

DTC BluSDR™-90

DTC BluSDR™ 2x5W Module

Overview:

As part of the DTC BluSDR™ family of products, BluSDR™-90 is designed for either mobile or fixed site applications, particularly suitable for drone platforms operating in long range applications up to 90km.

Based around DTC's SOL8SDR (software defined radio) architecture and offering a full 2x5W of output power, BluSDR™-90 provides bidirectional point-to-point COFDM RF communications (for two radios), or optional IP Mesh to allow up to 144 nodes in a self-healing network using DTC's industry leading MeshUltra-X™ waveform.

BluSDR™-90 includes a rich set of interface options including Ethernet, USB, serial data, built in GPS receiver, audio and HD-SDI video inputs.



Features and Benefits:

2x5W COFDM transceivers, 10W total

Ideal for long range applications up to 90km

Rugged IP66 design for environmental resistance

Standard bidirectional point-to-point COFDM RF communications included

Optional IP Mesh upgrade to support up to 144 nodes

Optional AES128/256 encryption (accredited to FIPS140-2 for MeshUltra™ waveforms)

USB support for peripherals such as 3G/4G/Wi-Fi dongles

RNDIS support for Ethernet over USB

Data capacity up to 90Mbps in 20MHz channel bandwidth

Built-in video encoders

Built-in GPS receiver

Interlink mode for enhanced capability and large scale systems

64GB built-in storage

Product Information:

Product Options

BLUSDR-90-xxxxyy-B	BlueSDR-90 2x5W Boxed
--------------------	-----------------------

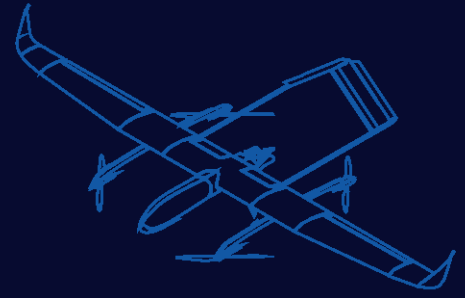
xxxxyy denotes frequency, see over

Product Includes

CA3229	Screened power/Ethernet cable
CA3256	Short bananas to XLR power cable

Accessory Options (sold separately)

AP000481	UK IEC power supply cable for use with CA0649
AP001483	US IEC power supply cable for use with CA0649
AP004634	EU IEC power supply cable for use with CA0649
AP007192	AU IEC power supply cable for use with CA0649
AP009259	IP55 water resistant enclosure for use with CA0649
AP009562	Antenna GPS/GLONASS, 1.575-1.6GHz, SMA
CA0649	12VDC power supply unit for use with CA3229
CA2585	Mic/head and control/debug screened cable
CA3254	XLR to XLR extension 5m for use with CA3229
CA3255	XLR to XLR extension 10m for use with CA3229
CA3606	Mic/head and RS232/RS485 data cable
NETR-HPMB-AS	High power antenna mounting bracket and spacer
SOL8SDI	HDMI or composite video to SDI converter



DTC BluSDR™-90

DTC BluSDR™ 2x5W Module

Technical Specification:

Interfaces

COFDM RF interfaces	N-Type x 4 (2 x Tx/Rx, 2 x Rx)
GPS antenna interface	SMA female
Power and Ethernet (Eth0)	6-way Amphenol 38999 series 3
Ethernet (Eth1)	RJ45
Config/data/audio	22-way Amphenol 38999 series 3
SDI/HD-SDI	BNC female 75Ω
USB	Type A

COFDM Transceivers

RF power	5W (37dB) per output, 10W total
Power step	0.25dB incremental control
Tuning step	125kHz step
Bandwidth	1.25, 1.5, 1.75, 2.5, 3.0, 3.5, 5.0, 6.0, 7.0, 8.0, 10.0MHz (all modes) 12.0, 14.0, 16.0, 20.0MHz (MeshUltra only)
Mesh capacity	87Mbps MeshUltra
Carrier modulation	BPSK/QPSK/16QAM/64QAM (adaptive)
FEC rate	FEC1/2, FEC2/3 (adaptive)
Receive sensitivity	-98dBm (BW 2.5MHz/QPSK 1/2)

Video

SDI input formats	1920x1080i 60/59.94/50Hz 1920x1080p 30/29.97/25/24/23.97Hz 1920x1080psf 30/29.97/25/24/23.97Hz 1280x720p 60/59.94/50Hz 720x576i 50Hz or 720x480i 59.94Hz
H.264 compression	AVC / H.264 / MPEG-4 Part 10 High profile level 4.0
Coding options	Horizontal scaling of 3/4, 2/3, 1/2, 1/4 Vertical scaling of 1/2, 1/4 Sub-frame rate of 1/2, 1/4, 1/8, 1/24
Encoder delay	1s to 10ms (mode dependent)
Encoder bitrates	0.25Mbps to 32Mbps

Audio

Talkback audio input	High gain microphone stereo pair or talkback
Digital audio input	SD/HD-SDI digital stereo pair
Sample rate	16kHz-48kHz
Coding modes	4 channels stereo or mono MPEG Audio Layer 1 64-448kbps MPEG Audio Layer 2 32-384kbps MPEG Audio Layer 3 8-256kbps

Data Interface

RS232/RS485 bi-directional data (shared with user camera control)	1k2 to 115k2 baud switchable with UDP and TCP routing protocol
---	--

Encryption

Standard	DES
Licensed	AES128/256 (subject to export control)

Power

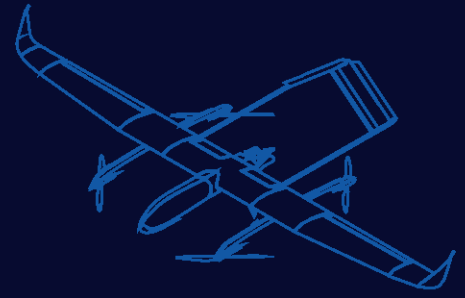
DC input	10-18V (12V nominal)
Power consumption	60W (at max data rate)

Physical

Dimensions	H 160mm, W 160mm, D 70mm
Weight	2.5kg approx.

Environment

Sealing	IP66 minimum
Temperature range	-20°C to +50°C



DTC BluSDR™-90

DTC BluSDR™ 2x5W Module

Technical Specification (cont.):

Frequency

*032047	320-470MHz
120170	1.20-1.70GHz
165230	1.65-2.30GHz
198255	1.98-2.55GHz
*440500	4.40-5.00GHz

* Future development

License Options

Point-to-point link capability included as standard

BLUSDR-MESH	IP Mesh upgrade for BluSDR products
BLUSDR-IAS	Interference Avoidance Scheme for Mesh
#AES128TX	AES 128-Bit Encryption
#AES256TX	AES 256-Bit and AES 128-Bit Encryption

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.enquiries@domotactical.com

DTC – Herndon (Headquarters)
2303 Dulles Station Boulevard
Suite 205
Herndon, VA
20171, USA

T: +1 800 665 4648

DTC – Tampa
3845 Gateway Centre Boulevard
Suite 360
Pinellas Park, FL
33782, USA

T: +1 727 471 6900

DTC – Solent
Fusion 2, 1100 Parkway
Solent Business Park
Whiteley, Hampshire
PO15 7AB, UK

T: +44 1489 566 750

DTC – Randers
Haraldsvej 64B
DK-8960
Randers SØ
Denmark

T: +45 8791 8100

DTC – Singapore
21 Media Circle
Infinite Studios #05-06
Singapore
138562

T: +65 6339 0508