

**ANTENNAS | OMNI-85**

# OMNI-85

690 - 2700 MHz router/equipment mount LTE antenna



**VSWR**  
< 2.7:1



Increase  
x Mb/s



-20°C to +70°C

IP 55

UL 94 HB

M2M



- **Future-proof wideband LTE antenna**
- **Backwards compatible with 3G and 2G technologies**
- **Highly portable**
- **Increased connectivity stability**
- **Quick and compact setup**
- **Direct router mount**

## Product Overview

This broadband antenna ensures a strong 2G, 3G or 4G/LTE connection and fast transfer speeds for your broadband modem or router. The antenna is vertically polarized and omni-directional. This antenna can be fitted directly on any equipment that uses an SMA female connector. The knuckle base of the antenna allows multiple angle deployment to accommodate the orientation of the equipment.

## Features

- Consistent performance across all frequency bands.
- This antenna is ground plane independent.
- The knuckle mount allows multiple angle deployment.
- Lightweight


## Application areas

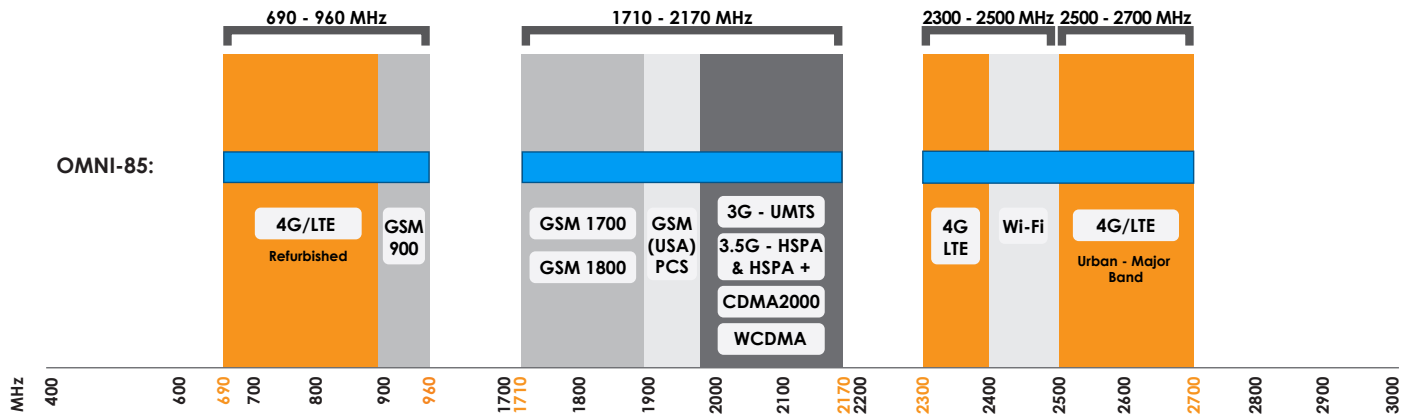
- Urban and rural areas
- On-the-go: Highly Portable
- Poor data signal reception (indoor or outdoor)
- Slow data transmission connection
- Unstable connection
- Increase system transmission reliability
- LTE fringe areas (close to an LTE area, but just out of reach)
- Network operator flexibility - as the antennas is wideband, a new antenna is not needed per network operator - works on most networks



## Frequency bands

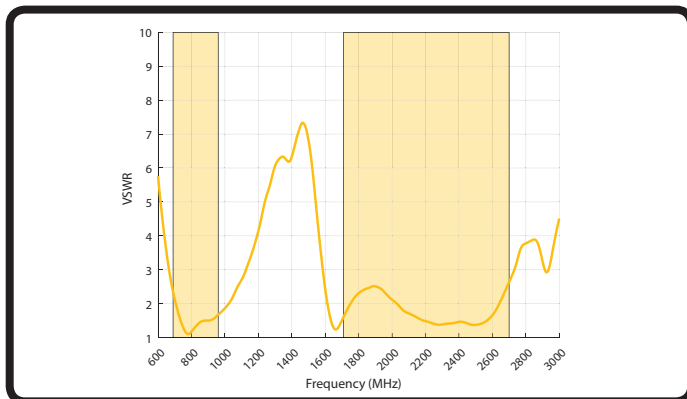
The OMNI-85 is a wide-band antenna that works from 690 - 2700 MHz

