



# M1227HCT-TNC-G

L1/L2 GPS GLONASS ACTIVE ANTENNA  
Part #: 100-00133-02



## Description

M1227HCT-TNC-G 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-TNC-G 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

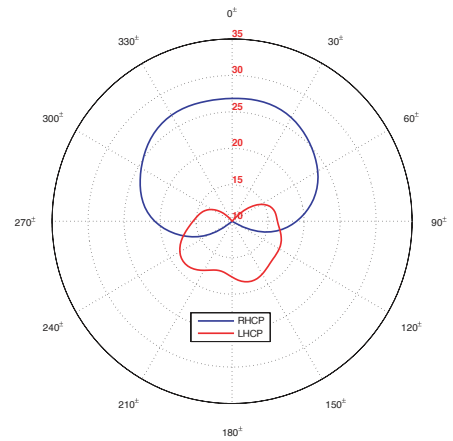
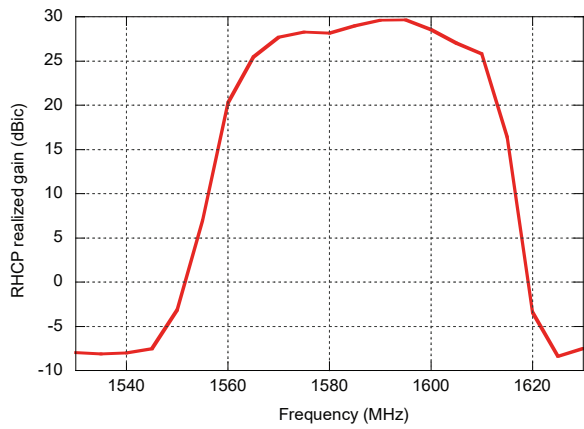
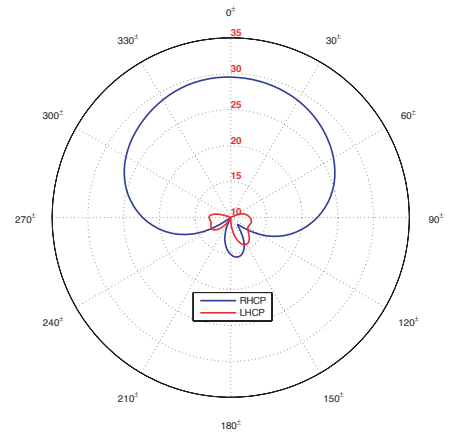
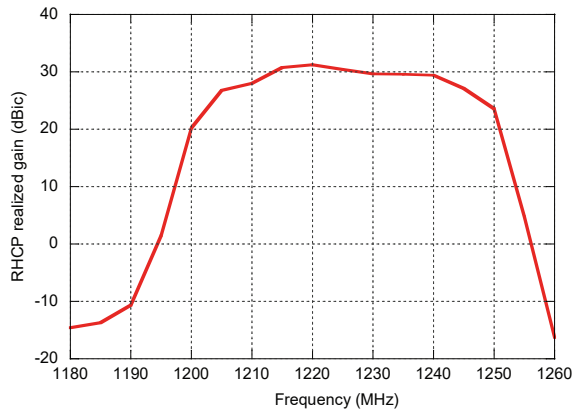
Parameter	Specification
Antenna Dimensions	Ø 18.5 × 135 mm
Operating Temperature	-30°C to + 85°C
Storage Temperature	-40°C to + 85°C
RF Connector	TNC connector
Antenna Housing	PC/ABS
Cable	Stainless Steel With Black Coating
Indicator O-Ring	Red Silicone
Weight	45 g
Environmental	IP67

