

T-BT-1303-PC Antenna Application Note

Description

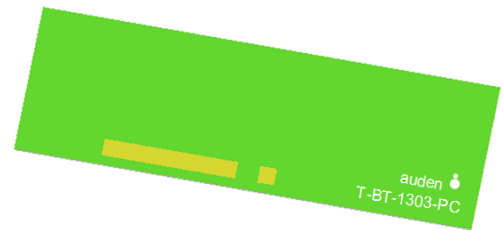
The exciting Auden antenna is one of the world's high-performance PCB antenna. It is very suitable for Bluetooth[®], Wi-Fi[®] (802.11b/g), Zigbee[®] system application with assemble in a suitable clearance area. This antenna was design to speed the overall development process and decrease required development time then make your products fast to enter the market of the world. The dimension is 41.4mm (L) x 13mm (W) x 0.4mm (T).

The patent number

Patent pending.

Features

- ⊙ Linear Polarization
- ⊙ Ultra-Thin, Light Weight
- ⊙ Miniaturized Size (41.4 x 13x 0.4mm³)
- ⊙ Wide Bandwidth
- ⊙ Cost-Effective
- ⊙ Easy integration
- ⊙ High Gain



Applications

- ⊙ Tablet
- ⊙ Smart TV
- ⊙ POS device
- ⊙ Wireless device
- ⊙ Information Appliance

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1. Antenna Assembly Information

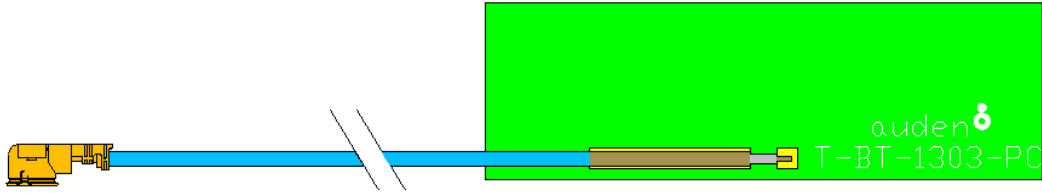


Fig.1 The T-BT-1303-PC Antenna Assembly

Note:

1. The connected cable length based on requirement of consumer.

Table.1 The T-BT-1303-PC Antenna Quick Reference Data

Antenna Type	Dipole Antenna
Frequency	2400MHz~2500MHz
Impedance	50 Ω
Polarization	Linear
Pattern	Omni-Directional
3D avg. efficiency (typ.)	45%~55%

