
			SPI3_CLK	I/O	MFP11	SPI3 serial clock pin.
		61	PB.10	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH10	A	MFP1	EADC0 channel 10 analog input.
			EBI_ADR17	O	MFP2	EBI address bus bit 17.
			USCI1_CTL0	I/O	MFP4	USCI1 control 0 pin.
			UART0_nRTS	O	MFP5	UART0 request to Send output pin.
			UART4_RXD	I	MFP6	UART4 data receiver input pin.
			I²C1_SDA	I/O	MFP7	I²C1 data input/output pin.
			BPWM1_CH1	I/O	MFP10	BPWM1 channel 1 output/capture input.
			SPI3_SS	I/O	MFP11	SPI3 slave select pin.
		62	PB.9	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH9	A	MFP1	EADC0 channel 9 analog input.
			EBI_ADR18	O	MFP2	EBI address bus bit 18.
			USCI1_CTL1	I/O	MFP4	USCI1 control 1 pin.
			UART0_TXD	O	MFP5	UART0 data transmitter output pin.
			UART1_nCTS	I	MFP6	UART1 clear to Send input pin.
			I²C1_SMBAL	O	MFP7	I²C1 SMBus SMBALTER pin

32 Pin	48 Pin	64 Pin	Pin Name	Type	MFP	Description
			BPWM1_CH2	I/O	MFP10	BPWM1 channel 2 output/capture input.
			SPI3_MISO	I/O	MFP11	SPI3 MISO (Master In, Slave Out) pin.
			INT7	I	MFP13	External interrupt 7 input pin.
		63	PB.8	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH8	A	MFP1	EADC0 channel 8 analog input.
			EBI_ADR19	O	MFP2	EBI address bus bit 19.
			USCI1_CLK	I/O	MFP4	USCI1 clock pin.
			UART0_RXD	I	MFP5	UART0 data receiver input pin.
			UART1_nRTS	O	MFP6	UART1 request to Send output pin.
			I^2C1_SMBSUS	O	MFP7	I^2C1 SMBus SMBSUS pin (PMBus CONTROL pin)
			BPWM1_CH3	I/O	MFP10	BPWM1 channel 3 output/capture input.
			SPI3_MOSI	I/O	MFP11	SPI3 MOSI (Master Out, Slave In) pin.
			INT6	I	MFP13	External interrupt 6 input pin.
	47	64	PB.7	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH7	A	MFP1	EADC0 channel 7 analog input.
			EBI_nWRL	O	MFP2	EBI low byte write enable output pin.
			USCI1_DAT0	I/O	MFP4	USCI1 data 0 pin.
			UART1_TXD	O	MFP6	UART1 data transmitter output pin.
			SD1_CMD	I/O	MFP7	SD/SDIO1 command/response pin
			EBI_nCS0	O	MFP8	EBI chip select 0 output pin.
			BPWM1_CH4	I/O	MFP10	BPWM1 channel 4 output/capture input.
			EPWM1_BRAKE0	I	MFP11	EPWM1 Brake 0 input pin.
			EPWM1_CH4	I/O	MFP12	EPWM1 channel 4 output/capture input.
			INT5	I	MFP13	External interrupt 5 input pin.
			ACMP0_O	O	MFP15	Analog comparator 0 output pin.

4.2.2 M482 Series Pin Description

Note: PA.15 MFP can only be as USB_OTG_ID when enable full-Speed USB.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
1	1	2	1	PB.5	I/O	MFP0	General purpose digital I/O pin.
				EADC0_CH5	A	MFP1	EADC0 channel 5 analog input.
				ACMP1_N	A	MFP1	Analog comparator 1 negative input pin.
				EBI_ADR0	O	MFP2	EBI address bus bit 0.
				SD0_DAT3	I/O	MFP3	SD/SDIO0 data line bit 3.
				SPI1_MISO	I/O	MFP5	SPI1 MISO (Master In, Slave Out) pin.
				I2C0_SCL	I/O	MFP6	I2C0 clock pin.
				UART5_TXD	O	MFP7	UART5 data transmitter output pin.
				USCI1_CTL0	I/O	MFP8	USCI1 control 0 pin.
				SC0_CLK	O	MFP9	Smart Card 0 clock pin.
				I2S0_BCLK	O	MFP10	I2S0 bit clock output pin.
				EPWM0_CH0	I/O	MFP11	EPWM0 channel 0 output/capture input.
				TM0	I/O	MFP14	Timer0 event counter input/toggle output pin.
				INT0	I	MFP15	External interrupt 0 input pin.
2	2	3	2	PB.4	I/O	MFP0	General purpose digital I/O pin.
				EADC0_CH4	A	MFP1	EADC0 channel 4 analog input.
				ACMP1_P1	A	MFP1	Analog comparator 1 positive input 1 pin.
				EBI_ADR1	O	MFP2	EBI address bus bit 1.
				SD0_DAT2	I/O	MFP3	SD/SDIO0 data line bit 2.
				SPI1_MOSI	I/O	MFP5	SPI1 MOSI (Master Out, Slave In) pin.
				I2C0_SDA	I/O	MFP6	I2C0 data input/output pin.
				UART5_RXD	I	MFP7	UART5 data receiver input pin.
				USCI1_CTL1	I/O	MFP8	USCI1 control 1 pin.
				SC0_DAT	I/O	MFP9	Smart Card 0 data pin.
				I2S0_MCLK	O	MFP10	I2S0 master clock output pin.
				EPWM0_CH1	I/O	MFP11	EPWM0 channel 1 output/capture input.
				TM1	I/O	MFP14	Timer1 event counter input/toggle output pin.
				INT1	I	MFP15	External interrupt 1 input pin.
3	3	4	3	PB.3	I/O	MFP0	General purpose digital I/O pin.
				EADC0_CH3	A	MFP1	EADC0 channel 3 analog input.
				ACMP0_N	A	MFP1	Analog comparator 0 negative input pin.
				EBI_ADR2	O	MFP2	EBI address bus bit 2.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				SD0_DAT1	I/O	MFP3	SD/SDIO0 data line bit 1.
				SPI1_CLK	I/O	MFP5	SPI1 serial clock pin.
				UART1_TXD	O	MFP6	UART1 data transmitter output pin.
				UART5_nRTS	O	MFP7	UART5 request to Send output pin.
				USCI1_DAT1	I/O	MFP8	USCI1 data 1 pin.
				SC0_RST	O	MFP9	Smart Card 0 reset pin.
				I2S0_DI	I	MFP10	I2S0 data input pin.
				EPWM0_CH2	I/O	MFP11	EPWM0 channel 2 output/capture input.
				TM2	I/O	MFP14	Timer2 event counter input/toggle output pin.
				INT2	I	MFP15	External interrupt 2 input pin.
4	4	5	4	PB.2	I/O	MFP0	General purpose digital I/O pin.
				EADC0_CH2	A	MFP1	EADC0 channel 2 analog input.
				ACMP0_P1	A	MFP1	Analog comparator 0 positive input 1 pin.
				OPA0_O	A	MFP1	Operational amplifier 0 output pin.
				EBI_ADR3	O	MFP2	EBI address bus bit 3.
				SD0_DAT0	I/O	MFP3	SD/SDIO0 data line bit 0.
				SPI1_SS	I/O	MFP5	SPI1 slave select pin.
				UART1_RXD	I	MFP6	UART1 data receiver input pin.
				UART5_nCTS	I	MFP7	UART5 clear to Send input pin.
				USCI1_DAT0	I/O	MFP8	USCI1 data 0 pin.
				SC0_PWR	O	MFP9	Smart Card 0 power pin.
				I2S0_DO	O	MFP10	I2S0 data output pin.
				EPWM0_CH3	I/O	MFP11	EPWM0 channel 3 output/capture input.
				TM3	I/O	MFP14	Timer3 event counter input/toggle output pin.
				INT3	I	MFP15	External interrupt 3 input pin.
			5	PC.12	I/O	MFP0	General purpose digital I/O pin.
				EBI_ADR4	O	MFP2	EBI address bus bit 4.
				UART0_TXD	O	MFP3	UART0 data transmitter output pin.
				I2C0_SCL	I/O	MFP4	I2C0 clock pin.
				SPI3_MISO	I/O	MFP6	SPI3 MISO (Master In, Slave Out) pin.
				SC0_nCD	I	MFP9	Smart Card 0 card detect pin.
				ECAP1_IC2	I	MFP11	Enhanced capture unit 1 input 2 pin.
				EPWM1_CH0	I/O	MFP12	EPWM1 channel 0 output/capture input.
				ACMP0_O	O	MFP14	Analog comparator 0 output pin.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			6	PC.11	I/O	MFP0	General purpose digital I/O pin.
				EBI_ADR5	O	MFP2	EBI address bus bit 5.
				UART0_RXD	I	MFP3	UART0 data receiver input pin.
				I2C0_SDA	I/O	MFP4	I2C0 data input/output pin.
				SPI3_MOSI	I/O	MFP6	SPI3 MOSI (Master Out, Slave In) pin.
				ECAP1_IC1	I	MFP11	Enhanced capture unit 1 input 1 pin.
				EPWM1_CH1	I/O	MFP12	EPWM1 channel 1 output/capture input.
				ACMP1_O	O	MFP14	Analog comparator 1 output pin.
			7	PC.10	I/O	MFP0	General purpose digital I/O pin.
				EBI_ADR6	O	MFP2	EBI address bus bit 6.
				SPI3_CLK	I/O	MFP6	SPI3 serial clock pin.
				UART3_TXD	O	MFP7	UART3 data transmitter output pin.
				CAN1_TXD	O	MFP9	CAN1 bus transmitter output.
				ECAP1_IC0	I	MFP11	Enhanced capture unit 1 input 0 pin.
				EPWM1_CH2	I/O	MFP12	EPWM1 channel 2 output/capture input.
			8	PC.9	I/O	MFP0	General purpose digital I/O pin.
				EBI_ADR7	O	MFP2	EBI address bus bit 7.
				SPI3_SS	I/O	MFP6	SPI3 slave select pin.
				UART3_RXD	I	MFP7	UART3 data receiver input pin.
				CAN1_RXD	I	MFP9	CAN1 bus receiver input.
				EPWM1_CH3	I/O	MFP12	EPWM1 channel 3 output/capture input.
5	5	6	9	PB.1	I/O	MFP0	General purpose digital I/O pin.
				EADC0_CH1	A	MFP1	EADC0 channel 1 analog input.
				OPA0_N	A	MFP1	Operational amplifier 0 negative input pin.
				EBI_ADR8	O	MFP2	EBI address bus bit 8.
				SD0_CLK	O	MFP3	SD/SDIO0 clock output pin
				SPI1_I2SMCLK	I/O	MFP5	SPI1 I2S master clock output pin
				SPI3_I2SMCLK	I/O	MFP6	SPI3 I2S master clock output pin
				UART2_TXD	O	MFP7	UART2 data transmitter output pin.
				USCI1_CLK	I/O	MFP8	USCI1 clock pin.
				I2C1_SCL	I/O	MFP9	I2C1 clock pin.
				I2S0_LRCK	O	MFP10	I2S0 left right channel clock output pin.
				EPWM0_CH4	I/O	MFP11	EPWM0 channel 4 output/capture input.
				EPWM1_CH4	I/O	MFP12	EPWM1 channel 4 output/capture input.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				EPWM0_BRAKE0	I	MFP13	EPWM0 Brake 0 input pin.
6	6	7	10	PB.0	I/O	MFP0	General purpose digital I/O pin.
				EADC0_CH0	A	MFP1	EADC0 channel 0 analog input.
				OPA0_P	A	MFP1	Operational amplifier 0 positive input pin.
				EBI_ADR9	O	MFP2	EBI address bus bit 9.
				SD0_CMD	I/O	MFP3	SD/SDIO0 command/response pin
				UART2_RXD	I	MFP7	UART2 data receiver input pin.
				SPI0_I2SMCLK	I/O	MFP8	SPI0 I2S master clock output pin
				I2C1_SDA	I/O	MFP9	I2C1 data input/output pin.
				EPWM0_CH5	I/O	MFP11	EPWM0 channel 5 output/capture input.
				EPWM1_CH5	I/O	MFP12	EPWM1 channel 5 output/capture input.
				EPWM0_BRAKE1	I	MFP13	EPWM0 Brake 1 input pin.
			11	VSS	P	MFP0	Ground pin for digital circuit.
			12	VDD	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
	7	8	13	PA.11	I/O	MFP0	General purpose digital I/O pin.
				ACMP0_P0	A	MFP1	Analog comparator 0 positive input 0 pin.
				EBI_nRD	O	MFP2	EBI read enable output pin.
				SC2_PWR	O	MFP3	Smart Card 2 power pin.
				SPI2_SS	I/O	MFP4	SPI2 slave select pin.
				SD1_DAT3	I/O	MFP5	SD/SDIO1 data line bit 3.
				USCI0_CLK	I/O	MFP6	USCI0 clock pin.
				I2C2_SCL	I/O	MFP7	I2C2 clock pin.
				BPWM0_CH0	I/O	MFP9	BPWM0 channel 0 output/capture input.
				EPWM0_SYNC_OUT	O	MFP10	EPWM0 counter synchronous trigger output pin.
				TM0_EXT	I/O	MFP13	Timer0 external capture input/toggle output pin.
				DAC1_ST	I	MFP14	DAC1 external trigger input.
	8	9	14	PA.10	I/O	MFP0	General purpose digital I/O pin.
				ACMP1_P0	A	MFP1	Analog comparator 1 positive input 0 pin.
				OPA1_O	A	MFP1	Operational amplifier 1 output pin.
				EBI_nWR	O	MFP2	EBI write enable output pin.
				SC2_RST	O	MFP3	Smart Card 2 reset pin.
				SPI2_CLK	I/O	MFP4	SPI2 serial clock pin.
				SD1_DAT2	I/O	MFP5	SD/SDIO1 data line bit 2.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				USCI0_DAT0	I/O	MFP6	USCI0 data 0 pin.
				I2C2_SDA	I/O	MFP7	I2C2 data input/output pin.
				BPWM0_CH1	I/O	MFP9	BPWM0 channel 1 output/capture input.
				QEI1_INDEX	I	MFP10	Quadrature encoder 1 index input
				ECAP0_IC0	I	MFP11	Enhanced capture unit 0 input 0 pin.
				TM1_EXT	I/O	MFP13	Timer1 external capture input/toggle output pin.
				DAC0_ST	I	MFP14	DAC0 external trigger input.
	9	10	15	PA.9	I/O	MFP0	General purpose digital I/O pin.
				OPA1_N	A	MFP1	Operational amplifier 1 negative input pin.
				EBI_MCLK	O	MFP2	EBI external clock output pin.
				SC2_DAT	I/O	MFP3	Smart Card 2 data pin.
				SPI2_MISO	I/O	MFP4	SPI2 MISO (Master In, Slave Out) pin.
				SD1_DAT1	I/O	MFP5	SD/SDIO1 data line bit 1.
				USCI0_DAT1	I/O	MFP6	USCI0 data 1 pin.
				UART1_TXD	O	MFP7	UART1 data transmitter output pin.
				BPWM0_CH2	I/O	MFP9	BPWM0 channel 2 output/capture input.
				QEI1_A	I	MFP10	Quadrature encoder 1 phase A input
				ECAP0_IC1	I	MFP11	Enhanced capture unit 0 input 1 pin.
				TM2_EXT	I/O	MFP13	Timer2 external capture input/toggle output pin.
	10	11	16	PA.8	I/O	MFP0	General purpose digital I/O pin.
				OPA1_P	A	MFP1	Operational amplifier 1 positive input pin.
				EBI_ALE	O	MFP2	EBI address latch enable output pin.
				SC2_CLK	O	MFP3	Smart Card 2 clock pin.
				SPI2_MOSI	I/O	MFP4	SPI2 MOSI (Master Out, Slave In) pin.
				SD1_DAT0	I/O	MFP5	SD/SDIO1 data line bit 0.
				USCI0_CTL1	I/O	MFP6	USCI0 control 1 pin.
				UART1_RXD	I	MFP7	UART1 data receiver input pin.
				BPWM0_CH3	I/O	MFP9	BPWM0 channel 3 output/capture input.
				QEI1_B	I	MFP10	Quadrature encoder 1 phase B input
				ECAP0_IC2	I	MFP11	Enhanced capture unit 0 input 2 pin.
				TM3_EXT	I/O	MFP13	Timer3 external capture input/toggle output pin.
				INT4	I	MFP15	External interrupt 4 input pin.
			17	PC.13	I/O	MFP0	General purpose digital I/O pin.
				EBI_ADR10	O	MFP2	EBI address bus bit 10.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				SC2_nCD	I	MFP3	Smart Card 2 card detect pin.
				SPI2_I2SMCLK	I/O	MFP4	SPI2 I2S master clock output pin
				CAN1_TXD	O	MFP5	CAN1 bus transmitter output.
				USCI0_CTL0	I/O	MFP6	USCI0 control 0 pin.
				UART2_TXD	O	MFP7	UART2 data transmitter output pin.
				BPWM0_CH4	I/O	MFP9	BPWM0 channel 4 output/capture input.
				CLKO	O	MFP13	Clock Out
				EADC0_ST	I	MFP14	EADC0 external trigger input.
			18	PD.12	I/O	MFP0	General purpose digital I/O pin.
				OPA2_O	A	MFP1	Operational amplifier 2 output pin.
				EBI_nCS0	O	MFP2	EBI chip select 0 output pin.
				CAN1_RXD	I	MFP5	CAN1 bus receiver input.
				UART2_RXD	I	MFP7	UART2 data receiver input pin.
				BPWM0_CH5	I/O	MFP9	BPWM0 channel 5 output/capture input.
				QEI0_INDEX	I	MFP10	Quadrature encoder 0 index input
				CLKO	O	MFP13	Clock Out
				EADC0_ST	I	MFP14	EADC0 external trigger input.
				INT5	I	MFP15	External interrupt 5 input pin.
			19	PD.11	I/O	MFP0	General purpose digital I/O pin.
				OPA2_N	A	MFP1	Operational amplifier 2 negative input pin.
				EBI_nCS1	O	MFP2	EBI chip select 1 output pin.
				UART1_TXD	O	MFP3	UART1 data transmitter output pin.
				CAN0_TXD	O	MFP4	CAN0 bus transmitter output.
				QEI0_A	I	MFP10	Quadrature encoder 0 phase A input
				INT6	I	MFP15	External interrupt 6 input pin.
			20	PD.10	I/O	MFP0	General purpose digital I/O pin.
				OPA2_P	A	MFP1	Operational amplifier 2 positive input pin.
				EBI_nCS2	O	MFP2	EBI chip select 2 output pin.
				UART1_RXD	I	MFP3	UART1 data receiver input pin.
				CAN0_RXD	I	MFP4	CAN0 bus receiver input.
				QEI0_B	I	MFP10	Quadrature encoder 0 phase B input
				INT7	I	MFP15	External interrupt 7 input pin.
			21	PG.2	I/O	MFP0	General purpose digital I/O pin.
				EBI_ADR11	O	MFP2	EBI address bus bit 11.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				SPI2_SS	I/O	MFP3	SPI2 slave select pin.
				I2C0_SMBAL	O	MFP4	I2C0 SMBus SMBALTER pin
				I2C1_SCL	I/O	MFP5	I2C1 clock pin.
				TM0	I/O	MFP13	Timer0 event counter input/toggle output pin.
			22	PG.3	I/O	MFP0	General purpose digital I/O pin.
				EBI_ADR12	O	MFP2	EBI address bus bit 12.
				SPI2_CLK	I/O	MFP3	SPI2 serial clock pin.
				I2C0_SMBSUS	O	MFP4	I2C0 SMBus SMBSUS pin (PMBus CONTROL pin)
				I2C1_SDA	I/O	MFP5	I2C1 data input/output pin.
				TM1	I/O	MFP13	Timer1 event counter input/toggle output pin.
			23	PG.4	I/O	MFP0	General purpose digital I/O pin.
				EBI_ADR13	O	MFP2	EBI address bus bit 13.
				SPI2_MISO	I/O	MFP3	SPI2 MISO (Master In, Slave Out) pin.
				TM2	I/O	MFP13	Timer2 event counter input/toggle output pin.
			24	PF.11	I/O	MFP0	General purpose digital I/O pin.
				EBI_ADR14	O	MFP2	EBI address bus bit 14.
				SPI2_MOSI	I/O	MFP3	SPI2 MOSI (Master Out, Slave In) pin.
				TAMPER5	I/O	MFP10	TAMPER detector loop pin 5.
				TM3	I/O	MFP13	Timer3 event counter input/toggle output pin.
			25	PF.10	I/O	MFP0	General purpose digital I/O pin.
				EBI_ADR15	O	MFP2	EBI address bus bit 15.
				SC0_nCD	I	MFP3	Smart Card 0 card detect pin.
				I2S0_BCLK	O	MFP4	I2S0 bit clock output pin.
				SPI0_I2SMCLK	I/O	MFP5	SPI0 I2S master clock output pin
				TAMPER4	I/O	MFP10	TAMPER detector loop pin 4.
			26	PF.9	I/O	MFP0	General purpose digital I/O pin.
				EBI_ADR16	O	MFP2	EBI address bus bit 16.
				SC0_PWR	O	MFP3	Smart Card 0 power pin.
				I2S0_MCLK	O	MFP4	I2S0 master clock output pin.
				SPI0_SS	I/O	MFP5	SPI0 slave select pin.
				TAMPER3	I/O	MFP10	TAMPER detector loop pin 3.
			27	PF.8	I/O	MFP0	General purpose digital I/O pin.
				EBI_ADR17	O	MFP2	EBI address bus bit 17.
				SC0_RST	O	MFP3	Smart Card 0 reset pin.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				I2S0_DI	I	MFP4	I2S0 data input pin.
				SPI0_CLK	I/O	MFP5	SPI0 serial clock pin.
				TAMPER2	I/O	MFP10	TAMPER detector loop pin 2.
			28	PF.7	I/O	MFP0	General purpose digital I/O pin.
				EBI_ADR18	O	MFP2	EBI address bus bit 18.
				SC0_DAT	I/O	MFP3	Smart Card 0 data pin.
				I2S0_DO	O	MFP4	I2S0 data output pin.
				SPI0_MISO	I/O	MFP5	SPI0 MISO (Master In, Slave Out) pin.
				UART4_TXD	O	MFP6	UART4 data transmitter output pin.
				TAMPER1	I/O	MFP10	TAMPER detector loop pin 1.
		12	29	PF.6	I/O	MFP0	General purpose digital I/O pin.
				EBI_ADR19	O	MFP2	EBI address bus bit 19.
				SC0_CLK	O	MFP3	Smart Card 0 clock pin.
				I2S0_LRCK	O	MFP4	I2S0 left right channel clock output pin.
				SPI0_MOSI	I/O	MFP5	SPI0 MOSI (Master Out, Slave In) pin.
				UART4_RXD	I	MFP6	UART4 data receiver input pin.
				EBI_nCS0	O	MFP7	EBI chip select 0 output pin.
				TAMPER0	I/O	MFP10	TAMPER detector loop pin 0.
		13	30	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
7	11	14	31	PF.5	I/O	MFP0	General purpose digital I/O pin.
				UART2_RXD	I	MFP2	UART2 data receiver input pin.
				UART2_nCTS	I	MFP4	UART2 clear to Send input pin.
				BPWM0_CH4	I/O	MFP8	BPWM0 channel 4 output/capture input.
				EPWM0_SYNC_OUT	O	MFP9	EPWM0 counter synchronous trigger output pin.
				X32_IN	I	MFP10	External 32.768 kHz crystal input pin.
				EADC0_ST	I	MFP11	EADC0 external trigger input.
8	12	15	32	PF.4	I/O	MFP0	General purpose digital I/O pin.
				UART2_TXD	O	MFP2	UART2 data transmitter output pin.
				UART2_nRTS	O	MFP4	UART2 request to Send output pin.
				BPWM0_CH5	I/O	MFP8	BPWM0 channel 5 output/capture input.
				X32_OUT	O	MFP10	External 32.768 kHz crystal output pin.
			33	PH.4	I/O	MFP0	General purpose digital I/O pin.
				EBI_ADR3	O	MFP2	EBI address bus bit 3.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				SPI1_MISO	I/O	MFP3	SPI1 MISO (Master In, Slave Out) pin.
			34	PH.5	I/O	MFP0	General purpose digital I/O pin.
				EBI_ADR2	O	MFP2	EBI address bus bit 2.
				SPI1_MOSI	I/O	MFP3	SPI1 MOSI (Master Out, Slave In) pin.
			35	PH.6	I/O	MFP0	General purpose digital I/O pin.
				EBI_ADR1	O	MFP2	EBI address bus bit 1.
				SPI1_CLK	I/O	MFP3	SPI1 serial clock pin.
			36	PH.7	I/O	MFP0	General purpose digital I/O pin.
				EBI_ADR0	O	MFP2	EBI address bus bit 0.
				SPI1_SS	I/O	MFP3	SPI1 slave select pin.
9	13	16	37	PF.3	I/O	MFP0	General purpose digital I/O pin.
				EBI_nCS0	O	MFP2	EBI chip select 0 output pin.
				UART0_TXD	O	MFP3	UART0 data transmitter output pin.
				I2C0_SCL	I/O	MFP4	I2C0 clock pin.
				XT1_IN	I	MFP10	External 4~24 MHz (high speed) crystal input pin.
				BPWM1_CH0	I/O	MFP11	BPWM1 channel 0 output/capture input.
10	14	17	38	PF.2	I/O	MFP0	General purpose digital I/O pin.
				EBI_nCS1	O	MFP2	EBI chip select 1 output pin.
				UART0_RXD	I	MFP3	UART0 data receiver input pin.
				I2C0_SDA	I/O	MFP4	I2C0 data input/output pin.
				QSPI0_CLK	I/O	MFP5	Quad SPI0 serial clock pin.
				XT1_OUT	O	MFP10	External 4~24 MHz (high speed) crystal output pin.
				BPWM1_CH1	I/O	MFP11	BPWM1 channel 1 output/capture input.
			39	VSS	P	MFP0	Ground pin for digital circuit.
			40	VDD	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
			41	PE.8	I/O	MFP0	General purpose digital I/O pin.
				EBI_ADR10	O	MFP2	EBI address bus bit 10.
				I2S0_BCLK	O	MFP4	I2S0 bit clock output pin.
				SPI2_CLK	I/O	MFP5	SPI2 serial clock pin.
				USCI1_CTL1	I/O	MFP6	USCI1 control 1 pin.
				UART2_TXD	O	MFP7	UART2 data transmitter output pin.
				EPWM0_CH0	I/O	MFP10	EPWM0 channel 0 output/capture input.
				EPWM0_BRAKE0	I	MFP11	EPWM0 Brake 0 input pin.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				ECAP0_IC0	I	MFP12	Enhanced capture unit 0 input 0 pin.
				TRACE_DATA3	O	MFP14	ETM Trace Data 3 output pin
			42	PE.9	I/O	MFP0	General purpose digital I/O pin.
				EBI_ADR11	O	MFP2	EBI address bus bit 11.
				I2S0_MCLK	O	MFP4	I2S0 master clock output pin.
				SPI2_MISO	I/O	MFP5	SPI2 MISO (Master In, Slave Out) pin.
				USCI1_CTL0	I/O	MFP6	USCI1 control 0 pin.
				UART2_RXD	I	MFP7	UART2 data receiver input pin.
				EPWM0_CH1	I/O	MFP10	EPWM0 channel 1 output/capture input.
				EPWM0_BRAKE1	I	MFP11	EPWM0 Brake 1 input pin.
				ECAP0_IC1	I	MFP12	Enhanced capture unit 0 input 1 pin.
				TRACE_DATA2	O	MFP14	ETM Trace Data 2 output pin
			43	PE.10	I/O	MFP0	General purpose digital I/O pin.
				EBI_ADR12	O	MFP2	EBI address bus bit 12.
				I2S0_DI	I	MFP4	I2S0 data input pin.
				SPI2_MOSI	I/O	MFP5	SPI2 MOSI (Master Out, Slave In) pin.
				USCI1_DAT0	I/O	MFP6	USCI1 data 0 pin.
				UART3_TXD	O	MFP7	UART3 data transmitter output pin.
				EPWM0_CH2	I/O	MFP10	EPWM0 channel 2 output/capture input.
				EPWM1_BRAKE0	I	MFP11	EPWM1 Brake 0 input pin.
				ECAP0_IC2	I	MFP12	Enhanced capture unit 0 input 2 pin.
				TRACE_DATA1	O	MFP14	ETM Trace Data 1 output pin
			44	PE.11	I/O	MFP0	General purpose digital I/O pin.
				EBI_ADR13	O	MFP2	EBI address bus bit 13.
				I2S0_DO	O	MFP4	I2S0 data output pin.
				SPI2_SS	I/O	MFP5	SPI2 slave select pin.
				USCI1_DAT1	I/O	MFP6	USCI1 data 1 pin.
				UART3_RXD	I	MFP7	UART3 data receiver input pin.
				UART1_nCTS	I	MFP8	UART1 clear to Send input pin.
				EPWM0_CH3	I/O	MFP10	EPWM0 channel 3 output/capture input.
				EPWM1_BRAKE1	I	MFP11	EPWM1 Brake 1 input pin.
				ECAP1_IC2	I	MFP13	Enhanced capture unit 1 input 2 pin.
				TRACE_DATA0	O	MFP14	ETM Trace Data 0 output pin
			45	PE.12	I/O	MFP0	General purpose digital I/O pin.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				EBI_ADR14	O	MFP2	EBI address bus bit 14.
				I2S0_LRCK	O	MFP4	I2S0 left right channel clock output pin.
				SPI2_I2SMCLK	I/O	MFP5	SPI2 I2S master clock output pin
				USCI1_CLK	I/O	MFP6	USCI1 clock pin.
				UART1_nRTS	O	MFP8	UART1 request to Send output pin.
				EPWM0_CH4	I/O	MFP10	EPWM0 channel 4 output/capture input.
				ECAP1_IC1	I	MFP13	Enhanced capture unit 1 input 1 pin.
				TRACE_CLK	O	MFP14	ETM Trace Clock output pin
			46	PE.13	I/O	MFP0	General purpose digital I/O pin.
				EBI_ADR15	O	MFP2	EBI address bus bit 15.
				I2C0_SCL	I/O	MFP4	I2C0 clock pin.
				UART4_nRTS	O	MFP5	UART4 request to Send output pin.
				UART1_TXD	O	MFP8	UART1 data transmitter output pin.
				EPWM0_CH5	I/O	MFP10	EPWM0 channel 5 output/capture input.
				EPWM1_CH0	I/O	MFP11	EPWM1 channel 0 output/capture input.
				BPWM1_CH5	I/O	MFP12	BPWM1 channel 5 output/capture input.
				ECAP1_IC0	I	MFP13	Enhanced capture unit 1 input 0 pin.
			47	PC.8	I/O	MFP0	General purpose digital I/O pin.
				EBI_ADR16	O	MFP2	EBI address bus bit 16.
				I2C0_SDA	I/O	MFP4	I2C0 data input/output pin.
				UART4_nCTS	I	MFP5	UART4 clear to Send input pin.
				UART1_RXD	I	MFP8	UART1 data receiver input pin.
				EPWM1_CH1	I/O	MFP11	EPWM1 channel 1 output/capture input.
				BPWM1_CH4	I/O	MFP12	BPWM1 channel 4 output/capture input.
		18	48	PC.7	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD9	I/O	MFP2	EBI address/data bus bit 9.
				SPI1_MISO	I/O	MFP4	SPI1 MISO (Master In, Slave Out) pin.
				UART4_TXD	O	MFP5	UART4 data transmitter output pin.
				SC2_PWR	O	MFP6	Smart Card 2 power pin.
				UART0_nCTS	I	MFP7	UART0 clear to Send input pin.
				I2C1_SMBAL	O	MFP8	I2C1 SMBus SMBALTER pin
				EPWM1_CH2	I/O	MFP11	EPWM1 channel 2 output/capture input.
				BPWM1_CH0	I/O	MFP12	BPWM1 channel 0 output/capture input.
				TM0	I/O	MFP14	Timer0 event counter input/toggle output pin.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				INT3	I	MFP15	External interrupt 3 input pin.
		19	49	PC.6	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD8	I/O	MFP2	EBI address/data bus bit 8.
				SPI1_MOSI	I/O	MFP4	SPI1 MOSI (Master Out, Slave In) pin.
				UART4_RXD	I	MFP5	UART4 data receiver input pin.
				SC2_RST	O	MFP6	Smart Card 2 reset pin.
				UART0_nRTS	O	MFP7	UART0 request to Send output pin.
				I2C1_SMBSUS	O	MFP8	I2C1 SMBus SMBSUS pin (PMBus CONTROL pin)
				EPWM1_CH3	I/O	MFP11	EPWM1 channel 3 output/capture input.
				BPWM1_CH1	I/O	MFP12	BPWM1 channel 1 output/capture input.
				TM1	I/O	MFP14	Timer1 event counter input/toggle output pin.
				INT2	I	MFP15	External interrupt 2 input pin.
	15	20	50	PA.7	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD7	I/O	MFP2	EBI address/data bus bit 7.
				SPI1_CLK	I/O	MFP4	SPI1 serial clock pin.
				SC2_DAT	I/O	MFP6	Smart Card 2 data pin.
				UART0_TXD	O	MFP7	UART0 data transmitter output pin.
				I2C1_SCL	I/O	MFP8	I2C1 clock pin.
				EPWM1_CH4	I/O	MFP11	EPWM1 channel 4 output/capture input.
				BPWM1_CH2	I/O	MFP12	BPWM1 channel 2 output/capture input.
				ACMP0_WLAT	I	MFP13	Analog comparator 0 window latch input pin
				TM2	I/O	MFP14	Timer2 event counter input/toggle output pin.
				INT1	I	MFP15	External interrupt 1 input pin.
	16	21	51	PA.6	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD6	I/O	MFP2	EBI address/data bus bit 6.
				SPI1_SS	I/O	MFP4	SPI1 slave select pin.
				SD1_nCD	I	MFP5	SD/SDIO1 card detect input pin
				SC2_CLK	O	MFP6	Smart Card 2 clock pin.
				UART0_RXD	I	MFP7	UART0 data receiver input pin.
				I2C1_SDA	I/O	MFP8	I2C1 data input/output pin.
				EPWM1_CH5	I/O	MFP11	EPWM1 channel 5 output/capture input.
				BPWM1_CH3	I/O	MFP12	BPWM1 channel 3 output/capture input.
				ACMP1_WLAT	I	MFP13	Analog comparator 1 window latch input pin
				TM3	I/O	MFP14	Timer3 event counter input/toggle output pin.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				INT0	I	MFP15	External interrupt 0 input pin.
		22	52	VSS	P	MFP0	Ground pin for digital circuit.
		23	53	VDD	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
		24	54	LDO_CAP	A	MFP0	LDO output pin. **Note:** This pin needs to be connected with an external capacitor.
	17	25	55	PA.5	I/O	MFP0	General purpose digital I/O pin.
				SPIM_D2	I/O	MFP2	SPIM data 2 pin for Quad Mode I/O.
				QSPI0_MISO1	I/O	MFP3	Quad SPI0 MISO1 (Master In, Slave Out) pin.
				SPI1_I2SMCLK	I/O	MFP4	SPI1 I2S master clock output pin
				SD1_CMD	I/O	MFP5	SD/SDIO1 command/response pin
				SC2_nCD	I	MFP6	Smart Card 2 card detect pin.
				UART0_nCTS	I	MFP7	UART0 clear to Send input pin.
				UART5_TXD	O	MFP8	UART5 data transmitter output pin.
				I2C0_SCL	I/O	MFP9	I2C0 clock pin.
				CAN0_TXD	O	MFP10	CAN0 bus transmitter output.
				BPWM0_CH5	I/O	MFP12	BPWM0 channel 5 output/capture input.
				EPWM0_CH0	I/O	MFP13	EPWM0 channel 0 output/capture input.
				QEI0_INDEX	I	MFP14	Quadrature encoder 0 index input
	18	26	56	PA.4	I/O	MFP0	General purpose digital I/O pin.
				SPIM_D3	I/O	MFP2	SPIM data 3 pin for Quad Mode I/O.
				QSPI0_MOSI1	I/O	MFP3	Quad SPI0 MOSI1 (Master Out, Slave In) pin.
				SPI0_I2SMCLK	I/O	MFP4	SPI0 I2S master clock output pin
				SD1_CLK	O	MFP5	SD/SDIO1 clock output pin
				SC0_nCD	I	MFP6	Smart Card 0 card detect pin.
				UART0_nRTS	O	MFP7	UART0 request to Send output pin.
				UART5_RXD	I	MFP8	UART5 data receiver input pin.
				I2C0_SDA	I/O	MFP9	I2C0 data input/output pin.
				CAN0_RXD	I	MFP10	CAN0 bus receiver input.
				BPWM0_CH4	I/O	MFP12	BPWM0 channel 4 output/capture input.
				EPWM0_CH1	I/O	MFP13	EPWM0 channel 1 output/capture input.
				QEI0_A	I	MFP14	Quadrature encoder 0 phase A input
11	19	27	57	PA.3	I/O	MFP0	General purpose digital I/O pin.
				SPIM_SS	I/O	MFP2	SPIM slave select pin.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				QSPI0_SS	I/O	MFP3	Quad SPI0 slave select pin.
				SPI0_SS	I/O	MFP4	SPI0 slave select pin.
				SD1_DAT3	I/O	MFP5	SD/SDIO1 data line bit 3.
				SC0_PWR	O	MFP6	Smart Card 0 power pin.
				UART4_TXD	O	MFP7	UART4 data transmitter output pin.
				UART1_TXD	O	MFP8	UART1 data transmitter output pin.
				I2C1_SCL	I/O	MFP9	I2C1 clock pin.
				BPWM0_CH3	I/O	MFP12	BPWM0 channel 3 output/capture input.
				EPWM0_CH2	I/O	MFP13	EPWM0 channel 2 output/capture input.
				QEI0_B	I	MFP14	Quadrature encoder 0 phase B input
12	20	28	58	PA.2	I/O	MFP0	General purpose digital I/O pin.
				SPIM_CLK	I/O	MFP2	SPIM serial clock pin.
				QSPI0_CLK	I/O	MFP3	Quad SPI0 serial clock pin.
				SPI0_CLK	I/O	MFP4	SPI0 serial clock pin.
				SD1_DAT2	I/O	MFP5	SD/SDIO1 data line bit 2.
				SC0_RST	O	MFP6	Smart Card 0 reset pin.
				UART4_RXD	I	MFP7	UART4 data receiver input pin.
				UART1_RXD	I	MFP8	UART1 data receiver input pin.
				I2C1_SDA	I/O	MFP9	I2C1 data input/output pin.
				BPWM0_CH2	I/O	MFP12	BPWM0 channel 2 output/capture input.
				EPWM0_CH3	I/O	MFP13	EPWM0 channel 3 output/capture input.
13	21	29	59	PA.1	I/O	MFP0	General purpose digital I/O pin.
				SPIM_MISO	I/O	MFP2	SPIM MISO (Master In, Slave Out) pin.
				QSPI0_MISO0	I/O	MFP3	Quad SPI0 MISO0 (Master In, Slave Out) pin.
				SPI0_MISO	I/O	MFP4	SPI0 MISO (Master In, Slave Out) pin.
				SD1_DAT1	I/O	MFP5	SD/SDIO1 data line bit 1.
				SC0_DAT	I/O	MFP6	Smart Card 0 data pin.
				UART0_TXD	O	MFP7	UART0 data transmitter output pin.
				UART1_nCTS	I	MFP8	UART1 clear to Send input pin.
				I2C2_SCL	I/O	MFP9	I2C2 clock pin.
				BPWM0_CH1	I/O	MFP12	BPWM0 channel 1 output/capture input.
				EPWM0_CH4	I/O	MFP13	EPWM0 channel 4 output/capture input.
				DAC1_ST	I	MFP15	DAC1 external trigger input.
14	22	30	60	PA.0	I/O	MFP0	General purpose digital I/O pin.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				SPIM_MOSI	I/O	MFP2	SPIM MOSI (Master Out, Slave In) pin.
				QSPI0_MOSI0	I/O	MFP3	Quad SPI0 MOSI0 (Master Out, Slave In) pin.
				SPI0_MOSI	I/O	MFP4	SPI0 MOSI (Master Out, Slave In) pin.
				SD1_DAT0	I/O	MFP5	SD/SDIO1 data line bit 0.
				SC0_CLK	O	MFP6	Smart Card 0 clock pin.
				UART0_RXD	I	MFP7	UART0 data receiver input pin.
				UART1_nRTS	O	MFP8	UART1 request to Send output pin.
				I2C2_SDA	I/O	MFP9	I2C2 data input/output pin.
				BPWM0_CH0	I/O	MFP12	BPWM0 channel 0 output/capture input.
				EPWM0_CH5	I/O	MFP13	EPWM0 channel 5 output/capture input.
				DAC0_ST	I	MFP15	DAC0 external trigger input.
15	23	31	61	VDDIO	P	MFP0	Power supply for PA.0~PA.5.
			62	PE.14	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD8	I/O	MFP2	EBI address/data bus bit 8.
				UART2_TXD	O	MFP3	UART2 data transmitter output pin.
				CAN0_TXD	O	MFP4	CAN0 bus transmitter output.
				SD1_nCD	I	MFP5	SD/SDIO1 card detect input pin
			63	PE.15	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD9	I/O	MFP2	EBI address/data bus bit 9.
				UART2_RXD	I	MFP3	UART2 data receiver input pin.
				CAN0_RXD	I	MFP4	CAN0 bus receiver input.
16	24	32	64	nRESET	I	MFP0	External reset input: active LOW, with an internal pull-up. Set this pin low reset to initial state. **Note:** It is recommended to use 10 kΩ pull-up resistor and 10 uF capacitor on nRESET pin.
17	25	33	65	PF.0	I/O	MFP0	General purpose digital I/O pin.
				UART1_TXD	O	MFP2	UART1 data transmitter output pin.
				I2C1_SCL	I/O	MFP3	I2C1 clock pin.
				BPWM1_CH0	I/O	MFP12	BPWM1 channel 0 output/capture input.
				ICE_DAT	O	MFP14	Serial wired debugger data pin. **Note:** It is recommended to use 100 kΩ pull-up resistor on ICE_DAT pin.
18	26	34	66	PF.1	I/O	MFP0	General purpose digital I/O pin.
				UART1_RXD	I	MFP2	UART1 data receiver input pin.
				I2C1_SDA	I/O	MFP3	I2C1 data input/output pin.
				BPWM1_CH1	I/O	MFP12	BPWM1 channel 1 output/capture input.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				ICE_CLK	I	MFP14	Serial wired debugger clock pin. **Note:** It is recommended to use 100 kΩ pull-up resistor on ICE_CLK pin.
			67	PD.9	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD7	I/O	MFP2	EBI address/data bus bit 7.
				I2C2_SCL	I/O	MFP3	I2C2 clock pin.
				UART2_nCTS	I	MFP4	UART2 clear to Send input pin.
			68	PD.8	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD6	I/O	MFP2	EBI address/data bus bit 6.
				I2C2_SDA	I/O	MFP3	I2C2 data input/output pin.
				UART2_nRTS	O	MFP4	UART2 request to Send output pin.
	27	35	69	PC.5	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD5	I/O	MFP2	EBI address/data bus bit 5.
				SPIM_D2	I/O	MFP3	SPIM data 2 pin for Quad Mode I/O.
				QSPI0_MISO1	I/O	MFP4	Quad SPI0 MISO1 (Master In, Slave Out) pin.
				UART2_TXD	O	MFP8	UART2 data transmitter output pin.
				I2C1_SCL	I/O	MFP9	I2C1 clock pin.
				CAN0_TXD	O	MFP10	CAN0 bus transmitter output.
				UART4_TXD	O	MFP11	UART4 data transmitter output pin.
				EPWM1_CH0	I/O	MFP12	EPWM1 channel 0 output/capture input.
	28	36	70	PC.4	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD4	I/O	MFP2	EBI address/data bus bit 4.
				SPIM_D3	I/O	MFP3	SPIM data 3 pin for Quad Mode I/O.
				QSPI0_MOSI1	I/O	MFP4	Quad SPI0 MOSI1 (Master Out, Slave In) pin.
				SC1_nCD	I	MFP5	Smart Card 1 card detect pin.
				I2S0_BCLK	O	MFP6	I2S0 bit clock output pin.
				SPI1_I2SMCLK	I/O	MFP7	SPI1 I2S master clock output pin
				UART2_RXD	I	MFP8	UART2 data receiver input pin.
				I2C1_SDA	I/O	MFP9	I2C1 data input/output pin.
				CAN0_RXD	I	MFP10	CAN0 bus receiver input.
				UART4_RXD	I	MFP11	UART4 data receiver input pin.
				EPWM1_CH1	I/O	MFP12	EPWM1 channel 1 output/capture input.
	29	37	71	PC.3	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD3	I/O	MFP2	EBI address/data bus bit 3.
				SPIM_SS	I/O	MFP3	SPIM slave select pin.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				QSPI0_SS	I/O	MFP4	Quad SPI0 slave select pin.
				SC1_PWR	O	MFP5	Smart Card 1 power pin.
				I2S0_MCLK	O	MFP6	I2S0 master clock output pin.
				SPI1_MISO	I/O	MFP7	SPI1 MISO (Master In, Slave Out) pin.
				UART2_nRTS	O	MFP8	UART2 request to Send output pin.
				I2C0_SMBAL	O	MFP9	I2C0 SMBus SMBALTER pin
				CAN1_TXD	O	MFP10	CAN1 bus transmitter output.
				UART3_TXD	O	MFP11	UART3 data transmitter output pin.
				EPWM1_CH2	I/O	MFP12	EPWM1 channel 2 output/capture input.
	30	38	72	PC.2	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD2	I/O	MFP2	EBI address/data bus bit 2.
				SPIM_CLK	I/O	MFP3	SPIM serial clock pin.
				QSPI0_CLK	I/O	MFP4	Quad SPI0 serial clock pin.
				SC1_RST	O	MFP5	Smart Card 1 reset pin.
				I2S0_DI	I	MFP6	I2S0 data input pin.
				SPI1_MOSI	I/O	MFP7	SPI1 MOSI (Master Out, Slave In) pin.
				UART2_nCTS	I	MFP8	UART2 clear to Send input pin.
				I2C0_SMBSUS	O	MFP9	I2C0 SMBus SMBSUS pin (PMBus CONTROL pin)
				CAN1_RXD	I	MFP10	CAN1 bus receiver input.
				UART3_RXD	I	MFP11	UART3 data receiver input pin.
				EPWM1_CH3	I/O	MFP12	EPWM1 channel 3 output/capture input.
19	31	39	73	PC.1	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD1	I/O	MFP2	EBI address/data bus bit 1.
				SPIM_MISO	I/O	MFP3	SPIM MISO (Master In, Slave Out) pin.
				QSPI0_MISO0	I/O	MFP4	Quad SPI0 MISO0 (Master In, Slave Out) pin.
				SC1_DAT	I/O	MFP5	Smart Card 1 data pin.
				I2S0_DO	O	MFP6	I2S0 data output pin.
				SPI1_CLK	I/O	MFP7	SPI1 serial clock pin.
				UART2_TXD	O	MFP8	UART2 data transmitter output pin.
				I2C0_SCL	I/O	MFP9	I2C0 clock pin.
				EPWM1_CH4	I/O	MFP12	EPWM1 channel 4 output/capture input.
				ACMP0_O	O	MFP14	Analog comparator 0 output pin.
20	32	40	74	PC.0	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD0	I/O	MFP2	EBI address/data bus bit 0.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				SPIM_MOSI	I/O	MFP3	SPIM MOSI (Master Out, Slave In) pin.
				QSPI0_MOSI0	I/O	MFP4	Quad SPI0 MOSI0 (Master Out, Slave In) pin.
				SC1_CLK	O	MFP5	Smart Card 1 clock pin.
				I2S0_LRCK	O	MFP6	I2S0 left right channel clock output pin.
				SPI1_SS	I/O	MFP7	SPI1 slave select pin.
				UART2_RXD	I	MFP8	UART2 data receiver input pin.
				I2C0_SDA	I/O	MFP9	I2C0 data input/output pin.
				EPWM1_CH5	I/O	MFP12	EPWM1 channel 5 output/capture input.
				ACMP1_O	O	MFP14	Analog comparator 1 output pin.
			75	VSS	P	MFP0	Ground pin for digital circuit.
			76	VDD	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
			77	PG.9	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD0	I/O	MFP2	EBI address/data bus bit 0.
				SD1_DAT3	I/O	MFP3	SD/SDIO1 data line bit 3.
				SPIM_D2	I/O	MFP4	SPIM data 2 pin for Quad Mode I/O.
				BPWM0_CH5	I/O	MFP12	BPWM0 channel 5 output/capture input.
			78	PG.10	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD1	I/O	MFP2	EBI address/data bus bit 1.
				SD1_DAT2	I/O	MFP3	SD/SDIO1 data line bit 2.
				SPIM_D3	I/O	MFP4	SPIM data 3 pin for Quad Mode I/O.
				BPWM0_CH4	I/O	MFP12	BPWM0 channel 4 output/capture input.
			79	PG.11	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD2	I/O	MFP2	EBI address/data bus bit 2.
				SD1_DAT1	I/O	MFP3	SD/SDIO1 data line bit 1.
				SPIM_SS	I/O	MFP4	SPIM slave select pin.
				BPWM0_CH3	I/O	MFP12	BPWM0 channel 3 output/capture input.
			80	PG.12	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD3	I/O	MFP2	EBI address/data bus bit 3.
				SD1_DAT0	I/O	MFP3	SD/SDIO1 data line bit 0.
				SPIM_CLK	I/O	MFP4	SPIM serial clock pin.
				BPWM0_CH2	I/O	MFP12	BPWM0 channel 2 output/capture input.
			81	PG.13	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD4	I/O	MFP2	EBI address/data bus bit 4.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				SD1_CMD	I/O	MFP3	SD/SDIO1 command/response pin
				SPIM_MISO	I/O	MFP4	SPIM MISO (Master In, Slave Out) pin.
				BPWM0_CH1	I/O	MFP12	BPWM0 channel 1 output/capture input.
			82	PG.14	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD5	I/O	MFP2	EBI address/data bus bit 5.
				SD1_CLK	O	MFP3	SD/SDIO1 clock output pin
				SPIM_MOSI	I/O	MFP4	SPIM MOSI (Master Out, Slave In) pin.
				BPWM0_CH0	I/O	MFP12	BPWM0 channel 0 output/capture input.
			83	PG.15	I/O	MFP0	General purpose digital I/O pin.
				SD1_nCD	I	MFP3	SD/SDIO1 card detect input pin
				CLKO	O	MFP14	Clock Out
				EADC0_ST	I	MFP15	EADC0 external trigger input.
		41		PD.3	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD10	I/O	MFP2	EBI address/data bus bit 10.
				USCI0_CTL1	I/O	MFP3	USCI0 control 1 pin.
				SPI0_SS	I/O	MFP4	SPI0 slave select pin.
				UART3_nRTS	O	MFP5	UART3 request to Send output pin.
				USCI1_CTL0	I/O	MFP6	USCI1 control 0 pin.
				SC2_PWR	O	MFP7	Smart Card 2 power pin.
				SC1_nCD	I	MFP8	Smart Card 1 card detect pin.
				UART0_TXD	O	MFP9	UART0 data transmitter output pin.
		42		PD.2	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD11	I/O	MFP2	EBI address/data bus bit 11.
				USCI0_DAT1	I/O	MFP3	USCI0 data 1 pin.
				SPI0_CLK	I/O	MFP4	SPI0 serial clock pin.
				UART3_nCTS	I	MFP5	UART3 clear to Send input pin.
				SC2_RST	O	MFP7	Smart Card 2 reset pin.
				UART0_RXD	I	MFP9	UART0 data receiver input pin.
		43		PD.1	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD12	I/O	MFP2	EBI address/data bus bit 12.
				USCI0_DAT0	I/O	MFP3	USCI0 data 0 pin.
				SPI0_MISO	I/O	MFP4	SPI0 MISO (Master In, Slave Out) pin.
				UART3_TXD	O	MFP5	UART3 data transmitter output pin.
				I2C2_SCL	I/O	MFP6	I2C2 clock pin.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				SC2_DAT	I/O	MFP7	Smart Card 2 data pin.
		44		PD.0	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD13	I/O	MFP2	EBI address/data bus bit 13.
				USCI0_CLK	I/O	MFP3	USCI0 clock pin.
				SPI0_MOSI	I/O	MFP4	SPI0 MOSI (Master Out, Slave In) pin.
				UART3_RXD	I	MFP5	UART3 data receiver input pin.
				I2C2_SDA	I/O	MFP6	I2C2 data input/output pin.
				SC2_CLK	O	MFP7	Smart Card 2 clock pin.
				TM2	I/O	MFP14	Timer2 event counter input/toggle output pin.
			84	PD.13	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD10	I/O	MFP2	EBI address/data bus bit 10.
				SD0_nCD	I	MFP3	SD/SDIO0 card detect input pin
				SPI0_I2SMCLK	I/O	MFP4	SPI0 I2S master clock output pin
				SPI1_I2SMCLK	I/O	MFP5	SPI1 I2S master clock output pin
				SC2_nCD	I	MFP7	Smart Card 2 card detect pin.
21	33	45	85	PA.12	I/O	MFP0	General purpose digital I/O pin.
				I2S0_BCLK	O	MFP2	I2S0 bit clock output pin.
				UART4_TXD	O	MFP3	UART4 data transmitter output pin.
				I2C1_SCL	I/O	MFP4	I2C1 clock pin.
				SPI2_SS	I/O	MFP5	SPI2 slave select pin.
				CAN0_TXD	O	MFP6	CAN0 bus transmitter output.
				SC2_PWR	O	MFP7	Smart Card 2 power pin.
				BPWM1_CH2	I/O	MFP11	BPWM1 channel 2 output/capture input.
				QEI1_INDEX	I	MFP12	Quadrature encoder 1 index input
				USB_VBUS	P	MFP14	Power supply from USB host or HUB.
22	34	46	86	PA.13	I/O	MFP0	General purpose digital I/O pin.
				I2S0_MCLK	O	MFP2	I2S0 master clock output pin.
				UART4_RXD	I	MFP3	UART4 data receiver input pin.
				I2C1_SDA	I/O	MFP4	I2C1 data input/output pin.
				SPI2_CLK	I/O	MFP5	SPI2 serial clock pin.
				CAN0_RXD	I	MFP6	CAN0 bus receiver input.
				SC2_RST	O	MFP7	Smart Card 2 reset pin.
				BPWM1_CH3	I/O	MFP11	BPWM1 channel 3 output/capture input.
				QEI1_A	I	MFP12	Quadrature encoder 1 phase A input

