

M1600HCT-P-SMA

IRIDIUM/GPS/GLONASS PASSIVE ANTENNA

Ordering Part #: 100-00050-01



Description

The M1600HCT-P-SMA is a high performance antenna designed for the Iridium network and GPS/GLONASS bands, and built on proprietary Maxtena Helicore® technology. This technology provides exceptional pattern control, polarization purity and high efficiency in a very compact form factor. The M1600HCT-P-SMA is a screw-on design, featuring an integrated SMA connector and is rated IP-67 when mounted for added protection. This product is designed for applications requiring high quality GPS, GLONASS and Iridium satellite reception.

Electrical Specifications

Parameter	Design Specifications
Frequency	1616-1626 MHz (Iridium) 1575 MHz (GPS) 1602 MHz (GLONASS)
Polarization	RHCP
Antenna element peak gain	2.8 dBic (Iridium) -3 dBic (GPS) 0 dBic (GLONASS)
Axial Ratio	0.5 dB (typical) / 1 dB (max)
VSWR	1.5 (max)
Impedance	50 Ohm
Operating temp.	from -40 °C to 85 °C
RF connector	SMA
Overall dimensions	48 mm (height) x 18.5 mm (diameter)
Weight	11 grams

Features

- Very low axial ratio
- IP-67 mounted
- Ultra light weight - 11 grams
- Ground plane independent

Applications

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

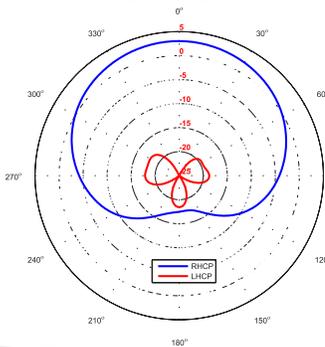
Iridium Network Typical Performance

Parameter	Design Specifications
Antenna element peak gain	2.8 dBic (typical)
Efficiency	60% (typical)
Axial Ratio (@ Zenith)	0.5 dB (max)

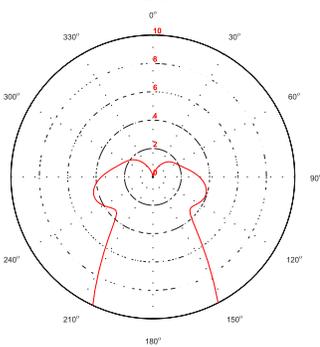
GPS Band Typical Performance

Parameter	Design Specifications
Antenna element peak gain	-3 dBic (typical)
Efficiency	20% (typical)
Axial Ratio (@ Zenith)	0.5 dB (max)