 Indicates the bands on which this antenna works



## Antenna Performance Plots

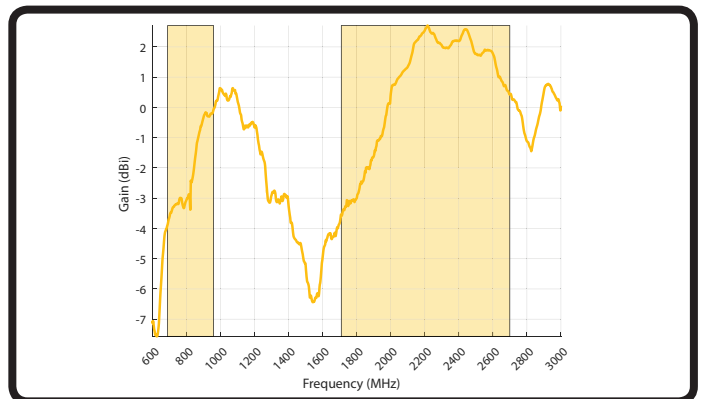
### VSWR:



### 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-85 delivers superior performance across all bands with a VSWR of 2.7:1 or better.

### Gain:



### Gain\* in dBi

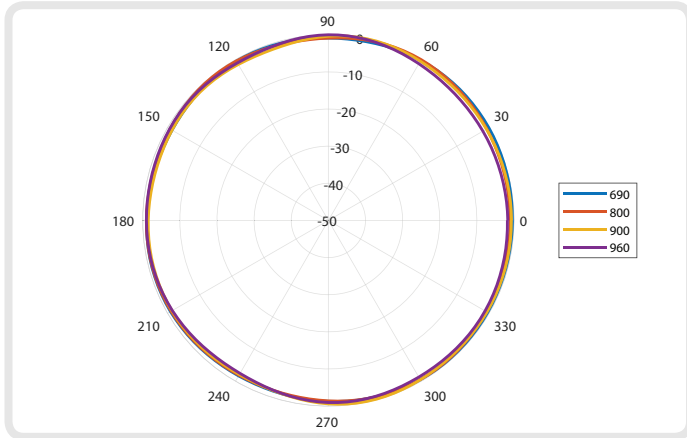
2.5 dBi is the peak gain across all bands from 690 - 2700 MHz

Gain @ 690 - 960 MHz: 0 dBi  
Gain @ 1710 - 2700 MHz: 2.5 dBi

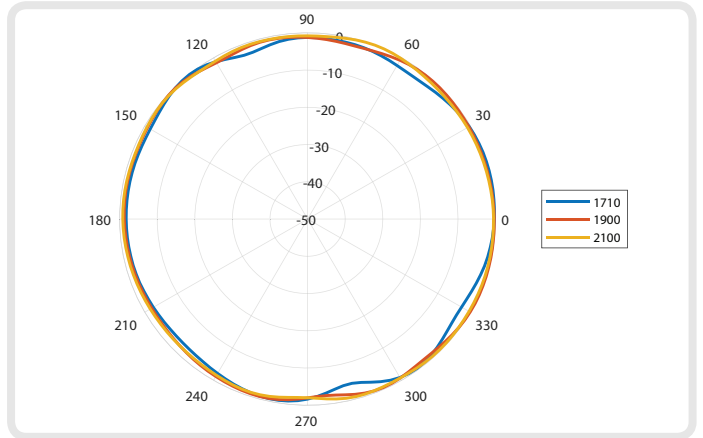
\*Antenna gain measured with polarisation aligned standard antenna

