

Antenna Test report

Model Name: P10

Date: 10th Aug, 2023

Shenzhen ANWEI Technology Co., Ltd.

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Catalogue

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01.Project Introdunction and Photoes-Project Introdunction

RF Engineer	WUXI	Email	303810988@qq.com
		Mobile	13751118278
Antenna Overview			
Status of Sample machine	Whole machine	Project Name	P10
Antenna Type	PIFA	Structure mode	FPC
Main Antenna	GSM850/900/1800/1900 WCDMA1/2/5/6/8/19 B1. 2. 3. 4. 5. 7. 8. 12. 13. 17. 18. 19. 20. 25. 26. 28. 66. 34. 38. 39. 40. 41 CDMA BC0/BC1/BC10		
Other Antenna	Diversity Three-in-one antenna		

02.Report Versions

Version	Report Time	Commissioning Overview
A0	2023.11.23	Antenna Test Report
A1		
A2		
A3		
A4		
A5		
A6		
A7		
A8		
A9		
A10		

03.Introduction of Company and Test Environment-Test Environment



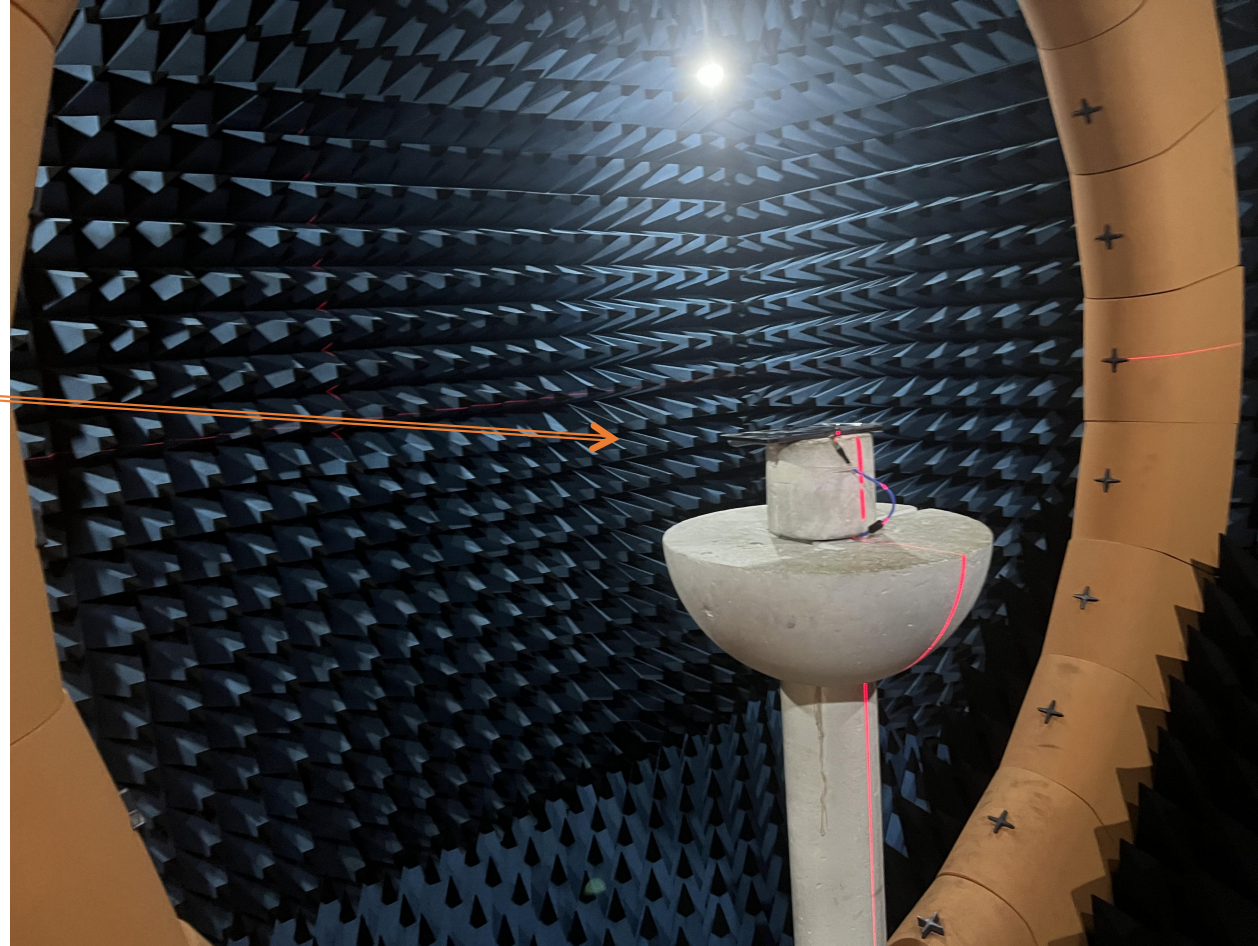
The company owns several OTA darkrooms whose frequency bands covers from 400mhz to 8.5ghz.

- ☞ 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.

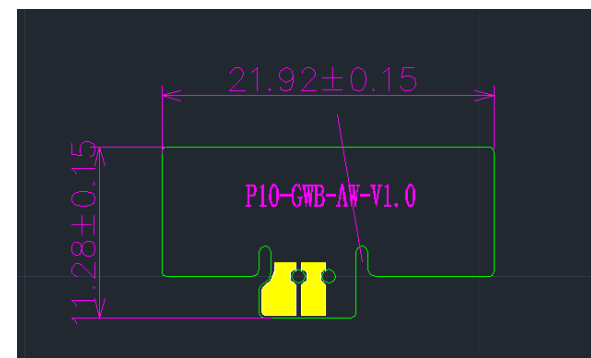
04.Environment Test

Location of
Tested
Machine



05.Antenna correlation data

	Channel	TRP (dBm)	TIS (dBm)			Channel	TRP (dBm)	TIS (dBm)		
GSM 850	128	28.24								
	190	28.04								
	251	28.46	-104.1							
GSM 900	1	28.67			W 1	LOW	17.12			
	62	28.35				medium	17.20			
	124	28.24	-103.5			high	17.24	-104.3		
DCS 1800	512	25.04			W 2	LOW	17.07			
	698	25.16				medium	18.49			
	885	25.01	-103.6			high	17.18	-104.5		
PCS 1900	512	25.13			W 5	LOW	17.34			
	661	25.48				medium	17.28			
	810	24.58	-103.4			high	17.64	-104.36		
					W 6	LOW	18.26			
						medium	18.26			
						high	18.55	-103.5		
CDMA BC0	LOW	17.24			W 8	LOW	18.57			
	medium	17.32				medium	18.65			
	high	17.07	-103.3			high	18.45	-103.0		
CDMA BC1	LOW	17.35			W 19	LOW	18.35			
	medium	17.59				medium	18.07			
	high	17.43	-103.0			high	18.54	-104.5		
					W 4	LOW	18.54			
						medium	18.35			
						high	18.32	-104.1		



