



Bill of Materials for the NCV898032LEDSEPGEVBB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
C1, C6	1	CAP CER 4.7UF 50V X7R 1210	4.7uF	10%	1210	Kemet	C1210C475K5RACAUTO	Yes	Yes
C2	1	CAP ALUM POLY 68UF 20% 50V SMD	68uF	20%	CAP_SMD_8P3	Panasonic Electronic	EEH-ZA1H680V	No	Yes
C3	1	CAP CER 1UF 16V X7R 0603	1uF	10%	603	Murata Electronics North	GCM188R71C105KA64D	Yes	Yes
C4	1	CAP CER 10000PF 50V COG 0603	10nF	5%	603	TDK Corporation	CGA3E2COG1H103J080AA	Yes	Yes
C5, C8	2	CAP CER 100PF 50V COG/NP0 0603	100pF	5%	603	Murata Electronics North	GCM1885C1H101JA16D	Yes	Yes
C7	1	CAP CER 1UF 50V X7R 1206	1uF	10%	1206	TDK Corporation	CGA5L3X7R1H105K160AB	Yes	Yes
C9	DNP	CAP CER 2.2UF 25V X7R 0805	2.2uF	10%	805	TDK Corporation	CGA4J3X7R1E225K125AD	Yes	Yes
C10	1	CAP CER 2.2UF 50V X7R 1206	2.2uF	10%	1206	Murata Electronics North	GCM31CR71H225KA55L	Yes	Yes
C11, C15	2	CAP CER 1UF 50V X7R 0805	1uF	10%	805	Murata Electronics North	GCM21BR71H105KA03L	Yes	Yes
C13, C14	2	CAP CER 0.1UF 50V X7R 0805	0.1uF	10%	805	Murata Electronics North	GCM21BR71H104KA37K	Yes	Yes
C12	1	CAP CER 120PF 50V COG/NP0 0603	120pF	5%	603	Murata Electronics North	GCM1885C1H121JA16D	Yes	Yes
D1	1	DIODE SCHOTTKY 60V 3A SMA-FL	60V / 3A	N/A	SMA_DIODE	ON Semiconductor	NRVBAF360T3G	No	Yes
D2, D3	2	DIODE SCHOTTKY 40V 1A SOD123FL	40V / 1A	N/A	SOD_123	ON Semiconductor	NRVB140SFT1G	No	Yes
D4	1	DIODE ZENER 16.18V 200MW SOD323	16.18V	2%	SOD_323	ON Semiconductor	MM3Z16VST1G	Yes	Yes
D5, D6	2	DIODE GEN PURP 100V 200MA SOD123	100V	N/A	SOD-123	ON Semiconductor	MMSD4148T1G	Yes	Yes
D7	1	DIODE ZENER 12V 200MW SOD323	12V	2%	SOD_323	ON Semiconductor	MM3Z12VST1G	Yes	Yes
J1, J2, J3	3	CONN HEADER 2POS .100 VERT GOLD	N/A	N/A	JMP	Molex, LLC	22284023	Yes	Yes
	3	CONN JUMPER SHORTING GOLD	N/A	N/A		Sullins Connector Solutions	SSC025YAN	Yes	Yes
	1	SMD Fixed Power Inductor 15uH 3.7A	15uH	20%		Coilcraft	XAL5050-153ME	No	Yes
RSNB	1	RES SMD 9.1 OHM 1% 1/4W 1206	9.1	1%	1206	Stackpole Electronics Inc.	RMCF1206FT9R10	Yes	Yes
L2	1	SMD Fixed Power Inductor 15uH 2.8A	15uH	20%	XAL4030-472	Coilcraft	XAL4040-153ME	No	Yes
L3	1	SMD Fixed Power Inductor 1uH 8.7A	1uH	20%	XAL4030-472	Coilcraft	XAL4020-102ME	No	Yes
Q1	1	MOSFET N-CH 60V U8FL	60V / 7.8A	N/A	u8FL	ON Semiconductor	NVTF55C680NLWFTAG	No	Yes
Q2	1	TRANS NPN 60V 10A TO220AB	60V / 10A	N/A	TO220_VERT	ON Semiconductor	D44H8G	No	Yes
	1	HEATSINK TO-220 POWER W/PINS BK	N/A	N/A		Aavid Thermalloy	531202B02500G	Yes	Yes
