

Bill of Materials

TI DESIGNS
Part # 6672
Literature # PMP

COUNT	RefDes	Value	Description	Size	Part Number	MFR
1	C1	1nF	Capacitor, Ceramic, 100V, X7R, 10%	0805	Std	Std
1	C100	330pF	Capacitor, Ceramic, 100V, X7R, 10%	0603	Std	Std
2	C10, C11	1uF	Capacitor, Ceramic, 1uF, 100V, X7R, 15%	1210	Std	Std
1	C14	10nF	Capacitor, Ceramic, 100V, X7R, 10%	0603	Std	Std
3	C15, C16, C17	47uF	Capacitor, Ceramic, 10V, X5R, 15%	1210	Std	Std
2	C18, C19	330uF	Capacitor, Aluminum, 6.3V, 20%	0.260 x 0.276 inch	EEVFK0J331XP	Panasonic
1	C2	0.1uF	Capacitor, Ceramic, 100V, X7R, 10%	0805	Std	Std
1	C20	1uF	Capacitor, Ceramic, 16V, X7R, 15%	0603	Std	Std
2	C21, C32	1.0uF	Capacitor, Ceramic, 16V, X7R, 10%	0603	Std	Std
1	C22	1200pF	Capacitor, Ceramic, 50V, X7R, 15%	0603	Std	Std
1	C23	1000pF	Capacitor, Ceramic, 100V, X7R, 15%	0603	Std	Std
1	C24	2200pF	Capacitor, Ceramic, 2KV, X7R, 15%	1812	Std	Std
1	C25	1.0uF	Capacitor, Ceramic, 25V, X7R, 10%	0805	Std	Std
1	C26	22uF	Capacitor, Aluminum, 25V, 20%	5x5.8mm	EEVFK1E220R	Panasonic
2	C27, C28	0.47uF	Capacitor, Ceramic, 16V, X7R, 15%	0603	Std	Std
1	C29	3300pF	Capacitor, Ceramic, 50V, X7R, 15%	0603	Std	Std
4	C3, C4, C5, C6	0.01uF	Capacitor, Ceramic, 100V, X7R, 15%	0603	Std	Std
1	C30	27nF	Capacitor, Ceramic, 50V, X7R, 15%	0603	Std	Std
1	C31	6.8nF	Capacitor, Ceramic, 50V, X7R, 15%	0603	Std	Std
1	C7	1000pF	Capacitor, Ceramic, 2kV, X7R, 15%	1210	Std	Std
3	C8, C12, C13	0.1uF	Capacitor, Ceramic, 100V, X7R, 15%	0805	Std	Std
1	C9	47uF	Capacitor, Aluminum, 63V, ±20%	0.328 x 0.390 inch	EEVFK1J470P	Panasonic
1	CL1	NA	Current Loop, 0.025 holes	0.120 X 0.075 inch	NA	NA
1	D1	B2100	Diode, Schottky, 2-A, 100-V	SMB	B2100-13	Diodes Inc
1	D100	1N4148W-7-F	Diode, Signal, 300-mA, 75-V, 350-mW	SOD-123	1N4148W-7-F	Diodes
2	D14, D18	SMAJ58A	Diode, TVS, 58-V, 1W	SMA	SMAJ58A	Diodes Inc.
1	D15	MURS120T3	Diode, UltraFast Rectifier, 1-A, 200-V	SMB	MURS120T3	On Semi
1	D16	BAV20WS	Diode, Small Signal, 250mA, 150V	SOD-323	BAV20WS	Micro Commercial Compone
2	D17, D19	BAV99	Diode, Dual Ultra Fast, Series, 200-mA, 70-V	SOT23	BAV99	Fairchild
2	D2, D3	LN1371G	Diode, LED, Green, 10-mA, 2.6-mcd	0.114 X 0.049 inch	LN1371G	Panasonic
1	D4	LN1271RAL	Diode, LED, Ultra Bright Red, 10-mA, 5-mcd	0.114 X 0.049 inch	LN1271RAL	Panasonic
9	D11, D12, D13	B1100	Diode, Schottky, 1A, 100V	SMA	B1100	Diodes, Inc
4	FB1, FB2, FB3, FB4	500	Bead, Ferrite, 2000mA, 60m-ohm	1206	MI1206L501R-10	Steward
2	J1, J2	5520252-4	Connector, Jack, Modular, Rt. Angle, 8 POS	0.705 x 0.820 inch	5520252-4	AMP
2	J3, J11	ED1514	Terminal Block, 2-pin, 6-A, 3.5mm	0.27 x 0.25	ED1514	
2	J4, J10	PTC36SAAN	Header, Male 3-pin, 100mil spacing, (36-pin)	0.100 inch x 3	PTC36SAAN	Sullins

