



Bill of Materials for the NCP5104SYNCBUCKGEVB

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free	Comments
C1	1	CAPACITOR	220n	10%	C1206	AVX	12065C224KAZ2A	Yes	Yes	
C2	1	CAPACITOR	470n	10%	C0805	Kemet	C0805C474K5RACTU	Yes	Yes	
C3	1	CAPACITOR	470n	10%	C150-084X183	Panasonic	ECQE4474KF	Yes	Yes	
C4, C5, C6	3	POLARIZED CAPACITOR	10u	10%	E5-10,5	Panasonic	ECA2GHG100	Yes	Yes	
C7, C9	2	CAPACITOR	220n	10%	C0805	Murata	GRM21BR71H224KA01L	Yes	Yes	
C8	1	CAPACITOR	100n	10%	C0805	AVX	08055C104KAT2A	Yes	Yes	
D1	1	DIODE	ES1JFL	x	SOD123	ON Semiconductor	ES1JFL	No	Yes	
D4	1	DIODE	1N4148	x	SOD123	ON Semiconductor	MMSD4148T1G	No	Yes	
IC1	1	Single Input High and Low Side Power MOSFET Driver	NCP5104DR	x	SO08	ON Semiconductor	NCP5104DR2G	No	Yes	
IC2	1	HB driver with oscillator	NCP1392D	x	SO08	ON Semiconductor	NCP1392DDR2G	No	Yes	
L1	1	INDUCTOR	NU	x	TJ3-U2	NU	NU	Yes	Yes	
L2	1	INDUCTOR	NU	x	TJ4-U2	NU	NU	Yes	Yes	
L3	1	Inductor	330 µH	15%	RFS1412	Bourns	2318-V-RC	Yes	Yes	
LED	1	LED	Red	x	0805	Bivar	SM0805HCL	Yes	Yes	
Q1, Q2	2	HEXFET Power MOSFET	IRF520	x	TO220BV	Infineon	IRF520NPBF	Yes	Yes	
Q3, Q4	2	HEXFET Power MOSFET	NU	x	TO220BV	NU	NU	Yes	Yes	
R1	1	RESISTOR	10R	1%	R1206	Vishay	CRCW120610R0FKEA	Yes	Yes	
R2, R3	2	RESISTOR	0R	1%	R0805	Vishay	CRCW08050000Z0EA	Yes	Yes	
R4, R5	2	RESISTOR	NU	x	R0805	NU	NU	Yes	Yes	
R6, R8	2	RESISTOR	47k	1%	R0805	Vishay	CRCW080547K0FKEA	Yes	Yes	
R7, R9	2	RESISTOR	NU	x	R0805	NU	NU	Yes	Yes	
R10	1	RESISTOR	10K	1%	R0805	Vishay	CRCW080510K0FKEA	Yes	Yes	
R11, R12	2	RESISTOR	100R	1%	R0805	TE Connectivity	CRG0805F100R	Yes	Yes	
R13	1	RESISTOR	11k	1%	R0805	Panasonic	ERJ-6ENF1102V	Yes	Yes	
R14	1	Trimmer	50k	1%	B64W	Bourns	3296Y-1-503	Yes	Yes	
R15	1	RESISTOR	110k	1%	R0805	Bourns	CR0805-FX-1103ELF	Yes	Yes	
R17	1	RESISTOR	8k2	1%	R0805	Panasonic	ERJP06F8201V	Yes	Yes	
R18	1	RESISTOR	NU	x	R0805	NU	NU	Yes	Yes	
R20	1	RESISTOR	10k	1%	R0805	Vishay	CRCW080510K0FKEA	Yes	Yes	
CON	1	Shunt bar	969102-0000-DA	x	2.54mm	3M	969102-0000-DA	Yes	Yes	
JP1, JP2, JP3, JP4, JP5	5	Shunt bar	969102-0000-DA	x	2.54mm	3M	969102-0000-DA	Yes	Yes	
TP1, TP2, TP3, TP5, TP6, TP7, TP9	7	Turret Solder Terminal	13.14.239	x	1.3mm	Ettinger	13.14.239	Yes	Yes	
LSP1, LSP2, LSP3, LSP4, LSP5, LSP6	6	Turret Solder Terminal	13.14.239	x	1.3 mm	Ettinger	13.14.239	Yes	Yes	