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M1227HCT

Quadrifilar Antenna for Precision GPS L1/L2 Band

PRODUCT DESCRIPTION

The M1227HCT22A uses Advanced Helicore™ Technology to achieve greater than +2.5dBic performance in both GPS L1 and L2 bands for "dual-frequency" Precision GPS applications. This very small 30mm (base) x 50mm (height) size and lightweight features make this Precision GPS antenna perfect for various applications (commercial and military). With axial ratio typically 0.5 dB, upper-hemisphere efficiency >40%, and high-linearity LNA enables this small Precision GPS antenna to operate in the most extreme and demanding applications giving maximum satellite reception, ultra-low Dilution of Precision (DOP), and decimeter accuracy. The interface connector is available in SMA/TNC options.

SPECIFICATIONS

	Min	Typical	Max	Unit
Frequency GPS L1	1570	1575.42	1580	MHz
Frequency GPS L2	1222.6	1227.6	1232.6	MHz
Polarization		RHCP		
Efficiency (upper hemisphere)		40		%
Efficiency (total spherical)		50		%
Total Realized Gain	+14	+16	+16.5	dBic
LNA Noise Figure		0.85		dB
LNA Input P1dB	+2	+4	+6	dB
LNA DC Voltage	2.5	4.0	5.0	V
LNA DC Current	25	30	50	mA
Beamwidth (3dB)	120°	140°		degrees (both axis)
Bandwidth (1dB)		10		MHz
Cross Pole Rejection	15			dB
Axial Ratio	0.5	1.0	3.0	dB
Front to Back Ratio		15		dB
Return Loss	-18		-24	dB
Impedance		50		Ohms
Overall Dimensions		30(W) x 50 (H)		mm
Operating Temperature	-40	20	+75	°C