

ANTENNAS | OMNI-300 SERIES

OMNI-DIRECTIONAL, LORA/HELIUM/IOT ANTENNA

868 – 930 MHz; 4.5 dBi



 868 – 930 MHz	 4.5 dBi	 Omni-Directional	 Machine to Machine	 Internet of Things
 Fire Resistant	 -40°C to 80°C	 IP 65		

- Omni-directional antenna with medium gain
- Covers the 868 MHz to 930 MHz band for IoT/M2M deployment
- Covers the LoRa and ISM frequency bands
- Popular choice for installers due to its versatility
- Vandal and water-resistant enclosure (IP65)



Product Overview

The OMNI-300 antenna is an omni-directional, medium gain antenna that covers the 868 to 930 MHz frequency bands. It is ideal for Machine to Machine (M2M) and Internet of Things (IoT) applications that communicate through the LoRa, and ISM bands for long distance communication. The OMNI-300 antenna increases signal reliability, ensures higher data throughput, and provides a stable, high-quality connection. The OMNI-300 is a popular choice for installers because of its versatile mounting options, as it can be wall or pole mounted and comes with an N-Type (female) connector at its base. The antenna is dust and water-resistant with an IP65 rating, making it ideal for outdoor deployment.

Features

- Medium gain, omni-directional antenna
- Lightweight and rugged design
- Wall and pole mountable
- Ideal for IoT/M2M deployments
- Water and dust ingress protected (IP 65)

Application Areas

- M2M applications where machines and measurement devices need to be connected for real time monitoring
- Utilities for power and water metering
- Security industry where cameras and other security equipment needs to be monitored
- Increase system transmission reliability



Frequency Bands

The OMNI-300 is an omni-directional antenna that works from | 868 – 930 MHz |



Antenna Derivatives

Product Order Code (SKU)	A-OMNI-0300-V2-01	A-OMNI-0300-V2-02
Ports	1	1
SISO / MIMO	SISO	SISO
Coax Cable Type	N/A	HDF 195
Coax Cable Length	N/A	5m
Connector Type	N-Type (F)	RPSMA (M)
Weight	0.23 kg	0.43 kg
Packaged Weight	0.51 kg	0.60 kg
EAN	6009710922033	6009710924310

**The coax cable & connector are factory mounted to the antenna*

Electrical Specifications

Frequency Bands:	868 – 930 MHz
Gain (Max):	4.5 dBi
VSWR:	<2.5:1
Feed Power Handling:	10 W
Input Impedance:	50 Ohm (nominal)
Polarisation:	Linear Vertical
Coax cable loss:	0.385 dB/m @ 900 MHz
DC short:	Yes

Product Box Contents

Antenna:	A-OMNI-0300
Mounting Bracket:	Attached pole and wall mount bracket

Mechanical Specifications

Product Dimensions (L x W):	553 mm x Ø50 mm
Packaged Dimensions:	595 mm x 130 mm x 65 mm
Radome Material:	ABS (Halogen Free)
Radome Colour:	Pantone – Cool Gray (1C) RAL - 7047
End Cap Colour:	Pantone – Black RAL - Black
Mounting Type:	Wall and Pole mount options

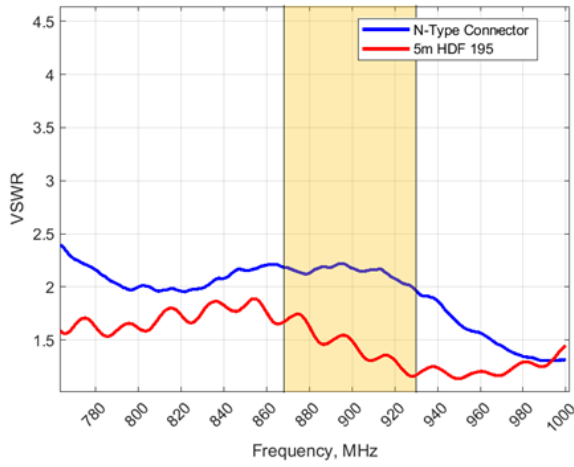
Environmental Specifications, Certification & Approvals

