

M1227HCT-A-SMA

L1/L2 GPS-GLONASS Active Antenna

Description

The M1227HCT-A-SMA is a high performance antenna designed for L1/L2 GPS-GLONASS bands, built on proprietary Maxtena HeliCore® technology. This technology provides exceptional pattern control, polarization purity and high efficiency in a very compact form factor. The M1227HCT-A-SMA is a screw-on design, featuring an integrated SMA connector. This antenna has superior filtering performance and is rated for 50 V/m out of band interference. The product is ideal for applications requiring minimal integration effort or for retrofitting existing products. The antenna is equipped with an O-ring that makes the antenna waterproof once installed on a mating surface.

Electrical Specifications

Parameter	Design Specifications
Frequency Bands	1217-1250 MHz (L1)
	1565-1610 MHz (L2)
Polarization	RHCP
Passive Peak Gain	2 dBic @ 1227 MHz (typical)
	2 dBic @ 1575 MHz (typical)
Total Gain	20-40 dBic @1227 MHz (typical @ 3.3V)
	20-40 dBic @1575 MHz (typical @ 3.3V)
	20-40 dBic @1602 MHz (typical @ 3.3V)
*Adjustable - the gain can be adjusted by customer request.	
Out-of-Band Rejection	>50 dB
Current Drain	35 mA (Max @ 3.3V)
Voltage	3-12 V
Noise Figure	1.5 dB (Typical)
RF Interference Rating	50 V/m out of band
Operating temp.	from -40°C to 85°C
RF connector	SMA

Mechanical Specifications

Dimensions are in mm
Image does not reflect the actual size of the antenna



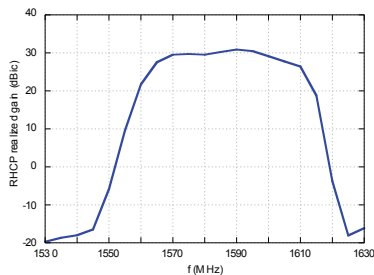
Features

- L1/L2 GPS-GLONASS bands
- Superior out-of-band rejection
- 50 V/m jamming resistant
- Very low noise figure
- SMA interface
- Ground plane independent
- GIS & RTK applications

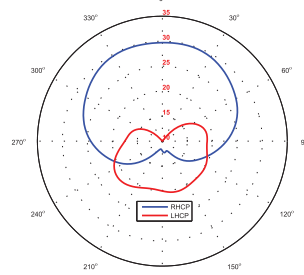
Applications

- Precision navigation
- Precision timing
- Military & security
- Asset tracking
- Mobile computing
- Oil & gas industries
- Navigation devices
- Law enforcement
- LBS & M2M applications

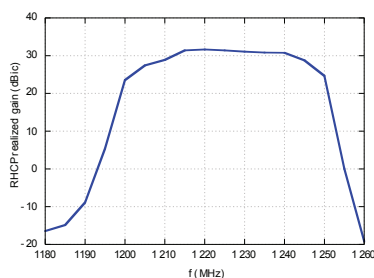
L1 Band Frequency Response



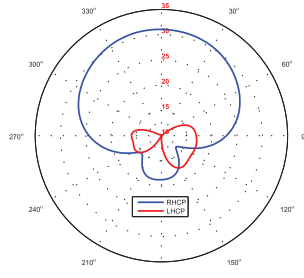
L1 Gain (dBic)



L2 Band Frequency Response



L2 Gain (dBic)



L1 Band Typical Performance

Parameter	Design Specifications
Element Efficiency	60%
Total Peak Gain *Adjustable	20-40 dBic
Axial Ratio	0.5 dB (Typical)/ 1 dB (Max)
VSWR	<1.5

L2 Band Typical Performance

Parameter	Design Specifications
Element Efficiency	60%
Total Peak Gain *Adjustable	20-40 dBic
Axial Ratio	0.5 dB (Typical)/ 1 dB (Max)
VSWR	<1.5