

深圳祥博一科技有限公司

Shenzhen Xiangboyi Technology Co. Ltd

Specification Acknowledgement

客户名称 customer name	ShenZhen Bijiasuo Electronic Co..Ltd
项目名称 project name	MAYTON-AP3
供方料号 Supplier material number	XBY220378

Shenzhen Xiangboyi Technology Co. Ltd 日期 date: 2023 年 6 月 9 日
Tel: 0755-29369912 Fax: 0755-61624200
Address: 5F, Building B, Huazhi Chuanggu, No.7 Yuhua Street, 138
Industrial Zone, Tangxia Town, Dongguan City

目录Catalogue

一. 测试系统及设备 Test System and Equipment.....	- 4 -
二. 产品细节描述 Product Description	- 5 -
三. 设备描述 Device Description	- 7 -
四. 匹配电路 Matching Circuits	- 8 -
五. 测试数据 Active Test Tata.....	- 9 -
六. 工程图 EngineeringDrawing	- 22 -

Shenzhen Xiangboyi Technology Co. Ltd
Tel: 0755-29369912 Fax: 0755-61624200
Address: 5F, Building B, Huazhi Chuanggu, No.7 Yuhua Street, 138
Industrial Zone, Tangxia Town, Dongguan City

一. 测试系统及设备 Test System and Equipment

	测试项目 Test item	设备 equipment
1: S 参数 S parameter		网 络 分 析 仪 Network analyzer: A338/A333 HP8753D
2: 有源测试 Active test	1. TRP 2. TIS	综合测试仪 Comprehensive tester: Agilent 8960/ CMW500
3: 无源测试 Passive test	1. 效率 efficiency 2. 增益 gain	1. 暗室 darkroom: 5x3x3 m (ETS-3D) 2. 网络分析仪 Network analyzer: HP 8753D

Shenzhen Xiangboyi Technology Co. Ltd
 Tel: 0755-29369912 Fax: 0755-61624200
 Address: 5F, Building B, Huazhi Chuanggu, No.7 Yuhua Street, 138
 Industrial Zone, Tangxia Town, Dongguan City



二. 产品细节描述 Product Description

技术要求 Technical requirements	技术指标 Technical index	备注 remarks
工作频段 Band	LTE:B1/B3/B5/B7/B8/B18/B19 /B20/B26/B28/B38/B40/B41 /B71 WIFI/BT	
频率范围 Range Of Frequency	620-960Mhz;1710-2690Mhz 2400-2500Mhz;5150-5850Mhz	
驻波比 VSWR	620-960Mhz<3.0 1710-2690Mhz<3.0 2400-2500Mhz<3.0 5150-5850Mhz<3.0	中心频率 Center Frequency

Shenzhen Xiangboyi Technology Co. Ltd
 Tel: 0755-29369912 Fax: 0755-61624200
 Address: 5F, Building B, Huazhi Chuanggu, No.7 Yuhua Street, 138
 Industrial Zone, Tangxia Town, Dongguan City

输出阻抗 Impedance	50 Ω	
极化方式 Polarization	线极化 Linear polarization	
工作温度 operating temperature	-20℃ / +55℃	
存储温度 storage temperature	-25℃ / +65℃	
盐雾 Salt Fog	24 小时 (24 小时干湿交替) 24h (24h alternating wet & dry)	
无铅认证 RoHS Compliant	是 yes	

Shenzhen Xiangboyi Technology Co. Ltd
Tel: 0755-29369912 Fax: 0755-61624200
Address: 5F, Building B, Huazhi Chuanggu, No.7 Yuhua Street, 138
Industrial Zone, Tangxia Town, Dongguan City

三. 设备描述 Device Description

EUT

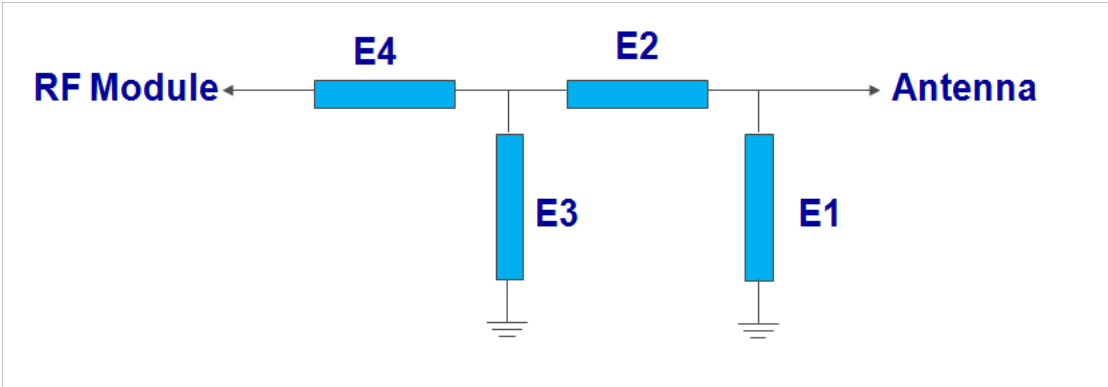


Shenzhen Xiangboyi Technology Co. Ltd

Tel: 0755-29369912 Fax: 0755-61624200

Address: 5F, Building B, Huazhi Chuanggu, No.7 Yuhua Street, 138
Industrial Zone, Tangxia Town, Dongguan City