Wind Survival:	≤160 km/h
Temperature Range (Operating):	-40°C to +80°C
Environmental Conditions:	Outdoor/Indoor
Water Ingress Protection Ratio/Standard:	IP 65
Salt Spray:	MIL-STD 810G/ASTM B117
Operating Relative Humidity:	Up to 98%
Storage Humidity:	5% to 95% - non-condensing
Storage Temperature:	-40°C to +80°C
Enclosure Flammability Rating:	UL 94-HB
Impact Resistance:	IK 08
Product Safety & Environmental:	Complies with CE and RoHS standards



Antenna Performance Plots

VSWR



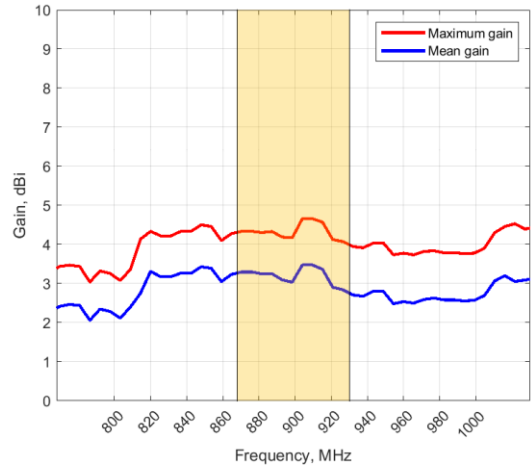
Voltage Standing Wave Ratio (VSWR)*

VSWR is a measure of how efficiently radio-frequency power is transmitted from a power source, through a transmission line, into a load. In an ideal system, 100% of the energy is transmitted which corresponds to a VSWR of 1:1.

The OMNI-300 delivers superior performance across all bands with a VSWR of <2.5:1.

*VSWR measured with a 1.5m low loss cable.

GAIN (EXCLUDING CABLE LOSS)

