Project: PoE_board.PrjPcb

Bill of Materials

Solution Engineering Center
Piestany

Source Data From: PoE_board.PrjPcb
Project: PoE_board.PrjPcb
Variant: standard_board

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#	Designator	Comment	Description	LibRef	SourceLibraryName	Manufacturer	Manufacturer Part Number	Supplier	Supplier Part Number	Supplier 2	Supplier Part Number 2	Quantity
1.	C1	22 nF	MLC capacitor 22nF 50V X7R 10% Murata	GRM188R71H223KA01D	capacitors.SVNDbLib	Murata	GRM188R71H223KA01D	Digi-Key	490-1517-1-ND	Mouser	81-GRM39X223K50D	1
2.	C2, C3	6n8	MLC capacitor 6n8 50V C0G 5% Murata	GRM1885C1H682JA01D	capacitors.SVNDbLib	Murata	GRM1885C1H682JA01D	Digi-Key	490-11477-1-ND	Mouser	81-GRM1885C1H682JA1D	2
3.	C4, C5, C6	10 nF	MLC capacitor 10nF 50V C0G 5% Murata	GRM1885C1H103JA01D	capacitors.SVNDbLib	Murata	GRM1885C1H103JA01D	Digi-Key	490-9666-1-ND	Mouser	81-GRM1885C1H103JA1D	3
4.	C7, C8, C11, C12	10 nF	MLC capacitor 10nF 100V X7R 10% Murata	GRM188R72A103KA01D	capacitors.SVNDbLib	Murata	GRM188R72A103KA01D	Digi-Key	490-6438-1-ND	Mouser	81-GRM188R72A103KA1D	4
5.	C9	1 nF	MLC capacitor 1nF 3kV ±10% X7R Würth Elektronik	885342210004	capacitors.SVNDbLib	Würth Electronik	885342210004	Digi-Key	732-12146-1-ND	Mouser	710-885342210004	1
6.	C10	150 nF	MLC capacitor 150nF 25V X7R 10% Murata	GRM188R71E154KA01D	capacitors.SVNDbLib	Murata	GRM188R71E154KA01D	Digi-Key	490-3289-1-ND	Mouser	81-GRM188R71E154KA01	1
7.	C13, C14	18 pF	MLC capacitor 18pF 50V C0G 5% Murata	GRM1885C1H180JA01D	capacitors.SVNDbLib	Murata	GRM1885C1H180JA01D	Digi-Key	490-1409-1-ND	Mouser	81-GRM39C180J50	2
8.	C15, C25	10 µF	MLC capacitor 10µF 16V X7S 10% Murata	GRM21BC71C106KE11L	capacitors.SVNDbLib	Murata	GRM21BC71C106KE11L	Digi-Key	490-12756-1-ND	Mouser	81-GRM21BC71C106KE1L	2
9.	C16, C17, C18, C19, C20, C21, C24, C29, C30	100 nF	MLC capacitor 100nF 16V X7R 20% Murata	GRM188R71C104MA01D	capacitors.SVNDbLib	Murata	GRM188R71C104MA01D	Digi-Key	490-11510-1-ND	Mouser	81-GRM188R71C104MA01D	9
#	C22	10 nF	MLC capacitor 10nF 16V X7R 10% Murata	GRM188R71C103KA01D	capacitors.SVNDbLib	Murata	GRM188R71C103KA01D	Digi-Key	490-1525-1-ND	Mouser	81-GRM188R71C103KA01D	1
#	C23	4µ7	MLC capacitor 4µ7 16V X5R 10% Murata	GRM188R61C475KE11D	capacitors.SVNDbLib	Murata	GRM188R61C475KE11D	Digi-Key	490-10730-1-ND	Mouser	81-GRM188R61C475KE1D	1
#	C26	100 nF	MLC capacitor 100nF 100V X7R 10% Murata	GRM21BR72A104KAC4L	capacitors.SVNDbLib	Murata	GRM21BR72A104KAC4L	Digi-Key	490-12005-1-ND	Mouser	81-GRM21BR72A104KACL	1
#	C27	2µ2	MLC capacitor 2µ2 100 V X7R 10 % AVX	12101C225KAT2A	capacitors.SVNDbLib	AVX	12101C225KAT2A	Farnell	1657944	Mouser	581-12101C225KAT2A	1
#	C28	1 nF	MLC capacitor 1nF 100V C0G 5% Murata	GRM2195C2A102JA01D	capacitors.SVNDbLib	Murata	