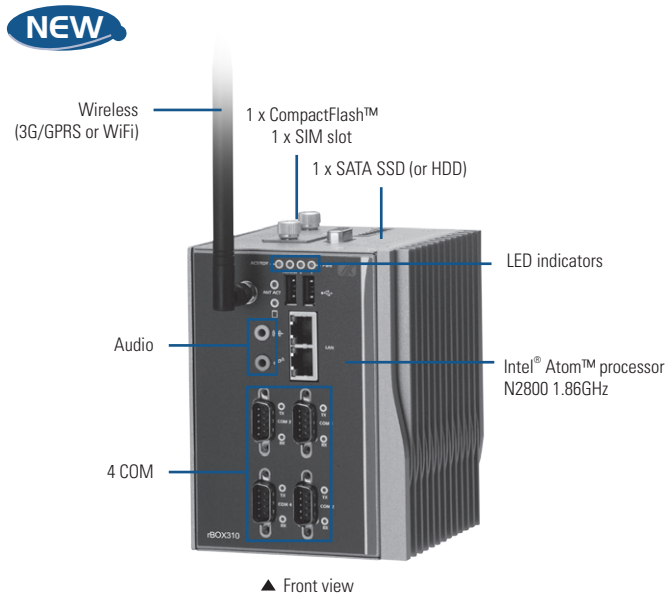


# rBOX310-4COM

Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor N2800 1.86GHz, Intel® NM10 Chipset, 4 COM, SATA SSD, Audio and RTC

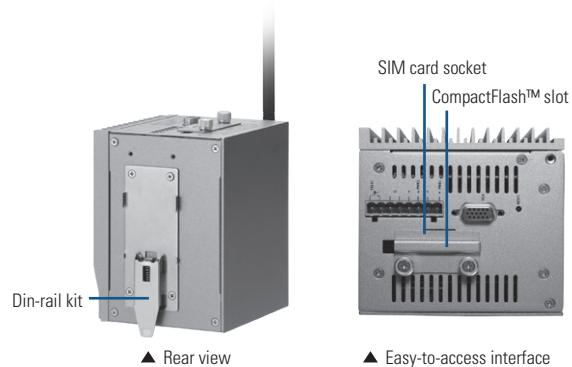


▲ Front view



## Features

- Fanless and cableless design
- Supports Intel® Atom™ processor N2800 1.86GHz
- Wide temperature operation of -40°C ~ +70°C
- 4 COM ports
- 2 isolated 10/100/1000Mbps Ethernet
- 2 watchdog timer
- RTC Battery function
- LED indicators
- 1 wireless (3G/GPRS or Wifi)
- SNMP V1/V2c
- Supports 1 x 2.5" SATA SSD (or HDD)
- Supports 1 CompactFlash™, 1 SD card (optional)
- 2 power paths with terminal block and 12-48VDC
- Supports AXView monitoring software package



▲ Rear view

▲ Easy-to-access interface

## Introduction

rBOX310-4COM din-rail fanless embedded field controller supports extra low power Intel® Atom™ processors N2800 1.86GHz with extended temperature range of -40°C to 70°C for use in extreme operating environments.

To prevent ESD and over-voltage, this super compact-size rBOX310-4COM is equipped with 4 RS-232/422/485, 2 isolated 10/100/1000Mbps Ethernet for rugged work environment. Two power paths input minimize the risk of data loss in the event of a single power failure. In addition, the RTC battery (battery onboard & gold-capacity onboard) reduces maintenance efforts and is ideally suited to vibration environment. Powered by IP30 housing, wide operating temperature range and Safety/EMI/EMS compliance, rBOX310-4COM is ideal for intelligent computing and communication solutions in critical environments such as power utility, transportation and more.

The ready-to-run rBOX310-4COM equipped with AXView monitoring software is a total solution for power plant automation, facility monitoring systems, intelligent transportation systems, and more.

