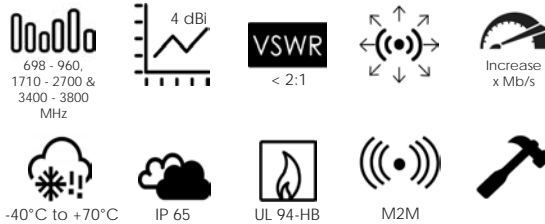


ANTENNAS | OMNI-280-01

# OMNI-280-01

698 - 960, 1710 - 2700 & 3400 - 3800 MHZ MEDIUM GAIN LTE SISO ANTENNA



- Future-proof omni-directional wideband LTE SISO antenna
- Backwards compatible with 3G, 2G technologies
- Improves mobile network subscriber's user experience
- Increased connectivity stability
- Weather-proof enclosure
- Pole, wall or magnetic mountable

## Product overview

The OMNI-280-01 antenna provides an innovative solution for the signal enhancement of 4G / 3G and 2G networks. It is a unique magnetic, wall- or pole-mountable, single polarised, full LTE band antenna that incorporates an ultra wideband element in a single housing.

This antenna is a cost effective solution for enhancing signal reception and throughput. The OMNI-280-01 antenna increases signal reliability, ensures higher data throughput for users and provides a stable, high quality connection.

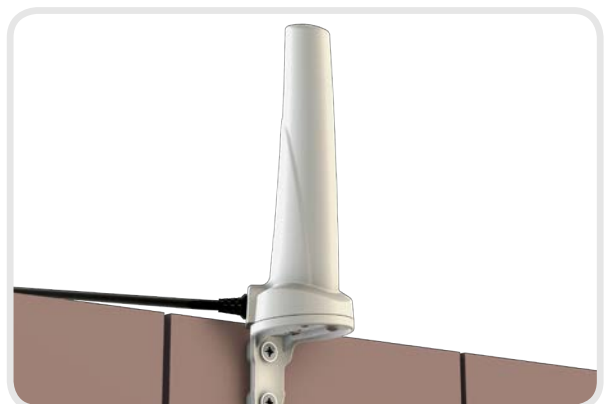
This improves user experience and secures client retention. It is ideal for any application using the GSM network (LTE/HSPA/3G/EDGE/GPRS).

## Features

- Medium gain omni-directional antenna
- Wideband - covers wide frequency band
- Magnetic, wall or pole mountable
- Lightweight
- Increase system transmission reliability


## Application areas

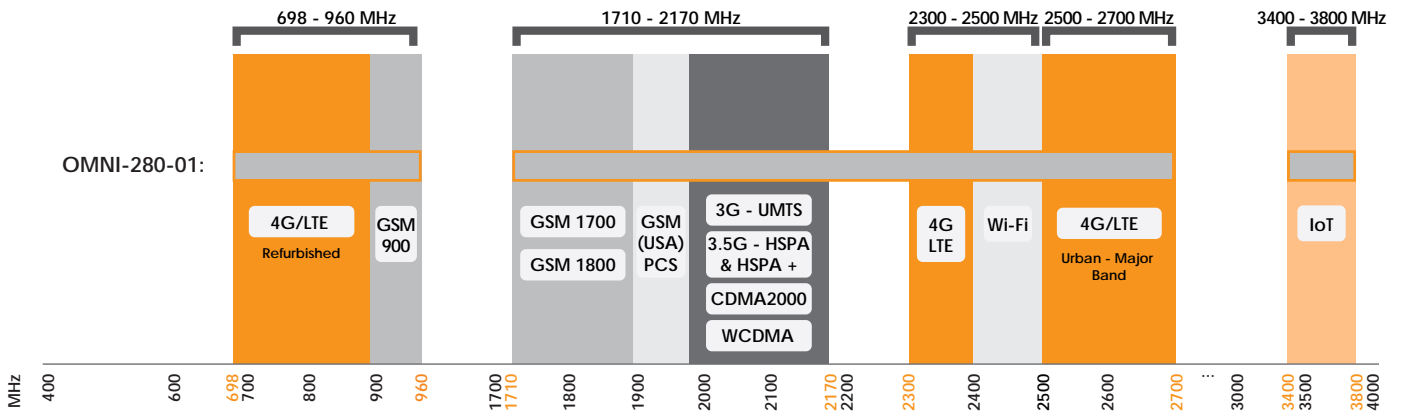
- M2M applications where machines and measurement devices need to be connected for real time monitoring and information transfer. (Telematics)
- Utilities for power and water metering
- Security industry where cameras and other security equipment needs to be monitored.
- Retail point of sale equipment.
- Areas where poor data signal reception (Indoor and outdoor)



