

SPARTIN™ ANTENNA

Rugged 7-Band Transceive Antenna

The SPARTIN Antenna is an environmentally protected, extended range multi-band antenna, designed to accommodate up to 15 dB of insertion loss over long cable runs.

PRODUCT DESCRIPTION

The SPARTIN 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 SPARTIN Antenna is designed to handle both analog and digital signals, including UHF, L, S, C-Low, C-High, Ku-Low and Ku-High bands. The SPARTIN 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.

APPLICATIONS

- > Buildings, Combat Operations Centers (COCs), Tactical Operations Centers (TOCs)
- > Ground-mobile platforms
- > Ship installations requiring long cable runs
- > Tower perimeter surveillance



Vehicle Mount (optional)



SPARTIN Multi-Band Transceiver Antenna



Remotely Mountable 7-Band Transceive Antenna with Beyond Line-of-Sight (BLOS) Range

KEY FEATURES

- > 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
- > Supports automatic and manual RF signal and metadata tracking modes
- > Supports scanning through all frequencies, bands, and across all C-band and Ku-band sectors
- > Multiplexes all signals between control module and antenna on a single coax cable
- > Supports hot swapping

SPECIFICATIONS

BANDS

BAND	ANTENNA TYPE	POLARIZATION	AZIMUTH BEAMWIDTH
UHF	Horizon	Vertical	360°
L	Horizon / Overhead	Vertical	360°
S	Horizon / Overhead	Vertical	360°
C-Low	Omni / Directional	Vertical	360° (4 x 90°)
C-High	Omni / Directional	Vertical	360° (4 x 90°)
Ku-Low	Omni / Directional	Right-Hand Circular	360° (4 x 90°)
Ku-High	Omni / Directional	Right-Hand Circular	360° (4 x 90°)

ENVIRONMENTAL CHARACTERISTICS

- > 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

PHYSICAL CHARACTERISTICS

- > Dimensions: 19.5" (h) x 4" (w)
- > Weight: Less than four pounds (excluding optional vehicle mount)
- > Connector: N-Type, male, stainless steel
- > Colors: Gray, Tan, or Green



SPARTIN Antenna (PN: 430-1052-01X)

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