

## Power Requirements

|   |   |
|---|---|
| Power Over Ethernet, only present in the HV version | IEEE 802.3af/at or Passive PoE 36V to 56V |
| DC Jack Connector                                   | 12V                                       |
| Power Consumption                                   | 12W (Max)                                 |

## LED Indicators

| Location | Description |
|----------|-------------|
| DS5      | POWER       |
| DS11     | Ethernet1   |
| DS10     | Ethernet0   |

## SIM Slot Pin Assignment

| SIM Slot Pin |     | SIM Signal  |
|--------------|-----|-------------|
| 1            | VCC | VCC         |
| 2            | RST | SIM_RST     |
| 3            | CLK | SIM_CLK     |
| 4            | CD  | SIM_CARD_IN |
| 5            | GND | GND         |
| 6            | VPP | VPP         |
| 7            | I/O | SIM_DATA    |

## SD Card Socket Pin Assignment

| Pin   | Signal           |
|-------|------------------|
| 1     | SD_DAT2          |
| 2     | SD_CD/DAT3       |
| 3     | SD_CMD           |
| 4     | SD_VDD           |
| 5     | SD_CLK           |
| 6     | SD_VSS/GND       |
| 7     | SD_DAT0          |
| 8     | SD_DAT1          |
| 9     | SD_CD            |
| 10/11 | Cover_GND/SD_GND |

## Serial 4-Pin Connector Pin Assignment

| Pin | Signal             |
|-----|--------------------|
| 1   | VCC – 3.3V         |
| 2   | UART Transmit Data |
| 3   | UART Receive Data  |
| 4   | GND                |

## Serial 6-Pin Connector Pin Assignment

| Pin | Signal     |
|-----|------------|
| 1   | VCC – 3.3V |
| 2   | UART1_RTS  |
| 3   | UART1_TXD  |
| 4   | UART1_RXD  |
| 5   | UART1_CTS  |
| 6   | GND        |

## JTAG Interface Pin Assignment

| Pin | Signal      | Pin | Signal |
|-----|-------------|-----|--------|
| 1   | 3.3V        | 2   | 3.3V   |
| 3   | JTAG_TRST_N | 4   | NC     |
| 5   | JTAG_TDI    | 6   | GND    |
| 7   | JTAG_TMS    | 8   | GND    |
| 9   | JTAG_TCK    | 10  | GND    |
| 11  | NC          | 12  | NC     |
| 13  | JTAG_TDO    | 14  | GND    |
| 15  | JTAG_RST_N  | 16  | NC     |
| 17  | GND         | 18  | GND    |
| 19  | GND         | 20  | GND    |

## USB 3.0 Port Pin Assignment

| Pin | Signal       |
|-----|--------------|
| 1   | VDD          |
| 2   | USB1_HS_DM   |
| 3   | USB1_HS_DP   |
| 4   | GND          |
| 5   | USB1_SS_RX_N |
| 6   | USB1_SS_RX_P |
| 7   | GND          |
| 8   | USB1_SS_TX_N |
| 9   | USB1_SS_TX_P |
| 10  | GND          |
| 11  | GND          |

## miniPCle Slot Pin Assignment

| Top side       |          | Bottom side |            |
|----------------|----------|-------------|------------|
| 1              | WAKE_L   | 2           | +3.3V      |
| 3              | NC       | 4           | GND        |
| 5              | NC       | 6           | NC         |
| 7              | CLKREQ_L | 8           | UIM_PWR    |
| 9              | GND      | 10          | UIM_DATA   |
| 11             | REFCLK-  | 12          | UIM_CLK    |
| 13             | REFCLK+  | 14          | UIM_RST    |
| 15             | GND      | 16          | UIM_VPP    |
| Mechanical key |          |             |            |
| 17             | NC       | 18          | GND        |
| 19             | NC       | 20          | NC         |
| 21             | GND      | 22          | PERST_L    |
| 23             | PERX_N   | 24          | +3.3V      |
| 25             | PERX_P   | 26          | GND        |
| 27             | GND      | 28          | NC         |
| 29             | GND      | 30          | NC         |
| 31             | PETX_N   | 32          | NC         |
| 33             | PETX_P   | 34          | GND        |
| 35             | GND      | 36          | USB_D-     |
| 37             | NC       | 38          | USB_D+     |
| 39             | +3.3V    | 40          | GND        |
| 41             | +3.3V    | 42          | NC         |
| 43             | NC       | 44          | LED_WLAN_L |
| 45             | NC       | 46          | NC         |
| 47             | NC       | 48          | NC         |
| 49             | NC       | 50          | GND        |
| 51             | NC       | 52          | +3.3V      |

