

## Bill of Materials for NCP3163 Voltage Inverting Evaluation Board

ON Semiconductor



2/17/2005

| Designator | Quantity | Description                      | Value                    | Tolerance | Footprint             | Manufacturer     | Manufacturer Part Number | Substitution Allowed | Lead Free |
|------------|----------|----------------------------------|--------------------------|-----------|-----------------------|------------------|--------------------------|----------------------|-----------|
| U1         | 1        | Step-up/down/inverting Regulator | 3.4 A, 50 kHz - 300 kHz  | NA        | SOIC16-W, Exposed Pad | ON Semiconductor | NCP3163PWG               | No                   | Yes       |
| D1         | 1        | Schottky Rectifier               | 2 A, 40 V                | NA        | SMB                   | ON Semiconductor | MBRS2040LT3G             | No                   | Yes       |
| L1         | 1        | Inductor                         | 47 uH                    | 20%       | NA                    | Coilcraft        | DO5022P-473              | Yes                  | Yes       |
| Cin        | 1        | Input Capacitor                  | Tantalum, 220 uF, 16 V   | 20%       | R (7.2 x 6 mm)        | Vishay           | 594D227X0016R2           | Yes                  | Yes       |
| Cout       | 2        | Output Capacitor                 | Tantalum, 220 uF, 16 V   | 120%      | R (7.2 x 6 mm)        | Vishay           | 594D227X0016R2           | Yes                  | Yes       |
| R1         | 1        | Resistor                         | 1.07 k $\Omega$ , 0.25 W | 1%        | 1206                  | Vishay           | CRCW12061071F            | Yes                  | No        |
| R2         | 1        | Resistor                         | 11.8 k $\Omega$ , 0.25 W | 1%        | 1206                  | Vishay           | CRCW12061182F            | Yes                  | No        |
| Ct         | 1        | Timing Capacitor                 | 150 pF                   | 10%       | 1206                  | Vishay           | VJ1206A151KXAA           | Yes                  | Yes       |
| Rt         | 0        | Timing Resistor                  | none (open)              | --        | --                    | --               | --                       | --                   | --        |
| Rsc        | 1        | Sense Resistor                   | 80 m $\Omega$ , 1W       | 1%        | 2512                  | Vishay           | WSL2512R0800F            | Yes                  | No        |
| Cb         | 1        | Bootstrap Capacitor              | 4.7 nF, 50 V             | 10%       | 1206                  | Vishay           | VJ1206A472KXAA           | Yes                  | Yes       |
| Rb         | 1        | Bootstrap Resistor               | 200 $\Omega$ , 0.25 W    | 1%        | 1206                  | Vishay           | CRCW12062000F            | Yes                  | No        |
| Terminal   | 2        | Input/Output Terminals           | NA                       | NA        | 2 pin, 3.96 mm        | MOLEX            | 26-48-1025               | Yes                  | Yes       |
| TP         | 5        | Test Point                       | NA                       | NA        | 2.54 mm               | 3M               | 929450-01-36             | Yes                  | Yes       |
| Feet       | 4        | Stand Off Feet                   | NA                       | NA        | NA                    | SPC Tech         | 2565                     | Yes                  | Yes       |