


|  | | | BOM SM1231E315A | | | BOM # V2b |
|--|-----------------------|------------------|-----------------|---------------------------|---|-----------------------|
| | | | | | | SCH # e133V01b |
| 21.06.2010 | | | EMr | Version e133V01b - 315MHz | | PCB # e133V01b |
| RefDes | MPN | Geom | Value | Qty | Description | Manufacturer |
| IC | | | | | | |
| U1 | SX1231 | VQFN24 | SX1231 | 1 | SX1231 Low-Power UHF Integrated Transceiver | Semtech |
| Resistors | | | | | | |
| R8 | CRCW040210K0FKED | 0402 | 10k | 1 | Thick Film Resistor ±1%, 1/16W | Vishay/Dale |
| R15 | CRCW04020000Z0ED | 0402 | 0R | 1 | Thick Film Resistor ±5%, 1/16W | Vishay/Dale |
| R315 | CRCW04020000Z0ED | 0402 | 0R | 1 | Thick Film Resistor ±5%, 1/16W | Vishay/Dale |
| Capacitors | | | | | | |
| C1 | GRM188R60J106ME47 | 0603 | 10µF | 1 | Multilayer ceramic capacitors X5R ±20%, 6.3V | Murata |
| C2 | GRM1555C1H120JZ01D | 0402 | 12pF | 1 | Multilayer ceramic capacitors C0G ±0.5pF, 50V | Murata |
| C4 | GRM1555C1H220JZ01D | 0402 | 22pF | 1 | Multilayer ceramic capacitors C0G ±5%, 50V | Murata |
| C6 | GRM1555C1H680JZ01D | 0402 | 68pF | 1 | Multilayer ceramic capacitors C0G ±5%, 50V | Murata |
| C7 | GRM1555C1H220JZ01D | 0402 | 22pF | 1 | Multilayer ceramic capacitors C0G ±5%, 50V | Murata |
| C8 | GRM155R71E103KA01D | 0402 | 10nF | 1 | Multilayer ceramic capacitors X7R ±10%, 25V | Murata |
| C10 | GRM155R71C104KA88 | 0402 | 100nF | 1 | Multilayer ceramic capacitors X7R ±10%, 16V | Murata |
| C11 | GRM155R71C104KA88 | 0402 | 100nF | 1 | Multilayer ceramic capacitors X7R ±10%, 16V | Murata |
| C12 | GRM155R71C104KA88 | 0402 | 100nF | 1 | Multilayer ceramic capacitors X7R ±10%, 16V | Murata |
| C13 | GRM1555C1H150JZ01D | 0402 | 15pF | 1 | Multilayer ceramic capacitors C0G ±5%, 50V | Murata |
| C14 | GRM1555C1H180JZ01D | 0402 | 18pF | 1 | Multilayer ceramic capacitors C0G ±5%, 50V | Murata |
| C15 | GRM155R71C104KA88 | 0402 | 100nF | 1 | Multilayer ceramic capacitors X7R ±10%, 16V | Murata |
| C16 | GRM1555C1H680JZ01D | 0402 | 68pF | 1 | Multilayer ceramic capacitors C0G ±5%, 50V | Murata |
| C17 | GRM1555C1H150JZ01D | 0402 | 15pF | 1 | Multilayer ceramic capacitors C0G ±5%, 50V | Murata |
| C18 | GRM1555C1H330JZ01D | 0402 | 33pF | 1 | Multilayer ceramic capacitors C0G ±5%, 50V | Murata |
| C20 | GRM1555C1H150JZ01D | 0402 | 15pF | 1 | Multilayer ceramic capacitors C0G ±5%, 50V | Murata |
| C22 | GRM1555C1H120JZ01D | 0402 | 12pF | 1 | Multilayer ceramic capacitors C0G ±0.5pF, 50V | Murata |
| Inductors | | | | | | |
| L1 | LQW15AN33NJ00D | 0402 | 33nH | 1 | Wirewound Inductor ±5% | Murata |
| L2 | LQW15AN22NG00D | 0402 | 22nH | 1 | Wirewound Inductor ±5% | Murata |
| L3 | LQW15AN33NJ00D | 0402 | 33nH | 1 | Wirewound Inductor ±5% | Murata |
| L4 | LQW15AN1N5C00D | 0402 | 1.5nH | 1 | Wirewound Inductor ±0.2nH | Murata |
| L5 | LQW15AN1N5C00D | 0402 | 1.5nH | 1 | Wirewound Inductor ±0.2nH | Murata |
| L6 | LQW15AN33NJ00D | 0402 | 33nH | 1 | Wirewound Inductor ±5% | Murata |
| L7 | LQW15AN22NG00D | 0402 | 22nH | 1 | Wirewound Inductor ±5% | Murata |
| L8 | LQW15AN18NJ00D | 0402 | 18nH | 1 | Wirewound Inductor ±5% | Murata |
| Crystal | | | | | | |
| Q1 | NX2520SA-32.000000MHZ | nx2520sa | 32.000MHz | 1 | Surface mount type crystal units, ±10ppm, Cload=10pF | NDK |
| Connectors (or P/N equivalent) | | | | | | |
| J1 | 142-0701-201 | SMA Straight | 50 Ohms | 1 | SMA Straight jack receptacle for PCB mount | Emerson Network Power |
| J2 | 142-0701-201 | SMA Straight | 50 Ohms | 1 | SMA Straight jack receptacle for PCB mount | Emerson Network Power |
| POD_IN1 | 929665-08-36-I | HDR2X10 | 2.54mm | 1 | Through hole dual row male connector, double side | 3M |
| P1 | 826629-2 | bridge 2p 2.54mm | 2.54mm | 1 | Through hole vertical header single row - 2 positions | Tyco Electronics |