06.Antenna correlation data

Main antenna active data

	Channel	TRP (dBm)	TIS (dBm)			Channel	TRP (dBm)	TIS (dBm)			Channel	TRP (dBm)	TIS (dBm)	
FDD B1	18050	18.32		FDD B13		23780			FDD B28B		27410	17.35		FDD-66
	18300	17.1				23790	17.31	-90.6			27510	17.01		
	18550	17.67	-91.5			23800					27600	17.32	-90.2	
FDD B2	18650	17.76		FDD B17		23780	17.52		FDD-66		132022	17.12		FDD-66
	18900	17.59				23790	17.10				132322	17.54		
	19150	17.62	-91.6			23800	17.24	-90.4			132622	17.67	-90.4	
FDD B3	19250	16.83		FDD 18		23900	17.57							
	19575	17.31				23925	17.49							
	19900	17.1	-91.5			23950	17.18	-91						
FDD B4	20000	17.97		FDD-19		24050	17.34		TDD 34		38350	17.06		TDD 38
	20175	17.18				24075	17.28				38450	17.18		
	20350	17.01	-91.5			24100	17.64	-91.5			38550	17.15	-91.3	
FDD B5	20450	17.23		FDD B20		24200	17.16		TDD 38		37850	18.43		TDD 39
	20525	18.01				24300	17.26				38000	18.9		
	20600	18.02	-92.2			24400	17.15	-90.5			38150	18.0	-90.2	
FDD B7	20800	18.83		FDD-25		26090	18.15		TDD 39		38350	18.51		TDD 40
	21100	18.01				26365	17.52				38450	17.52		
	21400	18.62	-91.5			26640	17.43	-90.4			38550	17.79	-90.1	
FDD B8	21500	18.23		FDD-26		26740	17.35		TDD 40		38750	18.24		TDD 41
	21625	18.51				26865	17.57				39150	18.24		
	21750	18.32	-91.5			26990	17.59	-91.3			39550	18.71	-90.3	
FDD B12	23060	17.24		FDD B28A		27260	17.35		TDD 41					
	23095	17.35				27370	17.46				40620	18.31	-90.2	
	23130	17.87	-90.3			27469	17.54	-90.5						

07.GPS measured data

Show in single page

ID	CNR	ID	CNR	ID	CNR
G10	42.6/-/-/-/-/-	G12	38.3/-/-/-/-/-	G18	24.9/-/-/-/-/-
G23	29.3/-/-/-/-/-	G25	41.6/-/-/-/-/-	G28	35.0/-/-/-/-/-
G29	0.0/-/-/-/-/-	G31	0.0/-/-/-/-/-	R65	29.8/-/-/-/-/-
G71	41.7/-/-/-/-/-	R72	40.4/-/-/-/-/-	R74	27.0/-/-/-/-/-
R75	45.6/-/-/-/-/-	R81	42.5/-/-/-/-/-	R83	18.5/-/-/-/-/-
R88	33.1/-/-/-/-/-	B2	23.2/-/-/-/-/-	B3	0.0/-/-/-/-/-
B4	33.5/-/-/-/-/-	B9	24.8/-/-/-/-/-	B10	0.0/-/-/-/-/-
B13	40.8/-/-/-/-/-	B19	42.6/-/-/-/-/-	E9	37.6/-/-/-/-/-
E31	35.5/-/-/-/-/-	E34	31.7/-/-/-/-/-	E36	28.2/-/-/-/-/-
				Q4	45.0/-/-/-/-/-

08. WIFI active data



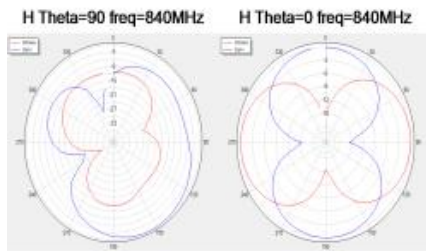
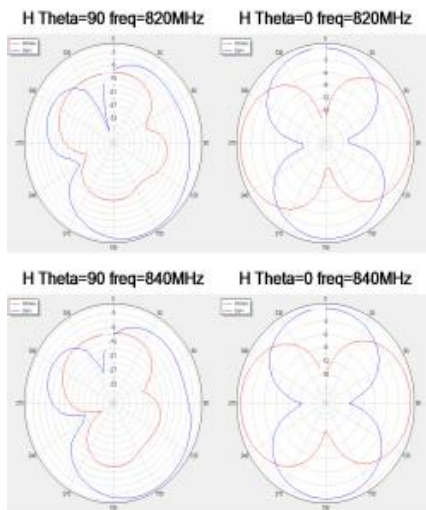
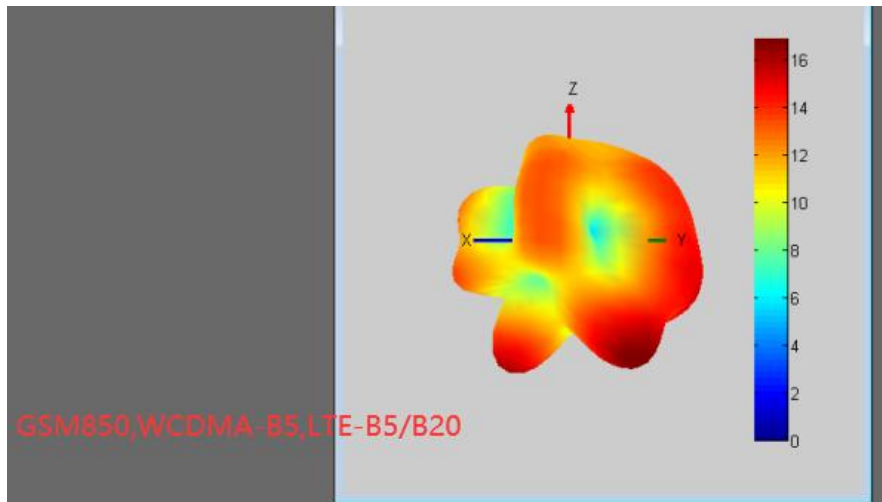
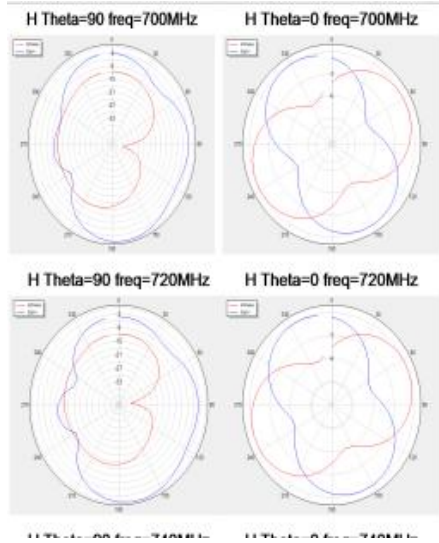
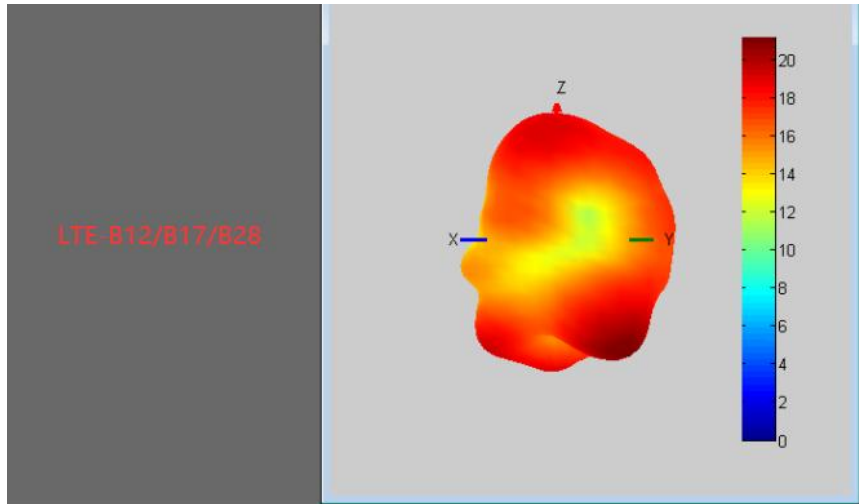
WIFI测试效果：OTA

