16-11

CHELTON

UHF Broadband Antenna

Type 16-11 is a broadband, UHF, blade antenna for transmission and reception of communications/navigation signals over the frequency band 225 MHz to 400 MHz.

The antenna can be used singly or in matched pairs on high speed aircraft, particularly where minimal aerodynamic drag is required.

The antenna is a sleeved unipole, with radiating elements surface coated onto a solid, dielectric, support structure. The antenna is protected externally by coats of polyurethane or epoxy paint.

ELECTRICAL

Frequency	225 MHz -	400 MHz	
Impedance	50 ohm (nominal)		
VSWR	≤ 3.0:1	225 MHz - 235 MHz	
	≤ 2.0:1	236 MHz - 400 MHz	
Power Rating	35 W cw		
Radiation	Nominally omnidirectional in azimuth		
Gain	> 0 dBi on 9.75 m (nominal) groundplane		
Polarisation	Predominantly vertical when mounted vertically		
Connectors	N Type Female		

MECHANICAL

Dimensions (mm)	208.28 x 196.85 x 53.34 (maximum)	
Weight (kg)	0.45 (maximum)	
Mounting	6 holes fixed location	
Configuration		



ENVIRONMENTAL

Temperature / Altitude BS 3G 100, Pt 2, Sect 3:3:2, Grade F1 (modified) Temperature Normal Operational: -54°C to +70°C Occasional Operational: -54°C to +105°C Survival Range: -62°C to +90°C Altitude 15240 m BS 3G 100, Pt 2, Sect 3.3.1 MIL-STD-810E. Method 514.4, Proc I, Cats 4, 5 and 6 MIL-STD-810E. Method 516.4, Procs I and V Shock MIL-STD-810E, Method 516.4, Procs I and V BS 3G 100, Pt 2, Sect 3:3:2, Paras 7.2.1 and 7.3.1 Tropical Exposure BS 3G 100, Pt 2, Sect 3:3:7 BS 3G 100, Pt 2, Sect 3:3:8, Severity 2 Mould Growth BS 3G 100, Pt 2, Sect 3:3:8, Severity 2 Fluid Contamination BS 3G 100, Pt 2, Sect 3:3:11 Magentic Influence BS 3G 100, Pt 2, Sect 2				
Occasional Operational: -54°C to +105°C Survival Range: -62°C to + 90°C Altitude 15240 m Vibration BS 3G 100, Pt 2, Sect 3.3.1 MIL-STD-810E. Method 514.4, Proc I, Cats 4, 5 and 6 Shock MIL-STD-810E, Method 516.4, Procs I and V Acceleration BS 3G 100, Pt 2, Sect 3:3:2, Paras 7.2.1 and 7.3.1 Tropical Exposure BS 3G 100, Pt 2, Sect 3:3:7 Mould Growth BS 3G 100, Pt 2, Sect 3:3:8, Severity 2 Fluid Contamination BS 3G 100, Pt 2, Sect 3:3:12 Waterproofness BS 3G 100, Pt 2, Sect 3:3:11 Magentic BS 3G 100, Pt 2, Sect 2				
Survival Range: -62°C to + 90°C Altitude 15240 m Vibration BS 3G 100, Pt 2, Sect 3.3.1 MIL-STD-810E. Method 514.4, Proc I, Cats 4, 5 and 6 Shock MIL-STD-810E, Method 516.4, Procs I and V Acceleration BS 3G 100, Pt 2, Sect 3:3:2, Paras 7.2.1 and 7.3.1 Tropical Exposure BS 3G 100, Pt 2, Sect 3:3:7 Mould Growth BS 3G 100, Pt 2, Sect 3:3:8, Severity 2 Fluid Contamination BS 3G 100, Pt 2, Sect 3:3:12 Waterproofness BS 3G 100, Pt 2, Sect 3:3:11 Magentic BS 3G 100, Pt 2, Sect 2	Temperature	Normal Operational: -5	4°C to + 70°C	
Altitude 15240 m Vibration BS 3G 100, Pt 2, Sect 3.3.1 MIL-STD-810E. Method 514.4, Proc I, Cats 4, 5 and 6 Shock MIL-STD-810E, Method 516.4, Procs I and V Acceleration BS 3G 100, Pt 2, Sect 3:3:2, Paras 7.2.1 and 7.3.1 Tropical Exposure BS 3G 100, Pt 2, Sect 3:3:7 Mould Growth BS 3G 100, Pt 2, Sect 3:3:8, Severity 2 Fluid Contamination BS 3G 100, Pt 2, Sect 3:3:11 Magentic BS 3G 100, Pt 2, Sect 2		Occasional Operational: -5	4°C to +105°C	
