

ANWEI commnuication Equipment Co.,Ltd

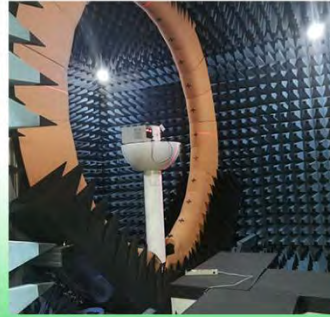
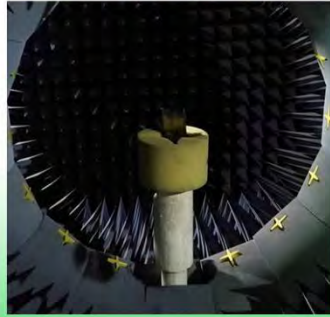
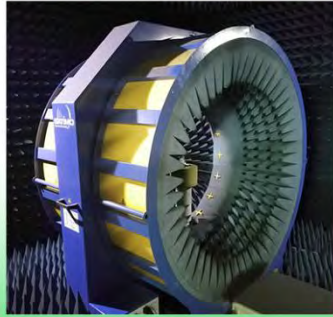
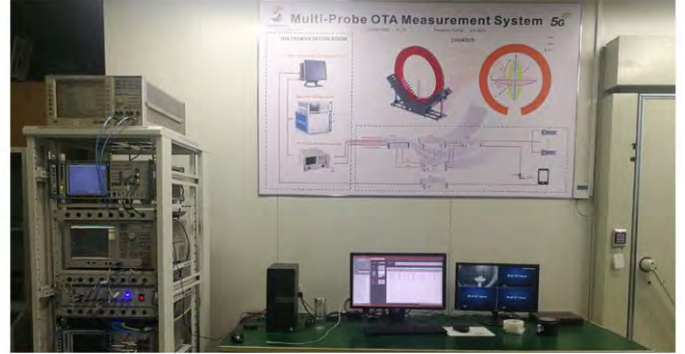
APPROVAL SHEET

Customer	Ming yue	Specs	F12E
Part Number		Frequency Band	2G:GSM850/900/1800/1900 3G:WCDMA-B1/2/4/5 4G:LTE-B1/2/3/4/5/7/8/12/13/17/20/28A/28B/ 66/71
Color	Black	Edition	REV:A0
Salesperson	Mr.Zhang	Design	Zong Zhi Hui
Structure	Qin Yun Lin	Confirm	
Date	2026/07/20	Signing Date	

Customer confirmation:

ANT Manufacturers: ANWEI commnuication Equipment Co.,Ltd
Address:2nd Floor, East Block, Building 5, Yifenghua Innovation Industrial Park, Huaning Road, Dalang Street, Longhua District, Shenzhen City, Guangdong Province

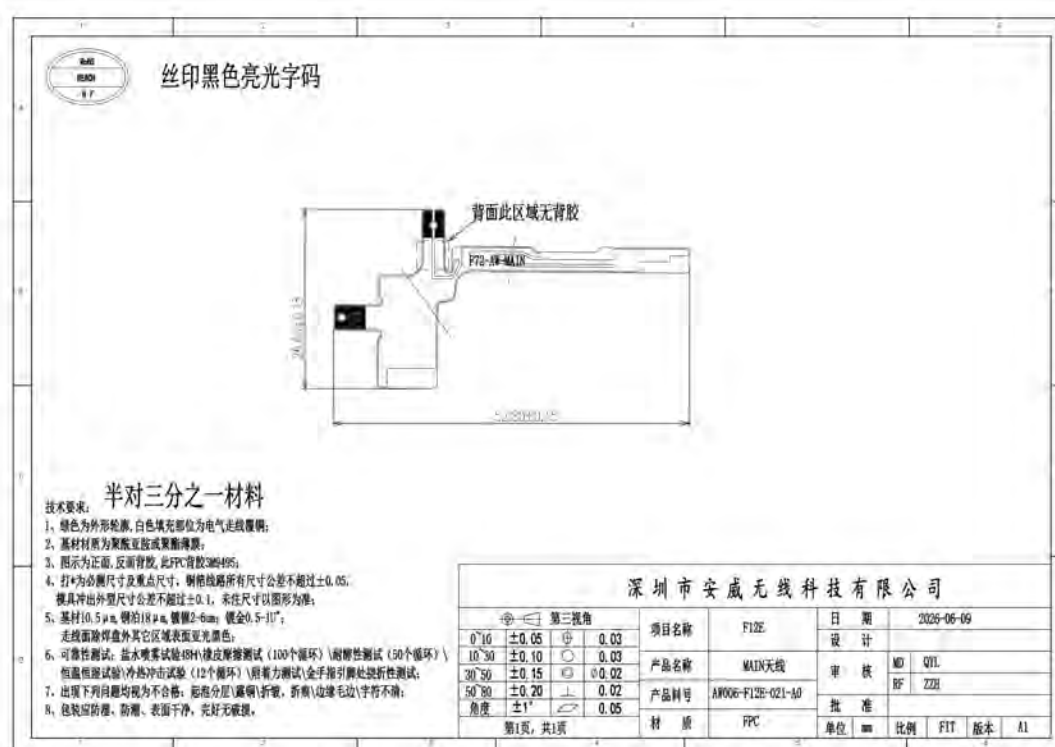
Project development environment



安威无线一直都是您值得信赖且优秀的合作伙伴，我们为您提供全方位一站式的的产品以及技术服务！

“质量第一，服务至上”是安威一直以来的发展宗旨

(Main antenna)



(Working frequency band): 600MHZ~960MHZ 1710MHZ~2690MHZ(TRX)

