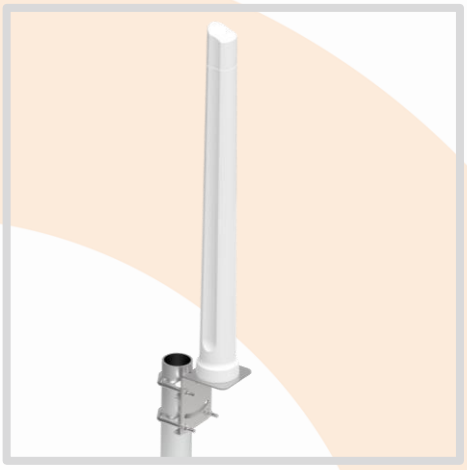
OMNI-293

POYNTING
BEYOND A CONNECTED LIFE

ANTENNAS | OMNI-293 SERIES

OMNI-DIRECTIONAL, WIDEBAND 5G/LTE ANTENNA

617 – 6000 MHz, 8 dBi



617 – 960 MHz
1427 – 1517 MHz
1710 – 2700 MHz
3400 – 4200 MHz
5000 – 6000 MHz

8 dBi

Increase X Mb/s

Omni-Directional

5G

4G LTE

CBRS Band

617 – 698 MHz

IoT & M2M

Fire Resistant

IP 65

-40°C to +80°C

APPLICATION AREAS

Urban

Rural/Farm

Industrial

IoT/Metering

- **High-performance omni-directional antenna for wide coverage**
- **Consistent high gain across 617 to 6000 MHz frequency range**
- **Broadband quality for reliable M2M and IoT connectivity**
- **IP65-rated dust and water-resistant enclosure for in-land use**
- **Designed for M2M and IoT applications with wideband support**

Product Overview

The OMNI-293 is a high-performance, ultra-wideband omni-directional antenna that supports both contemporary 4G/LTE and future 5G operating frequencies. It provides excellent, balanced gain across all frequencies from 617 to 6000 MHz, with a peak gain of 8 dBi. The antenna is future proof, covering Band 71 (617 to 698 MHz) as well as 3.5 GHz 5G bands and beyond, up to 6000 MHz. This makes the OMNI-293 ideal for use worldwide, ensuring reliable signal reception in a variety of locations.

Designed for superior pattern control across the entire frequency range, the OMNI-293 is perfect for both urban and rural applications. Its wideband performance is essential for current LTE and future 5G technologies, which rely on features like Carrier Aggregation (CA) to maximize reception and data throughput over multiple frequency bands simultaneously. The antenna is equipped with an N-type female connector at its base, which allows easy connection to cables of various types and lengths based on installation requirements. The IP65-rated enclosure ensures weather resistance, making it robust enough for outdoor deployments.

Features

- High-gain omni-directional antenna for broad coverage
- Covers 617-698 MHz and 3.5 GHz 5G bands
- Wideband operation from 617 to 6000 MHz for future-proof performance
- Ideal for urban and rural applications
- Durable IP65-rated design for weather resistance

Application Areas

- Improve data transmission connection reliability & stability
- Machine to Machine (M2M) & IoT applications
- High-end industrial grade router applications
- Areas with poor data signal reception
- Enhanced 4G/LTE and 5G reception

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Regulatory Compliance: RoHS 2011/65/EU Compliant | ISO 9001:2015
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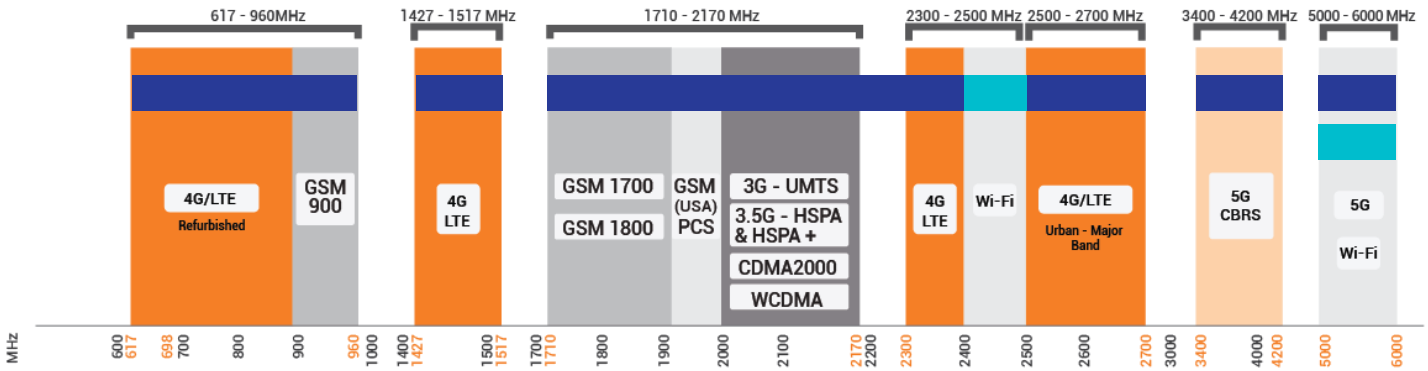
Frequency Bands

