



Bill of Materials for the NCP1566TELECGEV B Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Wiring Status	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free	Notes
C1	1	MLC capacitor	2.2 μ F	-			Kemet	C1210C225M1RACTU	No	Yes	Low ESR
C2	1	MLC capacitor	2.2 μ F	-			Kemet	C1210C225M1RACTU	No	Yes	Low ESR
C3	1	MLC capacitor	2.2 μ F	-			Kemet	C1210C225M1RACTU	No	Yes	Low ESR
C4	1	MLC capacitor	2.2 μ F	-			Kemet	C1210C225M1RACTU	No	Yes	Low ESR
C5	1	Ceramic capacitor	1 nF	20%		805	Generic		Yes	Yes	
C6	1	Ceramic capacitor	0.1 μ F	20%		805	Generic		Yes	Yes	
C7	1	Electrolytic Capacitor	22 μ F	-			Generic	EXV226M035A9DAA	No	Yes	
C8	1	Ceramic capacitor	0.1 μ F	20%		805	Generic		Yes	Yes	
C9	1	Ceramic capacitor	0.1 μ F	20%		805	Generic		Yes	Yes	
C10	1	Ceramic capacitor	100 pF	20%		805	Generic		Yes	Yes	
C11	1	Ceramic capacitor	330 pF	20%		805	Generic		Yes	Yes	
C12	1	Ceramic capacitor	10 nF	20%		805	Generic		Yes	Yes	
C13	1	Ceramic capacitor	0.1 μ F	20%		805	Generic		Yes	Yes	
C14	1	Ceramic capacitor	22 nF	20%		805	Generic		Yes	Yes	
C15	1	Ceramic capacitor	10 nF	20%		805	Generic		Yes	Yes	
C16	1	Ceramic capacitor	10 nF	20%		805	Generic		Yes	Yes	
C17	1	Tantalum capacitor	220 μ F	-			Kemet	T520V227M004ATE007	No	Yes	Low ESR
C18	1	Tantalum capacitor	220 μ F	-			Kemet	T520V227M004ATE007	No	Yes	Low ESR
C19	1	Tantalum capacitor	220 μ F	-			Kemet	T520V227M004ATE007	No	Yes	Low ESR
C20	1	Tantalum capacitor	220 μ F	-			Kemet	T520V227M004ATE007	No	Yes	Low ESR
C21	1	Tantalum capacitor	220 μ F	-			Kemet	T520V227M004ATE007	No	Yes	Low ESR
C22	1	Electrolytic Capacitor	22 μ F	-			Generic	EXV226M035A9DAA	No	Yes	
C24	1	Capacitor	390 pF	20%		805	Generic		Yes	Yes	
C25	1	Capacitor	0.47 μ F	20%		805	Generic		Yes	Yes	
C26	1	MLC capacitor	0.22 μ F	-		2220	TDK	C2220X224K2RACTU	No	Yes	
C27	1	Capacitor - Y type	2.2 nF	-		1812	TDK	C4532X7R3D222K	No	Yes	
C28	1	Ceramic capacitor	10 nF	20%		805	Generic		Yes	Yes	
C29	1	Ceramic capacitor	12 nF	20%		805	Generic		Yes	Yes	
C30	0	Ceramic capacitor	-		open		Generic		Yes	Yes	
C31	0	Ceramic capacitor	1 μ F	20%	open		Generic		Yes	Yes	
C32	1	Ceramic capacitor	1.5 nF	20%			Generic		Yes	Yes	
C33	0	Ceramic capacitor	-		open		Generic		Yes	Yes	
C37	1	Ceramic capacitor	0.22 μ F	20%		805	Generic		Yes	Yes	
C38	1	Ceramic capacitor	0.1 μ F	20%		805	Generic		Yes	Yes	
C39	0	Ceramic capacitor	0.1 μ F	20%	open	805	Generic		Yes	Yes	
C40	1	MLC capacitor	0.1 μ F	20%		805			Yes	Yes	
C41	1	Ceramic capacitor	8.2 nF	20%		805	Generic		Yes	Yes	
