

深圳市瑞通电子有限公司

天线测试报告

客户名称：爱姆仕

项目名称：Z59

设计者：朱海

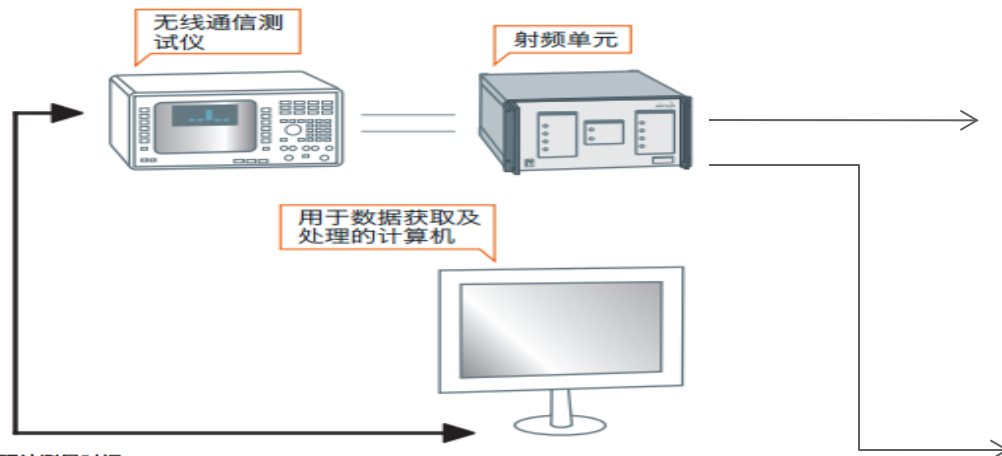
日期：2024/04/01



客户名称		XXX	项目名称	XXX
NO.	项目	详述		
1	频段	GSM四频+WCDMA B/2/4/5 +LTEB/2/4/5/12/17/29/30/66/71/41 +WIFI/BT/GPS		
2	项目类型	移动电话		
3	天线空间面积			
4	馈点类型			
5	灵敏度			
6	天线类型			
7	PCB 板长度			
8	备注	XXXX		
RF		朱海		

一、测试系统及测试设备

系统品牌: 测量功能:增益 • 方向图波束宽度交叉极化分辨率旁瓣电平3D腔体反射率在任何极化的腔体反射率 (直线或圆弧) 天线效率 TRP, TIS, EIRP和 EIS. **频带:**StarLab 650兆赫至6千兆赫



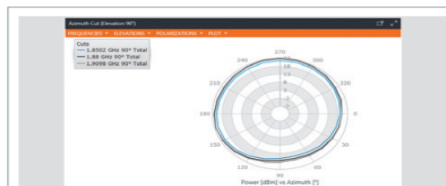
TIS预计测量时间 (一个信道每隔30° 取样)

灵敏度算法 \ 标准	GSM GPRS EDGE	CDMA 1 x RTT 1 x EvDO	WCDMA HSDPA LTE FDD/TDD	Wi-Fi 802.11 a/b/g/n	CTIA 批准方法
RSSI模式+线性化+TIS补偿	8 min		10 min		是
EIS模式+TIS补偿		5 min		5 min	是 ²
快速CDMA		8 min			No
EIRP模式+TIS补偿				10 min	No

1、根据RTC
2、根据协议



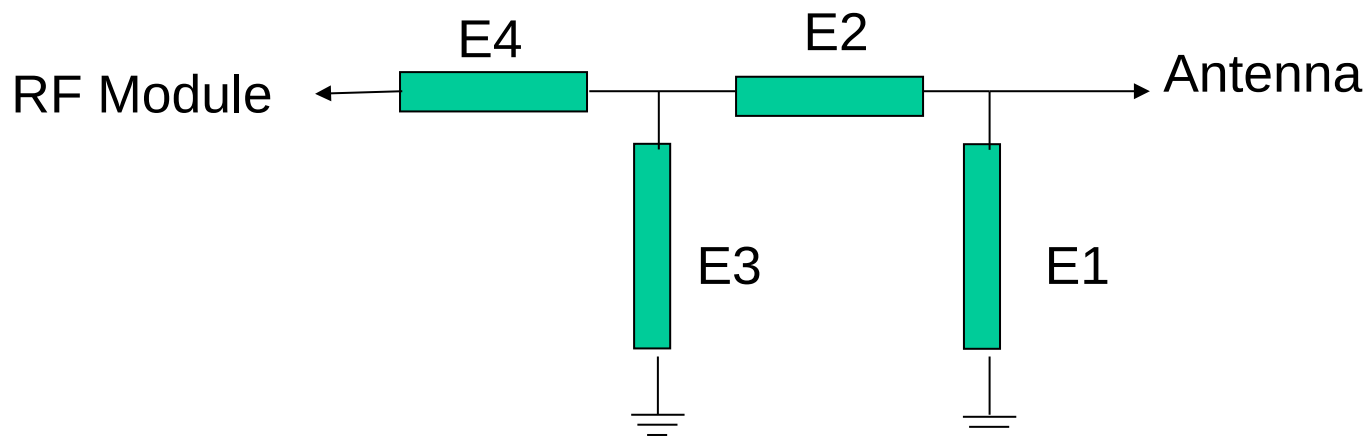
TIS 3D方位切割强度图



TRP 3D方位切割强度图

二、匹配电路图

Element	E1(0402)	E2(0402)	E3(0402)
Value		0Ω	



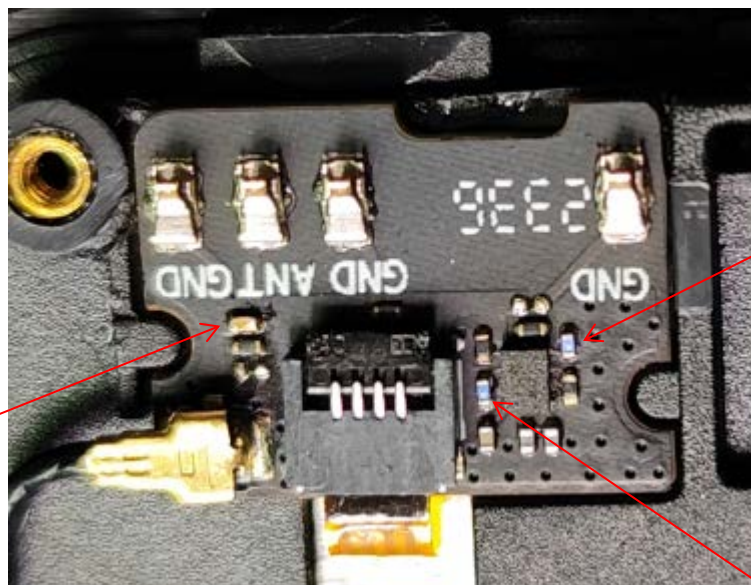
所有的天线都要预留“Π”匹配电路

小板位置下端天线开关控制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。

RF1路 贴0欧	900/1800/1900+W-B2/4+LTE-B2/4/30/66/41
RF2路 贴2.7NH	GSM850+W-B5+LTE/B5
RF3路 贴47NH	LTE-B12/B17/B29/B71
RF4路	

主馈点下来并个
5.6NH电感到地



RF3路贴47NH电感

RF2路贴2.7NH电感

Band	channel	Frequency (MHz)	FS-TRP	FS-TIS	标准	相差
GSM900	1	880.2-925.2				
	62	897.6-942.6				
	124	914.8-959.8				
DCS1800	512	1710.2-1805.2				
	699	1747.6-1842.6				
	885	1784.8-1879.8				
GSM850	128	824.2-869.2	26.9			
	190	836.6-881.6	27.8			
	251	848.8-893.8	28.3	-102.1		
PCS1900	512	1850.2-1930.2	25.1			
	661	1880.0-1960.0	25.4			
	810	1909.8-1989.8	25.2	-103.7		

Band	channel	Frequency (MHz)	FS-TRP	FS-TIS	标准	相差
W-B1	9612	1922.4-2112.4				
	9750	1950.0-2140.0				
	9888	1977.6-2167.6				
W-B2	9262	1852.4-1932.4	18.7			
	9400	1880.0-1960.0	19.2			
	9538	1907.6-1987.6	19.1	-104.9		
W-B4	1312	1712.4-2112.4	18.3			
	1413	1732.6-2132.6	18.9			
	1513	1752.6-2152.6	19.0	-104.4		
W-B5	4132	826.4-871.4	18.0			
	4183	836.6-881.6	18.6			
	4233	846.6-891.6	18.9	-102.3		

