DTC

SOL8SDR-R
SOLO8 Software Defined Radio (Robust)

Overview:

The SOLO8 Software Defined Radio is an ultra-miniature COFDM digital video transceiver from Domo Tactical Communications (DTC), designed specifically for Point of View (PoV), body worn and concealment applications. Dependent on the applications loaded the platform can operate as a Transmitter, Receiver, Dual Encoder, Standard IP Mesh and MIMO IP Mesh. Further information on software capability can found in the SDRAPP datasheets.

Three enclosure variants are available: Concealment (-C), Robust (-R), Plain (-P).

Robust (-R) provides a passively cooled IP66 rated enclosure ideal for outdoor, or body worn applications.

The UHF version is larger than the standard SOL8SDR-R due to the lower frequency of operation (320-470MHz). Please see the SOL8SDR UHF Operation Guidelines publication for important application notes.

Features and Benefits:

Dual high profile HD H.264 independent video encoders (NEW)

2x100mW COFDM transceivers for use as COFDM Transmitter, Receiver or IP Mesh

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

Robust packaging with IP66 rated connectors

Very low power consumption: typically 7.5W

Exceptionally small size: 130mm x 100mm x 25mm (30.5mm UHF)

Weighs only 314-372g

Product Information:

Product Includes

AP007377	Micro-B USB cable
CA0002	12V DC power lead Lemo-wire 3m
CA2396 x 2	DIN 1.0/2.3 to BNC female cable
CA2521	UltiMate Ethernet breakout
CA2522	UltiMate USB breakout
CA3123	UltiMate microphone/headphone cable
CA3173	UltiMate DC power cable
SA3741	SOL8SDR-R support USB stick

Accessory Options (sold separately)

SOL8SDR-RSK	SOL8SDR Robust surveillance kit
CA2520	UltiMate DC/audio/RS232 cable
CA3164	UltiMate DC/USB/RS485 wire breakout
CA3238	GlobalSat BU-353-S4 GPS with UltiMate

Related Documents

100217	SOL8SDR Hardware Guide

Domo – Video, IP and Sensors

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Technical Specification

IO

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 control and download	Fischer UltiMate (to USB 2.0 Micro-B)
Power input	Fischer UltiMate (to 4-way Lemo)
Power output	Fischer UltiMate (to 4-way Lemo)
PA control	Fischer UltiMate (to wire)
Microphone 10V	Fischer UltiMate (to wire)
Microphone/line input	Fischer UltiMate (to male RCAs)
Headphone output	Fischer UltiMate (to 3.5mm socket)
PTZ control, or data IO	Fischer UltiMate (to 9-way D-sub)
Gigabit Ethernet	Fischer UltiMate (to RJ45 Magnetics)

COFDM Transceivers

Required application	SDRAPP-TX* or SDRAPP-MESH*
Power	100mW (+20dBm) per output, 200mW 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

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	Dual SD/HD-SDI (supports SOL8SDI for HDMI or 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 (optional cable) or RS485 (optional cable) or USB peripherals

Storage

Medium	Internal microSD 128GB (>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	L 130mm, W 100mm, H 25mm L 130mm, W 100mm, H 30.5mm (UHF)
Weight	314g 372g (UHF)

Power

DC input	8V to 18V reverse polarity protected
DC output	1A pass-through (switchable)
Camera/adapter power	5V over video input (switchable)
Typical power consumption	7.5W (SD), 8.5W (HD), 9.5W (Dual)

Domo – Video, IP and Sensors

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Technical Specification (con't):

Environment

Temperature range	-20°C to +60°C
Humidity	Less than 85% non-condensing
Cooling	Passive, external heat sink or fan
Sealing	IP66
EMC conformance	CE marked

Frequency

039091	320-470MHz + 902.00-928.00MHz
132043	1.14-1.50GHz + 433.05-434.79MHz
201043	1.67-2.35GHz + 433.05-434.79MHz
201091	1.67-2.35GHz + 902.00-928.00MHz
234043	1.98-2.70GHz + 433.05-434.79MHz
234091	1.98-2.70GHz + 902.00-928.00MHz
470043	4.40-5.00GHz + 433.05-434.79MHz
470091	4.40-5.00GHz + 902.00-928.00MHz
575091	5.50-6.00GHz + 902.00-928.00MHz

Software License Code

SDRAPP-ENC*	SDR Application IP Encoder
SDRAPP-TX*	SDR Application COFDM Transmitter
SDRAPP-RX*	SDR Application Receiver
SDRAPP-MESH*	SDR Application IP Mesh NETNode
SDRAPP-GOLD	All Gold level SDRAPPs (ENC/TX/RX/MESH)
SDRAPP-PLATINUM	All Platinum level SDRAPPs (ENC/TX/RX/MESH)
AES128TX	AES 128-bit Encryption License
AES256TX	AES 256-bit Encryption License

* 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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