C99	1	Ceramic capacitor	1 nF	20%		805	Generic		Yes	Yes	
C100	1	Ceramic capacitor	1 nF	20%		805	Generic		Yes	Yes	
C101	1	Ceramic capacitor	1 nF	20%		805	Generic		Yes	Yes	
C103	0	Ceramic capacitor	-		open				Yes		
C104	1	Ceramic capacitor	0.1 μ F	20%		805	Generic		Yes	Yes	
R1	1	Resistor	51k	1%		0805	Generic		Yes	Yes	
R2	1	Resistor	10	1%		0805	Generic		Yes	Yes	
R3	1	Resistor	75 k	1%		0805	Generic		Yes	Yes	
R4	1	Resistor	2 k	1%		0805	Generic		Yes	Yes	
R5	1	Resistor	24 k	1%		0805	Generic		Yes	Yes	
R6	1	NTC	33 k@25 $^{\circ}$ C	1%		0603	AVX	NB 21 M 0 0333	Yes	Yes	
R7	1	Resistor	4.7 k	1%		0805	Generic		Yes	Yes	
R8	1	Resistor	46.4k	1%		0805	Generic		Yes	Yes	
R9	0	Resistor	-		open				Yes	Yes	
R10	1	Resistor	100	1%		0805	Generic		Yes	Yes	
R11	1	Resistor	499	1%		0805	Generic		Yes	Yes	

R12	1	Resistor	47	1%		0805	Generic		Yes	Yes	
R13	1	Resistor	12 k	1%		0805	Generic		Yes	Yes	
R14	1	Resistor	22 k	1%		0805	Generic		Yes	Yes	
R15	1	Resistor	0	1%	short	0805	Generic		Yes	Yes	
R16	1	Resistor	10 k	1%		0805	Generic		Yes	Yes	
R17	1	Resistor	10 k	1%		0805	Generic		Yes	Yes	
R18	1	Resistor	10 k	1%		0805	Generic		Yes	Yes	
R19	1	Resistor	1 Meg	5%		0805	Generic		Yes	Yes	
R20	1	Resistor	180			0805	Generic		Yes	Yes	

R21	1	Resistor	162	1%		0805	Generic		Yes	Yes	
R22	1	Resistor	1k	1%		0805	Generic		Yes	Yes	
R23a	1	Resistor	2.2	1%		0805	Generic		Yes	Yes	
R23b	1	Resistor	2.2	1%		0805	Generic		Yes	Yes	
R24a	1	Resistor	10 k	1%		0805	Generic		Yes	Yes	
R24b	1	Resistor	10 k	1%		0805	Generic		Yes	Yes	
R25a	1	Resistor	10 k	1%		0805	Generic		Yes	Yes	
R25b	1	Resistor	10 k	1%		0805	Generic		Yes	Yes	
R26	1	Resistor	270	1%		0805	Generic		Yes	Yes	
R27	0	Resistor	-		open	0805	Generic		Yes	Yes	
R28	1	Resistor	910	1%		0805	Generic		Yes	Yes	
R29a	1	Resistor	2.2	1%		0805	Generic		Yes	Yes	
R29b	1	Resistor	2.2	1%		0805	Generic		Yes	Yes	
R30	1	Resistor	1.5 k	1%		0805	Generic		Yes	Yes	
R31	1	Resistor	11 k	1%		0805	Generic		Yes	Yes	
R32	1	Resistor	4.7	1%		0805	Generic		Yes	Yes	
R33	1	Resistor	0		short	0805	Generic		Yes	Yes	
R34	1	Resistor	499	1%		0805	Generic		Yes	Yes	
R35	1	Resistor	-		open	0805	Generic		Yes	Yes	
R36	1	Resistor	499	1%		0805	Generic		Yes	Yes	
R37	1	Resistor	499	1%		0805	Generic		Yes	Yes	
R38	1	Resistor	1.96k	1%		0805	Generic		Yes	Yes	
R39	1	Resistor	2.2	1%		0805	Generic		Yes	Yes	
R40	1	Resistor	2.2	1%		0805	Generic		Yes	Yes	
R41	1	Resistor	0	1%	short	0805	Generic		Yes	Yes	
R42	1	Resistor	150	1%	open	0805	Generic		Yes	Yes	
