OMNI-292

ANTENNAS | OMNI-292 SERIES

OMNI-DIRECTIONAL, WIDEBAND LTE ANTENNA

690 - 960 MHz, 1710 - 2700 MHz, 8 dBi

690 - 960 MHz; 1710 - 2700 MHz; 2300 – 2700 MHz | 8 dBi | Increase x Mb/s | Omni-Directional | Machine to Machine | 4G LTE

2.4 – 2.5 GHz | IoT | IP 65 | -40°C to +70°C | Fire Resistant

- **High performance omni-directional antenna**
- **Compatible with 4G, 3G and 2G technologies, supports 2.4 GHz Wi-Fi**
- **Ideal for machine to machine (M2M) applications**
- **Consistent high gain over a very wide frequency band**
- **Excellent broadband quality antenna**
- **Vandal and water-resistant enclosure**

APPLICATION AREAS: Urban | Rural/Farm | Transportation

Product Overview

The OMNI-292 is a high gain omni-directional antenna that covers all cellular frequencies bands needed for LTE(4G), but also covers the bands for HSDPA, 3G, EDGE, GPRS, voice and 2.4 GHz LTE and Wi-Fi bands. Its configuration makes it suitable for fixed installations of any cellular frequency band. This is one of the few omni-directional antennas in the world that offers consistent high gain over a very wide frequency band with excellent radiation pattern performance. This makes it a very popular choice with installers because of its base station agile. It is also ideal for machine to machine (M2M) applications that are communicating through GSM network (GPRS/ EDGE/ 3G/ HSPA/ LTE).

Features

- Medium gain omni-directional antenna
- Lightweight
- Robust and weather resistant
- Operational in the 2.4 – 2.5 GHz Wi-Fi band
- N-Type female connectors so that any cable type or cable length can be connected

Application Areas

- Machine to machine (M2M)
- Poor data signal reception (indoor or outdoor)
- Slow data transmission connection
- Unstable connection
- Increases system transmission reliability
- High-end industrial grade router applications
- Mobile offices
- Transportation applications: Caravans, RTV's

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Revised: May 2020

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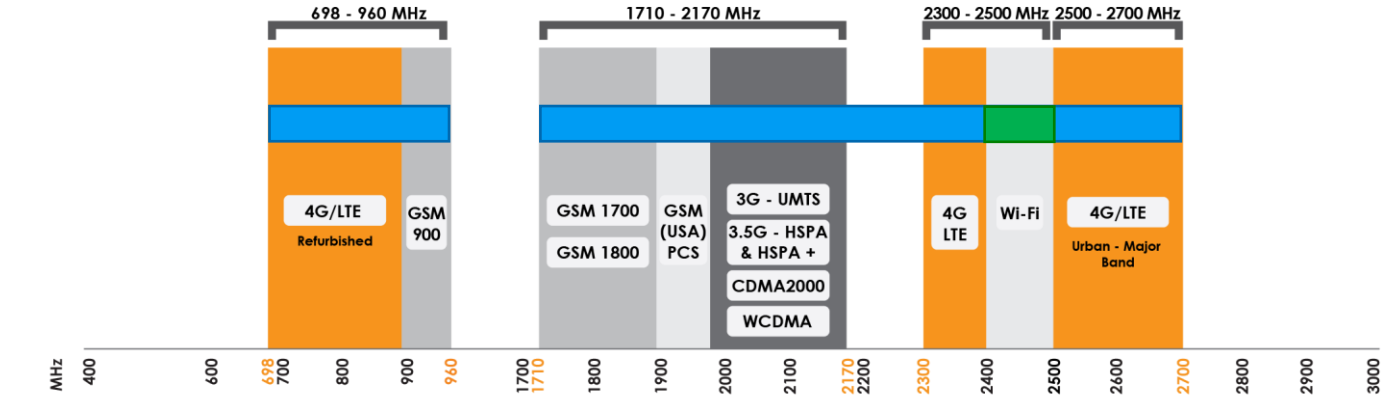
Frequency Bands

