



ShenZhen Huaxinwei communication technology
Co.,Ltd.

Antenna test report

Customer Name: TianRuiXiang

Project Name: S6815-06A

Designer: Zhang Jun

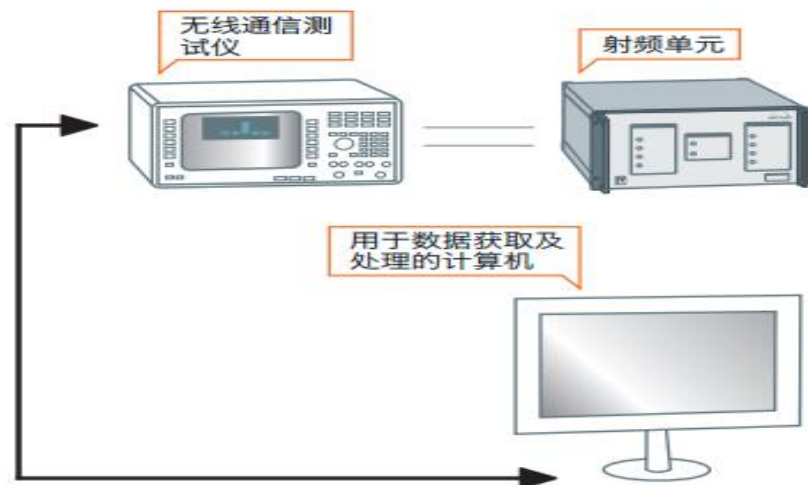
Date: 2025/02/19



The customer name		TianRuiXiang	Project Name	S6815-06A
N O.	project	Detailed above		
1	spectrum	GSM850/900/1800/1900+WCDMA-B1/2/4/5/8+LTE-B1/2/3/4/5/7/8/12/17/18/19/20/25/26/28/66/38/40/41+GPS/WIFI/BT		
2	Project type	The mobile phone		
3	Antenna space area			
4	Feed point type			
5	The sensitivity			
6	Type of antenna			
7	The length of the PCB board			
8	note	Debugging prototype		
RF		Zhang Jun	13430515055	hxw_xiaozhang@126.com

1、Test system and test equipment

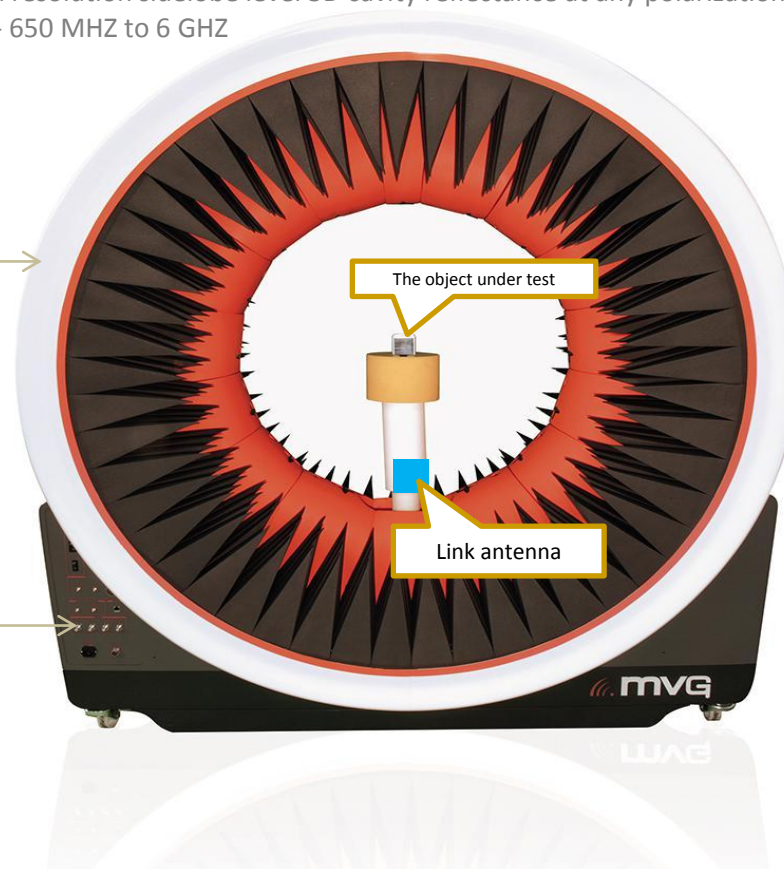
System Brand: MVG(SATIMO) measurement features: gain • pattern beamwidth cross polarization resolution sidelobe level 3D cavity reflectance at any polarization cavity reflectance (line or arc) antenna efficiency TRP, TIS, EIRP and EIS. Frequency band: StarLab 6 GHZ - 650 MHZ to 6 GHZ



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

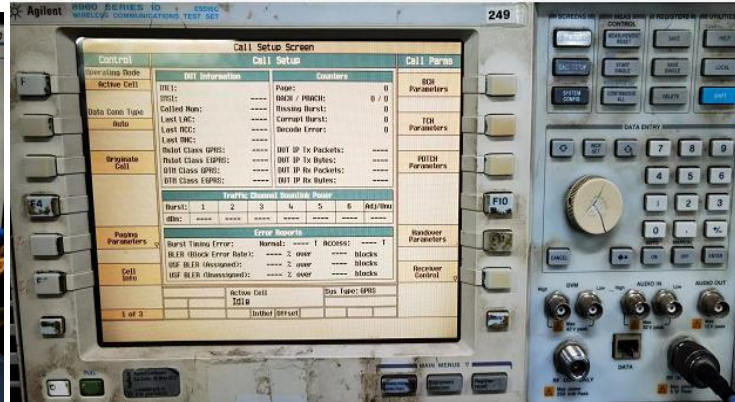


TIS 3D方位切割强度图



TRP 3D方位切割强度图

Test Equipment

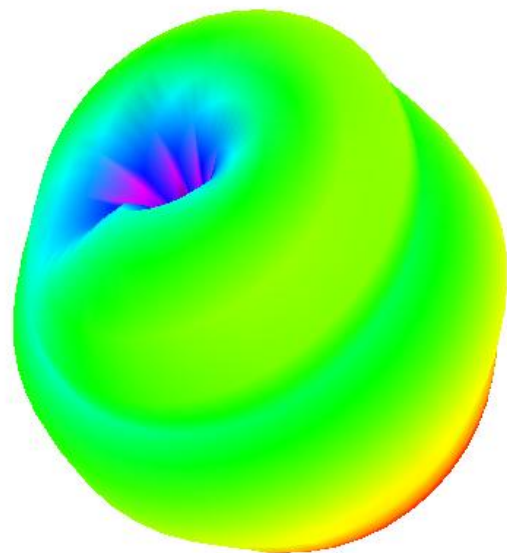


Efficient (2G+3G+4G+2. 4G-WiFi /BT)

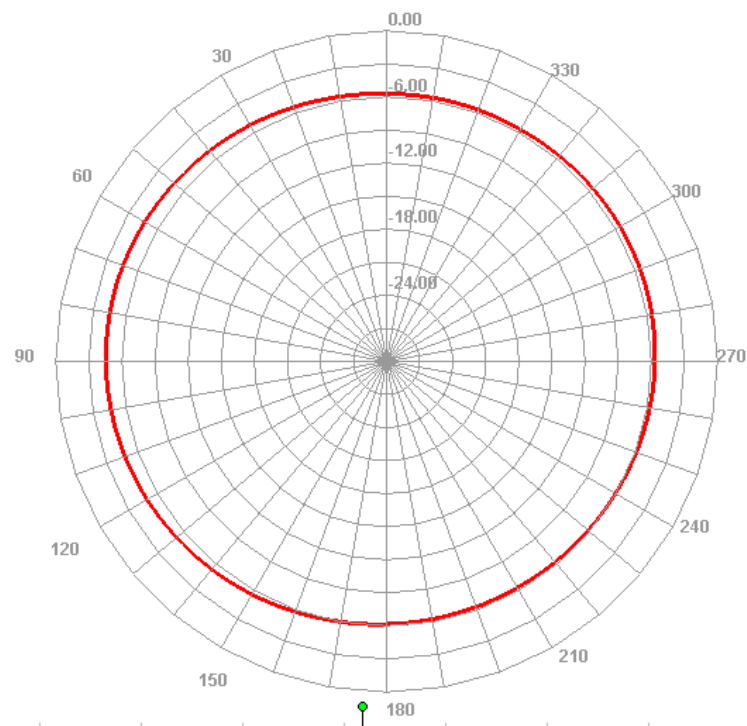
PEAK GAIN			
2G:	Frequency range	Effi %	Gaim dBi
GSM850	824~894Mhz	21.80	-0.71
GSM900	880~960Mhz	20.84	-1.05
DCS1800	1710~1880Mhz	28.62	0.63
PCS1900	1850~1990Mhz	30.81	0.81
3G:			
W1	1920~2170Mhz	37.45	0.91
W2	1850~1990Mhz	30.81	0.81
W4	1710~2155Mhz	31.07	0.92
W5	824~894Mhz	21.80	-0.71
W8	880~960Mhz	20.84	-1.05
4G:			
LTE-B1	1920~2170Mhz	37.45	0.91
LTE-B2	1850~1990Mhz	30.81	0.81
LTE-B3	1710~1880Mhz	28.62	0.63
LTE-B4	1710~2155Mhz	31.07	0.92
LTE-B5	824~894Mhz	21.80	-0.71
LTE-B7	2500~2690Mhz	28.01	1.12
LTE-B8	880~960Mhz	20.84	-1.05
LTE-B12	698~746Mhz	19.03	-1.42
LTE-B17	704~746Mhz	19.04	-1.42
LTE-B18	815~875Mhz	21.81	-0.71
LTE-B19	830~890Mhz	21.82	-0.71
LTE-B20	791~862Mhz	20.84	-0.71
LTE-B25	1855~1990Mhz	30.79	0.81
LTE-B26	819~889Mhz	21.78	-0.71
LTE-B28	708~798Mhz	19.05	-1.42
LTE-B66	1710~2170Mhz	31.08	0.92
LTE-B38	2570~2620Mhz	28.01	1.12
LTE-B40	2300~2400Mhz	29.21	1.14
LTE-B41	2500~2690Mhz	28.03	1.12
5G-WIFI	5150~5250Mhz	37.81	1.81
	5725~5850Mhz	37.16	1.91
2. 4G-WIFI	2400~2500Mhz	42.52	1.37
BT	2400~2500Mhz	42.51	1.37
GPS	1575Mhz	38.73	0.43

Efficient (698–798MHz)

