

Taoglas MA761 Pantheon 4-in-1 2X2 MIMO Stud Antenna

Product Code

MA761.B.BICG.003

Polarisation

2x2 MIMO

Design Type

Combination Planar

Application Category

IoT/M2M

Transit/Rail

RF Category

Cellular

WiFi



MA761 antenna is an omni-directional, heavy-duty, fully IP67 waterproof external IoT/M2M antenna for use in telematics, transportation and remote monitoring applications.

This unique antenna delivers powerful MIMO antenna technology for LTE and Wi-Fi 802.11n and 802.11ac for next generation high bandwidth telematics systems.

New fleet management and video location technology allows for real-time video uplink and downlink. High efficiency high gain MIMO antennas are necessary to achieve the high signal to noise ratio and throughput required to solve these challenges.

We have packed four (4) high efficiency and gain antennas in an extremely robust IP67 direct mount antenna package with good isolation (10 dB+). The antenna has its own ground-plane and can radiate on any mounting environment like metal or plastic without affecting performance. The cables are low loss allowing for lengths of up to 10 meters, critical for buses, trains and other commercial transport applications.

- 2G/3G/4G LTE 2X2 MIMO
- 2.4 GHz and 5 GHz Wi-Fi 2X2 MIMO
- IP67 ingress protected
- Aerodynamic, low profile vandal resistant housing
- Wideband covering all cellular, GPS, and ISM bands from 698 to 6000 MHz
- Two cellular 3 metre CFD-200 cables with SMA Male straight connectors
- Two Wi-Fi 3 metre CFD-200 cables with RP-SMA Male straight connectors
- Fully customizable cable lengths and connectors

▼ Antenna Technical Data

Physical Characteristics

Construction Material	Polycarbonate (PC) Zinc Alloy	RF Connections	4
Radome Colour	Other - Black	Environmental Rating	IP67
Dimensions	84.5 x 143.2 mm (H x ø)	Operating Temperature	-40 °C to 60 °C

Physical Characteristics

Weight	1.1600 kg	Mounting	3M Adhesive, Nickel plated steel M30
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▼ Cellular MIMO-1 Element

Electrical Specifications

Input Impedance 50 Ω

Polarisation **Vertical (V)**

Max. Input Power 5 W

PIM, 3rd Order -

Mechanical Specifications

Input Connector **SMA**

Input Connector Gender Male

Cable Series **LMR-200**

Cable Length 3000 mm

▼ Range: 698 to 960 MHz

Peak Gain 2.35 dBi

VSWR 3.5:1

Radiation Efficiency 53%

Front-to-Back Ratio -

Cross-Polar Discrimination -

Azimuth Beamwidth 360°

Elevation Beamwidth No Data

Electrical Tilt 0°

Inter-Port Isolation > 10 dB

Cross-Polar Isolation -

▼ Range: 1710 to 2170 MHz

Peak Gain 2.07 dBi

VSWR 3.5:1

Radiation Efficiency 57%

Front-to-Back Ratio -

Cross-Polar Discrimination -

Azimuth Beamwidth 360°

Elevation Beamwidth No Data

Electrical Tilt 0°

Inter-Port Isolation > 10 dB

Cross-Polar Isolation -

▼ Range: 2500 to 2690 MHz

Peak Gain 0.28 dBi

VSWR 3.5:1

Radiation Efficiency 31%

Front-to-Back Ratio -

Azimuth Beamwidth 360°

Elevation Beamwidth No Data

Electrical Tilt 0°

Inter-Port Isolation > 10 dB

Cross-Polar
Discrimination

-

Cross-Polar Isolation

-

▼ Range: 2900 to 3500 MHz

Peak Gain

0.36 dBi

Azimuth Beamwidth

360°

VSWR

3.5:1

Elevation Beamwidth

No Data

Radiation Efficiency

No Data

Electrical Tilt

0°

Front-to-Back Ratio

-

Inter-Port Isolation

> 10 dB

Cross-Polar
Discrimination

-

Cross-Polar Isolation

-

▼ Cellular MIMO-2 Element

Electrical Specifications

Mechanical Specifications

Input Impedance

50 Ω

Input Connector

SMA

Polarisation

Vertical (V)