Band	channel	Frequency (MHz)	FS-TRP	FS-TIS	标准	相差
FDD-B2	18650	1851.58-1935	19.9			
	18900	1880-1960	20.2			
	19150	1908.42-1985	19.9	-94.2		
FDD-B4	20000	1711.58-2115	20.0			
	20175	1732.5-2132.5	20.5			
	20350	1753.42-2150	20.3	-93.1		
FDD-B5	20450	825.58-874	17.7			
	20525	836.5-881.5	18.4			
	20600	847.42-889	18.7	-88.4		
FDD-B12	23060	700.58	17.3			
	23095	707.5	17.6			
	23130	714.42	17.6	-87.1		

Band	channel	Frequency (MHz)	FS-TRP	FS-TIS	标准	相差
FDD-B17	L		17.1			
	M		17.6			
	H		17.5	-87.2		
FDD-B30	L					
	M		16.9	-88.8		
	H					
FDD-B66	L		19.7			
	M		19.9			
	H		20.6	-93.3		
FDD-B71	L		16.8			
	M		17.6			
	H		17.3	-87.2		

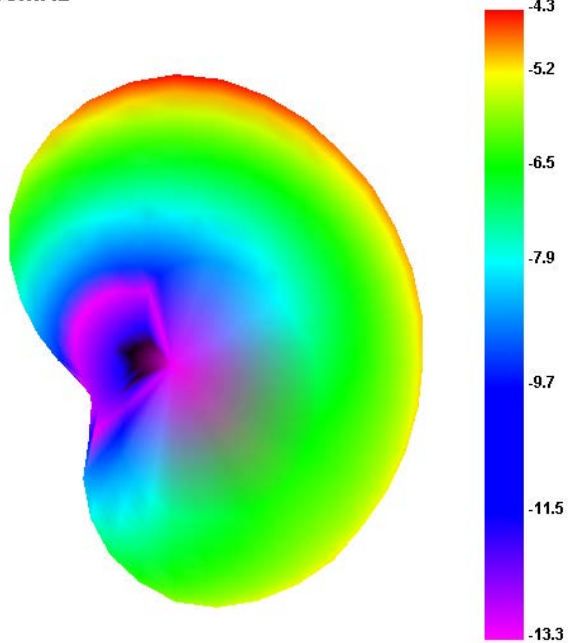
Band	channel	Frequency (MHz)	FS-TRP	FS-TIS	标准	相差
FDD-B41	L		21.6			
	M		22.1			
	H		22.5	-89.2		

Efficient (2G+3G+4G+2. 4G-WiFi /BT)

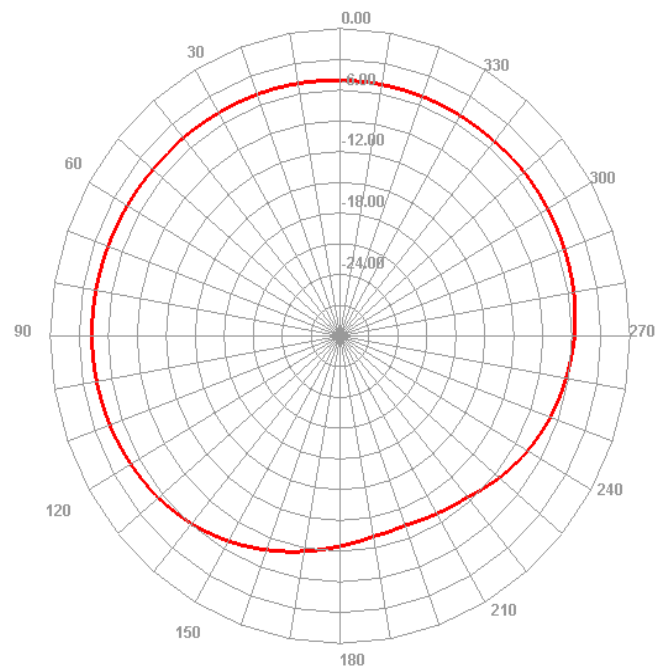
PEAK GAIN			
2G:	Frequency range	Effi %	Gaim dBi
GSM850	824~894Mhz	21. 80	-0. 68
GSM900	880~960Mhz	20. 84	-1. 01
DCS1800	1710~1880Mhz	28. 62	0. 71
PCS1900	1850~1990Mhz	30. 81	0. 82
3G:			
W2	1850~1990Mhz	30. 81	0. 77
W4	1710~2155Mhz	31. 07	0. 89
W5	824~894Mhz	21. 80	-0. 78
4G:			
LTE-B2	1850~1990Mhz	30. 81	0. 83
LTE-B4	1710~2155Mhz	31. 07	0. 89
LTE-B5	824~894Mhz	21. 80	-0. 74
LTE-B12	698~746Mhz	19. 03	-1. 35
LTE-B17	704~746Mhz	19. 04	-1. 38
LTE-B30	2305~2359. 9Mhz	29. 21	1. 21
LTE-B71	617~697. 9Mhz	20. 38	-4. 22
LTE-B66	1710~2170Mhz	31. 08	0. 92
LTE-B41	2500~2690Mhz	28. 03	1. 22
LTE-B29	717~727. 9MHZ	19. 04	-1. 37
2. 4G-WIFI	2400~2500Mhz	42. 52	1. 41
BT	2400~2500Mhz	42. 51	1. 41
GPS	1575Mhz	38. 73	0. 42

Efficient (617-697.9Hz)