The OMNI-292 is an omni-directional antenna that works from 690 - 960 MHz and 1710 - 2700 MHz



Indicates the LTE bands on which **OMNI-292** works

Indicates the WI-FI bands on which **OMNI-292** works

Antenna Overview

	LTE
Ports	1
SISO / MIMO	SISO
Frequency Bands	690 - 960 MHz 1710 - 2700 MHz
Polarisation	Linear Vertical
Peak Gain	8 dBi
Coax Cable Type	N/A
Coax Cable Length	N/A
Connector Type	N-Type (F)

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Electrical Specifications

Frequency bands:	690 - 960 MHz 1710 - 2700 MHz 2300– 2700 MHz
Gain:	6 dBi @ 690 - 960 MHz 7 dBi @ 1710 - 2700 MHz 8 dBi@ 2300– 2700 MHz
VSWR:	<2:1 Over 90% of the bands
Feed power handling:	10 W
Input impedance:	50 Ohm (nominal)
DC short:	Yes

Product Box Contents

Antenna:	A-OMNI-0292-V2
Mounting bracket:	Pole up to 50mm diameter wall and Pole mount stainless steel bracket

Ordering Information

Commercial name:	OMNI-292-V2
Order product code:	A-OMNI-0292-V2
EAN number:	0707273469199

Mechanical Specifications

Product dimensions	646 mm x Ø71 mm (excl. bracket)
Packaged dimensions:	700 mm x 95 mm x 90 mm
Weight:	0.46 kg
Packaged weight:	1.17 kg
Radome material:	ABS (Halogen Free)
Radome colour:	Pantone – Cool Gray (1C) RAL - 7047
Mounting Type:	Pole and Walll

Environmental Specifications, Certification & Approvals

Wind Survival:	≤190 km/h
Temperature Range (Operating):	-40°C to +70°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 +70°C
Enclosure Flammability Rating:	UL 94-HB
Impact resistance:	IK 08
Product Safety & Environmental:	Complies with CE and RoHS standards

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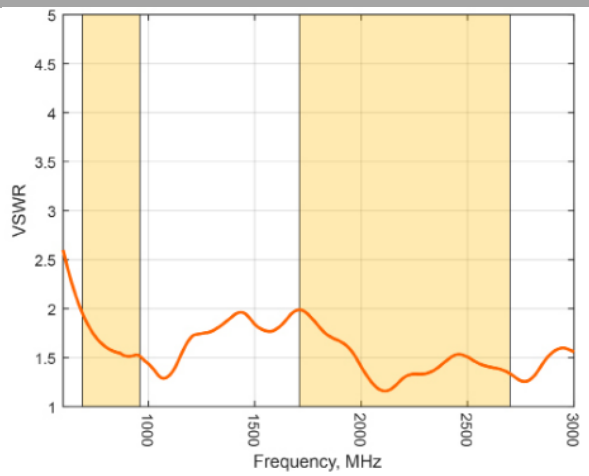
Antenna Performance Plots

VSWR

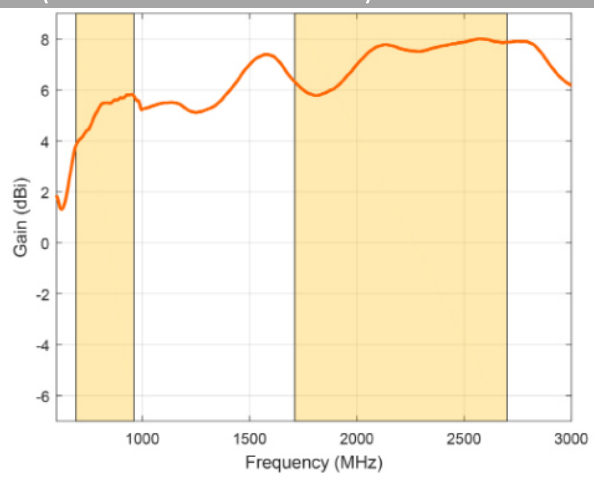


Voltage Standing Wave Ratio (VSWR)

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-292 delivers superior performance across all bands with a VSWR of 2:1 or better over 90% of the bands.

