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# FIBERHOME COMMUNICATION ANTENNA SPECIFICATION FOR APPROVAL

Antenna P/N: XDC0924DBB001

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Antenna Printing: XUNDA201C00150A

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Antenna Description: 2.4G&5.8G 3dBi 95mm

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Model NO: SR1021E

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Revision: R\_A

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Date: 2022-08-13

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Prepared	Checked	Approved	Accepted
Huanghuixin	Zhangxun	Duanwei	

# Contents

<b>Version</b>	<b>Date</b>	<b>Description</b>	<b>Author</b>
RA	2022.08.13	New Release	Huanghuixin

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## 1、Electrical Performance

### WIFI

Main technical specifications		Main technical specifications	
Frequency Range (MHZ)	2400~2500 5150~5850	Frequency Range (MHZ)	2400~2500 5150~5850
Impedance( $\Omega$ )	50	Impedance( $\Omega$ )	50
Peak Gain(dBi)	3 $\pm$ 1.0	Peak Gain(dBi)	3 $\pm$ 1.0
VSWR	$\leq$ 2.0	VSWR	$\leq$ 2.0
Polarization	Linear,Vertical	Polarization	Linear,Vertical
Radiation	Omni-directional	Radiation	Omni-directional

## 2、Dimensions

Save Directory:  

# ROHS

**Specification:**  
 Frequency Range: 2.4~2.5GHz  
 5.15~5.85GHz

1. Packing Quantity: 100pcs/PE Bag.  
 2. A label must be attached in the middle of the plastic bag.

1. The outer box must be affixed with ipex/rohs label to the outer box label.  
 2. The outer box must be labeled with ipex label to the upper left corner of the outer box.

VERSION	CHANGE CONTENT	CHANGE BEFORE	AFTER CHANGE PERSON	CHANGE DATE
A	Original Issue			Aug 12, 2022

NO.	PART NAME	SPECIFICATION	QUANTITY	MATERIAL	REMARKS
03	BITTON	MF, Gold	1	MF, Gold	
02	WIRE	FR137, Black IPEX	1	Silver plated copper wire	
01	PCB	FR4	1	FR4	

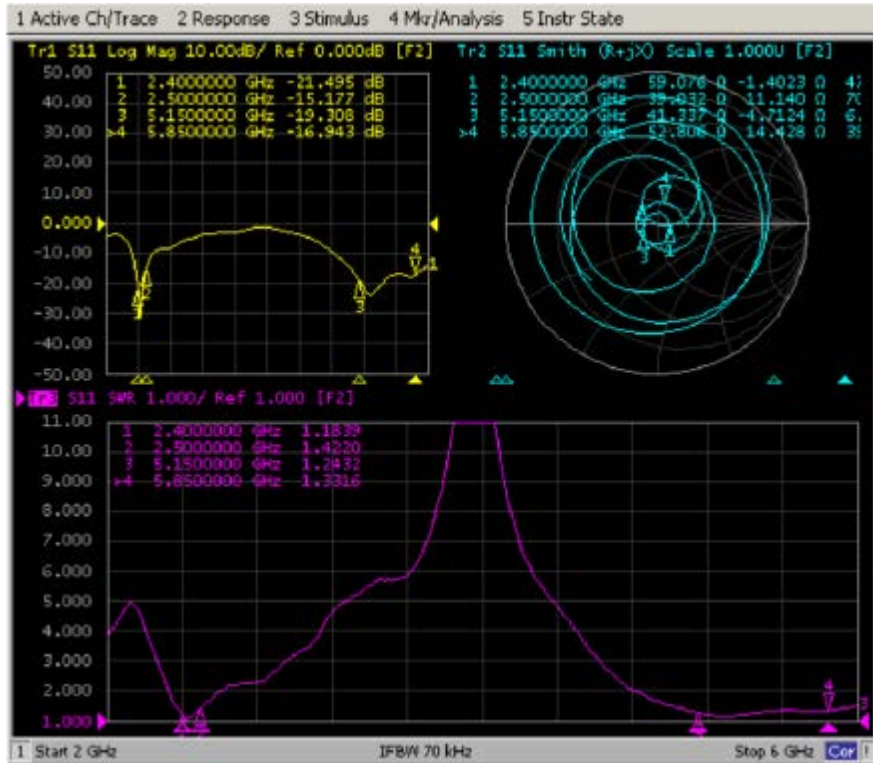
PROJECTION	UNIT	APPROVED DATE	DESIGNER	CHECKER	DATE
MM			Duan Wei		Aug 12, 2022

