

M1590HCT-SMA

INMARSAT HIGH PERFORMANCE ANTENNA

Ordering Part #: 100-00068-01

Description

The M1590HCT-SMA is a high performance antenna designed for the inmarsat network, built on proprietary Maxtena HeliCore® technology. This technology provides exceptional pattern control, polarization purity and high efficiency in a very compact form factor. The M1590HCT-SMA is a screw-on design, featuring an integrated SMA connector. The product is ideal for applications requiring minimal integration effort or for retrofitting existing products. The design is equipped with an O-ring that makes the antenna waterproof once installed on a mating surface.

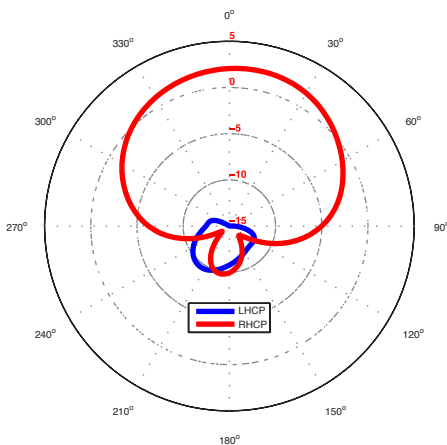
Electrical Specifications

Parameter	Design Specifications
Frequency	1525 MHz - 1660.5 MHz
Polarization	RHCP
Peak gain	1.5 dBic @ 1540 MHz (typical) 1.5 dBic @ 1640 MHz (typical)
Axial Ratio	1.5 dB (max)
Impedance	50 ohm
Interference Rating	200 V/m in band
Operating temp.	from -40°C to 85°C
RF connector	SMA

1540 MHz Typical Performance

Parameter	Design Specifications
Element Efficiency	50%
Peak Gain	1.5 dBic
Axial Ratio	1.5 dB (Max)
VSWR	<2

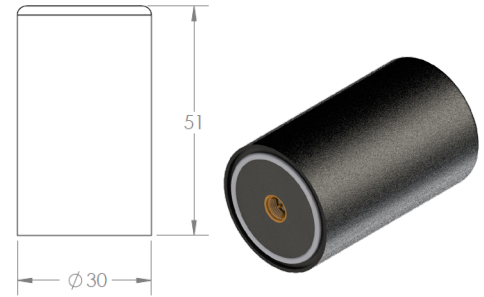
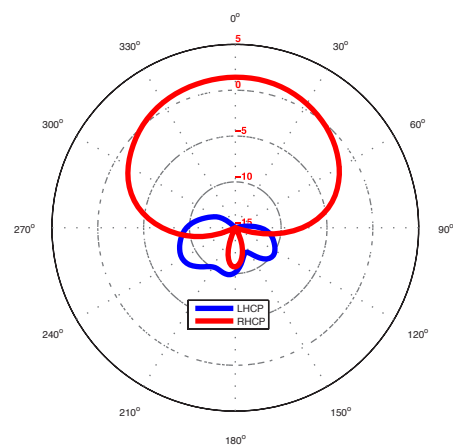
Realized Gain at 1540 MHz



1640 MHz Typical Performance

Parameter	Design Specifications
Element Efficiency	50%
Peak Gain	1.5 dBic
Axial Ratio	1.5 dB (Max)
VSWR	<2

