

The schematic diagram illustrates the USB to MicroMatch interface circuit. It includes the following components and connections:

- USB Connector (J11):** A 4-pin connector with pins labeled USBVC, USBD, USBD, and USBGN. Shield A and Shield B are also indicated.
- Diode (D1):** A 55MBRA40 diode used for signal conditioning.
- MicroMatch out (J6):** An 8-pin SMD MM Male connector with pins labeled VIN, PWR, 5V, 3V3, and AGND.
- MicroMatch in (J15):** An 8-pin SMD MM Female connector with pins labeled VIN, PWR, 5V, 3V3, and AGND.
- Header In (J17):** A 4x2 Header connector with pins labeled VIN, PWR, 5V, 3V3, and AGND.
- Connections:**
 - USBVC is connected to VIN of J6.
 - USBGN is connected to AGND of J6.
 - Shield A and Shield B are connected to EARTH.
 - VIN of J6 is connected to VIN of J15.
 - PWR of J6 is connected to PWR of J15.
 - 5V of J6 is connected to 5V of J15.
 - 3V3 of J6 is connected to 3V3 of J15.
 - AGND of J6 is connected to AGND of J15.
 - VIN of J15 is connected to VIN of J17.
 - PWR of J15 is connected to PWR of J17.
 - 5V of J15 is connected to 5V of J17.
 - 3V3 of J15 is connected to 3V3 of J17.
 - AGND of J15 is connected to AGND of J17.

3V3 From PE-505

LED6
SMD LED GREEN

R23
S1

GND

LED is lit

Testpoints on chassis pin type

Large enough for probe without soldering

The diagram illustrates a vertical connector with six pins. From top to bottom, the pins are labeled: PWR, 5V, 3V3, GND, AGND, and EARTH. Each pin has a horizontal line extending to the right, ending in a circle labeled 'TESTPT'. The pins are connected to various power rails: PWR is connected to a line labeled 'PWR PIN4'; 5V is connected to a line labeled 'VIN'; 3V3 is connected to a line labeled '3V3'; GND is connected to a line labeled 'GND'; AGND is connected to a line labeled 'AGND'; and EARTH is connected to a line labeled 'EARTH'. The test points are labeled TP7, TP1, TP2, TP3, TP4, TP5, and TP6 respectively.

RJ45 Pinout 10/100 Wiring 10/100/1000 Wiring (Not Confirmed)

P8		TXRXP_D	P7
P7		TXRXN_D	P8
P6	RXN	TXRXN_B	P1
P5		TXRXN_C	P6
P4		TXRXP_C	P5
P3	RXP	TXRXP_B	P2
P2	TXN	TXRXN_A	P3
P1	TXP	TXRXP_A	P4

Port A to passthrough (allow cable testing)

SMD MM Male X8

SMD MM Female X4

SMD MM Male X8

SMD MM Female X8

3x Earth 1x GND as per PE-505

The diagram shows a vertical busbar with four terminals. The top terminal is connected to a circle labeled 'MOUNTINGHOLE' with a wire labeled '1'. The second terminal is connected to a circle labeled 'MOUNTINGHOLE' with a wire labeled '1'. The third terminal is connected to a circle labeled 'MOUNTINGHOLE' with a wire labeled '1'. The bottom terminal is connected to a circle labeled 'MOUNTINGHOLE' with a wire labeled '1'. The busbar is labeled 'EARTH' at the bottom. The ground connection is labeled 'GND' at the bottom.

This should be included for both 5V and 3V3
No Fit header on power lines for breaking & measuring power consumption

The diagrams illustrate the correct wiring for three headers: J12, J14, and J9. Each header is a 2x1 pin connector. In all three cases, pin 1 is connected to a power source (5V for J12, 3V3 for J14 and J9) and pin 2 is connected to ground (GND). The connections are shown as solid lines with dots at the connection points.

