



L125GRRKPA-T

Maxtena PN: M10HCT-P-TNC

Description

L125GRRKPA-T is a L1-L2-L5 GNSS passive antenna solution intended to cover all GPS, Galileo, Glonass, BeiDou bands including L-Band correction services coverage. Low profile RHCP, wide band antenna is ideal solution for high-precision applications, such as autonomous vehicle navigation, smart survey devices, and maritime positioning. This antenna is built on proprietary Maxtena Helicore® technology. This technology provides exceptional pattern control, polarization purity and high efficiency in a very compact form factor. Low axial ratio ensures that the antenna captures RHCP signal well and mitigates the reflected LHCP signals. Antenna ensures high signal-to-noise ratio (SNR) and GNSS signal tracking from all elevation angles in all types of environments. The antenna is ground plane independent and features a TNC-female RF connector.



Passive antenna performances

Parameter	Specification
Frequency Range	1164 - 1300 MHz 1539 - 1610 MHz
Peak gain	3.4 dBic @ upper band 3.3 dBic @ lower band
Peak efficiency	80 % @ upper band 75 % @ lower band
Axial Ratio	0.5 dB (max.) @ zenith
Polarization	RHCP
Beamwidth	120°

Features

- Full GPS, Galileo, Glonass, BeiDou bands coverage including L-Band correction services coverage
- Low Axial Ratio
- Ground plane independent
- Low phase center variation over azimuth and elevation and among different samples
- Rugged IP67 rating
- RoHs compliant
- Automotive grade electronics

Mechanical Specification

Parameter	Specification
Antenna Dimensions	Ø80 x 40 mm
Weight	104 g
Operating Temperature	-40 °C to 85 °C
Mounting Type	Connector Mount
Connector	TNC
Radome/Color	Black
Housing material	ABS/PC
Certificates	IP67

Applications

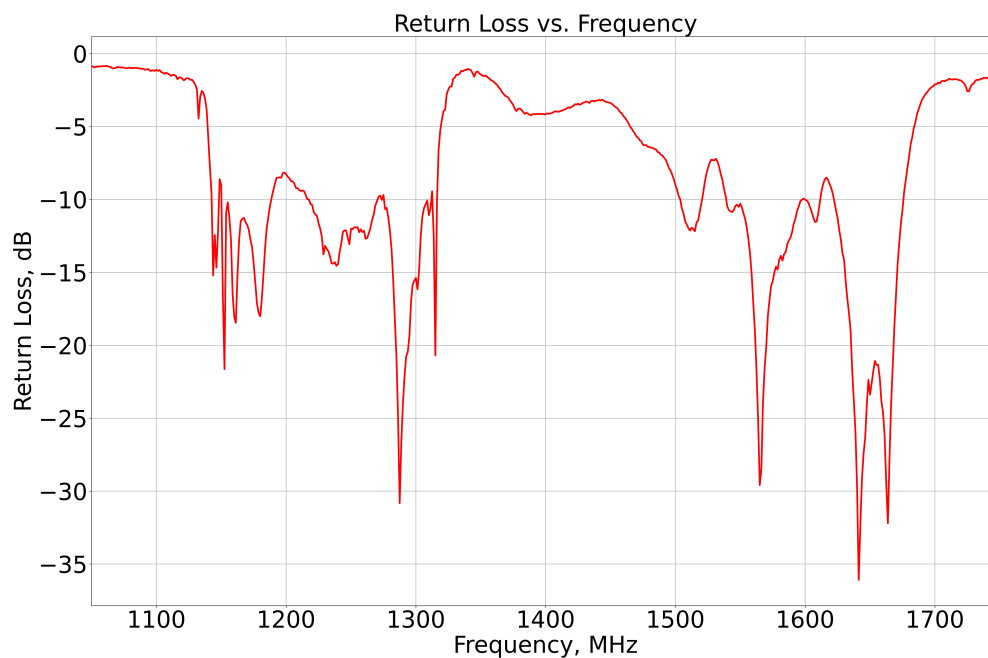
- UAV/Drones
- Unmanned Ground Vehicles (UGV)
- Unmanned Systems
- High Precision Navigation
- Military & Security
- Agriculture & FarmTech
- Marine systems