**3、 Antenna and complete equipment Details(including the antenna body, the relative position between the antenna and the whole machine, etc.)**



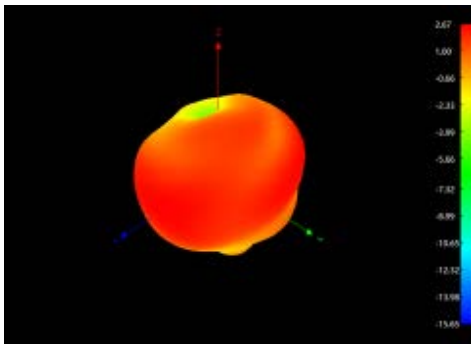
## 4、 Test Report

### 3.1: S11、 S21 Parameter

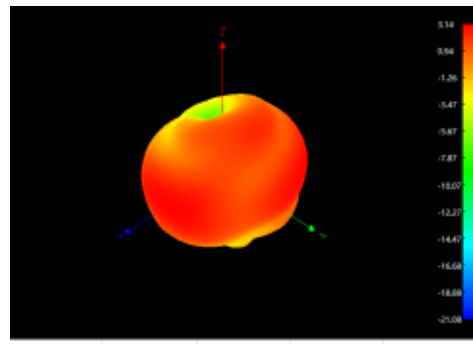


### 3.2: 3D、 2D Raditation Pattern

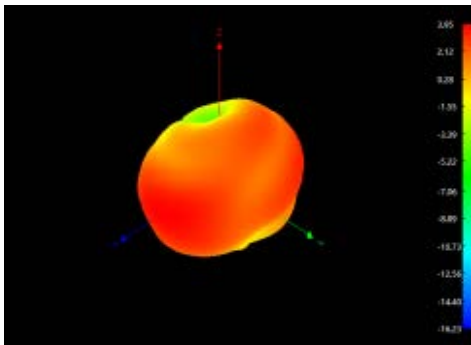
Frequency	Gain	Efficiency
2400	2.67dBi	70.15%
2450	3.14dBi	71.29%
2500	3.95dBi	65.16%
5150	3.26dBi	70.31%
5350	3.20dBi	71.22%
5750	3.26dBi	68.27%
5850	3.75dBi	69.31%



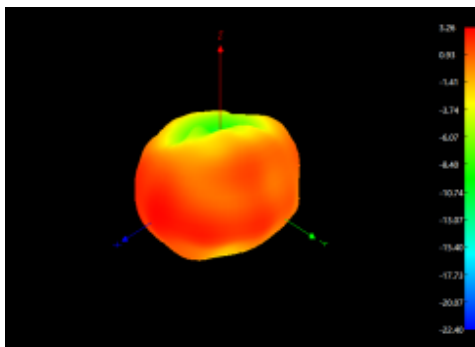
ANT1(2400MHz - 3D Radiation with MaxGain)



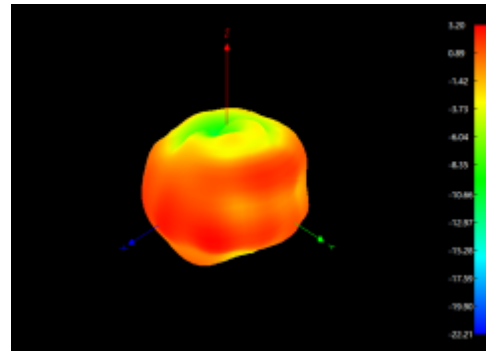
ANT1(2450MHz - 3D Radiation with MaxGain)