R43	1	Resistor	1k	1%		0805	Generic		Yes	Yes	
R44	1	Resistor	1k	1%		0805	Generic		Yes	Yes	
R45	1	Resistor	10	1%		0805	Generic		Yes	Yes	
R46	1	Resistor	-	1%	open	0805	Generic		Yes	Yes	
R47	1	Resistor	130	1%		0805	Generic		Yes	Yes	
R100	1	Resistor	2.2	1%		1206	Generic		Yes	Yes	
R101	1	Resistor	2.2	1%		1206	Generic		Yes	Yes	
R102		Resistor	10k	1%		0805	Generic		Yes	Yes	
L1	1	Inductor	1.5 µH				Coilcraft	MSS1038-152NL	No	Yes	
L2	1	Inductor	0.5 µH				Payton	56846/I025-0.5µH/30A	No	Yes	
L3	1	Inductor	660 µH				Coilcraft	DO1606CT-684	No	Yes	
T1	1	Transformer	-				Payton	56847/T040DC-6-4-1	No	Yes	
T2	1	Current Sense Transformer	CT02				ICE	CT02-100	No	Yes	
J1a	1	Banana plug	-				Multi-Contact	23.3200-22	Yes	Yes	Red
J1b	1	Banana plug	-				Multi-Contact	23.3200-21	Yes	Yes	Black
J2a	1	30 A PC screw	-				Keystone	CAT. NO. 8199	Yes	Yes	
J2b	1	30 A PC screw	-				Keystone	CAT. NO. 8199	Yes	Yes	
Q1A	1	N-channel MOSFET	FDMS2572		Power 56		Fairchild	FDMS2572	No	Yes	
Q1B	1	N-channel MOSFET	FDMS2572		Power 56		Fairchild	FDMS2572	No	Yes	
Q2	1	P-channel MOSFET	IRF6217		SO-8	International Rectifier		IRF6217	No	Yes	
Q3	1	N-channel MOSFET	NTMFS4982NF		SO-8FL	ON Semiconductor		NTMFS4982NFT1G		Yes	
Q4	1	N-channel MOSFET	NTMFS4982NF		SO-8FL	ON Semiconductor		NTMFS4982NFT1G		Yes	
Q5	1	N-channel MOSFET	NTMFS4982NF		SO-8FL	ON Semiconductor		NTMFS4982NFT1G		Yes	
Q6	1	N-channel MOSFET	NTMFS4982NF		SO-8FL	ON Semiconductor		NTMFS4982NFT1G		Yes	
Q7	1	Bipolar transistor	MMBT2222A			ON Semiconductor			Yes	Yes	
Q8	1	Bipolar transistor	MMBT2222A			ON Semiconductor			Yes	Yes	
U1	1	PWM Controller	NCP1566			ON Semiconductor			No	Yes	
U2	1	optocoupler	PS2801			CEL		PS2801-1	No	Yes	
U3	1	voltage reference	LM4041			TI		LM4041DIM3-1.2	No	Yes	
U4	1	op amp	TLV271SOT		SOT-23	ST		TLV271SN2TIG	No	Yes	
U5	1	op amp	TLV271SOT		SOT-23	ST		TLV271SN2TIG	No	Yes	
U6	1	optocoupler	PS2801			CEL		PS2801-1	No	Yes	
U8	1	shunt regulator	TLV431		SOT-23	ON Semiconductor		TLV431BSNT1G	No	Yes	
D2	1	signal diode	MMSD914		SOD-123				No	Yes	
D3	1	signal diode	MMSD914		SOD-123				No	Yes	
D4	1	signal diode	MMSD914		SOD-123				No	Yes	
D5	1	Zener diode	MMSZ4691		SOD-123				No	Yes	
D6	1	signal diode	MMSD914		SOD-123				No	Yes	
D7	1	signal diode	MMSD914		SOD-123				No	Yes	
D8	1	signal diode	MMSD914		SOD-123				No	Yes	
D9	1	signal diode	MMSD914		SOD-123				No	Yes	
D10	1	Zener diode	MMSZ4702T1G		SOD-123				No	Yes	
D11	1	Red LED diode	SML211UTT86K			ROHM		SML211UTT86K	Yes	Yes	Red