GRM2195C2A102JA01D	Digi-Key	490-1614-1-ND	Mouser	81-GRM215C2A102JA01D	1
#	C31, C32	470 pF	MLC capacitor 470pF 100V X7R 10% Murata	GRM219R72A471KA01D	capacitors.SVNDbLib	Murata	GRM219R72A471KA01D	Mouser	81-GRM219R72A471KA1D	Murata	GRM219R72A471KA01D	2
#	C33	22 µF	ALU electrolyte capacitor 22µF 100V 20% Würth Elektronik	860130875007	capacitors.SVNDbLib	Würth Electronik	860130875007	Würth Elektronik	860130875007			1
#	C34	470 nF	MLC capacitor 470nF 25V X7R 10% Murata	GRM188R71E474KA12D	capacitors.SVNDbLib	Murata	GRM188R71E474KA12D	Digi-Key	490-3291-1-ND	Mouser	81-GRM188R71E474KA12	1
#	D1, D2	MMBZ27VAL	Dual Common Anode Zener 40W 1ms 27V On Semiconductor	MMBZ27VALT1G	diodes.SVNDbLib	ON Semiconductor	MMBZ27VALT1G	Digi-Key	MMBZ27VALT1GOSCT-ND	Mouser	863-MMBZ27VALT1G	2
#	D3	SMBJ58A	TVS 58V 600W SMB unidirectional Littelfuse	SMBJ58A	diodes.SVNDbLib	Littelfuse	SMBJ58A	Digi-Key	SMBJ58ALFCT-ND	Mouser	576-SMBJ58A	1
#	D4	NSR30CM3	Dual Common Cathode Schottky Diode 30V, 200 mA, ON Semiconductor	NSR30CM3T5G	diodes.SVNDbLib	ON Semiconductor	NSR30CM3T5G	Digi-Key	NSR30CM3T5GOSCT-ND	Mouser	863-NSR30CM3T5G	1
#	D5	MM3Z5V1	Zener diode 5.1V 300mW SOD323 ON Semiconductor	MM3Z5V1T1G	diodes.SVNDbLib	ON Semiconductor	MM3Z5V1T1G	Digi-Key	MM3Z5V1T1GOSCT-ND	Mouser	863-MM3Z5V1T1G	1
# #	J1	615 008 137 421	WR-MJ BP8C Horizontal Shielded with LED & EMI Panel Finger Tab Up Würth Elektronik	615008137421	connectors.SVNDbLib	Würth Elektronik	615008137421	Farnell	1642039	Mouser	710-615008137421	1
#	J2	613 020 243 121	WR-PHD 2.54 mm Angled Dual Socket Header, 2x10 pins	613020243121	connectors.SVNDbLib	Würth Elektronik	613020243121	Würth Elektronik	613020243121			1
#	L1, L2	1 kOhm @ 100 MHz	EMI suppression ferrite bead SMD 0603 1000Ohm Murata	BLM18RK102SN1D	inductors.SVNDbLib	Murata	BLM18RK102SN1D	Digi-Key	490-5228-1-ND	Mouser	81-BLM18RK102SN1D	2
# #	Q1, Q2	LC03 6R2	Low Capacitance Surface Mount TVS for High-Speed Data Interfaces ON Semiconductor	LC03-6R2G	ics.SVNDbLib	ON Semiconductor	LC03-6R2G	Farnell	1703034	Mouser	863-LC03-6R2G	2
#	Q3	2N7002LT1G	NMOS 60V 0.115A 7.5Ohm ON Semiconductor	2N7002LT1G	transistors.SVNDbLib	ON Semiconductor	2N7002LT1G	Digi-Key	2N7002LT1GOSCT-ND	Mouser	863-2N7002LT1G	1
#	Q4, Q5, Q6, Q7	BC846BPDW1	Complementary General Purpose Transistors 65V 0.1A ON Semiconductor	BC846BPDW1T1G	transistors.SVNDbLib	ON Semiconductor	BC846BPDW1T1G	Digi-Key	BC846BPDW1T1GOSCT-ND	Mouser	863-BC846BPDW1T1G	4
#	Q8, Q9	BC846BDW1	Dual general purpose NPN transistor 65V 0.1A ON Semiconductor	BC846BDW1T1G	transistors.SVNDbLib	ON Semiconductor	BC846BDW1T1G	Digi-Key	BC846BDW1T1GOSCT-ND	Mouser	863-BC846BDW1T1G	2
#	R1, R3, R4, R5, R6, R7, R8, R9	49R9	SMD thick film resistor 49R9 0603 1% 100 mW Panasonic	ERJ3EKF49R9V	