



## Bill of Materials for the NCP1565TELECGEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
C7 C31	2	Capacitor	1 $\mu$ F, 20V	-	0805	Yageo	CC0805KKX5R8BB105	Yes	Yes
C26	1	Capacitor	0.22 $\mu$ F, 200V	-	1210	TDK	CGA6M3X7R2E224K200AA	No	Yes
C27	1	Capacitor	2200 Pf, 2kV	-	1812	TDK	C4532X7R3D222K	No	Yes
C1 C2 C3 C4	4	Capacitor	2.2 $\mu$ F, 100V	-	1210	Kemet	C1210C225M1RACTU	No	Yes
C17 C18 C19 C20	4	Capacitor	220 $\mu$ F, 6.3V	-	-	Kemet	T520V227M004ATE007	No	Yes
C6 C8 C9 C13 C38 C40 C104 C37 C10	9	Capacitor	0.1 $\mu$ F, 50V	-	0603	Yageo	CC0603MRX7R9BB104	Yes	Yes
C32	1	Capacitor	1.5 Nf, 16V	-	0603	Yageo	CC0201KRX7R7BB152	Yes	Yes
C15 C16 C28 C103	4	Capacitor	10 Nf, 16V	-	0603	Yageo	CC0201KRX7R7BB103	Yes	Yes
C25	1	Capacitor	330 nF, 16V	5%	0603	Yageo	CC0603KRX7R7BB334	Yes	Yes
C99 C100 C101	3	Capacitor	1 nF, 16V	-	0603	Yageo	CC0603KRX7R7BB102	Yes	Yes
C14	1	Capacitor	22 nF, 16V	5%	0603	Yageo	CC0603KRX7R7BB223	Yes	Yes
C11	1	Capacitor	330 pF, 16V	-	0603	Yageo	CC0201KRX7R7BB331	Yes	Yes
C24	1	Capacitor	390 pF, 50V	5%	0603	Yageo	CC0603GRNPO9BN391	Yes	Yes
C41	1	Capacitor	12 nF, 50V	5%	0603	Yageo	CC0603KRX7R8BB123	Yes	Yes
C29	1	Capacitor	47 nF, 16V	-	0603	Yageo	CC0603KPX7R7BB473	Yes	Yes
C33 C23	2	Capacitor	open	-	-	-	-	Yes	Yes
L1	1	Inductor	1.5 $\mu$ H	-	-	Coilcraft	DS3316P-152MLB	No	Yes
L3	1	Inductor	680 $\mu$ H	-	-	Coilcraft	DO1606CT-684	No	Yes
L2	1	Inductor	0.5 $\mu$ H, 30A	-	-	Payton	56846	No	Yes
R19	1	Resistor	1 M $\Omega$ , 200V	5%	1206	Yageo	RV1206FR-071ML	Yes	Yes
R6	1	Resistor	10 $\Omega$ , 150V	5%	0805	Yageo	RC0805FR-7W10RL	Yes	Yes
R47	1	Resistor	130 $\Omega$ , 150V	5%	0805	Yageo	RC0805FR-7W130RL	Yes	Yes
R39 R40 R100 R101	4	Resistor	2.2 $\Omega$ , 150V	5%	0805	Yageo	RC0805FR-072R2L	Yes	Yes
R32	1	Resistor	7.5 $\Omega$ , 150V	1%	0805	Yageo	RC0805FR-077R5L	Yes	Yes
R15	1	Resistor, 0 ohms	0 $\Omega$ , 50V	5%	0603	Yageo	AC0603JR-070RL	Yes	Yes
R23A R23B R29A R29B	4	Resistor	2.2 $\Omega$ , 50V	5%	0603	Yageo	RC0603FR-072R2L	Yes	Yes
R2 R27 R45	3	Resistor	10 $\Omega$ , 50V	5%	0603	Yageo	RC0603FR-0710RL	Yes	Yes
R12	1	Resistor	12 $\Omega$ , 50V	1%	0603	Yageo	RC0603FR-0712RL	Yes	Yes
R20	1	Resistor	82 $\Omega$ , 50V	1%	0603	Yageo	RC0603FR-0782RL	Yes	Yes
R10	1	Resistor	100 $\Omega$ , 50V	5%	0603	Yageo	RC0603FR-07100RL	Yes	Yes
R21	1	Resistor	162 $\Omega$ , 50V	1%	0603	Yageo	RC0603FR-07162RL	Yes	Yes
R36 R26	2	Resistor	270 $\Omega$ , 50V	5%	0603	Yageo	RC0603FR-07270RL	Yes	Yes
