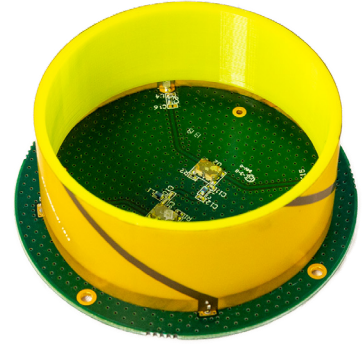


M1621HCT-LP-UFL

IRIDIUM SFX EMBEDDED LOW-PROFILE ANTENNA

Part #: 100-00101-03



Description

The M1621HCT-LP-UFL is a high performance antenna designed for the Iridium SFX/ RUDICS /SBD network, and built on proprietary Maxtena Helicore (Registered Trademark symbol) Technology. The Helicore technology provides exceptional pattern control, polarization purity and high efficiency in very light and compact form factor. The omnidirectional antenna pattern allows this antenna to be easily embedded in any application. This antenna is designed to work with both Iridium voice and data modems including Iridium 9601, 9602N, 9603N, 9523N, 9522B and 9770 SFX. The embedded antenna features a custom cable and u.fl connector for easy installation.

Electrical Specifications

Parameter	Specification
Frequency	1616 - 1626 MHz
Polarization	RHCP
Antenna Element Peak Gain	2.5 dBic (typical)
Peak Efficiency	73%
Beamwidth	147°
VSWR	2.0:1
Impedance	50 Ω

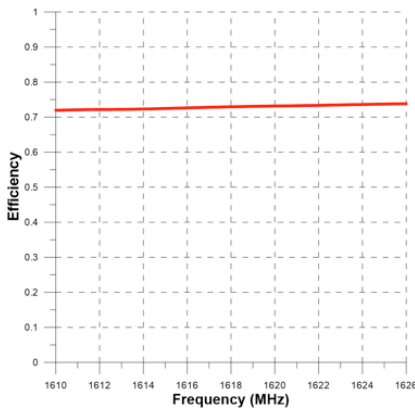
Features

- Iridium SFX 9770 compliant
- Very light weight 23g
- Ground plane independent
- High gain & low axial ratio

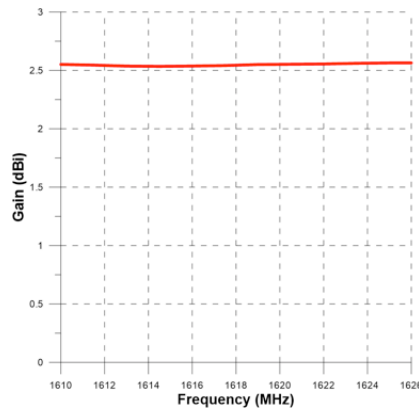
Applications

- 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]