The OMNI-293 is an omni-directional antenna that works from | 617 – 960 MHz | 1427 – 1517 MHz | 1710 – 2700 MHz | 3400 – 4200 MHz | and | 5000 – 6000 MHz |



Indicates the 4G/5G bands on which OMNI-293 works

Indicates the WI-FI bands on which OMNI-293 works

Antenna Overview

	LTE
Ports	1
SISO / MIMO	SISO
Frequency Bands	617 - 6000 MHz
Polarisation	Linear Vertical
Peak Gain	8 dBi
Coax Cable Type	N/A
Coax Cable Length	N/A
Connector Type	N-Type (F)

**The connector is factory mounted to the antenna*

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Electrical Specifications

Frequency Bands:	617 – 960 MHz 1427 – 1517 MHz 1710 – 2700 MHz 3400 – 4200 MHz 5000 – 6000 MHz
Gain (Max):	4 dBi @ 617 – 960 MHz 7 dBi @ 1427 – 1517 MHz 8 dBi @ 1710 – 2700 MHz 6.8 dBi @ 3400 – 4200 MHz 6.5 dBi @ 5000 – 6000 MHz
VSWR:	<2:1 across 95% of the bands
Feed Power Handling:	10 W
Input Impedance:	50 Ohm (nominal)
Polarisation:	Linear Vertical
DC Short:	Yes

Product Box Contents

Antenna:	A-OMNI-0293
Mounting Bracket:	Pole up to 50mm diameter Wall and pole mount stainless steel bracket

Ordering Information

Commercial name:	OMNI-293
Order product code:	A-OMNI-0293-V1-01
EAN number:	6009710922347

Mechanical Specifications

Product Dimensions	635 mm x Ø71 mm (excl. bracket)
Packaged Dimensions:	700 mm x 95 mm x 90 mm
Weight:	0.41 kg
Packaged Weight:	1.14 kg
Radome Material:	ABS (Halogen Free)
Radome Colour:	Pantone – Cool Gray (1C) RAL 7047
Mounting Type:	Wall and Pole Mount

Environmental Specifications, Certification & Approvals

Antenna Wind Survival:	<160 km/h
Temperature Range (Operating):	-40°C to +80°C
Environmental Conditions:	Outdoor/Indoor
Ingress Protection:	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

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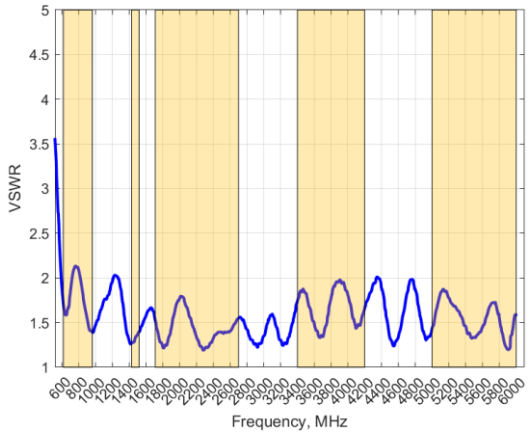
Antenna Performance Plots

