# OMNI-292

## Poynting Making wireless happen

### ANTENNAS | OMNI-292 SERIES OMNI-DIRECTIONAL, WIDEBAND LTE ANTENNA 617 - 2700 MHz, 8 dBi





#### **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

- High 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





#### **Frequency Bands**

The OMNI-292 is an omni-directional antenna that works from 617 - 960 MHz | 1427 - 1517 MHz | 1710 - 2700 MHz



Indicates the LTE bands on which OMNI-292 works

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

#### Antenna Overview

	(P)
Ports	1
SISO / MIMO	SISO
Frequency Bands	617 - 2700 MHz
Polarisation	Linear Vertical
Peak Gain	8 dBi
Coax Cable Type	N/A
Coax Cable Length	N/A
Connector Type	N-Type (F)



Electrical Specifications	
Frequency bands:	617 - 960 MHz 1427 - 1517 MHz
Gain (peak):	1710 - 2700 MHz 5 dBi @ 617 - 960 MHz 5.8 dBi @1427-1517 MHz 8 dBi @ 1710 - 2700 MHz
VSWR:	<2.5:1 over 90% of the bands
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-0MNI-0292-V2
EAN number:	6009710923726

#### **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 Wall

#### 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/stando	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 & Compl Environmental:	ies with CE and RoHS standards



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#### Antenna Performance Plots



#### 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 2.5:1 or better over 90% of the bands.

\*VSWR measured without a cable

#### GAIN (EXCLUDING CABLE LOSS)



#### Gain+ in dBi

8 dBi is the peak gain across all bands from 617 - 2700 MHz.

Gain @ 617 - 960 MHz:	5 dBi
Gain @ 1427 – 1517 MHz:	5.8 dBi
Gain @ 1710 – 2700 MHz:	8 dBi

\*Antenna gain measured with polarisation aligned standard antenna

#### **Technical Drawings**





#### **Radiation Patterns**







Elevation: 1710 – 2100 MHz



-10 -30 -40 2700 -50 



#### **Mounting Options**



#### Pole Mount

L-Bracket 316 Stainless Steel – included (for Ø 30-50mm pole)

#### Wall Mount

L-Bracket 316 Stainless Steel – included



#### **Additional Accessories**

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

See accessories technical specifications on <u>www.poynting.tech</u>

#### **Contact Poynting**

Poynting Antennas (Pty) Ltd - Head Office Unit 4, N1 Industrial Park Landmarks Avenue, Samrand, 0157 South Africa Phone: +27 (0) 12 657 0050 E-mail: sales@poynting.co.za

#### **Poynting Europe**

Regus Business Center Neue Messe Riem Kronstadter Straße 4 81677 München Germany Phone: +49 89 208026538 E-mail: sales-europe@poynting.tech

#### Poynting USA

1804 Owen Court, Suite 104, Mansfield, TX 76063 USA Phone: +1 817 533-8130 E-mail: sales-us@poynting.tech