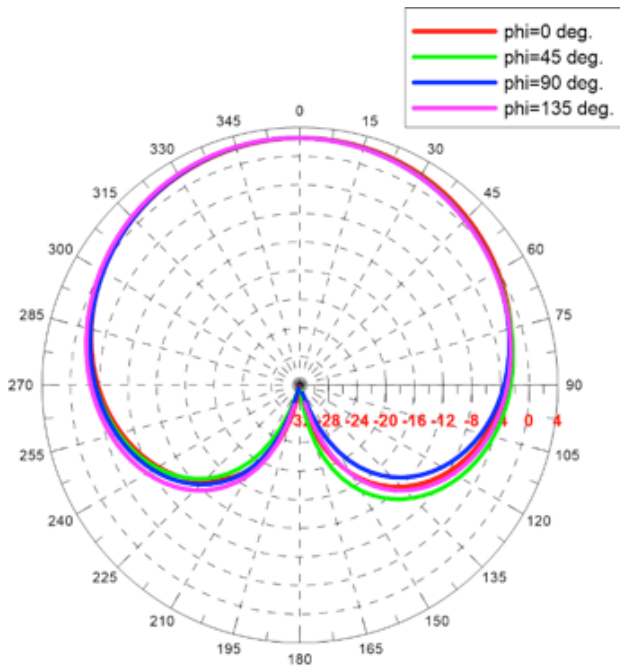
Radiation Specifications

Iridium Radiation Patterns

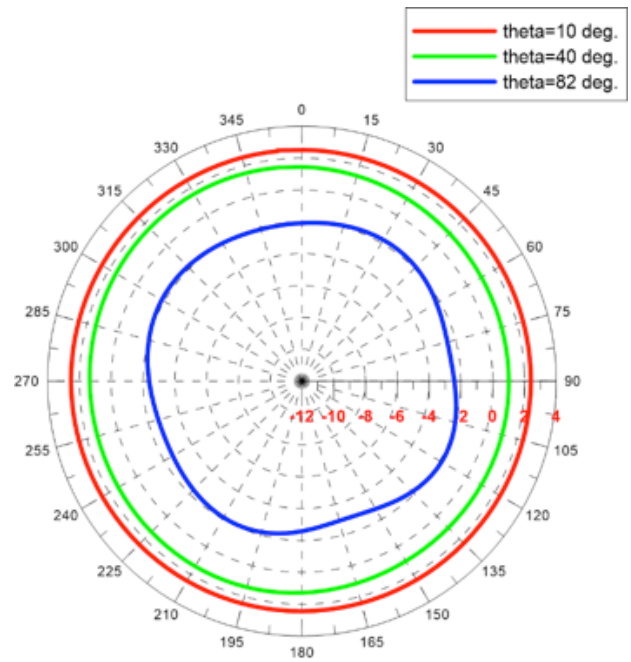
Maxtena's M1621HCT-LP-UFL has unique features that make it the best option for high-accuracy Iridium applications.

1. Highly symmetric radiation pattern guarantees there will be no direction of weak reception or blind spots.
2. A 147 degree beamwidth ensures excellent hemispherical coverage.

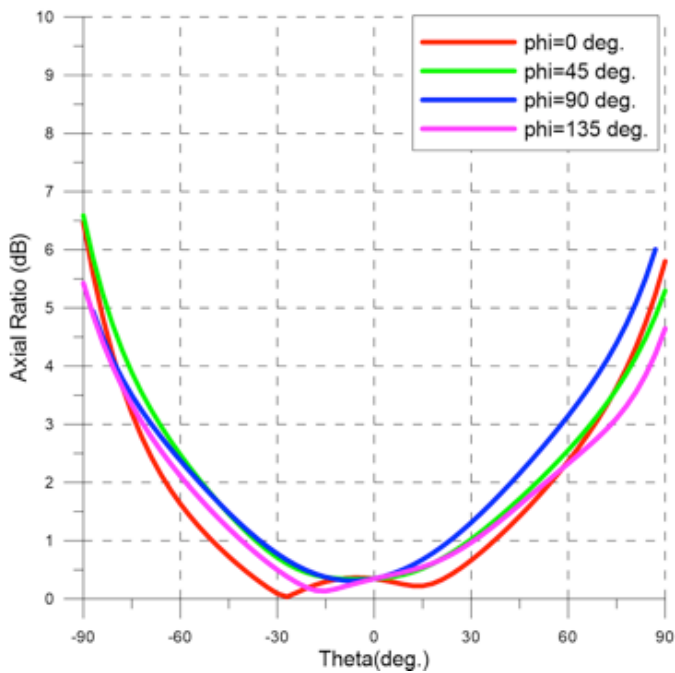
RHCP Realized Gain [dBic] - Elevation Cuts



