

Antenna Specification

Model Name: SC55G

Date: 10th Aug, 2023

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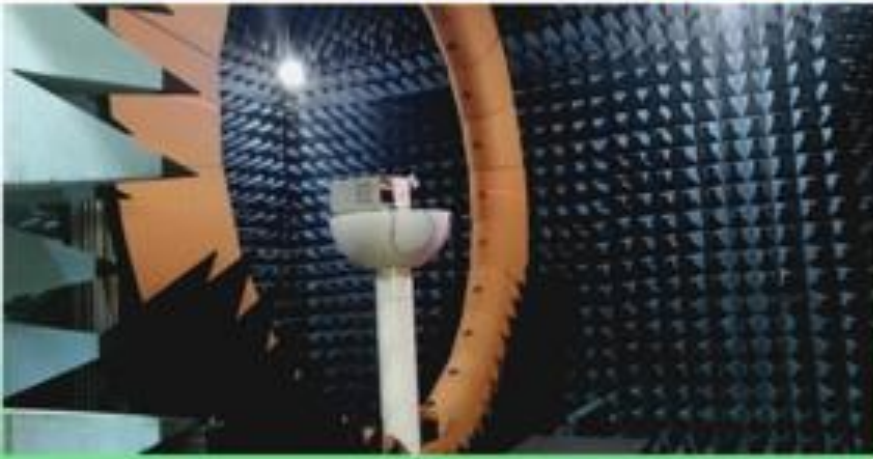
01.Project Introducation and Photoes-Project Introducation

RF Engineer	XULONG	Email	15988869300@163.com
		Mobile	15915343126
Antenna Overview			
Status of Sample machine	Whole machine	Project Name	SC55G
Antenna Type	PIFA	Structure mode	FPC
Main Antenna	4G:B1/2/3/5/7/8/34/38/39/40/41 3G:1/2/5/8 2G;2/3/5/8		
Other Antenna	Diversity Three-in-one antenna		

02.Report Versions

Version	Report Time	Commissioning Overview
A0	2023.10.18	Antenna Test Report
A1		
A2		
A3		
A4		
A5		
A6		
A7		
A8		
A9		
A10		

03.Introduction of Company and Test Environment-Test Environment



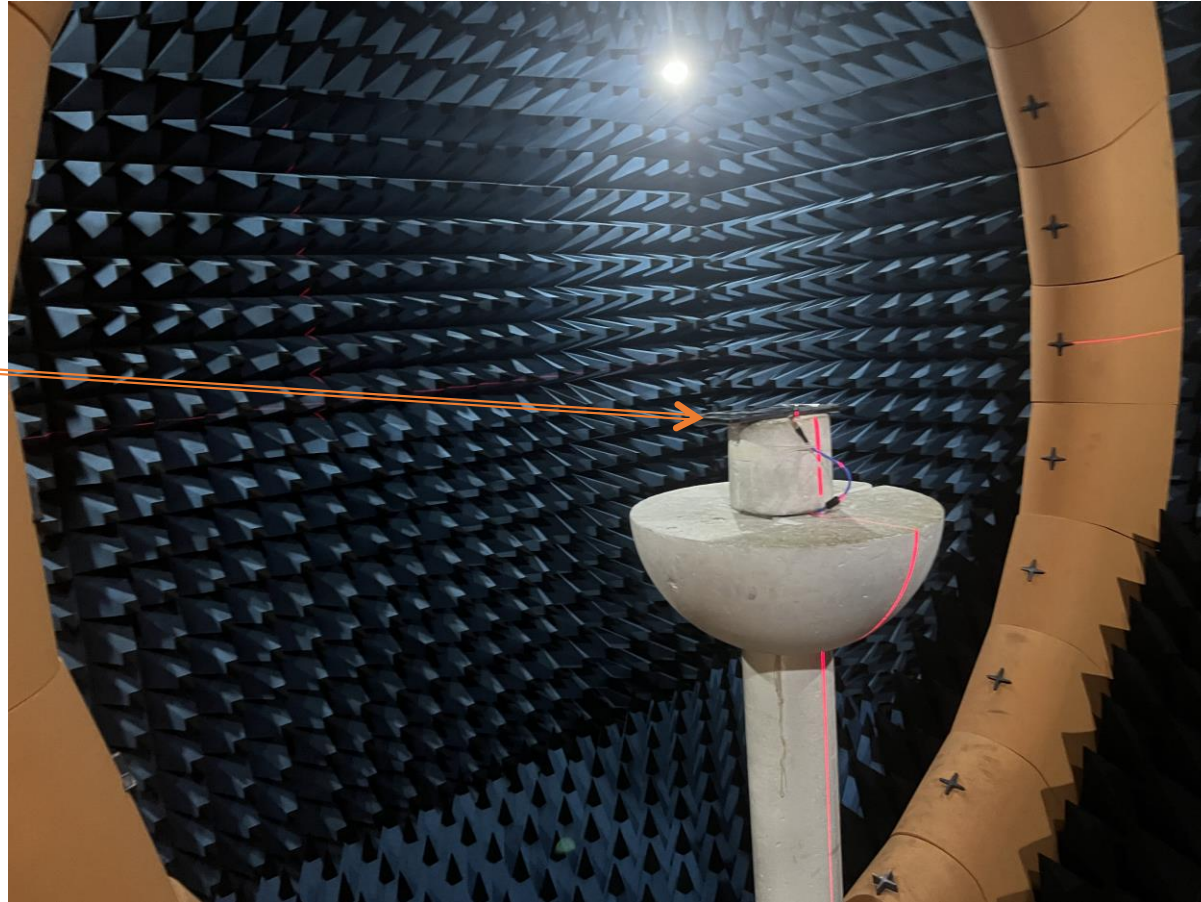
The company owns several OTA darkrooms whose frequency bands covers from 400mhz to 8.5ghz.

☞ Providing OTA test for whole machine which include but not be limited to 5G NSA, SA(trp/tis), WiFi active test (supporting 11b/11g/11n/11ax mode), bluetooth/GPS active test

- ☞ Providing antenna gain and efficiency
- ☞ Providing 2D pattern / Apple chart analysis
- ☞ Providing upper and lower hemisphere efficiency
- ☞ Providing mutual interference correlation coefficient test items.

04.Environment Test

Location of
Tested
Machine



05.Antenna correlation data

Main antenna active data

ANWEI ANT TRP&TIS parameter Summary of SC55G						
BAND	GSM900			DCS1800		
CHANNEL	1	62	124	512	698	885
TRP (dBm)	25. 84	25. 21	25. 16	24. 19	25. 25	25. 03
TIS (dBm)			-101. 47			-102. 36
BAND	GSM850			PCS1900		
CHANNEL	128	190	251	512	661	810
TRP (dBm)	25. 57	26. 35	26. 59	25. 41	25. 48	25. 38
TIS (dBm)			-103. 3			-103. 6
BAND	WCDMA2100			WCDMA1900		
CHANNEL	10562	10700	10838	9262	9400	9538
TRP (dBm)	17. 32	16. 52	16. 48	16. 35	16. 36	16. 37
TIS (dBm)			-103. 2			-103. 41
BAND	WCDMA850			WCDMA900		
CHANNEL	4132	4183	4233	2937	3013	3088
TRP (dBm)	15. 51	16. 38	16. 52	16. 48	15. 26	15. 18
TIS (dBm)			-102. 4			-102. 3

06.Antenna correlation data

Main antenna active data

ANWEI ANT TRP&TIS parameter Summary of SC55G						
BAND	FDD-1			FDD-2		
CHANNEL	18100	18300	18500	1855	1880	1905
TRP (dBm)	17.48	17.72	17.51	17.74	17.42	17.58
TIS (dBm)			-91.13			-90.68
BAND	FDD-3			FDD-5		
CHANNEL	19250	19575	19900	20450	20525	20600
TRP (dBm)	17.43	17.53	17.47	15.53	15.57	16.38
TIS (dBm)			-92.21			-90.12
BAND	FDD-8					
CHANNEL	21500	21625	21750			
TRP (dBm)	16.13	15.27	15.14			
TIS (dBm)			-88.72			
BAND	TDD-34			TDD-38		
CHANNEL	36250	36275	36300	37850	38000	38150
TRP (dBm)	17.36	18.47	17.52	14.19	14.03	13.82
TIS (dBm)			-90.23			-89.68

