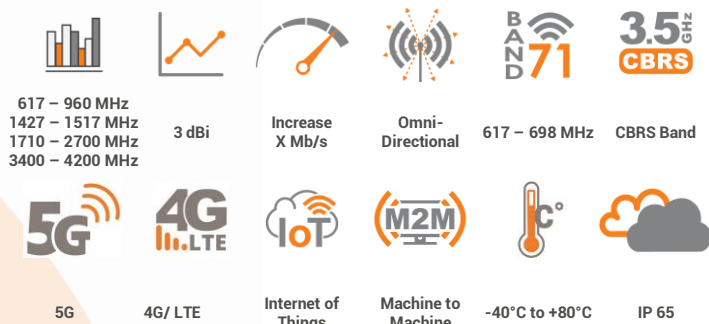


ANTENNAS | OMNI-280 SERIES

OMNI-DIRECTIONAL, WIDEBAND LTE/5G ANTENNA

617 – 4200 MHz; 3 dBi



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



APPLICATION AREAS

Product Overview

The OMNI-280 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 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

- Wideband frequency ranges from 617 to 4200 MHz
- Medium gain across frequency range
- Omni-directional radiation pattern for optimum coverage
- 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 with poor data signal reception (indoor and outdoor)

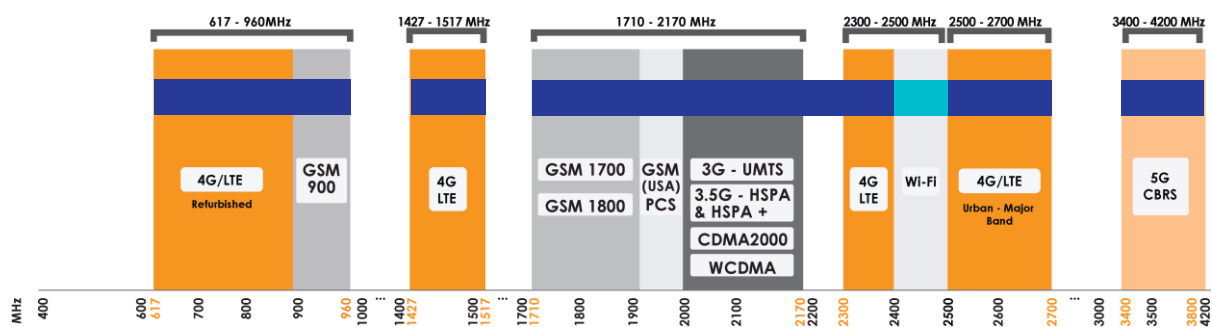


OMNI-280

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Product Specifications may change without prior notice
Revised: August 2024

Frequency Bands

The OMNI-280 is an omni-directional antenna that works from | 617 – 960 MHz | 1427 – 1517 MHz | 1710 – 2700 MHz | and | 3400 – 4200 MHz |



Indicates the 5G/LTE bands on which OMNI-280 works

Indicates the WI-FI bands on which OMNI-280 works

Antenna Derivatives

Product Order Code (SKU)	A-OMNI-0280-01-V1	A-OMNI-0280-02-V1	A-OMNI-0280-08-V1
Ports	1	1	1
SISO / MIMO	SISO	SISO	SISO
Coax Cable Type	RG 58	RG 58	RG 58
Coax Cable Length	1m	2m	2m
Connector Type	SMA (M)	SMA (M)	RA - SMA (M)
Product Weight	0.153kg	0.175kg	0.177kg
Packaged Weight	0.158kg	0.180kg	0.182kg
EAN	6009710923924	6009710923948	6009710923962

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

Electrical Specifications

Frequency Bands:	617 – 960 MHz 1427 – 1517 MHz 1710 – 2700 MHz 3400 – 4200 MHz
Gain (Max):	1.5 dBi @ 617 – 960 MHz 1.5 dBi @ 1427 – 1517 MHz 1.5 dBi @ 1710 – 2700 MHz 3 dBi @ 3400 – 4200 MHz
VSWR:	<3:1
Feed Power Handling:	10 W
Input Impedance:	50 Ohm (nominal)
Coax cable loss:	0.535 dB/m @ 900 MHz 0.76 dB/m @ 1500 MHz 0.79 dB/m @ 1800 MHz 0.97 dB/m @ 2400 MHz 1.1 dB/m @ 3000 MHz
DC Short:	Yes

