



深圳市华信微通信技术有限公司
ShenZhen Huaxinwei communication technology Co.,Ltd.

天线测试报告

客户名称：华粤世通

项目名称：QN75A

设计者：张骏

日期：2024/05/16

报告序目

一、项目概况

二、天线匹配和开关逻辑

三、天线OTA测试和主板传导

四、四、环境处理

五、天线增益

六、天线苹果图

一、项目概况：

客户名称	华粤世通	项目名称	QN75A
整机类型	手机		
天线种类及频段信息		天线形式	匹配改动
主天线	2G: 850/900/1800/1900 3G: B2/B4/B5/B8 4G: B2/4/5/12/13/25/26/66/71/ B41	PIFA	有
副天线	WIFI+GPS+BT	PIFA	否
分集天线	有	PIFA	有
天线材质	FPC		

二、天线匹配和开关逻辑

1、主天线 下天线 SUB 小板

小板位置天线开关控制NV

软件上RF1路设为默认路，手机开机后RF1路自动处于正常工作状态。

L101	6.2nH	R109	0Ω	RF1: GSM900RX
R110	0Ω	R107	18nH	RF2: GSM850+W5+LTE-B5/13/26+W2/4+LTE-B2/4/66/25/41
C103	空贴	R108	5.1nH	RF3: GSM900TX+W8
R105	0Ω	R113	空贴	RF4: LTE-B12/71

下天线锁死频段

GSM900/GSM850+W5/8+LTE-B5/12/13/26/71 (备注: 下天线中W2/4+LTE-B2/4/66/25/41频段为分集辅助上天线RX)

2、主板分集天线

分集位置天线开关控制NV

软件上RF1路设为默认路，手机开机后RF1路自动处于正常工作状态。

L0839	6.8nH	R0806	0Ω	RF1: GSM1900+W2+LTE-B2/25
R0807	0Ω	R0809	2.4nH	RF2: GSM1800+W4+LTE-B4/66
C0842	空贴	R0803	空贴	RF3:LTE-41+LTE-B12/13/71
R10	0Ω	R0804		RF4:
		R0801	0Ω	

上天线锁死频段

GSM1800/GSM1900/W2/4+LTE-B2/4/25/66/41(备注: 下天线中LTE-B12/13/71频段为分集辅助下天线RX)

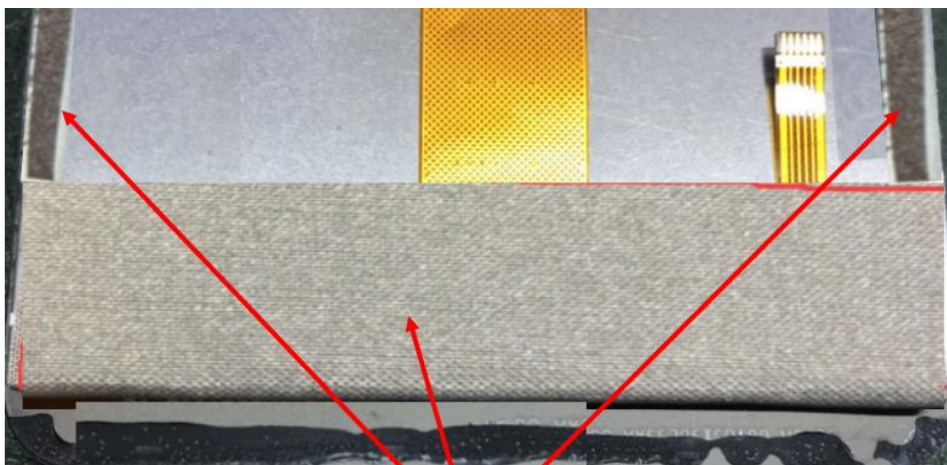
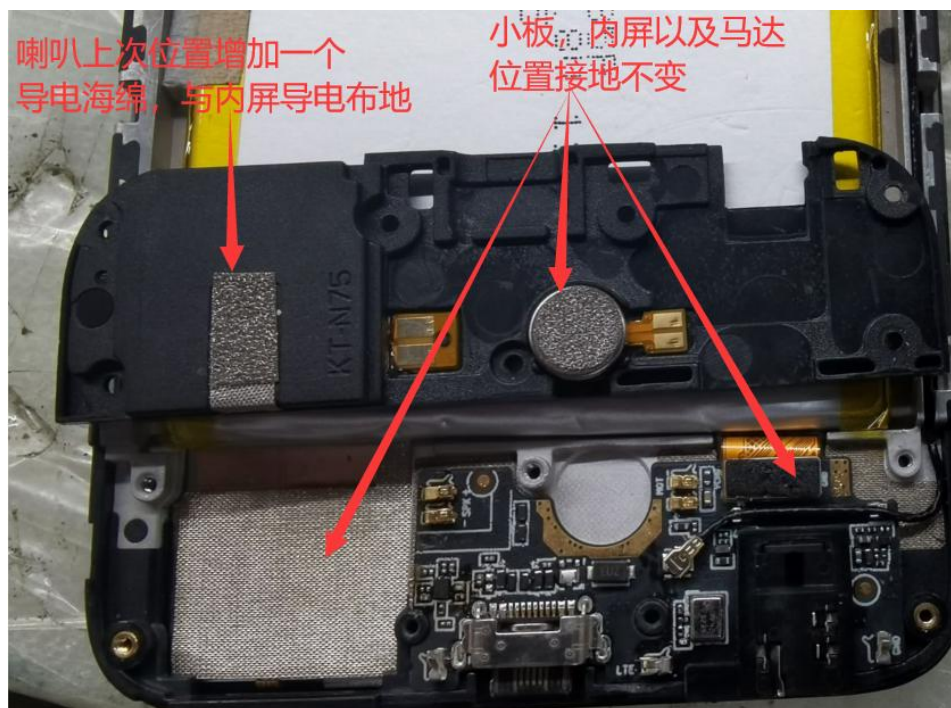
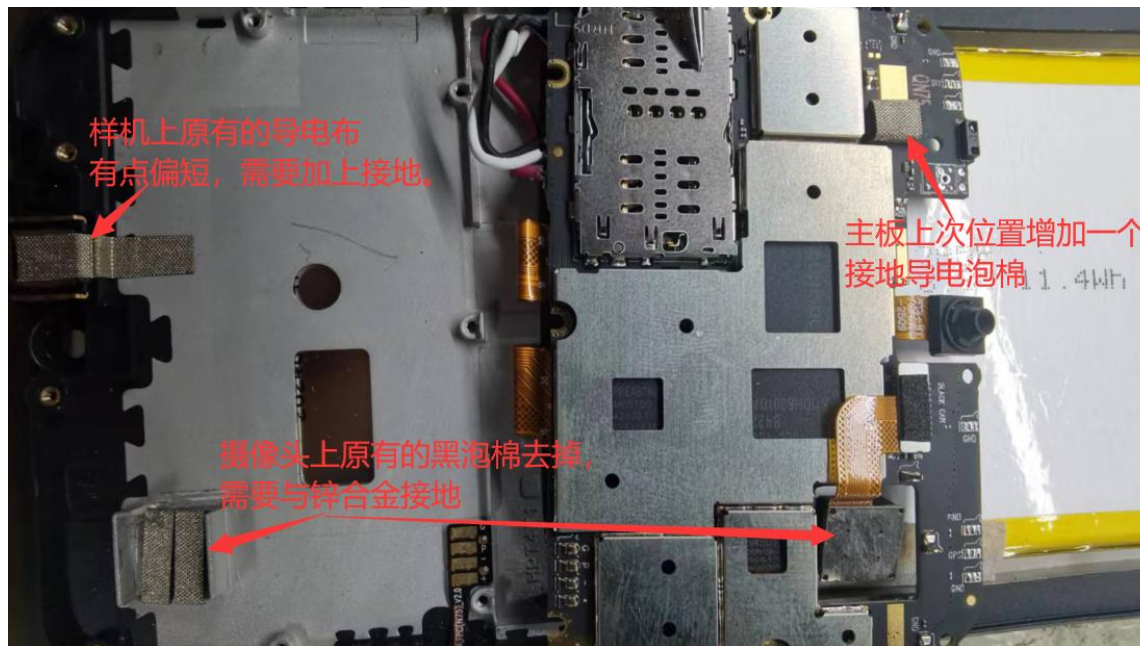
三、天线OTA测试和主板传导

