DTC

SOL8SDR-C
SOLO8 Software Defined Radio (Concealment)

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, 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).
Concealment (-C) is an ultra-miniature package ideal for integration into the smallest concealment solutions.

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

One/two 2W PA accessories can be connected via D1806 for extended range.

Features and Benefits:

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

2x100mW COFDM transceivers for use as COFDM Transmitter 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

Compact packaging with ultra-miniature connectors

Very low power consumption: typically 7.5W

Exceptionally small size: 50mm x 50mm x 18mm (24mm UHF)

Weighs only 70-82g

Product information:

Product Includes:

D1804	Gecko Breakout PCB
D918	Ethernet Magnetics PCB
CA2856	Ethernet JST cable
CA3043	DC Power JST lead
SA3774	SOL8SDR-C Support USB stick

Accessory Options (sold separately):

SDRAPP-ENC	SDR Application IP Encoder
SDRAPP-MESH	SDR Application IP Mesh NETNode
SDRAPP-TX	SDR Application COFDM Transmitter
SOL8SDR-CK	SOL8SDR Concealment Kit
AES128TX	AES 128-bit Encryption License
AES256TX	AES 256-bit Encryption License
D1806	Gecko Active Breakout PCB required for 2W PAs
AMP2W-120170-B-OEM	SOL8SDR-C 2W PA with Bypass (1.20-1.70GHz)
AMP2W-165240-B-OEM	SOL8SDR-C 2W PA with Bypass (1.65-2.40GHz)
AMP2W-198270-B-OEM	SOL8SDR-C 2W PA with Bypass (1.98-2.70GHz)
CA3115	SMP (female) to SMA (female) Cable 200mm
CA3116	SMP (female) to SMA (female) Cable 100mm
CA3238	GlobalSat BU-353-S4 GPS with Micro-B USB

Related Documents:

100210	SOL8SDR-C OEM Integration Document
100217	SOL8SDR Hardware and Basic Setup Guide

Domo – Video, IP and Sensors

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Technical specification

IO

RF COFDM Transceiver 1	SMP (male 50ohm)
RF COFDM Transceiver 2	SMP (male 50ohm)
RF Telemetry Transceiver	SMP (male 50ohm)
Video SD/HD-SDI 1	MCX (female 75ohm)
Video SD/HD-SDI 2	MCX (female 75ohm)
USB Control and Download	USB 3.0 Micro-B
Power Input	Harwin Gecko or JST (4 pins)
Power Output	Harwin Gecko or JST (2 pins)
PA Control	Harwin Gecko or JST (4 pins)
Microphone/Line Input 1	Harwin Gecko or JST (3 pins)
Microphone/Line Input 2	Harwin Gecko or JST (3 pins)
Headphone Output	Harwin Gecko or JST (2 pins)
PTZ Control or Data IO	Harwin Gecko or JST (7 pins)
Gigabit Ethernet	Harwin Gecko or JST (10 pins + Magnetics)

COFDM Transceivers

Power	100mW (+20dBm) per output, 200mW total
Power Step	0.25dB incremental control
Tuning Range	Frequency variant dependant
Tuning Step	125kHz
Required Application	SDRAPP-TX or SDRAPP-MESH

Telemetry Transceiver

Power	+11dBm frequency dependant
Tuning Range	Frequency variant dependant
Receiver Sensitivity	-114dBm
Required Application	SDRAPP-TX

Video

Digital Input	Dual SD/HD-SDI (supports SOL8SDI for HDMI or composite)
Required Application	SDRAPP-ENC

Audio

Headphone Output	Mono headphone driver
Analogue Input	High gain microphone stereo pair 10V microphone bias (cable dependant)
Digital Input	SD/HD-SDI de-embedding
Required Application	SDRAPP-ENC or SDRAPP-MESH

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)

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 50mm, W 50mm, H 18mm L 50mm, W 50mm, H 24mm (UHF)
Weight	70g 82g (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)

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Technical specification (con't):

Environment

Temperature Range	-20 to +60 °C with additional cooling
Humidity	Less than 85% Non-Condensing
Cooling	External heat sink or fan required
Sealing	IP40
EMC Conformance	None guaranteed, not CE marked

Frequency

040091	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

Software License Code

Silver	None included SDRAPP required
Gold	N/A
Platinum	N/A

Export of encrypted products is subject to United Kingdom 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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