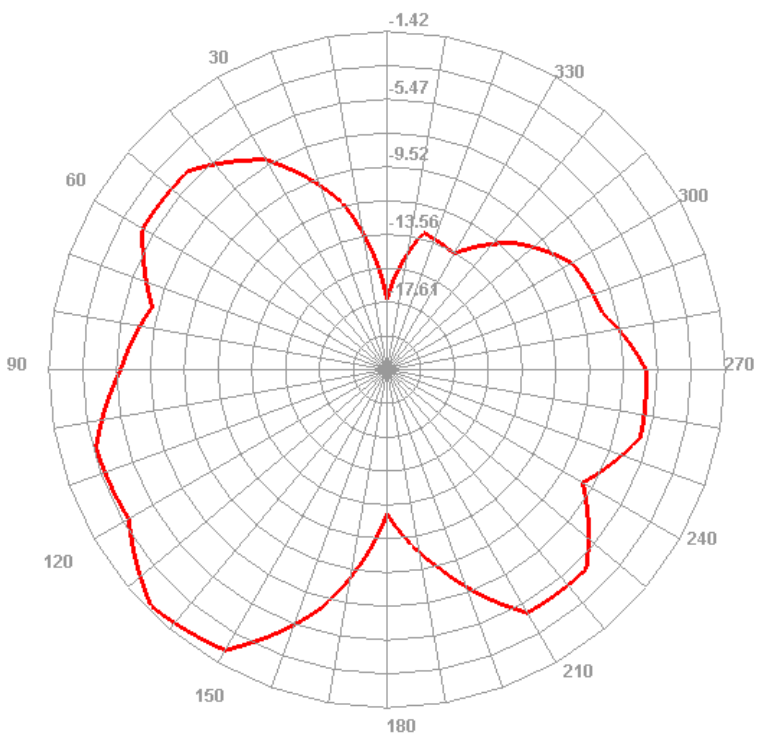
710.000MHz



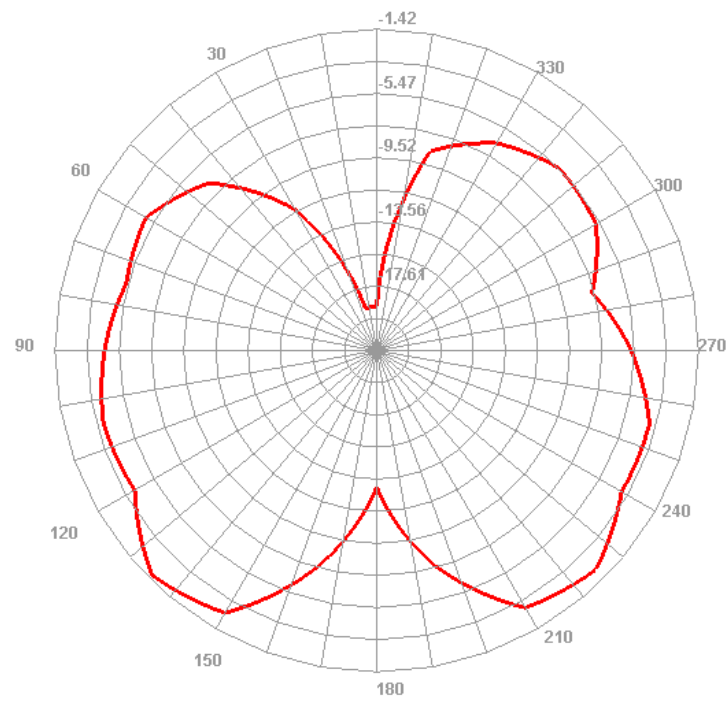
710.000MHz H



710.000MHz E1

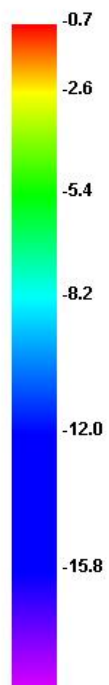
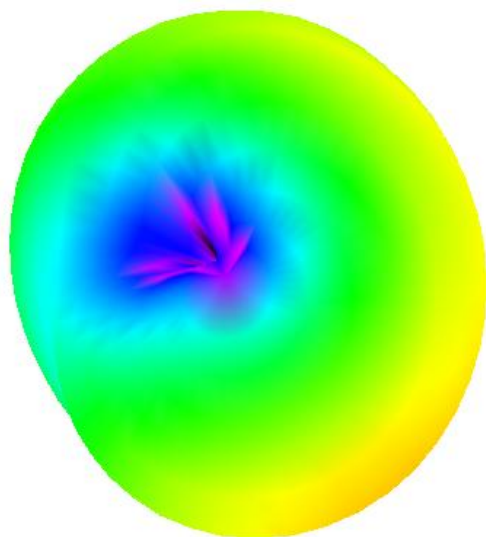


710.000MHz E2

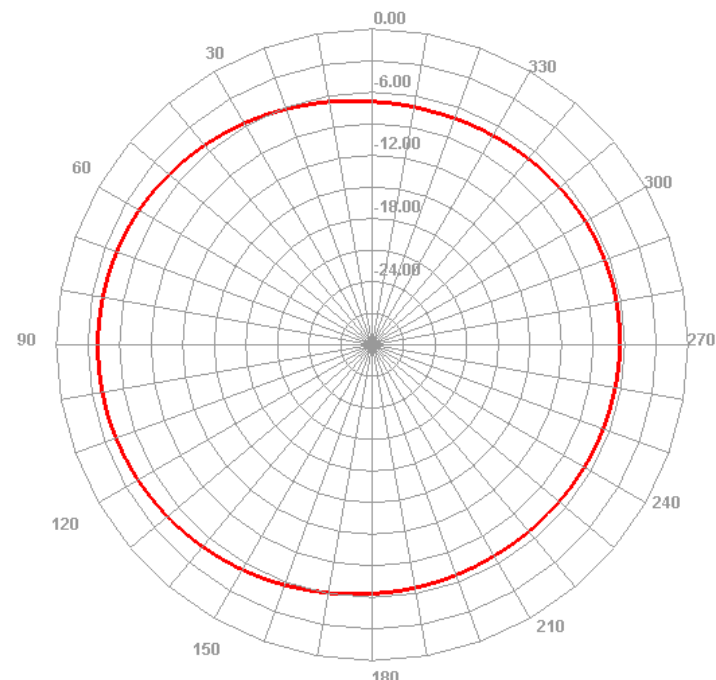


Efficient (791-894MHz)

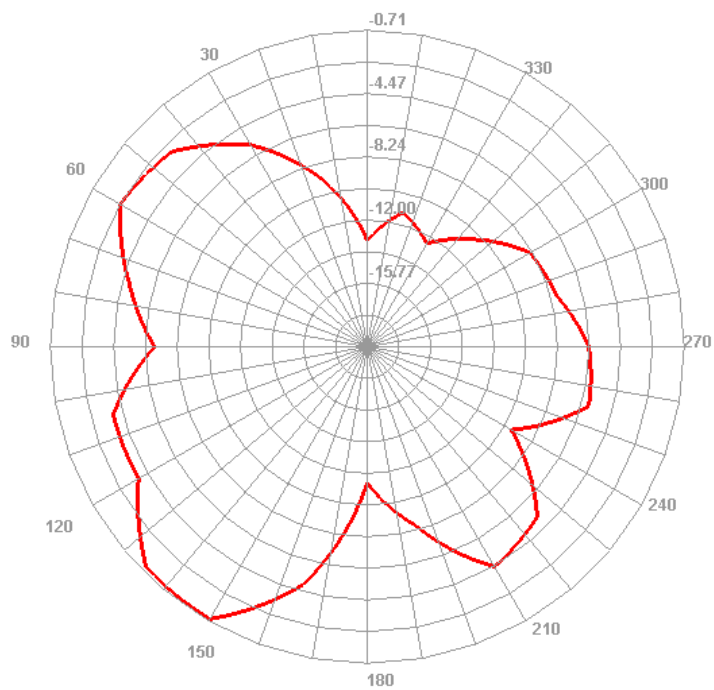
830.000MHz



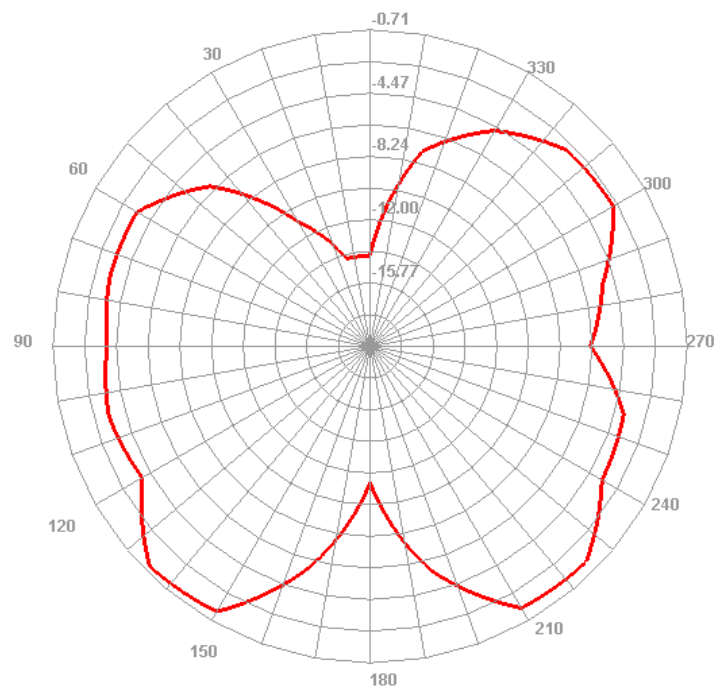
830.000MHz H



830.000MHz E1

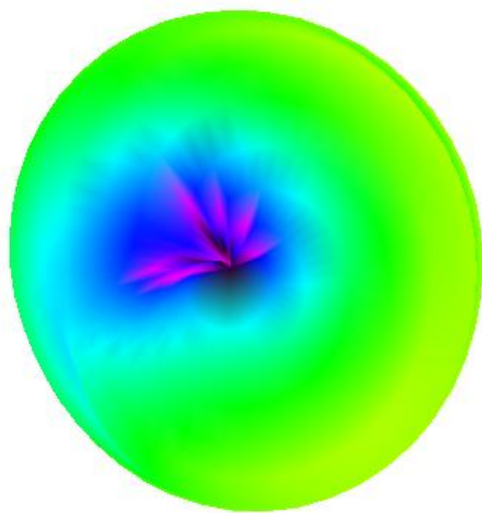


830.000MHz E2

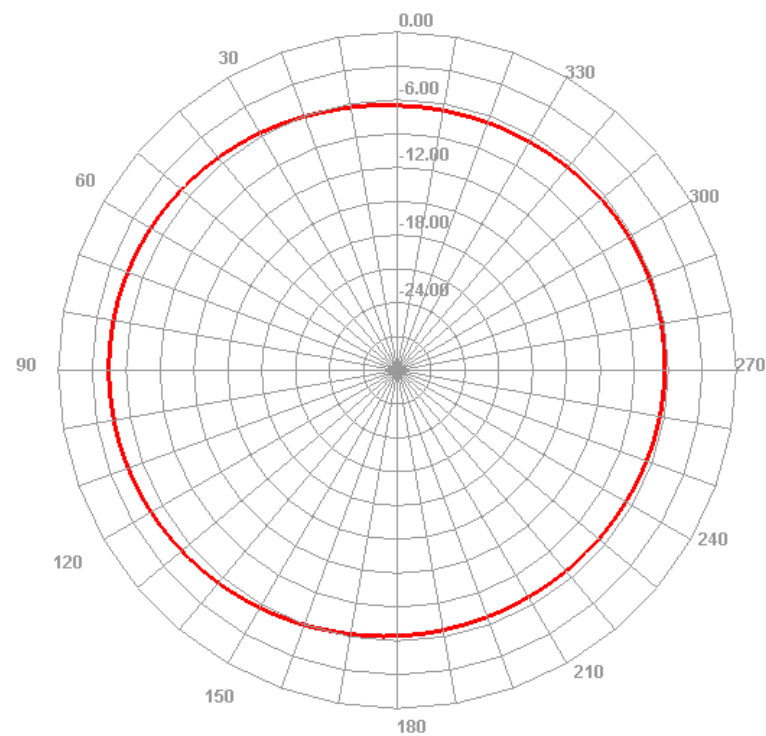


Efficient (880–960MHz)