Band	channel	FS-TRP	FS-TIS	主板传导
GSM850	128	26.02		32.7
	190	26.16		
	251	26.39	-102.21	
GSM900	1	25.53		32.2
	62	26.00		
	124	26.27	-102.02	
DCS1800	512	25.12		28.4
	699	25.24		
	885	25.37	-103.15	
PCS1900	512	25.17		28.7
	661	25.33		
	810	25.45	-103.26	
W2	9662	17.56		22.1
	9800	17.74		
	9938	17.82	-104.31	
W4	1537	17.27		22.1
	1638	17.33		
	1768	17.43	-103.28	
W5	4357	16.38		22.8
	4408	16.57		
	4458	16.51	-102.61	
W8	2937	16.05		23.0
	3103	16.29		
	3088	16.42	-101.73	

Band	channel	FS-TRP	FS-TIS	主板传导
LTE-B2	650	18.11		23.0
	900	18.05		
	1150	18.24	-92.08	
LTE-B4	2000	17.83		22.4
	2175	17.82		
	2350	17.91	-92.16	
LTE-B5	2450	16.55		22.7
	2525	16.67		
	2600	16.73	-90.61	
LTE-B12	5060	16.64		23.3
	5095	17.03		
	5130	17.15	-93.04	
LTE-B13	5205	14.39		22.2
	5230	14.55		
	5255	14.71	-90.31	

Band	channel	FS-TRP	FS-TIS	主板传导
LTE-B25	8090	18.07		22.1
	8365	18.01		
	8640	18.13	-92.65	
LTE-B26	8740	16.12		21.8
	8865	16.34		
	8990	16.46	-92.19	
LTE-B66	132022	18.15		23.0
	132322	18.26		
	132622	18.39	-91.35	
LTE-B71	133172	16.02		21.7
	133297	16.12		
	133422	16.29	-90.01	
LTE-B41	40340	18.25		22.8
	40620	18.32		
	41140	18.14	-89.34	

四、环境处理



- 1、内屏排线需要用导电布盖住，并做好接地处理。
- 2、内屏钢片左右两边粘贴导电海绵与锌合金接地。

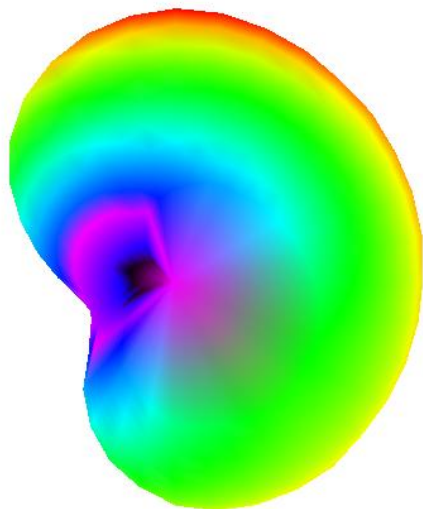
五、天线增益

PEAK GAIN		
2G:	Frequency range	Gaim dBi
GSM850	824~894Mhz	-0.71
GSM900	880~960Mhz	-1.05
DCS1800	1710~1880Mhz	0.63
PCS1900	1850~1990Mhz	0.81
3G:		
W2	1850~1990Mhz	0.81
W4	1710~2155Mhz	0.92
W5	824~894Mhz	-0.71
W8	880~960Mhz	-1.05
4G:		
LTE-B2	1850~1990Mhz	0.81
LTE-B4	1710~2155Mhz	0.92
LTE-B5	824~894Mhz	-0.71
LTE-B12	698~746Mhz	-1.42
LTE-B13	746~787Mhz	-1.42
LTE-B25	1855~1990Mhz	0.81
LTE-B26	819~864Mhz	-0.71
LTE-B71	617~697.9Mhz	-4.30
LTE-B66	1710~2170Mhz	0.92
LTE-B41	2500~2690Mhz	1.12
5G-WIFI	5150~5250Mhz	1.81
	5725~5850Mhz	1.91
2.4G-WIFI	2400~2500Mhz	1.37
BT	2400~2500Mhz	1.37
GPS	1575Mhz	0.43

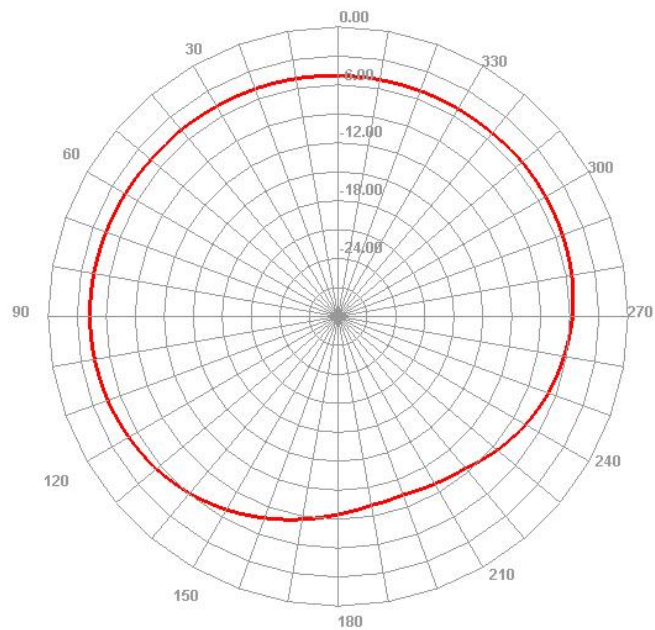
六、天线苹果图

Efficient (617-697.9Hz)