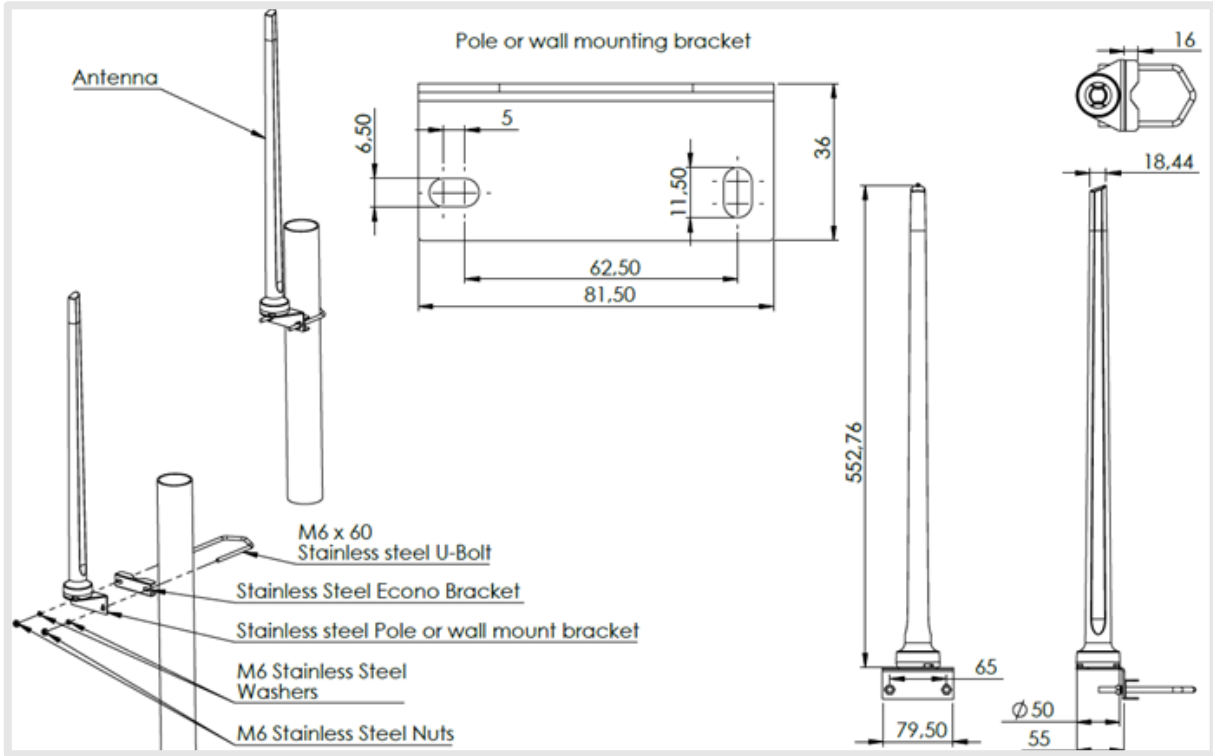


Gain* in dBi

4.5 dBi is the peak gain across all bands from 868 – 930 MHz

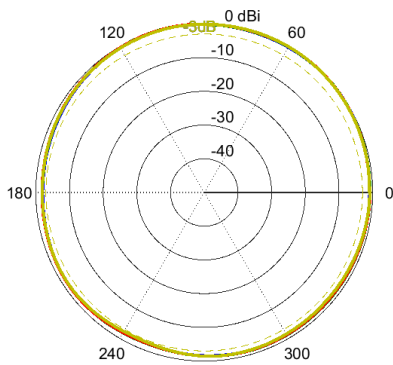
*Antenna gain measured with polarisation aligned standard antenna

Technical Drawings



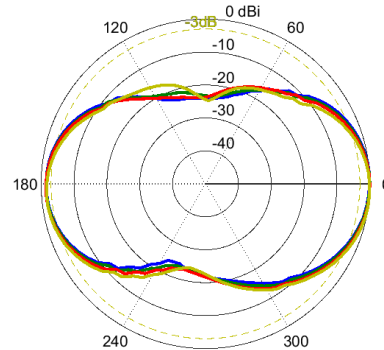
Radiation Patterns

Azimuth: 868 - 930 MHz



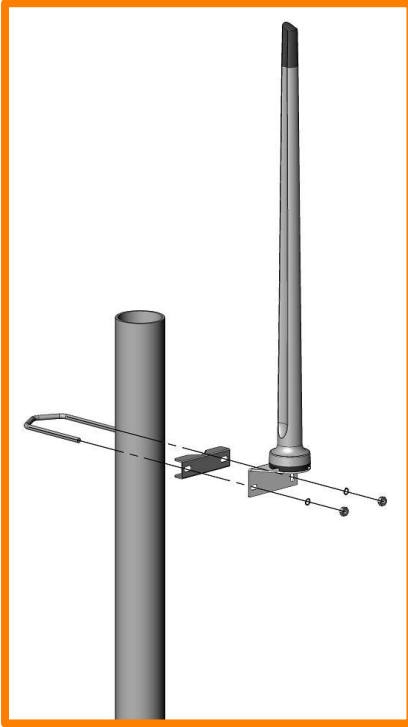
- 870 MHz
- 890 MHz
- 910 MHz
- 930 MHz

Elevation: 868 - 930 MHz



- 870 MHz
- 890 MHz
- 910 MHz
- 930 MHz

Mounting Options



Pole Mount

Wall/Pole mount bracket included



Wall Mount

Wall/Pole mount bracket included

Additional Accessories

Extension Cables: Up to 15m HDF 195
Various connectors available
Installation poles and brackets available

See accessories technical specifications on www.poynting.tech

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