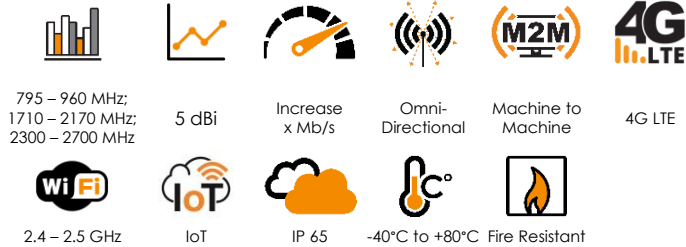


# OMNI-232

ANTENNAS | OMNI-232 SERIES

## OMNI-DIRECTIONAL, LOW-PROFILE LTE ANTENNA

LTE, 795 - 960 MHz, 4.8 dBi; 1710 - 2700 MHz, 5 dBi



- **Futureproof wideband LTE antenna**
- **Backwards compatible with 2G and 3G technologies**
- **Robust antenna design**
- **Vandal and water resistant (IP 65)**
- **Increased connectivity stability**
- **Machine-to-machine and IoT applications**



### Product Overview

The OMNI-232 is a low-profile antenna for use in the IoT/M2M, Smart Meter, Smart Utilities, Transportation and the Agricultural/Farming markets. The OMNI-232 has a wideband frequency range from 795 MHz to 2700 MHz, this includes the GSM/3G/UMTS/LTE bands. The performance of the antenna exceeds those of the competitors due to the medium gain with an omni-directional radiation pattern. The OMNI-232 is provided with a 0.5m cable terminated with an SMA(m) connector.

### Features

- Wideband frequency ranges from 795 to 2700 MHz
- Medium gain across frequency range
- Omni-directional radiation pattern for optimum coverage
- Ground plane independent
- Easy installation
- Foam cell filled, offering a robust antenna design

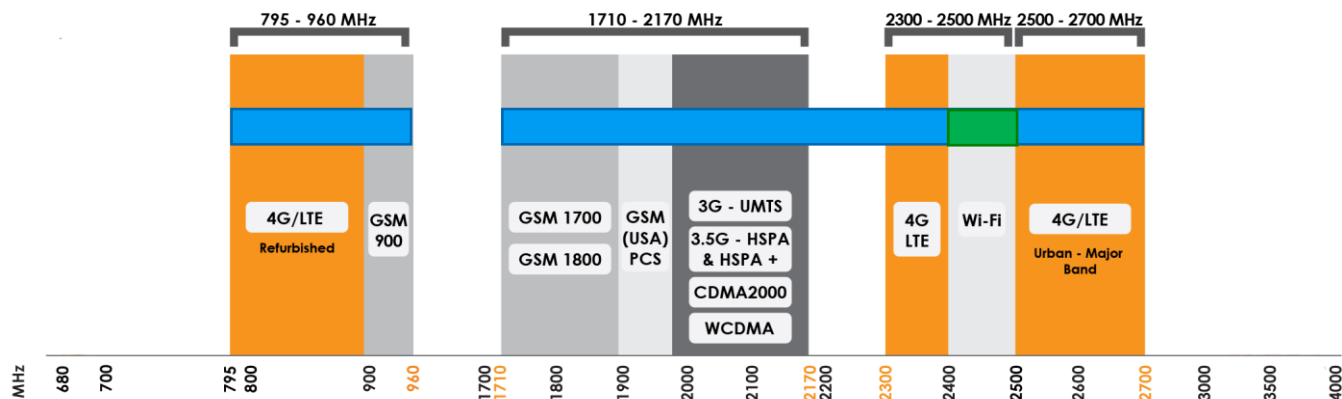
### Application Areas

- Urban and rural areas
- Smart Utilities: Smart Power, Gas & Water Metering
- Smart Buildings: Climate control, access control, security, irrigation
- Industrial factory automation, robotic machinery and other M2M systems
- Poor data signal reception (indoor or outdoor)
- Transport (Busses, Utility & Public Safety)
- Mining Vehicles & Machinery communications, telemetry and automation (M2M & IoT)
- Network operator flexibility – as the antenna is wideband, a new antenna is not needed per network operator – works on most networks



### Frequency Bands

The OMNI-232 is an omni-directional antenna that works from 795 – 960 MHz | 1710 – 2170 MHz | 2300 – 2700 MHz



