

Bill of Materials for the NCP737ADNADJR2GEVB Evaluation Board (PCB: RA0902DB-0)

| Designator | Quantity | Description | Value | Tolerance | Footprint | Manufacturer | Manufacturer Part Number | Substitution Allowed | Lead Free |
|---------------|----------|-------------------------------------|------------|-----------|-----------|------------------|--------------------------|---|-----------|
| IC1 | 1 | LDO regulator | N/A | N/A | MSOP-8 | ON Semiconductor | NCP737MLADJTC | No | Yes |
| C2 | 1 | Ceramic capacitor | 4.7uF/100V | ±20% | 1210 | Taiyo Yuden | MSASH32MSB5475MPCA01 | Yes (same or better DC bias char) | Yes |
| C5 | 1 | Ceramic capacitor | 2.2uF/35V | ±10% | 1206 | Samsung | CL31B225KBHVPNE | Yes (same or better DC bias char) *1 | Yes |
| C8 | 1 | Ceramic capacitor | 1nF | ±10% | 0805 | Various | Various | Yes | Yes |
| C10 | 1 | Ceramic capacitor | 10nF | ±20% | 0805 | Various | Various | Yes | Yes |
| R1 | 1 | Resistor | 33kOhm | ±1% | 0805 | Various | Various | Yes | Yes |
| R3 | 1 | Resistor | 27kOhm | ±1% | 0805 | Various | Various | Yes | Yes |
| R4 | 1 | Resistor | 18kOhm | ±1% | 0805 | Various | Various | Yes | Yes |
| R5 | 1 | Resistor | 10kOhm | ±1% | 0805 | Various | Various | Yes | Yes |
| R6 | 1 | Resistor | 100kOhm | ±1% | 0805 | Various | Various | Yes | Yes |
| RT1 | 1 | Variable resistor (trimmer) 20-turn | 100kOhm | ±10% | T93YB | Vishay | T93YB104KT20 | Yes (cermet 100k, ~20 turn, same footprint) | Yes |
| JP1 | 1 | Pin header | 3 pin | N/A | 2.54 mm | Various | Various | Yes | Yes |
| JP2...JP4 | 3 | Pin header | 2 pin | N/A | 2.54 mm | Various | Various | Yes | Yes |
| JP1, JP2, JP4 | 3 | Jumper | 2 pin | N/A | 2.54 mm | Various | Various | Yes | Yes |

Non-listed components not assembled (optional)

*1 .. C5 possible substitutions:

Samsung: CL31B225KBH4PNE, CL31B225KBHNNNE, CL31B225KBHNNNF, CL31B225KBHNFNE,
 Taiyo Yuden: UMR316BC7225KL-T
 Kemet: C1206X225K5RAC3316

Capacitor web part selectors - to find C = f(DC-bias) chart:

<https://weplib.samsungsem.com/mlcc/mlcc-ec.do?partNumber=CL31B225KBHNNNE>
<https://ds.murata.co.jp/simsurfing/mlcc.html?cid=en-us>
<https://ksim3.kemet.com/capacitor-simulation?pn=C1206X225K5RAC3316>
<https://ds.yuden.co.jp/TYCOMPAS/or/specificationSearcher?pn=GMJ316AB7225KLHT&cid=C&u=M&pg=1>