

SOL8SDR2x2W-P

SOLO8 Software Defined Radio (Plain)

Overview:

The SOLO8 Software Defined Radio is an COFDM digital video transceiver from Domo Tactical Communications (DTC), designed specifically for Point of View (PoV), body worn and concealment applications. The SOL8SDR Plain provides a compact higher power solution (2x2W) for increased range and enhanced connectivity with native RJ45 and USB as standard. Dependent on the applications loaded the platform can operate as a Transmitter, Receiver, Dual Encoder and IP Mesh Radio node. Further information on software capability can found in the SDRAPP datasheets.



Features and Benefits:

- Dual high profile HD H.264 independent video encoders
- 2x2W COFDM transceivers for use as COFDM Transmitter, Receiver or IP Mesh
- Optional AES128/256 encryption (accredited to FIPS140-2 for MeshUltra™ waveforms)
- ISM band telemetry transceiver for control, PTZ and low power standby
- Dual SD/HD-SDI video inputs for recording, transmission and analysis
- Microphone inputs and headphone output for recording, transmission or talkback
- Growing USB support for peripherals such as 3G/4G/ Wi-Fi dongles
- Ethernet, RS232 and RS485 connectivity and 128GB built in storage
- Higher power packaging without the need for breakout cables
- Very low power consumption: typically 12.5W
- Exceptionally small size: 200mm x 100mm x 27mm
- Weighs only 950g

Product Information:

Product Includes

CA0002	12V DC power lead Lemo-wire 3m
CA2396 x 2	DIN 1.0/2.3 to BNC female cable
CA3172	12V 6.67A 80W PSU with 4-way Lemo plug

Accessory Options (sold separately)

AP009131	GPS receiver/antenna with type-A USB
CA0474	RS232/RS485 data cable
SOL8SDR2x2W-P-HSK	Passive heatsink accessory for SOL8SDR2x2W-P

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Technical Specification:

Interfaces

RF COFDM transceiver 1	SMA (female)
RF COFDM transceiver 2	SMA (female)
RF telemetry transceiver	SMA (female)
Video SD/HD-SDI 1	DIN 1.0/2.3 (female)
Video SD/HD-SDI 2	DIN 1.0/2.3 (female)
USB host	USB 2.0 type A
Power input	4-way Lemo
PTZ control / data IO / power out	15-way high density D-sub
Microphone/line input	3.5mm socket
Headphone output (mono)	3.5mm socket
Gigabit Ethernet	RJ45

COFDM Transceivers

Required application	*SDRAPP-TX or *SDRAPP-MESH
Power	2W (+33dBm) per output, 4W total
Power step	0.25dB incremental control
Tuning range	Frequency variant dependent
Tuning step	125kHz

Telemetry Transceiver

Required application	*SDRAPP-TX
Power	+11dBm frequency dependent
Tuning range	Frequency variant dependent
Receiver sensitivity	-114dBm
Receiver input level	+10dBm max.

Receiver

Required application	*SDRAPP-RX
Sensitivity	Up to -110dBm
Streaming output	Single service (first received)
Tuning range	Frequency variant dependent
Tuning step	125kHz
Receiver input level	+20dBm max.

Video

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

Audio

Required application	*SDRAPP-ENC or *SDRAPP-MESH
Digital audio input	SD/HD-SDI digital stereo pair
Sample rate	16kHz-48kHz
Coding modes	MPEG Audio Layer 1 64-448kbps MPEG Audio Layer 2 32-384kbps MPEG Audio Layer 3 8-256kbps
Talkback audio	Analogue mic/head with bias
Compression	G726 32kbit audio 8kHz sampling and mute
Input level (600Ω impedance)	2.5mV to 2.3V RMS
Output level	32mW RMS max into a 16Ω load

Data

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

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

Ethernet	PC application control and file download Web GUI control and file download
Access	User, Super User and Admin accounts

Power

DC input	8V to 18V reverse polarity protected
DC output	1A limited passthrough (switchable) 5V regulated 1A limited (switchable)
Camera/adaptor power	5V over video input (switchable)
Typical power consumption	12.5W (SD), 13.5W (HD), 14.5W (Dual), 19.5W (MIMO Mesh)

Physical

Dimensions	L 200mm, W 100mm, H 27mm (not including connectors)
Weight	950g

Environment

Temperature range	-10°C to +50°C with additional cooling
Humidity	Less than 85% non-condensing
Cooling	External heatsink required for some modes
Sealing	IP54

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Technical Specification (cont.):

Frequency

132043	1.14-1.50GHz + 433.05-434.79MHz tel.
201091	1.67-2.35GHz + 902-928MHz tel.
234043	1.98-2.70GHz + 433.05-434.79MHz tel.
470043	4.40-5.00GHz + 433.05-434.79MHz tel.
470091	4.40-5.00GHz + 902-928MHz tel.

Software License Options

SDRAPP-MESH	IP Mesh
SDRAPP-TX	COFDM Transmitter
SDRAPP-RX	COFDM Receiver
SDRAPP-ENC	Video Encoding
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-SNAPSHOTS	Triggered JPEG Stills with Associated Timestamps
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, LOWBIT, P2MP, RANGING
†AES128	AES128 Cryptography Licence
†AES256	AES256 & AES128 Cryptography Licence

Note: Refer to separate datasheets for SDRAPP requirements

† Accredited to FIPS140-2 for MeshUltra™ waveforms

Encrypted products are 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