



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

深圳市宝安区航城街道航城锦驰产业园B1栋7楼

• 7th Floor, Building B1, Hangcheng Jinchi Industrial Park, Hangcheng Street,
Baoan District, Shenzhen City

承认书

APPROVAL SHEET

客户 Customer	爱保护 SHENZHEN SMART CARE TECHNOLOGY LIMITED
项目名 Project	F24/7 Evo
料号 Part NO.	
规格 Specification	BT Antenna

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

Project: F24/7 Evo	Author: Haiou.Zhu	File Name: F24_APP_A.doc
Date: 2023-7-15		
Revision:	A	
CONFIDENTIAL Shenzhen OnePlusOne Wireless Communication Technology Co.,Ltd. 深圳市宝安区航城街道航城锦驰产业园 B1 栋 7 楼		

Date:	Revision:	Updates and changes:	Issued by:
2023.7.15	A	Initial sheet	Haiou.Zhu

承认鉴章后请寄回承认书一份

Please return to us one copy of “APPROVAL SHEET” with your approved signatures

Project: F24/7 Evo	Author: Haiou.Zhu	File Name: F24_APP_A.doc
Date: 2023-7-15		
Revision:	A	
CONFIDENTIAL Shenzhen OnePlusOne Wireless Communication Technology Co.,Ltd. 深圳市宝安区航城街道航城锦驰产业园 B1 栋 7 楼		

Contents

1	ANTENNA DESCRIPTION	1-4
1.1	Part number	1-4
1.2	Antenna pictures.....	1-4
2	ELECTRICAL PERFORMANCE.....	2-4
2.1	Specification	2-4
2.2	Measurement Set-up.....	2-4
2.2.1	VSWR and Return Loss	2-4
2.2.2	Efficiency and Gain.....	2-4
3	REFERENCE MEASUREMENT DATA	3-5
3.1	Passive	3-5
3.2	Active.....	3-5
4	MECHANICAL DESCRIPTION.....	4-6
4.1	Drawings.....	4-6

Project: F24/7 Evo	Author: Haiou.Zhu	File Name: F24_APP_A.doc
Date: 2023-7-15		
Revision:	A	
CONFIDENTIAL Shenzhen OnePlusOne Wireless Communication Technology Co.,Ltd. 深圳市宝安区航城街道航城锦驰产业园 B1 栋 7 楼		

1 Antenna description

It summarize BT antennas for project F24/7 Evo. BT antenna's frequency band is 2402-2480MHz. BT antenna's type is Monopole.

1.1 Part number

Part number of antenna: F24/7 Evo

1.2 Antenna pictures

See test report

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.

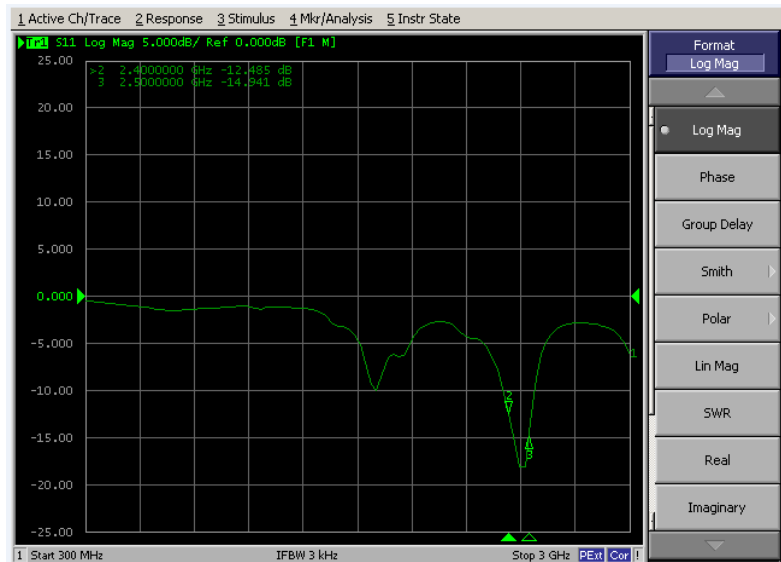
2.2.2 Efficiency and Gain

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.

Project: F24/7 Evo	Author: Haiou.Zhu	File Name: F24_APP_A.doc
Date: 2023-7-15		
Revision:	A	
CONFIDENTIAL Shenzhen OnePlusOne Wireless Communication Technology Co.,Ltd. 深圳市宝安区航城街道航城锦驰产业园 B1 栋 7 楼		

3 Reference measurement data

3.1 Passive

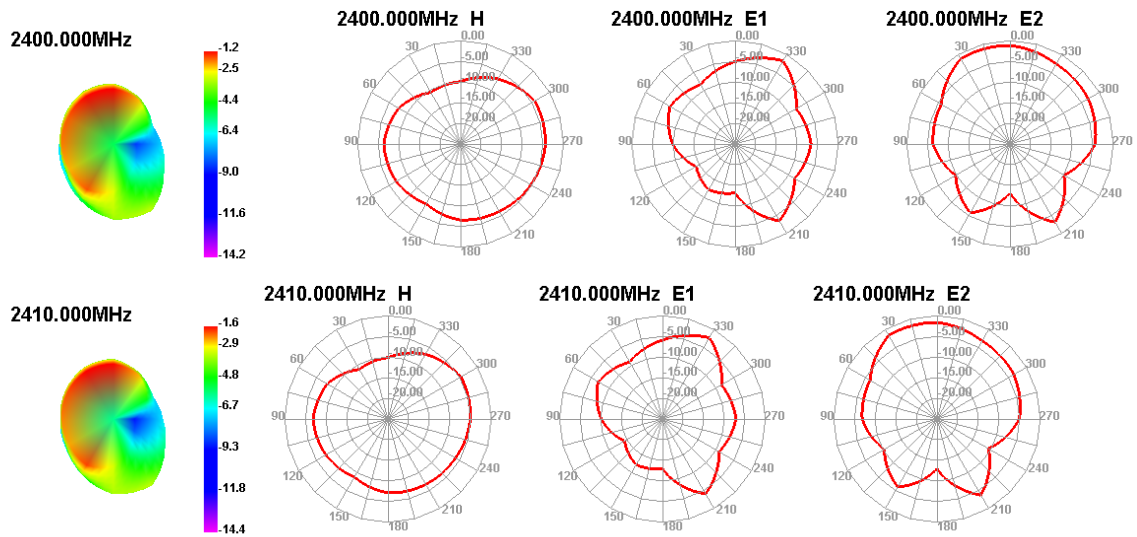


Return SWR

3.2 Active

Passive Test For BT			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	25.67	-5.91	-1.16
2410	23.08	-6.37	-1.63
2420	22.4	-6.5	-1.69
2430	18.61	-7.3	-2.48
2440	22.47	-6.48	-1.59
2450	19.74	-7.05	-2.16
2460	23.88	-6.22	-1.29
2470	18.07	-7.43	-2.76
2480	22.83	-6.41	-1.88
2490	18.32	-7.37	-3.07
2500	20.56	-6.87	-2.96

Project: F24/7 Evo	Author: Haiou.Zhu	File Name: F24_APP_A.doc
Date: 2023-7-15		
Revision:	A	
CONFIDENTIAL Shenzhen OnePlusOne Wireless Communication Technology Co.,Ltd. 深圳市宝安区航城街道航城锦驰产业园 B1 栋 7 楼		



4 Mechanical description

4.1 Drawings