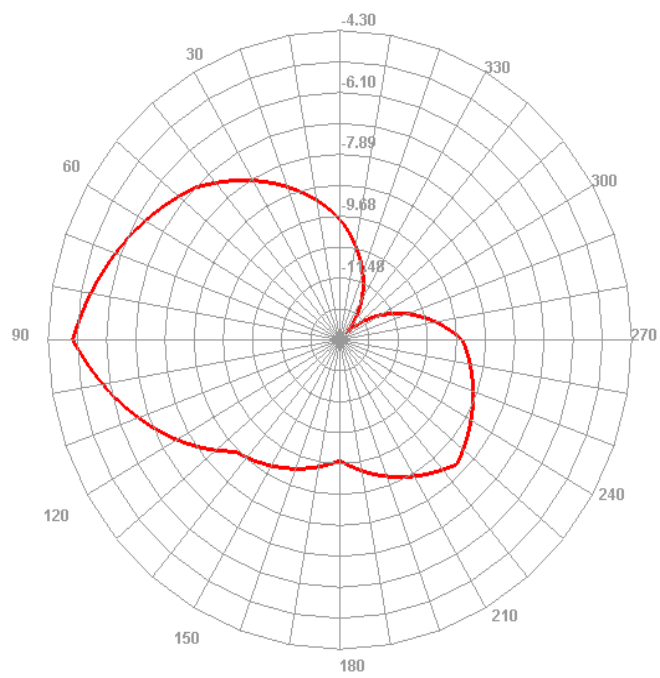
650.000MHz



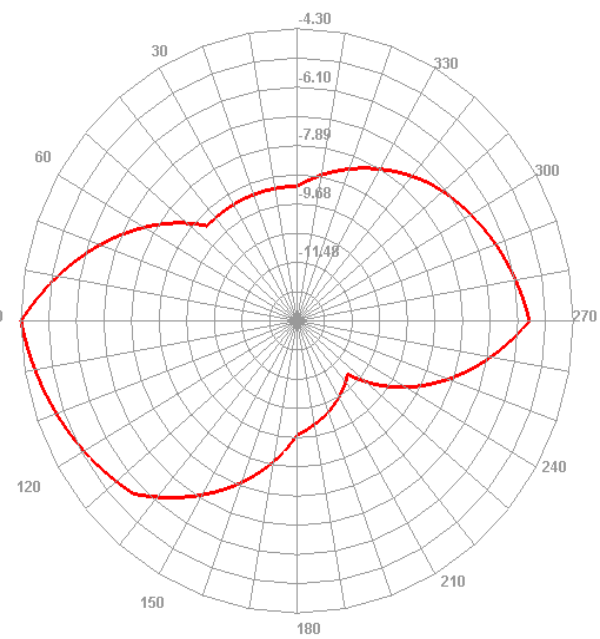
650.000MHz H



650.000MHz E1

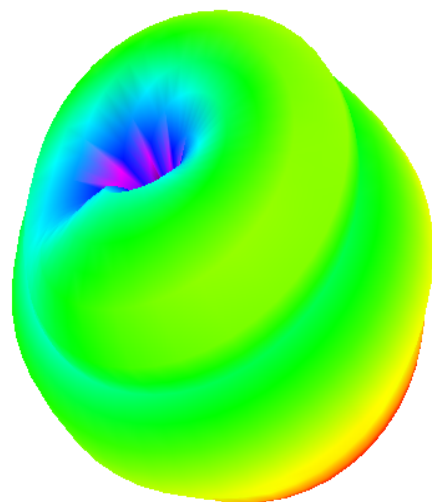


650.000MHz E2

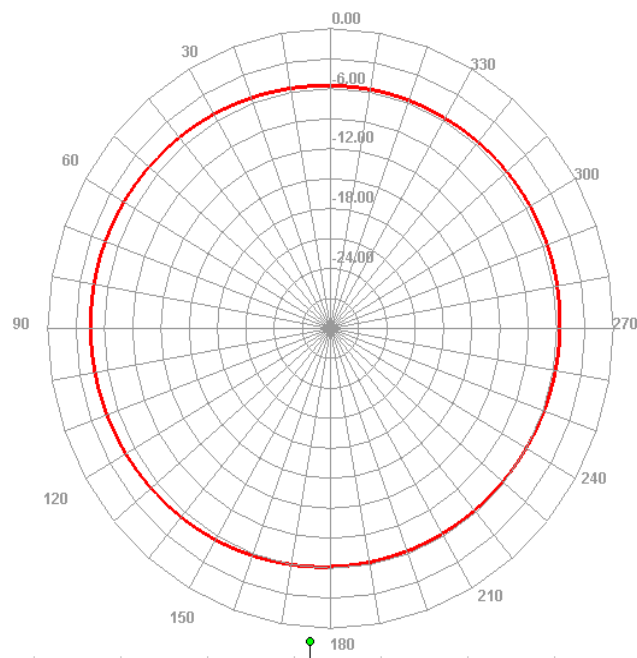


Efficient (698-798MHz)

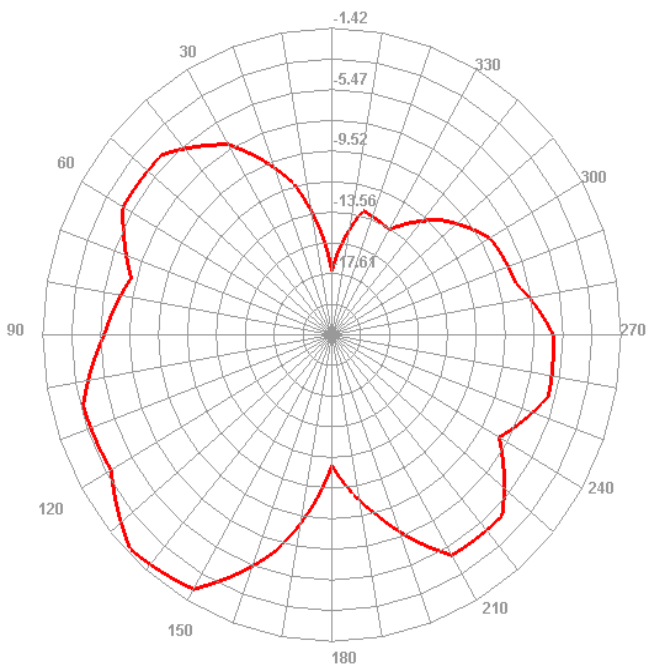
710.000MHz



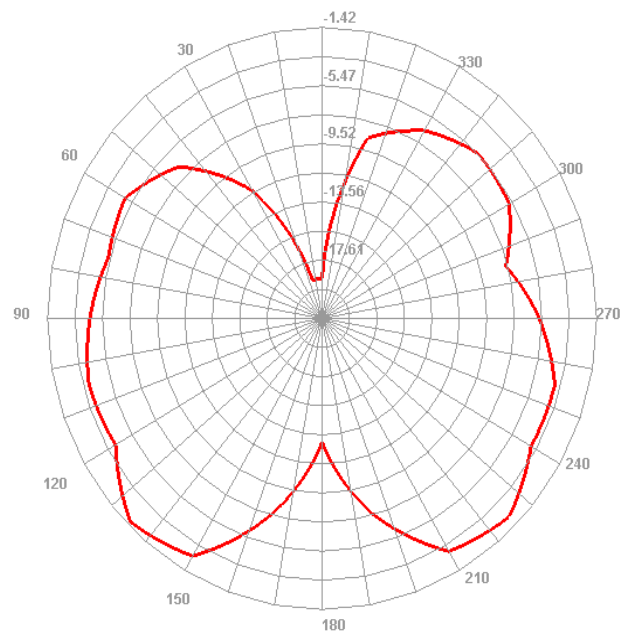
710.000MHz H



710.000MHz E1

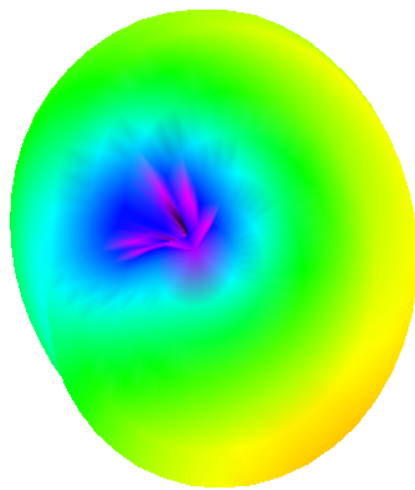


710.000MHz E2

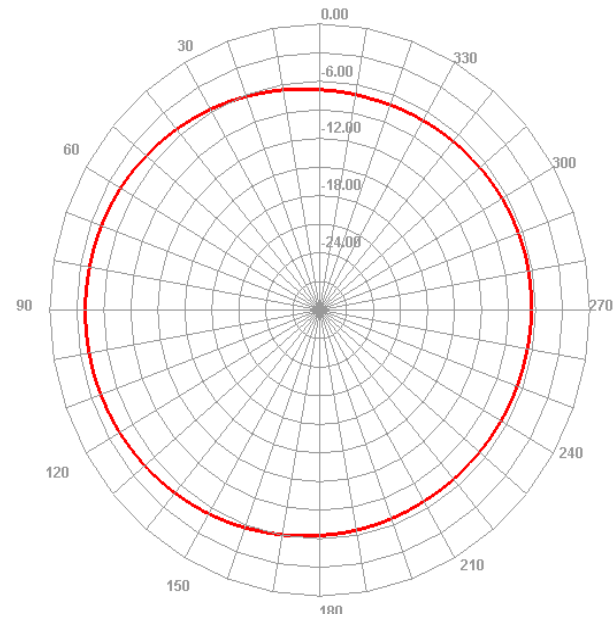


Efficient (791-894MHz)