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				USB_D-	A	MFP14	USB differential signal D-.
23	35	47	87	PA.14	I/O	MFP0	General purpose digital I/O pin.
				I2S0_DI	I	MFP2	I2S0 data input pin.
				UART0_TXD	O	MFP3	UART0 data transmitter output pin.
				SPI2_MISO	I/O	MFP5	SPI2 MISO (Master In, Slave Out) pin.
				I2C2_SCL	I/O	MFP6	I2C2 clock pin.
				SC2_DAT	I/O	MFP7	Smart Card 2 data pin.
				BPWM1_CH4	I/O	MFP11	BPWM1 channel 4 output/capture input.
				QEI1_B	I	MFP12	Quadrature encoder 1 phase B input
				USB_D+	A	MFP14	USB differential signal D+.
24	36	48	88	PA.15	I/O	MFP0	General purpose digital I/O pin.
				I2S0_DO	O	MFP2	I2S0 data output pin.
				UART0_RXD	I	MFP3	UART0 data receiver input pin.
				SPI2_MOSI	I/O	MFP5	SPI2 MOSI (Master Out, Slave In) pin.
				I2C2_SDA	I/O	MFP6	I2C2 data input/output pin.
				SC2_CLK	O	MFP7	Smart Card 2 clock pin.
				BPWM1_CH5	I/O	MFP11	BPWM1 channel 5 output/capture input.
				EPWM0_SYNC_IN	I	MFP12	EPWM0 counter synchronous trigger input pin.
				USB_OTG_ID	I	MFP14	USB_ identification.
			89	NC			
			90	VDD	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
			91	NC			
			92	NC			
			93	VSS	P	MFP0	Ground pin for digital circuit.
			94	NC			
			95	LDO_CAP	A	MFP0	LDO output pin. **Note:** This pin needs to be connected with an external capacitor.
			96	NC			
			97	PE.7	I/O	MFP0	General purpose digital I/O pin.
				SD0_CMD	I/O	MFP3	SD/SDIO0 command/response pin
				SPIM_D2	I/O	MFP4	SPIM data 2 pin for Quad Mode I/O.
				UART5_TXD	O	MFP8	UART5 data transmitter output pin.
				CAN1_TXD	O	MFP9	CAN1 bus transmitter output.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				QEI1_INDEX	I	MFP11	Quadrature encoder 1 index input
				EPWM0_CH0	I/O	MFP12	EPWM0 channel 0 output/capture input.
				BPWM0_CH5	I/O	MFP13	BPWM0 channel 5 output/capture input.
			98	PE.6	I/O	MFP0	General purpose digital I/O pin.
				SD0_CLK	O	MFP3	SD/SDIO0 clock output pin
				SPIM_D3	I/O	MFP4	SPIM data 3 pin for Quad Mode I/O.
				SPI3_I2SMCLK	I/O	MFP5	SPI3 I2S master clock output pin
				SC0_nCD	I	MFP6	Smart Card 0 card detect pin.
				USCI0_CTL0	I/O	MFP7	USCI0 control 0 pin.
				UART5_RXD	I	MFP8	UART5 data receiver input pin.
				CAN1_RXD	I	MFP9	CAN1 bus receiver input.
				QEI1_A	I	MFP11	Quadrature encoder 1 phase A input
				EPWM0_CH1	I/O	MFP12	EPWM0 channel 1 output/capture input.
				BPWM0_CH4	I/O	MFP13	BPWM0 channel 4 output/capture input.
			99	PE.5	I/O	MFP0	General purpose digital I/O pin.
				EBI_nRD	O	MFP2	EBI read enable output pin.
				SD0_DAT3	I/O	MFP3	SD/SDIO0 data line bit 3.
				SPIM_SS	I/O	MFP4	SPIM slave select pin.
				SPI3_SS	I/O	MFP5	SPI3 slave select pin.
				SC0_PWR	O	MFP6	Smart Card 0 power pin.
				USCI0_CTL1	I/O	MFP7	USCI0 control 1 pin.
				QEI1_B	I	MFP11	Quadrature encoder 1 phase B input
				EPWM0_CH2	I/O	MFP12	EPWM0 channel 2 output/capture input.
				BPWM0_CH3	I/O	MFP13	BPWM0 channel 3 output/capture input.
			100	PE.4	I/O	MFP0	General purpose digital I/O pin.
				EBI_nWR	O	MFP2	EBI write enable output pin.
				SD0_DAT2	I/O	MFP3	SD/SDIO0 data line bit 2.
				SPIM_CLK	I/O	MFP4	SPIM serial clock pin.
				SPI3_CLK	I/O	MFP5	SPI3 serial clock pin.
				SC0_RST	O	MFP6	Smart Card 0 reset pin.
				USCI0_DAT1	I/O	MFP7	USCI0 data 1 pin.
				QEI0_INDEX	I	MFP11	Quadrature encoder 0 index input
				EPWM0_CH3	I/O	MFP12	EPWM0 channel 3 output/capture input.
				BPWM0_CH2	I/O	MFP13	BPWM0 channel 2 output/capture input.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			101	PE.3	I/O	MFP0	General purpose digital I/O pin.
				EBI_MCLK	O	MFP2	EBI external clock output pin.
				SD0_DAT1	I/O	MFP3	SD/SDIO0 data line bit 1.
				SPIM_MISO	I/O	MFP4	SPIM MISO (Master In, Slave Out) pin.
				SPI3_MISO	I/O	MFP5	SPI3 MISO (Master In, Slave Out) pin.
				SC0_DAT	I/O	MFP6	Smart Card 0 data pin.
				USCI0_DAT0	I/O	MFP7	USCI0 data 0 pin.
				QEI0_A	I	MFP11	Quadrature encoder 0 phase A input
				EPWM0_CH4	I/O	MFP12	EPWM0 channel 4 output/capture input.
				BPWM0_CH1	I/O	MFP13	BPWM0 channel 1 output/capture input.
			102	PE.2	I/O	MFP0	General purpose digital I/O pin.
				EBI_ALE	O	MFP2	EBI address latch enable output pin.
				SD0_DAT0	I/O	MFP3	SD/SDIO0 data line bit 0.
				SPIM_MOSI	I/O	MFP4	SPIM MOSI (Master Out, Slave In) pin.
				SPI3_MOSI	I/O	MFP5	SPI3 MOSI (Master Out, Slave In) pin.
				SC0_CLK	O	MFP6	Smart Card 0 clock pin.
				USCI0_CLK	I/O	MFP7	USCI0 clock pin.
				QEI0_B	I	MFP11	Quadrature encoder 0 phase B input
				EPWM0_CH5	I/O	MFP12	EPWM0 channel 5 output/capture input.
				BPWM0_CH0	I/O	MFP13	BPWM0 channel 0 output/capture input.
			103	VSS	P	MFP0	Ground pin for digital circuit.
			104	VDD	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
			105	PE.1	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD10	I/O	MFP2	EBI address/data bus bit 10.
				QSPI0_MISO0	I/O	MFP3	Quad SPI0 MISO0 (Master In, Slave Out) pin.
				SC2_DAT	I/O	MFP4	Smart Card 2 data pin.
				I2S0_BCLK	O	MFP5	I2S0 bit clock output pin.
				SPI1_MISO	I/O	MFP6	SPI1 MISO (Master In, Slave Out) pin.
				UART3_TXD	O	MFP7	UART3 data transmitter output pin.
				I2C1_SCL	I/O	MFP8	I2C1 clock pin.
				UART4_nCTS	I	MFP9	UART4 clear to Send input pin.
			106	PE.0	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD11	I/O	MFP2	EBI address/data bus bit 11.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				QSPI0_MOSI0	I/O	MFP3	Quad SPI0 MOSI0 (Master Out, Slave In) pin.
				SC2_CLK	O	MFP4	Smart Card 2 clock pin.
				I2S0_MCLK	O	MFP5	I2S0 master clock output pin.
				SPI1_MOSI	I/O	MFP6	SPI1 MOSI (Master Out, Slave In) pin.
				UART3_RXD	I	MFP7	UART3 data receiver input pin.
				I2C1_SDA	I/O	MFP8	I2C1 data input/output pin.
				UART4_nRTS	O	MFP9	UART4 request to Send output pin.
			107	PH.8	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD12	I/O	MFP2	EBI address/data bus bit 12.
				QSPI0_CLK	I/O	MFP3	Quad SPI0 serial clock pin.
				SC2_PWR	O	MFP4	Smart Card 2 power pin.
				I2S0_DI	I	MFP5	I2S0 data input pin.
				SPI1_CLK	I/O	MFP6	SPI1 serial clock pin.
				UART3_nRTS	O	MFP7	UART3 request to Send output pin.
				I2C1_SMBAL	O	MFP8	I2C1 SMBus SMBALTER pin
				I2C2_SCL	I/O	MFP9	I2C2 clock pin.
				UART1_TXD	O	MFP10	UART1 data transmitter output pin.
			108	PH.9	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD13	I/O	MFP2	EBI address/data bus bit 13.
				QSPI0_SS	I/O	MFP3	Quad SPI0 slave select pin.
				SC2_RST	O	MFP4	Smart Card 2 reset pin.
				I2S0_DO	O	MFP5	I2S0 data output pin.
				SPI1_SS	I/O	MFP6	SPI1 slave select pin.
				UART3_nCTS	I	MFP7	UART3 clear to Send input pin.
				I2C1_SMBSUS	O	MFP8	I2C1 SMBus SMBSUS pin (PMBus CONTROL pin)
				I2C2_SDA	I/O	MFP9	I2C2 data input/output pin.
				UART1_RXD	I	MFP10	UART1 data receiver input pin.
			109	PH.10	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD14	I/O	MFP2	EBI address/data bus bit 14.
				QSPI0_MISO1	I/O	MFP3	Quad SPI0 MISO1 (Master In, Slave Out) pin.
				SC2_nCD	I	MFP4	Smart Card 2 card detect pin.
				I2S0_LRCK	O	MFP5	I2S0 left right channel clock output pin.
				SPI1_I2SMCLK	I/O	MFP6	SPI1 I2S master clock output pin
				UART4_TXD	O	MFP7	UART4 data transmitter output pin.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				UART0_TXD	O	MFP8	UART0 data transmitter output pin.
			110	PH.11	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD15	I/O	MFP2	EBI address/data bus bit 15.
				QSPI0_MOSI1	I/O	MFP3	Quad SPI0 MOSI1 (Master Out, Slave In) pin.
				UART4_RXD	I	MFP7	UART4 data receiver input pin.
				UART0_RXD	I	MFP8	UART0 data receiver input pin.
				EPWM0_CH5	I/O	MFP11	EPWM0 channel 5 output/capture input.
			111	PD.14	I/O	MFP0	General purpose digital I/O pin.
				EBI_nCS0	O	MFP2	EBI chip select 0 output pin.
				SPI3_I2SMCLK	I/O	MFP3	SPI3 I2S master clock output pin
				SC1_nCD	I	MFP4	Smart Card 1 card detect pin.
				EPWM0_CH4	I/O	MFP11	EPWM0 channel 4 output/capture input.
25	37	49	112	VSS	P	MFP0	Ground pin for digital circuit.
26	38	50	113	LDO_CAP	A	MFP0	LDO output pin. **Note:** This pin needs to be connected with an external capacitor.
27	39	51	114	VDD	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
	40	52	115	PC.14	I/O	MFP0	General purpose digital I/O pin.
				EBI_AD11	I/O	MFP2	EBI address/data bus bit 11.
				SC1_nCD	I	MFP3	Smart Card 1 card detect pin.
				SPI0_I2SMCLK	I/O	MFP4	SPI0 I2S master clock output pin
				USCI0_CTL0	I/O	MFP5	USCI0 control 0 pin.
				QSPI0_CLK	I/O	MFP6	Quad SPI0 serial clock pin.
				EPWM0_SYNC_IN	I	MFP11	EPWM0 counter synchronous trigger input pin.
				TM1	I/O	MFP13	Timer1 event counter input/toggle output pin.
				USB_VBUS_ST	I	MFP14	USB external VBUS regulator status pin.
28	41	53	116	PB.15	I/O	MFP0	General purpose digital I/O pin.
				EADC0_CH15	A	MFP1	EADC0 channel 15 analog input.
				EBI_AD12	I/O	MFP2	EBI address/data bus bit 12.
				SC1_PWR	O	MFP3	Smart Card 1 power pin.
				SPI0_SS	I/O	MFP4	SPI0 slave select pin.
				USCI0_CTL1	I/O	MFP5	USCI0 control 1 pin.
				UART0_nCTS	I	MFP6	UART0 clear to Send input pin.
				UART3_TXD	O	MFP7	UART3 data transmitter output pin.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				I2C2_SMBAL	O	MFP8	I2C2 SMBus SMBALTER pin
				EPWM1_CH0	I/O	MFP11	EPWM1 channel 0 output/capture input.
				TM0_EXT	I/O	MFP13	Timer0 external capture input/toggle output pin.
				USB_VBUS_EN	O	MFP14	USB external VBUS regulator enable pin.
29	42	54	117	PB.14	I/O	MFP0	General purpose digital I/O pin.
				EADC0_CH14	A	MFP1	EADC0 channel 14 analog input.
				EBI_AD13	I/O	MFP2	EBI address/data bus bit 13.
				SC1_RST	O	MFP3	Smart Card 1 reset pin.
				SPI0_CLK	I/O	MFP4	SPI0 serial clock pin.
				USCI0_DAT1	I/O	MFP5	USCI0 data 1 pin.
				UART0_nRTS	O	MFP6	UART0 request to Send output pin.
				UART3_RXD	I	MFP7	UART3 data receiver input pin.
				I2C2_SMBSUS	O	MFP8	I2C2 SMBus SMBSUS pin (PMBus CONTROL pin)
				EPWM1_CH1	I/O	MFP11	EPWM1 channel 1 output/capture input.
				TM1_EXT	I/O	MFP13	Timer1 external capture input/toggle output pin.
				CLKO	O	MFP14	Clock Out
30	43	55	118	PB.13	I/O	MFP0	General purpose digital I/O pin.
				EADC0_CH13	A	MFP1	EADC0 channel 13 analog input.
				DAC1_OUT	A	MFP1	DAC1 channel analog output.
				ACMP0_P3	A	MFP1	Analog comparator 0 positive input 3 pin.
				ACMP1_P3	A	MFP1	Analog comparator 1 positive input 3 pin.
				EBI_AD14	I/O	MFP2	EBI address/data bus bit 14.
				SC1_DAT	I/O	MFP3	Smart Card 1 data pin.
				SPI0_MISO	I/O	MFP4	SPI0 MISO (Master In, Slave Out) pin.
				USCI0_DAT0	I/O	MFP5	USCI0 data 0 pin.
				UART0_TXD	O	MFP6	UART0 data transmitter output pin.
				UART3_nRTS	O	MFP7	UART3 request to Send output pin.
				I2C2_SCL	I/O	MFP8	I2C2 clock pin.
				EPWM1_CH2	I/O	MFP11	EPWM1 channel 2 output/capture input.
				TM2_EXT	I/O	MFP13	Timer2 external capture input/toggle output pin.
31	44	56	119	PB.12	I/O	MFP0	General purpose digital I/O pin.
				EADC0_CH12	A	MFP1	EADC0 channel 12 analog input.
				DAC0_OUT	A	MFP1	DAC0 channel analog output.
				ACMP0_P2	A	MFP1	Analog comparator 0 positive input 2 pin.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				ACMP1_P2	A	MFP1	Analog comparator 1 positive input 2 pin.
				EBI_AD15	I/O	MFP2	EBI address/data bus bit 15.
				SC1_CLK	O	MFP3	Smart Card 1 clock pin.
				SPI0_MOSI	I/O	MFP4	SPI0 MOSI (Master Out, Slave In) pin.
				USCI0_CLK	I/O	MFP5	USCI0 clock pin.
				UART0_RXD	I	MFP6	UART0 data receiver input pin.
				UART3_nCTS	I	MFP7	UART3 clear to Send input pin.
				I2C2_SDA	I/O	MFP8	I2C2 data input/output pin.
				SD0_nCD	I	MFP9	SD/SDIO0 card detect input pin
				EPWM1_CH3	I/O	MFP11	EPWM1 channel 3 output/capture input.
				TM3_EXT	I/O	MFP13	Timer3 external capture input/toggle output pin.
32	45	57	120	AVDD	P	MFP0	Power supply for internal analog circuit.
		58	121	VREF	A	MFP0	ADC reference voltage input. Note: This pin needs to be connected with a 1uF capacitor.
	46	59	122	AVSS	P	MFP0	Ground pin for analog circuit.
		60	123	PB.11	I/O	MFP0	General purpose digital I/O pin.
				EADC0_CH11	A	MFP1	EADC0 channel 11 analog input.
				EBI_ADR16	O	MFP2	EBI address bus bit 16.
				UART0_nCTS	I	MFP5	UART0 clear to Send input pin.
				UART4_TXD	O	MFP6	UART4 data transmitter output pin.
				I2C1_SCL	I/O	MFP7	I2C1 clock pin.
				CAN0_TXD	O	MFP8	CAN0 bus transmitter output.
				SPI0_I2SMCLK	I/O	MFP9	SPI0 I2S master clock output pin
				BPWM1_CH0	I/O	MFP10	BPWM1 channel 0 output/capture input.
				SPI3_CLK	I/O	MFP11	SPI3 serial clock pin.
		61	124	PB.10	I/O	MFP0	General purpose digital I/O pin.
				EADC0_CH10	A	MFP1	EADC0 channel 10 analog input.
				EBI_ADR17	O	MFP2	EBI address bus bit 17.
				USCI1_CTL0	I/O	MFP4	USCI1 control 0 pin.
				UART0_nRTS	O	MFP5	UART0 request to Send output pin.
				UART4_RXD	I	MFP6	UART4 data receiver input pin.
				I2C1_SDA	I/O	MFP7	I2C1 data input/output pin.
				CAN0_RXD	I	MFP8	CAN0 bus receiver input.
				BPWM1_CH1	I/O	MFP10	BPWM1 channel 1 output/capture input.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				SPI3_SS	I/O	MFP11	SPI3 slave select pin.
		62	125	PB.9	I/O	MFP0	General purpose digital I/O pin.
				EADC0_CH9	A	MFP1	EADC0 channel 9 analog input.
				EBI_ADR18	O	MFP2	EBI address bus bit 18.
				USCI1_CTL1	I/O	MFP4	USCI1 control 1 pin.
				UART0_TXD	O	MFP5	UART0 data transmitter output pin.
				UART1_nCTS	I	MFP6	UART1 clear to Send input pin.
				I2C1_SMBAL	O	MFP7	I2C1 SMBus SMBALTER pin
				BPWM1_CH2	I/O	MFP10	BPWM1 channel 2 output/capture input.
				SPI3_MISO	I/O	MFP11	SPI3 MISO (Master In, Slave Out) pin.
				INT7	I	MFP13	External interrupt 7 input pin.
		63	126	PB.8	I/O	MFP0	General purpose digital I/O pin.
				EADC0_CH8	A	MFP1	EADC0 channel 8 analog input.
				EBI_ADR19	O	MFP2	EBI address bus bit 19.
				USCI1_CLK	I/O	MFP4	USCI1 clock pin.
				UART0_RXD	I	MFP5	UART0 data receiver input pin.
				UART1_nRTS	O	MFP6	UART1 request to Send output pin.
				I2C1_SMBSUS	O	MFP7	I2C1 SMBus SMBSUS pin (PMBus CONTROL pin)
				BPWM1_CH3	I/O	MFP10	BPWM1 channel 3 output/capture input.
				SPI3_MOSI	I/O	MFP11	SPI3 MOSI (Master Out, Slave In) pin.
				INT6	I	MFP13	External interrupt 6 input pin.
	47	64	127	PB.7	I/O	MFP0	General purpose digital I/O pin.
				EADC0_CH7	A	MFP1	EADC0 channel 7 analog input.
				EBI_nWRL	O	MFP2	EBI low byte write enable output pin.
				USCI1_DAT0	I/O	MFP4	USCI1 data 0 pin.
				CAN1_TXD	O	MFP5	CAN1 bus transmitter output.
				UART1_TXD	O	MFP6	UART1 data transmitter output pin.
				SD1_CMD	I/O	MFP7	SD/SDIO1 command/response pin
				EBI_nCS0	O	MFP8	EBI chip select 0 output pin.
				BPWM1_CH4	I/O	MFP10	BPWM1 channel 4 output/capture input.
				EPWM1_BRAKE0	I	MFP11	EPWM1 Brake 0 input pin.
				EPWM1_CH4	I/O	MFP12	EPWM1 channel 4 output/capture input.
				INT5	I	MFP13	External interrupt 5 input pin.
				USB_VBUS_ST	I	MFP14	USB external VBUS regulator status pin.

32 Pin	48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
				ACMP0_O	O	MFP15	Analog comparator 0 output pin.
	48	1	128	PB.6	I/O	MFP0	General purpose digital I/O pin.
				EADC0_CH6	A	MFP1	EADC0 channel 6 analog input.
				EBI_nWRH	O	MFP2	EBI high byte write enable output pin
				USCI1_DAT1	I/O	MFP4	USCI1 data 1 pin.
				CAN1_RXD	I	MFP5	CAN1 bus receiver input.
				UART1_RXD	I	MFP6	UART1 data receiver input pin.
				SD1_CLK	O	MFP7	SD/SDIO1 clock output pin
				EBI_nCS1	O	MFP8	EBI chip select 1 output pin.
				BPWM1_CH5	I/O	MFP10	BPWM1 channel 5 output/capture input.
				EPWM1_BRAKE1	I	MFP11	EPWM1 Brake 1 input pin.
				EPWM1_CH5	I/O	MFP12	EPWM1 channel 5 output/capture input.
				INT4	I	MFP13	External interrupt 4 input pin.
				USB_VBUS_EN	O	MFP14	USB external VBUS regulator enable pin.
				ACMP1_O	O	MFP15	Analog comparator 1 output pin.

