BluSDR-90-R

10W BluSDR Robust Radio

A CODAN COMPANY

Overview:

The BluSDR-90-R is a ruggedised software defined radio transceiver with 10W total RF output power; optimized for long-range communication on drone platforms, enabling reliable connectivity typically up to ‡90km in line of sight applications.

The BluSDR-90-R is delivered with the industry-leading MeshUltra™ waveform that enables up to 144 nodes to operate in a self-healing network through its MANET IP Mesh capability.

The BluSDR-90-R includes Gigabit Ethernet, USB, serial data, audio and GPIO designed for mission flexibility and the ability to support seamless communication, even in the most challenging and contested environments.

The BluDR-90-R is part of DTC's trusted BluSDR™ product line offering a versatile, software-defined, multi-waveform architecture on single radio module for Uncrewed platforms in all domains.

‡ Depending on environment





Features and Benefits:

- Powerful 10 Watt RF output
- Ideal for long range applications typically up to ‡90km line of sight capability
- Support for SBUS and MAVLink protocols
- Wide power supply range up to 32V
- MeshUltra™ MANET waveforms included to support up to 144 nodes in a self forming self healing Mesh network
- Optional AES128/256 encryption (FIPS140-3 Level 2 for MeshUltra™ waveforms from FW v8.5.0 onwards)
- USB support for peripherals such as 4G/Wi-Fi dongles and GPS
- Data capacity up to 87Mbps in 20MHz channel bandwidth
- Interlink mode for enhanced capability and large scale systems
- 128GB built-in storage

Product Information:

Product Codes

BluSDR-90-120170-R	BluSDR-90 10W Robust Radio, 1.20-1.70GHz
BluSDR-90-198270-R	BluSDR-90 10W Robust Radio, 1.98-2.70GHz
BluSDR-90-420520-R	BluSDR-90 10W Robust Radio, 4.20-5.20GHz

Product Includes

CA4547	12-way Fischer to power XLR (m) and RJ45, 1.5m

Accessory Options (sold separately)

CA4065	XLR (f) to 12V 120W PSU
CA4173	7-way Fischer to USB-A (f) and GPIO free end cable
CA4174	7-way Fischer to USB-A (f) cable
CA4339	9-way Fischer to RS-232 D-sub (f) and 2x 3.5mm audio jack cable
CA4534	12-way Fischer to power XLR (m) and RJ45, 5m
CA4535	12-way Fischer to power XLR (m) and RJ45, 20m
MK-90R	BluSDR-90-R Mounting Kit

The information contained in this document is the property of Domo Tactical Communications (DTC) Ltd.
Any copying or reproduction in any form whatsoever is prohibited without the written permission of DTC.
© 2026 Domo Tactical Communications (DTC) Limited. All rights reserved.

DTC | A CODAN COMPANY

BluSDR-90-R

10W BluSDR Robust Radio

A CODAN COMPANY

Technical Specification:

IO

RF COFDM transceiver A	N-type 50Ω (female)
RF COFDM transceiver B	N-type 50Ω (female)
Power input Gigabit Ethernet	12-way Fischer
USB GPIO	7-way Fischer
Analogue audio RS-232 serial data	9-way Fischer

COFDM Transceivers

Power	5W (37dB) per output, 10W total
Power step	0.25dB incremental control
Tuning step	125kHz step
Bandwidth	1.25/1.5/1.75/2.5/3.0/3.5/4.0/5.0MHz (MeshUltra-M/-80/-X) 6.0/7.0/8.0/10.0/12.0/14.0/16.0/20.0MHz (MeshUltra-M/-80)
Mesh capacity	Up to 87Mbps
Carrier modulation	BPSK/QPSK/16QAM/64QAM (adaptive)
FEC rate	1/2, 2/3 (adaptive)
Receive sensitivity	-98dBm (BW 2.5MHz/QPSK 1/2)
Receive input level	+20dBm max.

Audio

Interface	Analogue microphone/headphone with bias
Compression	G726 32kbit audio 8kHz sampling and mute
Input level (600Ω impedance)	0.25mV to 1.14V RMS
Output level	32mW RMS max into a 16Ω load

Data

Configuration	1k2 to 115k2, 7/8 bit, no/odd/even parity
Interface	RS-232 or USB peripheral

Encryption

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

Storage

Medium	128GB internal microSD

Power

DC input	10-32V
Power consumption	Peak inrush: 120W 5MHz BW with 25-90% occupancy: 30W to 55W typ.

Environment

Temperature range	-20°C to +55°C
IP rating	IP68

Physical

Dimensions	200mm x 160mm (incl. connectors) x 36mm
Weight	1.45kg approx.

License Options

Includes DTC MeshUltra™ MANET Mesh capability as standard. See MeshUltra family brochure for more details.

BluSDR-IAS	Interference Avoidance Scheme for Mesh
BluSDR-L2BRIDGE	IP Mesh Layer 2 Bridging
BluSDR-LOWBIT	Low Bitrate Video Encoding
†BLUSDR-P2MP	Point-to-Multipoint System for Mesh
BluSDR-RANGING	Ranging Measurements
BluSDR-SNAPSHOTS	Triggered JPEGs with Associated Timestamps
#AES128	AES128 Cryptography
#AES256	AES256 and AES128 Cryptography

FIPS140-3 Level 2 for MeshUltra™ waveforms from FW v8.5.0 onwards

† Enables split frequency TX/RX operation for special applications. Contact DTC for more information.

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

The information contained in this document is the property of Domo Tactical Communications (DTC) Ltd. This document and the information contained herein is provided for evaluation purposes only and is subject to change without notice. Domo Tactical Communications (DTC) Ltd assumes no responsibility for errors that might appear in this document and gives no representations or warranties as to the accuracy of the information contained herein, including but not limited to the suitability and performances of the product or its intended application.
Any copying or reproduction in any form whatsoever is prohibited without the written permission of DTC.

© Domo Tactical Communications (DTC) Limited 2026. All rights reserved.

dtccodan.com