四. 匹配电路 Matching Circuits



匹配电路 matching circuit

Element	Value	Vender
E1(0201)	NA	
E2(0201)	0Ω	
E3(0201)	NA	
E4(0201)	0Ω	

天线匹配没有做改动 The antenna match was not changed。

五. 有源测试数据 Active Test Data

LTE BAND	LTE-B1 (10M)			LTE-B3 (10M)		
Channel	L	M	H	L	M	H
TRP (dBm)	17.56	17.95	18.3	17.59	17.24	17.12
TIS (dBm)			-90.52			-94.15

LTE BAND	LTE-B5 (10M)			LTE-B7 (10M)		
Channel	L	M	H	L	M	H
TRP (dBm)	15.37	15.63	15.67	17.42	18.14	17.69
TIS (dBm)			-84.95			-91.54

LTE BAND	LTE-B8 (10M)			LTE-B18 (10M)		
Channel	L	M	H	L	M	H
TRP (dBm)	15.23	14.89	14.06	15.68	15.66	15.71
TIS (dBm)			-83.62			-85.19

LTE BAND	LTE-B19 (10M)			LTE-B20 (10M)		
Channel	L	M	H	L	M	H
TRP (dBm)	15.19	16.33	15.68	15.46	16.25	15.13
TIS (dBm)			-84.13			-83.04

LTE BAND	LTE-B26 (10M)			LTE-B28 (10M)		
Channel	L	M	H	L	M	H
TRP (dBm)	14.84	15.23	16.05	14.41	15.59	15.49
TIS (dBm)			-84.74			-82.78

Shenzhen Xiangboyi Technology Co. Ltd

Tel: 0755-29369912 Fax: 0755-61624200

Address: 5F, Building B, Huazhi Chuanggu, No.7 Yuhua Street, 138 Industrial Zone, Tangxia Town, Dongguan City

LTE BAND	LTE-B38 (20M)			LTE-B40 (20M)		
Channel	L	M	H	L	M	H
TRP (dBm)	16.19	16.89	16.89	15.59	15.83	16.11
TIS (dBm)			-87.52			-87.16

LTE BAND	LTE-B41 (20M)					
Channel	L	M	H			
TRP (dBm)	17.16	17.04	16.23			
TIS (dBm)			-88.64			

LTE BAND	LTE-B71 (10M)					
Channel	L	M	H			
TRP (dBm)	13.45	13.71	14.12			
TIS (dBm)			-88.36			

Model : MAYTON-AP3-LTE-ANT

**LTE 主天线无源效率，增益 LTE main antenna
with passive efficiency, gain**

Freq (MHz)	Effi (%)	Gain (dBi)
620	11.21	-7.52
630	13.35	-6.5
640	19.51	-4.75
650	23.38	-3.12
660	26.1	-2.33
670	23.66	-2.78
680	28.05	-2.24
690	23.6	-3.17

Shenzhen Xiangboyi Technology Co. Ltd

Tel: 0755-29369912 Fax: 0755-61624200

Address: 5F, Building B, Huazhi Chuanggu, No.7 Yuhua Street, 138
Industrial Zone, Tangxia Town, Dongguan City

Freq (MHz)	Effi (%)	Gain (dBi)
700	21.64	-1.38
750	24.13	-1.36
800	19.47	-2.99
850	22.13	-2.89
900	18.09	-3.59
960	16.69	-6.18
1700	30.65	-1.79
1800	34.62	-0.42
1900	55.15	1.31
2000	46.9	-0.13
2100	31.49	-1.23
2200	28.56	-3.21
2300	40.91	0.49
2400	54.73	1.38
2500	36.02	-1.98
2600	41.84	-1.07
2700	49.25	-0.95