4.2.3 M483 Series Pin Description

Note: PA.15 MFP can only be as USB_OTG_ID when enable full-Speed USB.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
2	1	PB.5	I/O	MFP0	General purpose digital I/O pin.
		EADC0_CH5	A	MFP1	EADC0 channel 5 analog input.
		ACMP1_N	A	MFP1	Analog comparator 1 negative input pin.
		EBI_ADR0	O	MFP2	EBI address bus bit 0.
		SD0_DAT3	I/O	MFP3	SD/SDIO0 data line bit 3.
		SPI1_MISO	I/O	MFP5	SPI1 MISO (Master In, Slave Out) pin.
		I^2C0_SCL	I/O	MFP6	I^2C0 clock pin.
		UART5_TXD	O	MFP7	UART5 data transmitter output pin.
		USCI1_CTL0	I/O	MFP8	USCI1 control 0 pin.
		SC0_CLK	O	MFP9	Smart Card 0 clock pin.
		I^2S0_BCLK	O	MFP10	I^2S0 bit clock output pin.
		EPWM0_CH0	I/O	MFP11	EPWM0 channel 0 output/capture input.
		TM0	I/O	MFP14	Timer0 event counter input/toggle output pin.
		INT0	I	MFP15	External interrupt 0 input pin.
3	2	PB.4	I/O	MFP0	General purpose digital I/O pin.
		EADC0_CH4	A	MFP1	EADC0 channel 4 analog input.
		ACMP1_P1	A	MFP1	Analog comparator 1 positive input 1 pin.
		EBI_ADR1	O	MFP2	EBI address bus bit 1.
		SD0_DAT2	I/O	MFP3	SD/SDIO0 data line bit 2.
		SPI1_MOSI	I/O	MFP5	SPI1 MOSI (Master Out, Slave In) pin.
		I^2C0_SDA	I/O	MFP6	I^2C0 data input/output pin.
		UART5_RXD	I	MFP7	UART5 data receiver input pin.
		USCI1_CTL1	I/O	MFP8	USCI1 control 1 pin.
		SC0_DAT	I/O	MFP9	Smart Card 0 data pin.
		I^2S0_MCLK	O	MFP10	I^2S0 master clock output pin.
		EPWM0_CH1	I/O	MFP11	EPWM0 channel 1 output/capture input.
		TM1	I/O	MFP14	Timer1 event counter input/toggle output pin.
		INT1	I	MFP15	External interrupt 1 input pin.
4	3	PB.3	I/O	MFP0	General purpose digital I/O pin.
		EADC0_CH3	A	MFP1	EADC0 channel 3 analog input.
		ACMP0_N	A	MFP1	Analog comparator 0 negative input pin.
		EBI_ADR2	O	MFP2	EBI address bus bit 2.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
		SD0_DAT1	I/O	MFP3	SD/SDIO0 data line bit 1.
		SPI1_CLK	I/O	MFP5	SPI1 serial clock pin.
		UART1_TXD	O	MFP6	UART1 data transmitter output pin.
		UART5_nRTS	O	MFP7	UART5 request to Send output pin.
		USCI1_DAT1	I/O	MFP8	USCI1 data 1 pin.
		SC0_RST	O	MFP9	Smart Card 0 reset pin.
		I^2S0_DI	I	MFP10	I^2S0 data input pin.
		EPWM0_CH2	I/O	MFP11	EPWM0 channel 2 output/capture input.
		TM2	I/O	MFP14	Timer2 event counter input/toggle output pin.
		INT2	I	MFP15	External interrupt 2 input pin.
5	4	PB.2	I/O	MFP0	General purpose digital I/O pin.
		EADC0_CH2	A	MFP1	EADC0 channel 2 analog input.
		ACMP0_P1	A	MFP1	Analog comparator 0 positive input 1 pin.
		OPA0_O	A	MFP1	Operational amplifier 0 output pin.
		EBI_ADR3	O	MFP2	EBI address bus bit 3.
		SD0_DAT0	I/O	MFP3	SD/SDIO0 data line bit 0.
		SPI1_SS	I/O	MFP5	SPI1 slave select pin.
		UART1_RXD	I	MFP6	UART1 data receiver input pin.
		UART5_nCTS	I	MFP7	UART5 clear to Send input pin.
		USCI1_DAT0	I/O	MFP8	USCI1 data 0 pin.
		SC0_PWR	O	MFP9	Smart Card 0 power pin.
		I^2S0_DO	O	MFP10	I^2S0 data output pin.
		EPWM0_CH3	I/O	MFP11	EPWM0 channel 3 output/capture input.
		TM3	I/O	MFP14	Timer3 event counter input/toggle output pin.
		INT3	I	MFP15	External interrupt 3 input pin.
	5	PC.12	I/O	MFP0	General purpose digital I/O pin.
		EBI_ADR4	O	MFP2	EBI address bus bit 4.
		UART0_TXD	O	MFP3	UART0 data transmitter output pin.
		I^2C0_SCL	I/O	MFP4	I^2C0 clock pin.
		SPI3_MISO	I/O	MFP6	SPI3 MISO (Master In, Slave Out) pin.
		SC0_nCD	I	MFP9	Smart Card 0 card detect pin.
		ECAP1_IC2	I	MFP11	Enhanced capture unit 1 input 2 pin.
		EPWM1_CH0	I/O	MFP12	EPWM1 channel 0 output/capture input.
		ACMP0_O	O	MFP14	Analog comparator 0 output pin.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
	6	PC.11	I/O	MFP0	General purpose digital I/O pin.
		EBI_ADR5	O	MFP2	EBI address bus bit 5.
		UART0_RXD	I	MFP3	UART0 data receiver input pin.
		I²C0_SDA	I/O	MFP4	I²C0 data input/output pin.
		SPI3_MOSI	I/O	MFP6	SPI3 MOSI (Master Out, Slave In) pin.
		ECAP1_IC1	I	MFP11	Enhanced capture unit 1 input 1 pin.
		EPWM1_CH1	I/O	MFP12	EPWM1 channel 1 output/capture input.
		ACMP1_O	O	MFP14	Analog comparator 1 output pin.
	7	PC.10	I/O	MFP0	General purpose digital I/O pin.
		EBI_ADR6	O	MFP2	EBI address bus bit 6.
		SPI3_CLK	I/O	MFP6	SPI3 serial clock pin.
		UART3_TXD	O	MFP7	UART3 data transmitter output pin.
		CAN1_TXD	O	MFP9	CAN1 bus transmitter output.
		ECAP1_IC0	I	MFP11	Enhanced capture unit 1 input 0 pin.
		EPWM1_CH2	I/O	MFP12	EPWM1 channel 2 output/capture input.
	8	PC.9	I/O	MFP0	General purpose digital I/O pin.
		EBI_ADR7	O	MFP2	EBI address bus bit 7.
		SPI3_SS	I/O	MFP6	SPI3 slave select pin.
		UART3_RXD	I	MFP7	UART3 data receiver input pin.
		CAN1_RXD	I	MFP9	CAN1 bus receiver input.
		EPWM1_CH3	I/O	MFP12	EPWM1 channel 3 output/capture input.
6	9	PB.1	I/O	MFP0	General purpose digital I/O pin.
		EADC0_CH1	A	MFP1	EADC0 channel 1 analog input.
		OPA0_N	A	MFP1	Operational amplifier 0 negative input pin.
		EBI_ADR8	O	MFP2	EBI address bus bit 8.
		SD0_CLK	O	MFP3	SD/SDIO0 clock output pin
		SPI1_I2SMCLK	I/O	MFP5	SPI1 I²S master clock output pin
		SPI3_I2SMCLK	I/O	MFP6	SPI3 I²S master clock output pin
		UART2_TXD	O	MFP7	UART2 data transmitter output pin.
		USCI1_CLK	I/O	MFP8	USCI1 clock pin.
		I²C1_SCL	I/O	MFP9	I²C1 clock pin.
		I²S0_LRCK	O	MFP10	I²S0 left right channel clock output pin.
		EPWM0_CH4	I/O	MFP11	EPWM0 channel 4 output/capture input.
		EPWM1_CH4	I/O	MFP12	EPWM1 channel 4 output/capture input.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
		EPWM0_BRAKE0	I	MFP13	EPWM0 Brake 0 input pin.
7	10	PB.0	I/O	MFP0	General purpose digital I/O pin.
		EADC0_CH0	A	MFP1	EADC0 channel 0 analog input.
		OPA0_P	A	MFP1	Operational amplifier 0 positive input pin.
		EBI_ADR9	O	MFP2	EBI address bus bit 9.
		SD0_CMD	I/O	MFP3	SD/SDIO0 command/response pin
		UART2_RXD	I	MFP7	UART2 data receiver input pin.
		SPI0_I2SMCLK	I/O	MFP8	SPI0 I^2S master clock output pin
		I^2C1_SDA	I/O	MFP9	I^2C1 data input/output pin.
		EPWM0_CH5	I/O	MFP11	EPWM0 channel 5 output/capture input.
		EPWM1_CH5	I/O	MFP12	EPWM1 channel 5 output/capture input.
		EPWM0_BRAKE1	I	MFP13	EPWM0 Brake 1 input pin.
	11	V_{SS}	P	MFP0	Ground pin for digital circuit.
	12	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
8	13	PA.11	I/O	MFP0	General purpose digital I/O pin.
		ACMP0_P0	A	MFP1	Analog comparator 0 positive input 0 pin.
		EBI_nRD	O	MFP2	EBI read enable output pin.
		SC2_PWR	O	MFP3	Smart Card 2 power pin.
		SPI2_SS	I/O	MFP4	SPI2 slave select pin.
		SD1_DAT3	I/O	MFP5	SD/SDIO1 data line bit 3.
		USCI0_CLK	I/O	MFP6	USCI0 clock pin.
		I^2C2_SCL	I/O	MFP7	I^2C2 clock pin.
		BPWM0_CH0	I/O	MFP9	BPWM0 channel 0 output/capture input.
		EPWM0_SYNC_OUT	O	MFP10	EPWM0 counter synchronous trigger output pin.
		TM0_EXT	I/O	MFP13	Timer0 event counter input/toggle output pin.
		DAC1_ST	I	MFP14	DAC1 external trigger input.
9	14	PA.10	I/O	MFP0	General purpose digital I/O pin.
		ACMP1_P0	A	MFP1	Analog comparator 1 positive input 0 pin.
		OPA1_O	A	MFP1	Operational amplifier 1 output pin.
		EBI_nWR	O	MFP2	EBI write enable output pin.
		SC2_RST	O	MFP3	Smart Card 2 reset pin.
		SPI2_CLK	I/O	MFP4	SPI2 serial clock pin.
		SD1_DAT2	I/O	MFP5	SD/SDIO1 data line bit 2.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
		USCI0_DAT0	I/O	MFP6	USCI0 data 0 pin.
		I²C2_SDA	I/O	MFP7	I²C2 data input/output pin.
		BPWM0_CH1	I/O	MFP9	BPWM0 channel 1 output/capture input.
		QEI1_INDEX	I	MFP10	Quadrature encoder 1 index input
		ECAP0_IC0	I	MFP11	Enhanced capture unit 0 input 0 pin.
		TM1_EXT	I/O	MFP13	Timer1 event counter input/toggle output pin.
		DAC0_ST	I	MFP14	DAC0 external trigger input.
10	15	PA.9	I/O	MFP0	General purpose digital I/O pin.
		OPA1_N	A	MFP1	Operational amplifier 1 negative input pin.
		EBI_MCLK	O	MFP2	EBI external clock output pin.
		SC2_DAT	I/O	MFP3	Smart Card 2 data pin.
		SPI2_MISO	I/O	MFP4	SPI2 MISO (Master In, Slave Out) pin.
		SD1_DAT1	I/O	MFP5	SD/SDIO1 data line bit 1.
		USCI0_DAT1	I/O	MFP6	USCI0 data 1 pin.
		UART1_TXD	O	MFP7	UART1 data transmitter output pin.
		BPWM0_CH2	I/O	MFP9	BPWM0 channel 2 output/capture input.
		QEI1_A	I	MFP10	Quadrature encoder 1 phase A input
		ECAP0_IC1	I	MFP11	Enhanced capture unit 0 input 1 pin.
		TM2_EXT	I/O	MFP13	Timer2 event counter input/toggle output pin.
11	16	PA.8	I/O	MFP0	General purpose digital I/O pin.
		OPA1_P	A	MFP1	Operational amplifier 1 positive input pin.
		EBI_ALE	O	MFP2	EBI address latch enable output pin.
		SC2_CLK	O	MFP3	Smart Card 2 clock pin.
		SPI2_MOSI	I/O	MFP4	SPI2 MOSI (Master Out, Slave In) pin.
		SD1_DAT0	I/O	MFP5	SD/SDIO1 data line bit 0.
		USCI0_CTL1	I/O	MFP6	USCI0 control 1 pin.
		UART1_RXD	I	MFP7	UART1 data receiver input pin.
		BPWM0_CH3	I/O	MFP9	BPWM0 channel 3 output/capture input.
		QEI1_B	I	MFP10	Quadrature encoder 1 phase B input
		ECAP0_IC2	I	MFP11	Enhanced capture unit 0 input 2 pin.
		TM3_EXT	I/O	MFP13	Timer3 event counter input/toggle output pin.
		INT4	I	MFP15	External interrupt 4 input pin.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
	17	PC.13	I/O	MFP0	General purpose digital I/O pin.
		EBI_ADR10	O	MFP2	EBI address bus bit 10.
		SC2_nCD	I	MFP3	Smart Card 2 card detect pin.
		SPI2_I2SMCLK	I/O	MFP4	SPI2 I^2S master clock output pin
		CAN1_TXD	O	MFP5	CAN1 bus transmitter output.
		USCI0_CTL0	I/O	MFP6	USCI0 control 0 pin.
		UART2_TXD	O	MFP7	UART2 data transmitter output pin.
		BPWM0_CH4	I/O	MFP9	BPWM0 channel 4 output/capture input.
		CLKO	O	MFP13	Clock Out
		EADC0_ST	I	MFP14	EADC0 external trigger input.
	18	PD.12	I/O	MFP0	General purpose digital I/O pin.
		OPA2_O	A	MFP1	Operational amplifier 2 output pin.
		EBI_nCS0	O	MFP2	EBI chip select 0 output pin.
		CAN1_RXD	I	MFP5	CAN1 bus receiver input.
		UART2_RXD	I	MFP7	UART2 data receiver input pin.
		BPWM0_CH5	I/O	MFP9	BPWM0 channel 5 output/capture input.
		QEI0_INDEX	I	MFP10	Quadrature encoder 0 index input
		CLKO	O	MFP13	Clock Out
		EADC0_ST	I	MFP14	EADC0 external trigger input.
		INT5	I	MFP15	External interrupt 5 input pin.
	19	PD.11	I/O	MFP0	General purpose digital I/O pin.
		OPA2_N	A	MFP1	Operational amplifier 2 negative input pin.
		EBI_nCS1	O	MFP2	EBI chip select 1 output pin.
		UART1_TXD	O	MFP3	UART1 data transmitter output pin.
		CAN0_TXD	O	MFP4	CAN0 bus transmitter output.
		QEI0_A	I	MFP10	Quadrature encoder 0 phase A input
		INT6	I	MFP15	External interrupt 6 input pin.
	20	PD.10	I/O	MFP0	General purpose digital I/O pin.
		OPA2_P	A	MFP1	Operational amplifier 2 positive input pin.
		EBI_nCS2	O	MFP2	EBI chip select 2 output pin.
		UART1_RXD	I	MFP3	UART1 data receiver input pin.
		CAN0_RXD	I	MFP4	CAN0 bus receiver input.
		QEI0_B	I	MFP10	Quadrature encoder 0 phase B input
		INT7	I	MFP15	External interrupt 7 input pin.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
	21	PG.2	I/O	MFP0	General purpose digital I/O pin.
		EBI_ADR11	O	MFP2	EBI address bus bit 11.
		SPI2_SS	I/O	MFP3	SPI2 slave select pin.
		I²C0_SMBAL	O	MFP4	I²C0 SMBus SMBALTER pin
		I²C1_SCL	I/O	MFP5	I²C1 clock pin.
		TM0	I/O	MFP13	Timer0 event counter input/toggle output pin.
	22	PG.3	I/O	MFP0	General purpose digital I/O pin.
		EBI_ADR12	O	MFP2	EBI address bus bit 12.
		SPI2_CLK	I/O	MFP3	SPI2 serial clock pin.
		I²C0_SMBSUS	O	MFP4	I²C0 SMBus SMBSUS pin (PMBus CONTROL pin)
		I²C1_SDA	I/O	MFP5	I²C1 data input/output pin.
		TM1	I/O	MFP13	Timer1 event counter input/toggle output pin.
	23	PG.4	I/O	MFP0	General purpose digital I/O pin.
		EBI_ADR13	O	MFP2	EBI address bus bit 13.
		SPI2_MISO	I/O	MFP3	SPI2 MISO (Master In, Slave Out) pin.
		TM2	I/O	MFP13	Timer2 event counter input/toggle output pin.
	24	PF.11	I/O	MFP0	General purpose digital I/O pin.
		EBI_ADR14	O	MFP2	EBI address bus bit 14.
		SPI2_MOSI	I/O	MFP3	SPI2 MOSI (Master Out, Slave In) pin.
		TAMPER5	I/O	MFP10	TAMPER detector loop pin 5.
		TM3	I/O	MFP13	Timer3 event counter input/toggle output pin.
	25	PF.10	I/O	MFP0	General purpose digital I/O pin.
		EBI_ADR15	O	MFP2	EBI address bus bit 15.
		SC0_nCD	I	MFP3	Smart Card 0 card detect pin.
		I²S0_BCLK	O	MFP4	I²S0 bit clock output pin.
		SPI0_I2SMCLK	I/O	MFP5	SPI0 I²S master clock output pin
		TAMPER4	I/O	MFP10	TAMPER detector loop pin 4.
	26	PF.9	I/O	MFP0	General purpose digital I/O pin.
		EBI_ADR16	O	MFP2	EBI address bus bit 16.
		SC0_PWR	O	MFP3	Smart Card 0 power pin.
		I²S0_MCLK	O	MFP4	I²S0 master clock output pin.
		SPI0_SS	I/O	MFP5	SPI0 slave select pin.
		TAMPER3	I/O	MFP10	TAMPER detector loop pin 3.
	27	PF.8	I/O	MFP0	General purpose digital I/O pin.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
		EBI_ADR17	O	MFP2	EBI address bus bit 17.
		SC0_RST	O	MFP3	Smart Card 0 reset pin.
		I²S0_DI	I	MFP4	I²S0 data input pin.
		SPI0_CLK	I/O	MFP5	SPI0 serial clock pin.
		TAMPER2	I/O	MFP10	TAMPER detector loop pin 2.
	28	PF.7	I/O	MFP0	General purpose digital I/O pin.
		EBI_ADR18	O	MFP2	EBI address bus bit 18.
		SC0_DAT	I/O	MFP3	Smart Card 0 data pin.
		I²S0_DO	O	MFP4	I²S0 data output pin.
		SPI0_MISO	I/O	MFP5	SPI0 MISO (Master In, Slave Out) pin.
		UART4_TXD	O	MFP6	UART4 data transmitter output pin.
		TAMPER1	I/O	MFP10	TAMPER detector loop pin 1.
12	29	PF.6	I/O	MFP0	General purpose digital I/O pin.
		EBI_ADR19	O	MFP2	EBI address bus bit 19.
		SC0_CLK	O	MFP3	Smart Card 0 clock pin.
		I²S0_LRCK	O	MFP4	I²S0 left right channel clock output pin.
		SPI0_MOSI	I/O	MFP5	SPI0 MOSI (Master Out, Slave In) pin.
		UART4_RXD	I	MFP6	UART4 data receiver input pin.
		EBI_nCS0	O	MFP7	EBI chip select 0 output pin.
		TAMPER0	I/O	MFP10	TAMPER detector loop pin 0.
13	30	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
14	31	PF.5	I/O	MFP0	General purpose digital I/O pin.
		UART2_RXD	I	MFP2	UART2 data receiver input pin.
		UART2_nCTS	I	MFP4	UART2 clear to Send input pin.
		BPWM0_CH4	I/O	MFP8	BPWM0 channel 4 output/capture input.
		EPWM0_SYNC_OUT	O	MFP9	EPWM0 counter synchronous trigger output pin.
		X32_IN	I	MFP10	External 32.768 kHz crystal input pin.
		EADC0_ST	I	MFP11	EADC0 external trigger input.
15	32	PF.4	I/O	MFP0	General purpose digital I/O pin.
		UART2_TXD	O	MFP2	UART2 data transmitter output pin.
		UART2_nRTS	O	MFP4	UART2 request to Send output pin.
		BPWM0_CH5	I/O	MFP8	BPWM0 channel 5 output/capture input.
		X32_OUT	O	MFP10	External 32.768 kHz crystal output pin.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
	33	PH.4	I/O	MFP0	General purpose digital I/O pin.
		EBI_ADR3	O	MFP2	EBI address bus bit 3.
		SPI1_MISO	I/O	MFP3	SPI1 MISO (Master In, Slave Out) pin.
	34	PH.5	I/O	MFP0	General purpose digital I/O pin.
		EBI_ADR2	O	MFP2	EBI address bus bit 2.
		SPI1_MOSI	I/O	MFP3	SPI1 MOSI (Master Out, Slave In) pin.
	35	PH.6	I/O	MFP0	General purpose digital I/O pin.
		EBI_ADR1	O	MFP2	EBI address bus bit 1.
		SPI1_CLK	I/O	MFP3	SPI1 serial clock pin.
	36	PH.7	I/O	MFP0	General purpose digital I/O pin.
		EBI_ADR0	O	MFP2	EBI address bus bit 0.
		SPI1_SS	I/O	MFP3	SPI1 slave select pin.
16	37	PF.3	I/O	MFP0	General purpose digital I/O pin.
		EBI_nCS0	O	MFP2	EBI chip select 0 output pin.
		UART0_TXD	O	MFP3	UART0 data transmitter output pin.
		I^2C0_SCL	I/O	MFP4	I^2C0 clock pin.
		XT1_IN	I	MFP10	External 4~24 MHz (high speed) crystal input pin.
		BPWM1_CH0	I/O	MFP11	BPWM1 channel 0 output/capture input.
17	38	PF.2	I/O	MFP0	General purpose digital I/O pin.
		EBI_nCS1	O	MFP2	EBI chip select 1 output pin.
		UART0_RXD	I	MFP3	UART0 data receiver input pin.
		I^2C0_SDA	I/O	MFP4	I^2C0 data input/output pin.
		QSPI0_CLK	I/O	MFP5	QSPI0 serial clock pin.
		XT1_OUT	O	MFP10	External 4~24 MHz (high speed) crystal output pin.
		BPWM1_CH1	I/O	MFP11	BPWM1 channel 1 output/capture input.
	39	V_{SS}	P	MFP0	Ground pin for digital circuit.
	40	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
	41	PE.8	I/O	MFP0	General purpose digital I/O pin.
		EBI_ADR10	O	MFP2	EBI address bus bit 10.
		I^2S0_BCLK	O	MFP4	I^2S0 bit clock output pin.
		SPI2_CLK	I/O	MFP5	SPI2 serial clock pin.
		USCI1_CTL1	I/O	MFP6	USCI1 control 1 pin.
		UART2_TXD	O	MFP7	UART2 data transmitter output pin.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
		EPWM0_CH0	I/O	MFP10	EPWM0 channel 0 output/capture input.
		EPWM0_BRAKE0	I	MFP11	EPWM0 Brake 0 input pin.
		ECAP0_IC0	I	MFP12	Enhanced capture unit 0 input 0 pin.
		TRACE_DATA3	O	MFP14	ETM Trace Data 3 output pin
	42	PE.9	I/O	MFP0	General purpose digital I/O pin.
		EBI_ADR11	O	MFP2	EBI address bus bit 11.
		I^2S0_MCLK	O	MFP4	I^2S0 master clock output pin.
		SPI2_MISO	I/O	MFP5	SPI2 MISO (Master In, Slave Out) pin.
		USCI1_CTL0	I/O	MFP6	USCI1 control 0 pin.
		UART2_RXD	I	MFP7	UART2 data receiver input pin.
		EPWM0_CH1	I/O	MFP10	EPWM0 channel 1 output/capture input.
		EPWM0_BRAKE1	I	MFP11	EPWM0 Brake 1 input pin.
		ECAP0_IC1	I	MFP12	Enhanced capture unit 0 input 1 pin.
		TRACE_DATA2	O	MFP14	ETM Trace Data 2 output pin
	43	PE.10	I/O	MFP0	General purpose digital I/O pin.
		EBI_ADR12	O	MFP2	EBI address bus bit 12.
		I^2S0_DI	I	MFP4	I^2S0 data input pin.
		SPI2_MOSI	I/O	MFP5	SPI2 MOSI (Master Out, Slave In) pin.
		USCI1_DAT0	I/O	MFP6	USCI1 data 0 pin.
		UART3_TXD	O	MFP7	UART3 data transmitter output pin.
		EPWM0_CH2	I/O	MFP10	EPWM0 channel 2 output/capture input.
		EPWM1_BRAKE0	I	MFP11	EPWM1 Brake 0 input pin.
		ECAP0_IC2	I	MFP12	Enhanced capture unit 0 input 2 pin.
		TRACE_DATA1	O	MFP14	ETM Trace Data 1 output pin
	44	PE.11	I/O	MFP0	General purpose digital I/O pin.
		EBI_ADR13	O	MFP2	EBI address bus bit 13.
		I^2S0_DO	O	MFP4	I^2S0 data output pin.
		SPI2_SS	I/O	MFP5	SPI2 slave select pin.
		USCI1_DAT1	I/O	MFP6	USCI1 data 1 pin.
		UART3_RXD	I	MFP7	UART3 data receiver input pin.
		UART1_nCTS	I	MFP8	UART1 clear to Send input pin.
		EPWM0_CH3	I/O	MFP10	EPWM0 channel 3 output/capture input.
		EPWM1_BRAKE1	I	MFP11	EPWM1 Brake 1 input pin.
		ECAP1_IC2	I	MFP13	Enhanced capture unit 1 input 2 pin.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
		TRACE_DATA0	O	MFP14	ETM Trace Data 0 output pin
	45	PE.12	I/O	MFP0	General purpose digital I/O pin.
		EBI_ADR14	O	MFP2	EBI address bus bit 14.
		I²S0_LRCK	O	MFP4	I²S0 left right channel clock output pin.
		SPI2_I2SMCLK	I/O	MFP5	SPI2 I²S master clock output pin
		USCI1_CLK	I/O	MFP6	USCI1 clock pin.
		UART1_nRTS	O	MFP8	UART1 request to Send output pin.
		EPWM0_CH4	I/O	MFP10	EPWM0 channel 4 output/capture input.
		ECAP1_IC1	I	MFP13	Enhanced capture unit 1 input 1 pin.
		TRACE_CLK	O	MFP14	ETM Trace Clock output pin
	46	PE.13	I/O	MFP0	General purpose digital I/O pin.
		EBI_ADR15	O	MFP2	EBI address bus bit 15.
		I²C0_SCL	I/O	MFP4	I²C0 clock pin.
		UART4_nRTS	O	MFP5	UART4 request to Send output pin.
		UART1_TXD	O	MFP8	UART1 data transmitter output pin.
		EPWM0_CH5	I/O	MFP10	EPWM0 channel 5 output/capture input.
		EPWM1_CH0	I/O	MFP11	EPWM1 channel 0 output/capture input.
		BPWM1_CH5	I/O	MFP12	BPWM1 channel 5 output/capture input.
		ECAP1_IC0	I	MFP13	Enhanced capture unit 1 input 0 pin.
	47	PC.8	I/O	MFP0	General purpose digital I/O pin.
		EBI_ADR16	O	MFP2	EBI address bus bit 16.
		I²C0_SDA	I/O	MFP4	I²C0 data input/output pin.
		UART4_nCTS	I	MFP5	UART4 clear to Send input pin.
		UART1_RXD	I	MFP8	UART1 data receiver input pin.
		EPWM1_CH1	I/O	MFP11	EPWM1 channel 1 output/capture input.
		BPWM1_CH4	I/O	MFP12	BPWM1 channel 4 output/capture input.
18	48	PC.7	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD9	I/O	MFP2	EBI address/data bus bit 9.
		SPI1_MISO	I/O	MFP4	SPI1 MISO (Master In, Slave Out) pin.
		UART4_TXD	O	MFP5	UART4 data transmitter output pin.
		SC2_PWR	O	MFP6	Smart Card 2 power pin.
		UART0_nCTS	I	MFP7	UART0 clear to Send input pin.
		I²C1_SMBAL	O	MFP8	I²C1 SMBus SMBALTER pin
		EPWM1_CH2	I/O	MFP11	EPWM1 channel 2 output/capture input.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
		BPWM1_CH0	I/O	MFP12	BPWM1 channel 0 output/capture input.
		TM0	I/O	MFP14	Timer0 event counter input/toggle output pin.
		INT3	I	MFP15	External interrupt 3 input pin.
19	49	PC.6	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD8	I/O	MFP2	EBI address/data bus bit 8.
		SPI1_MOSI	I/O	MFP4	SPI1 MOSI (Master Out, Slave In) pin.
		UART4_RXD	I	MFP5	UART4 data receiver input pin.
		SC2_RST	O	MFP6	Smart Card 2 reset pin.
		UART0_nRTS	O	MFP7	UART0 request to Send output pin.
		I^2C1_SMBSUS	O	MFP8	I^2C1 SMBus SMBSUS pin (PMBus CONTROL pin)
		EPWM1_CH3	I/O	MFP11	EPWM1 channel 3 output/capture input.
		BPWM1_CH1	I/O	MFP12	BPWM1 channel 1 output/capture input.
		TM1	I/O	MFP14	Timer1 event counter input/toggle output pin.
		INT2	I	MFP15	External interrupt 2 input pin.
20	50	PA.7	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD7	I/O	MFP2	EBI address/data bus bit 7.
		SPI1_CLK	I/O	MFP4	SPI1 serial clock pin.
		SC2_DAT	I/O	MFP6	Smart Card 2 data pin.
		UART0_TXD	O	MFP7	UART0 data transmitter output pin.
		I^2C1_SCL	I/O	MFP8	I^2C1 clock pin.
		EPWM1_CH4	I/O	MFP11	EPWM1 channel 4 output/capture input.
		BPWM1_CH2	I/O	MFP12	BPWM1 channel 2 output/capture input.
		ACMP0_WLAT	I	MFP13	Analog comparator 0 window latch input pin
		TM2	I/O	MFP14	Timer2 event counter input/toggle output pin.
		INT1	I	MFP15	External interrupt 1 input pin.
21	51	PA.6	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD6	I/O	MFP2	EBI address/data bus bit 6.
		SPI1_SS	I/O	MFP4	SPI1 slave select pin.
		SD1_nCD	I	MFP5	SD/SDIO1 card detect input pin
		SC2_CLK	O	MFP6	Smart Card 2 clock pin.
		UART0_RXD	I	MFP7	UART0 data receiver input pin.
		I^2C1_SDA	I/O	MFP8	I^2C1 data input/output pin.
		EPWM1_CH5	I/O	MFP11	EPWM1 channel 5 output/capture input.
		BPWM1_CH3	I/O	MFP12	BPWM1 channel 3 output/capture input.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
		ACMP1_WLAT	I	MFP13	Analog comparator 1 window latch input pin
		TM3	I/O	MFP14	Timer3 event counter input/toggle output pin.
		INT0	I	MFP15	External interrupt 0 input pin.
22	52	V_{SS}	P	MFP0	Ground pin for digital circuit.
23	53	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
24	54	LDO_CAP	A	MFP0	LDO output pin. **Note:** This pin needs to be connected with an external capacitor.
25	55	PA.5	I/O	MFP0	General purpose digital I/O pin.
		SPIM_D2	I/O	MFP2	SPIM data 2 pin for Quad Mode I/O.
		QSPI0_MISO1	I/O	MFP3	QSPI0 MISO1 (Master In, Slave Out) pin.
		SPI1_I2SMCLK	I/O	MFP4	SPI1 I^2S master clock output pin
		SD1_CMD	I/O	MFP5	SD/SDIO1 command/response pin
		SC2_nCD	I	MFP6	Smart Card 2 card detect pin.
		UART0_nCTS	I	MFP7	UART0 clear to Send input pin.
		UART5_TXD	O	MFP8	UART5 data transmitter output pin.
		I^2C0_SCL	I/O	MFP9	I^2C0 clock pin.
		CAN0_TXD	O	MFP10	CAN0 bus transmitter output.
		BPWM0_CH5	I/O	MFP12	BPWM0 channel 5 output/capture input.
		EPWM0_CH0	I/O	MFP13	EPWM0 channel 0 output/capture input.
		QEI0_INDEX	I	MFP14	Quadrature encoder 0 index input
26	56	PA.4	I/O	MFP0	General purpose digital I/O pin.
		SPIM_D3	I/O	MFP2	SPIM data 3 pin for Quad Mode I/O.
		QSPI0_MOSI1	I/O	MFP3	QSPI0 MOSI1 (Master Out, Slave In) pin.
		SPI0_I2SMCLK	I/O	MFP4	SPI0 I^2S master clock output pin
		SD1_CLK	O	MFP5	SD/SDIO1 clock output pin
		SC0_nCD	I	MFP6	Smart Card 0 card detect pin.
		UART0_nRTS	O	MFP7	UART0 request to Send output pin.
		UART5_RXD	I	MFP8	UART5 data receiver input pin.
		I^2C0_SDA	I/O	MFP9	I^2C0 data input/output pin.
		CAN0_RXD	I	MFP10	CAN0 bus receiver input.
		BPWM0_CH4	I/O	MFP12	BPWM0 channel 4 output/capture input.
		EPWM0_CH1	I/O	MFP13	EPWM0 channel 1 output/capture input.
		QEI0_A	I	MFP14	Quadrature encoder 0 phase A input
27	57	PA.3	I/O	MFP0	General purpose digital I/O pin.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
		SPIM_SS	I/O	MFP2	SPIM slave select pin.
		QSPI0_SS	I/O	MFP3	QSPI0 slave select pin.
		SPI0_SS	I/O	MFP4	SPI0 slave select pin.
		SD1_DAT3	I/O	MFP5	SD/SDIO1 data line bit 3.
		SC0_PWR	O	MFP6	Smart Card 0 power pin.
		UART4_TXD	O	MFP7	UART4 data transmitter output pin.
		UART1_TXD	O	MFP8	UART1 data transmitter output pin.
		I^2C1_SCL	I/O	MFP9	I^2C1 clock pin.
		BPWM0_CH3	I/O	MFP12	BPWM0 channel 3 output/capture input.
		EPWM0_CH2	I/O	MFP13	EPWM0 channel 2 output/capture input.
		QEI0_B	I	MFP14	Quadrature encoder 0 phase B input
28	58	PA.2	I/O	MFP0	General purpose digital I/O pin.
		SPIM_CLK	I/O	MFP2	SPIM serial clock pin.
		QSPI0_CLK	I/O	MFP3	QSPI0 serial clock pin.
		SPI0_CLK	I/O	MFP4	SPI0 serial clock pin.
		SD1_DAT2	I/O	MFP5	SD/SDIO1 data line bit 2.
		SC0_RST	O	MFP6	Smart Card 0 reset pin.
		UART4_RXD	I	MFP7	UART4 data receiver input pin.
		UART1_RXD	I	MFP8	UART1 data receiver input pin.
		I^2C1_SDA	I/O	MFP9	I^2C1 data input/output pin.
		BPWM0_CH2	I/O	MFP12	BPWM0 channel 2 output/capture input.
		EPWM0_CH3	I/O	MFP13	EPWM0 channel 3 output/capture input.
29	59	PA.1	I/O	MFP0	General purpose digital I/O pin.
		SPIM_MISO	I/O	MFP2	SPIM MISO (Master In, Slave Out) pin.
		QSPI0_MISO0	I/O	MFP3	QSPI0 MISO0 (Master In, Slave Out) pin.
		SPI0_MISO	I/O	MFP4	SPI0 MISO (Master In, Slave Out) pin.
		SD1_DAT1	I/O	MFP5	SD/SDIO1 data line bit 1.
		SC0_DAT	I/O	MFP6	Smart Card 0 data pin.
		UART0_TXD	O	MFP7	UART0 data transmitter output pin.
		UART1_nCTS	I	MFP8	UART1 clear to Send input pin.
		I^2C2_SCL	I/O	MFP9	I^2C2 clock pin.
		BPWM0_CH1	I/O	MFP12	BPWM0 channel 1 output/capture input.
		EPWM0_CH4	I/O	MFP13	EPWM0 channel 4 output/capture input.
		DAC1_ST	I	MFP15	DAC1 external trigger input.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
30	60	PA.0	I/O	MFP0	General purpose digital I/O pin.
		SPIM_MOSI	I/O	MFP2	SPIM MOSI (Master Out, Slave In) pin.
		QSPI0_MOSI0	I/O	MFP3	QSPI0 MOSI0 (Master Out, Slave In) pin.
		SPI0_MOSI	I/O	MFP4	SPI0 MOSI (Master Out, Slave In) pin.
		SD1_DAT0	I/O	MFP5	SD/SDIO1 data line bit 0.
		SC0_CLK	O	MFP6	Smart Card 0 clock pin.
		UART0_RXD	I	MFP7	UART0 data receiver input pin.
		UART1_nRTS	O	MFP8	UART1 request to Send output pin.
		I^2C2_SDA	I/O	MFP9	I^2C2 data input/output pin.
		BPWM0_CH0	I/O	MFP12	BPWM0 channel 0 output/capture input.
		EPWM0_CH5	I/O	MFP13	EPWM0 channel 5 output/capture input.
		DAC0_ST	I	MFP15	DAC0 external trigger input.
31	61	V_{DDIO}	P	MFP0	Power supply for PA.0~PA.5.
	62	PE.14	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD8	I/O	MFP2	EBI address/data bus bit 8.
		UART2_TXD	O	MFP3	UART2 data transmitter output pin.
		CAN0_TXD	O	MFP4	CAN0 bus transmitter output.
		SD1_nCD	I	MFP5	SD/SDIO1 card detect input pin
	63	PE.15	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD9	I/O	MFP2	EBI address/data bus bit 9.
		UART2_RXD	I	MFP3	UART2 data receiver input pin.
		CAN0_RXD	I	MFP4	CAN0 bus receiver input.
32	64	nRESET	I	MFP0	External reset input: active LOW, with an internal pull-up. Set this pin low reset to initial state. **Note:** It is recommended to use 10 kΩ pull-up resistor and 10 uF capacitor on nRESET pin.
33	65	PF.0	I/O	MFP0	General purpose digital I/O pin.
		UART1_TXD	O	MFP2	UART1 data transmitter output pin.
		I^2C1_SCL	I/O	MFP3	I^2C1 clock pin.
		BPWM1_CH0	I/O	MFP12	BPWM1 channel 0 output/capture input.
		ICE_DAT	O	MFP14	Serial wired debugger data pin. **Note:** It is recommended to use 100 kΩ pull-up resistor on ICE_DAT pin.
34	66	PF.1	I/O	MFP0	General purpose digital I/O pin.
		UART1_RXD	I	MFP2	UART1 data receiver input pin.
		I^2C1_SDA	I/O	MFP3	I^2C1 data input/output pin.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
		BPWM1_CH1	I/O	MFP12	BPWM1 channel 1 output/capture input.
		ICE_CLK	I	MFP14	Serial wired debugger clock pin. **Note:** It is recommended to use 100 kΩ pull-up resistor on ICE_CLK pin.
	67	PD.9	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD7	I/O	MFP2	EBI address/data bus bit 7.
		I^2C2_SCL	I/O	MFP3	I^2C2 clock pin.
		UART2_nCTS	I	MFP4	UART2 clear to Send input pin.
	68	PD.8	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD6	I/O	MFP2	EBI address/data bus bit 6.
		I^2C2_SDA	I/O	MFP3	I^2C2 data input/output pin.
		UART2_nRTS	O	MFP4	UART2 request to Send output pin.
35	69	PC.5	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD5	I/O	MFP2	EBI address/data bus bit 5.
		SPIM_D2	I/O	MFP3	SPIM data 2 pin for Quad Mode I/O.
		QSPI0_MISO1	I/O	MFP4	QSPI0 MISO1 (Master In, Slave Out) pin.
		UART2_TXD	O	MFP8	UART2 data transmitter output pin.
		I^2C1_SCL	I/O	MFP9	I^2C1 clock pin.
		CAN0_TXD	O	MFP10	CAN0 bus transmitter output.
		UART4_TXD	O	MFP11	UART4 data transmitter output pin.
		EPWM1_CH0	I/O	MFP12	EPWM1 channel 0 output/capture input.
36	70	PC.4	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD4	I/O	MFP2	EBI address/data bus bit 4.
		SPIM_D3	I/O	MFP3	SPIM data 3 pin for Quad Mode I/O.
		QSPI0_MOSI1	I/O	MFP4	QSPI0 MOSI1 (Master Out, Slave In) pin.
		SC1_nCD	I	MFP5	Smart Card 1 card detect pin.
		I^2S0_BCLK	O	MFP6	I^2S0 bit clock output pin.
		SPI1_I2SMCLK	I/O	MFP7	SPI1 I^2S master clock output pin
		UART2_RXD	I	MFP8	UART2 data receiver input pin.
		I^2C1_SDA	I/O	MFP9	I^2C1 data input/output pin.
		CAN0_RXD	I	MFP10	CAN0 bus receiver input.
		UART4_RXD	I	MFP11	UART4 data receiver input pin.
		EPWM1_CH1	I/O	MFP12	EPWM1 channel 1 output/capture input.
37	71	PC.3	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD3	I/O	MFP2	EBI address/data bus bit 3.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
		SPIM_SS	I/O	MFP3	SPIM slave select pin.
		QSPI0_SS	I/O	MFP4	QSPI0 slave select pin.
		SC1_PWR	O	MFP5	Smart Card 1 power pin.
		I²S0_MCLK	O	MFP6	I²S0 master clock output pin.
		SPI1_MISO	I/O	MFP7	SPI1 MISO (Master In, Slave Out) pin.
		UART2_nRTS	O	MFP8	UART2 request to Send output pin.
		I²C0_SMBAL	O	MFP9	I²C0 SMBus SMBALTER pin
		CAN1_TXD	O	MFP10	CAN1 bus transmitter output.
		UART3_TXD	O	MFP11	UART3 data transmitter output pin.
		EPWM1_CH2	I/O	MFP12	EPWM1 channel 2 output/capture input.
38	72	PC.2	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD2	I/O	MFP2	EBI address/data bus bit 2.
		SPIM_CLK	I/O	MFP3	SPIM serial clock pin.
		QSPI0_CLK	I/O	MFP4	QSPI0 serial clock pin.
		SC1_RST	O	MFP5	Smart Card 1 reset pin.
		I²S0_DI	I	MFP6	I²S0 data input pin.
		SPI1_MOSI	I/O	MFP7	SPI1 MOSI (Master Out, Slave In) pin.
		UART2_nCTS	I	MFP8	UART2 clear to Send input pin.
		I²C0_SMBSUS	O	MFP9	I²C0 SMBus SMBSUS pin (PMBus CONTROL pin)
		CAN1_RXD	I	MFP10	CAN1 bus receiver input.
		UART3_RXD	I	MFP11	UART3 data receiver input pin.
		EPWM1_CH3	I/O	MFP12	EPWM1 channel 3 output/capture input.
39	73	PC.1	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD1	I/O	MFP2	EBI address/data bus bit 1.
		SPIM_MISO	I/O	MFP3	SPIM MISO (Master In, Slave Out) pin.
		QSPI0_MISO0	I/O	MFP4	QSPI0 MISO0 (Master In, Slave Out) pin.
		SC1_DAT	I/O	MFP5	Smart Card 1 data pin.
		I²S0_DO	O	MFP6	I²S0 data output pin.
		SPI1_CLK	I/O	MFP7	SPI1 serial clock pin.
		UART2_TXD	O	MFP8	UART2 data transmitter output pin.
		I²C0_SCL	I/O	MFP9	I²C0 clock pin.
		EPWM1_CH4	I/O	MFP12	EPWM1 channel 4 output/capture input.
		ACMP0_O	O	MFP14	Analog comparator 0 output pin.
40	74	PC.0	I/O	MFP0	General purpose digital I/O pin.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
		EBI_AD0	I/O	MFP2	EBI address/data bus bit 0.
		SPIM_MOSI	I/O	MFP3	SPIM MOSI (Master Out, Slave In) pin.
		QSPI0_MOSI0	I/O	MFP4	QSPI0 MOSI0 (Master Out, Slave In) pin.
		SC1_CLK	O	MFP5	Smart Card 1 clock pin.
		I^2S0_LRCK	O	MFP6	I^2S0 left right channel clock output pin.
		SPI1_SS	I/O	MFP7	SPI1 slave select pin.
		UART2_RXD	I	MFP8	UART2 data receiver input pin.
		I^2C0_SDA	I/O	MFP9	I^2C0 data input/output pin.
		EPWM1_CH5	I/O	MFP12	EPWM1 channel 5 output/capture input.
		ACMP1_O	O	MFP14	Analog comparator 1 output pin.
	75	V_{SS}	P	MFP0	Ground pin for digital circuit.
	76	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
	77	PG.9	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD0	I/O	MFP2	EBI address/data bus bit 0.
		SD1_DAT3	I/O	MFP3	SD/SDIO1 data line bit 3.
		SPIM_D2	I/O	MFP4	SPIM data 2 pin for Quad Mode I/O.
		BPWM0_CH5	I/O	MFP12	BPWM0 channel 5 output/capture input.
	78	PG.10	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD1	I/O	MFP2	EBI address/data bus bit 1.
		SD1_DAT2	I/O	MFP3	SD/SDIO1 data line bit 2.
		SPIM_D3	I/O	MFP4	SPIM data 3 pin for Quad Mode I/O.
		BPWM0_CH4	I/O	MFP12	BPWM0 channel 4 output/capture input.
	79	PG.11	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD2	I/O	MFP2	EBI address/data bus bit 2.
		SD1_DAT1	I/O	MFP3	SD/SDIO1 data line bit 1.
		SPIM_SS	I/O	MFP4	SPIM slave select pin.
		BPWM0_CH3	I/O	MFP12	BPWM0 channel 3 output/capture input.
	80	PG.12	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD3	I/O	MFP2	EBI address/data bus bit 3.
		SD1_DAT0	I/O	MFP3	SD/SDIO1 data line bit 0.
		SPIM_CLK	I/O	MFP4	SPIM serial clock pin.
		BPWM0_CH2	I/O	MFP12	BPWM0 channel 2 output/capture input.
	81	PG.13	I/O	MFP0	General purpose digital I/O pin.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
		EBI_AD4	I/O	MFP2	EBI address/data bus bit 4.
		SD1_CMD	I/O	MFP3	SD/SDIO1 command/response pin
		SPIM_MISO	I/O	MFP4	SPIM MISO (Master In, Slave Out) pin.
		BPWM0_CH1	I/O	MFP12	BPWM0 channel 1 output/capture input.
	82	PG.14	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD5	I/O	MFP2	EBI address/data bus bit 5.
		SD1_CLK	O	MFP3	SD/SDIO1 clock output pin
		SPIM_MOSI	I/O	MFP4	SPIM MOSI (Master Out, Slave In) pin.
		BPWM0_CH0	I/O	MFP12	BPWM0 channel 0 output/capture input.
	83	PG.15	I/O	MFP0	General purpose digital I/O pin.
		SD1_nCD	I	MFP3	SD/SDIO1 card detect input pin
		CLKO	O	MFP14	Clock Out
		EADC0_ST	I	MFP15	EADC0 external trigger input.
	84	PD.13	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD10	I/O	MFP2	EBI address/data bus bit 10.
		SD0_nCD	I	MFP3	SD/SDIO0 card detect input pin
		SPI0_I2SMCLK	I/O	MFP4	SPI0 I^2S master clock output pin
		SPI1_I2SMCLK	I/O	MFP5	SPI1 I^2S master clock output pin
		SC2_nCD	I	MFP7	Smart Card 2 card detect pin.
	85	PA.12	I/O	MFP0	General purpose digital I/O pin.
		I^2S0_BCLK	O	MFP2	I^2S0 bit clock output pin.
		UART4_TXD	O	MFP3	UART4 data transmitter output pin.
		I^2C1_SCL	I/O	MFP4	I^2C1 clock pin.
		SPI2_SS	I/O	MFP5	SPI2 slave select pin.
		CAN0_TXD	O	MFP6	CAN0 bus transmitter output.
		SC2_PWR	O	MFP7	Smart Card 2 power pin.
		BPWM1_CH2	I/O	MFP11	BPWM1 channel 2 output/capture input.
		QEI1_INDEX	I	MFP12	Quadrature encoder 1 index input
		USB_VBUS	P	MFP14	Power supply from USB host or HUB.
	86	PA.13	I/O	MFP0	General purpose digital I/O pin.
		I^2S0_MCLK	O	MFP2	I^2S0 master clock output pin.
		UART4_RXD	I	MFP3	UART4 data receiver input pin.
		I^2C1_SDA	I/O	MFP4	I^2C1 data input/output pin.
		SPI2_CLK	I/O	MFP5	SPI2 serial clock pin.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
		CAN0_RXD	I	MFP6	CAN0 bus receiver input.
		SC2_RST	O	MFP7	Smart Card 2 reset pin.
		BPWM1_CH3	I/O	MFP11	BPWM1 channel 3 output/capture input.
		QEI1_A	I	MFP12	Quadrature encoder 1 phase A input
		USB_D-	A	MFP14	USB differential signal D-.
	87	PA.14	I/O	MFP0	General purpose digital I/O pin.
		I^2S0_DI	I	MFP2	I^2S0 data input pin.
		UART0_TXD	O	MFP3	UART0 data transmitter output pin.
		SPI2_MISO	I/O	MFP5	SPI2 MISO (Master In, Slave Out) pin.
		I^2C2_SCL	I/O	MFP6	I^2C2 clock pin.
		SC2_DAT	I/O	MFP7	Smart Card 2 data pin.
		BPWM1_CH4	I/O	MFP11	BPWM1 channel 4 output/capture input.
		QEI1_B	I	MFP12	Quadrature encoder 1 phase B input
		USB_D+	A	MFP14	USB differential signal D+.
	88	PA.15	I/O	MFP0	General purpose digital I/O pin.
		I^2S0_DO	O	MFP2	I^2S0 data output pin.
		UART0_RXD	I	MFP3	UART0 data receiver input pin.
		SPI2_MOSI	I/O	MFP5	SPI2 MOSI (Master Out, Slave In) pin.
		I^2C2_SDA	I/O	MFP6	I^2C2 data input/output pin.
		SC2_CLK	O	MFP7	Smart Card 2 clock pin.
		BPWM1_CH5	I/O	MFP11	BPWM1 channel 5 output/capture input.
		EPWM0_SYNC_IN	I	MFP12	EPWM0 counter synchronous trigger input pin.
		USB_OTG_ID	I	MFP14	USB_ identification.
41	89	HSUSB_VRES	A	MFP0	HSUSB module reference resister
42	90	$HSUSB\_V_{DD33}$	P	MFP0	Power supply for HSUSB V_{DD33}
43	91	HSUSB_VBUS	P	MFP0	HSUSB Power supply from USB host or HUB.
44	92	HSUSB_D-	A	MFP0	HSUSB differential signal D-.
45	93	HSUSB_VSS	P	MFP0	Ground pin for HSUSB.
46	94	HSUSB_D+	A	MFP0	HSUSB differential signal D+.
47	95	$HSUSB\_V_{DD12}\_CAP$	A	MFP0	HSUSB Internal power regulator output 1.2V decoupling pin. **Note:** This pin needs to be connected with a 1uF capacitor.
48	96	HSUSB_ID	I	MFP0	HSUSB identification.
	97	PE.7	I/O	MFP0	General purpose digital I/O pin.
		SD0_CMD	I/O	MFP3	SD/SDIO0 command/response pin

