OMNI-785

POYNTING
BEYOND A CONNECTED LIFE

ANTENNAS | OMNI-785 SERIES

OMNI-DIRECTIONAL, ROUTER/EQUIPMENT MOUNT WI-FI ANTENNA

2400 – 2500 MHz, 5000 – 7200 MHz, 4 dBi

2400 – 2500 MHz
5000 – 7200 MHz

4 dBi

Increase
X Mb/s

Omni-
Directional

2.4 – 2.5 GHz
5.0 – 7.2 GHz

Internet of
Things

Machine to
Machine

-40°C to
+80°C

Fire Resistant

Chemical
Protection

IP 55

APPLICATION AREAS

Urban & Rural

Commercial &
Industrial

- **Dual-band 2.4 GHz and 5 to 7.2 GHz Wi-Fi antenna**
- **Omni-directional antenna with medium gain**
- **Complaint with IEEE 802.11b/g/n and 802.11ac wireless standard**
- **Highly portable with a quick and compact setup**
- **Direct router mount**

Product Overview

The OMNI-785 is an omni-directional, dual-band Wi-Fi antenna, which ensures a strong Wi-Fi connection with improved transfer speeds for your router or modem. The antenna covers the 2.4 GHz and 5 – 7.2 GHz Wi-Fi bands with a peak gain of 4 dBi across the bands. The antenna is ground plane independent and can be fitted directly to any equipment that uses an RP-SMA connector. This allows the antenna to be connected to any Wi-Fi access point whether it is older Wi-Fi technology or dual-band Wi-Fi technology. The antenna can therefore be used to resolve channel saturation and provide the ultimate Wi-Fi performance and flexibility. The knuckle base of the antenna allows multiple angle deployment to accommodate the orientation of the equipment.

Features

- Dual-band Wi-Fi antenna for 2.4 GHz and 5 GHz
- Omni-directional antenna with medium gain
- Knuckle mount allows multiple angle deployment
- Antenna is ground plane independent
- Robust and lightweight design

Application Areas

- On-the-go: Highly portable
- Poor data signal reception (indoor or outdoor)
- Slow or unstable data transmission connection
- Increase system transmission reliability
- M2M and IoT applications

Revised: November 2022

Regulatory Compliance: RoHS 2011/65/EU Compliant | ISO 9001:2015
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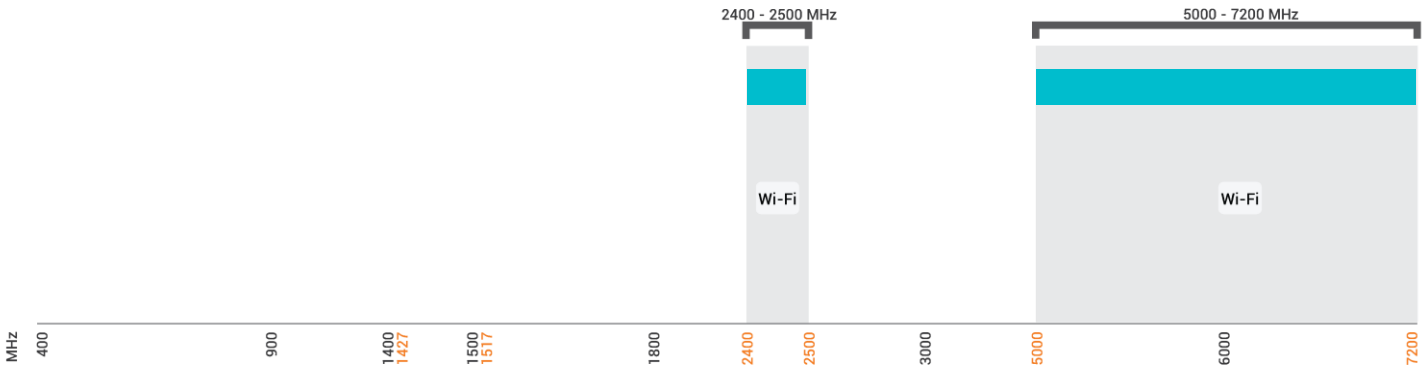
Frequency Bands

The OMNI-785 is a Wi-Fi antenna that works from | 2400 – 2500 MHz | and | 5000 – 7200 MHz |



