

# Antenna Test Report

产品名称: AUX-BT/WIFI FPC ANT  
PRODUCT NAME

客户名称: SHENZHEN AMEDIA TECHNOLOGY CO., LTD  
CUSTOMER NAME

料号: T408-13MB-185

深圳市星源创科技有限公司

SHENZHEN Xingyuanchuang TECHNOLOGY CO.,LTD

## 1.Purpose

Standardize product specifications and test methods for mobile communication terminal antennas produced by OnePlus to avoid errors caused by differences in test conditions and methods.

## 2.Overview of product categories and product models

### 2.1 Product model overview

This report mainly outlines the electrical results of the antenna designed for the KST103SD\_J project. The design frequency band of this antenna is: 2.4G WIFI segment.

## 3.Description of basic parameters and experimental equipment

### 3.1 Basic parameters

Product electrical performance index	
Operating frequency	2400-2480MHz 4800-5850 MHz
VSWR	2400-2480 MHz: < 1.5 4800-5850 MHz: < 1.35
Antenna gain	2400-2480 MHz: 1.5dBi Max 4800-5850 MHz: 1.09dBi Max
Radiation efficiency	2400-2480 MHz: > 30% 4800-5850 MHz: > 38%
impedance	50 ohm
Product material description	
<b>FPC</b>	<b>Electrolytic copperPI</b>
coaxial	Braided wire + terminal
Product Environmental Description	
Operating temperature	- 30°C ~ + 85 °C
stored temperature	- 30°C ~ + 85 °C

### 3.2 Experimental equipment description

List	Testing project	Equipment
1. S Parameters	1.Return loss 2. VSWR at	Network analyzer: Agilent 8753ES
2. Coupling power test	1. Transmission power 2. Receiving sensitivity	Comprehensive tester: Agilent 8960 E5515C
3. Radiation pattern and gain	1. Radiation pattern 2. Antenna gain	1. Darkroom: 7x4x3 m (3D) 2. Network analyzer : Agilent 8753ES

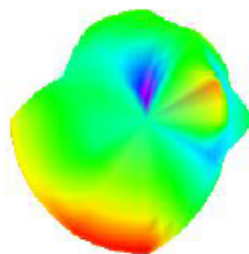
## 4. Antenna Test Data

### 4.1 Efficiency/Gain

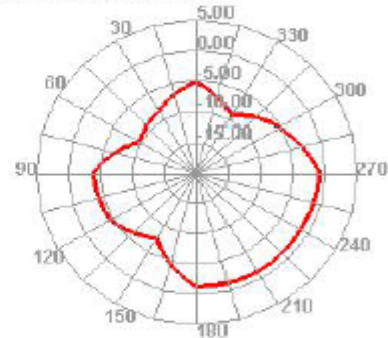
Fre.(Mhz)	Efficiency(%)	Gain(dBi)
2400	52.25	1.09
2410	51.41	1.08
2420	53.25	1.30
2430	55.47	1.28
2440	55.63	1.41
2450	58.47	1.50
2460	54.63	1.30
2470	53.25	1.25
2480	53.67	1.14
4850	37.62	1.04
5850	38.12	1.09

### 5.1 test chart

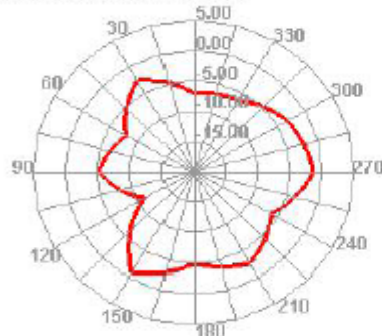
2410.000MHz



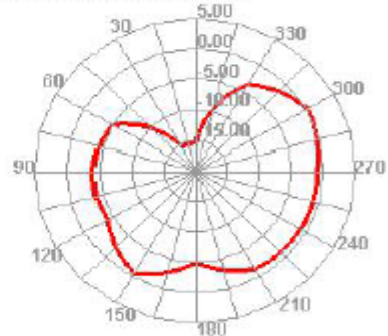
2410.000MHz H



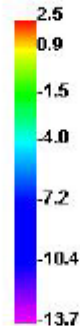
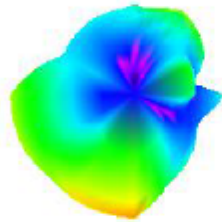
2410.000MHz E1