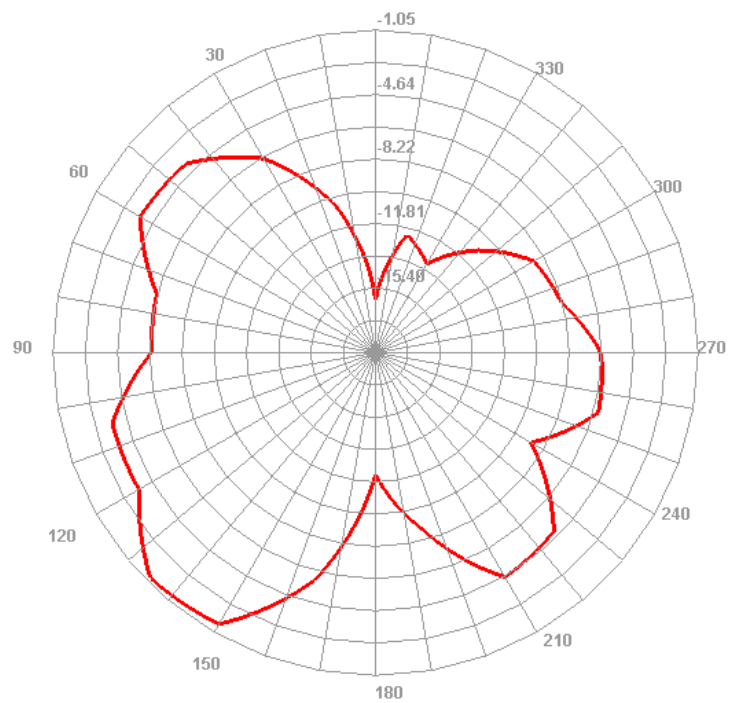
900.000MHz



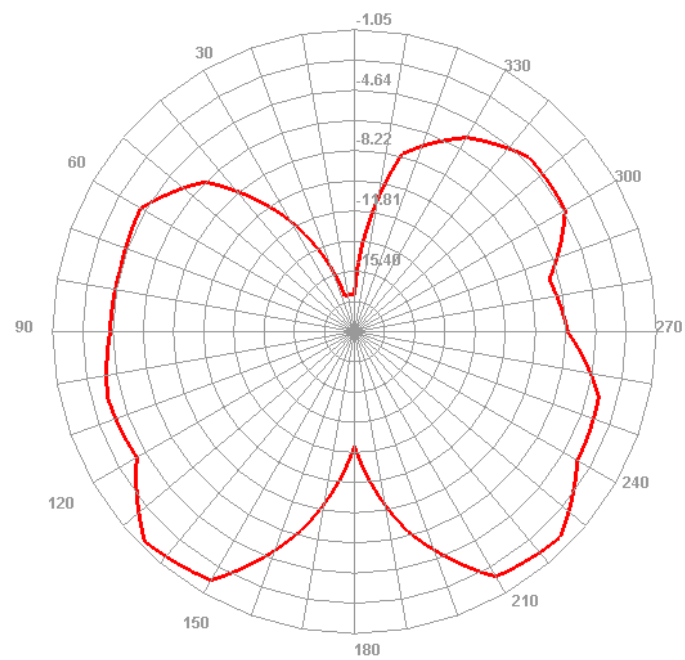
900.000MHz H



900.000MHz E1

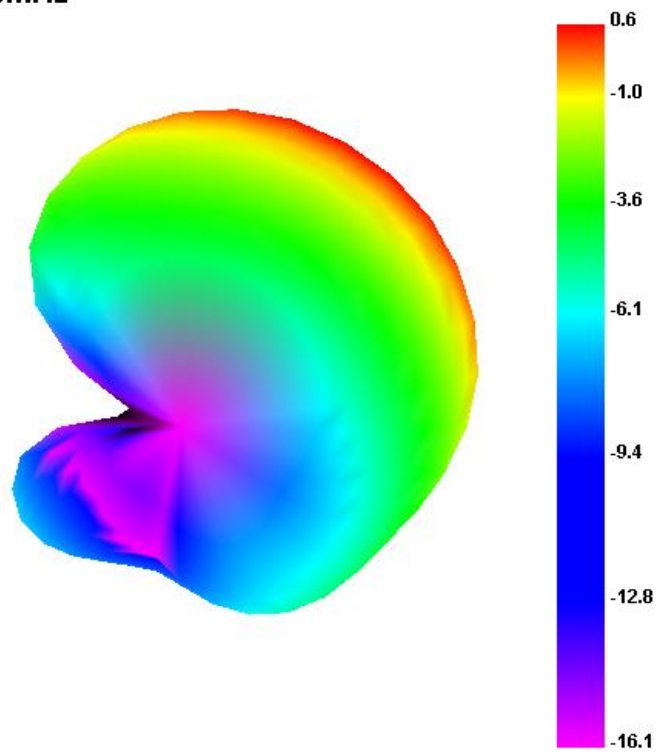


900.000MHz E2

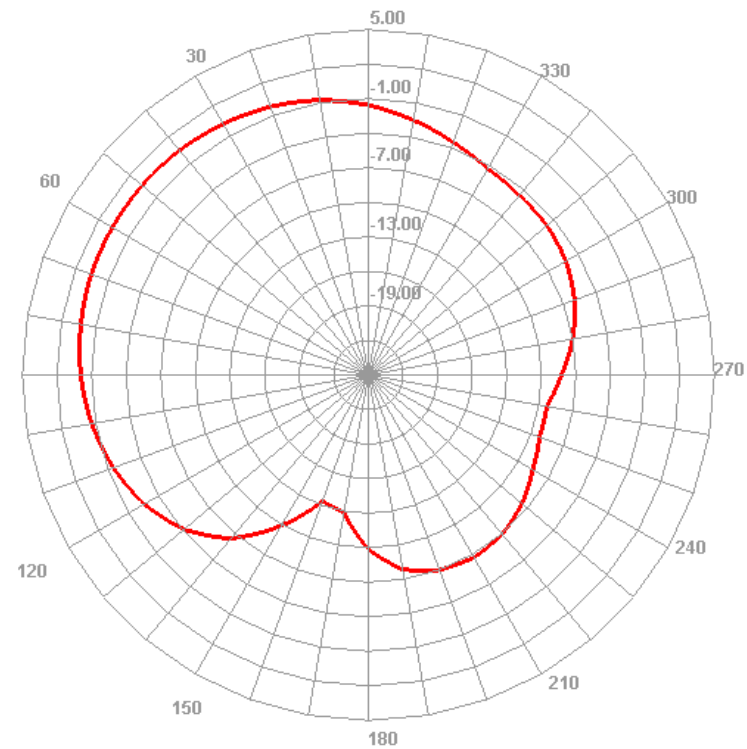


Efficient (1710–1880MHz)

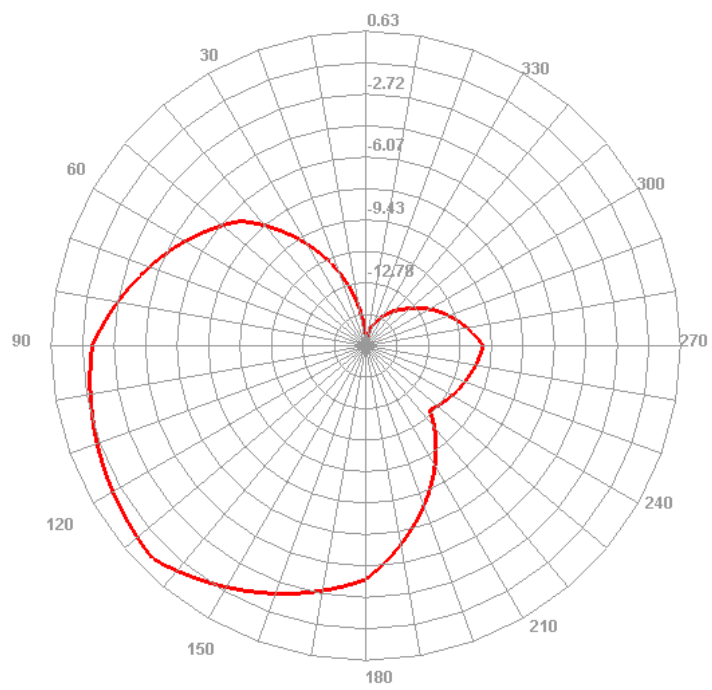
1820.000MHz



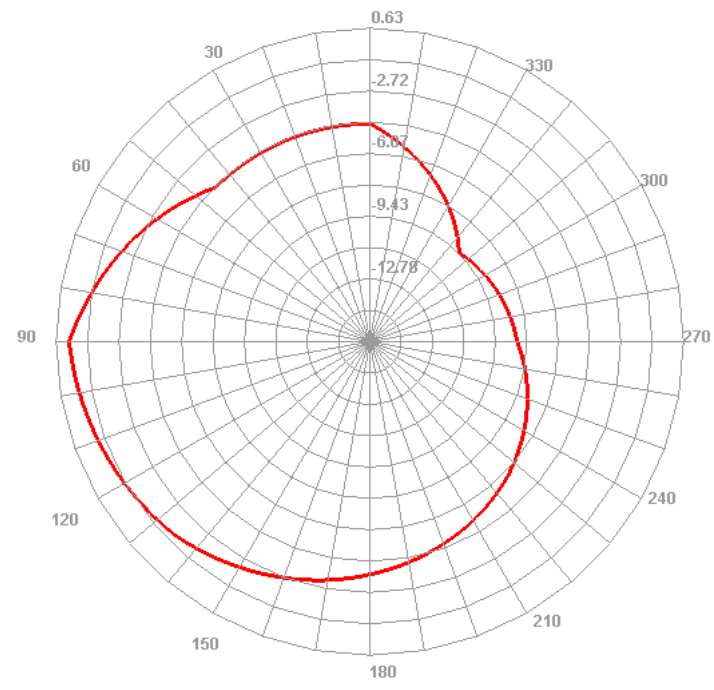
1820.000MHz H



1820.000MHz E1

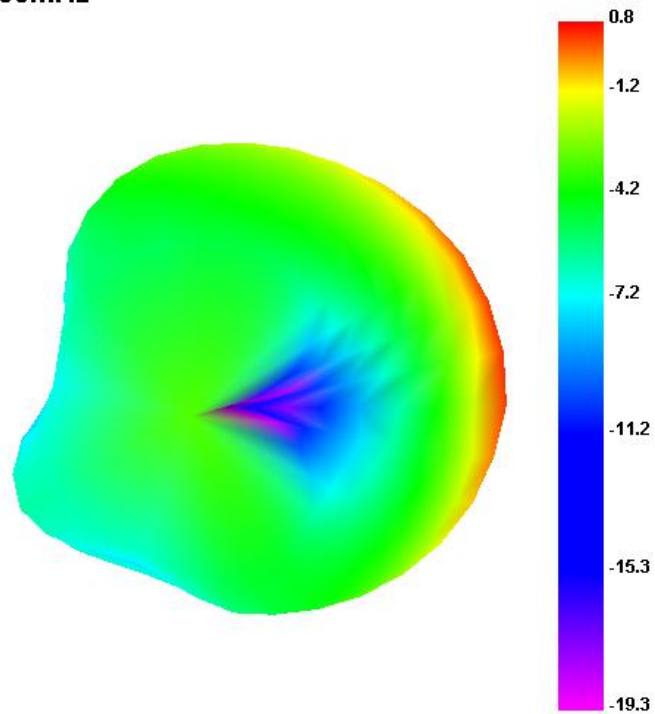


1820.000MHz E2

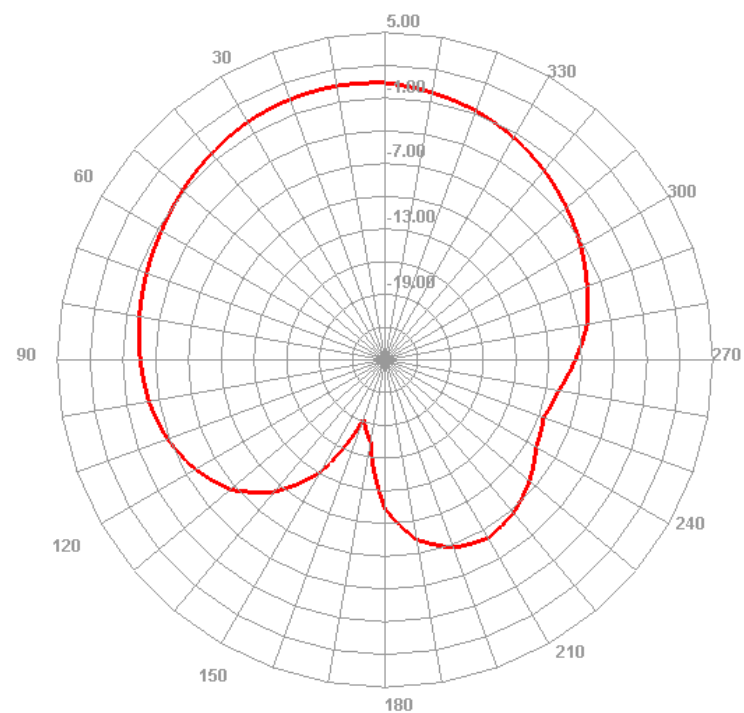


Efficient (1710–1990MHz)