VSWR



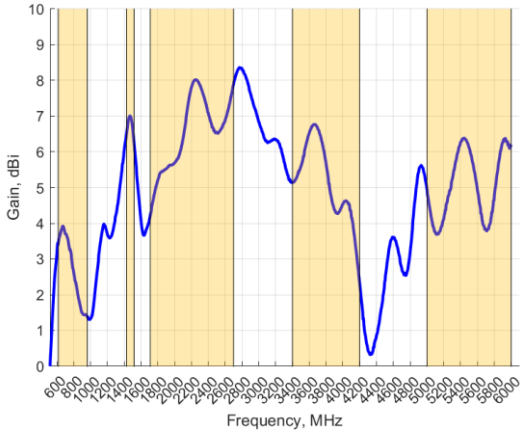
Voltage Standing Wave Ratio (VSWR)*

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-293 delivers superior performance across all bands with a VSWR of <2:1 across 95% of the bands.

**VSWR measured with a 2m low loss cable.*

GAIN (EXCLUDING CABLE LOSS)



Gain+ in dBi

8 dBi is the peak gain across all bands from 617 – 6000 MHz

Gain @ 617 – 960 MHz:	4 dBi
Gain @ 1427 – 1517 MHz:	7 dBi
Gain @ 1710 – 2700 MHz:	8 dBi
Gain @ 3400 – 4200 MHz:	6.8 dBi
Gain @ 5000 – 6000 MHz:	6.5 dBi

+Antenna gain measured with polarisation aligned standard antenna

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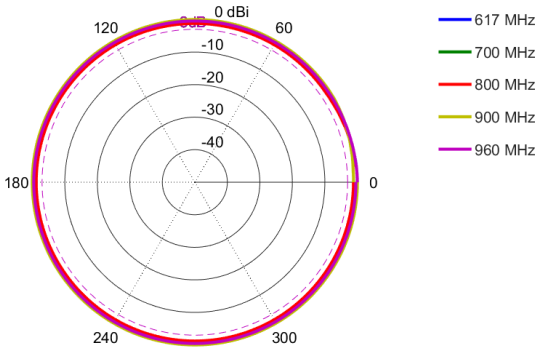
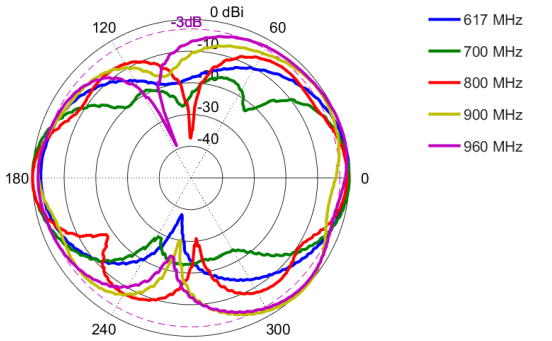
Radiation Patterns