BAND	2.4G WIFI			5.8WIFI		
CHANNEL	low	medium	high	low	medium	high
TRP (dBm)	12.35	11.55	11.67	10.67	10.55	11.07
TIS (dBm)	-81.5	-81.62	-81.04	-71.59	-71.54	-71.5

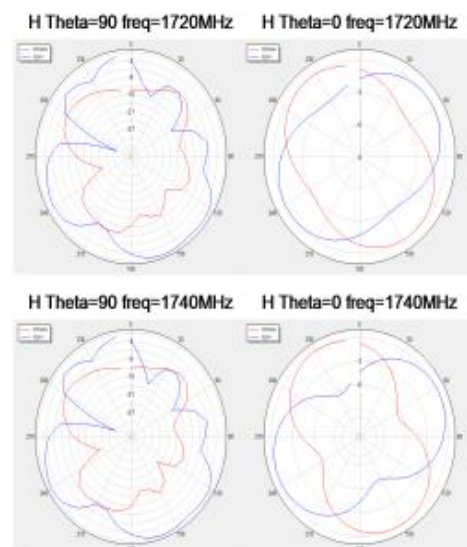
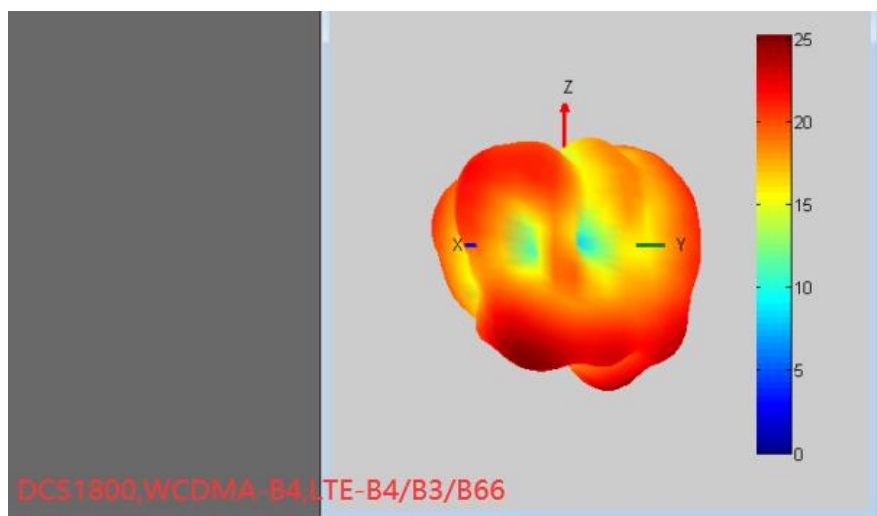
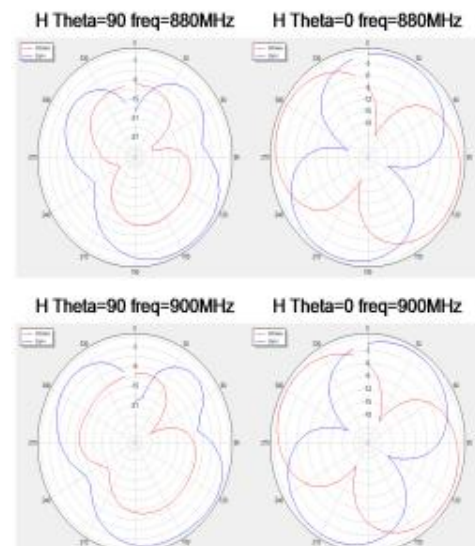
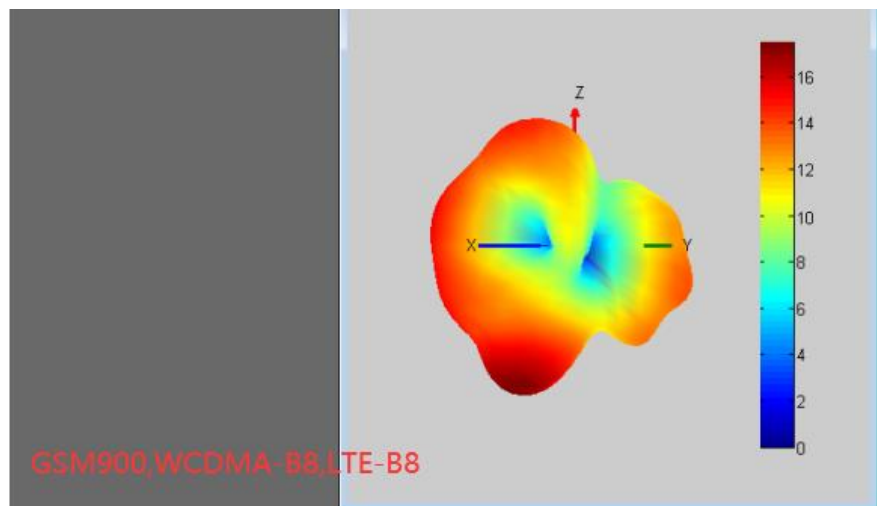
09. Antenna passive data