2. Pin Descriptions

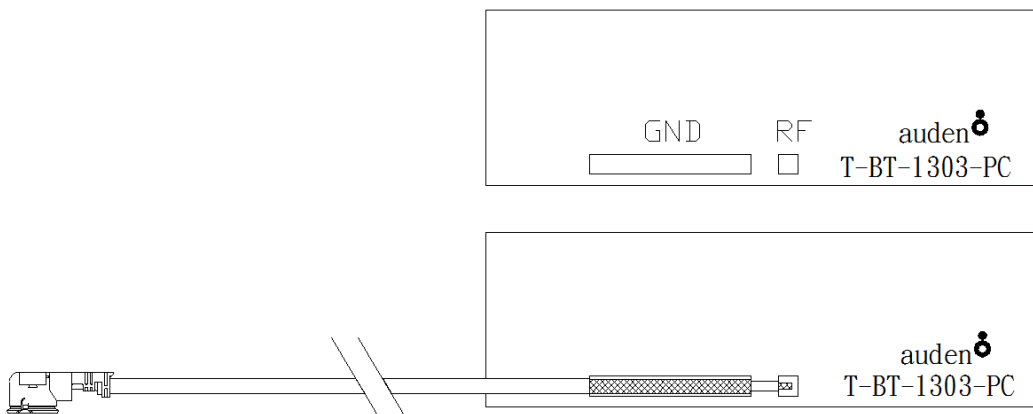


Fig.2 The T-BT-1303-PC antenna pin descriptions

3. Package and Form Information

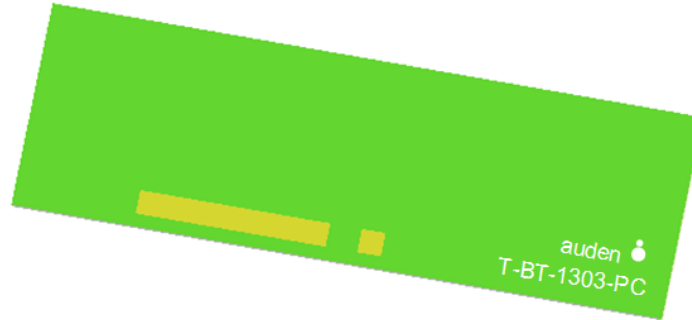


Fig.3 The T-BT-1303-PC Antenna 3D Top View

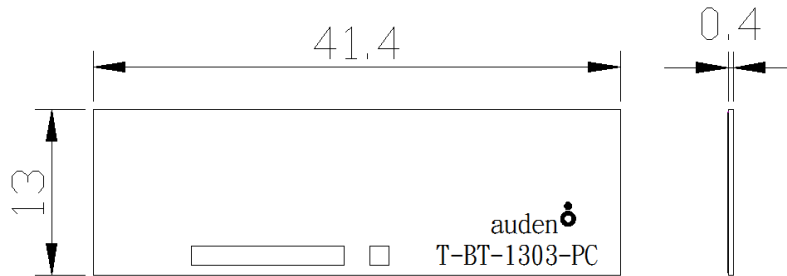


Fig.4 The T-BT-1303-PC Antenna Form Information

Table.2 The T-BT-1303-PC Antenna Package Information

Dimension(mm ³)	Weight(g)	Material	Packing	Connector
41.4 x 13x 0.4	1.06g	PCB	PE Bag	MHF

Note:

1. All dimensions are shown in millimeters.
2. The antenna dimension tolerance is $\pm 0.2\text{mm}$
3. The connected cable length based on requirement of consumer.

4. Antenna Performance

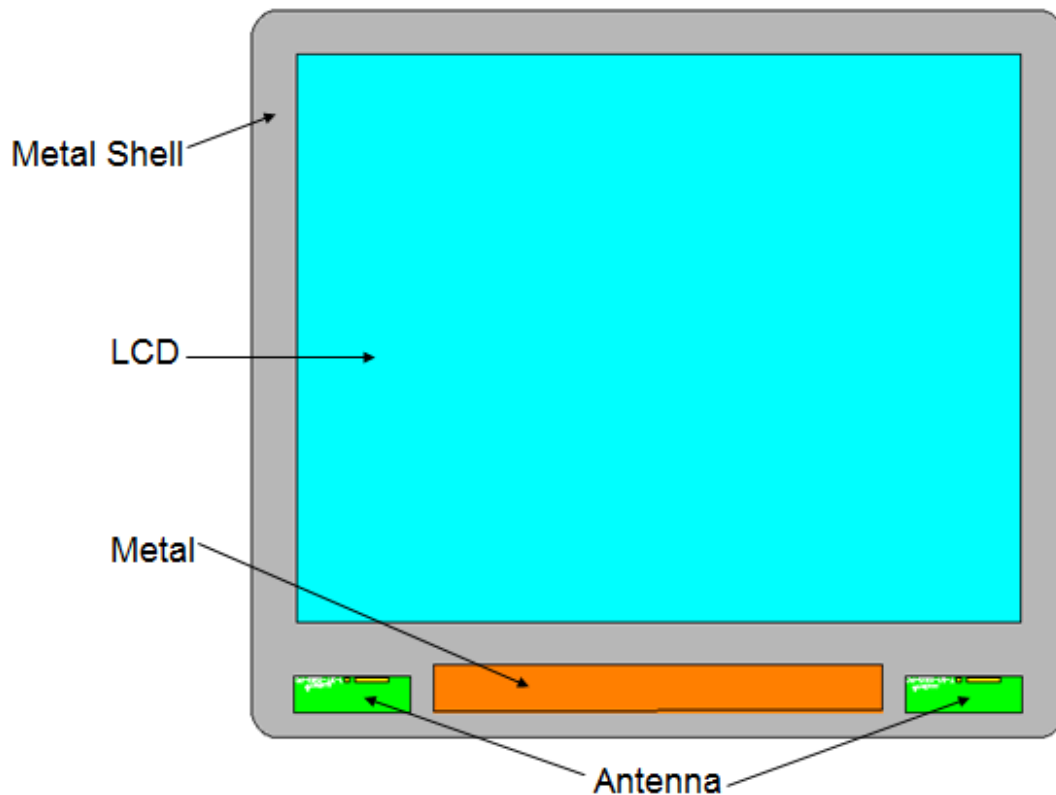
The antenna efficiency test was by ATL (A Test Lab Techno Corp.). It measurements were taken in the ETS-Lindgren AMS-8500 standards system anechoic chamber. The chamber size is 7m x 4m x 4m and supports test frequencies from 700MHz to 6GHz.

