

# HIGH DATA RATE L/S BAND TRANSCEIVER

## Type TUALLINK-LSM



### KEY SPECIFICATIONS

- Full Duplex Operation
- Up to 10 Mbps Data Rate
- Low Power Consumption
- Integrated Duplexer, PA and LNA
- Ultra Compact Size
- Low Weight
- Transparent Operation
- Above 200 km Communication Range

TUALLINK-LSM is a compact, high data rate two-way full duplex digital data links for UAV Intelligence, Surveillance and Reconnaissance missions. It is a single module solution which can handle uplink and

downlink data together. For downlink, video and telemetry data can be multiplexed inside the airborne module and demultiplexed by the ground module to be displayed on the user interface of the operator.

TUALLINK-LSM can be operated full duplex in L Band (1.7 GHz - 1.85 GHz) and S Band (2.2 GHz- 2.5 GHz) up to 10 Mbps data rate. Higher data rates can also be offered optionally for specific applications. Modulation type can be selected in between CPFSK, MSK and PSK. In standard hardware high data rate modem, 5W / 10 W power amplifiers, high gain LNA and diplexer is integrated in the module so that it can be operated via single L/S Band antenna. 5W power amplifier and two antenna interface can also be supplied optionally.

Compact size and low power consumption allows airborne terminals to be used in mini, midi and Tactical UAVs. Having approximately the same dimensions ground module can also be used in mobile terminals.

TUALLINK-LSM has fully transparent 10/100 Base-T Ethernet and RS 232/422/485 data interfaces. H.264 Video encoder is also available optionally. It can be directly operated with any IP camera. Data security is satisfied via AES 256 encryption algorithm. Reed Solomon (RS), Convolutional and LDPC error correction encoding and decoding capability highly improves receiver sensitivity for different data rates.

### TECHNICAL SPECIFICATIONS

Frequency Range:	L Band (1.7-1.85 GHz), S Band (2.2-2.5 GHz)
RF Output Power:	2W/5W/10W
Modulation Type:	CPFSK/MSK/QPSK/ BPSK
FEC:	Reed Solomon (RS), Convolutional, LDPC (O)
Data Encryption:	AES 256
Power Consumption:	<15W (for 2W option)
Weight:	315 g
Dimension:	82x61x35.5 mm
Data Rate:	Up to 10 Mbps *
Data Interface:	10/100 Base-T // Ethernet // RS422/485 // RS 422/485

\* Contact TESTEM for Higher Data Rate Requirement