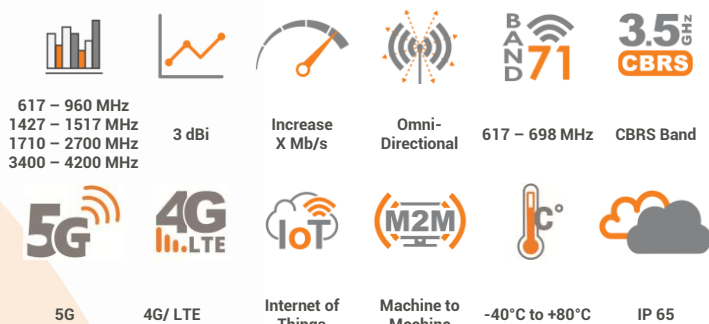


ANTENNAS | OMNI-280 SERIES

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

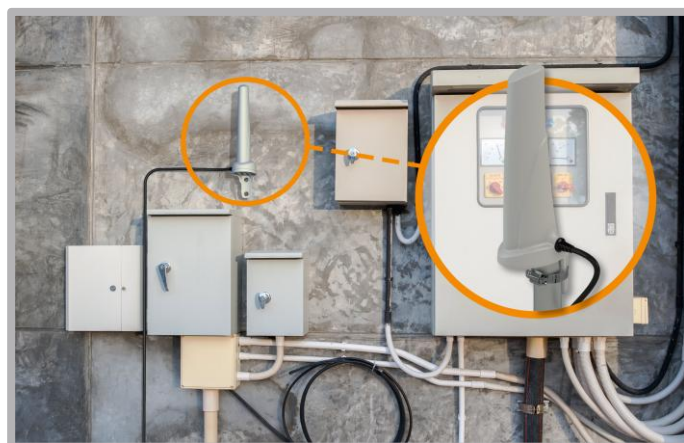
The OMNI-280 antenna provides an innovative solution for the signal enhancement of 4G/3G and 2G networks. It is a unique magnetic, wall- or pole-mountable, single polarised, full LTE band antenna that incorporates an ultra-wideband element in a single housing. This antenna is a cost-effective solution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

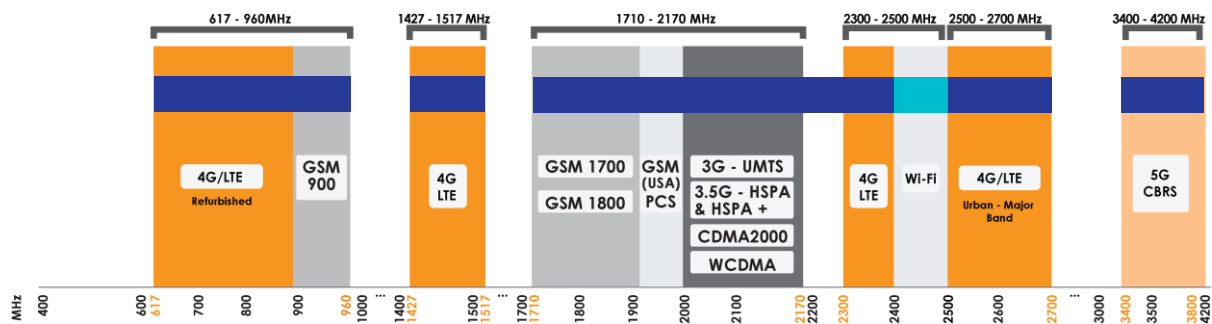
Application Areas

- 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)



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
Ports	1	1
SISO / MIMO	SISO	SISO
Coax Cable Type	RG 58	RG 58
Coax Cable Length	1m	2m
Connector Type	SMA (M)	SMA (M)
Product Weight	0.153kg	0.175kg
Packaged Weight	0.158kg	0.180kg
EAN	6009710923924	6009710923948

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:	<2.5:1 Across 95% of the bands
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

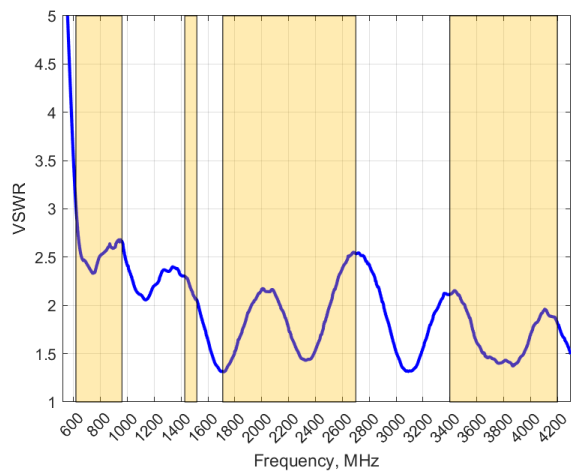
Environmental Specifications, Certification & Approvals

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



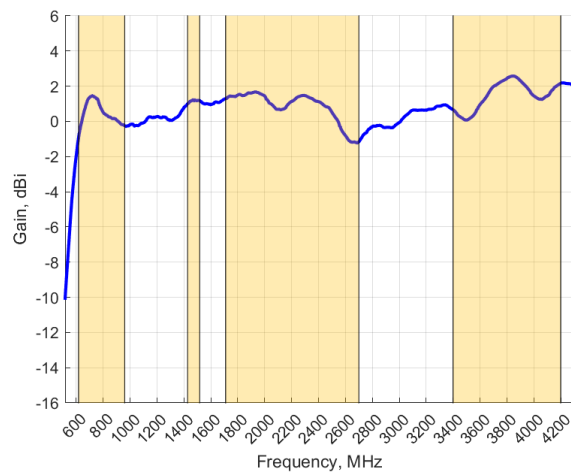
Voltage Standing Wave Ratio (VSWR)*

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 <2.5:1 across 95% of the bands.