06.Antenna correlation data

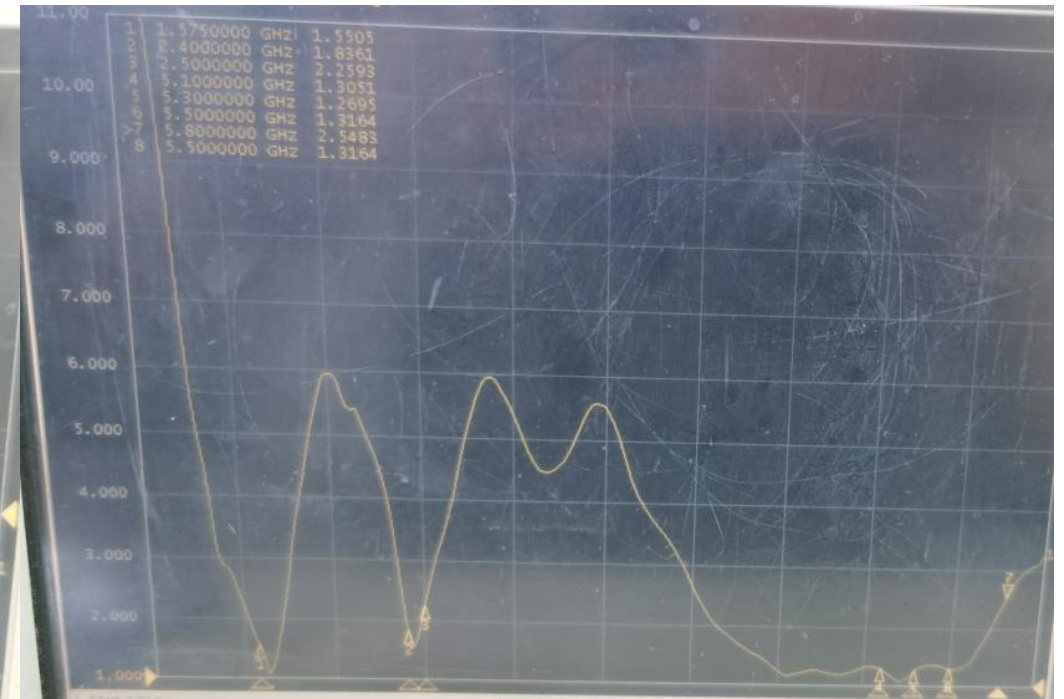
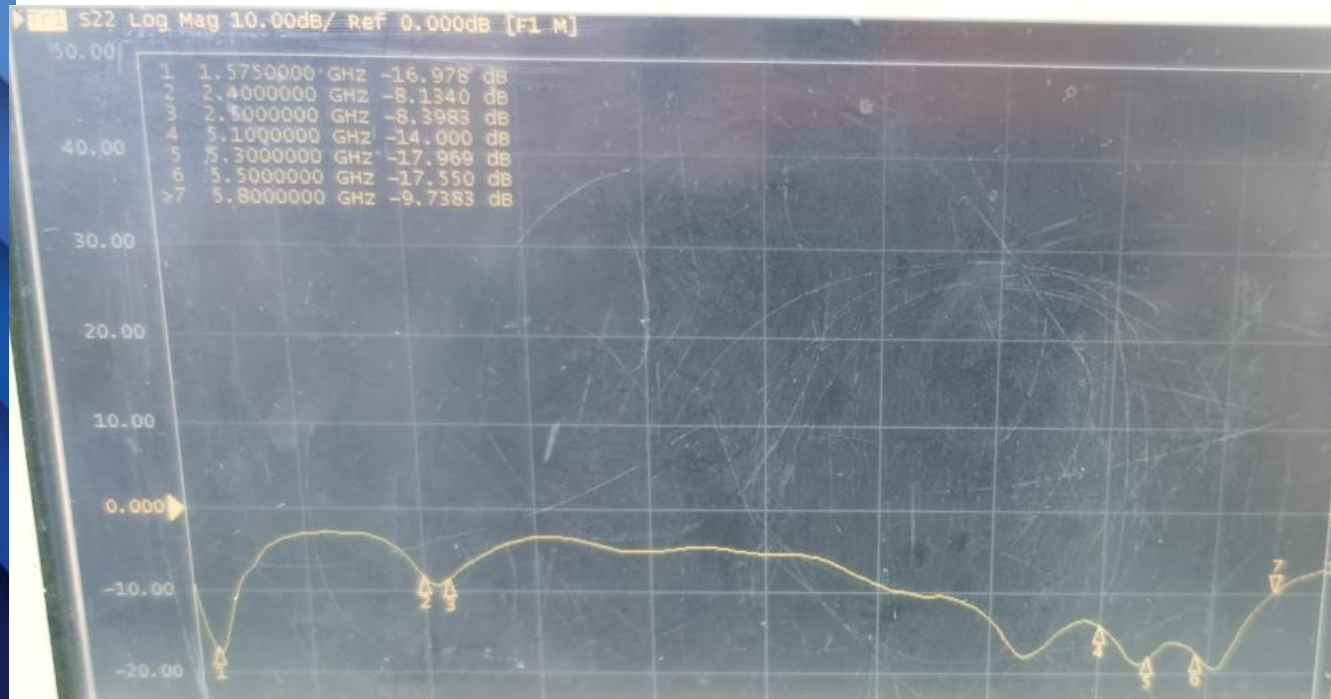
Main antenna active data

ANWEI ANT TRP&TIS parameter Summary of SC55G						
BAND	TDD-39			TDD-40		
CHANNEL	38350	38450	38550	38750	39150	39550
TRP (dBm)	17.63	17.42	17.71	15.36	15.25	15.48
TIS (dBm)			-90.21			-87.53
BAND	TDD-41					
CHANNEL		40620				
TRP (dBm)		14.23				
TIS (dBm)		-88.24				

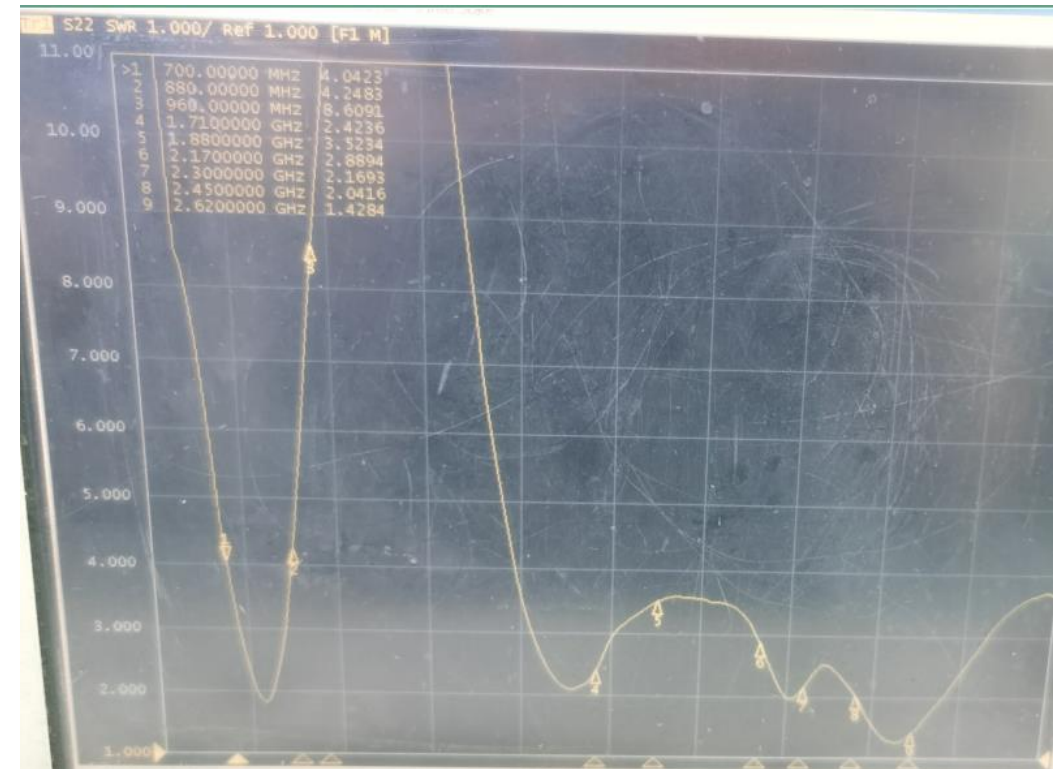
07. WIFI active data

Standard	Band	Channel	Frequency	TRP	TIS
WIFI_B	B_11M	1	2412	11.92	-81.49
WIFI_B	B_11M	6	2437	11.59	-80.97
WIFI_B	B_11M	11	2462	11.48	-80.48
WIFI_A	A_54M	36	5180	7.17	-69.42
WIFI_A	A_54M	64	5320	5.67	-68.14
WIFI_A	A_54M	165	5825	7.98	-69.74

