



## ULTRA RUGGED ANTENNAS FOR INDUSTRIAL WI-FI



OMNI-700 Series

### Omni-directional Antenna | Industrial IoT & M2M Applications

#### KEY FEATURES

- Omni-Directional Wi-Fi antenna series
- Covers the 2.4 GHz and 5 GHz Wi-Fi bands
- Medium to high gain antennas ranging from 4 dBi to 8 dBi
- Works on all industrial Wi-Fi networks across the world
- UV Stable Enclosure
- High pressure water & dust proof antenna (IP69K)
- Robust and strong enclosure design to survive adverse weather conditions
- Includes 304 stainless steel L-bracket for versatile mounting (pole and wall mounting)
- Able to withstand winds of up to 190 km/h
- DC grounded to prevent static discharge from damaging router equipment

#### KEY APPLICATION AREAS

- Smart Metering Applications: Gas & Water Systems and Utilities M2M & IoT
- Other applications with harsh environments such as industrial buildings, and oil & gas refineries
- High-end industrial grade router applications
- Industrial factory automation, robot machinery and other M2M systems
- Mining vehicles & machinery communications, telemetry, and automation (M2M & IoT)
- Can be used for commercial, industrial, residential, and urban applications, where high IP rating antennas are required
- Farming & Agricultural M2M & IoT

#### OMNI Antenna Series

©2021 Poynting Antennas (Pty) Ltd. All rights reserved  
 Product Specifications may change without prior notice  
 Revised: July 2021



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

Document version: Product Brief OMNI-700 v1.0

www.poynting.tech



## Product Overview

Poynting's new OMNI-700 series antennas, form part of our latest "Rhyno" antenna range and offers a small profile antenna for use in the IoT/M2M, Smart Meter, Smart Utilities, and Industrial markets. The new OMNI-700 series offers a variety of industrial Wi-Fi antennas within a rugged enclosure. Due to the excellent engineering and a rugged design, this antenna series provides exceptional performance for their size.

The OMNI-700 antenna series offers various configurations for covering the popular Wi-Fi frequency bands namely, the 2.4 GHz and 5 to 6 GHz bands. The antenna series was designed for superior pattern control across the most popular Wi-Fi frequency bands, adding to the exceptional omni-directional performance of the antenna series. The frequency bands covered by the different antennas in the OMNI-700 series are summarised in the following table.

Antenna	Wi-Fi Frequency Band		Peak Gain	No. of Ports
	2.4 GHz	5 – 6 GHz		
OMNI-702	✓		8 dBi	1 (SISO)
OMNI-703	✓		4 dBi	1 (SISO)
OMNI-704		✓	4 dBi	1 (SISO)
OMNI-705		✓	7 dBi	1 (SISO)
OMNI-706	✓	✓	5.5 dBi	1 (SISO)
OMNI-707	✓	✓	5 dBi	2 (SISO)

The antenna performance exceeds that of most competitor antennas, due to the attention to design of the various antennas in the OMNI-700 series. The radiation patterns of all the radiating elements provide an excellent balance between omni-directionality, pattern diversity and good radiation abilities at the desired elevation, which is often overlooked in such a small size antenna.

The OMNI-700 series antennas were specifically designed to be rugged and ideal for operation in harsh environmental conditions. The OMNI-700 series features an IP69K protection rating, which is the highest Ingress Protection (IP) rating a product can achieve. This indicates that the antennas are dust proof and protected against high pressure, high temperature spray downs at close range. Making the antennas ideal for industrial IoT/M2M and mining applications.

The antenna enclosures are also made from UV stable ASA plastics, which means they can be used in highly corrosive environments, including chemical and toxic environments. The ruggedness of the antennas exceeds the environmental specifications from most of the competitors.

The OMNI-700 series expands the "Rhyno" range and introduces a larger antenna enclosure. The OMNI-704, OMNI-705 and OMNI-706 make use of the smaller enclosure with an overall size of 155 mm x Ø70 mm. While the OMNI-702, OMNI-703 and OMNI-707 make use of the new larger enclosure with an overall size of 307 mm x Ø70 mm. All antennas come standard with an N-Type (female) bulkhead connector at the base.



### OMNI Antenna Series

©2021 Poynting Antennas (Pty) Ltd. All rights reserved  
 Product Specifications may change without prior notice  
 Revised: July 2021



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

Document version: Product Brief OMNI-700 v1.0

www.poynting.tech



The antennas come standard with a 304 stainless steel L-bracket, which can be used for multiple mounting options. With the additional L-bracket the antenna can be pole mounted with pipe clamps or the antenna can be wall/box mounted with knock-in screws that come standard.

The antenna complies with the relevant CE, EN, CSA, RoHS and IEC Standards as stated in our technical sheets. It is also rated for temperatures from -40°C to +80°C and will survive winds of up to 190km/h with a rating of IK10 impact resistance.



OMNI-700 series pole mounted with 304 stainless steel L-bracket

**OMNI Antenna Series**

©2021 Poynting Antennas (Pty) Ltd. All rights reserved  
 Product Specifications may change without prior notice  
 Revised: July 2021



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

Document version: Product Brief OMNI-700 v1.0

[www.poynting.tech](http://www.poynting.tech)



## Mounting Options



### Pole Mount

Pole mount used with pipe clamp and bracket (included)



### Wall Mount

Wall/Box mount using 2 x knock-in screws with bracket (included)

#### OMNI Antenna Series

©2021 Poynting Antennas (Pty) Ltd. All rights reserved  
Product Specifications may change without prior notice  
Revised: July 2021



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

Document version: Product Brief OMNI-700 v1.0

[www.poynting.tech](http://www.poynting.tech)