



## 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             | DNP      | CAP CER 4.7UF 50V 10% X7R 1210         | 4.7uF      | 10%       | 1210           | Murata Electronics North America | GRM32ER71H475KA88L       | Yes                  | Yes       |
| C5                         | 1        | CAP CER 4.7UF 50V 10% X7R 1210         | 4.7uF      | 10%       | 1210           | Murata Electronics North America | GRM32ER71H475KA88L       | Yes                  | Yes       |
| C6, C7                     | DNP      | CAP 82UF 63V ELECT KZE RAD             | 82uF       | 20%       | FCA_CAP10X12p5 | United Chemi-Con                 | EKZE630ELL820MJC5S       | 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%       | 0603           | AVX Corporation                  | 0603YC823KAT2A           | Yes                  | Yes       |
| C13                        | 1        | CAP CER 680PF 50V 5% C0G 0603          | 680pF      | 10%       | 0603           | Murata Electronics North America | GRM1885C1H681JA01D       | Yes                  | Yes       |
| C14, C17                   | 2        | CAP CER .1UF 50V 10% X7R 0805          | 100nF      | 10%       | 0805           | 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%       | 0603           | 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 2.3A      | 22uH, 2.3A | 20%       | COIL_MSS1260   | Coilcraft Inc                    | MSS1260T-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                 | NVD5865NL                | No                   | Yes       |
| R1                         | 1        | RES 5.10 OHM 1/8W 1% 0805 SMD          | 5.1        | 1%        | 0805           | 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                         | DNP      | RES .68 OHM 1/4W 1% 0805 SMD           | 0.68       | 1%        | 0805           | Rohm Semiconductor               | MCR10EZHFRLR680          | Yes                  | Yes       |
| R4                         | 1        | RES 90.9K OHM 1/10W 1% 0603 SMD        | 90.0K      | 1%        | 0603           | Yageo                            | RC0603FR-0790K9L         | Yes                  | Yes       |
| R5                         | 1        | RES 10.0K OHM 1/10W 1% 0603 SMD        | 10.0K      | 1%        | 0603           | Rohm Semiconductor               | MCR03EZPFX1002           | Yes                  | Yes       |
| R6                         | 1        | RES 10.0 OHM 1/10W 1% 0603 SMD         | 10         | 1%        | 0603           | Yageo                            | RC0603FR-0710RL          | Yes                  | Yes       |
| R7                         | 1        | RES 715 OHM 1/10W 1% 0603 SMD          | 715        | 1%        | 0603           | 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       |