# Radiation Patterns

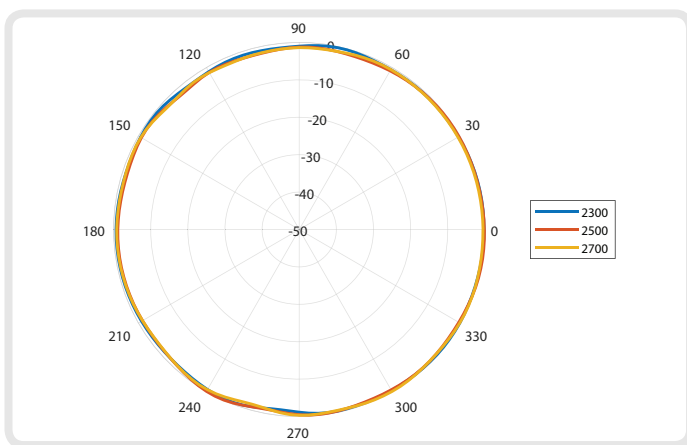
**Azimuth: 690 - 960 MHz (top view)**



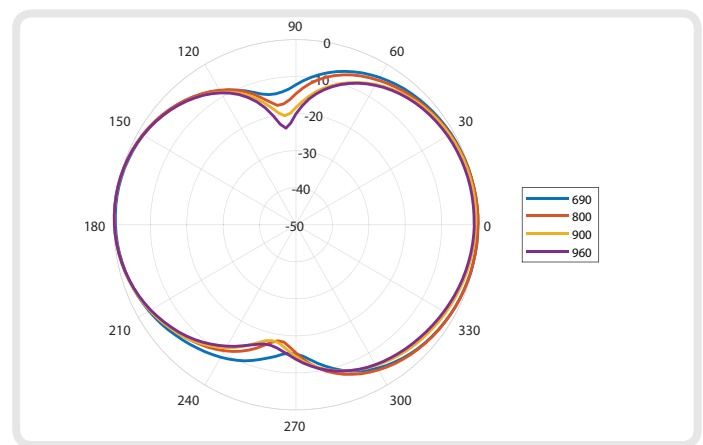
**Azimuth: 1710 - 2100 MHz (top view)**



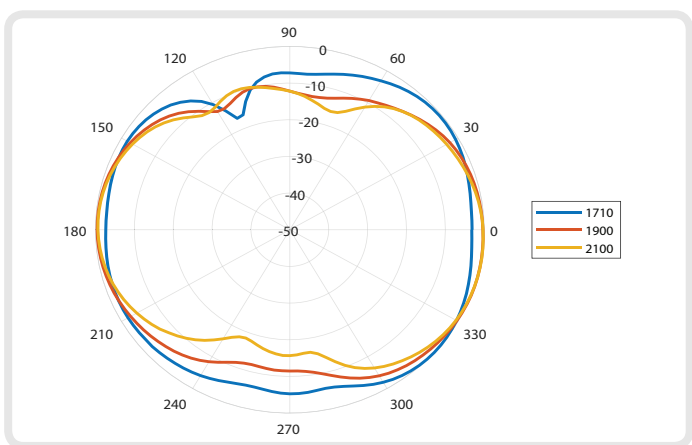
**Azimuth: 2300 - 2700 MHz (top view)**



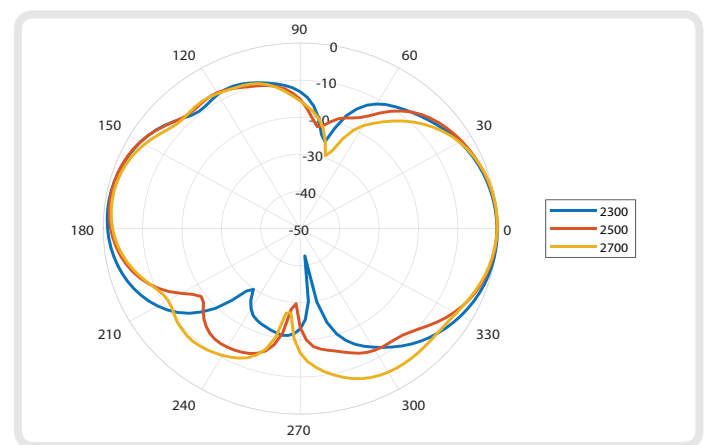
**Elevation: 690 - 960 MHz (side view)**



**Elevation: 1710 - 2100 MHz (side view)**



**Elevation: 2300 - 2700 MHz (side view)**



## Electrical Specifications

Frequency Bands:	690 - 960 MHz 1710 - 2170 MHz 2300 - 2400 MHz 2500 - 2700 MHz
Gain (Max):	2.5 dBi
VSWR:	<2.7:1
Feed Power Handling:	10 W
Input impedance:	50 Ohm (nominal)
Polarisation:	Linear Vertical
DC Short:	Yes
Connector:	SMA (m) adaptor

## Mechanical Specifications

Product Dimensions (L x W x D):	210mm x 20mm x 14mm
Packaged Dimensions:	230mm x 40mm x 16mm
Weight:	28 g
Packaged Weight:	30 g
Radome Material:	ABS (Halogen Free)
Radome Colour:	Pantone - Black RAL - Black

## Environmental Specifications

Wind Survival:	Indoor
Temperature Range (Operating):	-20°C to +70°C
Environmental Conditions:	Indoor
Operating Relative Humidity:	Up to 98%
Storage Humidity:	5% to 95% - non condensing
Storage Temperature:	-20°C to +70°C

## Product Box Contents

Antenna:	A-OMNI-0085-V2
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*The connector is factory mounted to the antenna*

## Ordering Information

Commercial name:	OMNI-85
Order Product Code:	A-OMNI-0085-V2
EAN number:	6009693810198

## Additional Accessories Available

Extension Cables:	None
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## Certification Approvals and Standards

Flammability rating:	UL 94-HB
Water Ingress Protection Ratio/Standard:	IP 55 (NEMA 4X)
Impact resistance:	IK 05
Salt Spray:	MIL-STD 810F /ASTM B117
Product Safety:	Complies with UL, CE, EN, CSA and IEC standards

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



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