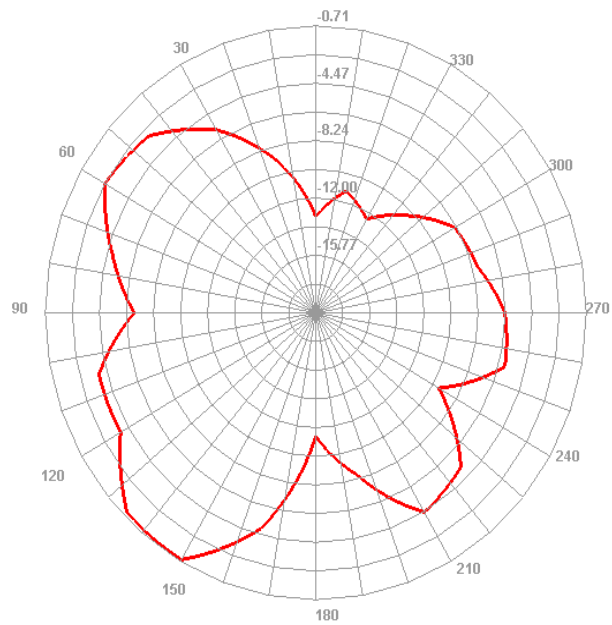
830.000MHz



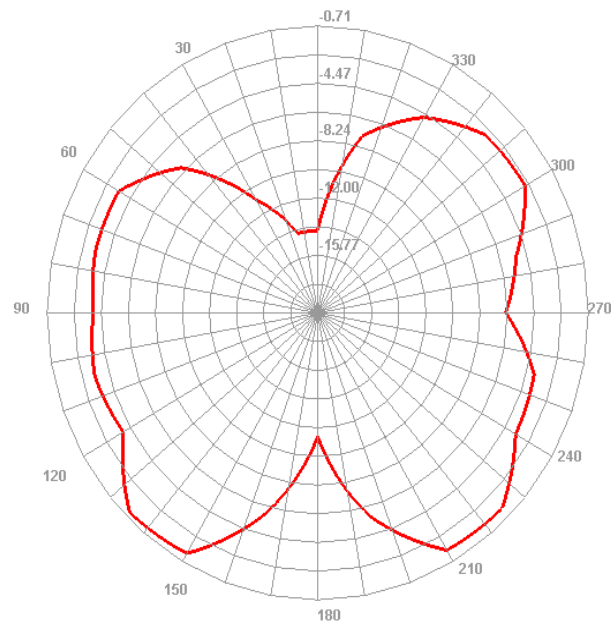
830.000MHz H



830.000MHz E1

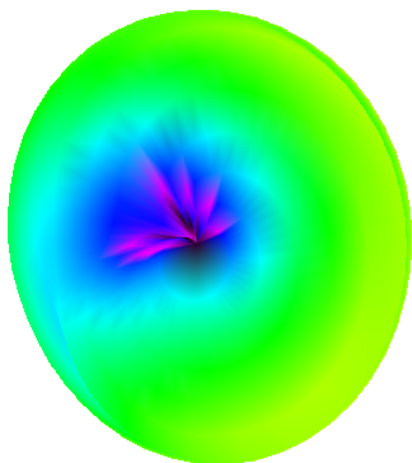


830.000MHz E2

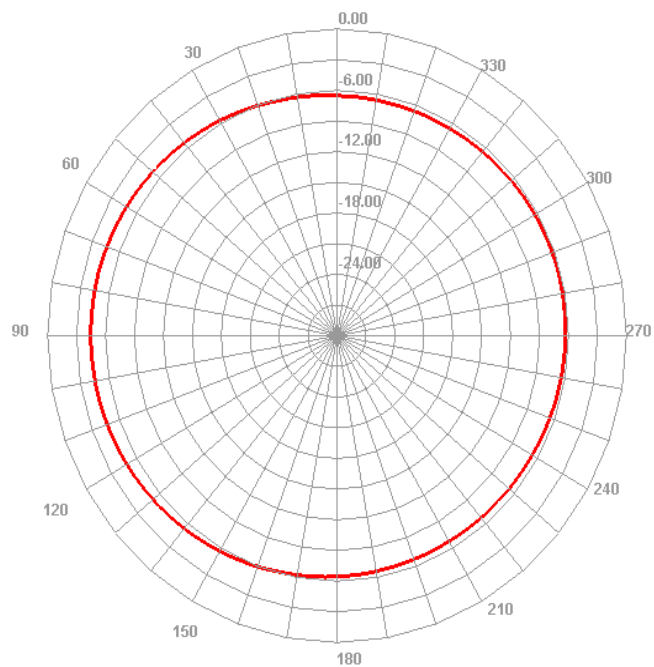


Efficient (880-960MHz)

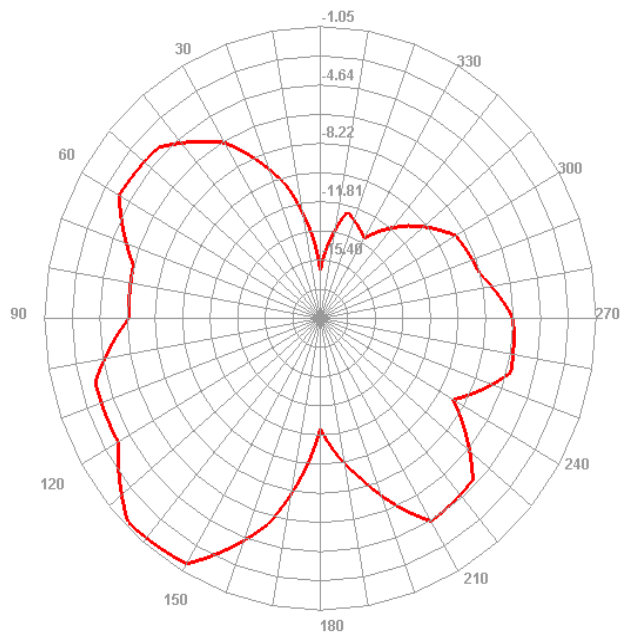
900.000MHz



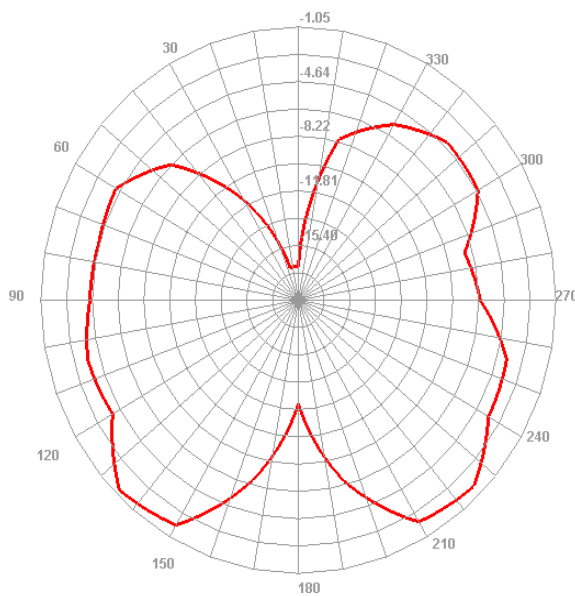
900.000MHz H



900.000MHz E1

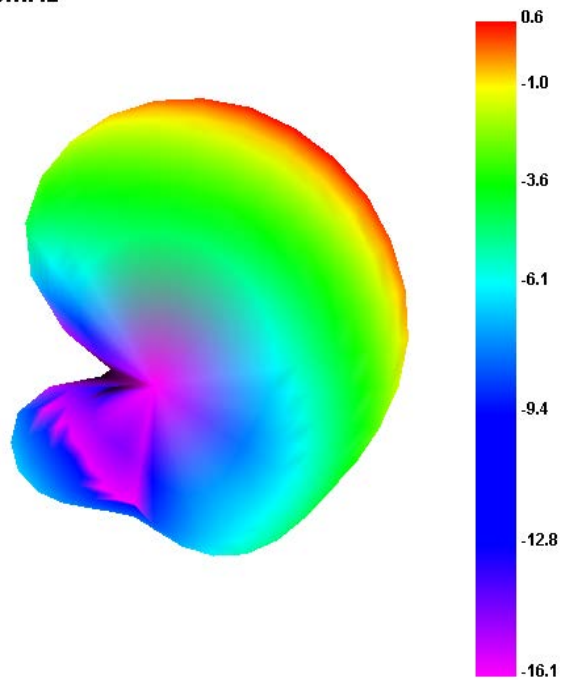


900.000MHz E2

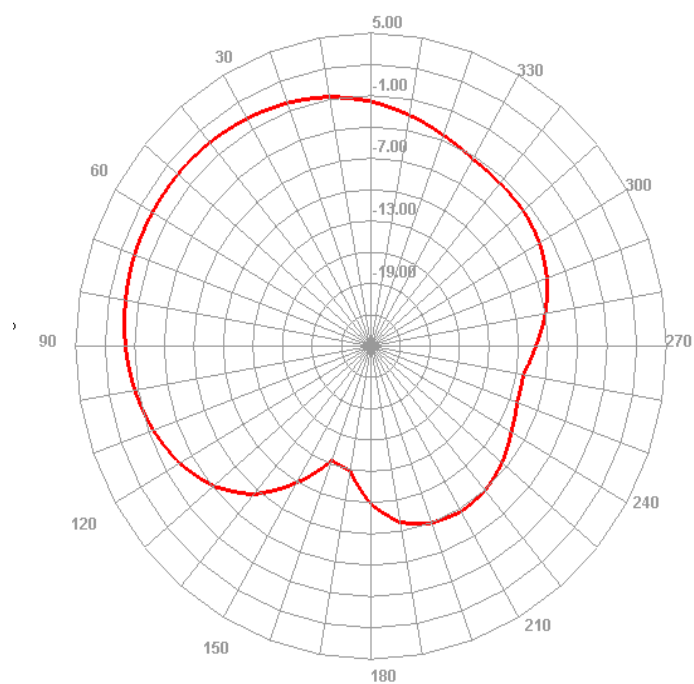


Efficient (1710–1880MHz)

