

**C BAND VIDEO & DATA-LINK
GROUND UNIT**

- **VIDEO & TM RECEPTION /TC TRANSMISSION**
- **LONG RANGE**
- **HIGH SENSITIVITY**
- **LOW DELAY**
- **HIGH RELIABILITY**

The data-link is intended to provide transparent bi-directional serial port between a ground control station and aircraft control system and provide superior quality video downlink transmission on the same physical channel. The system consists of two main units, a ground (BASE) and an aerial (UAV). The ground unit communicates with the controller via Ethernet interface, and the aerial unit (through RF), and with optionally available antenna rotator. The aerial unit communicates with the ground unit via RF, keeps connection with the autopilot (connects through UART) and other onboard devices through Ethernet connection. The communication is point-to-point time division duplex between the ground unit – aerial unit.

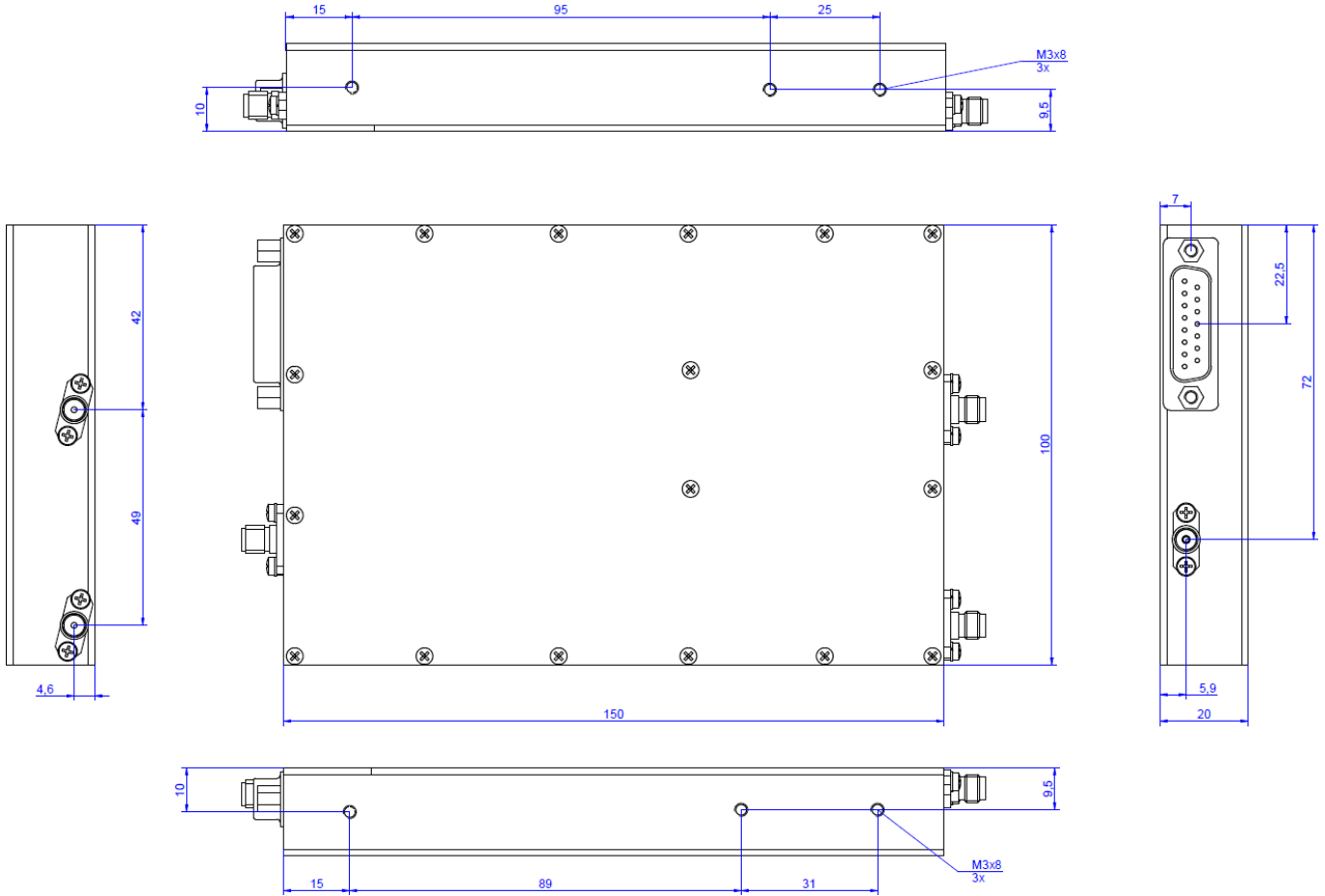
Electrical characteristics

Operation Frequency Range	5725–5875 MHz
Channel Bandwidth	5 MHz
Modulation	spread spectrum (SC-FDM / QPSK)
Transmitter Output Power	2W
Receiver Sensitivity	-97 dBm
Receiver Noise Figure	< 5 dB
Range	15 km min., 20 km typ. (with BUXA11 antenna rotator)
Number of antenna ports	single
RF Connector Type	SMA-female