Indicates the LTE bands on which OMNI-232 works       Indicates the WI-FI bands on which OMNI-232 works

### Antenna Derivatives

Product Order Code (SKU)	A-OMNI-0232-V1	A-OMNI-0232-01-V1	A-OMNI-0232-02-V1	A-OMNI-0232-03-V1	A-OMNI-0232-04-V1
Ports	1	1	2	1	1
SISO / MIMO	SISO	SISO	SISO	SISO	SISO
GPS	No	No	Yes	No	No
Coax Cable Type	RG 316	RG 316	RG 316	RG 316	RG 316
Coax Cable Length	0.5m	0.5m	0.5m	0.5m	1.5m
Connector Type	SMA (M)	FME	SMA (M)	SMA (M)	SMA (M)
Foam Filled	No	No	No	Yes	No
Product Weight	0.162kg	0.162kg	0.164kg	0.164kg	0.197kg
Packaged Weight	0.165kg	0.165kg	0.167kg	0.167kg	0.2kg
EAN	6009693810839	0707273469274	0707273469519	0707273469656	0707273470324

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

## Electrical Specifications - Cellular

Frequency bands:	795 – 960 MHz 1710 – 2170 MHz 2300 – 2700 MHz
Gain (max):	4.8 dBi @ 795-960 MHz 5 dBi @ 1710-2170 MHz 2.5 dBi @ 2300-2700 MHz
VSWR:	<2.5:1 across 90% of the bands
Feed power handling:	10 W
Input impedance:	50 Ohm (nominal)
Polarisation:	Linear Vertical
Coax cable loss:	0.863 dB/m @ 900 MHz 1.2 dB/m @ 1800 MHz 1.433 dB/m @ 2400 MHz
DC short:	Yes

## GPS/Glonass Antenna Electrical Specifications (A-OMNI-0232-02-V1)

Frequency Range (GPS):	1575.42MHz/1600MHz
Gain (Max):	21+/-2dBi
VSWR:	≤1.5:1
DC Voltage:	2.7-3.3 V
DC Current:	5-15mA
Noise Figure:	≤1.5 dB
Nominal Impedance:	50 Ω
Polarisation:	RHCP
Filter Out Band Attenuation:	12dB Min f0+50MHz, 16dBi Min f0-50MHz
Cable:	0.5m 1.13 coaxial cable
Connector:	SMA (M)
Voltage:	2.7 - 3.3V
Max. Power-W:	50

## Product Box Contents

Antenna:	A-OMNI-0232-V1
Mounting bracket:	M18 threaded spigot with M18 nut

## Mechanical Specifications

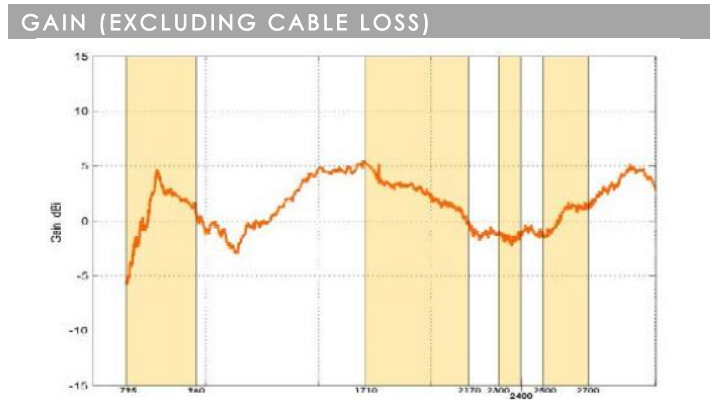
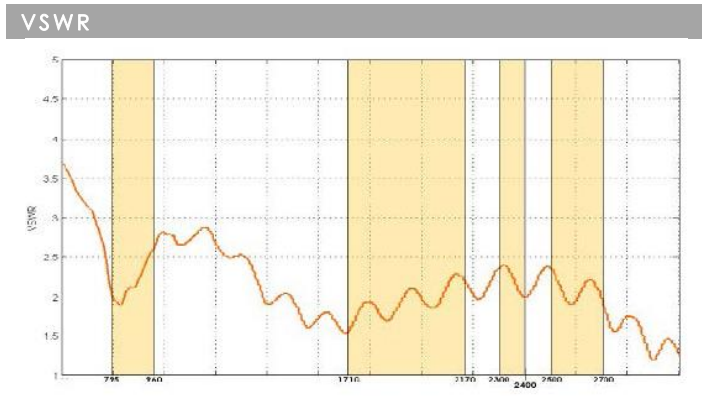
Product dimensions	Ø98 mm x 34 mm
Packaged dimensions:	200 mm x 160 mm
Radome material:	ABS (Halogen Free)
Radome colour:	Pantone – Black RAL - Black
Mounting Type:	Surface/Spigot Mount