## Frequency bands

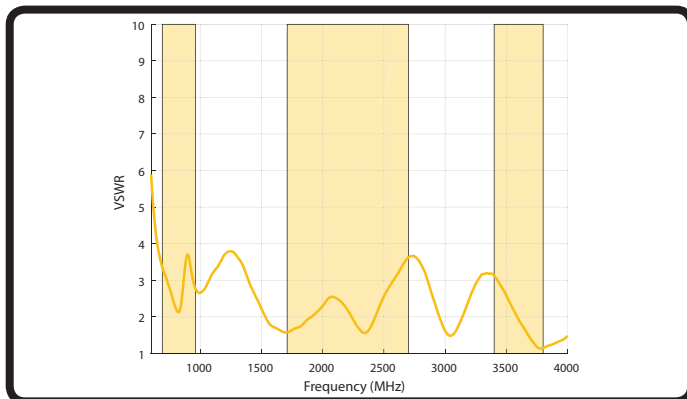
The OMNI-280-01 is a wide-band antenna that works from 698 - 960 MHz, 1710 - 2700 MHz & 3400 - 3800 MHz

 Indicates the bands on which this antenna works



## Antenna performance plots

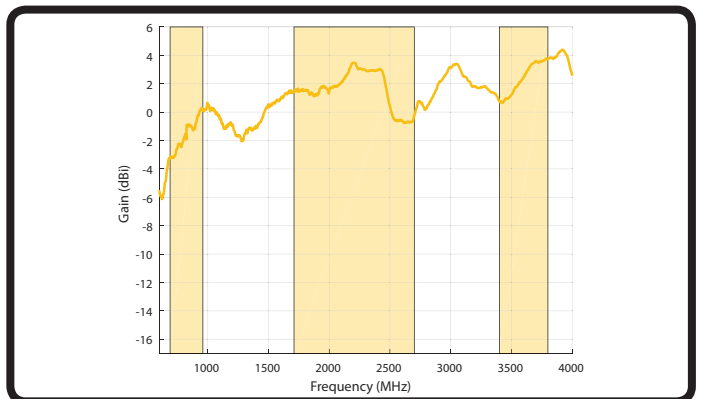
### VSWR:



### 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-280-01 delivers superior performance across all bands with a VSWR of 2:1 or better across 90% of the bands.

### Gain: (excluding cable loss)



### Gain\* in dBi

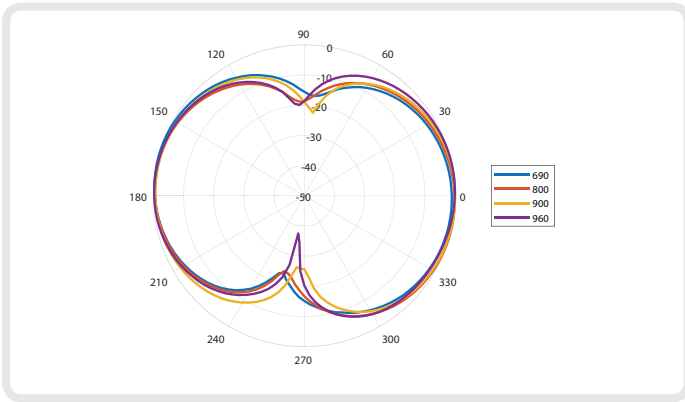
4 dBi is the peak gain across all bands from 698 - 3800 MHz

Gain @ 690 - 960 MHz:	1 dBi
Gain @ 1710 - 2170 MHz:	3 dBi
Gain @ 2300 - 2400 MHz:	2.5 dBi
Gain @ 2500 - 2700 MHz:	2.5 dBi
Gain @ 3400 - 3800 MHz:	4 dBi

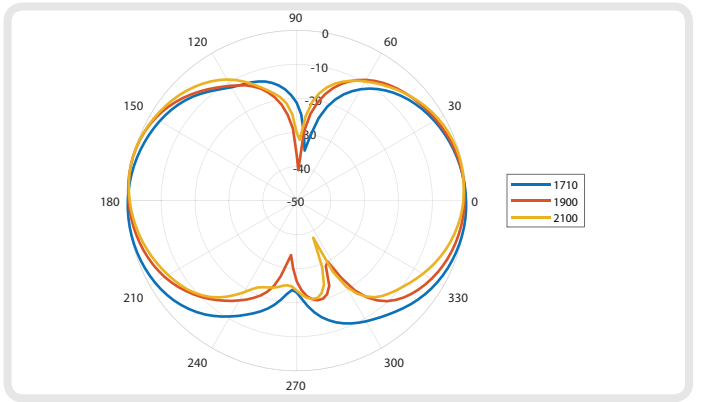
\*Antenna gain measured with polarisation aligned standard antenna