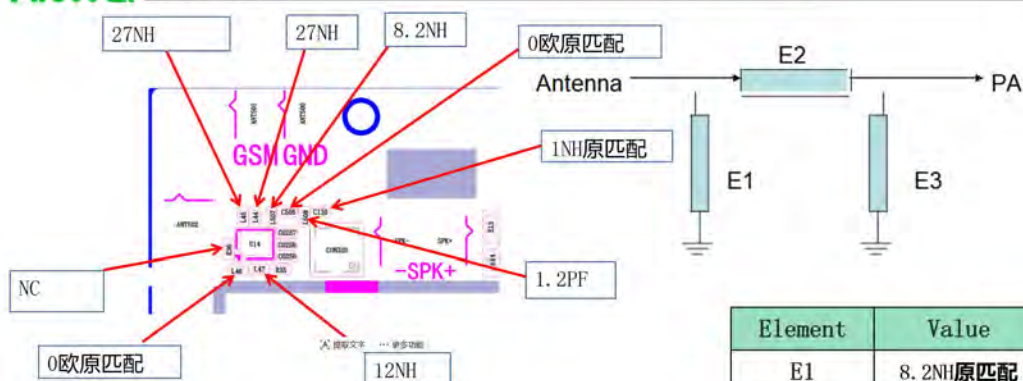
2G:GSM850/900/1800/1900

3G:WCDMA-B1/2/4/5

4G:LTE-B1/2/3/4/5/7/8/12/13/17/20/28A/28B/66/71

(Matcheing network):

主天线匹配电路



天线开关协议: 2026-04-15(V1) TRX

RF1:GSM850/900/1800/1900+WCDMA-B1/2/4/5+

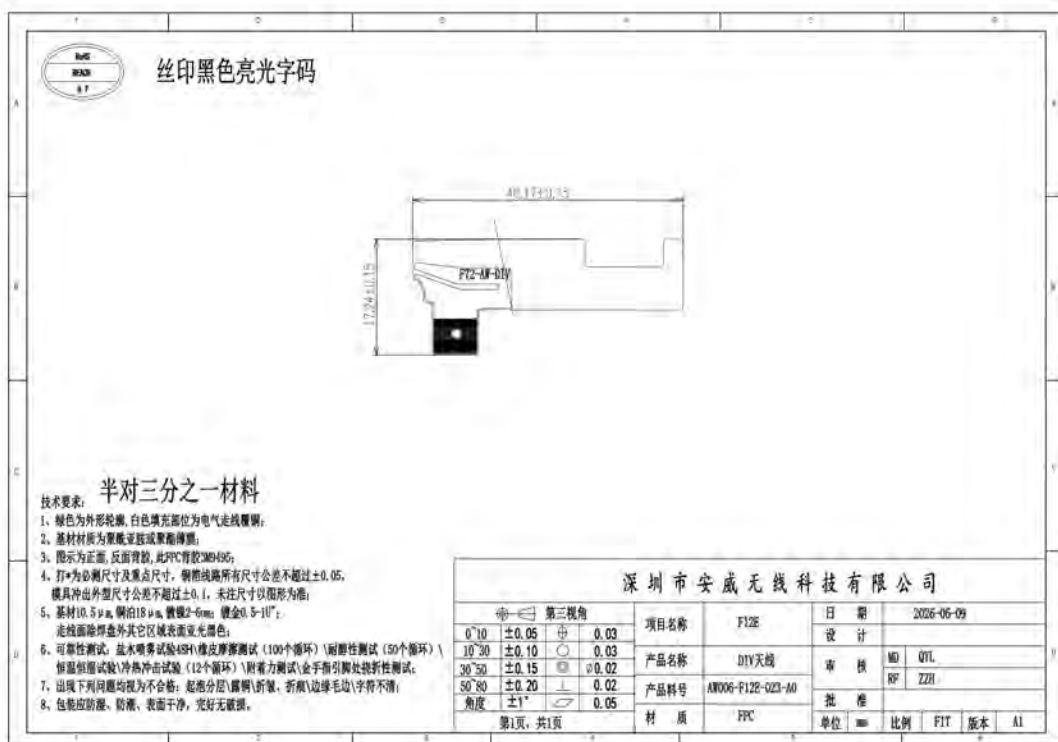
LTE-B1/2/3/4/5/7/8/20/66

RF2:LTE-B13

RF3:LTE-B12/17/28A/28B

RF4:LTE-B71

(DIV antenna)



(Working frequency band): 1710~2690MHZ (DRX)