GAIN (EXCLUDING CABLE LOSS)



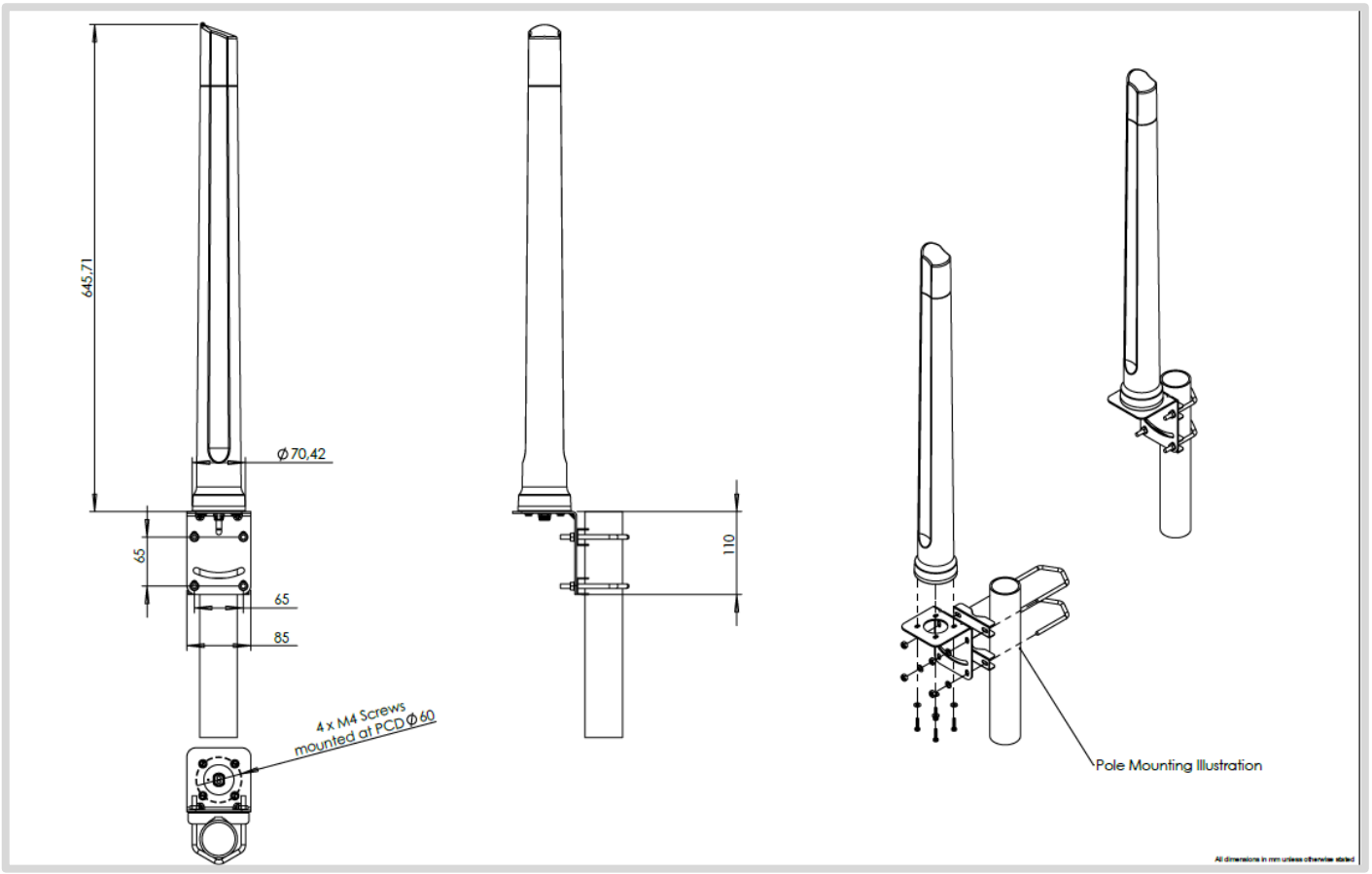
Gain* in dBi

8 dBi is the peak gain across all bands from 690- 2700 MHz.