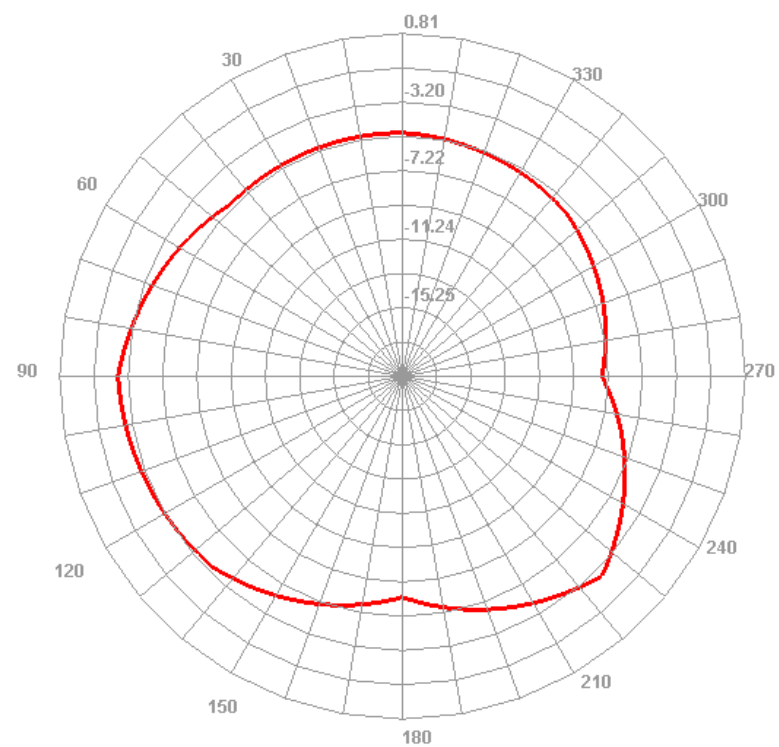
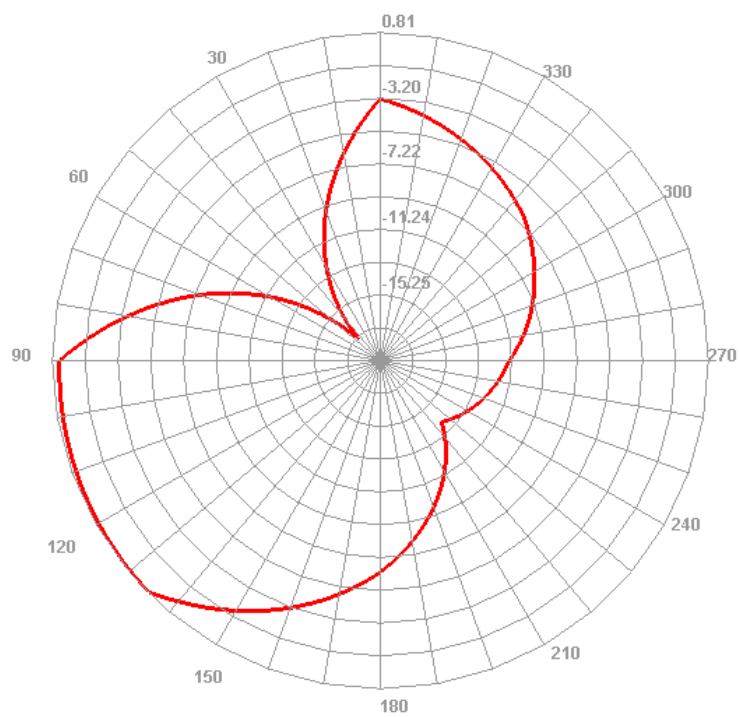
1920.000MHz



1920.000MHz H

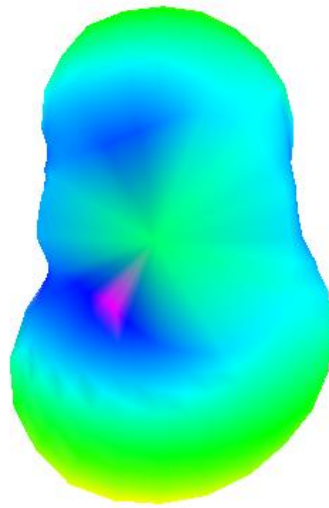


1920.000MHz E1

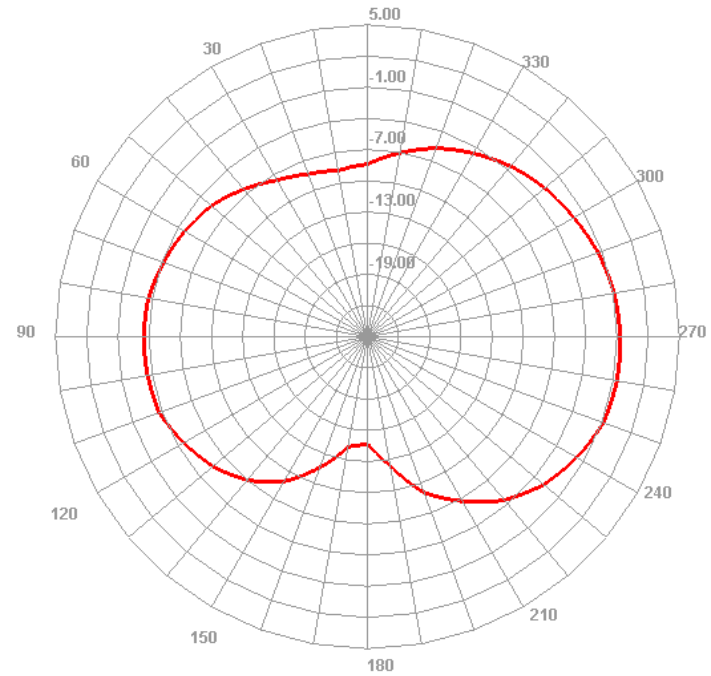


Efficient (1920-2170MHz)

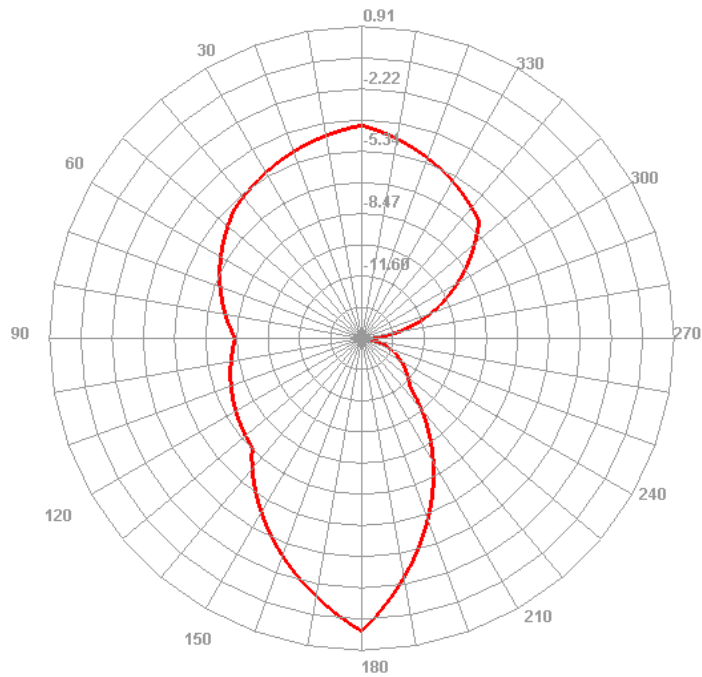
2010.000MHz



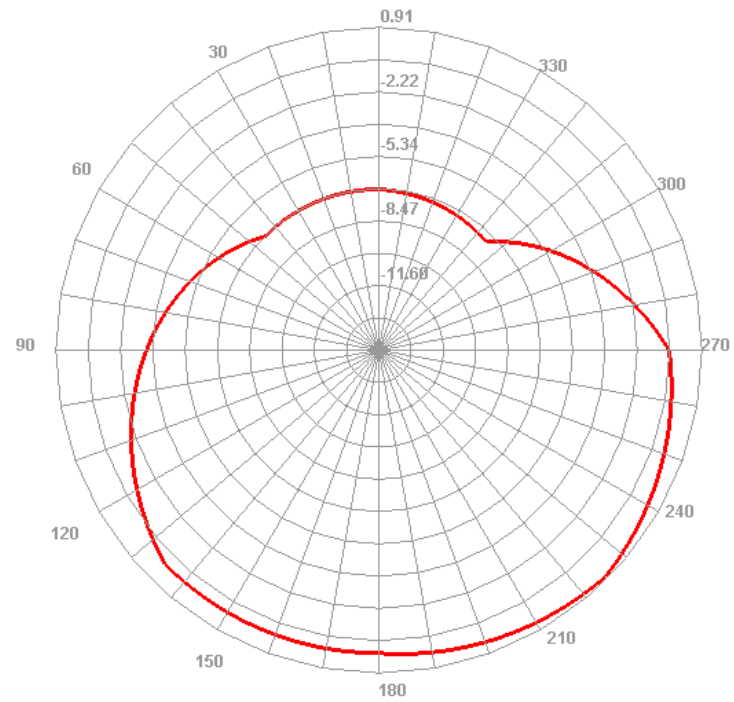
2010.000MHz H



2010.000MHz E1

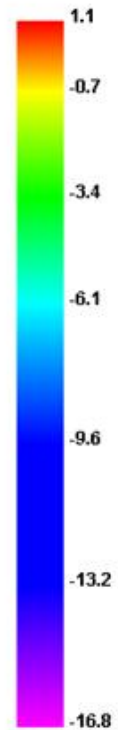
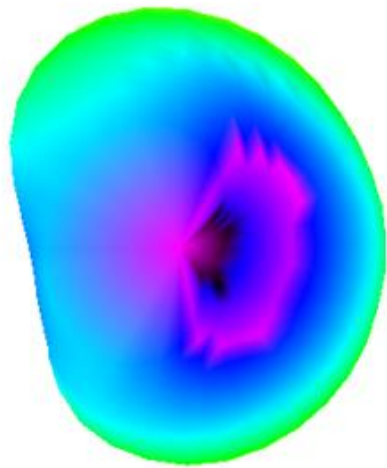