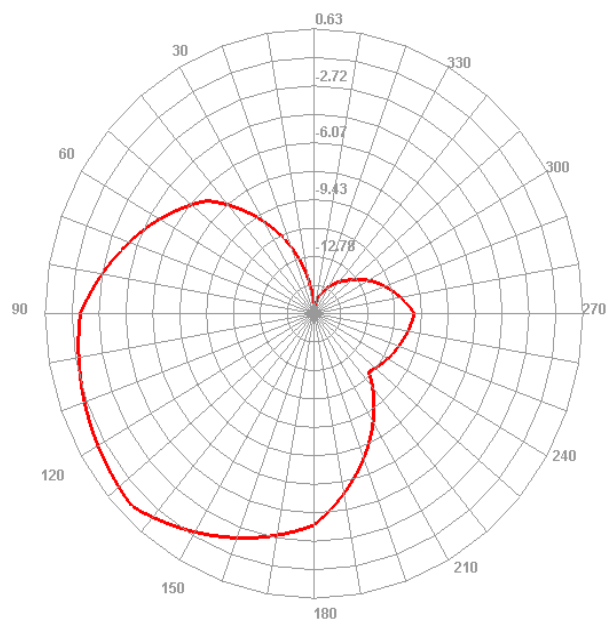
1820.000MHz



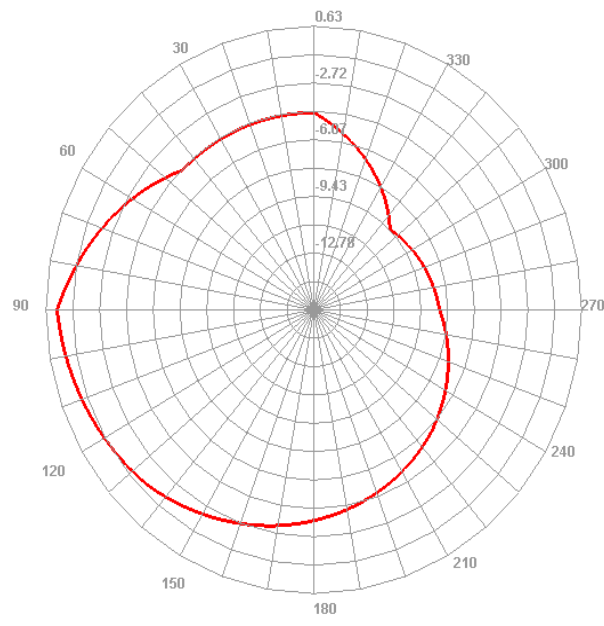
1820.000MHz H



1820.000MHz E1

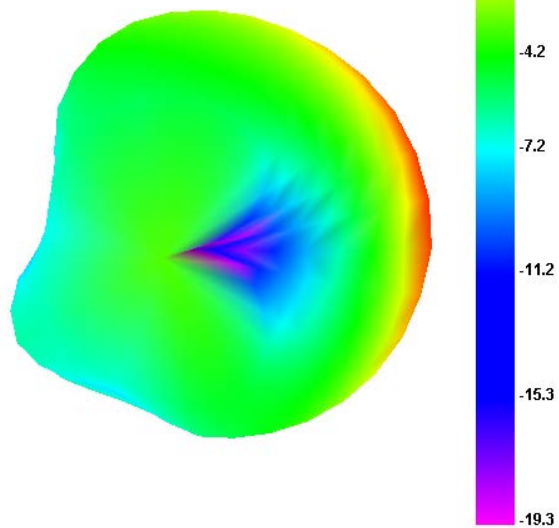


1820.000MHz E2

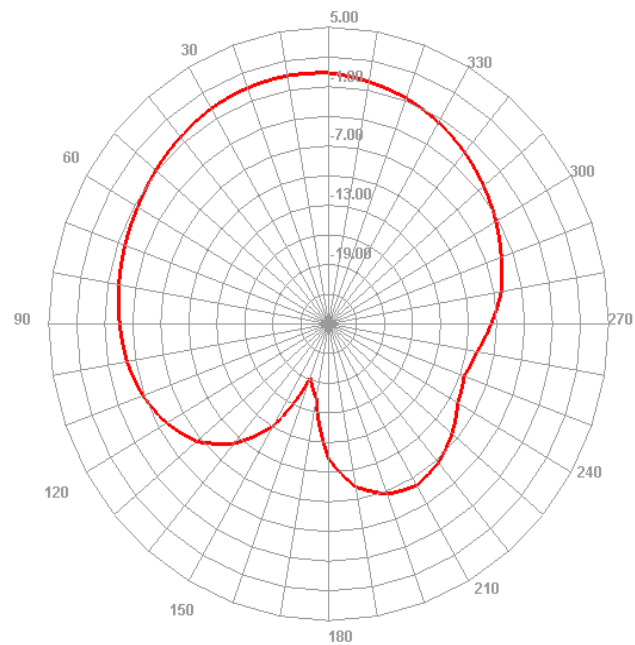


Efficient (1710–1990MHz)

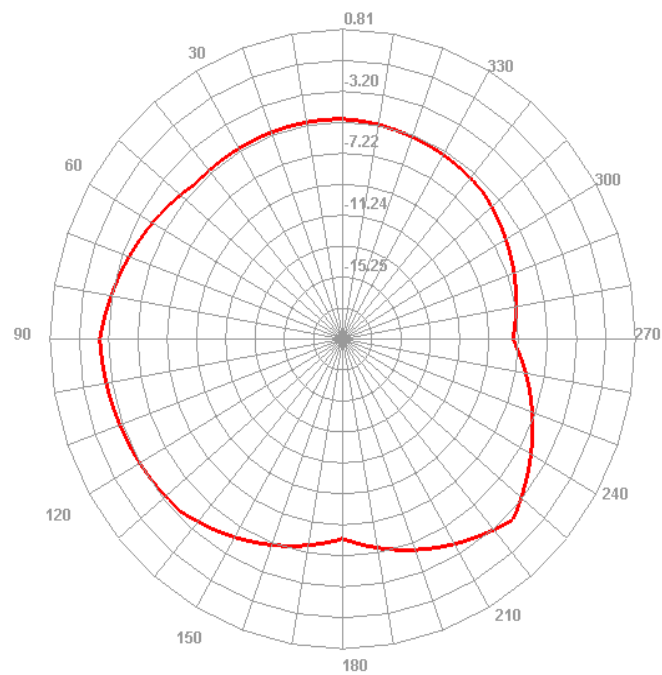
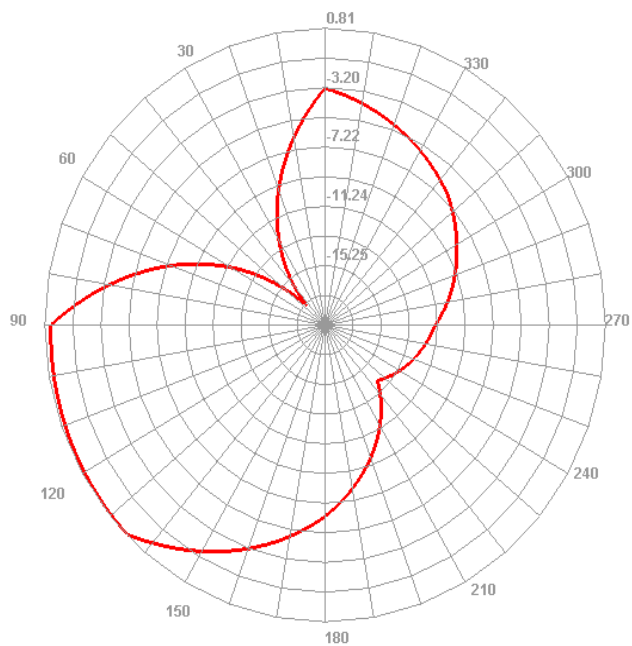
1920.000MHz



