

Iridium Satellite Modem Model 9601-D

General Description

Model 9601-D is an Iridium satellite modem designed to operate only in short-burst data (SBD) mode. Similar to a standard land-line modem, the 9601-D can be controlled by a DTE (data terminal equipment) capable of sending standard AT commands via a serial port. A DTE can be a desktop computer, a laptop computer, a PDA, or even a micro-controller. NAL Research offers two different mechanical packing options for the 9601-D—model 9601-D-N and model 9601-D-I. Model 9601-D-N has the same DB25 multi-interface male connector as on the A3LA series and, therefore, can be retrofitted into existing SBD only applications that utilize the A3LA-based products.

Specifications

Mechanical

Dimensions: 4.42" L x 2.42" W x 1.05" D
(112 mm x 61 mm x 27 mm)
Weight: ~0.41 pounds (185 g)
I/O Interface: 25-Pin D-Sub
Antenna: SMA Female
Cooling: Convection
Enclosure: Aluminum/EMI shielding

Electrical

Input Voltage Range: 4.5VDC to 5.5VDC
Input Nominal Voltage: 5.0VDC
Input Ripple Voltage: 40mV pp
Avg. Standby Current: 66mA @ 5.0VDC
Avg. Transmit Current: 350mA @ 5.0VDC
Peak Current: 1.5A @ 5.0VDC



Model 9601-D-N

RF

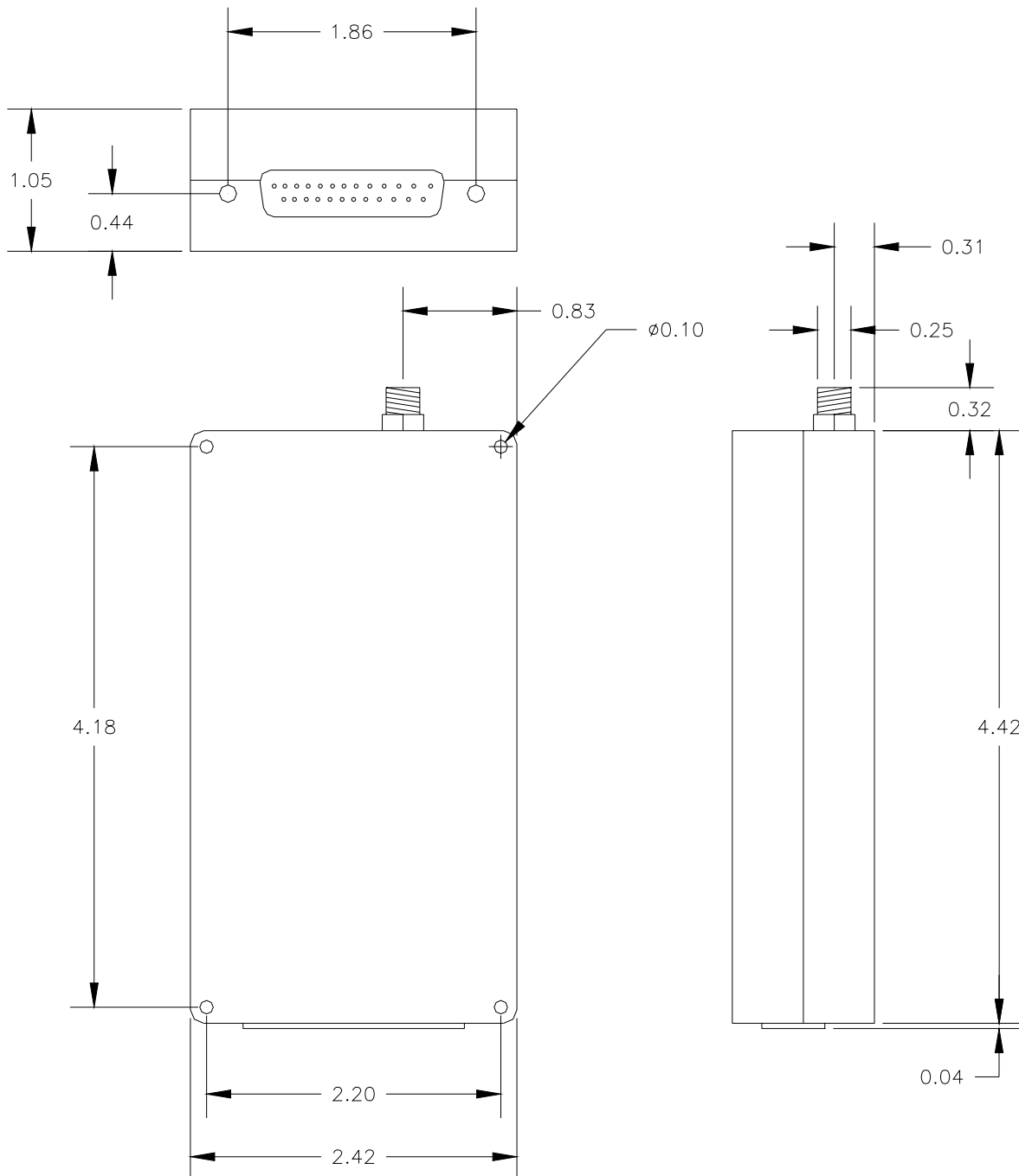
Operating Frequency: 1616 to 1626.5 MHz
Duplexing Method: Time Division Duplex
Multiplexing Method: TDMA/FDMA
Link Margin Downlink: 13 dB average
Link Margin Uplink: 7 dB average

Data I/O

SBD Mobile Originated: 205 Bytes/message
SBD Mobile Terminated: 135 Bytes/message
Hardware Interface: RS232
Software Interface: AT Commands

Environmental

Operating Temperature: -22°F to +140°F
(-30°C to +60°C)
Operating Humidity: < 75% RH
Storage Temperature: -40°F to +185°F
(-40°C to +85°C)
Storage Humidity: < 93% RH



NOTE: All dimensions are in inches

General Description

Model 9601-D-I is shown in the picture to the right.