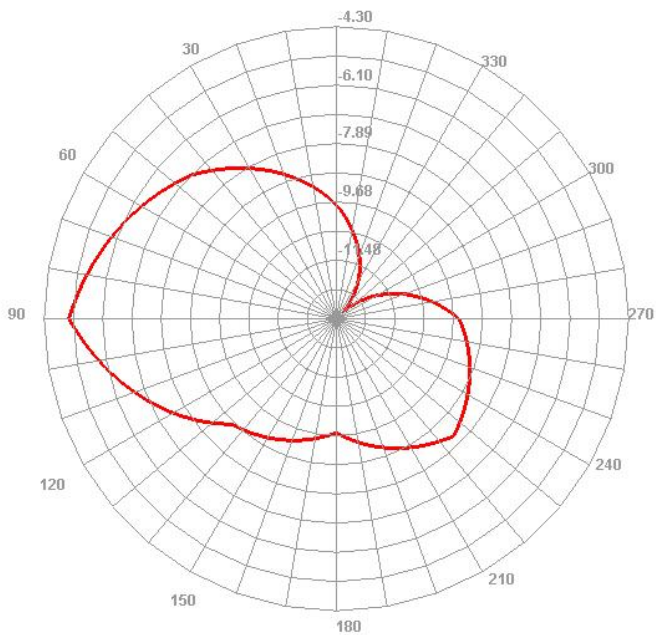
650.000MHz



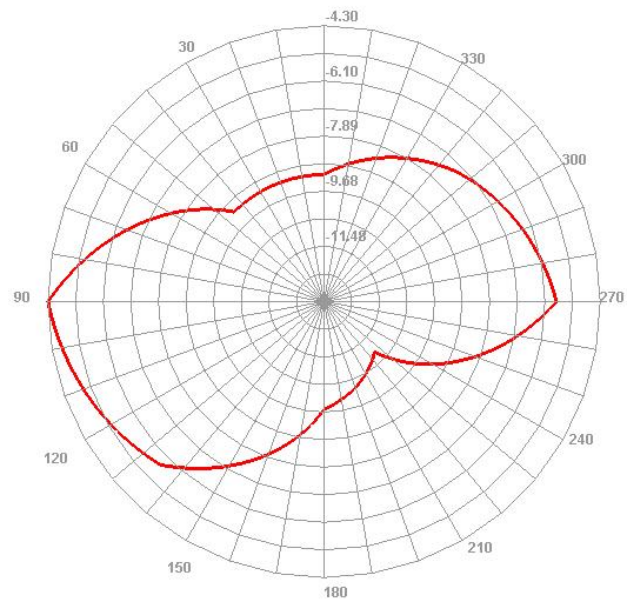
650.000MHz H



650.000MHz E1

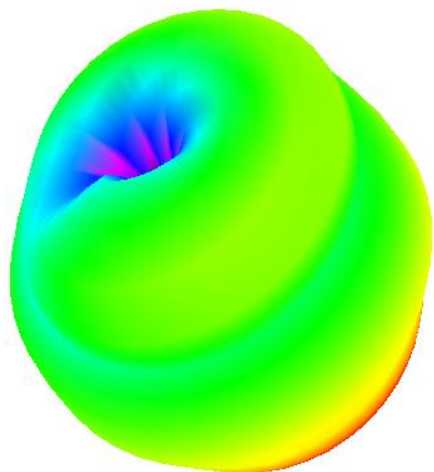


650.000MHz E2

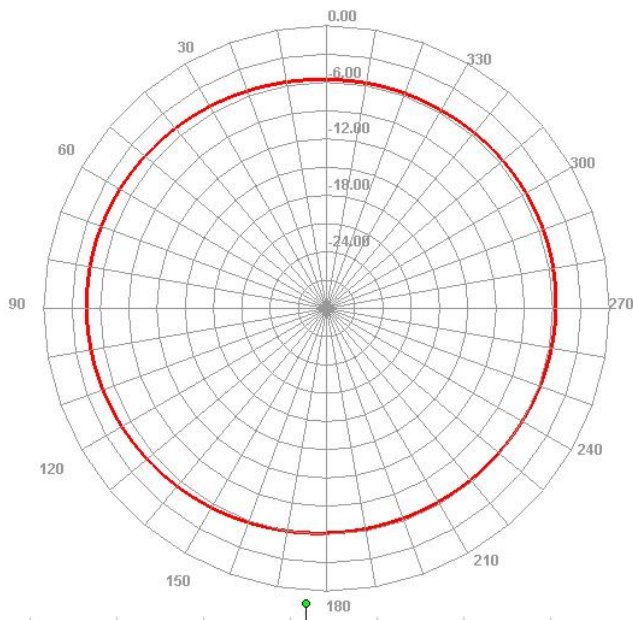


Efficient (698-798MHz)

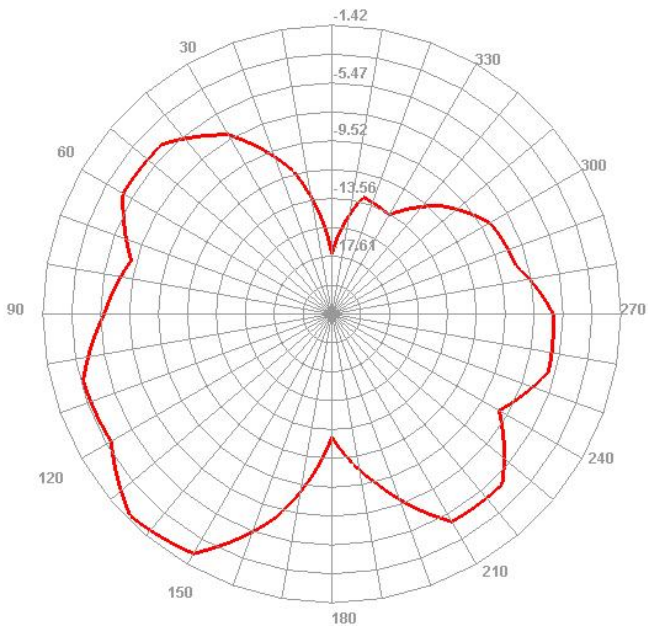
710.000MHz



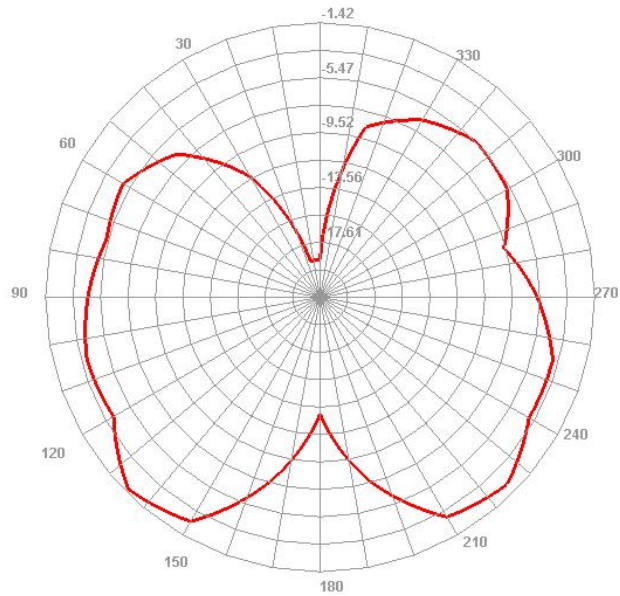
710.000MHz H



710.000MHz E1

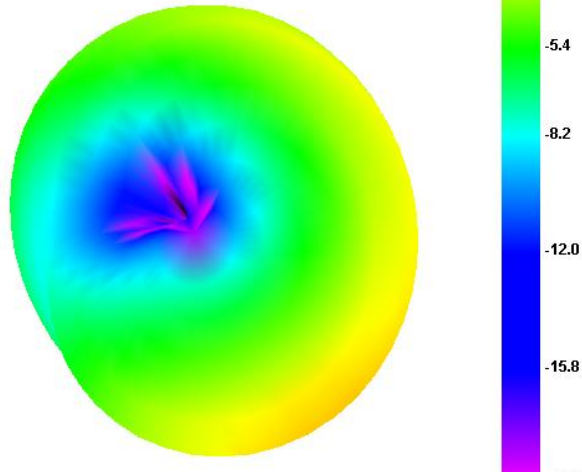


710.000MHz E2

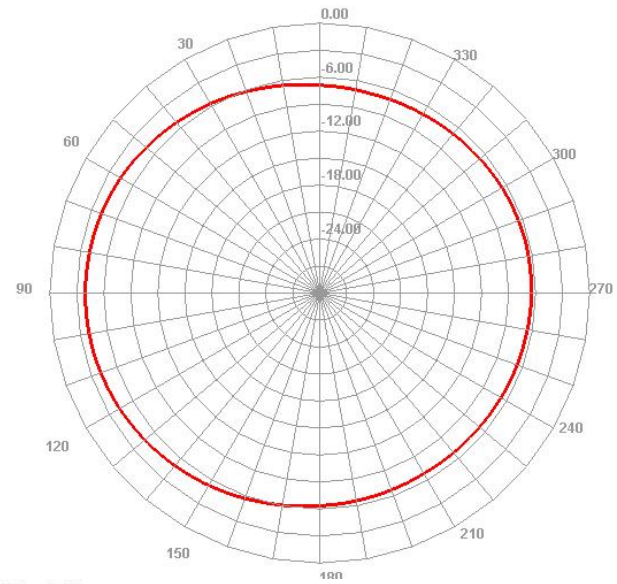


Efficient (791-894MHz)

