

M1621HCT-HP

IRIDIUM SFX HIGH-PROFILE ANTENNA

Part #: 100-00083-01

Description

The M1621HCT-HP is a high performance antenna designed for the Iridium SFX/ RUDICS/SBD network, and built on proprietary Maxtena Helicore® Technology. The Helicore® technology provides exceptional pattern control, polarization purity and high efficiency in a very rugged and compact form factor. The omnidirectional antenna pattern allows this antenna to be easily installed in any location. This antenna is designed to work with both Iridium voice and data modems including Iridium 9601, 9602N, 9603N, 9523N, 9522B and 9770 SFX. The antenna features a TNC jack connector and optional mounting brackets for easy installation. The antenna is IP66 rated and optimized for harsh environments on both land and maritime applications.

Electrical Specifications

Parameter	Specification
Frequency	1616 - 1626 MHz
Polarization	RHCP
Antenna Element Peak Gain	1.7 dBic (typical)
Peak Efficiency	68%
Beamwidth	162°
Axial Ratio	2.2 dB (typical) / 3.3 dB (max)
VSWR	1.6 (max)
Impedance	50 Ω



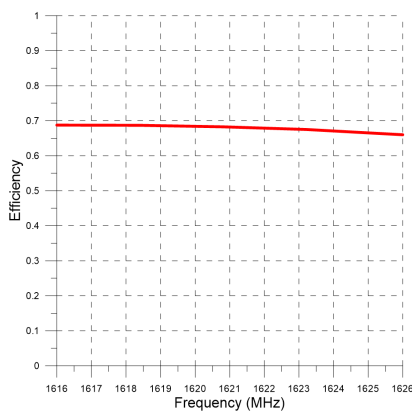
Features

- Iridium SFX 9770 compliant
- IP66 and ROHS compliant
- Ground plane independent
- High gain & low axial ratio

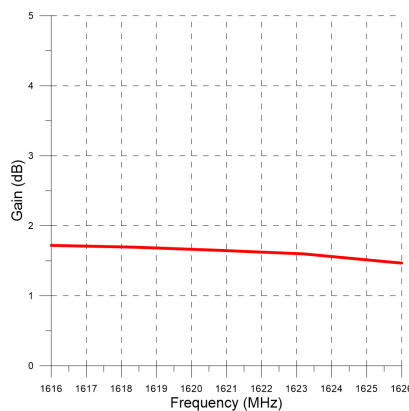
Applications

- Vehicle and fleet tracking
- Military & security
- Asset tracking
- IoT
- High quality voice applications
- Maritime industries
- UAV/Drones
- Navigation devices
- Mining equipment
- LBS & M2M applications
- Data streaming

Efficiency



Antenna Element Gain [dB]