R11 R34	2	Resistor	499 $\Omega$ , 50V	1%	0603	Yageo	RC0603FR-07499RL	Yes	Yes
R28	1	Resistor	910 $\Omega$ , 50V	1%	0603	Yageo	RC0603FR-13910RL	Yes	Yes
R9 R22	2	Resistor	1 k $\Omega$ , 50V	5%	0603	Yageo	RC0603FR-071KL	Yes	Yes
R30	1	Resistor	1.5 k $\Omega$ , 50V	1%	0603	Yageo	RC0603FR-071K5L	Yes	Yes
R4	1	Resistor	2 k $\Omega$ , 50V	1%	0603	Yageo	RC0603FR-072KL	Yes	Yes
R16-18 R33 R24A R24B R25A R25B R7	9	Resistor	10 k $\Omega$ , 50V	5%	0603	Yageo	RC0603FR-0710KL	Yes	Yes
R13	1	Resistor	12 k $\Omega$ , 50V	5%	0603	Yageo	RC0603FR-0712KL	Yes	Yes
R5	1	Resistor	13 k $\Omega$ , 50V	1%	0603	Yageo	RC0603FR-0713KL	Yes	Yes
R31	1	Resistor	19.6 k $\Omega$ , 50V	1%	0603	Yageo	RC0603FR-0719K6L	Yes	Yes
R14	1	Resistor	22 k $\Omega$ , 50V	5%	0603	Yageo	RC0603FR-0722KL	Yes	Yes
R1	1	Resistor	51 k $\Omega$ , 100V	1%	0603	Yageo	RV0603FR-0751KL	Yes	Yes

R8	1	Resistor	66.5 kΩ, 50V	1%	0603	Yageo	RC0603FR-0766K5L	Yes	Yes
R3	1	Resistor	75 kΩ, 100V	1%	0603	Yageo	RV0603FR-0775KL	Yes	Yes
R35	1	Resistor	open	-	-	-	-	Yes	Yes
R46	1	Resistor, Thermistor	33 kΩ NTC	-	0603	AVX	NB 21 M 0 0333	33 k@25 °C	Yes
LED1	1	LED, SMD type	Red LED	-	LED0805	ROHM	TLMS1000GS08	No	Yes
Q1	1	MOSFET, Flat lead	FDMS2572, 150V	-	CASE488AA	Fairchild	FDMS2572	No	Yes
Q3-6	4	MOSFET, Flat lead	NTMFS4982, 30V	-	CASE488AA	ON Semiconductor	NTMFS4982NFT1G	No	Yes
Q2	1	MOSFET, P-channel	IRF6217, 150V	-	SO8	International Rectifier	IRF6217TRPBF	No	Yes
Q7	1	Bipolar, NPN	MMBT2222	-	SOT23	ON Semiconductor	MMBT2222ALT1	No	Yes
D1	1	Zener diode	MMSZ4689	-	SOD-123	ON Semiconductor	MMSZ4689T1G	No	Yes
D2	1	Diode	BAV23CL	-	SOD-123	ON Semiconductor	BAV23CLT1G	No	Yes
D4 D8 D9	3	Diode	MMSD914	-	SOD-123	ON Semiconductor	MMSD914	No	Yes
D3 D6	2	Diode	MBR130T1G	-	SOD-123	ON Semiconductor	MBR130T1G	No	Yes
J1 J2 J3 J5 J6 J7	6	Pin	PLOT_1mm	-	3104_LOPOWER	MILL-MAX	3104-1-00-80-00-00-08-0	No	Yes
J4 J8	2	Pin (Power)	PLOT_2mm, 15A	-	3231_POWER	MILL-MAX	3231-2-00-01-00-00-08-0	No	Yes
JP1	1	Jumper	TMM102-0X-X-S-SM	-	JUMP_TMM-SM	Samtec	TMM102-01-L-S-SM	No	Yes
JP1	1	Jumper	-	-	-	Harwin	M22-1920005	No	Yes
T1	1	Transformer	500 μH, 30A	-	-	Payton	56847	No	Yes
T2	1	Current sense	CT02-100	-	-	ICE	CT02	No	Yes
U1	1	Controller	NCP1565	-	QFN24	ON Semiconductor	NCP1565	No	Yes
U2	1	Optocoupler	PS2801	-	SMD	NEC	PS2801	No	Yes
U3	1	IC	TL431	-	SOT23	TI	TL431ACDBZT	No	Yes
U4	1	Op Amp	LM8261M5	-	TSOP-5	TI	LM8261M5	No	Yes
U5	1	Reference	LM4041-1.2	-	SOT23	TI	LM4041DIM3-1.2	No	Yes