



**ONE PLUS ONE**  
Wireless Communication

## 深圳市一加一无线通讯技术有限公司

- Shenzhen One Plus One Wireless Communication Technology Co., LTD

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Project: iTECH ELITE 3	Author: Haiou.Zhu	File Name: iTECH ELITE 3.doc
Date: 2023-2-2		
Revision:	A	
<b>CONFIDENTIAL</b> Shenzhen OnePlusOne Wireless Communication Technology Co.,Ltd.		

# 承认书

## APPROVAL SHEET

客户 Customer	<b>爱保护</b> <b>SHENZHEN SMART CARE TECHNOLOGY LIMITED</b>
项目名 Project	<b>iTECH ELITE 3</b>
规格 Specification	<b>BT 5.1 Antennas</b>

APPROVAL			
OnePlusOne:			
RF Check	ME Check	QC Check	Confirm By
李学成	/	王启强	陈文飞
Customer:			
EE Check	PM Check	QC Check	Confirm By
/	黎德即	李萍	陈清

Date:	Revision:	Updates and changes:	Issued by:
2022.12.21	A	Initial sheet	Haiou.Zhu

承认签章后请寄回承认书一份

: return to us one copy of "APPROVAL SHEET" with your approved signatures

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# 1 Antenna description

It summarize BT 5.1 antennas for project iTECH ELITE 3 antenna's frequency band is 2400-2500MHz. BT 5.1 antenna's type is Monopole