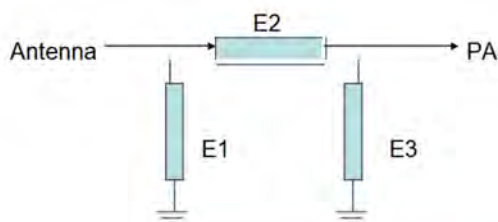
2G:1800/1900

3G:WCDMA-B1/2/4

4G:LTE-B1/2/3/4/7/66

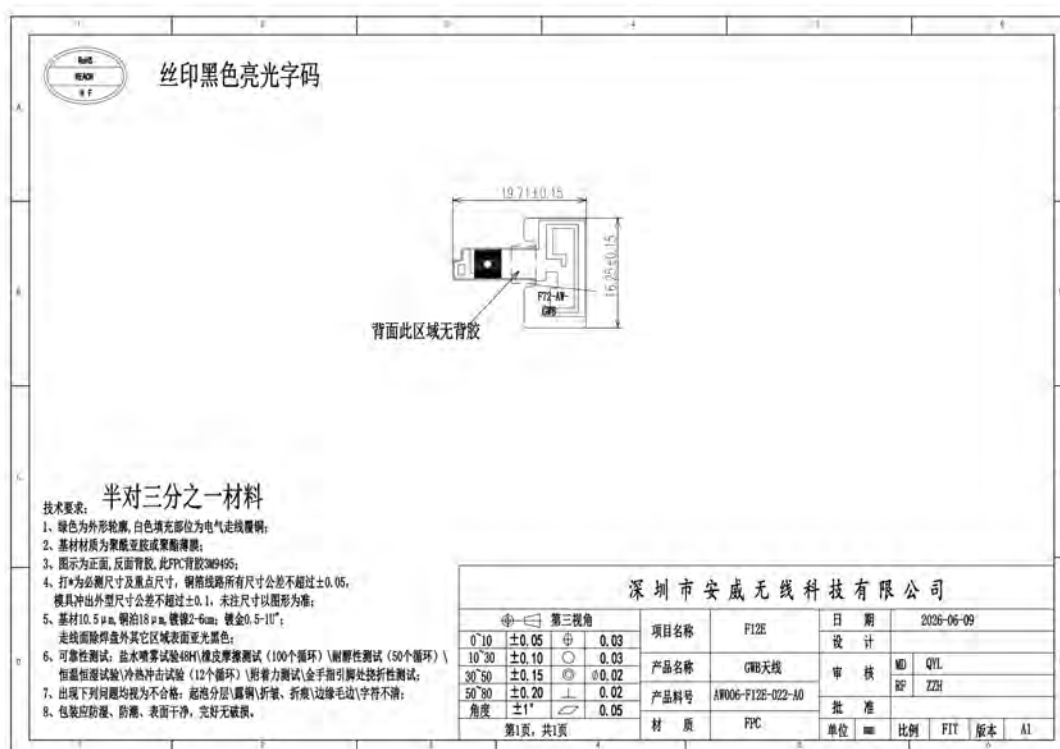
(Matcheing network):

分集天线匹配电路



Element	Value
E1	NC
E2	18PF原匹配
E3	NC
E4	18PF原匹配

(GPS L1 antenna) + (2.4G WIFI/BT 5G WIFI antenna)

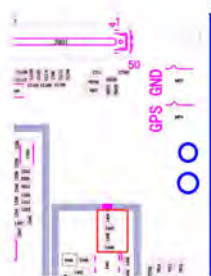


(Working frequency band of GPS antenna) : 1575.42MHZ

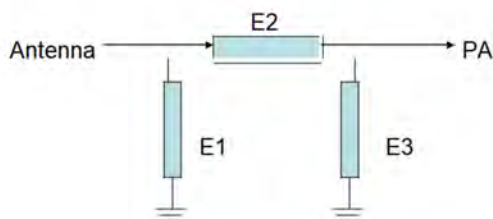
(Working frequency band of 5GWIFI antenna) : 2400~2500,5100~5825MHZ

(Matching network)

GPS/WIFI/BT天线匹配电路



保持主板原匹配



Element	Value
E1	
E2	
E3	

ANWEI ANT TRP&TIS parameter Summary of F12E

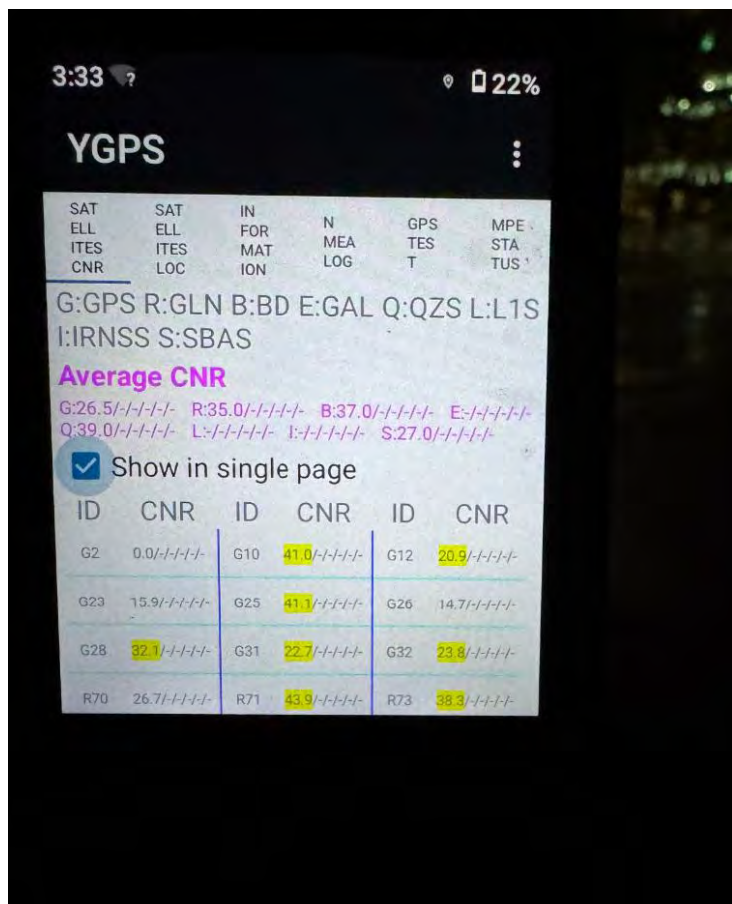
BAND	Channel	TRP (dBm)	TIS (dBm)
FDD B1	L	17.69	
	M	16.61	
	H	16.04	-92.53
FDD B2	L	18.58	
	M	18.12	
	H	17.52	-90.00
FDD B3	L	16.89	
	M	17.46	
	H	18.53	-90.05
FDD B4	L	17.11	
	M	17.95	
	H	18.56	-91.15
FDD B5	L	17.88	
	M	18.11	
	H	18.72	-92.60
FDD B7	L	18.70	
	M	17.92	
	H	16.56	-90.02
FDD B8	L	18.89	
	M	18.57	
	H	17.92	-91.17
FDD B12	L	17.40	
	M	17.39	
	H	17.19	-91.02
FDD B13	L		
	M	18.67	-91.13
	H		