Vibration BS 3G 100, Pt 2, Sect 3.3.1 MIL-STD-810E. Method 514.4, Proc I, Cats 4, 5 and 6 Shock MIL-STD-810E, Method 516.4, Proc I and V Acceleration BS 3G 100, Pt 2, Sect 3:3:2, Paras 7.2.1 and 7.3.1 Tropical Exposure BS 3G 100, Pt 2, Sect 3:3:7 Mould Growth BS 3G 100, Pt 2, Sect 3:3:8, Severity 2 Fluid Contamination BS 3G 100, Pt 2, Sect 3:3:12 Waterproofness BS 3G 100, Pt 2, Sect 3:3:11 Magentic BS 3G 100, Pt 2, Sect 2		Survival Range: -6	2°C to + 90°C	
MIL-STD-810E. Method 514.4, Proc I, Cats 4, 5 and 6ShockMIL-STD-810E, Method 516.4, Procs I and VAccelerationBS 3G 100, Pt 2, Sect 3:3:2, Paras 7.2.1 and 7.3.1Tropical ExposureBS 3G 100, Pt 2, Sect 3:3:7Mould GrowthBS 3G 100, Pt 2, Sect 3:3:7Salt MistBS 3G 100, Pt 2, Sect 3:3:8, Severity 2Fluid ContaminationBS 3G 100, Pt 2, Sect 3:3:12WaterproofnessBS 3G 100, Pt 2, Sect 3:3:11MagenticBS 3G 100, Pt 2, Sect 2	Altitude	15240 m		
5 and 6 Shock MIL-STD-810E, Method 516.4, Procs I and V Acceleration BS 3G 100, Pt 2, Sect 3:3:2, Paras 7.2.1 and 7.3.1 Tropical Exposure BS 3G 100, Pt 2, Sect 3:3:7 Mould Growth BS 3G 100, Pt 2, Sect 3:3:7 Salt Mist BS 3G 100, Pt 2, Sect 3:3:8, Severity 2 Fluid Contamination BS 3G 100, Pt 2, Sect 3:3:12 Waterproofness BS 3G 100, Pt 2, Sect 3:3:11 Magentic BS 3G 100, Pt 2, Sect 2	Vibration	BS 3G 100, Pt 2, Sect 3.3.1		
Acceleration BS 3G 100, Pt 2, Sect 3:3:2, Paras 7.2.1 and 7.3.1 Tropical Exposure BS 3G 100, Pt 2, Sect 3:3:7 Mould Growth BS 3G 100, Pt 2, Sect 3:3:7 Salt Mist BS 3G 100, Pt 2.1 J, 1985 Salt Mist BS 3G 100, Pt 2, Sect 3:3:8, Severity 2 Fluid Contamination BS 3G 100, Pt 2, Sect 3:3:12 Waterproofness BS 3G 100, Pt 2, Sect 3:3:11 Magentic BS 3G 100, Pt 2, Sect 2				
7.3.1 7.3.1 Tropical Exposure BS 3G 100, Pt 2, Sect 3:3:7 Mould Growth BS 3G 100, Pt 2, Sect 3:3:7 Salt Mist BS 3G 100, Pt 2, Sect 3:3:7 Fluid Contamination BS 3G 100, Pt 2, Sect 3:3:8, Severity 2 Waterproofness BS 3G 100, Pt 2, Sect 3:3:11 Magentic BS 3G 100, Pt 2, Sect 2	Shock	MIL-STD-810E, Method 516.4, Procs I and V		
Exposure Mould Growth BS 3G 100, Pt 2.1 J, 1985 Salt Mist BS 3G 100, Pt 2, Sect 3:3:8, Severity 2 Fluid Contamination BS 3G 100, Pt 2, Sect 3:3:12 Waterproofness BS 3G 100, Pt 2, Sect 3:3:11 Magentic BS 3G 100, Pt 2, Sect 2	Acceleration			
Salt Mist BS 3G 100, Pt 2, Sect 3:3:8, Severity 2 Fluid Contamination BS 3G 100, Pt 2, Sect 3:3:12 Waterproofness BS 3G 100, Pt 2, Sect 3:3:11 Magentic BS 3G 100, Pt 2, Sect 2		BS 3G 100, Pt 2, Sect 3:3:7		
Fluid Contamination BS 3G 100, Pt 2, Sect 3:3:12 Waterproofness BS 3G 100, Pt 2, Sect 3:3:11 Magentic BS 3G 100, Pt 2, Sect 2	Mould Growth	BS 3G 100, Pt 2.1 J, 1985		
ContaminationWaterproofnessBS 3G 100, Pt 2, Sect 3:3:11MagenticBS 3G 100, Pt 2, Sect 2	Salt Mist	BS 3G 100, Pt 2, Sect 3:3:8, Severity 2		
Magentic BS 3G 100, Pt 2, Sect 2		BS 3G 100, Pt 2, Sect 3:3:12		
	Waterproofness	BS 3G 100, Pt 2, Sect 3:3:11		
		BS 3G 100, Pt 2, Sect 2		