Gain @ 690 - 960 MHz:	6 dBi
Gain @ 1710 - 2700 MHz:	7 dBi
Gain @ 2300– 2700 MHz:	8 dBi

**Antenna gain measured with polarisation aligned standard antenna*

Technical Drawings



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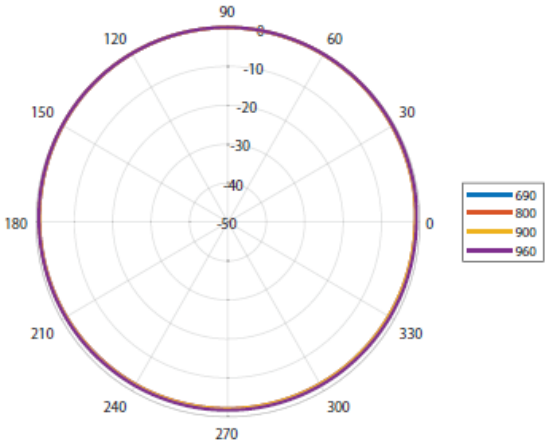
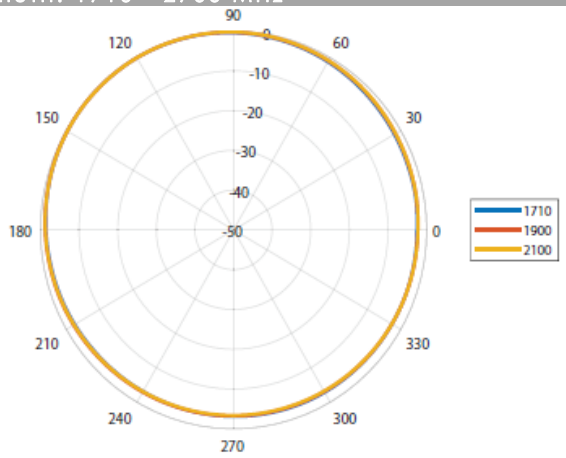
Radiation Patterns