Gain		
Band	gain(dBi)	
LTE-B12/B17/B28 (704-798MHz)	-1.35	
GSM850,WCDMA-B5,LTE-B5/B18/B19/B20/B26 (824-894MHz)	-1.05	
GSM900,WCDMA-B8,LTE-B8 (880-960MHz)	-0.85	
DCS1800,WCDMA-B4,LTE-B4/B3/B25/B66 (1710-1880MHz)	1.3	
PCS1900,WCDMA-B2,LTE-B2/B39 (1850-1990MHz)	2.2	
WCDMA-B1,LTE-B1/B34 (1920-2170MHz)	1.8	
LTE-B7/B38/B41, (2500-2690MHz)	2.59	
LTE-B40 (2300-2400MHz)	2.32	
LTE-B13 (780MHz)	-1.2	
GPS (1575MHz)	1.2	
2.4G WIFI/BT	1.5	
5G WIFI	1.0	

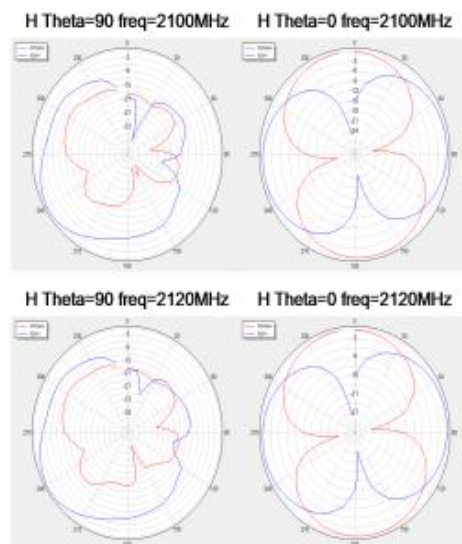
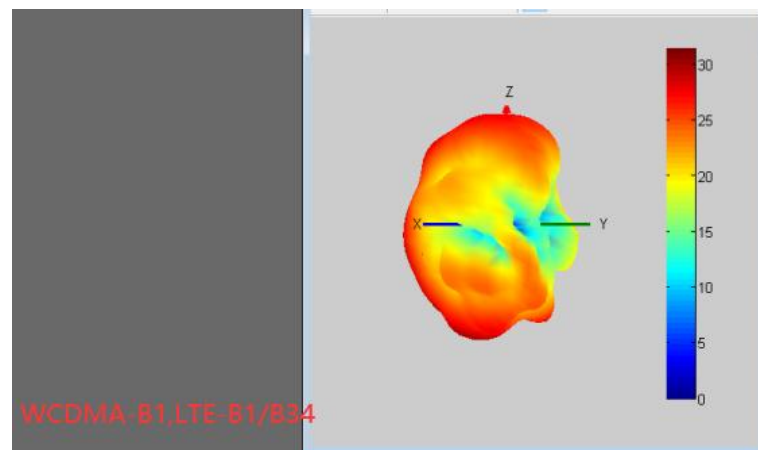
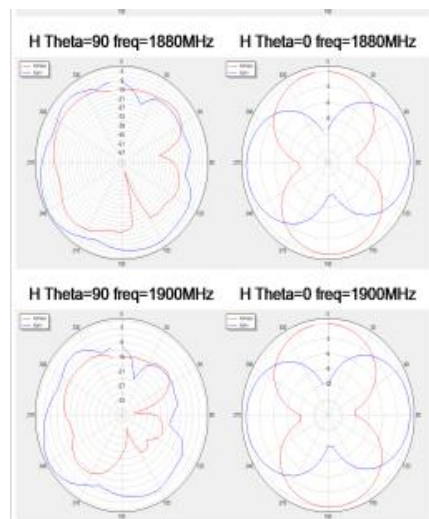
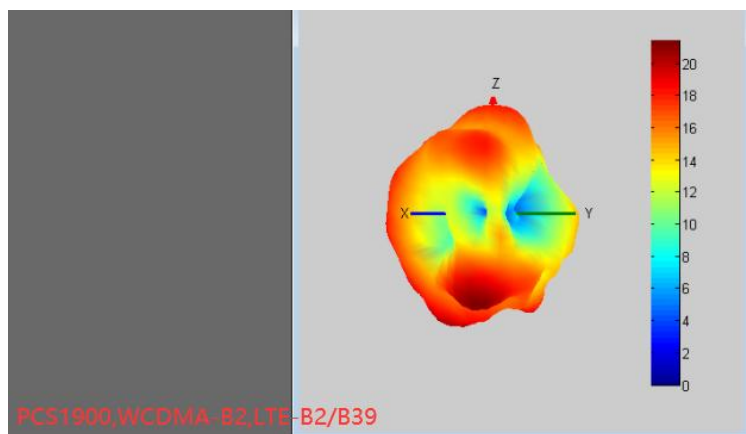
11. Antenna correlation data



