



# M1516HCT-15A-SMA

## ACTIVE GPS GLONASS ANTENNA

Ordering Part #: 100-00107-01



### Description

The M1516HCT-15A-SMA is a high performance dual stage LNA active antenna designed for the GPS and GLONASS L1 band, and built on Maxtena proprietary Helicore™ technology. This technology provides exceptional pattern control, polarization purity and high efficiency in a very compact form factor. The M1516HCT-15A-SMA is a screw-on design, featuring an integrated SMA connector. The ultra light design is rated IP67 when mounted and unmounted for added protection and includes an internal O-ring. This product is ideal for applications requiring high quality reception of GPS signals.

### General Specifications

Parameter	Design Specifications
Operating temp.	from -40°C to 85°C
Weight	10.6 grams (typical)
RF connector	Screw mount SMA

### Environmental Specifications

Parameter	Compliance
RoHS	Compliant
MIL-STD-810G	Compliant

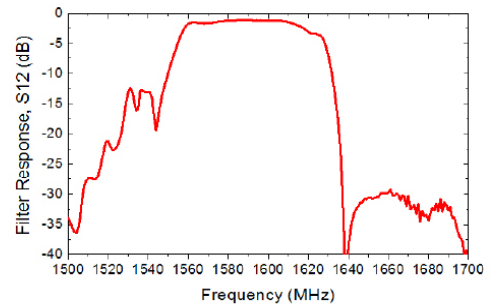
### Electrical Specifications

Parameter	Design Specifications
Frequencies	1575.42 MHz (GPS) 1602 MHz (GLONASS)
Polarization	RHCP
Total active gain	28 dBic (typical) @ 3.3 V
Passive gain	-3 dBic (typical)
Beamwidth	140° (both axes)
Axial ratio	1 dB (max) @ zenith
Input P1dB	-31 dBm
Noise figure	0.8 dB (typical) LNA chain only
Supply voltage	1.5 - 3.7 V
DC current	30 mA (typical) @ 3.3 V
Filtering	>30 dB rejection @1575 +/- 100 MHz

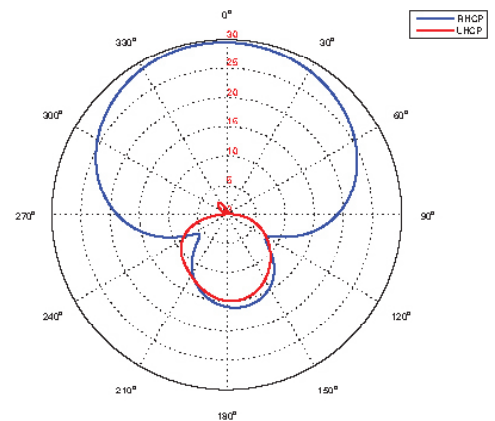
### Applications

- Military & security
- Asset tracking
- Oil & gas industries
- Navigation devices
- LBS & M2M applications
- Handheld devices
- Law enforcement

### Filter Response



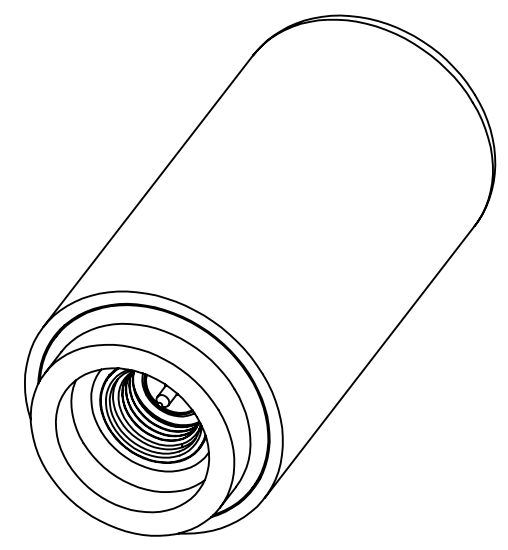
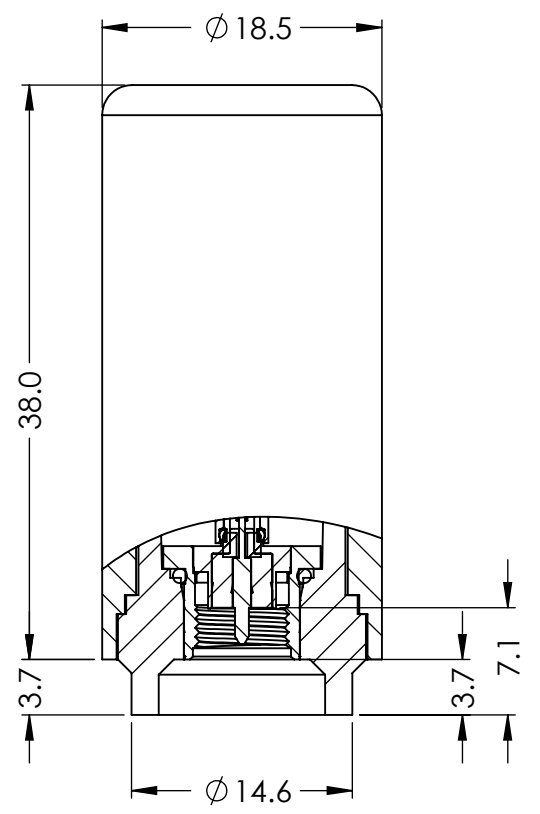
### Typical Radiation Pattern (@ 3.3 V)



8 7 6 5 4 3 2 1

D  
C  
B  
A

D  
C  
B  
A



- NOTES:
- CONNECTOR TYPE: SMA MALE
  - HOUSING MATERIA: ABS/PC, SABIC CYCOLOY C1200HF-701
  - COLAR: BLACK
  - FLAMMABILITY; UL 94 HB
  - DUST AND WATER-RESISTANCE: IP67

UNLESS OTHERWISE SPECIFIED:		NAME	DATE	MAXTENA, INC			
DIMENSIONS ARE IN MM		DRAWN	ZX			2019-07-02	
TOLERANCES:		CHECKED			TITLE: <b>100-00107-01</b> <b>M1516HCT-15A-SMA</b>		
FRACTIONAL ±		ENG APPR.					
ANGULAR: MACH ± .5° BEND ±		MFG APPR.					
ONE PLACE DECIMAL ± .5		Q.A.					
TWO PLACE DECIMAL ± .20		INTERPRET GEOMETRIC TOLERANCING PER:					
<p>THIRD ANGLE PROJECTION</p>		<p>CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.</p>			SIZE	DWG. NO.	REV
					<b>B</b>		<b>1</b>
DO NOT SCALE DRAWING		CAGE CODE: 5KQH7		SCALE: NONE	SHEET 1 OF 1		

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8 7 6 5 4 3 2 1