

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

Figure 1: PCB layout of the evaluation board. The figure contains five sub-diagrams showing the electrical connections for different components:

- MCU UART:** Shows connections for RX, GND, TX, and +V to pins J1-4. It includes components like P225, P226, C1 (0.1uF), C5 (18pF), C7 (18pF), D2, D4, and MCU_RX0/MCU_TX0.
- MCU RX0:** Shows connections for RX, GND, TX, and +V to pins J2-5. It includes components like P225, P226, C2 (0.1uF), C6 (18pF), C8 (18pF), D3, D5, and EXT_RX0/EXT_TX0.
- MCU TX0:** Shows connections for RX, GND, TX, and +V to pins J3-6. It includes components like P225, P226, C3 (0.1uF), C9 (18pF), C11 (18pF), C13 (18pF), D6, D7, D8, and MCU_SWCLK/MCU_SWIO/MCU_RESET.
- Modem main UART:** Shows connections for RX, GND, TX, and +V to pins J4-7. It includes components like P225, P226, C4 (0.1uF), C10 (18pF), C12 (18pF), D12, D15, and EXT_RX0_DBG/EXT_TX0_DBG.
- Modem debug UART:** Shows connections for RX, GND, TX, and +V to pins J5-8. It includes components like P225, P226, C14 (0.1uF), C15 (18pF), C16 (18pF), D13, D14, and MCU_EM4WU4/MCU_EM4WU5.

The diagram shows the Si7055-A20 sensor module (U8) connected to a +3V3 power source and ground. A 0.1uF capacitor (C59) is connected between the +3V3 line and ground. The module has four pins: 5 (+3V3), 6 (GND), 7 (SCL), and 8 (SDA). The module is labeled U8 and Si7055-A20.

The schematic diagram illustrates the internal architecture of the BC66 module. Key components and their connections include:

- SIM Card Slot:** Connected to the SIM8051-6-0-14 module via pins VCC, RST, CLK, GND, PP, SH, and SIM_DATA.
- Power Management:** Features a 3V3 to +1V8 signal level translator (U2) and a BC66NADA-04 module (U1) for power regulation. The module is powered by VCC, VBAT_BB, VBAT_RF, and VDD_EXT.
- Control and Status:** Includes a BC66PWRKY module (U3) for power key control, a BC66_RESET pin, and a BC66_PWR key. The module also has a BC66_RESET pin and a BC66_PWR key.
- Signal Processing:** The BC66NADA-04 module handles signals like SIM_VDD, SIM_RST, SIM_DATA, SIM_CLK, and SIM_GND. It also has a BC66_RESET pin and a BC66_PWR key.
- Connectors and Passive Components:** The module is connected to a 1909763-1 connector (J9) and includes various passive components like resistors (R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R37, R38, R39, R40, R41, R42, R43, R44, R45, R46, R47, R48, R49, R50, R51, R52, R53, R54, R55, R56, R57, R58, R59, R60, R61, R62, R63, R64, R65, R66, R67, R68, R69, R70, R71, R72, R73, R74, R75, R76, R77, R78, R79, R80, R81, R82, R83, R84, R85, R86, R87, R88, R89, R90, R91, R92, R93, R94, R95, R96, R97, R98, R99, R100) and capacitors (C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C56, C57, C58, C59, C60, C61, C62, C63, C64, C65, C66, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76, C77, C78, C79, C80, C81, C82, C83, C84, C85, C86, C87, C88, C89, C90, C91, C92, C93, C94, C95, C96, C97, C98, C99, C100).