## GPIO Pin Mapping

| GPIO Pin | Function        | GPIO Pin | Function         |
|----------|-----------------|----------|------------------|
| GPIO_0   | JTAG_TDI        | GPIO_35  | NC               |
| GPIO_1   | JTAG_TCK        | GPIO_36  | PULL_DOWN        |
| GPIO_2   | JTAG_TMS        | GPIO_37  | PULL_DOWN        |
| GPIO_3   | JTAG_TDO        | GPIO_38  | PULL_DOWN        |
| GPIO_4   | JTAG_RST_N      | GPIO_39  | PCIE_CLK_REQ_N   |
| GPIO_5   | JTAG_TRST_N     | GPIO_40  | NC               |
| GPIO_6   | MDIO            | GPIO_41  | PCIE_W_DISABLE_L |
| GPIO_7   | MDC             | GPIO_42  | NC               |
| GPIO_8   | BISP_UART1_TXD  | GPIO_43  | NC               |
| GPIO_9   | BISP_UART1_RXD  | GPIO_44  | NC               |
| GPIO_10  | BISP_UART1_CTS  | GPIO_45  | NC               |
| GPIO_11  | BISP_UART1_RTS  | GPIO_46  | NC               |
| GPIO_12  | BISP_SPI0_SS0_N | GPIO_47  | MALIBU_RESET_N   |
| GPIO_13  | BISP_SPI0_MISO  | GPIO_48  | PWRDN_WIFI       |
| GPIO_14  | PULL_DOWN       | GPIO_49  | NC               |
| GPIO_15  | PULL_UP         | GPIO_50  | PCIE_WAKE_UP_N   |
| GPIO_16  | BISP_UART0_RXD  | GPIO_51  | PULL_DOWN        |
| GPIO_17  | BISP_UART0_TXD  | GPIO_52  | NC               |
| GPIO_18  | CHIP_IRQ_IN     | GPIO_53  | NC               |
| GPIO_19  | CHIP_RST_OUT    | GPIO_54  | NC               |
| GPIO_20  | NC              | GPIO_55  | PULL_DOWN        |
| GPIO_21  | NC              | GPIO_56  | PULL_DOWN        |
| GPIO_22  | SDIO_CD         | GPIO_57  | NC               |
| GPIO_23  | SDIO_DAT_0      | GPIO_58  | NC               |
| GPIO_24  | SDIO_DAT_1      | GPIO_59  | NC               |
| GPIO_25  | SDIO_DAT_2      | GPIO_60  | NC               |
| GPIO_26  | SDIO_DAT_3      | GPIO_61  | NC               |
| GPIO_27  | SDIO_CLK        | GPIO_62  | PULL_UP          |
| GPIO_28  | SDIO_CMD        | GPIO_63  | NC               |
| GPIO_29  | NC              | GPIO_64  | NC               |
| GPIO_30  | NC              | GPIO_65  | NC               |
| GPIO_31  | NC              | GPIO_66  | NC               |
| GPIO_32  | NC              | GPIO_67  | NC               |
| GPIO_33  | PULL_UP         | GPIO_68  | NC               |
| GPIO_34  | NC              | GPIO_69  | PULL_DOWN        |

## Ethernet 0 Pin Assignment

| Pin | Signal   |
|-----|----------|
| 1   | TX+/POE+ |
| 2   | TX-/POE+ |
| 3   | RX+/POE- |
| 4   | TX+/POE+ |
| 5   | TX-/POE+ |
| 6   | RX-/POE- |
| 7   | RX+/POE- |
| 8   | RX-/POE- |