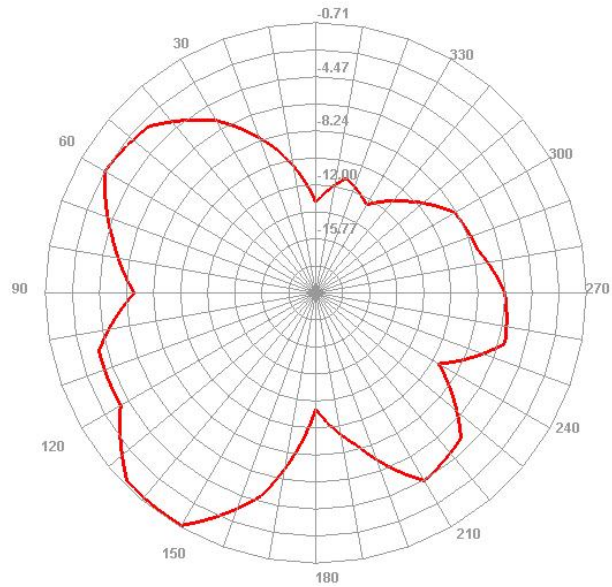
830.000MHz



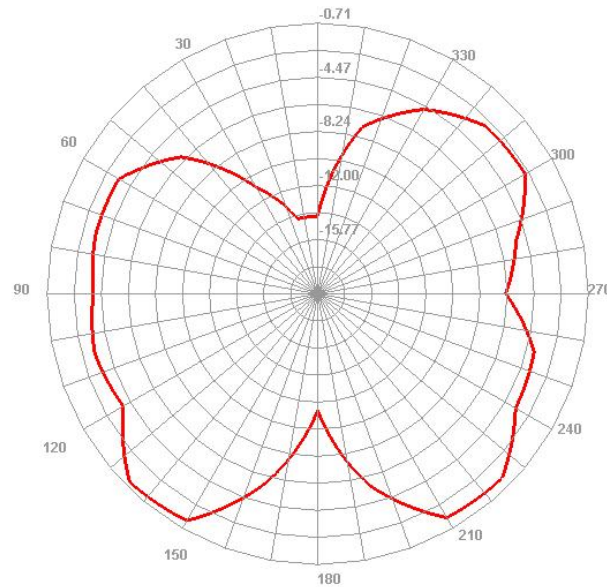
830.000MHz H



830.000MHz E1

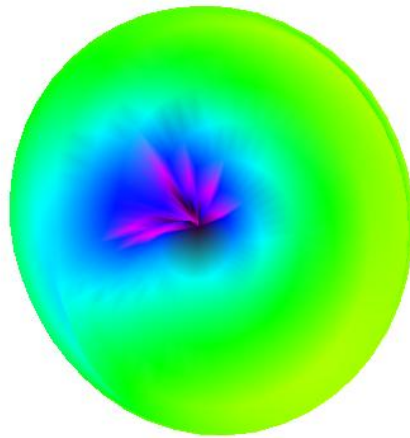


830.000MHz E2

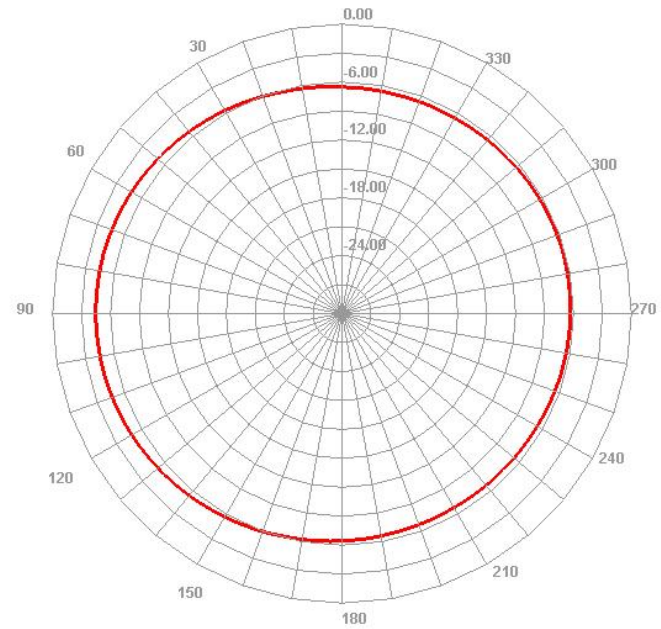


Efficient (880-960MHz)

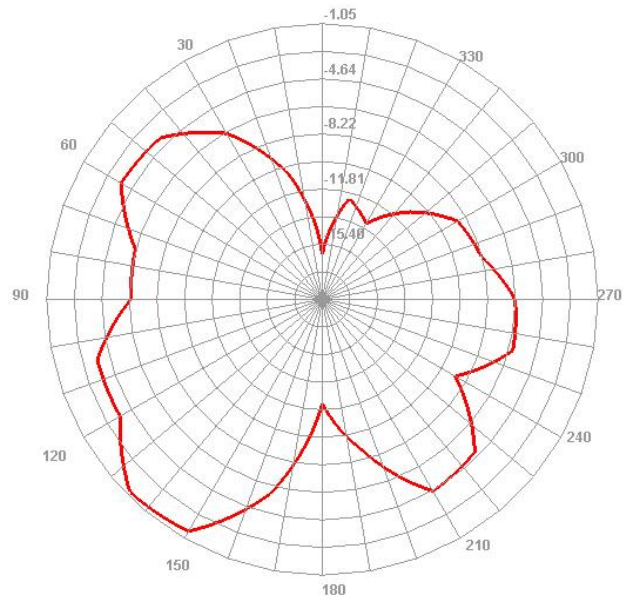
900.000MHz



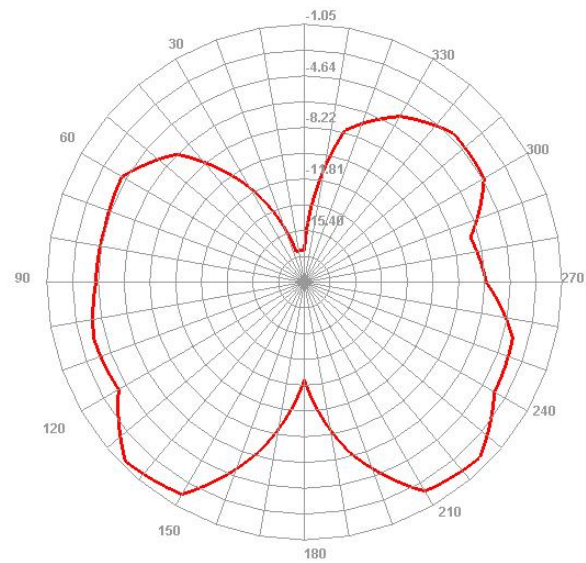
900.000MHz H



900.000MHz E1

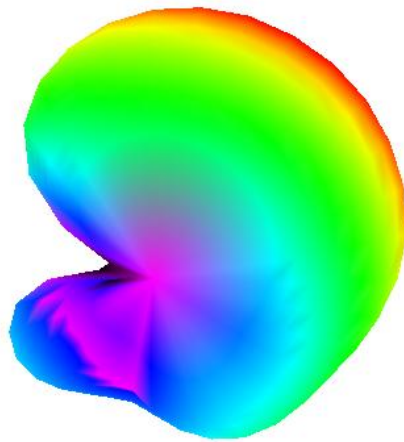


900.000MHz E2

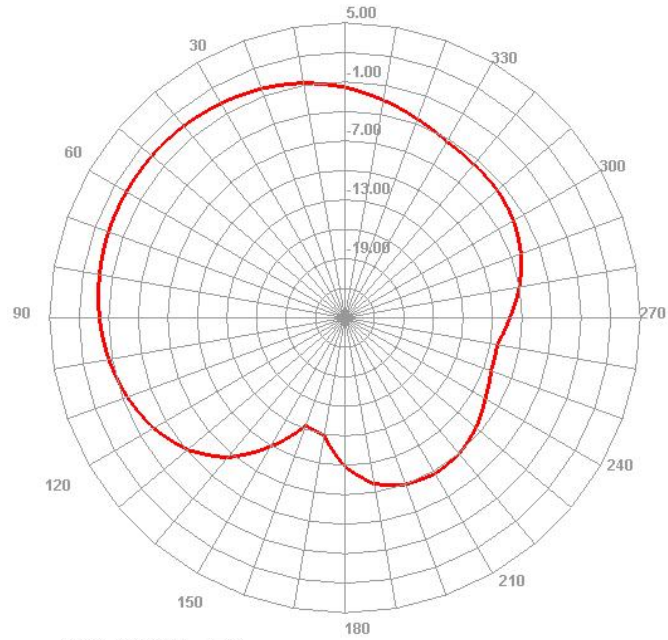


Efficient (1710–1880MHz)

