

SAMPLE & SPECIFICATION FOR APPROVAL

Customer: Coosea Group Co.,Ltd

Model NO: TR54

Customer P/N:

Version: V1.0

Specification Describe: TR54-3IN1 ANTENNA (Carrier+FPC)

Vendor P/N:

Date: 2025-04-21

Address:Room 301,Building 12 No.1001,Yuyang Road,Yushan Town,Kunshan City,Jiangsu Province

Sample and datasheet must be approved for 5 PCS .

No Customer appointed Material				Assign Part
	R&D		QE	Sales
Department	MD	HW	Quality and Eng.Dep.	Sale& Marketing
Checked By	LIXU	Li ShengHua	LiWeiWei	LiMin
Approved By	LIXueQin	WangJinhui	YeLing	YiQin
Final Judgment	LiLinHua	LiLinHua	LiLinHua	LiLinHua
Remark				

Suzhou HuiMi Communication Technology Co.,Ltd

Antenna Approval Sheet

Customer	Point Mobile Co., Ltd		
Customer P/N			
Model	TR54		
P/N			
Description	TR54-3IN1 ANTENNA (Carrier+FPC)		
Frequency	Bluetooth: 2402MHz-2480MHz WIFI: 2.4G : 2412MHz-2472MHz 5G: 5180MHz-5700MHz、5745MHz-5825MHz 6G : 5955MHz-7115MHz GPS/Galileo:1559MHz-1610MHz		
Initial Date	2025-04-21		
Revision	A		
Author	RF Engineer	ME	
	WangJinhui	SunQuan	
Tel.	18015467688	13405120400	
Approval	R&D	PM	QE

Customer Signature

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1. Summary

This is the 3IN1 antenna approval sheet.

Working band :

Bluetooth: 2402MHz-2480MHz

WIFI:

2.4G : 2412MHz-2472MHz

5G: 5180MHz-5700MHz、5745MHz-5825MHz

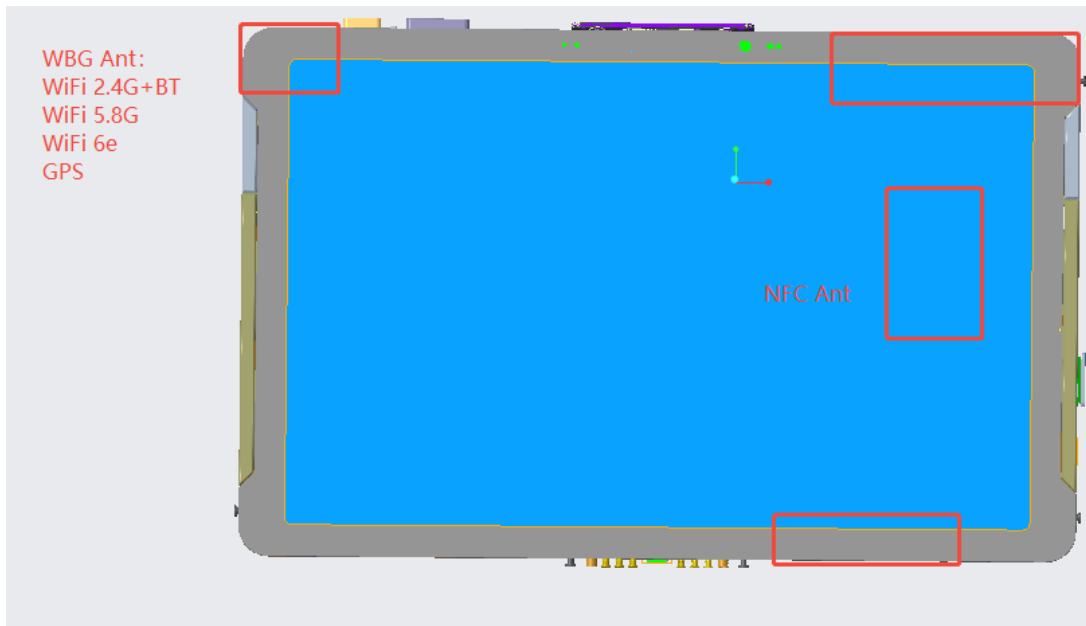
6G : 5955MHz-7115MHz

GPS/Galileo:1559MHz-1610MHz

2. Antenna Structure

Carrier + FPC

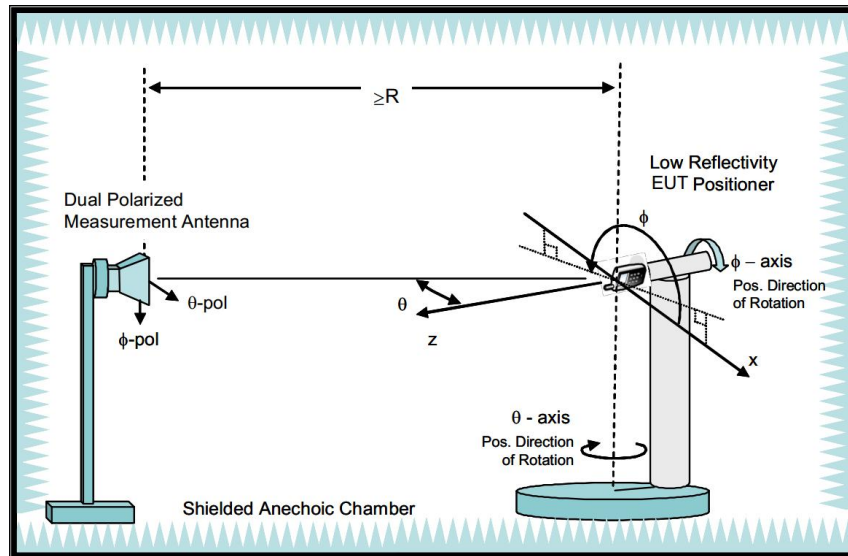
3. Device Conditions



Picture1 TR54 Mobile phone photo

Project Name:Pointmobile_TR54_3IN1 antenna		Document: Pointmobile_TR54_3IN1 antenna Approval Sheet_A	4
Date :2025-04-21	Version: A		

