



ShenZhen Huaxinwei communication technology
Co.,Ltd.

Antenna test report

Customer Name: Hua Yue Shi Tong

Project Name: N62F

Designer: Zhang Jun

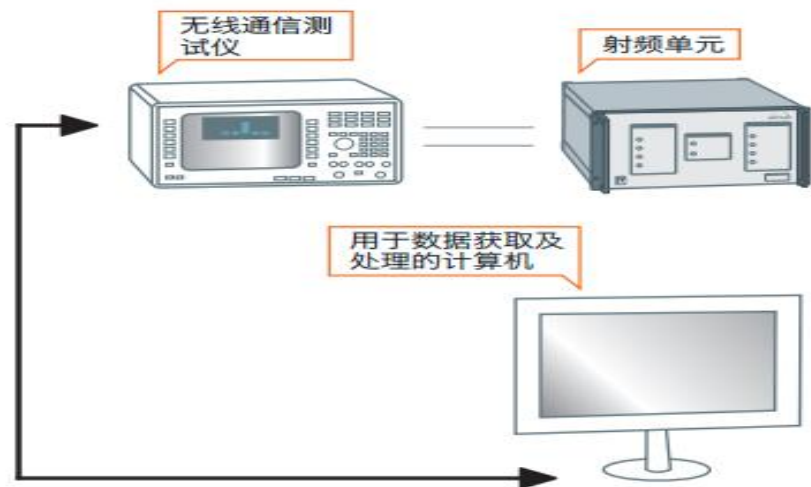
Date: 2023/03/13



The customer name		Hua Yue Shi Tong	Project Name	N62F
NO.	project	Detailed above		
1	spectrum	GSM850/900/1800/1900+WCDMA-B1/2/5/8+LTE-B2/3/4/5/7/8/12/17/28+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

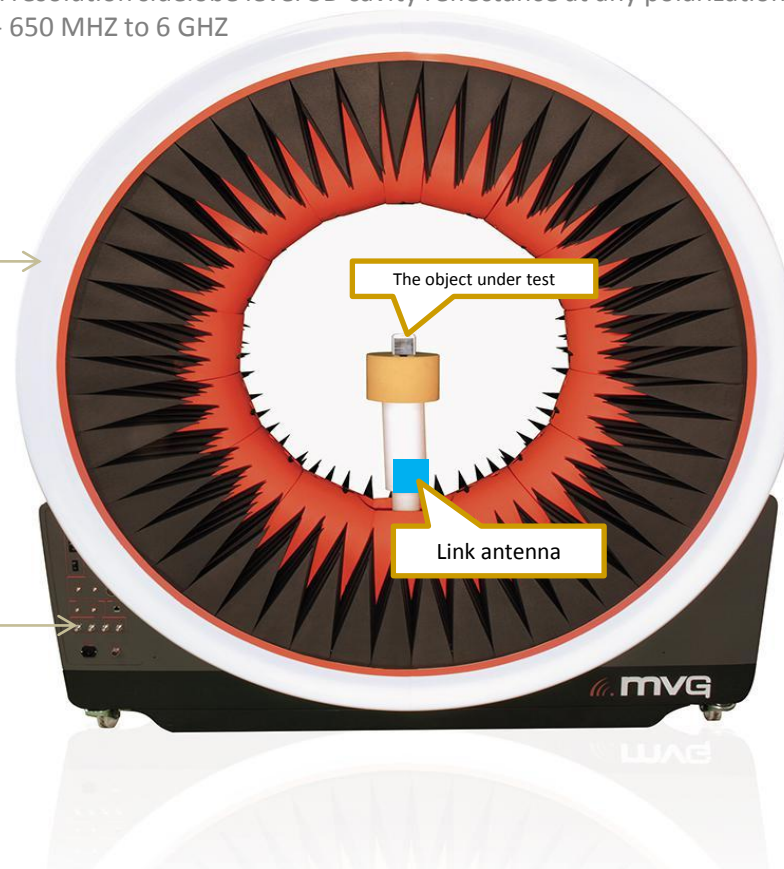
System Brand: MVG(SATIMO) measurement features: gain • pattern beamwidth cross polarization resolution sidelobe level 3D cavity reflectance at any polarization cavity reflectance (line or arc) antenna efficiency TRP, TIS, EIRP and EIS. Frequency band: StarLab 6 GHZ - 650 MHZ to 6 GHZ



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



Antenna position

WWAN LB antenna



GPS/WIFI/BT antenna



WWAN M&H antenna

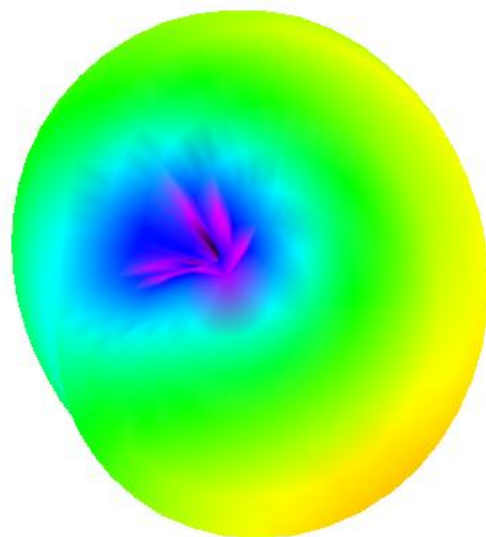


Efficient (2G+3G+4G+2. 4G-WiFi /BT)