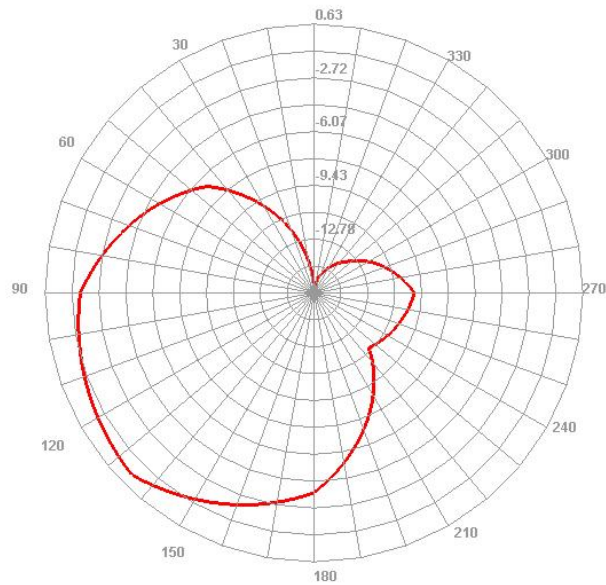
1820.000MHz



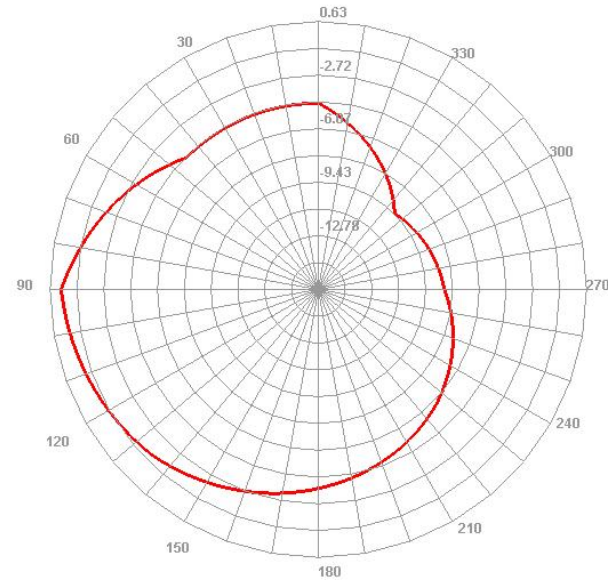
1820.000MHz H



1820.000MHz E1

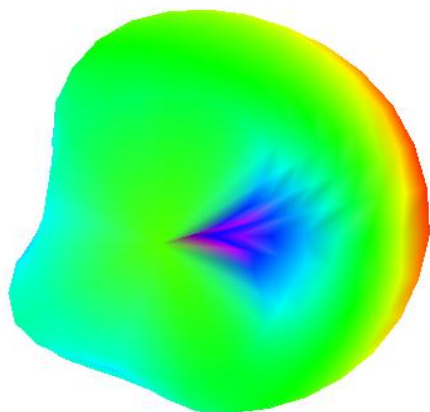


1820.000MHz E2

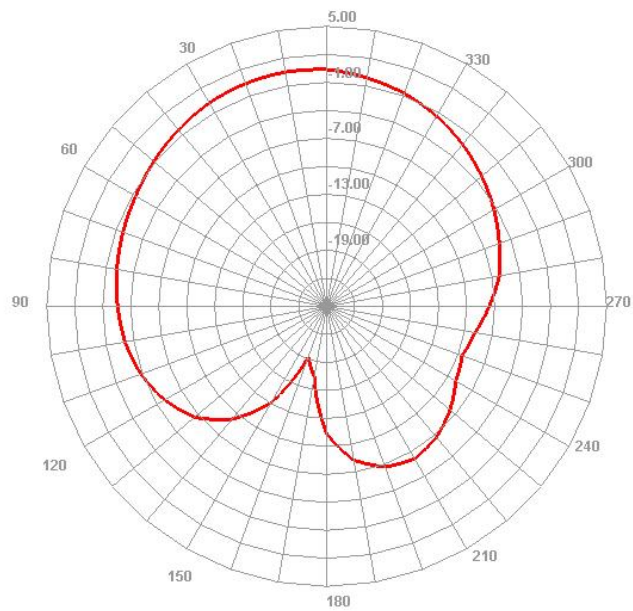


Efficient (1710–1990MHz)

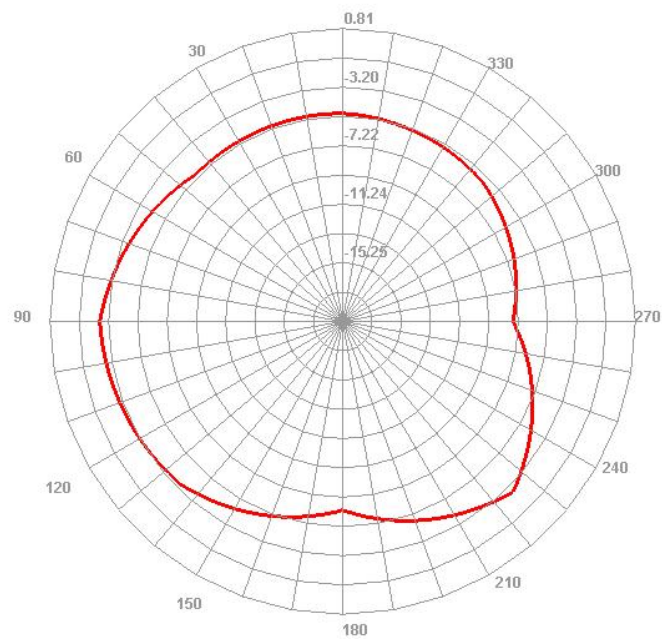
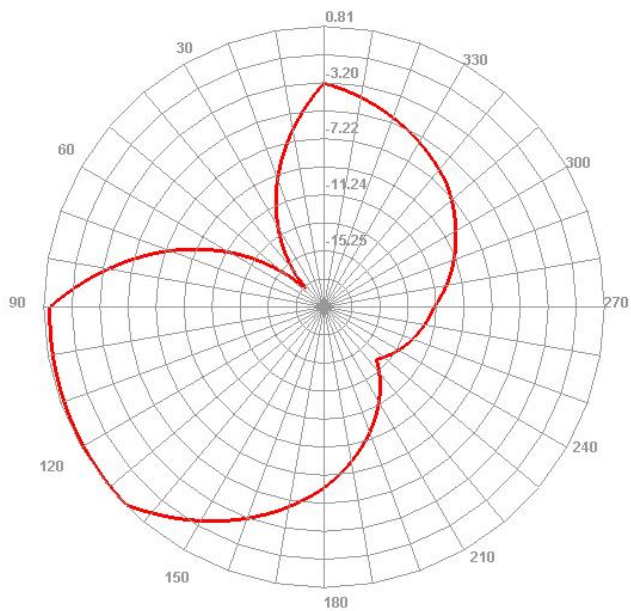
1920.000MHz