2010.000MHz E2

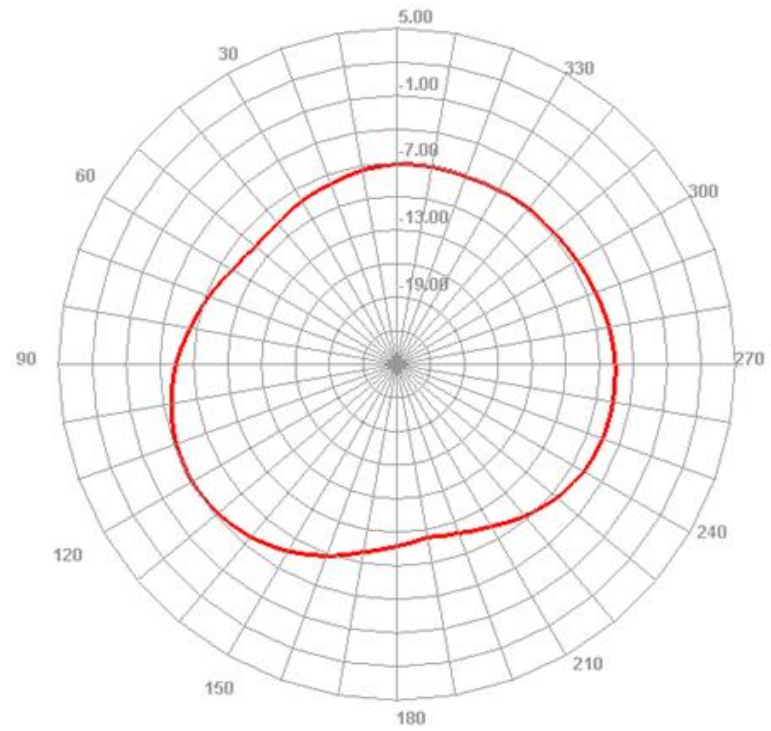


Efficient (2500–2690MHz)

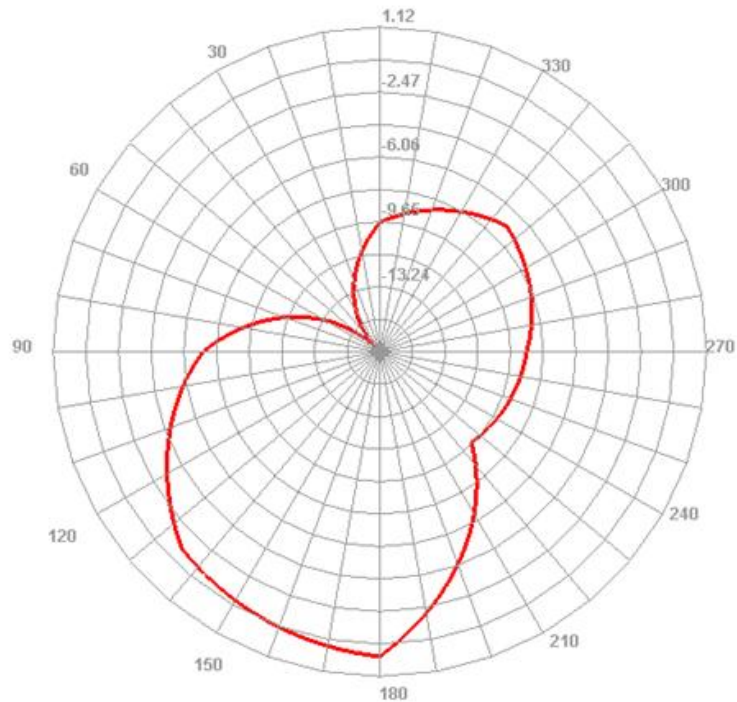
2660.000MHz



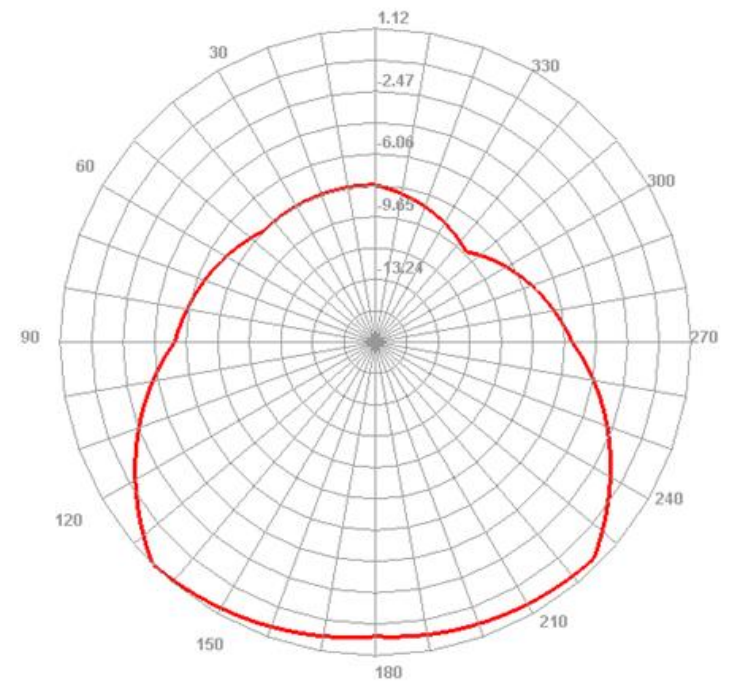
2660.000MHz H



2660.000MHz E1

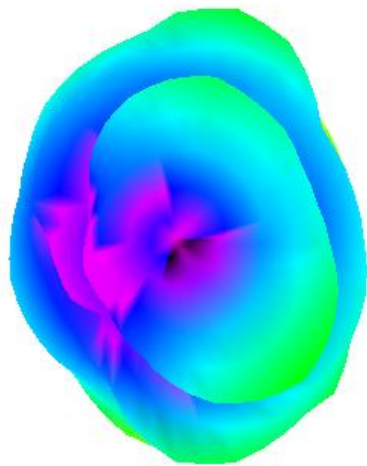


2660.000MHz E2

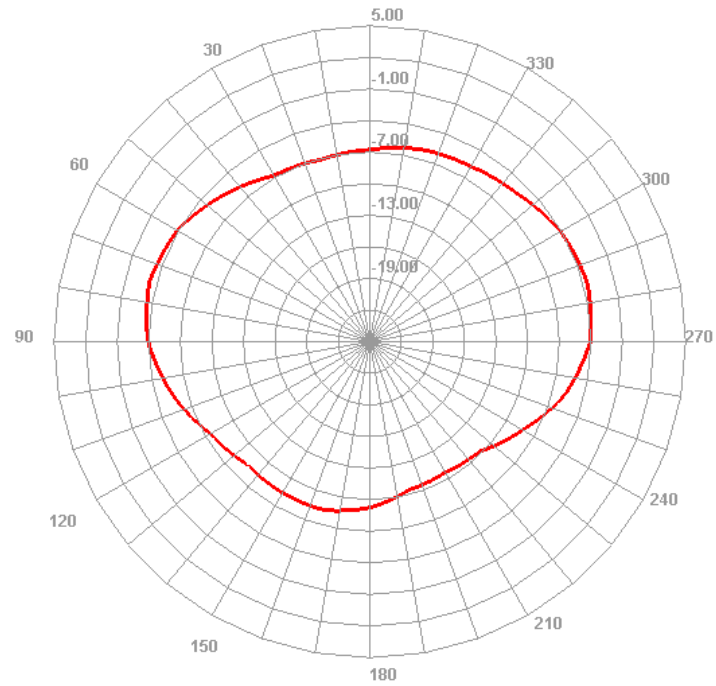


Efficient (2300–2400MHz)

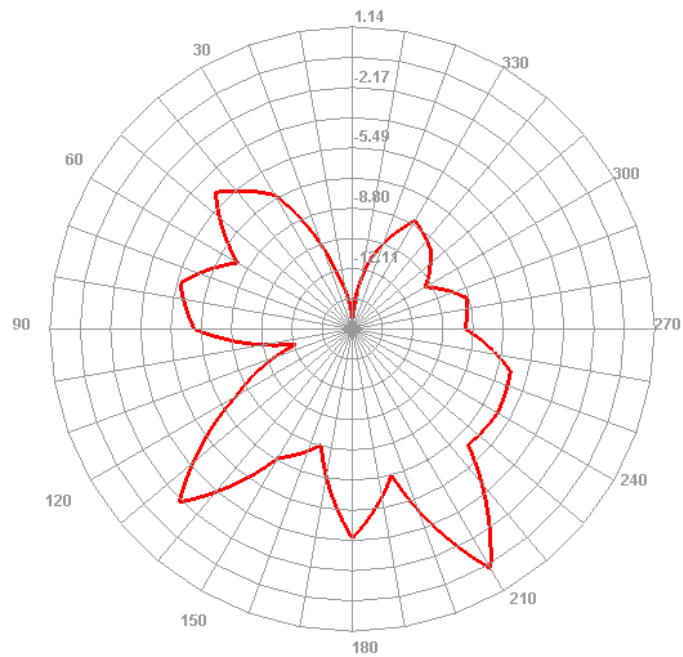
2370.000MHz



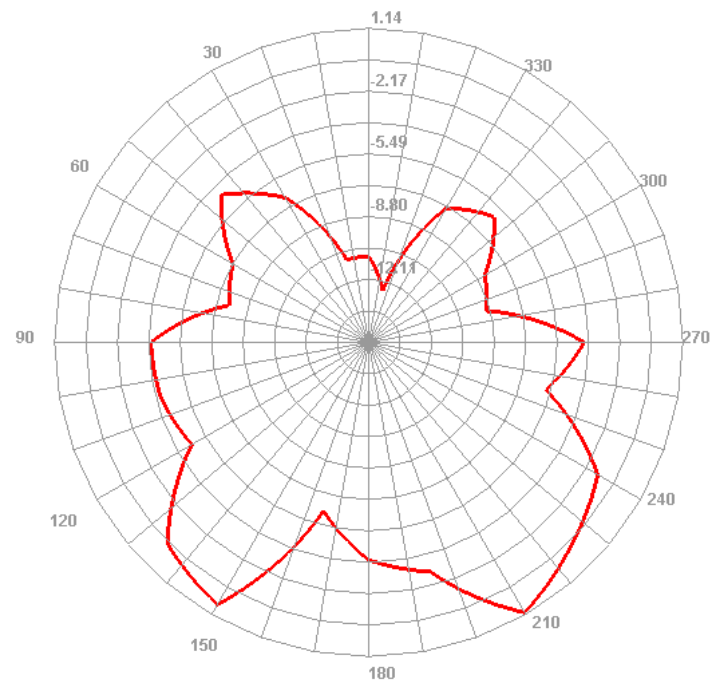
2370.000MHz H



2370.000MHz E1

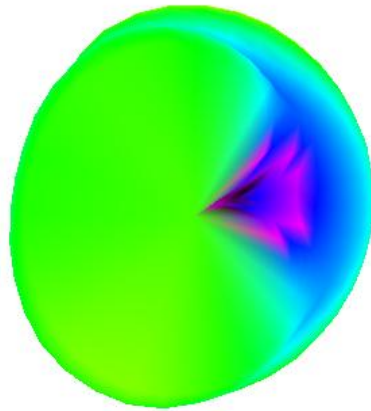


2370.000MHz E2

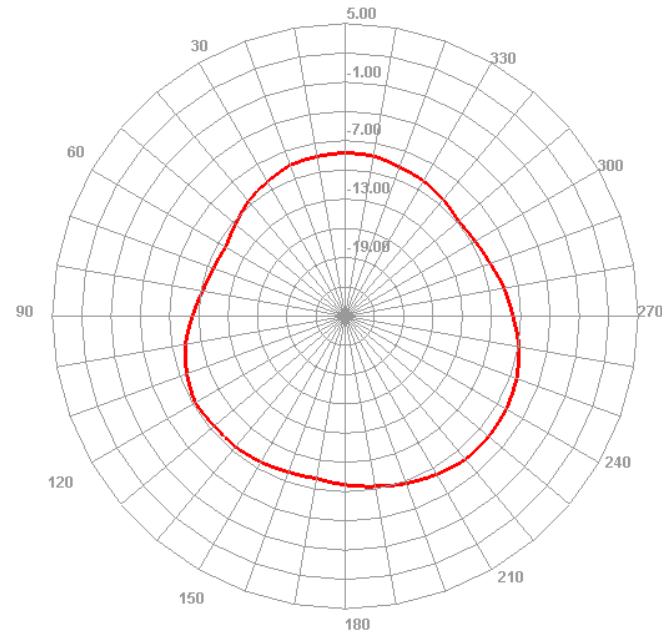


Efficient (2. 4G-WIFI/BT 2400-2500MHz)