64 Pin	128 Pin	Pin Name	Type	MFP	Description
		SPIM_D2	I/O	MFP4	SPIM data 2 pin for Quad Mode I/O.
		UART5_TXD	O	MFP8	UART5 data transmitter output pin.
		CAN1_TXD	O	MFP9	CAN1 bus transmitter output.
		QEI1_INDEX	I	MFP11	Quadrature encoder 1 index input
		EPWM0_CH0	I/O	MFP12	EPWM0 channel 0 output/capture input.
		BPWM0_CH5	I/O	MFP13	BPWM0 channel 5 output/capture input.
	98	PE.6	I/O	MFP0	General purpose digital I/O pin.
		SD0_CLK	O	MFP3	SD/SDIO0 clock output pin
		SPIM_D3	I/O	MFP4	SPIM data 3 pin for Quad Mode I/O.
		SPI3_I2SMCLK	I/O	MFP5	SPI3 I^2S master clock output pin
		SC0_nCD	I	MFP6	Smart Card 0 card detect pin.
		USCI0_CTL0	I/O	MFP7	USCI0 control 0 pin.
		UART5_RXD	I	MFP8	UART5 data receiver input pin.
		CAN1_RXD	I	MFP9	CAN1 bus receiver input.
		QEI1_A	I	MFP11	Quadrature encoder 1 phase A input
		EPWM0_CH1	I/O	MFP12	EPWM0 channel 1 output/capture input.
		BPWM0_CH4	I/O	MFP13	BPWM0 channel 4 output/capture input.
	99	PE.5	I/O	MFP0	General purpose digital I/O pin.
		EBI_nRD	O	MFP2	EBI read enable output pin.
		SD0_DAT3	I/O	MFP3	SD/SDIO0 data line bit 3.
		SPIM_SS	I/O	MFP4	SPIM slave select pin.
		SPI3_SS	I/O	MFP5	SPI3 slave select pin.
		SC0_PWR	O	MFP6	Smart Card 0 power pin.
		USCI0_CTL1	I/O	MFP7	USCI0 control 1 pin.
		QEI1_B	I	MFP11	Quadrature encoder 1 phase B input
		EPWM0_CH2	I/O	MFP12	EPWM0 channel 2 output/capture input.
		BPWM0_CH3	I/O	MFP13	BPWM0 channel 3 output/capture input.
	100	PE.4	I/O	MFP0	General purpose digital I/O pin.
		EBI_nWR	O	MFP2	EBI write enable output pin.
		SD0_DAT2	I/O	MFP3	SD/SDIO0 data line bit 2.
		SPIM_CLK	I/O	MFP4	SPIM serial clock pin.
		SPI3_CLK	I/O	MFP5	SPI3 serial clock pin.
		SC0_RST	O	MFP6	Smart Card 0 reset pin.
		USCI0_DAT1	I/O	MFP7	USCI0 data 1 pin.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
		QEI0_INDEX	I	MFP11	Quadrature encoder 0 index input
		EPWM0_CH3	I/O	MFP12	EPWM0 channel 3 output/capture input.
		BPWM0_CH2	I/O	MFP13	BPWM0 channel 2 output/capture input.
	101	PE.3	I/O	MFP0	General purpose digital I/O pin.
		EBI_MCLK	O	MFP2	EBI external clock output pin.
		SD0_DAT1	I/O	MFP3	SD/SDIO0 data line bit 1.
		SPIM_MISO	I/O	MFP4	SPIM MISO (Master In, Slave Out) pin.
		SPI3_MISO	I/O	MFP5	SPI3 MISO (Master In, Slave Out) pin.
		SC0_DAT	I/O	MFP6	Smart Card 0 data pin.
		USCI0_DAT0	I/O	MFP7	USCI0 data 0 pin.
		QEI0_A	I	MFP11	Quadrature encoder 0 phase A input
		EPWM0_CH4	I/O	MFP12	EPWM0 channel 4 output/capture input.
		BPWM0_CH1	I/O	MFP13	BPWM0 channel 1 output/capture input.
	102	PE.2	I/O	MFP0	General purpose digital I/O pin.
		EBI_ALE	O	MFP2	EBI address latch enable output pin.
		SD0_DAT0	I/O	MFP3	SD/SDIO0 data line bit 0.
		SPIM_MOSI	I/O	MFP4	SPIM MOSI (Master Out, Slave In) pin.
		SPI3_MOSI	I/O	MFP5	SPI3 MOSI (Master Out, Slave In) pin.
		SC0_CLK	O	MFP6	Smart Card 0 clock pin.
		USCI0_CLK	I/O	MFP7	USCI0 clock pin.
		QEI0_B	I	MFP11	Quadrature encoder 0 phase B input
		EPWM0_CH5	I/O	MFP12	EPWM0 channel 5 output/capture input.
		BPWM0_CH0	I/O	MFP13	BPWM0 channel 0 output/capture input.
	103	V_{SS}	P	MFP0	Ground pin for digital circuit.
	104	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
	105	PE.1	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD10	I/O	MFP2	EBI address/data bus bit 10.
		QSPI0_MISO0	I/O	MFP3	QSPI0 MISO0 (Master In, Slave Out) pin.
		SC2_DAT	I/O	MFP4	Smart Card 2 data pin.
		I^2S0_BCLK	O	MFP5	I^2S0 bit clock output pin.
		SPI1_MISO	I/O	MFP6	SPI1 MISO (Master In, Slave Out) pin.
		UART3_TXD	O	MFP7	UART3 data transmitter output pin.
		I^2C1_SCL	I/O	MFP8	I^2C1 clock pin.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
		UART4_nCTS	I	MFP9	UART4 clear to Send input pin.
	106	PE.0	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD11	I/O	MFP2	EBI address/data bus bit 11.
		QSPI0_MOSI0	I/O	MFP3	QSPI0 MOSI0 (Master Out, Slave In) pin.
		SC2_CLK	O	MFP4	Smart Card 2 clock pin.
		I^2S0_MCLK	O	MFP5	I^2S0 master clock output pin.
		SPI1_MOSI	I/O	MFP6	SPI1 MOSI (Master Out, Slave In) pin.
		UART3_RXD	I	MFP7	UART3 data receiver input pin.
		I^2C1_SDA	I/O	MFP8	I^2C1 data input/output pin.
		UART4_nRTS	O	MFP9	UART4 request to Send output pin.
	107	PH.8	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD12	I/O	MFP2	EBI address/data bus bit 12.
		QSPI0_CLK	I/O	MFP3	QSPI0 serial clock pin.
		SC2_PWR	O	MFP4	Smart Card 2 power pin.
		I^2S0_DI	I	MFP5	I^2S0 data input pin.
		SPI1_CLK	I/O	MFP6	SPI1 serial clock pin.
		UART3_nRTS	O	MFP7	UART3 request to Send output pin.
		I^2C1_SMBAL	O	MFP8	I^2C1 SMBus SMBALTER pin
		I^2C2_SCL	I/O	MFP9	I^2C2 clock pin.
		UART1_TXD	O	MFP10	UART1 data transmitter output pin.
	108	PH.9	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD13	I/O	MFP2	EBI address/data bus bit 13.
		QSPI0_SS	I/O	MFP3	QSPI0 slave select pin.
		SC2_RST	O	MFP4	Smart Card 2 reset pin.
		I^2S0_DO	O	MFP5	I^2S0 data output pin.
		SPI1_SS	I/O	MFP6	SPI1 slave select pin.
		UART3_nCTS	I	MFP7	UART3 clear to Send input pin.
		I^2C1_SMBSUS	O	MFP8	I^2C1 SMBus SMBSUS pin (PMBus CONTROL pin)
		I^2C2_SDA	I/O	MFP9	I^2C2 data input/output pin.
		UART1_RXD	I	MFP10	UART1 data receiver input pin.
	109	PH.10	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD14	I/O	MFP2	EBI address/data bus bit 14.
		QSPI0_MISO1	I/O	MFP3	QSPI0 MISO1 (Master In, Slave Out) pin.
		SC2_nCD	I	MFP4	Smart Card 2 card detect pin.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
		I²S0_LRCK	O	MFP5	I²S0 left right channel clock output pin.
		SPI1_I2SMCLK	I/O	MFP6	SPI1 I²S master clock output pin
		UART4_TXD	O	MFP7	UART4 data transmitter output pin.
		UART0_TXD	O	MFP8	UART0 data transmitter output pin.
	110	PH.11	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD15	I/O	MFP2	EBI address/data bus bit 15.
		QSPI0_MOSI1	I/O	MFP3	QSPI0 MOSI1 (Master Out, Slave In) pin.
		UART4_RXD	I	MFP7	UART4 data receiver input pin.
		UART0_RXD	I	MFP8	UART0 data receiver input pin.
		EPWM0_CH5	I/O	MFP11	EPWM0 channel 5 output/capture input.
	111	PD.14	I/O	MFP0	General purpose digital I/O pin.
		EBI_nCS0	O	MFP2	EBI chip select 0 output pin.
		SPI3_I2SMCLK	I/O	MFP3	SPI3 I²S master clock output pin
		SC1_nCD	I	MFP4	Smart Card 1 card detect pin.
		EPWM0_CH4	I/O	MFP11	EPWM0 channel 4 output/capture input.
49	112	V_{SS}	P	MFP0	Ground pin for digital circuit.
50	113	LDO_CAP	A	MFP0	LDO output pin. **Note:** This pin needs to be connected with an external capacitor.
51	114	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
52	115	PC.14	I/O	MFP0	General purpose digital I/O pin.
		EBI_AD11	I/O	MFP2	EBI address/data bus bit 11.
		SC1_nCD	I	MFP3	Smart Card 1 card detect pin.
		SPI0_I2SMCLK	I/O	MFP4	SPI0 I²S master clock output pin
		USCI0_CTL0	I/O	MFP5	USCI0 control 0 pin.
		QSPI0_CLK	I/O	MFP6	QSPI0 serial clock pin.
		EPWM0_SYNC_IN	I	MFP11	EPWM0 counter synchronous trigger input pin.
		ETM_TRACE_CLK	I	MFP12	ETM receiver Trace Clock input pin
		TM1	I/O	MFP13	Timer1 event counter input/toggle output pin.
		USB_VBUS_ST	I	MFP14	USB external VBUS regulator status pin.
		HSUSB_VBUS_ST	I	MFP15	HSUSB external VBUS regulator status pin.
53	116	PB.15	I/O	MFP0	General purpose digital I/O pin.
		EADC0_CH15	A	MFP1	EADC0 channel 15 analog input.
		EBI_AD12	I/O	MFP2	EBI address/data bus bit 12.
		SC1_PWR	O	MFP3	Smart Card 1 power pin.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
		SPI0_SS	I/O	MFP4	SPI0 slave select pin.
		USCI0_CTL1	I/O	MFP5	USCI0 control 1 pin.
		UART0_nCTS	I	MFP6	UART0 clear to Send input pin.
		UART3_TXD	O	MFP7	UART3 data transmitter output pin.
		I²C2_SMBAL	O	MFP8	I²C2 SMBus SMBALTER pin
		EPWM1_CH0	I/O	MFP11	EPWM1 channel 0 output/capture input.
		ETM_TRACE_DATA0	I	MFP12	ETM receiver Trace Data 0 input pin
		TM0_EXT	I/O	MFP13	Timer0 event counter input/toggle output pin.
		USB_VBUS_EN	O	MFP14	USB external VBUS regulator enable pin.
		HSUSB_VBUS_EN	O	MFP15	HSUSB external VBUS regulator enable pin.
54	117	PB.14	I/O	MFP0	General purpose digital I/O pin.
		EADC0_CH14	A	MFP1	EADC0 channel 14 analog input.
		EBI_AD13	I/O	MFP2	EBI address/data bus bit 13.
		SC1_RST	O	MFP3	Smart Card 1 reset pin.
		SPI0_CLK	I/O	MFP4	SPI0 serial clock pin.
		USCI0_DAT1	I/O	MFP5	USCI0 data 1 pin.
		UART0_nRTS	O	MFP6	UART0 request to Send output pin.
		UART3_RXD	I	MFP7	UART3 data receiver input pin.
		I²C2_SMBSUS	O	MFP8	I²C2 SMBus SMBSUS pin (PMBus CONTROL pin)
		EPWM1_CH1	I/O	MFP11	EPWM1 channel 1 output/capture input.
		ETM_TRACE_DATA1	I	MFP12	ETM receiver Trace Data 1 input pin
		TM1_EXT	I/O	MFP13	Timer1 event counter input/toggle output pin.
		CLKO	O	MFP14	Clock Out
55	118	PB.13	I/O	MFP0	General purpose digital I/O pin.
		EADC0_CH13	A	MFP1	EADC0 channel 13 analog input.
		DAC1_OUT	A	MFP1	DAC1 channel analog output.
		ACMP0_P3	A	MFP1	Analog comparator 0 positive input 3 pin.
		ACMP1_P3	A	MFP1	Analog comparator 1 positive input 3 pin.
		EBI_AD14	I/O	MFP2	EBI address/data bus bit 14.
		SC1_DAT	I/O	MFP3	Smart Card 1 data pin.
		SPI0_MISO	I/O	MFP4	SPI0 MISO (Master In, Slave Out) pin.
		USCI0_DAT0	I/O	MFP5	USCI0 data 0 pin.
		UART0_TXD	O	MFP6	UART0 data transmitter output pin.
		UART3_nRTS	O	MFP7	UART3 request to Send output pin.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
		I²C2_SCL	I/O	MFP8	I²C2 clock pin.
		EPWM1_CH2	I/O	MFP11	EPWM1 channel 2 output/capture input.
		ETM_TRACE_DATA2	I	MFP12	ETM receiver Trace Data 2 input pin
		TM2_EXT	I/O	MFP13	Timer2 event counter input/toggle output pin.
56	119	PB.12	I/O	MFP0	General purpose digital I/O pin.
		EADC0_CH12	A	MFP1	EADC0 channel 12 analog input.
		DAC0_OUT	A	MFP1	DAC0 channel analog output.
		ACMP0_P2	A	MFP1	Analog comparator 0 positive input 2 pin.
		ACMP1_P2	A	MFP1	Analog comparator 1 positive input 2 pin.
		EBI_AD15	I/O	MFP2	EBI address/data bus bit 15.
		SC1_CLK	O	MFP3	Smart Card 1 clock pin.
		SPI0_MOSI	I/O	MFP4	SPI0 MOSI (Master Out, Slave In) pin.
		USCI0_CLK	I/O	MFP5	USCI0 clock pin.
		UART0_RXD	I	MFP6	UART0 data receiver input pin.
		UART3_nCTS	I	MFP7	UART3 clear to Send input pin.
		I²C2_SDA	I/O	MFP8	I²C2 data input/output pin.
		SD0_nCD	I	MFP9	SD/SDIO0 card detect input pin
		EPWM1_CH3	I/O	MFP11	EPWM1 channel 3 output/capture input.
		ETM_TRACE_DATA3	I	MFP12	ETM receiver Trace Data 3 input pin
		TM3_EXT	I/O	MFP13	Timer3 event counter input/toggle output pin.
57	120	AV_{DD}	P	MFP0	Power supply for internal analog circuit.
58	121	V_{REF}	A	MFP0	ADC reference voltage input. **Note:** This pin needs to be connected with a 1uF capacitor.
59	122	AV_{SS}	P	MFP0	Ground pin for analog circuit.
60	123	PB.11	I/O	MFP0	General purpose digital I/O pin.
		EADC0_CH11	A	MFP1	EADC0 channel 11 analog input.
		EBI_ADR16	O	MFP2	EBI address bus bit 16.
		UART0_nCTS	I	MFP5	UART0 clear to Send input pin.
		UART4_TXD	O	MFP6	UART4 data transmitter output pin.
		I²C1_SCL	I/O	MFP7	I²C1 clock pin.
		CAN0_TXD	O	MFP8	CAN0 bus transmitter output.
		SPI0_I2SMCLK	I/O	MFP9	SPI0 I²S master clock output pin
		BPWM1_CH0	I/O	MFP10	BPWM1 channel 0 output/capture input.
		SPI3_CLK	I/O	MFP11	SPI3 serial clock pin.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
		HSUSB_VBUS_ST	I	MFP14	HSUSB external VBUS regulator status pin.
61	124	PB.10	I/O	MFP0	General purpose digital I/O pin.
		EADC0_CH10	A	MFP1	EADC0 channel 10 analog input.
		EBI_ADR17	O	MFP2	EBI address bus bit 17.
		USCI1_CTL0	I/O	MFP4	USCI1 control 0 pin.
		UART0_nRTS	O	MFP5	UART0 request to Send output pin.
		UART4_RXD	I	MFP6	UART4 data receiver input pin.
		I^2C1_SDA	I/O	MFP7	I^2C1 data input/output pin.
		CAN0_RXD	I	MFP8	CAN0 bus receiver input.
		BPWM1_CH1	I/O	MFP10	BPWM1 channel 1 output/capture input.
		SPI3_SS	I/O	MFP11	SPI3 slave select pin.
		HSUSB_VBUS_EN	O	MFP14	HSUSB external VBUS regulator enable pin.
62	125	PB.9	I/O	MFP0	General purpose digital I/O pin.
		EADC0_CH9	A	MFP1	EADC0 channel 9 analog input.
		EBI_ADR18	O	MFP2	EBI address bus bit 18.
		USCI1_CTL1	I/O	MFP4	USCI1 control 1 pin.
		UART0_TXD	O	MFP5	UART0 data transmitter output pin.
		UART1_nCTS	I	MFP6	UART1 clear to Send input pin.
		I^2C1_SMBAL	O	MFP7	I^2C1 SMBus SMBALTER pin
		BPWM1_CH2	I/O	MFP10	BPWM1 channel 2 output/capture input.
		SPI3_MISO	I/O	MFP11	SPI3 MISO (Master In, Slave Out) pin.
		INT7	I	MFP13	External interrupt 7 input pin.
63	126	PB.8	I/O	MFP0	General purpose digital I/O pin.
		EADC0_CH8	A	MFP1	EADC0 channel 8 analog input.
		EBI_ADR19	O	MFP2	EBI address bus bit 19.
		USCI1_CLK	I/O	MFP4	USCI1 clock pin.
		UART0_RXD	I	MFP5	UART0 data receiver input pin.
		UART1_nRTS	O	MFP6	UART1 request to Send output pin.
		I^2C1_SMBSUS	O	MFP7	I^2C1 SMBus SMBSUS pin (PMBus CONTROL pin)
		BPWM1_CH3	I/O	MFP10	BPWM1 channel 3 output/capture input.
		SPI3_MOSI	I/O	MFP11	SPI3 MOSI (Master Out, Slave In) pin.
		INT6	I	MFP13	External interrupt 6 input pin.
64	127	PB.7	I/O	MFP0	General purpose digital I/O pin.
		EADC0_CH7	A	MFP1	EADC0 channel 7 analog input.

64 Pin	128 Pin	Pin Name	Type	MFP	Description
		EBI_nWRL	O	MFP2	EBI low byte write enable output pin.
		USCI1_DAT0	I/O	MFP4	USCI1 data 0 pin.
		CAN1_TXD	O	MFP5	CAN1 bus transmitter output.
		UART1_TXD	O	MFP6	UART1 data transmitter output pin.
		SD1_CMD	I/O	MFP7	SD/SDIO1 command/response pin
		EBI_nCS0	O	MFP8	EBI chip select 0 output pin.
		BPWM1_CH4	I/O	MFP10	BPWM1 channel 4 output/capture input.
		EPWM1_BRAKE0	I	MFP11	EPWM1 Brake 0 input pin.
		EPWM1_CH4	I/O	MFP12	EPWM1 channel 4 output/capture input.
		INT5	I	MFP13	External interrupt 5 input pin.
		USB_VBUS_ST	I	MFP14	USB external VBUS regulator status pin.
		ACMP0_O	O	MFP15	Analog comparator 0 output pin.
1	128	PB.6	I/O	MFP0	General purpose digital I/O pin.
		EADC0_CH6	A	MFP1	EADC0 channel 6 analog input.
		EBI_nWRH	O	MFP2	EBI high byte write enable output pin
		USCI1_DAT1	I/O	MFP4	USCI1 data 1 pin.
		CAN1_RXD	I	MFP5	CAN1 bus receiver input.
		UART1_RXD	I	MFP6	UART1 data receiver input pin.
		SD1_CLK	O	MFP7	SD/SDIO1 clock output pin
		EBI_nCS1	O	MFP8	EBI chip select 1 output pin.
		BPWM1_CH5	I/O	MFP10	BPWM1 channel 5 output/capture input.
		EPWM1_BRAKE1	I	MFP11	EPWM1 Brake 1 input pin.
		EPWM1_CH5	I/O	MFP12	EPWM1 channel 5 output/capture input.
		INT4	I	MFP13	External interrupt 4 input pin.
		USB_VBUS_EN	O	MFP14	USB external VBUS regulator enable pin.
		ACMP1_O	O	MFP15	Analog comparator 1 output pin.

4.2.4 M484 Series Pin Description

Note: PA.15 MFP can only be as USB_OTG_ID when enable full-Speed USB.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
2	2	1	PB.5	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH5	A	MFP1	EADC0 channel 5 analog input.
			ACMP1_N	A	MFP1	Analog comparator 1 negative input pin.
			EBI_ADR0	O	MFP2	EBI address bus bit 0.
			SD0_DAT3	I/O	MFP3	SD/SDIO0 data line bit 3.
			SPI1_MISO	I/O	MFP5	SPI1 MISO (Master In, Slave Out) pin.
			I2C0_SCL	I/O	MFP6	I2C0 clock pin.
			UART5_TXD	O	MFP7	UART5 data transmitter output pin.
			USCI1_CTL0	I/O	MFP8	USCI1 control 0 pin.
			SC0_CLK	O	MFP9	Smart Card 0 clock pin.
			I2S0_BCLK	O	MFP10	I2S0 bit clock output pin.
			EPWM0_CH0	I/O	MFP11	EPWM0 channel 0 output/capture input.
			TM0	I/O	MFP14	Timer0 event counter input/toggle output pin.
			INT0	I	MFP15	External interrupt 0 input pin.
3	3	2	PB.4	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH4	A	MFP1	EADC0 channel 4 analog input.
			ACMP1_P1	A	MFP1	Analog comparator 1 positive input 1 pin.
			EBI_ADR1	O	MFP2	EBI address bus bit 1.
			SD0_DAT2	I/O	MFP3	SD/SDIO0 data line bit 2.
			SPI1_MOSI	I/O	MFP5	SPI1 MOSI (Master Out, Slave In) pin.
			I2C0_SDA	I/O	MFP6	I2C0 data input/output pin.
			UART5_RXD	I	MFP7	UART5 data receiver input pin.
			USCI1_CTL1	I/O	MFP8	USCI1 control 1 pin.
			SC0_DAT	I/O	MFP9	Smart Card 0 data pin.
			I2S0_MCLK	O	MFP10	I2S0 master clock output pin.
			EPWM0_CH1	I/O	MFP11	EPWM0 channel 1 output/capture input.
			TM1	I/O	MFP14	Timer1 event counter input/toggle output pin.
			INT1	I	MFP15	External interrupt 1 input pin.
4	4	3	PB.3	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH3	A	MFP1	EADC0 channel 3 analog input.
			ACMP0_N	A	MFP1	Analog comparator 0 negative input pin.
			EBI_ADR2	O	MFP2	EBI address bus bit 2.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
			SD0_DAT1	I/O	MFP3	SD/SDIO0 data line bit 1.
			SPI1_CLK	I/O	MFP5	SPI1 serial clock pin.
			UART1_TXD	O	MFP6	UART1 data transmitter output pin.
			UART5_nRTS	O	MFP7	UART5 request to Send output pin.
			USCI1_DAT1	I/O	MFP8	USCI1 data 1 pin.
			SC0_RST	O	MFP9	Smart Card 0 reset pin.
			I2S0_DI	I	MFP10	I2S0 data input pin.
			EPWM0_CH2	I/O	MFP11	EPWM0 channel 2 output/capture input.
			TM2	I/O	MFP14	Timer2 event counter input/toggle output pin.
			INT2	I	MFP15	External interrupt 2 input pin.
5	5	4	PB.2	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH2	A	MFP1	EADC0 channel 2 analog input.
			ACMP0_P1	A	MFP1	Analog comparator 0 positive input 1 pin.
			OPA0_O	A	MFP1	Operational amplifier 0 output pin.
			EBI_ADR3	O	MFP2	EBI address bus bit 3.
			SD0_DAT0	I/O	MFP3	SD/SDIO0 data line bit 0.
			SPI1_SS	I/O	MFP5	SPI1 slave select pin.
			UART1_RXD	I	MFP6	UART1 data receiver input pin.
			UART5_nCTS	I	MFP7	UART5 clear to Send input pin.
			USCI1_DAT0	I/O	MFP8	USCI1 data 0 pin.
			SC0_PWR	O	MFP9	Smart Card 0 power pin.
			I2S0_DO	O	MFP10	I2S0 data output pin.
			EPWM0_CH3	I/O	MFP11	EPWM0 channel 3 output/capture input.
			TM3	I/O	MFP14	Timer3 event counter input/toggle output pin.
			INT3	I	MFP15	External interrupt 3 input pin.
		5	PC.12	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR4	O	MFP2	EBI address bus bit 4.
			UART0_TXD	O	MFP3	UART0 data transmitter output pin.
			I2C0_SCL	I/O	MFP4	I2C0 clock pin.
			SPI3_MISO	I/O	MFP6	SPI3 MISO (Master In, Slave Out) pin.
			SC0_nCD	I	MFP9	Smart Card 0 card detect pin.
			ECAP1_IC2	I	MFP11	Enhanced capture unit 1 input 2 pin.
			EPWM1_CH0	I/O	MFP12	EPWM1 channel 0 output/capture input.
			ACMP0_O	O	MFP14	Analog comparator 0 output pin.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
		6	PC.11	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR5	O	MFP2	EBI address bus bit 5.
			UART0_RXD	I	MFP3	UART0 data receiver input pin.
			I2C0_SDA	I/O	MFP4	I2C0 data input/output pin.
			SPI3_MOSI	I/O	MFP6	SPI3 MOSI (Master Out, Slave In) pin.
			ECAP1_IC1	I	MFP11	Enhanced capture unit 1 input 1 pin.
			EPWM1_CH1	I/O	MFP12	EPWM1 channel 1 output/capture input.
			ACMP1_O	O	MFP14	Analog comparator 1 output pin.
		7	PC.10	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR6	O	MFP2	EBI address bus bit 6.
			SPI3_CLK	I/O	MFP6	SPI3 serial clock pin.
			UART3_TXD	O	MFP7	UART3 data transmitter output pin.
			ECAP1_IC0	I	MFP11	Enhanced capture unit 1 input 0 pin.
			EPWM1_CH2	I/O	MFP12	EPWM1 channel 2 output/capture input.
		8	PC.9	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR7	O	MFP2	EBI address bus bit 7.
			SPI3_SS	I/O	MFP6	SPI3 slave select pin.
			UART3_RXD	I	MFP7	UART3 data receiver input pin.
			EPWM1_CH3	I/O	MFP12	EPWM1 channel 3 output/capture input.
6	6	9	PB.1	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH1	A	MFP1	EADC0 channel 1 analog input.
			OPA0_N	A	MFP1	Operational amplifier 0 negative input pin.
			EBI_ADR8	O	MFP2	EBI address bus bit 8.
			SD0_CLK	O	MFP3	SD/SDIO0 clock output pin
			SPI1_I2SMCLK	I/O	MFP5	SPI1 I2S master clock output pin
			SPI3_I2SMCLK	I/O	MFP6	SPI3 I2S master clock output pin
			UART2_TXD	O	MFP7	UART2 data transmitter output pin.
			USCI1_CLK	I/O	MFP8	USCI1 clock pin.
			I2C1_SCL	I/O	MFP9	I2C1 clock pin.
			I2S0_LRCK	O	MFP10	I2S0 left right channel clock output pin.
			EPWM0_CH4	I/O	MFP11	EPWM0 channel 4 output/capture input.
			EPWM1_CH4	I/O	MFP12	EPWM1 channel 4 output/capture input.
			EPWM0_BRAKE0	I	MFP13	EPWM0 Brake 0 input pin.
7	7	10	PB.0	I/O	MFP0	General purpose digital I/O pin.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
			EADC0_CH0	A	MFP1	EADC0 channel 0 analog input.
			OPA0_P	A	MFP1	Operational amplifier 0 positive input pin.
			EBI_ADR9	O	MFP2	EBI address bus bit 9.
			SD0_CMD	I/O	MFP3	SD/SDIO0 command/response pin
			UART2_RXD	I	MFP7	UART2 data receiver input pin.
			SPI0_I2SMCLK	I/O	MFP8	SPI0 I2S master clock output pin
			I2C1_SDA	I/O	MFP9	I2C1 data input/output pin.
			EPWM0_CH5	I/O	MFP11	EPWM0 channel 5 output/capture input.
			EPWM1_CH5	I/O	MFP12	EPWM1 channel 5 output/capture input.
			EPWM0_BRAKE1	I	MFP13	EPWM0 Brake 1 input pin.
		11	V_{SS}	P	MFP0	Ground pin for digital circuit.
		12	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
8	8	13	PA.11	I/O	MFP0	General purpose digital I/O pin.
			ACMP0_P0	A	MFP1	Analog comparator 0 positive input 0 pin.
			EBI_nRD	O	MFP2	EBI read enable output pin.
			SC2_PWR	O	MFP3	Smart Card 2 power pin.
			SPI2_SS	I/O	MFP4	SPI2 slave select pin.
			SD1_DAT3	I/O	MFP5	SD/SDIO1 data line bit 3.
			USCI0_CLK	I/O	MFP6	USCI0 clock pin.
			I2C2_SCL	I/O	MFP7	I2C2 clock pin.
			BPWM0_CH0	I/O	MFP9	BPWM0 channel 0 output/capture input.
			EPWM0_SYNC_OUT	O	MFP10	EPWM0 counter synchronous trigger output pin.
			TM0_EXT	I/O	MFP13	Timer0 external capture input/toggle output pin.
			DAC1_ST	I	MFP14	DAC1 external trigger input.
9	9	14	PA.10	I/O	MFP0	General purpose digital I/O pin.
			ACMP1_P0	A	MFP1	Analog comparator 1 positive input 0 pin.
			OPA1_O	A	MFP1	Operational amplifier 1 output pin.
			EBI_nWR	O	MFP2	EBI write enable output pin.
			SC2_RST	O	MFP3	Smart Card 2 reset pin.
			SPI2_CLK	I/O	MFP4	SPI2 serial clock pin.
			SD1_DAT2	I/O	MFP5	SD/SDIO1 data line bit 2.
			USCI0_DAT0	I/O	MFP6	USCI0 data 0 pin.
			I2C2_SDA	I/O	MFP7	I2C2 data input/output pin.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
			BPWM0_CH1	I/O	MFP9	BPWM0 channel 1 output/capture input.
			QEI1_INDEX	I	MFP10	Quadrature encoder 1 index input
			ECAP0_IC0	I	MFP11	Enhanced capture unit 0 input 0 pin.
			TM1_EXT	I/O	MFP13	Timer1 external capture input/toggle output pin.
			DAC0_ST	I	MFP14	DAC0 external trigger input.
10	10	15	PA.9	I/O	MFP0	General purpose digital I/O pin.
			OPA1_N	A	MFP1	Operational amplifier 1 negative input pin.
			EBI_MCLK	O	MFP2	EBI external clock output pin.
			SC2_DAT	I/O	MFP3	Smart Card 2 data pin.
			SPI2_MISO	I/O	MFP4	SPI2 MISO (Master In, Slave Out) pin.
			SD1_DAT1	I/O	MFP5	SD/SDIO1 data line bit 1.
			USCI0_DAT1	I/O	MFP6	USCI0 data 1 pin.
			UART1_TXD	O	MFP7	UART1 data transmitter output pin.
			BPWM0_CH2	I/O	MFP9	BPWM0 channel 2 output/capture input.
			QEI1_A	I	MFP10	Quadrature encoder 1 phase A input
			ECAP0_IC1	I	MFP11	Enhanced capture unit 0 input 1 pin.
			TM2_EXT	I/O	MFP13	Timer2 external capture input/toggle output pin.
11	11	16	PA.8	I/O	MFP0	General purpose digital I/O pin.
			OPA1_P	A	MFP1	Operational amplifier 1 positive input pin.
			EBI_ALE	O	MFP2	EBI address latch enable output pin.
			SC2_CLK	O	MFP3	Smart Card 2 clock pin.
			SPI2_MOSI	I/O	MFP4	SPI2 MOSI (Master Out, Slave In) pin.
			SD1_DAT0	I/O	MFP5	SD/SDIO1 data line bit 0.
			USCI0_CTL1	I/O	MFP6	USCI0 control 1 pin.
			UART1_RXD	I	MFP7	UART1 data receiver input pin.
			BPWM0_CH3	I/O	MFP9	BPWM0 channel 3 output/capture input.
			QEI1_B	I	MFP10	Quadrature encoder 1 phase B input
			ECAP0_IC2	I	MFP11	Enhanced capture unit 0 input 2 pin.
			TM3_EXT	I/O	MFP13	Timer3 external capture input/toggle output pin.
			INT4	I	MFP15	External interrupt 4 input pin.
		17	PC.13	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR10	O	MFP2	EBI address bus bit 10.
			SC2_nCD	I	MFP3	Smart Card 2 card detect pin.
			SPI2_I2SMCLK	I/O	MFP4	SPI2 I2S master clock output pin

