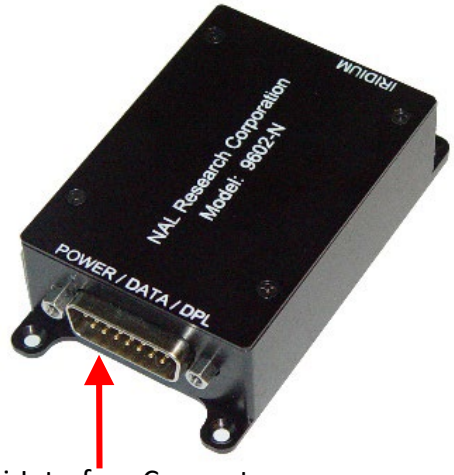
9602-NAL QUICK START GUIDE

Support Phone#: 571-833-2169
Support@Nalresearch.com
451-92695-002B
2023-03-31

DEVICE DESCRIPTION: The 9602-NAL modem is a satellite transceiver comprising an Iridium 9602 transceiver with an extended input voltage range, that allows SBD connectivity to the Iridium satellite network. It does not support voice, circuit-switched data, or Short Message Service (SMS). The 9602-NAL can be controlled by a DTE capable of sending standard AT commands via an RS232 serial port. The 9602-NAL is equipped with four mounting holes, one at each corner. It is recommended to use 6-32 screws to fasten the modem down.

IMPORTANT: The 9602-NAL antenna must have a full view of the sky during transmission

- **DB-15 Multi-Interface Connector**: The multi-interface connector is a male 15-pin miniature D-sub type that includes four interfaces – RS232, DC input power, ON/OFF control line, and TX_ACTIVE.
- **Iridium Antenna Connector:** The 9602-NAL modem uses a single SMA female 50-ohm connector to both transmit and receive messages from the Iridium network.
- **RS232 Data Interface**: This interface allows a connected DTE to utilize the 9602's modem functionality through standard AT and extended sets of AT command



DB-15 Multi-Interface Connector

Iridium SMA Antenna Connector

9602-NAL QUICK START GUIDE

Support Phone#: 571-833-2169
Support@Nalresearch.com
451-92695-002B
2023-03-31

DEVICE DESCRIPTION (continued)

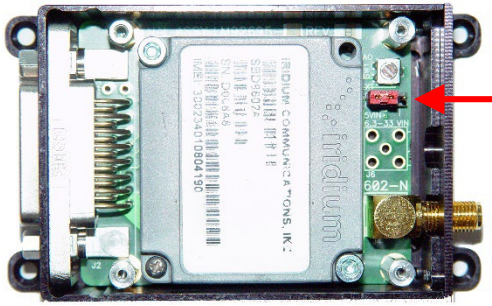
- **Antenna**: NAL Research recommends the SYN7391-C antenna.
  CAUTION: Do not or disconnect the antenna while device is powered.
- **DC Power Input:** The DC power interface comprises two DC power inputs, a ground input, and a control signal. The 9602-NAL accepts either +5 VDC input through pin #1 or +6.5 VDC to +32 VDC input through pin #2. The 9602-NAL is shipped with hardware set for +6.5 VDC to +32 VDC input. It can be changed to +5 VDC input through an internal jumper.

SYNC7391-C

- **Change Input Voltage to +5.0 VDC (Optional)**

  CAUTION: DISCONNECT POWER BEFORE RESETING THE JUMPER

  1. With the modem turned off, remove the plate to find the jumper.
  2. Set the red jumper to desired voltage range: left and center pins for an input voltage of 5 VDC, and center and right pins for 6.5 VDC to 32VDC.



CONFIGURE DEVICE TO OPERATE

1. Turn off modem.
2. Connect the antenna connector to the Iridium connector port on the device.
3. Verify the antenna has full view of the sky and the cable loss between the modem and antenna is <3 dB.
4. Connect a DTE to the DB15 port on the device using the HRC-24-11 Data/Power Cable Assembly.

HRC-24-11
Data/Power Cable Assembly

CONFIGURE DEVICE TO OPERATE (continued)

4. Supply DC power through pin 1 (+5 VDC) or pin 2 (+6.5 VDC to +32 VDC) and pin 3(EXT_GND).
5. Configure the 9602-NAL using AT commands (SatTerm).