resistors.SVNDbLib	Panasonic	ERJ3EKF49R9V	Farnell	2059274	Mouser	667-ERJ-3EKF49R9V	8
#	R2	10R	SMD thick film resistor 10R 0603 1% 100 mW Panasonic	ERJ3EKF10R0V	resistors.SVNDbLib	Panasonic	ERJ3EKF10R0V	Farnell	2302958	Mouser	667-ERJ-3EKF10R0V	1
#	R10, R11, R12, R13	75R	SMD thick film resistor 75R 0603 1% 100 mW Panasonic	ERJ3EKF75R0V	resistors.SVNDbLib	Panasonic	ERJ3EKF75R0V	Farnell	2059282	Mouser	667-ERJ-3EKF75R0V	4
#	R14, R15, R23, R24, R46, R47	10k	SMD thick film resistor 10k 0603 1% 100 mW Panasonic	ERJ3EKF1002V	resistors.SVNDbLib	Panasonic	ERJ3EKF1002V	Digi-Key	P10.0KHCT-ND	Mouser	667-ERJ-3EKF1002V	6
#	R16, R17, R18, R19, R28, R31, R42	0R	SMD thick film resistor 0R 0603 100 mW, AEC-Q200, Panasonic	ERJ-3GEY0R00V	resistors.SVNDbLib	Panasonic	ERJ-3GEY0R00V	Digi-Key	P0.0GCT-ND	Mouser	667-ERJ-3GEY0R00V	7
#	R25, R26	330R	SMD thick film resistor 330R 0603 1% 100 mW Panasonic	ERJ3EKF3300V	resistors.SVNDbLib	Panasonic	ERJ3EKF3300V	Farnell	2303104	Mouser	667-ERJ-3EKF3300V	2
#	R27	1M	SMD thick film resistor 1M 0603 1% 100 mW Panasonic	ERJ3EKF1004V	resistors.SVNDbLib	Panasonic	ERJ3EKF1004V	Digi-Key	P1.00MHCT-ND	Mouser	667-ERJ-3EKF1004V	1
#	R29	12k4	SMD thick film resistor 12k4 0603 1% 100 mW Panasonic	ERJ3EKF1242V	resistors.SVNDbLib	Panasonic	ERJ3EKF1242V	Digi-Key	P12.4KHCT-ND	Mouser	667-ERJ-3EKF1242V	1
#	R30	82k	SMD thick film resistor 82k 0603 1% 100 mW Panasonic	ERJ3EKF8202V	resistors.SVNDbLib	Panasonic	ERJ3EKF8202V	Digi-Key	P82.0KHCT-ND	Mouser	667-ERJ-3EKF8202V	1
#	R32	26k1	SMD thick film resistor 26k1 0805 1% 125 mW Panasonic	ERJ6ENF2612V	resistors.SVNDbLib	Panasonic	ERJ6ENF2612V	Digi-Key	P26.1KCCT-ND	Mouser	667-ERJ-6ENF2612V	1
#	R33	232R	SMD thick film resistor 232R 0805 1% 125 mW Panasonic	ERJ6ENF2320V	resistors.SVNDbLib	Panasonic	ERJ6ENF2320V	Digi-Key	P232CCT-ND	Mouser	667-ERJ-6ENF2320V	1
#	R34	332R	SMD thick film resistor 332R 0805 1% 125 mW Panasonic	ERJ6ENF3320V	resistors.SVNDbLib	Panasonic	ERJ6ENF3320V	Digi-Key	P332CCT-ND	Mouser	667-ERJ-6ENF3320V	1
#	R35	0R	SMD thick film resistor 0R 0805 2A Panasonic	ERJ6GEY0R00V	resistors.SVNDbLib	Panasonic	ERJ6GEY0R00V	Farnell	2057661	Mouser	667-ERJ-6GEY0R00V	1
#	R36	7k5	SMD thick film resistor 7k5 0805 1% 125 mW Panasonic	ERJ6ENF7501V	resistors.SVNDbLib	Panasonic	ERJ6ENF7501V	Digi-Key	P7.50KCCT-ND	Mouser	667-ERJ-6ENF7501V	1
#	R37, R38, R39, R40, R41, R58, R60	33k	SMD thick film resistor 33k 0603 1% 100 mW Panasonic	ERJ3EKF3302V	resistors.SVNDbLib	Panasonic	ERJ3EKF3302V	Digi-Key	P33.0KHCT-ND	Mouser	667-ERJ-3EKF3302V	7
#	R43, R44	6k8	SMD thick film resistor 6k8 0603 1% 100 mW Panasonic	ERJ3EKF6801V	resistors.SVNDbLib	Panasonic	ERJ3EKF6801V	Digi-Key	P6.80KHCT-ND	Mouser	667-ERJ-3EKF6801V	2
#	R48	649k	SMD thick film resistor 649k 0603 1% 100 mW