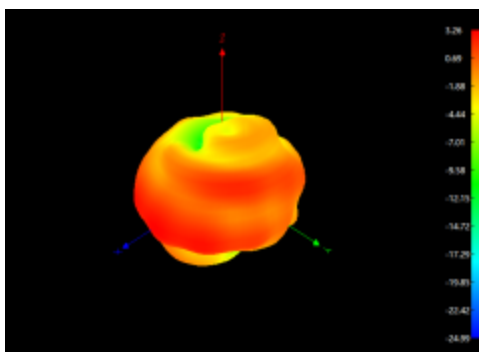
ANT1(2500MHz - 3D Radiation with MaxGain)



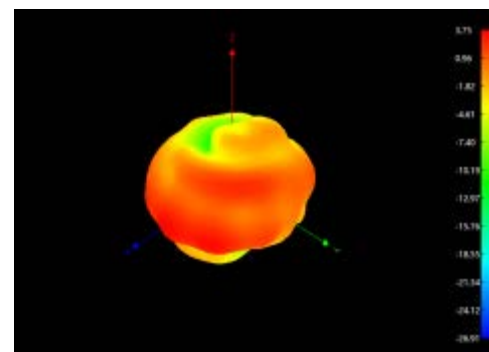
ANT1(5150MHz - 3D Radiation with MaxGain)



ANT1(5350MHz - 3D Radiation with MaxGain)

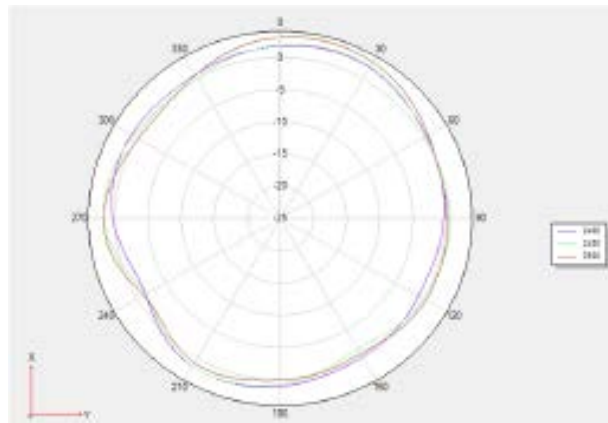


ANT1(5750MHz - 3D Radiation with MaxGain)

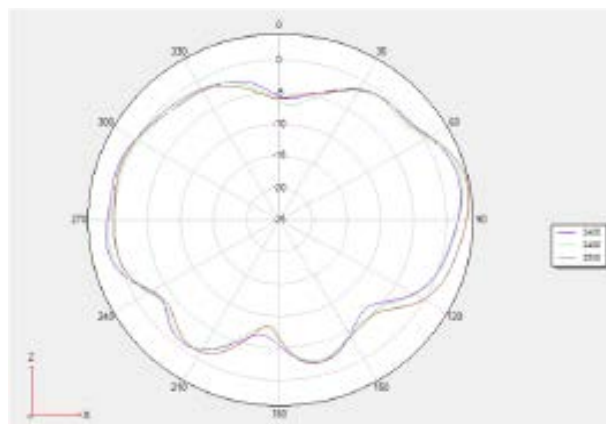


ANT1(5850MHz - 3D Radiation with MaxGain)

