SBD Pro

Short Burst Data Acquisition Terminal

The easy way to add a satellite link to your remote application.

The SBD Pro terminal is an extremely versatile and efficient solution for gathering remote data and transmitting it using the Iridium Short Burst Data (SBD) service. The SBD Pro monitors and records user-connected switches and voltage inputs, combines this data with built-in GPS data, temperature readings, UTC time, and custom text messages, and securely transmits to your desktop or server application. Status of practically any type of sensor can be transmitted or used as a transmission trigger. You configure the SBD Pro to only transmit the data you want at times you want—minimizing airtime costs. The SBD Pro is easily configured in three different ways: via a standard e-mail SBD message, using the optional Ontec Web Services package, or through a direct RS-232C connection.

Key Features

- Easily configured to any application
- Uses Iridium's SBD service for lowest transmission costs
- Configurable transmit trigger conditions from simple to complex
- Built-in GPS, temperature, and UTC time
- Switch and Digital I/O
- Voltage or Analog I/O
- RS-232C data port
- Status LEDs
- Rugged, water-resistant housing
- Wide-range power input

Suggested Applications

- Distress messaging with GPS coordinates
- Asset tracking
- Sensor-event notification
- Waypoint marking
- Remote sensor monitoring
- Geo-fencing

Profile: SBD Pro for Asset Tracking

Amazon Tours manages a small fleet of bass fishing boats for hire in the Amazon jungle. At closing time, if a boat hasn't returned, they have a big problem: their customer, along with their asset, could be lost in the rainforest.

Amazon Tours needs a cost-effective system that will track its assets and increase customer safety. Airtime costs are a concern, and they do not want to incur tracking costs while the boats are home at the dock.

SBD Pro is the Solution

Outfitting the boats with SBD Pro units will provide GPS positioning every 30 minutes. The SBD Pro location logic will detect if the boat is still at the dock and won't transmit any data unless the boat is out on the water.

Amazon Tours can also configure a distress button to allow customers to instantly call for help through the SBD Pro. A console light will flash once the alert is acknowledged at the Amazon Tours office, so customers will know help is on the way. **SBD Pro improves asset tracking, customer safety, and customer satisfaction.**

IRIDIUM ontec

Applied Satellite Engineering, Inc.
Scottsdale, Arizona USA
www.ase-corp.com · info@ase-corp.com

User Features

Quantity	Description	Range/Value
1	Iridium Short Burst Data (9601 SBD)	N/A
1	RS-232C Data Port	N/A
3	Switch or Digital Inputs (TTL/CMOS)	0, 5V (closed, open)
1	Switch or Digital Output (TTL/CMOS)	0, 5V (on, off)
2	Voltage or Analog Inputs (8-bit)	0 – 5V
1	Voltage or Analog Output (8-bit)	0 – 5V
3	Status LEDs (Power, Registered, Connected)	on/off

User Configuration Parameters

Description	Range/Value
Set active I/O to monitor	GPS, data I/O, temperature
Data sample rate	1 second to 12 hours
Data transmit rate	1 minute to 24 hours
Transmit Conditions	Configurable via SBD or Ontec

Operating Parameters

Description	Range/Value
Operating Voltage	9 – 32VDC (unregulated, 100mV max ripple)
Power Consumption: Standby	0.5W
Power Consumption: Average	1.75W
Power Consumption: Peak	10W
Operating Temperature	–30C to +60C
Storage Temperature	–40C to +85C
Operating Humidity	≤ 75% RH
Storage Humidity	≤ 93% RH
Exposure	Water resistant

Internal Features

Description	Range/Value
Temperature Monitor	–25C to +85C (accurate within +/– 2C)
GPS Coordinates	Latitude/Longitude, Altitude (see GPS specs)
Configuration Storage	

GPS Specifications

Description	Range/Value
Channels	up to 12
Accuracy: Position	5–25 meter CEP without SA (nondifferential)
Accuracy: Velocity	0.1 meters/second, without SA
Accuracy: Time	1 microsecond synchronized GPS time
Sample Rate	Configurable
Report Rate	Configurable

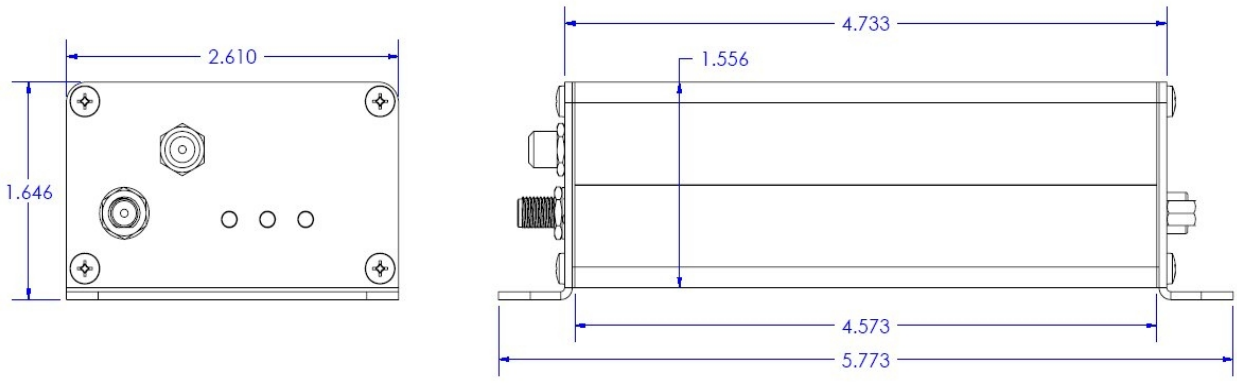
Antenna Specifications (Iridium)

Description	Range/Value
Connector Type	SMA Female
Impedance	50 Ohm Nominal
Gain	3dBi
Polarization	RHCP
VSWR (max operational)	1.5:1

Antenna Specifications (GPS)

Description	Range/Value
Type	Active
Connector Type	SMA Female
Impedance	50 Ohm Nominal
System Gain	31dBi at 90 degrees
Polarization	RHCP
VSWR	2:1

Physical Dimensions



Applied Satellite Engineering, Inc.
Scottsdale, Arizona USA
www.ase-corp.com · info@ase-corp.com