Realized Gain at 1640 MHz



Mechanical Specifications

dimensions are in mm

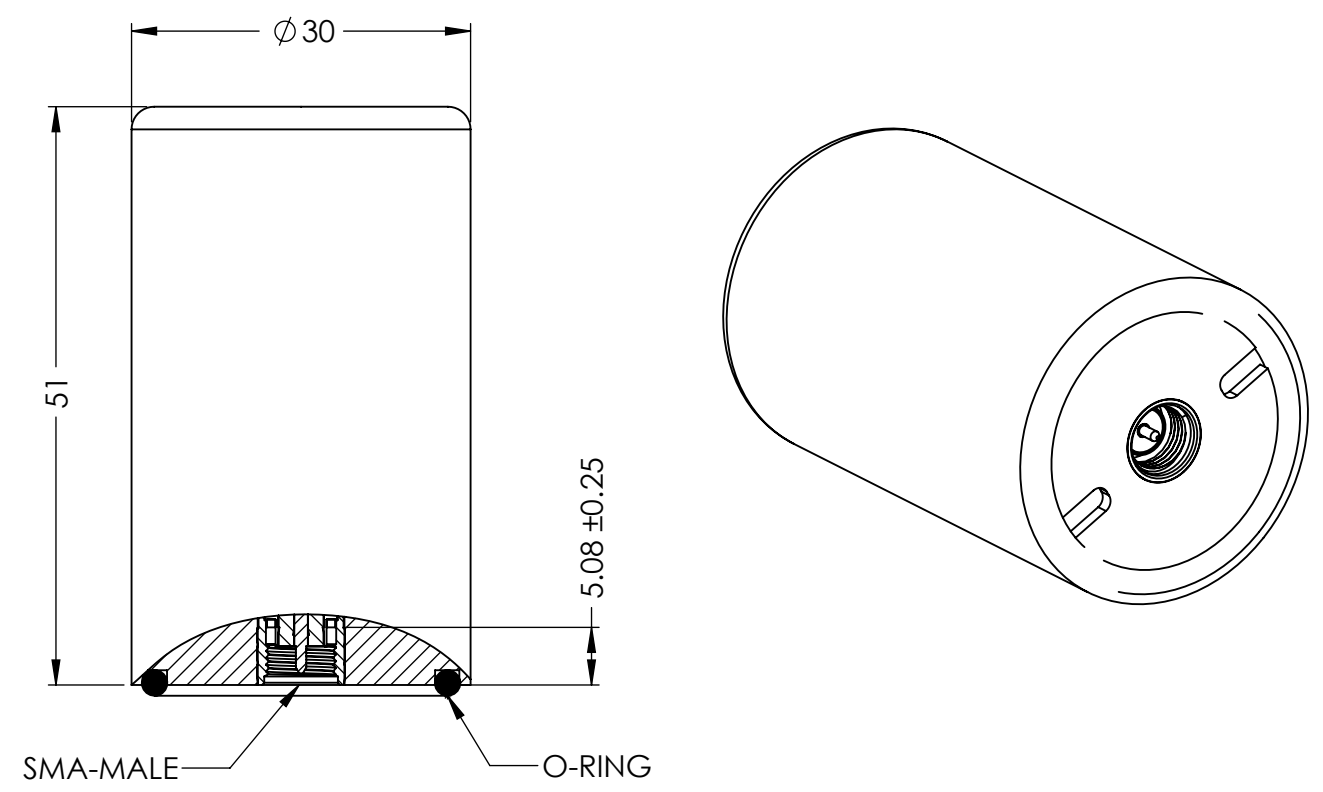
Features


- Superior out-of-band rejection
- Very low axial ratio
- Pattern constant with frequency
- Ground plane independent
- Ultra light weight
- SMA interface