1920.000MHz H

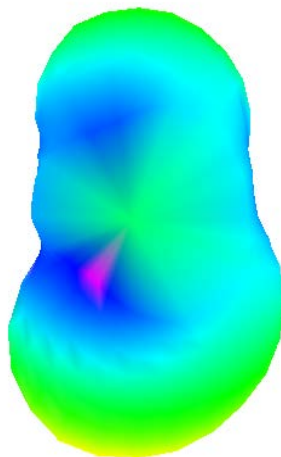


1920.000MHz E1

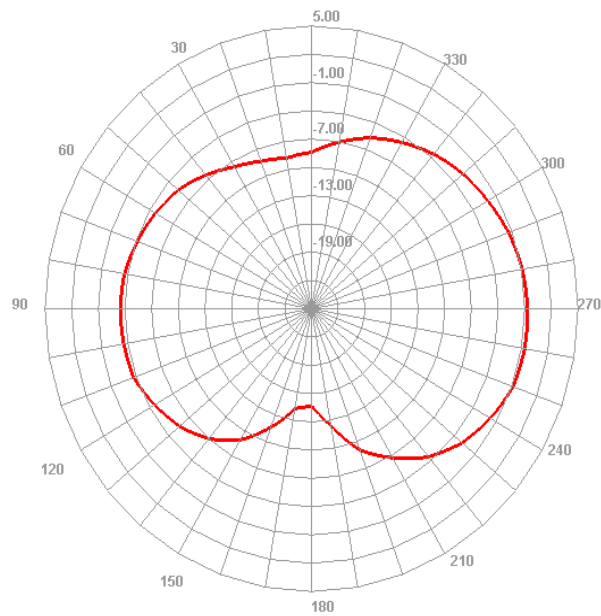


Efficient (1920-2170MHz)

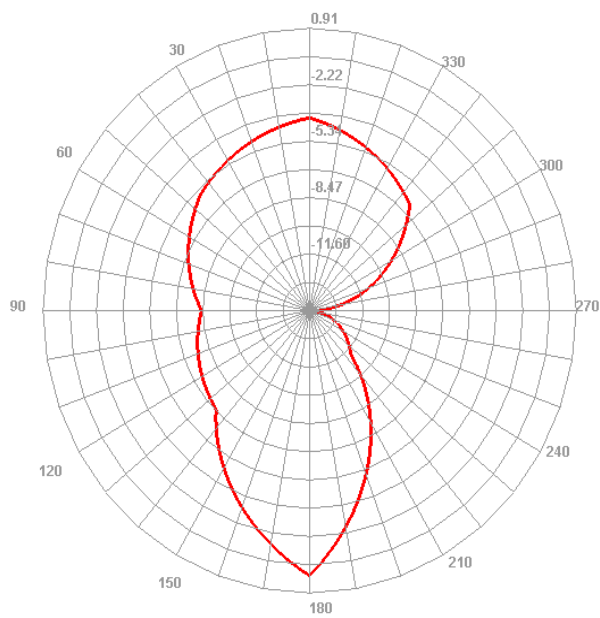
2010.000MHz



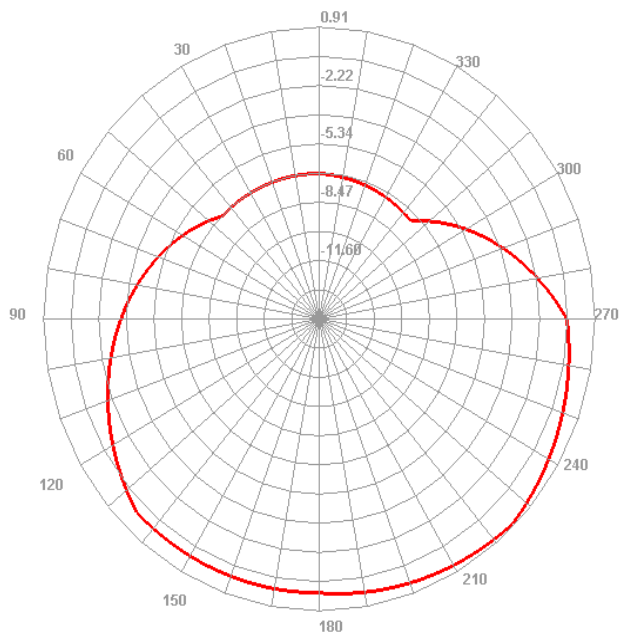
2010.000MHz H



2010.000MHz E1

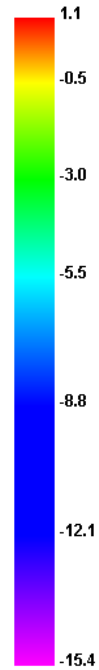
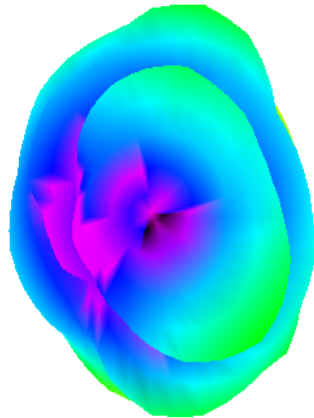


2010.000MHz E2

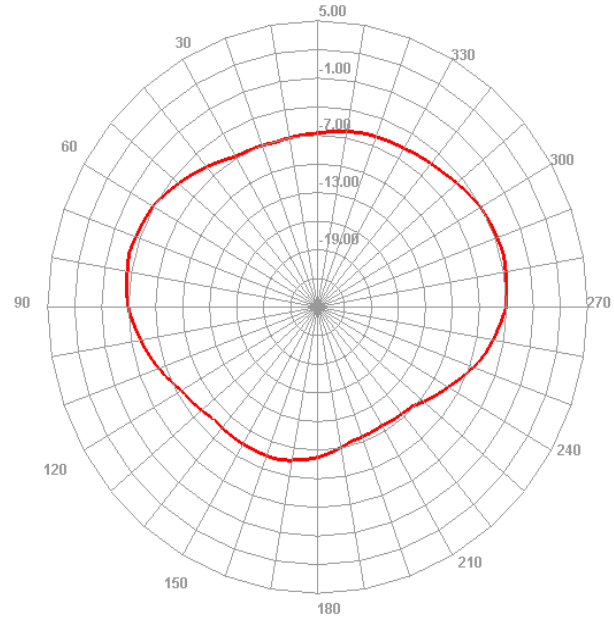


Efficient (2300–2400MHz)

