

SDR TRANSCEIVER

SOL8SDR2X1W-P



The SDR2x1W-P is a compact software defined radio transceiver with 2x1W RF output power. Leveraging Codan | DTC's industry-leading MeshUltra Mesh 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 SDR2x1W-P also includes a rich set of interface options including native Ethernet, dual USB and serial as well as an audio headset interface.

The SDR2x1W-P also offers the option of USB-C powering direct from a suitable end user device or USB-C battery (USB PD compliant).

KEY FEATURES

- 2x1W transceivers for use as IP Mesh radio, COFDM transmitter or receiver
- USB-C power option compliant with USB PD
- RNDIS support for Ethernet over USB
- Ethernet and RS-232 data connectivity
- USB support for peripherals such as 3G/4G/Wi-Fi dongles 128GB in-built SD card storage
- Compact enclosure
- Very low power consumption, typically 10W IP Mesh

PRODUCT INFORMATION

CA0002	12V DC power lead Lemo-wire 3m
CA3172	12V 6.67A 80W PSU with 4-way Lemo plug

ACCESSORY OPTIONS (SOLD SEPARATELY)

AP009256	USB Type-A Gigabit Ethernet adapter
AP007377	USB Type-A to micro USB B cable

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CODAN
COMMUNICATIONS



TECHNICAL SPECIFICATIONS

IO

RF COFDM transceiver 1	SMA 50Ω (female)
RF COFDM transceiver 2	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	6-way circular
GPIO and power output (TBC) or RS-232 serial (TBC)	6-way circular 3-way circular

COFDM TRANSCEIVERS

Application license	SDRAPP-MESH, SDRAPP-TX
Power	1W (+30dBm) max per output, 2W total
Power setup	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 (TBC) 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)
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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	160mm (incl. connectors) x 75mm x 24mm
Weight	456g approx.

POWER

DC input	8V to 17.5V reverse polarity protected
Power consumption	10W typ. IP Mesh 14W typ. COFDM TX single output 24W typ. COFDM TX dual output 6W typ. COFDM RX

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TECHNICAL SPECIFICATIONS

ENVIRONMENT

Temperature range	-20°C to +50°C
Humidity	Less than 85% non-condensing
EMC conformance	CE marked

FREQUENCY

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	SDR Application IP Mesh NETNode
#SDRAPP-IAS	SDR Application Interference Avoidance Scheme
#SDRAPP-TX	SDR Application COFDM Transmitter
#SDRAPP-RX	SDR Application Receiver
SDRAPP-IPX	SDR Application IP Encapsulation for COFDM
SDRAPP-GOLD	Gold-TX, Gold-RX, MESH, IAS, IPX
SDRAPP-PLATINUM	Platinum-TX, Platinum-RX, MESH, IAS, IPX
AES128TX	AES 128-Bit Encryption
AES256TX	AES 256-Bit and AES 128-Bit Encryption

* Future development

Refer to separate datasheets for SDRAPP requirements