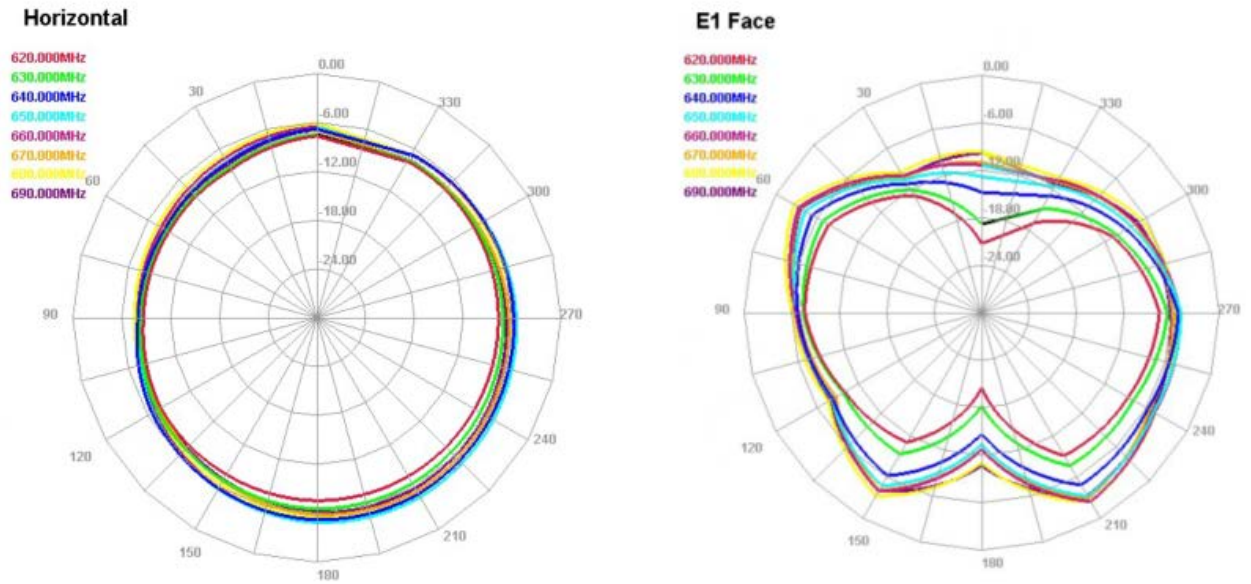
Shenzhen Xiangboyi Technology Co. Ltd

Tel: 0755-29369912 Fax: 0755-61624200

Address: 5F, Building B, Huazhi Chuanggu, No.7 Yuhua Street, 138
Industrial Zone, Tangxia Town, Dongguan City

Model : MAYTON-AP3-LTE-ANT

LTE 主天线方向图 main antenna

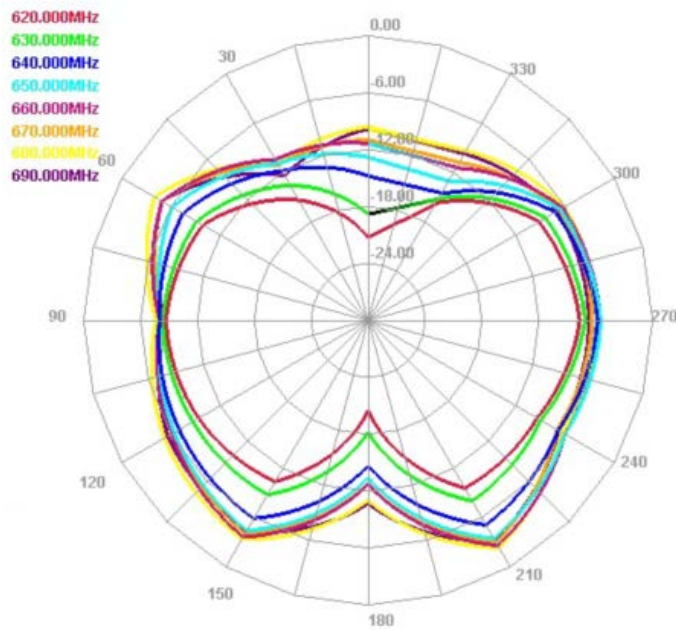


Shenzhen Xiangboyi Technology Co. Ltd

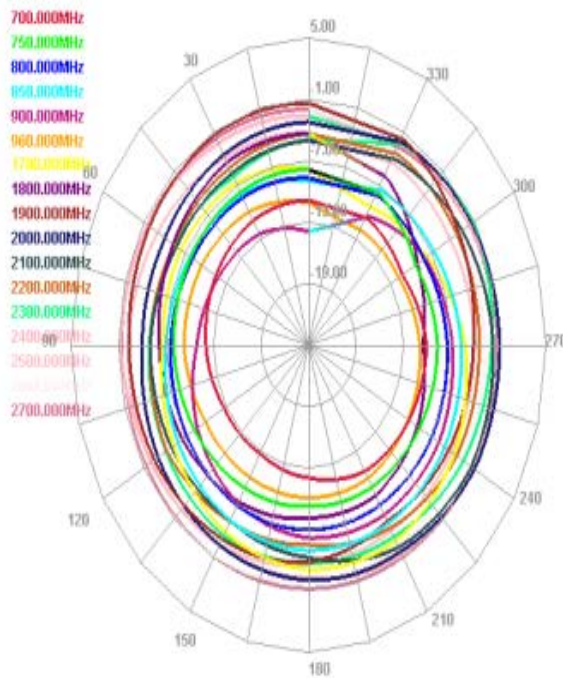
Tel: 0755-29369912 Fax: 0755-61624200

Address: 5F, Building B, Huazhi Chuanggu, No.7 Yuhua Street, 138
Industrial Zone, Tangxia Town, Dongguan City

