



M1227HCT-SMA-GN

L1/L2 GPS GLONASS ACTIVE ANTENNA

Part #: 100-00105-01

Description

The M1227HCT-SMA-GN is a high performance antenna designed for the L1/L2 GPS and GLONASS bands for GNSS satellite applications. The antenna is 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-SMA-GN is rated IP-67 when mounted for added protection. The antenna is designed for applications requiring greater accuracy than what L1 only antennas can provide.

Electrical Specification

Parameter	Specification	
Frequency Range	1217-1250 MHz (L2)	1565-1610 MHz (L1)
Total peak gain	30 dBic	28 dBic
Axial Ratio	≤ 1 dB (0.5 dB typical)	≤ 1 dB (0.5 dB typical)
VSWR	<1.5	<1.5
Passive peak gain	2 dBic @ 1227 MHz	2 dBic @ 1575 MHz
Total gain	30 dBic @ 1227 MHz	28 dBic @ 1575 MHz 28 dBic @ 1602 MHz
Out-of-band rejection	>50 dB	
Current drain	25 mA (typ)	
Voltage	3-12 V	
Noise figure	1.5 dB (typical)	
RF interference rating	50 V/m out of band	

Mechanical Specification

Parameter	Specification
Antenna Dimensions	Ø 18.5 × 135 mm
Operating Temperature	-30°C to + 85°C
Storage Temperature	-40°C to + 85°C
RF Connector	SMA male
Antenna Housing	PC/ABS
Cable	Stainless Steel With Black Coating
Indicator O-Ring	Red Silicone
Weight	45 g
Environmental	IP67



Features

- Very low axial ratio
- IP-67 mounted
- Ultra lightweight - 45 grams
- Ground plane independent

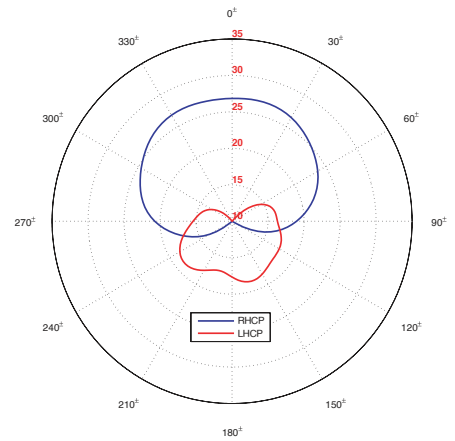
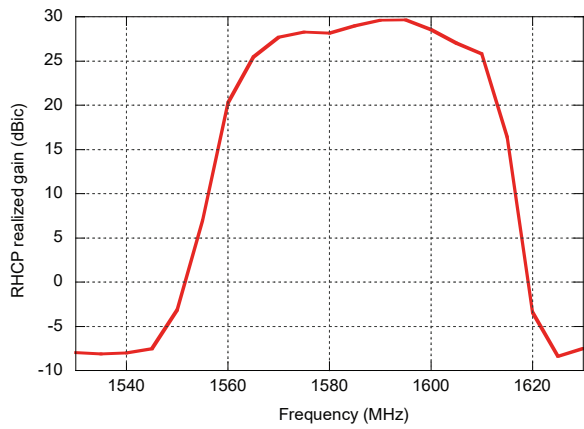
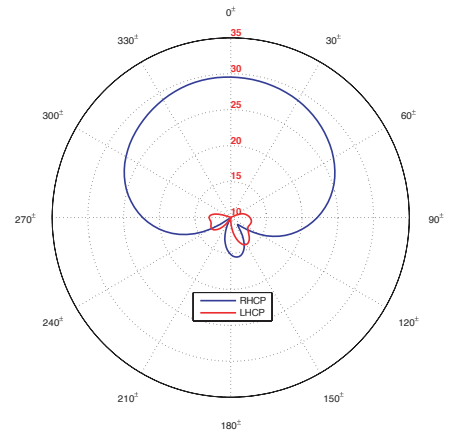
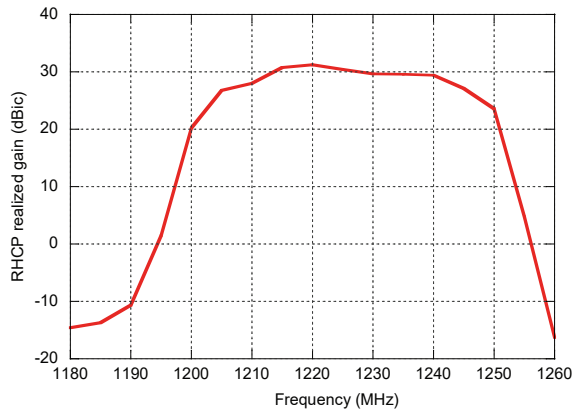
Applications