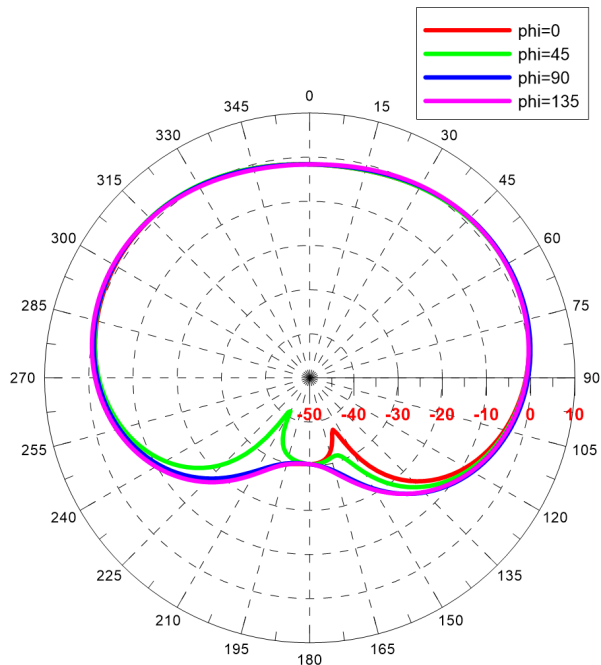
Radiation Specifications

Iridium Radiation Patterns

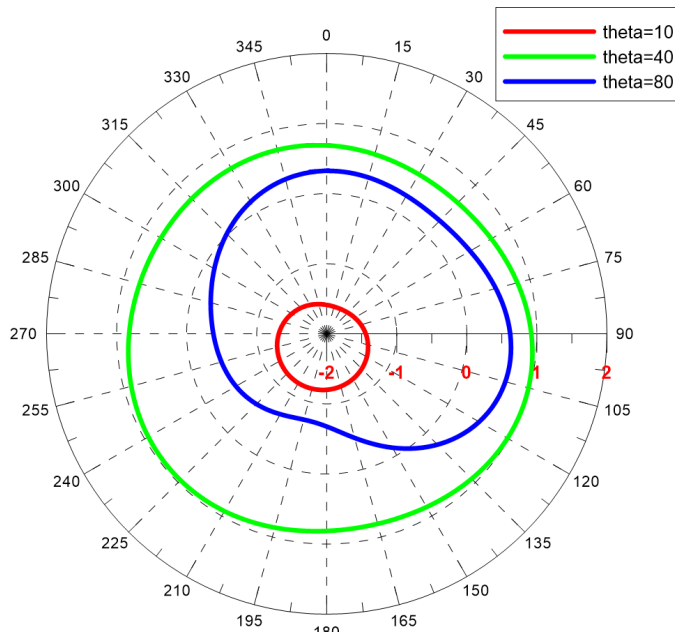
Maxtena's M1621HCT-HP has unique features that make it the best option for high-accuracy Iridium applications.

1. Highly symmetric radiation pattern guarantees there will be no direction of weak reception or blind spots.
2. Low axial ratio ensures multipath error is mitigated.

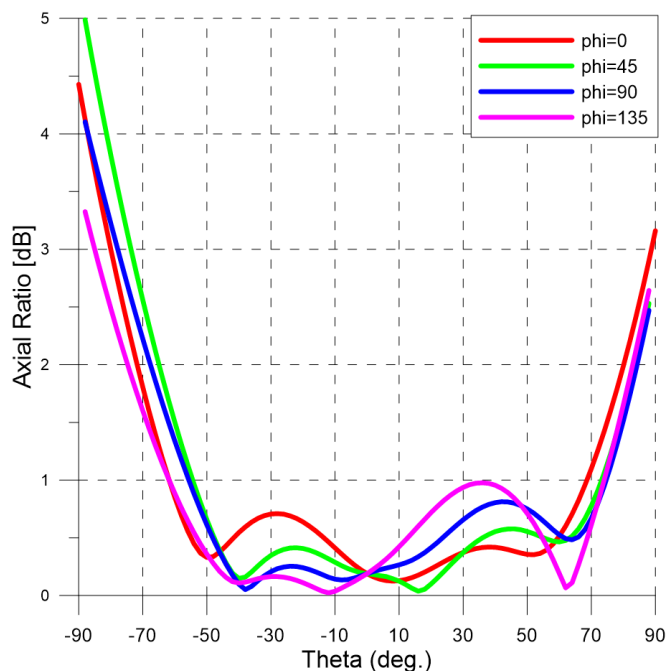
RHCP Realized Gain [dBic] - Elevation Cuts



