

Video and Data Transceiver

Tellumat

DL-5000



The DL-5000 is an Internet Protocol (IP) radio ideal for high data rate applications including the transmission of high definition video.

The product is specifically optimised for UAV applications in terms of mass, power, volume, heat dissipation and feature set. Several radios may be networked together enabling a distributed payload/platform control and display capability, allowing system integrators to implement a flexible system architecture.

The radio provides several advanced optional features such as ranging, mono-pulse tracking information and high transmission power. The DL-5000 complements Tellumat's extended family of UAS-related products, which includes avionics, tracking and antenna positioning solutions and ground stations.

FEATURES	BENEFITS
Select up to 4 video inputs	Compact and lightweight (2.2 kg excl. heat sink)
Stream 2 HD channels simultaneously	IP based for range extension and remote operations
Multi-rate H.264 video encoding	Networkable
Low latency design (less than 200 ms)	Long range line of site
High bandwidth, video streaming over Ethernet	Installation possible in any orientation
Integrated encryption	Heat sinks are configurable to client specification
Built-in ranging function	Non-aligned manufacturer, no ITAR restrictions
STANAG 4586 compliant	

PERFORMANCE

Frequency Band	C-Band
Modulation	Constant envelope DSSS (up) Narrow band GMSK (down)
Max Data Rate (Gross)	16 Mbps (upgradeable to 24 Mbps)
Bit Error Rate	Better than 10^{-6} at specified sensitivity
Forward Error Correction	Reed-Solomon
Transmitter Characteristics	
Number of Channels	6
Output Power (Max)	+38 dBm
Receiver Characteristics	
Number of Channels	6
Dynamic Range	-70 dB
Sensitivity	-88 dBm (video), -92 dBm (data)

INTERFACES

Video	2x HD SDI up to 1080p30 2x CVBS SD selectable
Data / Control / Status	6x 115 Kbps RS-422 / RS-232 Selectable (asynchronous)
Ethernet	1x 100BASE-T (with GbE option available)

PHYSICAL CHARACTERISTICS

Mass	3.0 kg airborne unit
Dimensions	265 mm x 180 mm x 62 mm (H x W x D)
Mounting	Integrated mounting points

POWER REQUIREMENTS (AIRBORNE UNIT)

Input Voltage	Nominal 28 V dc <150 W
Power Consumption	<150W

OPTIONAL

Tracking Antenna System	Azimuth and elevation (options available)
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ENVIRONMENTAL (AIRBORNE AND GROUND UNITS)

Temperature Range	-40°C to +65°C
General	MIL-STD-810G
EMC	MIL-STD-461D / MIL-STD-462D



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