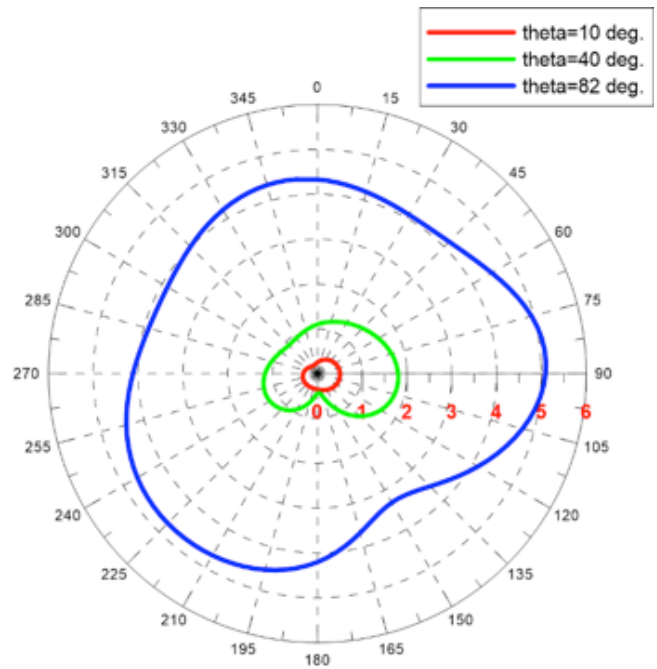
RHCP RealizedGain [dBic] - Azimuth Cuts



Axial Ratio [dB] - Elevation Cuts



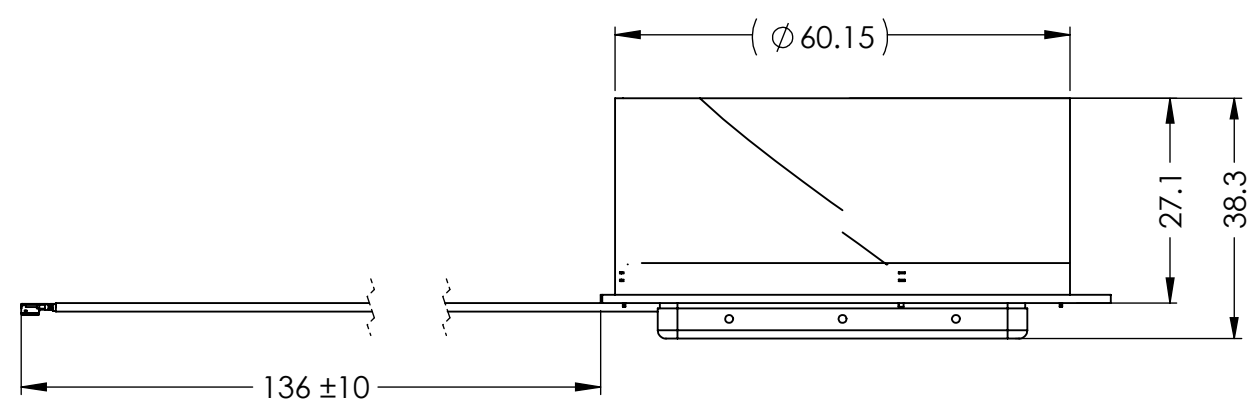
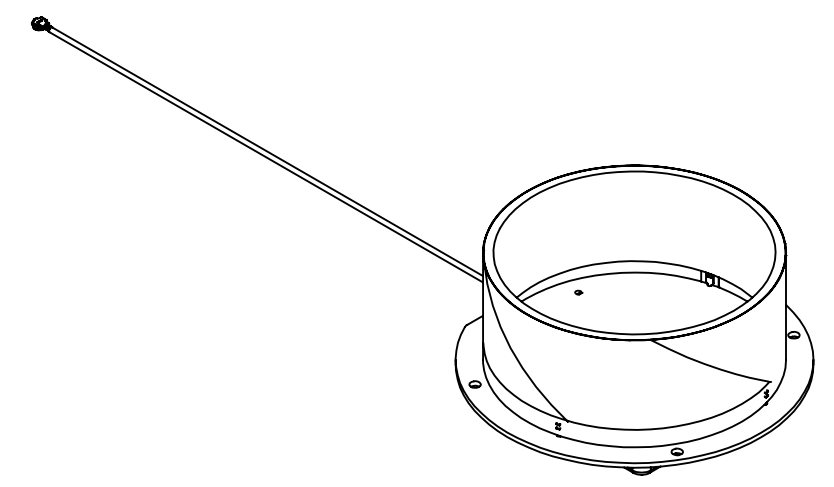
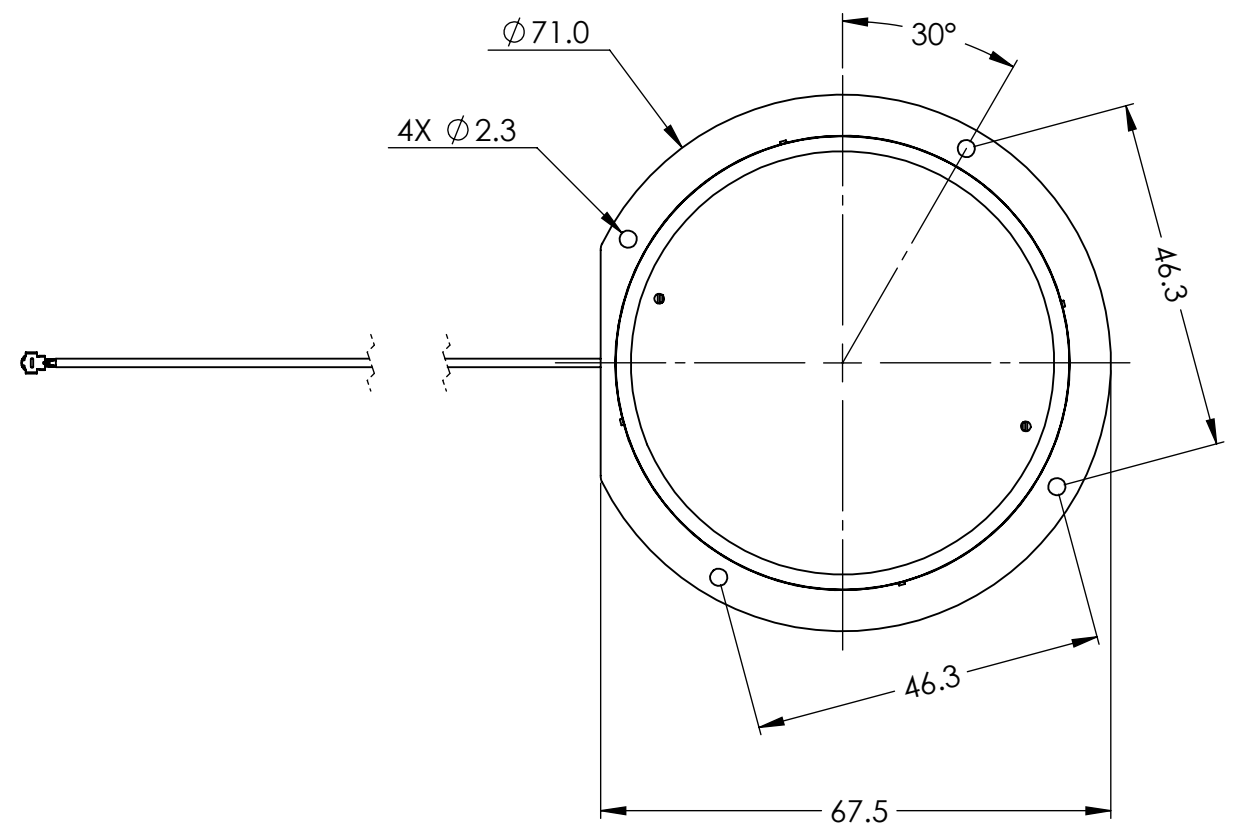
Axial Ratio [dB] - Azimuth Cuts