*Measured with 2m low loss cable

GAIN (EXCLUDING CABLE LOSS)



Gain* in dBi

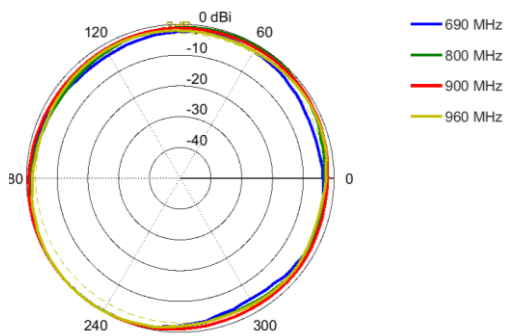
3 dBi is the peak gain across all bands from 617 – 4200 MHz

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

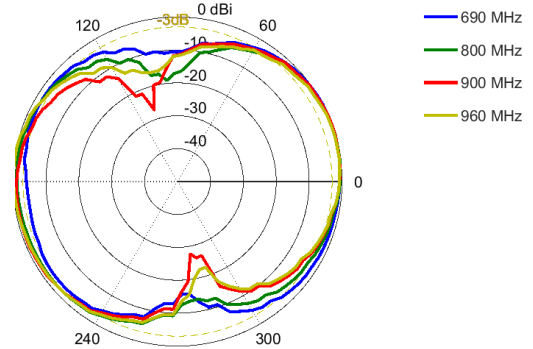
*Antenna gain measured with a polarisation-aligned standard antenna

