9-229

VHF AM/FM Tuneable Antenna

CHELTON

Key features:

- **Top tube for enhanced gain**
- **Lightning protection**
- **Pressure molded GRP**

The 9-229 is a broadband tuneable antenna designed to operate over the frequency range 30 MHz to 152 MHz. The antenna is fitted with a coaxially implemented top tube assembly which provides enhanced gain and protection against lightning strike.

The antenna consists of a pressure moulded GRP shell accommodating a pcb. Assembly and surmounted by an aluminium alloy top tube element which forms part of a lightning strike protection system. The base of the shell is closed by an aluminium alloy baseplate carrying a multiway dc control connector, and a TNC female RF connector.

ELECTRICAL

Frequency	30-88 MHz 108-152 MHz
Impedance	50 ohm
VSWR	≤ 2.5:1
Radiation	
Azimuth	Omnidirectional
Elevation	Electrically short monopole
Gain	
30 MHz	-13 dBi
88 MHz	-5 dBi
108 - 152 MHz	-4 dBi average
Polarisation	Vertical
RF Power	
Continuous	15 Watts CW
Max	25 Watts 1 minute transmit

MECHANICAL

Dimensions (LWH)	208 x 66 x 269 mm 8.2 x 2.6 x 10.6 “
Max Weight	1.36 kg (3.0 lb-s)
Connectors	TNC Female
Mounting	10 holes, fixed location

ENVIRONMENTAL

Temperature	-54°C to +55°C (intermittent +71°C)
Pressure	MIL-STD-810C, Method 500.1, Procedure 1 (modified)
Rain	MIL-STD-810C, Method 506.1, Procedure I
Humidity	MIL-STD-810C, Method 507.1, Procedure I
Vibration	MIL-STD-810C, Method 514.2, Procedure 1, Category B2 (modified)
Salt Fog	MIL-STD-810C, Method 509.1, Procedure I
Dust	MIL-STD-810C, Method 510.1, Procedure I
Vibration	MIL-STD-810C, Method 514.2, Procedure 1, Category B2 (modified)
Mechanical Shock	MIL-STD-810C, Method 516.3, Procedure 1 (modified) Normal Operation: 20 g 7 ms (sawtooth)
Magnetic Effect	RTCA DO-160D, Section 15, Class Z Less than 1° deflection at 300 mm

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