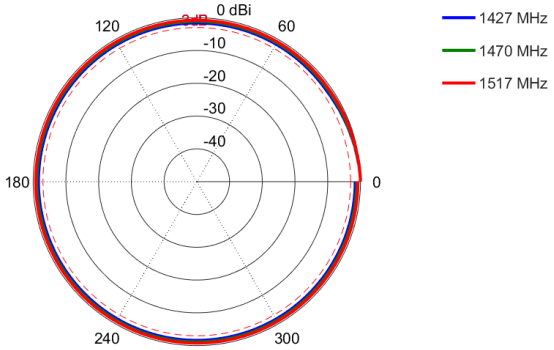
Azimuth: 617 - 960 MHz



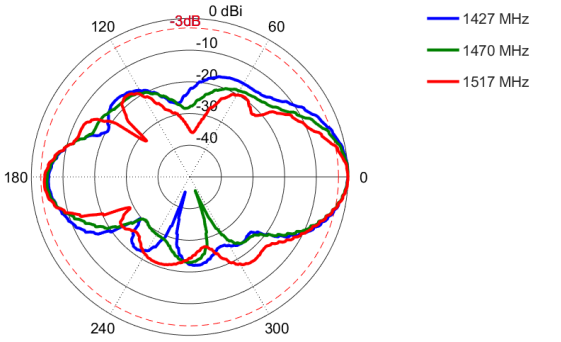
Elevation: 617 – 960 MHz



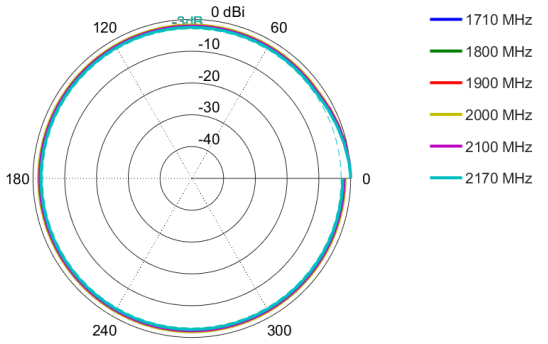
Azimuth: 1427 – 1517 MHz



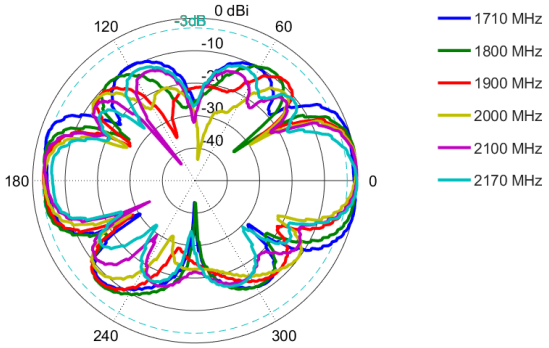
Elevation: 1427 – 1517 MHz



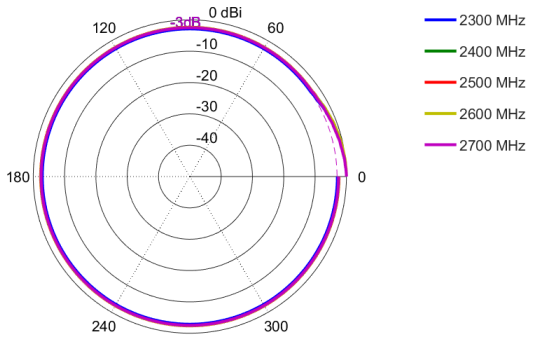
Azimuth: 1710 - 2170 MHz



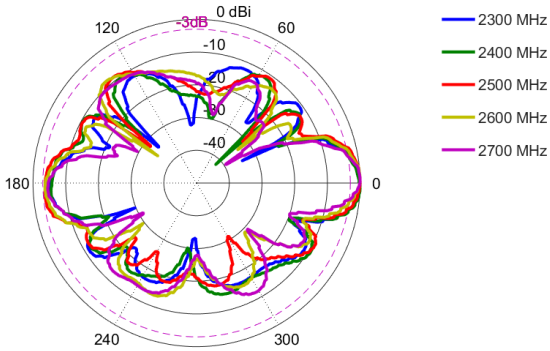
Elevation: 1710 - 2170 MHz



Azimuth: 2300 – 2700 MHz



Elevation: 2300 – 2700 MHz



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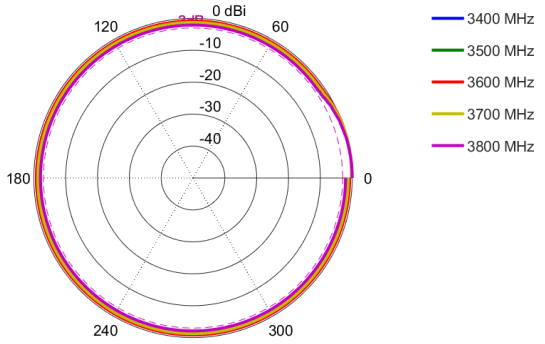
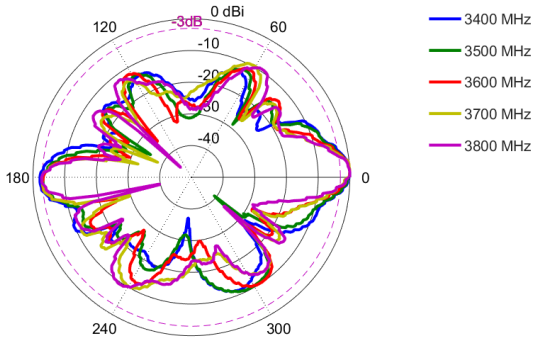
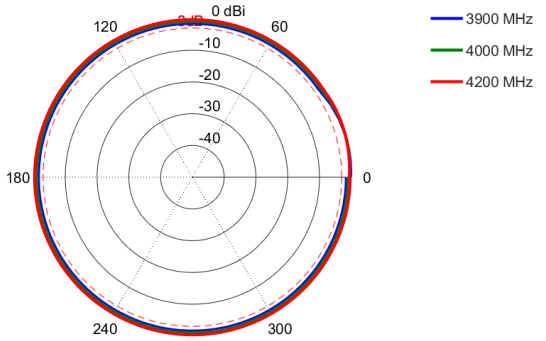
Azimuth: 3400 - 3800 MHz



