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Taoglas MA750 Pantheon 5-in-1 2x2 MIMO 4G + WiFi Antenna

SKU: ANT-TG-00017

MPN: MA750.A.ABICG.003

Description

The MA750 Pantheon antenna is an omnidirectional heavy-duty, fully IP67 waterproof external IoT antenna for use in telematics, transportation and remote monitoring applications. It has two mobile (3G / 4G) antennas operating in 2x2 MIMO, two dual-band WiFi antennas (2.4 + 5 GHz), and integrated GNSS GPS.

Five antennas are integrated into an extremely robust IP67 direct/permanent mount antenna package with excellent isolation (20 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.

This unique antenna delivers powerful MIMO antenna technology for 4G LTE and Wi-Fi 802.11n/ac/ax, plus GPS/GLONASS for next generation multiple wireless technology systems, such as telematics. The GPS/GLONASS antenna has a Front End SAW ...

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The Taoglas MA750 Pantheon 5-in-1 Antenna is an IP67-rated, omnidirectional solution ideal for telematics, transportation, and remote monitoring applications. This robust, external IoT antenna integrates five distinct elements: dual 4G LTE 2x2 MIMO antennas, dual-band WiFi 2x2 MIMO antennas, and a GPS/GLONASS antenna with a front-end SAW filter. Its compact, low-profile design ensures reliable performance even in harsh environments, making it suitable for installation on various surfaces such as metal and plastic.

Designed for optimal connectivity, the MA750 supports next-generation wireless technology systems, including telematics. The antenna's low-loss cables extend up to 10 metres, which is essential for installations in buses, trains, and other commercial vehicles. With a super low profile and vandal-resistant housing, it is built to withstand demanding conditions.

Operating across a wide temperature range of -40 °C to 85 °C,

Taoglas

Taoglas provides a comprehensive range of external, embedded and base station antenna solutions for M2M applications such as Telematics / Automotive, Smart-Grid, Metering / Telemetry, Home Automation, Remote Monitoring and Medical applications.

Taoglas' cross-cultural business-solutions approach means research, design, production and customer support services are based at our world-class technology ...

RF Specification

4G Cellular

Start Frequency:	698 MHz	Polarisation:	Linear
Stop Frequency:	2700 MHz	Input Impedance:	50
Max. Input Power:	5 W		

RF Connectors

Ports	RF Interface	Body Shape	Cable Series	Length
2	SMA Male	Straight	L-200	3000 mm

Frequency Test Data

Start Freq.	Stop Freq.	Peak Gain	VSWR	Avg. Gain	Efficiency
698 MHz	960 MHz	-2 dBi	< 3:1	-4 dBi	50%
1710 MHz	2700 MHz	1 dBi	< 3:1	-3.5 dBi	40%

Dual-Band WiFi

Start Frequency:	2400 MHz	Polarisation:	Linear
Stop Frequency:	5850 MHz	Input Impedance:	50
Max. Input Power:	5 W		

RF Connectors

Ports	RF Interface	Body Shape	Cable Series
2	RP-SMA Male	Straight	L-200

Frequency Test Data

Start Freq.	Stop Freq.	Peak Gain	VSWR	Avg. Gain	Efficiency
2400 MHz	2500 MHz	2 dBi	< 3:1	-3.5 dBi	45%
4900 MHz	5850 MHz	2 dBi	< 2:1	-4 dBi	40%

GNSS Antenna

Gain (Zenith):	4 dBic	Input Impedance:	50
Start Frequency:	1575.42 MHz	Polarisation:	Right Hand Circular (RHCP)
Stop Frequency:	1602 MHz		

Low Noise Amplifier (LNA)

LNA Gain:	29 dBic	Min. Operating Voltage:	3.3 V
Noise Figure:	≤ 3.4 dB	Max. Operating Voltage:	5.5 V

RF Connectors

Ports	RF Interface	Body Shape	Cable Series
1	SMA Male	Straight	RG-174

Physical Specification

Subtype:	Fin / Stud / Combo	Dimensions:	143.2 x 84.5 (H x Dia)
Input Ports:	5	Materials:	Polycarbonate (PC)
MIMO:	2x2 MIMO	Mounting:	Adhesive
Min. Operating Temperature:	-40 °C	Weight:	1.16 kg
Max. Operating Temperature:	85 °C		

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