SOL8SDR2×1W-P

SOLO8 Software Defined Radio 2×1W Plain

Overview:

The SOL8SDR2x1W-P is a compact 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 SOL8SDR2x1W-P is ideally suited for UxV and commercial applications.

The SOL8SDR2x1W-P also includes a rich set of interface options including native Ethernet, dual USB and serial as well as an audio headset interface.

The SOL8SDR2x1W-P also offers the option of USB-C powering direct from a suitable end user device or USB-C battery (USB PD compliant).

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-C power option compliant with USB PD
- RNDIS support for Ethernet over USB
- USB support for peripherals such as 3G/4G/Wi-Fi dongles
- Ethernet and RS-232 data connectivity
- 128GB in-built SD card storage
- Compact enclosure
- Very low power consumption, typically 10W IP Mesh

Product Information:

Product Includes

CA0002	12V DC power lead Lemo to banana plugs
CA3172	12V 6.67A 80W PSU with Lemo

Accessory Options (sold separately)

AP007377	USB cable, type-A to micro-B
AP010399	USB type-A to type-C USB cable
CA3978	GPIO/RS-232 6-way Lemo to free end cable
CA3986	6-way Lemo (m) to DB9 (f) RS-232 data cable, 1m
CA4203	6-way Lemo (m) to DB9 (f) RS-232 data cable, 200mm

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Technical Specification:

IO

RF COFDM transceiver A	SMA 50Ω (female)
RF COFDM transceiver B	SMA 50Ω (female)
Power input	4-way circular USB2 with power delivery (USB PD)
Gigabit Ethernet	RJ45
USB1 control and download	USB Type-A
USB2 control and download	USB Type-C
Analogue audio	3.5mm jack
GPIO and RS-232 serial	6-way circular

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	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

Physical

Dimensions	150mm (160mm incl. connectors) x 75mm x 24mm
Weight	462g approx.

Power

DC input	8V to 17V reverse polarity protected
USB PD input	5V (half RF power), 9V to 15V (full RF power)
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
Humidity	Less than 85% non-condensing
EMC conformance	CE marked

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Technical Specification (cont.):

Frequency

120170	1.20-1.70GHz
178229	1.78-2.29GHz
198270	1.98-2.70GHz
440500	4.40-5.00GHz
*550600	5.50-6.00GHz

* In development

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
SDRAPP-GOLD	Gold-TX, Gold-RX, MESH, IAS, IPX
SDRAPP-PLATINUM	Platinum-TX, Platinum-RX, MESH, IAS, IPX, LOWBIT
†AES128 (TX/RX/NN)	AES 128-Bit Encryption
†AES256 (TX/RX/NN)	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

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