

SOL8SDR-H2

Enhanced Special Role Radio 2x1W

Overview:

Based on DTC's game changing software defined radio platform (SOL8SDR), the SOL8SDR-H2 is the enhanced next generation Special Role Radio designed to meet a diverse range of applications. With the same bulletproof soldier radio form factor, the SOL8SDR-H2 offers enhanced GPS performance with on-board magnetics for a simplified Ethernet interface and future support for dual push-to-talk (PTT) communications.

The versatile Special Role Radio can be operated as a mobile ad hoc network (MANET) IP Mesh node, a point-to-point (P2P) COFDM transmitter or a P2P receiver streaming video to a tablet PC. It also offers dual on-board HD-capable video encoders and support for a variety of different camera interfaces, an "open mic" full duplex audio channel and on-board SD card storage as well as 2W total output power.

Features and Benefits:

MeshUltra, MIMO and Standard IP Mesh capability

Enhanced GPS performance

On-board Ethernet magnetics

Gigabit Ethernet via USB 2.0 adaptor

2W total output power

Dual high profile HD H.264 independent video encoders

Low latency Mesh radios - under 180ms for video; less than 20ms data only

Native SD/HD-SDI or composite/HDMI via adaptor

Microphone inputs and headphone output for recording, transmission or talkback

USB support for peripherals such as 3G/4G/Wi-Fi dongles

Low power consumption, typically 7.5W to 10W

Battery life - up to 12 hours

Range NLOS - >1.5km single hop; >15km air to ground

Designed to MIL-STD-810G



Product Information:

Product Includes

AP009562	GPS/GLONASS antenna SMA
SA4536	USB support stick
CA3813	ODU to RJ45 Ethernet cable

Power Accessories (sold separately)

AP010166	MBITR AN/PRC148 battery 7.0Ah
AP009603	MBITR battery charger 1-way
AP009604	MBITR battery charger 4-way
#AP010167	MBITR battery charger 2-way, US
#AP010394	MBITR battery charger 2-way, UK
#AP010395	MBITR battery charger 2-way, EU
#AP010396	MBITR battery charger 2-way, AU

#subject to exemption from RoSH compliance

Antenna Accessories (sold separately)

AP009679	Omni antenna 225-512MHz 2dBi, TNC (m) whip
AP009680	Omni antenna 1.00-1.50GHz 2.15dBi, TNC (m) gooseneck
AP009681	Omni antenna 1.85-2.60GHz 1.74dBi, TNC (m) gooseneck
AP010118	Omni antenna 4.40-5.90GHz 3.5dBi, TNC (m) gooseneck
AP010277	Omni antenna 1.25-1.85GHz 2.05dBi, TNC (m) gooseneck (GPS filter)
AP010278	Omni antenna 2.20-2.50GHz 2.15dBi, TNC (m) gooseneck (GPS filter)

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Product Information (cont.):

Cable Accessories (sold separately)

CA2396	BNC (f) to DIN 1.0/2.3 cable
CA3807	ODU to microphone only cable
CA3814	ODU to Ethernet, headphone and microphone cable
CA3465	MBITR battery eliminator to 4-way Lemo
CA3472	Cambion to data and Lemo power in/out cable
CA3474	Cambion to data, USB A and Lemo power in/out cable
CA3567 CA3803	Cambion (north) to USB A and 2.1mm power out cable Cambion (south) to USB A and 2.1mm power out cable
CA3823 CA3824	Cambion (north) to USB A cable Cambion (south) to USB A cable
CA3962	Cambion to Fischer Ethernet cable

Misc. Accessories (sold separately)

AP010343 AP010342 CA3691 CA3952	Samsung S20 Tactical Edition S20 operators case kit tan Cambion USB and power to Nett Warrior cable Nett Warrior to USB-C cable
AP010140 AP010141 CA3805	INVISIO T5 headset INVISIO V20 PTT ODU to INVISIO cable
AP010204 AP010203 AP010447 CA3930	Savox NC200 headset Savox TRICS PTT Savox MOLLE clip ODU to Savox cable
AP010345 AP010298 AP010208 or AP010296 CA3850	Peltor ComTac XPI headset Peltor to Sylinx Clarus adaptor Sylinx Clarus PTT Sylinx dual comms splitter ODU to Sylinx cable
CAMBHD-IP	Cambion cable to bullet HD IP camera, incl. Picatinny mount
CAMBHD CA3808	Bullet HD-SDI camera, incl. Picatinny mount ODU to Fischer, HD IP camera cable
SOL8SDI	HDMI/composite to SDI converter

