



Bill of Materials for the NCP12510B65GEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
1	B1	GBU4M	-	GBU4S	Bridge Rectifiers 4A	Fairchild	GBU4M	Yes	Yes
0	C1, C3, C4	DNP	-	C0603	Capacitor MLCC, SMD	-	-	Yes	-
1	C2	4.7nF	10%	C0603	Capacitor MLCC, SMD	Various	Various	Yes	Yes
1	C5	1.2nF/250V	5%	C1206	Capacitor MLCC, SMD	TDK	CGA5F4C0G2J122J085AA	Yes	Yes
1	C6	330pF	10%	C0603	Capacitor MLCC, SMD	Various	Various	Yes	Yes
1	C7	1.5nF	10%	C0603	Capacitor MLCC, SMD	Various	Various	Yes	Yes
1	C9	100nF	10%	C0805	Capacitor MLCC, SMD	Various	Various	Yes	Yes
1	C10	4.7uF/50V	-	4x7	Electrolytic Capacitor	Panasonic	EEA-GA1H4R7H	Yes	Yes
1	C11	68u/50V	-	6.3x11	Electrolytic Capacitor	Würth Elektronik	860020673014	Yes	Yes
1	C13	330pF	-	C0805	Capacitor MLCC, SMD	Various	Various	Yes	Yes
2	C14, C15	4.7nF/630V	-	C1206	Capacitor MLCC, SMD	Murata	GRM31BR72J472KW01L	Yes	Yes
3	C16, C17, C18	470uF/25V	-	KZ_N_8x15	Electrolytic Capacitor	United Chemi-Con	EKZ2N250ELL471MH15D	Yes	Yes
1	C19	10uF	10%	C1210	Capacitor MLCC, SMD	Various	Various	Yes	Yes
1	C20	5.6nF/500V	-	7.52-32x103	Ceramic Leaded Capacitor	Various	Various	Yes	-
1	CB1	100uF/400V	-	BWV_18x25	Electrolytic Capacitor	Rubycon	400BXW 100MEFR18X25	Yes	Yes
1	CX1	220nF/310V	-	18x6	X Capacitor	Würth Elektronik	890334025027	Yes	Yes
3	CY1, CY2, CY3	2.2nF/500V	-	Axial leaded	Y Capacitor	Vishay	VY1222M47Y5UQ63V0	Yes	Yes
1	D1	1N4007	-	Axial lead-2	Standard diode	ON Semiconductor	1N4007RLG	No	Yes
1	D2	NTST30100SG	-	TO220AVH	Schottky diode, 30A, 100V	ON Semiconductor	NTST30100SG	No	Yes
1	D3	MMSD4148	-	SOD123	Switching diode	ON Semiconductor	MMSD4148T1G	No	Yes
3	D4, D5, D6	BAV21	-	SOD123	Small signal diode	Diodes Inc.	BAV21W-7-F	Yes	Yes
1	D7	MMSZ15	-	SOD123	Zener Diode	ON Semiconductor	MMSZ15T1G	No	Yes
1	D8	BAV70W	-	SOT323	Dual Common Cathode Diode	ON Semiconductor	BAV70WT1G	No	Yes
1	D9	BAW56W	-	SOT323	Dual Anode Cathode Diode	ON Semiconductor	BAW56WT1G	No	Yes
1	F1	T1.6A	-	Ammo pack	Fuse	Bel Fuse	MRT 1.6 AMMO	Yes	Yes
3	FB	350@25MHz	-	-	Ferrite bead	Würth Elektronik	74270073	Yes	Yes
1	IC1	NCP12510B65	-	TSOP6	Flyback controller	ON Semiconductor	NCP12510BSN65T1G	No	Yes
1	IC2	NCP432	-	SOT23	Voltage reference	ON Semiconductor	NCP432BCSNT1G	No	Yes
1	IC3	SFH6156-4	-	SMD-4	Optocoupler	Vishay	SFH6156-4	Yes	Yes
1	L1	2x30uH	-	744841330	Common Mode Choke, 30uH, 3A	Würth Elektronik	744841330	Yes	Yes
1	L2	2x20mH	-	744823220	Common Mode Choke, 0.02H, 1.5A	Würth Elektronik	744823220	Yes	Yes
1	L3	1uH	-	744772010	Inductor 1uH7.5A	Würth Elektronik	744772010	Yes	Yes
1	LED	3mm	-	3mm, through hole	LED	Kingbright	WP710A10ID	Yes	Yes
1	NTC	100K	5%	NTCLE100E3104JB0	NTC thermistor	Vishay	NTCLE100E3104JB0	Yes	Yes
1	Q1	600V/10.6A	-	TO-220-3	MOSFET N-Ch CoolMOS C6	Infineon Technologies	IPP60R380C6	Yes	Yes
1	R1	680R	1%	R0603	Resistor, SMD	Various	Various	Yes	Yes
1	R2	0R	1%	R0603	Resistor, SMD	Various	Various	Yes	Yes
0	R3	DNP	-	R0603	Resistor, SMD	-	-	Yes	-
1	R4	30K	1%	R0603	Resistor, SMD	Various	Various	Yes	Yes
1	R5	8K2	1%	R0603	Resistor, SMD	Various	Various	Yes	Yes
1	R6	150K	1%	R0603	Resistor, SMD	Various	Various	Yes	Yes
1	R7	24K	1%	R0603	Resistor, SMD	Various	Various	Yes	Yes
2	R8, R9	30R	1%	R1206	Resistor, SMD	Various	Various	Yes	Yes
1	R10	2K7	1%	R0603	Resistor, SMD	Various	Various	Yes	Yes
2	R11, R12	430K	1%	R0805	Resistor, SMD	Various	Various	Yes	Yes
1	R13	220R	1%	R0805	Resistor, SMD	Various	Various	Yes	Yes
1	R14	1K	1%	R0603	Resistor, SMD	Various	Various	Yes	Yes
1	R15	22R	1%	R0805	Resistor, SMD	Various	Various	Yes	Yes
1	R16	2R2	1%	R0805	Resistor, SMD	Various	Various	Yes	Yes
1	R17	10K	1%	R0603	Resistor, SMD	Various	Various	Yes	Yes
2	R18, R19	10K	1%	R0805	Resistor, SMD	Various	Various	Yes	Yes
2	R20, R21	2M	1%	R1206	Resistor, SMD	Various	Various	Yes	Yes
1	R24	2R2	1%	0207/2V	Resistor, axial lead	Various	Various	Yes	Yes
2	R25, R26	330K	1%	R1206	Resistor, SMD	Various	Various	Yes	Yes
4	R27, R28, R29, R30	1R3	1%	R1206	Resistor, SMD	Various	Various	Yes	Yes
1	RT1	10R.2A	-	B57153S0100M000	NTC inrush current limiter	Epcos	B57153S0100M000	Yes	Yes
1	RV1	820443211E	-	820443211E	Varistor	Würth Elektronik	820443211E	Yes	Yes
1	TR1	KA5038-BL	-	KA5038-BL	Flyback Transformer	CoilCraft	KA5038-BL	Yes	Yes