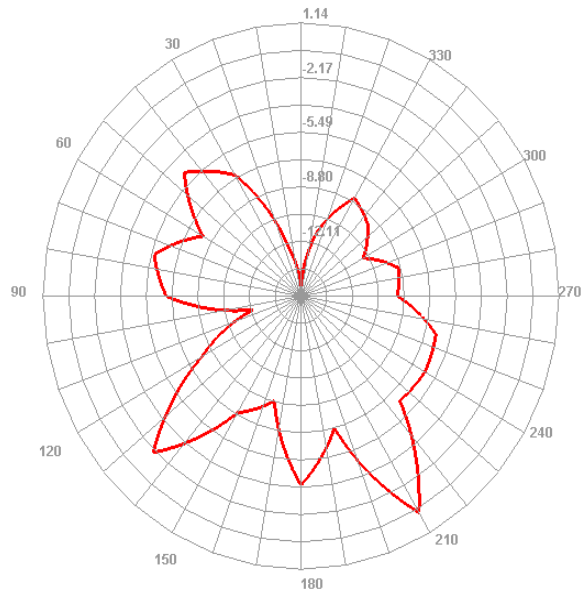
2370.000MHz



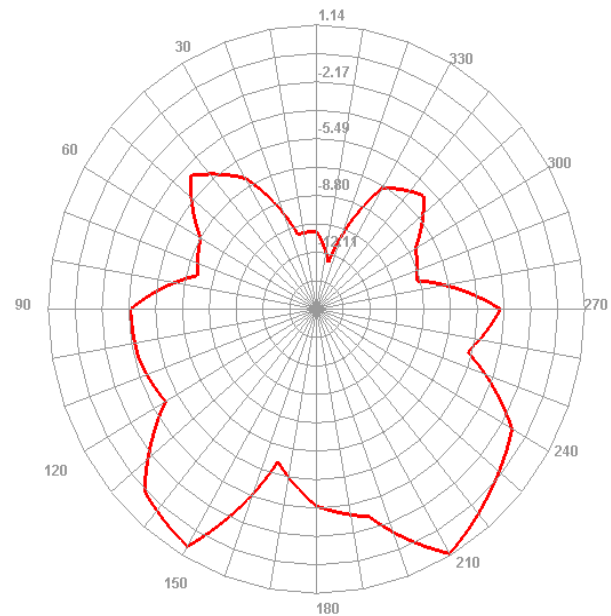
2370.000MHz H



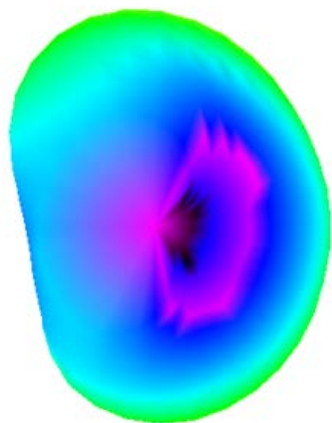
2370.000MHz E1



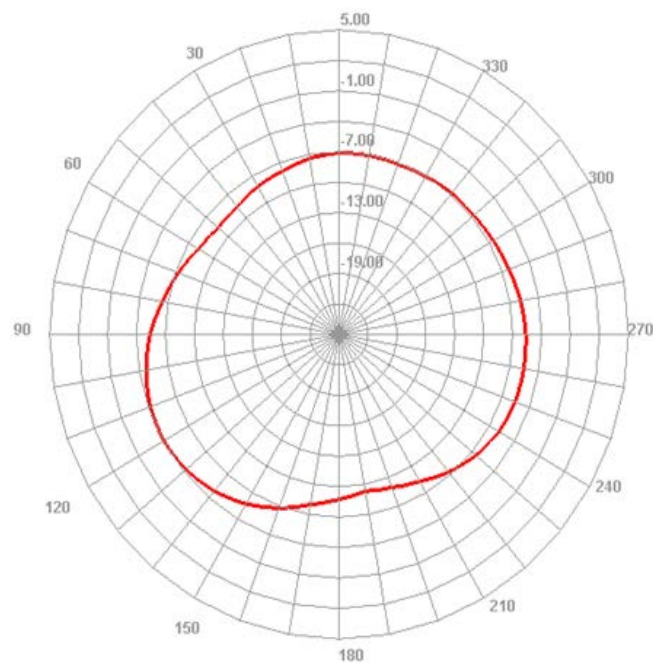
2370.000MHz E2



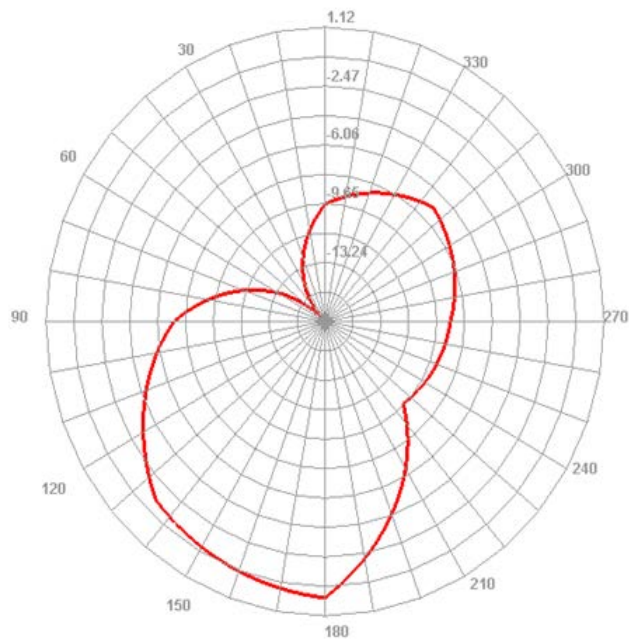
Efficient (2500-2690MHz)
2660.000MHz



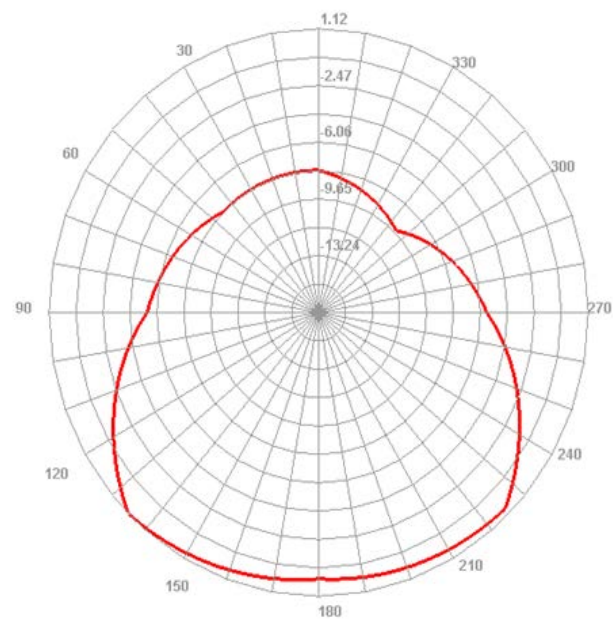
2660.000MHz H



2660.000MHz E1

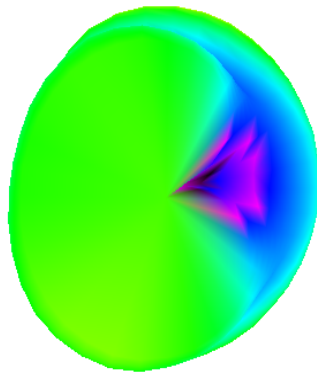


2660.000MHz E2

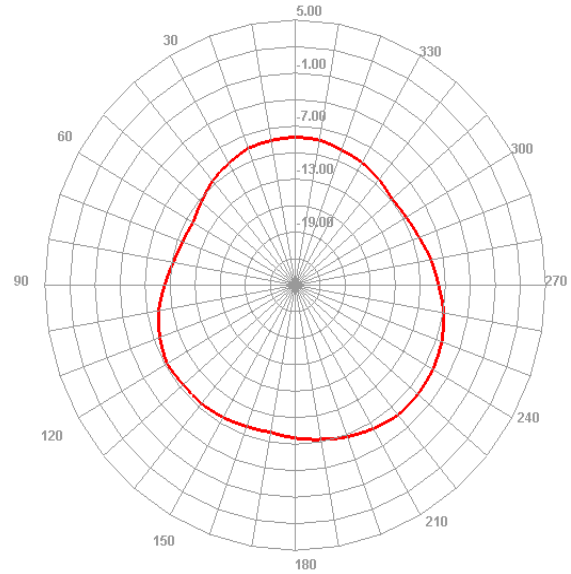


Efficient (2. 4G-WIFI/BT 2400-2500MHz)