BAND			
FDD B17	L	18.37	
	M	17.59	
	H	17.15	-90.60
FDD B20	L	17.40	
	M	18.33	
	H	18.65	-90.57
FDD B28A	L	18.33	
	M	18.27	
	H	18.05	-91.82
FDD B28B	L	18.51	
	M	18.39	
	H	18.64	-91.30
FDD B66	L	15.58	
	M	16.61	
	H	17.99	-92.33
FDD B71	L	15.49	
	M	15.79	
	H	16.88	-90.11
WCDMA-B1	L	16.58	
	M	15.33	
	H	15.08	-105.74
WCDMA-B2	L	18.55	
	M	18.61	
	H	17.61	-100.67
WCDMA-B4	L	15.05	
	M	15.79	
	H	17.35	-105.70
BAND	Channel	TRP (dBm)	TIS (dBm)

WCDMA-B5	L	17.19	
	M	18.81	
	H	18.93	-104.63

BAND	Channel	TRP (dBm)	TIS (dBm)
GSM850	L	26.55	
	M	27.32	
	H	27.78	-104.38
GSM900	L	28.10	
	M	27.55	
	H	27.05	-103.29
DCS1800	L	24.53	
	M	25.55	
	H	25.71	-103.98
PCS1900	L	25.91	
	M	25.53	
	H	25.07	-98.15
2.4G WIFI B 模 11M	L	10.68	-78.66
	M	11.84	-80.13
	H	12.52	-80.11
5G WIFI A 模 54M	L	10.37	-72.13
	M	11.01	-72.27
	H	12.17	-72.60

GPS 测试(GPS Test)



GPS 效率(Efficiency of GPS antenna): 26.09%

天线增益(Antenna gain)

Standard	Band	Frequency	Gain(dbi)
FDD_LTE	FDD_B1	1940	0.12
FDD_LTE	FDD_B2	1900	-0.11
FDD_LTE	FDD_B3	1740	-0.49
FDD_LTE	FDD_B4	1740	-0.49
FDD_LTE	FDD_B5	830	0.64
FDD_LTE	FDD_B7	2540	0.34
FDD_LTE	FDD_B8	900	1.01
FDD_LTE	FDD_B12	710	-2.59
FDD_LTE	FDD_B13	780	-0.66
FDD_LTE	FDD_B17	710	-2.59
FDD_LTE	FDD_B20	830	0.64
FDD_LTE	FDD_B28	710	-2.59
FDD_LTE	FDD_B66	1740	-0.49
FDD_LTE	FDD_B71	680	-4.36
WCDMA	WCDMA_B1	1940	0.12
WCDMA	WCDMA_B2	1900	-0.11
WCDMA	WCDMA_B4	1740	-0.49
WCDMA	WCDMA_B5	830	0.64
GSM	GSM850	830	0.64
GSM	GSM900	900	1.01
GSM	DCS1800	1740	-0.49
GSM	PCS1900	1900	-0.11
2.4G WIFI		2450	2.32
BT		2450	2.32
5G WIFI		5150	-0.29
5G WIFI		5250	-3.30
5G WIFI		5670	2.69
5G WIFI		5775	2.86