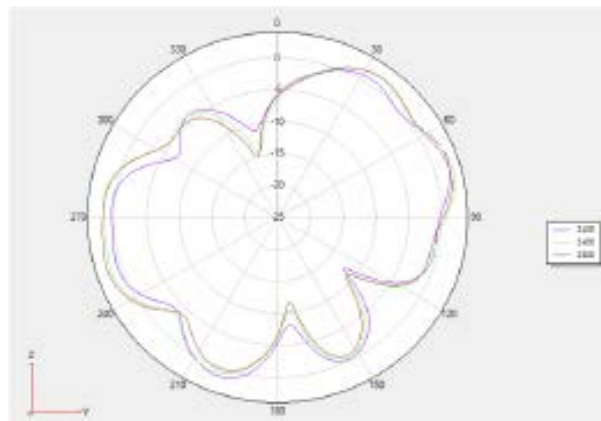




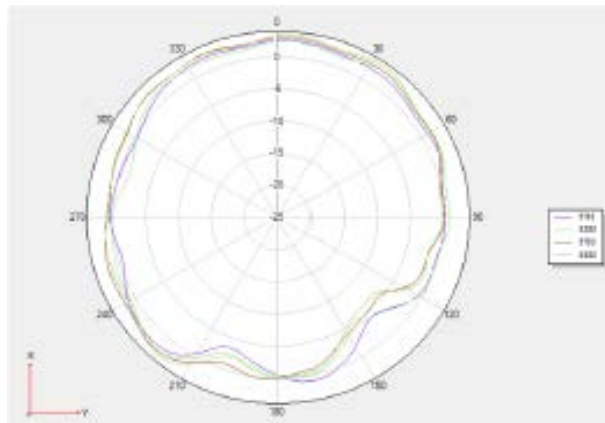
2400MHz\2450MHz\2500MHz XOY(H Face) Gain Icon



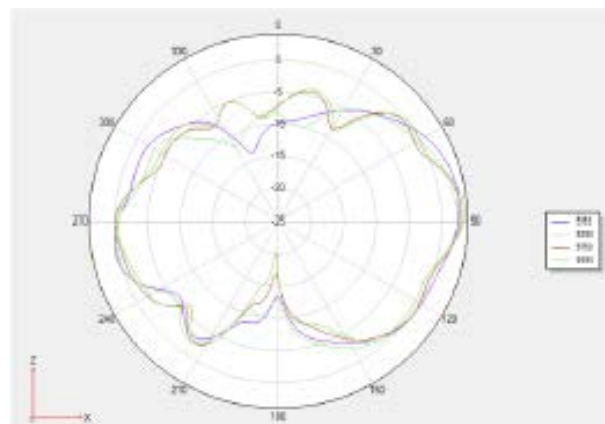
2400MHz\2450MHz\2500MHz XOZ(E1 Face) Gain Icon



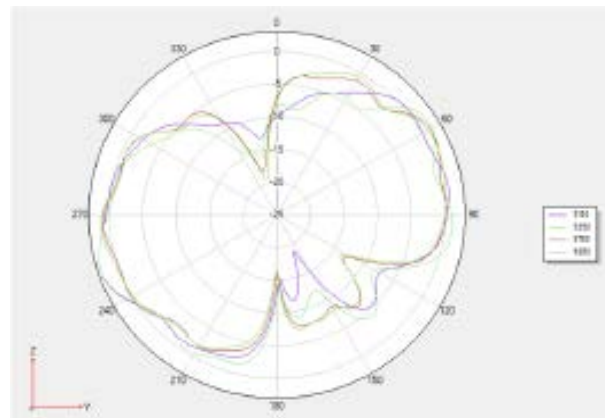
2400MHz\2450MHz\2500MHz YOZ(E2 Face) Gain Icon



