

M1575HCT-15A-SMA

HIGH PERFORMANCE ACTIVE GPS ANTENNA

Ordering Part #: 100-00028-07



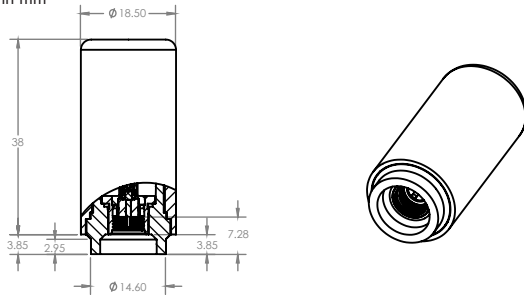
Features IP-67 rating • 10.6 grams in weight • Ground plane independent

Description

The M1575HCT-15A-SMA is a high performance dual stage LNA active antenna designed for the GPS 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 M1575HCT-15A-SMA is a screw-on design, featuring an integrated SMA connector. The ultra light design is rated IP-67 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.

Mechanical Specifications / Mounting Interface

dimensions are in mm



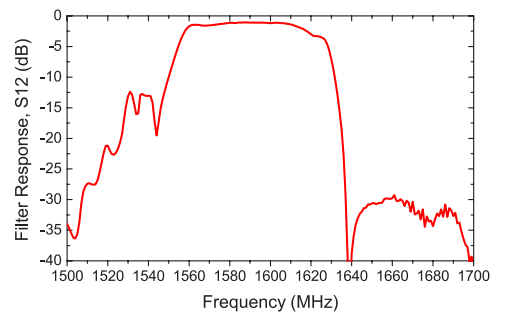
Electrical Specifications

Parameter	Design Specifications
Frequency	1575.42 MHz (GPS)
Polarization	RHCP
Total active gain	28 dBic (typical) @ 3.3 V
Passive gain	-2.5 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
Operating temp.	from -40°C to 85°C
Weight	10.6 grams (typical)
RF connector	SMA