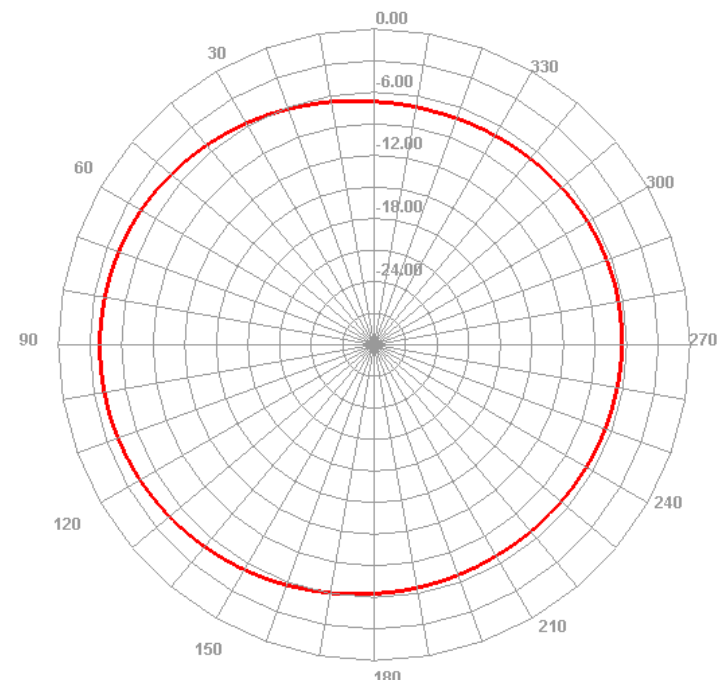
PEAK GAIN		
2G:	Frequency range	dBi
GSM850	824~894Mhz	-0. 71
GSM900	880~960Mhz	-1. 05
DCS1800	1710~1880Mhz	0. 63
PCS1900	1850~1990Mhz	0. 81
3G:		
W1	1920~2170Mhz	0. 92
W2	1850~1990Mhz	0. 81
W5	824~894Mhz	-0. 71
W8	880~960Mhz	-1. 05
4G:		
LTE-B2	1850~1990Mhz	0. 81
LTE-B3	1710~1880Mhz	0. 63
LTE-B4	1710~2155Mhz	0. 92
LTE-B5	824~894Mhz	-0. 71
LTE-B7	2500~2690Mhz	1. 12
LTE-B8	880~960Mhz	-1. 05
LTE-B12	698~746Mhz	-1. 42
LTE-B17	704~746Mhz	-1. 42
LTE-B28	708~798Mhz	-1. 42
WIFI	2400~2500Mhz	2. 08dBi
BT	2400~2500Mhz	2. 08dBi

Efficient (GSM850+W5+LTE-B5 824~894MHz)