- J12:** A 2x1 Header with pin 1 connected to 5V and pin 2 connected to GND.
- J14:** A 2x1 Header with pin 1 connected to 3V3 and pin 2 connected to GND.
- J9:** A 2x1 Header with pin 1 connected to 3V3 and pin 2 connected to GND.

The diagram shows a 3V3 power supply input. The circuit consists of two parallel branches, each containing three capacitors in series. The top branch contains capacitors C3, C4, and C5. The bottom branch contains capacitors C2, C7, and C6. All capacitors are connected to ground (GND). The capacitors are labeled C3, C4, C5, C2, C7, and C6, and are connected to ground (GND).

J1

1	TXRX1N	B
2	TXRX1P	B
3	TXRX1N	A
4	TXRX1P	A
5	TXRX1P	C
6	TXRX1N	C
7	TXRX1P	D
8	TXRX1N	D

SMD MM Male X8

J2

1	TXRX2N	B
2	TXRX2P	B
3	TXRX2N	A
4	TXRX2P	A
5	TXRX2P	C
6	TXRX2N	C
7	TXRX2P	D
8	TXRX2N	D

SMD MM Male X8

J3

1	TXRX3N	B
2	TXRX3P	B
3	TXRX3N	A
4	TXRX3P	A
5	TXRX3P	C
6	TXRX3N	C
7	TXRX3P	D
8	TXRX3N	D

SMD MM Male X8

J4

1	TXRX4N	B
2	TXRX4P	B
3	TXRX4N	A
4	TXRX4P	A
5	TXRX4P	C
6	TXRX4N	C
7	TXRX4P	D
8	TXRX4N	D

SMD MM Male X8

J1A

1	TXRX1N	B
2	TXRX1P	B
3	TXRX1N	A
4	TXRX1P	A

SMD MM Male X4

J2A

1	TXRX2N	B
2	TXRX2P	B
3	TXRX2N	A
4	TXRX2P	A

SMD MM Male X4

J3A

1	TXRX3N	B
2	TXRX3P	B
3	TXRX3N	A
4	TXRX3P	A

SMD MM Male X4

J4A

1	TXRX4N	B
2	TXRX4P	B
3	TXRX4N	A
4	TXRX4P	A

SMD MM Male X4

J10

11	PORT1-1
12	PORT1-2
13	PORT1-3
14	PORT1-4
15	PORT1-5
16	PORT1-6
17	PORT1-7
18	PORT1-8
21	PORT2-1
22	PORT2-2
23	PORT2-3
24	PORT2-4
25	PORT2-5
26	PORT2-6
27	PORT2-7
28	PORT2-8
31	PORT3-1
32	PORT3-2
33	PORT3-3
34	PORT3-4
35	PORT3-5
36	PORT3-6
37	PORT3-7
38	PORT3-8
41	PORT4-1
42	PORT4-2
43	PORT4-3
44	PORT4-4
45	PORT4-5
46	PORT4-6
47	PORT4-7
48	PORT4-8

4 X RJ45

PORT1

PORT2

PORT3

PORT4

EARTH

0 Ohm placeholder for internal testing

DUT DVCC NF DUT DVCC_LED

LED1

SMD LED GREEN LED2

SMD LED GREEN LED3

SMD LED GREEN LED4

SMD LED GREEN LED5

SMD LED GREEN

R2 51

R3 51

R6 51

R5 51

R7 51

Pull link LED pin low to enable

Self test is connected to the LED header

The diagram illustrates the connection of a Self Test LED to a 2x1 Header. The LED is connected to DVCC and SELFTEST. A switch SW1 is connected between the LED and the header pins 1 and 2. Pin 1 is connected to DVCC and pin 2 is connected to SELFTEST.

Title Pure embedded switch evaluation Board 5 port		
Number 90PE405R2	Revision 2	
Date: 04/10/2023:09:08	Sheet 1 of 2	
Drawn By: BH	Checked By:	