

## IRIDIUM™ SATELLITE TRACKER: MODEL 9602-LP



- ✓ Programmed for either DoD or commercial gateway
- ✓ Ultra-low power consumption
- ✓ 256-bit AES encryption
- ✓ Real-time two-way communications allowing remote configuration from a command center workstation
- ✓ Real-time GPS reporting
- ✓ Pole-to-pole global coverage
- ✓ Weighs less than 5 ounces
- ✓ Volume of 2.7" x 2.2" x 0.9"
- ✓ Easy to install and can be used as personnel tracking device
- ✓ Emergency alert switch
- ✓ LEDs displaying satellite status, and successful transmissions
- ✓ Integrated motion sensor
- ✓ Seven I/Os for sensor interfaces
- ✓ One serial for sensor interface
- ✓ 50-channel GPS receiver with -160 dBm sensitivity

### IRIDIUM™ SATELLITE TRACKER: MODEL 9602-LP

The 9602-LP is a pocket-size, low-cost, satellite tracker designed to operate with the Iridium low-Earth orbit satellite network. It is a self-contained unit relying on an internal micro-controller/GPS receiver for operation. The 9602-LP measures 2.7" x 2.2" x 0.9", weighs less than 5 ounces and can be attached to high value, un-tethered or non-powered assets such as shipping containers, barges, railcars, trailers, buoys or even to a person. It is also being used by the militaries to track environmentally demanding platforms including helicopters, fixed wing aircraft, unmanned aerial vehicles, rockets, high altitude balloons, ships, speed-boats, ground vehicles and hand-emplaced and air-deployed remote sensors.

The 9602-LP is designed with ultra-low power consumption electronics. At stand-by mode, the unit draws less than 65µA in the range of 3.5VDC to 5.5VDC input. Therefore, with a 2A-Hr Li-battery (the size of an AA Alkaline battery), it is capable of delivering uninterrupted service of up to two years with two reports per day. Battery life can be further extended by using a built-in motion sensor to reduce reporting frequency when a platform is not in motion.

The 9602-LP can send either a standard or a 256-bit AES encrypted GPS report at a pre-programmed interval ranging from once every four seconds to once every seven days. The interval can be changed remotely while the unit is in the field. There is an available serial port that can be used to communicate with an external sensor or data terminal equipment (DTE) such as a PDA. There are also seven discrete I/Os for external sensor interfaces as well.

The 9602-LP has a guarded Emergency switch to alert the recipient of an emergency situation as well as to indicate proper operation of the tracker. It has five LEDs providing the status of power input, GPS fix, Iridium connection, SBD transmission and emergency alert.

9602-LP SATELLITE TRACKER

POWERED by the IRIDIUM NETWORK



# IRIDIUM™ SATELLITE TRACKER: MODEL 9602-LP



- ✓ Pocket-size, self-contained satellite tracker
- ✓ Ultra-low power consumption
- ✓ AES 256-bit encryption both transmit/receive
- ✓ Two-way communications
- ✓ Real-time reporting
- ✓ Truly global coverage

## Model 9602-LP Specifications

### Mechanical

Dimensions:	2.73" L x 2.17" W x 0.94" D
Weight:	4.8 oz.
I/O Interface:	15-Pin D-Sub
Antennas Interface:	SMA female connectors
Cooling:	Convection
Enclosure:	Aluminum (hard-plastic is available for light-weight version)

### Electrical

Input Voltage Range:	3.6VDC to 5.5VDC or 6.5VDC to 32VDC
Input Nominal Voltage:	5.0VDC
Power consumption during standby:	Less than 65 $\mu$ A @ 5.0VDC
Power Input Type:	External DC power

### Iridium RF Board

Operating Frequency:	1616 to 1626.5 MHz
Link Margin Downlink:	13 dB average
Link Margin Uplink:	7 dB average
Average Power Transmission:	< 1.0 W

### GPS Receiver

Receiver Type:	NEO-6Q, 1575.42 MHz (L1), 16-channel, C/A code
Accuracy:	2.5 m CEP
Update Rate:	5 Hz
Start-up Times:	1 second hot-starts, 28 seconds warm- and cold-starts
Sensitivity:	-160 dBm

### Environmental

Operating Temperature:	-40°F to +185°F
Operating Humidity:	< 75% RH