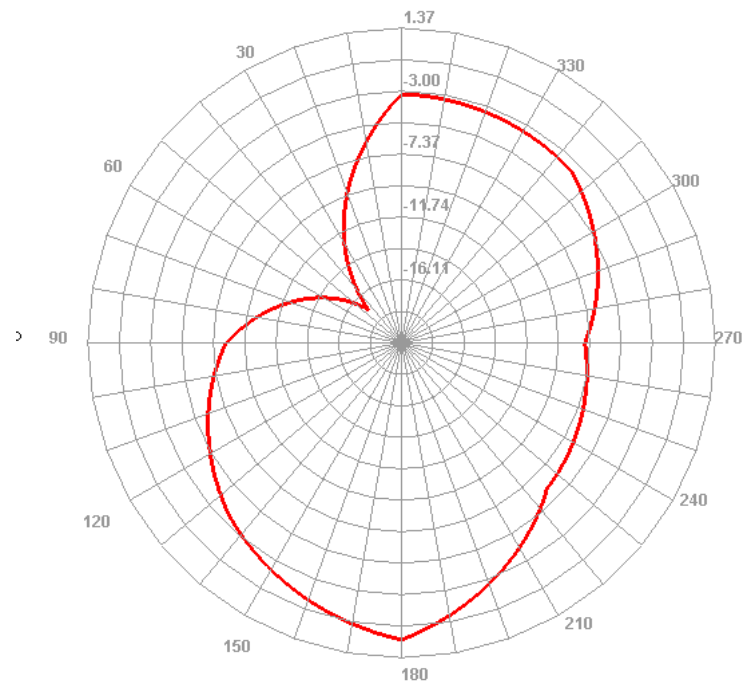
2450.000MHz



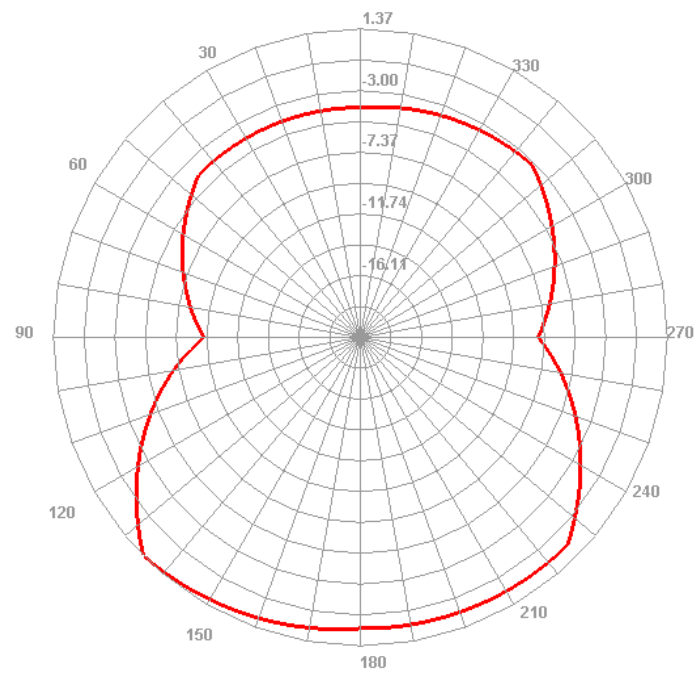
2450.000MHz H



2450.000MHz E1

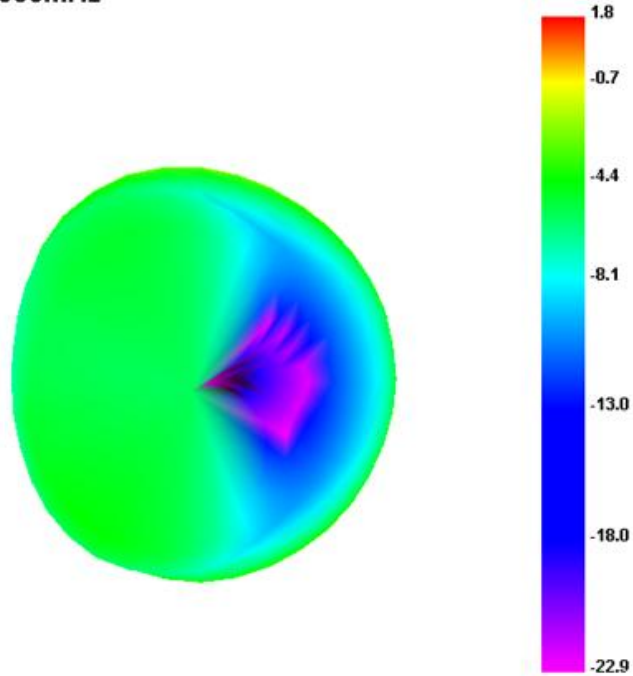


2450.000MHz E2

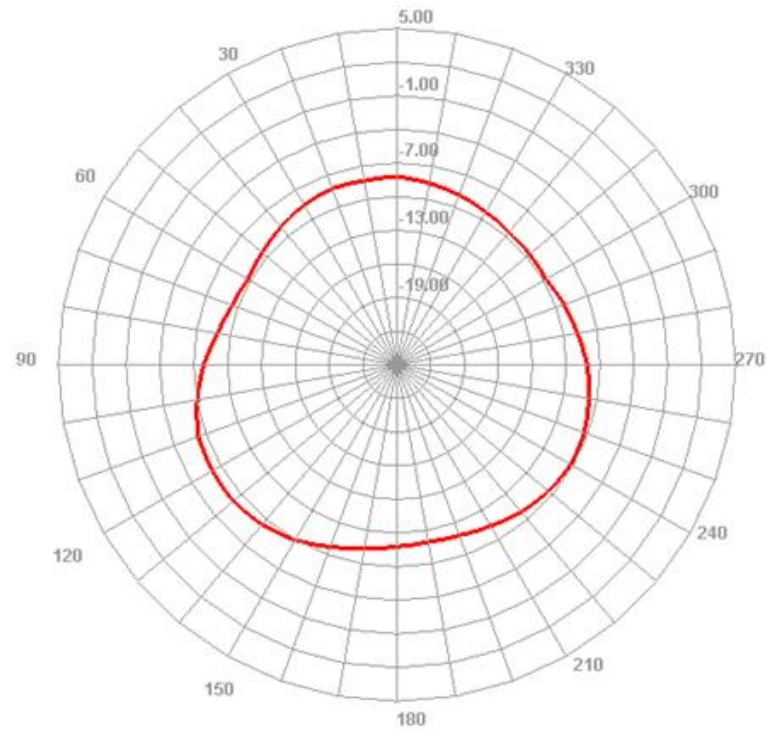


Efficient (5G-WIFI 5000-5250MHz)

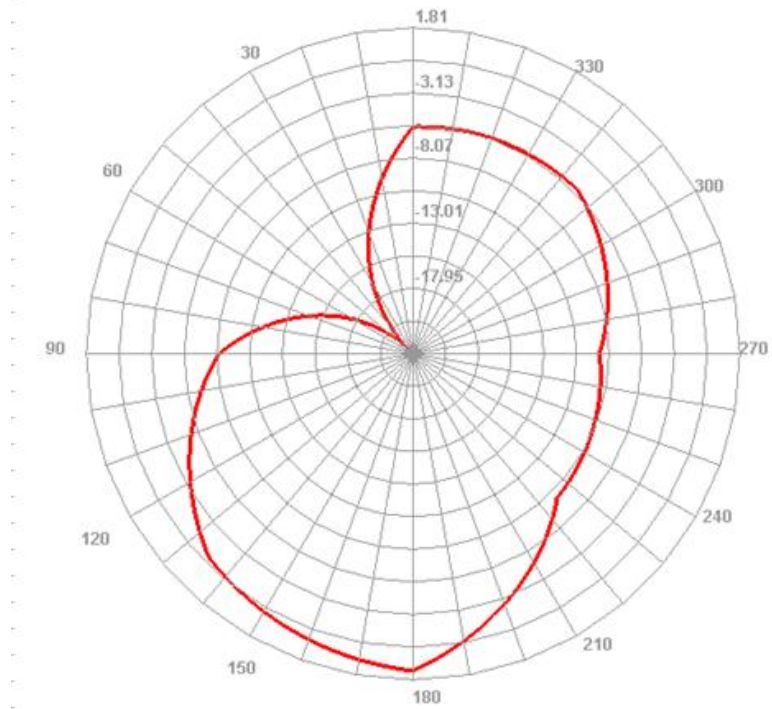
5150.000MHz



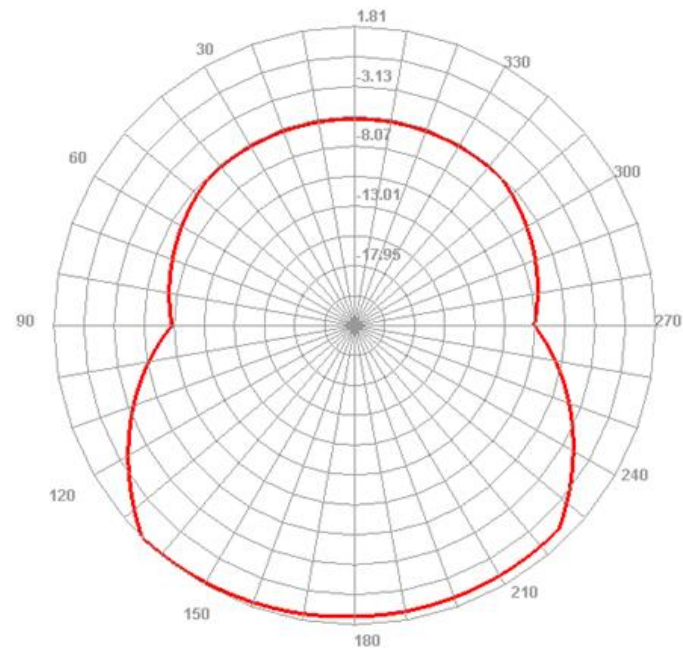
5150.000MHz H



5150.000MHz E1

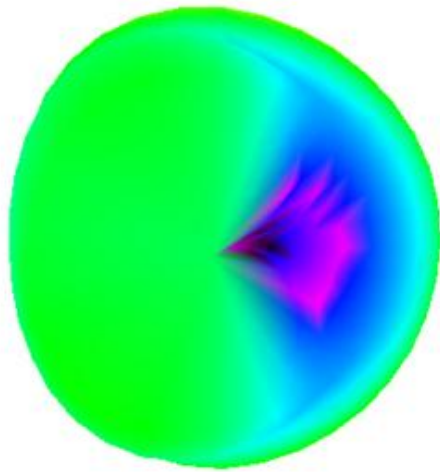


5150.000MHz E2

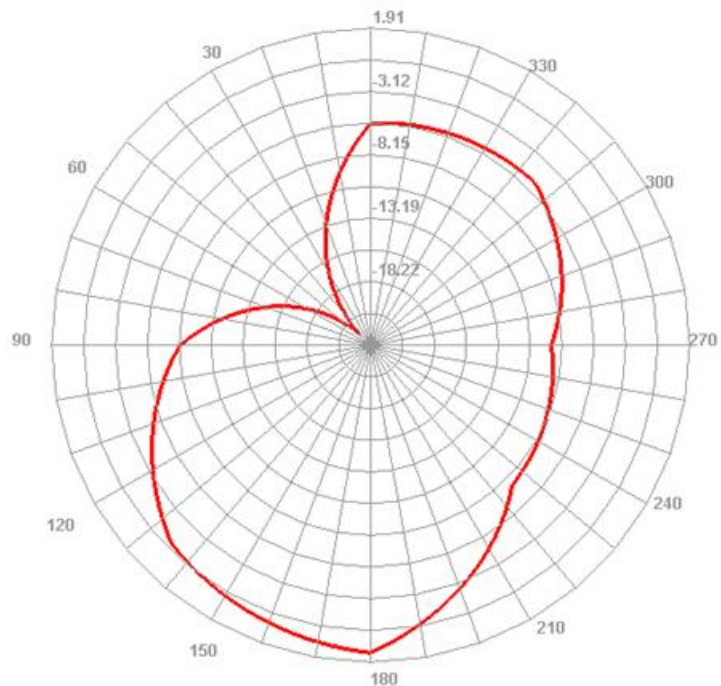


Efficient (5G-WIFI 5725-5850MHz)