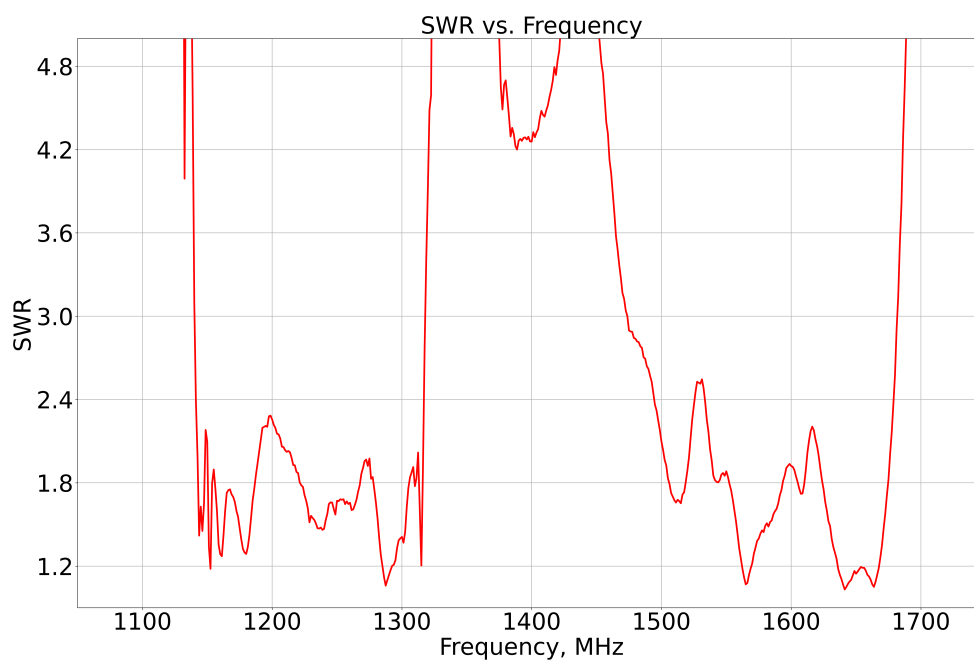
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Antenna Characteristics