Indicates the WI-FI bands on which OMNI-785 works

Antenna Overview

	Wi Fi DUALBAND
Ports	1
SISO / MIMO	SISO
Frequency Bands	2400 – 2500 MHz 5000 – 7200 MHz
Polarisation	Linear Vertical
Peak Gain	4 dBi
Coax Cable Type	N/A
Coax Cable Length	N/A
Connector Type	RPSMA (M)

**The connector is factory mounted to the antenna*

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Electrical Specifications

Frequency Bands:	2400 – 2500 MHz 5000 – 7200 MHz
Gain (Max):	2 dBi @ 2400 – 2500 MHz 4 dBi @ 5000 – 7200 MHz
VSWR:	<2.5:1
Feed Power Handling:	10 W
Input Impedance:	50 Ohm (nominal)
Polarisation:	Linear Vertical
DC Short:	Yes

Product Box Contents

Antenna:	A-OMNI-0785-V1-01
Mounting Bracket:	N/A

Ordering Information

Commercial Name:	OMNI-785
Order Product Code:	A-OMNI-0785-V1-01
EAN Number:	6009710923405

Mechanical Specifications

Product Dimensions	209 mm x 31 mm x Ø13 mm
Packaged Dimensions	250 mm x 45 mm x 16 mm
Weight	0.04 kg
Packaged Weight	0.04 kg
Radome Material:	ABS (Halogen Free)
Radome Colour:	Black
Mounting Type:	Screw-on

Environmental Specifications, Certification & Approvals

Wind Survival:	Indoor
Temperature Range (Operating):	-40°C to +80°C
Environmental Conditions:	Indoor
Water Ingress Protection Ratio/Standard:	IP 55
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 05
Product Safety & Environmental:	Complies with CE and RoHS standards

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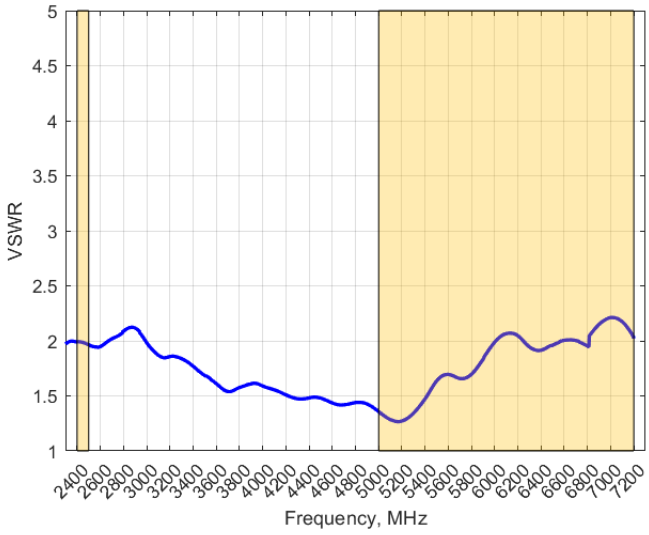
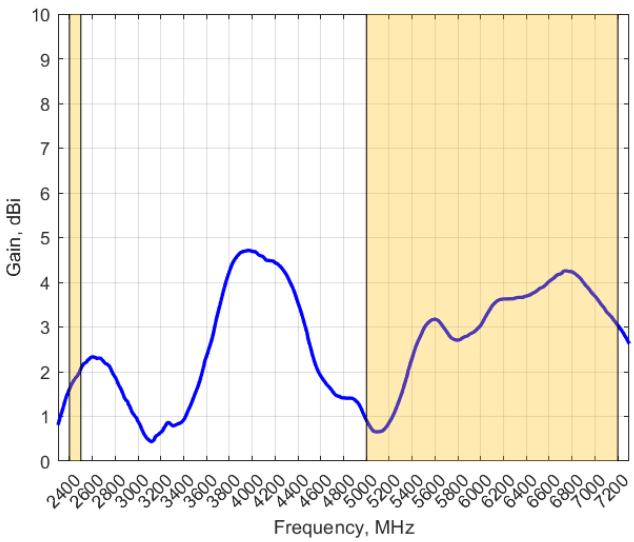
Antenna Performance Plots

VSWR



GAIN (EXCLUDING CABLE LOSS)



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-785 delivers superior performance across all bands with a VSWR of <2.5:1.