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
			USCI0_CTL0	I/O	MFP6	USCI0 control 0 pin.
			UART2_TXD	O	MFP7	UART2 data transmitter output pin.
			BPWM0_CH4	I/O	MFP9	BPWM0 channel 4 output/capture input.
			CLKO	O	MFP13	Clock Out
			EADC0_ST	I	MFP14	EADC0 external trigger input.
		18	PD.12	I/O	MFP0	General purpose digital I/O pin.
			OPA2_O	A	MFP1	Operational amplifier 2 output pin.
			EBI_nCS0	O	MFP2	EBI chip select 0 output pin.
			UART2_RXD	I	MFP7	UART2 data receiver input pin.
			BPWM0_CH5	I/O	MFP9	BPWM0 channel 5 output/capture input.
			QEI0_INDEX	I	MFP10	Quadrature encoder 0 index input
			CLKO	O	MFP13	Clock Out
			EADC0_ST	I	MFP14	EADC0 external trigger input.
			INT5	I	MFP15	External interrupt 5 input pin.
		19	PD.11	I/O	MFP0	General purpose digital I/O pin.
			OPA2_N	A	MFP1	Operational amplifier 2 negative input pin.
			EBI_nCS1	O	MFP2	EBI chip select 1 output pin.
			UART1_TXD	O	MFP3	UART1 data transmitter output pin.
			QEI0_A	I	MFP10	Quadrature encoder 0 phase A input
			INT6	I	MFP15	External interrupt 6 input pin.
		20	PD.10	I/O	MFP0	General purpose digital I/O pin.
			OPA2_P	A	MFP1	Operational amplifier 2 positive input pin.
			EBI_nCS2	O	MFP2	EBI chip select 2 output pin.
			UART1_RXD	I	MFP3	UART1 data receiver input pin.
			QEI0_B	I	MFP10	Quadrature encoder 0 phase B input
			INT7	I	MFP15	External interrupt 7 input pin.
		21	PG.2	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR11	O	MFP2	EBI address bus bit 11.
			SPI2_SS	I/O	MFP3	SPI2 slave select pin.
			I2C0_SMBAL	O	MFP4	I2C0 SMBus SMBALTER pin
			I2C1_SCL	I/O	MFP5	I2C1 clock pin.
			TM0	I/O	MFP13	Timer0 event counter input/toggle output pin.
		22	PG.3	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR12	O	MFP2	EBI address bus bit 12.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
			SPI2_CLK	I/O	MFP3	SPI2 serial clock pin.
			I2C0_SMBSUS	O	MFP4	I2C0 SMBus SMBSUS pin (PMBus CONTROL pin)
			I2C1_SDA	I/O	MFP5	I2C1 data input/output pin.
			TM1	I/O	MFP13	Timer1 event counter input/toggle output pin.
		23	PG.4	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR13	O	MFP2	EBI address bus bit 13.
			SPI2_MISO	I/O	MFP3	SPI2 MISO (Master In, Slave Out) pin.
			TM2	I/O	MFP13	Timer2 event counter input/toggle output pin.
		24	PF.11	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR14	O	MFP2	EBI address bus bit 14.
			SPI2_MOSI	I/O	MFP3	SPI2 MOSI (Master Out, Slave In) pin.
			TAMPER5	I/O	MFP10	TAMPER detector loop pin 5.
			TM3	I/O	MFP13	Timer3 event counter input/toggle output pin.
		25	PF.10	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR15	O	MFP2	EBI address bus bit 15.
			SC0_nCD	I	MFP3	Smart Card 0 card detect pin.
			I2S0_BCLK	O	MFP4	I2S0 bit clock output pin.
			SPI0_I2SMCLK	I/O	MFP5	SPI0 I2S master clock output pin
			TAMPER4	I/O	MFP10	TAMPER detector loop pin 4.
		26	PF.9	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR16	O	MFP2	EBI address bus bit 16.
			SC0_PWR	O	MFP3	Smart Card 0 power pin.
			I2S0_MCLK	O	MFP4	I2S0 master clock output pin.
			SPI0_SS	I/O	MFP5	SPI0 slave select pin.
			TAMPER3	I/O	MFP10	TAMPER detector loop pin 3.
		27	PF.8	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR17	O	MFP2	EBI address bus bit 17.
			SC0_RST	O	MFP3	Smart Card 0 reset pin.
			I2S0_DI	I	MFP4	I2S0 data input pin.
			SPI0_CLK	I/O	MFP5	SPI0 serial clock pin.
			TAMPER2	I/O	MFP10	TAMPER detector loop pin 2.
		28	PF.7	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR18	O	MFP2	EBI address bus bit 18.
			SC0_DAT	I/O	MFP3	Smart Card 0 data pin.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
			I2S0_DO	O	MFP4	I2S0 data output pin.
			SPI0_MISO	I/O	MFP5	SPI0 MISO (Master In, Slave Out) pin.
			UART4_TXD	O	MFP6	UART4 data transmitter output pin.
			TAMPER1	I/O	MFP10	TAMPER detector loop pin 1.
12	12	29	PF.6	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR19	O	MFP2	EBI address bus bit 19.
			SC0_CLK	O	MFP3	Smart Card 0 clock pin.
			I2S0_LRCK	O	MFP4	I2S0 left right channel clock output pin.
			SPI0_MOSI	I/O	MFP5	SPI0 MOSI (Master Out, Slave In) pin.
			UART4_RXD	I	MFP6	UART4 data receiver input pin.
			EBI_nCS0	O	MFP7	EBI chip select 0 output pin.
			TAMPER0	I/O	MFP10	TAMPER detector loop pin 0.
13	13	30	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
14	14	31	PF.5	I/O	MFP0	General purpose digital I/O pin.
			UART2_RXD	I	MFP2	UART2 data receiver input pin.
			UART2_nCTS	I	MFP4	UART2 clear to Send input pin.
			BPWM0_CH4	I/O	MFP8	BPWM0 channel 4 output/capture input.
			EPWM0_SYNC_OUT	O	MFP9	EPWM0 counter synchronous trigger output pin.
			X32_IN	I	MFP10	External 32.768 kHz crystal input pin.
			EADC0_ST	I	MFP11	EADC0 external trigger input.
15	15	32	PF.4	I/O	MFP0	General purpose digital I/O pin.
			UART2_TXD	O	MFP2	UART2 data transmitter output pin.
			UART2_nRTS	O	MFP4	UART2 request to Send output pin.
			BPWM0_CH5	I/O	MFP8	BPWM0 channel 5 output/capture input.
			X32_OUT	O	MFP10	External 32.768 kHz crystal output pin.
		33	PH.4	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR3	O	MFP2	EBI address bus bit 3.
			SPI1_MISO	I/O	MFP3	SPI1 MISO (Master In, Slave Out) pin.
		34	PH.5	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR2	O	MFP2	EBI address bus bit 2.
			SPI1_MOSI	I/O	MFP3	SPI1 MOSI (Master Out, Slave In) pin.
		35	PH.6	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR1	O	MFP2	EBI address bus bit 1.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
			SPI1_CLK	I/O	MFP3	SPI1 serial clock pin.
		36	PH.7	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR0	O	MFP2	EBI address bus bit 0.
			SPI1_SS	I/O	MFP3	SPI1 slave select pin.
16	16	37	PF.3	I/O	MFP0	General purpose digital I/O pin.
			EBI_nCS0	O	MFP2	EBI chip select 0 output pin.
			UART0_TXD	O	MFP3	UART0 data transmitter output pin.
			I2C0_SCL	I/O	MFP4	I2C0 clock pin.
			XT1_IN	I	MFP10	External 4~24 MHz (high speed) crystal input pin.
			BPWM1_CH0	I/O	MFP11	BPWM1 channel 0 output/capture input.
17	17	38	PF.2	I/O	MFP0	General purpose digital I/O pin.
			EBI_nCS1	O	MFP2	EBI chip select 1 output pin.
			UART0_RXD	I	MFP3	UART0 data receiver input pin.
			I2C0_SDA	I/O	MFP4	I2C0 data input/output pin.
			QSPI0_CLK	I/O	MFP5	Quad SPI0 serial clock pin.
			XT1_OUT	O	MFP10	External 4~24 MHz (high speed) crystal output pin.
			BPWM1_CH1	I/O	MFP11	BPWM1 channel 1 output/capture input.
		39	V_{SS}	P	MFP0	Ground pin for digital circuit.
		40	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
		41	PE.8	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR10	O	MFP2	EBI address bus bit 10.
			I2S0_BCLK	O	MFP4	I2S0 bit clock output pin.
			SPI2_CLK	I/O	MFP5	SPI2 serial clock pin.
			USCI1_CTL1	I/O	MFP6	USCI1 control 1 pin.
			UART2_TXD	O	MFP7	UART2 data transmitter output pin.
			EPWM0_CH0	I/O	MFP10	EPWM0 channel 0 output/capture input.
			EPWM0_BRAKE0	I	MFP11	EPWM0 Brake 0 input pin.
			ECAP0_IC0	I	MFP12	Enhanced capture unit 0 input 0 pin.
			TRACE_DATA3	O	MFP14	ETM Trace Data 3 output pin
		42	PE.9	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR11	O	MFP2	EBI address bus bit 11.
			I2S0_MCLK	O	MFP4	I2S0 master clock output pin.
			SPI2_MISO	I/O	MFP5	SPI2 MISO (Master In, Slave Out) pin.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
			USCI1_CTL0	I/O	MFP6	USCI1 control 0 pin.
			UART2_RXD	I	MFP7	UART2 data receiver input pin.
			EPWM0_CH1	I/O	MFP10	EPWM0 channel 1 output/capture input.
			EPWM0_BRAKE1	I	MFP11	EPWM0 Brake 1 input pin.
			ECAP0_IC1	I	MFP12	Enhanced capture unit 0 input 1 pin.
			TRACE_DATA2	O	MFP14	ETM Trace Data 2 output pin
		43	PE.10	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR12	O	MFP2	EBI address bus bit 12.
			I2S0_DI	I	MFP4	I2S0 data input pin.
			SPI2_MOSI	I/O	MFP5	SPI2 MOSI (Master Out, Slave In) pin.
			USCI1_DAT0	I/O	MFP6	USCI1 data 0 pin.
			UART3_TXD	O	MFP7	UART3 data transmitter output pin.
			EPWM0_CH2	I/O	MFP10	EPWM0 channel 2 output/capture input.
			EPWM1_BRAKE0	I	MFP11	EPWM1 Brake 0 input pin.
			ECAP0_IC2	I	MFP12	Enhanced capture unit 0 input 2 pin.
			TRACE_DATA1	O	MFP14	ETM Trace Data 1 output pin
		44	PE.11	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR13	O	MFP2	EBI address bus bit 13.
			I2S0_DO	O	MFP4	I2S0 data output pin.
			SPI2_SS	I/O	MFP5	SPI2 slave select pin.
			USCI1_DAT1	I/O	MFP6	USCI1 data 1 pin.
			UART3_RXD	I	MFP7	UART3 data receiver input pin.
			UART1_nCTS	I	MFP8	UART1 clear to Send input pin.
			EPWM0_CH3	I/O	MFP10	EPWM0 channel 3 output/capture input.
			EPWM1_BRAKE1	I	MFP11	EPWM1 Brake 1 input pin.
			ECAP1_IC2	I	MFP13	Enhanced capture unit 1 input 2 pin.
			TRACE_DATA0	O	MFP14	ETM Trace Data 0 output pin
		45	PE.12	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR14	O	MFP2	EBI address bus bit 14.
			I2S0_LRCK	O	MFP4	I2S0 left right channel clock output pin.
			SPI2_I2SMCLK	I/O	MFP5	SPI2 I2S master clock output pin
			USCI1_CLK	I/O	MFP6	USCI1 clock pin.
			UART1_nRTS	O	MFP8	UART1 request to Send output pin.
			EPWM0_CH4	I/O	MFP10	EPWM0 channel 4 output/capture input.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
			ECAP1_IC1	I	MFP13	Enhanced capture unit 1 input 1 pin.
			TRACE_CLK	O	MFP14	ETM Trace Clock output pin
		46	PE.13	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR15	O	MFP2	EBI address bus bit 15.
			I2C0_SCL	I/O	MFP4	I2C0 clock pin.
			UART4_nRTS	O	MFP5	UART4 request to Send output pin.
			UART1_TXD	O	MFP8	UART1 data transmitter output pin.
			EPWM0_CH5	I/O	MFP10	EPWM0 channel 5 output/capture input.
			EPWM1_CH0	I/O	MFP11	EPWM1 channel 0 output/capture input.
			BPWM1_CH5	I/O	MFP12	BPWM1 channel 5 output/capture input.
			ECAP1_IC0	I	MFP13	Enhanced capture unit 1 input 0 pin.
		47	PC.8	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR16	O	MFP2	EBI address bus bit 16.
			I2C0_SDA	I/O	MFP4	I2C0 data input/output pin.
			UART4_nCTS	I	MFP5	UART4 clear to Send input pin.
			UART1_RXD	I	MFP8	UART1 data receiver input pin.
			EPWM1_CH1	I/O	MFP11	EPWM1 channel 1 output/capture input.
			BPWM1_CH4	I/O	MFP12	BPWM1 channel 4 output/capture input.
18	18	48	PC.7	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD9	I/O	MFP2	EBI address/data bus bit 9.
			SPI1_MISO	I/O	MFP4	SPI1 MISO (Master In, Slave Out) pin.
			UART4_TXD	O	MFP5	UART4 data transmitter output pin.
			SC2_PWR	O	MFP6	Smart Card 2 power pin.
			UART0_nCTS	I	MFP7	UART0 clear to Send input pin.
			I2C1_SMBAL	O	MFP8	I2C1 SMBus SMBALTER pin
			EPWM1_CH2	I/O	MFP11	EPWM1 channel 2 output/capture input.
			BPWM1_CH0	I/O	MFP12	BPWM1 channel 0 output/capture input.
			TM0	I/O	MFP14	Timer0 event counter input/toggle output pin.
			INT3	I	MFP15	External interrupt 3 input pin.
19	19	49	PC.6	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD8	I/O	MFP2	EBI address/data bus bit 8.
			SPI1_MOSI	I/O	MFP4	SPI1 MOSI (Master Out, Slave In) pin.
			UART4_RXD	I	MFP5	UART4 data receiver input pin.
			SC2_RST	O	MFP6	Smart Card 2 reset pin.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
			UART0_nRTS	O	MFP7	UART0 request to Send output pin.
			I2C1_SMBSUS	O	MFP8	I2C1 SMBus SMBSUS pin (PMBus CONTROL pin)
			EPWM1_CH3	I/O	MFP11	EPWM1 channel 3 output/capture input.
			BPWM1_CH1	I/O	MFP12	BPWM1 channel 1 output/capture input.
			TM1	I/O	MFP14	Timer1 event counter input/toggle output pin.
			INT2	I	MFP15	External interrupt 2 input pin.
20	20	50	PA.7	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD7	I/O	MFP2	EBI address/data bus bit 7.
			SPI1_CLK	I/O	MFP4	SPI1 serial clock pin.
			SC2_DAT	I/O	MFP6	Smart Card 2 data pin.
			UART0_TXD	O	MFP7	UART0 data transmitter output pin.
			I2C1_SCL	I/O	MFP8	I2C1 clock pin.
			EPWM1_CH4	I/O	MFP11	EPWM1 channel 4 output/capture input.
			BPWM1_CH2	I/O	MFP12	BPWM1 channel 2 output/capture input.
			ACMP0_WLAT	I	MFP13	Analog comparator 0 window latch input pin
			TM2	I/O	MFP14	Timer2 event counter input/toggle output pin.
			INT1	I	MFP15	External interrupt 1 input pin.
21	21	51	PA.6	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD6	I/O	MFP2	EBI address/data bus bit 6.
			SPI1_SS	I/O	MFP4	SPI1 slave select pin.
			SD1_nCD	I	MFP5	SD/SDIO1 card detect input pin
			SC2_CLK	O	MFP6	Smart Card 2 clock pin.
			UART0_RXD	I	MFP7	UART0 data receiver input pin.
			I2C1_SDA	I/O	MFP8	I2C1 data input/output pin.
			EPWM1_CH5	I/O	MFP11	EPWM1 channel 5 output/capture input.
			BPWM1_CH3	I/O	MFP12	BPWM1 channel 3 output/capture input.
			ACMP1_WLAT	I	MFP13	Analog comparator 1 window latch input pin
			TM3	I/O	MFP14	Timer3 event counter input/toggle output pin.
			INT0	I	MFP15	External interrupt 0 input pin.
22	22	52	V_{SS}	P	MFP0	Ground pin for digital circuit.
23	23	53	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
24	24	54	LDO_CAP	A	MFP0	LDO output pin. **Note:** This pin needs to be connected with an external capacitor.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
25	25	55	PA.5	I/O	MFP0	General purpose digital I/O pin.
			SPIM_D2	I/O	MFP2	SPIM data 2 pin for Quad Mode I/O.
			QSPI0_MISO1	I/O	MFP3	Quad SPI0 MISO1 (Master In, Slave Out) pin.
			SPI1_I2SMCLK	I/O	MFP4	SPI1 I2S master clock output pin
			SD1_CMD	I/O	MFP5	SD/SDIO1 command/response pin
			SC2_nCD	I	MFP6	Smart Card 2 card detect pin.
			UART0_nCTS	I	MFP7	UART0 clear to Send input pin.
			UART5_TXD	O	MFP8	UART5 data transmitter output pin.
			I2C0_SCL	I/O	MFP9	I2C0 clock pin.
			BPWM0_CH5	I/O	MFP12	BPWM0 channel 5 output/capture input.
			EPWM0_CH0	I/O	MFP13	EPWM0 channel 0 output/capture input.
			QEI0_INDEX	I	MFP14	Quadrature encoder 0 index input
26	26	56	PA.4	I/O	MFP0	General purpose digital I/O pin.
			SPIM_D3	I/O	MFP2	SPIM data 3 pin for Quad Mode I/O.
			QSPI0_MOSI1	I/O	MFP3	Quad SPI0 MOSI1 (Master Out, Slave In) pin.
			SPI0_I2SMCLK	I/O	MFP4	SPI0 I2S master clock output pin
			SD1_CLK	O	MFP5	SD/SDIO1 clock output pin
			SC0_nCD	I	MFP6	Smart Card 0 card detect pin.
			UART0_nRTS	O	MFP7	UART0 request to Send output pin.
			UART5_RXD	I	MFP8	UART5 data receiver input pin.
			I2C0_SDA	I/O	MFP9	I2C0 data input/output pin.
			BPWM0_CH4	I/O	MFP12	BPWM0 channel 4 output/capture input.
			EPWM0_CH1	I/O	MFP13	EPWM0 channel 1 output/capture input.
			QEI0_A	I	MFP14	Quadrature encoder 0 phase A input
27	27	57	PA.3	I/O	MFP0	General purpose digital I/O pin.
			SPIM_SS	I/O	MFP2	SPIM slave select pin.
			QSPI0_SS	I/O	MFP3	Quad SPI0 slave select pin.
			SPI0_SS	I/O	MFP4	SPI0 slave select pin.
			SD1_DAT3	I/O	MFP5	SD/SDIO1 data line bit 3.
			SC0_PWR	O	MFP6	Smart Card 0 power pin.
			UART4_TXD	O	MFP7	UART4 data transmitter output pin.
			UART1_TXD	O	MFP8	UART1 data transmitter output pin.
			I2C1_SCL	I/O	MFP9	I2C1 clock pin.
			BPWM0_CH3	I/O	MFP12	BPWM0 channel 3 output/capture input.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
			EPWM0_CH2	I/O	MFP13	EPWM0 channel 2 output/capture input.
			QEI0_B	I	MFP14	Quadrature encoder 0 phase B input
28	28	58	PA.2	I/O	MFP0	General purpose digital I/O pin.
			SPIM_CLK	I/O	MFP2	SPIM serial clock pin.
			QSPI0_CLK	I/O	MFP3	Quad SPI0 serial clock pin.
			SPI0_CLK	I/O	MFP4	SPI0 serial clock pin.
			SD1_DAT2	I/O	MFP5	SD/SDIO1 data line bit 2.
			SC0_RST	O	MFP6	Smart Card 0 reset pin.
			UART4_RXD	I	MFP7	UART4 data receiver input pin.
			UART1_RXD	I	MFP8	UART1 data receiver input pin.
			I2C1_SDA	I/O	MFP9	I2C1 data input/output pin.
			BPWM0_CH2	I/O	MFP12	BPWM0 channel 2 output/capture input.
			EPWM0_CH3	I/O	MFP13	EPWM0 channel 3 output/capture input.
29	29	59	PA.1	I/O	MFP0	General purpose digital I/O pin.
			SPIM_MISO	I/O	MFP2	SPIM MISO (Master In, Slave Out) pin.
			QSPI0_MISO0	I/O	MFP3	Quad SPI0 MISO0 (Master In, Slave Out) pin.
			SPI0_MISO	I/O	MFP4	SPI0 MISO (Master In, Slave Out) pin.
			SD1_DAT1	I/O	MFP5	SD/SDIO1 data line bit 1.
			SC0_DAT	I/O	MFP6	Smart Card 0 data pin.
			UART0_TXD	O	MFP7	UART0 data transmitter output pin.
			UART1_nCTS	I	MFP8	UART1 clear to Send input pin.
			I2C2_SCL	I/O	MFP9	I2C2 clock pin.
			BPWM0_CH1	I/O	MFP12	BPWM0 channel 1 output/capture input.
			EPWM0_CH4	I/O	MFP13	EPWM0 channel 4 output/capture input.
			DAC1_ST	I	MFP15	DAC1 external trigger input.
30	30	60	PA.0	I/O	MFP0	General purpose digital I/O pin.
			SPIM_MOSI	I/O	MFP2	SPIM MOSI (Master Out, Slave In) pin.
			QSPI0_MOSI0	I/O	MFP3	Quad SPI0 MOSI0 (Master Out, Slave In) pin.
			SPI0_MOSI	I/O	MFP4	SPI0 MOSI (Master Out, Slave In) pin.
			SD1_DAT0	I/O	MFP5	SD/SDIO1 data line bit 0.
			SC0_CLK	O	MFP6	Smart Card 0 clock pin.
			UART0_RXD	I	MFP7	UART0 data receiver input pin.
			UART1_nRTS	O	MFP8	UART1 request to Send output pin.
			I2C2_SDA	I/O	MFP9	I2C2 data input/output pin.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
			BPWM0_CH0	I/O	MFP12	BPWM0 channel 0 output/capture input.
			EPWM0_CH5	I/O	MFP13	EPWM0 channel 5 output/capture input.
			DAC0_ST	I	MFP15	DAC0 external trigger input.
31	31	61	V_{DDIO}	P	MFP0	Power supply for PA.0~PA.5.
		62	PE.14	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD8	I/O	MFP2	EBI address/data bus bit 8.
			UART2_TXD	O	MFP3	UART2 data transmitter output pin.
			SD1_nCD	I	MFP5	SD/SDIO1 card detect input pin
		63	PE.15	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD9	I/O	MFP2	EBI address/data bus bit 9.
			UART2_RXD	I	MFP3	UART2 data receiver input pin.
32	32	64	nRESET	I	MFP0	External reset input: active LOW, with an internal pull-up. Set this pin low reset to initial state. **Note:** It is recommended to use 10 kΩ pull-up resistor and 10 uF capacitor on nRESET pin.
33	33	65	PF.0	I/O	MFP0	General purpose digital I/O pin.
			UART1_TXD	O	MFP2	UART1 data transmitter output pin.
			I2C1_SCL	I/O	MFP3	I2C1 clock pin.
			BPWM1_CH0	I/O	MFP12	BPWM1 channel 0 output/capture input.
			ICE_DAT	O	MFP14	Serial wired debugger data pin. **Note:** It is recommended to use 100 kΩ pull-up resistor on ICE_DAT pin.
34	34	66	PF.1	I/O	MFP0	General purpose digital I/O pin.
			UART1_RXD	I	MFP2	UART1 data receiver input pin.
			I2C1_SDA	I/O	MFP3	I2C1 data input/output pin.
			BPWM1_CH1	I/O	MFP12	BPWM1 channel 1 output/capture input.
			ICE_CLK	I	MFP14	Serial wired debugger clock pin. **Note:** It is recommended to use 100 kΩ pull-up resistor on ICE_CLK pin.
		67	PD.9	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD7	I/O	MFP2	EBI address/data bus bit 7.
			I2C2_SCL	I/O	MFP3	I2C2 clock pin.
			UART2_nCTS	I	MFP4	UART2 clear to Send input pin.
		68	PD.8	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD6	I/O	MFP2	EBI address/data bus bit 6.
			I2C2_SDA	I/O	MFP3	I2C2 data input/output pin.
			UART2_nRTS	O	MFP4	UART2 request to Send output pin.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
35		69	PC.5	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD5	I/O	MFP2	EBI address/data bus bit 5.
			SPIM_D2	I/O	MFP3	SPIM data 2 pin for Quad Mode I/O.
			QSPI0_MISO1	I/O	MFP4	Quad SPI0 MISO1 (Master In, Slave Out) pin.
			UART2_TXD	O	MFP8	UART2 data transmitter output pin.
			I2C1_SCL	I/O	MFP9	I2C1 clock pin.
			UART4_TXD	O	MFP11	UART4 data transmitter output pin.
			EPWM1_CH0	I/O	MFP12	EPWM1 channel 0 output/capture input.
36		70	PC.4	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD4	I/O	MFP2	EBI address/data bus bit 4.
			SPIM_D3	I/O	MFP3	SPIM data 3 pin for Quad Mode I/O.
			QSPI0_MOSI1	I/O	MFP4	Quad SPI0 MOSI1 (Master Out, Slave In) pin.
			SC1_nCD	I	MFP5	Smart Card 1 card detect pin.
			I2S0_BCLK	O	MFP6	I2S0 bit clock output pin.
			SPI1_I2SMCLK	I/O	MFP7	SPI1 I2S master clock output pin
			UART2_RXD	I	MFP8	UART2 data receiver input pin.
			I2C1_SDA	I/O	MFP9	I2C1 data input/output pin.
			UART4_RXD	I	MFP11	UART4 data receiver input pin.
			EPWM1_CH1	I/O	MFP12	EPWM1 channel 1 output/capture input.
37		71	PC.3	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD3	I/O	MFP2	EBI address/data bus bit 3.
			SPIM_SS	I/O	MFP3	SPIM slave select pin.
			QSPI0_SS	I/O	MFP4	Quad SPI0 slave select pin.
			SC1_PWR	O	MFP5	Smart Card 1 power pin.
			I2S0_MCLK	O	MFP6	I2S0 master clock output pin.
			SPI1_MISO	I/O	MFP7	SPI1 MISO (Master In, Slave Out) pin.
			UART2_nRTS	O	MFP8	UART2 request to Send output pin.
			I2C0_SMBAL	O	MFP9	I2C0 SMBus SMBALTER pin
			UART3_TXD	O	MFP11	UART3 data transmitter output pin.
			EPWM1_CH2	I/O	MFP12	EPWM1 channel 2 output/capture input.
38		72	PC.2	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD2	I/O	MFP2	EBI address/data bus bit 2.
			SPIM_CLK	I/O	MFP3	SPIM serial clock pin.
			QSPI0_CLK	I/O	MFP4	Quad SPI0 serial clock pin.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
			SC1_RST	O	MFP5	Smart Card 1 reset pin.
			I2S0_DI	I	MFP6	I2S0 data input pin.
			SPI1_MOSI	I/O	MFP7	SPI1 MOSI (Master Out, Slave In) pin.
			UART2_nCTS	I	MFP8	UART2 clear to Send input pin.
			I2C0_SMBSUS	O	MFP9	I2C0 SMBus SMBSUS pin (PMBus CONTROL pin)
			UART3_RXD	I	MFP11	UART3 data receiver input pin.
			EPWM1_CH3	I/O	MFP12	EPWM1 channel 3 output/capture input.
39	35	73	PC.1	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD1	I/O	MFP2	EBI address/data bus bit 1.
			SPIM_MISO	I/O	MFP3	SPIM MISO (Master In, Slave Out) pin.
			QSPI0_MISO0	I/O	MFP4	Quad SPI0 MISO0 (Master In, Slave Out) pin.
			SC1_DAT	I/O	MFP5	Smart Card 1 data pin.
			I2S0_DO	O	MFP6	I2S0 data output pin.
			SPI1_CLK	I/O	MFP7	SPI1 serial clock pin.
			UART2_TXD	O	MFP8	UART2 data transmitter output pin.
			I2C0_SCL	I/O	MFP9	I2C0 clock pin.
			EPWM1_CH4	I/O	MFP12	EPWM1 channel 4 output/capture input.
			ACMP0_O	O	MFP14	Analog comparator 0 output pin.
40	36	74	PC.0	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD0	I/O	MFP2	EBI address/data bus bit 0.
			SPIM_MOSI	I/O	MFP3	SPIM MOSI (Master Out, Slave In) pin.
			QSPI0_MOSI0	I/O	MFP4	Quad SPI0 MOSI0 (Master Out, Slave In) pin.
			SC1_CLK	O	MFP5	Smart Card 1 clock pin.
			I2S0_LRCK	O	MFP6	I2S0 left right channel clock output pin.
			SPI1_SS	I/O	MFP7	SPI1 slave select pin.
			UART2_RXD	I	MFP8	UART2 data receiver input pin.
			I2C0_SDA	I/O	MFP9	I2C0 data input/output pin.
			EPWM1_CH5	I/O	MFP12	EPWM1 channel 5 output/capture input.
			ACMP1_O	O	MFP14	Analog comparator 1 output pin.
		75	V_{SS}	P	MFP0	Ground pin for digital circuit.
		76	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
		77	PG.9	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD0	I/O	MFP2	EBI address/data bus bit 0.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
			SD1_DAT3	I/O	MFP3	SD/SDIO1 data line bit 3.
			SPIM_D2	I/O	MFP4	SPIM data 2 pin for Quad Mode I/O.
			BPWM0_CH5	I/O	MFP12	BPWM0 channel 5 output/capture input.
		78	PG.10	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD1	I/O	MFP2	EBI address/data bus bit 1.
			SD1_DAT2	I/O	MFP3	SD/SDIO1 data line bit 2.
			SPIM_D3	I/O	MFP4	SPIM data 3 pin for Quad Mode I/O.
			BPWM0_CH4	I/O	MFP12	BPWM0 channel 4 output/capture input.
		79	PG.11	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD2	I/O	MFP2	EBI address/data bus bit 2.
			SD1_DAT1	I/O	MFP3	SD/SDIO1 data line bit 1.
			SPIM_SS	I/O	MFP4	SPIM slave select pin.
			BPWM0_CH3	I/O	MFP12	BPWM0 channel 3 output/capture input.
		80	PG.12	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD3	I/O	MFP2	EBI address/data bus bit 3.
			SD1_DAT0	I/O	MFP3	SD/SDIO1 data line bit 0.
			SPIM_CLK	I/O	MFP4	SPIM serial clock pin.
			BPWM0_CH2	I/O	MFP12	BPWM0 channel 2 output/capture input.
		81	PG.13	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD4	I/O	MFP2	EBI address/data bus bit 4.
			SD1_CMD	I/O	MFP3	SD/SDIO1 command/response pin
			SPIM_MISO	I/O	MFP4	SPIM MISO (Master In, Slave Out) pin.
			BPWM0_CH1	I/O	MFP12	BPWM0 channel 1 output/capture input.
		82	PG.14	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD5	I/O	MFP2	EBI address/data bus bit 5.
			SD1_CLK	O	MFP3	SD/SDIO1 clock output pin
			SPIM_MOSI	I/O	MFP4	SPIM MOSI (Master Out, Slave In) pin.
			BPWM0_CH0	I/O	MFP12	BPWM0 channel 0 output/capture input.
		83	PG.15	I/O	MFP0	General purpose digital I/O pin.
			SD1_nCD	I	MFP3	SD/SDIO1 card detect input pin
			CLKO	O	MFP14	Clock Out
			EADC0_ST	I	MFP15	EADC0 external trigger input.
		84	PD.13	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD10	I/O	MFP2	EBI address/data bus bit 10.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
			SD0_nCD	I	MFP3	SD/SDIO0 card detect input pin
			SPI0_I2SMCLK	I/O	MFP4	SPI0 I2S master clock output pin
			SPI1_I2SMCLK	I/O	MFP5	SPI1 I2S master clock output pin
			SC2_nCD	I	MFP7	Smart Card 2 card detect pin.
	37	85	PA.12	I/O	MFP0	General purpose digital I/O pin.
			I2S0_BCLK	O	MFP2	I2S0 bit clock output pin.
			UART4_TXD	O	MFP3	UART4 data transmitter output pin.
			I2C1_SCL	I/O	MFP4	I2C1 clock pin.
			SPI2_SS	I/O	MFP5	SPI2 slave select pin.
			SC2_PWR	O	MFP7	Smart Card 2 power pin.
			BPWM1_CH2	I/O	MFP11	BPWM1 channel 2 output/capture input.
			QEI1_INDEX	I	MFP12	Quadrature encoder 1 index input
			USB_VBUS	P	MFP14	Power supply from USB host or HUB.
	38	86	PA.13	I/O	MFP0	General purpose digital I/O pin.
			I2S0_MCLK	O	MFP2	I2S0 master clock output pin.
			UART4_RXD	I	MFP3	UART4 data receiver input pin.
			I2C1_SDA	I/O	MFP4	I2C1 data input/output pin.
			SPI2_CLK	I/O	MFP5	SPI2 serial clock pin.
			SC2_RST	O	MFP7	Smart Card 2 reset pin.
			BPWM1_CH3	I/O	MFP11	BPWM1 channel 3 output/capture input.
			QEI1_A	I	MFP12	Quadrature encoder 1 phase A input
			USB_D-	A	MFP14	USB differential signal D-.
	39	87	PA.14	I/O	MFP0	General purpose digital I/O pin.
			I2S0_DI	I	MFP2	I2S0 data input pin.
			UART0_TXD	O	MFP3	UART0 data transmitter output pin.
			SPI2_MISO	I/O	MFP5	SPI2 MISO (Master In, Slave Out) pin.
			I2C2_SCL	I/O	MFP6	I2C2 clock pin.
			SC2_DAT	I/O	MFP7	Smart Card 2 data pin.
			BPWM1_CH4	I/O	MFP11	BPWM1 channel 4 output/capture input.
			QEI1_B	I	MFP12	Quadrature encoder 1 phase B input
			USB_D+	A	MFP14	USB differential signal D+.
	40	88	PA.15	I/O	MFP0	General purpose digital I/O pin.
			I2S0_DO	O	MFP2	I2S0 data output pin.
			UART0_RXD	I	MFP3	UART0 data receiver input pin.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
			SPI2_MOSI	I/O	MFP5	SPI2 MOSI (Master Out, Slave In) pin.
			I2C2_SDA	I/O	MFP6	I2C2 data input/output pin.
			SC2_CLK	O	MFP7	Smart Card 2 clock pin.
			BPWM1_CH5	I/O	MFP11	BPWM1 channel 5 output/capture input.
			EPWM0_SYNC_IN	I	MFP12	EPWM0 counter synchronous trigger input pin.
			USB_OTG_ID	I	MFP14	USB_ identification.
41	41	89	HSUSB_VRES	A	MFP0	HSUSB module reference resister
42	42	90	HSUSB_VDD33	P	MFP0	Power supply for HSUSB VDD33
43	43	91	HSUSB_VBUS	P	MFP0	HSUSB Power supply from USB host or HUB.
44	44	92	HSUSB_D-	A	MFP0	HSUSB differential signal D-.
45	45	93	HSUSB_VSS	P	MFP0	Ground pin for HSUSB.
46	46	94	HSUSB_D+	A	MFP0	HSUSB differential signal D+.
47	47	95	HSUSB_VDD12_CAP	A	MFP0	HSUSB Internal power regulator output 1.2V decoupling pin. Note: This pin needs to be connected with a 1uF capacitor.
48	48	96	HSUSB_ID	I	MFP0	HSUSB identification.
		97	PE.7	I/O	MFP0	General purpose digital I/O pin.
			SD0_CMD	I/O	MFP3	SD/SDIO0 command/response pin
			SPIM_D2	I/O	MFP4	SPIM data 2 pin for Quad Mode I/O.
			UART5_TXD	O	MFP8	UART5 data transmitter output pin.
			QEI1_INDEX	I	MFP11	Quadrature encoder 1 index input
			EPWM0_CH0	I/O	MFP12	EPWM0 channel 0 output/capture input.
			BPWM0_CH5	I/O	MFP13	BPWM0 channel 5 output/capture input.
		98	PE.6	I/O	MFP0	General purpose digital I/O pin.
			SD0_CLK	O	MFP3	SD/SDIO0 clock output pin
			SPIM_D3	I/O	MFP4	SPIM data 3 pin for Quad Mode I/O.
			SPI3_I2SMCLK	I/O	MFP5	SPI3 I2S master clock output pin
			SC0_nCD	I	MFP6	Smart Card 0 card detect pin.
			USCI0_CTL0	I/O	MFP7	USCI0 control 0 pin.
			UART5_RXD	I	MFP8	UART5 data receiver input pin.
			QEI1_A	I	MFP11	Quadrature encoder 1 phase A input
			EPWM0_CH1	I/O	MFP12	EPWM0 channel 1 output/capture input.
			BPWM0_CH4	I/O	MFP13	BPWM0 channel 4 output/capture input.
		99	PE.5	I/O	MFP0	General purpose digital I/O pin.
			EBI_nRD	O	MFP2	EBI read enable output pin.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
			SD0_DAT3	I/O	MFP3	SD/SDIO0 data line bit 3.
			SPIM_SS	I/O	MFP4	SPIM slave select pin.
			SPI3_SS	I/O	MFP5	SPI3 slave select pin.
			SC0_PWR	O	MFP6	Smart Card 0 power pin.
			USCI0_CTL1	I/O	MFP7	USCI0 control 1 pin.
			QEI1_B	I	MFP11	Quadrature encoder 1 phase B input
			EPWM0_CH2	I/O	MFP12	EPWM0 channel 2 output/capture input.
			BPWM0_CH3	I/O	MFP13	BPWM0 channel 3 output/capture input.
		100	PE.4	I/O	MFP0	General purpose digital I/O pin.
			EBI_nWR	O	MFP2	EBI write enable output pin.
			SD0_DAT2	I/O	MFP3	SD/SDIO0 data line bit 2.
			SPIM_CLK	I/O	MFP4	SPIM serial clock pin.
			SPI3_CLK	I/O	MFP5	SPI3 serial clock pin.
			SC0_RST	O	MFP6	Smart Card 0 reset pin.
			USCI0_DAT1	I/O	MFP7	USCI0 data 1 pin.
			QEI0_INDEX	I	MFP11	Quadrature encoder 0 index input
			EPWM0_CH3	I/O	MFP12	EPWM0 channel 3 output/capture input.
			BPWM0_CH2	I/O	MFP13	BPWM0 channel 2 output/capture input.
		101	PE.3	I/O	MFP0	General purpose digital I/O pin.
			EBI_MCLK	O	MFP2	EBI external clock output pin.
			SD0_DAT1	I/O	MFP3	SD/SDIO0 data line bit 1.
			SPIM_MISO	I/O	MFP4	SPIM MISO (Master In, Slave Out) pin.
			SPI3_MISO	I/O	MFP5	SPI3 MISO (Master In, Slave Out) pin.
			SC0_DAT	I/O	MFP6	Smart Card 0 data pin.
			USCI0_DAT0	I/O	MFP7	USCI0 data 0 pin.
			QEI0_A	I	MFP11	Quadrature encoder 0 phase A input
			EPWM0_CH4	I/O	MFP12	EPWM0 channel 4 output/capture input.
			BPWM0_CH1	I/O	MFP13	BPWM0 channel 1 output/capture input.
		102	PE.2	I/O	MFP0	General purpose digital I/O pin.
			EBI_ALE	O	MFP2	EBI address latch enable output pin.
			SD0_DAT0	I/O	MFP3	SD/SDIO0 data line bit 0.
			SPIM_MOSI	I/O	MFP4	SPIM MOSI (Master Out, Slave In) pin.
			SPI3_MOSI	I/O	MFP5	SPI3 MOSI (Master Out, Slave In) pin.
			SC0_CLK	O	MFP6	Smart Card 0 clock pin.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
			USCI0_CLK	I/O	MFP7	USCI0 clock pin.
			QEI0_B	I	MFP11	Quadrature encoder 0 phase B input
			EPWM0_CH5	I/O	MFP12	EPWM0 channel 5 output/capture input.
			BPWM0_CH0	I/O	MFP13	BPWM0 channel 0 output/capture input.
		103	V_{SS}	P	MFP0	Ground pin for digital circuit.
		104	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
		105	PE.1	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD10	I/O	MFP2	EBI address/data bus bit 10.
			QSPI0_MISO0	I/O	MFP3	Quad SPI0 MISO0 (Master In, Slave Out) pin.
			SC2_DAT	I/O	MFP4	Smart Card 2 data pin.
			I2S0_BCLK	O	MFP5	I2S0 bit clock output pin.
			SPI1_MISO	I/O	MFP6	SPI1 MISO (Master In, Slave Out) pin.
			UART3_TXD	O	MFP7	UART3 data transmitter output pin.
			I2C1_SCL	I/O	MFP8	I2C1 clock pin.
			UART4_nCTS	I	MFP9	UART4 clear to Send input pin.
		106	PE.0	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD11	I/O	MFP2	EBI address/data bus bit 11.
			QSPI0_MOSI0	I/O	MFP3	Quad SPI0 MOSI0 (Master Out, Slave In) pin.
			SC2_CLK	O	MFP4	Smart Card 2 clock pin.
			I2S0_MCLK	O	MFP5	I2S0 master clock output pin.
			SPI1_MOSI	I/O	MFP6	SPI1 MOSI (Master Out, Slave In) pin.
			UART3_RXD	I	MFP7	UART3 data receiver input pin.
			I2C1_SDA	I/O	MFP8	I2C1 data input/output pin.
			UART4_nRTS	O	MFP9	UART4 request to Send output pin.
		107	PH.8	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD12	I/O	MFP2	EBI address/data bus bit 12.
			QSPI0_CLK	I/O	MFP3	Quad SPI0 serial clock pin.
			SC2_PWR	O	MFP4	Smart Card 2 power pin.
			I2S0_DI	I	MFP5	I2S0 data input pin.
			SPI1_CLK	I/O	MFP6	SPI1 serial clock pin.
			UART3_nRTS	O	MFP7	UART3 request to Send output pin.
			I2C1_SMBAL	O	MFP8	I2C1 SMBus SMBALTER pin
			I2C2_SCL	I/O	MFP9	I2C2 clock pin.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
			UART1_TXD	O	MFP10	UART1 data transmitter output pin.
		108	PH.9	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD13	I/O	MFP2	EBI address/data bus bit 13.
			QSPI0_SS	I/O	MFP3	Quad SPI0 slave select pin.
			SC2_RST	O	MFP4	Smart Card 2 reset pin.
			I2S0_DO	O	MFP5	I2S0 data output pin.
			SPI1_SS	I/O	MFP6	SPI1 slave select pin.
			UART3_nCTS	I	MFP7	UART3 clear to Send input pin.
			I2C1_SMBSUS	O	MFP8	I2C1 SMBus SMBSUS pin (PMBus CONTROL pin)
			I2C2_SDA	I/O	MFP9	I2C2 data input/output pin.
			UART1_RXD	I	MFP10	UART1 data receiver input pin.
		109	PH.10	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD14	I/O	MFP2	EBI address/data bus bit 14.
			QSPI0_MISO1	I/O	MFP3	Quad SPI0 MISO1 (Master In, Slave Out) pin.
			SC2_nCD	I	MFP4	Smart Card 2 card detect pin.
			I2S0_LRCK	O	MFP5	I2S0 left right channel clock output pin.
			SPI1_I2SMCLK	I/O	MFP6	SPI1 I2S master clock output pin
			UART4_TXD	O	MFP7	UART4 data transmitter output pin.
			UART0_TXD	O	MFP8	UART0 data transmitter output pin.
		110	PH.11	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD15	I/O	MFP2	EBI address/data bus bit 15.
			QSPI0_MOSI1	I/O	MFP3	Quad SPI0 MOSI1 (Master Out, Slave In) pin.
			UART4_RXD	I	MFP7	UART4 data receiver input pin.
			UART0_RXD	I	MFP8	UART0 data receiver input pin.
			EPWM0_CH5	I/O	MFP11	EPWM0 channel 5 output/capture input.
		111	PD.14	I/O	MFP0	General purpose digital I/O pin.
			EBI_nCS0	O	MFP2	EBI chip select 0 output pin.
			SPI3_I2SMCLK	I/O	MFP3	SPI3 I2S master clock output pin
			SC1_nCD	I	MFP4	Smart Card 1 card detect pin.
			EPWM0_CH4	I/O	MFP11	EPWM0 channel 4 output/capture input.
49	49	112	V_{SS}	P	MFP0	Ground pin for digital circuit.
50	50	113	LDO_CAP	A	MFP0	LDO output pin. **Note:** This pin needs to be connected with an external capacitor.
51	51	114	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
						and digital circuit.
52	52	115	PC.14	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD11	I/O	MFP2	EBI address/data bus bit 11.
			SC1_nCD	I	MFP3	Smart Card 1 card detect pin.
			SPI0_I2SMCLK	I/O	MFP4	SPI0 I2S master clock output pin
			USCI0_CTL0	I/O	MFP5	USCI0 control 0 pin.
			QSPI0_CLK	I/O	MFP6	Quad SPI0 serial clock pin.
			EPWM0_SYNC_IN	I	MFP11	EPWM0 counter synchronous trigger input pin.
			TM1	I/O	MFP13	Timer1 event counter input/toggle output pin.
			USB_VBUS_ST	I	MFP14	USB external VBUS regulator status pin.
			HSUSB_VBUS_ST	I	MFP15	HSUSB external VBUS regulator status pin.
53	53	116	PB.15	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH15	A	MFP1	EADC0 channel 15 analog input.
			EBI_AD12	I/O	MFP2	EBI address/data bus bit 12.
			SC1_PWR	O	MFP3	Smart Card 1 power pin.
			SPI0_SS	I/O	MFP4	SPI0 slave select pin.
			USCI0_CTL1	I/O	MFP5	USCI0 control 1 pin.
			UART0_nCTS	I	MFP6	UART0 clear to Send input pin.
			UART3_TXD	O	MFP7	UART3 data transmitter output pin.
			I2C2_SMBAL	O	MFP8	I2C2 SMBus SMBALTER pin
			EPWM1_CH0	I/O	MFP11	EPWM1 channel 0 output/capture input.
			TM0_EXT	I/O	MFP13	Timer0 external capture input/toggle output pin.
			USB_VBUS_EN	O	MFP14	USB external VBUS regulator enable pin.
			HSUSB_VBUS_EN	O	MFP15	HSUSB external VBUS regulator enable pin.
54	54	117	PB.14	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH14	A	MFP1	EADC0 channel 14 analog input.
			EBI_AD13	I/O	MFP2	EBI address/data bus bit 13.
			SC1_RST	O	MFP3	Smart Card 1 reset pin.
			SPI0_CLK	I/O	MFP4	SPI0 serial clock pin.
			USCI0_DAT1	I/O	MFP5	USCI0 data 1 pin.
			UART0_nRTS	O	MFP6	UART0 request to Send output pin.
			UART3_RXD	I	MFP7	UART3 data receiver input pin.
			I2C2_SMBSUS	O	MFP8	I2C2 SMBus SMBSUS pin (PMBus CONTROL pin)
			EPWM1_CH1	I/O	MFP11	EPWM1 channel 1 output/capture input.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
			TM1_EXT	I/O	MFP13	Timer1 external capture input/toggle output pin.
			CLKO	O	MFP14	Clock Out
55	55	118	PB.13	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH13	A	MFP1	EADC0 channel 13 analog input.
			DAC1_OUT	A	MFP1	DAC1 channel analog output.
			ACMP0_P3	A	MFP1	Analog comparator 0 positive input 3 pin.
			ACMP1_P3	A	MFP1	Analog comparator 1 positive input 3 pin.
			EBI_AD14	I/O	MFP2	EBI address/data bus bit 14.
			SC1_DAT	I/O	MFP3	Smart Card 1 data pin.
			SPI0_MISO	I/O	MFP4	SPI0 MISO (Master In, Slave Out) pin.
			USCI0_DAT0	I/O	MFP5	USCI0 data 0 pin.
			UART0_TXD	O	MFP6	UART0 data transmitter output pin.
			UART3_nRTS	O	MFP7	UART3 request to Send output pin.
			I2C2_SCL	I/O	MFP8	I2C2 clock pin.
			EPWM1_CH2	I/O	MFP11	EPWM1 channel 2 output/capture input.
			TM2_EXT	I/O	MFP13	Timer2 external capture input/toggle output pin.
56	56	119	PB.12	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH12	A	MFP1	EADC0 channel 12 analog input.
			DAC0_OUT	A	MFP1	DAC0 channel analog output.
			ACMP0_P2	A	MFP1	Analog comparator 0 positive input 2 pin.
			ACMP1_P2	A	MFP1	Analog comparator 1 positive input 2 pin.
			EBI_AD15	I/O	MFP2	EBI address/data bus bit 15.
			SC1_CLK	O	MFP3	Smart Card 1 clock pin.
			SPI0_MOSI	I/O	MFP4	SPI0 MOSI (Master Out, Slave In) pin.
			USCI0_CLK	I/O	MFP5	USCI0 clock pin.
			UART0_RXD	I	MFP6	UART0 data receiver input pin.
			UART3_nCTS	I	MFP7	UART3 clear to Send input pin.
			I2C2_SDA	I/O	MFP8	I2C2 data input/output pin.
			SD0_nCD	I	MFP9	SD/SDIO0 card detect input pin
			EPWM1_CH3	I/O	MFP11	EPWM1 channel 3 output/capture input.
			TM3_EXT	I/O	MFP13	Timer3 external capture input/toggle output pin.
57	57	120	AV_{DD}	P	MFP0	Power supply for internal analog circuit.
58	58	121	V_{REF}	A	MFP0	ADC reference voltage input. Note: This pin needs to be connected with a 1uF capacitor.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
59	59	122	AV_{SS}	P	MFP0	Ground pin for analog circuit.
60	60	123	PB.11	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH11	A	MFP1	EADC0 channel 11 analog input.
			EBI_ADR16	O	MFP2	EBI address bus bit 16.
			UART0_nCTS	I	MFP5	UART0 clear to Send input pin.
			UART4_TXD	O	MFP6	UART4 data transmitter output pin.
			I2C1_SCL	I/O	MFP7	I2C1 clock pin.
			SPI0_I2SMCLK	I/O	MFP9	SPI0 I2S master clock output pin
			BPWM1_CH0	I/O	MFP10	BPWM1 channel 0 output/capture input.
			SPI3_CLK	I/O	MFP11	SPI3 serial clock pin.
			HSUSB_VBUS_ST	I	MFP14	HSUSB external VBUS regulator status pin.
61	61	124	PB.10	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH10	A	MFP1	EADC0 channel 10 analog input.
			EBI_ADR17	O	MFP2	EBI address bus bit 17.
			USCI1_CTL0	I/O	MFP4	USCI1 control 0 pin.
			UART0_nRTS	O	MFP5	UART0 request to Send output pin.
			UART4_RXD	I	MFP6	UART4 data receiver input pin.
			I2C1_SDA	I/O	MFP7	I2C1 data input/output pin.
			BPWM1_CH1	I/O	MFP10	BPWM1 channel 1 output/capture input.
			SPI3_SS	I/O	MFP11	SPI3 slave select pin.
			HSUSB_VBUS_EN	O	MFP14	HSUSB external VBUS regulator enable pin.
62	62	125	PB.9	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH9	A	MFP1	EADC0 channel 9 analog input.
			EBI_ADR18	O	MFP2	EBI address bus bit 18.
			USCI1_CTL1	I/O	MFP4	USCI1 control 1 pin.
			UART0_TXD	O	MFP5	UART0 data transmitter output pin.
			UART1_nCTS	I	MFP6	UART1 clear to Send input pin.
			I2C1_SMBAL	O	MFP7	I2C1 SMBus SMBALTER pin
			BPWM1_CH2	I/O	MFP10	BPWM1 channel 2 output/capture input.
			SPI3_MISO	I/O	MFP11	SPI3 MISO (Master In, Slave Out) pin.
			INT7	I	MFP13	External interrupt 7 input pin.
63	63	126	PB.8	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH8	A	MFP1	EADC0 channel 8 analog input.
			EBI_ADR19	O	MFP2	EBI address bus bit 19.

