



# PN 311-006, Rev C

## Port Expander; SPI Interface

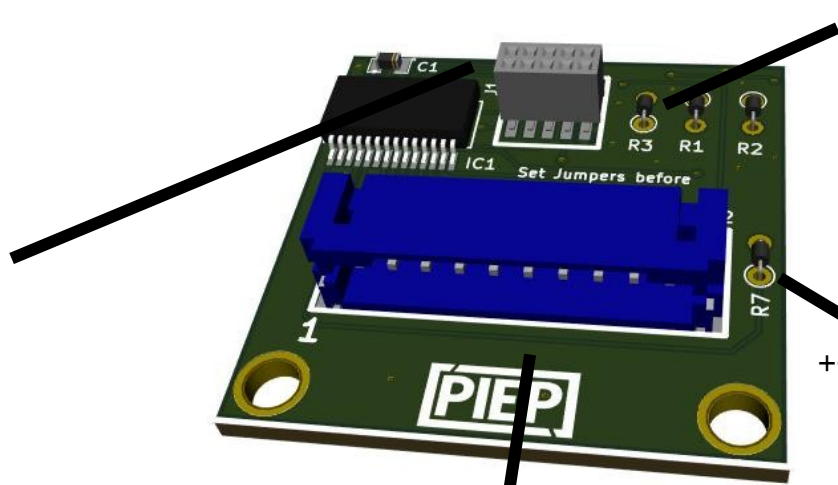
### Stacking Headers

Top Header

1	5V / 3.3V	DIO*	2
3	DIO*	DIO*	4
5	DIO*	DIO*	6
7	DIO*	DIO*	8
9	GND	DIO*	10

Bottom Header

1	5V / 3.3V	DIO+	2
3	DIO+	DIO++	4
5	SPI-SCK	DIO+	6
7	SPI-MISO	SPI-MOS	8
9	GND	IRQ	10



+ Remove two of three jumpers to set SPI Chip select

++ Remove R7 to disable MC23S17 Remote Reset

- \* Top header – Port B pins from MCP23S17 port expander
- ++ Remote Reset control via SPIP-4; Remove R7 to disable
- + SPI Chip Select – Remove R3&R1 for CS via SPIP-3; Remove R3 & R2 for CS via SPIP-2 Remove R1 & R2 for CS via SPIP-6

- \* Pins carry through from bottom header
- + Chip Select for SPI control Refer to R1-R3 configurations

Output Connector P2

1	5V / 3.3V	DIO**	6
2	DIO**	DIO**	7
3	DIO**	DIO**	8
4	DIO**	GND	9
5	DIO**	DIO**	10

\*\* Port A pins from MCP23S17 routed to P2 connector (PortA-0 corresponds To pin 1; PortA-8 corresponds to Pin 10)  
 Mating P2 connector – SKU 400-007  
 Pre-crimped leads –SKU 400-009  
 Spare Standoffs – SKU 400-012

Microchip MCP23S17 based port expander; Port A routed to P2 and Port B routed to Top Stacking Header; Remote Reset via SPIP-4

PIEP is a copyright of E3 Embedded Systems, LLC and is protected under US Patent 9,870,337