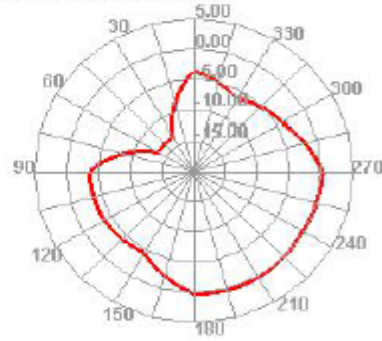
2410.000MHz E2



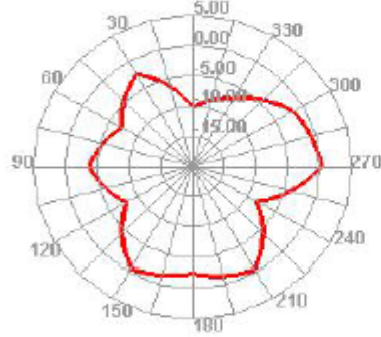
2480.000MHz



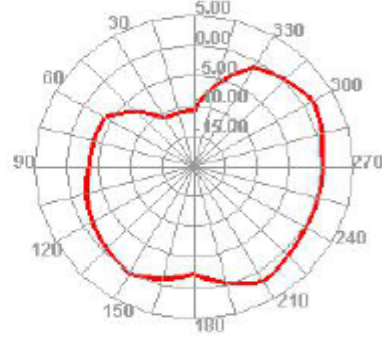
2480.000MHz H



2480.000MHz E1



2480.000MHz E2



Parameters | Graph | Table

### Theta

Azimuth = 0.0  
Elevation = 0.0  
Roll = 0.0

Power (dBm)

### Phi

Azimuth = 0.0  
Elevation = 0.0  
Roll = 0.0

Power (dBm)

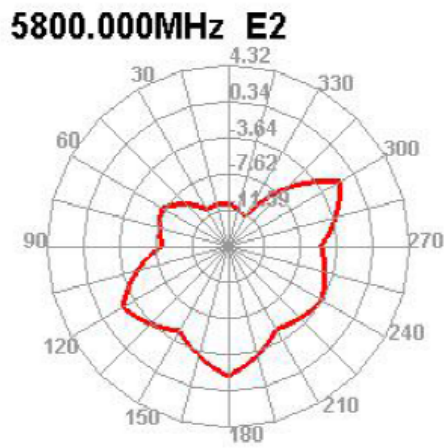
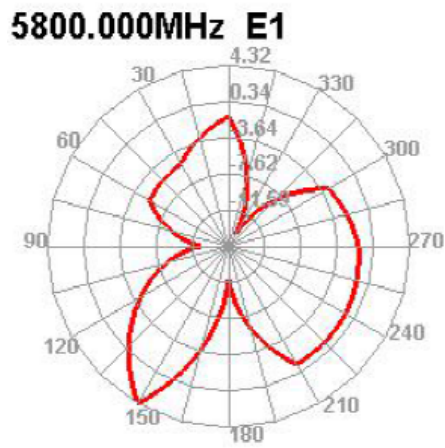
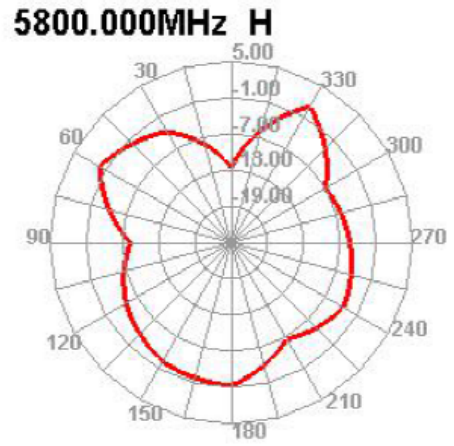
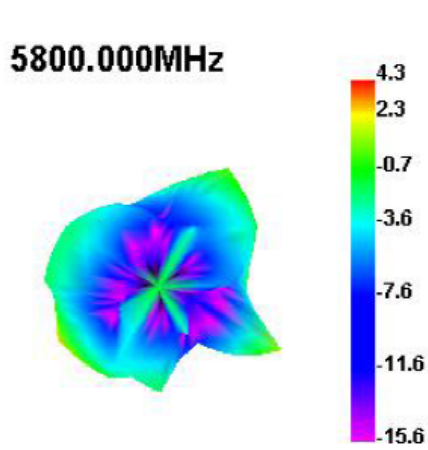
### Total

Azimuth = 0.0  
Elevation = 0.0  
Roll = 0.0

Power (dBm)

### Total

- Ant. Port Input Pwr. (dBm)
- Tot. Rad. Pwr. (dBm)
- Peak EIRP (dBm)
- Directivity (dBi)
- Efficiency (dB)
- Efficiency (%)
- Gain (dBi)
- NHPRP 1/4 (dBm)
- NHPRP 1/6 (dBm)
- NHPRP 1/8 (dBm)
- Upper Hem. PRP (dBm)
- Lower Hem. PRP (dBm)
- NHPRP4 / TRP Ratio (dB)



## 6.1 VSWR

