C2TECH

UFUK link DLKu45

LOS DATA LINK SYSTEM SOLUTION FOR AIRBORNE PLATFORMS

Ground Modem

A COMPLETE, ROBUST & SECURE POINT-TO-POINT LINE-OF-SIGHT (LOS) DATA COMMUNICATION SYSTEM SOLUTION

CTech designs, manufactures and provides novel and complete end-to-end communication solutions for Unmanned Aerial Vehicles (UAVs). UFUK-DLX45© is intended for Line-of-Sight (LOS) data communication applications, and consists of all the components to establish a secure and robust data link for the most severe environments and conditions.

It is a complete Full Duplex (FD) communication system solution containing the paired data modems, RF blocks and antennas for both ground and airborne terminals. The up-link carries the command and control information for the real time operation of the UAV, while the down-link conveys all the onboard sensor data, video and audio payload to the ground station.

Airborne Modem

Ground Tracking Antenna

TURKISH AEROSPACE SUBSIDIARY

TECHNICAL SPECIFICATIONS

Altitude	45,000 ft	
Power	Airborne Modem Ground Modem	: 28 VDC Nominal (16 VDC min – 36 VDC max) : 220V AC
Operating Temperature	Airborne Modem Ground Modem	: -40°C to +55°C : +5°C to +35°C
Modem Size	Airborne Modem Size Ground Modem Size	: 211,50 mm x 200 mm x 402,46 mm : 86,40 mm X 479,80 mm x 541,6mm 2U 19" Rack Type Chassis
Modem Weight	Airborne Modem Weight Ground Modem Weight	: 7,5 kg (Included wiring + RF equipments) : < 14 kg (Included wiring + RF equipments)

DESCRIPTION AND FEATURES

- A Complete, Fully Integrated, Secure and Robust LOS Data Link System for Military and Civil Applications
- Selectable Modcods Including FEC's of 1/2, 2/3 and 3/4
- RF Operation Capability on Ku Bands
- Modular Software Defined Radio (SDR) Architecture
- Full-Duplex Operation
- Internal AES-256 Data Encryption for Communication Security (COMSEC)
- GBit Ethernet, RS-422 & RS-232 Interfaces for Data and Communication Lines
- Link Latency (Excludes other data processing delays): 50 msec
- Data Rates:
  - Return (Down) Link : Variable Up to: 45 Mbps
  - Forward (Up) Link : Variable Up to: 2 Mbps
- Range: 200 km Typ. (Ku Band)
- 2 X Ethernet (Airborne Modem)
- 1 X Ethernet (Ground Modem)
- 2 x RS 422 Serial Interface (CLI)
- Internal GNSS Receiver
- SNMP v3 Control via 100 Mbps Ethernet
- Antenna Control Unit: 1 x 100 Mbps Ethernet 1 x Serial Interface
- GUI Web-based Interface over Ethernet