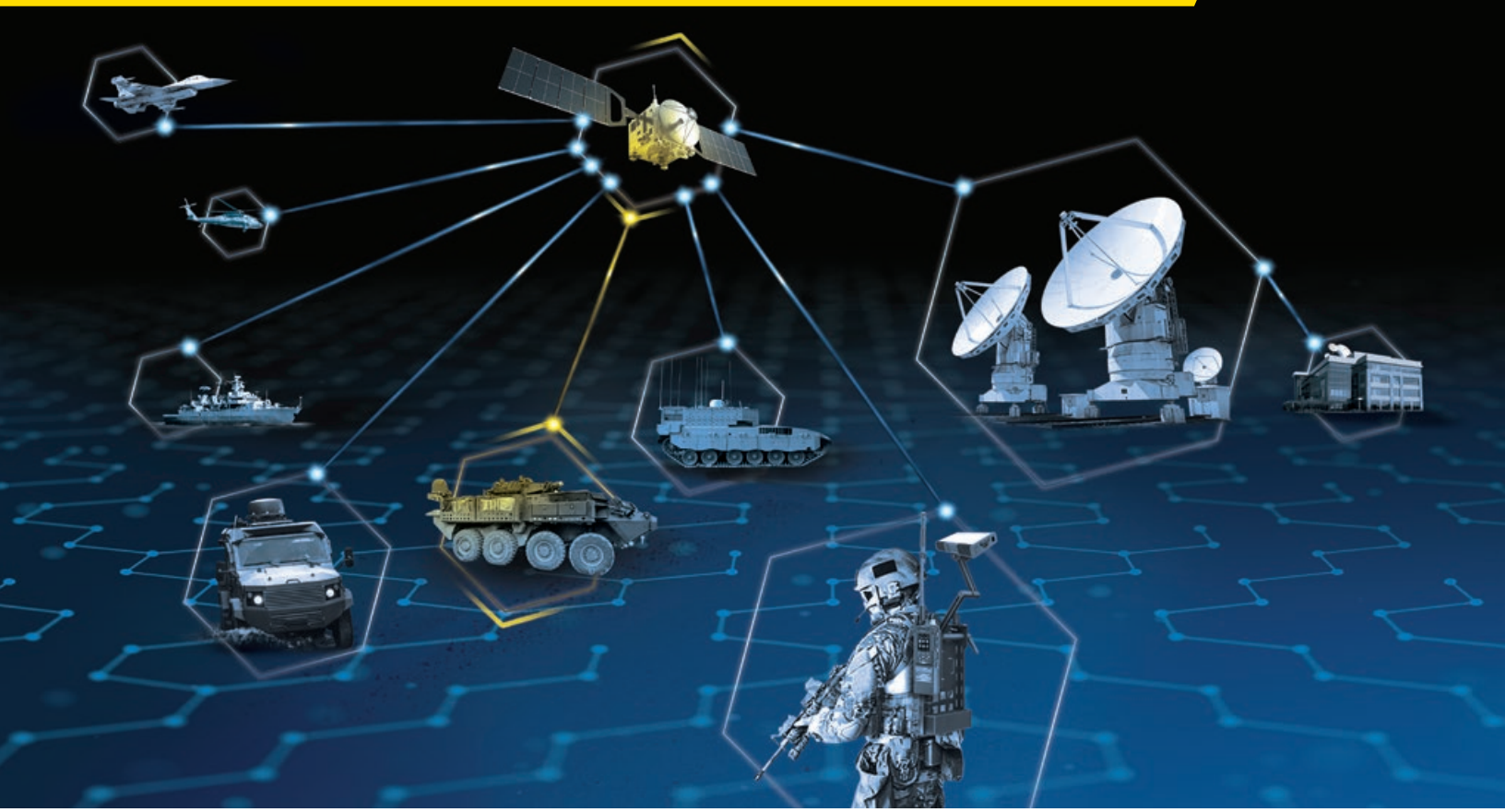
Wideband SATCOM On-The-Move Solutions

Comprehensive operational connectivity with reliable and secure on-the-move communication systems



Elbit Systems™
C4I and Cyber

Wideband SATCOM On-The-Move Solutions

Comprehensive operational connectivity with reliable and secure on-the-move communication systems

Elbit Systems offers comprehensive, reliable, secure and immune satellite communication (SATCOM) systems for a wide range of tactical networks, platforms and applications. These solutions are designed and tailored to modern battlefield requirements, offering a low total cost of ownership.