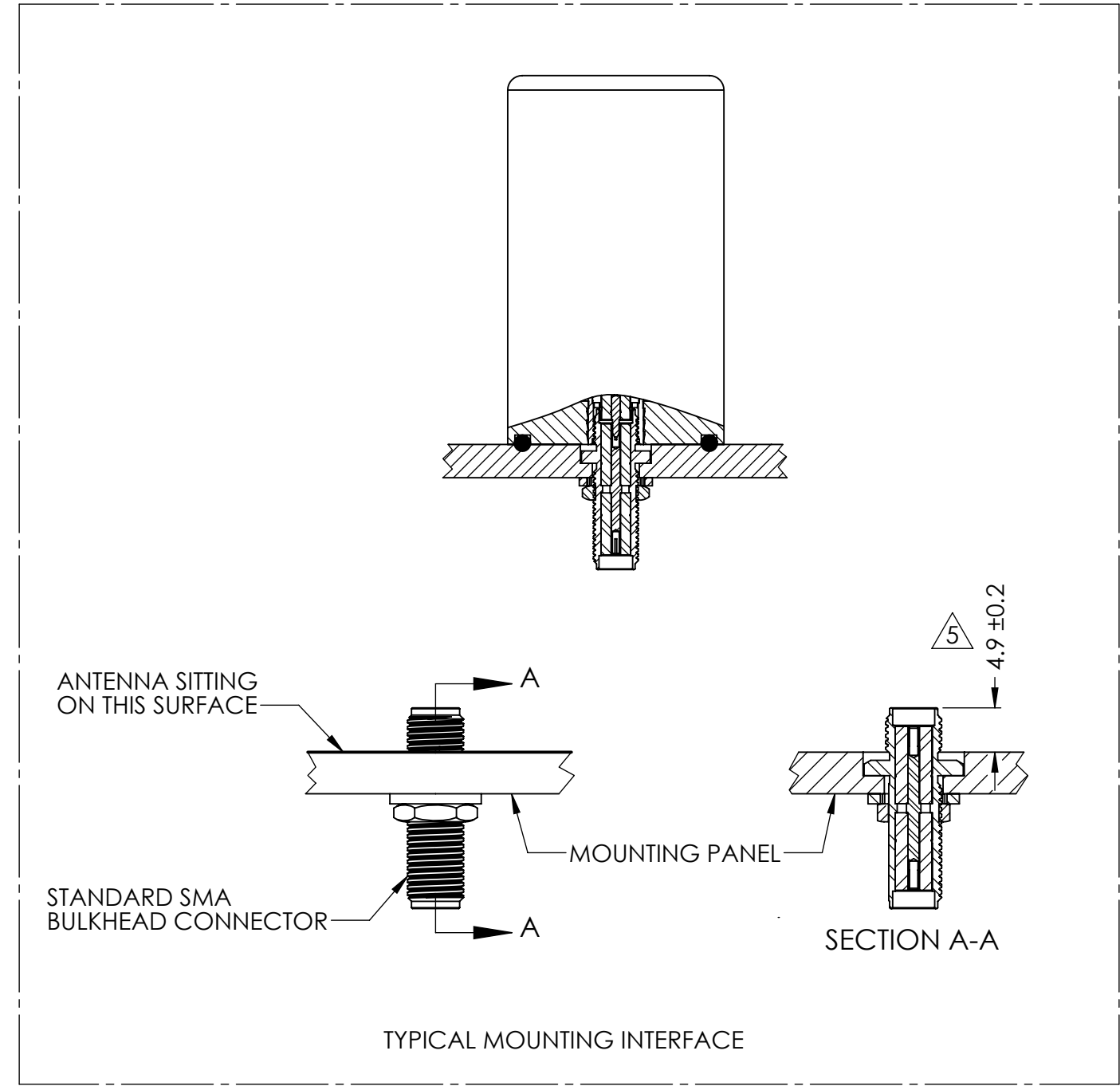
Applications

- Precision navigation
- Precision timing
- Military & security
- Asset tracking
- Mobile computing
- Oil & gas industries
- Navigation devices
- Law enforcement
- LBS & M2M applications

DRAWING REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2021-01-12	QZ



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



ITEM 100-00068-01 REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2021-01-12	QZ

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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

	NAME	DATE
DRAWN	QZ	2021-01-12
CHECKED	ZX	2021-01-12
ENG APPR.	NPC	2021-01-12
MFG APPR.		
	Q.A.	

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

MAXTENA, INC

TITLE: 100-00068-01
M1590HCT-SMA INMARSAT
PASSIVE ANTENNA

SIZE B DWG. NO. 117-00391-01 REV A

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