

High-power pulser BOM

Part	Populate	Manufacturer	Manufacturer Part #	Supplier	Supplier Part #	Supplier Description	Quantity per Unit
C1,C2,C3,C4	Yes	Murata Electronics	GRM21BD72A225KE01L	Digikey	490-GRM21BD72A225KE01LDKR-ND	2.2 µF ±10% 100V Ceramic Capacitor X7T 0805 (2012 Metric)	4
C5, C6, C7, C8	Yes	Murata Electronics	GRM188Z71E225KE43D	Digikey	490-GRM188Z71E225KE43DTR-ND	2.2 µF ±10% 25V Ceramic Capacitor X7R 0603 (1608 Metric)	4
C9,C10,C11,C12,C13	Yes	Samsung Electro-Mechanics	CL10B105KA8NFNC	Digikey	1276-1942-6-ND	1 µF ±10% 25V Ceramic Capacitor X7R 0603 (1608 Metric)	5
C14,C15	Yes	Vishay Vitramon	VJ0603A120FXXPW1BC	Digikey	720-VJ0603A120FXXPW1BCDKR-ND	12 pF ±1% 25V Ceramic Capacitor C0G, NP0 0603 (1608 Metric)	2
C16,C17	Yes	Murata Electronics	GCM1555C1H5R0FA16D	Digikey	490-GCM1555C1H5R0FA16DDKR-ND	5 pF ±1% 50V Ceramic Capacitor C0G, NP0 0402 (1005 Metric)	2
C18,C19,C20,C21	Yes	Samsung Electro-Mechanics	CL10B104KC8NNNC	Digikey	1276-6807-6-ND	0.1 µF ±10% 100V Ceramic Capacitor X7R 0603 (1608 Metric)	4
C22	Yes	Taiyo Yuden	HMK105B7103KVHFE	Digikey	587-HMK105B7103KVHFECT-ND	10000 pF ±10% 100V Ceramic Capacitor X7R 0402 (1005 Metric)	1
C23,C24,C25	Yes	YAGEO	CC0402KPX7R8BB104	Digikey	13-CC0402KPX7R8BB104DKR-ND	0.1 µF ±10% 25V Ceramic Capacitor X7R 0402 (1005 Metric)	3
C26	Yes	TDK Corporation	C0510X5R1C104M030BC	Digikey	445-13583-6-ND	0.1 µF ±20% 16V Ceramic Capacitor X5R 0204 (0510 Metric)	1
D1	Yes	Rohm	RF05VAM2STR	Digikey	RF05VAM2STR-ND	Diode 200 V 500mA Surface Mount TUMD2S	1
FB1,FB2,FB3	Yes	TDK	MPZ1005S331ET000	Digikey	445-9330-2-ND	330 Ohms 1 Power Line Ferrite Bead 0402 (1005 Metric) 700mA 280mOhm	3
J1,J2	Yes	TE Connectivity	1776113-2	Digikey	A97976-ND	2 Position Wire to Board Terminal Block Horizontal with Board 0.150" (3.81mm) Through Hole	2
J3,J5	Yes	Samtec	MMCX-J-P-H-ST-SM1	Digikey	SAM8838-ND	MMCX Connector Jack, Female Socket 50Ohm Surface Mount Solder	2
L1	Yes	Murata Electronics	LQW18AS3N6G0ZD	Digikey	490-15826-6-ND	3.6 nH Unshielded Wirewound Inductor 700 mA 63mOhm Max 0603 (1608 Metric)	1
Q1	Yes	EPC	EPC2214	Digikey	917-1213-2-ND	N-Channel 80 V 10A (Ta) Surface Mount Die	1
R1	Yes	Vishay Dale	RCA080549R9FKEA	Digikey	541-2220-2-ND	49.9 Ohms ±1% 0.125W, 1/8W Chip Resistor 0805 (2012 Metric) Anti-Sulfur, Automotive AEC-Q200 Thick Film	1
R2,R4	Yes	YAGEO	AC0603FR-07100RL	Digikey	YAG3561DKR-ND	100 Ohms ±1% 0.1W, 1/10W Chip Resistor 0603 (1608 Metric) Automotive AEC-Q200, Moisture Resistant Thick Film	2
R3	Yes	YAGEO	RC0603FR-1356RL	Digikey	13-RC0603FR-1356RLDKR-ND	56 Ohms ±1% 0.1W, 1/10W Chip Resistor 0603 (1608 Metric) Thick Film	1
R5,R6,R7,R8	Yes	Vishay Dale	CRCW04023R90FKED	Digikey	541-3.90LLTR-ND	3.9 Ohms ±1% 0.063W, 1/16W Chip Resistor 0402 (1005 Metric) Automotive AEC-Q200 Thick Film	4
R9	Yes	Keystone Electronics	5108	Digikey	36-5108TR-ND	0 Ohms Jumper Chip Resistor 1206 (3216 Metric) Metal Element	1
R10	Yes	Vishay Dale	CRCW0603100KFKEAHP	Digikey	541-100KSTR-ND	100 kOhms ±1% 0.333W, 1/3W Chip Resistor 0603 (1608 Metric) Automotive AEC-Q200, Pulse Withstanding Thick Film	1
R11,R12	Yes	Stackpole Electronics Inc	RMCF0201ZT0R00	Digikey	RMCF0201ZT0R00DKR-ND	0 Ohms Jumper Chip Resistor 0201 (0603 Metric) Thick Film	2
R13,R14	Yes	Vishay Dale	CRCW040210R0FKEE	Digikey	541-CRCW040210R0FKEETR-ND	10 Ohms ±1% 0.063W, 1/16W Chip Resistor 0402 (1005 Metric) Automotive AEC-Q200 Thick Film	2
R15	No	-	-	-	-		-
R16	Yes	YAGEO	RC0603FR-072R4L	Digikey	13-RC0603FR-072R4LTR-ND	2.4 Ohms ±1% 0.1W, 1/10W Chip Resistor 0603 (1608 Metric) Moisture Resistant Thick Film	1
R17	Yes	Panasonic	ERA-2AEB102X	Digikey	P1.0KDCTR-ND	1 kOhms ±0.1% 0.063W, 1/16W Chip Resistor 0402 (1005 Metric) Automotive AEC-Q200 Thin Film	1
R18	Yes	Panasonic	ERA-2AEB49R9X	Digikey	P49.9DCTR-ND	49.9 Ohms ±0.1% 0.063W, 1/16W Chip Resistor 0402 (1005 Metric) Automotive AEC-Q200 Thin Film	1
U1	Yes	Microchip Technology	MCP1703T-5002E/MC	Digikey	MCP1703T-5002E/MCTR-ND	Linear Voltage Regulator IC Positive Fixed 1 Output 250mA 8-DFN (2x3)	1
U2	No	Microchip Technology	MCP1703T-3302E/CB	-	-		-
U3,U4	Yes	onsemi	NC7WZ16L6X	Digikey	NC7WZ16L6XTR-ND	Buffer, Non-Inverting 2 Element 1 Bit per Element Push-Pull Output 6-MicroPak	2
U5	Yes	Texas Instruments	LMG1020YFFR	Digikey	296-50208-2-ND	Low-Side Gate Driver IC Inverting, Non-Inverting 6-DSBGA	1