08.GPS/WIFI/BT Antenna VSWR/S11



09. MAIN Antenna VSWR/S11

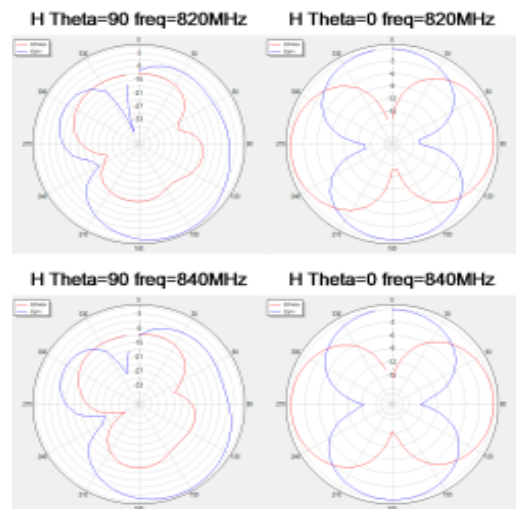
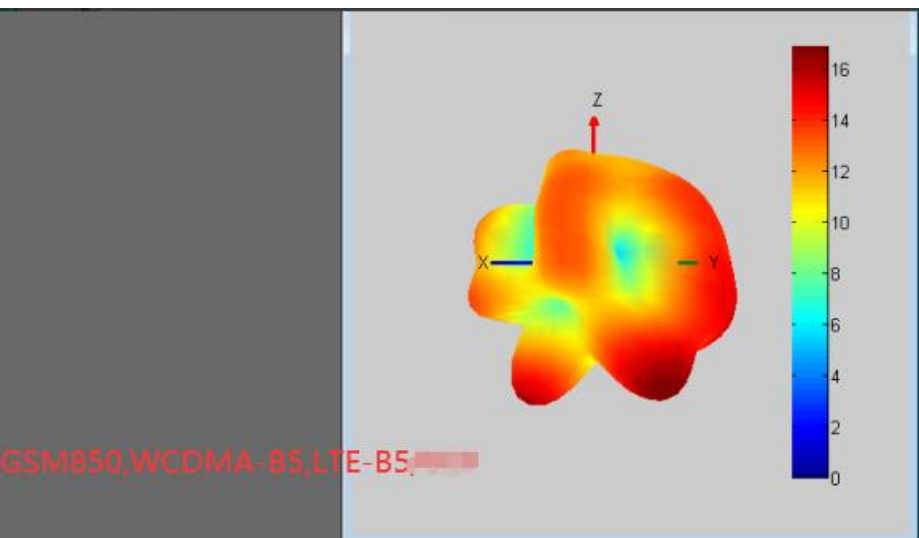


10. Antenna passive data

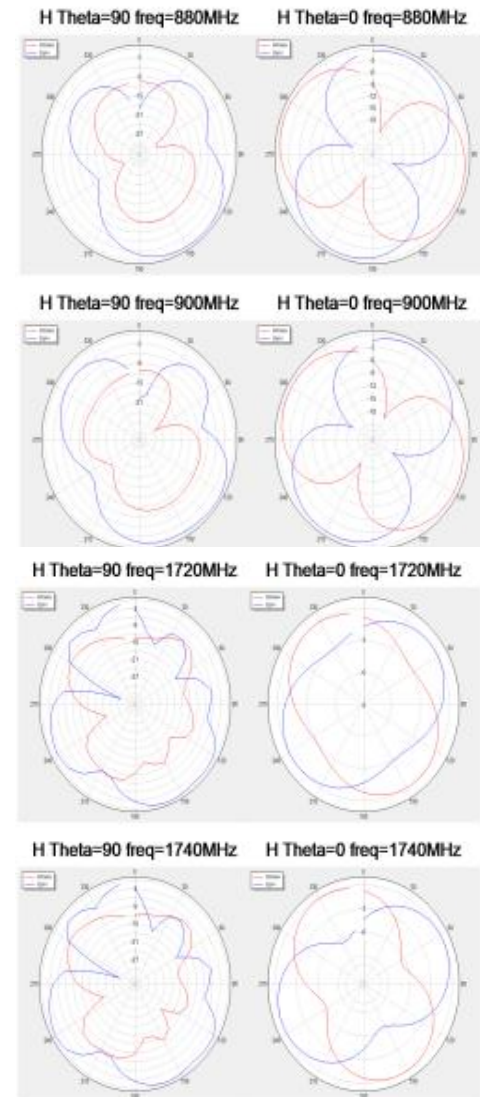
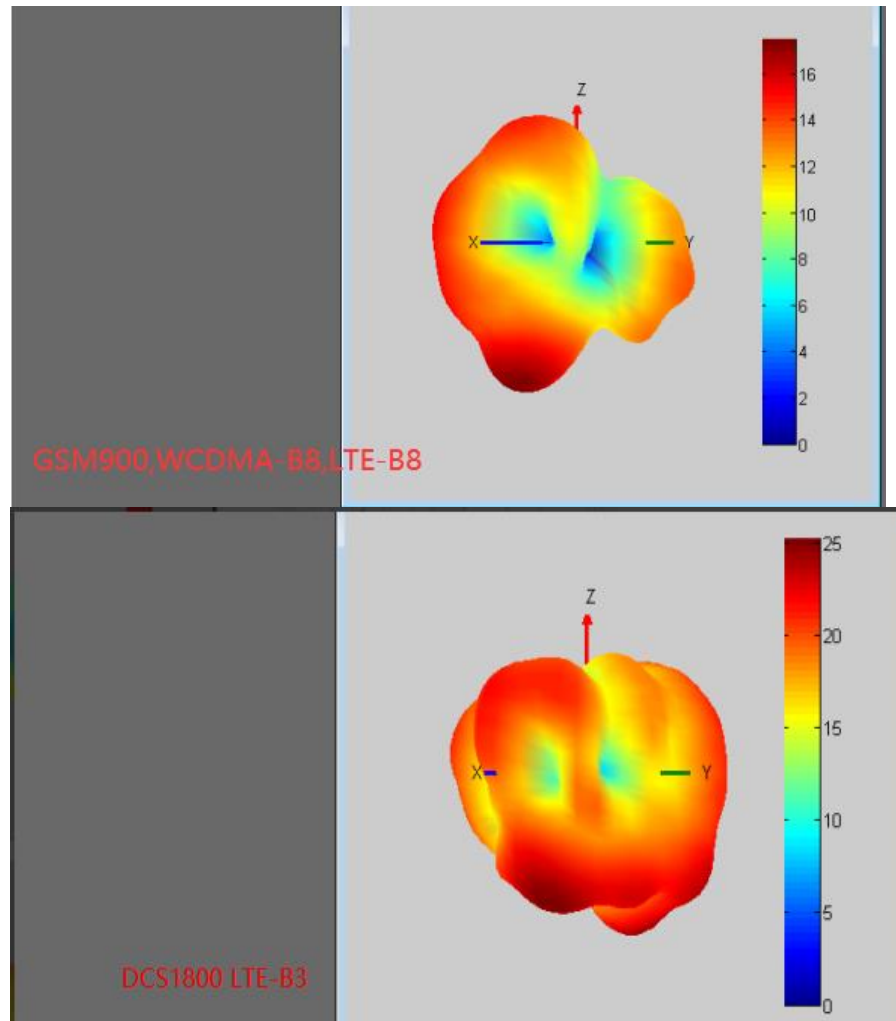
GSM850	-0.63
EGSM900	-0.61
DCS1800	-0.43
PCS1900	-0.42
W2100	-0.51
W900	-0.61
W850	-0.63
W1900	-0.42
B1	-0.51
B2	-0.42
B3	-0.46
B5	-0.67
B7	-0.39
B8	-0.61
B3	-0.46

B5	-0.67
B7	-0.39
B8	-0.61
B3	-0.46
B4	-0.43
B5	-0.67
B7	-0.39
B8	-0.61
B34	-0.36
B38	-0.38
B39	-0.37
B40	-0.36
B41	-0.42
GPS	-0.41
WIFI	0.34
BT	0.34
5G WIFI	0.12