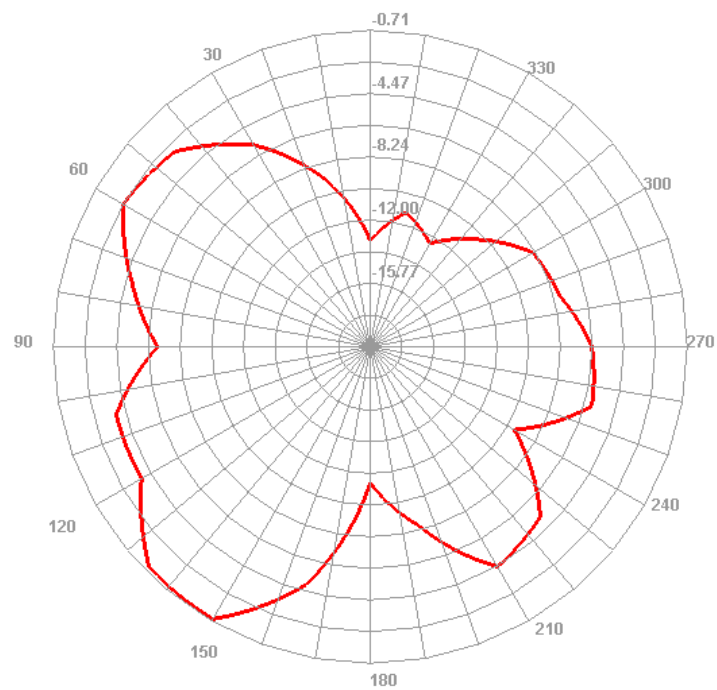
830.000MHz



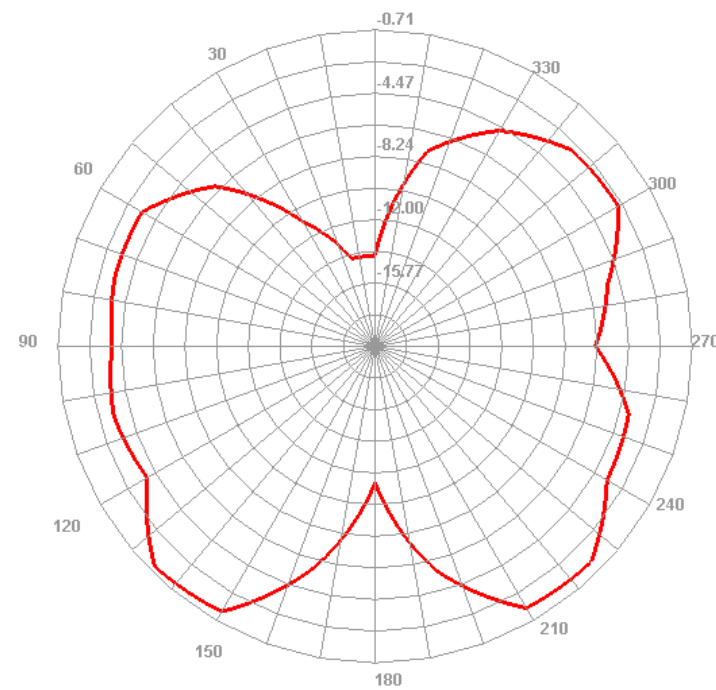
830.000MHz H



830.000MHz E1

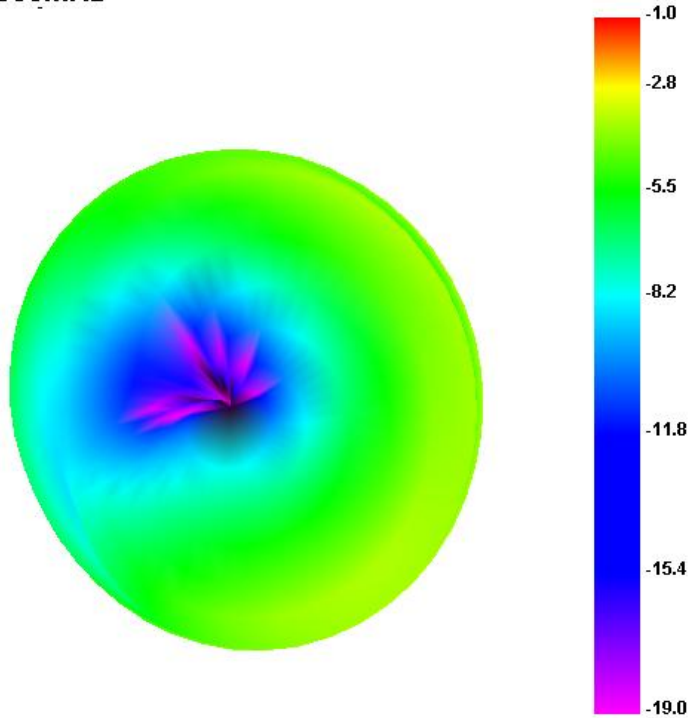


830.000MHz E2

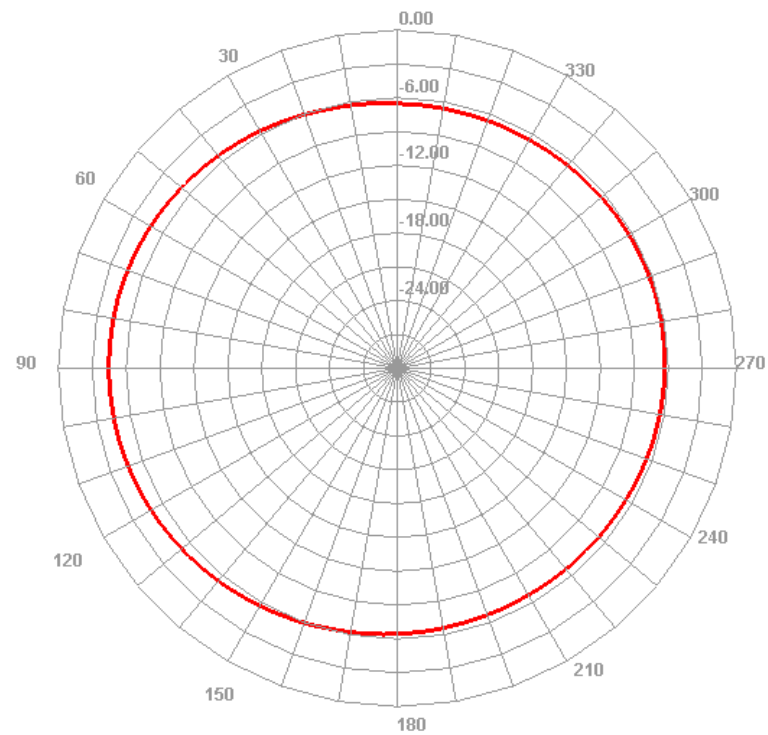


Efficient (GSM900+W8+LTE-B8 880~960MHz)

