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BATTLEFIELD AWARENESS AND TARGETING SYSTEM-EMBEDDED 1500

Embeddable, Single-Channel Link 16 Comms for SWaP-Constrained Systems

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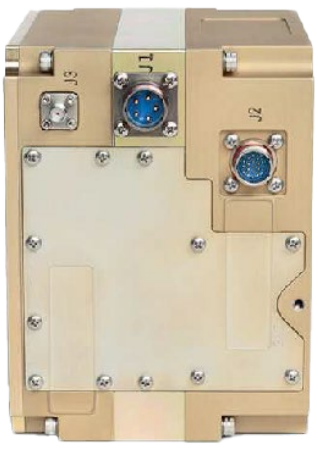
With L3Harris Battlefield Awareness and Targeting System-Embedded 1500 (BATS-E 1500) Size, Weight and Power (SWaP)-constrained systems, including targeting pods and network enabled weapons, are now accounted for in the Common Operational Picture. This 360-degree visibility provides all Link 16 network participants with the ability to see, relay and share situational awareness data and allows for more accurate tracking, identification and engagement so controllers now have a clear view of the battlespace.

PRODUCT DESCRIPTION

Designed for missions with longer transmission ranges, the low SWaP BATS-E 1500 is optimized for embedded applications. Controllers now have the ability to send target updates while in flight for secure, reliable weapons delivery, so as to significantly decrease the time in high-threat environments.

The BATS-E 1500's Enhanced Throughput (ET) mode boosts Link 16's protected data rate of 115 Kbps to over 1.1 Mbps. When combined with the Concurrent Multiple Reception (CMR) capability, the BATS-E 1500 is the first Link 16 radio capable of data rates in excess of 2 Mbps. The Concurrent Multinet (CMN) and Concurrent Contention Receive (CCR) features have also been implemented in the latest version of the BATS-E 1500. With Link 16 Cryptographic Modernization, the BATS-E also implements the latest high assurance algorithms using a field proven programmable crypto engine to securely serve joint and coalition mission requirements, while maintaining backwards compatibility with legacy communications systems.

For platforms that have traditionally lacked Link 16 network access, the BATS-E 1500 provides a cost-effective option for integrating Link 16 into existing targeting and weapon systems without the need for major platform modifications. This approach ensures that integration costs are kept to a minimum, while providing full interoperability with other platforms that are already outfitted with Link 16 communications.



The BATS-E 1500 combines full Link 16 functionality in a compact, embeddable form factor, delivering real-time accurate targeting data to help controllers make split-second decisions to execute more missions with precision.

Very Low-SWaP
Link 16

KEY FEATURES

Mission Flexibility

- Single-channel Link 16 terminal
- Embeddable form factor
- Low, size, weight, and power
- Jam resistant for operations in contested and denied access environments

Command and Control

- Status/weapons load/time on station
- Sensor information sharing
- WILCO/CANTCO

Target Attack

- Target update
- Mobile target attack
- Ideal for SWaP-constrained platforms
- Targeting pods
- Network enabled weapons

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SPECIFICATIONS

PERFORMANCE

- Frequency Range: 969 to 1206 MHz Link 16
- Transmission Modes: Link 16 TDMA, all OP modes and enhanced throughput
- Antenna Port:
  - Link 16 50 Ω
- Data Interfaces: Ethernet/USB, Full Platform-J interface
- Dimensions: 5.5" (w) x 4.25" (h) x 5.25" (d); 13.9 cm (w) x 10.8 cm (h) x 13.3 cm (d)
- Volume: 123 cu in. (2,015.61 cc)
- Weight: 6 lb

TRANSMITTER

- Power Output: 63 W and 8 W (air-to-air transmission ranges in excess of 200 nm)

WAVEFORMS

- L-band: Link 16 data including enhanced throughput modes

ENVIRONMENTAL

- Operating Temperature: -45˚ to +74˚ C; -49° to +165.2° F
- Storage Temperature: -33˚ to +71˚ C; -27.4° to +159.8° F

POWER CONSUMPTION

- Average DC Power Consumption at 63W RF output power: 50W at 28VDC
- Average DC Power Consumption at 8W RF output power: 42W at 28VDC

FEATURES

- Embeddable, single-channel, single antenna Link 16
- Modular design for easy growth
- Fully conduction cooled
- Link 16 data
- Link 16 Frequency Remapping (FR)
- Enhanced Throughput (ET)
- Concurrent Multi-Net (CMN)
- Concurrent Contention Receive (CCR)
- Interoperable with: JTIDS, MIDS-LVT, MIDS JTRS, STT, BATS-D AN/ PRC-161, and all fielded Link 16 terminals
- Cryptographic Modernization Initiative compliant

GROWTH CAPABILITIES

- Enhanced anti-jam
- Link 16 precision navigation

Battlefield Awareness and Targeting System-Embedded 1500

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L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.

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