

SATRAD MATRIX iSeries

Seamlessly interconnect Satellite and terrestrial PTT networks together with the only solution that has SmartMessageSM technology

The **SATRAD MATRIX iSeries** is a reliable and easy to use PTT system. Available in both a compact enclosure for mobile applications and a rack mount for deployment in emergency communications and dispatch centers, the **SATRAD MATRIX iSeries** may be integrated with NI-Track and other geographic information systems.



The **SATRAD MATRIX iSeries** is designed with reliability and ease of use in mind. It is the only product that incorporates SmartMessageSM technology to ensure your messages are delivered even when there are temporary interruptions in connectivity. SmartMessageSM maintains message context, for example if a mobile user is sending a message and the vehicle enters a tunnel, the **SATRAD MATRIX iSeries** will detect the loss of signal. When the vehicle exits the tunnel and connectivity is restored, the **SATRAD MATRIX iSeries** re-transmits the entire voice message so that a dispatcher (or other message recipient) maintains message context.

The **SATRAD MATRIX iSeries** integrates with traditional radio. Multiple users may remain connected with dispatch using their vehicle as a mobile repeater. Radio users may continue to operate their radios normally, there is no waiting for “go ahead” tones. Tight integration between the **SATRAD MATRIX iSeries** and the satellite communications network ensures consistency of operation and ease of use.

Users of the **SATRAD MATRIX iSeries** with radio, have the best of both worlds; ubiquitous coverage, compact devices and low-system costs. **SATRAD MATRIX iSeries** radio integrated solutions are ideal for first responders, remote oilfield crews or any user requiring compact, portable communicators to extend coverage into buildings and other locations where a clear view of the sky is not possible.

Multiple Talk Groups

Talk groups / communications channels are easily selectable from the ergonomic handset

Control Head

A Control Head option featuring a traditional hand held microphone with PTT button and an external speaker is available. The look and feel is similar to traditional radio. The powerful speaker is ideal for deployment in noisy or off-road vehicles.

Radio Integration

Sophisticated interfaces enable integration with a wide range of mobile radios. If your radio is not on our approved list, Network Innovations will work with you to integrate your radio and develop the necessary cabling.

Handset with Display

A slim handset with integrated display and keypad is available. The handset supports telephony and offers the user a degree of privacy while making a call.

The display provides status information relating to the satellite connection, the selected talk group / communication channel as well as providing a means for the user to adjust the settings to suit their specific preferences.

The handset enables the selection of talk groups / communications channels.

Installation

Mobile units feature a compact rugged design with four external mounting points. Interface points are fitted with locking screws or snap-lock connectors.

Network

SATRAD MATRIX iSeries units operate over the Iridium global network providing pole-to-pole coverage.

Specifications

Dimensions (Mobile Enclosure)	205 x 222 x 55mm (8.1" x 8.75" x 2.2")
Dimensions (Rack Enclosure)	356 x 426 x 43mm (14" x 16.8" x 1.7") 1 u of 19" computer rack
Weight (Mobile Enclosure)	2 kg (4.4 lbs)
Weight (Rack Enclosure)	4.28 kg (9.43 lbs)
Power Consumption	9.5 - 34 VDC - 1.5 Amp 100 - 240 VAC - 3 Amp
Cooling	Mobile - convection Rack - forced air
Analogue Inputs / Outputs	Console, Auxiliary, Microphone, Handset
Analogue I/O Configuration	Balanced 600 ohm
Total Harmonic Distortion	< 0.1%
Frequency Response	40 - 5,000 Hz +/- 3 db
Signal to Noise	> 50 db
Level	-24 dBm - +12 dBm
Relay	240 VAC 5 Amp switching 2 Amp continuous
Communications	RS-232, RS-485, IEEE 802.3 LAN via RJ-45
Speaker Amplifier	15 Watt
GPS	NMEA proprietary sentences
Protocol	UDP/IP, IPv4
Target Specification	IP address or DNS resolvable host name, plus Berkeley services port number