Panasonic	ERJ3EKF6493V	resistors.SVNDbLib	Panasonic	ERJ3EKF6493V	Digi-Key	P649KHCT-ND	Mouser	667-ERJ-3EKF6493V	1
#	R49, R50	162k	SMD thick film resistor 162k 0603 1% 100 mW Panasonic	ERJ3EKF1623V	resistors.SVNDbLib	Panasonic	ERJ3EKF1623V	Digi-Key	P162KHCT-ND	Mouser	667-ERJ-3EKF1623V	2
#	R51	3k6	SMD Chip Resistor 1812 3k6 ERJU12 Series 200V thick film 750mW	ERJU12F3601U	resistors.SVNDbLib	Panasonic	ERJU12F3601U	Mouser	667-ERJ-U12F3601U	Farnell	2380880	1
#	R52, R54, R55, R56	47k	SMD thick film resistor 47k 0603 1% 100 mW Panasonic	ERJ3EKF4702V	resistors.SVNDbLib	Panasonic	ERJ3EKF4702V	Digi-Key	P47.0KHCT-ND	Mouser	667-ERJ-3EKF4702V	4
#	R57	68k	SMD thick film resistor 68k 0603 1% 100 mW Panasonic	ERJ3EKF6802V	resistors.SVNDbLib	Panasonic	ERJ3EKF6802V	Digi-Key	P68.0KHCT-ND	Mouser	667-ERJ-3EKF6802V	1
#	R59	680k	SMD thick film resistor 680k 0603 1% 100 mW Panasonic	ERJ3EKF6803V	resistors.SVNDbLib	Panasonic	ERJ3EKF6803V	Digi-Key	P680KHCT-ND	Mouser	667-ERJ-3EKF6803V	1
#	TP1	RED	PTH testpoint eyelet 3.2mm red Keystone Electronics	5005	connectors.SVNDbLib	Keystone Electronics	5005	Digi-Key	36-5005-ND	Mouser	534-5005	1
#	TP2	PURPLE	PTH testpoint eyelet 3.2mm purple Keystone Electronics	5124	connectors.SVNDbLib	Keystone Electronics	5124	Digi-Key	36-5124-ND	Mouser	534-5124	1
#	TP3	BLACK	PTH testpoint eyelet 3.2mm black Keystone Electronics	5006	connectors.SVNDbLib	Keystone Electronics	5006	Digi-Key	36-5006-ND	Mouser	534-5006	1
#	TR1	749 022 0123	LAN-Transformer 10/100 for PoE bt Würth Elektronik	7490220123	transformers.SVNDbLib	Würth Elektronik	7490220123	Digi-Key	732-10732-1-ND	Mouser	710-7490220123	1
#	U1	NSP4201MR6	ESD and Surge Protection Device	NSP4201MR6T1G	ics.SVNDbLib	ON Semiconductor	NSP4201MR6T1G	Digi-Key	NSP4201MR6T1GOSCT-ND	Mouser	863-NSP4201MR6T1G	1
#	U2	NSP5804	Power Over Ethernet Supply Protection 58V 4.5 kW	NSP5804DR2G	ics.SVNDbLib	ON Semiconductor	NSP5804DR2G	ON Semiconductor	samples only			1
#	U3	W5500	Ethernet Controller 10/100 Base-T/TX PHY SPI Interface	W5500	ics.SVNDbLib	WIZnet	W5500	Digi-Key	1278-1021-ND	Mouser	950-W5500	1
#	U4	NCP1096	PoE-PD Interface Controller IEEE 802.3bt	NCP1096PAR2G	ics.SVNDbLib	ON Semiconductor	NCP1096PAR2G	Digi-Key	NCP1096PAR2G-ND	Mouser	863-NCP1096PAR2G	1
#	U5	FXL6408	Fully configurable 8 bit I2C GPIO expander	FXL6408UMX	ics.SVNDbLib	ON Semiconductor	FXL6408UMX	Digi-Key	FXL6408UMXCT-ND	Mouser	512-FXL6408UMX	1
#	U6, U7	FDMQ8205A	GreenBridge 2 series high efficiency bridge rectifier	FDMQ8205A	ics.SVNDbLib	ON Semiconductor	FDMQ8205A	Digi-Key	FDMQ8205AOSCT-ND	Mouser	512-FDMQ8205A	2
#	X1	25 MHz 30 ppm	XTAL 25MHz 30ppm 18pF Abracon	ABM3B-25.000MHZ-D4Y-T	oscillators.SVNDbLib	Abracon	ABM3B-25.000MHZ-D4Y-T	Digi-Key	535-14828-1-ND	Mouser	815-ABM3B-25-D4Y-T	1