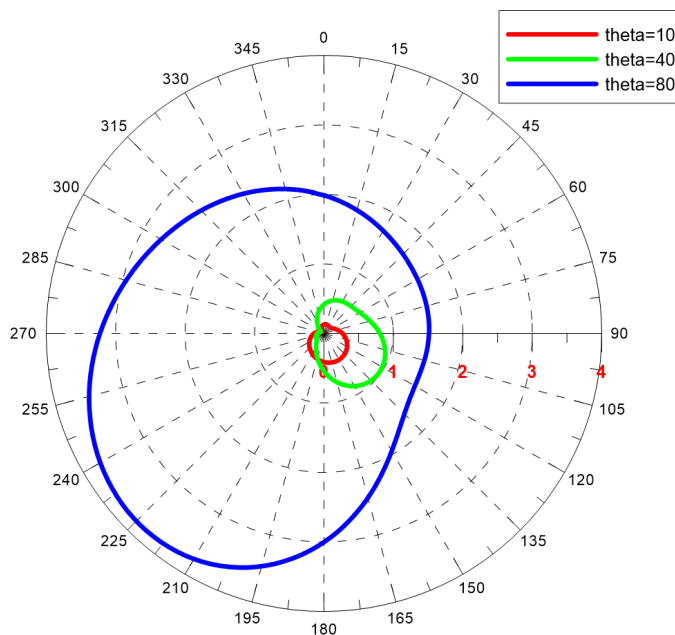
RHCP RealizedGain [dBic] - Azimuth Cuts



Axial Ratio [dB] - Elevation Cuts



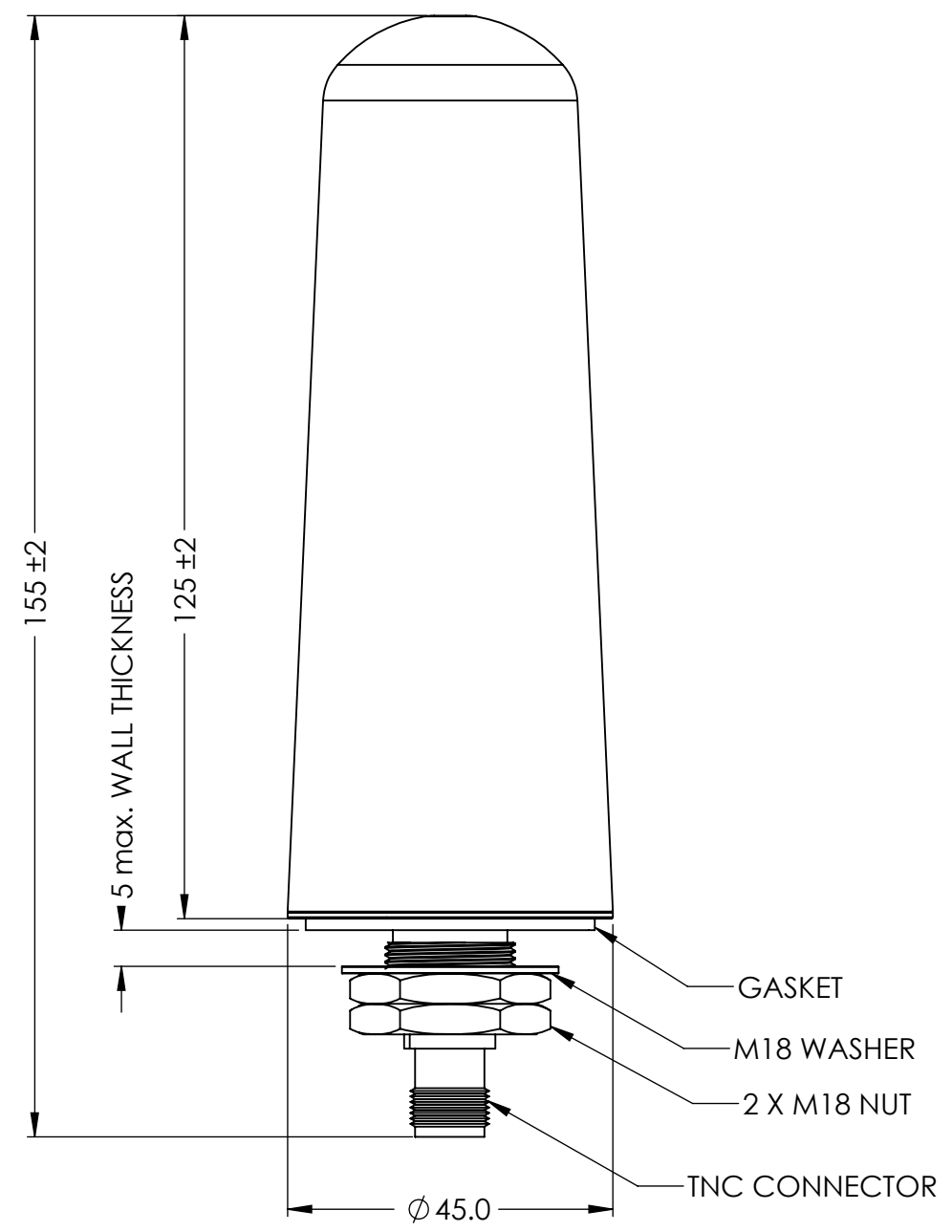
Axial Ratio [dB] - Azimuth Cuts



Mechanical Specification

Overall Dimensions	125 mm (height) x 45 mm (diameter)
Weight	100 g
Operating Temperature	from -40°C to 85°C
RF Connector	TNC Jack
Environmental	IP66 and RoHS Compliant
Attachment Method	19 mm through hole mount

DRAWING REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	INITIAL RELEASE	2019-05-06	ZX



NOTES:

- MATERIAL:
 - HOUSING: PC/ASA PLASTIC, WHITE;
 - BASE: ALUMINUM.
- ATTACHMENT METHOD: THROUGH HOLE (M18 X 1 THREAD)
- WATERPROOF RATE: IP67.
- CONNECTOR: TNC FEMALE.

UNLESS OTHERWISE SPECIFIED:	NAME	DATE
DIMENSIONS ARE IN MM	DRAWN ZX	2019-05-06
TOLERANCES:	CHECKED	
FRACTIONAL ±	ENG APPR. NPC	2019-05-06
ANGULAR: MACH ± .5° BEND ±	MFG APPR.	
INTEGER ± 1	Q.A.	
ONE PLACE DECIMAL ± .5		
INTERPRET GEOMETRIC TOLERANCING PER:	CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.	
	DO NOT SCALE DRAWING	

MAXTENA, INC		
TITLE: 100-00083-01 MHP1621HCT-TNC		
SIZE B	DWG. NO. 117-00275-01	REV 1
CAGE CODE: 5KQH7	SCALE: NONE	SHEET 1 OF 1

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