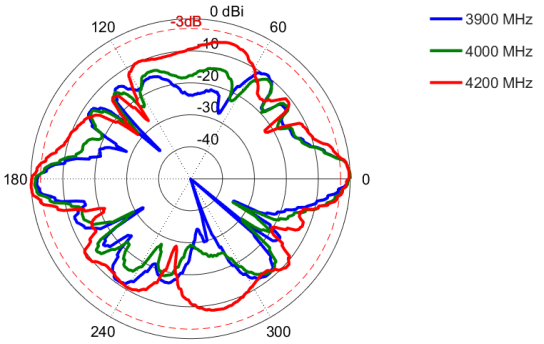
Elevation: 3400 - 3800 MHz



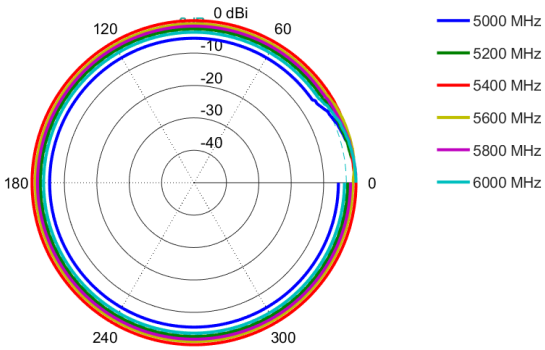
Azimuth: 3900 - 4200 MHz



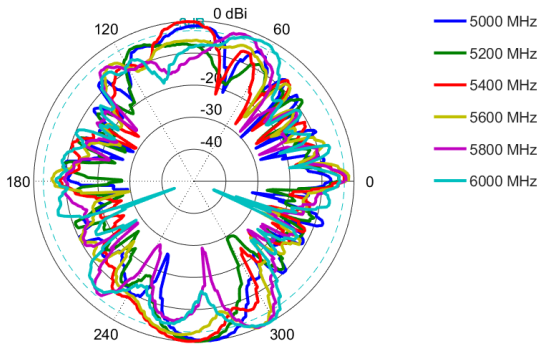
Elevation: 3900 - 4200 MHz



Azimuth: 5000 - 6000 MHz



Elevation: 5000 – 6000 MHz



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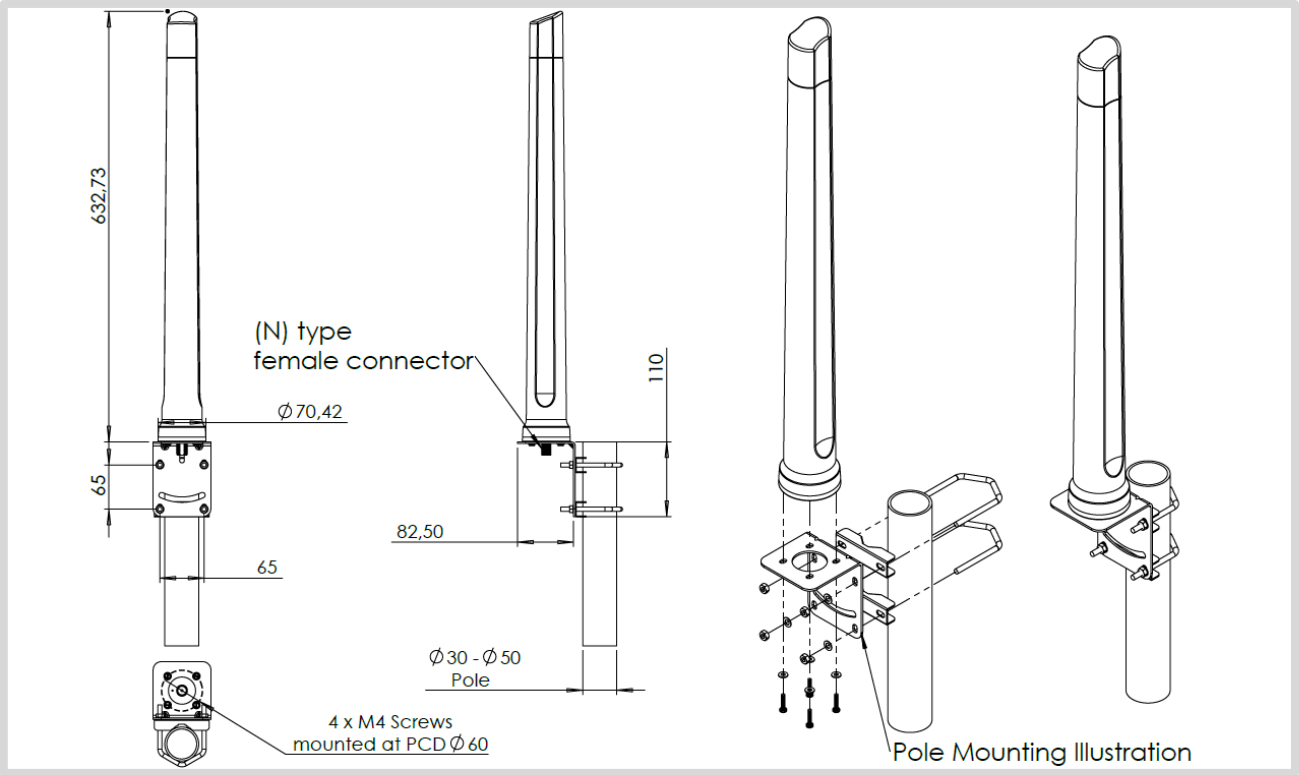
Technical Drawings