1920.000MHz H

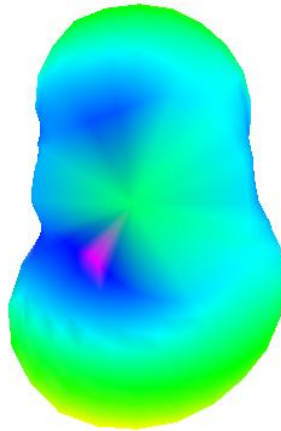


1920.000MHz E1

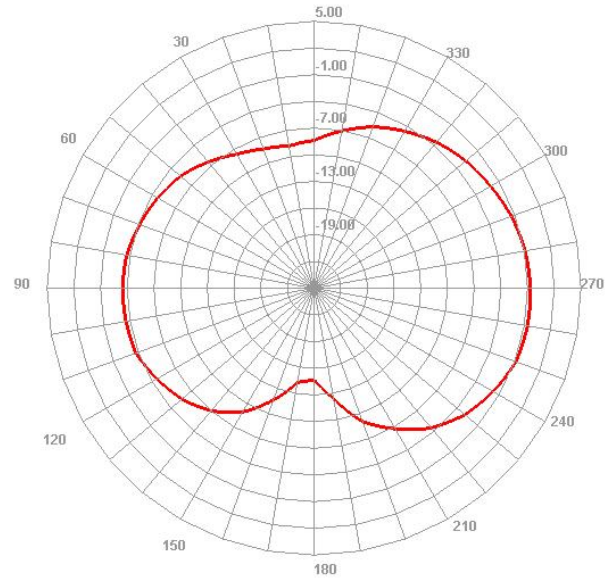


Efficient (1920-2170MHz)

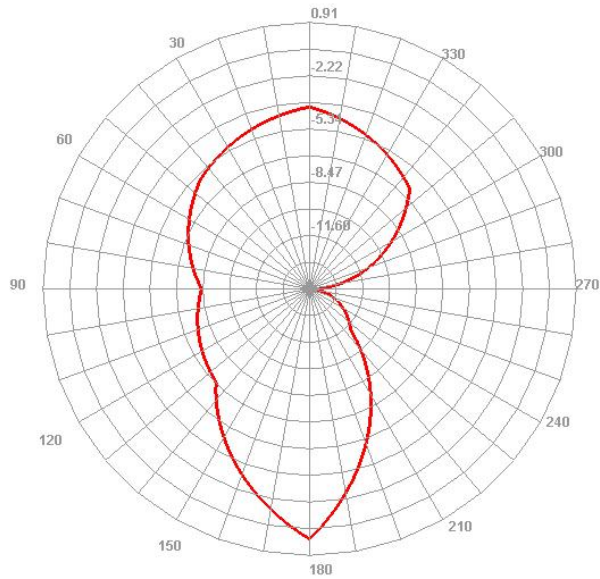
2010.000MHz



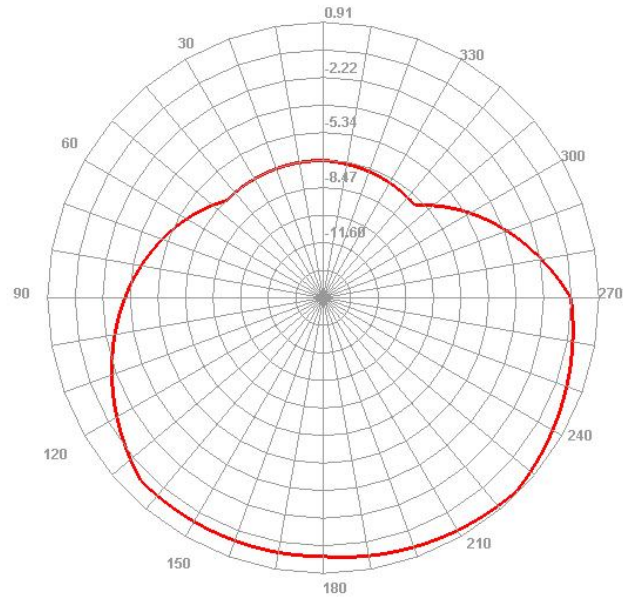
2010.000MHz H



2010.000MHz E1

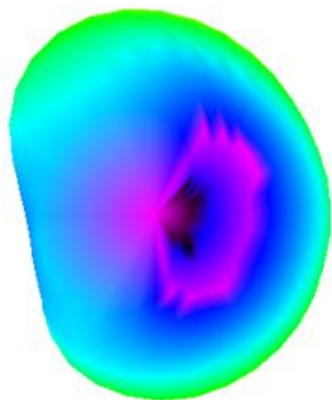


2010.000MHz E2

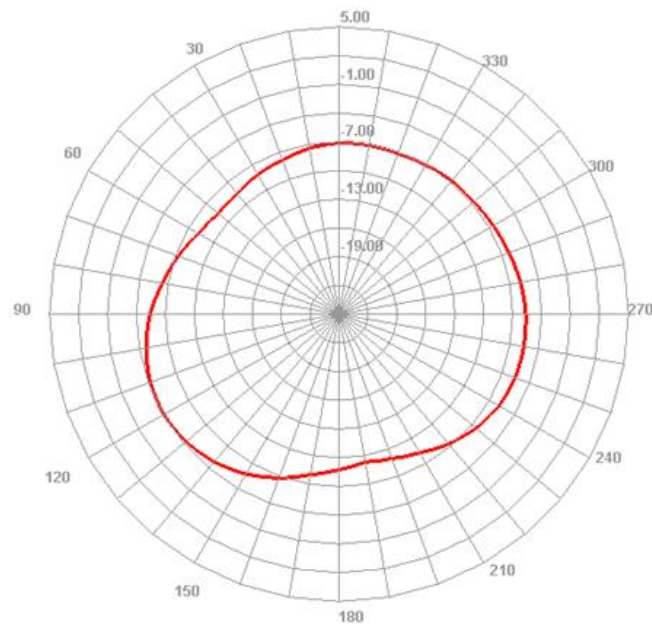


Efficient (2500-2690MHz)

