19-409

CHELTON

UHF SATCOM Antenna

The 19-409 UHF SATCOM Antenna is a dual-usage antenna, operating in the 243 MHz - 270MHz and 293 MHz - 318 MHz frequency bands.

Originally designed as an airborne antenna (for installation on aircraft such as the US Navy EA-6B), it can also be used as a manportable land based antenna.

The antenna comprises a glass reinforced plastic (GRP) radome bonded to an aluminium alloy cavity



ELECTRICAL

Frequency Range	243 MHz to 270 MHz	
	293 MHz to 318 MHz	
Gain	≥ 3 dBiC at zenith (typical)	
Polarisation	Predominantly RHCP	
Radiation Pattern	Maximum radiation essentially orthogonal to the plane of the antenna	
Power Rating	150W CW (maximum)	
Impedance	50 ohm (nominal)	
VSWR	≤ 2.0:1	
Connector	TNC Female	

MECHANICAL

Dimensions (LxWxH)	0.32m x 0.30m x 0.10m
Weight	2.273 kg

ENVIRONMENTAL

Altitude	MIL-STD-810		
	45,000 feet, storage and operational		
Acceleration	13.5g all axes		
High Temperature	MIL-STD-810		
	Storage:	95°C	
	Operational:	71°C	
Low Temperature	MIL-STD-810		
	Storage:	-62°C	
	Operational:	-54°C	
Shock	MIL-STD-810		
	Functional:	20 g, 11 ms, sawtooth	
	Crash Hazard:	40 g, 11 ms, sawtooth	
Vibration	MIL-STD-810E, Method 514.4, Procedure I, Category 5 ($W_0 = 0.2g^2/Hz$)		
Temperature Shock	10°C per minute between operational limits		
Humidity	Normal operation with relative humidity up to 95% at 55°C		
Salt Fog	The antenna is not degraded by salt exposure up to 48 hours at 5% salinity		
Magnetic Effect	The compass safe distance is no more than 300m		

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