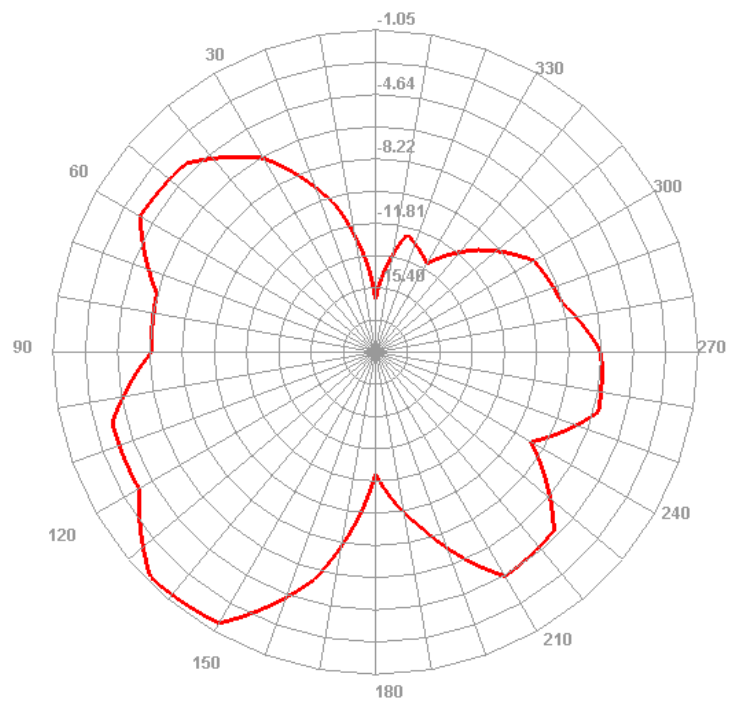
900.000MHz



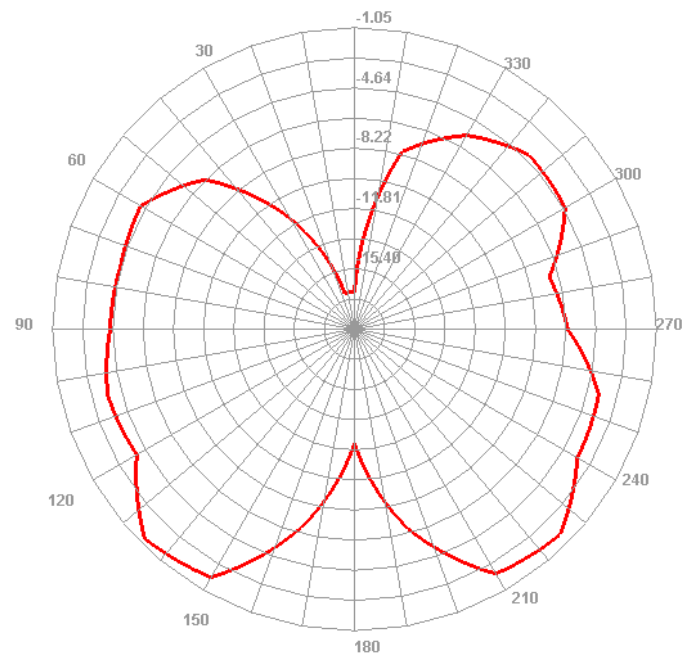
900.000MHz H



900.000MHz E1

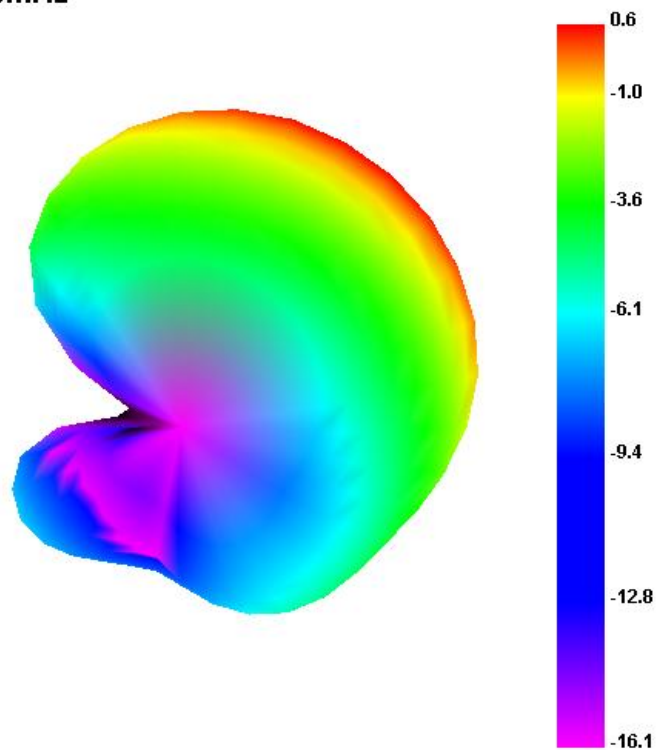


900.000MHz E2

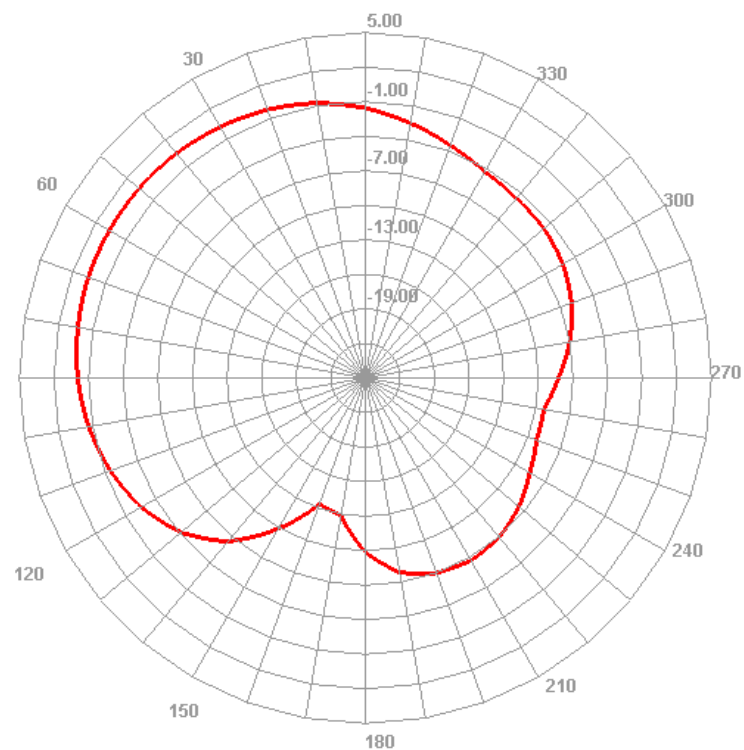


Efficient (GSM1800+LTE-B3 1710~1880 MHz)

