

Bill of Materials for the NCP1060FLBKGEVB Evaluation Board

| Designator | Quantity | Description | Value | Tolerance | Footprint | Manufacturer | Manufacturer Part Number | Substitution Allowed | Lead Free |
|----------------|----------|---|---------------|-----------|--------------|-------------------------|--------------------------|----------------------|-----------|
| C1 | 1 | CAPACITOR | 10 nF | 10% | THROUGH HOLE | Vishay BC Components | BFC237261103 | Yes | Yes |
| C2 | 1 | CERAMIC CAPACITOR | 1.0 nF | 10% | 0805 | Kemet | C0805C102K5RACTU | Yes | Yes |
| C3, C4 | 2 | ELECTROLYTIC CAPACITOR | 10 µF / 400 V | 20% | THROUGH HOLE | Würth Elektronik | 860011375006 | Yes | Yes |
| C5 | 1 | ELECTROLYTIC CAPACITOR | NU | - | THROUGH HOLE | - | - | - | Yes |
| C6 | 1 | ELECTROLYTIC CAPACITOR | 470 µF / 16 V | 20% | THROUGH HOLE | Würth Elektronik | 870235375008 | Yes | Yes |
| C7 | 1 | ELECTROLYTIC CAPACITOR | 470 µF / 16 V | 20% | THROUGH HOLE | Würth Elektronik | 870235375008 | Yes | Yes |
| C8, C11 | 2 | CERAMIC CAPACITOR | 100 nF | 10% | 0805 | Kemet | C0805C104K5RAC | Yes | Yes |
| C9 | 1 | CERAMIC CAPACITOR | NU | - | 0805 | - | - | - | Yes |
| C10 | 1 | ELECTROLYTIC CAPACITOR | 10 µF / 35 V | 20% | THROUGH HOLE | Würth Elektronik | 870055673001 | Yes | Yes |
| C12 | 1 | CERAMIC CAPACITOR | 2.2 nF | 10% | 0805 | Kemet | C0805C222K5RACTU | Yes | Yes |
| C13 | 1 | CERAMIC CAPACITOR | 12 nF | 10% | 0805 | Kemet | C0805C123K5RACTU | Yes | Yes |
| C14 | 1 | ELECTROLYTIC CAPACITOR | 4.7 µF / 35 V | 20% | THROUGH HOLE | Würth Elektronik | 860010572001 | Yes | Yes |
| CX1 | 1 | CAPACITOR X2 | 68 nF | 10% | THROUGH HOLE | Würth Elektronik | 890334025013CS | Yes | Yes |
| CX2 | 1 | CAPACITOR X2 | 150 nF | 10% | THROUGH HOLE | Würth Elektronik | 890334025022 | Yes | Yes |
| CY | 1 | CAPACITOR X1Y1 | 1.0 nF | 20% | THROUGH HOLE | Murata | DE1E3KX102MA5BA01 | Yes | Yes |
| D1, D4, D5, D6 | 4 | DIODE | MRA4007 | - | SMA | ON Semiconductor | MRA4007T3G | No | Yes |
| D2 | 1 | DIODE | MURA160 | - | SMA | ON Semiconductor | MURA160T3G | No | Yes |
| D3 | 1 | DIODE | MBRS1100 | - | SMC | ON Semiconductor | MBRS1100T3G | No | Yes |
| D7 | 1 | DIODE | MMSD4148 | - | SOD123 | ON Semiconductor | MMSD4148T3G | No | Yes |
| IC1 | 1 | SWITCHER | NCP1060 | - | PDIP-7 | ON Semiconductor | NCP1060AP060G | No | Yes |
| L1 | 1 | INDUCTOR | 2.2 µH | - | WE-TPC_2828 | Würth Elektronik | 744025002 | No | Yes |
| L2 | 1 | INDUCTOR | 1.0 mH | - | RFB0807 | Würth Elektronik | 768772102 | No | Yes |
| L3 | 1 | INDUCTOR | NU | - | RFB0807 | - | - | - | Yes |
| L4 | 1 | COMMON MODE FILTER CHOKE | 12 mH | - | WE-TFC | Würth Elektronik | 744862120 | No | Yes |
| OK1 | 1 | OPTOCOUPLER | FOD817 | - | SMD-4 | Fairchild Semiconductor | FOD817CS | No | Yes |
| R1 | 1 | RESISTOR | 15 Ω | 1% | 0805 | Rohm Semiconductor | MCR10ERTF15R0 | Yes | Yes |
| R2 | 1 | RESISTOR | 270 kΩ | 1% | 0207/10 | Vishay Dale | CMF55270K00FKEB | Yes | Yes |
| R3 | 1 | RESISTOR | 20 Ω | 5% | 0613 | Vishay BC Components | AC03000002009JAC00 | Yes | Yes |
| R4 | 1 | VARISTOR | 820572711 | - | THROUGH HOLE | Würth Elektronik | 820572711 | No | Yes |
| R5 | 1 | RESISTOR | 4.7 kΩ | 1% | 0805 | Rohm Semiconductor | MCR10ERTF4701 | Yes | Yes |
| R6 | 1 | RESISTOR | 560 kΩ | 1% | 0805 | Rohm Semiconductor | MCR10ERTF5603 | Yes | Yes |
| R7 | 1 | RESISTOR | 1.0 kΩ | 1% | 0805 | Rohm Semiconductor | MCR10ERTF1001 | Yes | Yes |
| R8 | 1 | RESISTOR | 33 kΩ | 1% | 0805 | Rohm Semiconductor | MCR10ERTF3302 | Yes | Yes |
| R9 | 1 | RESISTOR | NU | - | 0805 | - | - | - | Yes |
| R10 | 1 | RESISTOR | 0.0 Ω | - | 0805 | Vishay Dale | CRCW08050000Z0EA | Yes | Yes |
| R11 | 1 | RESISTOR | 4.7 MΩ | 5% | Axial Lead | Welwyn | VRW37-4M7J1 | Yes | Yes |
| R12 | 1 | RESISTOR | 9.1 kΩ | 1% | 0805 | Rohm Semiconductor | MCR10ERTF9101 | Yes | Yes |
| R13 | 1 | RESISTOR | 200 kΩ | 1% | 0805 | Rohm Semiconductor | MCR10ERTF2003 | Yes | Yes |
| R14 | 1 | RESISTOR | 10 Ω | 1% | 0805 | Rohm Semiconductor | MCR10ERTF10R0 | Yes | Yes |
| TR1 | 1 | TRANSFORMER | 750370026 | - | THROUGH HOLE | Würth Elektronik | 750370026 | No | Yes |
| VR1 | 1 | VOLTAGE REGULATOR | NCP431 | 1% | TO-92 | ON Semiconductor | NCP431ACLPRAG | No | Yes |
| X1, X2 | 2 | WAGO SCREW CLAMP 237-102 unknown 70K9898 | 691101710002 | - | THROUGH HOLE | Würth Elektronik | 691101710002 | No | Yes |
| - | 2 | WIRE STRAP (INSULATED) | - | - | WIRE STRAP | Various | - | Yes | Yes |
| BOARD STANDOFF | 4 | HEX STANDOFF M3 NYLON | 8.0 mm | - | - | Harwin | R30-1610800 | Yes | Yes |