Commtact

IDLS MK-II

Integrated Data Link System

Airborne Data Terminal (ADT)

Ground Data Terminal (GDT)

Data Link Solution

for Tactical and Strategic UAS and Mission Aircraft

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IDLS MK-II Data Link Solution

Description

The Integrated Data Link System Mk-II (IDLS Mk-II) is an advanced digital datalink system specifically designed for manned and unmanned platforms. As a cost-effective solution for most requirements known today, this state-of-the-art system uses open architecture and enables full duplex wideband, digital link, error correction techniques, resistance to jamming techniques, and high-rate communication in the Uplink (UPL) and Downlink (DNL) channels.

The IDLS Mk-II can downlink real-time video images, serial data and information from most sensors operating today.

The IDLS Mk-II is a modular, light-weight, reliable, relatively small in size, and affordable system. It combines the commercially proven technology and standards with advanced algorithms, to provide high performance.

The system is full duplex and has one Uplink for the command to UAV and one Downlink that transmits sensor information and related data from the UAV to the ground control.

Key Features

- Long range
- Extended range beyond line of sight (LOS) via relay
- Variable data rates
- Optimized bandwidths for different data rates
- Remote frequency change capability
- Dual autotracking capabilities (primary & backup)
- Full duplex (UPL&DNL)
- High reliability and low cycle cost

Advantages

- Embeded relay capability without additional hardware
- Compact system with high performance
- Supports long range requirements
- Open architecture for easy integration
- 3 antenna ports for optimal airborne antenna coverage

System Components

- Airborne data terminal (ADT)
- Ground data terminal (GDT)
- Remotely operated video enhanced receiver (Rover)
- Ground support test equipment (GSTE)

Applications

- MALE UAS
- Tactical UAS
- Mission aircraft
- Surveillance helicopter
- Sensor pod
- Loitering munition

Specifications

Parameter	Value/Description
Range	>250 km
Primary Link Frequency Band	S/C/X/KU Band
Sec. Link Frequency Band	UHF Band
Bit Rates	Variable 1~20 MBps
Forward Error Correction	Convolution: K=7, R=3/4 Reed Solomon: adapted to required Link
Video Latency	<100 msec
Video Compression	H264
COMSEC	AES: 256 bit keys
TRANSEC	Supported
Environmental Conditions	Mil Std 810F/ Mil Std 461E
Mechanical Dimensions	ADT: ~230X240X45 mm GDT: ~900X1200X700 mm
Weight	ADT: ~2.5 kg GDT: ~70 kg
Power	ADT: 28 Vdc@4A average GDT: 28 Vdc@5A average

Interfaces

- RS-422 (2)
- RS-232
- Ethernet100 base-t for IP-based data sources
- USB
- GPS 1pps
- Video in: NTSC, PAL, CCIR, and RS-170 monochrome input

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