E-LynX™ SAT
Tactical SATCOM on-the-move and on-the-walk

E-LynX™ SAT provides secure tactical satellite communication (SATCOM) for voice, data and video transmission beyond-line-of-sight (BLOS) over standard KA and KU-band GEO, MEO and LEO satellites. The solution features multiple configurations for secure connectivity on-the-walk and on-the-move and easily connects with most major tactical radio equipment and C⁴I systems. Lightweight, ruggedized and versatile, E-LynX™ SAT is suitable for deployed tactical forces and can be integrated on a wide range of platforms, soldier portable, vehicular, airborne and maritime.

The E-LynX™ SAT unique add-on system is designed to provide SATCOM connectivity to secured VHF/UHF military radio equipment and C⁴I systems, with standard IP protocols and interfaces. The compact, easy-to-operate terminal delivers secure and immune communications from the individual soldier to regional command posts across any geographic location and terrain. E-LynX™ SAT consists of two main units, a hub at the stationary ground station and mobile end-user terminals in different frequency bands, sizes and bandwidths.

Elbit Systems™
C⁴I and Cyber

E-LynX SAT

Tactical SATCOM on-the-move and on-the-walk

Multiple configurations and applications

The system can operate in a variety of modes for a range of tactical applications:

- Voice, data and video communication between maneuvering forces and headquarters
- Radio network relay between land, air and sea forces and the headquarters
- SATCOM radio network of multiple military radios including ROIP systems
- Simultaneous distribution of information to multiple end-users (commanders/soldiers)
- Multi-point information gathering (sensors) in TDMA/IoT

Key Features

- On-the-walk and on-the-move tactical satellite communication
- Automatic electronic satellite tracking with phased array antennas
- Add-on SATCOM connectivity to secured VHF/UHF military radio equipment and ruggedized tablet
- Supports Ka-band and Ku-band GEO/MEO/LEO satellites
- Secure and immune: Low Probability of Detection (LPD) and Low Probability of Intercept (LPI) capabilities using Direct Sequence Spread Spectrum modulation
- Standard IP protocols and interfaces

Technical Specifications

Specifications	Ka-Band		Ku-Band	
Antenna elements	8*8	16*16	8*8	16*16
Frequency Tx	27.5 – 30.0 GHz		13.75 - 14.5 GHz	
Frequency Rx	17.7 - 20.2 GHz		10.7 - 12.2 GHz	
Data Rate	10Kbps ~ 40Kbps	~400Kbps	20Kbps ~ 80Kbps	~800kbps
Transmit / Receive Antenna Gain	>21dBi at 90° >19dBi at 40°	>27dBi at 90° >25dBi at 40°	>21dBi at 90° >19dBi at 40°	>27dBi at 90° >25dBi at 40°
Transmit / Receive Antenna Beam Width	13° at 90° EL/AZ 18° at 40° EL/AZ	6.5° at 90° EL/AZ 9° at 40° EL/AZ	13° at 90° EL/AZ 18° at 40° EL/AZ	6.5° at 90° EL/AZ 9° at 40° EL/AZ
Modem Modulation	BPSK			
Spreading Factor Linear	5 to 256			
Receiver Lock Time	50msec			
Frequency Switching Time	1msec			
Transmission Power	30dBm (1W) Max			
Receiver Eb/No	2dB			
Polarization	V,H,RC,LC Configurable			
Angle Coverage (from the horizon)	AZ: 360° EL: 30° to 90°			
Operating Temperature	-20°C to 50°C			
Dimensions (LxWxH)	210 x 140 x 40 mm	450 x 250 x 50 mm	280 x 180 x 40 mm	500 x 300 x 50 mm
Weight	~ 1 kg	~4 kg	~1.8 kg	~5 kg
Power Consumption Max/Idle	~ 35W / ~ 6W	95W	~ 35W / ~ 6W	95W

Elbit Systems™
C4I and Cyber