

SMART-EXBEAM® II ANTENNA

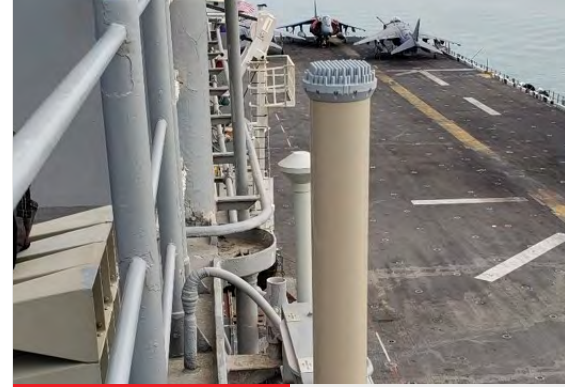
Smart-ExBeam® II Multi-Band Transceiver Antenna

The Smart-ExBeam® II is a multi-band transceiver antenna designed to accommodate up to 15 dB of insertion loss over long cable runs and provide integrated multi-band elements.

The Smart-ExBeam® II antenna design eliminates the need for multiple antenna packages and allows integrators to position a single antenna for maximum efficiency and optimal line-of-site coverage. To eliminate the need for a DC power source to be placed at the physical location of the antenna, DC power to the antenna is multiplexed over the cable from the control module. The Smart-ExBeam® II antenna is designed to handle both analog and digital signals, ranging from UHF to Ku band. The Smart-ExBeam® II antenna is ideal for use in austere environments where line-of-site is critical and placement is challenging, including buildings / tactical operations centers, ground-mobile platforms, ship installations requiring long cable runs, and tower perimeter surveillance.

KEY FEATURES/BENEFITS

- > Supports any length of off-the-shelf coaxial cable with a maximum insertion loss up to 15 dB (approximately 100-500 feet, depending on cable type)
- > Interference prevention by providing filtering and immunity for out-of-band interference and noise
- > Integrated multi-band elements
- > Horizon and overhead beam coverage for L and S bands
- > The antenna and control module are software-upgradeable in the field to allow easy programming as new “Smart Features” are implemented
- > Automatic and manual RF signal and metadata tracking modes
- > Supports scanning through all frequencies, bands, and across all C and Ku band sectors
- > Multiplexes all signals between control module and antenna on a single coax cable
- > Supports hot swapping



APPLICATIONS

- > Buildings / Combat Operations Centers (COCs) / Tactical Operations Centers (TOCs)
- > Ground-Mobile Platforms
- > Ship installations requiring long cable runs
- > Tower perimeter surveillance



BANDS				
Band	Frequency	Antenna Type	Polarization	Azimuth Beamwidth
UHF	400 - 470 MHz	Horizon	Vertical	360°
L	1625 - 1850 MHz	Horizon / Overhead	Vertical	360°
S	2025 - 2500 MHz	Horizon / Overhead	Vertical	360°
C-Low	4400 - 5000 MHz	Omni / Directional	Vertical	360° (4 x 90°)
C-High	5250 - 5850 MHz	Omni / Directional	Vertical	360° (4 x 90°)
Ku-Low	14.40 - 14.93 GHz	Omni / Directional	Right-Hand Circular	360° (4 x 90°)
Ku-High	15.15 - 15.35 GHz	Omni / Directional	Right-Hand Circular	360° (4 x 90°)

SPECIFICATIONS

Dimensions (Length)	19.5" H x 4" W
Weight	Less than 4 pounds (excluding optional vehicle mount)
Connector	N-Type, Male, Stainless Steel
Colors	Gray, Tan, or Green

ENVIRONMENTAL SPECIFICATIONS

Altitude (Storage)	MIL-STD-810G, Method 500.5, Procedure I, 40,000 feet
Altitude (Operating)	MIL-STD-810G, Method 500.5, Procedure II, 15,000 feet
Temperature (Storage)	MIL-STD-810G, Method 501.5, 502.5, Procedure I, -46°C to +85°C
Temperature (Operating)	MIL-STD-810G, Method 501.5, 502.5, Procedure II, -40°C to +65°C
Temperature Shock	MIL-STD-810G, Method 503.5, Procedure I-C, -46°C to +85°C
Rain	MIL-STD-810G, Method 508.6, Procedure I, 30 minutes each exposed side
Humidity	MIL-STD-810G, Method 507.5, Procedure II, ten 24-hour cycles
Salt Fog	MIL-STD-810G, Method 509.5, four 24-hour periods
Dust and Sand	MIL-STD-810G, Method 510.5, Procedure I and Procedure II
Immersion	MIL-STD-810G, Method 512.5, Procedure I, one meter for 30 minutes
Vibration (Operational)	MIL-STD-810G, Method 514.6, Procedure I, Cat 4, Figure 514.6C-I, Table 514.6C-II, 60 min / axis
Vibration (Non-Operational)	MIL-STD-810G, Method 514.6, Procedure I, Cat 24, Figure 514.6E-1, 60 min / axis
Vibration (Shipboard)	MIL-STD-167-1A, Type 1
Shock (Functional)	MIL-STD-810G, Method 516.6, Procedure I, 40g, 11 ms (with optional vehicle mount)
Shock (Transit Drop)	MIL-STD-810G, Method 516.6, Procedure IV
Shock (Shipboard)	MIL-DTL-901E, Lightweight, Grade A, Class I, Type A
EMC	MIL-STD-461G, CS118, RE101, RE102, RE103, RS103
EME	MIL-STD-464C, Section 5.3, Table 1 for Shipboard Weather Decks, tailored to maximum power received of +37 dBm
Lightning	MIL-STD-464C, Section 5.5, Indirect
EMRADHAZ	MIL-STD-464C, Section 5.9



**SMART EX-BEAM® II MULTI-BAND
TRANSCIEVER ANTENNA**



VEHICLE MOUNT (OPTIONAL)

Smart-ExBeam® II Antenna

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