Return Loss

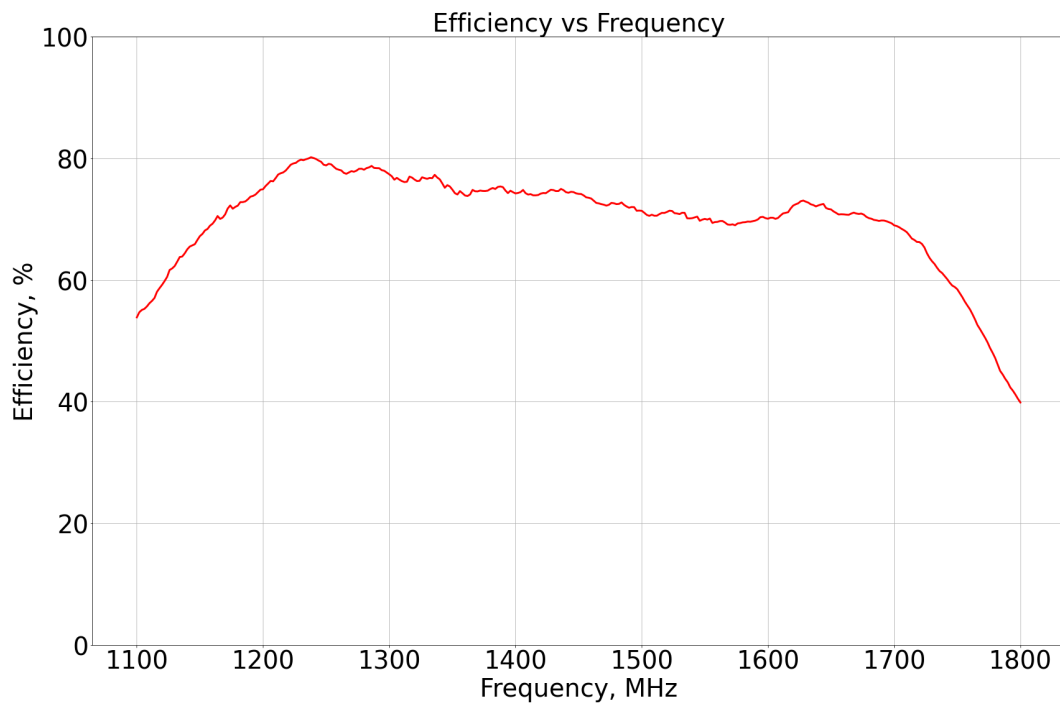


VSWR

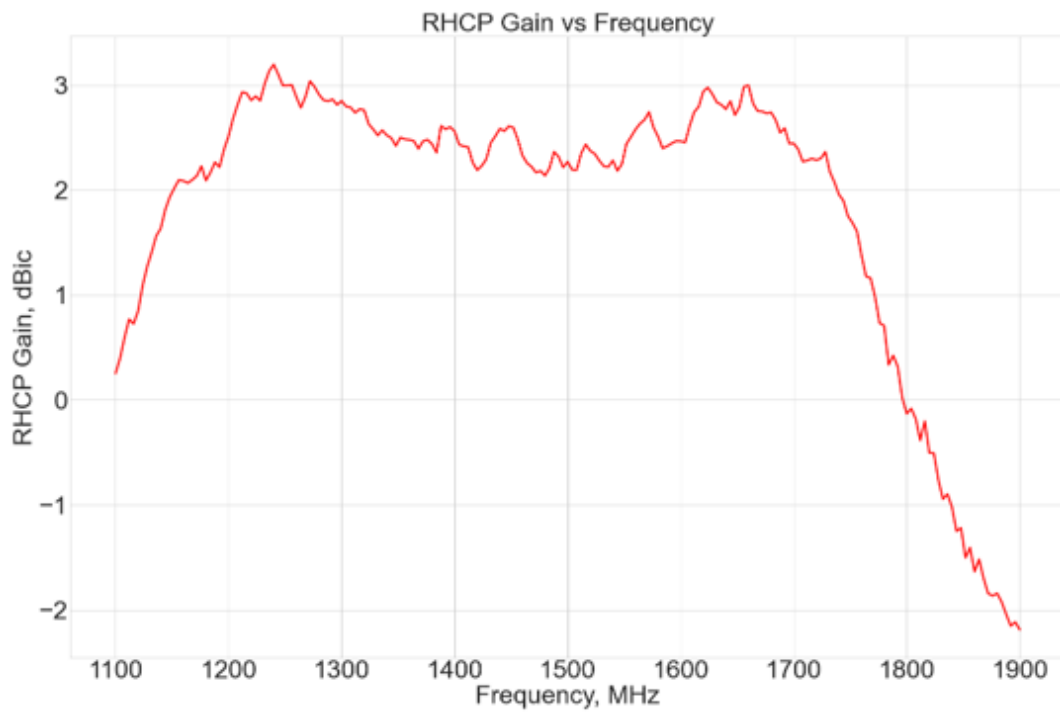


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Efficiency



Gain