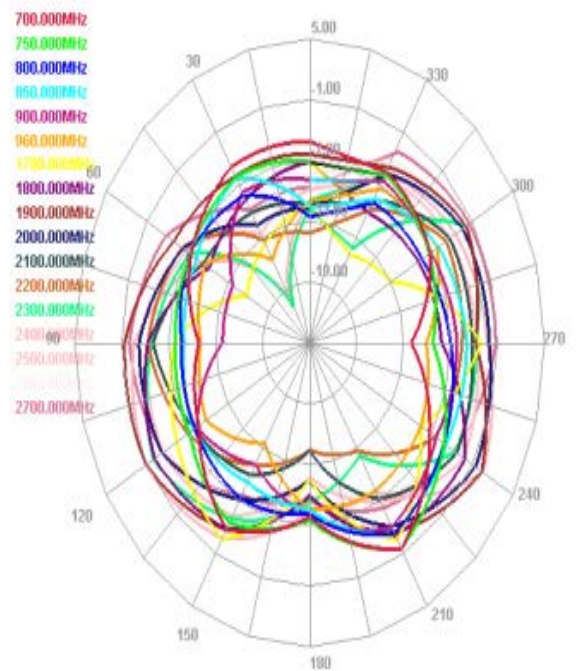
E2 Face



Horizontal



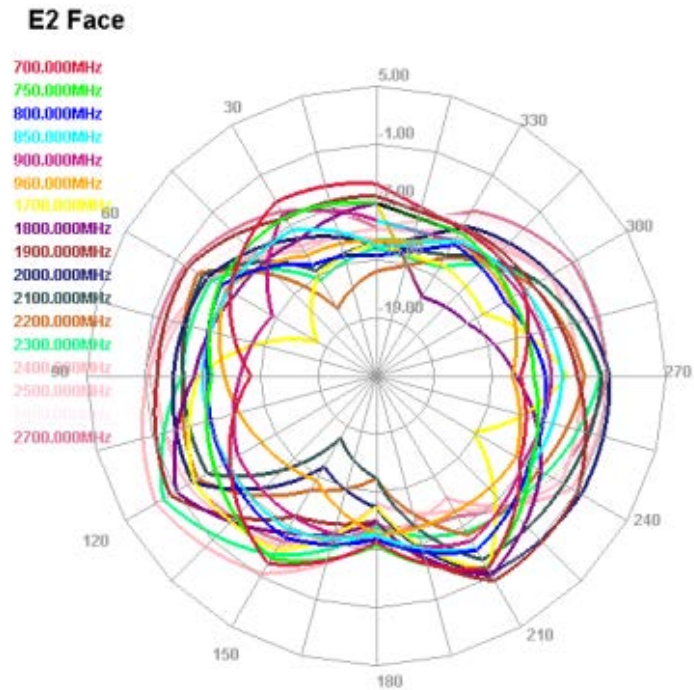
E1 Face



Shenzhen Xiangboyi Technology Co. Ltd

Tel: 0755-29369912 Fax: 0755-61624200

Address: 5F, Building B, Huazhi Chuanggu, No.7 Yuhua Street, 138 Industrial Zone, Tangxia Town, Dongguan City



FJ 天线无源效率, 增益
efficiency, gain

FJ antenna with passive

Model : MAYTON-AP3-FJ-ANT

Shenzhen Xiangboyi Technology Co. Ltd

Tel: 0755-29369912 Fax: 0755-61624200

Address: 5F, Building B, Huazhi Chuanggu, No.7 Yuhua Street, 138
Industrial Zone, Tangxia Town, Dongguan City

Freq (MHz)	Effi (%)	Gain (dBi)
700	18.02	-2.18
750	20.61	-2
800	16.27	-3.51
850	17.38	-3.63
900	13.54	-3.8
960	10.01	-6.93
1700	25.36	-0.82
1800	27.28	-0.26
1900	47.66	1.33
2000	50.18	0.67
2100	28.27	-1.25
2200	19.98	-2.76
2300	32.32	1.09
2400	45.97	2.54
2500	27.15	0.11
2600	44.68	-0.09
2700	54.86	0.35

FJ 天线方向图 FJ antenna pattern

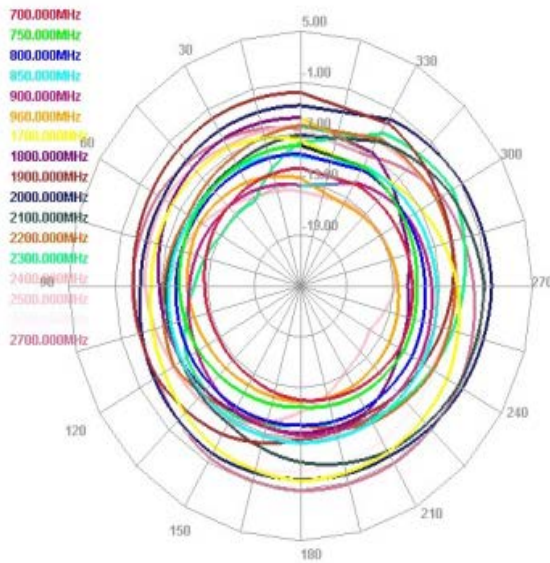
Model : MAYTON-AP3-FJ-ANT

Shenzhen Xiangboyi Technology Co. Ltd

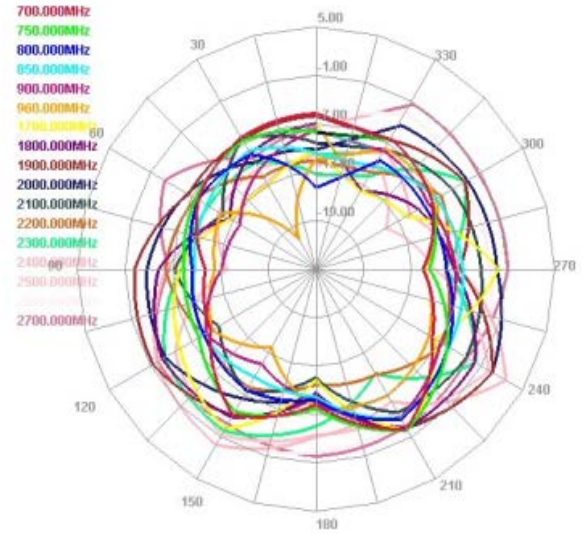
Tel: 0755-29369912 Fax: 0755-61624200

Address: 5F, Building B, Huazhi Chuanggu, No.7 Yuhua Street, 138
Industrial Zone, Tangxia Town, Dongguan City