VSWR measured without a cable

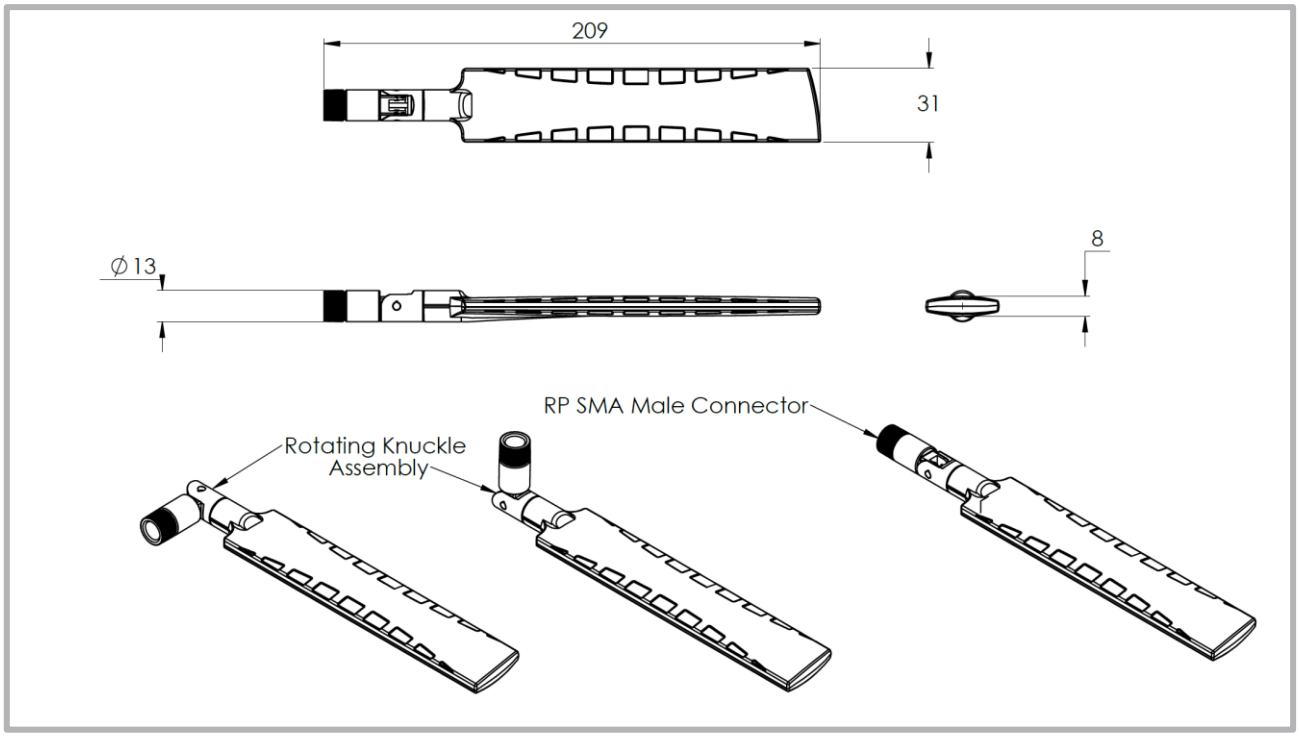
Gain+ in dBi

4 dBi is the peak gain from 2400 – 2500 MHz and 5000 – 7200 MHz

Gain @ 2400 – 2500 MHz:	2 dBi
Gain @ 5000 – 7200 MHz:	4 dBi

Antenna gain measured with polarisation aligned standard antenna

Technical Drawings



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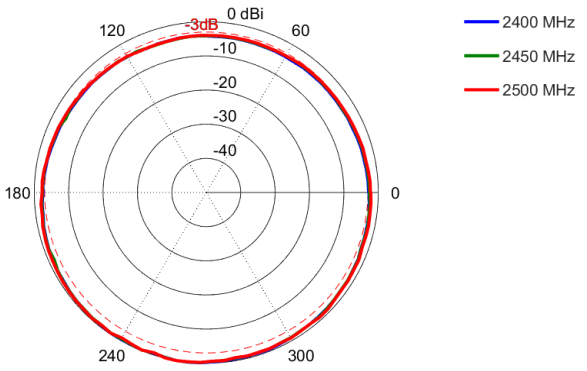
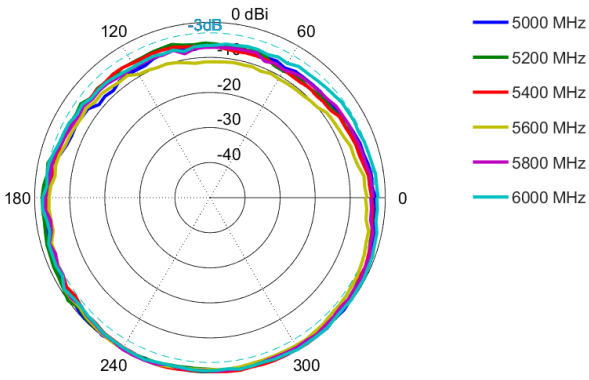
Radiation Patterns

