



Bill of Materials for the NCP1562-100WGEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
R1	1	Resistor	523 k Ω	1%	0805	Vishay	CRCW0805523KFKEA	Yes	Yes
R2	1	Resistor	0.035 Ω	1%	Custom	IRC Electronics	LRC-LRF3WLF-01-R033-F	No	Yes
R3	1	Resistor	45.3 k Ω	1%	1206	Vishay	CRCW120645K3FKEA	Yes	Yes
R4, R8	2	Resistor	32.4 k Ω	1%	0805	Vishay	CRCW080532K4FKEA	Yes	Yes
R5	1	Resistor	44.2 k Ω	1%	0805	Vishay	CRCW080544K2FKEA	Yes	Yes
R9	1	Resistor	15 k Ω	1%	0805	Vishay	CRCW080515K0FKEA	Yes	Yes
R10	1	Resistor	100 Ω	1%	0805	Vishay	CRCW0805100RFKEA	Yes	Yes
R7, R11, R27	3	Resistor	4.22 k Ω	1%	0805	Vishay	CRCW08054K22FKEA	Yes	Yes
R12	1	Resistor	49.9 Ω	1%	0805	Vishay	CRCW080549R9FKEA	Yes	Yes
R13, R30	2	Resistor	348 Ω	1%	0805	Vishay	CRCW0805348RFKEA	Yes	Yes
R14	1	Resistor	953 Ω	1%	0805	Vishay	CRCW0805953RFKEA	Yes	Yes
R15	1	Resistor	4.75 Ω	1%	1206	Vishay	CRCW12064R75FKEA	Yes	Yes
R6, R16- R17, R24- R25	5	Resistor	10 k Ω	1%	0805	Vishay	CRCW080510K0FKEA	Yes	Yes
R18	1	Resistor	3.01 k Ω	1%	0805	Vishay	CRCW08053K01FKEA	Yes	Yes
R19	1	Resistor	10 Ω	1%	1206	Vishay	CRCW120610R0FKEA	Yes	Yes
R20	1	Resistor	5.9 k Ω	1%	0805	Vishay	CRCW08055K90FKEA	Yes	Yes
R21	1	Resistor	16.2 k Ω	1%	0805	Vishay	CRCW080516K2FKEA	Yes	Yes
R22	1	Resistor	open	1%	0805	Vishay	CRCW0805...	Yes	Yes
R23, R29	2	Resistor	2.00 Ω	1%	1206	Vishay	CRCW12062R00FKEA	Yes	Yes
R26	1	Resistor	24.9 k Ω	1%	0805	Vishay	CRCW080524K9FKEA	Yes	Yes
R28	1	Resistor	2.49 k Ω	1%	0805	Vishay	CRCW08052K49FKEA	Yes	Yes
L1	1	Inductor	1.5 μ H	N/A	Custom	Coilcraft	DS3316P-152MLB	Yes	Yes
L2	1	Inductor	1.5 μ H	N/A	Custom	Payton	51666	No	Yes
L3	1	Inductor	1000u	N/A	Custom	Coilcraft	DO1606T-105MLB	Yes	Yes
C1-C4	4	Capacitor	2.2 μ F, 100 V	20%	4532	TDK	C4532X7R2A225MT	No	Yes
C5, C29	2	Capacitor	1000 pF, 50 V	5%	0805	Vishay	VJ0805A102JXAAT	Yes	Yes
C6, C8-C9, C28	4	Capacitor	100 nF, 50 V	10%	0805	Vishay	VJ0805Y104KXAAT	Yes	Yes
C7	1	Capacitor	22 μ F, 16 V	20%	4532	TDK	C4532X5R1C226M	Yes	Yes
C10	1	Capacitor	1 μ F, 25 V	20%	3216	TDK	C3216X7R1E105M	Yes	Yes
C11	1	Capacitor	100 pF, 50 V	10%	0805	Vishay	VJ0805A101KXAAT	Yes	Yes
C12	1	Capacitor	300 pF, 50 V	5%	0805	Vishay	VJ0805A301JXAAT	Yes	Yes

C13, C16	2	Capacitor	10 nF, 50 V	10%	0805	Vishay	VJ0805Y103KXAAT	Yes	Yes
C14	1	Capacitor	18 nF, 50 V	10%	0805	Vishay	VJ0805Y183KXAAT	Yes	Yes
C15	1	Capacitor	2.2 uF, 10 V	10%	2012	TDK	C2012X5R1A225K	Yes	Yes
C17-C18	2	Capacitor	47 uF, 6.3 V	20%	3225	TDK	C3225X5R0J476M	Yes	Yes
C19-C21	3	Capacitor	150 uF, 6.3 V	20%	Custom	Kemet	T520B157M006ATE045	No	Yes
C22, C31	2	Capacitor	47 uF, 16 V	10%	Custom	Vishay	595D476X9016C4T	No	Yes
C23	1	Capacitor	0.1 uF, 100 V	10%	3216	TDK	C3216X7R2A104K	Yes	Yes
C24	1	Capacitor	470 pF, 50 V	5%	0805	Vishay	VJ0805A471JXAAT	Yes	Yes
C25	1	Capacitor	56 nF, 25 V	10%	0805	Vishay	VJ0805Y563KXXAT	Yes	Yes
C26	1	Capacitor	10 nF, 630 V	20%	3216	TDK	C3216X7R2J103M	Yes	Yes
C27	1	Capacitor	2200 pF, 2 kV	10%	4532	TDK	C4532X7R3D222K	Yes	Yes
C30	0	DNP - Capacitor	27 pF, 50 V	5%	0805	Vishay	VJ0805A270JXAAT	Yes	Yes
D1	1	Schottky Diode	20 V, 1 A	N/A	POWERMITE	ON Semiconductor	MBRM120ET1G	No	Yes
D2-D7	6	Diode	100 V	N/A	SOD123	ON Semiconductor	MMSD914T1G	No	Yes
J1,J2,J5	3	Pins	N/A	N/A	40 mils	Mill-Max	3103-2-00-21-00-00-08-0	Yes	Yes
J3,J4	2	Pins	N/A	N/A	80 mils	Mill-Max	3231-2-00-34-00-00-08-0	Yes	Yes
TX1	1	Transformer	N/A	N/A	N/A	Payton	51665	No	Yes
U1	1	PWM Controller	N/A	N/A	TSSOP-16	ON Semiconductor	NCP1562ADBR2G	No	Yes
U2	1	Optocoupler	N/A	N/A	4-SOP	NEC	PS2703-1-M-A	No	Yes
U3	1	Shunt Reference	N/A	N/A	SOT-23	ON Semiconductor	TLV431ASNT1G	No	Yes
U4	1	Op Amp	N/A	N/A	SOIC-8	ON Semiconductor	LM258DG	Yes	Yes
X1	1	MOSFET	150 V, 21 A	N/A	DKPAK	Vishay	SUD25N15-52	Yes	Yes
X2	1	MOSFET	150 V, 700 mA	N/A	SO8	IR	IRF6217PBF	Yes	Yes
X3-X6	4	MOSFET	30 V, 104 A	N/A	SO8-FL	ON Semiconductor	NTMFS4835NT1G	No	Yes
Q1	1	NPN Transistor	BC817-25	N/A	SOT-23-3	ON Semiconductor	BC817-25LT1G	No	Yes
Q2	1	PNP Bipolar Transistor	BC807-25	N/A	SOT-23-3	ON Semiconductor	BC807-25LT1G	No	Yes