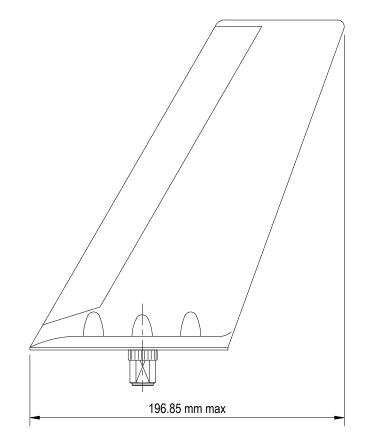
Chelton Limited has a policy of continuous development and stress that the information provided is a guide only and does not constitute an offer or contract or part thereof. Whilst every effort is made to ensure the accuracy of the information contained in this Data Sheet, no responsibility can be accepted for any errors or omissions.

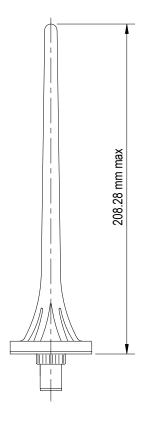
The copyright of antenna designs and images is copyright protected and owned by Chelton Limited. ©Chelton Limited. The Chelton Centre, Fourth Avenue, Marlow Buckinghamshire, SL7 1TF, UK T: +44 (0)1628 472072 E: info@chelton.com W:chelton.com

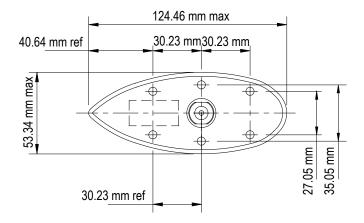
16-11

CHELTON

UHF Broadband Antenna







Chelton Limited has a policy of continuous development and stress that the information provided is a guide only and does not constitute an offer or contract or part thereof. Whilst every effort is made to ensure the accuracy of the information contained in this Data Sheet, no responsibility can be accepted for any errors or omissions. The copyright of antenna designs and images is copyright protected and owned by Chelton Limited. ©Chelton Limited.

The Chelton Centre, Fourth Avenue, Marlow, Buckinghamshire, SL7 1TF, UK T: +44 (0)1628 472072 E: info@chelton.com W:chelton.com