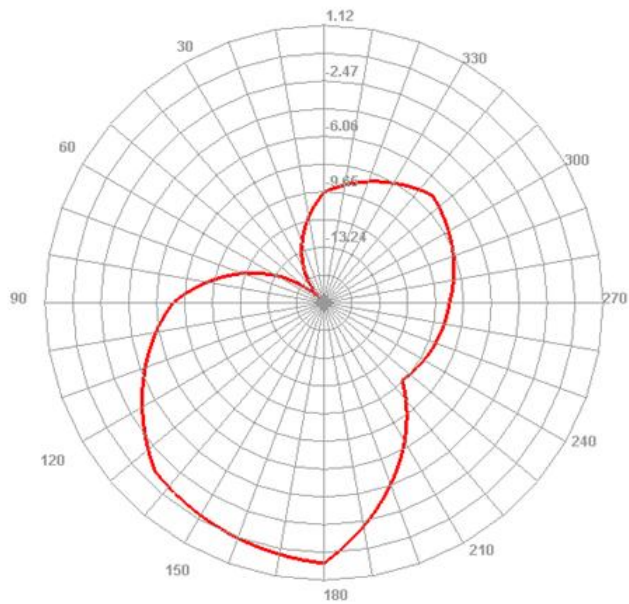
2660.000MHz



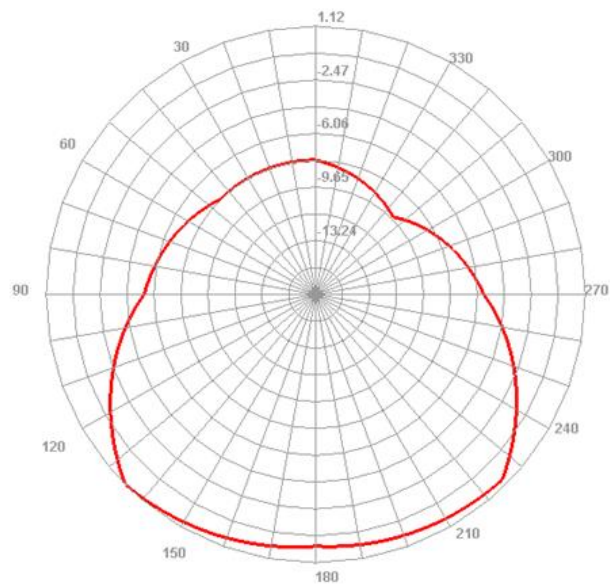
2660.000MHz H



2660.000MHz E1

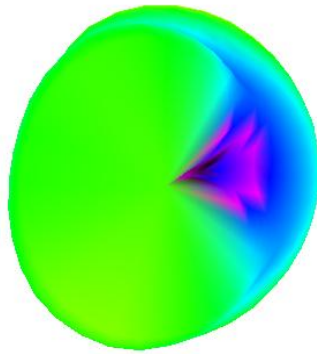


2660.000MHz E2

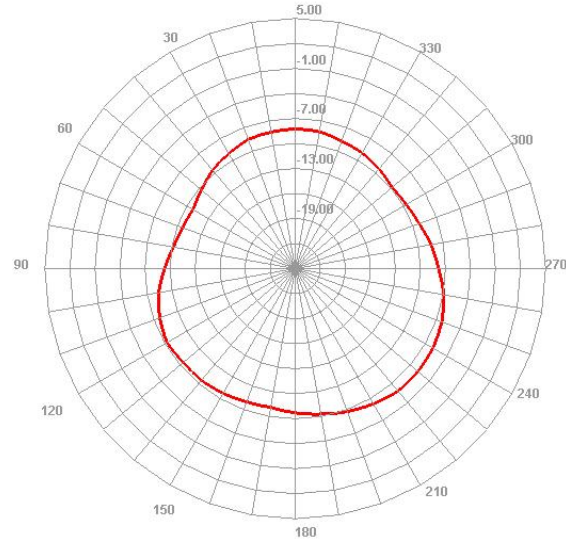


Efficient (2. 4G-WIFI/BT 2400-2500MHz)

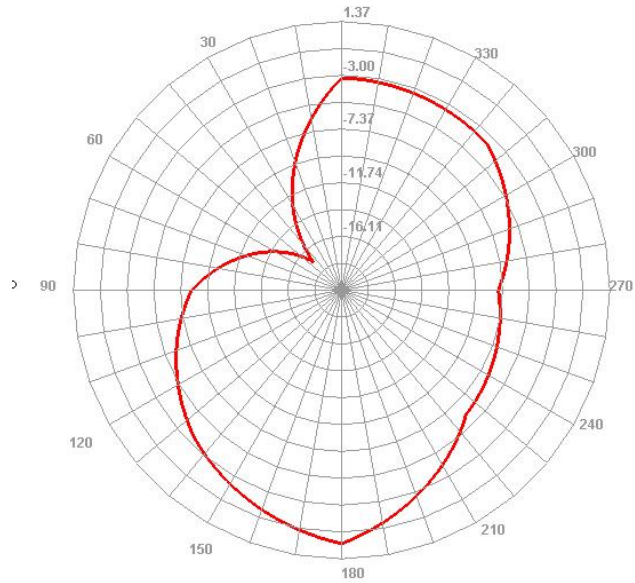
2450.000MHz



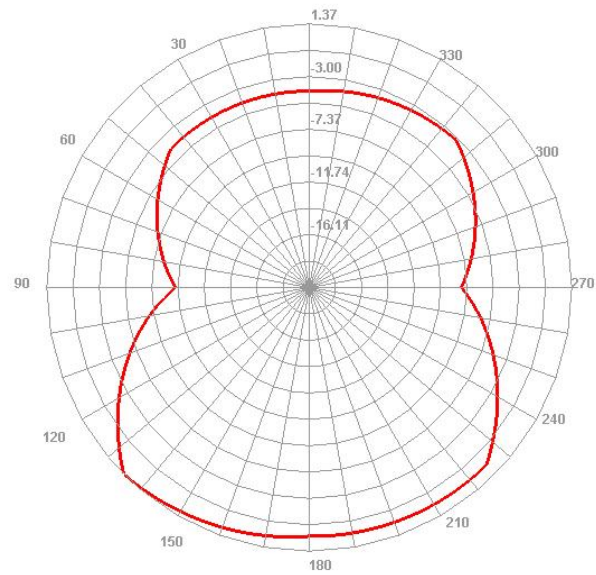
2450.000MHz H



2450.000MHz E1

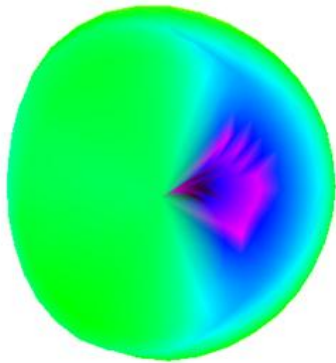


2450.000MHz E2

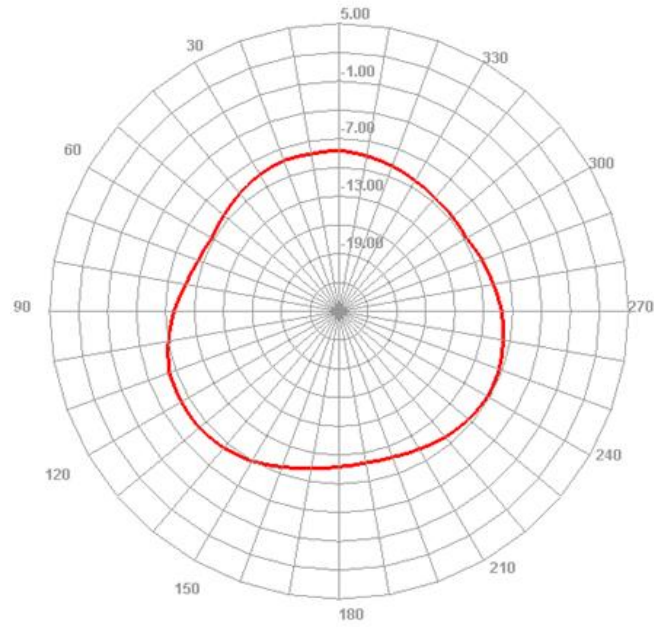


Efficient (5G-WIFI 5000-5250MHz)