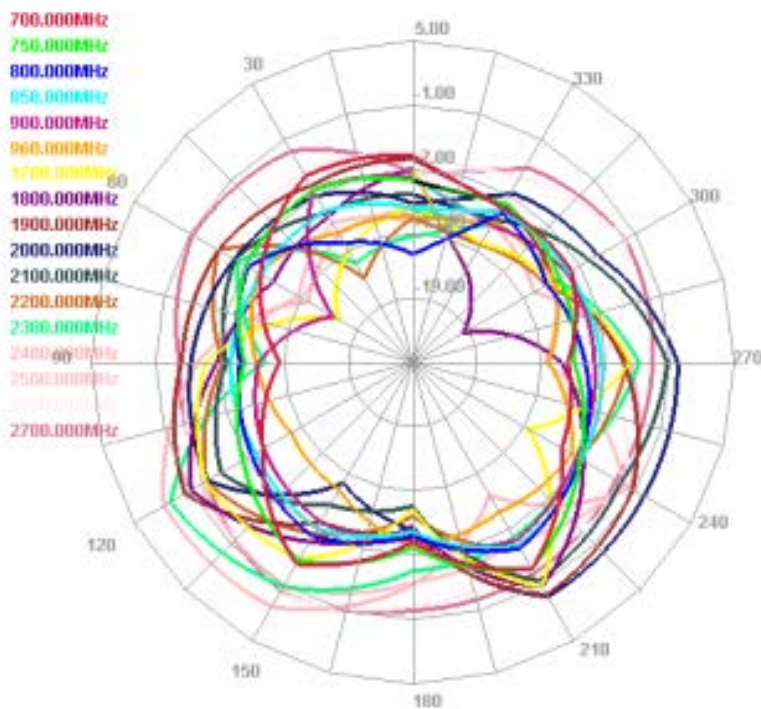
Horizontal



E1 Face



E2 Face



WIFI 天线无源效率，增益 **WIFI antenna has**
passive efficiency, gain **Model : MAYTON-AP3-WIFI-ANT**

Shenzhen Xiangboyi Technology Co. Ltd

Tel: 0755-29369912 Fax: 0755-61624200

Address: 5F, Building B, Huazhi Chuanggu, No.7 Yuhua Street, 138
Industrial Zone, Tangxia Town, Dongguan City

Freq (MHz)	Effi (%)	Gain (dBi)
2400	35.27	-0.85
2450	25.39	-3.15
2500	30.85	-1.06

Freq (MHz)	Effi (%)	Gain (dBi)
5150	26.37	0.95
5250	37.77	1.85
5350	42.28	1.49
5450	34.76	0.7
5550	35.17	0
5650	33.43	-0.97
5750	25.52	-1.72
5850	25.57	-1.98

Model :MAYTON-AP3-WIFI-ANT

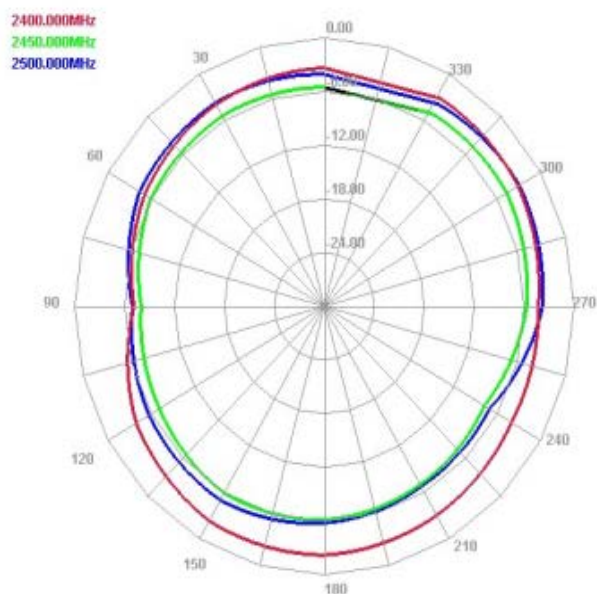
WIFI 天线方向图 WIFI antenna orientation diagram

Shenzhen Xiangboyi Technology Co. Ltd

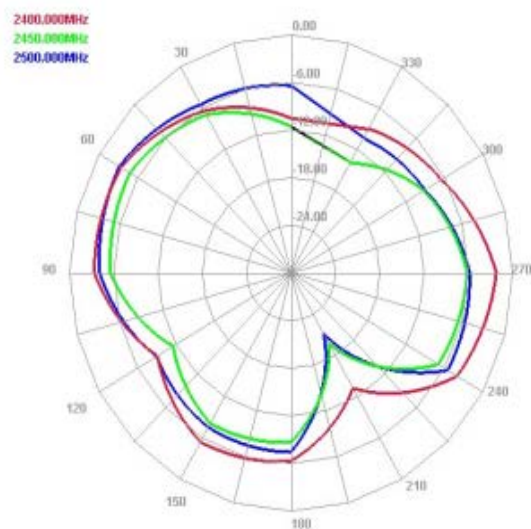
Tel: 0755-29369912 Fax: 0755-61624200

Address: 5F, Building B, Huazhi Chuanggu, No.7 Yuhua Street, 138 Industrial Zone, Tangxia Town, Dongguan City

