



Bill of Materials for the NCV8873LEDBSTGEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
C1	0	OPEN	Do Not Populate	-	-	-	-	Yes	Yes
C5	1	CAP CER 2.2UF 50V X7R	2.2uF, 50V	10%	1206	Murata Electronics North America	GRM31CR71H225KA88L	Yes	Yes
C2	1	CAP CER 1000PF 50V X7R	1000pF, 50V	10%	0603	Murata Electronics North America	GCM188R71H102KA37D	Yes	Yes
C3	1	CAP CER 4.7PF 50V NP0	4.7pF, 50V	5%	0603	Murata Electronics	GCM1885C1H4R7CZ13D	Yes	Yes
C4	0	OPEN	Do Not Populate	-	-	-	-	Yes	Yes
C6	1	CAP CER 1UF 16V 10% X7R	1uF, 16V	10%	0805	Kemet	C0805C105K4RACAUTO	Yes	Yes
C7	1	CAP CER 0.1UF 50V 10% X7R	0.1uF, 50V	10%	0805	Murata Electronics North America	GRM21BR71H104KA01L	Yes	Yes
C8	1	CAP CER 4.7UF 50V 10% X5R	4.7uF, 50V	10%	0805	TDK Corporation	CGA4J3X5R1H475K125AB	Yes	Yes
C9	0	OPEN	Do Not Populate	-	-	-	-	Yes	Yes
D1	1	DIODE ULTRA FAST 2A 100V	100V, 2A	N/A	DO-214AC, SMA	ON Semiconductor	MURA110T3G	No	Yes
D2 through D11	10	LED DURIS P5 29 LM 4000K	N/A	N/A	2-SMD, No Lead	OSRAM Opto Semiconductors Inc	GW DASPA1.EC-GUHQ-5L7N-1	Yes	Yes
D12, D13, D14	3	DIODE SGL JUNC 100V 4.0NS MELF	N/A	N/A	SOD-123	ON Semiconductor	MMSD4148T1G	No	Yes
D15	1	DIODE ZENER 33V 200MW	33V	5%	SC-76, SOD-323	ON Semiconductor	MM3Z33VT1G	No	Yes
J1	1	CONN HEADER 2POS .100 VERT GOLD	N/A	N/A	2.54mm x 2.54mm	Molex Connector Corporation	22-28-4023	Yes	Yes
	1	CONN JUMPER SHORTING GOLD	N/A	N/A	2.54mm x 2.54mm	Sullins Connector Solutions	SSC02SYAN	Yes	Yes
L1	1	SMT Power Inductor 3.3uH 1.33A Isat	3.3uH	20%	5.10mm x 5.10mm	Coilcraft Inc	MSS5131-332MLB	Yes	Yes
Q1	1	MOSFET N-CH 60V 20A	60V, 20A	N/A	u8FL / WDFN-8	ON Semiconductor	NVTFSS826NL	No	Yes
Q2	1	PNP, SMALL SIGNAL, -40V	-40V, -0.2A	N/A	SOT-23-3 (TO-236)	ON Semiconductor	MMBT3906LT1G	No	Yes
Q3	1	MOSFET 50V 200mA 3.5 Ohm N-Channel	50V, 0.2A	N/A	SOT-23	ON Semiconductor	BSS138LT1G	No	Yes
Q4	1	MOSFET 30V 250mA 1.5 Ohm Dual N-Channel	30V, 0.25A	N/A	6-TSSOP, SOT-363	ON Semiconductor	NTJD4001N	No	Yes
Q5, Q6	2	NPN, SMALL SIGNAL, 40V	40V, 0.2A	N/A	SOT23	ON Semiconductor	MMBT3904LT1G	No	Yes
R1	1	RES 0.0 OHM 1/8W SMD	0	JUMPER	0805	Vishay/Dale	CRCW08050000Z0EA	Yes	Yes
R2	1	RES .43 OHM 1/4W 1% SMD	0.43	1%	0805	Rohm Semiconductor	MCR10EZHLR430	Yes	Yes
R3	1	RES 3.32 OHM 1/4W 1% SMD	3.32	1%	1206	Vishay/Dale	CRCW12063R32FKEA	Yes	Yes
R4	0	OPEN	Do Not Populate	-	-	-	-	Yes	Yes
R5	1	RES 11.0 OHM 1/4W 1% SMD	11	1%	1206	Vishay/Dale	CRCW120611R0FKEA	Yes	Yes
R6, R16	2	RES 10.0K OHM 1/10W 1% SMD	10.0K	1%	0603	Vishay/Dale	CRCW060310K0FKEA	Yes	Yes
R7	1	RES 18.2K OHM 1/10W 1% SMD	18.2K	1%	0603	Vishay/Dale	CRCW060318K2FKEA	Yes	Yes
R8, R10, R11	3	RES 3.01K OHM 1/10W 1% SMD	3.01K	1%	0603	Vishay/Dale	CRCW06033K01FKEA	Yes	Yes
R9, R12, R17	3	RES 1.00K OHM 1/10W 1% SMD	1.00K	1%	0603	Vishay/Dale	CRCW06031K00FKEA	Yes	Yes
R13	1	RES 499 OHM 1/10W 1% SMD	499	1%	0603	Vishay/Dale	CRCW0603499RFKEA	Yes	Yes
R14	0	OPEN	Do Not Populate	-	-	-	-	Yes	Yes
R15	1	RES 4.99K OHM 1/10W 1% SMD	4.99K	1%	0603	Vishay/Dale	CRCW06034K99FKEA	Yes	Yes
R18	1	RES 100K OHM 1/10W 1% SMD	100K	1%	0603	Vishay/Dale	CRCW0603100KFKEA	Yes	Yes
TP1, TP4, TP7, TP14, TP16, TP17, TP20, TP22	8	PIN INBOARD .042" HOLE 1000/PKG	N/A	N/A	1/16" Boards with 1.07mm Diameter Holes	Vector Electronics	K24C/M	Yes	Yes

TP2, TP3, TP5, TP6, TP8, TP9, TP15, TP18, TP19, TP21	0	CIRCUIT PIN PRNTD .020"D .425"L	Do Not Populate	-	-	Mill-Max Manufacturing Corp.	3128-2-00-15-00-00-08-0	Yes	Yes
TP10, TP11, TP12, TP13	4	TERM SOLDER TURRET	N/A	N/A	.219" .109"L	Mill-Max Manufacturing Corp.	2501-2-00-44-00-00-07-0	Yes	Yes
U1	1	Automotive Non-Sync Boost Controller	N/A	N/A	SOIC-8	ON Semiconductor	NCV887300D1R2G	Yes	Yes
U2	1	IC BUFF CMOS LVL/SFTR N-I	N/A	N/A	6-TSSOP, SOT-353	ON Semiconductor	M74VHC1GT50DFT1G	Yes	Yes
MNT1, 2, 3, 4	4	Hex Spacer 4-40 1/4" Zinc Plated Steel 3/8"	N/A	N/A	MOUNTHOLE125	McMaster-Carr	93620A431	Yes	Yes
	4	Hex Nut 4-40 1/4" Zinc Plated Steel	N/A	N/A	MOUNTHOLE125	McMaster-Carr	90480A005	Yes	Yes