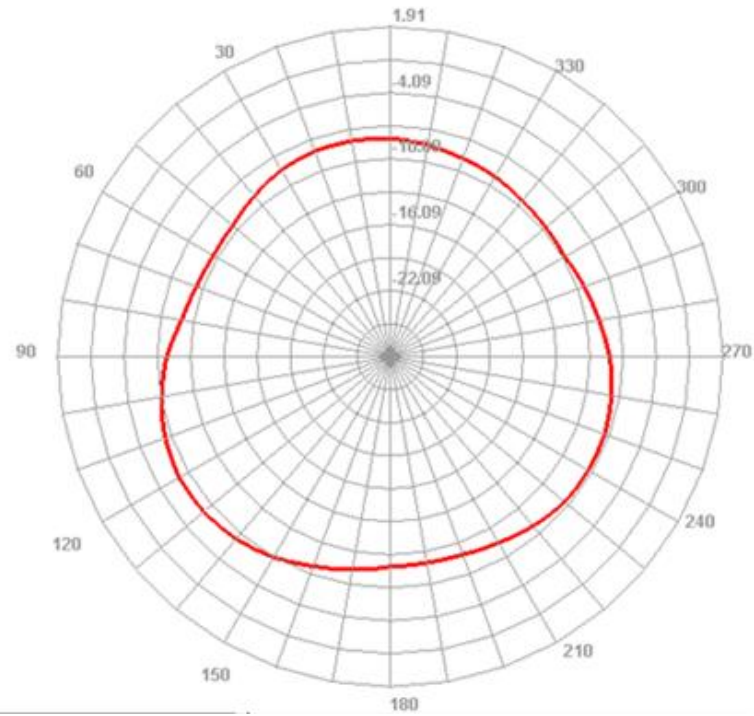
5740.000MHz



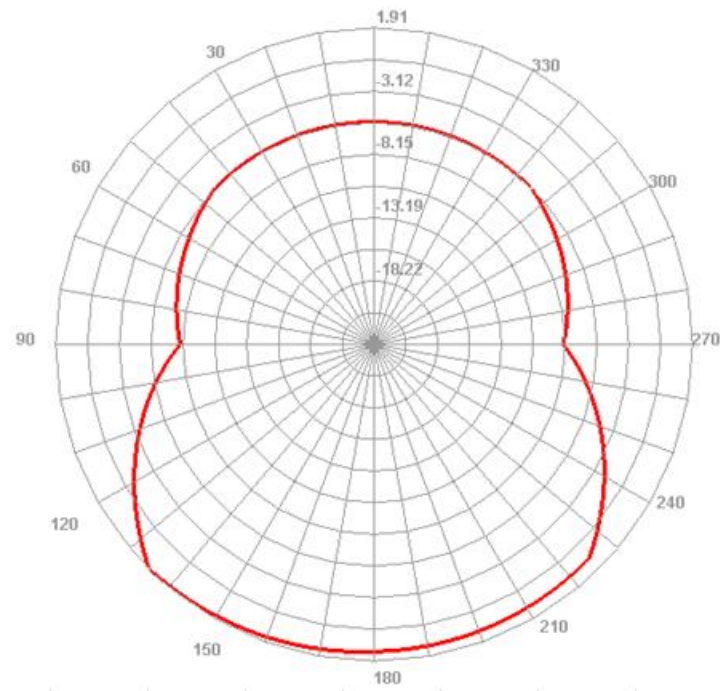
5740.000MHz E1



5740.000MHz H

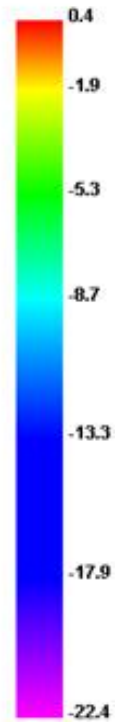
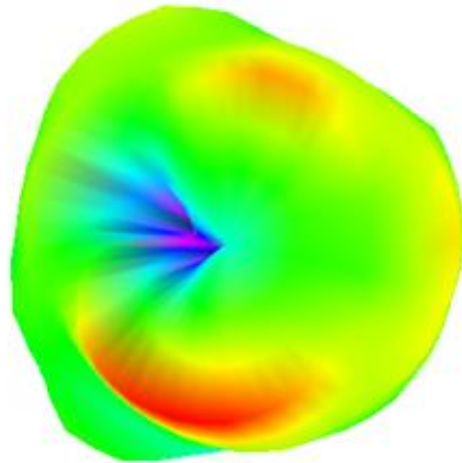


5740.000MHz E2

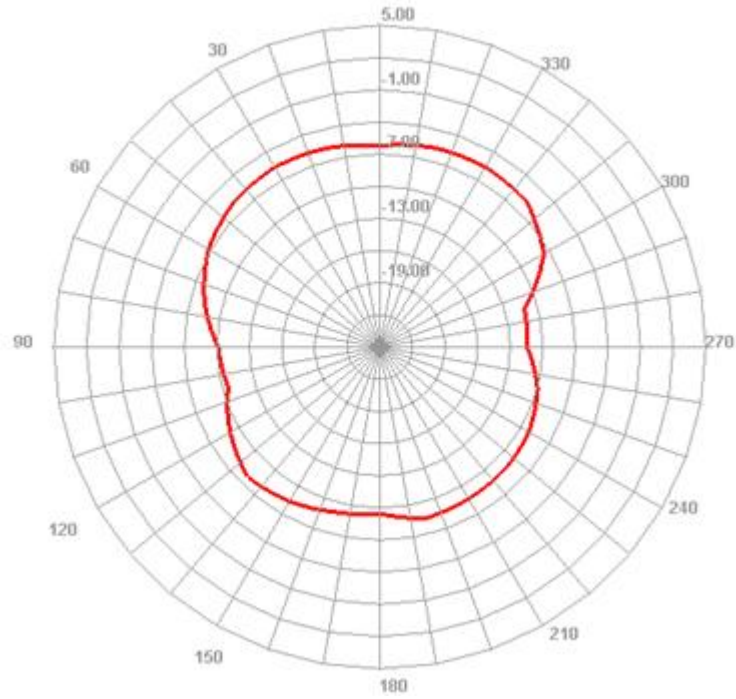


Efficient (GPS 1575.42MHz)