## Environmental Specifications, Certification & Approvals

Wind Survival:	160 km/h
Temperature Range (Operating):	-40°C to +70°C
Environmental Conditions:	Outdoor/Indoor
Water ingress protection ratio/standard:	IP 67 (NEMA 4X)
Salt Spray:	MIL-STD 810F/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 10
Product Safety & Environmental:	Complies with CE and RoHS standards



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-232 delivers superior performance across all bands with a VSWR of <2.5:1 or better across 90% of the bands.

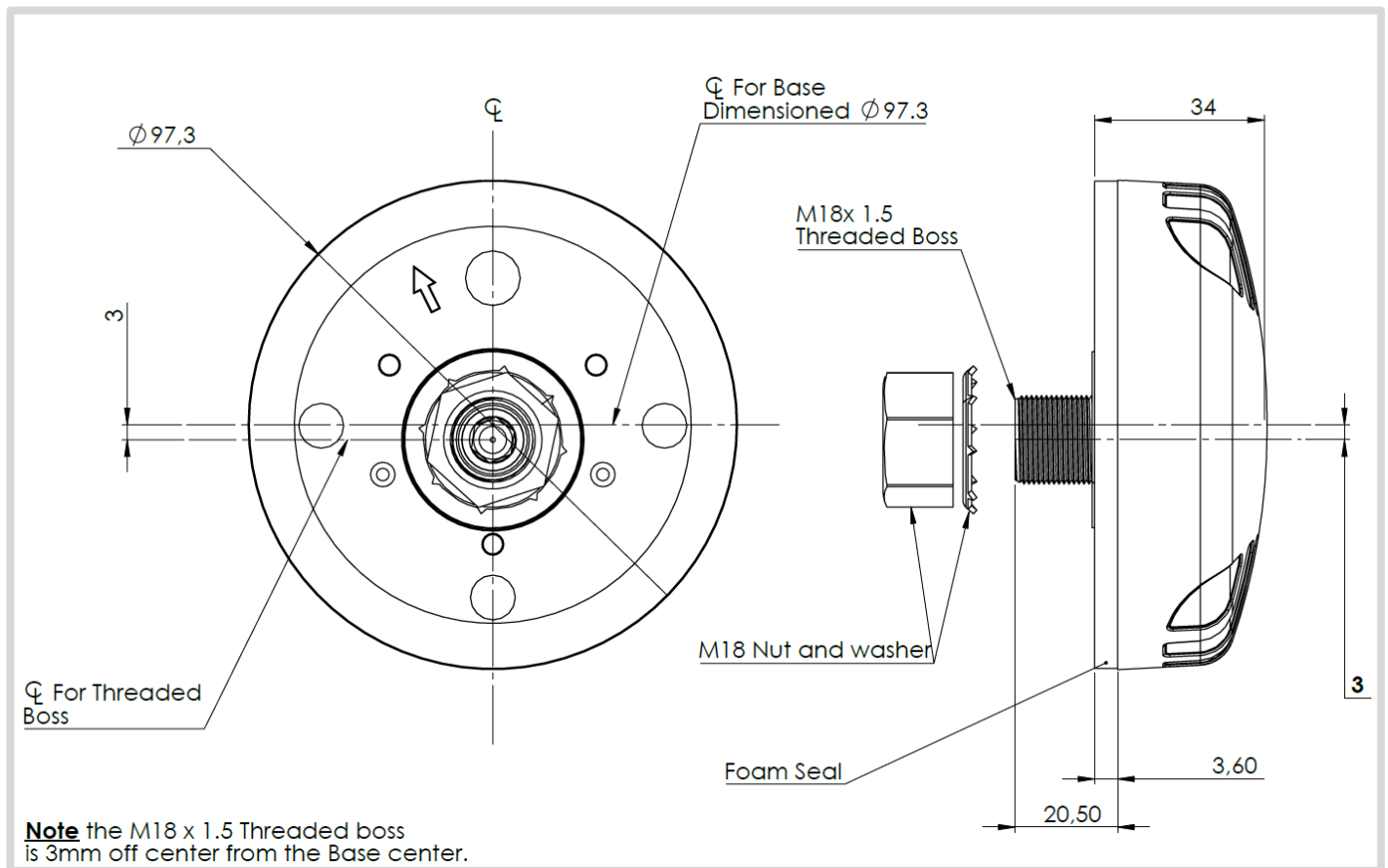
Gain\* in dBi

5 dBi is the peak gain across all bands from 795 – 2700 MHz

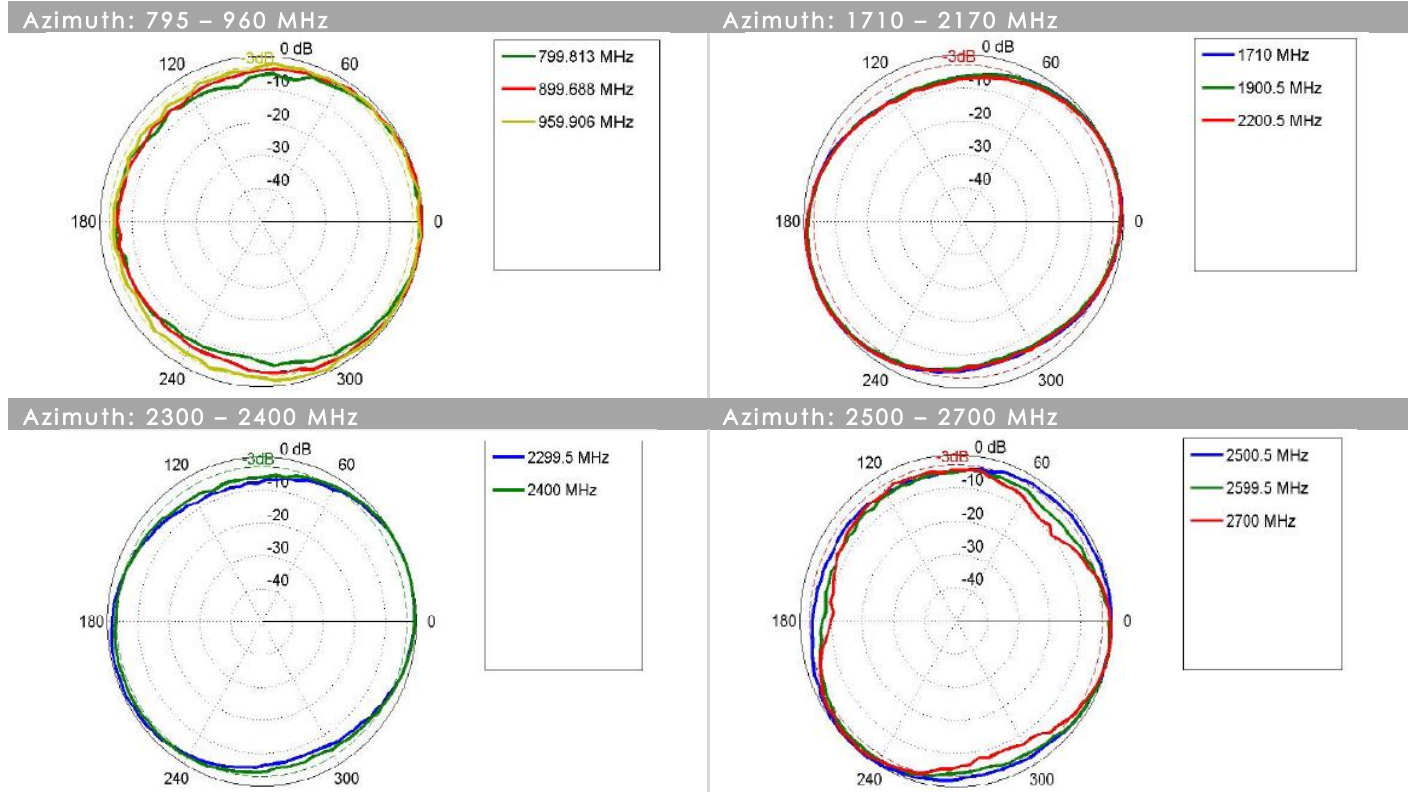
Gain @ 795 – 960 MHz:	4.8 dBi
Gain @ 1710 – 2170 MHz:	5 dBi
Gain @ 2300 – 2700 MHz:	2.5 dBi