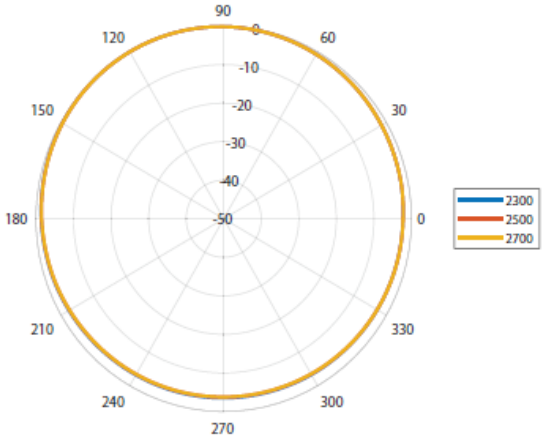
Azimuth: 690 - 960 MHz



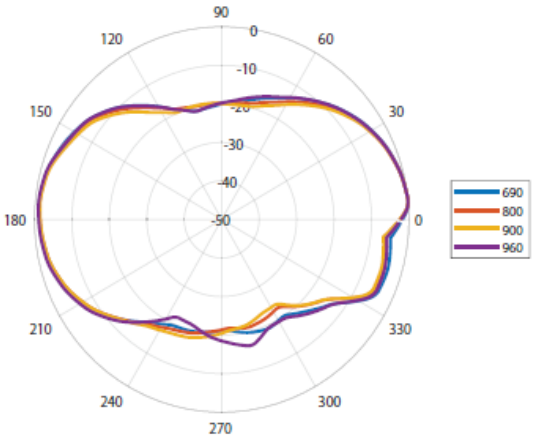
Azimuth: 1710 - 2700 MHz



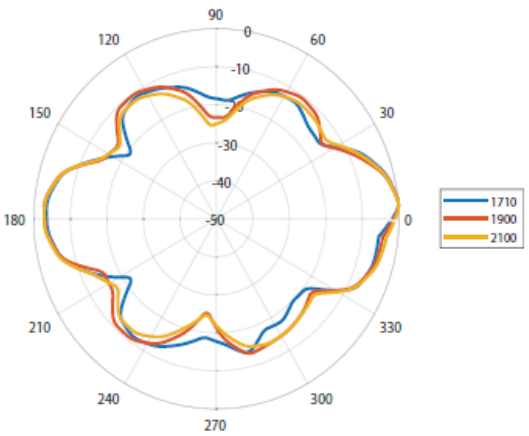
Azimuth: 2300– 2700 MHz



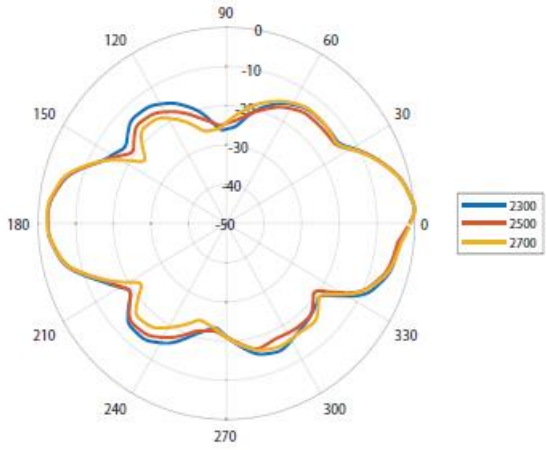
Elevation: 690 - 960 MHz



Elevation: 1710 - 2700 MHz



Elevation: 2300– 2700 MHz



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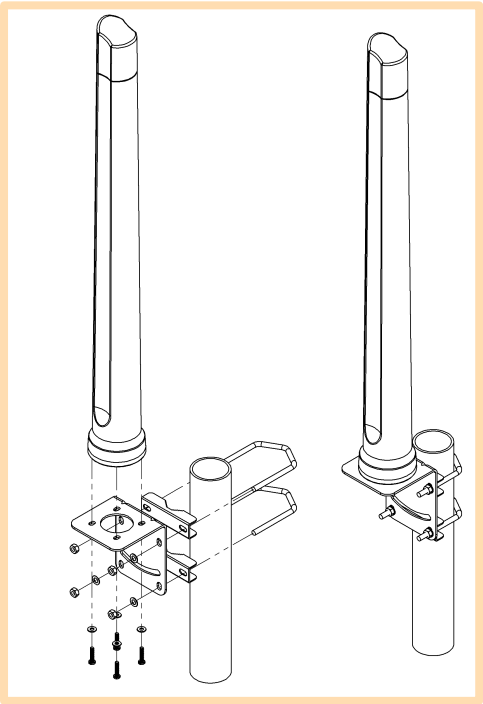
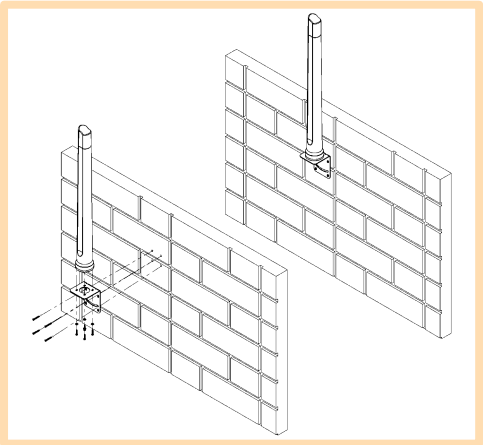
Mounting Options



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

Contact Poynting

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