

深圳市河文天线技术有限公司
Shenzhen Human Communications Co ., Ltd

承 认 书

SPECIFICATION FOR APPROVL

客 户：联达电脑（厦门）有限公司
CUSTOMER:
客户案号：
CUSTOMER P/N:
本厂编号：
OUR MODEL NO:
品 名 / 规格：MC3 ANT
SPECIFICATIONS:
样 品 数：1 PCS
Q' TY:
日 期：2025-04-07
DATE:

Project: MC3		Author:XIONG	File Name: MC3 ANT-APP-RA
Date: 2025-04-07			
TEST:	Language:	Check: Huang	
A	English		
Room 503, Building 211, Tairan Industrial Zone, Tairan 9th Road, Futian District, Shenzhen			
Telephone: 0755-27670950 Fax. : 0755-27886675			
Shenzhen Human Communications Co ., Ltd			

Revision History

Date	Revision	Description of Changes
2025-04-07	RA	Measured with MC3 天线 sample.

1	TECHNICAL SUMMARY	3
2	GENERAL DESCRIPTION	3
2.1	Components/Part revisions	3
3	MECHANICAL DESCRIPTION	3
4	ELECTRICAL PERFORMANCE	3
4.1	Set-up	3
4.1.1	VSWR	3
4.1.2	Gain & Radiation Patterns	3
4.1.3	Matching Circuit Description	3
4.2	Measurement Data	4
4.2.1	Active result	4
5	PLOTS	5
5.1	VSWR (WIFI)	5
5.2	Return loss (WIFI)	5
6	MECHANICAL DRAWING	6
7	RELIABILITY TESTS	错误！未定义书签。
7.1	Test content	错误！未定义书签。
7.2	Test results	错误！未定义书签。
8	CONCLUSI	错误！未定义书签。

Project: MC3		Author:XIONG	File Name: MC3 ANT-APP-RA
Date: 2025-04-07			
TEST:	Language:	Check: Huang	
A	English		
Room 503, Building 211, Tairan Industrial Zone, Tairan 9th Road, Futian District, Shenzhen			
Telephone: 0755-27670950 Fax.: 0755-27886675			
Shenzhen Human Communications Co ., Ltd			

1 Technical Summary

This report summarizes the electrical results of the proposed antenna to support the MC3 program. We test the antenna with the latest version handset. And it seems to be acceptable.

2 General Description

2.1 Components/Part revisions

VSWR: Voltage Standing Wave Rate.

3 Mechanical Description



4 Electrical Performance

4.1 Set-up

4.1.1 VSWR

VSWR measurements (S11) were performed using an Agilent 8753D 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.

4.1.2 Gain & Radiation Patterns

The gain of the antenna was measured in the HUMAN's anechoic chamber. Coaxial chokes on the feed cable were used to mitigate surface currents. The chamber provides less than -30 dB reflectivity from 800 MHz through 3 GHz and an 18" diameter spherical quiet zone. The measurement results are calibrated using both dipole and leaky wave horn standards.

4.1.3 Matching Circuit Description

No changed..
(原匹配无修改)

Project: MC3		Author:XIONG	File Name: MC3 ANT-APP-RA
Date: 2025-04-07			
TEST:	Language:	Check: Huang	
A	English		
Room 503, Building 211, Tairan Industrial Zone, Tairan 9th Road, Futian District, Shenzhen			
Telephone: 0755-27670950 Fax.: 0755-27886675			
Shenzhen Human Communications Co ., Ltd			

4.2 Measurement Data

4.2.1 Active result

ANT1 Grey line(WLAN):

Frequency	Efficiency (%)	Gain (dB)	Frequency	Efficiency (%)	Gain (dB)
2400MHz	42.7	1.9	5100MHz	43.5	1.7
2420MHz	41.3	1.7	5250MHz	40.1	1.0
2440MHz	38.9	1.3	5400MHz	44.5	1.7
2460MHz	40.1	1.6	5550MHz	39.2	0.9
2480MHz	42.3	1.9	5700MHz	38.2	0.7
2500MHz	44.1	2.1	5850MHz	37.4	0.7

