



ONE PLUS ONE
Wireless Communication

深圳市一加一无线通讯技术有限公司

承认书

APPROVAL SHEET

客户 Customer	深圳魔豆互联科技有限公司
项目名 Project	G170B
料号 Part NO.	
规格 Specification	BT Antennas

APPROVAL			
OnePlusOne:			
RF Check	ME Check	QC Check	Confirm By
Customer:			
EE Check	PM Check	QC Check	Confirm By

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1 Antenna description

It summarize **BT 5.3** antennas for project G170B antenna's frequency band is **2400-2480MHz**. **BT 5.3** antenna's type is **Monopole**

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1.1 Part number

Part number of antenna: **G170B**

Antenna pictures



2 Electrical Performance

2.1 Specification

BT	
Frequency Range	2400MHz~2500MHz
Return Loss	<-5
Efficiency	>25

2.2 Measurement Set-up

2.2.1 VSWR and Return Loss

VSWR measurements (S_{11}) were performed using an Agilent ENA series Network Analyzer and the previously described test fixture. Coaxial chokes were used to mitigate surface currents on the outside of the cabling. The testing was performed in free space.

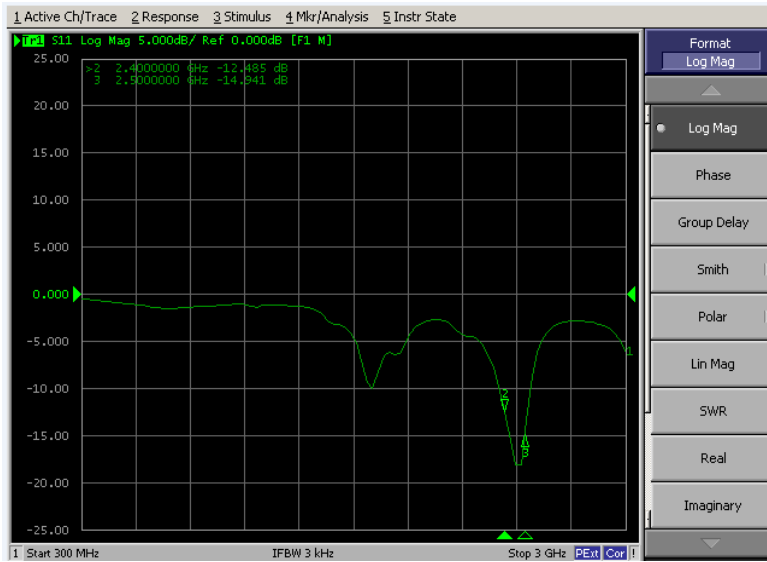
2.2.2 Efficiency and Gain

The gain of the antenna was measured in OPO's 3D anechoic chamber in Shenzhen, China. The chamber is a ETS system capable of doing tests from 380MHz to 6GHz. Coaxial chokes on the feed cable were used to mitigate surface currents during passive tests. The measurement results are calibrated using dipole standards. For TRP and TIS the chamber uses a 8960 / MT8820C to establish the connection with the mobile device and read the power.

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3 Reference measurement data

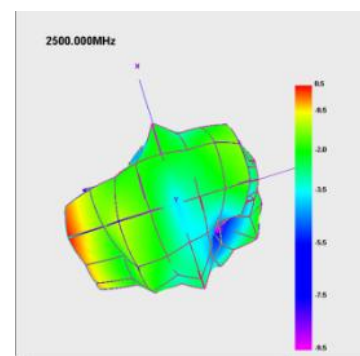
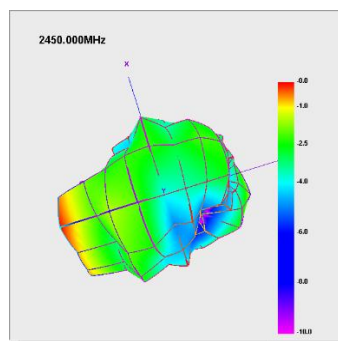
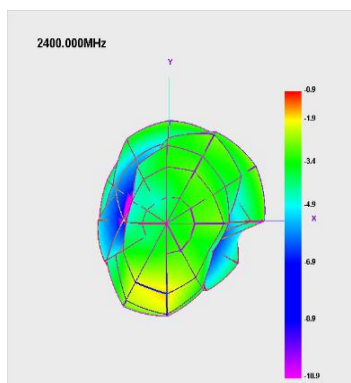
3.1 Passive



Return SWR

3.2 Active

Passive Test For BT			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	26.37	-5.79	-0.9
2410	31.63	-5	0.02
2420	25.28	-5.97	-0.69
2430	32.37	-4.9	-0.19
2440	29.85	-5.25	0.25
2450	31.62	-5	-0.05
2460	34.12	-4.67	0.6
2470	27.52	-5.6	-0.74
2480	42.25	-3.74	1.06
2490	32.66	-4.86	0.18
2500	39.41	-4.04	0.52



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