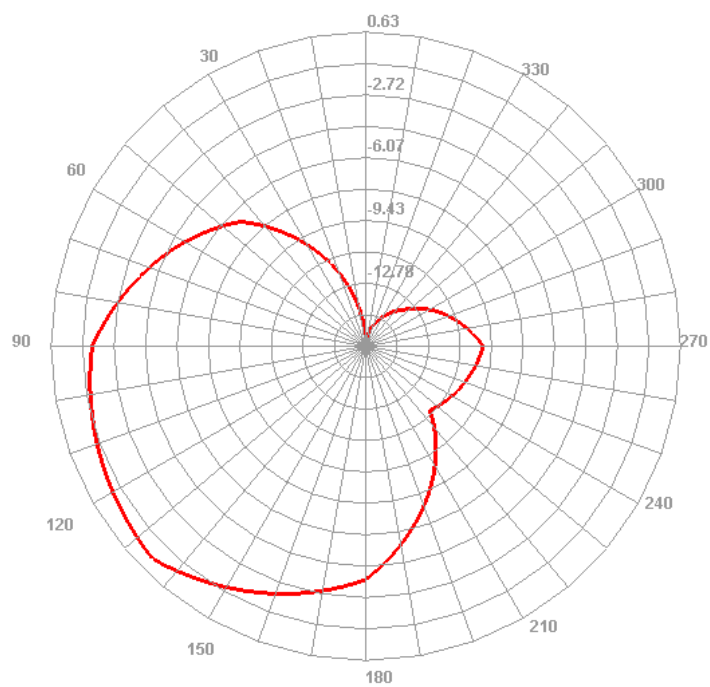
1820.000MHz



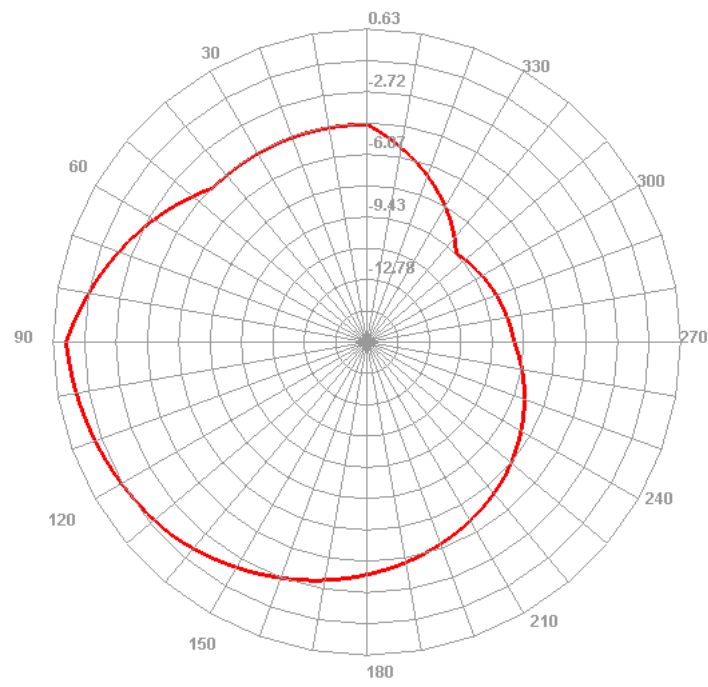
1820.000MHz H



1820.000MHz E1

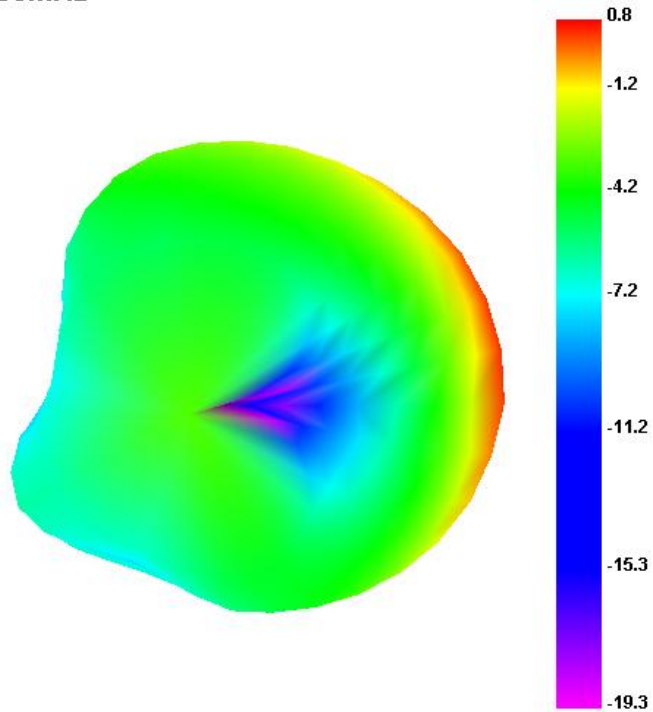


1820.000MHz E2

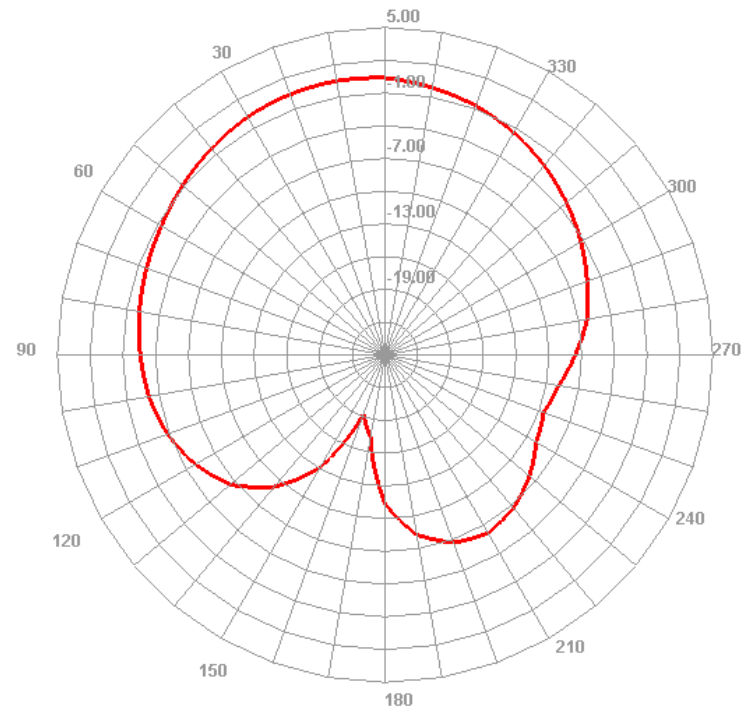


Efficient (GSM1900+W2+LTE-B2 1850~1990 MHz)

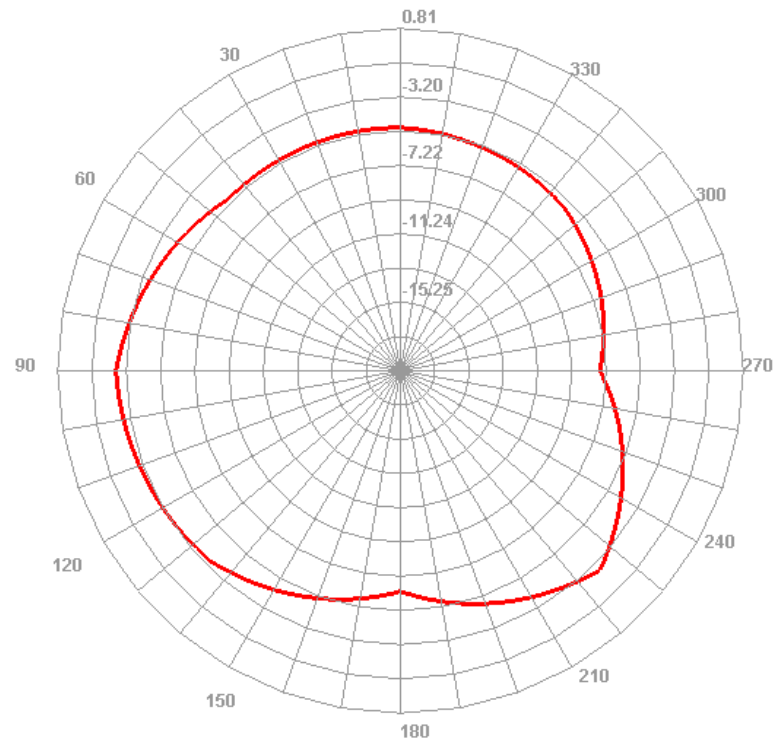
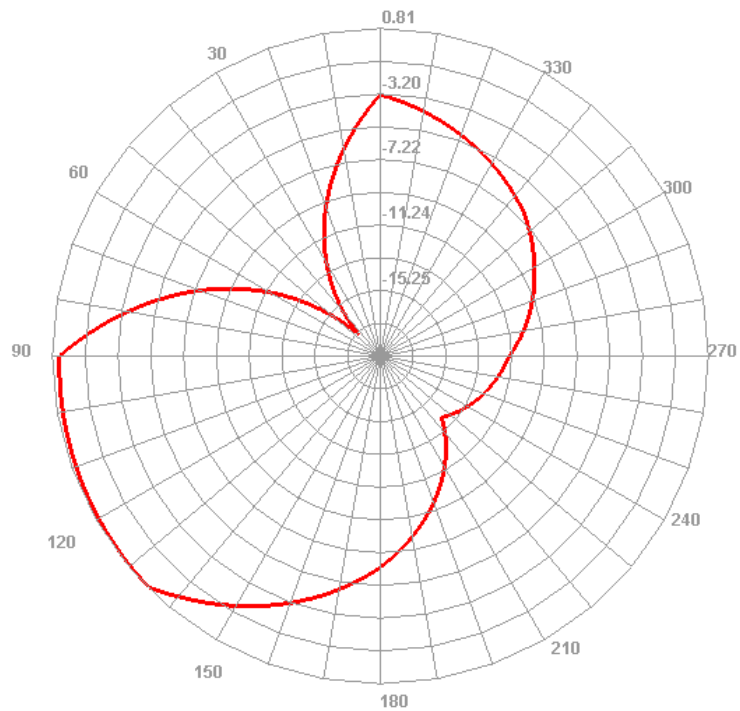
1920.000MHz