	1	THERM PAD TO-220 W/ADH HI-FLOW	N/A	N/A		Bergquist	HF115AC-0.0055-AC-54	Yes	Yes
	1	Stainless Steel Round Head 4-40 3/8" Screw	N/A	N/A		McMaster-Carr	95345A027 (pack of 50)	Yes	Yes
	1	Stainless Steel Locknut w/washer 4-40	N/A	N/A		McMaster-Carr	96278A005 (pack of 100)	Yes	Yes
Q3	1	TRANS PNP 40V 0.2A SOT23	40V / 0.2A	N/A	SOT23	ON Semiconductor	MMBT3906LT1G	Yes	Yes
Q4	1	TRANS NPN 40V 0.2A SOT23	40V / 0.2A	N/A	SOT23	ON Semiconductor	MMBT3904LT1G	Yes	Yes
R1	1	RES SMD 750 OHM 1% 1/10W 0603	750	1%	603	Vishay Dale	CRCW0603750RFKEA	Yes	Yes

R2, R3, R4	3	RES SMD 1.13 OHM 1% 1/8W 0805	1.13	1%	805	Vishay Dale	CRCW08051R13FKEA	Yes	Yes
R5	1	RES SMD 1.8 OHM 1% 1/10W 0603	1.8	1%	603	Vishay Dale	CRCW06031R80FKEA	Yes	Yes
R6	1	RES SMD 0.0 OHM JUMPER 1/8W 0805	0	JUMPER	805	Vishay Dale	CRCW08050000Z0EA	Yes	Yes
R7	1	RES SMD 255 OHM 1% 1/10W 0603	255	1%	603	Vishay Dale	CRCW0603255RFKEA	Yes	Yes
R8	1	RES SMD 0.11 OHM 1% 1/3W 0805	0.11	1%	805	Susumu	RL1220S-R11-F	No	Yes
R9	1	RES SMD 23.7 OHM 1% 1/10W 0603	23.7	1%	603	Vishay Dale	CRCW060323R7FKEA	Yes	Yes
R10	1	RES SMD 0.11 OHM 1% 1/3W 0805	DNP	1%	805	Susumu	RL1220S-R11-F	No	Yes
R11	1	RES SMD 0.56 OHM 5% 1/8W 0805	0.56	5%	805	CTS Resistor Products	73L3R56J	No	Yes
R12, R14, R17	3	RES SMD 1K OHM 1% 1/10W 0603	1.00K	1%	603	Vishay Dale	CRCW06031K00FKEA	Yes	Yes
R13	1	RES SMD 499 OHM 1% 1/10W 0603	499	1%	603	Vishay Dale	CRCW0603499RFKEA	Yes	Yes
R15, R16	2	RES SMD 10K OHM 1% 1/10W 0603	10K	1%	603	Vishay Dale	CRCW060310K0FKEA	Yes	Yes
R18, R19	2	RES SMD 10 OHM 1% 1/8W 0805	10	1%	805	Vishay Dale	RCA080510R0FKEA	Yes	Yes
R20, R21	2	1206 PROBE PAD	N/A	N/A	1206	TE Connectivity AMP Connectors	RCS-0C	Yes	Yes
RG	1		DNP	1%	603				
GDRV, ISNS, ISNS1, ISNS2, VDRV, VSW	6	CONN PC PIN CIRC 0.020DIA GOLD	N/A	N/A	SMALL_TP	Mill-Max Manufacturing Corp.	3128-2-00-15-00-00-08-0	Yes	Yes
EN, FB, GND1, GND2, GND3, GND4, LD1, LD2, VC, VFB, VIN1, VIN_F1, VOUT1	13	PIN INBOARD .042" HOLE 1000/PKG	N/A	N/A	TP	Vector Electronics	K24C/M	Yes	Yes
GND, GND5, VIN_UF, VIN_F, VOUT2	5	TERM TURRET SINGLE L=5.56MM	N/A	N/A	TURRET	Mill-Max Manufacturing Corp.	2501-2-00-44-00-00-07-0	Yes	Yes
FT1, FT2, FT3, FT4, FT5, FT6, FT7, FT8	8	BUMPER CYLINDRICAL 0.44" DIA BLK	N/A	N/A	Bottom Silkscreen Circle	3M	SJ-5003 (BLACK)	Yes	Yes
U1	1	2MHz Auto Grade Non-Sync Boost Controller	N/A	N/A	SOIC8_N_ADJ	ON Semiconductor	NCV898032D1R2G	No	Yes