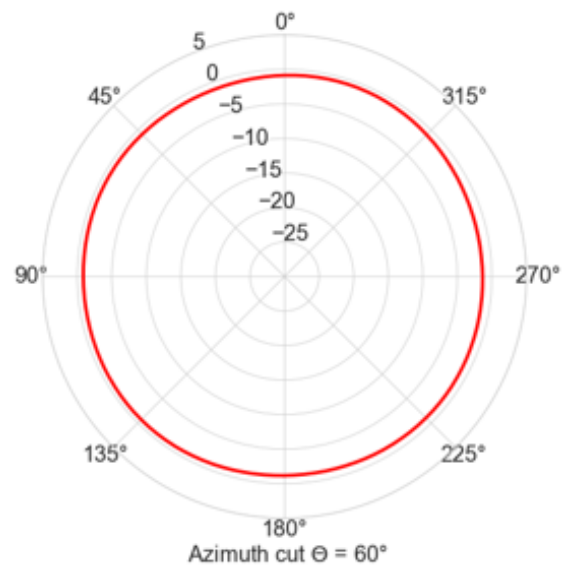
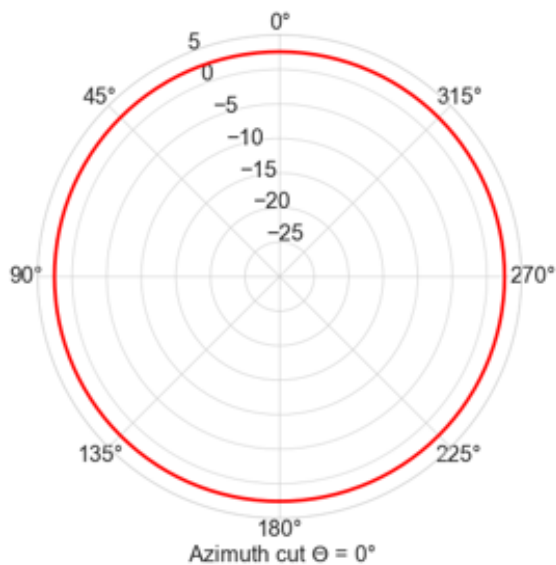
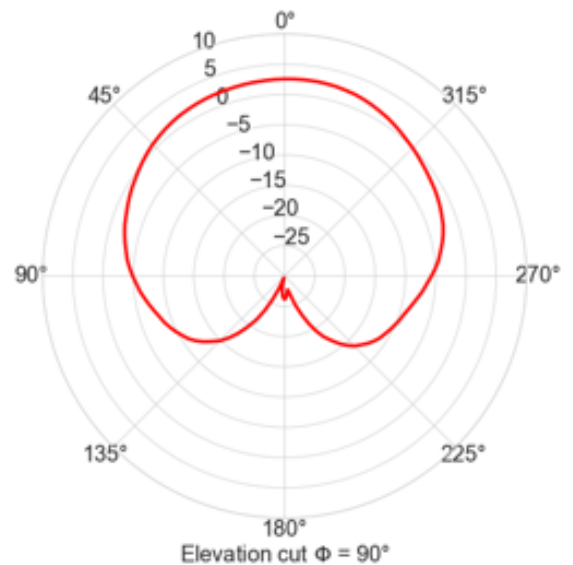
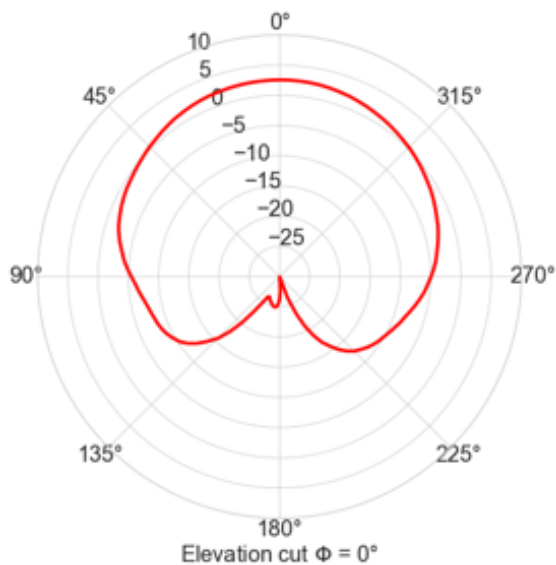


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