1920.000MHz H

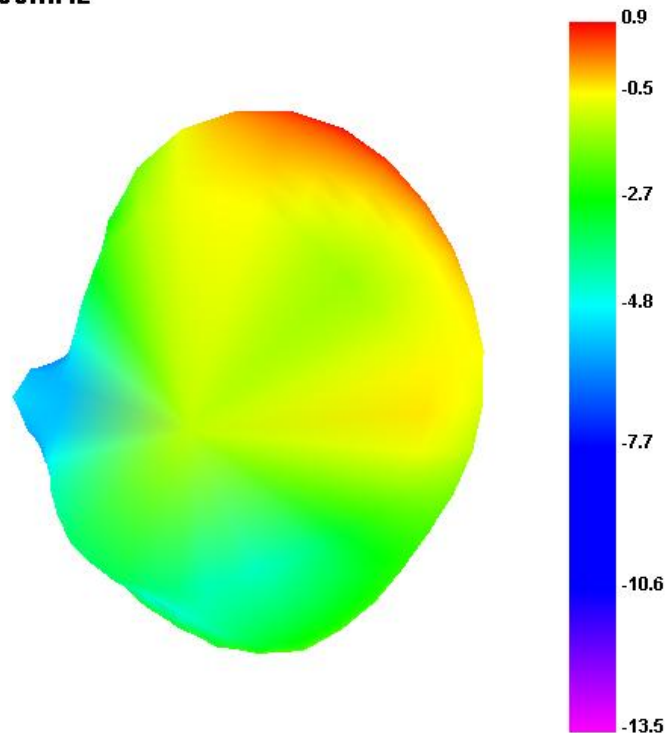


1920.000MHz E1

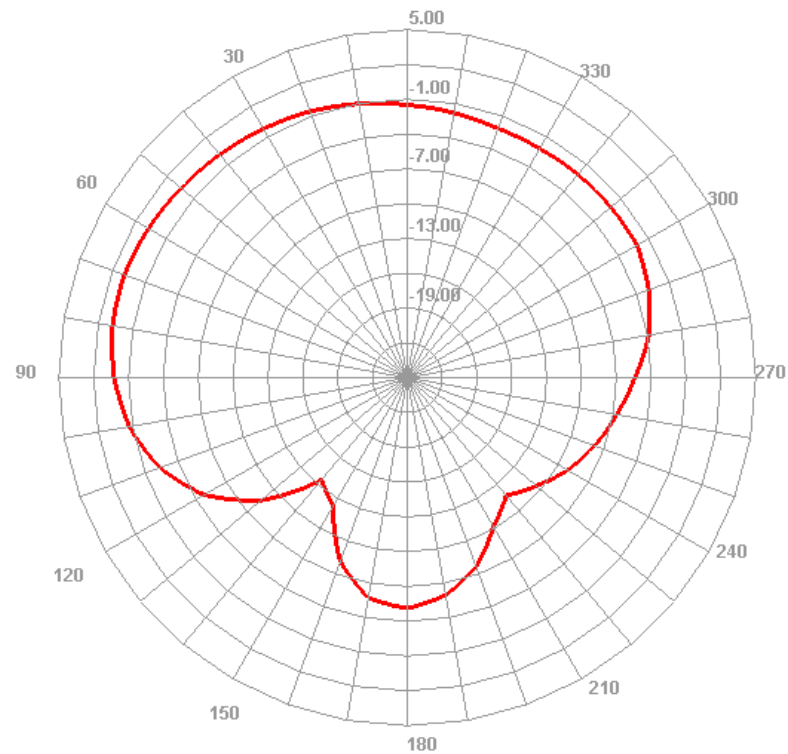


Efficient (W1+LTE-B4 1710~2170MHz)

