





| Comment | Description | Designator | Footprint | LibRef | Quantity |
|---------------|---|--|--------------|---------------|----------|
| 3.3V | Typical RED GaAs LED | 3.3V | D0805 | LED | 1 |
| 5V | Typical RED GaAs LED | 5V | D0805 | LED | 1 |
| 10uF | Capacitor (Semiconductor SIM Model) | C1, C2 | CC2012-0805 | Cap Semi | 2 |
| 100n | Capacitor (Semiconductor SIM Model) | C3, C4 | CC2012-0805 | Cap Semi | 2 |
| 20pF | Capacitor (Semiconductor SIM Model) | C5, C6, C14 | CC2012-0805 | Cap Semi | 3 |
| 100nF | Capacitor (Semiconductor SIM Model) | C7, C8, C9, C10, C11, C12, C16, C18 | CC2012-0805 | Cap Semi | 8 |
| 2.2uF | Capacitor (Semiconductor SIM Model) | C13, C15, C17 | CC2012-0805 | Cap Semi | 3 |
| 4.7uF | Capacitor (Semiconductor SIM Model) | C19, C20 | CC2012-0805 | Cap Semi | 2 |
| 0.1uF | Capacitor (Semiconductor SIM Model) | C21, C22 | CC2012-0805 | Cap Semi | 2 |
| BOOT | Typical RED GaAs LED | D1 | D0805 | LED | 1 |
| LED Tricolor | Typical RED GaAs LED | D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12, D13, D14, D15, D16, D17 | 5050_LED | LED Tricolor | 16 |
| LED_Feedback | Typical RED GaAs LED | DF0, DF1, DF2, DF3, DF4, DF5, DF6, DF7, DF8, DF9, DF10, DF11, DF12, DF13, DF14, DF15 | D0805 | LED | 16 |
| FB | Inductor | L1 | CL3225-1210 | Inductor | 1 |
| UART | Header, 4-Pin | P1 | LOCKEDHDR-4 | Header 4 | 1 |
| SWD | Header, 4-Pin | P2 | LOCKEDHDR-4 | Header 4 | 1 |
| CAN | Header, 4-Pin | P3, P4 | LOCKEDHDR-4 | Header 4 | 2 |
| S11154-01 | Photosensitive Diode | PD0, PD1, PD2, PD3, PD4, PD5, PD6, PD7, PD8, PD9, PD10, PD11, PD12, PD13, PD14, PD15 | D0805 | Photoiode | 16 |
| IRFR48Z | HEXFET N-Channel Power MOSFET | Q1, Q2, Q3 | TO-252AA | IRFR48Z | 3 |
| 330R | Semiconductor Resistor | R1, R4 | CR2012-0805 | Res Semi | 2 |
| 4.7k | Semiconductor Resistor | R2, R3, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23 | CR2012-0805 | Res Semi | 18 |
| 100k | Semiconductor Resistor | R5 | CR2012-0805 | Res Semi | 1 |
| 60R | Semiconductor Resistor | R6, R7 | CR2012-0805 | Res Semi | 2 |
| 56R | Semiconductor Resistor | R24 | CR6332-2512 | Res Semi | 1 |
| 5R | Semiconductor Resistor | R25 | CR6332-2512 | Res Semi | 1 |
| 10R | Semiconductor Resistor | R26 | CR6332-2512 | Res Semi | 1 |
| 1k | Semiconductor Resistor | R27, R28, R29 | CR2012-0805 | Res Semi | 3 |
| A | Single-Pole, Single-Throw Switch | SW1 | PUSH SWITCH | SW-SPST | 1 |
| B | Single-Pole, Single-Throw Switch | SW2 | PUSH SWITCH | SW-SPST | 1 |
| BOOT | Header, 3-Pin, Dual row | SW3 | POWER SWITCH | Header 3X2 | 1 |
| RST | Single-Pole, Single-Throw Switch | SW4 | PUSH SWITCH | SW-SPST | 1 |
| LM1117MP-3.3 | 800mA Low-Dropout Linear Regulator | U1 | MP04A_N | LM1117MP-3.3 | 1 |
| STM32F103RBT6 | STM32 ARM-based 32-bit MCU with 128 Kbytes Flash, 64-pin LQFP, Industrial Temperature | U2 | LQFP64_M | STM32F103RBT6 | 1 |
| TJA1050 | 5V to 12V Charge Pump | U3 | SOP-8 | TJA1050 | 1 |
| IR4427 | dual-MOSFET driver | U4, U5 | SOP-8 | IR4427 | 2 |
| 8MHz | Crystal Oscillator | X1 | BCY-W2/E4.7 | XTAL | 1 |
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