Elbit Systems' SATCOM solutions allow military units and operational forces secure and reliable connectivity while maneuvering in challenging environments on land, sea or air. These field-proven SATCOM solutions are integrated with Elbit Systems' other solutions and platforms and are in operational use by armies and governments around the world.

ELSAT family - Wideband SATCOM On-The-Move (SOTM) solutions

The ELSAT series of wideband satellite communication solutions delivers reliable and secure high data rate broadband communication in Ka, Ku and X bands while on the move, capable of supporting numerous users simultaneously anywhere and anytime. The systems are available at various frequencies and in a range of sizes. The rapid and enhanced acquisition and dynamic tracking performance allow the SOTM terminals to work in challenging environmental conditions while using military and commercial satellites, including the Wideband Global SATCOM (WGS) satellites network.

ELSAT-D - Triple band SATCOM On-The-Move system

The ELSAT-D advanced tri-band SOTM system provides real-time uninterrupted voice, video and data connectivity at high data rates of over 12Mbps down and over 6Mbps up.

The highly ruggedized system can be easily mounted on a wide range of on-the-move military platforms including wheeled and tracked vehicles, enabling decision makers, commanders and field units to maximize C^4 effectiveness and situational awareness in real time and under the most demanding combat conditions.

ELSAT-D automatically acquires and maintains a continuous communication link with military and commercial satellites, including WGS satellite networks, by means of an advanced four-axis positioner supported by IMU, RSSI, beacon receiver, GPS and modem locked signal (optional).

Key Features

- Real-time on-the-move uninterrupted voice, video and data connectivity
- High data rate over 12 Mbps downlink and 6 Mbps uplink (depending on satellite performance)
- Operational flexibility through interchangeable RF heads in Ka, Ku and X bands
- Robust dynamic performance using 4-axis rotation
- Rapid and enhanced acquisition, locking and tracking mechanism using: IMU, RSSI, satellite beacon receiver, GPS (optional), modem locked (optional)
- NMS application for maintenance and support
- GPS independent and modem agnostic
- Integrated on tracked and wheeled platforms
- Compliant with FCC, ITU and WGS regulations
- Increased voice and data communication range
- Advanced algorithms to address multi-path interference

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Technical Specifications

Specification	Ka-Band	Ku-Band	X-Band
Frequency Rx	19.2 - 21.2 GHz (*)	10.7 - 12.75 GHz	7.25 - 7.75 GHz
Frequency Tx	29.0 - 31 GHz (*)	13.75 - 14.5 GHz	7.9 - 8.4 GHz
Aperture Size	48 cm (19 inches)		
EIRP	48.8 dBW (25W BUC)	48 dBW (40W BUC)	43 dBW (50W BUC)
G/T	13.8 dB/K	12 dB/K	7d B/k
Polarization (remotely selectable)	Circular	Linear V/H	Circular
Azimuth range	360° continuous	360° continuous	360° continuous
Elevation range	-5° to +95°	-5° to +95°	-5° to +95°
Roll range	-25° to +25°	-25° to +25°	-25° to +25°
Polarization range	RH/LH	+/-90°	RH/LH
Tracking technique	IMU & RSSI & satellite beacon receiver & GPS (optional) & modem locked (optional)		
Acquisition time	< 1 second after short blockage		
System diameter	67cm (26.4 inches) swept volume		
System height	65.7cm (25.9 inches) from mounting surface		
System weight	65kg (143.5 lbs)		
Operating temperature	-32° to 65°		
Input voltage	18-32 VDC MIL-STD 1275		
Power consumption (Antenna)	40W Continuous, 100W Peak		
Standards	MIL-STD-810 (incl. 40G shocks for tracked vehicle), MIL-STD-461, MIL-STD-1275, FCC, ITU		

(*) Commercial Ka is optional

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