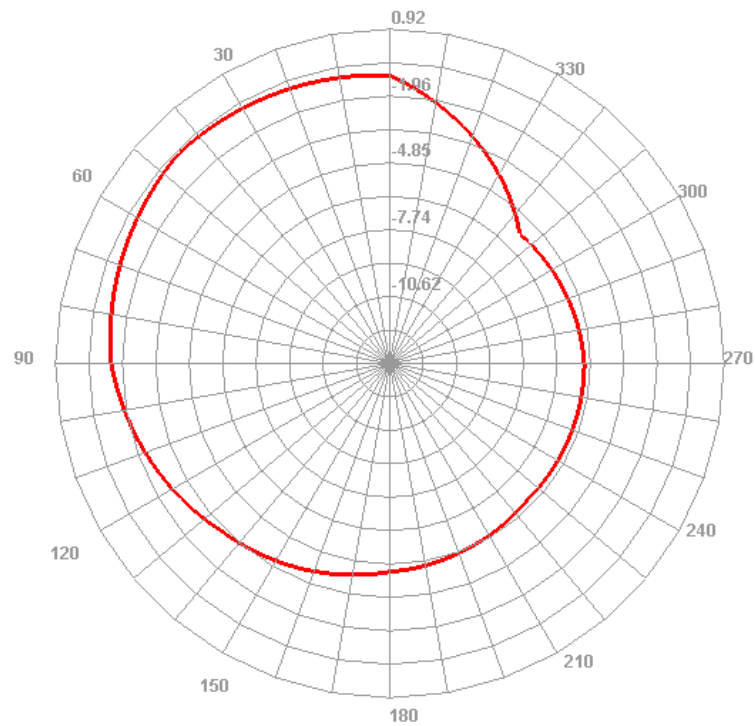
2160.000MHz



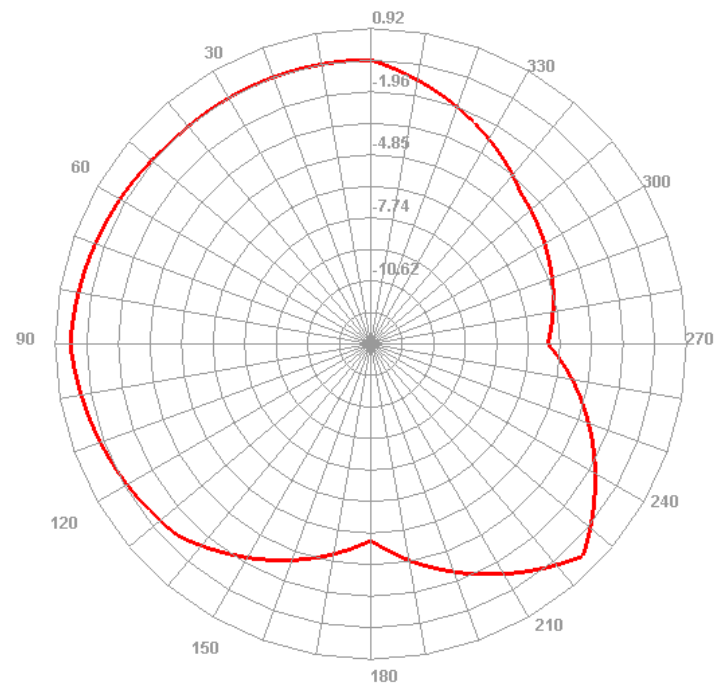
2160.000MHz H



2160.000MHz E1

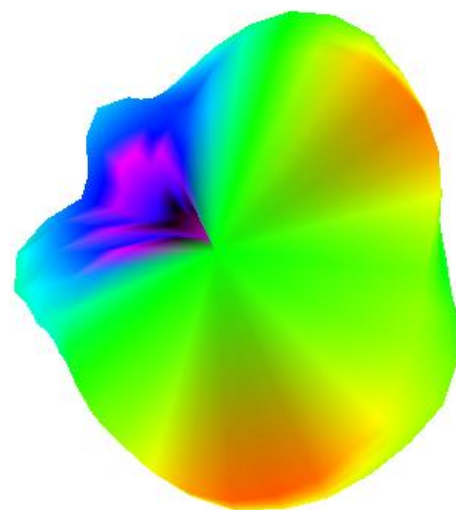


2160.000MHz E2

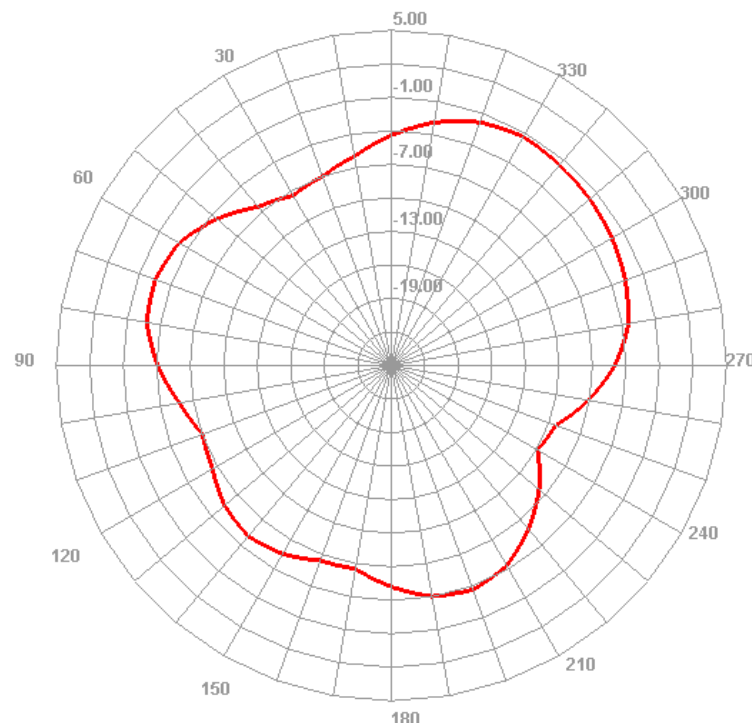


Efficient (LTE-B7 2500~2690MHz)

