

**PSIM I2C Analog/Digital Expander**

<b>PCB Components</b>				
<b>Reference</b>	<b>Description</b>	<b>Comments</b>	<b>Vendor</b>	<b>Part Number</b>
C1, C2, C3, C4, C9	0.1 uF	Decoupling	Mouser	581-SA105E104MAR
C5, C7	4.7 uF electrolytic	Used only if powered by +15 volts	Mouser	140LLRL35V4.7-RC
C6, C8,	0.1 uF	Used only if powered by +15 volts	Mouser	581-SA105E104MAR
C10	0.1 uF	Used only for MCP23008	Mouser	581-SA105E104MAR
D1, D2, D3, D4	SD103B	I2C protection	Mouser	625-SD103B
J1, J2	MTA 0.156 4 pin	J2 is spare for daisy chaining power	Mouser	571-6404454
J3	MTA 0.100 2 pin	I2C clock and data	Mouser	571-6404542
J4, J5	MTA 0.100 10 pin	Can use MTA 0.100 or 1x10 square pins or wires	Mouser	571-16404540
J6, J7	MTA 0.100 9 pin	Can use MTA 0.100 or 1x9 square pins or wires	Mouser	571-6404549
J8	MTA 0.100 2 pin	Used if powered by +5 volts	Mouser	
JP1	2 pin jumper	Used only if powered by +15 volts; disconnects +5V regulator; use jumper or wire	Mouser	571-1031852
R1, R2	4K7 5% 1/4W	I2C pullup	Mouser	291-4.7K-RC
R3	47K 5% 1/4W	Used only for MCP23008	Mouser	291-47K-RC
R4, R5	51R	I2C series	Mouser	291-51-RC
U1, U2, U3, U4	PCF8591	Quad 8 bit A/D	Digikey	MCP23008-E/P-ND
U5	78L05	Used only if powered by +15 volts	Mouser	512-LM78L05ACZ
U6, U7	MCP23008	8 bit I/O Digital	Digikey	568-1087-5-ND