

Bill of Materials

TI DESIGNS
Part #:7452
Literature #:PMP

COUNT	RefDes	Value	Description	Size	Part Number	MFR
1	C18	47pF	Capacitor, Ceramic, 16V, X7R, 20%	603	STD	Std
1	C22	100pF	Capacitor, Ceramic, 50V, C0G, 10%	603	STD	Std
1	C5	1000pF	Capacitor, Ceramic, 100V, X7R, 10%	603	STD	Std
4	C1, C2, C3, C4	0.01uF	Capacitor, Ceramic, 100V, X7R, 10%	603	STD	Std
1	C24	0.022uF	Capacitor, Ceramic, 50V, X7R, 10%	603	STD	Std
1	C21	0.1uF	Capacitor, Ceramic, 50V, X7R, 10%	603	STD	Std
1	C20	0.22uF	Capacitor, Ceramic, 16V, X7R, 10%	603	STD	Std
2	C16, C23	1uF	Capacitor, Ceramic, 16V, X7R, 20%	603	STD	Std
1	C25	1uF	Capacitor, Ceramic, 6.3V, X5R, 20%	603	STD	Std
2	C6, C8	0.1uF	Capacitor, Ceramic, 100V, X7R, 10%	805	STD	Std
1	C15	0.047uF	Capacitor, Ceramic, 250V, X7R, 10%	1206	STD	Std
2	C13, C14	47uF	Capacitor, Ceramic, 6.3V, X5R, 20%	1206	STD	Std
2	C10, C11	2.2uF	Capacitor, Ceramic Chip, 100V, 10%	1210	STD	Std
1	C17	22uF	Capacitor, Ceramic, 25V, X7R, 10%	1210	STD	Std
1	C7	1000pF	Capacitor, Ceramic, 2KV, X7R, 10%	1812	STD	Std
2	C19, C101	2200pF	Capacitor, Ceramic, 2KV, X7R, 10%	1812	STD	Std
1	C9	47uF	Capacitor, Aluminum, 63V, ±20%	8x10.2mm	EEEFK1J470P	Panasonic
1	C12	560uF	Capacitor, Aluminum, 6.3V, 20%	8x11.5mm	6.3V ZL 560uF 8x11.5	Rubycon
1	D1		Diode, SMT TVS 400W, 4.3-A, 58-V	SMA	SMAJ58A	Diodes
2	D10, D11		Diode, Schottky, 200mA, 30V	SOT23	BAT54	Vishay-Liteon
2	D2, D3		Bridge Rectifier, 100V, 1A	MINI DIP4	CBRHDSH1-100	Central Semiconductor
5	D4, D5, D6, D7, D9		Diode, Switching, 75V, 200mA	SOT23	BAS16	On Semi
1	D8	10V	Diode, Zener, 10V, 225mW	SOT-23	BZX84C10	Diodes, Inc
2	FB1, FB2		Bead, Ferrite, SMT, 15 Ohms, 1.5A	805	MMZ2012R150A	TDK
2	J1, J2		Connector, Jack, Modular, 8 POS	0.705 x 0.820 inch	520252	AMP
3	J3, J4, J6		Header, Male 2-pin, 100mil spacing, (36-pin strip)	0.100 inch x 2	PEC02SAAN	Sullins
1	J5		Terminal Block, 2-pin, 6-A, 3.5mm	0.27 x 0.25	ED555/2DS	OST
1	L1	10uH	Inductor, SMT, 2A, 50 milliohms	7.5x7.5mm	P1167.103NL	Pulse
1	L2	8.3uH	Inductor, SMT, 13.3A, 5.1 milliohm	0.750 x 0.875 inch	PA2729 -802NL	Pulse
1	L3	1500uH	Inductor, SMT, 35mA, 4.2 Ohms	6.60x4.45mm	DS1608C-155ML	Coilcraft
2	Q1, Q5		MOSFET, N-Chan, 30V, 20A, 5.4 milliohm	5x6 QFN	CSD17510Q5A	TI
1	Q2		MOSFET, Pch, 150V, 3A, 1.5 Ohms	MicroFET3x3	FDMC2523P	Fairchild
1	Q3		MOSFET, N-ch, 150V, 4.1A, 67 milliohm	SO8	FDS86242	Fairchild
1	Q4		Trans, NPN, 40V, 200mA, 225mW	SOT23	MMBT3904LT1G	On Semi
3	R14, R19, R21	0	Resistor, Chip, 1/16W, 1%	603	STD	Std
2	R7, R8	4.7	Resistor, Chip, 1/16W, 1%	603	STD	Std
1	R6	10	Resistor, Chip, 1/16W, 1%	603	STD	Std
1	R23	63.4	Resistor, Chip, 1/16W, 1%	603	STD	Std
5	R1, R2, R3, R4, R18	75	Resistor, Chip, 1/16W, 1%	603	STD	Std

COUNT	RefDes	Value	Description	Size	Part Number	MFR
1	R17	237	Resistor, Chip, 1/16W, 1%	603	STD	Std
1	R10	499	Resistor, Chip, 1/16W, 1%	603	STD	Std
1	R16	2K	Resistor, Chip, 1/16W, 1%	603	STD	Std
1	R11	3.4K	Resistor, Chip, 1/16W, 1%	603	STD	Std
1	R27	5.90K	Resistor, Chip, 1/16W, 1%	603	STD	Std
4	R9, R15, R20, R22	10K	Resistor, Chip, 1/16W, 1%	603	STD	Std
1	R29	15K	Resistor, Chip, 1/16W, 1%	603	STD	Std
2	R13, R28	24.9K	Resistor, Chip, 1/16W, 1%	603	STD	Std
1	R24	41.2K	Resistor, Chip, 1/16W, 1%	603	STD	Std
1	R26	69.8K	Resistor, Chip, 1/16W, 1%	603	STD	Std
1	R25	75K	Resistor, Chip, 1/16W, 1%	603	STD	Std
0	R5	DNP	Resistor, Chip, 1/16W, 1%	603	STD	Std
1	R12	0.15	Resistor, Chip, 1W, 1%	2512	STD	Std
2	T1, T2		XFMR, Mid-Power PoE Magnetics	S0 14 Wide	ETH1-230LD	Coilcraft
1	T3		Transformer, Active Clamp Forward	0.524 x 0.685 inch	PA3710NL	Pulse
1	TP1		Test Point, White, Thru Hole	0.125 x 0.125 inch	5012	Keystone
3	TP2, TP4, TP5		Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
1	TP3		Test Point, Black, Thru Hole Color Keyed	0.100 x 0.100 inch	5001	Keystone
1	U2		IC, Photocoupler, 80-160% CTR	MF4	TCMT1107	Vishay
1	U4		IC, Photocoupler, 200-400% CTR	MF4	TCMT1109	Vishay
1	U3		IC, Shunt Regulator, 1.24V Ref, 6V, 10mA, 1%	SOT23-5	TLV431ACDBVR	TI
1	U1		IC, IEEE 802.3at PoE Interface Converter Controller	PWP20	TPS23754PWP	TI

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