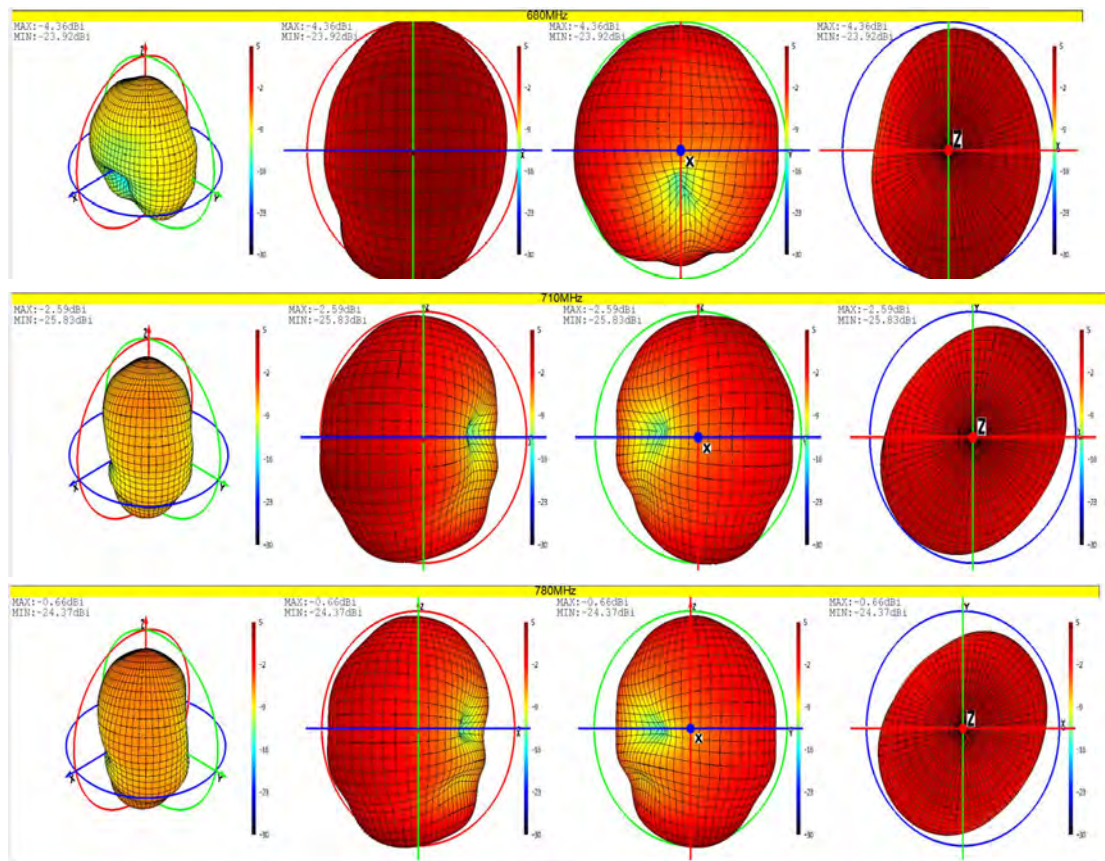
GPS

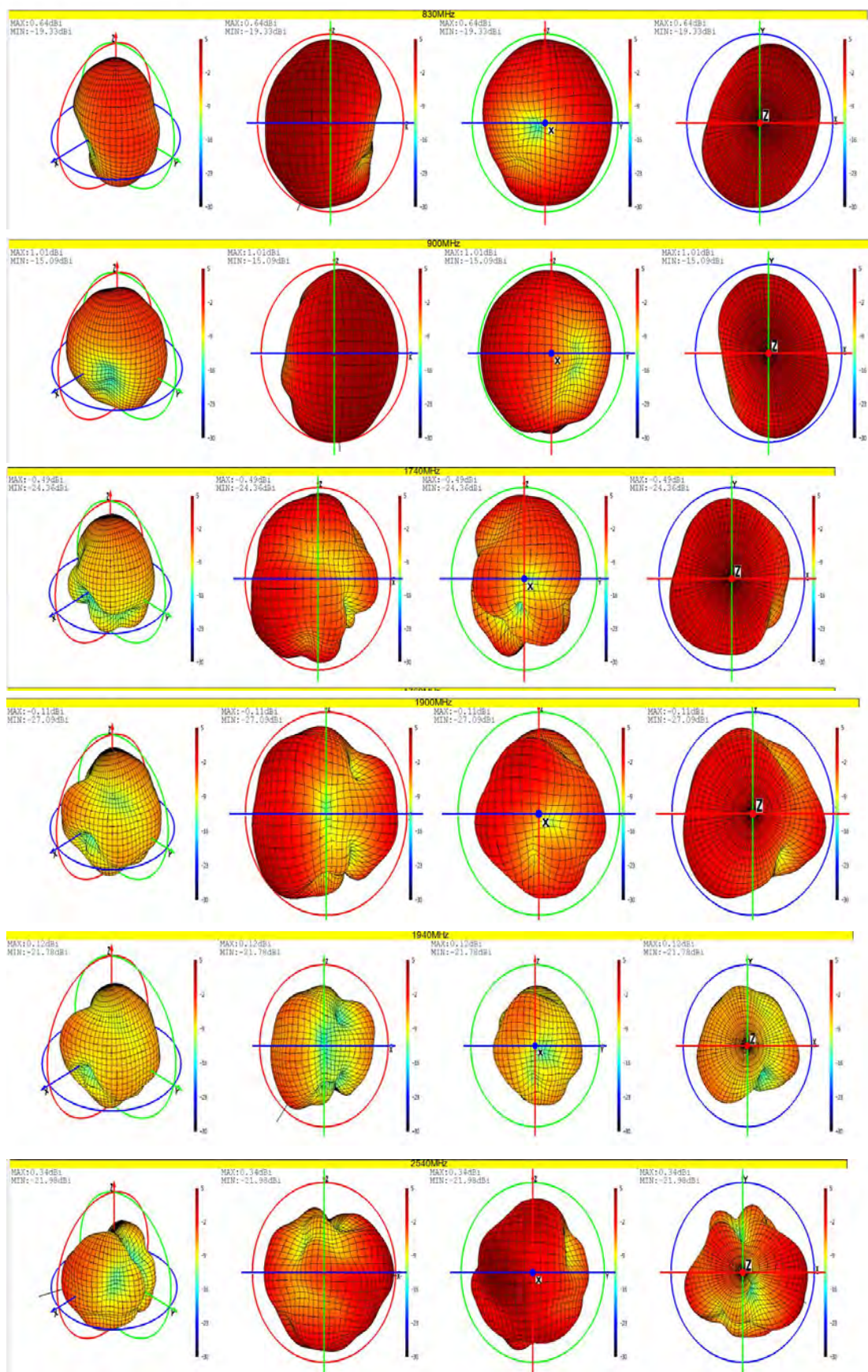
L1

1575.42

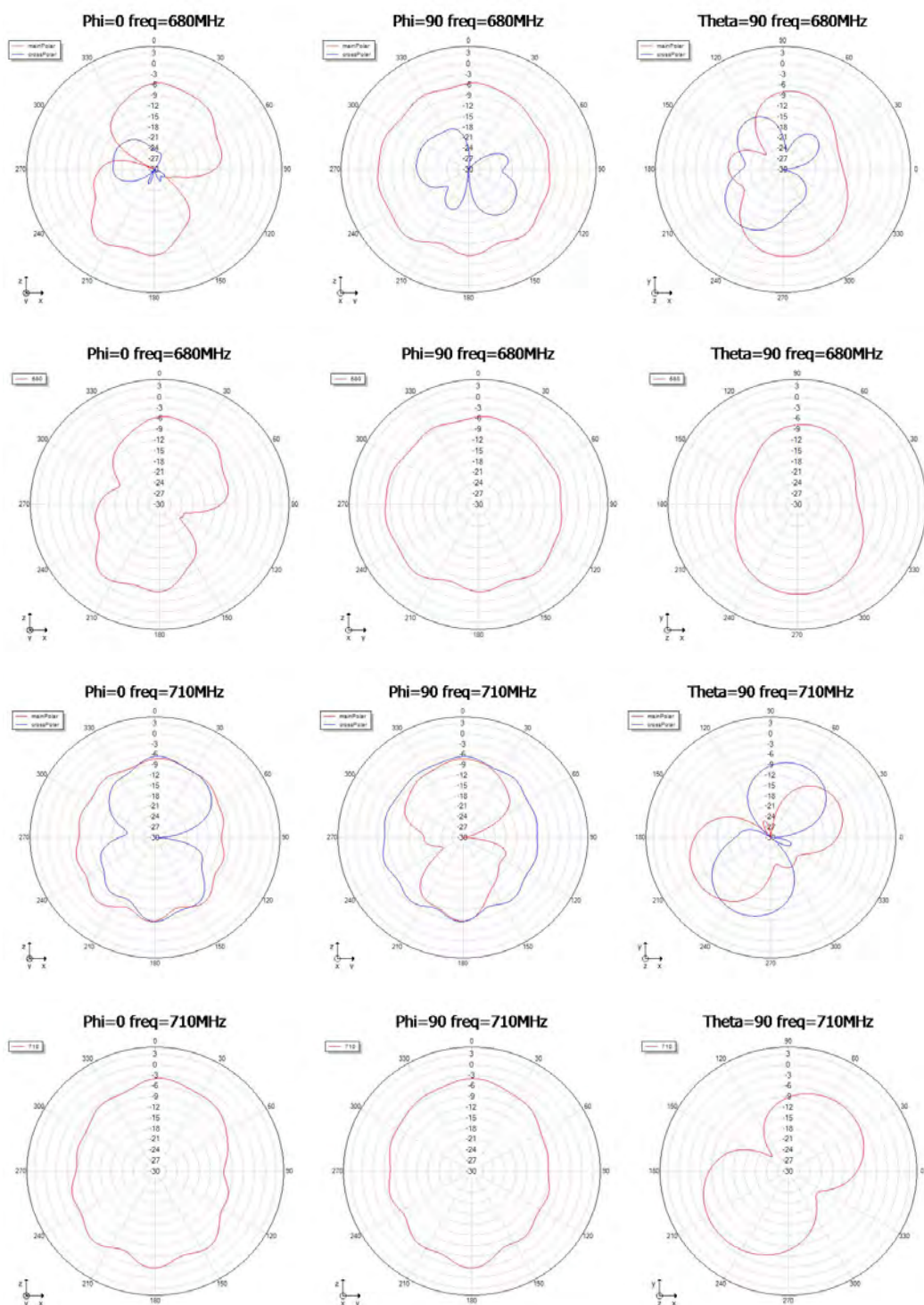