Product Box Contents

Antenna:	A-OMNI-280
Mounting Bracket:	Pole/Wall and Desk (Magnetic /Velcro) Mount

Mechanical Specifications

Product Dimensions	157 mm x 61 mm x 44 mm
Packaged Dimensions	250 mm x 150 mm x 50 mm
Radome Material:	ABS (Halogen Free)
Radome Colour:	Pantone Cool Gray 1C
Mounting Type:	Pole/Wall and Magnetic/Velcro adhesive

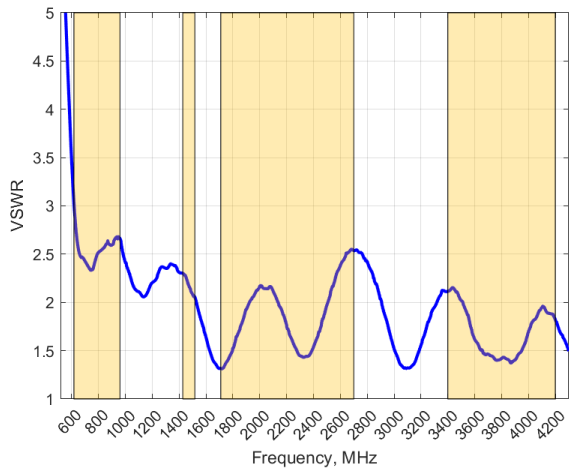
Environmental Specifications, Certification & Approvals

Wind Survival:	<120 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



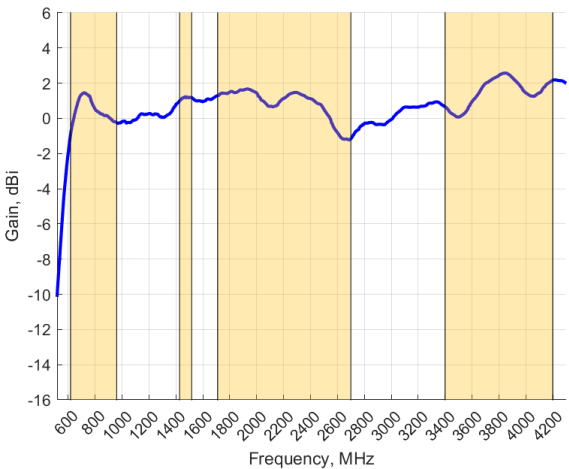
Voltage Standing Wave Ratio (VSWR)*

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-280 delivers superior performance across all bands with a VSWR of <3:1.

*VSWR measured without a cable

GAIN (EXCLUDING CABLE LOSS)



Gain* in dBi

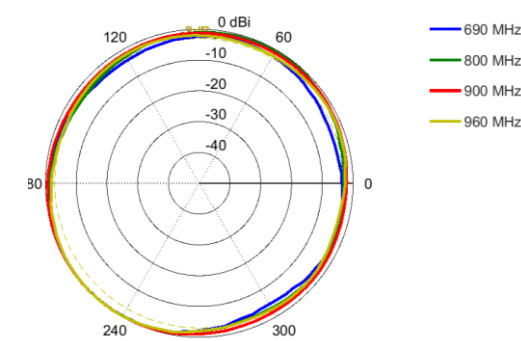
3 dBi is the peak gain across all bands from 617 – 4200 MHz

Gain @ 617 – 960 MHz:	1.5 dBi
Gain @ 1427 – 1517 MHz:	1.5 dBi
Gain @ 1710 – 2700 MHz:	1.5 dBi
Gain @ 3400 – 4200 MHz:	3 dBi

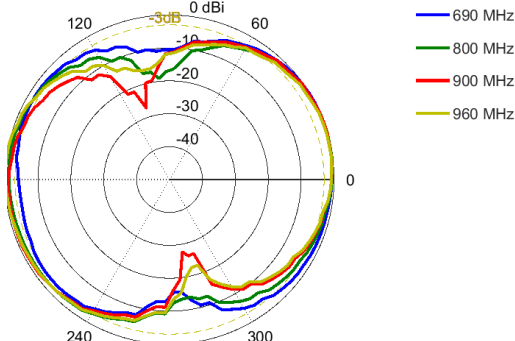
*Antenna gain measured with polarisation aligned standard antenna

