

---

# 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.

[Read More](#)

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



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	Polarisation:	Linear
Stop Frequency:	6000 MHz	Input Impedance:	50
Max. Input Power:	5 W		

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

Disclaimer: Although care has been taken to ensure the accuracy, completeness and reliability of the information provided, Powertec assumes no responsibility therefore. The user of the information agrees that the information is subject to change without notice. Powertec assumes no responsibility for the consequences of use of such information, nor for any infringement of third party intellectual property rights which may result from its use. IN NO EVENT SHALL POWERTEC BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, OR INCIDENTAL DAMAGE RESULTING FROM, ARISING OUT OF OR IN CONNECTION WITH THE USE OF THE INFORMATION.

