

ELAD-10

Next generation wideband data-link system designed especially for long-range aerial platforms



Powerful, long-range LOS wireless communications system for large manned or unmanned platforms

Delivering up to 45Mbps over a 300km range, the robust ELAD-10 is the ideal line-of-sight (LOS) data-link system for MALE/HALE UAVs, USVs, mission helicopters, manned mission aircraft and other long-range platforms.

Available in S-Band, C-Band, X-Band and Ku-Band frequencies, the system was especially designed to enable flawless long-range communications in the air, at sea, or on land.

Elbit Systems' ELAD-10 integrates seamlessly with a wide range of existing and future applications, in addition to various handheld and vehicular tactical video systems.

Seamless broadband streaming – With the aim of ensuring continuous end-to-end communications capabilities, ELAD-10 uses a wideband Ethernet connection that supports multiple payloads and several IP sources. The robust system smoothly transmits analog or high-definition video and audio from the platform payload to the ground station, while receiving IP sources and audio from the ground.

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Built to enhance maximum flexibility, the system easily connects to up to four video sources simultaneously, and provides H.264 video encoding-decoding features that support PAL/NTSC, HD-SDI.

Optimal performance in challenging conditions – ELAD-10 offers a combination of advanced features that ensures reliable connections even in adverse environments. The MRC diversity technique is fortified by full duplex (uplink and downlink) using Time Division Duplexing (TDD) or Frequency Division Duplexing (FDD).

In addition to the application of advanced CTC-FEC error correction techniques, antenna diversity is incorporated to enable reliable communications and superior spatial coverage.

Meeting the most stringent global standards – As a proven solution deployed by armed forces all over the world, ELAD-10 complies with the requisite international regulations including flight safety standards DO-178 and DO-254, and undergoes MIL-STD-810F and MIL-STD-461E environmental testing.

Operating Highlights

- Scalable communications technology
- Seamless integration with a wide range of existing and future applications
- Full duplex (uplink and downlink) using TDD or FDD
- Dual-layer security: AES-256 bit encryption (COMSEC) and embedded frequency hopping capability (TRANSEC) - (optional)
- MRC diversity for excellent communications quality in every environment
- Fully controllable data rates up to 45Mbps

Technical Highlights

Output Power	43dBm
Available frequency bands	S-Band / C-Band / X-Band / Ku-Band
Video latency	~160ms
ADT weight	8.5kg
Controllable data rates	Up to 45Mbps
Operational range	300km (depending on GDT configuration)
Mechanical dimensions	308mm X 264mm X 250.5mm
Power consumption	<310W



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