Radiation Patterns

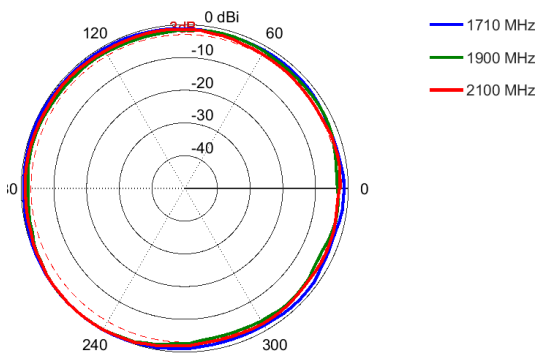
Azimuth: 690 – 960 MHz



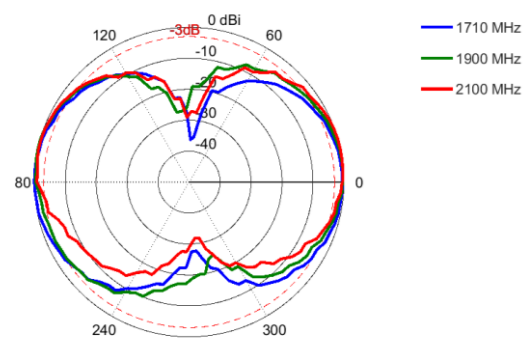
Elevation: 690 – 960 MHz



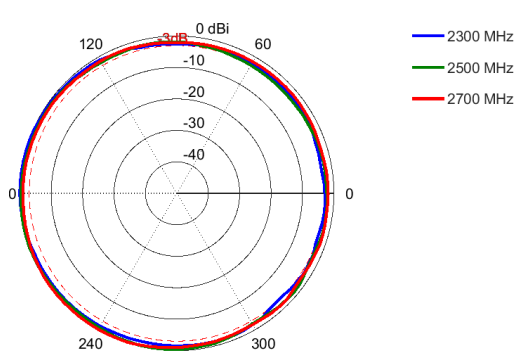
Azimuth: 1710 – 2100 MHz



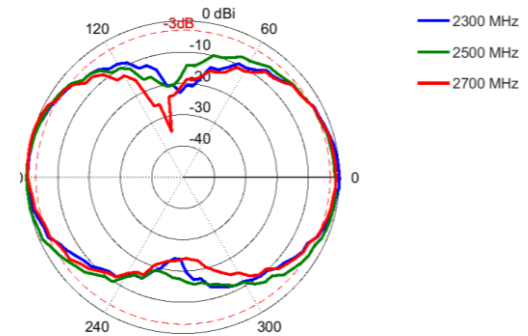
Elevation: 1710 – 2100 MHz



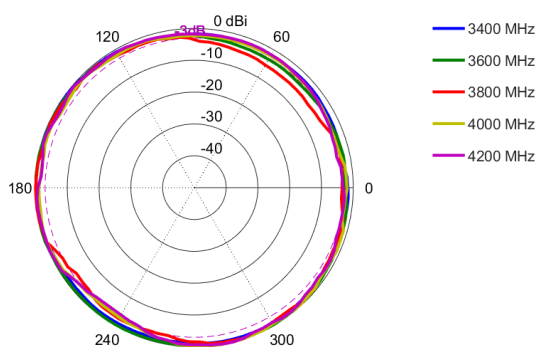
Azimuth: 2300 – 2700 MHz



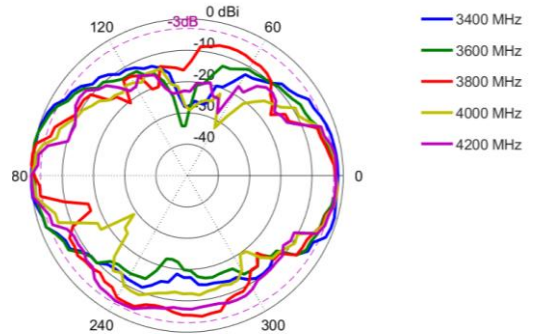
Elevation: 2300 – 2700 MHz



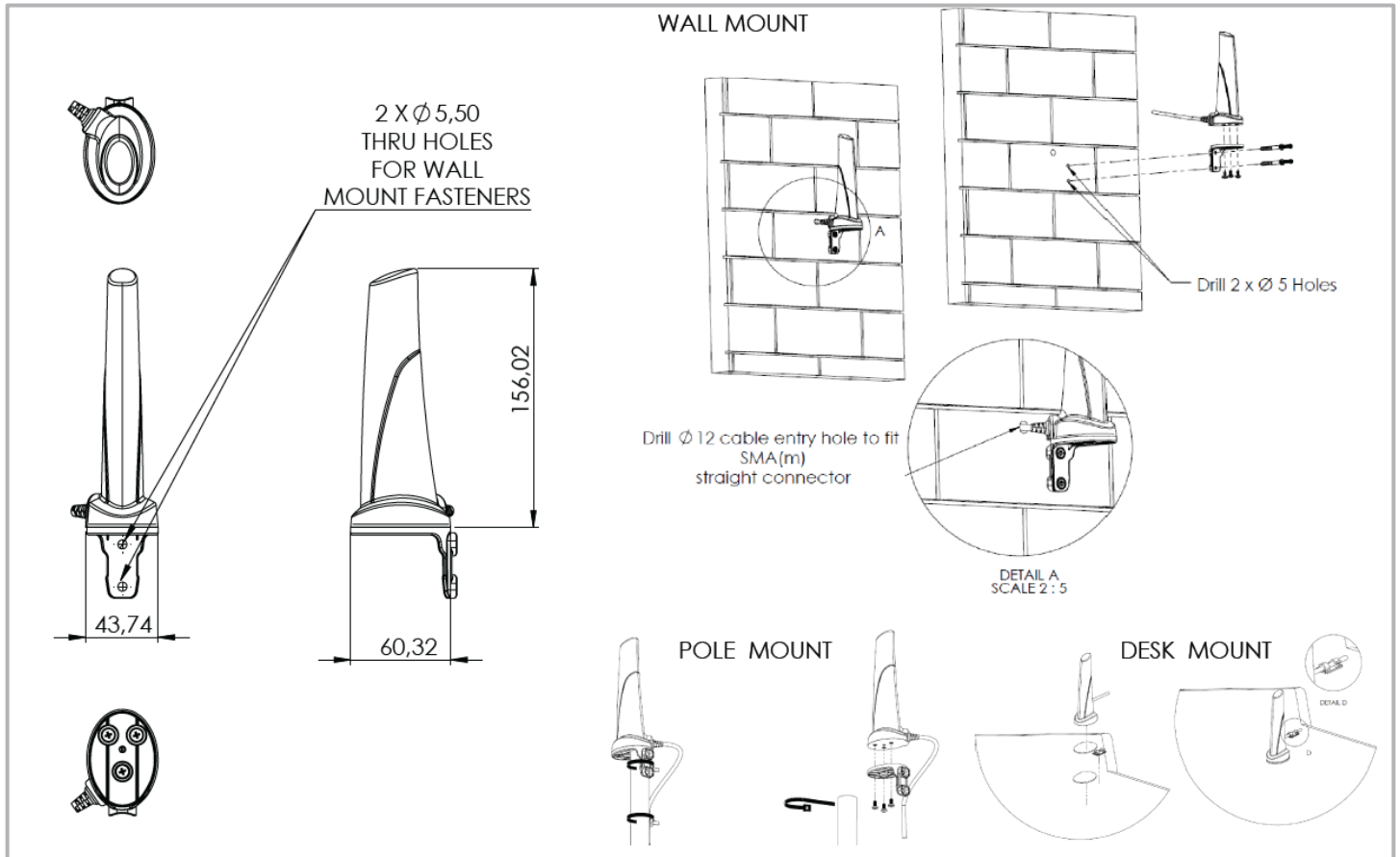
Azimuth: 3400 – 4200 MHz



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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