Technical Specification:

I/O

COFDM transceiver 1	TNC socket 50Ω
COFDM transceiver 2	TNC socket 50Ω
GPS/GNSS	SMA socket 50Ω
SD/HD-SDI video input	DIN 1.0/2.3 socket 75Ω
Power input	24-way Cambion spring probe connector MBITR AN/PRC148 battery
Power output	24-way Cambion spring probe connector 16-way ODU circular connector
USB 2.0	24-way Cambion spring probe connector
RS-232/RS-485 data	24-way Cambion spring probe connector
Ethernet 100Base-T	16-way ODU circular connector
Microphone/line input	16-way ODU circular connector
Headphone output	16-way ODU circular connector

COFDM Transceivers

Required application	*SDRAPP-TX or *SDRAPP-MESH
Power	1W (30dBm) per output, 2W (33dBm) total
Power step	0.25dB incremental control
Tuning range	Frequency variant dependent
Tuning step	125kHz

Receiver

Required application	*SDRAPP-RX
Sensitivity	Up to -110dBm
Streaming Output	Single service (first received)
Tuning range	Frequency variant dependent
Tuning step	125kHz

Video

Required application	*SDRAPP-ENC
Digital input	SD/HD-SDI (supports SOL8SDI option for HDMI/composite)

Audio

Required application	*SDRAPP-ENC or *SDRAPP-MESH
Headphone output	Mono headphone driver
Analogue input	High gain microphone stereo pair 10V microphone bias (cable dependent)
Digital input	SD/HD-SDI de-embedding

Data

Data configuration	1k2 to 115k2, 7/8 bit, no/odd/even parity
Data interface	RS232 or RS485 or USB peripherals

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Technical Specification (cont.):

Storage

Medium	Internal microSD 128GB (>8 hours recording at max DVB-T bitrate) (>29 hours recording at max NB bitrate)
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Control

Rotary switch	Off, config select (on) and zeroise keys
USB	PC application control and SD card mounting
Ethernet	PC application control and file download Web GUI control and file download
Access	User, Super User and Admin accounts

Power (ext PSU)

DC input	8V to 18V reverse polarity protected
DC output	1A limited passthrough (switchable)
Camera/adaptor power	5V over video input (switchable)
Power consumption	Up to 20W (RMS) dependent on mode and peripherals, 10W typical Mesh mode

Physical

Dimensions (excluding protrusions)	128mm (L), 67mm (W), 38mm (D)
Weight	634g

Environment

Standard	Designed to meet MIL-STD-810G
Temperature range	-20°C to +60°C
Cooling	Passive
Sealing	IP68

Frequency

032047	320-470MHz
114150	1.14-1.50GHz
167235	1.67-2.35GHz
198270	1.98-2.70GHz
440500	4.40-5.00GHz

Software License Code

*SDRAPP-MESH	IP Mesh
*SDRAPP-IAS	Interference Avoidance Scheme for Mesh
SDRAPP-L2BRIDGE	Transparent Layer 2 Bridging Mode for Mesh
*SDRAPP-TX	COFDM Transmitter
*SDRAPP-ENC	IP Encoder
*SDRAPP-RX	COFDM Receiver
SDRAPP-IPX	IP Encapsulation for COFDM
SDRAPP-GOLD	Gold-TX, Gold-RX, Gold-ENC, MESH, IAS, IPX
SDRAPP-PLATINUM	Platinum-TX, Platinum-RX, Platinum-ENC, MESH, IAS, IPX
AES128TX	AES 128-Bit Encryption
AES256TX	AES 256-Bit and AES 128-Bit Encryption

* Refer to separate datasheets for SDRAPP requirements

Export of encrypted products is subject to regulatory export controls.

For further information contact your Sales Account Manager, one of our Regional Sales Offices, or email solent.enquiries@domotactical.com

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