



## Bill of Materials for the NCL30083BB1GEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
CVccbulk	1	Aluminum Capacitor	27 $\mu$ F, 25 V	20%	Radial, Can	Panasonic	EEU-FC1E270	Yes	Yes
CVcc	1	Multilayer Ceramic Capacitor	4.7 $\mu$ F	10%	0603	Taiyo Yuden	EMK107ABJ475KA-T	Yes	Yes
Cleak	1	Aluminum Capacitor	4.7 $\mu$ F, 100 V	20%	Radial, Can	Rubycon	100YXJ4R7M5X11	Yes	Yes
Cout	0	DNP	22 $\mu$ F, 16 V	20%	1206	Taiyo Yuden	EMK316BJ226ML-T	Yes	Yes
C2, C4	2	Aluminum Capacitor	18 $\mu$ F, 200 V	20%	Radial, Can	Rubycon	200LLE18MEFC10X12.5	Yes	Yes
C3, C5	2	Metallized Polyester Film Capacitors	120 nF, 400 V	10%	Through Hole	Epcos	B32559C6124+***	Yes	Yes
C10, C11	2	Ceramic Capacitor	1 nF, 25 V	10%	0402	Kemet	C0402C102K3GACTU	Yes	Yes
C13	0	DNP	1000 $\mu$ F, 630 V	10%	0805	Kemet	C0805C102KBRACTU	Yes	Yes
C14, C15	0	DNP	470 pF 250 VAC Y2	10%	1808	Johanson Dielectrics Inc	502R29W471KV3E-****-SC	Yes	Yes
D1, D2, D3, Dleak	4	Diode UFAST	600 V, 1 A	-	SOD-123F	MCC	UFM15PL	Yes	Yes
Dout	0	DNP	MURA220T3	-	SMA-2	On Semiconductor	MURA220T3	No	Yes
D4	1	BRIDGE RECTIFIER	MB6S	-	TO-269AA	MCC	MB6S	Yes	Yes
D9	1	250 V Switching Diode	BAS21DW5T1G	-	6-TSSOP (5 Lead)	ON Semiconductor	BAS21DW5T1G	No	Yes
F1	1	FUSE PICO FAST	0.5 A, 250 V	-	Axial	Littelfuse	0263.500WRT1L	Yes	Yes
L1	1	INDUCTOR	220 $\mu$ H	10%	Radial	Würth	7447462221	Yes	Yes
L2	1	INDUCTOR	1.5 mH	5%	Radial	Würth	7447462152	Yes	Yes
Qfet	1	MOSFET N-CH 600V IPAK	600 V	-	TO-251-3 Short Leads	ON Semiconductor	NDD02N60Z	No	Yes
Rbo	1	Thick Film Resistor	3.01 M $\Omega$	1%	0805	Yageo	RC0805FR-073M01L	Yes	Yes
Rclamp	0	DNP	47 k $\Omega$	1%	0805	Yageo	RC0805FR-0747K0L	Yes	Yes
Rdamp	1	Thick Film Resistor	180 $\Omega$	5%	0805	Yageo	RC0805JR-07180RL	Yes	Yes
Rgd	1	Thick Film Resistor	10 $\Omega$	1%	0603	Yageo	RC0603FR-0710RL	Yes	Yes
Rjump1	1	Thick Film Resistor	0 $\Omega$	-	0402	Yageo	RC0402JR-070RL	Yes	Yes
Rtco_trim	1	Thick Film Resistor	10 k $\Omega$	1%	0402	Yageo	RC0402FR-0710KL	Yes	Yes
R8	0	DNP	10 k $\Omega$	1%	0402	Yageo	RC0402FR-0710KL	Yes	Yes
Rjump2	0	DNP	10 k $\Omega$	1%	0402	Yageo	RC0402FR-0710KL	Yes	Yes
Rlff	1	Thick Film Resistor	620 $\Omega$	1%	0402	Yageo	RC0402FR-07620RL	Yes	Yes
Rsens	1	Thick Film Resistor	0.68 $\Omega$	1%	0603	Yageo	RL0603FR-070R68L	Yes	Yes
Rstart1, Rstart	2	Thick Film Resistor	1.0 M $\Omega$	1%	0805	Yageo	RC0805FR-071ML	Yes	Yes
Rtco	1	THERMISTOR	100 k $\Omega$ NTC	5%	0603	Epcos	B57331V2104J60	Yes	Yes
Rtrim	1	Thick Film Resistor	5.1 $\Omega$	1%	0603	Stackpole	RMCF0603FT5R10	Yes	Yes
Rzcd	1	Thick Film Resistor	56 k $\Omega$	1%	0805	Yageo	RC0805FR-0756KL	Yes	Yes
R2	1	Thick Film Resistor	51.1 k $\Omega$	1%	0402	Yageo	RC0402FR-0751K1L	Yes	Yes
R5	1	Thick Film Resistor	4.7 $\Omega$	5%	0805	Yageo	RC0805JR-074R7L	Yes	Yes
R9	0	DNP	100 $\Omega$	5%	0805	Yageo	RC0805JR-07100RL	Yes	Yes
T1	1	Inductor	XFRM_LINEAR	10%	-	Würth	750313436	No	Yes
U1	1	-	NCL30083	-	-	ON Semiconductor	NCL30083BDMR2G	No	Yes
AC_L, AC_N	2	Stranded Wire	UL1430	-	-	Alpha Wire	#24 AWG, Stranded, 6"	Yes	Yes
Wire, Output	1	Stranded Wire, Red	UL1430	-	-	Alpha Wire	#24 AWG, Stranded, 6"	Yes	Yes
Wire, Output	1	Stranded Wire, Black	UL1430	-	-	Alpha Wire	#24 AWG, Stranded, 6"	Yes	Yes