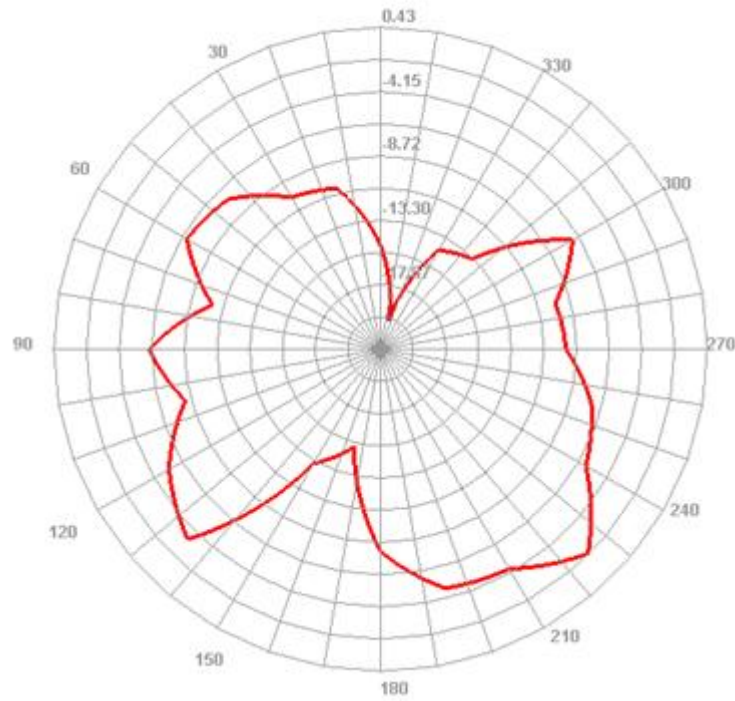
1575.491MHz



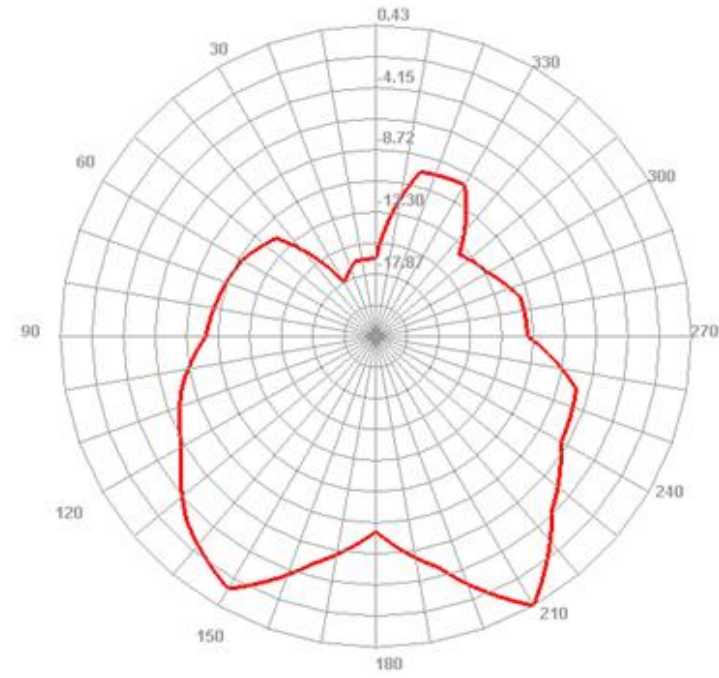
1575.491MHz H

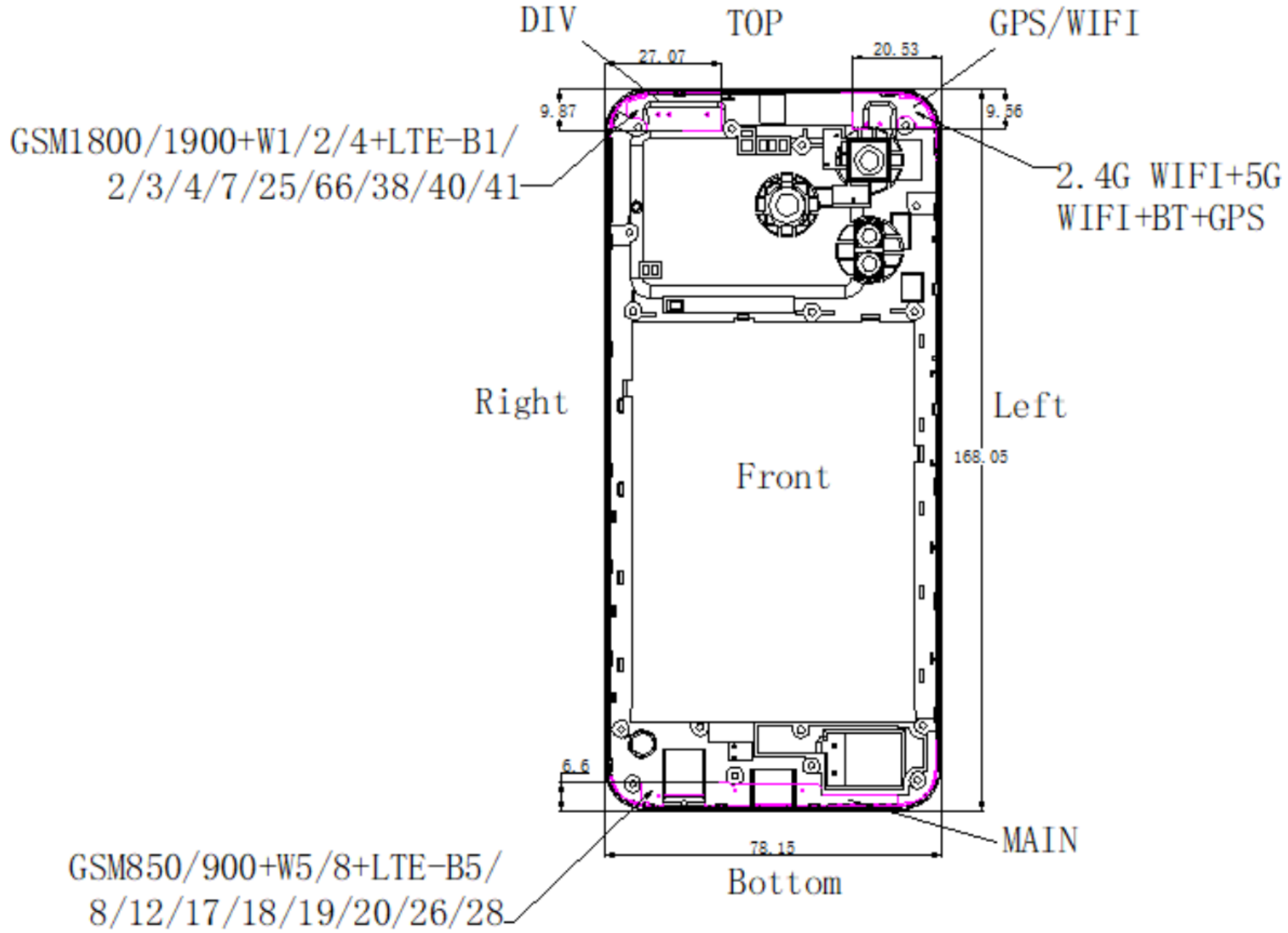


1575.491MHz E1



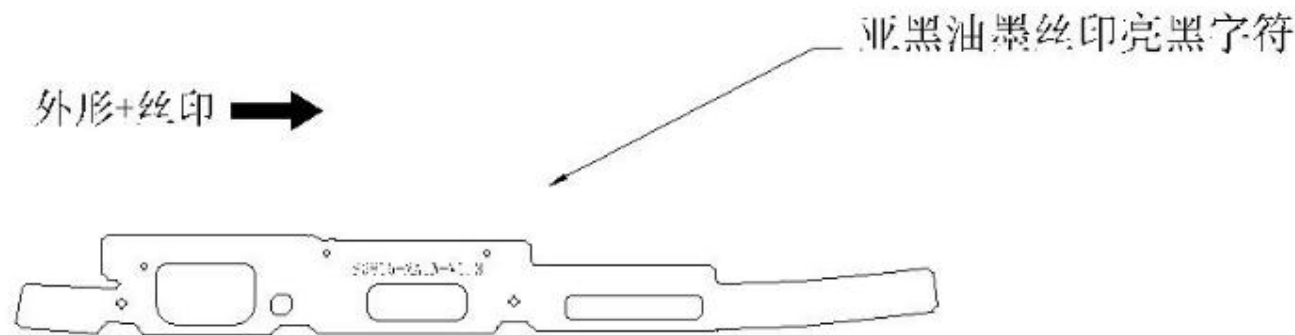
1575.491MHz E2



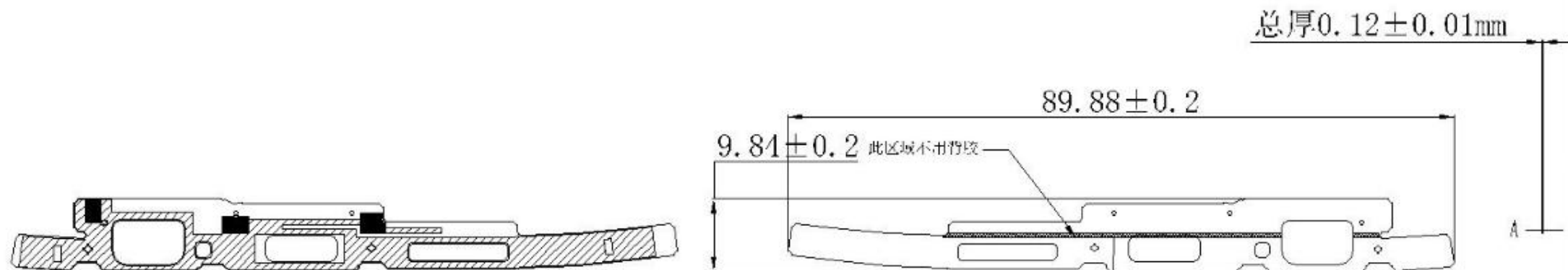


Master antenna specifications

版本	修改内容	修改者	修改日期



基材	半对1/3	
	半对半	
	一对半	✓
	一对一	



成品图-正面

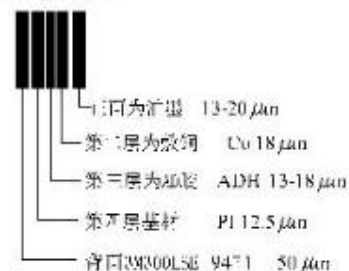
手撕线背胶图-背面

▽ V0.1
▽ V0.2
▽ V0.3
▽ V0.4
▽ V0.5
▽ V0.6
▽ V0.7
▽ V0.8
▽ V0.9
▽ V0.10

NOTES:

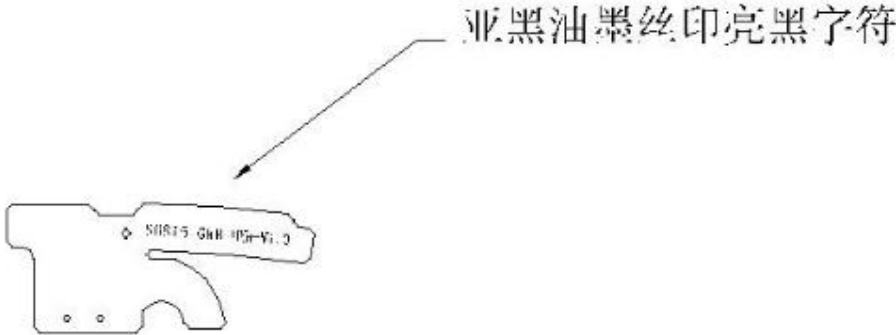
1. 胶纸为: 3M300LSE;
2. 金手指表面镀金 $0.5 \sim 3\mu$; 注意用材, 此位置不可有氧化现象.
3. 总体厚度应小于或等于 0.12mm ;
4. 精确公差范围: $\pm 0.03\text{mm}$;
5. 只允许产品图导电;

A 处放大

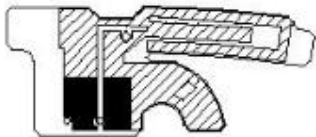


华信微通信技术有限公司					
	单位: mm	名称: FPC	日期: 2025-02-15		
一般公差:		料号: S6815-GSM	设计: 朱顺身		
± 0.5		材质: FPC13M9171	RF:		
± 0.25		表面处理: 清洁	确认:		
± 0.05		颜色:	比例: 1:1	版本: A	
± 0.05					
ANGULAR	$\angle = 0.5^\circ$				

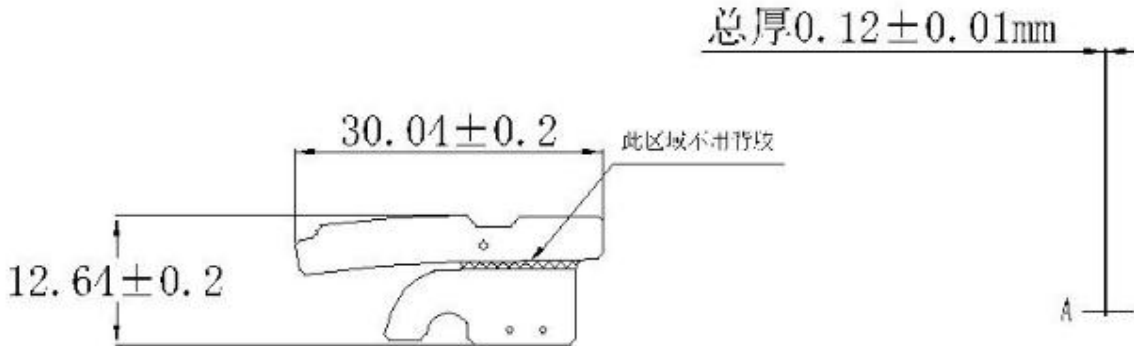
外形+丝印



亚黑油墨丝印亮黑字符



成品图-正面



总厚0.12 ± 0.01mm

手撕线背胶图-背面

NOTES:

- 1. 胶纸为: 3M300LSE;
- 2. 金手指表面镀金0.5~3u";注意用材, 此位置不可有氧化现象.
- 3. 总体厚度应小于或等于0.12mm;
- 4. 精确公差范围: ±0.03mm;
- 5. 只允许产品图导电;

A 处放大



版本	修改内容	修改者	修改日期

基材	半对1/3	
	半对半	
	一対半	✓
	一対一	

- V0.1
- V0.2
- V0.3
- V0.4
- V0.5
- V0.6
- V0.7
- V0.8
- V0.9
- V0.10

华信微通信技术有限公司			
单位: mm	名称: FPC	日期: 2025-02-15	
一般公差:	料号: S6815-GNB	设计: 朱顺身	
±0.5	材质: FPC1349471	RF:	
±0.25	表面处理: 清洗	确认:	
±0.05	颜色:	比例: 1:1	版本: A
±0.05			
ANGULAR	0.5°		

Diversity antenna specifications

外形+丝印



亚黑油墨丝印亮黑字符

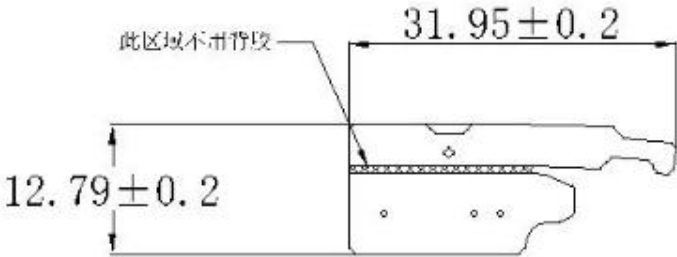


成品图-正面

版本	修改内容	修改者	修改日期

基材	半对1/3	
	半对半	
	一大半	✓
	一大一	

总厚 $0.12 \pm 0.01\text{mm}$



手撕线背胶图-背面

NOTES:

- 1. 胶纸为: 3M300LSE;
- 2. 金手指表面镀金 $0.5 \sim 3\mu$;注意用材,此位置不可有氧化现象.
- 3. 总体厚度应小于或等于 0.12mm ;
- 4. 精确公差范围: $\pm 0.03\text{mm}$;
- 5. 只允许产品图导电;

A 处放大



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	单位: mm	名称: FPC	日期: 2025-01-10	
一般公差:		料号: S6815-LTE	设计: 朱顺身	
±0.5		材质: FPC(349471)	RF:	
±0.25		表面处理: 清洁	确认:	
±0.05		颜色:	比例: 1:1	版本: A
±0.05				
ANGULAR	$\angle = 0.5^\circ$			

- ▽ V0.1
- ▽ V0.2
- ▽ V0.3
- ▽ V0.4
- ▽ V0.5
- ▽ V0.6
- ▽ V0.7
- ▽ V0.8
- ▽ V0.9
- ▽ V0.10