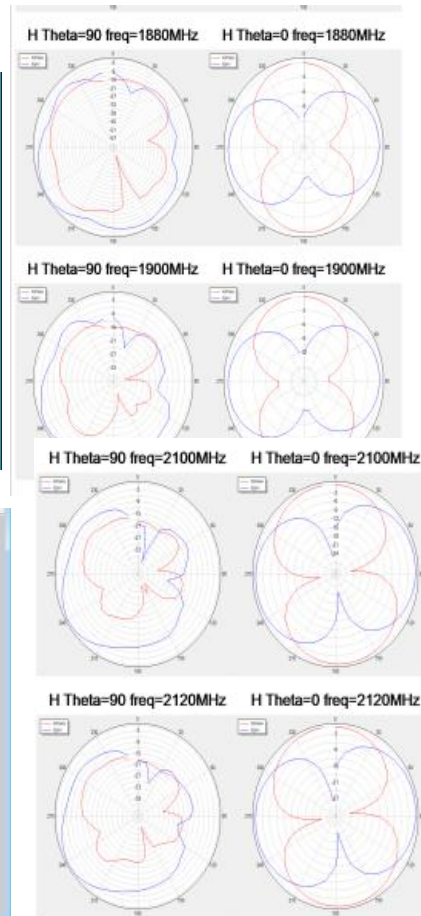
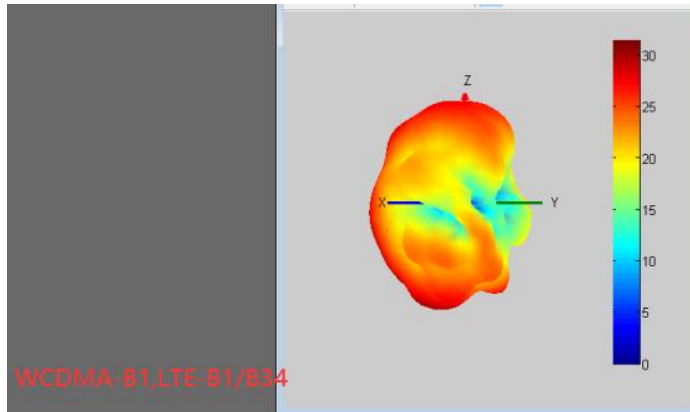
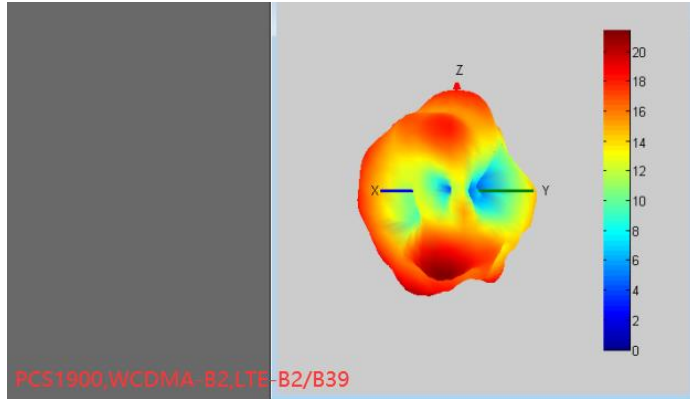
11. Antenna correlation data



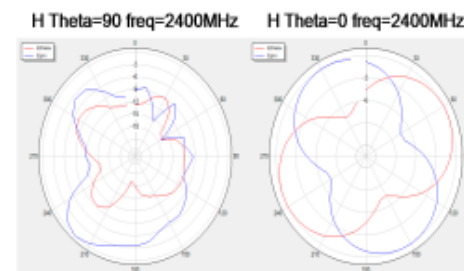
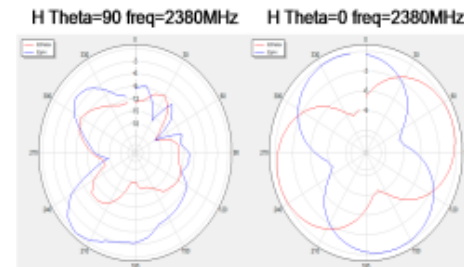
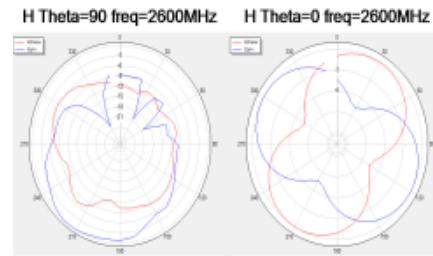
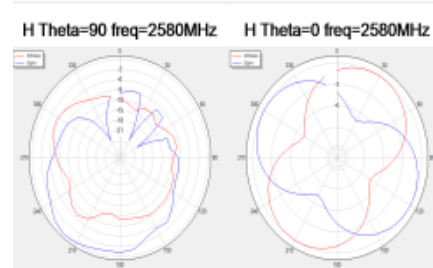
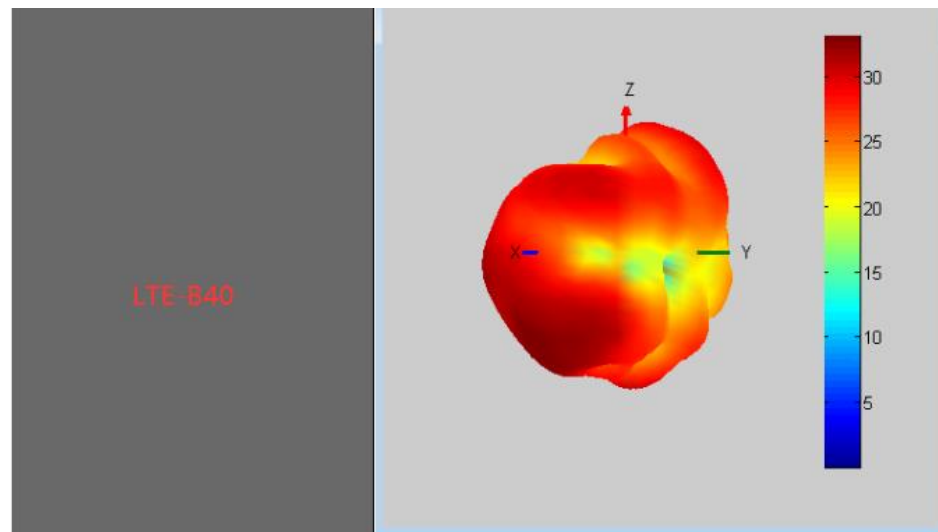
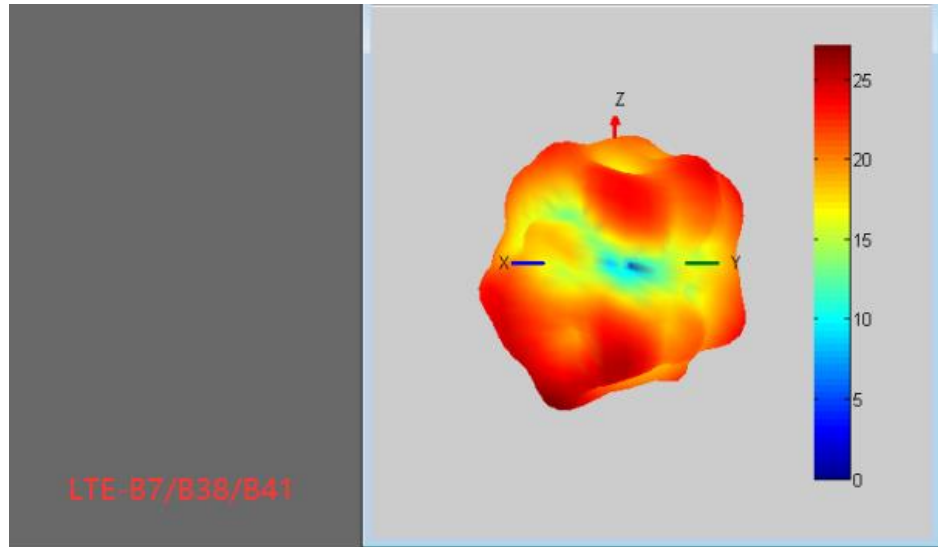
12. Antenna correlation data



