



# M1580HCT-22-P

PASSIVE GPS GLONASS GALILEO ANTENNA

Ordering Part #: 108-00073-03



## Description

The M1580HCT-22-P is a high-performance passive antenna designed for the GPS L1, GLONASS and Galileo (E1) bands, and built on proprietary Helicore® technology. This technology provides exceptional pattern control, polarization purity, and high efficiency in a very compact form factor. The M1580HCT-22-P is designed for embedded applications and features an integrated 3-pin connector. This product is designed for applications requiring high-quality reception of GPS, GLONASS and Galileo (E1) signals. The ultra light design weighs only 2 grams making this antenna ideal for the most demanding, mechanically constrained platforms including handheld devices, asset tracking, seismic recording instruments, and many more.

## Electrical Specifications\*

Parameter	Design Specifications
Frequency	1575 MHz (GPS)
	1602 MHz (GLONASS)
	1176.45 MHz (Galileo)
Polarization	RHCP
Antenna element peak gain	-0.5 dBic (typical)
Efficiency	25% (typical)
Bandwidth (-1dB)	(-5 dB) 50 MHz (typical)
Axial Ratio	1 dB (typical) / 1.5 dB (max)
VSWR	1.5 (max)
Impedance	50 Ohm
Operating temp.	from -40°C to 85°C
RF connector	3 Pin OR U.FL
Weight	2 grams

\* Declared peak gain and reported radiation pattern are intended for a rotationally symmetrical plastic radome.

## Features

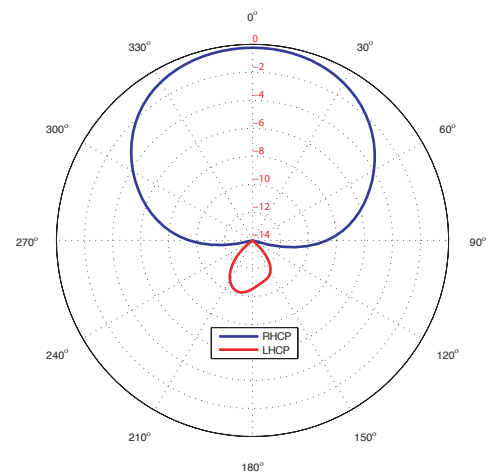
- GPS, GLONASS and Galileo (E1) bands
- Very low axial ratio
- Easy integrate 3 pin connector
- Ultra lightweight - 2 grams
- Ground plane independent