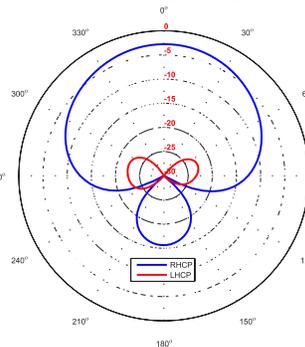
Iridium RHCP Gain



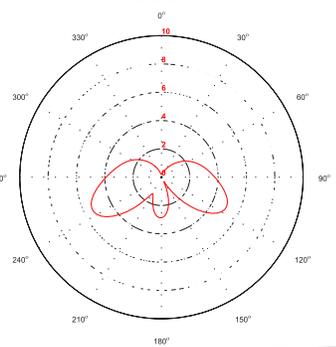
Iridium Axial Ratio



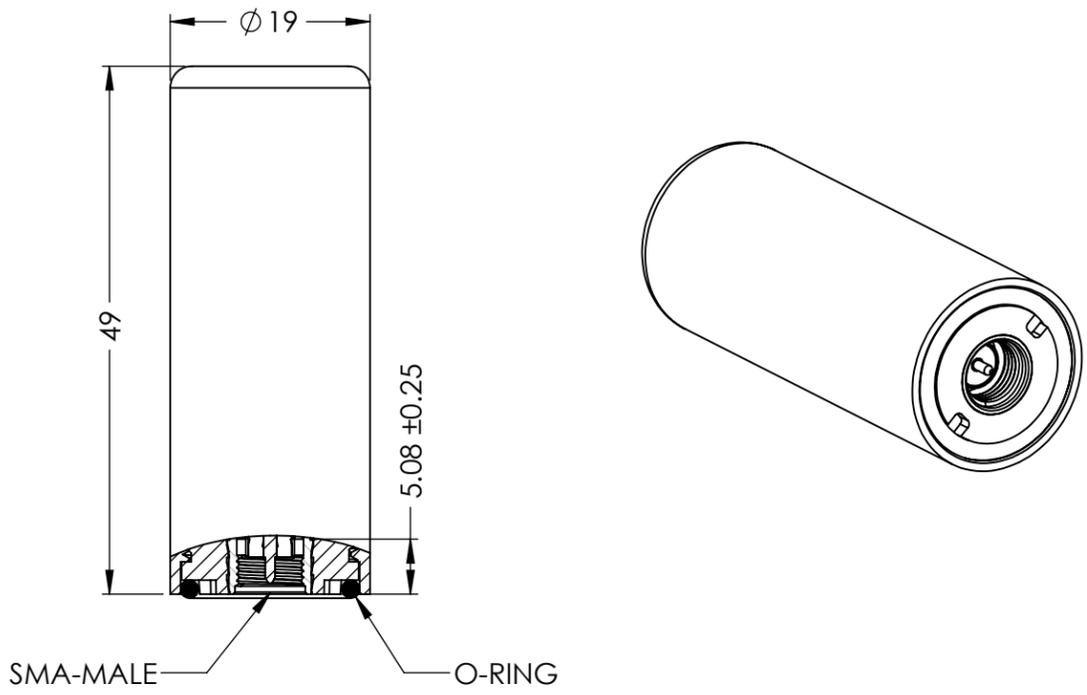
GPS RHCP Gain



GPS Axial Ratio

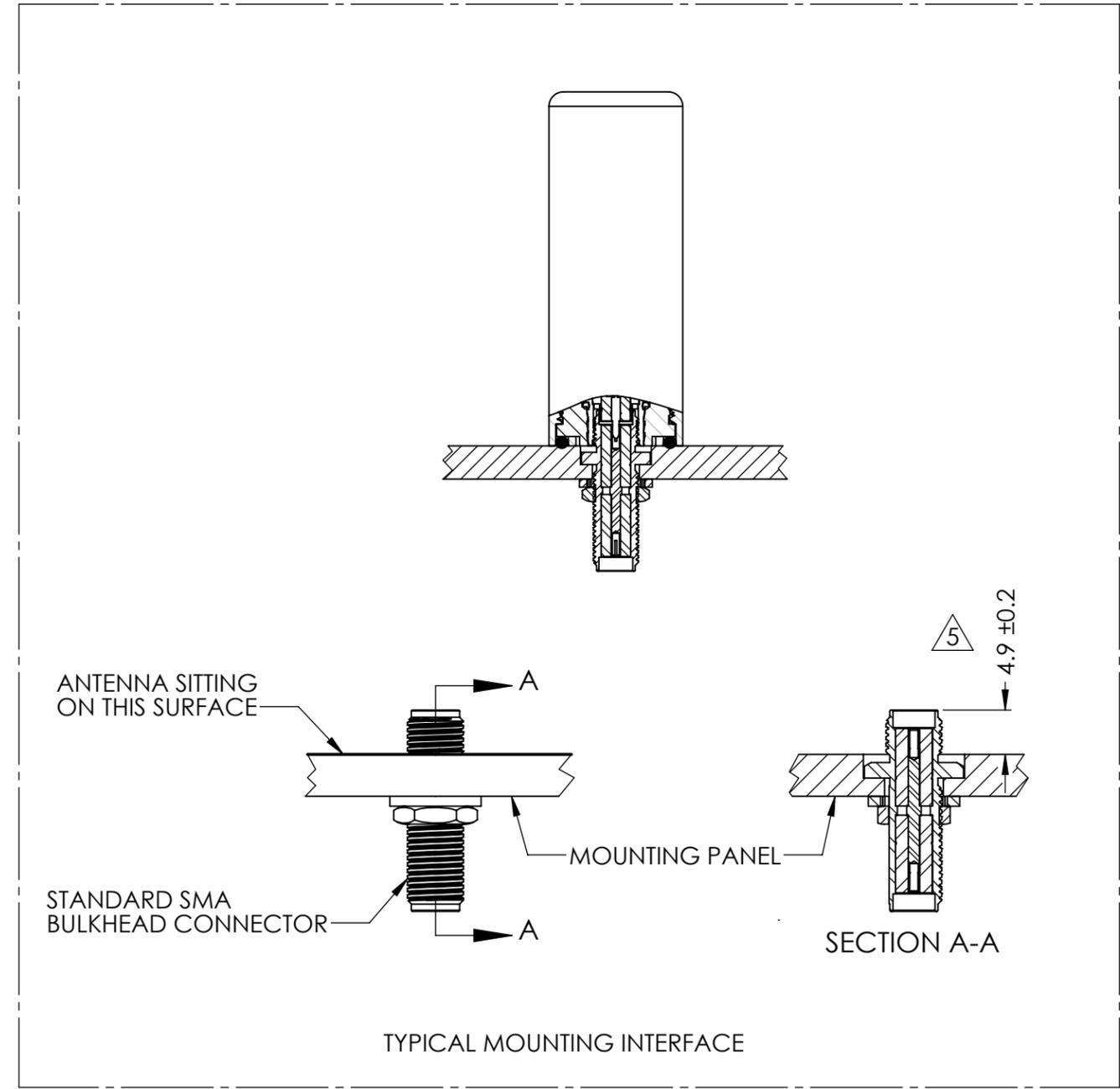


DRAWING REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2021-05-05	MP



NOTES:

1. CONNECTOR TYPE: SMA-MALE.
2. HOUSING MATERIA: ABS/PC.
3. COLAR: BLACK.
4. DUST AND WATER-RESISTANCE: IP67.
5. RECOMMEND A 4.9MM MOUNTING HEIGHT FOR MOUNTING INTERFACE SEALING AND ELECTRICAL CONNECTION. ASSEMBLY TORQUE SHALL BE NO MORE THAN 8 IN*LB.



ITEM 100-00050-01 REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2106-10-19	SMS

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UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN MM
TOLERANCES:
FRACTIONAL ±
ANGULAR: MACH ± .5° BEND ±
INTEGER ± 2
ONE PLACE DECIMAL ± 1.0
TWO PLACE DECIMAL ± 0.50
INTERPRET GEOMETRIC TOLERANCING PER:

THIRD ANGLE PROJECTION
DO NOT SCALE DRAWING

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.

	NAME	DATE
DRAWN	MP	2021-05-05
CHECKED	ZX	2021-05-07
ENG APPR.	NPC	2021-05-13
MFG APPR.		
Q.A.		

MAXTENA, INC

TITLE: 100-00050-01
M1600HCT-P-SMA

SIZE B DWG. NO. 117-00445-01 REV A

CAGE CODE: 5KQH7 SCALE: NONE SHEET 1 OF 1