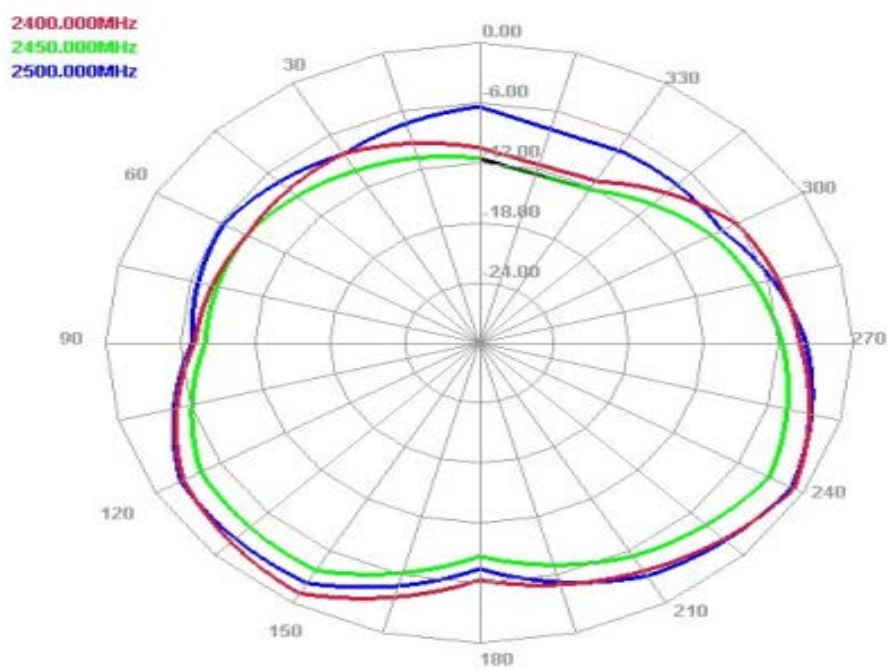
Horizontal



E1 Face

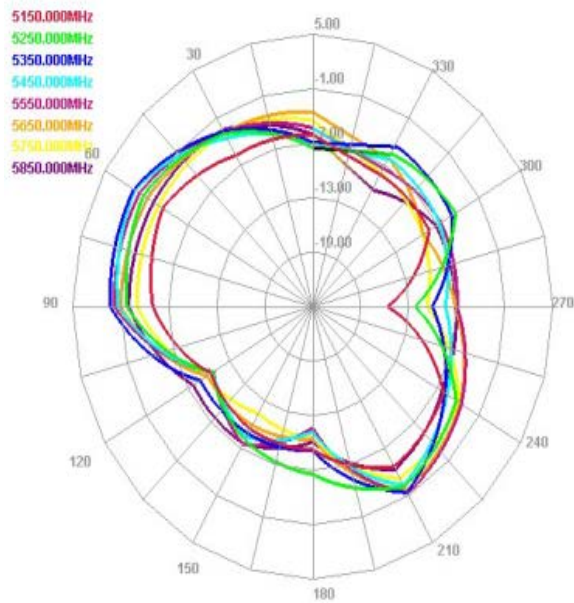


E2 Face

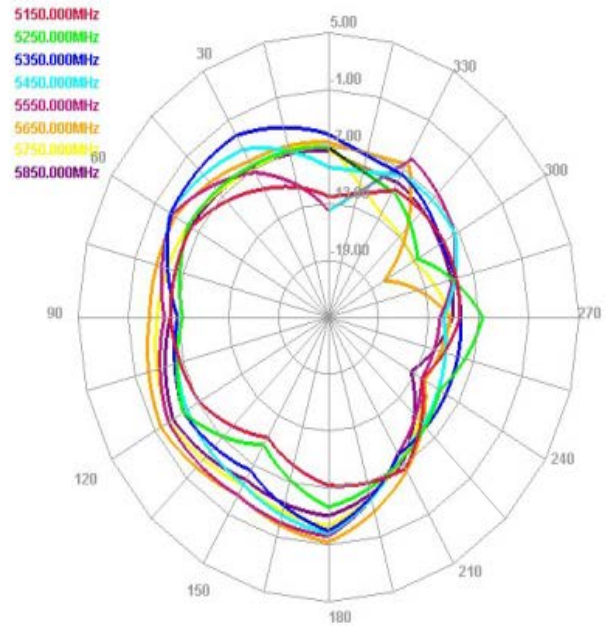


Shenzhen Xiangboyi Technology Co. Ltd
Tel: 0755-29369912 Fax: 0755-61624200
Address: 5F, Building B, Huazhi Chuanggu, No.7 Yuhua Street, 138
Industrial Zone, Tangxia Town, Dongguan City