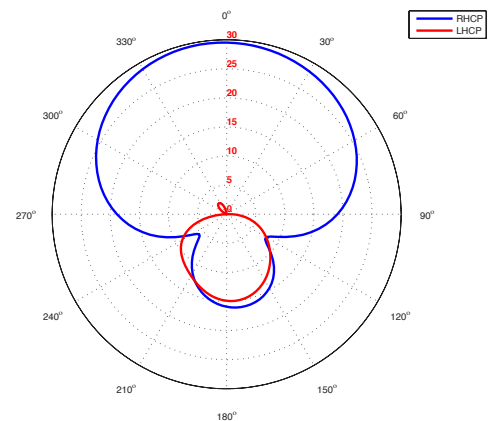
Applications

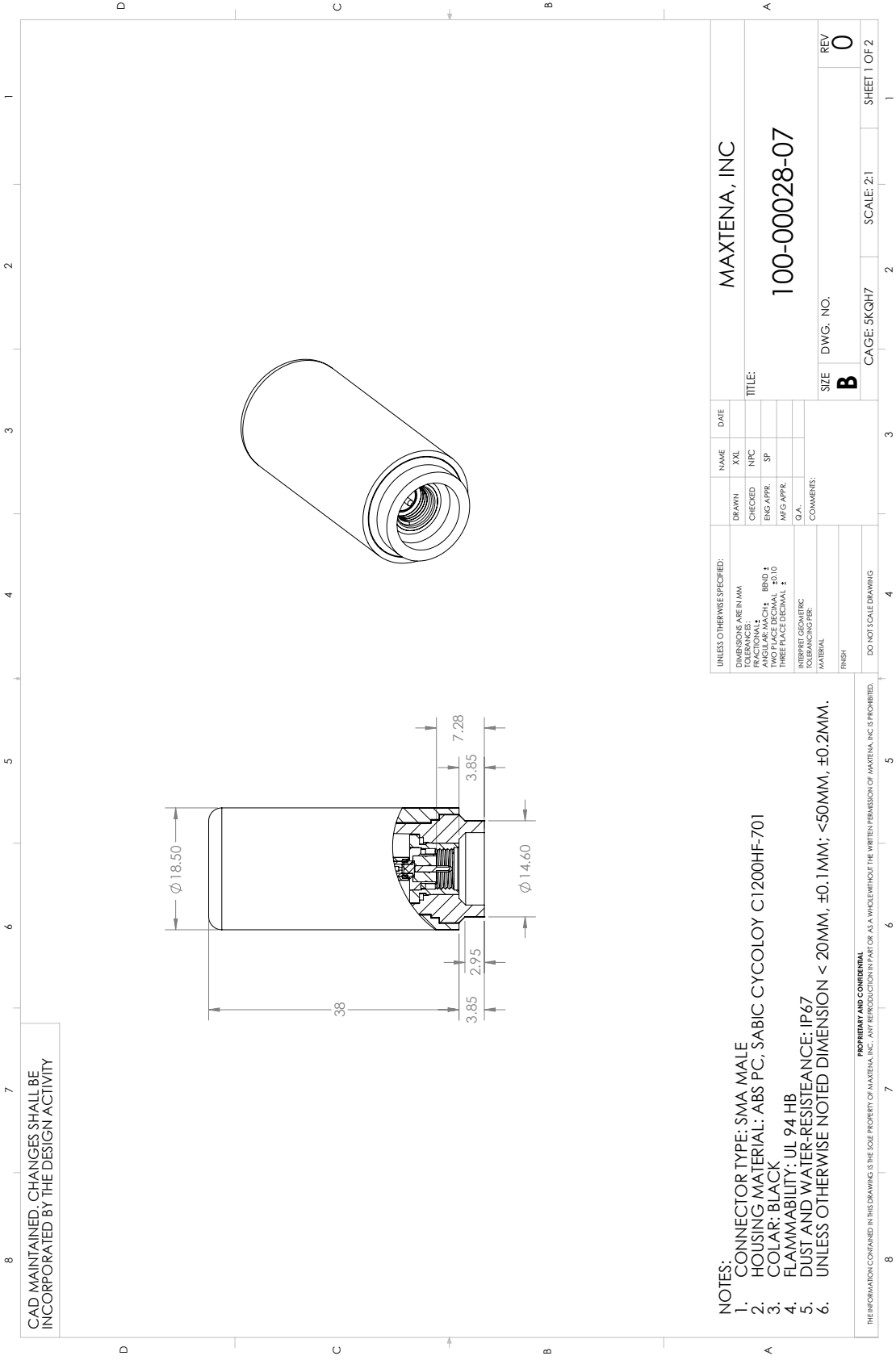
- Military & security
- Asset tracking
- Oil & gas industries
- Navigation devices
- LBS & M2M applications
- Handheld devices
- Law enforcement

Filter Response



Typical Radiation Pattern (@ 3.3 V)





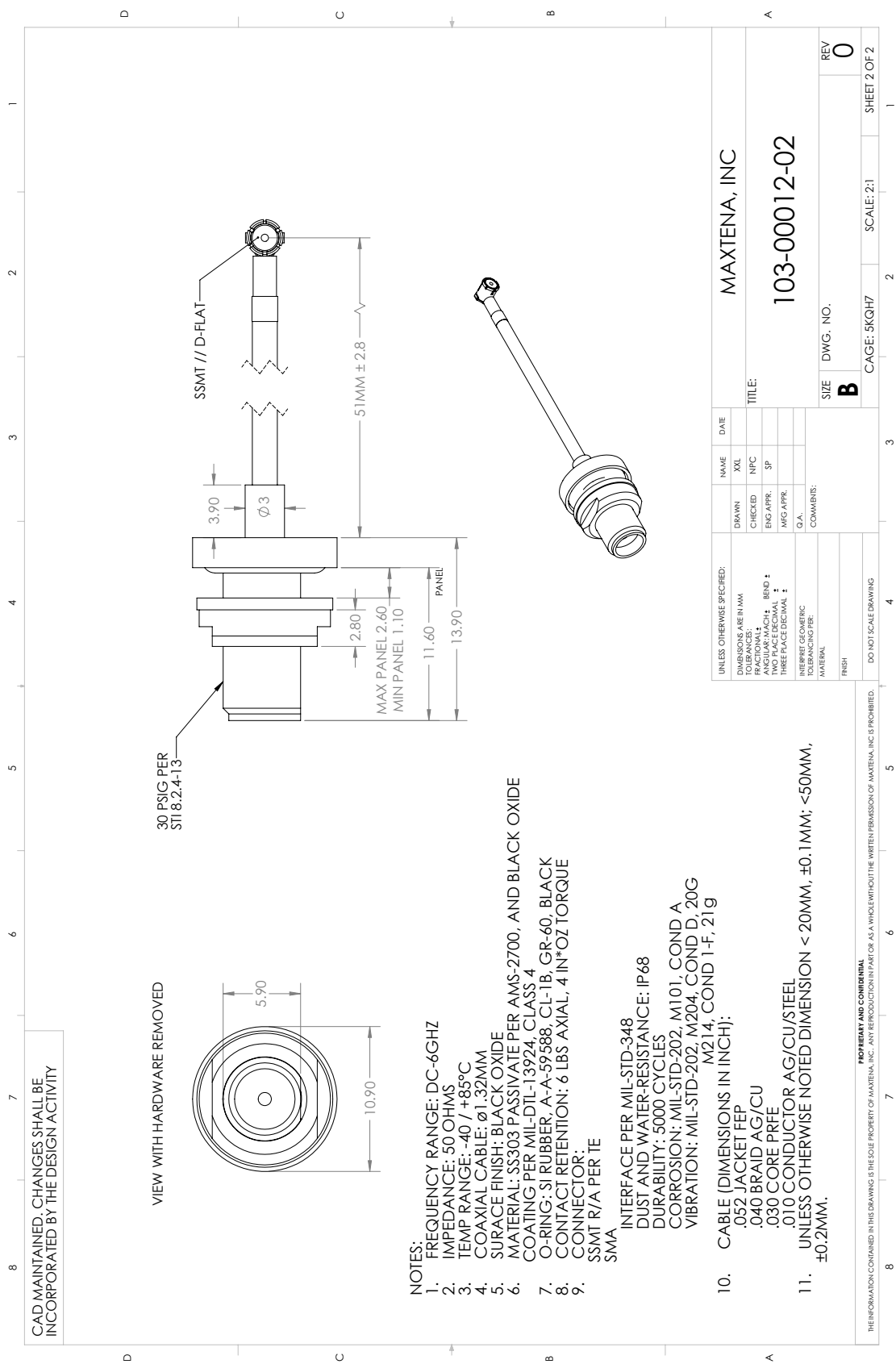
CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY