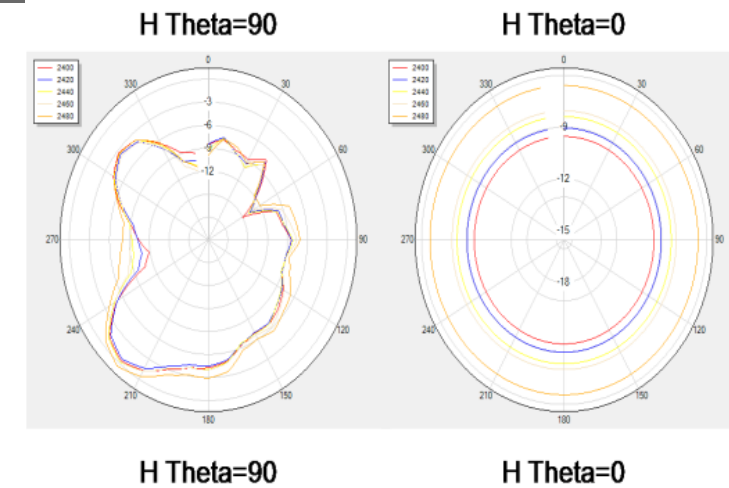
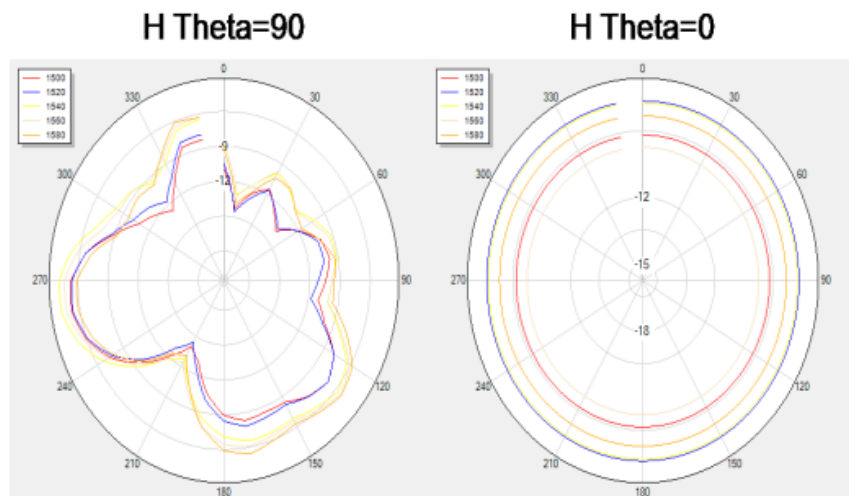
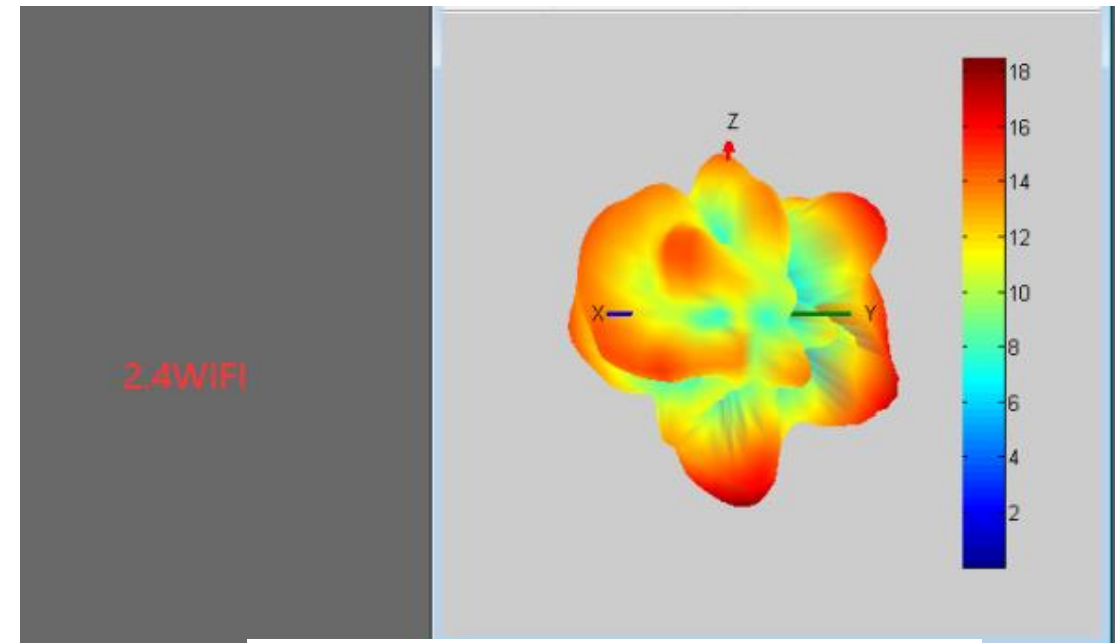
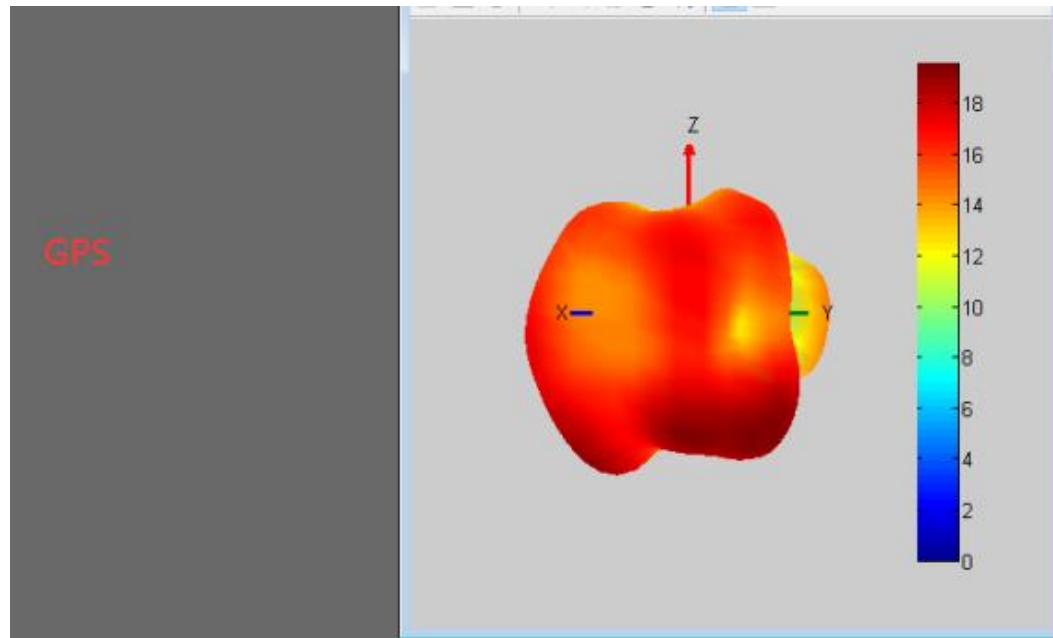
13. Antenna correlation data