## Specifications

Standard Color	Sliver-Black
Construction	Extruded aluminum and heavy-duty steel, IP30
CPU	Intel® Atom™ processor N2800 1.86GHz
System Memory	1 x DDR3 SO-DIMM 800/1066MHz up to 4GB
System I/O Outlet	Serial Port 4 x RS-232/422/485 (COM 1~4) Interface select by software or BIOS Supports Auto Flow Control in RS-485 mode ESD protection 15 KV COM 1 & COM 2 speed up to 115.2kbps COM 3 - COM 4 serial port speed up to 921.6kbps

System I/O Outlet	LAN	2 x 10/100/1000Mbps Ethernet Magnetic isolation protection 1.5 KV
	USB	2 x USB 2.0 USB power distribution control by software
	Audio	1 x Audio (Line-in/Line-out)
	RTC	Battery onboard & Gold capacity onboard (1st backup battery when power shut-down)
	VGA	1 x DB15 connector
	Power Input	2 x DC power input with terminal block
	Alarm Contact	One relay output with current 0.5A @30VDC
Wireless	1 x Mini Card - 3G/GPRS or Wifi - Supports USB interface on 3G/GPRS or supports PCIe interface on Wifi 1 x SIM socket (Easy-to-access)	
Watchdog Timer	2 WDT WDT 1: one step is 1 sec, 255 levels WDT 2: one step is 250ms, 255 levels	
LEDs	System	Power, Alarm, Ready/Active, COM (TXD, RXD)
	Alarm	DC PWR1 or PWR2 is lost (default) User define event
Storage	Supports 1 x 2.5" SATA SSD or HDD Supports 1 x CompactFlash™ (Easy-to-access) Supports 1 x SD card up to 32 GB (optional)	
Installation	Din-rail, wall mount	
Power Supply	2 power paths Power Input Range 12-48VDC	

## Specifications

Power Protection	DC Version: OVP (over voltage protection) UVP (under voltage protection) Reverse protection
Operating Temperature	-40°C ~ +70°C (-40°F ~ +158°F)
Storage Temperature	-45°C ~ +85°C (-49°F ~ +185°F)
Humidity	5% ~ 95%
Weight (net/gross)	1.5 kg (3.3 lb)/1.88 kg (1.14 lb)
Dimensions	100.6 mm (3.96") (W) x 110 mm (4.33") (D) x 135 mm (5.31") (H)
EOS Support	XPE, Linux, Windows® 7 Embedded
ISO	Manufactured in an ISO9001 facility
Safety	Heavy Industrial CE, including: EN60950-1, IEC60950-1
Safety Compliance	UL60950-1, UL508
EMI	FCC Part 18 Heavy Industrial CE, including: EN61000-6-4, EN61000-3-2, EN61000-3-3
EMS	Heavy Industrial CE, including: EN61000-6-2 EN61000-4-2 (ESD standards) * Contact: +/- 6 KV; criteria B * Air: +/- 8 KV; criteria B EN61000-4-3 (radiated RFI standards) * 10V/m, 80 to 1000 MHz; 80% AM criteria A EN61000-4-4 (burst standards) * Signal ports: +/- 2 KV; criteria B * DC power ports: +/- 2 KV; criteria B EN61000-4-5 (surge standards) * Signal ports: +/- 1 KV; line-to-line; criteria B * DC power ports: +/- 0.5 KV; line-to-earth; criteria B

	EN61000-4-6 (induced RFI standards) * Signal ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A * DC power ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A
	EN61000-4-8 (magnetic field standards) * 30 A/m @ 50, 60 Hz; criteria A
Environmental Test Compliance	IEC60068-2-6 Fc (vibration resistance) 5 g @ 10 ~ 150 Hz, amplitude 0.35 mm (operation/storage/transport) IEC60068-2-27 Ea (shock) 25 g @ 11 ms (half-sine shock pulse; operation); 50 g @ 11 ms (half-sine shock pulse; storage/transport) IEC60068-2-32 Ed (free fall) 1 M (3.281ft)

Overview

Embedded Systems

Embedded Systems for Transportation

Embedded Field Controllers

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

Power Supplies

Peripherals & Accessories

## Ordering Information

### Standard

rBOX310-4COM-FL1.86G	Robust Din-rail fanless embedded system with Intel® Atom™ processor N2800 1.86GHz and 4 COM ports (-40°C ~ +70°C)
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### Optional

DDR3 SODIMM	1 GB ~ 4 GB (with W.T. memory)
DDR3 SODIMM	1 GB ~ 4 GB (with 0°C ~ +85°C memory; operating temperature: 0°C ~ +70°C)
CompactFlash™	2 GB or above (with W.T. CF)
2.5" SATA SSD or HDD	
Wall mount kit	
Wireless (3G/GPRS or Wifi) module for rBOX series	

\*Specifications and certifications are based on options and may vary.

## Dimensions

