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The Sentry-H™ provides high-power voice and data in a single RF unit. The Sentry-H™ delivers second-generation digital voice, uniquely available customizable frequency hopping, embedded GPS, 3G ALE, and IP/USB connectivity. The Sentry-H™ is suited for both mobile and base configurations without the need for an external amplifier. The system features a smart handset with an intuitive menu system with multiple language options and support for H250 handsets and accessories.

Key Features of the Sentry-H™ include:
Future-proof SDR design
Rugged smart handset with color display and integrated GPS
Multi-language user interface
Optimized for mobile and base
150 W PEP
Wide range of Voltage inputs for use with any power source
Second Generation Digital Voice
STANAG/MIL-STD-188-110B data waveforms (up to 19k2 bps)
AES-256 digital COMSEC
Frequency Hopping
MIL-STD-188-141B ALE
Waterproof MIL-STD-810G construction

IP/USB Connectivity
Interoperable with 2110M Manpack
H-250 Accessories support
Worldwide service and support

The Sentry-H is suited for military organizations that demand uncompromised, secure long range voic and data communications. With 150W of RF power, it has been designed in consultation with military users to be small and light for simple integration into new and retrofit vehicle and base station configurations.
Sentry-H is available with an ergonomic smart handset with a color, high-resolution multi-language interface.

SOFTWARE DEFINED ARCHITECTURE
Sentry-H uses the latest high-performance Digital Signal Processor (DSP), Field-Programmable Gate Array (FPGA) and system on chip (SoC) technology. Using a field proven SDR platform based upon the Envoy with thousands of hours of operation in the field, Sentry-H delivers market-leading performance and future upgradability via software updates.
Software Defined Architecture enables military signals organizations to install new capabilities, suppo evolving standards and ensure sustainability.

RUGGED AND EASY-TO-USE SMART HANDSET
The Sentry-H smart handset features a large color display with complete radio and configuration control via the easy to use keypad and icon based menu system. With a loudspeaker mode, built-in GPS receiver/antenna, and USB programming port, the Sentry-H handset provides access to key functionality at the operator’s fingertips.

HIGH POWER FOR BASE AND MOBILE CONFIGURATIONS
The Sentry-H is the military industry’s first HF radio delivering 150W of RF power without the added cost, weight and installation complexity of an external amplifier. The in-built power amplifier provides full-duty cycle performance across the complete HF band for all supported modes. Designed for maximum efficiency and a wide range of DC input voltages, the Sentry-H can be used in all vehicle ar other battery based systems.
The rugged RF unit is made out of a high-grade metal cast chassis and exceeds MIL-STD-810G providing confidence to communicate no matter what the operating conditions.
The Sentry-H™ addresses the most important issues for operators of tactical radios — security,

SECURE VOICE COMMUNICATIONS
Sentry-H™ comes with second generation Digital Voice technology providing a significant improvement in High Frequency (HF) voice communications. A full digital mode coupled with highly optimised vocoder technology provides voice quality similar to that experienced with cellular phones. The Sentry-H™ advanced and unique digital voice codec allows it to transmit an receive in signal conditions that competing radios would simply not be able to communicate.

A range of COMSEC options are available with the Sentry-H, from CES-128 grade voice encryption through to full AES-256 encryption of digital voice and STANAG/MIL-STD data. The AES-256 encryption supports 256 by 64 bit keys with additional layers of protection possible by incorporating unique radio id's.

All voice encryption options for Sentry-H can be activated by a hotkey fully integrated with core radio functions like Selcall and ALE calling to ensure simplicity of operation. It is also possible to configure Sentry to automatically enable encryption on specified networks.

Key Management software is used to generate the key files, and Key Fill software or a USB memory stick may be used to load pre-defined operational parameters into the radio.

SECURE CHAT AND EMAIL COMMUNICATIONS

The Sentry-H is hardware ready for data communications and is delivered with a 2400 bit/s robust dat modem as standard. This modem is supported with a Chat application which provides peer-to-peer te chat, email, and file transfer with an easy to use menu in multiple languages.

With a software install the Sentry-H may be upgraded to full MILSTD/ STANAG data capability with data rates up to 19k2 bps with Independent Sideband (ISB) using an HF email application.

TRANSEC VIA FREQUENCY HOPPING

The Sentry-H can be enabled with Frequency Hopping capability to prevent third party interception of transmitted communications. A unique feature of the Sentry-H™ is the ability to customise the Frequency Hopping vectors. Operators can select from up to 31 user programmable hop plans, each comprising a hop name, rate, bandwidth and encryption key adding an additional layer of security not possible with competing transceivers.

Additional information security can be achieved with the use of one-time session PIN's, and also combining Frequency Hopping with CES-128 voice encryption.

MIL-STD-188-141B ALE (Automatic Link Establishment)

Sentry-H delivers MIL-STD-188-141B ALE and FED-STD-1045 ALE capability as standard, ensuring interoperability with other transceivers using these protocols. It comes with advanced link management technology (CALM™), which improves the performance of standard ALE by time stamping the channel quality (LQA) information. The ALE call system is fully integrated in the software providing a seamless transition between channel linking and subsequent operations such as data transfers.

IP /ETHERNET / USB CONNECTIVITY

Sentry-H IP based design facilitates remote access and the Handset USB port connection to the transceiver programming application. Alternatively, a conventional USB memory stick can be connected for radio profile setting, security key fill and firmware upgrades in the field.

GPS SUPPORT
Sentry-H has embedded GPS receivers in the RF Unit and Handset with GPS, GLONASS and BEIDOU navigation systems supported. The Sentry-H RF Unit has a connection point for an external remote GPS antenna if needed. An operators distance and bearing from a remote HF station or waypoint can be displayed graphically via the handset user interface.

Applications of the Sentry-H™ include; military, border security, paramilitary, peace keeping, drug interdiction etc.

The Sentry-H™ can be integrated with other communication systems in the AT Communication International product range to provide multi-frequency, multi-agency applications including asset tracking, situational awareness and mission planning software and hardware platforms.

AT Communication is pleased to launch the Sentry-H™ and provide our customers with the latest generation of tactical military radio with a combined feature set significantly outperforming transceiver currently available in the HF market.

For more information, please do not hesitate to contact us via this link
https://at-communication.com/en/hf_ssb_military/at/sentry-h_sdr_hf_radio.html

NEXT →