## Applications

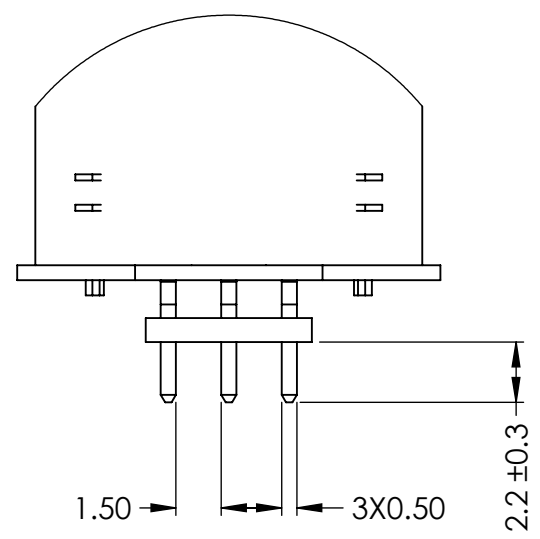
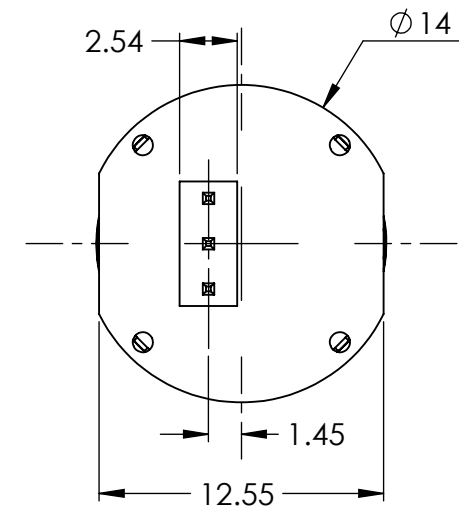
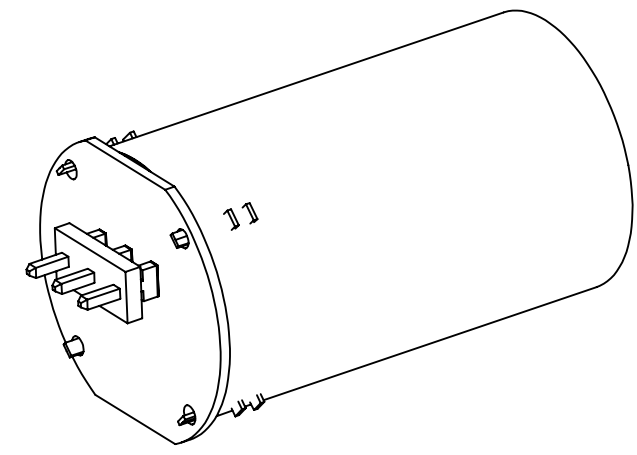
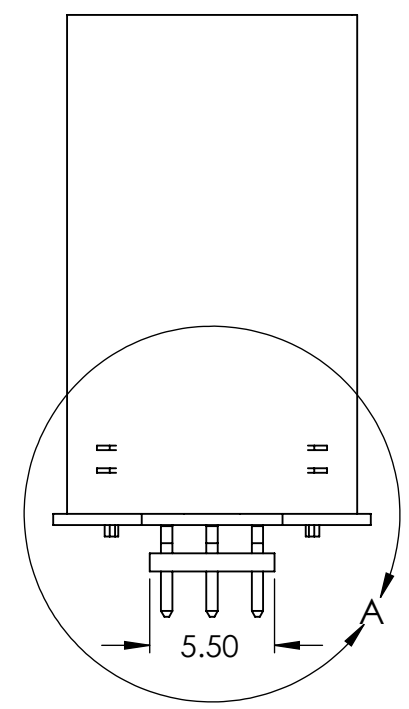
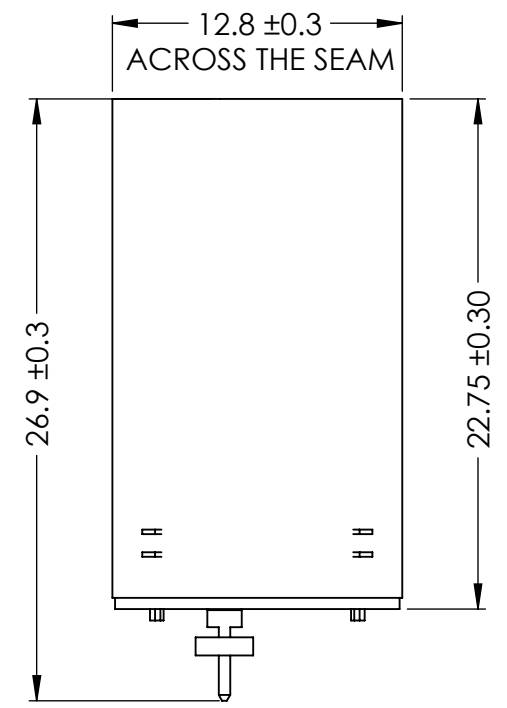
- Vehicle and fleet tracking
- Military & security
- Asset tracking
- Seismic recording instruments
- Oil & gas industries
- Navigation devices
- Mining equipment
- LBS & M2M applications
- Handheld devices

## Realized gain plot

Measured at 1575 MHz



DRAWING REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2021-02-02	QZ



DETAIL A

ITEM 108-00073-03 REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2021-02-02	QZ

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UNLESS OTHERWISE SPECIFIED:	NAME	DATE
DIMENSIONS ARE IN MM	DRAWN	QZ 2020-02-02
TOLERANCES:	CHECKED	ZX 2020-02-04
FRACTIONAL ±	ENG APPR.	NPC 2020-02-04
ANGULAR: MACH ± .5° BEND ±	MFG APPR.	
INTEGER ±2	Q.A.	
ONE PLACE DECIMAL ± 1.0	CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.	
TWO PLACE DECIMAL ± .50		
INTERPRET GEOMETRIC TOLERANCING PER:		
	DO NOT SCALE DRAWING	

MAXTENA, INC		
TITLE: 108-00073-03 M1580HCT-22-P, GPS/GLONASS/GALILEO		
SIZE <b>B</b>	DWG. NO. <b>117-00399-03</b>	REV <b>A</b>
CAGE CODE: 5KQH7	SCALE: NONE	SHEET 1 OF 1