

MANPACK

SENTRY-H 5110-MP



KEY FEATURES

- Best in class, size, and weight
- Software Defined Radio
- 30 W power output
- Man portable usage up to 79 hour battery life
- Rugged and waterproof design
- Intuitive icon based User Interface
- Optional smart handset with colour display
- Built in front panel speaker
- IP connectivity
- Exceptional RF performance
- Digital Voice TWELP/MELPe 2400/1200 bit/s
- Digital voice message call
- Standards based:
 - FED-STD-1045 ALE
 - 3G ALE
 - SELCALL
- Worldwide Codan service and support

Codan's Sentry-H 5110-MP delivers a rugged man-portable Software Defined Radio (SDR) solution for organisations that demand uncompromised voice and data communications while on the move.

The 5110-MP forms an integral part of the Sentry-H product family and is one of the smallest, lightest form factor manpack HF radios available, delivering a powerful 30 W RF power.

PROVEN SOFTWARE-DEFINED ARCHITECTURE

Codan's 5110-MP uses the latest-generation high-performance Digital Signal Processor (DSP). Built upon a proven SDR platform with tens of thousands of hours of operation in the field, the 5110-MP delivers market-leading performance and future upgradability through software updates that support evolving standards and ensure sustainability.

IP/ETHERNET/USB CONNECTIVITY

The 5110-MP's IP based design facilitates remote access, while the front panel or 2320 Handset USB port provides a convenient point for connecting the Codan TPS transceiver programming and Codan data applications. Alternatively, a conventional USB flash drive can be connected for radio profiling in the field. Direct access to the optional 3G ALE data modem capabilities is possible via IP connection for customised data solutions and IP data.

SWAP OPTIMISED

The 5110-MP can be configured with a standard size, high capacity BB-2590 style rechargeable battery, resulting in an overall unit weight of less than 4.7 kg and providing an industry leading battery life of up to 79 hrs.

ADVANCED ALE

The 5110-MP uses the latest generation 3G ALE technology providing faster linking and data capabilities. Critical messages are transferred securely using link protection. Synchronised scanning provides more efficient use of available spectrum.

DIGITAL VOICE

Codan's second generation digital voice technology utilises MELPe or TWELP to provide a major improvement in High Frequency (HF) voice communications. A fully digital mode, coupled with highly optimised vocoder technology, provides clarity and connectivity when traditional methods fail.

DATA WAVEFORMS

The 5110-MP is hardware ready for data mode. The optional 3G ALE provides fast linking and data capability and is capable of exceeding the performance experienced with traditional data options. Codan 3G ALE supports all call types including digital voice message calls and SMS text.

GPS SUPPORT

The radio's front panel has a connection point for an external remote GPS antenna. Your distance and bearing from a remote HF station or waypoint can be displayed graphically via the user interface.

WARRANTY, SERVICE, AND SUPPORT

Codan provides proven product reliability and performance, backed up by our standard three year warranty.

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SOFTWARE APPLICATIONS

- TPS-M Radio Programming Software
- RTS Tracking Software
- SprintChat and SprintNet
- Virtual Control Point (VCP)

SPECIFICATIONS

GENERAL

Frequency range	Transmit: 1.6 to 30 MHz (optional: 1.5 to 30MHz) Receive: 250 kHz to 30 MHz
Power output	30 W PEP $\pm$ 1dB (two-tone or voice), user-programmable in 1W steps (low/medium/high)
Channels	Up to 1000 entries
Contacts	Up to 500 entries
HF networks	Up to 20 networks (simultaneous scanning)
Presets	Up to 100 user defined presets
Input voltage range	13.8 V DC nominal, negative earth Functional range: 10 V to 17 V DC
Frequency stability	$\pm$ 0.3 ppm for -30°C to $+60^{\circ}\text{C}$
Supply current	Transmit: output power 30 W, two-tone 3 A to 4.5 A CW or average speech 1.5 A for battery life calculations Receive: no signal < 0.3 A typical, 0.35 A maximum
Programming	TPS-M Radio Programming Software, USB flash drive
Language support	English, Spanish, French, Arabic, Dari, Pashto, Portuguese, and Polish
Compliance	UKCA, CE compliance available, FCC Part 90, AS/NZS 4770, AS/NZS 4355, IC RSS-125

RF

Modes	Single Sideband USB, LSB (J3E), AM (H3E), CW (J2A), AFSK (J2B), FSK (F1B), ISB (B7D or B2B), Software Defined
Duty cycle	100% voice and data
Receive specifications	Sensitivity: SSB: -125 dBm (0.12 μ V) for 10dB SINAD Selectivity: >65 dB at -1 kHz at -1 kHz +4 kHz SCF (USB)
Transmitter specifications	Spurious and harmonic suppression: >65 dB below PEP Intermodulation products: >31 dB below PEP

ELECTRICAL AND MECHANICAL

Size	Radio with regular battery box: L: 324 x W: 245 mm x H: 96 mm (with handles)
Weight	Radio with regular battery box (without battery): 3.23 kg Radio with regular battery box and 17.4Ah battery: 4.65 kg
Interfaces	USB (front panel and Handset), GPS antenna, Ethernet via adaptor (TCP/IP, supports remote control)
Temperature range	Operational at -30 to $+60^{\circ}\text{C}$; 95% RH maximum, non-condensing (-40 to $+70^{\circ}\text{C}$ reduced performance with suitable battery)

Values noted are typical. Equipment descriptions and specifications subject to change without notice or obligation.

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