- Precision navigation
- Precision timing
- Military & security
- Asset tracking
- Oil & gas industries
- Navigation devices
- Mining equipment
- LBS & M2M applications
- Handheld devices
- Law enforcement



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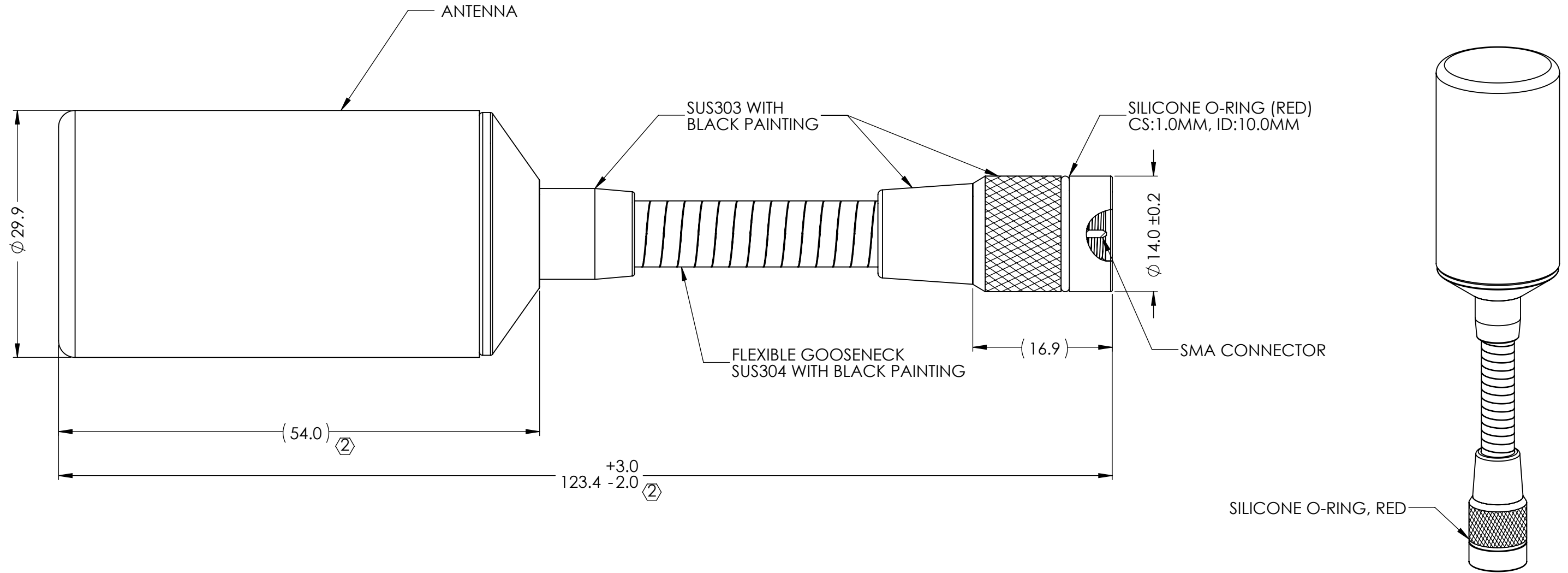
www.maxtena.com



NOTES:

1. CONNECTOR: SMA MALE.
2. MATERIAL:
 - ANTENNA HOUSING: PC/ABS BLACK PLASTIC;
 - CABLE: STAINLESS STEEL WITH BLACK COATING;
 - INDICATOR O-RING: RED SILICONE.
3. OPERATIONAL TEMPERATURE: -30°C~+85°C.
4. STORAGE TEMPERATURE: -40°C~+85°C.
5. WATERPROOF GRADE: IP67.

DRAWING REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	INITIAL RELEASE	2019-06-05	ZX
2	UPDATE TO THREADED VERSION	2021-10-11	ZX



UNLESS OTHERWISE SPECIFIED:	NAME	DATE
DIMENSIONS ARE IN MM	DRAWN ZX	2021-10-11
TOLERANCES:	CHECKED	
FRACTIONAL ±	ENG APPR. NPC	2021-10-11
ANGULAR: MACH ± .5° BEND ±	MFG APPR.	
ONE PLACE DECIMAL ± .5	Q.A.	
TWO PLACE DECIMAL ± .20		
INTERPRET GEOMETRIC TOLERANCING PER:	CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.	
	DO NOT SCALE DRAWING	

MAXTENA, INC		
TITLE: 100-00105-01 ASSEMBLY, TOP, M1227HCT-SMA-GN		
SIZE B	DWG. NO. 117-00285-01	REV 2
CAGE CODE: 5KQH7	SCALE: NONE	SHEET 1 OF 1