64 Pin	64 Pin 2 USB	128 Pin	Pin Name	Type	MFP	Description
			USCI1_CLK	I/O	MFP4	USCI1 clock pin.
			UART0_RXD	I	MFP5	UART0 data receiver input pin.
			UART1_nRTS	O	MFP6	UART1 request to Send output pin.
			I2C1_SMBSUS	O	MFP7	I2C1 SMBus SMBSUS pin (PMBus CONTROL pin)
			BPWM1_CH3	I/O	MFP10	BPWM1 channel 3 output/capture input.
			SPI3_MOSI	I/O	MFP11	SPI3 MOSI (Master Out, Slave In) pin.
			INT6	I	MFP13	External interrupt 6 input pin.
64	64	127	PB.7	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH7	A	MFP1	EADC0 channel 7 analog input.
			EBI_nWRL	O	MFP2	EBI low byte write enable output pin.
			USCI1_DAT0	I/O	MFP4	USCI1 data 0 pin.
			UART1_TXD	O	MFP6	UART1 data transmitter output pin.
			SD1_CMD	I/O	MFP7	SD/SDIO1 command/response pin
			EBI_nCS0	O	MFP8	EBI chip select 0 output pin.
			BPWM1_CH4	I/O	MFP10	BPWM1 channel 4 output/capture input.
			EPWM1_BRAKE0	I	MFP11	EPWM1 Brake 0 input pin.
			EPWM1_CH4	I/O	MFP12	EPWM1 channel 4 output/capture input.
			INT5	I	MFP13	External interrupt 5 input pin.
			USB_VBUS_ST	I	MFP14	USB external VBUS regulator status pin.
			ACMP0_O	O	MFP15	Analog comparator 0 output pin.
1	1	128	PB.6	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH6	A	MFP1	EADC0 channel 6 analog input.
			EBI_nWRH	O	MFP2	EBI high byte write enable output pin
			USCI1_DAT1	I/O	MFP4	USCI1 data 1 pin.
			UART1_RXD	I	MFP6	UART1 data receiver input pin.
			SD1_CLK	O	MFP7	SD/SDIO1 clock output pin
			EBI_nCS1	O	MFP8	EBI chip select 1 output pin.
			BPWM1_CH5	I/O	MFP10	BPWM1 channel 5 output/capture input.
			EPWM1_BRAKE1	I	MFP11	EPWM1 Brake 1 input pin.
			EPWM1_CH5	I/O	MFP12	EPWM1 channel 5 output/capture input.
			INT4	I	MFP13	External interrupt 4 input pin.
			USB_VBUS_EN	O	MFP14	USB external VBUS regulator enable pin.
			ACMP1_O	O	MFP15	Analog comparator 1 output pin.

4.2.5 M485 Series Pin Description

Note: PA.15 MFP can only be as USB_OTG_ID when enable full-Speed USB.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
1	2	1	PB.5	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH5	A	MFP1	EADC0 channel 5 analog input.
			ACMP1_N	A	MFP1	Analog comparator 1 negative input pin.
			EBI_ADR0	O	MFP2	EBI address bus bit 0.
			SD0_DAT3	I/O	MFP3	SD/SDIO0 data line bit 3.
			SPI1_MISO	I/O	MFP5	SPI1 MISO (Master In, Slave Out) pin.
			I2C0_SCL	I/O	MFP6	I2C0 clock pin.
			UART5_TXD	O	MFP7	UART5 data transmitter output pin.
			USCI1_CTL0	I/O	MFP8	USCI1 control 0 pin.
			SC0_CLK	O	MFP9	Smart Card 0 clock pin.
			I2S0_BCLK	O	MFP10	I2S0 bit clock output pin.
			EPWM0_CH0	I/O	MFP11	EPWM0 channel 0 output/capture input.
			TM0	I/O	MFP14	Timer0 event counter input/toggle output pin.
			INT0	I	MFP15	External interrupt 0 input pin.
2	3	2	PB.4	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH4	A	MFP1	EADC0 channel 4 analog input.
			ACMP1_P1	A	MFP1	Analog comparator 1 positive input 1 pin.
			EBI_ADR1	O	MFP2	EBI address bus bit 1.
			SD0_DAT2	I/O	MFP3	SD/SDIO0 data line bit 2.
			SPI1_MOSI	I/O	MFP5	SPI1 MOSI (Master Out, Slave In) pin.
			I2C0_SDA	I/O	MFP6	I2C0 data input/output pin.
			UART5_RXD	I	MFP7	UART5 data receiver input pin.
			USCI1_CTL1	I/O	MFP8	USCI1 control 1 pin.
			SC0_DAT	I/O	MFP9	Smart Card 0 data pin.
			I2S0_MCLK	O	MFP10	I2S0 master clock output pin.
			EPWM0_CH1	I/O	MFP11	EPWM0 channel 1 output/capture input.
			TM1	I/O	MFP14	Timer1 event counter input/toggle output pin.
			INT1	I	MFP15	External interrupt 1 input pin.
3	4	3	PB.3	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH3	A	MFP1	EADC0 channel 3 analog input.
			ACMP0_N	A	MFP1	Analog comparator 0 negative input pin.
			EBI_ADR2	O	MFP2	EBI address bus bit 2.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			SD0_DAT1	I/O	MFP3	SD/SDIO0 data line bit 1.
			SPI1_CLK	I/O	MFP5	SPI1 serial clock pin.
			UART1_TXD	O	MFP6	UART1 data transmitter output pin.
			UART5_nRTS	O	MFP7	UART5 request to Send output pin.
			USCI1_DAT1	I/O	MFP8	USCI1 data 1 pin.
			SC0_RST	O	MFP9	Smart Card 0 reset pin.
			I2S0_DI	I	MFP10	I2S0 data input pin.
			EPWM0_CH2	I/O	MFP11	EPWM0 channel 2 output/capture input.
			TM2	I/O	MFP14	Timer2 event counter input/toggle output pin.
			INT2	I	MFP15	External interrupt 2 input pin.
4	5	4	PB.2	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH2	A	MFP1	EADC0 channel 2 analog input.
			ACMP0_P1	A	MFP1	Analog comparator 0 positive input 1 pin.
			OPA0_O	A	MFP1	Operational amplifier 0 output pin.
			EBI_ADR3	O	MFP2	EBI address bus bit 3.
			SD0_DAT0	I/O	MFP3	SD/SDIO0 data line bit 0.
			SPI1_SS	I/O	MFP5	SPI1 slave select pin.
			UART1_RXD	I	MFP6	UART1 data receiver input pin.
			UART5_nCTS	I	MFP7	UART5 clear to Send input pin.
			USCI1_DAT0	I/O	MFP8	USCI1 data 0 pin.
			SC0_PWR	O	MFP9	Smart Card 0 power pin.
			I2S0_DO	O	MFP10	I2S0 data output pin.
			EPWM0_CH3	I/O	MFP11	EPWM0 channel 3 output/capture input.
			TM3	I/O	MFP14	Timer3 event counter input/toggle output pin.
			INT3	I	MFP15	External interrupt 3 input pin.
		5	PC.12	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR4	O	MFP2	EBI address bus bit 4.
			UART0_TXD	O	MFP3	UART0 data transmitter output pin.
			I2C0_SCL	I/O	MFP4	I2C0 clock pin.
			SPI3_MISO	I/O	MFP6	SPI3 MISO (Master In, Slave Out) pin.
			SC0_nCD	I	MFP9	Smart Card 0 card detect pin.
			ECAP1_IC2	I	MFP11	Enhanced capture unit 1 input 2 pin.
			EPWM1_CH0	I/O	MFP12	EPWM1 channel 0 output/capture input.
			ACMP0_O	O	MFP14	Analog comparator 0 output pin.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
		6	PC.11	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR5	O	MFP2	EBI address bus bit 5.
			UART0_RXD	I	MFP3	UART0 data receiver input pin.
			I2C0_SDA	I/O	MFP4	I2C0 data input/output pin.
			SPI3_MOSI	I/O	MFP6	SPI3 MOSI (Master Out, Slave In) pin.
			ECAP1_IC1	I	MFP11	Enhanced capture unit 1 input 1 pin.
			EPWM1_CH1	I/O	MFP12	EPWM1 channel 1 output/capture input.
			ACMP1_O	O	MFP14	Analog comparator 1 output pin.
		7	PC.10	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR6	O	MFP2	EBI address bus bit 6.
			SPI3_CLK	I/O	MFP6	SPI3 serial clock pin.
			UART3_TXD	O	MFP7	UART3 data transmitter output pin.
			CAN1_TXD	O	MFP9	CAN1 bus transmitter output.
			ECAP1_IC0	I	MFP11	Enhanced capture unit 1 input 0 pin.
			EPWM1_CH2	I/O	MFP12	EPWM1 channel 2 output/capture input.
		8	PC.9	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR7	O	MFP2	EBI address bus bit 7.
			SPI3_SS	I/O	MFP6	SPI3 slave select pin.
			UART3_RXD	I	MFP7	UART3 data receiver input pin.
			CAN1_RXD	I	MFP9	CAN1 bus receiver input.
			EPWM1_CH3	I/O	MFP12	EPWM1 channel 3 output/capture input.
5	6	9	PB.1	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH1	A	MFP1	EADC0 channel 1 analog input.
			OPA0_N	A	MFP1	Operational amplifier 0 negative input pin.
			EBI_ADR8	O	MFP2	EBI address bus bit 8.
			SD0_CLK	O	MFP3	SD/SDIO0 clock output pin
			SPI1_I2SMCLK	I/O	MFP5	SPI1 I2S master clock output pin
			SPI3_I2SMCLK	I/O	MFP6	SPI3 I2S master clock output pin
			UART2_TXD	O	MFP7	UART2 data transmitter output pin.
			USCI1_CLK	I/O	MFP8	USCI1 clock pin.
			I2C1_SCL	I/O	MFP9	I2C1 clock pin.
			I2S0_LRCK	O	MFP10	I2S0 left right channel clock output pin.
			EPWM0_CH4	I/O	MFP11	EPWM0 channel 4 output/capture input.
			EPWM1_CH4	I/O	MFP12	EPWM1 channel 4 output/capture input.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			EPWM0_BRAKE0	I	MFP13	EPWM0 Brake 0 input pin.
6	7	10	PB.0	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH0	A	MFP1	EADC0 channel 0 analog input.
			OPA0_P	A	MFP1	Operational amplifier 0 positive input pin.
			EBI_ADR9	O	MFP2	EBI address bus bit 9.
			SD0_CMD	I/O	MFP3	SD/SDIO0 command/response pin
			UART2_RXD	I	MFP7	UART2 data receiver input pin.
			SPI0_I2SMCLK	I/O	MFP8	SPI0 I2S master clock output pin
			I2C1_SDA	I/O	MFP9	I2C1 data input/output pin.
			EPWM0_CH5	I/O	MFP11	EPWM0 channel 5 output/capture input.
			EPWM1_CH5	I/O	MFP12	EPWM1 channel 5 output/capture input.
			EPWM0_BRAKE1	I	MFP13	EPWM0 Brake 1 input pin.
		11	VSS	P	MFP0	Ground pin for digital circuit.
		12	VDD	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
7	8	13	PA.11	I/O	MFP0	General purpose digital I/O pin.
			ACMP0_P0	A	MFP1	Analog comparator 0 positive input 0 pin.
			EBI_nRD	O	MFP2	EBI read enable output pin.
			SC2_PWR	O	MFP3	Smart Card 2 power pin.
			SPI2_SS	I/O	MFP4	SPI2 slave select pin.
			SD1_DAT3	I/O	MFP5	SD/SDIO1 data line bit 3.
			USCI0_CLK	I/O	MFP6	USCI0 clock pin.
			I2C2_SCL	I/O	MFP7	I2C2 clock pin.
			BPWM0_CH0	I/O	MFP9	BPWM0 channel 0 output/capture input.
			EPWM0_SYNC_OUT	O	MFP10	EPWM0 counter synchronous trigger output pin.
			TM0_EXT	I/O	MFP13	Timer0 external capture input/toggle output pin.
			DAC1_ST	I	MFP14	DAC1 external trigger input.
8	9	14	PA.10	I/O	MFP0	General purpose digital I/O pin.
			ACMP1_P0	A	MFP1	Analog comparator 1 positive input 0 pin.
			OPA1_O	A	MFP1	Operational amplifier 1 output pin.
			EBI_nWR	O	MFP2	EBI write enable output pin.
			SC2_RST	O	MFP3	Smart Card 2 reset pin.
			SPI2_CLK	I/O	MFP4	SPI2 serial clock pin.
			SD1_DAT2	I/O	MFP5	SD/SDIO1 data line bit 2.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			USCI0_DAT0	I/O	MFP6	USCI0 data 0 pin.
			I2C2_SDA	I/O	MFP7	I2C2 data input/output pin.
			BPWM0_CH1	I/O	MFP9	BPWM0 channel 1 output/capture input.
			QEI1_INDEX	I	MFP10	Quadrature encoder 1 index input
			ECAP0_IC0	I	MFP11	Enhanced capture unit 0 input 0 pin.
			TM1_EXT	I/O	MFP13	Timer1 external capture input/toggle output pin.
			DAC0_ST	I	MFP14	DAC0 external trigger input.
9	10	15	PA.9	I/O	MFP0	General purpose digital I/O pin.
			OPA1_N	A	MFP1	Operational amplifier 1 negative input pin.
			EBI_MCLK	O	MFP2	EBI external clock output pin.
			SC2_DAT	I/O	MFP3	Smart Card 2 data pin.
			SPI2_MISO	I/O	MFP4	SPI2 MISO (Master In, Slave Out) pin.
			SD1_DAT1	I/O	MFP5	SD/SDIO1 data line bit 1.
			USCI0_DAT1	I/O	MFP6	USCI0 data 1 pin.
			UART1_TXD	O	MFP7	UART1 data transmitter output pin.
			BPWM0_CH2	I/O	MFP9	BPWM0 channel 2 output/capture input.
			QEI1_A	I	MFP10	Quadrature encoder 1 phase A input
			ECAP0_IC1	I	MFP11	Enhanced capture unit 0 input 1 pin.
			TM2_EXT	I/O	MFP13	Timer2 external capture input/toggle output pin.
10	11	16	PA.8	I/O	MFP0	General purpose digital I/O pin.
			OPA1_P	A	MFP1	Operational amplifier 1 positive input pin.
			EBI_ALE	O	MFP2	EBI address latch enable output pin.
			SC2_CLK	O	MFP3	Smart Card 2 clock pin.
			SPI2_MOSI	I/O	MFP4	SPI2 MOSI (Master Out, Slave In) pin.
			SD1_DAT0	I/O	MFP5	SD/SDIO1 data line bit 0.
			USCI0_CTL1	I/O	MFP6	USCI0 control 1 pin.
			UART1_RXD	I	MFP7	UART1 data receiver input pin.
			BPWM0_CH3	I/O	MFP9	BPWM0 channel 3 output/capture input.
			QEI1_B	I	MFP10	Quadrature encoder 1 phase B input
			ECAP0_IC2	I	MFP11	Enhanced capture unit 0 input 2 pin.
			TM3_EXT	I/O	MFP13	Timer3 external capture input/toggle output pin.
			INT4	I	MFP15	External interrupt 4 input pin.
		17	PC.13	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR10	O	MFP2	EBI address bus bit 10.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			SC2_nCD	I	MFP3	Smart Card 2 card detect pin.
			SPI2_I2SMCLK	I/O	MFP4	SPI2 I2S master clock output pin
			CAN1_TXD	O	MFP5	CAN1 bus transmitter output.
			USCI0_CTL0	I/O	MFP6	USCI0 control 0 pin.
			UART2_TXD	O	MFP7	UART2 data transmitter output pin.
			BPWM0_CH4	I/O	MFP9	BPWM0 channel 4 output/capture input.
			CLKO	O	MFP13	Clock Out
			EADC0_ST	I	MFP14	EADC0 external trigger input.
		18	PD.12	I/O	MFP0	General purpose digital I/O pin.
			OPA2_O	A	MFP1	Operational amplifier 2 output pin.
			EBI_nCS0	O	MFP2	EBI chip select 0 output pin.
			CAN1_RXD	I	MFP5	CAN1 bus receiver input.
			UART2_RXD	I	MFP7	UART2 data receiver input pin.
			BPWM0_CH5	I/O	MFP9	BPWM0 channel 5 output/capture input.
			QEI0_INDEX	I	MFP10	Quadrature encoder 0 index input
			CLKO	O	MFP13	Clock Out
			EADC0_ST	I	MFP14	EADC0 external trigger input.
			INT5	I	MFP15	External interrupt 5 input pin.
		19	PD.11	I/O	MFP0	General purpose digital I/O pin.
			OPA2_N	A	MFP1	Operational amplifier 2 negative input pin.
			EBI_nCS1	O	MFP2	EBI chip select 1 output pin.
			UART1_TXD	O	MFP3	UART1 data transmitter output pin.
			CAN0_TXD	O	MFP4	CAN0 bus transmitter output.
			QEI0_A	I	MFP10	Quadrature encoder 0 phase A input
			INT6	I	MFP15	External interrupt 6 input pin.
		20	PD.10	I/O	MFP0	General purpose digital I/O pin.
			OPA2_P	A	MFP1	Operational amplifier 2 positive input pin.
			EBI_nCS2	O	MFP2	EBI chip select 2 output pin.
			UART1_RXD	I	MFP3	UART1 data receiver input pin.
			CAN0_RXD	I	MFP4	CAN0 bus receiver input.
			QEI0_B	I	MFP10	Quadrature encoder 0 phase B input
			INT7	I	MFP15	External interrupt 7 input pin.
		21	PG.2	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR11	O	MFP2	EBI address bus bit 11.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			SPI2_SS	I/O	MFP3	SPI2 slave select pin.
			I2C0_SMBAL	O	MFP4	I2C0 SMBus SMBALTER pin
			I2C1_SCL	I/O	MFP5	I2C1 clock pin.
			TM0	I/O	MFP13	Timer0 event counter input/toggle output pin.
		22	PG.3	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR12	O	MFP2	EBI address bus bit 12.
			SPI2_CLK	I/O	MFP3	SPI2 serial clock pin.
			I2C0_SMBSUS	O	MFP4	I2C0 SMBus SMBSUS pin (PMBus CONTROL pin)
			I2C1_SDA	I/O	MFP5	I2C1 data input/output pin.
			TM1	I/O	MFP13	Timer1 event counter input/toggle output pin.
		23	PG.4	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR13	O	MFP2	EBI address bus bit 13.
			SPI2_MISO	I/O	MFP3	SPI2 MISO (Master In, Slave Out) pin.
			TM2	I/O	MFP13	Timer2 event counter input/toggle output pin.
		24	PF.11	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR14	O	MFP2	EBI address bus bit 14.
			SPI2_MOSI	I/O	MFP3	SPI2 MOSI (Master Out, Slave In) pin.
			TAMPER5	I/O	MFP10	TAMPER detector loop pin 5.
			TM3	I/O	MFP13	Timer3 event counter input/toggle output pin.
		25	PF.10	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR15	O	MFP2	EBI address bus bit 15.
			SC0_nCD	I	MFP3	Smart Card 0 card detect pin.
			I2S0_BCLK	O	MFP4	I2S0 bit clock output pin.
			SPI0_I2SMCLK	I/O	MFP5	SPI0 I2S master clock output pin
			TAMPER4	I/O	MFP10	TAMPER detector loop pin 4.
		26	PF.9	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR16	O	MFP2	EBI address bus bit 16.
			SC0_PWR	O	MFP3	Smart Card 0 power pin.
			I2S0_MCLK	O	MFP4	I2S0 master clock output pin.
			SPI0_SS	I/O	MFP5	SPI0 slave select pin.
			TAMPER3	I/O	MFP10	TAMPER detector loop pin 3.
		27	PF.8	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR17	O	MFP2	EBI address bus bit 17.
			SC0_RST	O	MFP3	Smart Card 0 reset pin.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			I2S0_DI	I	MFP4	I2S0 data input pin.
			SPI0_CLK	I/O	MFP5	SPI0 serial clock pin.
			TAMPER2	I/O	MFP10	TAMPER detector loop pin 2.
		28	PF.7	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR18	O	MFP2	EBI address bus bit 18.
			SC0_DAT	I/O	MFP3	Smart Card 0 data pin.
			I2S0_DO	O	MFP4	I2S0 data output pin.
			SPI0_MISO	I/O	MFP5	SPI0 MISO (Master In, Slave Out) pin.
			UART4_TXD	O	MFP6	UART4 data transmitter output pin.
			TAMPER1	I/O	MFP10	TAMPER detector loop pin 1.
	12	29	PF.6	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR19	O	MFP2	EBI address bus bit 19.
			SC0_CLK	O	MFP3	Smart Card 0 clock pin.
			I2S0_LRCK	O	MFP4	I2S0 left right channel clock output pin.
			SPI0_MOSI	I/O	MFP5	SPI0 MOSI (Master Out, Slave In) pin.
			UART4_RXD	I	MFP6	UART4 data receiver input pin.
			EBI_nCS0	O	MFP7	EBI chip select 0 output pin.
			TAMPER0	I/O	MFP10	TAMPER detector loop pin 0.
	13	30	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
11	14	31	PF.5	I/O	MFP0	General purpose digital I/O pin.
			UART2_RXD	I	MFP2	UART2 data receiver input pin.
			UART2_nCTS	I	MFP4	UART2 clear to Send input pin.
			BPWM0_CH4	I/O	MFP8	BPWM0 channel 4 output/capture input.
			EPWM0_SYNC_OUT	O	MFP9	EPWM0 counter synchronous trigger output pin.
			X32_IN	I	MFP10	External 32.768 kHz crystal input pin.
			EADC0_ST	I	MFP11	EADC0 external trigger input.
12	15	32	PF.4	I/O	MFP0	General purpose digital I/O pin.
			UART2_TXD	O	MFP2	UART2 data transmitter output pin.
			UART2_nRTS	O	MFP4	UART2 request to Send output pin.
			BPWM0_CH5	I/O	MFP8	BPWM0 channel 5 output/capture input.
			X32_OUT	O	MFP10	External 32.768 kHz crystal output pin.
		33	PH.4	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR3	O	MFP2	EBI address bus bit 3.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			SPI1_MISO	I/O	MFP3	SPI1 MISO (Master In, Slave Out) pin.
		34	PH.5	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR2	O	MFP2	EBI address bus bit 2.
			SPI1_MOSI	I/O	MFP3	SPI1 MOSI (Master Out, Slave In) pin.
		35	PH.6	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR1	O	MFP2	EBI address bus bit 1.
			SPI1_CLK	I/O	MFP3	SPI1 serial clock pin.
		36	PH.7	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR0	O	MFP2	EBI address bus bit 0.
			SPI1_SS	I/O	MFP3	SPI1 slave select pin.
13	16	37	PF.3	I/O	MFP0	General purpose digital I/O pin.
			EBI_nCS0	O	MFP2	EBI chip select 0 output pin.
			UART0_TXD	O	MFP3	UART0 data transmitter output pin.
			I2C0_SCL	I/O	MFP4	I2C0 clock pin.
			XT1_IN	I	MFP10	External 4~24 MHz (high speed) crystal input pin.
			BPWM1_CH0	I/O	MFP11	BPWM1 channel 0 output/capture input.
14	17	38	PF.2	I/O	MFP0	General purpose digital I/O pin.
			EBI_nCS1	O	MFP2	EBI chip select 1 output pin.
			UART0_RXD	I	MFP3	UART0 data receiver input pin.
			I2C0_SDA	I/O	MFP4	I2C0 data input/output pin.
			QSPI0_CLK	I/O	MFP5	Quad SPI0 serial clock pin.
			XT1_OUT	O	MFP10	External 4~24 MHz (high speed) crystal output pin.
			BPWM1_CH1	I/O	MFP11	BPWM1 channel 1 output/capture input.
		39	VSS	P	MFP0	Ground pin for digital circuit.
		40	VDD	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
		41	PE.8	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR10	O	MFP2	EBI address bus bit 10.
			I2S0_BCLK	O	MFP4	I2S0 bit clock output pin.
			SPI2_CLK	I/O	MFP5	SPI2 serial clock pin.
			USCI1_CTL1	I/O	MFP6	USCI1 control 1 pin.
			UART2_TXD	O	MFP7	UART2 data transmitter output pin.
			EPWM0_CH0	I/O	MFP10	EPWM0 channel 0 output/capture input.
			EPWM0_BRAKE0	I	MFP11	EPWM0 Brake 0 input pin.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			ECAP0_IC0	I	MFP12	Enhanced capture unit 0 input 0 pin.
			TRACE_DATA3	O	MFP14	ETM Trace Data 3 output pin
		42	PE.9	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR11	O	MFP2	EBI address bus bit 11.
			I2S0_MCLK	O	MFP4	I2S0 master clock output pin.
			SPI2_MISO	I/O	MFP5	SPI2 MISO (Master In, Slave Out) pin.
			USCI1_CTL0	I/O	MFP6	USCI1 control 0 pin.
			UART2_RXD	I	MFP7	UART2 data receiver input pin.
			EPWM0_CH1	I/O	MFP10	EPWM0 channel 1 output/capture input.
			EPWM0_BRAKE1	I	MFP11	EPWM0 Brake 1 input pin.
			ECAP0_IC1	I	MFP12	Enhanced capture unit 0 input 1 pin.
			TRACE_DATA2	O	MFP14	ETM Trace Data 2 output pin
		43	PE.10	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR12	O	MFP2	EBI address bus bit 12.
			I2S0_DI	I	MFP4	I2S0 data input pin.
			SPI2_MOSI	I/O	MFP5	SPI2 MOSI (Master Out, Slave In) pin.
			USCI1_DAT0	I/O	MFP6	USCI1 data 0 pin.
			UART3_TXD	O	MFP7	UART3 data transmitter output pin.
			EPWM0_CH2	I/O	MFP10	EPWM0 channel 2 output/capture input.
			EPWM1_BRAKE0	I	MFP11	EPWM1 Brake 0 input pin.
			ECAP0_IC2	I	MFP12	Enhanced capture unit 0 input 2 pin.
			TRACE_DATA1	O	MFP14	ETM Trace Data 1 output pin
		44	PE.11	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR13	O	MFP2	EBI address bus bit 13.
			I2S0_DO	O	MFP4	I2S0 data output pin.
			SPI2_SS	I/O	MFP5	SPI2 slave select pin.
			USCI1_DAT1	I/O	MFP6	USCI1 data 1 pin.
			UART3_RXD	I	MFP7	UART3 data receiver input pin.
			UART1_nCTS	I	MFP8	UART1 clear to Send input pin.
			EPWM0_CH3	I/O	MFP10	EPWM0 channel 3 output/capture input.
			EPWM1_BRAKE1	I	MFP11	EPWM1 Brake 1 input pin.
			ECAP1_IC2	I	MFP13	Enhanced capture unit 1 input 2 pin.
			TRACE_DATA0	O	MFP14	ETM Trace Data 0 output pin
		45	PE.12	I/O	MFP0	General purpose digital I/O pin.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			EBI_ADR14	O	MFP2	EBI address bus bit 14.
			I2S0_LRCK	O	MFP4	I2S0 left right channel clock output pin.
			SPI2_I2SMCLK	I/O	MFP5	SPI2 I2S master clock output pin
			USCI1_CLK	I/O	MFP6	USCI1 clock pin.
			UART1_nRTS	O	MFP8	UART1 request to Send output pin.
			EPWM0_CH4	I/O	MFP10	EPWM0 channel 4 output/capture input.
			ECAP1_IC1	I	MFP13	Enhanced capture unit 1 input 1 pin.
			TRACE_CLK	O	MFP14	ETM Trace Clock output pin
		46	PE.13	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR15	O	MFP2	EBI address bus bit 15.
			I2C0_SCL	I/O	MFP4	I2C0 clock pin.
			UART4_nRTS	O	MFP5	UART4 request to Send output pin.
			UART1_TXD	O	MFP8	UART1 data transmitter output pin.
			EPWM0_CH5	I/O	MFP10	EPWM0 channel 5 output/capture input.
			EPWM1_CH0	I/O	MFP11	EPWM1 channel 0 output/capture input.
			BPWM1_CH5	I/O	MFP12	BPWM1 channel 5 output/capture input.
			ECAP1_IC0	I	MFP13	Enhanced capture unit 1 input 0 pin.
		47	PC.8	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR16	O	MFP2	EBI address bus bit 16.
			I2C0_SDA	I/O	MFP4	I2C0 data input/output pin.
			UART4_nCTS	I	MFP5	UART4 clear to Send input pin.
			UART1_RXD	I	MFP8	UART1 data receiver input pin.
			EPWM1_CH1	I/O	MFP11	EPWM1 channel 1 output/capture input.
			BPWM1_CH4	I/O	MFP12	BPWM1 channel 4 output/capture input.
	18	48	PC.7	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD9	I/O	MFP2	EBI address/data bus bit 9.
			SPI1_MISO	I/O	MFP4	SPI1 MISO (Master In, Slave Out) pin.
			UART4_TXD	O	MFP5	UART4 data transmitter output pin.
			SC2_PWR	O	MFP6	Smart Card 2 power pin.
			UART0_nCTS	I	MFP7	UART0 clear to Send input pin.
			I2C1_SMBAL	O	MFP8	I2C1 SMBus SMBALTER pin
			EPWM1_CH2	I/O	MFP11	EPWM1 channel 2 output/capture input.
			BPWM1_CH0	I/O	MFP12	BPWM1 channel 0 output/capture input.
			TM0	I/O	MFP14	Timer0 event counter input/toggle output pin.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			INT3	I	MFP15	External interrupt 3 input pin.
	19	49	PC.6	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD8	I/O	MFP2	EBI address/data bus bit 8.
			SPI1_MOSI	I/O	MFP4	SPI1 MOSI (Master Out, Slave In) pin.
			UART4_RXD	I	MFP5	UART4 data receiver input pin.
			SC2_RST	O	MFP6	Smart Card 2 reset pin.
			UART0_nRTS	O	MFP7	UART0 request to Send output pin.
			I2C1_SMBSUS	O	MFP8	I2C1 SMBus SMBSUS pin (PMBus CONTROL pin)
			EPWM1_CH3	I/O	MFP11	EPWM1 channel 3 output/capture input.
			BPWM1_CH1	I/O	MFP12	BPWM1 channel 1 output/capture input.
			TM1	I/O	MFP14	Timer1 event counter input/toggle output pin.
			INT2	I	MFP15	External interrupt 2 input pin.
15	20	50	PA.7	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD7	I/O	MFP2	EBI address/data bus bit 7.
			SPI1_CLK	I/O	MFP4	SPI1 serial clock pin.
			SC2_DAT	I/O	MFP6	Smart Card 2 data pin.
			UART0_TXD	O	MFP7	UART0 data transmitter output pin.
			I2C1_SCL	I/O	MFP8	I2C1 clock pin.
			EPWM1_CH4	I/O	MFP11	EPWM1 channel 4 output/capture input.
			BPWM1_CH2	I/O	MFP12	BPWM1 channel 2 output/capture input.
			ACMP0_WLAT	I	MFP13	Analog comparator 0 window latch input pin
			TM2	I/O	MFP14	Timer2 event counter input/toggle output pin.
			INT1	I	MFP15	External interrupt 1 input pin.
16	21	51	PA.6	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD6	I/O	MFP2	EBI address/data bus bit 6.
			SPI1_SS	I/O	MFP4	SPI1 slave select pin.
			SD1_nCD	I	MFP5	SD/SDIO1 card detect input pin
			SC2_CLK	O	MFP6	Smart Card 2 clock pin.
			UART0_RXD	I	MFP7	UART0 data receiver input pin.
			I2C1_SDA	I/O	MFP8	I2C1 data input/output pin.
			EPWM1_CH5	I/O	MFP11	EPWM1 channel 5 output/capture input.
			BPWM1_CH3	I/O	MFP12	BPWM1 channel 3 output/capture input.
			ACMP1_WLAT	I	MFP13	Analog comparator 1 window latch input pin
			TM3	I/O	MFP14	Timer3 event counter input/toggle output pin.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			INT0	I	MFP15	External interrupt 0 input pin.
	22	52	VSS	P	MFP0	Ground pin for digital circuit.
	23	53	VDD	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
	24	54	LDO_CAP	A	MFP0	LDO output pin. **Note:** This pin needs to be connected with an external capacitor.
17	25	55	PA.5	I/O	MFP0	General purpose digital I/O pin.
			SPIM_D2	I/O	MFP2	SPIM data 2 pin for Quad Mode I/O.
			QSPI0_MISO1	I/O	MFP3	Quad SPI0 MISO1 (Master In, Slave Out) pin.
			SPI1_I2SMCLK	I/O	MFP4	SPI1 I2S master clock output pin
			SD1_CMD	I/O	MFP5	SD/SDIO1 command/response pin
			SC2_nCD	I	MFP6	Smart Card 2 card detect pin.
			UART0_nCTS	I	MFP7	UART0 clear to Send input pin.
			UART5_TXD	O	MFP8	UART5 data transmitter output pin.
			I2C0_SCL	I/O	MFP9	I2C0 clock pin.
			CAN0_TXD	O	MFP10	CAN0 bus transmitter output.
			BPWM0_CH5	I/O	MFP12	BPWM0 channel 5 output/capture input.
			EPWM0_CH0	I/O	MFP13	EPWM0 channel 0 output/capture input.
			QEI0_INDEX	I	MFP14	Quadrature encoder 0 index input
18	26	56	PA.4	I/O	MFP0	General purpose digital I/O pin.
			SPIM_D3	I/O	MFP2	SPIM data 3 pin for Quad Mode I/O.
			QSPI0_MOSI1	I/O	MFP3	Quad SPI0 MOSI1 (Master Out, Slave In) pin.
			SPI0_I2SMCLK	I/O	MFP4	SPI0 I2S master clock output pin
			SD1_CLK	O	MFP5	SD/SDIO1 clock output pin
			SC0_nCD	I	MFP6	Smart Card 0 card detect pin.
			UART0_nRTS	O	MFP7	UART0 request to Send output pin.
			UART5_RXD	I	MFP8	UART5 data receiver input pin.
			I2C0_SDA	I/O	MFP9	I2C0 data input/output pin.
			CAN0_RXD	I	MFP10	CAN0 bus receiver input.
			BPWM0_CH4	I/O	MFP12	BPWM0 channel 4 output/capture input.
			EPWM0_CH1	I/O	MFP13	EPWM0 channel 1 output/capture input.
			QEI0_A	I	MFP14	Quadrature encoder 0 phase A input
19	27	57	PA.3	I/O	MFP0	General purpose digital I/O pin.
			SPIM_SS	I/O	MFP2	SPIM slave select pin.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			QSPI0_SS	I/O	MFP3	Quad SPI0 slave select pin.
			SPI0_SS	I/O	MFP4	SPI0 slave select pin.
			SD1_DAT3	I/O	MFP5	SD/SDIO1 data line bit 3.
			SC0_PWR	O	MFP6	Smart Card 0 power pin.
			UART4_TXD	O	MFP7	UART4 data transmitter output pin.
			UART1_TXD	O	MFP8	UART1 data transmitter output pin.
			I2C1_SCL	I/O	MFP9	I2C1 clock pin.
			BPWM0_CH3	I/O	MFP12	BPWM0 channel 3 output/capture input.
			EPWM0_CH2	I/O	MFP13	EPWM0 channel 2 output/capture input.
			QEI0_B	I	MFP14	Quadrature encoder 0 phase B input
20	28	58	PA.2	I/O	MFP0	General purpose digital I/O pin.
			SPIM_CLK	I/O	MFP2	SPIM serial clock pin.
			QSPI0_CLK	I/O	MFP3	Quad SPI0 serial clock pin.
			SPI0_CLK	I/O	MFP4	SPI0 serial clock pin.
			SD1_DAT2	I/O	MFP5	SD/SDIO1 data line bit 2.
			SC0_RST	O	MFP6	Smart Card 0 reset pin.
			UART4_RXD	I	MFP7	UART4 data receiver input pin.
			UART1_RXD	I	MFP8	UART1 data receiver input pin.
			I2C1_SDA	I/O	MFP9	I2C1 data input/output pin.
			BPWM0_CH2	I/O	MFP12	BPWM0 channel 2 output/capture input.
			EPWM0_CH3	I/O	MFP13	EPWM0 channel 3 output/capture input.
21	29	59	PA.1	I/O	MFP0	General purpose digital I/O pin.
			SPIM_MISO	I/O	MFP2	SPIM MISO (Master In, Slave Out) pin.
			QSPI0_MISO0	I/O	MFP3	Quad SPI0 MISO0 (Master In, Slave Out) pin.
			SPI0_MISO	I/O	MFP4	SPI0 MISO (Master In, Slave Out) pin.
			SD1_DAT1	I/O	MFP5	SD/SDIO1 data line bit 1.
			SC0_DAT	I/O	MFP6	Smart Card 0 data pin.
			UART0_TXD	O	MFP7	UART0 data transmitter output pin.
			UART1_nCTS	I	MFP8	UART1 clear to Send input pin.
			I2C2_SCL	I/O	MFP9	I2C2 clock pin.
			BPWM0_CH1	I/O	MFP12	BPWM0 channel 1 output/capture input.
			EPWM0_CH4	I/O	MFP13	EPWM0 channel 4 output/capture input.
			DAC1_ST	I	MFP15	DAC1 external trigger input.
22	30	60	PA.0	I/O	MFP0	General purpose digital I/O pin.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			SPIM_MOSI	I/O	MFP2	SPIM MOSI (Master Out, Slave In) pin.
			QSPI0_MOSI0	I/O	MFP3	Quad SPI0 MOSI0 (Master Out, Slave In) pin.
			SPI0_MOSI	I/O	MFP4	SPI0 MOSI (Master Out, Slave In) pin.
			SD1_DAT0	I/O	MFP5	SD/SDIO1 data line bit 0.
			SC0_CLK	O	MFP6	Smart Card 0 clock pin.
			UART0_RXD	I	MFP7	UART0 data receiver input pin.
			UART1_nRTS	O	MFP8	UART1 request to Send output pin.
			I2C2_SDA	I/O	MFP9	I2C2 data input/output pin.
			BPWM0_CH0	I/O	MFP12	BPWM0 channel 0 output/capture input.
			EPWM0_CH5	I/O	MFP13	EPWM0 channel 5 output/capture input.
			DAC0_ST	I	MFP15	DAC0 external trigger input.
23	31	61	VDDIO	P	MFP0	Power supply for PA.0~PA.5.
		62	PE.14	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD8	I/O	MFP2	EBI address/data bus bit 8.
			UART2_TXD	O	MFP3	UART2 data transmitter output pin.
			CAN0_TXD	O	MFP4	CAN0 bus transmitter output.
			SD1_nCD	I	MFP5	SD/SDIO1 card detect input pin
		63	PE.15	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD9	I/O	MFP2	EBI address/data bus bit 9.
			UART2_RXD	I	MFP3	UART2 data receiver input pin.
			CAN0_RXD	I	MFP4	CAN0 bus receiver input.
24	32	64	nRESET	I	MFP0	External reset input: active LOW, with an internal pull-up. Set this pin low reset to initial state. **Note:** It is recommended to use 10 kΩ pull-up resistor and 10 uF capacitor on nRESET pin.
25	33	65	PF.0	I/O	MFP0	General purpose digital I/O pin.
			UART1_TXD	O	MFP2	UART1 data transmitter output pin.
			I2C1_SCL	I/O	MFP3	I2C1 clock pin.
			BPWM1_CH0	I/O	MFP12	BPWM1 channel 0 output/capture input.
			ICE_DAT	O	MFP14	Serial wired debugger data pin. **Note:** It is recommended to use 100 kΩ pull-up resistor on ICE_DAT pin.
26	34	66	PF.1	I/O	MFP0	General purpose digital I/O pin.
			UART1_RXD	I	MFP2	UART1 data receiver input pin.
			I2C1_SDA	I/O	MFP3	I2C1 data input/output pin.
			BPWM1_CH1	I/O	MFP12	BPWM1 channel 1 output/capture input.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			ICE_CLK	I	MFP14	Serial wired debugger clock pin. **Note:** It is recommended to use 100 kΩ pull-up resistor on ICE_CLK pin.
		67	PD.9	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD7	I/O	MFP2	EBI address/data bus bit 7.
			I2C2_SCL	I/O	MFP3	I2C2 clock pin.
			UART2_nCTS	I	MFP4	UART2 clear to Send input pin.
		68	PD.8	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD6	I/O	MFP2	EBI address/data bus bit 6.
			I2C2_SDA	I/O	MFP3	I2C2 data input/output pin.
			UART2_nRTS	O	MFP4	UART2 request to Send output pin.
27	35	69	PC.5	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD5	I/O	MFP2	EBI address/data bus bit 5.
			SPIM_D2	I/O	MFP3	SPIM data 2 pin for Quad Mode I/O.
			QSPI0_MISO1	I/O	MFP4	Quad SPI0 MISO1 (Master In, Slave Out) pin.
			UART2_TXD	O	MFP8	UART2 data transmitter output pin.
			I2C1_SCL	I/O	MFP9	I2C1 clock pin.
			CAN0_TXD	O	MFP10	CAN0 bus transmitter output.
			UART4_TXD	O	MFP11	UART4 data transmitter output pin.
			EPWM1_CH0	I/O	MFP12	EPWM1 channel 0 output/capture input.
28	36	70	PC.4	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD4	I/O	MFP2	EBI address/data bus bit 4.
			SPIM_D3	I/O	MFP3	SPIM data 3 pin for Quad Mode I/O.
			QSPI0_MOSI1	I/O	MFP4	Quad SPI0 MOSI1 (Master Out, Slave In) pin.
			SC1_nCD	I	MFP5	Smart Card 1 card detect pin.
			I2S0_BCLK	O	MFP6	I2S0 bit clock output pin.
			SPI1_I2SMCLK	I/O	MFP7	SPI1 I2S master clock output pin
			UART2_RXD	I	MFP8	UART2 data receiver input pin.
			I2C1_SDA	I/O	MFP9	I2C1 data input/output pin.
			CAN0_RXD	I	MFP10	CAN0 bus receiver input.
			UART4_RXD	I	MFP11	UART4 data receiver input pin.
			EPWM1_CH1	I/O	MFP12	EPWM1 channel 1 output/capture input.
29	37	71	PC.3	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD3	I/O	MFP2	EBI address/data bus bit 3.
			SPIM_SS	I/O	MFP3	SPIM slave select pin.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			QSPI0_SS	I/O	MFP4	Quad SPI0 slave select pin.
			SC1_PWR	O	MFP5	Smart Card 1 power pin.
			I2S0_MCLK	O	MFP6	I2S0 master clock output pin.
			SPI1_MISO	I/O	MFP7	SPI1 MISO (Master In, Slave Out) pin.
			UART2_nRTS	O	MFP8	UART2 request to Send output pin.
			I2C0_SMBAL	O	MFP9	I2C0 SMBus SMBALTER pin
			CAN1_TXD	O	MFP10	CAN1 bus transmitter output.
			UART3_TXD	O	MFP11	UART3 data transmitter output pin.
			EPWM1_CH2	I/O	MFP12	EPWM1 channel 2 output/capture input.
30	38	72	PC.2	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD2	I/O	MFP2	EBI address/data bus bit 2.
			SPIM_CLK	I/O	MFP3	SPIM serial clock pin.
			QSPI0_CLK	I/O	MFP4	Quad SPI0 serial clock pin.
			SC1_RST	O	MFP5	Smart Card 1 reset pin.
			I2S0_DI	I	MFP6	I2S0 data input pin.
			SPI1_MOSI	I/O	MFP7	SPI1 MOSI (Master Out, Slave In) pin.
			UART2_nCTS	I	MFP8	UART2 clear to Send input pin.
			I2C0_SMBSUS	O	MFP9	I2C0 SMBus SMBSUS pin (PMBus CONTROL pin)
			CAN1_RXD	I	MFP10	CAN1 bus receiver input.
			UART3_RXD	I	MFP11	UART3 data receiver input pin.
			EPWM1_CH3	I/O	MFP12	EPWM1 channel 3 output/capture input.
31	39	73	PC.1	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD1	I/O	MFP2	EBI address/data bus bit 1.
			SPIM_MISO	I/O	MFP3	SPIM MISO (Master In, Slave Out) pin.
			QSPI0_MISO0	I/O	MFP4	Quad SPI0 MISO0 (Master In, Slave Out) pin.
			SC1_DAT	I/O	MFP5	Smart Card 1 data pin.
			I2S0_DO	O	MFP6	I2S0 data output pin.
			SPI1_CLK	I/O	MFP7	SPI1 serial clock pin.
			UART2_TXD	O	MFP8	UART2 data transmitter output pin.
			I2C0_SCL	I/O	MFP9	I2C0 clock pin.
			EPWM1_CH4	I/O	MFP12	EPWM1 channel 4 output/capture input.
			ACMP0_O	O	MFP14	Analog comparator 0 output pin.
32	40	74	PC.0	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD0	I/O	MFP2	EBI address/data bus bit 0.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			SPIM_MOSI	I/O	MFP3	SPIM MOSI (Master Out, Slave In) pin.
			QSPI0_MOSI0	I/O	MFP4	Quad SPI0 MOSI0 (Master Out, Slave In) pin.
			SC1_CLK	O	MFP5	Smart Card 1 clock pin.
			I2S0_LRCK	O	MFP6	I2S0 left right channel clock output pin.
			SPI1_SS	I/O	MFP7	SPI1 slave select pin.
			UART2_RXD	I	MFP8	UART2 data receiver input pin.
			I2C0_SDA	I/O	MFP9	I2C0 data input/output pin.
			EPWM1_CH5	I/O	MFP12	EPWM1 channel 5 output/capture input.
			ACMP1_O	O	MFP14	Analog comparator 1 output pin.
		75	VSS	P	MFP0	Ground pin for digital circuit.
		76	VDD	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
		77	PG.9	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD0	I/O	MFP2	EBI address/data bus bit 0.
			SD1_DAT3	I/O	MFP3	SD/SDIO1 data line bit 3.
			SPIM_D2	I/O	MFP4	SPIM data 2 pin for Quad Mode I/O.
			BPWM0_CH5	I/O	MFP12	BPWM0 channel 5 output/capture input.
		78	PG.10	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD1	I/O	MFP2	EBI address/data bus bit 1.
			SD1_DAT2	I/O	MFP3	SD/SDIO1 data line bit 2.
			SPIM_D3	I/O	MFP4	SPIM data 3 pin for Quad Mode I/O.
			BPWM0_CH4	I/O	MFP12	BPWM0 channel 4 output/capture input.
		79	PG.11	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD2	I/O	MFP2	EBI address/data bus bit 2.
			SD1_DAT1	I/O	MFP3	SD/SDIO1 data line bit 1.
			SPIM_SS	I/O	MFP4	SPIM slave select pin.
			BPWM0_CH3	I/O	MFP12	BPWM0 channel 3 output/capture input.
		80	PG.12	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD3	I/O	MFP2	EBI address/data bus bit 3.
			SD1_DAT0	I/O	MFP3	SD/SDIO1 data line bit 0.
			SPIM_CLK	I/O	MFP4	SPIM serial clock pin.
			BPWM0_CH2	I/O	MFP12	BPWM0 channel 2 output/capture input.
		81	PG.13	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD4	I/O	MFP2	EBI address/data bus bit 4.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			SD1_CMD	I/O	MFP3	SD/SDIO1 command/response pin
			SPIM_MISO	I/O	MFP4	SPIM MISO (Master In, Slave Out) pin.
			BPWM0_CH1	I/O	MFP12	BPWM0 channel 1 output/capture input.
		82	PG.14	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD5	I/O	MFP2	EBI address/data bus bit 5.
			SD1_CLK	O	MFP3	SD/SDIO1 clock output pin
			SPIM_MOSI	I/O	MFP4	SPIM MOSI (Master Out, Slave In) pin.
			BPWM0_CH0	I/O	MFP12	BPWM0 channel 0 output/capture input.
		83	PG.15	I/O	MFP0	General purpose digital I/O pin.
			SD1_nCD	I	MFP3	SD/SDIO1 card detect input pin
			CLKO	O	MFP14	Clock Out
			EADC0_ST	I	MFP15	EADC0 external trigger input.
		84	PD.13	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD10	I/O	MFP2	EBI address/data bus bit 10.
			SD0_nCD	I	MFP3	SD/SDIO0 card detect input pin
			SPI0_I2SMCLK	I/O	MFP4	SPI0 I2S master clock output pin
			SPI1_I2SMCLK	I/O	MFP5	SPI1 I2S master clock output pin
			SC2_nCD	I	MFP7	Smart Card 2 card detect pin.
33		85	PA.12	I/O	MFP0	General purpose digital I/O pin.
			I2S0_BCLK	O	MFP2	I2S0 bit clock output pin.
			UART4_TXD	O	MFP3	UART4 data transmitter output pin.
			I2C1_SCL	I/O	MFP4	I2C1 clock pin.
			SPI2_SS	I/O	MFP5	SPI2 slave select pin.
			CAN0_TXD	O	MFP6	CAN0 bus transmitter output.
			SC2_PWR	O	MFP7	Smart Card 2 power pin.
			BPWM1_CH2	I/O	MFP11	BPWM1 channel 2 output/capture input.
			QEI1_INDEX	I	MFP12	Quadrature encoder 1 index input
			USB_VBUS	P	MFP14	Power supply from USB host or HUB.
34		86	PA.13	I/O	MFP0	General purpose digital I/O pin.
			I2S0_MCLK	O	MFP2	I2S0 master clock output pin.
			UART4_RXD	I	MFP3	UART4 data receiver input pin.
			I2C1_SDA	I/O	MFP4	I2C1 data input/output pin.
			SPI2_CLK	I/O	MFP5	SPI2 serial clock pin.
			CAN0_RXD	I	MFP6	CAN0 bus receiver input.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			SC2_RST	O	MFP7	Smart Card 2 reset pin.
			BPWM1_CH3	I/O	MFP11	BPWM1 channel 3 output/capture input.
			QEI1_A	I	MFP12	Quadrature encoder 1 phase A input
			USB_D-	A	MFP14	USB differential signal D-.
35		87	PA.14	I/O	MFP0	General purpose digital I/O pin.
			I2S0_DI	I	MFP2	I2S0 data input pin.
			UART0_TXD	O	MFP3	UART0 data transmitter output pin.
			SPI2_MISO	I/O	MFP5	SPI2 MISO (Master In, Slave Out) pin.
			I2C2_SCL	I/O	MFP6	I2C2 clock pin.
			SC2_DAT	I/O	MFP7	Smart Card 2 data pin.
			BPWM1_CH4	I/O	MFP11	BPWM1 channel 4 output/capture input.
			QEI1_B	I	MFP12	Quadrature encoder 1 phase B input
			USB_D+	A	MFP14	USB differential signal D+.
36		88	PA.15	I/O	MFP0	General purpose digital I/O pin.
			I2S0_DO	O	MFP2	I2S0 data output pin.
			UART0_RXD	I	MFP3	UART0 data receiver input pin.
			SPI2_MOSI	I/O	MFP5	SPI2 MOSI (Master Out, Slave In) pin.
			I2C2_SDA	I/O	MFP6	I2C2 data input/output pin.
			SC2_CLK	O	MFP7	Smart Card 2 clock pin.
			BPWM1_CH5	I/O	MFP11	BPWM1 channel 5 output/capture input.
			EPWM0_SYNC_IN	I	MFP12	EPWM0 counter synchronous trigger input pin.
			USB_OTG_ID	I	MFP14	USB_ identification.
	41	89	HSUSB_VRES	A	MFP0	HSUSB module reference resister
	42	90	HSUSB_VDD33	P	MFP0	Power supply for HSUSB VDD33
	43	91	HSUSB_VBUS	P	MFP0	HSUSB Power supply from USB host or HUB.
	44	92	HSUSB_D-	A	MFP0	HSUSB differential signal D-.
	45	93	HSUSB_VSS	P	MFP0	Ground pin for HSUSB.
	46	94	HSUSB_D+	A	MFP0	HSUSB differential signal D+.
	47	95	HSUSB_VDD12_CAP	A	MFP0	HSUSB Internal power regulator output 1.2V decoupling pin. Note: This pin needs to be connected with a 1uF capacitor.
	48	96	HSUSB_ID	I	MFP0	HSUSB identification.
		97	PE.7	I/O	MFP0	General purpose digital I/O pin.
			SD0_CMD	I/O	MFP3	SD/SDIO0 command/response pin
			SPIM_D2	I/O	MFP4	SPIM data 2 pin for Quad Mode I/O.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			UART5_TXD	O	MFP8	UART5 data transmitter output pin.
			CAN1_TXD	O	MFP9	CAN1 bus transmitter output.
			QEI1_INDEX	I	MFP11	Quadrature encoder 1 index input
			EPWM0_CH0	I/O	MFP12	EPWM0 channel 0 output/capture input.
			BPWM0_CH5	I/O	MFP13	BPWM0 channel 5 output/capture input.
		98	PE.6	I/O	MFP0	General purpose digital I/O pin.
			SD0_CLK	O	MFP3	SD/SDIO0 clock output pin
			SPIM_D3	I/O	MFP4	SPIM data 3 pin for Quad Mode I/O.
			SPI3_I2SMCLK	I/O	MFP5	SPI3 I2S master clock output pin
			SC0_nCD	I	MFP6	Smart Card 0 card detect pin.
			USCI0_CTL0	I/O	MFP7	USCI0 control 0 pin.
			UART5_RXD	I	MFP8	UART5 data receiver input pin.
			CAN1_RXD	I	MFP9	CAN1 bus receiver input.
			QEI1_A	I	MFP11	Quadrature encoder 1 phase A input
			EPWM0_CH1	I/O	MFP12	EPWM0 channel 1 output/capture input.
			BPWM0_CH4	I/O	MFP13	BPWM0 channel 4 output/capture input.
		99	PE.5	I/O	MFP0	General purpose digital I/O pin.
			EBI_nRD	O	MFP2	EBI read enable output pin.
			SD0_DAT3	I/O	MFP3	SD/SDIO0 data line bit 3.
			SPIM_SS	I/O	MFP4	SPIM slave select pin.
			SPI3_SS	I/O	MFP5	SPI3 slave select pin.
			SC0_PWR	O	MFP6	Smart Card 0 power pin.
			USCI0_CTL1	I/O	MFP7	USCI0 control 1 pin.
			QEI1_B	I	MFP11	Quadrature encoder 1 phase B input
			EPWM0_CH2	I/O	MFP12	EPWM0 channel 2 output/capture input.
			BPWM0_CH3	I/O	MFP13	BPWM0 channel 3 output/capture input.
		100	PE.4	I/O	MFP0	General purpose digital I/O pin.
			EBI_nWR	O	MFP2	EBI write enable output pin.
			SD0_DAT2	I/O	MFP3	SD/SDIO0 data line bit 2.
			SPIM_CLK	I/O	MFP4	SPIM serial clock pin.
			SPI3_CLK	I/O	MFP5	SPI3 serial clock pin.
			SC0_RST	O	MFP6	Smart Card 0 reset pin.
			USCI0_DAT1	I/O	MFP7	USCI0 data 1 pin.
			QEI0_INDEX	I	MFP11	Quadrature encoder 0 index input