- NOTES:
- CONNECTOR TYPE: SMA MALE
 - HOUSING MATERIAL: ABS PC, SABIC CYCOLOY C1200HF-701
 - COLOR: BLACK
 - FLAMMABILITY: UL 94 HB
 - DUST AND WATER-RESISTANCE: IP67
 - UNLESS OTHERWISE NOTED DIMENSION < 20MM, ±0.1MM; < 50MM, ±0.2MM.

UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN MM	DRAWN	XXL	
FRACTIONAL	CHECKED	NIC	
ANGULAR MATCH	ENG APPR.	SP	
WELD	MFG APPR.		
THREE PLACE DECIMAL	O.A.		
INTERSECT GEOMETRIC TOLERANCING PER MATERIAL	COMMENTS:		
FINISH			
DO NOT SCALE DRAWING		SIZE	DWG. NO.
		B	O
		CAGE: 5KQH7	SCALE: 2:1
			SHEET 1 OF 2

MAXTENA, INC
100-00028-07





CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY

VIEW WITH HARDWARE REMOVED

NOTES:

1. FREQUENCY RANGE: DC-6GHZ
2. IMPEDANCE: 50 OHMS
3. TEMP RANGE: -40 / +85°C
4. COAXIAL CABLE: Ø1.32MM
5. SURFACE FINISH: BLACK OXIDE
6. MATERIAL: SS303 PASSIVATE PER AMS-2700, AND BLACK OXIDE COATING PER MIL-DTL-13924, CLASS 4
7. O-RING: SI RUBBER, A-A-59588, CL-1B, GR-60, BLACK
8. CONTACT RETENTION: 6 LBS AXIAL, 4 IN*OZ TORQUE
9. CONNECTOR: SMT R/A PER TE SMA
10. INTERFACE PER MIL-STD-348
DUST AND WATER-RESISTANCE: IP68
DURABILITY: 5000 CYCLES
CORROSION: MIL-STD-202, M101, COND A
VIBRATION: MIL-STD-202, M204, COND D, 20G MZ14, COND 1-F, 21G
11. CABLE (DIMENSIONS IN INCH):
.052 JACKET FEP
.040 BRAID AG/CU
.030 CORE PRFE
.010 CONDUCTOR AG/CU/STEEL
UNLESS OTHERWISE NOTED DIMENSION < 20MM, ±0.1MM; <50MM, ±0.2MM.

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MM TOLERANCES: FRACTIONS: ±0.10 DECIMALS: ±0.05 ANGULAR: MACH ± TWO PLACE DECIMAL THREE PLACE DECIMAL ±		NAME	DATE	MAXTENA, INC	
DRAWN	XXL	CHECKED	NFC	TITLE:	
ENG APPR.	SP	MFG APPR.		103-00012-02	
G.A.		COMMENTS:		SIZE	DWG. NO.
FINISH				B	
DO NOT SCALE DRAWING				CAGE: 5KH7	SCALE: 2:1
					REV
					0
					SHEET 2 OF 2