Radiation Patterns

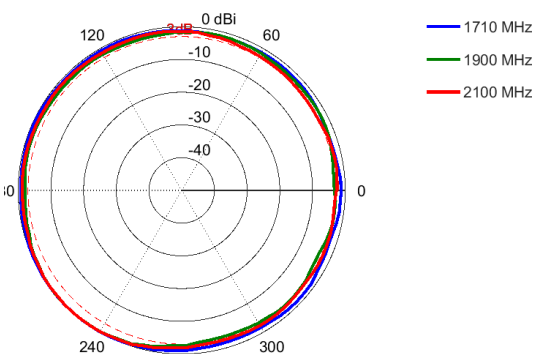
Azimuth: 690 – 960 MHz



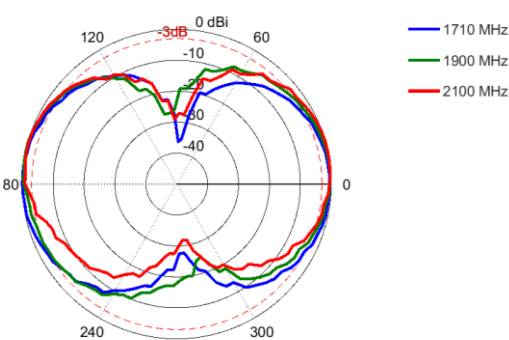
Elevation: 690 – 960 MHz



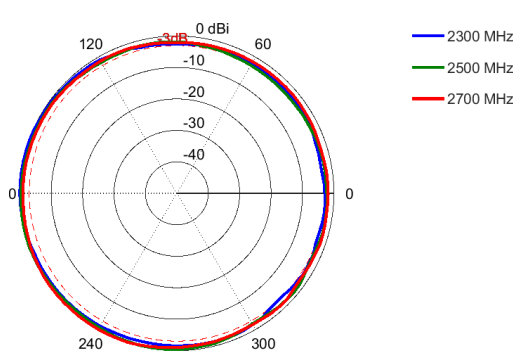
Azimuth: 1710 – 2100 MHz



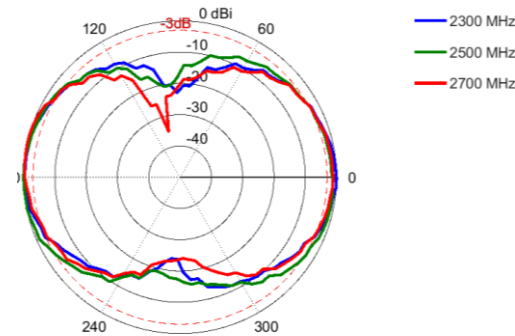
Elevation: 1710 – 2100 MHz



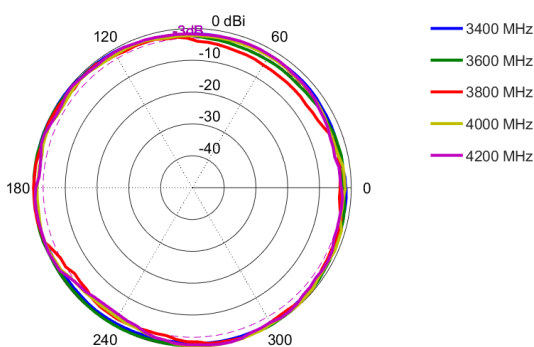
Azimuth: 2300 – 2700 MHz



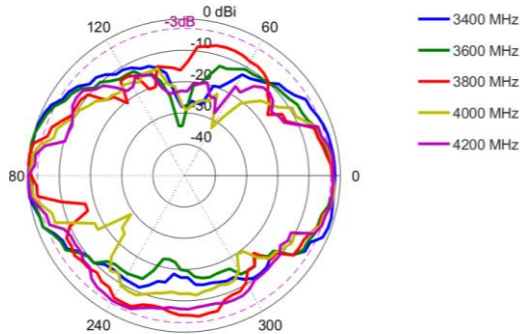
Elevation: 2300 – 2700 MHz



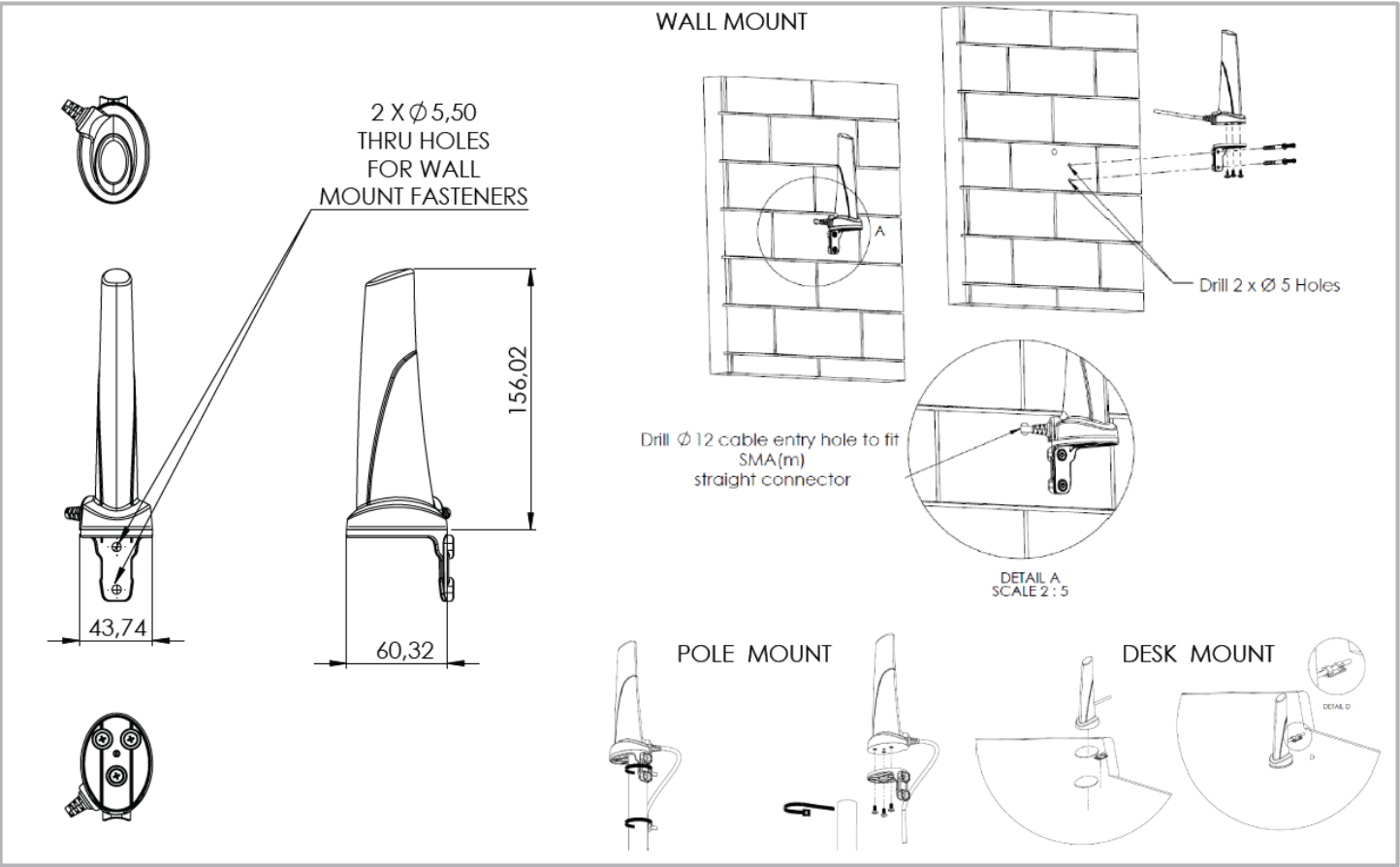
Azimuth: 3400 – 4200 MHz



Elevation: 3400 – 4200 MHz



Technical Drawings



Mounting Options



Wall Mount

Pole/Wall Mounting bracket (included)



Desk/Surface Mount

Magnetic Base, Adhesive and Velcro(included)
For temporary and low mobility installations



Pole Mount

Pole/Wall Mounting bracket (included)

Additional Accessories

Various connectors available

See accessories technical specifications on www.poynting.tech

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