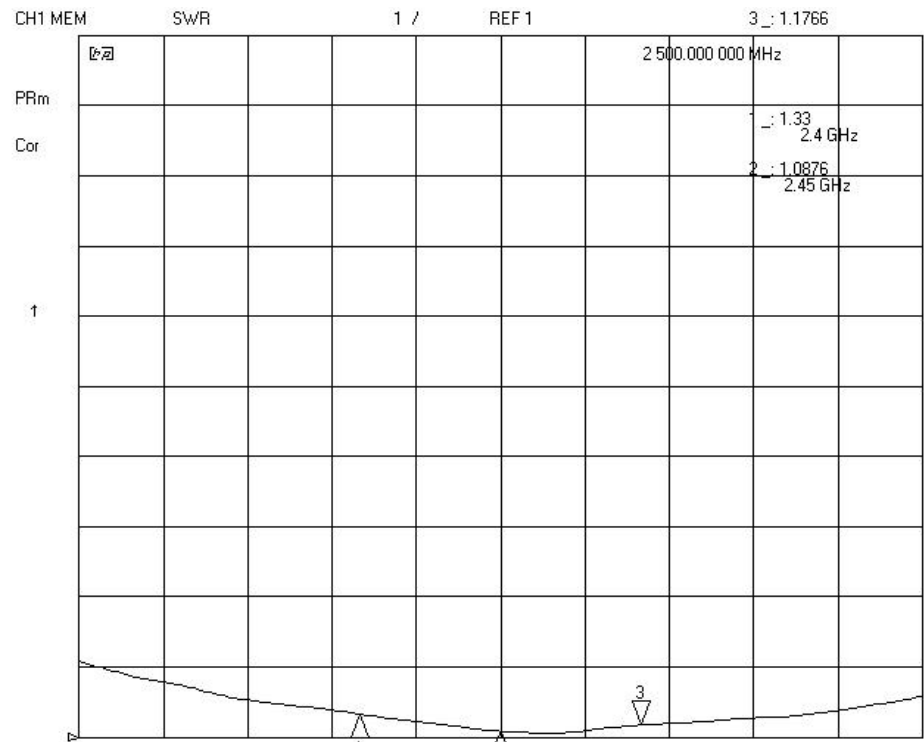
ANT2 Black line (BT/WLAN):

Frequency	Efficiency (%)	GAIN (dB)	Frequency	Efficiency (%)	Gain (dB)
2400MHz	34.6	0.8	5300MHz	28.2	0.2
2425MHz	35.5	0.8	5400MHz	30.3	0.3
2450MHz	36.4	0.9	5500MHz	31.8	0.3
2475MHz	34.6	0.8	5600MHz	30.1	0.2
2500MHz	34.5	0.8	5700MHz	31.3	0.3
5100MHz	23.9	-0.1	5800MHz	34.1	0.5
5200MHz	26.2	0.2	5900MHz	33.3	0.4

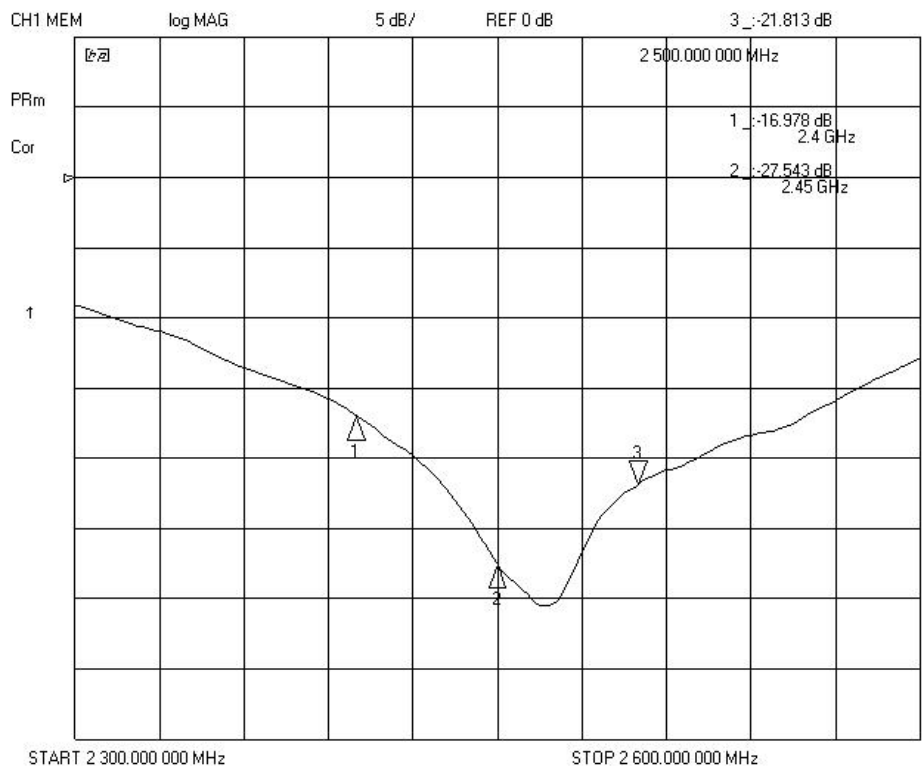
Project: MC3		Author:XIONG	File Name: MC3 ANT-APP-RA
Date: 2025-04-07			
TEST:	Language:	Check: Huang	
A	English		
Room 503, Building 211, Tairan Industrial Zone, Tairan 9th Road, Futian District, Shenzhen			
Telephone: 0755-27670950 Fax.: 0755-27886675			
Shenzhen Human Communications Co ., Ltd			