Specifications

Mechanical

Dimensions: 4.16" L x 2.21" W x 0.51" D
(106 mm x 56 mm x 13 mm)
Weight: ~0.26 pounds (120 g)
I/O Interface: 26-Pin Samtec EHT Series
Antenna: SMA Female
Cooling: Convection
Enclosure: Aluminum/EMI shielding



Model 9601-D-I

Electrical

Input Voltage Range: 4.5VDC to 5.5VDC
Input Nominal Voltage: 5.0VDC
Input Ripple Voltage: 40mV pp
Avg. Standby Current: 66mA @ 5.0VDC
Avg. Transmit Current: 350mA @ 5.0VDC
Peak Current: 1.5A @ 5.0VDC

RF

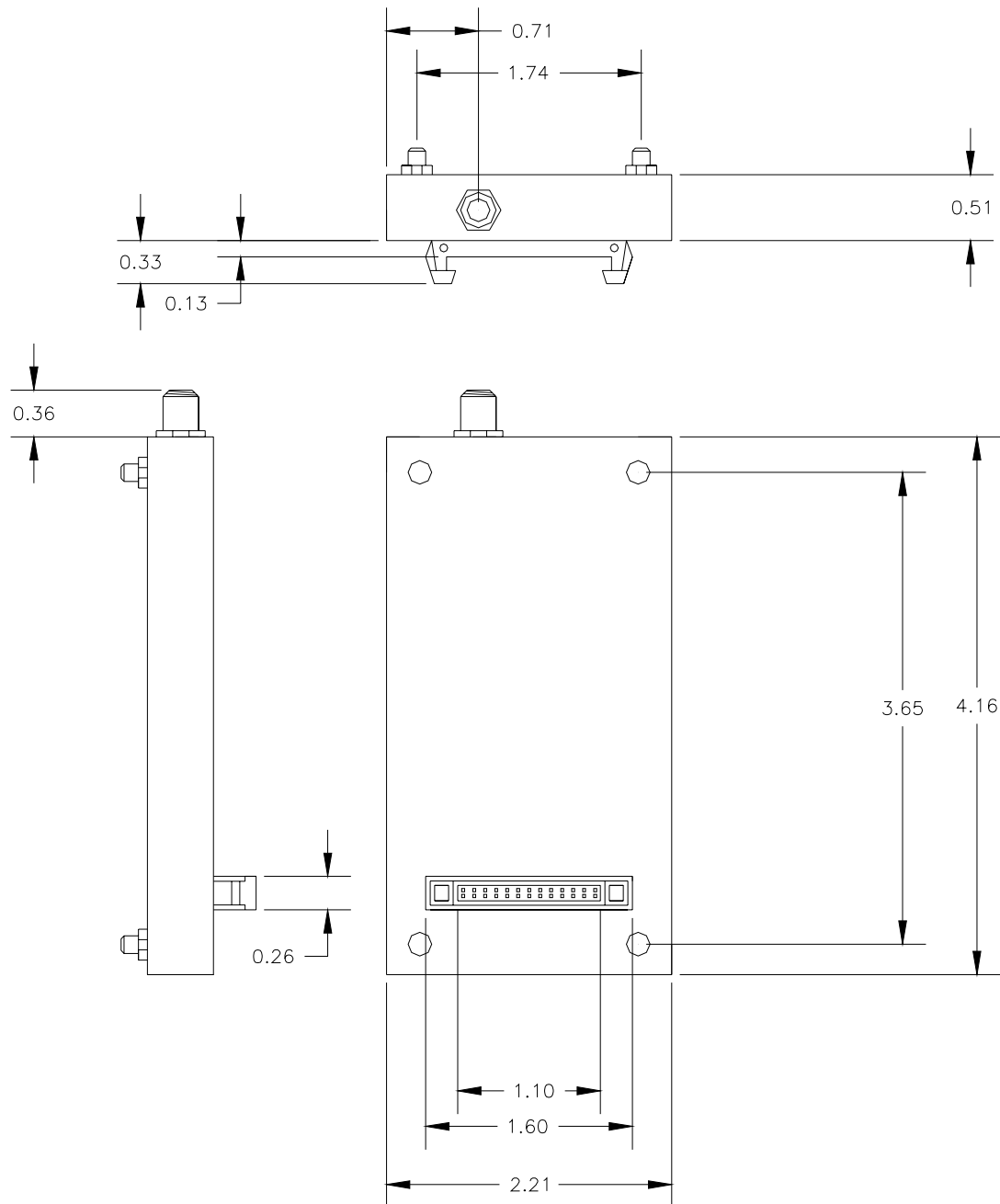
Operating Frequency: 1616 to 1626.5 MHz
Duplexing Method: Time Division Duplex
Multiplexing Method: TDMA/FDMA
Link Margin Downlink: 13 dB average
Link Margin Uplink: 7 dB average

Environmental

Operating Temperature: -22°F to +140°F
(-30°C to +60°C)
Operating Humidity: < 75% RH
Storage Temperature: -40°F to +185°F
(-40°C to +85°C)
Storage Humidity: < 93% RH

Data I/O

SBD Mobile Originated: 205 Bytes/message
SBD Mobile Terminated: 135 Bytes/message
Hardware Interface: RS232
Software Interface: AT Commands



NOTE: All dimensions are in inches