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

SKU
ANT-TG-00007
MPN
TLS.01.305111

Description

The Taoglas Shockwave TLS.01.305111 is a permanent mount, waterproof, external 4G 5G wideband antenna operating across the full 600 to 6000 MHz range. The antenna has a 3 metre cable with an SMA male connector making it ideal for monitoring, outdoor media, and other IoT applications. 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 77% efficiency and with a minimum 2.2 dBi 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, making it especially suitable for cellular applications.

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The TLS.01 antenna is IP67 waterproof and IP69K resistant against high pressure water jets in commercial cleaning environments, which makes the antenna ideal for 4G applications either in indoor or in harsh outdoor environments.

While the antenna states operation up to 6000 MHz, it should be clarified that radiated efficiency drops to below 9% above 5150 MHz. 5G 3.5 GHz performance is marginally impacted by the use of a 3 metre cable when contrasted to the N Bulkhead TLS.01 variant.



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

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

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

Frequency Test Data

Start Freq.	Stop Freq.	Peak Gain	VSWR	Avg. Gain	Efficiency
617 MHz	698 MHz	-1 dBi	< 3.5:1	-3.2 dBi	43%
698 MHz	806 MHz	3.1 dBi	< 1.5:1	-0.2 dBi	58%
824 MHz	960 MHz	3.2 dBi	< 2:1	-0.7 dBi	71%
1427 MHz	1518 MHz	2.9 dBi	< 2:1	-1.4 dBi	57%
1710 MHz	2200 MHz	2.7 dBi	< 2:1	-1.8 dBi	46%
2300 MHz	2690 MHz	3.4 dBi	< 2:1	-2 dBi	43%
3300 MHz	3800 MHz	2.5 dBi	< 2.5:1	-4.1 dBi	27%
5150 MHz	5925 MHz	5.3 dBi	< 3:1	-3.4 dBi	9%

Physical Specification

Subtype
Fin / Stud / Combo
Input Ports
1
MIMO
1x1 SISO
Min. Operating Temperature
-40 °C
Max. Operating Temperature

85 °C
Dimensions
79.4 x 42 (H x Dia)
Ingress Protection
IP69K
Materials
ABS Plastic, Zinc Alloy
Mounting
M14 Stud
Weight
0.27 kg
Compliance/Certifications
ISO 9001 Quality Management

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