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			EPWM0_CH3	I/O	MFP12	EPWM0 channel 3 output/capture input.
			BPWM0_CH2	I/O	MFP13	BPWM0 channel 2 output/capture input.
		101	PE.3	I/O	MFP0	General purpose digital I/O pin.
			EBI_MCLK	O	MFP2	EBI external clock output pin.
			SD0_DAT1	I/O	MFP3	SD/SDIO0 data line bit 1.
			SPIM_MISO	I/O	MFP4	SPIM MISO (Master In, Slave Out) pin.
			SPI3_MISO	I/O	MFP5	SPI3 MISO (Master In, Slave Out) pin.
			SC0_DAT	I/O	MFP6	Smart Card 0 data pin.
			USCI0_DAT0	I/O	MFP7	USCI0 data 0 pin.
			QEI0_A	I	MFP11	Quadrature encoder 0 phase A input
			EPWM0_CH4	I/O	MFP12	EPWM0 channel 4 output/capture input.
			BPWM0_CH1	I/O	MFP13	BPWM0 channel 1 output/capture input.
		102	PE.2	I/O	MFP0	General purpose digital I/O pin.
			EBI_ALE	O	MFP2	EBI address latch enable output pin.
			SD0_DAT0	I/O	MFP3	SD/SDIO0 data line bit 0.
			SPIM_MOSI	I/O	MFP4	SPIM MOSI (Master Out, Slave In) pin.
			SPI3_MOSI	I/O	MFP5	SPI3 MOSI (Master Out, Slave In) pin.
			SC0_CLK	O	MFP6	Smart Card 0 clock pin.
			USCI0_CLK	I/O	MFP7	USCI0 clock pin.
			QEI0_B	I	MFP11	Quadrature encoder 0 phase B input
			EPWM0_CH5	I/O	MFP12	EPWM0 channel 5 output/capture input.
			BPWM0_CH0	I/O	MFP13	BPWM0 channel 0 output/capture input.
		103	VSS	P	MFP0	Ground pin for digital circuit.
		104	VDD	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
		105	PE.1	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD10	I/O	MFP2	EBI address/data bus bit 10.
			QSPI0_MISO0	I/O	MFP3	Quad SPI0 MISO0 (Master In, Slave Out) pin.
			SC2_DAT	I/O	MFP4	Smart Card 2 data pin.
			I2S0_BCLK	O	MFP5	I2S0 bit clock output pin.
			SPI1_MISO	I/O	MFP6	SPI1 MISO (Master In, Slave Out) pin.
			UART3_TXD	O	MFP7	UART3 data transmitter output pin.
			I2C1_SCL	I/O	MFP8	I2C1 clock pin.
			UART4_nCTS	I	MFP9	UART4 clear to Send input pin.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
		106	PE.0	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD11	I/O	MFP2	EBI address/data bus bit 11.
			QSPI0_MOSI0	I/O	MFP3	Quad SPI0 MOSI0 (Master Out, Slave In) pin.
			SC2_CLK	O	MFP4	Smart Card 2 clock pin.
			I2S0_MCLK	O	MFP5	I2S0 master clock output pin.
			SPI1_MOSI	I/O	MFP6	SPI1 MOSI (Master Out, Slave In) pin.
			UART3_RXD	I	MFP7	UART3 data receiver input pin.
			I2C1_SDA	I/O	MFP8	I2C1 data input/output pin.
			UART4_nRTS	O	MFP9	UART4 request to Send output pin.
		107	PH.8	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD12	I/O	MFP2	EBI address/data bus bit 12.
			QSPI0_CLK	I/O	MFP3	Quad SPI0 serial clock pin.
			SC2_PWR	O	MFP4	Smart Card 2 power pin.
			I2S0_DI	I	MFP5	I2S0 data input pin.
			SPI1_CLK	I/O	MFP6	SPI1 serial clock pin.
			UART3_nRTS	O	MFP7	UART3 request to Send output pin.
			I2C1_SMBAL	O	MFP8	I2C1 SMBus SMBALTER pin
			I2C2_SCL	I/O	MFP9	I2C2 clock pin.
			UART1_TXD	O	MFP10	UART1 data transmitter output pin.
		108	PH.9	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD13	I/O	MFP2	EBI address/data bus bit 13.
			QSPI0_SS	I/O	MFP3	Quad SPI0 slave select pin.
			SC2_RST	O	MFP4	Smart Card 2 reset pin.
			I2S0_DO	O	MFP5	I2S0 data output pin.
			SPI1_SS	I/O	MFP6	SPI1 slave select pin.
			UART3_nCTS	I	MFP7	UART3 clear to Send input pin.
			I2C1_SMBSUS	O	MFP8	I2C1 SMBus SMBSUS pin (PMBus CONTROL pin)
			I2C2_SDA	I/O	MFP9	I2C2 data input/output pin.
			UART1_RXD	I	MFP10	UART1 data receiver input pin.
		109	PH.10	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD14	I/O	MFP2	EBI address/data bus bit 14.
			QSPI0_MISO1	I/O	MFP3	Quad SPI0 MISO1 (Master In, Slave Out) pin.
			SC2_nCD	I	MFP4	Smart Card 2 card detect pin.
			I2S0_LRCK	O	MFP5	I2S0 left right channel clock output pin.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			SPI1_I2SMCLK	I/O	MFP6	SPI1 I2S master clock output pin
			UART4_TXD	O	MFP7	UART4 data transmitter output pin.
			UART0_TXD	O	MFP8	UART0 data transmitter output pin.
		110	PH.11	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD15	I/O	MFP2	EBI address/data bus bit 15.
			QSPI0_MOSI1	I/O	MFP3	Quad SPI0 MOSI1 (Master Out, Slave In) pin.
			UART4_RXD	I	MFP7	UART4 data receiver input pin.
			UART0_RXD	I	MFP8	UART0 data receiver input pin.
			EPWM0_CH5	I/O	MFP11	EPWM0 channel 5 output/capture input.
		111	PD.14	I/O	MFP0	General purpose digital I/O pin.
			EBI_nCS0	O	MFP2	EBI chip select 0 output pin.
			SPI3_I2SMCLK	I/O	MFP3	SPI3 I2S master clock output pin
			SC1_nCD	I	MFP4	Smart Card 1 card detect pin.
			EPWM0_CH4	I/O	MFP11	EPWM0 channel 4 output/capture input.
37	49	112	VSS	P	MFP0	Ground pin for digital circuit.
38	50	113	LDO_CAP	A	MFP0	LDO output pin. **Note:** This pin needs to be connected with an external capacitor.
39	51	114	VDD	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
40	52	115	PC.14	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD11	I/O	MFP2	EBI address/data bus bit 11.
			SC1_nCD	I	MFP3	Smart Card 1 card detect pin.
			SPI0_I2SMCLK	I/O	MFP4	SPI0 I2S master clock output pin
			USCI0_CTL0	I/O	MFP5	USCI0 control 0 pin.
			QSPI0_CLK	I/O	MFP6	Quad SPI0 serial clock pin.
			EPWM0_SYNC_IN	I	MFP11	EPWM0 counter synchronous trigger input pin.
			TM1	I/O	MFP13	Timer1 event counter input/toggle output pin.
			USB_VBUS_ST	I	MFP14	USB external VBUS regulator status pin.
			HSUSB_VBUS_ST	I	MFP15	HSUSB external VBUS regulator status pin.
41	53	116	PB.15	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH15	A	MFP1	EADC0 channel 15 analog input.
			EBI_AD12	I/O	MFP2	EBI address/data bus bit 12.
			SC1_PWR	O	MFP3	Smart Card 1 power pin.
			SPI0_SS	I/O	MFP4	SPI0 slave select pin.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			USCI0_CTL1	I/O	MFP5	USCI0 control 1 pin.
			UART0_nCTS	I	MFP6	UART0 clear to Send input pin.
			UART3_TXD	O	MFP7	UART3 data transmitter output pin.
			I2C2_SMBAL	O	MFP8	I2C2 SMBus SMBALTER pin
			EPWM1_CH0	I/O	MFP11	EPWM1 channel 0 output/capture input.
			TM0_EXT	I/O	MFP13	Timer0 external capture input/toggle output pin.
			USB_VBUS_EN	O	MFP14	USB external VBUS regulator enable pin.
			HSUSB_VBUS_EN	O	MFP15	HSUSB external VBUS regulator enable pin.
42	54	117	PB.14	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH14	A	MFP1	EADC0 channel 14 analog input.
			EBI_AD13	I/O	MFP2	EBI address/data bus bit 13.
			SC1_RST	O	MFP3	Smart Card 1 reset pin.
			SPI0_CLK	I/O	MFP4	SPI0 serial clock pin.
			USCI0_DAT1	I/O	MFP5	USCI0 data 1 pin.
			UART0_nRTS	O	MFP6	UART0 request to Send output pin.
			UART3_RXD	I	MFP7	UART3 data receiver input pin.
			I2C2_SMBSUS	O	MFP8	I2C2 SMBus SMBSUS pin (PMBus CONTROL pin)
			EPWM1_CH1	I/O	MFP11	EPWM1 channel 1 output/capture input.
			TM1_EXT	I/O	MFP13	Timer1 external capture input/toggle output pin.
			CLKO	O	MFP14	Clock Out
43	55	118	PB.13	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH13	A	MFP1	EADC0 channel 13 analog input.
			DAC1_OUT	A	MFP1	DAC1 channel analog output.
			ACMP0_P3	A	MFP1	Analog comparator 0 positive input 3 pin.
			ACMP1_P3	A	MFP1	Analog comparator 1 positive input 3 pin.
			EBI_AD14	I/O	MFP2	EBI address/data bus bit 14.
			SC1_DAT	I/O	MFP3	Smart Card 1 data pin.
			SPI0_MISO	I/O	MFP4	SPI0 MISO (Master In, Slave Out) pin.
			USCI0_DAT0	I/O	MFP5	USCI0 data 0 pin.
			UART0_TXD	O	MFP6	UART0 data transmitter output pin.
			UART3_nRTS	O	MFP7	UART3 request to Send output pin.
			I2C2_SCL	I/O	MFP8	I2C2 clock pin.
			EPWM1_CH2	I/O	MFP11	EPWM1 channel 2 output/capture input.
			TM2_EXT	I/O	MFP13	Timer2 external capture input/toggle output pin.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
44	56	119	PB.12	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH12	A	MFP1	EADC0 channel 12 analog input.
			DAC0_OUT	A	MFP1	DAC0 channel analog output.
			ACMP0_P2	A	MFP1	Analog comparator 0 positive input 2 pin.
			ACMP1_P2	A	MFP1	Analog comparator 1 positive input 2 pin.
			EBI_AD15	I/O	MFP2	EBI address/data bus bit 15.
			SC1_CLK	O	MFP3	Smart Card 1 clock pin.
			SPI0_MOSI	I/O	MFP4	SPI0 MOSI (Master Out, Slave In) pin.
			USCI0_CLK	I/O	MFP5	USCI0 clock pin.
			UART0_RXD	I	MFP6	UART0 data receiver input pin.
			UART3_nCTS	I	MFP7	UART3 clear to Send input pin.
			I2C2_SDA	I/O	MFP8	I2C2 data input/output pin.
			SD0_nCD	I	MFP9	SD/SDIO0 card detect input pin
			EPWM1_CH3	I/O	MFP11	EPWM1 channel 3 output/capture input.
			TM3_EXT	I/O	MFP13	Timer3 external capture input/toggle output pin.
45	57	120	AVDD	P	MFP0	Power supply for internal analog circuit.
	58	121	VREF	A	MFP0	ADC reference voltage input. Note: This pin needs to be connected with a 1uF capacitor.
46	59	122	AVSS	P	MFP0	Ground pin for analog circuit.
	60	123	PB.11	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH11	A	MFP1	EADC0 channel 11 analog input.
			EBI_ADR16	O	MFP2	EBI address bus bit 16.
			UART0_nCTS	I	MFP5	UART0 clear to Send input pin.
			UART4_TXD	O	MFP6	UART4 data transmitter output pin.
			I2C1_SCL	I/O	MFP7	I2C1 clock pin.
			CAN0_TXD	O	MFP8	CAN0 bus transmitter output.
			SPI0_I2SMCLK	I/O	MFP9	SPI0 I2S master clock output pin
			BPWM1_CH0	I/O	MFP10	BPWM1 channel 0 output/capture input.
			SPI3_CLK	I/O	MFP11	SPI3 serial clock pin.
			HSUSB_VBUS_ST	I	MFP14	HSUSB external VBUS regulator status pin.
	61	124	PB.10	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH10	A	MFP1	EADC0 channel 10 analog input.
			EBI_ADR17	O	MFP2	EBI address bus bit 17.
			USCI1_CTL0	I/O	MFP4	USCI1 control 0 pin.

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			UART0_nRTS	O	MFP5	UART0 request to Send output pin.
			UART4_RXD	I	MFP6	UART4 data receiver input pin.
			I2C1_SDA	I/O	MFP7	I2C1 data input/output pin.
			CAN0_RXD	I	MFP8	CAN0 bus receiver input.
			BPWM1_CH1	I/O	MFP10	BPWM1 channel 1 output/capture input.
			SPI3_SS	I/O	MFP11	SPI3 slave select pin.
			HSUSB_VBUS_EN	O	MFP14	HSUSB external VBUS regulator enable pin.
	62	125	PB.9	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH9	A	MFP1	EADC0 channel 9 analog input.
			EBI_ADR18	O	MFP2	EBI address bus bit 18.
			USCI1_CTL1	I/O	MFP4	USCI1 control 1 pin.
			UART0_TXD	O	MFP5	UART0 data transmitter output pin.
			UART1_nCTS	I	MFP6	UART1 clear to Send input pin.
			I2C1_SMBAL	O	MFP7	I2C1 SMBus SMBALTER pin
			BPWM1_CH2	I/O	MFP10	BPWM1 channel 2 output/capture input.
			SPI3_MISO	I/O	MFP11	SPI3 MISO (Master In, Slave Out) pin.
			INT7	I	MFP13	External interrupt 7 input pin.
	63	126	PB.8	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH8	A	MFP1	EADC0 channel 8 analog input.
			EBI_ADR19	O	MFP2	EBI address bus bit 19.
			USCI1_CLK	I/O	MFP4	USCI1 clock pin.
			UART0_RXD	I	MFP5	UART0 data receiver input pin.
			UART1_nRTS	O	MFP6	UART1 request to Send output pin.
			I2C1_SMBSUS	O	MFP7	I2C1 SMBus SMBSUS pin (PMBus CONTROL pin)
			BPWM1_CH3	I/O	MFP10	BPWM1 channel 3 output/capture input.
			SPI3_MOSI	I/O	MFP11	SPI3 MOSI (Master Out, Slave In) pin.
			INT6	I	MFP13	External interrupt 6 input pin.
47	64	127	PB.7	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH7	A	MFP1	EADC0 channel 7 analog input.
			EBI_nWRL	O	MFP2	EBI low byte write enable output pin.
			USCI1_DAT0	I/O	MFP4	USCI1 data 0 pin.
			CAN1_TXD	O	MFP5	CAN1 bus transmitter output.
			UART1_TXD	O	MFP6	UART1 data transmitter output pin.
			SD1_CMD	I/O	MFP7	SD/SDIO1 command/response pin

48 Pin	64 Pin	128 Pin	Pin Name	Type	MFP	Description
			EBI_nCS0	O	MFP8	EBI chip select 0 output pin.
			BPWM1_CH4	I/O	MFP10	BPWM1 channel 4 output/capture input.
			EPWM1_BRAKE0	I	MFP11	EPWM1 Brake 0 input pin.
			EPWM1_CH4	I/O	MFP12	EPWM1 channel 4 output/capture input.
			INT5	I	MFP13	External interrupt 5 input pin.
			USB_VBUS_ST	I	MFP14	USB external VBUS regulator status pin.
			ACMP0_O	O	MFP15	Analog comparator 0 output pin.
48	1	128	PB.6	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH6	A	MFP1	EADC0 channel 6 analog input.
			EBI_nWRH	O	MFP2	EBI high byte write enable output pin
			USCI1_DAT1	I/O	MFP4	USCI1 data 1 pin.
			CAN1_RXD	I	MFP5	CAN1 bus receiver input.
			UART1_RXD	I	MFP6	UART1 data receiver input pin.
			SD1_CLK	O	MFP7	SD/SDIO1 clock output pin
			EBI_nCS1	O	MFP8	EBI chip select 1 output pin.
			BPWM1_CH5	I/O	MFP10	BPWM1 channel 5 output/capture input.
			EPWM1_BRAKE1	I	MFP11	EPWM1 Brake 1 input pin.
			EPWM1_CH5	I/O	MFP12	EPWM1 channel 5 output/capture input.
			INT4	I	MFP13	External interrupt 4 input pin.
			USB_VBUS_EN	O	MFP14	USB external VBUS regulator enable pin.
			ACMP1_O	O	MFP15	Analog comparator 1 output pin.

4.2.6 M487 Series Pin Description

Note: PA.15 MFP can only be as USB_OTG_ID when enable full-Speed USB.

64 Pin	128 Pin	144 Pin	Pin Name	Type	MFP	Description
2	1	1	PB.5	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH5	A	MFP1	EADC0 channel 5 analog input.
			ACMP1_N	A	MFP1	Analog comparator 1 negative input pin.
			EBI_ADR0	O	MFP2	EBI address bus bit 0.
			SD0_DAT3	I/O	MFP3	SD/SDIO0 data line bit 3.
			EMAC_RMII_REFCLK	I	MFP4	EMAC RMII reference clock input pin.
			SPI1_MISO	I/O	MFP5	SPI1 MISO (Master In, Slave Out) pin.
			I^2C0_SCL	I/O	MFP6	I^2C0 clock pin.
			UART5_TXD	O	MFP7	UART5 data transmitter output pin.
			USCI1_CTL0	I/O	MFP8	USCI1 control 0 pin.
			SC0_CLK	O	MFP9	Smart Card 0 clock pin.
			I^2S0_BCLK	O	MFP10	I^2S0 bit clock output pin.
			EPWM0_CH0	I/O	MFP11	EPWM0 channel 0 output/capture input.
			TM0	I/O	MFP14	Timer0 event counter input/toggle output pin.
			INT0	I	MFP15	External interrupt 0 input pin.
3	2	2	PB.4	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH4	A	MFP1	EADC0 channel 4 analog input.
			ACMP1_P1	A	MFP1	Analog comparator 1 positive input 1 pin.
			EBI_ADR1	O	MFP2	EBI address bus bit 1.
			SD0_DAT2	I/O	MFP3	SD/SDIO0 data line bit 2.
			EMAC_RMII_RXD0	I	MFP4	EMAC RMII Receive Data bus bit 0.
			SPI1_MOSI	I/O	MFP5	SPI1 MOSI (Master Out, Slave In) pin.
			I^2C0_SDA	I/O	MFP6	I^2C0 data input/output pin.
			UART5_RXD	I	MFP7	UART5 data receiver input pin.
			USCI1_CTL1	I/O	MFP8	USCI1 control 1 pin.
			SC0_DAT	I/O	MFP9	Smart Card 0 data pin.
			I^2S0_MCLK	O	MFP10	I^2S0 master clock output pin.
			EPWM0_CH1	I/O	MFP11	EPWM0 channel 1 output/capture input.
			TM1	I/O	MFP14	Timer1 event counter input/toggle output pin.
			INT1	I	MFP15	External interrupt 1 input pin.
4	3	3	PB.3	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH3	A	MFP1	EADC0 channel 3 analog input.

64 Pin	128 Pin	144 Pin	Pin Name	Type	MFP	Description
			ACMP0_N	A	MFP1	Analog comparator 0 negative input pin.
			EBI_ADR2	O	MFP2	EBI address bus bit 2.
			SD0_DAT1	I/O	MFP3	SD/SDIO0 data line bit 1.
			EMAC_RMII_RXD1	I	MFP4	EMAC RMII Receive Data bus bit 1.
			SPI1_CLK	I/O	MFP5	SPI1 serial clock pin.
			UART1_TXD	O	MFP6	UART1 data transmitter output pin.
			UART5_nRTS	O	MFP7	UART5 request to Send output pin.
			USCI1_DAT1	I/O	MFP8	USCI1 data 1 pin.
			SC0_RST	O	MFP9	Smart Card 0 reset pin.
			I^2S0_DI	I	MFP10	I^2S0 data input pin.
			EPWM0_CH2	I/O	MFP11	EPWM0 channel 2 output/capture input.
			TM2	I/O	MFP14	Timer2 event counter input/toggle output pin.
			INT2	I	MFP15	External interrupt 2 input pin.
5	4	4	PB.2	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH2	A	MFP1	EADC0 channel 2 analog input.
			ACMP0_P1	A	MFP1	Analog comparator 0 positive input 1 pin.
			OPA0_O	A	MFP1	Operational amplifier 0 output pin.
			EBI_ADR3	O	MFP2	EBI address bus bit 3.
			SD0_DAT0	I/O	MFP3	SD/SDIO0 data line bit 0.
			EMAC_RMII_CRSDV	I	MFP4	EMAC RMII Carrier Sense/Receive Data input pin.
			SPI1_SS	I/O	MFP5	SPI1 slave select pin.
			UART1_RXD	I	MFP6	UART1 data receiver input pin.
			UART5_nCTS	I	MFP7	UART5 clear to Send input pin.
			USCI1_DAT0	I/O	MFP8	USCI1 data 0 pin.
			SC0_PWR	O	MFP9	Smart Card 0 power pin.
			I^2S0_DO	O	MFP10	I^2S0 data output pin.
			EPWM0_CH3	I/O	MFP11	EPWM0 channel 3 output/capture input.
			TM3	I/O	MFP14	Timer3 event counter input/toggle output pin.
			INT3	I	MFP15	External interrupt 3 input pin.
	5	5	PC.12	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR4	O	MFP2	EBI address bus bit 4.
			UART0_TXD	O	MFP3	UART0 data transmitter output pin.
			I^2C0_SCL	I/O	MFP4	I^2C0 clock pin.
			SPI3_MISO	I/O	MFP6	SPI3 MISO (Master In, Slave Out) pin.

64 Pin	128 Pin	144 Pin	Pin Name	Type	MFP	Description
			SC0_nCD	I	MFP9	Smart Card 0 card detect pin.
			ECAP1_IC2	I	MFP11	Enhanced capture unit 1 input 2 pin.
			EPWM1_CH0	I/O	MFP12	EPWM1 channel 0 output/capture input.
			ACMP0_O	O	MFP14	Analog comparator 0 output pin.
	6	6	PC.11	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR5	O	MFP2	EBI address bus bit 5.
			UART0_RXD	I	MFP3	UART0 data receiver input pin.
			I^2C0_SDA	I/O	MFP4	I^2C0 data input/output pin.
			SPI3_MOSI	I/O	MFP6	SPI3 MOSI (Master Out, Slave In) pin.
			ECAP1_IC1	I	MFP11	Enhanced capture unit 1 input 1 pin.
			EPWM1_CH1	I/O	MFP12	EPWM1 channel 1 output/capture input.
			ACMP1_O	O	MFP14	Analog comparator 1 output pin.
	7	7	PC.10	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR6	O	MFP2	EBI address bus bit 6.
			SPI3_CLK	I/O	MFP6	SPI3 serial clock pin.
			UART3_TXD	O	MFP7	UART3 data transmitter output pin.
			CAN1_TXD	O	MFP9	CAN1 bus transmitter output.
			ECAP1_IC0	I	MFP11	Enhanced capture unit 1 input 0 pin.
			EPWM1_CH2	I/O	MFP12	EPWM1 channel 2 output/capture input.
	8	8	PC.9	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR7	O	MFP2	EBI address bus bit 7.
			SPI3_SS	I/O	MFP6	SPI3 slave select pin.
			UART3_RXD	I	MFP7	UART3 data receiver input pin.
			CAN1_RXD	I	MFP9	CAN1 bus receiver input.
			EPWM1_CH3	I/O	MFP12	EPWM1 channel 3 output/capture input.
6	9	9	PB.1	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH1	A	MFP1	EADC0 channel 1 analog input.
			OPA0_N	A	MFP1	Operational amplifier 0 negative input pin.
			EBI_ADR8	O	MFP2	EBI address bus bit 8.
			SD0_CLK	O	MFP3	SD/SDIO0 clock output pin
			EMAC_RMII_RXERR	I	MFP4	EMAC RMII Receive Data Error input pin.
			SPI1_I2SMCLK	I/O	MFP5	SPI1 I^2S master clock output pin
			SPI3_I2SMCLK	I/O	MFP6	SPI3 I^2S master clock output pin
			UART2_TXD	O	MFP7	UART2 data transmitter output pin.

