12-210

CHELTON

Broadband Antenna

The 12-210 Broadband Antenna is a passive blade antenna designed for receive only use over the frequency range 20 MHz to 2500 MHz in general airborne applications.

The **12-210** is configured as broadband fan monopole radiating element fed via a susceptance compensation network to enhance VHF gain, and minimal resistive loading to ensure compliance with the VSWR specification.

The **12-210** comprises a composite blade of aero foil section, which houses the electronic assembly, enclosed by an aluminium alloy baseplate that supports the single RF connector.

ELECTRICAL

Frequency	20 MHz - 2500 MHz	
Gain	dBiMHz	MHz
	≥ -44	20
	≥ -12	88
	≥-5≥	118
	≥ 0	174
	≥ 0 average	225 MHz - 2.5 GHz
Radiation Pattern	Essentially omnidirectional in azimuth	
Impedance	50 ohm nominal	
VSWR	< 3.0:1	
Connector	RF Type N female	

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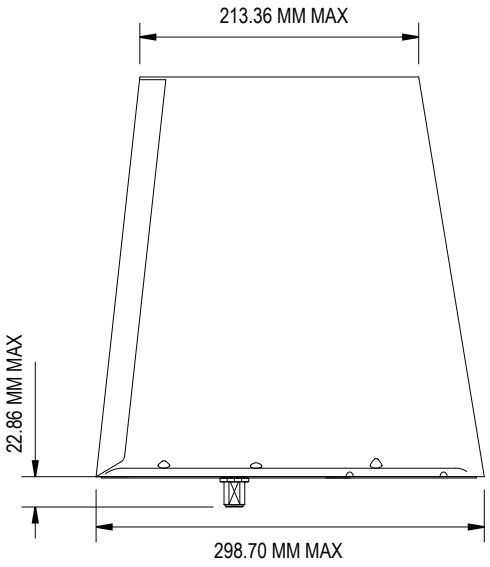

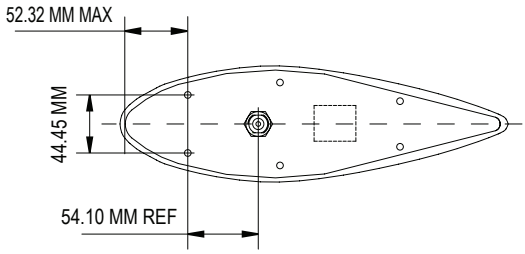

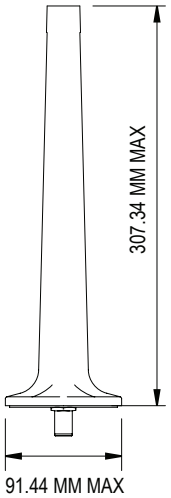

MECHANICAL

Dimensions (LxWxH)	307.34 x 298.70 x 91.44 mm
Weight	1.7 kg
Mounting	6 holes fixed location

ENVIRONMENTAL

High Temperature	MIL-STD-810E, Method 501.3, Procedures I and II Continuous Operation: +55°C Intermittent Operation: +71°C Storage: +85°C
Low Temperature	MIL-STD-810F, Method 501.4, Procedures I and II Operational: -54°C Storage: -57°C
Altitude	MIL-STD-810E, Method 500.3, Procedures I and II Operational: 50,000 feet Storage: 50,000 feet
Shock	MIL-STD-810E, Method 516.4, Procedures I and V Functional: 20 g, 11 ms, sawtoothCrash Hazard: 40 g, 11 ms, sawtooth
Vibration	MIL-STD-810E, Method 514.4, Procedure I, Category 5
Temperature Shock	MIL-STD-810E, Method 503.3
Magnetic Effect	Less than 1 deflection at 300 mm

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