## 1.1 Part number

Part number of antenna: iTECH ELITE 3

## 1.2 Antenna pictures

See test report

# 2 Electrical Performance

## 2.1 Specification

BT	
Frequency Range	2400MHz~2500MHz
Return Loss	<-5
Efficiency	>30

## 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.

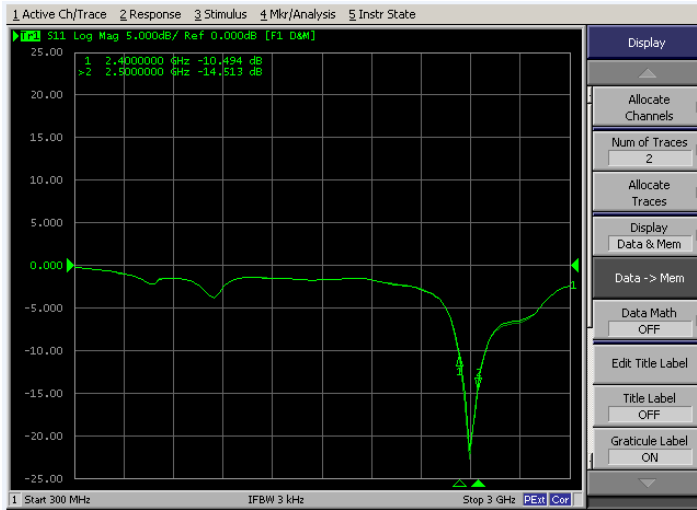
### 2.2.2 Efficiency and Gain

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

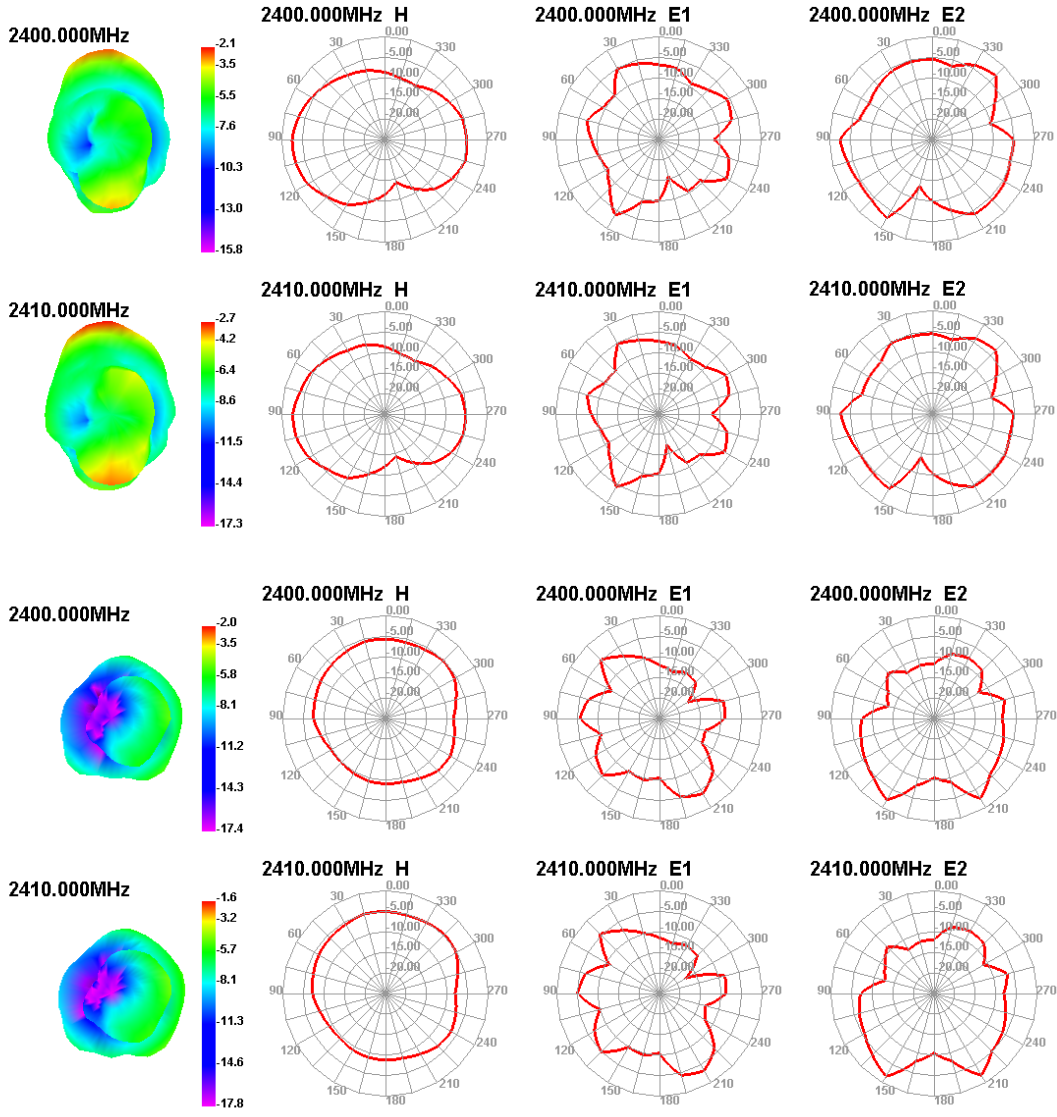


**Return SWR**

#### 3.2 Active

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	31.63	-5	-1.5
2410	28.39	-5.47	-1.81
2420	28.69	-5.42	-1.65
2430	27.29	-5.64	-2.05
2440	25.73	-5.89	-2.25
2450	27.1	-5.67	-2.08
2460	26.39	-5.79	-1.93
2470	22.14	-6.55	-2.35
2480	24.14	-6.17	-2.18
2490	24.48	-6.11	-1.94
2500	22.85	-6.41	-1.82

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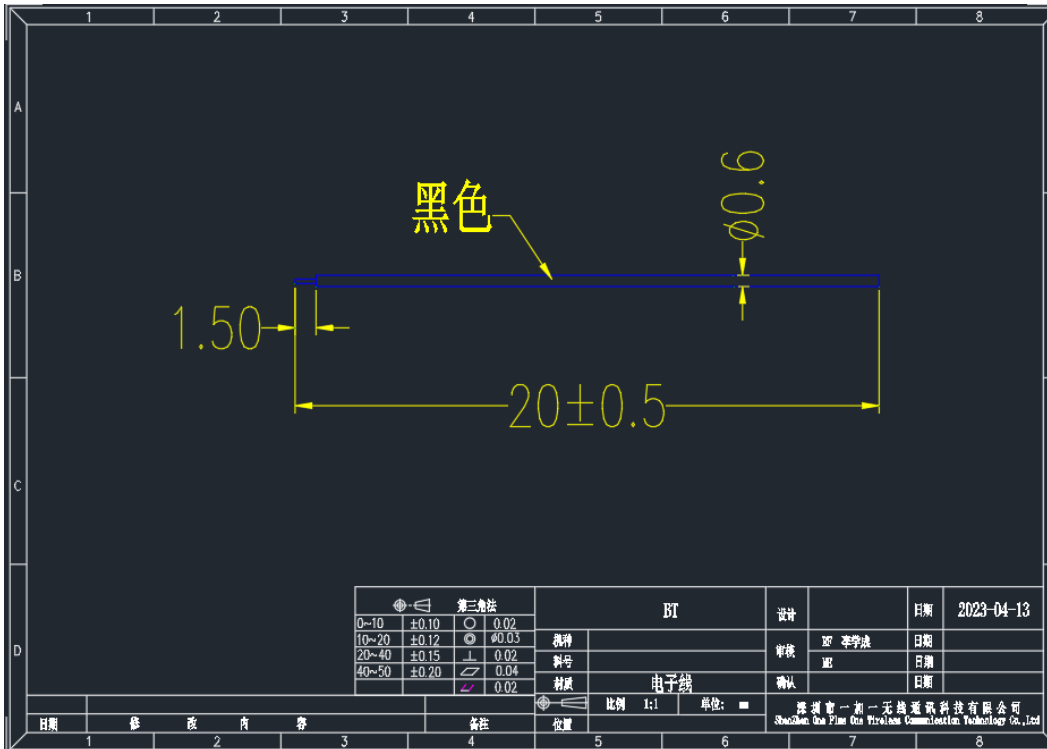
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# 4 Mechanical description

## 4.1 Drawings



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