



Bill of Materials for the NCP1075SOTGEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
D7 (12Vout)	1	Schottky diode	2A, 60V	-	SMB	ON Semiconductor	MBRS260T3	No	Yes
D7 (5Vout)	1	Schottky diode	3A, 40V	-	SMB	ON Semiconductor	MBRS2040L	No	Yes
D1, 2, 3, 4	4	Diode - 60 Hz,	1A, 800V	-	SMA	ON Semiconductor	MRA4007	No	Yes
D5	1	Diode - fast recov	1A, 600V	-	axial lead	ON Semiconductor	1N4937	No	Yes
D6	1	Signal diode	100mA, 100V	-	SOD-123	ON Semiconductor	MMSD4148A	No	Yes
U3	1	Programmable zener	2.5V	-	SOIC8 / SOT23	ON Semiconductor	NCP431A	No	Yes
U2	1	Optocoupler	CTR >= 0.5	-	4-pin	Vishay or NEC	SFH6156A-4 or Digikey	Yes	Yes
U1	1	Switcher IC - NCP1075	100 kHz	-	SOT223	ON Semiconductor	NCP1075STBT3G	No	Yes
				-					
C1, C2	2	"X" cap, box type	100nF, X2	-	LS = 15 mm	Rifa, Wima	Digi-Key P/N = 399-5426-	Yes	Yes
C8	1	"Y1" cap, disc type	1nF, Y1	-	LS = 7.5 mm	Rifa, Wima	Digikey P/N = BC2374-	Yes	Yes
C4	1	Ceramic cap, disc	1 nF, 1kV	5%	LS = 7.5 mm	Rifa, Wima	Digi-Key P/N = 478-4227-ND	Yes	Yes
C7	1	Ceramic cap, monolythic	1 nF, 50V	10%	1206	AVX, Murata	Digi-Key P/N = 311-1170-	Yes	Yes
C10, 11, 12	3	Ceramic cap, monolythic	100nF, 50V	10%	1206	AVX, Murata	Digi-Key P/N = 311-1179-	Yes	Yes
C3	1	Electrolytic cap	22uF, 400/450V	10%	LS=7.5mm,	UCC, Panasonic	Digikey P/N = P5877-ND	Yes	Yes
C6	1	Electrolytic cap	4.7uF, 50Vdc	10%	LS=2.5 mm, D=6.3mm	UCC, Panasonic	Digi-Key P/N = 565-1105-ND	Yes	Yes
C5	1	Electrolytic cap	22uF, 25V	10%	LS=2.5mm,	UCC, Panasonic	Digi-Key P/N = 565-1056-	Yes	Yes
C9A, C9B	2	Electrolytic cap	1000uF, 16V	10%	LS=5mm,	UCC, Panasonic	Digi-Key P/N = 565-1664-	Yes	Yes
R1	1	Resistor, 3W, Wire wound	4.7 ohm, 3W	10%	LS=7.5mm,	Ohmite, Dale	Digi-Key P/N = 4.7AECT-	Yes	Yes
R3	1	Resistor, 0.5W, metal film	68K, 0.5W	10%	Axial lead; LS=12.5mm	Ohmite, Dale	Mouser = 71- FP01/268K0G5605EK	Yes	Yes
R2A,R2B	2	Resistor, 1/4W SMD	3.3 Meg	1%	SMD 1206	AVX, Vishay, Dale	Digi-Key P/N = 541-	Yes	Yes
R5	1	Resistor, 1/4W SMD	10 ohms	1%	SMD 1206	AVX, Vishay, Dale	Digi-Key P/N = 541- 10.0FCT-ND	Yes	Yes
R4	1	Resistor, 1/4W SMD	1K	1%	SMD 1206	AVX, Vishay, Dale	Digi-Key P/N = 541-		Yes
R9, R10	2	Resistor, 1/4W SMD	21.5K	1%	SMD 1206	AVX, Vishay, Dale	Digi-Key P/N = 541- 21.5KFCT-ND	Yes	Yes
R7	1	Resistor, 1/4W SMD	20K	1%	SMD 1206	AVX, Vishay, Dale	Digi-Key P/N = 541- 20.0KFCT-ND	Yes	Yes
R6 (12Vout)	1	Resistor, 1/4W SMD	1K	1%	SMD 1206	AVX, Vishay, Dale	Digi-Key P/N = 541- 1.00KFCT-ND	Yes	Yes
R6 (5Vout)	1	Resistor, 1/4W SMD	240 ohms	1%	SMD 1206	AVX, Vishay, Dale	Digi-Key P/N = 541- 240FCT-ND	Yes	Yes
R8 (12Vout)	1	Resistor, 1/4W SMD	82.5K	1%	SMD 1206	AVX, Vishay, Dale	Digi-Key P/N = 541- 82.5KFCT-ND	Yes	Yes

R8 (5Vout)	1	Resistor, 1/4W SMD	21.5K	1%	SMD 1206	AVX, Vishay, Dale	Digi-Key P/N = 541-21.5K5CT-ND	Yes	Yes
									Yes
F1	1	Fuse, TR-5 style	1.5A	-	TR-5, LS=5mm	Minifuse	Digi-Key P/N = WK4253BK-ND	Yes	Yes
L1A/B	2	Inductor (EMI choke)	1 mH, 500 mA	-	See Würth Drawing	LS=5mm, D=8mm	7447728102	Yes	Yes
T1 (12Vout)	1	Transformer	E20/10/6 core	-	See Mag Drawing	Würth Magnetics	750312597	No	Yes
T1 (5Vout)	1	Transformer	E20/10/6 core	-	See Mag Drawing	Würth Magnetics	750312596	No	Yes
J1, J2	2	Screw Terminal	-	-	LS = 0.2"	DigiKey	# 281-1435-ND	Yes	Yes

*Note: 12Vout is the Standard Configuration

**Note: Blue indicates part change with Vout change