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FAST. FORWARD.

# MODULAR PAYLOAD COMPLIANT BANSHEE™ TRANSCEIVER

## Protected, assured communications and networking for airborne and maritime platforms

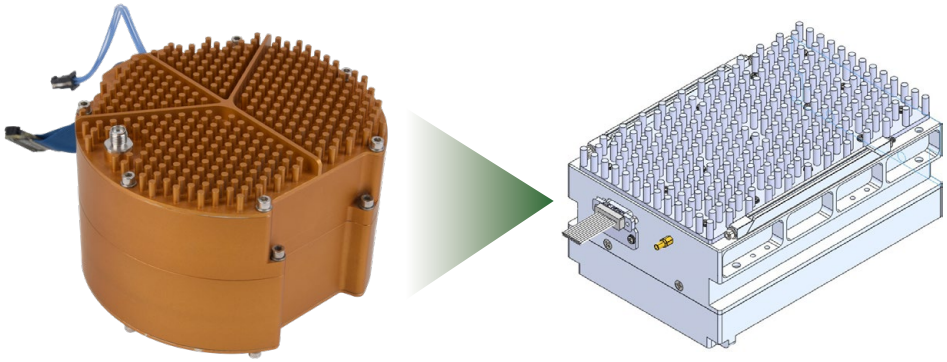
**L3Harris' Modular Payload Compliant Banshee (MPCB) provides protected and robust mesh networking for airborne and air-to-ground/ maritime connectivity. The MPCB's assured position, navigation and timing (APNT) capabilities strengthen resiliency in contested communications environments.**

### PRODUCT DESCRIPTION

The first-generation BANSHEE Transceiver was designed to provide a robust, protected data link, enabling coordinated swarming UAVs to operate unimpeded in spectrally contested and congested environments. It is a low-cost secure radio, hosting advanced features of L3Harris' Advanced Tactical Data Link (ATDL) 1.0 Waveform and Network Technology.

The L3Harris MPCB includes all of the features of the first-generation BANSHEE in a form factor designed to meet the requirements for EW/SIGINT/Communications systems for Class 1-3 UAS, manned aircraft, and small maritime vessels as detailed in USSOCOM SAFC document MOD PAYLOAD, Revision 5.1, May 25, 2021. MPCB provides the advantages of ATDL 1.0 connectivity and APNT capabilities to platforms that support the Mod Payload standard.

The MPCB's Topology Manager supports advanced mesh networking features through a distributed mesh, enabling the network to scale from 2 to 32 nodes in a coordinated flat network. Tiered networks can be employed to extend well beyond 32 nodes. Optimization for real-time network management enable rapid network convergence amid highly dynamic operations. Additionally, the ATDL 1.0 waveform is capable of providing APNT support to platforms in contested environments. Among these features, the waveform's time-transfer/synchronization capabilities allow for highly coordinated operations between networked platforms.



First-generation BANSHEE

Modular Payload Compliant BANSHEE

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Secure and scalable networking for advanced communications resiliency, electronic warfare, APNT and swarming applications

### KEY NETWORKING FEATURES

- Scalable mesh network up to 32 nodes
- Advanced spectral sense-and-react and anti-jam features
- Low latency
- Full duplex, 3-channel waveform
- Authenticated network entry
- Compatible with omni-directional antennas

### OTHER ADVANCED CAPABILITIES

- Cooperative emitter geolocation
- GPS denied relative navigation
- Assured positioning and timing
- Swarm networking and inter-swarm communication

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## SPECIFICATIONS

### Performance Characteristics

- Multiband reception and transmission: S- and C-Bands
- 3-band, reconfigurable operation (1 Tx and 2 Rx)

### Waveform Characteristics

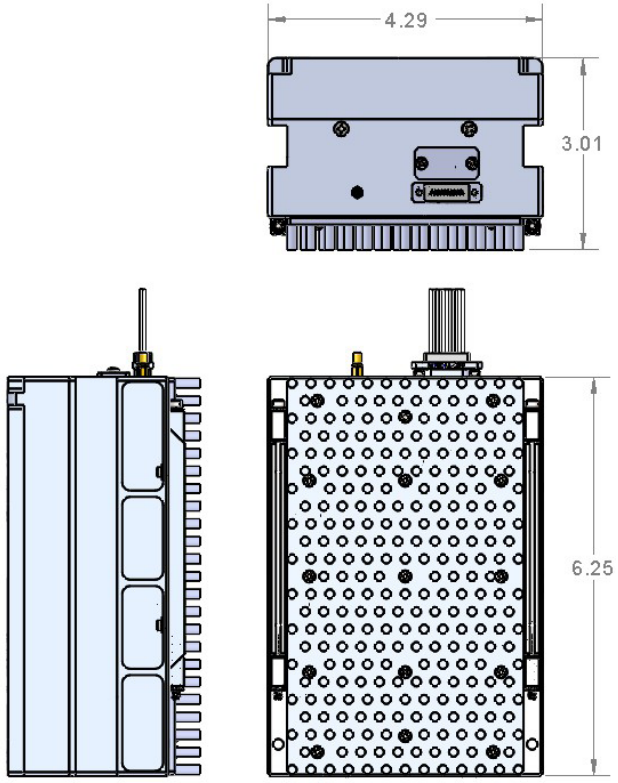
- ATDL Mesh 1.0 compatible
- Data rates from 4 kbps to 11 Mbps
- Up to 32 node mesh connectivity
- Up to 250 knots relative velocity with standard build (1000 knots relative velocity is also available)

### Encryption

- AES (with road map to Type 1)

### SWaP

- Size: 3.01" (h) x 6.25" (l) x 4.29" (w)
- Weight: 2.91 lbs.
- RF Power out: 30dBm or 1 Watt
- Power Consumption: 42 Watts (typical), 52 Watts (max)
- Input Voltage: 22 to 32 VDC




### Environmental

- Operating Temperature: -25 °C to +49 °C
- Shock: 100G transient for launch

### Networking

- Up to 5 direct neighbors
- Up to 32 networked nodes per tier
- Automated topology optimization
- Internet Protocol (IP) HW-based routing
- IP-based quality of service (QoS)

### Special Features

- In-band jammer/interference sensing algorithm
- Automatic frequency agility
- Power limiting mode controlled by profile

### Applications

- Coordinated air, ground and maritime operations
- Mod Payload Compliant aircraft and maritime platforms operating in spectrally congested and contested environments
- Swarming operations

**Modular Payload Compliant BANSHEE Transceiver**



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