5 Plots

5.1 VSWR (WIFI)

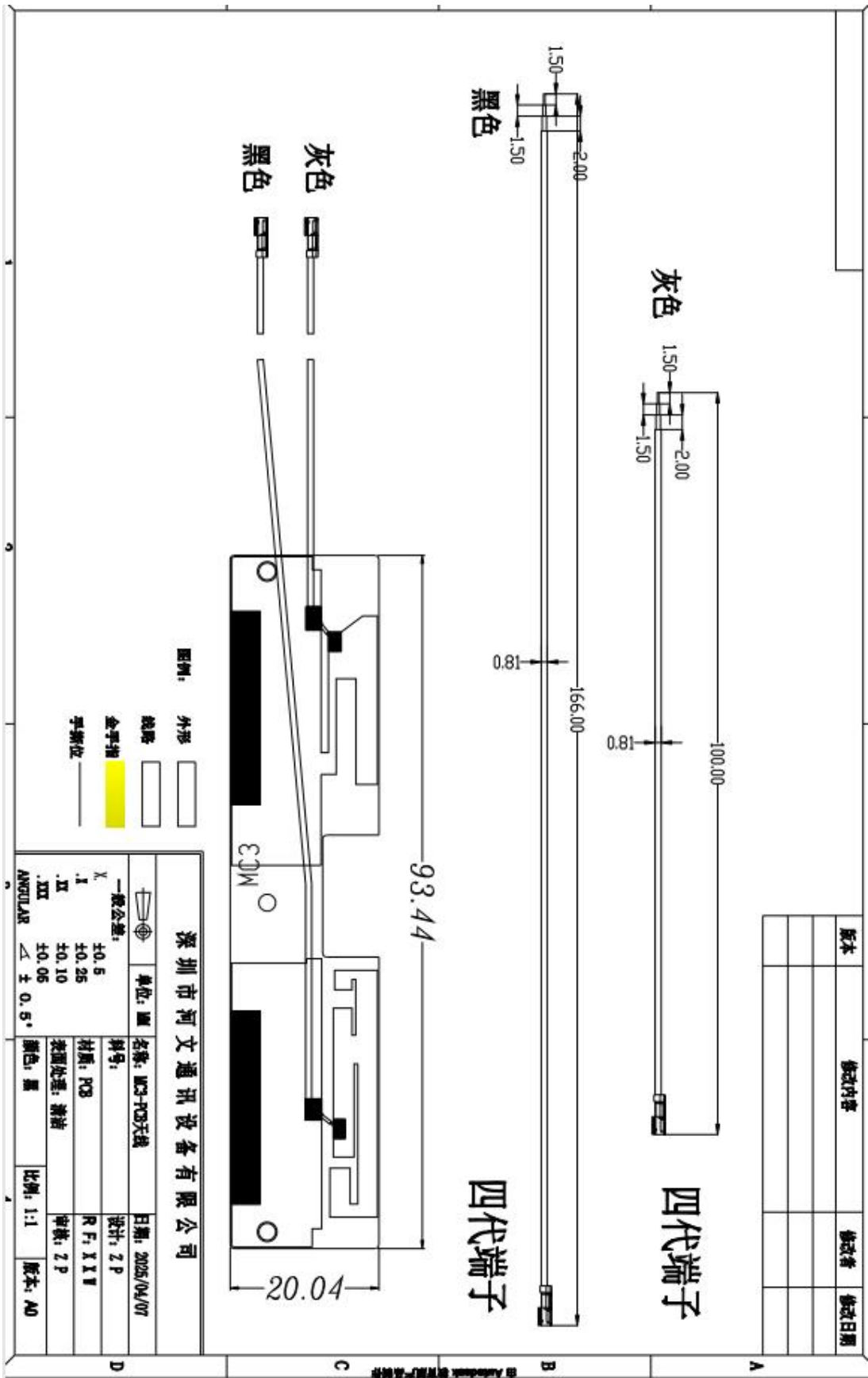


5.2 Return loss (WIFI)



Project: MC3		Author:XIONG	File Name: MC3 ANT-APP-RA
Date: 2025-04-07			
TEST:	Language:	Check: Huang	
A	English		
Room 503, Building 211, Tairan Industrial Zone, Tairan 9th Road, Futian District, Shenzhen			
Telephone: 0755-27670950 Fax.: 0755-27886675			
Shenzhen Human Communications Co ., Ltd			

6 Mechanical drawing



Project: MC3		Author:XIONG	File Name: MC3 ANT-APP-RA
Date: 2025-04-07			
TEST:	Language:	Check: Huang	
A	English		
Room 503, Building 211, Tairan Industrial Zone, Tairan 9th Road, Futian District, Shenzhen			
Telephone: 0755-27670950 Fax.: 0755-27886675			
Shenzhen Human Communications Co ., Ltd			

From the above test results, we can know the electrical performance of the antenna is seems good.

Human TELECOM EQUIPMENT CO.,LTD look forward to your confirmation, thank you for your cooperation !

Project: MC3		Author:XIONG	File Name:
Date: 2025-04-07			
TEST:	Language:	Check: Huang	MC3 ANT-APP-RA
A	English		
Room 503, Building 211, Tairan Industrial Zone, Tairan 9th Road, Futian District, Shenzhen			
Telephone: 0755-27670950 Fax.: 0755-27886675			
Shenzhen Human Communications Co ., Ltd			