

Power select  
 Pull V\_SEL high for M66 modem (4V output)  
 Pull V\_SEL low for BC66-NA modem (3.3V output)

VCC: 3.3V or 4V

**MCU UART**

RX: J1-1 → R225 → MCU\_RX0  
 TX: J1-2 → R226 → MCU\_TX0  
 +V: J1-3 → VBUS  
 GND: J1-4 → GND  
 C1: 0.1uF, C5: 18pF, C7: 18pF, D2: 1N4148, D4: 1N4148  
 PESD5V0L1UB.115, PESD5V0L1UB.115

**MCU RX0**

MCU\_RX0: J1-1 → R225 → MCU\_RX0  
 MCU\_TX0: J1-2 → R226 → MCU\_TX0  
 VBUS: J1-3 → VBUS  
 GND: J1-4 → GND  
 C1: 0.1uF, C5: 18pF, C7: 18pF, D2: 1N4148, D4: 1N4148  
 PESD5V0L1UB.115, PESD5V0L1UB.115

**MCU TX0**

MCU\_RX0: J1-1 → R225 → MCU\_RX0  
 MCU\_TX0: J1-2 → R226 → MCU\_TX0  
 VBUS: J1-3 → VBUS  
 GND: J1-4 → GND  
 C1: 0.1uF, C5: 18pF, C7: 18pF, D2: 1N4148, D4: 1N4148  
 PESD5V0L1UB.115, PESD5V0L1UB.115

**Modem main UART**

RX: J2-1 → R228 → EXT\_RXD  
 TX: J2-2 → R229 → EXT\_TXD  
 +V: J2-3 → VBUS  
 GND: J2-4 → GND  
 C2: 0.1uF, C6: 18pF, C8: 18pF, D3: 1N4148, D5: 1N4148  
 PESD5V0L1UB.115, PESD5V0L1UB.115

**Modem debug UART**

RX: J7-1 → R23 → EXT\_RXD\_DBG  
 TX: J7-2 → R22R → EXT\_TXD\_DBG  
 +V: J7-3 → VBUS  
 GND: J7-4 → GND  
 C21: 0.1uF, C27: 18pF, C30: 18pF, D12: 1N4148, D15: 1N4148  
 PESD5V0L1UB.115, PESD5V0L1UB.115

**MCU SWD**

+V: J3-1 → +BATT  
 GND: J3-2 → GND  
 SWCLK: J3-3 → R221 → MCU\_SWCLK  
 SWDIO: J3-4 → R222 → MCU\_SWDIO  
 RESET: J3-5 → R223 → MCU\_RESET  
 C4: 0.1uF, C9: 18pF, C11: 18pF, C13: 18pF, D6: 1N4148, D7: 1N4148, D8: 1N4148  
 PESD5V0L1UB.115, PESD5V0L1UB.115, PESD5V0L1UB.115

**Service**

+V: J8-1 → +BATT  
 SIG: J8-2 → R25 470R → R26 22R → MCU\_EM4WU6  
 C25: 0.1uF, C29: 18pF, R31: 10k, D16: 1N4148  
 PESD5V0L1UB.115

[illegible]

Filter to reduce noise at AVDD pin (bead + 1x10uF+1x0.1uF)

1x10uF bulk decoupling + 100nF per power pin

VBAT voltage monitor

FLASH

Power control

Service

I2C bus

UART1 (modem control)

UART0

SWD

USER LED

Pin to wake-up MCU from EM4 sleep. Connect reed switch here