\*Antenna gain measured with polarisation aligned standard antenna

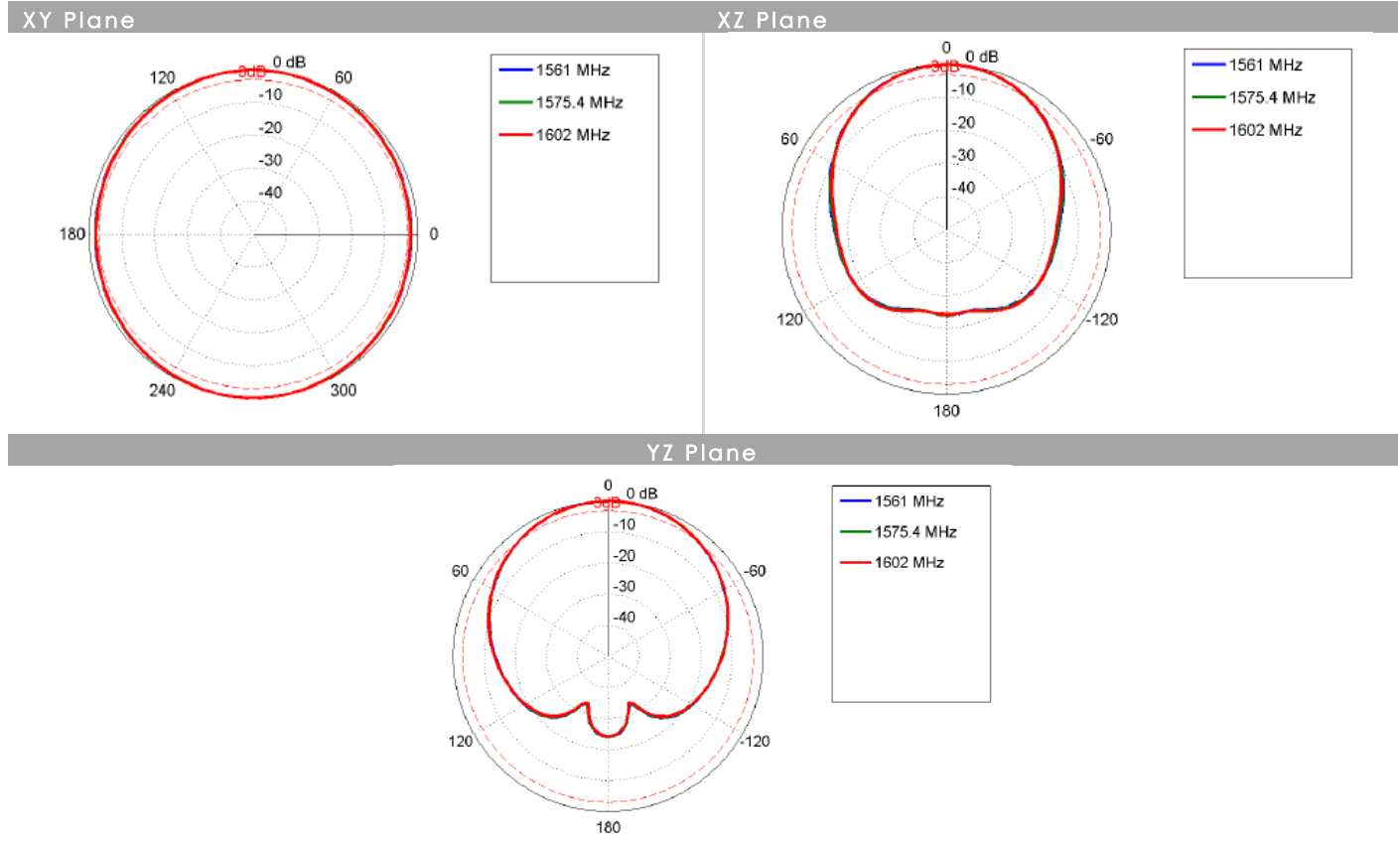
Technical Drawings



**Radiation Patterns**



**Radiation Patterns – GPS (A-OMNI-0232-02-V1)**



## Mounting Options



### Surface Mount

M18 threaded spigot with M18 nut

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### Additional Accessories

Extension cables available  
Various connectors available

See accessories technical specifications on [www.poynting.tech](http://www.poynting.tech)

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### Contact Poynting

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