



DESCRIPTION

Powerful – Portable – Rugged – Manpackable

The DRT1301C+ provides a miniature, yet powerful, collection capability against Push-to-Talk (PTT) signals.

The DRT1301C+ is designed for operations in tactical and/or harsh environments with a rugged enclosure that channels heat away from the core electronics. The DRT1301C+ has environmentally protected fans for additional cooling capability. The latest in active cooling technology permits in-the-rucksack operation.

The system uses the latest in digital signal processing (DSP), microprocessor, and RF technology to provide the following capabilities:

- Processing/monitoring of up to 72 channels.
- Software Defined Radio.
- Compatible with DRT Direction Finding (DF) subsystems.
- Frequency coverage from 2 MHz to 3000 MHz.
- Three wideband RF Tuners can provide 120-MHz instantaneous RF bandwidth or be assigned to separate 40 MHz-wide frequency ranges.
- Supports target lists of up to 10,000 entries.
- Auto-configuration mode facilitates setup of unit.
- User-friendly Graphical User Interface (GUI).
- 16 half-duplex conversations can be streamed to other networked devices.
- Integrated 8-channel parallel tracking GPS receiver provides position information.
- Compatible with SAASM GPS receiver.
- Controlled from PC using WINXP or WIN7 via Ethernet or remotely via WLAN.
- Advanced power management maximizes battery life through low power consumption.
- Removable storage media.
- Built in Anti-Tamper capability.
- Small size. Low weight. Quiet.

Specifications

Maximum Number of Receive Channels:

72 (half-duplex)

Audio Outputs:

- 2-channel (front panel headphones)
- 16-channel audio streamed to PC

Frequency Coverage:

- 20 MHz to 3000 MHz
- 2 MHz to 32 MHz (Half duplex HF)

Bandwidth:

- 120-MHz Continuous Instantaneous RF Bandwidth or
- 40-MHz RF Bandwidth per Tuner

Dimensions (ENV or FP2 version):

- 3" H x 7.9" W x 13.32" D
- (7.62 cm H x 20.07 cm W x 33.83 cm D)

Weight (ENV or FP2 version): 12 lbs. (5.44 kg)

Environmental:

- Operating Temperature: -20 to +60°C (-4 to +140°F)
- Water Immersible to 1 meter (Env. Cover version only)

Power Consumption: (Standard Mode SGPR)

- <1 W (Standby)
- 37 W (Ready)
- 68 W (48 ch, 1 Tuner)
- 73 W (48 ch, 2 Tuners)
- 83 W (48 ch, 3 Tuners, fans at low speed)

Power Required:

- 9.5-36 VDC (direct input)
- 100-240 VAC (with external adapter)

System Software:

- DRT1000 System Software
- Windows XP Operating System

Compatible with:

Controller PC running: Windows XP or Windows 7

GPS Receiver:

- Built-in GPS receiver supplies geo data for use in geolocation of targeted emitters.
- Compatible with external GPS receivers.

Time Synchronization/Timestamping

- Accepts/outputs GPS 1PPS
- Sync to GPS or NTP time
- Timestamped narrowband collected data

Interfaces:

- 10 MHz Reference input/output
- Battery Power
- 10/100BaseT Ethernet
- Compact Flash Drive (removable)
- Antenna connections
- Serial (RS-232 and USB)
- Audio (2 channel headphone)
- Multiple General Purpose Digital I/O for Controlling External Equipment (DF antenna, etc.)
- Wireless LAN (optional)

Standard system ships with:

- External AC/DC Power Supply
- Antenna Adapter Cable
- User-friendly software with online help
- Stereo Headphones
- Omni-directional Tri-Band antenna with magnetic mount and coaxial cable
- Omni-directional GPS antenna w/cable
- Battery Adapter Cable

Options:

- Fully configured Laptop PC Kit – includes installed Ethernet card & CD-ROM Drive; Office or Ruggedized Model Available
- DF Antenna Kit
- Wireless LAN Kit
- Carrying Case
- Front Panel Options:
 - Environmental – MIL-SPEC connectors, requires DRT cables
 - FP2: System has non-environmental front panel with connectors to allow use of COTS cables.
- Super Quiet Fans (ambient operating temperature reduced to max. of 55 °C when using fans; adds additional vent location to rear).

Front Panel Options

Environmental Front Panel – Weather Resistant

The Environmental Front Panel allows the system to satisfy the most stringent environmental specifications when the access panel door is closed. The external circular MIL-Spec connectors require DRT custom cables to connect to all peripheral components.

Environmental Front Panel



Front Panel 2 Option (FP2) – Uses COTS Cabling

Front Panel Option 2 (FP2) version does not have environmental connectors and uses COTS cabling. Because it does not have the environmental connectors, the FP2 version does not meet the same environmental specifications; however, this panel allows the use of commercial cables to connect to all peripherals. Note that this panel does not have the connectors that would allow a 10 MHz reference signal to be input to or output from the system. (An external 10 MHz reference signal source is required for operation in Bypass mode.)

Front Panel Option 2 (FP2)



V Number Reference for Ordering	
V1	Environmental Panel, Black
FPOPT2	Front Panel Option 2 Panel, Black
V3	Environmental Panel and WLAN, Black
V5	Environmental Panel, Coyote Brown w/ no DRT markings
V6	Environmental Panel, No Bat Cbl

This page intentionally left blank.

Approved by DoD/OSR for public release under 14-S-2045 on 23 July 2014. Data, including specifications, contained within this document are summary in nature and subject to change without notice.

12409 Milestone Center Drive, Germantown, MD 20876-7114
Phone: 855-401-4185 ~ Fax: 301-916-5787 ~ www.drti.com ~ international@drti.com

Rev. 3.1-INT, September 2013
© Digital Receiver Technology, Inc. 2013