



Bill of Materials for the NCL30105GEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
Q1	1	TRANS SS NPN GP 60V 600MA TO-92	2N4401	-	TO-92	ON Semiconductor	2N4401G	No	Yes
D1	1	30 V Schottky Diode	BAT54	-	SOD-123	ON Semiconductor	BAT54LT1G	No	Yes
D2	1	100 V Switching Diode	MMSD4148	-	SOD-123	ON Semiconductor	MMSD4148T1G	No	Yes
D4	1	15 V ±5% Zener Diode 500mW	MMSZ5245B	5%	SOD-123	ON Semiconductor	MMSZ5245BT1G	No	Yes
J7	1	TEST POINT PC MINI .040"D WHITE	TEST POINT PC MINI	-	PAD 1P6MM_HOLE	Keystone Electronics	5002	Yes	Yes
J8	1	TEST POINT PC MINI .040"D WHITE	TEST POINT PC MINI	-	PAD 1P6MM_HOLE	Keystone Electronics	5002	Yes	Yes
J1-2	2	CONN TERM BLOCK PCB 5MM 2POS	1757475	-	5MM_CONNECTOR_HEADER_2POS_PHOENIX_CON	Phoenix Contact	1757475	Yes	Yes
J1-2_Connector	2	CONN TERM BLOCK PLUG 2POS 5MM	1754449	-	N/A	Phoenix Contact	1754449	Yes	Yes
J3-5	3	Headers & Wire Housings .100 STR 2 PIN	2 Terminal Connector	-	SIP-2P	3M	929834-02-02	Yes	Yes
J3-5_Headers	3	N/A	open	-	N/A	TE Connectivity	2-382811-0	Yes	Yes
J6	1	Headers & Wire Housings 6 PIN HDR STR	CONN 2POS 100mils	-	SIP-6P	3M	929450-01-06-I	Yes	Yes
C1	1	CAP ALUM 47UF 100V 20% RADIAL	47u	20%	ECAP_12P5X20_LS5_VER	United Chemi-Con	ESMG101ELL470MJC5S	Yes	Yes
C4	1	CAP ALUM 10UF 35V 20% RADIAL	10u	20%	ECAP_5X11_LS2_VER	United Chemi-Con	ESMG350ELL100ME11D	Yes	Yes
D5	1	100 V 1.0 A Ultrafast Rectifier	MBRA1H100T3G	-	SMB_2_1	ON Semiconductor	MBRA1H100T3G	No	Yes
C2	1	CAP CER 0.1UF 100V 10% RADIAL	0.1u	10%	KEMET_C330HV_CAP_TH_5P08_MM_7P62X6.35	Kemet	C322C104K1R5TA	Yes	Yes
C3	1	CAP CER .10UF 50V X7R 10% 0603	0.1u	10%	C0603W	TDK	C1608X7R1H104K	Yes	Yes
C5, C7, C9-10	4	N/A	open	N/A	C0603W	N/A	NA	N/A	Yes
C6	1	CAP CER .10UF 50V X7R 10% 0603	100n	10%	C0603W	TDK	C1608X7R1H104K	Yes	Yes
C8	1	N/A	open	N/A	KEMET_C330HV_CAP_TH_5P08_MM_7P62X6.35	N/A	NA	N/A	Yes
L1	1	1mH 10% 0.6A	1 mH 0.6A	10%	RFB1010_COILCRAFT	Coilcraft	RFB1010-102L	No	Yes
L2	1	Shielded power inductor 10% SMT RoHS	open	10%	MSS1278_COILCRAFT	Coilcraft	MSS1278-105KL	No	Yes
M2	1	N-Channel Power MOSFET	NTD6416AN	-	DPAK_GDSD	ON Semiconductor	NTD6416AN	No	Yes
R1	1	RES 12.7K OHM 1/10W 1% 0603 SMD	12.7k	1%	R0603W	Vishay	CRCW060312K7FKEA	Yes	Yes
R2, R5	2	N/A	open	N/A	R0603W	N/A	N/A	N/A	Yes
R4	1	RES 100K OHM 1/10W 1% 0603 SMD	100k	1%	R0603W	Vishay	CRCW0603100K7FKEA	Yes	Yes
R3	1	RES 10.0K OHM 1/10W 1% 0603 SMD	10k	1%	R0603W	Vishay	CRCW060310K07FKEA	Yes	Yes
R6	1	RES 0.0 OHM 1/8W 0805 SMD	0	1%	R0805W	Vishay	CRCW08050000Z0EA	Yes	Yes
R7	1	RES 10.0 OHM 1/4W 1% 1206 SMD	10	1%	R1206W	Vishay	CRCW120610R07FKEA	Yes	Yes
R8-9	2	RES 4.87 OHM 1/4W 1% 1206 SMD	4.87	1%	R1206W	Vishay	CRCW12064R87FKEA	Yes	Yes
R10	1	N/A	open	N/A	R1206W	N/A	NA	N/A	Yes
R11-14	4	RES 3.24K OHM 1/8W 1% 0805 SMD	3.24k	1%	R0805W	Vishay	CRCW08053K24FKEA	Yes	Yes
M1	1	MOSFET Power 250V N-Channel QFET	open	-	TO-220_IN_LINE_VERTICAL	Fairchild	FQPF3N25	No	Yes
F1	1	Fuses 250V IEC TL LL 1A TE5	250V 1A	-	FUSE_RAD_392S	Littelfuse	39211000000	No	Yes
D3	1	100 V 1.0 A Schottky Rectifier	open	-	CASE59	ON Semiconductor	MBR1100G	No	Yes
U1	1	LED controller	NCL30105	-	SO-8	ON Semiconductor	NCL30105	No	Yes
HS1	1	HS_TO220_634_WAKEFIELD Heat Sink	open	-	HS_TO220_634_WAKEFIELD	Wakefield Thermal Solutions	634-10ABP	No	Yes