

Bill of Materials for the NCL30486LED2GEVB Evaluation Board



Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
tReference	Quantity	Description	Value	Tolerance	PCB Footprint	Manufacturer	MFR part number		
C1	1	X2 capacitor	100nF / 310 Vac	10%	through hole	Wurth	890334025017CS	No	Yes
C2	1	X2 capacitor	220nF / 310 Vac	10%	through hole	Wurth	890334025027CS	No	Yes
C3, C14, C23	3	Y capacitor	2.2nF		through hole	Murata	DE1E3KX222MA4BP01F	Yes	Yes
C4	1	high voltage capacitor	470nF / 630V		through hole	Wurth	890334025039CS	No	Yes
C5	1	Capacitor	100pF / 50 V		SMD0603	Standard	Standard	Yes	Yes
C6	1	Capacitor	100nF / 50 V		SMD0603	Standard	Standard	Yes	Yes
C7	1	Capacitor	1 µF / 50 V		SMD1206	Standard	Standard	Yes	Yes
C8	1	Capacitor	22 µF / 35 V		through hole	WURTH	860010572003	No	Yes
C9	1	high voltage ceramic capacitor	10nF / 1kV		SMD1206	Standard	Standard	No	Yes
C11	1	high voltage capacitor	4.7nF / 630 V		through hole	EPCOS - TDK Electronics	B32529C8472J000	No	Yes
C12,C13	2	Electrolytic capacitor	1000µF / 63 V		through hole	WURTH	860_080_780_028	No	Yes
C15,C31,C32	3	Capacitor	22pF / 50 V		SMD 0603	Standard	Standard	Yes	Yes
C34	1	Capacitor	100 nF / 50 V		SMD 0805	Standard	Standard	Yes	Yes
C16	1	Capacitor	1µF / 50 V		SMD 1206	Standard	Standard	Yes	Yes
D1	1	Diode bridge	600 V, 4 A		through hole	ON SEMI	GBU4J	No	Yes
D2,D6	2	Diode	250 V, 0.2 A		SOD123	ONSEMI	MMSD103T1G	No	Yes
D3	1	Diode	200 V, 1 A		SMB	ONSEMI	MURS160	No	Yes
D4, D5	2	Diode	400 V, 4 A		through hole	ON SEMI	MUR440RLG	No	Yes
F1	1	Fuse	1.6A SLO		through hole	Digikey	0697H1600-02	Yes	Yes
J1	1	connector	SL5.08/03/90		through hole	Weidmuller	SL5.08/03/90	Yes	Yes
J2	1	connector	SL5.08/04/90		through hole	Weidmuller	SL5.08/04/90	Yes	Yes
J4	1	BNC connector	BNC		through hole	Digikey	ARF1065-ND	Yes	Yes
L1	1	Inductor	10mH		through hole	Digikey	7446221010	No	Yes
L2	1	Inductor	1mH		through hole	Digikey	AIUR-15-102K	No	Yes
L3	1	Inductor	330uH		through hole	Digikey	744732331	No	Yes
L4	1	Inductor	10uH		through hole	Digikey	744779100	No	Yes
Q1	1	MOSFET	650 V, 10.2 A		TO220	ONSEMI	FCPF380N65FL1	No	Yes
Heatsink		Heatsink	247W		stamped	Digikey	577202B00000G	Yes	Yes
RV1	1	Varistor	300 V		through hole	Digikey	V300LA4P	Yes	Yes

R1	1	Resistor	100	1%	SMD1206	Standard	Standard	Yes	Yes
R2	1	Resistor	22	1%	SMD1206	Standard	Standard	Yes	Yes
R5	1	Resistor	56k	1%	SMD 0603	Standard	Standard	Yes	Yes
R6	1	Resistor	56k	1%	SMD1206	Standard	Standard	Yes	Yes
R48	1	Resistor	0R	1%	SMD 0603	Standard	Standard	Yes	Yes
R7	1	Resistor	12k	1%	SMD 0603	Standard	Standard	Yes	Yes
R8	1	Resistor	1.1K	1%	SMD1206	Standard	Standard	Yes	Yes
R9	1	Resistor	5.2	1%	SMD1206	Standard	Standard	Yes	Yes
R10, R47	2	Resistor	5.6k	1%	SMD1206	Standard	Standard	Yes	Yes
R11	1	Resistor	0.36, 1 W	1%	SMD2512	Standard	Standard	Yes	Yes
R12	1	Resistor	0.39, 1 W	1%	SMD2512	Standard	Standard	Yes	Yes
R13	1	Resistor	47k, 1 W	1%	SMD2512	Standard	Standard	Yes	Yes
R15	1	Resistor	33k	1%	SMD1206	Standard	Standard	Yes	Yes
R16	1	Resistor	16k	1%	SMD0603	Standard	Standard	Yes	Yes
R17	1	Resistor	47k	1%	SMD0805	Standard	Standard	Yes	Yes
R18	1	Resistor	2.4k	1%	SMD0603	Standard	Standard	Yes	Yes
R29	1	Resistor	10R	1%	SMD0805	Standard	Standard	Yes	Yes
R30	1	Resistor	68K	1%	SMD0805	Standard	Standard	Yes	Yes
R37	1	Resistor	0	1%	SMD0805	Standard	Standard	Yes	Yes
S1,S2	2	strap			SMD	Solder on board	Solder on board	No	Yes
T2	1	Transformer	Transformer		through hole	WURTH	750318263	No	Yes
U1	1	PWM controller	NCL30486B		SOIC9	ONSEMI	NCL30486B1	No	Yes
U2	1	Isolator	SI8710BC		SOIC8	Silicon Labs	SI8710BC-B-ISR	No	Yes