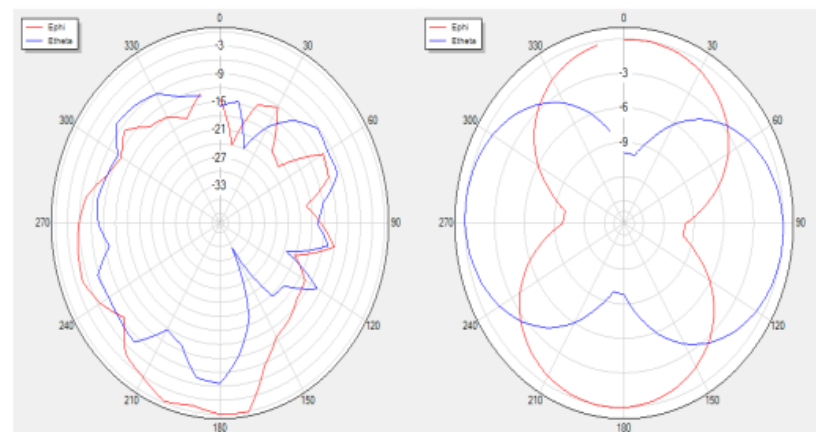
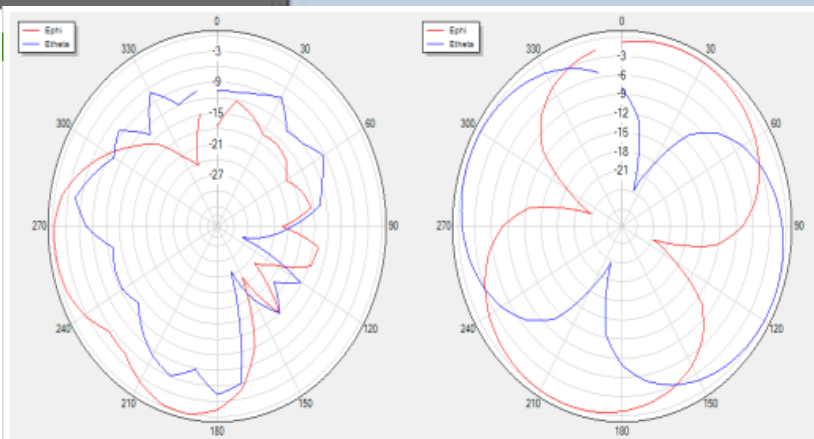
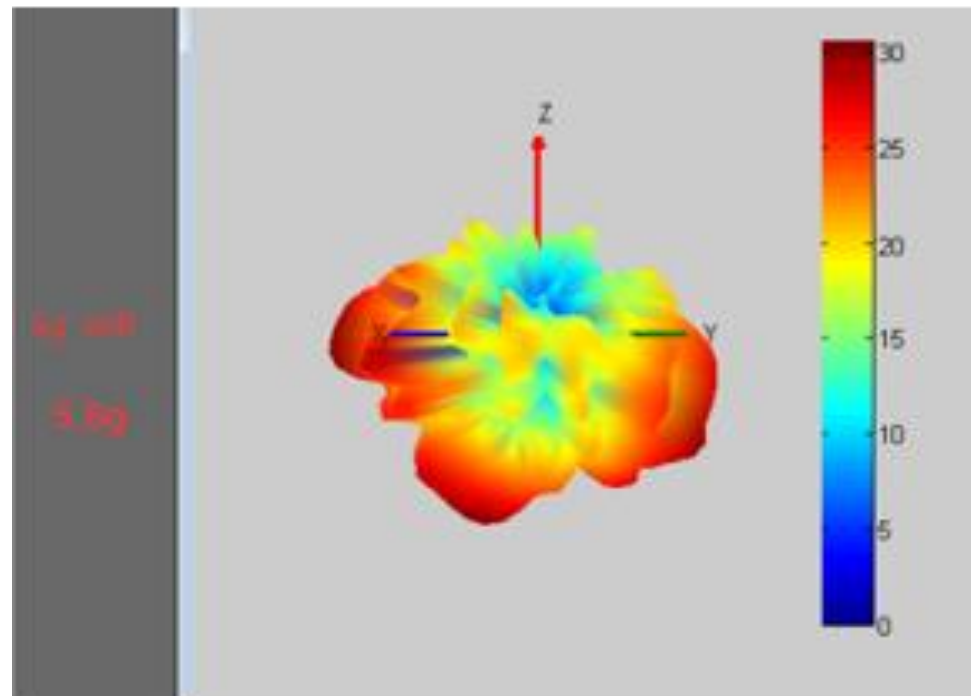
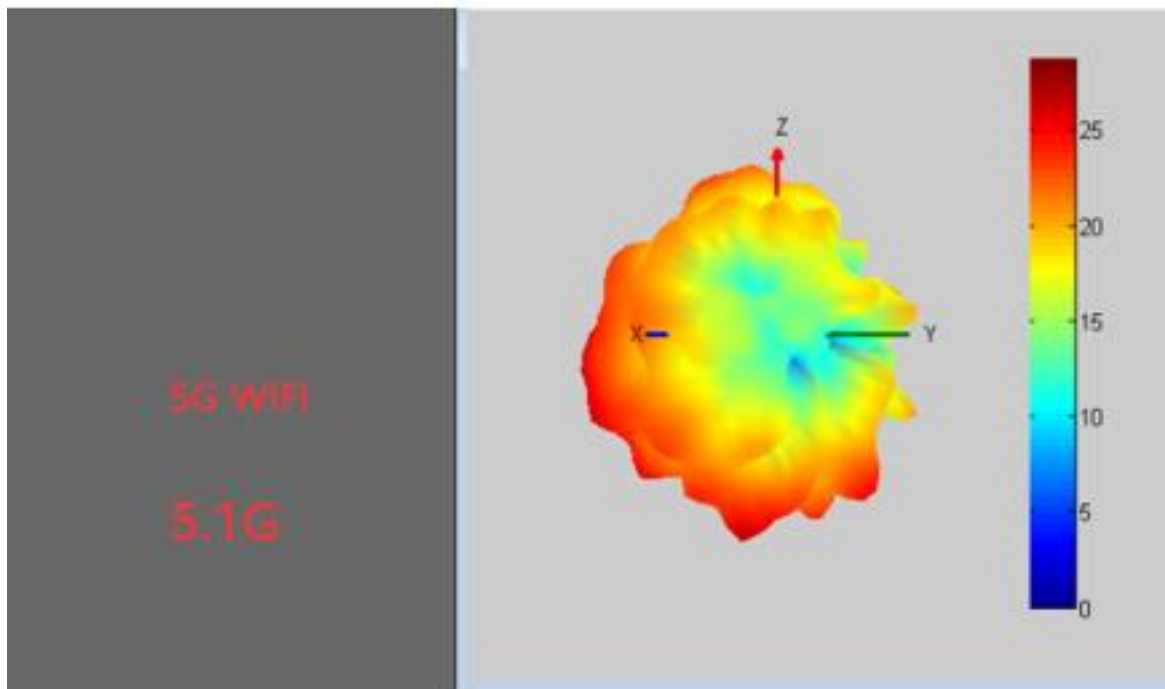
14. Antenna correlation data



15. Antenna correlation data



16. Antenna correlation data

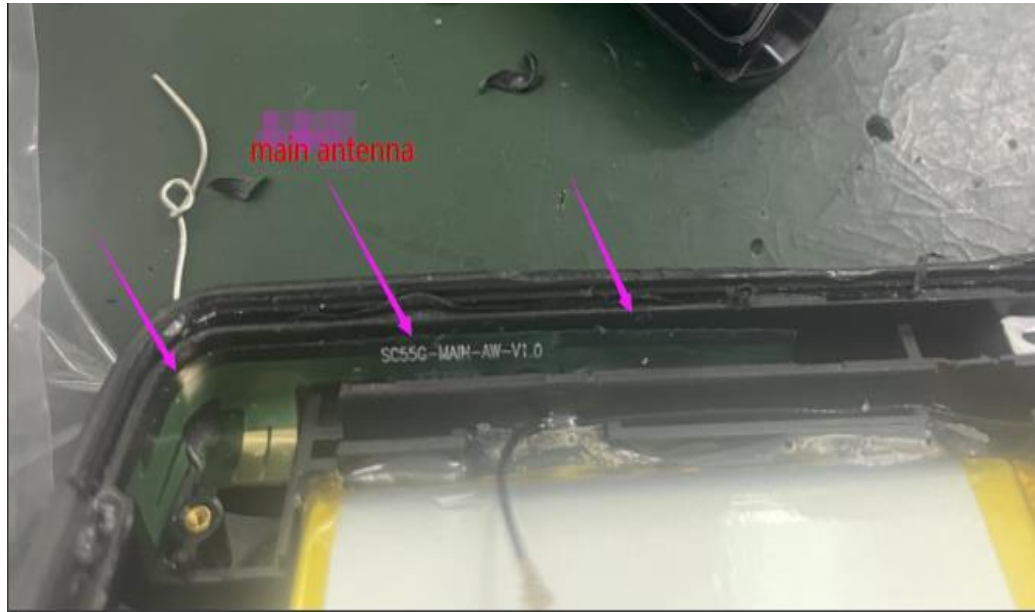


17.GPS/BT/ measured data



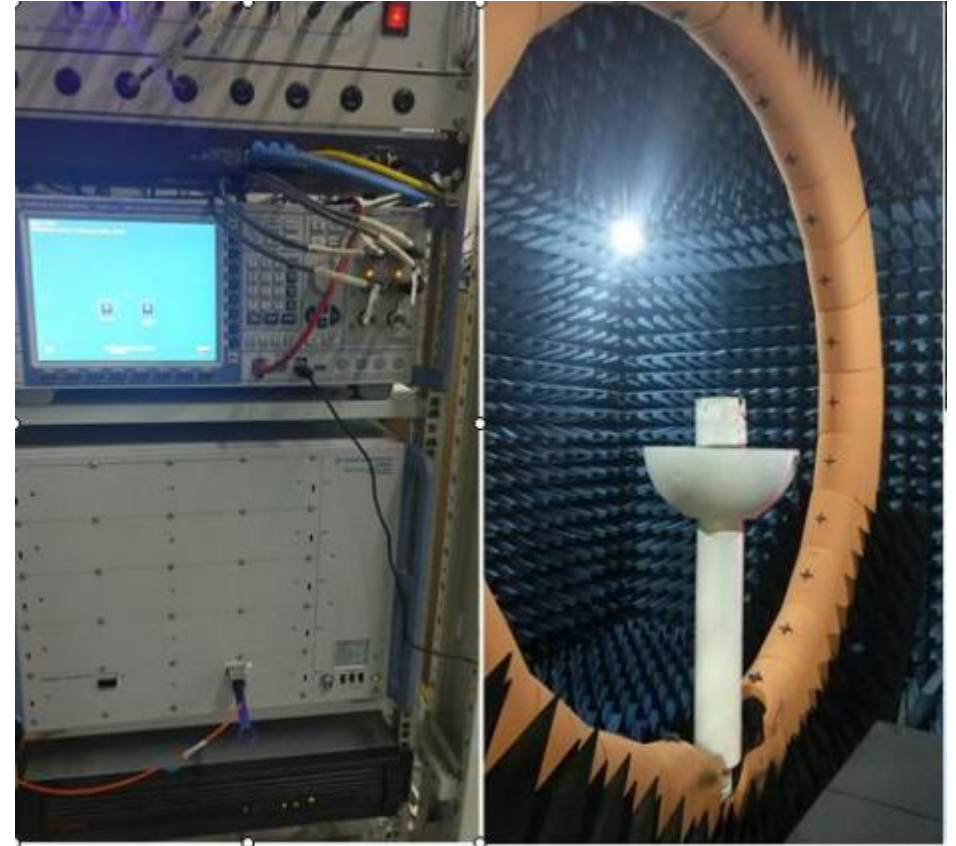
GPS search on the roof of the fifth floor of our company, positioning time 1 minute. Bluetooth no block 12 meters listening to music smooth