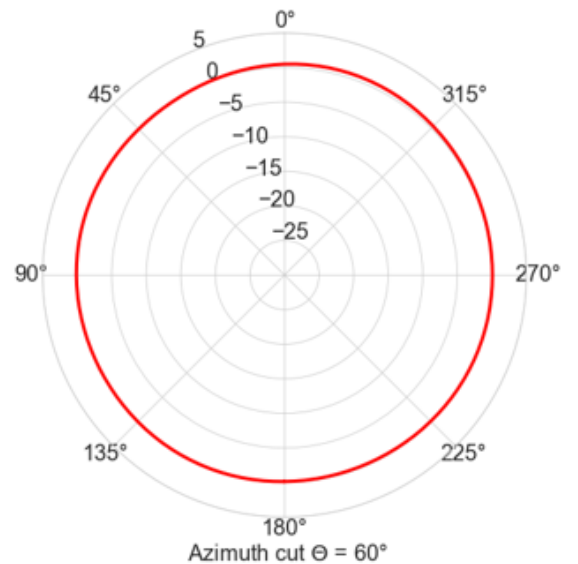
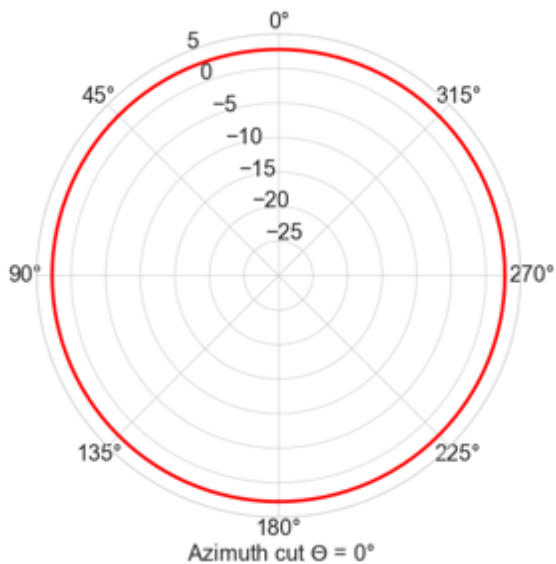
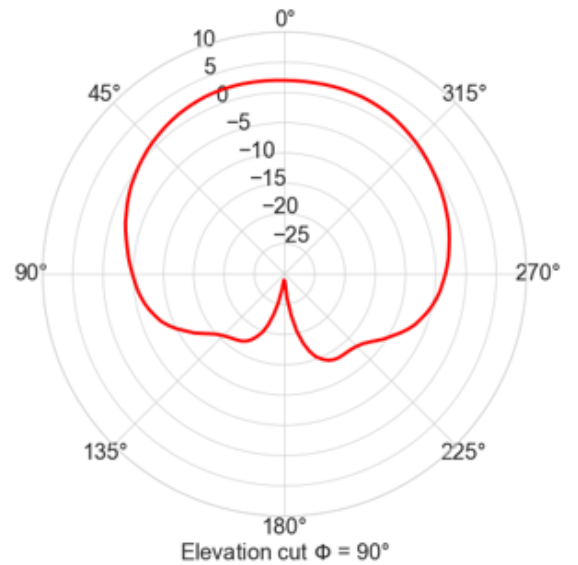
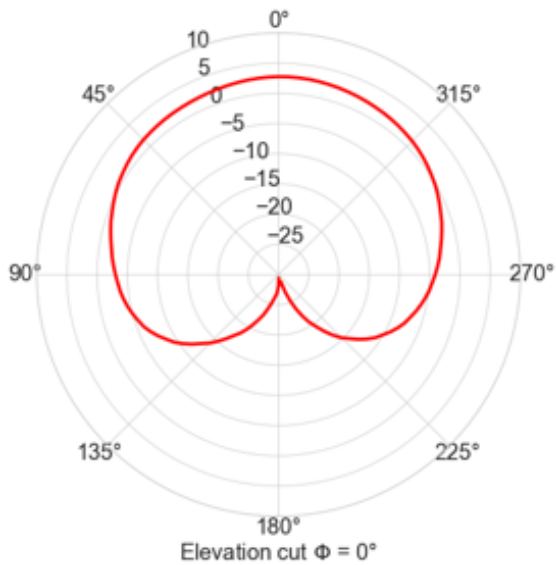
2D Radiation Patterns