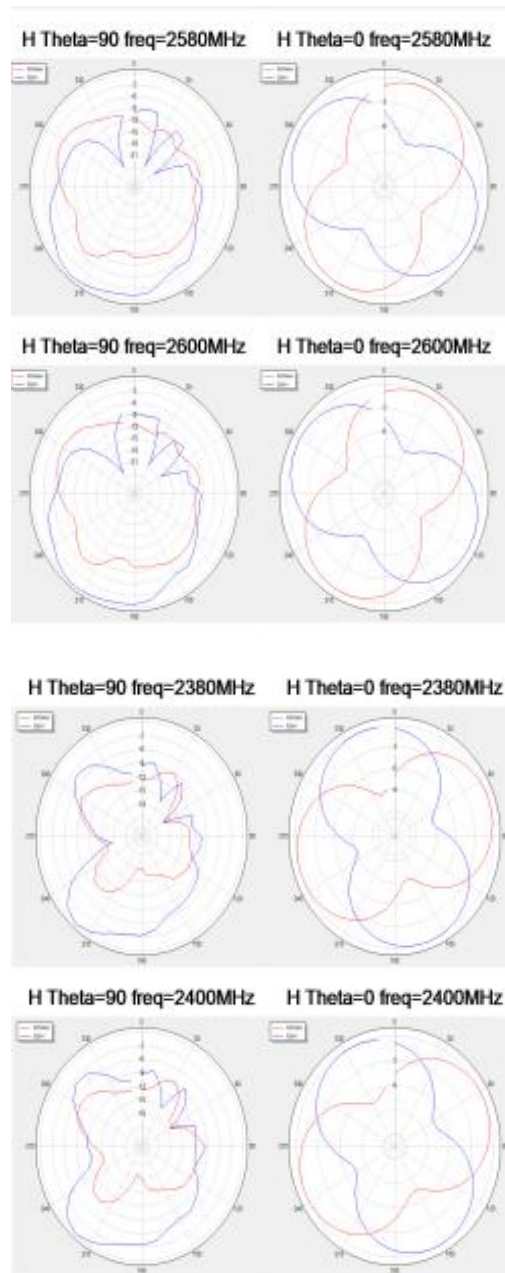
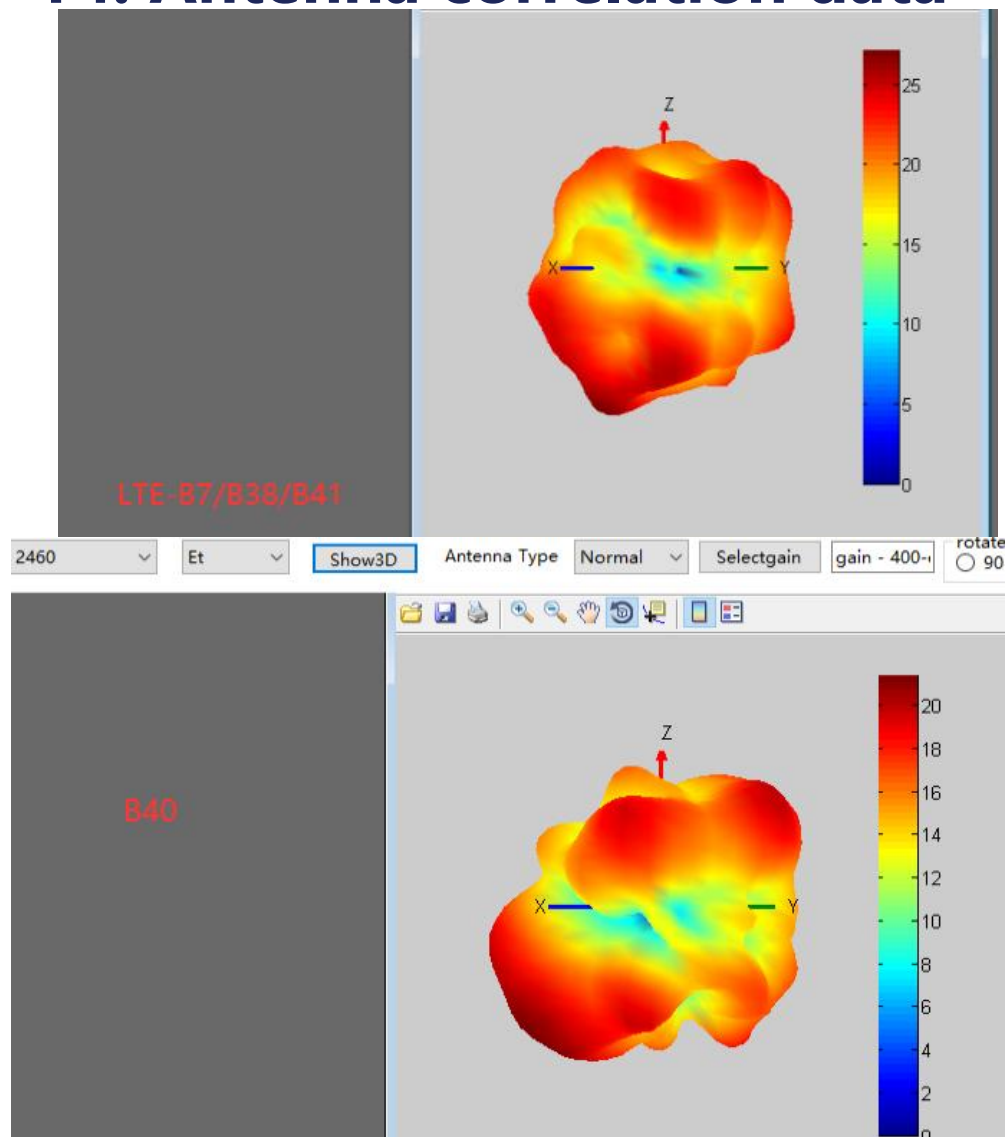
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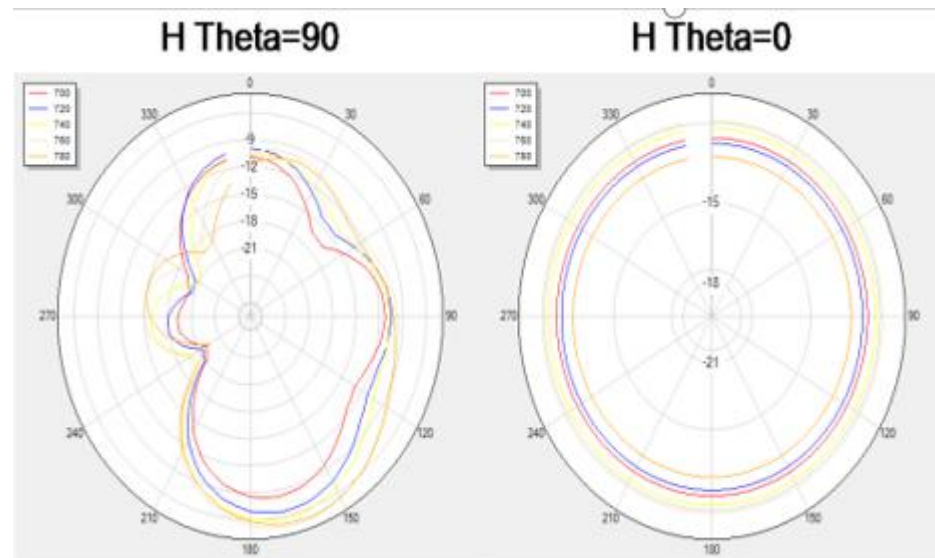
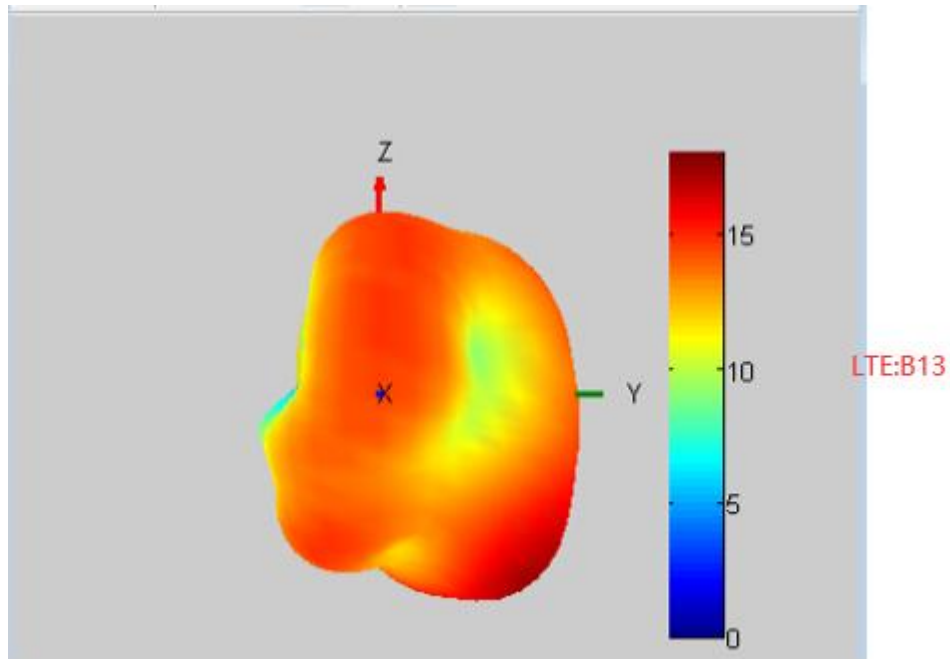
