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Taoglas TG.45 Apex III 4G-5G Hinged Terminal Antenna

SKU
ANT-TG-00012
MPN
TG.45.8113

Description

The Apex III TG.45 is a 4G / 5G dipole antenna that has been designed to cover all cellular, ISM and Wi-Fi working frequencies in the 600 to 6000 MHz spectrum along with B31 (450 MHz).

Evolved from the already highly successful Apex II TG.35, the TG.45 has the highest wideband efficiency in its range of any terminal antenna on the market today. The extended lower frequency coverage at 450 MHz makes the TG.45 ideal for IoT applications, such as remote monitoring of smart utilities.

The Apex III has been primarily designed for use with 5G and 4G modules and devices that require the highest possible efficiency and peak gain to deliver best in class throughput on all major worldwide cellular bands for access points, terminals and routers. High efficiency is vital for applications such as high speed video and real-time streaming or high capacity MIMO networks on public transportation.

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This attractive slim-line antenna is ground plane independent, meaning it does not need to be connected to the ground-plane of a device to radiate efficiently. On the other hand, neither is it seriously detuned by connecting to a ground-plane, thus avoiding a problem notorious to smaller antennas.

It comes with a SMA Male connector and swivel mechanism that allows the antenna to be rotated to fit in tight environments. The 90° hinge structure has been improved and strengthened so that the antenna in a 90° position would not drop down if used in environments prone to vibration.

- Swivelling hinged right angle termination with SMA Male connector
- Durable IP67 UV-resistant ABS housing
- Wideband covering all 4G and 5G bands from 698 to 6000 MHz
- Tuned to support Band 31 LTE 450 MHz
- Very high efficiency
- Patented technology

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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
450 MHz
Stop Frequency
6000 MHz
Max. Input Power
5 W
Polarisation
Linear
Input Impedance
50 Ω
RF Connectors

Ports	RF Interface	Body Shape
1	SMA Male	Straight

Frequency Test Data

Start Freq.	Stop Freq.	Peak Gain	VSWR	Avg. Gain	Efficiency
450 MHz	470 MHz	1.2 dBi	< 3.5:1	-1.93 dBi	61%
617 MHz	698 MHz	-0.4 dBi	< 3.5:1	-4.41 dBi	46%
698 MHz	806 MHz	2.8 dBi	< 3.5:1	-1.36 dBi	76%
824 MHz	960 MHz	2.8 dBi	< 3.5:1	-1.19 dBi	59%
1427 MHz	1518 MHz	0.6 dBi	< 3.5:1	-2.66 dBi	55%
1561 MHz	1602 MHz	0.6 dBi	< 2:1	-5.39 dBi	30%
1710 MHz	1880 MHz	2.8 dBi	< 3.5:1	-1.47 dBi	72%
1850 MHz	1990 MHz	3.6 dBi	< 3.5:1	-2.53 dBi	57%
1920 MHz	2170 MHz	4.6 dBi	< 3.5:1	-2.05 dBi	64%
2305 MHz	2360 MHz	2.5 dBi	< 3.5:1	-2.42 dBi	55%
2490 MHz	2690 MHz	3.8 dBi	< 3.5:1	-1.84 dBi	65%
3300 MHz	3500 MHz	-0.1 dBi	< 3.5:1	-5.69 dBi	28%
5150 MHz	5925 MHz	4.2 dBi	< 3.5:1	-2.17 dBi	61%

Physical Specification

Subtype
Hinged Terminal
Input Ports
1

MIMO
1x1 SISO
Min. Operating Temperature
-40 °C
Max. Operating Temperature
85 °C
Dimensions
218 x 57.6 x 8
Materials
ABS Plastic
Mounting
Terminal / Device
Weight
0.08 kg
Compliance/Certifications
ISO 9001 Quality Management