# Radiation Patterns

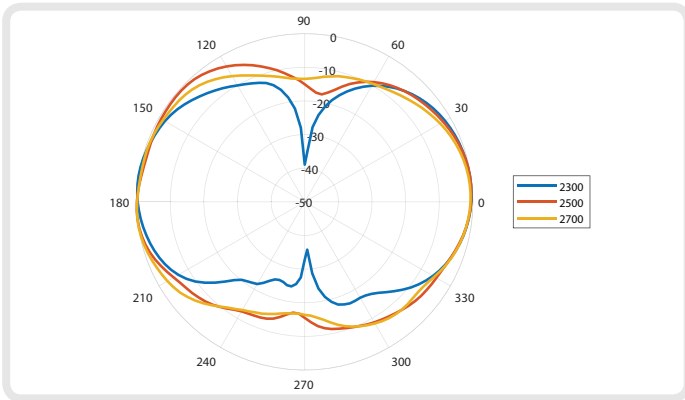
### E-Plane: 690 - 960 MHz



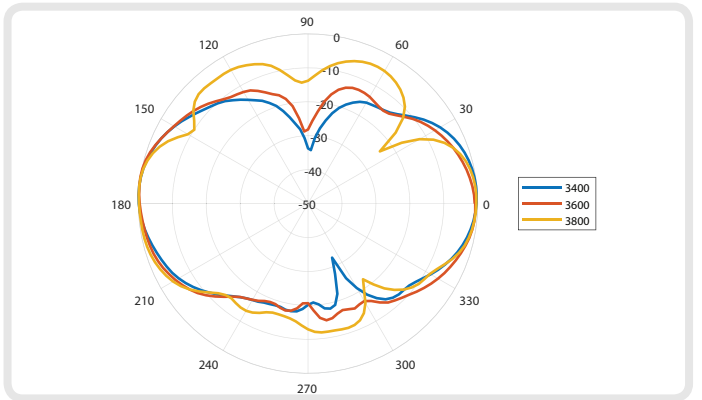
### E-Plane: 1710 - 2700 MHz



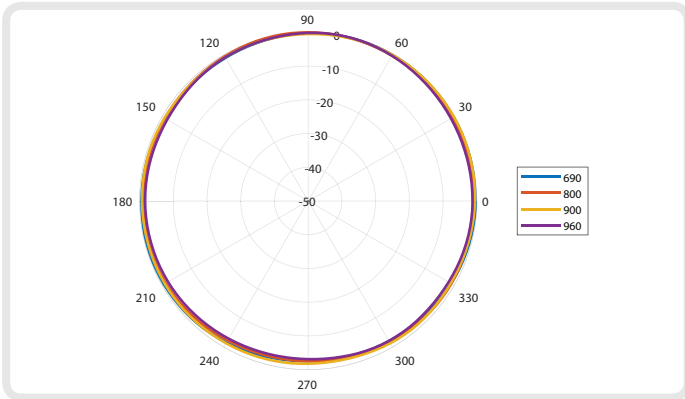
### E-Plane: 2300 - 2700 MHz



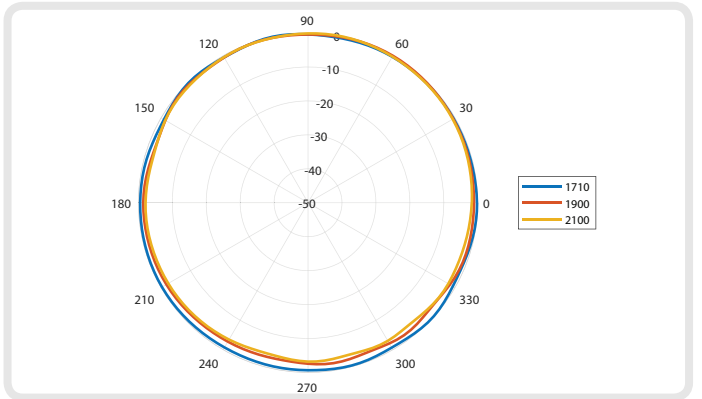
### E-Plane: 3400 - 3800 MHz



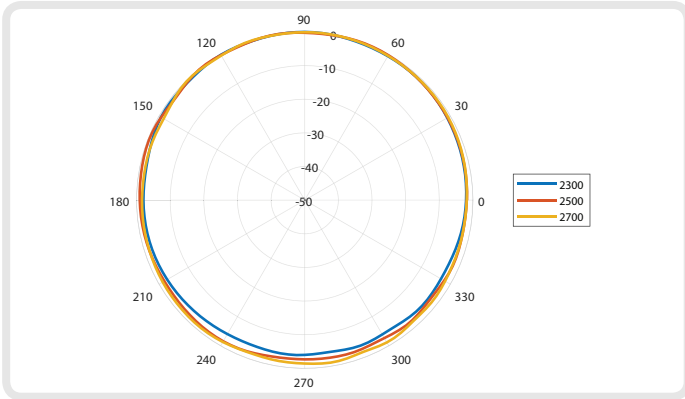
### H-Plane: 690 - 960 MHz



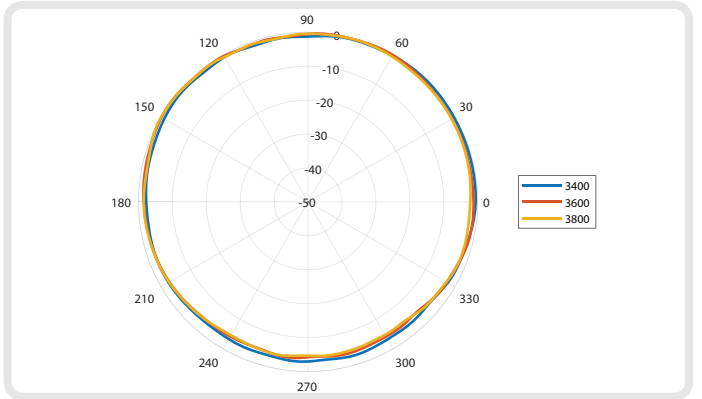
### H-Plane: 1710 - 2700 MHz



### H-Plane: 2300 - 2700 MHz



### H-Plane: 3400 - 3800 MHz



## Electrical specifications

Frequency bands:	698 - 960 MHz 1710 - 2700 MHz 3400 - 3800 MHz
Gain (max):	4 dBi
VSWR:	<2:1
Feed power handling:	10 W
Input impedance:	50 Ohm (nominal)
Polarisation:	Linear vertical
Cable loss:	0.47Db/m @900 MHz 0.75Db/m @ 2000 MHz 0.79Db/m @2500 MHz 0.83Db/m @ 3500 MHz
DC short:	Yes
Cable length:	1m ±5%
Cable type:	RG58
Connector:	SMA(m)

## Mechanical specifications

Product dimensions (L x W):	± 154 mm x 51 mm
Packaged dimensions:	TBC
Weight:	TBC
Packaged weight:	TBC
Radome material:	ABS (Halogen Free)
Radome colour:	Cool Gray 1C

## Environmental specifications

Wind survival:	<120 km/h
Temperature range (Operating):	-40°C to +70°C
Environmental conditions:	Outdoor/Indoor
Operating relative humidity:	Up to 98%
Storage humidity:	5% to 95% - non condensing
Storage temperature:	-40°C to +70°C
Flammability rating:	UL 94-HB

## Ordering information

Commercial name:	OMNI-280-01
Order product code:	A-OMNI-0280-01
EAN number:	0707273470027

## Additional accessories available

Various connectors available

For more detailed information and availability in your region, visit our web site: [www.poynting.tech](http://www.poynting.tech)

## Contact Poynting

### Poynting Antennas (Pty) Ltd - Head Office

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Samrand, 0157  
South Africa

Phone: +27 (0) 12 657 0050

E-mail: [sales@poynting.co.za](mailto:sales@poynting.co.za)

## Product box contents

Antenna:	A-OMNI-0280-01
Mounting bracket:	Pole and wall mount
Mounting Type:	Magnetic and velcro adhesive

*The connector is factory mounted to the antenna*

## Certification approvals and standards

Water ingress protection ratio/standard:	IP 65
Impact resistance:	IK 08
Salt spray:	MIL-STD 810F/ASTM B117
Product safety:	Complies with CE, EN, CSA and IEC standards



### OMNI-280-01

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Product Specifications may change without prior notice  
Revised: March 2018

Regulatory Compliance: RoHS 2011/65/EU Compliant | ISO 9001:2008  
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