



Bill of Materials for the NCV8871SEPGVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
C1, C2, C3, C4, C5	5	CAP CER 4.7UF 50V 10% X7R 1210	4.7uF	10%	1210	Murata Electronics North America	GRM32ER71H475KA88L	Yes	Yes
C6	Do Not Populate								
C7	1	CAP ALUM 220UF 20% 50V RADIAL	220uF	20%	FCA_CAP10X12p5	United Chemi-Con	EKZE500ELL221MJ16S	No	Yes
C8, C9, C10	3	CAP POLY ALUM 47UF 16V SMD	47uF	20%	CG_CAP5X6	Nichicon	PCG1C470MCL1GS	No	Yes
C11	1	CAP CER 1UF 50V X7R 1206	1uF	10%	1206	Murata Electronics North America	GCM31MR71H105KA55L	Yes	Yes
C12	1	CAP CER .082UF 10% 16V X7R 0603	82000pF	10%	603	AVX Corporation	0603YC823KAT2A	Yes	Yes
C13	1	CAP CER 680PF 50V 5% COG 0603	680pF	10%	603	Murata Electronics North America	GRM1885C1H681JA01D	Yes	Yes
C14, C17	2	CAP CER .1UF 50V 10% X7R 0805	100nF	10%	805	Murata Electronics North America	GRM21BR71H104KA01L	Yes	Yes
C15	1	CAP 100UF 50V ELECT FC RADIAL	100uF	20%	FCA_CAP10X12p5	Panasonic - ECG	EEU-FC1H101	No	Yes
C16	1	CAP CER 1UF 16V X7R 10% 0603	1uF	10%	603	Murata Electronics North America	GCM188R71C105KA64D	Yes	Yes
D1	1	60 V, 3.0 A Schottky Rectifier DPAK	60V / 3A	N/A	DPAK3_DMD	ON Semiconductor	MBRD360G	No	Yes
D2, D3	2	DIODE SCHOTTKY 40V 1A SOD123FL	40V / 1A	N/A	SOD_123	ON Semiconductor	MBR140SFT1G	No	Yes
L1	1	High Temp SMT Power Inductor 4A	22uH, 4A	20%	COIL_MSS1260	Coilcraft Inc	MSS1278T-223ML	No	Yes
L2	1	High Temp SMT Power Inductor 1.9A	22uH, 1.9A	20%	COIL_MSS1038	Coilcraft Inc	MSS1038T-223ML	No	Yes
Q1	1	MOSFET N-CH 60V 32A DPAK	60V / 32A	N/A	DPAK3_DMD	ON Semiconductor	NTD32N06LG	No	Yes
R1	1	RES 5.10 OHM 1/8W 1% 0805 SMD	5.1	1%	805	Vishay/Dale	CRCW08055R10FKEA	Yes	Yes
R2	1	RES .04 OHM 3W 1% 2512 SMD	0.04	1%	2512	Bourns Inc	CRA2512-FZ-R040ELF	Yes	Yes
R3	1	RES .68 OHM 1/4W 1% 0805 SMD	0.68	1%	805	Rohm Semiconductor	MCR10EZHFRLR680	Yes	Yes
R4	1	RES 90.9K OHM 1/10W 1% 0603 SMD	90.0K	1%	603	Yageo	RC0603FR-0790K9L	Yes	Yes
R5	1	RES 10.0K OHM 1/10W 1% 0603 SMD	10.0K	1%	603	Rohm Semiconductor	MCR03EZPFX1002	Yes	Yes
R6	1	RES 10.0 OHM 1/10W 1% 0603 SMD	10	1%	603	Yageo	RC0603FR-0710RL	Yes	Yes
R7	1	RES 715 OHM 1/10W 1% 0603 SMD	715	1%	603	Vishay/Dale	CRCW0603715RFKEA	Yes	Yes
TP1, 7, 14, 16, 17, 20	6	PIN INBOARD .042" HOLE 1000/PKG	N/A	N/A	TP	Vector Electronics	K24C/M	Yes	Yes
TP2, 3, 5, 6, 8, 9, 15, 18	8	CIRCUIT PIN PRNTD .020"D .425"L	N/A	N/A	SMALLTP	Mill-Max Manufacturing Corp.	3128-2-00-15-00-00-08-0	Yes	Yes
TP10, 11, 12, 13	4	TERM SOLDER TURRET .219" .109"L	N/A	N/A	TURRET	Mill-Max Manufacturing Corp.	2501-2-00-44-00-00-07-0	No	Yes
U1	1	Automotive Non-Sync Boost Controller	N/A	N/A	SOIC8_N_ADJ	ON Semiconductor	NCV8871_00	No	Yes
MNT1, 2, 3, 4	4	Hex Spacer 4-40 1/4" Zinc Plated Steel	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