4. Test Environment



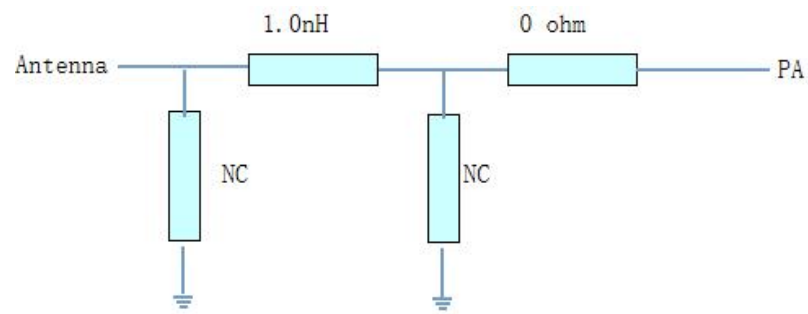
Picture 2 Test Environment photo

5. Antenna Test Results

5.1 Antenna Photos

Picture 3 3IN1 antenna photo

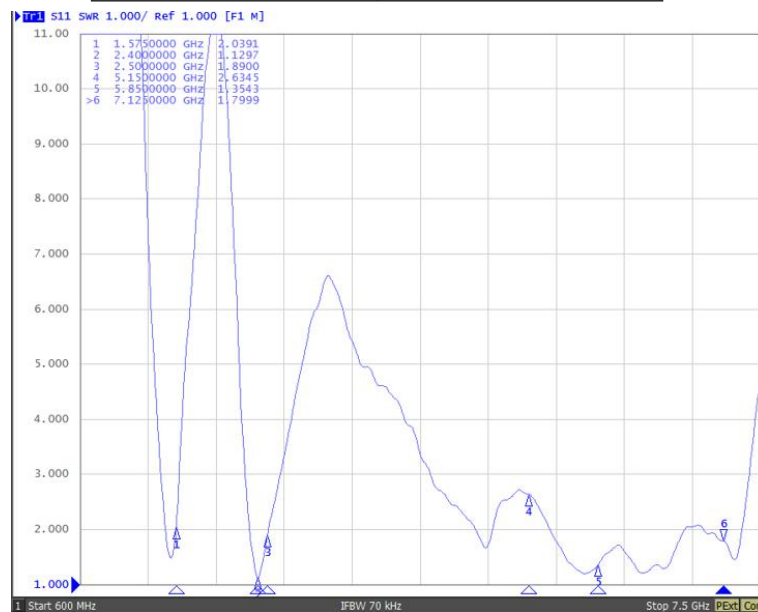
5.2 Matching Network



Picture 4 Matching network of 3IN1 antenna

5.3 VSWR (S11)

Frequency(MHz)	VSWR
1575	2.03
2400	1.1
2500	1.89
5150	2.63
7125	1.79



Picture 5 VSWR of 3IN1 antenna

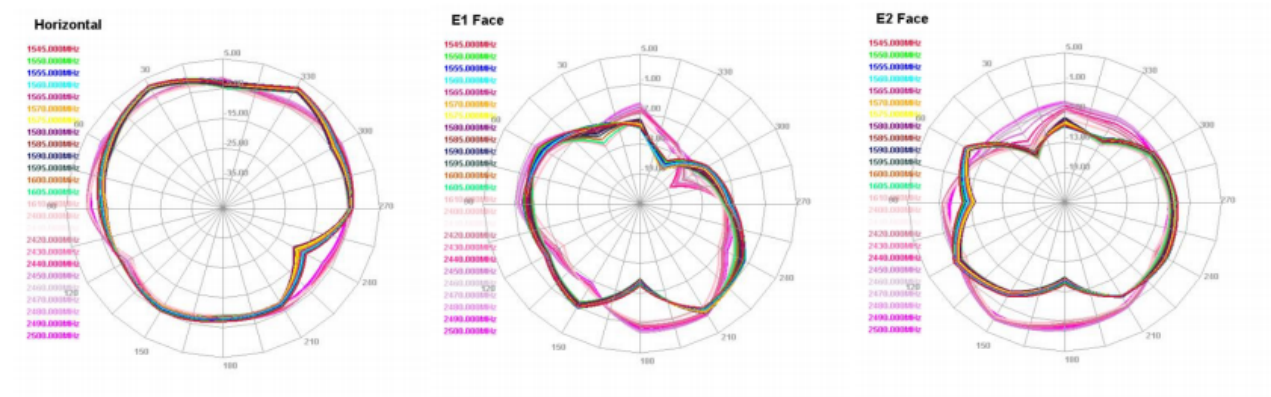
5.4 Efficiency & Peak Gain

Freq (MHz)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (dB)	Gain (dBi)
1560	-5.44	0.17	5100	-5.1	-1.51	5900	-3.74	2.45
1565	-5.24	0.54	5150	-5.25	0	6000	-2.48	2.36
1570	-5.12	0.88	5200	-5.36	0.2	6100	-2.96	2.14
1575	-5.1	1.1	5250	-5.32	-0.41	6200	-3.39	2.48
1580	-4.92	1.37	5300	-5.46	-0.45	6300	-3.29	2.46
1585	-4.83	1.48	5350	-5.57	0.66	6400	-3.62	2.44
1590	-4.83	1.5	5400	-4.78	1.55	6500	-4.05	2.39
1595	-4.82	1.43	5450	-4.82	1.53	6600	-4	1.81
1600	-4.89	1.3	5500	-4.84	2.05	6700	-3.98	2.38
2400	-4.23	2.35	5550	-4.55	2.46	6800	-3.77	2.67
2410	-4.34	2.12	5600	-3.77	2.37	6900	-3.9	2.07
2420	-4.2	2.22	5650	-2.88	2.46	7000	-4.02	1.65
2430	-4.38	2.35	5700	-2.72	2.44	7100	-5.22	-0.73
2440	-4.67	2.41	5750	-3.11	2.43	7150	-5.57	-0.82
2450	-4.62	2.35	5800	-3.54	2.18			
2460	-4.79	2.32	5850	-3.88	2.37			
2470	-5.17	1.84						
2480	-5.06	1.95						
2490	-5.56	1.46						
2500	-5.76	1.19						

5.5 Radiation Pattern

5.5 Radiation Pattern

1559-1610MHz+2400-2500MHz



5150-7125MHz