-1.04

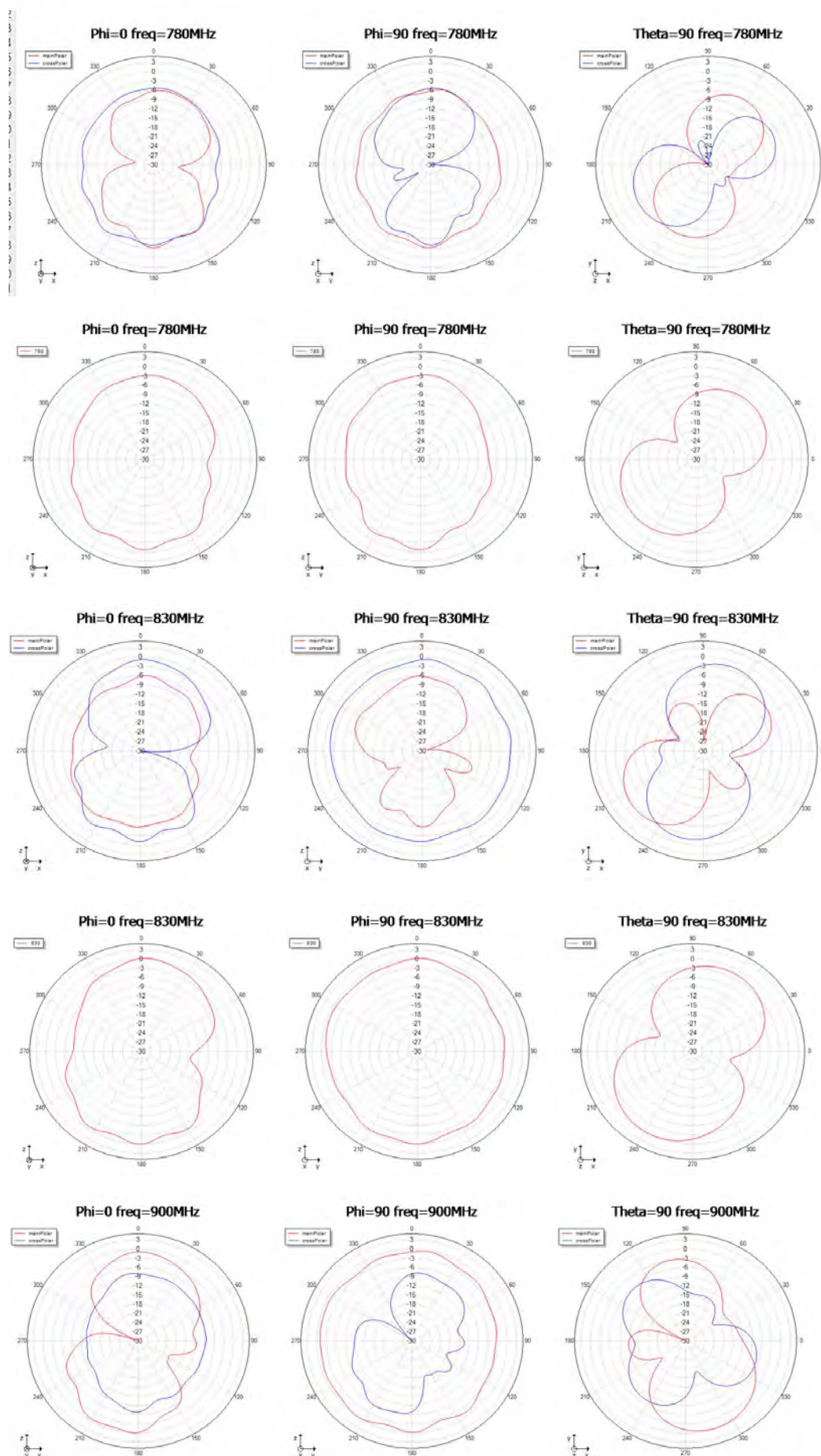
MIMO antenna apple map

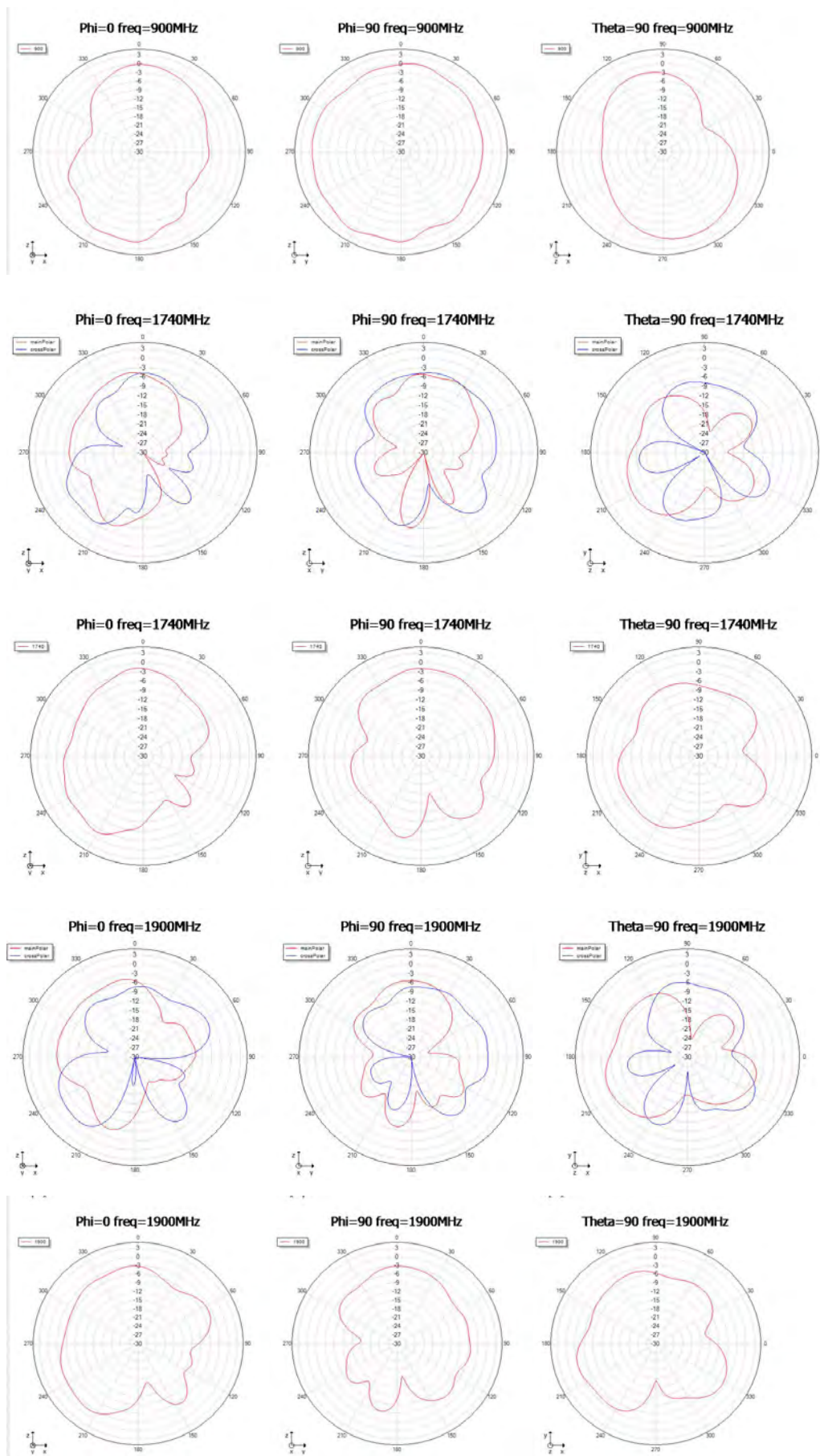