18. Antenna location diagram

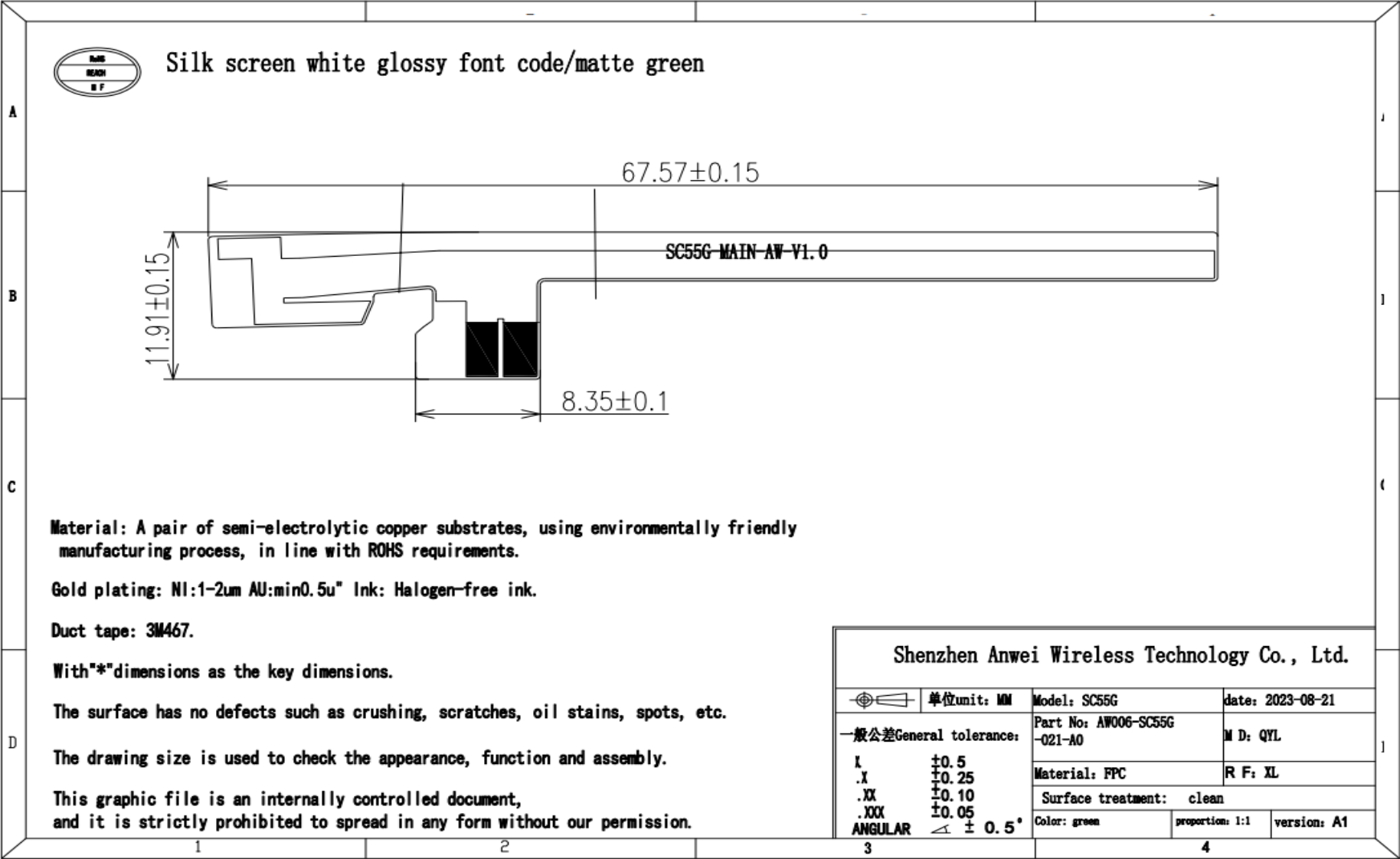


19.Conclusion

The software and hardware of batch production should be the same as the sample machine.