Mechanical Specification

Overall Dimensions	38.3 mm (height) x 60.15 mm (diameter)
Weight	23 g
Operating Temperature	from -40°C to 85°C
RF Connector	UFL
Environmental	RoHS Compliant

DRAWING REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	INITIAL RELEASE	2019-09-12	ZX



NOTES:

- DESCRIPTION: IRIIDIUM SFX EMBEDDED LOW PROFILE ANTENNA.
- ATTACHMENT METHOD: FOUR #2-56 SCREW MOUNTING HOLES
- CONNECTOR: U.FL

CONFIGURATION: 100-00101-03 dimensions in mm

ITEM 100-00101-03 REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	INITIAL RELEASE	2019-05-15	ZX

PROPRIETARY AND CONFIDENTIAL

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UNLESS OTHERWISE SPECIFIED:		NAME	DATE	MAXTENA, INC			
DIMENSIONS ARE IN MM		DRAWN	ZX			2019-09-12	
TOLERANCES:		CHECKED					
FRACTIONAL ±		ENG APPR.	NPC			2019-09-12	
ANGULAR: MACH ± .5° BEND ±		MFG APPR.			TITLE: 100-00101-03 M1621HCT-LP-UFL		
INTEGER ± 1		Q.A.					
ONE PLACE DECIMAL ± 1.0		CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.			SIZE	DWG. NO.	REV
TWO PLACE DECIMAL ± .50					B	117-00301-01	1
INTERPRET GEOMETRIC TOLERANCING PER:		DO NOT SCALE DRAWING		CAGE CODE: 5KQH7	SCALE: NONE	SHEET 1 OF 1	