64 Pin	128 Pin	144 Pin	Pin Name	Type	MFP	Description
			USCI1_CLK	I/O	MFP8	USCI1 clock pin.
			I^2C1_SCL	I/O	MFP9	I^2C1 clock pin.
			I^2S0_LRCK	O	MFP10	I^2S0 left right channel clock output pin.
			EPWM0_CH4	I/O	MFP11	EPWM0 channel 4 output/capture input.
			EPWM1_CH4	I/O	MFP12	EPWM1 channel 4 output/capture input.
			EPWM0_BRAKE0	I	MFP13	EPWM0 Brake 0 input pin.
7	10	10	PB.0	I/O	MFP0	General purpose digital I/O pin.
			EADC0_CH0	A	MFP1	EADC0 channel 0 analog input.
			OPA0_P	A	MFP1	Operational amplifier 0 positive input pin.
			EBI_ADR9	O	MFP2	EBI address bus bit 9.
			SD0_CMD	I/O	MFP3	SD/SDIO0 command/response pin
			UART2_RXD	I	MFP7	UART2 data receiver input pin.
			SPI0_I2SMCLK	I/O	MFP8	SPI0 I^2S master clock output pin
			I^2C1_SDA	I/O	MFP9	I^2C1 data input/output pin.
			EPWM0_CH5	I/O	MFP11	EPWM0 channel 5 output/capture input.
			EPWM1_CH5	I/O	MFP12	EPWM1 channel 5 output/capture input.
			EPWM0_BRAKE1	I	MFP13	EPWM0 Brake 1 input pin.
	11	11	V_{SS}	P	MFP0	Ground pin for digital circuit.
	12	12	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
8	13	13	PA.11	I/O	MFP0	General purpose digital I/O pin.
			ACMP0_P0	A	MFP1	Analog comparator 0 positive input 0 pin.
			EBI_nRD	O	MFP2	EBI read enable output pin.
			SC2_PWR	O	MFP3	Smart Card 2 power pin.
			SPI2_SS	I/O	MFP4	SPI2 slave select pin.
			SD1_DAT3	I/O	MFP5	SD/SDIO1 data line bit 3.
			USCI0_CLK	I/O	MFP6	USCI0 clock pin.
			I^2C2_SCL	I/O	MFP7	I^2C2 clock pin.
			BPWM0_CH0	I/O	MFP9	BPWM0 channel 0 output/capture input.
			EPWM0_SYNC_OUT	O	MFP10	EPWM0 counter synchronous trigger output pin.
			TM0_EXT	I/O	MFP13	Timer0 event counter input/toggle output pin.
			DAC1_ST	I	MFP14	DAC1 external trigger input.
9	14	14	PA.10	I/O	MFP0	General purpose digital I/O pin.
			ACMP1_P0	A	MFP1	Analog comparator 1 positive input 0 pin.

64 Pin	128 Pin	144 Pin	Pin Name	Type	MFP	Description
			OPA1_O	A	MFP1	Operational amplifier 1 output pin.
			EBI_nWR	O	MFP2	EBI write enable output pin.
			SC2_RST	O	MFP3	Smart Card 2 reset pin.
			SPI2_CLK	I/O	MFP4	SPI2 serial clock pin.
			SD1_DAT2	I/O	MFP5	SD/SDIO1 data line bit 2.
			USCI0_DAT0	I/O	MFP6	USCI0 data 0 pin.
			I^2C2_SDA	I/O	MFP7	I^2C2 data input/output pin.
			BPWM0_CH1	I/O	MFP9	BPWM0 channel 1 output/capture input.
			QEI1_INDEX	I	MFP10	Quadrature encoder 1 index input
			ECAP0_IC0	I	MFP11	Enhanced capture unit 0 input 0 pin.
			TM1_EXT	I/O	MFP13	Timer1 event counter input/toggle output pin.
			DAC0_ST	I	MFP14	DAC0 external trigger input.
10	15	15	PA.9	I/O	MFP0	General purpose digital I/O pin.
			OPA1_N	A	MFP1	Operational amplifier 1 negative input pin.
			EBI_MCLK	O	MFP2	EBI external clock output pin.
			SC2_DAT	I/O	MFP3	Smart Card 2 data pin.
			SPI2_MISO	I/O	MFP4	SPI2 MISO (Master In, Slave Out) pin.
			SD1_DAT1	I/O	MFP5	SD/SDIO1 data line bit 1.
			USCI0_DAT1	I/O	MFP6	USCI0 data 1 pin.
			UART1_TXD	O	MFP7	UART1 data transmitter output pin.
			BPWM0_CH2	I/O	MFP9	BPWM0 channel 2 output/capture input.
			QEI1_A	I	MFP10	Quadrature encoder 1 phase A input
			ECAP0_IC1	I	MFP11	Enhanced capture unit 0 input 1 pin.
			TM2_EXT	I/O	MFP13	Timer2 event counter input/toggle output pin.
11	16	16	PA.8	I/O	MFP0	General purpose digital I/O pin.
			OPA1_P	A	MFP1	Operational amplifier 1 positive input pin.
			EBI_ALE	O	MFP2	EBI address latch enable output pin.
			SC2_CLK	O	MFP3	Smart Card 2 clock pin.
			SPI2_MOSI	I/O	MFP4	SPI2 MOSI (Master Out, Slave In) pin.
			SD1_DAT0	I/O	MFP5	SD/SDIO1 data line bit 0.
			USCI0_CTL1	I/O	MFP6	USCI0 control 1 pin.
			UART1_RXD	I	MFP7	UART1 data receiver input pin.

64 Pin	128 Pin	144 Pin	Pin Name	Type	MFP	Description
			BPWM0_CH3	I/O	MFP9	BPWM0 channel 3 output/capture input.
			QEI1_B	I	MFP10	Quadrature encoder 1 phase B input
			ECAP0_IC2	I	MFP11	Enhanced capture unit 0 input 2 pin.
			TM3_EXT	I/O	MFP13	Timer3 event counter input/toggle output pin.
			INT4	I	MFP15	External interrupt 4 input pin.
	17	17	PC.13	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR10	O	MFP2	EBI address bus bit 10.
			SC2_nCD	I	MFP3	Smart Card 2 card detect pin.
			SPI2_I2SMCLK	I/O	MFP4	SPI2 I^2S master clock output pin
			CAN1_TXD	O	MFP5	CAN1 bus transmitter output.
			USCI0_CTL0	I/O	MFP6	USCI0 control 0 pin.
			UART2_TXD	O	MFP7	UART2 data transmitter output pin.
			BPWM0_CH4	I/O	MFP9	BPWM0 channel 4 output/capture input.
			CLKO	O	MFP13	Clock Out
			EADC0_ST	I	MFP14	EADC0 external trigger input.
	18	18	PD.12	I/O	MFP0	General purpose digital I/O pin.
			OPA2_O	A	MFP1	Operational amplifier 2 output pin.
			EBI_nCS0	O	MFP2	EBI chip select 0 output pin.
			CAN1_RXD	I	MFP5	CAN1 bus receiver input.
			UART2_RXD	I	MFP7	UART2 data receiver input pin.
			BPWM0_CH5	I/O	MFP9	BPWM0 channel 5 output/capture input.
			QEI0_INDEX	I	MFP10	Quadrature encoder 0 index input
			CLKO	O	MFP13	Clock Out
			EADC0_ST	I	MFP14	EADC0 external trigger input.
			INT5	I	MFP15	External interrupt 5 input pin.
	19	19	PD.11	I/O	MFP0	General purpose digital I/O pin.
			OPA2_N	A	MFP1	Operational amplifier 2 negative input pin.
			EBI_nCS1	O	MFP2	EBI chip select 1 output pin.
			UART1_TXD	O	MFP3	UART1 data transmitter output pin.
			CAN0_TXD	O	MFP4	CAN0 bus transmitter output.
			QEI0_A	I	MFP10	Quadrature encoder 0 phase A input
			INT6	I	MFP15	External interrupt 6 input pin.
	20	20	PD.10	I/O	MFP0	General purpose digital I/O pin.
			OPA2_P	A	MFP1	Operational amplifier 2 positive input pin.

64 Pin	128 Pin	144 Pin	Pin Name	Type	MFP	Description
			EBI_nCS2	O	MFP2	EBI chip select 2 output pin.
			UART1_RXD	I	MFP3	UART1 data receiver input pin.
			CAN0_RXD	I	MFP4	CAN0 bus receiver input.
			QEI0_B	I	MFP10	Quadrature encoder 0 phase B input
			INT7	I	MFP15	External interrupt 7 input pin.
		21	V_{SS}	P	MFP0	Ground pin for digital circuit.
		22	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
		23	PG.0	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR8	O	MFP2	EBI address bus bit 8.
			I^2C0_SCL	I/O	MFP4	I^2C0 clock pin.
			I^2C1_SMBAL	O	MFP5	I^2C1 SMBus SMBALTER pin
			UART2_RXD	I	MFP6	UART2 data receiver input pin.
			CAN1_TXD	O	MFP7	CAN1 bus transmitter output.
			UART1_TXD	O	MFP8	UART1 data transmitter output pin.
		24	PG.1	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR9	O	MFP2	EBI address bus bit 9.
			SPI2_I2SMCLK	I/O	MFP3	SPI2 I^2S master clock output pin
			I^2C0_SDA	I/O	MFP4	I^2C0 data input/output pin.
			I^2C1_SMBSUS	O	MFP5	I^2C1 SMBus SMBSUS pin (PMBus CONTROL pin)
			UART2_TXD	O	MFP6	UART2 data transmitter output pin.
			CAN1_RXD	I	MFP7	CAN1 bus receiver input.
			UART1_RXD	I	MFP8	UART1 data receiver input pin.
	21	25	PG.2	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR11	O	MFP2	EBI address bus bit 11.
			SPI2_SS	I/O	MFP3	SPI2 slave select pin.
			I^2C0_SMBAL	O	MFP4	I^2C0 SMBus SMBALTER pin
			I^2C1_SCL	I/O	MFP5	I^2C1 clock pin.
			TM0	I/O	MFP13	Timer0 event counter input/toggle output pin.
	22	26	PG.3	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR12	O	MFP2	EBI address bus bit 12.
			SPI2_CLK	I/O	MFP3	SPI2 serial clock pin.
			I^2C0_SMBSUS	O	MFP4	I^2C0 SMBus SMBSUS pin (PMBus CONTROL pin)
			I^2C1_SDA	I/O	MFP5	I^2C1 data input/output pin.

64 Pin	128 Pin	144 Pin	Pin Name	Type	MFP	Description
			TM1	I/O	MFP13	Timer1 event counter input/toggle output pin.
	23	27	PG.4	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR13	O	MFP2	EBI address bus bit 13.
			SPI2_MISO	I/O	MFP3	SPI2 MISO (Master In, Slave Out) pin.
			TM2	I/O	MFP13	Timer2 event counter input/toggle output pin.
	24	28	PF.11	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR14	O	MFP2	EBI address bus bit 14.
			SPI2_MOSI	I/O	MFP3	SPI2 MOSI (Master Out, Slave In) pin.
			TAMPER5	I/O	MFP10	TAMPER detector loop pin 5.
			TM3	I/O	MFP13	Timer3 event counter input/toggle output pin.
	25	29	PF.10	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR15	O	MFP2	EBI address bus bit 15.
			SC0_nCD	I	MFP3	Smart Card 0 card detect pin.
			I^2S0_BCLK	O	MFP4	I^2S0 bit clock output pin.
			SPI0_I2SMCLK	I/O	MFP5	SPI0 I^2S master clock output pin
			TAMPER4	I/O	MFP10	TAMPER detector loop pin 4.
	26	30	PF.9	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR16	O	MFP2	EBI address bus bit 16.
			SC0_PWR	O	MFP3	Smart Card 0 power pin.
			I^2S0_MCLK	O	MFP4	I^2S0 master clock output pin.
			SPI0_SS	I/O	MFP5	SPI0 slave select pin.
			TAMPER3	I/O	MFP10	TAMPER detector loop pin 3.
	27	31	PF.8	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR17	O	MFP2	EBI address bus bit 17.
			SC0_RST	O	MFP3	Smart Card 0 reset pin.
			I^2S0_DI	I	MFP4	I^2S0 data input pin.
			SPI0_CLK	I/O	MFP5	SPI0 serial clock pin.
			TAMPER2	I/O	MFP10	TAMPER detector loop pin 2.
	28	32	PF.7	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR18	O	MFP2	EBI address bus bit 18.
			SC0_DAT	I/O	MFP3	Smart Card 0 data pin.
			I^2S0_DO	O	MFP4	I^2S0 data output pin.
			SPI0_MISO	I/O	MFP5	SPI0 MISO (Master In, Slave Out) pin.
			UART4_TXD	O	MFP6	UART4 data transmitter output pin.

64 Pin	128 Pin	144 Pin	Pin Name	Type	MFP	Description
			TAMPER1	I/O	MFP10	TAMPER detector loop pin 1.
12	29	33	PF.6	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR19	O	MFP2	EBI address bus bit 19.
			SC0_CLK	O	MFP3	Smart Card 0 clock pin.
			I^2S0_LRCK	O	MFP4	I^2S0 left right channel clock output pin.
			SPI0_MOSI	I/O	MFP5	SPI0 MOSI (Master Out, Slave In) pin.
			UART4_RXD	I	MFP6	UART4 data receiver input pin.
			EBI_nCS0	O	MFP7	EBI chip select 0 output pin.
			TAMPER0	I/O	MFP10	TAMPER detector loop pin 0.
13	30	34	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
14	31	35	PF.5	I/O	MFP0	General purpose digital I/O pin.
			UART2_RXD	I	MFP2	UART2 data receiver input pin.
			UART2_nCTS	I	MFP4	UART2 clear to Send input pin.
			BPWM0_CH4	I/O	MFP8	BPWM0 channel 4 output/capture input.
			EPWM0_SYNC_OUT	O	MFP9	EPWM0 counter synchronous trigger output pin.
			X32_IN	I	MFP10	External 32.768 kHz crystal input pin.
			EADC0_ST	I	MFP11	EADC0 external trigger input.
15	32	36	PF.4	I/O	MFP0	General purpose digital I/O pin.
			UART2_TXD	O	MFP2	UART2 data transmitter output pin.
			UART2_nRTS	O	MFP4	UART2 request to Send output pin.
			BPWM0_CH5	I/O	MFP8	BPWM0 channel 5 output/capture input.
			X32_OUT	O	MFP10	External 32.768 kHz crystal output pin.
		37	PH.0	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR7	O	MFP2	EBI address bus bit 7.
			UART5_TXD	O	MFP4	UART5 data transmitter output pin.
			TM0_EXT	I/O	MFP13	Timer0 event counter input/toggle output pin.
		38	PH.1	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR6	O	MFP2	EBI address bus bit 6.
			UART5_RXD	I	MFP4	UART5 data receiver input pin.
			TM1_EXT	I/O	MFP13	Timer1 event counter input/toggle output pin.
		39	PH.2	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR5	O	MFP2	EBI address bus bit 5.
			UART5_nRTS	O	MFP4	UART5 request to Send output pin.

64 Pin	128 Pin	144 Pin	Pin Name	Type	MFP	Description
			UART4_TXD	O	MFP5	UART4 data transmitter output pin.
			I²C0_SCL	I/O	MFP6	I²C0 clock pin.
			TM2_EXT	I/O	MFP13	Timer2 event counter input/toggle output pin.
		40	PH.3	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR4	O	MFP2	EBI address bus bit 4.
			SPI1_I2SMCLK	I/O	MFP3	SPI1 I²S master clock output pin
			UART5_nCTS	I	MFP4	UART5 clear to Send input pin.
			UART4_RXD	I	MFP5	UART4 data receiver input pin.
			I²C0_SDA	I/O	MFP6	I²C0 data input/output pin.
			TM3_EXT	I/O	MFP13	Timer3 event counter input/toggle output pin.
	33	41	PH.4	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR3	O	MFP2	EBI address bus bit 3.
			SPI1_MISO	I/O	MFP3	SPI1 MISO (Master In, Slave Out) pin.
	34	42	PH.5	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR2	O	MFP2	EBI address bus bit 2.
			SPI1_MOSI	I/O	MFP3	SPI1 MOSI (Master Out, Slave In) pin.
	35	43	PH.6	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR1	O	MFP2	EBI address bus bit 1.
			SPI1_CLK	I/O	MFP3	SPI1 serial clock pin.
	36	44	PH.7	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR0	O	MFP2	EBI address bus bit 0.
			SPI1_SS	I/O	MFP3	SPI1 slave select pin.
16	37	45	PF.3	I/O	MFP0	General purpose digital I/O pin.
			EBI_nCS0	O	MFP2	EBI chip select 0 output pin.
			UART0_TXD	O	MFP3	UART0 data transmitter output pin.
			I²C0_SCL	I/O	MFP4	I²C0 clock pin.
			XT1_IN	I	MFP10	External 4~24 MHz (high speed) crystal input pin.
			BPWM1_CH0	I/O	MFP11	BPWM1 channel 0 output/capture input.
17	38	46	PF.2	I/O	MFP0	General purpose digital I/O pin.
			EBI_nCS1	O	MFP2	EBI chip select 1 output pin.
			UART0_RXD	I	MFP3	UART0 data receiver input pin.
			I²C0_SDA	I/O	MFP4	I²C0 data input/output pin.
			QSPI0_CLK	I/O	MFP5	QSPI0 serial clock pin.
			XT1_OUT	O	MFP10	External 4~24 MHz (high speed) crystal output pin.

64 Pin	128 Pin	144 Pin	Pin Name	Type	MFP	Description
			BPWM1_CH1	I/O	MFP11	BPWM1 channel 1 output/capture input.
	39	47	V_{SS}	P	MFP0	Ground pin for digital circuit.
	40	48	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
	41	49	PE.8	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR10	O	MFP2	EBI address bus bit 10.
			EMAC_RMII_MDC	O	MFP3	EMAC RMII PHY Management Clock output pin.
			I^2S0_BCLK	O	MFP4	I^2S0 bit clock output pin.
			SPI2_CLK	I/O	MFP5	SPI2 serial clock pin.
			USCI1_CTL1	I/O	MFP6	USCI1 control 1 pin.
			UART2_TXD	O	MFP7	UART2 data transmitter output pin.
			EPWM0_CH0	I/O	MFP10	EPWM0 channel 0 output/capture input.
			EPWM0_BRAKE0	I	MFP11	EPWM0 Brake 0 input pin.
			ECAP0_IC0	I	MFP12	Enhanced capture unit 0 input 0 pin.
			TRACE_DATA3	O	MFP14	ETM Trace Data 3 output pin
	42	50	PE.9	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR11	O	MFP2	EBI address bus bit 11.
			EMAC_RMII_MDIO	I/O	MFP3	EMAC RMII PHY Management Data pin.
			I^2S0_MCLK	O	MFP4	I^2S0 master clock output pin.
			SPI2_MISO	I/O	MFP5	SPI2 MISO (Master In, Slave Out) pin.
			USCI1_CTL0	I/O	MFP6	USCI1 control 0 pin.
			UART2_RXD	I	MFP7	UART2 data receiver input pin.
			EPWM0_CH1	I/O	MFP10	EPWM0 channel 1 output/capture input.
			EPWM0_BRAKE1	I	MFP11	EPWM0 Brake 1 input pin.
			ECAP0_IC1	I	MFP12	Enhanced capture unit 0 input 1 pin.
			TRACE_DATA2	O	MFP14	ETM Trace Data 2 output pin
	43	51	PE.10	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR12	O	MFP2	EBI address bus bit 12.
			EMAC_RMII_TXD0	O	MFP3	EMAC RMII Transmit Data bus bit 0.
			I^2S0_DI	I	MFP4	I^2S0 data input pin.
			SPI2_MOSI	I/O	MFP5	SPI2 MOSI (Master Out, Slave In) pin.
			USCI1_DAT0	I/O	MFP6	USCI1 data 0 pin.
			UART3_TXD	O	MFP7	UART3 data transmitter output pin.
			EPWM0_CH2	I/O	MFP10	EPWM0 channel 2 output/capture input.

64 Pin	128 Pin	144 Pin	Pin Name	Type	MFP	Description
			EPWM1_BRAKE0	I	MFP11	EPWM1 Brake 0 input pin.
			ECAP0_IC2	I	MFP12	Enhanced capture unit 0 input 2 pin.
			TRACE_DATA1	O	MFP14	ETM Trace Data 1 output pin
	44	52	PE.11	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR13	O	MFP2	EBI address bus bit 13.
			EMAC_RMII_TXD1	O	MFP3	EMAC RMII Transmit Data bus bit 1.
			I^2S0_DO	O	MFP4	I^2S0 data output pin.
			SPI2_SS	I/O	MFP5	SPI2 slave select pin.
			USCI1_DAT1	I/O	MFP6	USCI1 data 1 pin.
			UART3_RXD	I	MFP7	UART3 data receiver input pin.
			UART1_nCTS	I	MFP8	UART1 clear to Send input pin.
			EPWM0_CH3	I/O	MFP10	EPWM0 channel 3 output/capture input.
			EPWM1_BRAKE1	I	MFP11	EPWM1 Brake 1 input pin.
			ECAP1_IC2	I	MFP13	Enhanced capture unit 1 input 2 pin.
			TRACE_DATA0	O	MFP14	ETM Trace Data 0 output pin
	45	53	PE.12	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR14	O	MFP2	EBI address bus bit 14.
			EMAC_RMII_TXEN	O	MFP3	EMAC RMII Transmit Enable output pin.
			I^2S0_LRCK	O	MFP4	I^2S0 left right channel clock output pin.
			SPI2_I2SMCLK	I/O	MFP5	SPI2 I^2S master clock output pin
			USCI1_CLK	I/O	MFP6	USCI1 clock pin.
			UART1_nRTS	O	MFP8	UART1 request to Send output pin.
			EPWM0_CH4	I/O	MFP10	EPWM0 channel 4 output/capture input.
			ECAP1_IC1	I	MFP13	Enhanced capture unit 1 input 1 pin.
			TRACE_CLK	O	MFP14	ETM Trace Clock output pin
	46	54	PE.13	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR15	O	MFP2	EBI address bus bit 15.
			EMAC_PPS	O	MFP3	EMAC Pulse Per Second output pin.
			I^2C0_SCL	I/O	MFP4	I^2C0 clock pin.
			UART4_nRTS	O	MFP5	UART4 request to Send output pin.
			UART1_TXD	O	MFP8	UART1 data transmitter output pin.
			EPWM0_CH5	I/O	MFP10	EPWM0 channel 5 output/capture input.
			EPWM1_CH0	I/O	MFP11	EPWM1 channel 0 output/capture input.
			BPWM1_CH5	I/O	MFP12	BPWM1 channel 5 output/capture input.

64 Pin	128 Pin	144 Pin	Pin Name	Type	MFP	Description
			ECAP1_IC0	I	MFP13	Enhanced capture unit 1 input 0 pin.
	47	55	PC.8	I/O	MFP0	General purpose digital I/O pin.
			EBI_ADR16	O	MFP2	EBI address bus bit 16.
			EMAC_RMII_REFCLK	I	MFP3	EMAC RMII reference clock input pin.
			I^2C0_SDA	I/O	MFP4	I^2C0 data input/output pin.
			UART4_nCTS	I	MFP5	UART4 clear to Send input pin.
			UART1_RXD	I	MFP8	UART1 data receiver input pin.
			EPWM1_CH1	I/O	MFP11	EPWM1 channel 1 output/capture input.
			BPWM1_CH4	I/O	MFP12	BPWM1 channel 4 output/capture input.
18	48	56	PC.7	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD9	I/O	MFP2	EBI address/data bus bit 9.
			EMAC_RMII_RXD0	I	MFP3	EMAC RMII Receive Data bus bit 0.
			SPI1_MISO	I/O	MFP4	SPI1 MISO (Master In, Slave Out) pin.
			UART4_TXD	O	MFP5	UART4 data transmitter output pin.
			SC2_PWR	O	MFP6	Smart Card 2 power pin.
			UART0_nCTS	I	MFP7	UART0 clear to Send input pin.
			I^2C1_SMBAL	O	MFP8	I^2C1 SMBus SMBALTER pin
			EPWM1_CH2	I/O	MFP11	EPWM1 channel 2 output/capture input.
			BPWM1_CH0	I/O	MFP12	BPWM1 channel 0 output/capture input.
			TM0	I/O	MFP14	Timer0 event counter input/toggle output pin.
			INT3	I	MFP15	External interrupt 3 input pin.
19	49	57	PC.6	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD8	I/O	MFP2	EBI address/data bus bit 8.
			EMAC_RMII_RXD1	I	MFP3	EMAC RMII Receive Data bus bit 1.
			SPI1_MOSI	I/O	MFP4	SPI1 MOSI (Master Out, Slave In) pin.
			UART4_RXD	I	MFP5	UART4 data receiver input pin.
			SC2_RST	O	MFP6	Smart Card 2 reset pin.
			UART0_nRTS	O	MFP7	UART0 request to Send output pin.
			I^2C1_SMBSUS	O	MFP8	I^2C1 SMBus SMBSUS pin (PMBus CONTROL pin)
			EPWM1_CH3	I/O	MFP11	EPWM1 channel 3 output/capture input.
			BPWM1_CH1	I/O	MFP12	BPWM1 channel 1 output/capture input.
			TM1	I/O	MFP14	Timer1 event counter input/toggle output pin.
			INT2	I	MFP15	External interrupt 2 input pin.
20	50	58	PA.7	I/O	MFP0	General purpose digital I/O pin.

64 Pin	128 Pin	144 Pin	Pin Name	Type	MFP	Description
			EBI_AD7	I/O	MFP2	EBI address/data bus bit 7.
			EMAC_RMII_CRSDV	I	MFP3	EMAC RMII Carrier Sense/Receive Data input pin.
			SPI1_CLK	I/O	MFP4	SPI1 serial clock pin.
			SC2_DAT	I/O	MFP6	Smart Card 2 data pin.
			UART0_TXD	O	MFP7	UART0 data transmitter output pin.
			I^2C1_SCL	I/O	MFP8	I^2C1 clock pin.
			EPWM1_CH4	I/O	MFP11	EPWM1 channel 4 output/capture input.
			BPWM1_CH2	I/O	MFP12	BPWM1 channel 2 output/capture input.
			ACMP0_WLAT	I	MFP13	Analog comparator 0 window latch input pin
			TM2	I/O	MFP14	Timer2 event counter input/toggle output pin.
			INT1	I	MFP15	External interrupt 1 input pin.
21	51	59	PA.6	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD6	I/O	MFP2	EBI address/data bus bit 6.
			EMAC_RMII_RXERR	I	MFP3	EMAC RMII Receive Data Error input pin.
			SPI1_SS	I/O	MFP4	SPI1 slave select pin.
			SD1_nCD	I	MFP5	SD/SDIO1 card detect input pin
			SC2_CLK	O	MFP6	Smart Card 2 clock pin.
			UART0_RXD	I	MFP7	UART0 data receiver input pin.
			I^2C1_SDA	I/O	MFP8	I^2C1 data input/output pin.
			EPWM1_CH5	I/O	MFP11	EPWM1 channel 5 output/capture input.
			BPWM1_CH3	I/O	MFP12	BPWM1 channel 3 output/capture input.
			ACMP1_WLAT	I	MFP13	Analog comparator 1 window latch input pin
			TM3	I/O	MFP14	Timer3 event counter input/toggle output pin.
			INT0	I	MFP15	External interrupt 0 input pin.
22	52	60	V_{SS}	P	MFP0	Ground pin for digital circuit.
23	53	61	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL and digital circuit.
24	54	62	LDO_CAP	A	MFP0	LDO output pin. **Note:** This pin needs to be connected with an external capacitor.
25	55	63	PA.5	I/O	MFP0	General purpose digital I/O pin.
			SPIM_D2	I/O	MFP2	SPIM data 2 pin for Quad Mode I/O.
			QSPI0_MISO1	I/O	MFP3	QSPI0 MISO1 (Master In, Slave Out) pin.
			SPI1_I2SMCLK	I/O	MFP4	SPI1 I^2S master clock output pin
			SD1_CMD	I/O	MFP5	SD/SDIO1 command/response pin

64 Pin	128 Pin	144 Pin	Pin Name	Type	MFP	Description
			SC2_nCD	I	MFP6	Smart Card 2 card detect pin.
			UART0_nCTS	I	MFP7	UART0 clear to Send input pin.
			UART5_TXD	O	MFP8	UART5 data transmitter output pin.
			I²C0_SCL	I/O	MFP9	I²C0 clock pin.
			CAN0_TXD	O	MFP10	CAN0 bus transmitter output.
			BPWM0_CH5	I/O	MFP12	BPWM0 channel 5 output/capture input.
			EPWM0_CH0	I/O	MFP13	EPWM0 channel 0 output/capture input.
			QEI0_INDEX	I	MFP14	Quadrature encoder 0 index input
26	56	64	PA.4	I/O	MFP0	General purpose digital I/O pin.
			SPIM_D3	I/O	MFP2	SPIM data 3 pin for Quad Mode I/O.
			QSPI0_MOSI1	I/O	MFP3	QSPI0 MOSI1 (Master Out, Slave In) pin.
			SPI0_I2SMCLK	I/O	MFP4	SPI0 I²S master clock output pin
			SD1_CLK	O	MFP5	SD/SDIO1 clock output pin
			SC0_nCD	I	MFP6	Smart Card 0 card detect pin.
			UART0_nRTS	O	MFP7	UART0 request to Send output pin.
			UART5_RXD	I	MFP8	UART5 data receiver input pin.
			I²C0_SDA	I/O	MFP9	I²C0 data input/output pin.
			CAN0_RXD	I	MFP10	CAN0 bus receiver input.
			BPWM0_CH4	I/O	MFP12	BPWM0 channel 4 output/capture input.
			EPWM0_CH1	I/O	MFP13	EPWM0 channel 1 output/capture input.
			QEI0_A	I	MFP14	Quadrature encoder 0 phase A input
27	57	65	PA.3	I/O	MFP0	General purpose digital I/O pin.
			SPIM_SS	I/O	MFP2	SPIM slave select pin.
			QSPI0_SS	I/O	MFP3	QSPI0 slave select pin.
			SPI0_SS	I/O	MFP4	SPI0 slave select pin.
			SD1_DAT3	I/O	MFP5	SD/SDIO1 data line bit 3.
			SC0_PWR	O	MFP6	Smart Card 0 power pin.
			UART4_TXD	O	MFP7	UART4 data transmitter output pin.
			UART1_TXD	O	MFP8	UART1 data transmitter output pin.
			I²C1_SCL	I/O	MFP9	I²C1 clock pin.
			BPWM0_CH3	I/O	MFP12	BPWM0 channel 3 output/capture input.
			EPWM0_CH2	I/O	MFP13	EPWM0 channel 2 output/capture input.
			QEI0_B	I	MFP14	Quadrature encoder 0 phase B input
28	58	66	PA.2	I/O	MFP0	General purpose digital I/O pin.

64 Pin	128 Pin	144 Pin	Pin Name	Type	MFP	Description
			SPIM_CLK	I/O	MFP2	SPIM serial clock pin.
			QSPI0_CLK	I/O	MFP3	QSPI0 serial clock pin.
			SPI0_CLK	I/O	MFP4	SPI0 serial clock pin.
			SD1_DAT2	I/O	MFP5	SD/SDIO1 data line bit 2.
			SC0_RST	O	MFP6	Smart Card 0 reset pin.
			UART4_RXD	I	MFP7	UART4 data receiver input pin.
			UART1_RXD	I	MFP8	UART1 data receiver input pin.
			I^2C1_SDA	I/O	MFP9	I^2C1 data input/output pin.
			BPWM0_CH2	I/O	MFP12	BPWM0 channel 2 output/capture input.
			EPWM0_CH3	I/O	MFP13	EPWM0 channel 3 output/capture input.
29	59	67	PA.1	I/O	MFP0	General purpose digital I/O pin.
			SPIM_MISO	I/O	MFP2	SPIM MISO (Master In, Slave Out) pin.
			QSPI0_MISO0	I/O	MFP3	QSPI0 MISO0 (Master In, Slave Out) pin.
			SPI0_MISO	I/O	MFP4	SPI0 MISO (Master In, Slave Out) pin.
			SD1_DAT1	I/O	MFP5	SD/SDIO1 data line bit 1.
			SC0_DAT	I/O	MFP6	Smart Card 0 data pin.
			UART0_TXD	O	MFP7	UART0 data transmitter output pin.
			UART1_nCTS	I	MFP8	UART1 clear to Send input pin.
			I^2C2_SCL	I/O	MFP9	I^2C2 clock pin.
			BPWM0_CH1	I/O	MFP12	BPWM0 channel 1 output/capture input.
			EPWM0_CH4	I/O	MFP13	EPWM0 channel 4 output/capture input.
			DAC1_ST	I	MFP15	DAC1 external trigger input.
30	60	68	PA.0	I/O	MFP0	General purpose digital I/O pin.
			SPIM_MOSI	I/O	MFP2	SPIM MOSI (Master Out, Slave In) pin.
			QSPI0_MOSI0	I/O	MFP3	QSPI0 MOSI0 (Master Out, Slave In) pin.
			SPI0_MOSI	I/O	MFP4	SPI0 MOSI (Master Out, Slave In) pin.
			SD1_DAT0	I/O	MFP5	SD/SDIO1 data line bit 0.
			SC0_CLK	O	MFP6	Smart Card 0 clock pin.
			UART0_RXD	I	MFP7	UART0 data receiver input pin.
			UART1_nRTS	O	MFP8	UART1 request to Send output pin.
			I^2C2_SDA	I/O	MFP9	I^2C2 data input/output pin.
			BPWM0_CH0	I/O	MFP12	BPWM0 channel 0 output/capture input.
			EPWM0_CH5	I/O	MFP13	EPWM0 channel 5 output/capture input.
			DAC0_ST	I	MFP15	DAC0 external trigger input.

64 Pin	128 Pin	144 Pin	Pin Name	Type	MFP	Description
31	61	69	V_{DDIO}	P	MFP0	Power supply for PA.0~PA.5.
	62	70	PE.14	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD8	I/O	MFP2	EBI address/data bus bit 8.
			UART2_TXD	O	MFP3	UART2 data transmitter output pin.
			CAN0_TXD	O	MFP4	CAN0 bus transmitter output.
			SD1_nCD	I	MFP5	SD/SDIO1 card detect input pin
	63	71	PE.15	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD9	I/O	MFP2	EBI address/data bus bit 9.
			UART2_RXD	I	MFP3	UART2 data receiver input pin.
			CAN0_RXD	I	MFP4	CAN0 bus receiver input.
32	64	72	nRESET	I	MFP0	External reset input: active LOW, with an internal pull-up. Set this pin low reset to initial state. **Note:** It is recommended to use 10 kΩ pull-up resistor and 10 uF capacitor on nRESET pin.
33	65	73	PF.0	I/O	MFP0	General purpose digital I/O pin.
			UART1_TXD	O	MFP2	UART1 data transmitter output pin.
			I^2C1_SCL	I/O	MFP3	I^2C1 clock pin.
			BPWM1_CH0	I/O	MFP12	BPWM1 channel 0 output/capture input.
			ICE_DAT	O	MFP14	Serial wired debugger data pin. **Note:** It is recommended to use 100 kΩ pull-up resistor on ICE_DAT pin.
34	66	74	PF.1	I/O	MFP0	General purpose digital I/O pin.
			UART1_RXD	I	MFP2	UART1 data receiver input pin.
			I^2C1_SDA	I/O	MFP3	I^2C1 data input/output pin.
			BPWM1_CH1	I/O	MFP12	BPWM1 channel 1 output/capture input.
			ICE_CLK	I	MFP14	Serial wired debugger clock pin. **Note:** It is recommended to use 100 kΩ pull-up resistor on ICE_CLK pin.
	67	75	PD.9	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD7	I/O	MFP2	EBI address/data bus bit 7.
			I^2C2_SCL	I/O	MFP3	I^2C2 clock pin.
			UART2_nCTS	I	MFP4	UART2 clear to Send input pin.
	68	76	PD.8	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD6	I/O	MFP2	EBI address/data bus bit 6.
			I^2C2_SDA	I/O	MFP3	I^2C2 data input/output pin.
			UART2_nRTS	O	MFP4	UART2 request to Send output pin.
35	69	77	PC.5	I/O	MFP0	General purpose digital I/O pin.

64 Pin	128 Pin	144 Pin	Pin Name	Type	MFP	Description
			EBI_AD5	I/O	MFP2	EBI address/data bus bit 5.
			SPIM_D2	I/O	MFP3	SPIM data 2 pin for Quad Mode I/O.
			QSPI0_MISO1	I/O	MFP4	QSPI0 MISO1 (Master In, Slave Out) pin.
			UART2_TXD	O	MFP8	UART2 data transmitter output pin.
			I^2C1_SCL	I/O	MFP9	I^2C1 clock pin.
			CAN0_TXD	O	MFP10	CAN0 bus transmitter output.
			UART4_TXD	O	MFP11	UART4 data transmitter output pin.
			EPWM1_CH0	I/O	MFP12	EPWM1 channel 0 output/capture input.
36	70	78	PC.4	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD4	I/O	MFP2	EBI address/data bus bit 4.
			SPIM_D3	I/O	MFP3	SPIM data 3 pin for Quad Mode I/O.
			QSPI0_MOSI1	I/O	MFP4	QSPI0 MOSI1 (Master Out, Slave In) pin.
			SC1_nCD	I	MFP5	Smart Card 1 card detect pin.
			I^2S0_BCLK	O	MFP6	I^2S0 bit clock output pin.
			SPI1_I2SMCLK	I/O	MFP7	SPI1 I^2S master clock output pin
			UART2_RXD	I	MFP8	UART2 data receiver input pin.
			I^2C1_SDA	I/O	MFP9	I^2C1 data input/output pin.
			CAN0_RXD	I	MFP10	CAN0 bus receiver input.
			UART4_RXD	I	MFP11	UART4 data receiver input pin.
			EPWM1_CH1	I/O	MFP12	EPWM1 channel 1 output/capture input.
37	71	79	PC.3	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD3	I/O	MFP2	EBI address/data bus bit 3.
			SPIM_SS	I/O	MFP3	SPIM slave select pin.
			QSPI0_SS	I/O	MFP4	QSPI0 slave select pin.
			SC1_PWR	O	MFP5	Smart Card 1 power pin.
			I^2S0_MCLK	O	MFP6	I^2S0 master clock output pin.
			SPI1_MISO	I/O	MFP7	SPI1 MISO (Master In, Slave Out) pin.
			UART2_nRTS	O	MFP8	UART2 request to Send output pin.
			I^2C0_SMBAL	O	MFP9	I^2C0 SMBus SMBALTER pin
			CAN1_TXD	O	MFP10	CAN1 bus transmitter output.
			UART3_TXD	O	MFP11	UART3 data transmitter output pin.
			EPWM1_CH2	I/O	MFP12	EPWM1 channel 2 output/capture input.
38	72	80	PC.2	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD2	I/O	MFP2	EBI address/data bus bit 2.

64 Pin	128 Pin	144 Pin	Pin Name	Type	MFP	Description
			SPIM_CLK	I/O	MFP3	SPIM serial clock pin.
			QSPI0_CLK	I/O	MFP4	QSPI0 serial clock pin.
			SC1_RST	O	MFP5	Smart Card 1 reset pin.
			I²S0_DI	I	MFP6	I²S0 data input pin.
			SPI1_MOSI	I/O	MFP7	SPI1 MOSI (Master Out, Slave In) pin.
			UART2_nCTS	I	MFP8	UART2 clear to Send input pin.
			I²C0_SMBSUS	O	MFP9	I²C0 SMBus SMBSUS pin (PMBus CONTROL pin)
			CAN1_RXD	I	MFP10	CAN1 bus receiver input.
			UART3_RXD	I	MFP11	UART3 data receiver input pin.
			EPWM1_CH3	I/O	MFP12	EPWM1 channel 3 output/capture input.
39	73	81	PC.1	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD1	I/O	MFP2	EBI address/data bus bit 1.
			SPIM_MISO	I/O	MFP3	SPIM MISO (Master In, Slave Out) pin.
			QSPI0_MISO0	I/O	MFP4	QSPI0 MISO0 (Master In, Slave Out) pin.
			SC1_DAT	I/O	MFP5	Smart Card 1 data pin.
			I²S0_DO	O	MFP6	I²S0 data output pin.
			SPI1_CLK	I/O	MFP7	SPI1 serial clock pin.
			UART2_TXD	O	MFP8	UART2 data transmitter output pin.
			I²C0_SCL	I/O	MFP9	I²C0 clock pin.
			EPWM1_CH4	I/O	MFP12	EPWM1 channel 4 output/capture input.
			ACMP0_O	O	MFP14	Analog comparator 0 output pin.
40	74	82	PC.0	I/O	MFP0	General purpose digital I/O pin.
			EBI_AD0	I/O	MFP2	EBI address/data bus bit 0.
			SPIM_MOSI	I/O	MFP3	SPIM MOSI (Master Out, Slave In) pin.
			QSPI0_MOSI0	I/O	MFP4	QSPI0 MOSI0 (Master Out, Slave In) pin.
			SC1_CLK	O	MFP5	Smart Card 1 clock pin.
			I²S0_LRCK	O	MFP6	I²S0 left right channel clock output pin.
			SPI1_SS	I/O	MFP7	SPI1 slave select pin.
			UART2_RXD	I	MFP8	UART2 data receiver input pin.
			I²C0_SDA	I/O	MFP9	I²C0 data input/output pin.
			EPWM1_CH5	I/O	MFP12	EPWM1 channel 5 output/capture input.
			ACMP1_O	O	MFP14	Analog comparator 1 output pin.
	75	83	V_{SS}	P	MFP0	Ground pin for digital circuit.
	76	84	V_{DD}	P	MFP0	Power supply for I/O ports and LDO source for internal PLL