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5	J5, J6, J7, J8, J9	PTC36SAAN	Header, Male 2-pin, 100mil spacing, (36-pin	0.100 inch x 2	PTC36SAAN	Sullins
1	L1	3.3uH	Inductor, SMT, 2.0A, 80-milliohm	4.45x6.6mm	DO1608C-332	Coilcraft
1	L2	0.33uH	Inductor, SMT, 6.26A, 7.4-milliohm	0.300 sq"	DR74-R33	Cooper
1	Q1	SiR422DP	MOSFET, NChan, 40V, 50A, 2.8 milliohm	PWRPAK S0-8	SiR422DP	Vishay-Siliconix
1	Q2	Si7898DP or FDMS2572	MOSFET, NChannel, 150V, 4.8A, 85-milliohm	POWER 56	Si7898DP or FDMS2572	Vishay or Fairchild
1	Q3	MMBT3906	Bipolar, PNP, 40V, 200mA, 225mW	SOT23	MMBT3906LT1	On Semi
1	R1	100K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R100	121K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R12	39K	Resistor, Metal Film, 1/4 watt, ± 5%	1206	Std	Std
1	R13	24.9k	Resistor, Chip, 1/16W, 1%	0603	Std	Std
2	R14, R15	69.8K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R16	10	Resistor, Chip, 1/10W, 1%	0805	Std	Std
1	R17	22.1k	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R18	10	Resistor, Chip, 1/16W, 5%	0603	Std	Std
1	R19	63.4	Resistor, Chip, 1/10W, 1%	0805	Std	Std
1	R2	15K	Resistor, Chip, 1/4W, 1%	1210	Std	Std
1	R20	4.7	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R21	332	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R22	0.18	Resistor, Chip, 1/2W, 1%	2010	Std	Std
2	R23, R28	10K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R24	1.5K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R25	2K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R26	49.9	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R27	604	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R29	41.2K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
2	R3, R4	1K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R30	13.7K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R5	6.49K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R6	4.02K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R7	8.87K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
4	R8, R9, R10, R11	75	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	T1	ETH1-230LD	XFMR, Mid-Power PoE Magnetics	S0 14 Wide	ETH1-230LD	Coilcraft
1	T2	JA4456-DL	Transformer, SMT For PoE/PD, 25W, 2.8A	0.810 x 1.181 inch	JA4456-DL	Coilcraft
1	T3	PA0184	XFMR, SMT Gate Drive	0.355 X 0.340 inch	PA0184	Pulse
5	TP17	5010	Test Point, Red, Thru Hole	0.125 x 0.125 inch	5010	Keystone
3	TP10, TP13, TP18	5013	Test Point, Orange, Thru Hole	0.125 x 0.125 inch	5013	Keystone
7	TP11, TP16, TP19	5012	Test Point, White, Thru Hole	0.125 x 0.125 inch	5012	Keystone
4	TP8, TP12, TP14, TP15	5011	Test Point, Black, Thru Hole	0.125 x 0.125 inch	5011	Keystone
1	U1	FOD817D	IC, Optocoupler, 70-V, 300 - 600% CTR	SMT-4PDIP	FOD817DS	Fairchild
1	U2	TPS23754PWP	IC, IEEE 802.3at PoE Interface and Isolated (PWP20		TPS23754PWP	TI
1	U3	TCMT1107	IC, Photocoupler, 3750VRMS, 80-160% CTR	MF4	TCMT1107	Vishay
1	U4	TLV431A	IC, Shunt Regulator, 6V, 10mA, 1%	SOT23-5	TLV431ACDBVR	TI
6	--		Shunt, Black	100-mil	929950-00	3M
4		2566	Rubber Bumbers		2566	
1	--		PCB, 5.90 In x 2.03 In x 0.062 In		HPA420	Any

Notes: 1. These assemblies are ESD sensitive, ESD precautions shall be observed.

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- 2. These assemblies must be clean and free from flux and all contaminants.
Use of no clean flux is not acceptable.
- 3. These assemblies must comply with workmanship standards IPC-A-610 Class 2.
- 4. Ref designators marked with an asterisk (***) cannot be substituted.
All other components can be substituted with equivalent MFG's components.
- 5. Install Wire, 24 AWG, Solid, non-insulated, .30 inches at CL1.
- 6. Place shunts between pins 1 and 2 of J4-J7, J9 and J10
- 7. Add 4 rubber bumpon on each conner of the back side

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