Data Transfer Direction	bi-directional, half-duplex
Data Transfer Mode	digital
Data Interface	Ethernet
Data Multiplexing	time-shared
Ethernet Data Rate	2 Mbps (avg.)
Ethernet Data Format	UDP stream
Video Encoder	optional (H.264)
Video Output	UDP stream
Telecommand Data Rate	100 kbps
Telecommand Input	UDP stream
Telemetry output	UDP stream
Local configuration	TCP port
Power and Data Connector	15 pin, D-Sub
Supply Voltage	+12 V DC
Current Consumption	max. 2 A
Weight	approx. 420 g
Size	150 x 100 x 20 mm
Operating Temperature Range	-10°C to +50°C (with fan cooling)

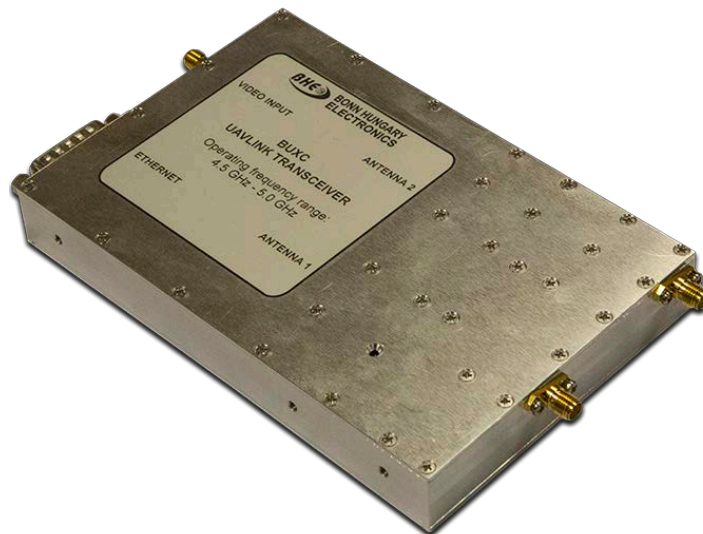
Specifications are subject to change without notice.

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Outline drawing (mm)



Photo





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Connector pinout

1	VCC12V_IN	+12 V DC input
2	GND	Ground
3	ETH_TX_N	Ethernet TX output
4	ETH_RX_N	Ethernet RX input
5	GND	Ground
6	RS232_TX_F	Serial port output
7	GND	Ground
8	RESERVED	Do not connect
9	VCC12V_IN	+12 V DC input
10	GND	Ground
11	ETH_TX_P	Ethernet TX output
12	ETH_RX_P	Ethernet RX input
13	RS232_RX_F	Serial port output
14	VCC12V_IN	+12 V DC input
15	RESERVED	Do not connect

Note: Electrical ground is internally connected to chassis.