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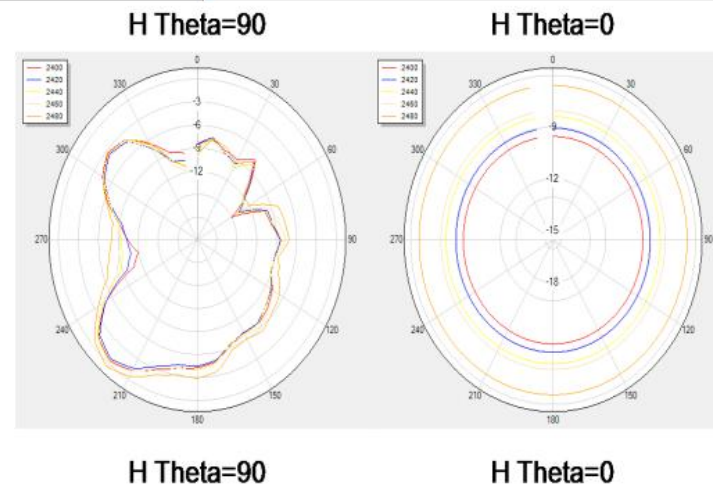
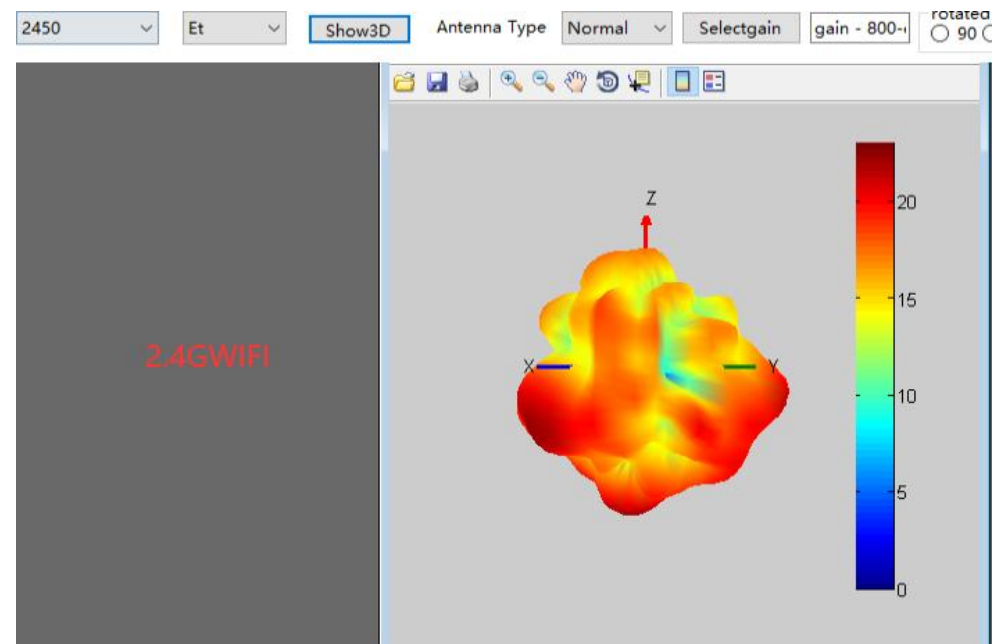
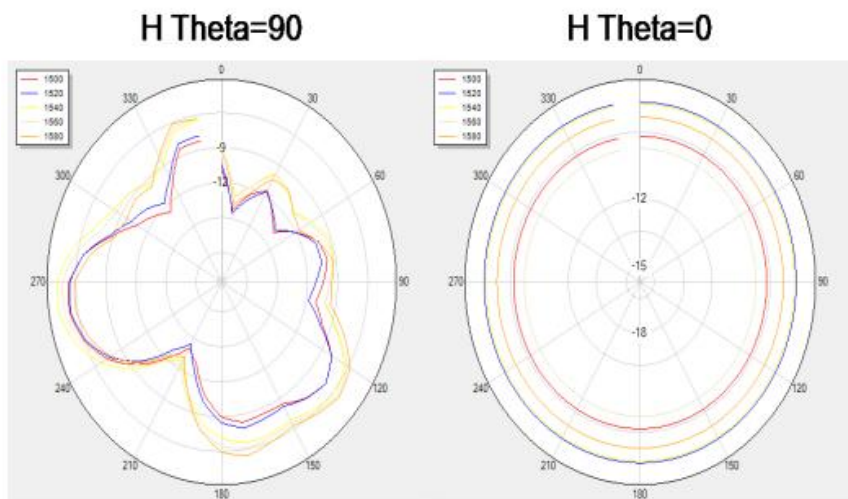
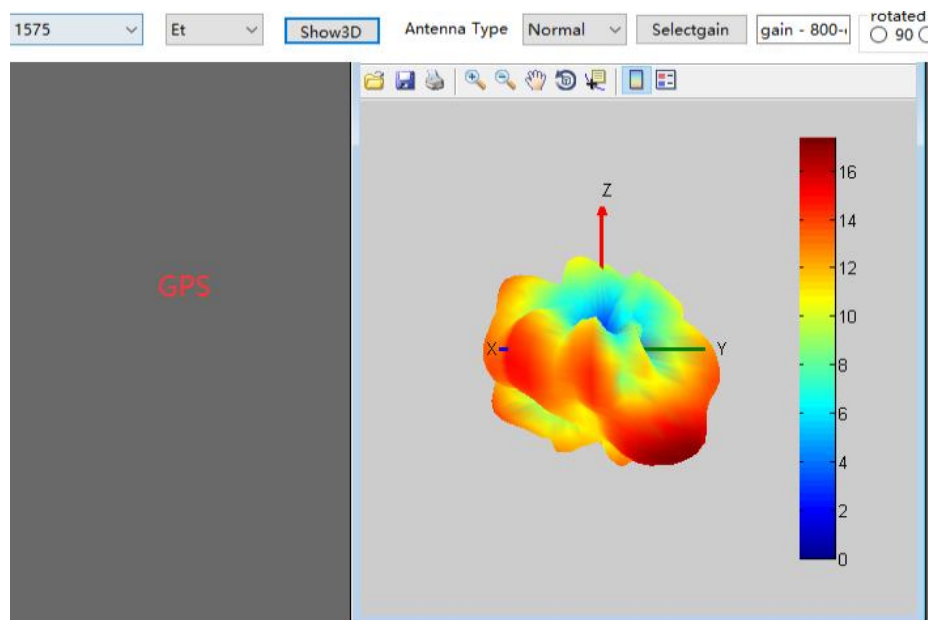
14. Antenna correlation data



