

CS-1218 Airborne Omni Antenna



The CS-1218 is a high performance airborne omni antenna covering the 0.5 to 18 GHz range.

The CS-1218 is a small, omni-directional antenna that operates over the 0.5 to 18 GHz frequency range. It is intended for use on propeller aircraft up to 40,000 feet. The CS-1218 is radome enclosed, foam

filled and moisture proof, and designed to meet the environmental conditions required for most airborne applications. The omni antenna meets the needs for many airborne ESM and ELINT applications.

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SPECIFICATIONS

Frequency	0.5 to 18 GHz
Azimuth coverage	360° instantaneous coverage
Elevation coverage (-3 dB)	±15° about the horizon
Elevation coverage (-10 dB)	±45° about the horizon
Gain (co-polarized)	0.5 to 1.0 GHz: -8.0 dBi minimum 1.0 to 2.0 GHz: -6.5 dBi minimum 2.0 to 4.0 GHz: -2.5 dBi minimum 4.0 to 8.0 GHz: -2.0 dBi minimum 8.0 to 18.0 GHz: -1.0 dBi minimum
Deviation from omni	±3 dB
Polarization	45° slant linear polarization
Power	5 watts CW without damage
RF connector	Precision type N female, stainless steel, gold contacts
Impedance	50 ohms
VSWR	6.5:1 maximum, 0.5 to 1.0 GHz 3.0:1 maximum, 1.0 to 18 GHz

MECHANICAL

Antenna dimensions	8.5" diameter, maximum height 8.25"
Mounting base	10.25" diameter with eight equally spaced mounting holes, 0.221"
Weight	8.5 lbs maximum
Finish	All metal surfaces chem. filmed per MIL-C-5541 Class 3
Antenna construction	Omni antenna is radome enclosed, foam filled and moisture proof; antenna does not absorb moisture during continued airborne use in a 100% RH condensing environment

ENVIRONMENTAL

Use MIL-E-5400T, Class 1A, as performance requirement for airborne electronic equipment. The intended use for this antenna is in an airborne environment on military propeller aircraft.

Temperature	-55° C to +85° C, per MIL-E-5400T, Table 1, Class 1A
Humidity	0% to 100% RH, condensing
Altitude – operating	Sea level to 40,000 ft per MIL-E-5400T, Class 1A
Altitude – nonoperating	Sea level to 40,000 ft
Vibration	Per MIL-E-5400T, Fig. 2, Curve IVa (5-2000 Hz, semisoidal vibration, 10 G)
Shock	Per MIL-E-5400T Paragraph 3.2.24.6.1 (18 shocks, 15 G, 11 msec)
Sand and dust	Per MIL-STD-810F, Section 510.4, Procedure I and II
Salt atmosphere	Per MIL-STD-810F, Section 509.4
Air speed	500 mph
Fungus	Per MIL-STD-810F, Section 508.5

PRODUCT ATTRIBUTES

- Provides 0.5 to 18 GHz omnidirectional coverage
- 360° instantaneous azimuth coverage
- Designed for propeller aircraft up to 40,000 ft

OPTIONS

- Option 1 – Antenna color flat white (37875 per FED-STD 595)
- Option 2 – Antenna color flat olive drab (34096 per FED-STD 595)
- Option 3 – Antenna color desert beige (33531 per FED-STD 595)

RELATED EQUIPMENT

- CS-1950 – Antenna Interface Unit
- CS-1960 – RF Distribution Unit
- CS-3001 – Pulse Analyzer Unit
- CS-5020C – Microwave Receiver
- CS-5040 – VXI Microwave Tuner
- CS-5111 – VME Microwave Tuner

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

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