## Features

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

## Applications

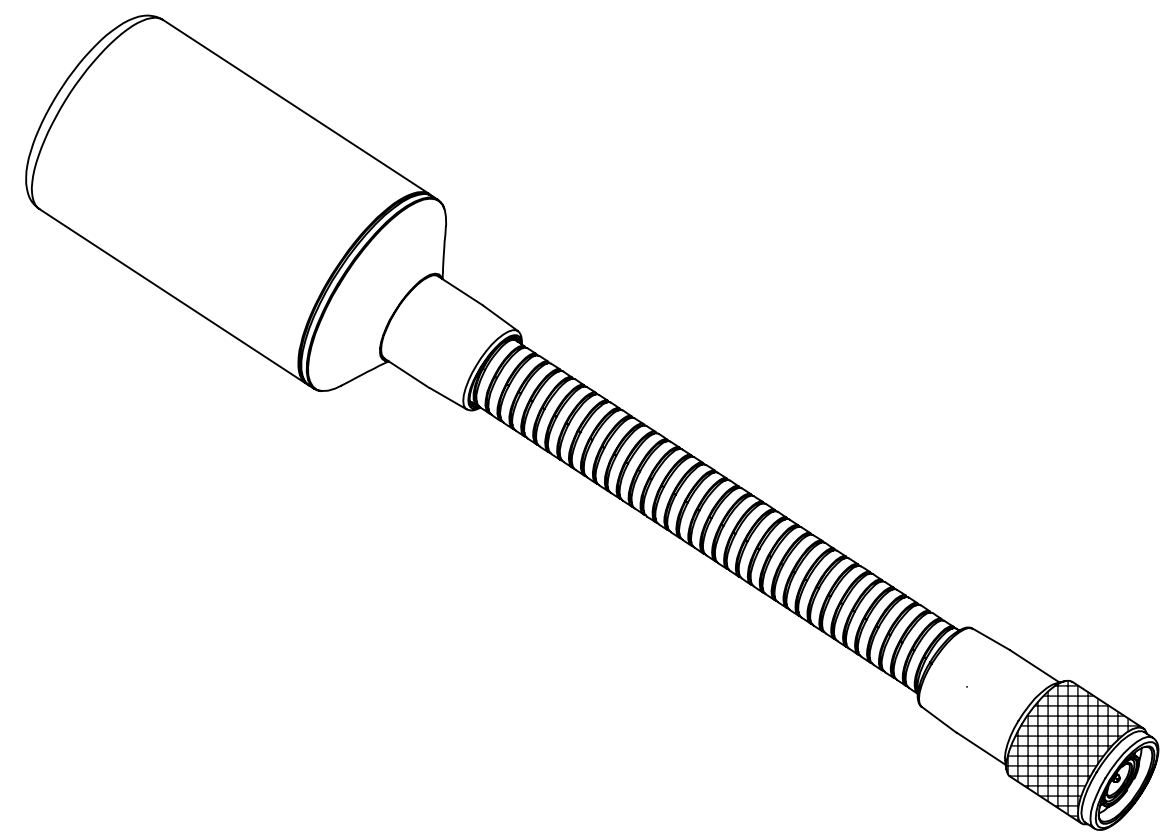
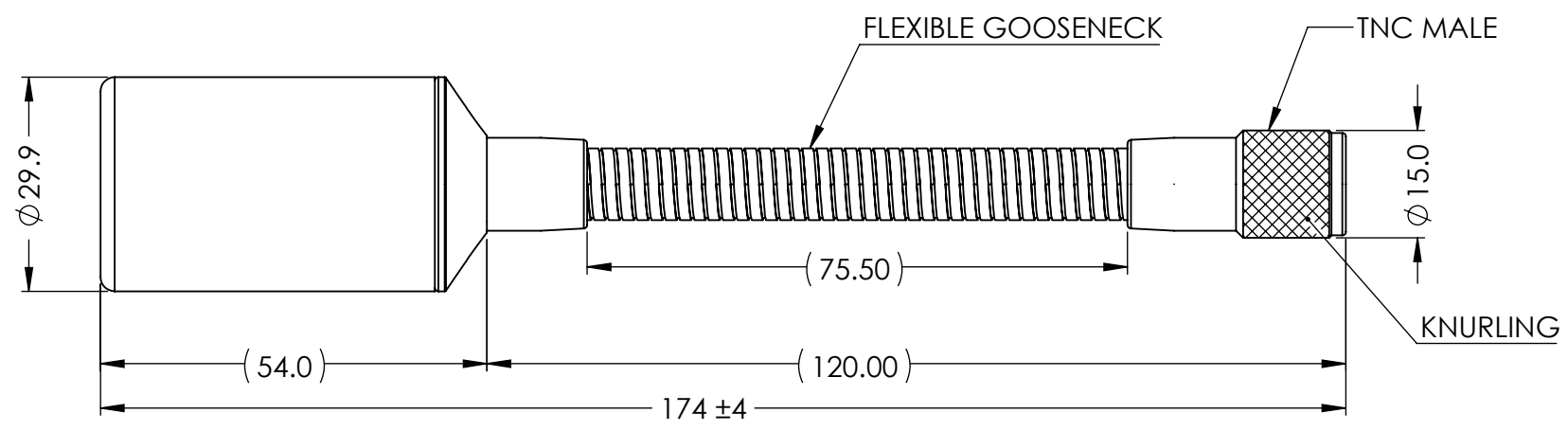
- Precision navigation
- Precision timing
- Military & security
- Asset tracking
- Oil & gas industries
- Navigation devices
- Mining equipment
- LBS & M2M applications
- Handheld devices
- Law enforcement



DRAWING REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2021-10-08	SZ

D  
C  
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NOTES:

- MATERIAL:
  - ABS/PC BLACK PLASTIC ANTENNA HOUSING
  - STEEL GOOSENECK WITH BLACK COATING

ITEM 100-00133-02 REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2021-10-08	SZ

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UNLESS OTHERWISE SPECIFIED:	NAME	DATE
DIMENSIONS ARE IN MM	DRAWN	SZ 2021-10-08
TOLERANCES:	CHECKED	ZX 2021-10-08
FRACTIONAL ±	ENG APPR.	NPC 2021-10-08
ANGULAR: MACH ± .5° BEND ±	MFG APPR.	
ONE PLACE DECIMAL ± 1.0	Q.A.	
TWO PLACE DECIMAL ± 0.50		
INTERPRET GEOMETRIC TOLERANCING PER:	CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.	
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MAXTENA, INC		
TITLE: 100-00133-02 M1227HCT-TNC-G		
SIZE	DWG. NO.	REV
<b>B</b>	<b>117-00533-01</b>	<b>A</b>
CAGE CODE: 5KQH7	SCALE: NONE	SHEET 1 OF 1

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