The S11 and VSWR measurements were taken with use Agilent E5071B network analyzer. The testing was performed in free space.

4.1 The antenna performance in AIO computer for T-BT-1303-PC application

Antenna platform: 12" AIO computer

The distance from antenna to back metal shell is about 15mm



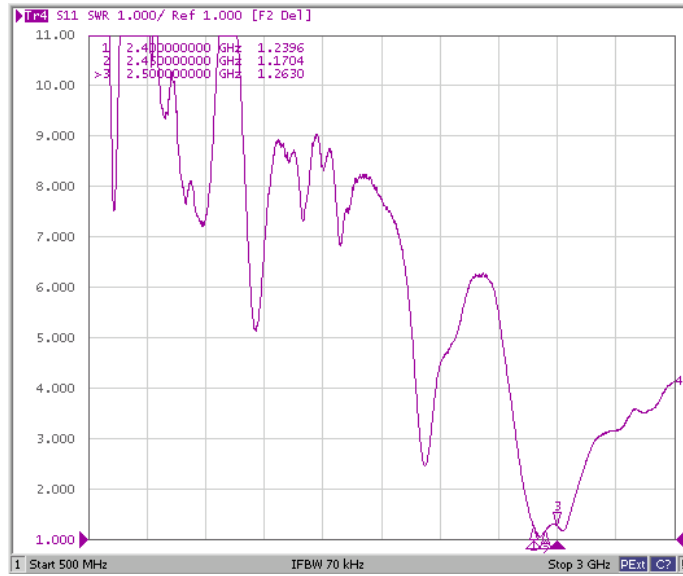


Fig.5 The measured VSWR result of the T-BT-1303-PC antenna

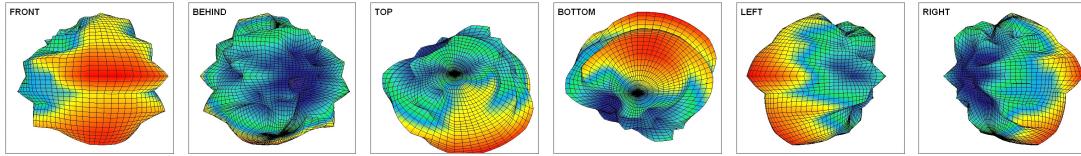
Note: Maker 1: 2400MHz, Maker 2: 2450MHz, Maker 3: 2500 MHz

Table.3 The T-BT-1303-PC passive 3D avg. efficiency:

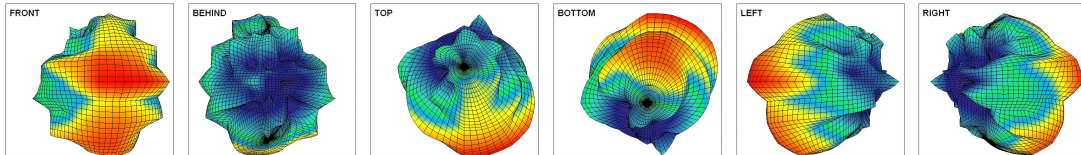
Frequency (MHz)	SWR	Efficiency (%)	Avg. Gain (dBi)
2400	1.23	49.56	-3.04
2450	1.17	61.48	-2.11
2500	1.26	49.08	-3.09

The 3D radiation pattern

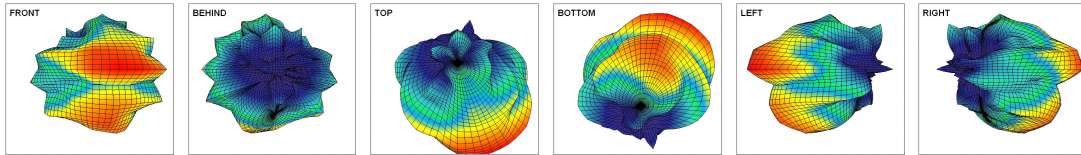
2400 MHz



2450 MHz



2500MHz



Acknowledgement

Thank you for purchasing the Auden T-BT-1303-PC Antenna. The antenna had been design to speed the overall development process and decrease required development time. We look forward to working with you and helping your products to enter the market of the world.

Contact Information

Please contact us by the below information if you need any solution of the antenna.

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