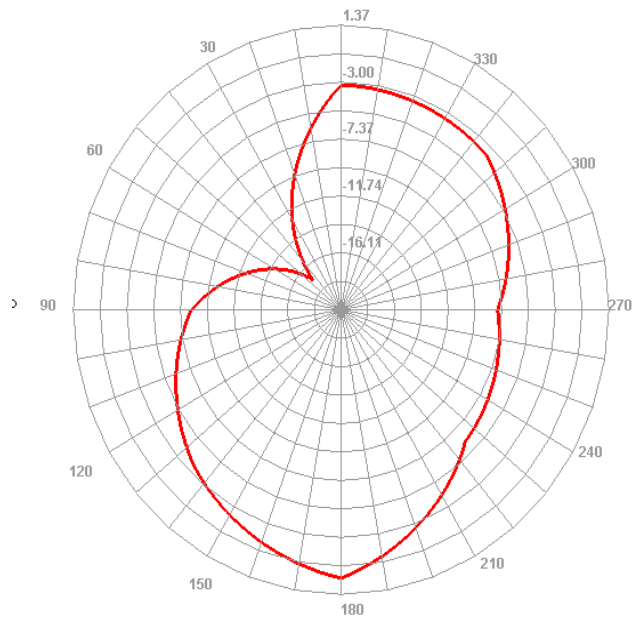
2450.000MHz



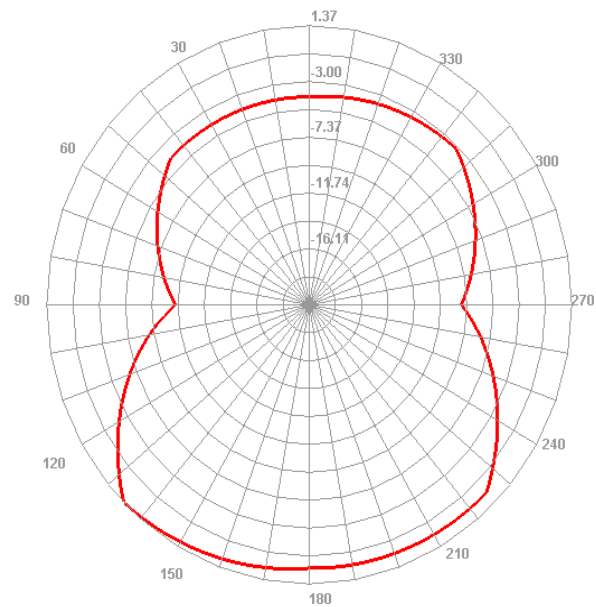
2450.000MHz H



2450.000MHz E1

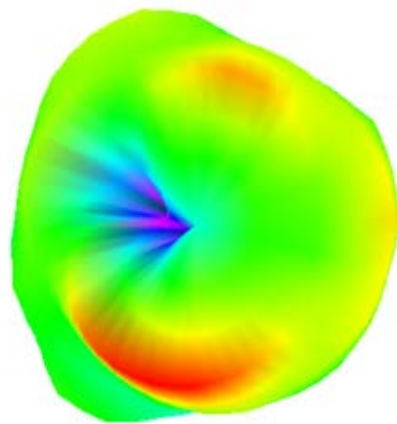


2450.000MHz E2

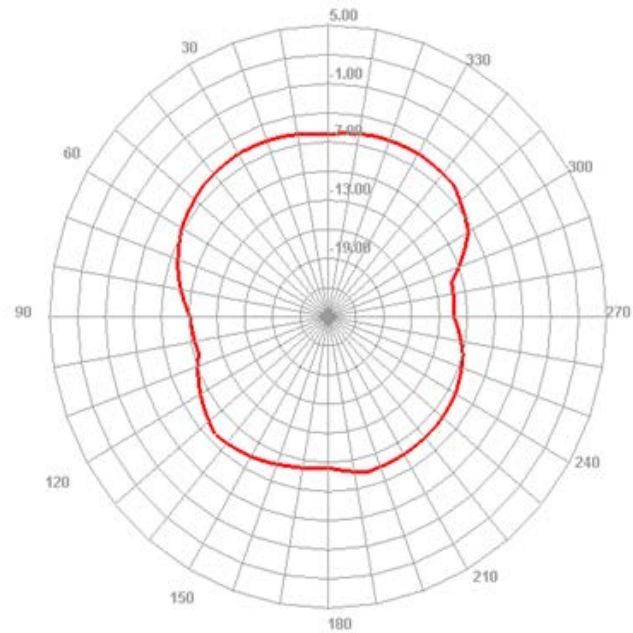


Efficient (GPS 1575.42MHz)

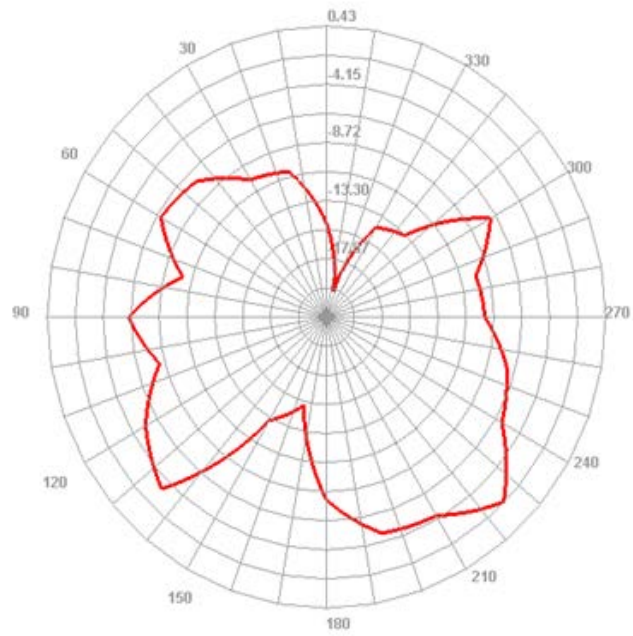
1575.491MHz



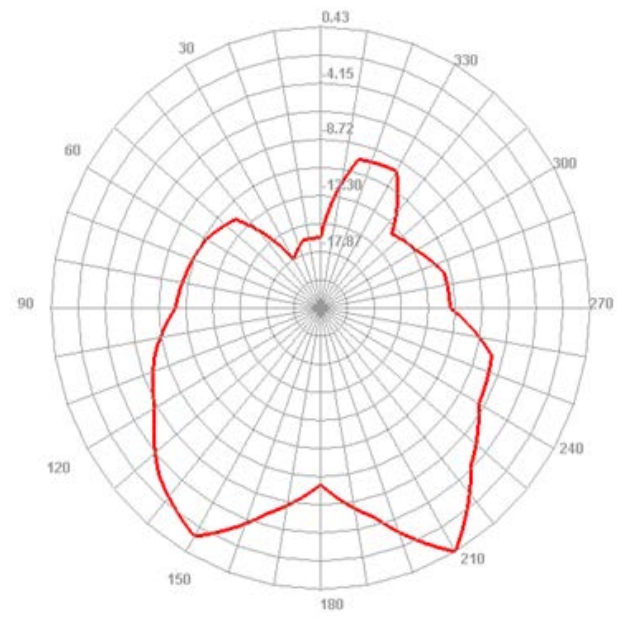
1575.491MHz H

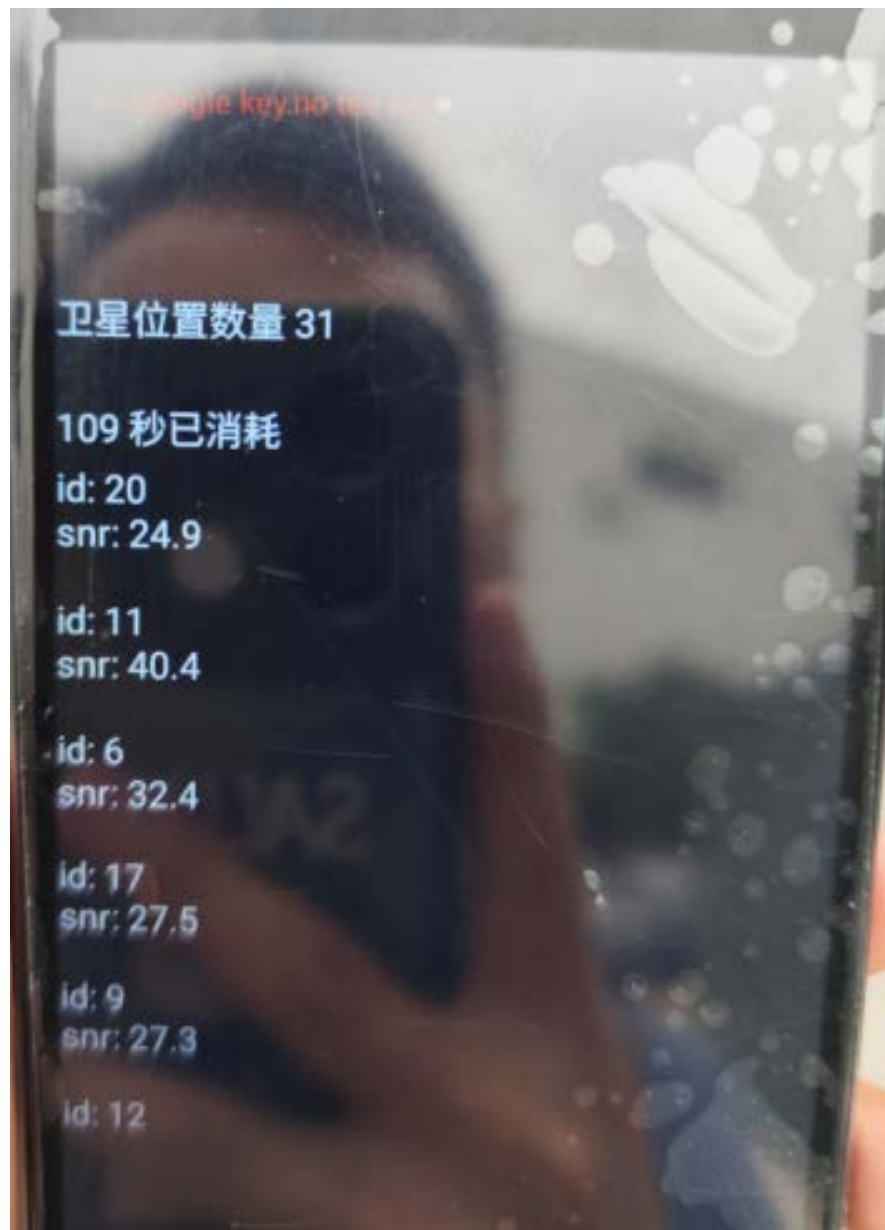


1575.491MHz E1



1575.491MHz E2





卫星位置数量 31

135 秒已消耗

id: 1

snr: 31.1

id: 24

snr: 29.6

id: 2

snr: 41.8

id: 19

snr: 0.0

id: 14

snr: 32.4

十、总结

- 1、此为FPC天线测试报告。
- 2、环境处理保持不变。