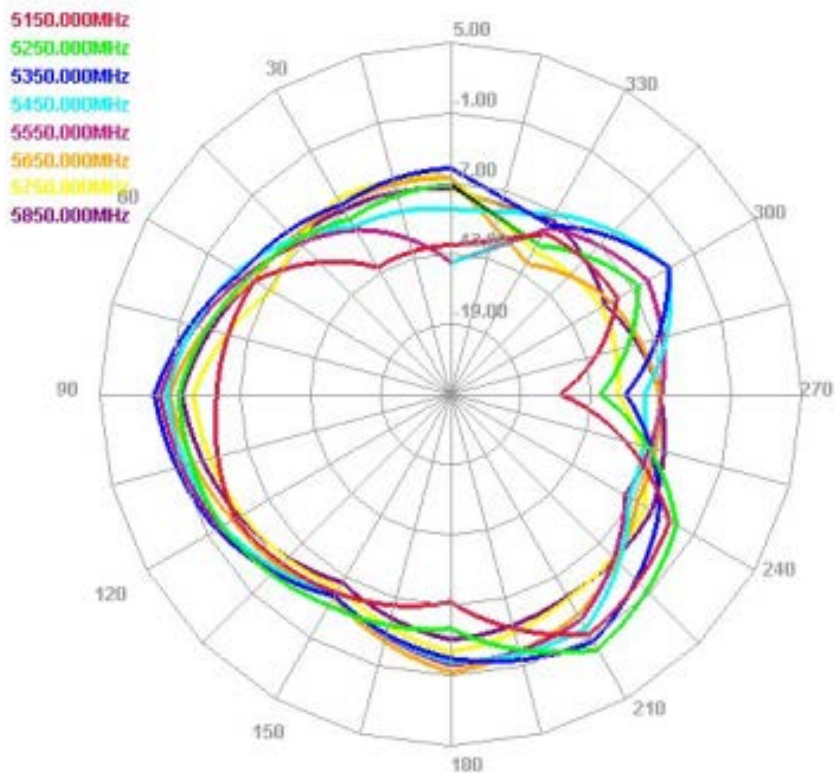
Horizontal



E1 Face



E2 Face



Shenzhen Xiangboyi Technology Co. Ltd

Tel: 0755-29369912 Fax: 0755-61624200

Address: 5F, Building B, Huazhi Chuanggu, No.7 Yuhua Street, 138
Industrial Zone, Tangxia Town, Dongguan City

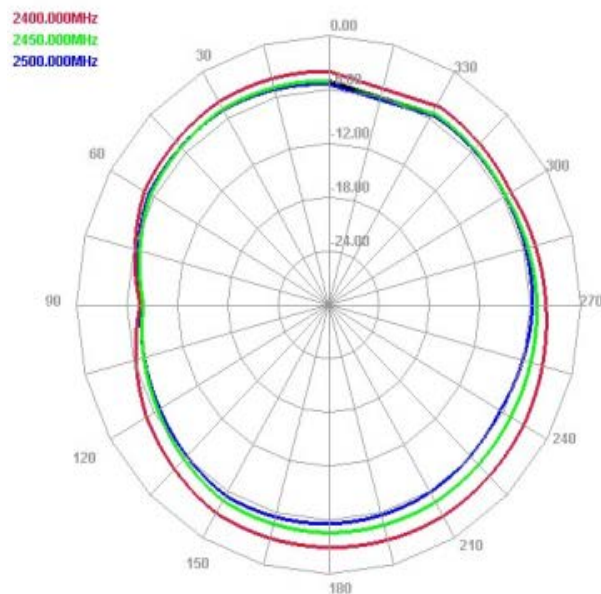
Model : MAYTON-AP3-BT-ANT

BT 天线无源效率, 增益 BT antenna with passive efficiency, gain

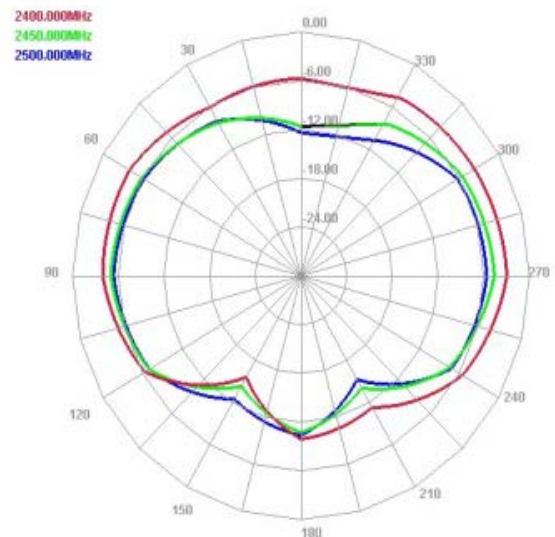
Freq (MHz)	Effi (%)	Gain (dBi)
2400	34.44	-1.68
2450	30.44	-2.56
2500	28.95	-2.74

