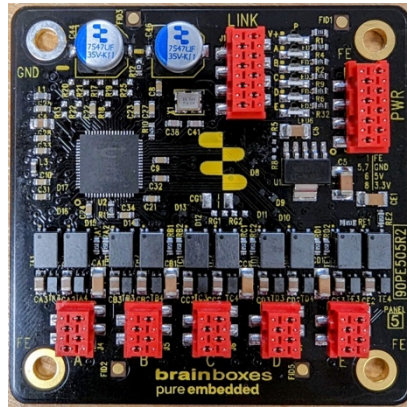


PE-505 – Pure Embedded 10/100 5 Port Ethernet Switch



1 Overview

The perfect fit for any stable, future-proof system, even where space is limited.

- 5 Port 10/100 Ethernet Switch
- 3D CAD files and PCB footprints
- Mega compact form – smaller than a standard business card (55x55x10mm)
- Seamless integration with design software - logical placements and fixed distances
- Board to board and board to cable connection
- Stability of design guaranteed for min. 10 years
- LEDs visible in all orientations – option to route through fibre

The perfect fit for any stable, future-proof system, even where space is really limited

1.1 Functionality and Features

- 5 Port 10/100Mbps Switch (10BASE-T/100BASE-T)
- Non Blocking Layer 2 operation
- 3.3 or 5 Vdc Input
- Reverse Voltage Protected
- Transient Voltage Protected
- 1500V Magnetic Isolation between ports
- EMC Testing information¹
- IEEE802.3az energy efficient ethernet
- Auto MDI/MDIX
- Extremely compact 55x55mm Board Size (2/3 the size of a business card)
- Low Power Consumption
- Power and Link indicators for all ports visible from all angles
- Board to Board and Wire to Board compatible

¹ For more detail check Manual

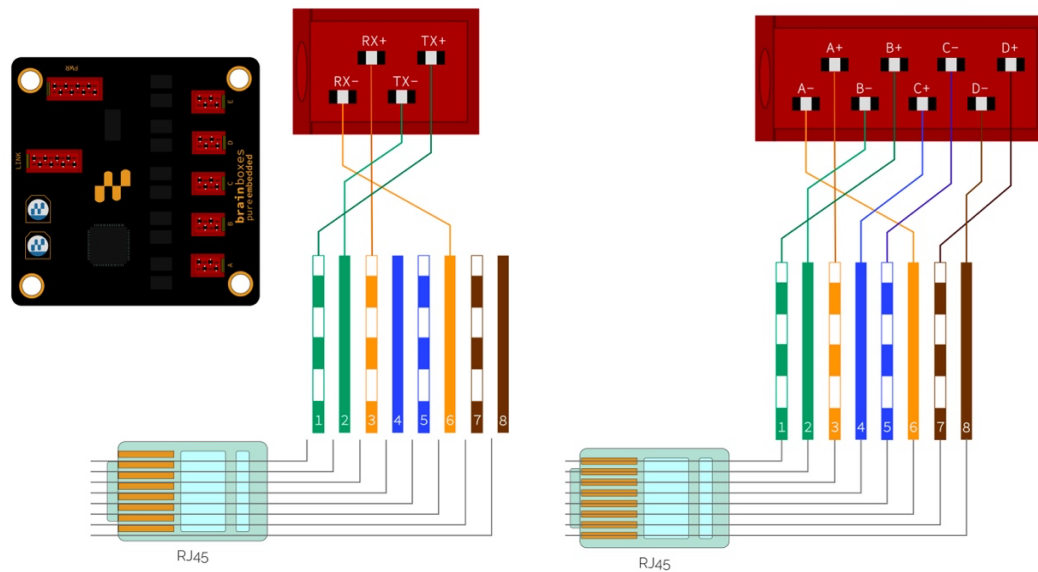
- TE MicroMatch Compatible Connectors (Compatible with Board to Board and Wire to Board Connections)
- Full 2D and 3D Cad Files available
- PCB Footprints available

Table 1, General Information

Voltage Input	3.3V or 4.5 to 12V DC
Maximum Power Consumption ²	1.3W @ 3.3V 4.5W @ 12V
Standard Compliance	IEEE 802.3az EMC Standard of
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C
Size	55x55x10mm
Weight	

² For further detail check Manual

1.2 Connectors



RJ45 Pin	100Base-T	1000Base-T
1	TX+	B+
2	TX-	B-
3	RX+	A+
4	n/c	C+
5	n/c	C-
6	RX-	A-
7	n/c	D+
8	n/c	D-

5 x Male TE Micromatch Style Connectors 4 way

2 x TE Micromatch Style Connectors 8 way (Link and Power)

Connector Type	Type	Würth Partnumber	TE Part Number
4 WAY	SMD	Würth	690357280476
		TE Connectivity	338728-4
4 WAY	THT	Würth	690357100472
		TE Connectivity	215464-4
4 way	Board to Wire	Würth	690 157 000 472
		TE	215083-4
			338095-4
8 WAY	SMD	Würth	690357280476
		TE Connectivity	338728-8
8 WAY	THT	Würth	690357100872

		TE Connectivity	215464-8
8 way	Board to Wire	Wurth	690 157 000 872
		TE	215083-8
			338095-8

Available from Wurth as WE-MM (690 157 000 472)

Available from TE Range as (insert part Number Here)

The Connectors are wired as detailed in Table 2 below

Table 2, Connector Wiring Guide

PIN	1	2	3	4	5	6	7	8
A-E	RXD – Orange (RJ45 Pin 6)	RXD + Orange/White (RJ45 Pin 3)	TXD – Green (RJ45 Pin 2)	TXD + Green/White (RJ45 Pin 1)	-	-	-	-
LINK	Port A	Port B	Port C	Port D	Port E	LED Power	GND	Self- Test
PWR	FE	-	-	-	GND	V _{in}	GND	V _{3.3}

2 Ordering

TBC Product Codes for PE505DevKit

Table 3, Ordering Information

Product Code	Description	Notes
PE-505	PE-505	5 port Embedded 10/100 Ethernet Switch
PE-405	PE-405 Dev Kit	Eval Kit for PE-505 including PE-505 and eval board
PE-505-X8M	PE-505 Multipack	

3 Changelog

Table 4, Changelog

Date	Revision	Author	Notes
03/2023	0.1	B H	Draft release
06/2023	0.2	L W	Amendments still draft

Please check www.brainboxes.com/pure-embedded/eval-kit for the most recent datasheet revision