20-27 & 20-27EC L1 & L2 Low Profile GPS Antenna with PTFE cover



- L1 and L2 coverage
- Low profile
- PTFE (Teflon) gives excellent de-icing performance

The 20-27 and 20-27EC Series GPS antennas are designed to provide operation at both the L1 and L2 frequencies. They are of low profile construction and are supplied with a high performance PTFE (Teflon) cover.

The antennas are designed for use on greater than 300 mm diameter metallic groundplanes. For all other groundplanes use type 20-27F Series.

A circular aluminium alloy baseplate forms the platform onto which is attached the antenna radiating elements and radome. The radome surface is PTFE (Teflon) giving excellent de-icing performance.

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ELECTRICAL

Frequency Ran	ge	L1: 1565 L2: 1217	5-1585 7-1238		
Polarisation		Right Ha <2 dB a	and Circul xial ratio o	ar Polarise on boresig	ed ht
Impedance		50 ohm	(nominal))	
VSWR (Return Loss)		1.8:1 (≥	10.9 dB)		
Power Survival		Capable V/m CW sustaini	of withst , 50 kHz t ng damag	anding sig o 40 GHz v ge	nals of 200 vithout
Gain coverage		L1		L2	
0=<ø<=360		Centre band	Band edge	Centre band	Band edge
	0=<θ<=75 75<θ<=80 80<θ<=85 85<θ<=90	-0.5 -2.5 -4.5	-3.0 -5.5 -7.5	+0.0 -2.0 -4.5	-2.0 -4.0 -6.5

ENVIRONMENTAL

Temperature			
Operational	-55°C +100°C		
Intermittent	-55°C +135°C		
Altitude	100,000 ft		
Humidity	MIL-STD-810D, Method 507.2, Procedure III (modified), for sealed equipment.		
Vibration	Sine: In accordance with MIL-E-5400T, Figure 2 (Sheet 3), Curve III-b Method 514.3, Procedure I Random: MIL-STD-810D, Method 514.3, Procedure I, Category 5 Gunfire: MIL-STD-810D, Method 519.3		
Shock	MIL-STD-810D		
Salt Atmosphere	MIL-STD-810D, Method 509.2, Procedure I		
Immersion	MIL-STD-810D, Method 512.2, Procedure I		
Acoustic Noise	MIL-STD-810D, Method 515.3, Procedure II, Category C		
Sand and Dust	MIL-STD-810B, Method 510, Procedure 1. DEF STAN 07-55, Section 4/1, Test D1.		
Acceleration	MIL-STD-810E, Method 513.4, Section 2, Procedure 1		
Fungus	BS 3G.100, Part 2, Section 3:3.3		
Rain	MIL-STD-810D Method 506.2, Procedure I		
Explosive Atmosphere	MIL-STD-810B, Method 511, Procedure I		
Lightning	RTCA/DO-160E, Section 23, Paragraph 23.6.2.1, Waveform Figure 23-1 +270 kV and -250 kV		
EMC	MIL-STD-461A Notice 3 and MIL-STD-462		
MECHANICAL			
Height	14.4 mm (0.56")		
Width	88.9 mm (3.5")		
Length	88.9 mm (3.5")		
Max Weight	0.25 kg (0.55 lbs)		
Connectors	TNC Female		
Mounting	4 holes fixed location		

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