5150MHz\5500MHz\5850MHz XOY(H Face) Gain Icon



5150MHz\5500MHz\5850MHz XOZ(E1 Face) Gain Icon



5150MHz\5500MHz\5850MHz YOZ(E2 Face) Gain Icon

## 5、 List of Raw Materials /ROHS

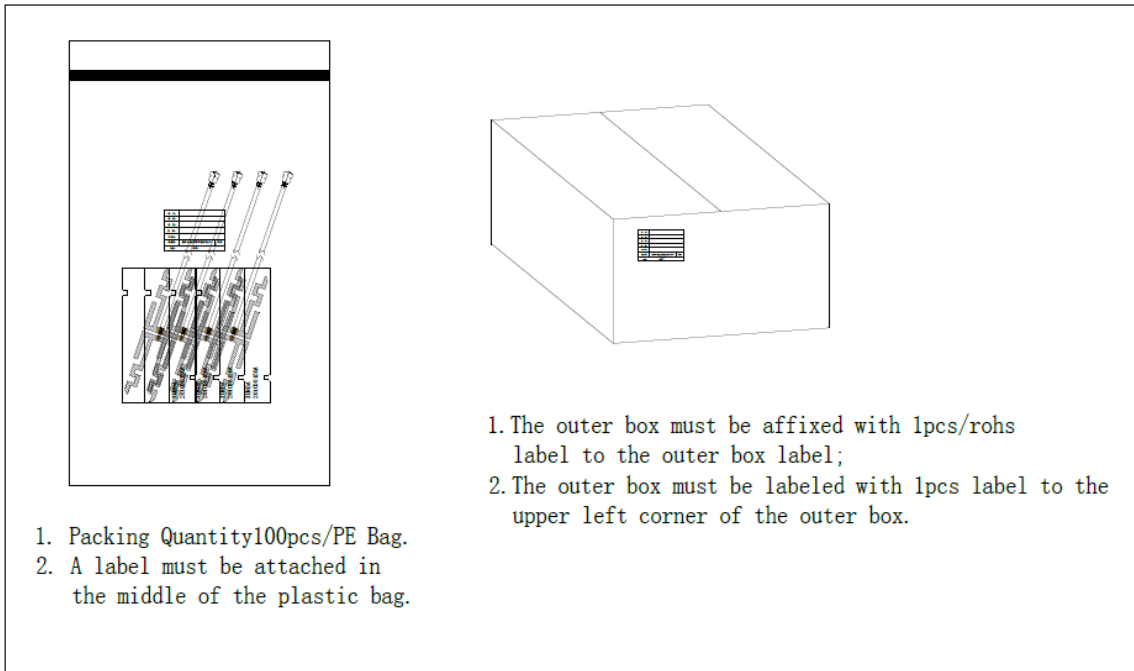
NO.	Part name	Specification	Supplier	Material
1	PCB	FR4	Jinpeng Electronics Co., Ltd/ Shengweite Electronic Technology Co., Ltd	FR4
2	Wire	1.37 Black, L=95mm	Kaibo Communication Technology Co., Ltd. / Microwave Communication Technology Co., Ltd	Silver plated copper wire
3	Button	137 MHF,Gold	Kexincheng Electronics Co., Ltd. / Caimei Weiye Precision Electronics Co., Ltd	MHF,Gold

## 6、 Reliability Test

The reliability test items of external antenna structure are as follows (attachments are provided separately in the report):

Test items	Test requirements	Remarks
Flame retardant inspection of materials	Not involved	
Plastic structure matching inspection	Not involved	
Antenna pull-out force test	Must test	
Operation inspection of external antenna	Not involved	
Alternating damp heat test	Must test	
Temperature cycle test	Must test	
Antenna strength test	Must test	
Salt spray test	Must test	
External antenna torque matching test	Not involved	

## 7、 Package



## 8、Appendix

### 8.1 Appendix 1 "broadband terminal antenna structure verification specification":



broadband terminal antenna  
structure verification  
specification

### 8.2 Appendix 2 requirements for appearance quality of broadband terminal antenna:



requirements for appearance  
quality of broadband  
terminal antenna

### 8.3 Appendix 3 torsion mutual matching test of external antenna:



torsion mutual  
matching test of  
external antenna

### Template version record

NO.	Version	Generation time	Main modification records	First author	Checked	Remarks
1	RA	2021-04-25	First generation	Liu Shuiliang、 Zhang Xianyong、 Wanbo、Liu Yu、 Shi Shengbing、 Cai Jin、Zhanyi、 Li Zhaoxu、Li Jin	Liu Yuming、 Wang Ke、 Su Yi、 Zhang Ling	
2	RB	2021-07-15	"Requirements for color number and texture of external antenna structural parts" has been added in the chapter "antenna drawings"	Liu Shuiliang、 Zhang Xianyong、 Wanbo、Liu Yu、 Shi Shengbing、 Cai Jin、Zhanyi、 Li Zhaoxu、Li Jin	Liu Yuming、 Wang Ke、 Su Yi、 Zhang Ling	
3	RC	2022-1-19	In the test form of external antenna in Chapter 6, "test results" is changed to "test requirements"; The requirements of "external antenna torque mutual matching test" are added in the appendix of Chapter VIII;	Liu Shuiliang、 Wanbo	Liu Yuming、 Wang Ke、 Su Yi、 Zhang Ling	