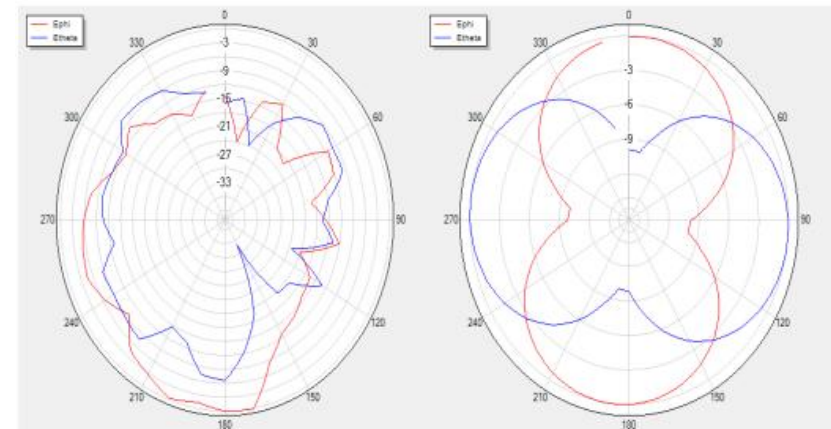
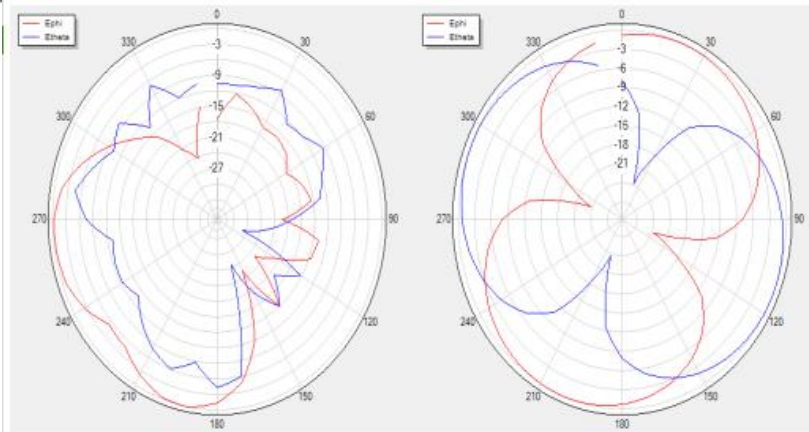
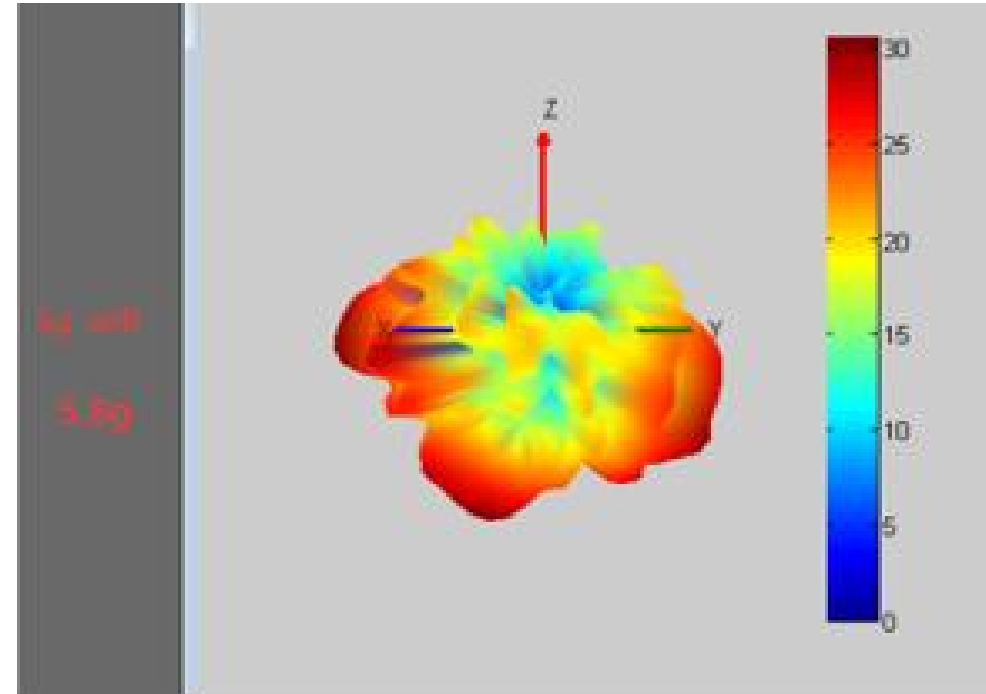
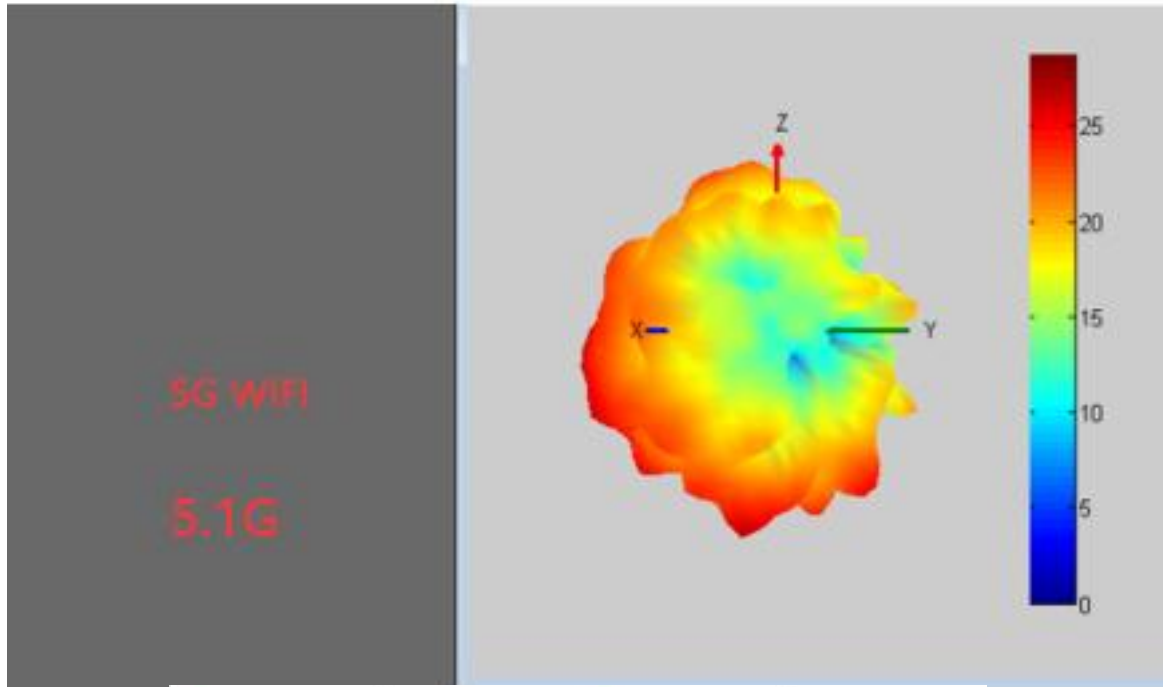
14. Antenna correlation data