BT 天线方向图 BT antenna pattern

Horizontal



E1 Face



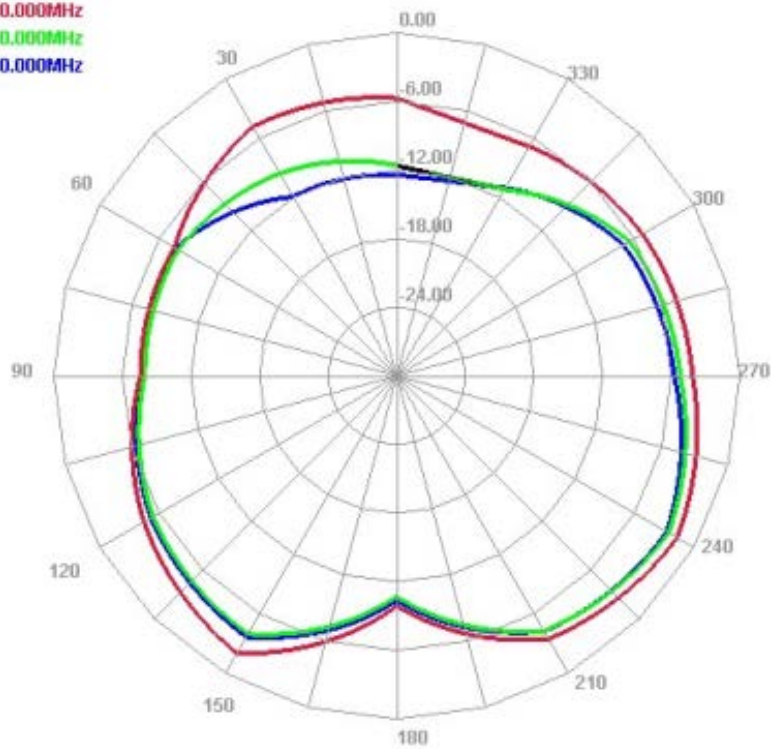
Shenzhen Xiangboyi Technology Co. Ltd

Tel: 0755-29369912 Fax: 0755-61624200

Address: 5F, Building B, Huazhi Chuanggu, No.7 Yuhua Street, 138 Industrial Zone, Tangxia Town, Dongguan City

E2 Face

2400.000MHz
2450.000MHz
2500.000MHz



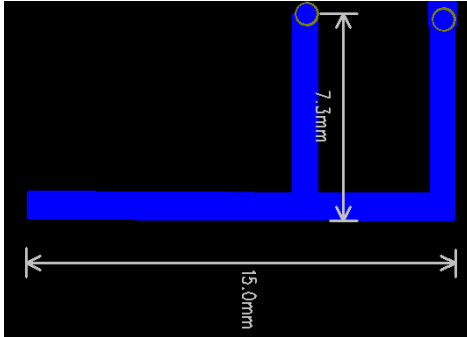
Shenzhen Xiangboyi Technology Co. Ltd

Tel: 0755-29369912 Fax: 0755-61624200

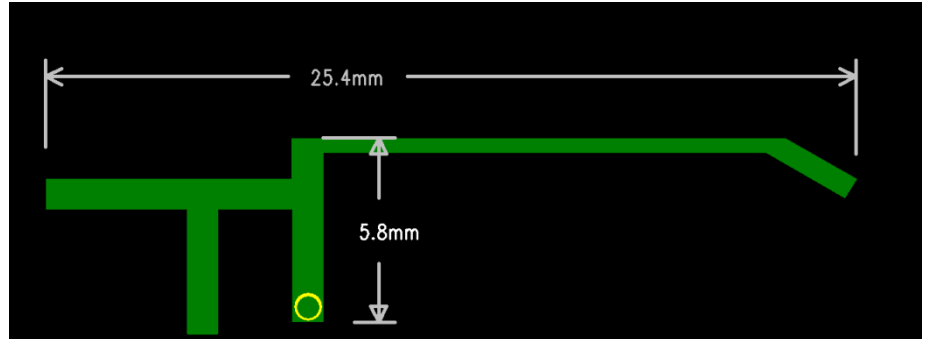
Address: 5F, Building B, Huazhi Chuanggu, No.7 Yuhua Street, 138
Industrial Zone, Tangxia Town, Dongguan City

六. 工程图 Engineering Drawing

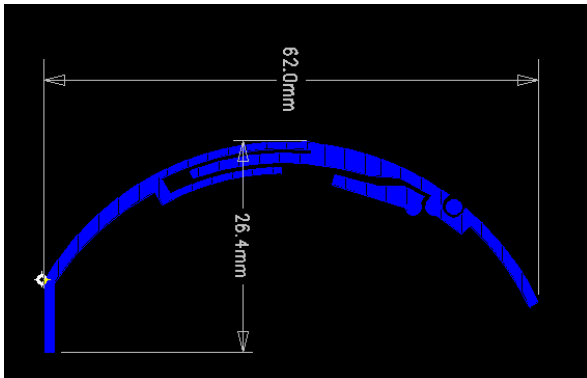
Bluetooth



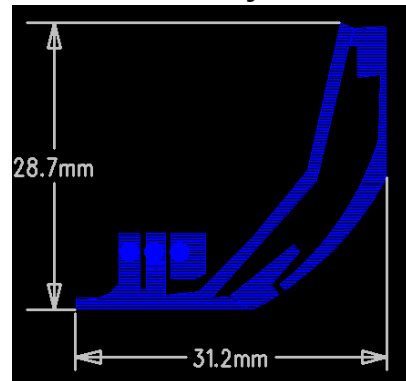
Wi-Fi



4G Main antenna



4G Secondary antenna



Shenzhen Xiangboyi Technology Co. Ltd

Tel: 0755-29369912 Fax: 0755-61624200

Address: 5F, Building B, Huazhi Chuanggu, No.7 Yuhua Street, 138
Industrial Zone, Tangxia Town, Dongguan City