SOL8SDR2×1W-R

SOLO8 Software Defined Radio 2×1W Robust

Overview:

The SOL8SDR2x1W-R is a ruggedised software defined radio transceiver with 2x1W RF output power. Leveraging DTC's industry-leading MeshUltra™ waveform and also capable of operating as a unidirectional COFDM Transmitter or Receiver, the SDR2x1W-R provides a passively cooled IP68 rated enclosure ideal for integration into long range UxV and outdoor concealment applications.

The SDR2x1W-R also includes a rich set of interface options including native Ethernet, USB and serial as well as an audio headset interface.

Features and Benefits:

2x1W transceivers for use as IP Mesh radio, COFDM transmitter or receiver

Optional AES128/256 encryption
(accredited to FIPS140-2 for MeshUltra™ waveforms)

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

Ethernet and RS-232 data connectivity

128GB in-built SD card storage

IP68 rated ruggedised enclosure

Very low power consumption, typically 10W IP Mesh

Product Information:

Product Codes

SOL8SDR2x1W-R-120170	SOL8SDR, 2x1W Robust, 1.20-1.70GHz
SOL8SDR2x1W-R-178229	SOL8SDR, 2x1W Robust, 1.78-2.29GHz
SOL8SDR2x1W-R-198270	SOL8SDR, 2x1W Robust, 1.98-2.70GHz
SOL8SDR2x1W-R-440500	SOL8SDR, 2x1W Robust, 4.40-5.00GHz
SOL8SDR2x1W-R-550600	SOL8SDR, 2x1W Robust, 5.50-6.00GHz

Product Includes

CA4171	7-way Fischer to flying lead power and Ethernet cable

Accessories (sold separately)

CA0649	4-way XLR to 12V 6.67A 80W PSU (for CA4249)
CA4173	7-way Fischer to USB-A (f) and GPIO free end cable
CA4174	7-way Fischer to USB-A (f) cable
CA4249	7-way Fischer to 4-way XLR power and Ethernet cable
CA4339	9-way Fischer to RS-232 D-sub (f) and 2x 3.5mm audio jack cable

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Technical Specification:

IO

RF COFDM transceiver A	TNC 50Ω (female)
RF COFDM transceiver B	TNC 50Ω (female)
Power input Gigabit Ethernet	7-way Fischer
USB host GPIO	7-way Fischer
Analogue audio RS-232 serial data	9-way Fischer

COFDM Transceivers

Application license	SDRAPP-MESH, SDRAPP-TX
Power	1W (+30dBm) max per output, 2W total
Power step	0.25dB incremental control
Tuning step	125kHz

Receiver

Application license	SDRAPP-RX
Sensitivity	Up to -110dBm
Streaming output	Single service (first received)
Tuning range	Frequency variant dependent
Tuning step	125kHz

Audio

Application license	SDRAPP-MESH, SDRAPP-TX
Interface	Analogue microphone/headphone with bias

Data

Data configuration	1k2 to 115k2, 7/8 bit, no/odd/even parity
Data interface	RS-232 or USB peripherals

Storage

Medium	Up to 128GB MicroSD (supplied) (>8 hours recording at max DVB-T bitrate) (>29 hours recording at max NB bitrate)

Control

USB	USB host port for peripheral devices
Ethernet	PC application control and file download Web GUI control and file download
Access	User, Super User and Admin accounts

Physical

Dimensions	157mm (165mm incl. mounting) x 75mm x 21mm
Weight	430g approx.

Power

DC input	8V to 17V reverse polarity protected
Power consumption	7W typ. IP Mesh 14W typ. COFDM TX single output 24W typ. COFDM TX dual output 6W typ. COFDM RX

Environment

Temperature range	-10°C to +55°C
Sealing	IP68
Humidity	Less than 85% non-condensing
EMC conformance	CE marked

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Technical Specification (cont.):

Software License Options

SDRAPP-MESH	IP Mesh
SDRAPP-TX	COFDM Transmitter
SDRAPP-RX	COFDM Receiver
SDRAPP-IAS	Interference Avoidance Scheme for Mesh
SDRAPP-P2MP	Point-to-Multipoint System for Mesh
SDRAPP-L2BRIDGE	Transparent Layer 2 Bridging Mode for Mesh
SDRAPP-LOWBIT	Low Bitrate Video Encoding
SDRAPP-IPX	IP Encapsulation for COFDM TX/RX
SDRAPP-GOLD	Gold-TX, Gold-RX, MESH, IAS, IPX
SDRAPP-PLATINUM	Platinum-TX, Platinum-RX, MESH, IAS, IPX, LOWBIT, P2MP
†AES128 (TX or RX)	AES 128-Bit Encryption
†AES256 (TX or RX)	AES 256-Bit and AES 128-Bit Encryption

Note: Refer to separate datasheets for SDRAPP requirements

† Accredited to FIPS140-2 for MeshUltra™ waveforms

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.info@domotactical.com

AMERICA:
T: +1 571 563 7077

UK:
T: +44 1489 566 750

DENMARK:
T: +45 8791 8100

UAE:
T: +971 0 44 53 72 01

SINGAPORE:
T: +65 6339 0508

AUSTRALIA:
T: +61 8 8305 0311

domotactical.com