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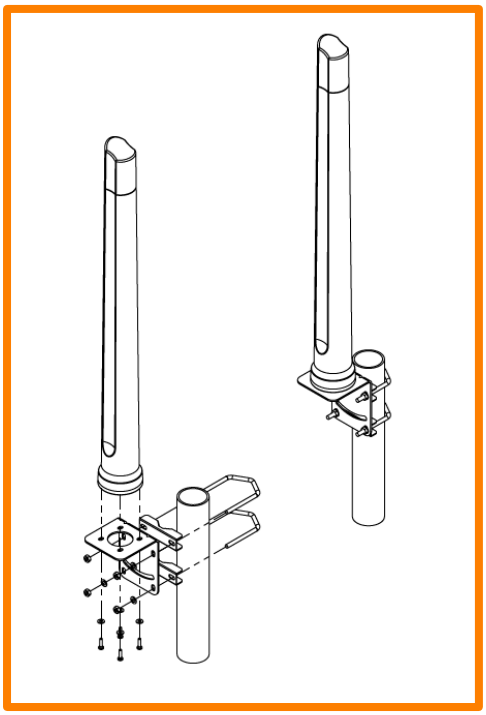
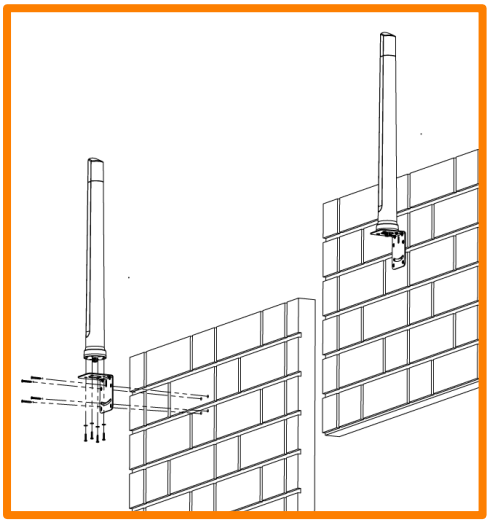
Mounting Options



Pole Mount

L-Bracket 316 Stainless Steel – included

(for Ø 30-50mm pole)



Wall Mount

L-Bracket 316 Stainless Steel – included

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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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