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Taoglas TLS.01 Shockwave Wideband 4G-5G Bulkhead Antenna

SKU: ANT-TG-00014

MPN: TLS.01.1F21

Description

The Shockwave TLS.01.1F21 is a permanent mount, waterproof, external 4G 5G antenna operating across the full wideband 600 to 6000 MHz frequency range with an N type Female bulkhead connector. It has been designed to be used on a Ground Plane.

This antenna has superior performance over wide-bands compared to traditional whip antennas. Up to 90% efficiency and with a minimum 2.3dBi peak gain over all cellular bands result when mounted on a 300 x 300 mm ground plane. Stable radiation patterns over low angles provides consistent gain in the horizontal plane, meaning that it is especially suitable for cellular applications.

A unique indent tab on the base of the antenna allows a wrench to be used to solidly lock the antenna on top of its mounting location, where an N type female connector juts out from a metal panel. Waterproof O-rings around the bottom base prevent water from leaking under the antenna.

The TLS.01 antenna is IP67 waterproof and ...

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The Taoglas TLS.01 Shockwave Wideband Antenna, model TLS.01.1F21, is a robust 4G/5G external antenna designed for ground plane mounting. Its wide frequency range of 600 to 6000 MHz ensures superior performance across all cellular bands, making it ideal for applications like 5G, 4G, Cat-M, and NB-IoT. This antenna achieves up to 90% efficiency with a minimum 2.3dBi peak gain, ensuring stable horizontal radiation patterns for consistent cellular connectivity.

A key feature is its IP67/IP69K waterproof rating, which guarantees durability in harsh outdoor environments and resistance to high-pressure cleaning. The antenna's secure bulkhead mount incorporates a unique indent tab for easy installation, and an N type female connector ensures reliable connections.

Constructed from ABS plastic and zinc alloy, the antenna

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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

Start Frequency:	600 MHz	Polarisation:	Vertical (V)
Stop Frequency:	6000 MHz	Input Impedance:	50 Ω
Max. Input Power:	100 W		

RF Connectors

Ports	RF Interface	Body Shape
1	N Female	Straight

Frequency Test Data

Start Freq.	Stop Freq.	Peak Gain	VSWR	Avg. Gain	Efficiency
617 MHz	698 MHz	-1 dBi	< 4:1	-3.2 dBi	47%
698 MHz	806 MHz	3.1 dBi	< 1.5:1	-0.2 dBi	95%
824 MHz	960 MHz	3.2 dBi	< 2:1	-0.7 dBi	85%
1427 MHz	1518 MHz	2.9 dBi	< 2.5:1	-1.4 dBi	72%
1710 MHz	2200 MHz	2.7 dBi	< 2.5:1	-1.8 dBi	66%
2300 MHz	2690 MHz	3.4 dBi	< 2.5:1	-2 dBi	63%
3300 MHz	3800 MHz	2.5 dBi	< 3:1	-4.1 dBi	41%
5150 MHz	5925 MHz	5.3 dBi	< 3:1	-3.4 dBi	46%

Physical Specification

Subtype:	Fin / Stud / Combo	Dimensions:	79.4 x 42 (H x Dia)
Input Ports:	1	Ingress Protection:	IP69K
MIMO:	1x1 SISO	Materials:	ABS Plastic, Zinc Alloy
Min. Operating Temperature:	-40 °C	Mounting:	M14 Stud
Max. Operating Temperature:	85 °C	Weight:	0.13 kg
		Compliance/Certifications:	ISO 9001 Quality Management

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