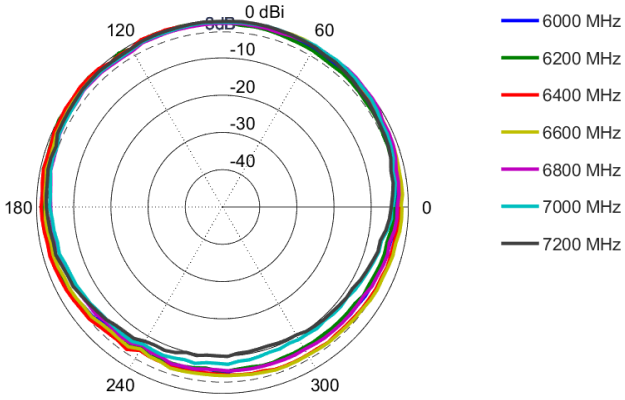
Azimuth: 2400 – 2500 MHz



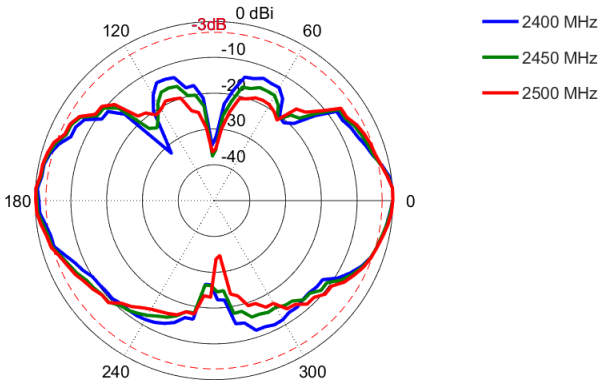
Azimuth: 5000 – 6000 MHz



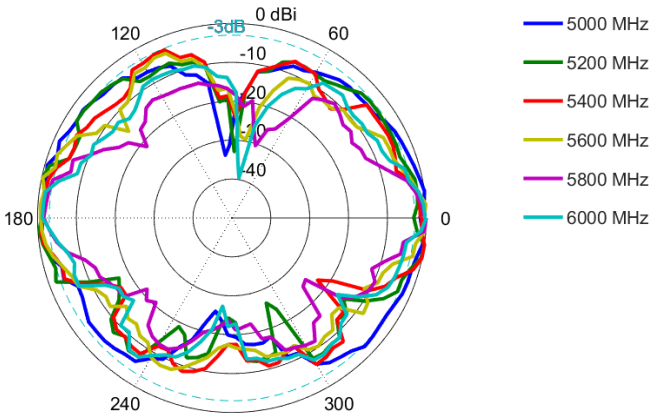
Azimuth: 6000 – 7200 MHz



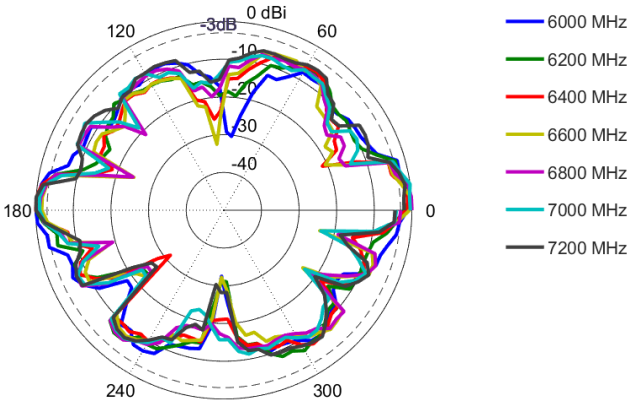
Elevation: 2400 – 2500 MHz



Elevation: 5000 – 6000 MHz



Elevation: 6000 – 7200 MHz



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Additional Accessories

No additional accessories required.

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