16. Antenna correlation data

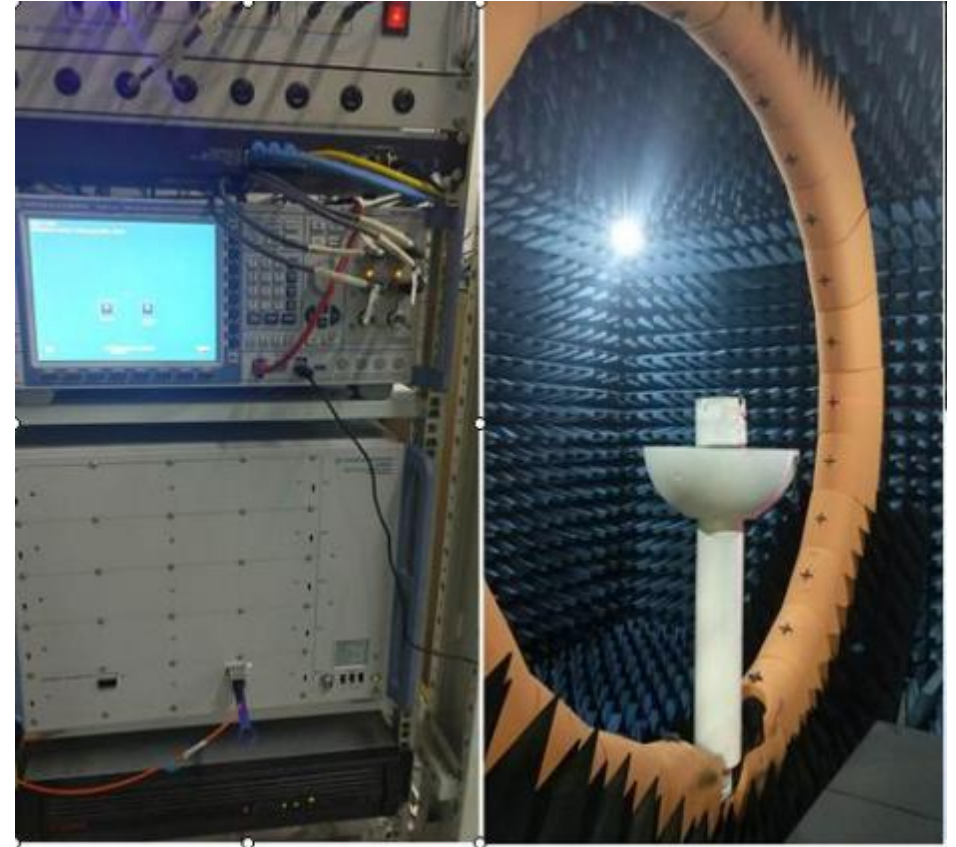


17. Antenna correlation data



20.Conclusion

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



21.Main antenna size

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22.Three in one antenna size

23.Diversity antenna size



THANKS!

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