HH3100 Series

Spectre M® Multi-Band Tactical Handheld/Mobile SDR Transceiver

SPECTRE™ M **DATRON**

Datron's Spectre M® family of Software Defined Radios offer secure communications in ruggedized form-factors, provide a sophisticated feature-set, and utilize a simplified user interface for ease of operator training. The Spectre M family includes two versions: HH3100A and HH3100M. Both models meet MIL-STD-810 for reliable operation in harsh environments.

The HH3100A is a high performance, competitively-priced, tactical handheld radio that features embedded ECCM, COMSEC (AES-256), and GPS capabilities. It is fully compatible with our Spectre V® family of radios (PRC2100V and HH2100V).

The HH3100A is designed to satisfy the demanding requirements of today's sophisticated tactical communications arena. It extends frequency coverage to 136 MHz and adds an AM mode to implement ground-to-air communications.

The HH3100M includes all the functions and features in the HH3100A and extends the frequency coverage to 512 MHz.

The HH3100 series radios address today's most pressing battlefield needs by incorporating a full range of embedded features. Accurate position and time-of-day capability is afforded by the embedded GPS receiver. Frequency hopping and digital encryption waveforms offer a high level of jamming resistance and security.

All of the HH3100 series radios can be used in a network with the PRC2100V and HH2100V, providing base station, vehicle, manpack, handheld, or retransmit capability.

* United States Patents: 9,935,668; 10,056,932; D830986; and 10,251,030

Features

- Software Defined Radio (SDR)
- 30 to 512 MHz (depending on model)
- 100 programmable memory channels
- Rugged (MIL-STD-810G), immersible to 1m
- Handheld up to 7W
- Output power in 3 programmable settings
- Ground-to-Air AM operation (depending on model)
- Module level Built-In-Test (BITE)
- Embedded ECCM and GPS
- Embedded COMSEC with Spectre 40, 64, and new AES-256
- GPS reporting functions
- Spectre Messaging functions
- Data and management capability with companion software packages
- 64 kbps Data

DATRON
Performance You Require. Value You Expect.®

SPECTRE™ M DATRON

HH3100 Series

Spectre M® Multi-Band Tactical Handheld/Mobile SDR Transceiver

Datron World Communications, Inc.

995 Joshua Way, Suite A
Vista, CA, USA 92081

Tel: +1-760-597-1500

Fax: +1-760-597-1510

E-mail: sales@dtwc.com

Web: http://www.dtwc.com

HH3100 mounted in the MT3100 mount and dock

GENERAL
- **TECHNOLOGY** — Software Defined Radio (SDR)
- **FREQUENCY RANGE** — HH3100A: 30–136 MHz
  HH3100M: 30–512 MHz
- **CHANNEL SPACING** — 25 kHz or 12.5 kHz analog, 25 kHz digital
- **PRESET CHANNELS** — 100 programmable memory channels - all mode information individually programmable per channel
- **SCANNING** — Any or all analog channels in a group (up to 100)
- **CHANNEL PROGRAMMING** — From front panel, fill device, or remotely via computer
- **MODES** — Supports all Spectre V family hopping and encryption modes
- **ENCRYPTION** — AES-256 Digital Encryption - 64 bit and 40 bit Spectre V crypto
- **ECCM** — More than 100 h/s
  Up to 58 MHz hopping in any region between 30 and 512 MHz
  Fully compatible with PRC2100V and HH2100V Spectre V ECCM
- **GPS** — Internal GPS receiver with bullet antenna or connection to external antenna
- **BATTERY PACK** — Industry standard rechargable Lithium-Polymer battery (73 Wh) delivering 10+ hours of mission life
- **LOW BATTERY INDICATOR** — LCD battery icon
- **ANTENNA PORT** — 50 ohm N-type connector
- **DISPLAY** — LED backlit, multi-function LCD

MECHANICAL
- **SIZE (H x W x D,** includes knob and crown) — 10.58 in. x 4.31 in. x 2.26 in. includes battery pack (268.7 mm x 109.5 mm x 57.4 mm)
- **WEIGHT** — 2.65 lbs. (1.2 kg) includes battery pack
- **PACKAGE** — Metal construction

ENVIRONMENTAL
- **TEMPERATURE** — -30 to +60° C (operating)
- **SHOCK, VIBE, etc.** — MIL-STD-810G-compliant
- **IMMERSION** — 1 meter for 30 minutes per IP67

TRANSMITTER
- **RF POWER OUTPUT** — 500mW to 7W (±1 dB) (three software-adjustable settings)
- **DUTY CYCLE** — Continuous service, all modes
- **HARMONICS** — Better than -47dBc

RECEIVER
- **SENSITIVITY** — FM: -116 dBm @ 12 dB SINAD;
  AM: Better than -107 dBm @ 10 dB SINAD
- **SQUELCH** — 150 Hz tone, carrier, or CTCSS; compatible with many analog radios
- **AUDIO** — Better than 85 dBSPL from internal speaker

INTERNAL OPTION
- **SCRAMBLER** — HH7700, HH1077, and PRC1077 compatible scrambler

MISCELLANEOUS FUNCTIONS
- **Programmable Channel Access control**
- **Selective Calling with Call Alert for Unit, Group, and All Level Calling**
- **10 Programmable short messages available**
- **Spectre message alert and viewing of the SM messages on radio screen**
- **GPS reporting by time or PTT**

ACCESSORIES
- **Mobile Mount**
- **Amplifiers for mobile and handheld**
- **Battery chargers**
- **Mobile and handheld antennas**
- **Carrying pouch**

This datasheet contains no ITAR data.

DATRON
Performance You Require. Value You Expect.®