Product Datasheet

ITAS Iridium Transceiver Antenna System
Communication solutions from Hirschmann

The ITAS advantage

Developed in cooperation between Hirschmann Car Communication, Quake Global and Inthinc the ITAS is an efficient, satellite add-on solution, allowing customers to effortlessly connect to Iridium's (Short Burst Data) SBD satellite network. It is fully qualified and certified to operate through harsh environments. The ITAS' simple installation and integration make it optimal for any developer who is facing an accelerated time-to-market requirement. This functionality significantly reduces development time and costs, and makes the ITAS ideal for use in applications for the M2M market, including remote asset tracking and monitoring solutions.

Simply—the latest modem and circuit technology paired with best antenna performance and high-end quality in an Iridium certified communication module to deliver maximum flexibility for advanced system designs.

The simple way of getting Iridium to play

Having all your communication needs plug-and-play ready—that is the leading idea behind the ITAS Iridium Transceiver Antenna System.

Covering the entire RF and modem integration the ITAS already has the Iridium 9602 SBD, the Iridium antenna, serial data interface and the power regulation circuit on-board. A M12/8 connector interfaces to the customer hardware.

Designed to communicate Iridium Short Burst Data (SBD) it is possible to send Mobile Originated (MO-SBD) and Mobile Terminated (MT-SBD) messages.

Since there is no RF cable routing outside of the Q-Puck unit, higher network performance is achieved due to the elimination of RF cable loss.

Features

- All-in-one solution—all out of one hand
- Integrated Iridium 9602 SBD transceiver
- Integrated power regulation circuit for 8-32V power supply
- 5V version on-request
- Transient and reverse voltage protection
- RS-232 interface (3–wire)
- Screw mount or Magnetic mount
- On/Off signal line optional
- Tamper detect and network status line
- Molded sealing gasket
- Iridium certified
- Competitive cost even at lower volumes
- Extension cables available upon request

ITAS 832SP

Benefits

- Reduction of complexity in customers system
- Accelerated time-to-deployment
- No RF cable routing outside of the ITAS unit
- Higher performance - elimination of RF cable-loss
- Significant cost reduction
- Certified communication device
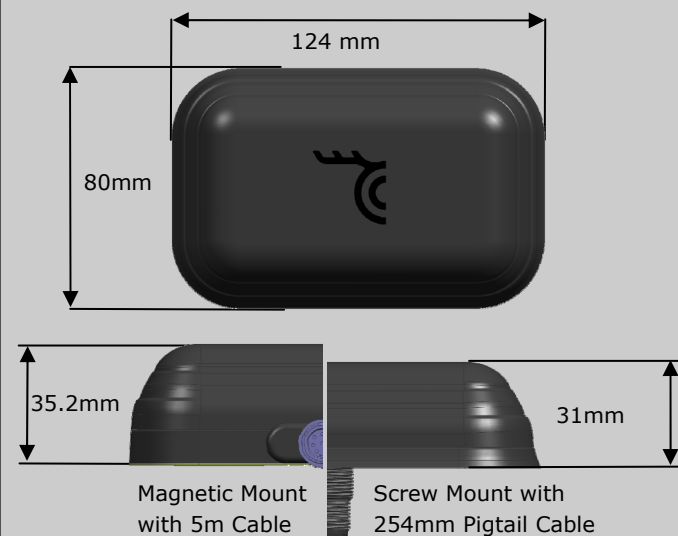
Product Specification

Communications – IRIDIUM

Transmit Freq:	1616 – 1626.5 MHz
Transmit Power:	1.6W [1]
Max Message Size:	Tx 340 Bytes Rx 270 Bytes [1]
Message Latency:	20 sec (typ) [1]
Initial Startup delay:	30 sec (standard); 3 sec optional[2]

[1] according to Iridium 9602 Modem Specification and subject to change
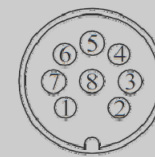[2] delay of initial power up

Power

External Power Source:	8—32 VDC (5VDC optional)
Power Consumption:	1 Amp max transmit
	65mA Standby
External on/off signal line:	Optional—enabled / disabled
Transient Protection:	SAE J1113/11[1]/12
Reverse Voltage Protection:	24V tested

[1]Compliant to test-pulses 1, 2A, 2B, 3A, 3B, 4, 5B (load dump transient suppressed)

Dimensions / Mechanicals

Length/Width/Height:	124.3mm/80.3mm/31mm
	(35.2mm for magnet mount)
Weight:	ca. 540g
Mounting options:	Through hole (hole diameter 15mm)
	magnetic mount option available 2013

124 mm

80mm

35.2mm

31mm

Magnetic Mount
with 5m Cable

Screw Mount with
254mm Pigtail Cable

Data Interfaces

Type:	1 Serial RS-232C
Default baud rate:	19200 bps
Interface protocol:	AT Command Set
Flow control:	Software
Connector:	M12-8 (3-wire RS232C)
Cable:	254mm multicond. Screw Mount
	5m multicond. Magnetic Mount
Extension Cables:	Available on request

Pin	Male M12/8 on antenna module
1	Chassis Gnd
2	Signal Gnd
3	Rx (see note)
4	Tx (see note)
5	Power in
6	On/Off Control
7	Network status
8	Tamper detect

M12/8P male

M12/8P female

Note: The screw mount module carries a M12/8P male connector. The Magnet mount module carries a M12/8P female connector. The *Rx* and *Tx* pins are relative to the antenna module.

Environmental Specification

Operating Temperature:	-40C to +85C
Storage Temperature:	-40C to +85C
Low Pressure storage:	up to 16hrs at 40,000 ft.
Humidity:	SAE J1455 (test conditions avail.)
Cyclic humidity:	4 days @ -40 to 85C
Thermal Shock:	36 4hr cycles; -40 to 85C
Shock:	SAE J1455
Vibration:	SAE J1455
Protection Class:	IP66

Certifications (including pending)

Iridium, FCC, CSA, CE

Available Versions

Screw Mount	8-32V, on/off line enabled,	HIRD-SX-0129x-01
Screw Mount	8-32V, on/off line disabled,	HIRD-SX-0129x-30
Magnet Mount	8-32V, on/off line enabled,	HIRD-MX-0128x-01
Magnet Mount	8-32V, on/off line disabled,	HIRD-MX-0128x-30
Screw Mount	5V version	Upon request

Contact us to discuss your application:

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