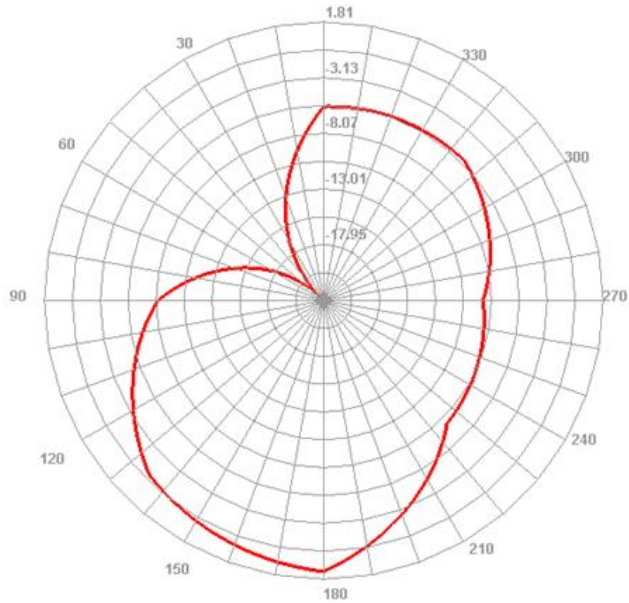
5150.000MHz



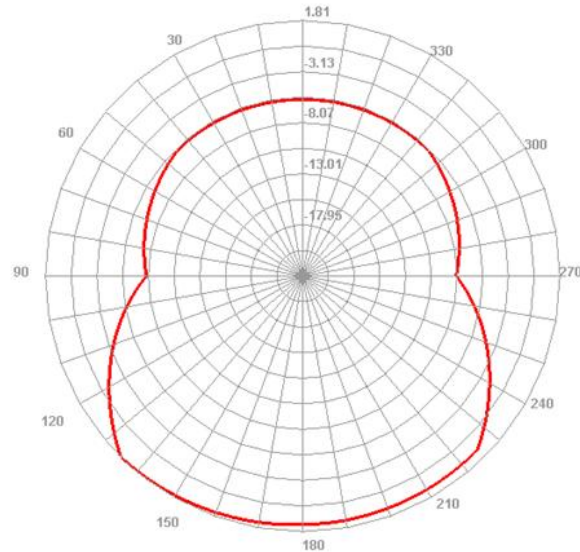
5150.000MHz H



5150.000MHz E1

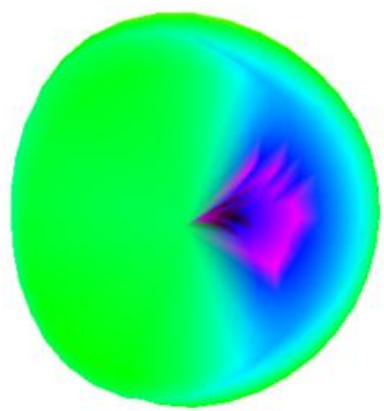


5150.000MHz E2

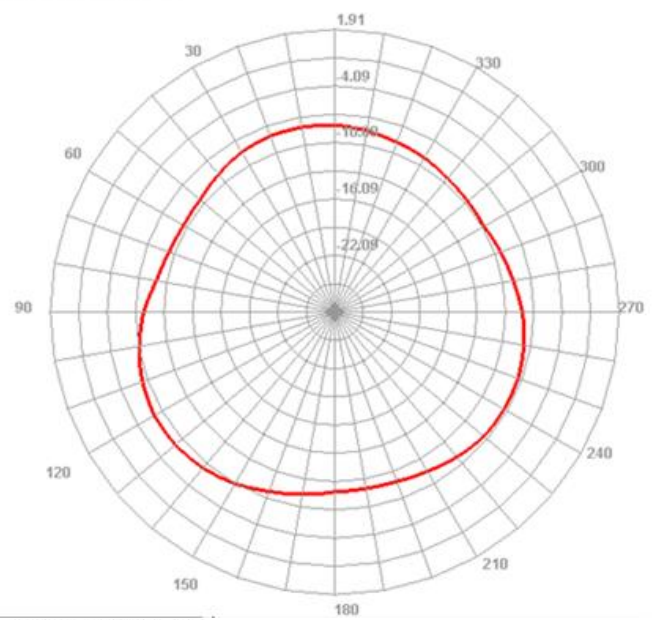


Efficient (5G-WIFI 5725-5850MHz)

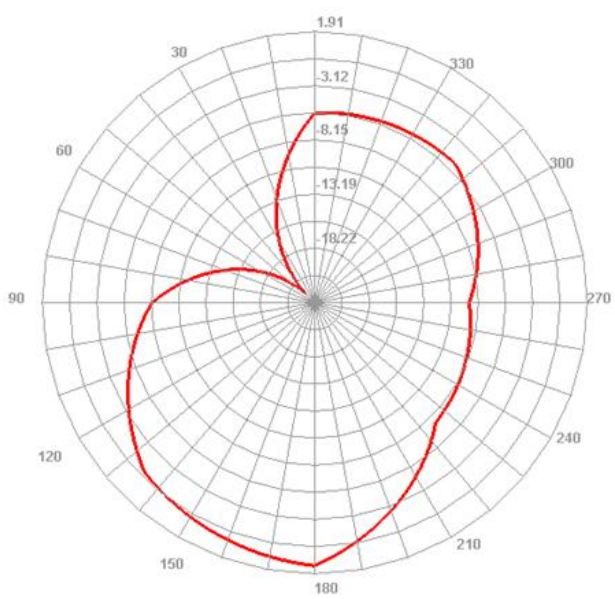
5740.000MHz



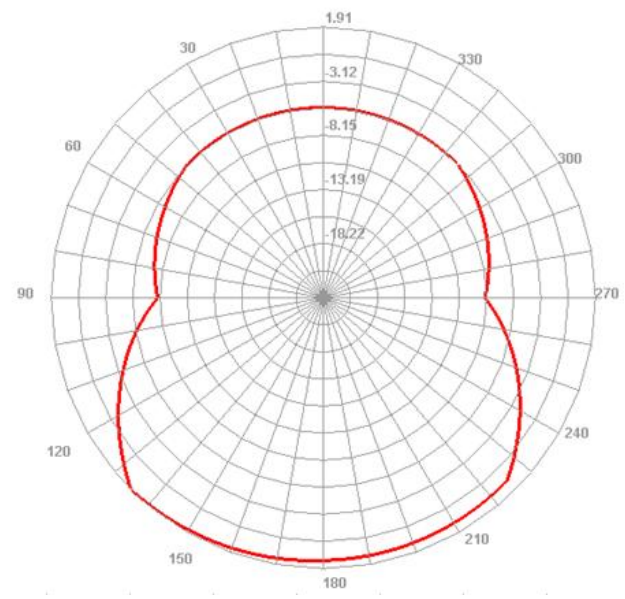
5740.000MHz H



5740.000MHz E1

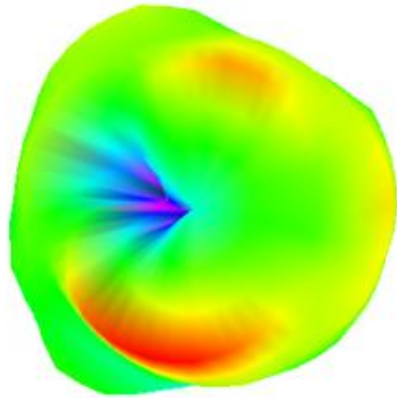


5740.000MHz E2

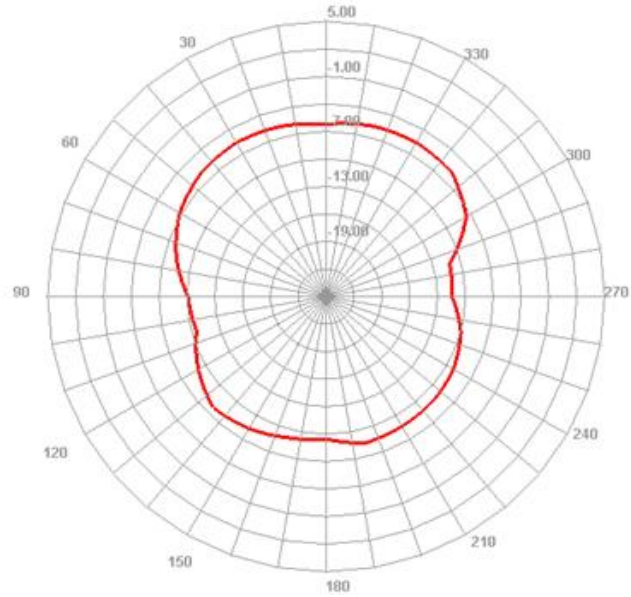


Efficient (GPS 1575.42MHz)

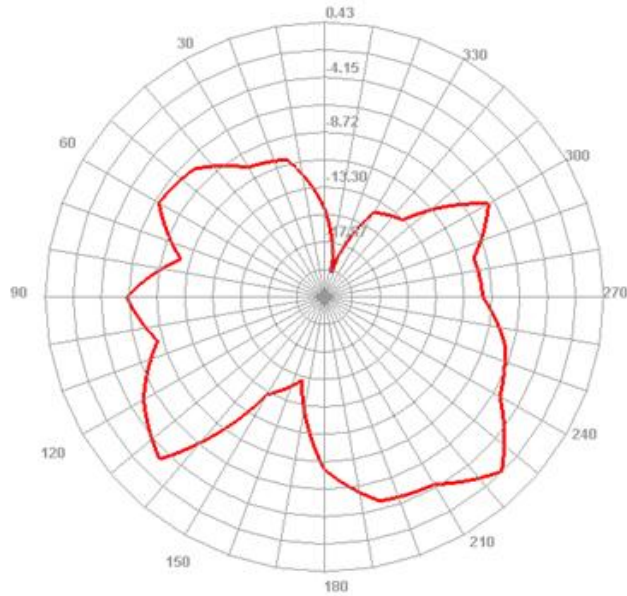
1575.491MHz



1575.491MHz H



1575.491MHz E1



1575.491MHz E2

