



## Bill of Materials for the NCP1126DIPGEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
D8	1	Schottky diode	20A, 100V	-	TO-220	ON Semi	NTST20100CTG	No	Yes
D1, 2, 3, 4	4	Diode - 60 Hz,	1A, 800V	-	SMA	ON Semi	MRA4007	No	Yes
D5, D7	2	Diode - fast recov	1A, 600V	-	axial lead	ON Semi	1N4937	No	Yes
D6	1	Signal diode	100mA, 100V	-	SOD-123	ON Semi	MMSD4148A	No	Yes
Z1 (Optional)	1	Zener diode	25V	-	SOD-123	ON Semi	MMSZ5253B	-	Yes
U3	1	Programmable zener	2.5V	-	SOT23	ON Semi	NCP431A	No	Yes
U2	1	Optocoupler	CTR >= 0.5	-	4-pin SMD	Vishay or NEC	SFH6156A-4 or PS2561L-1	Yes	Yes
U1	1	Controller	65 kHz	-	DIP8	ON Semi	NCP1126	No	Yes
C1, C2	2	"X" cap, box type	100nF, X2	20%	LS = 15 mm	Rifa, Wima	B32922C3104M289	Yes	Yes
C13	1	"Y1" cap, disc type	1nF, Y1	20%	LS = 7.5 mm	Rifa, Wima	WKP102MCEJ0KR	Yes	Yes
C4	1	Ceramic cap, box	10 nF, 1kV	10%	13x4 mm, LS=10 mm	Vishay	MKT1822310635	Yes	Yes
C6	1	Ceramic cap, monolithic	1 nF, 50V	10%	1206	AVX, Murata	GRM3166T1H1ROCD01D	Yes	Yes
C11, 12, 14	3	Ceramic cap, monolithic	100nF, 50V	10%	1206	AVX, Murata	GRM319R71H104KA01D	Yes	Yes
C7	1	Ceramic cap, monolithic	100pF, 50V	10%	1206	AVX, Murata	GRM3165C1H101JZ01J	Yes	Yes
C10	1	Ceramic cap, monolithic	1 nF, 200V	10%	1206	AVX, Murata	GRM31BR72J102KW01L	Yes	Yes
C3	1	Electrolytic cap	47uF, 400V	10%	LS=7.5mm, D=18mm	UCC	EKXG401ELL470MM20S	Yes	Yes
C5	1	Electrolytic cap	4.7uF, 50Vdc	10%	LS=2.5mm, D=5mm	UCC, Panasonic	EEU-HD1H4R7	Yes	Yes
C8	1	Electrolytic cap	22uF, 50Vdc	10%	LS=2.5mm, D=6.3mm	Panasonic - ECG	ECE-A1HKA220	Yes	Yes
C9A,B,C	3	Electrolytic cap	1,200uF, 10V	10%	10x20mm, LS=5mm	UCC	EKZE100ELL122MJ20S	Yes	Yes
R1 (Optional)	1	# 22 wire jumper	Jumper	-	LS=7.5mm	Various	Various	Yes	Yes
R8	1	Resistor, 2W, metal film	47K, 1W	10%	Axial lead; LS=20mm	Panasonic - ECG	ERG-2SJ473A	Yes	Yes
R4, R5	2	Resistor, 1/2W metal film	1 Meg, 1/2W	10%	Axial lead; LS=12.5mm	Ohmite, Dale	OF105JE	Yes	Yes
R7 (Optional)	1	Resistor, 1/2W metal film	3 Meg, 1/2W	10%	Axial lead; LS=12.5mm	AVX, Vishay, Dale	HVR3700003004JR500	Yes	Yes
R9A, B	2	Resistor, 1/2W metal film	1.8 ohm, 1/2W	5%	Axial lead; LS=12.5mm	AVX, Vishay, Dale	CMF551R8000JKEA	Yes	Yes
R13	1	Resistor, 1/4W metal film	33 ohms, 1/4W	10%	Axial lead; LS=10mm	AVX, Vishay, Dale	CMF5033R000FKEA	Yes	Yes
R2, R3	2	Resistor, 1/4W SMD	5.6K	5%	SMD 1206	AVX, Vishay, Dale	CRCW12065K60JNEA	Yes	Yes
R6	1	Resistor, 1/4W SMD	510K	5%	SMD 1206	AVX, Vishay, Dale	CRCW1206510KJNEA	Yes	Yes
R10	1	Resistor, 1/4W SMD	2.4K	5%	SMD 1206	AVX, Vishay, Dale	CRCW12062K40FKEA	Yes	Yes
R11	1	Resistor, 1/4W SMD	Zero ohms	5%	SMD 1206	AVX, Vishay, Dale	CRCW12060000Z0EA	Yes	Yes
R12	1	Resistor, 1/4W SMD	2.0 ohms	5%	SMD 1206	AVX, Vishay, Dale	CRCW12062R00FKEA	Yes	Yes
R15	1	Resistor, 1/4W SMD	15K	5%	SMD 1206	AVX, Vishay, Dale	CRCW120615K0FKEA	Yes	Yes
R16	1	Resistor, 1/4W SMD	20K	5%	SMD 1206	AVX, Vishay, Dale	CRCW120620K0FKEA	Yes	Yes
R18	1	Resistor, 1/4W SMD	10K	5%	SMD 1206	AVX, Vishay, Dale	CRCW120610K0JNEA	Yes	Yes
R14	1	Resistor, 1/4W SMD	240 ohms	5%	SMD 1206	AVX, Vishay, Dale	CRCW1206240RJNEAHP	Yes	Yes
R17	1	Resistor, 1/4W SMD	10K	5%	SMD 1206	AVX, Vishay, Dale	CRCW120610K0JNEA	Yes	Yes
F1	1	Fuse, TR-5 style	2A	-	TR-5, LS=5mm	Littlefuse	37012000410	Yes	Yes
L1A/B	2	Inductor (EMI choke)	820 uH, 500 mA	-	See Wurth Drawing	Wurth Magnetics	7447728215	Yes	Yes
T1	1	Transformer	E20/10/6 core	-	See Mag Drawing	ICE Magetics	TO09151-1	Yes	Yes
J1, J2	2	Screw Terminal	-	-	LS = 0.2"	DigiKey	# 281-1435-ND	Yes	Yes
D8 Heatsink	1	Clip-on Heatsink	(TO-220)	-	0.52" x 0.52" x 0.75"H	Mouser (Aavid)	532-576802B00 or equiv.	Yes	Yes