20.Main antenna size



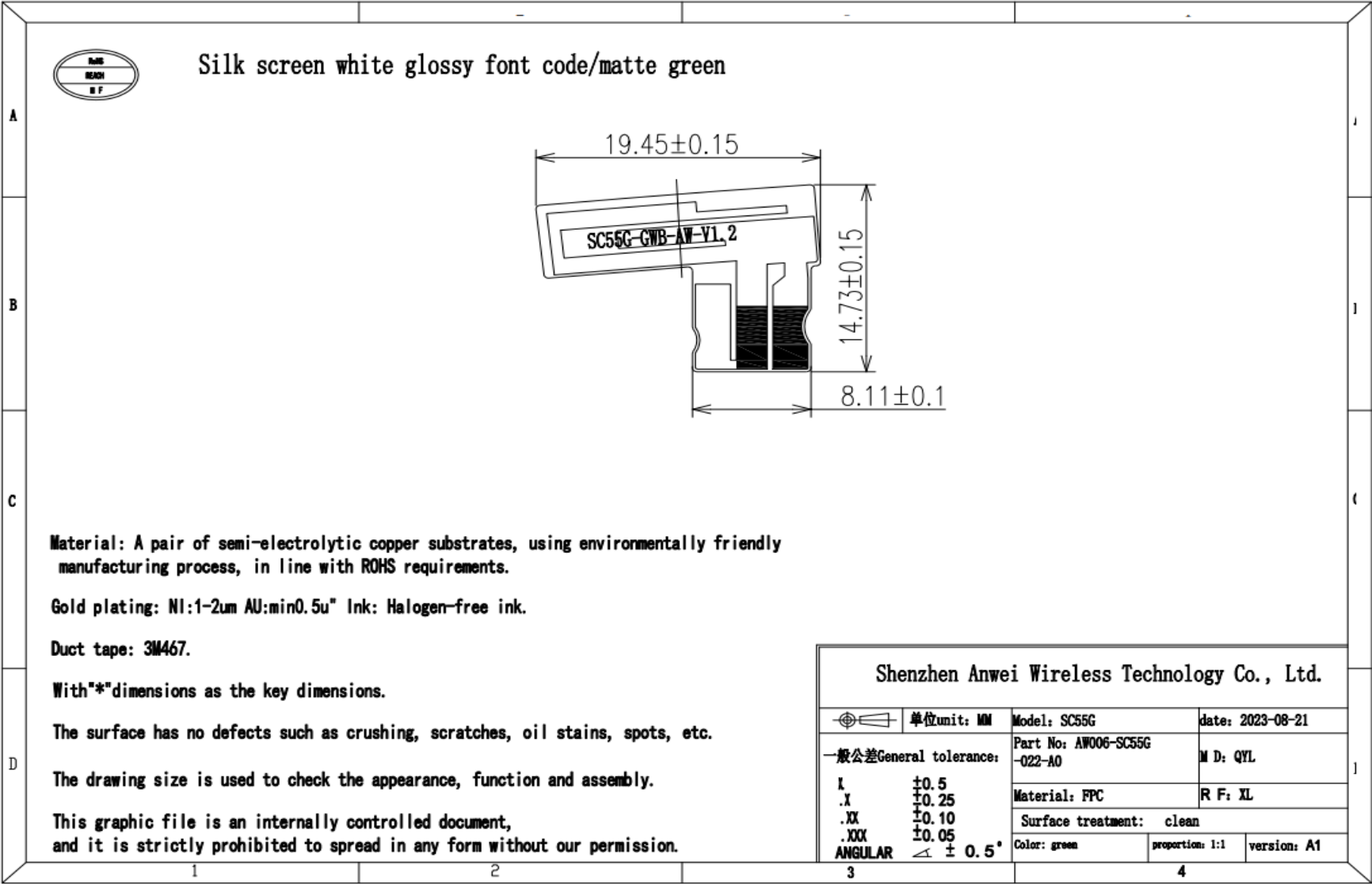
1

2

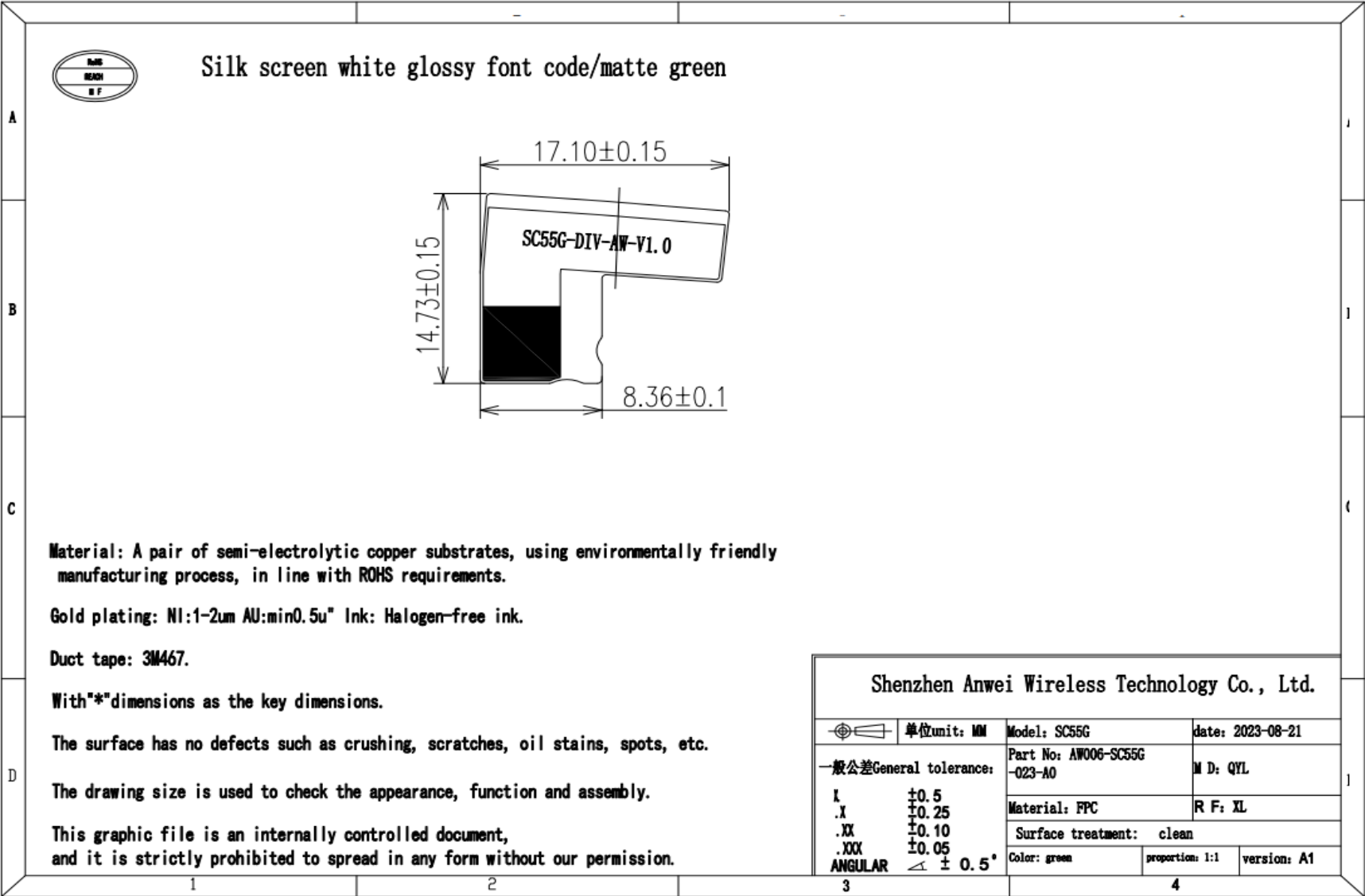
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4

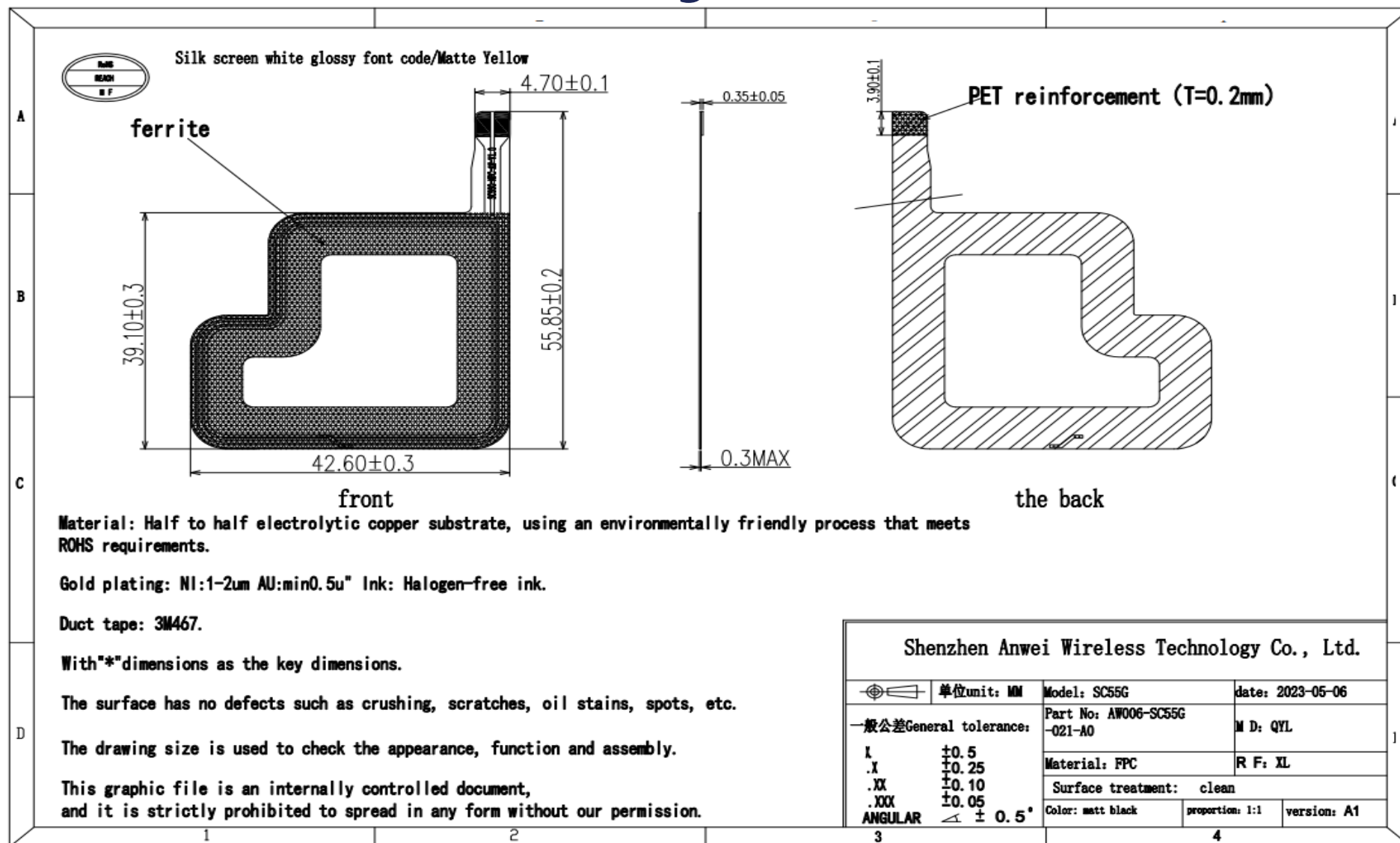
21.Three in one antenna size



22.Diversity antenna size



23.NFC Dimensional Drawing





THANKS!

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