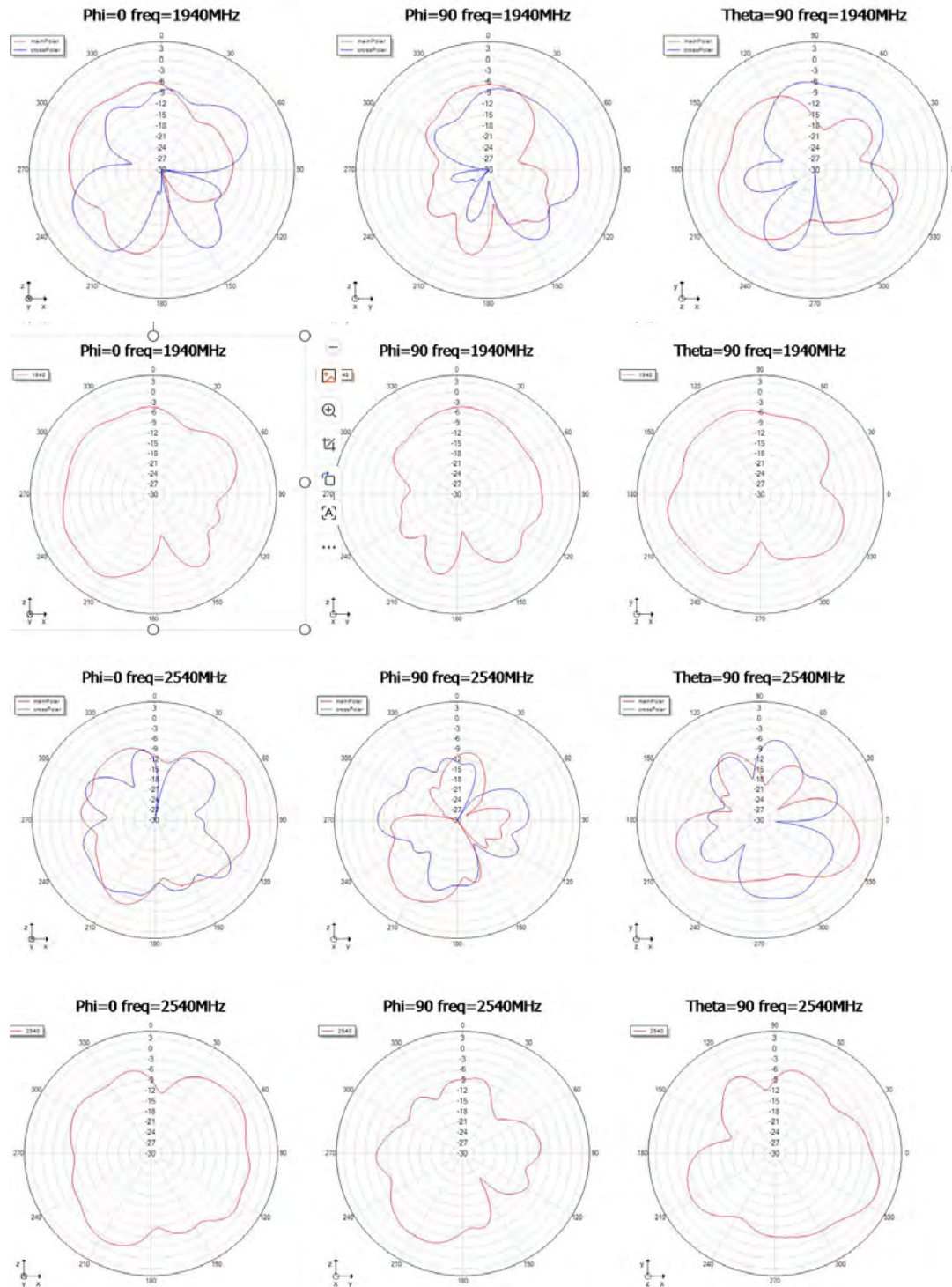


(MIMO antenna) PolarGraphs/EtotalGraphs

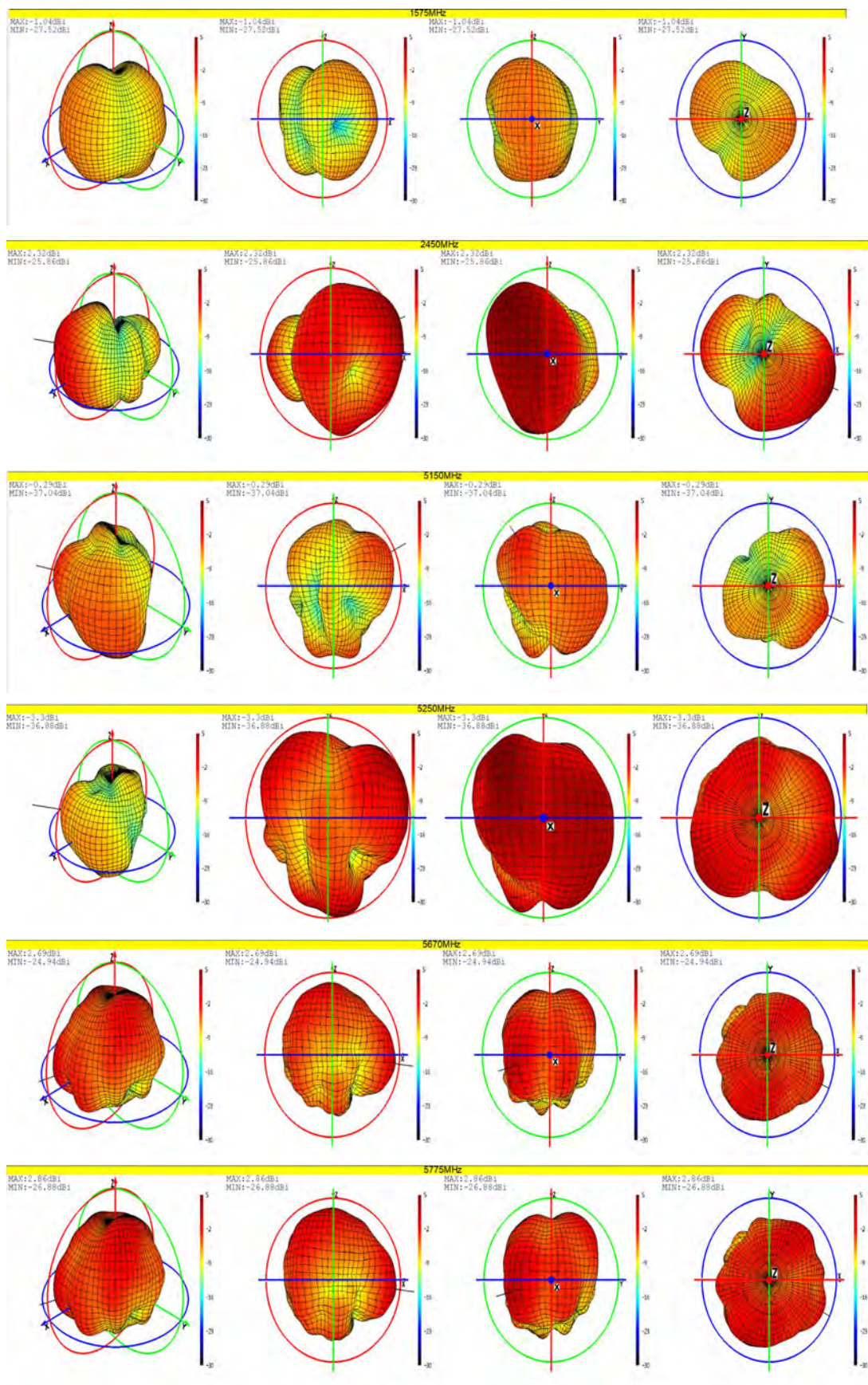








(GPS antenna)+(2.4G/5G WIFI/BT antenna)apple Map



(GPS antenna) + (2.4G WIFI/BT antenna)

PolarGraphs/EtotalGraphs