Input Connector Gender

Male

Max. Input Power

5 W

Cable Series

LMR-200

PIM, 3rd Order

-

Cable Length

3000 mm

▼ Range: 698 to 960 MHz

Peak Gain

1.39 dBi

Azimuth Beamwidth

360°

VSWR

3.0:1

Elevation Beamwidth

No Data

Radiation Efficiency

61%

Electrical Tilt

0°

Front-to-Back Ratio

-

Inter-Port Isolation

> 10 dB

Cross-Polar
Discrimination

-

Cross-Polar Isolation

-

▼ Range: 1710 to 2170 MHz

Peak Gain

1.84 dBi

Azimuth Beamwidth

360°

VSWR

3.0:1

Elevation Beamwidth

No Data

Radiation Efficiency

56%

Electrical Tilt

0°

Front-to-Back Ratio

-

Inter-Port Isolation

> 10 dB

Cross-Polar
Discrimination

-

Cross-Polar Isolation

-

▼ Range: 2500 to 2690 MHz

Peak Gain

-2.54 dBi

Azimuth Beamwidth

360°

VSWR

3.0:1

Elevation Beamwidth

No Data

Radiation Efficiency

15%

Electrical Tilt

0°

Front-to-Back Ratio

-

Inter-Port Isolation

> 10 dB

Cross-Polar
Discrimination

-

Cross-Polar Isolation

-

▼ Range: 2900 to 3500 MHz

Peak Gain

-5.16 dBi

Azimuth Beamwidth

360°

VSWR

3.0:1

Elevation Beamwidth

No Data

Radiation Efficiency

9%

Electrical Tilt

0°

Front-to-Back Ratio

-

Inter-Port Isolation

> 10 dB

Cross-Polar
Discrimination

-

Cross-Polar Isolation

-

▼ WiFi MIMO-1 Element

Electrical Specifications

Mechanical Specifications

Input Impedance

50 Ω

Input Connector

RP-SMA

Polarisation

Vertical (V)

Input Connector Gender

Male

Max. Input Power

5 W

Cable Series

LMR-200

PIM, 3rd Order

-

Cable Length

3000 mm

▼ Range: 2400 to 2500 MHz

Peak Gain

2.46 dBi

Azimuth Beamwidth

360°

VSWR

2.0:1

Elevation Beamwidth

No Data

Radiation Efficiency

47%

Electrical Tilt

0°

Front-to-Back Ratio

-

Inter-Port Isolation

> 10 dB

Cross-Polar
Discrimination

-

Cross-Polar Isolation

-

▼ Range: 5150 to 5850 MHz

Peak Gain	3.61 dBi	Azimuth Beamwidth	360°
VSWR	2.0:1	Elevation Beamwidth	No Data
Radiation Efficiency	35%	Electrical Tilt	0°
Front-to-Back Ratio	-	Inter-Port Isolation	> 10 dB
Cross-Polar Discrimination	-	Cross-Polar Isolation	-

▼ WiFi MIMO-2 Element

Electrical Specifications

Mechanical Specifications

Input Impedance	50 Ω	Input Connector	RP-SMA
Polarisation	Vertical (V)	Input Connector Gender	Male
Max. Input Power	5 W	Cable Series	LMR-200
PIM, 3rd Order	-	Cable Length	3000 mm

▼ Range: 2400 to 2500 MHz

Peak Gain	2.61 dBi	Azimuth Beamwidth	360°
VSWR	2.0:1	Elevation Beamwidth	No Data
Radiation Efficiency	48%	Electrical Tilt	0°
Front-to-Back Ratio	-	Inter-Port Isolation	> 10 dB
Cross-Polar Discrimination	-	Cross-Polar Isolation	-

▼ Range: 5150 to 5850 MHz

Peak Gain	3.17 dBi	Azimuth Beamwidth	360°
VSWR	2.0:1	Elevation Beamwidth	No Data
Radiation Efficiency	34%	Electrical Tilt	0°
Front-to-Back Ratio	-	Inter-Port Isolation	> 10 dB

Cross-Polar
Discrimination

-

Cross-Polar Isolation

-

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