Maxtena's M10HCT-P-TNC has unique features that make it the best option for high-accuracy GNSS applications. Full hemispherical coverage is achieved by an exceptionally large 3 dB beamwidth, ensuring full view of sky and satellites in lower elevation angles. Highly symmetric radiation pattern guarantees there will be no direction of weak reception or blind spots.

L1 band



L2 band



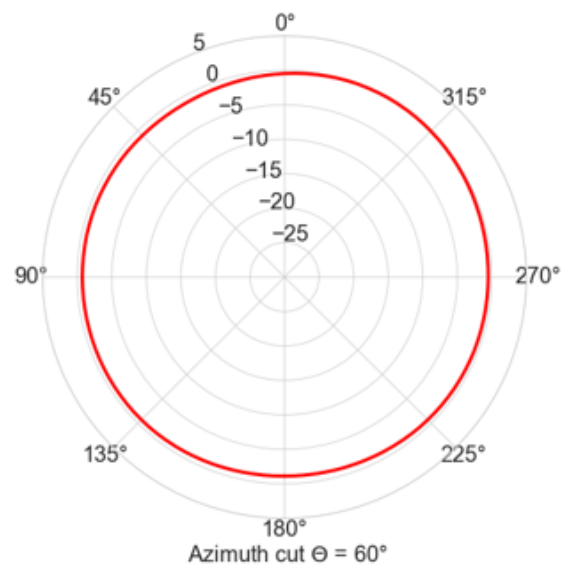
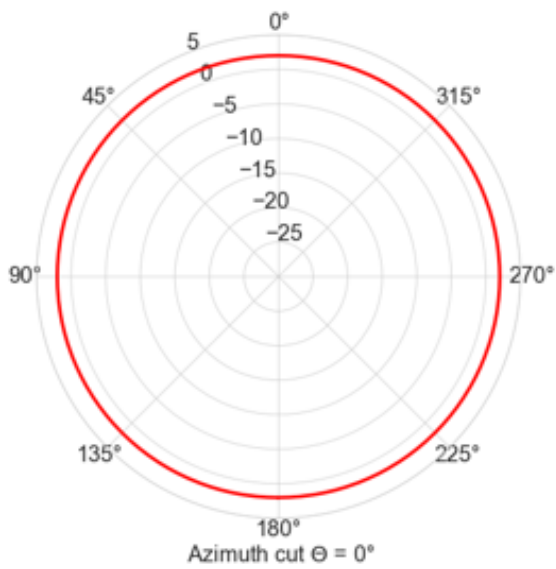
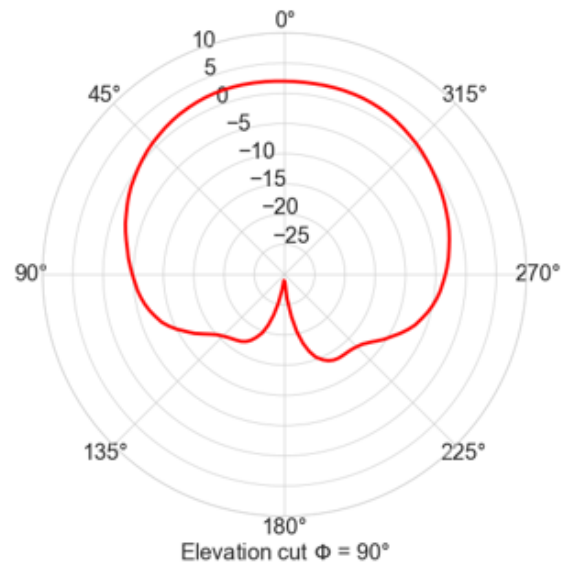
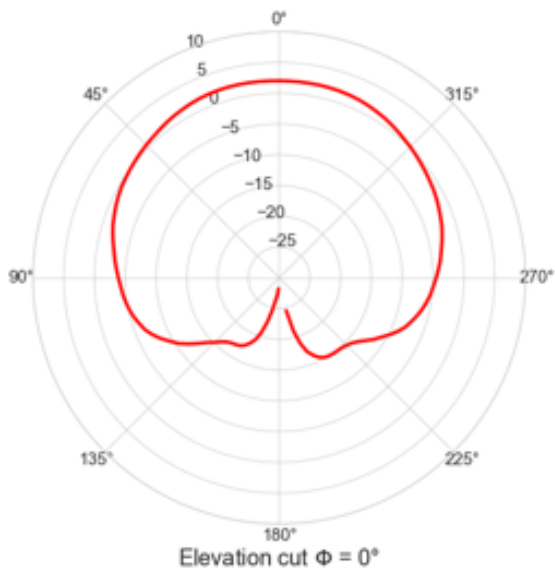
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L5 band

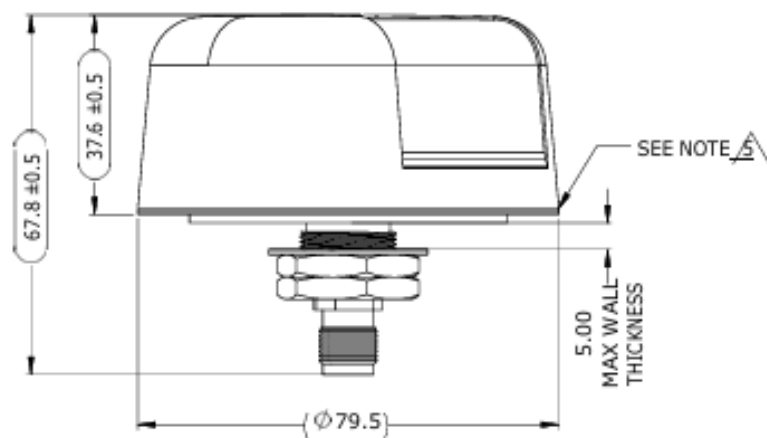
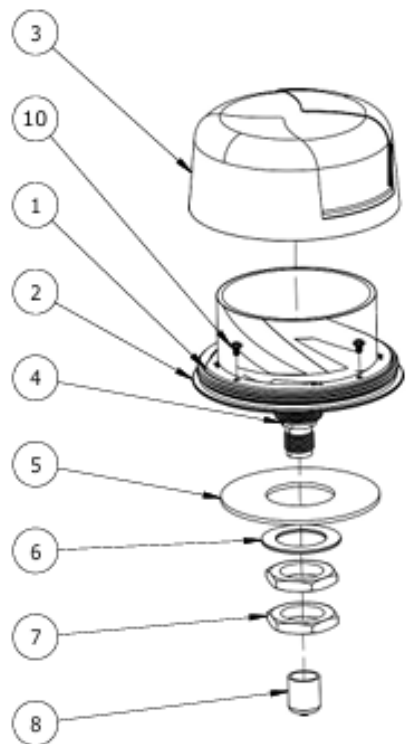


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