

# Starlink

## Family of Multiband Digital Data Link Systems



### The Versatile Digital Solution for Real-Time Battlefield Intelligence Gathering

#### Unique performance highlights

- Ideally suited for installation on a variety of platforms with space or weight restrictions, or for use as a "Store & Forward" relay
- Rugged design, meets IP54 and MIL-STD-810F requirements
- Space Diversity
- Low Latency
- Multiplexing - allows for concurrent integration of several payloads
- Hot swap
- AES encryption
- Variety of data rates
- Extended range

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### Overview

Elisra's Starlink is a point-to-point full duplex Time Division Duplexing (TDD) digital data link system, specifically designed for use with midi and mini-Unmanned Aerial Systems (UAS). A single channel handles both uplink Command and Control, and downlink Video and Telemetry data transmissions.

Resistant to jamming and interference and with provision for encryption, Starlink securely delivers real-time video imagery captured by the UAS payload straight to the end users in the field and provides the best inner-link solution for interference, multi-path, and coexistence. Added to its low weight, Starlink's remarkably low power consumption allows for extended mission range and endurance.

### Multiple Versions for Variety of Applications

Starlink employs a Time Division Duplexing (TDD) method that can operate at Single Frequency (SF) or Frequency Hopping (FH) mode, to achieve very high spectral efficiency (4 MHz per channel);

Starlink is available in L, S, and C-band versions, allowing for use in all types of midi-, mini- and tactical UAS applications, at tactical ranges up to 100 kilometers.

### Main Performance Characteristics

Parameter	Performance
Frequency Bands	L, S, C
Multiplexing Method	TDD
Range	Up to 100 km
Mode of Operation	Frequency Hopping / Single Frequency
Compressed Video Data Rate	~1.4 Mbps to 3 Mbps
Telemetry Data Rate (interleaved with the video)	4.8/9.6/19.2 kbps
Command Data Rate	4.8/9.6/19.2 kbps
Video Compression	H264, MPEG4
Modulation Methods	DQPSK
<b>Tracking System</b>	<b>Single Axis</b>
Operating Input Power	18-36Vdc
Dimensions and Weight	8.66" × 8.66" × 5.7", ~2.1 kg
Range	Az. +190° to -190°
Speed	~30°/sec
Resolution	0.5°
	<b>Dual Axis</b>
	24-30Vdc
	11.65" × 5.5" × 8.53", ~15 kg
	Az. 360°× N; El. -10° to +60°
	~40°/sec., nominal
	0.1°



4.01" x 4.05" x 1.18"



Starlink's compact and easily transportable Ground Data Terminal (GDT) is mounted on a tracking system, which affords it single or dual-axis tracking capability and further extends its impressive effectiveness. When operating with mini-UAS, Starlink assures the same outstanding performance without using a tracking system.

### Enhanced Situational Awareness

Another advantage offered by Starlink is the ability to deliver real-time, broadcast quality imagery and telemetry directly to deployed tactical forces, thus creating a common visual language amongst all forces in the battlespace. Using the Remote Video Terminal (RVT) link, combined with Elisra's tactical video dissemination systems, the Starlink Digital Data Link System enables field commanders and dismounted troops to be on the receiving end of real-time data for target tracking, situational awareness, damage assessment, over-the-hill reconnaissance and surveillance, and all-round support for battlefield management.

Fast and easily integrated, the Starlink Multiband data link is in operation in dozens of different UAS, in many countries.



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