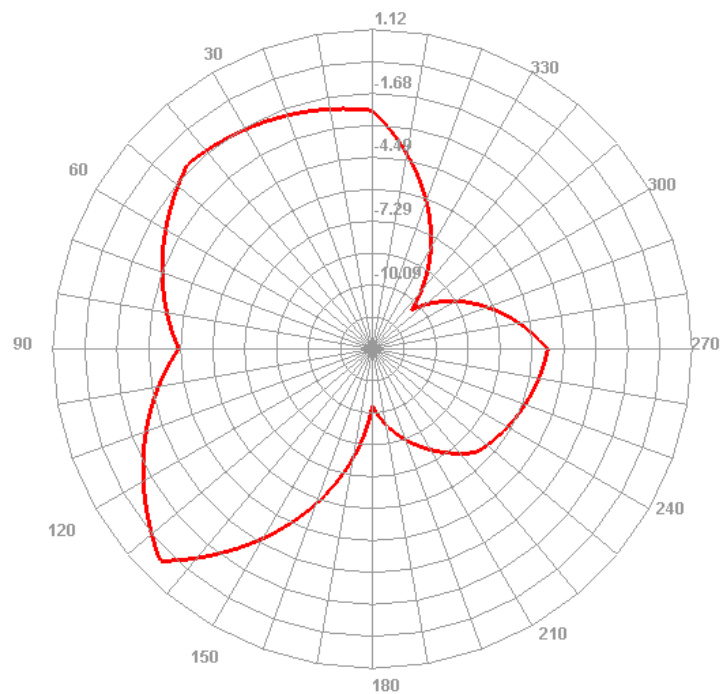
2680.000MHz



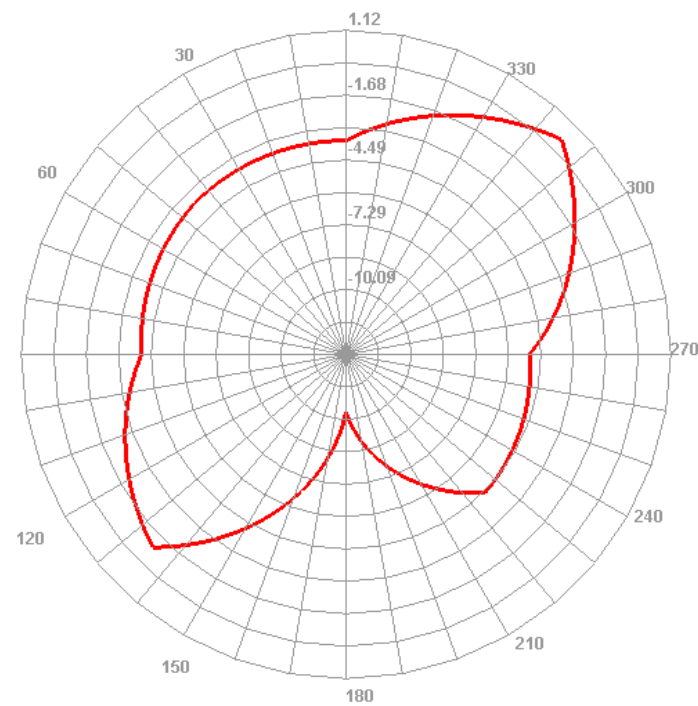
2680.000MHz H



2680.000MHz E1

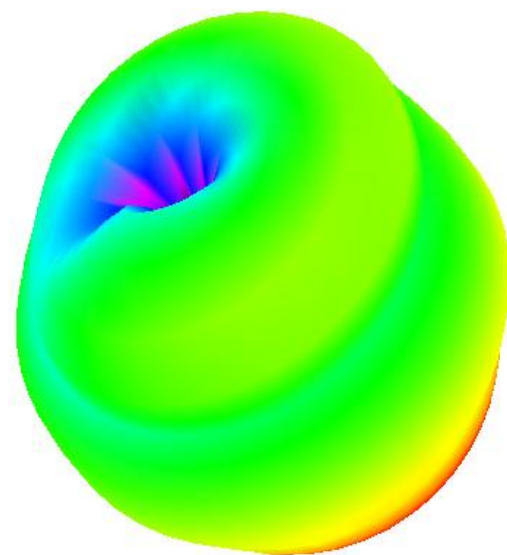


2680.000MHz E2

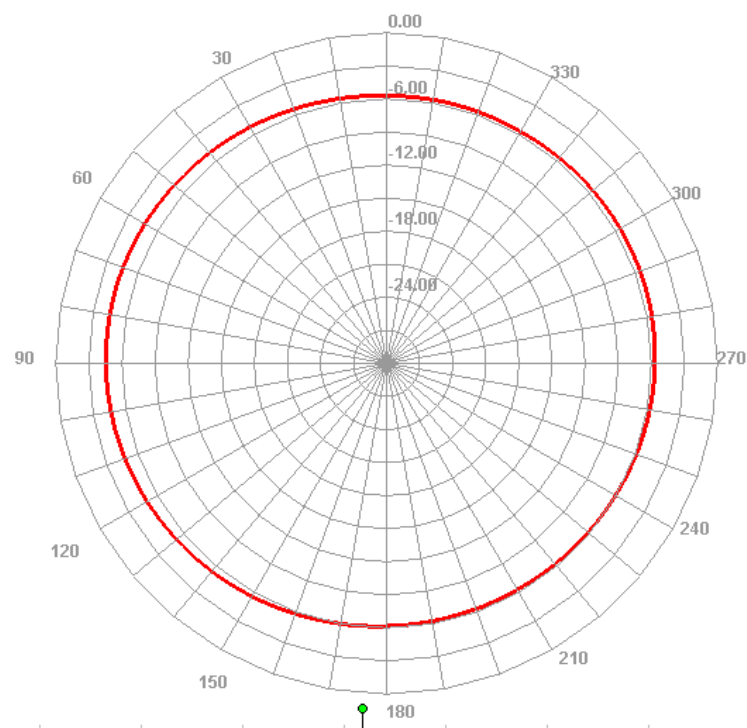


Efficient (LTE-B12/17/28 698~798 MHz)

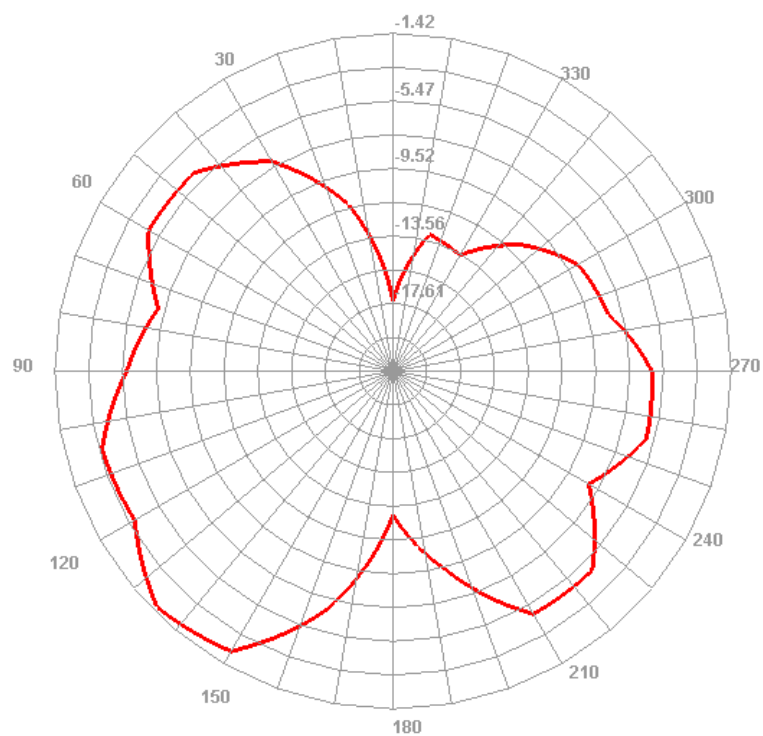
710.000MHz



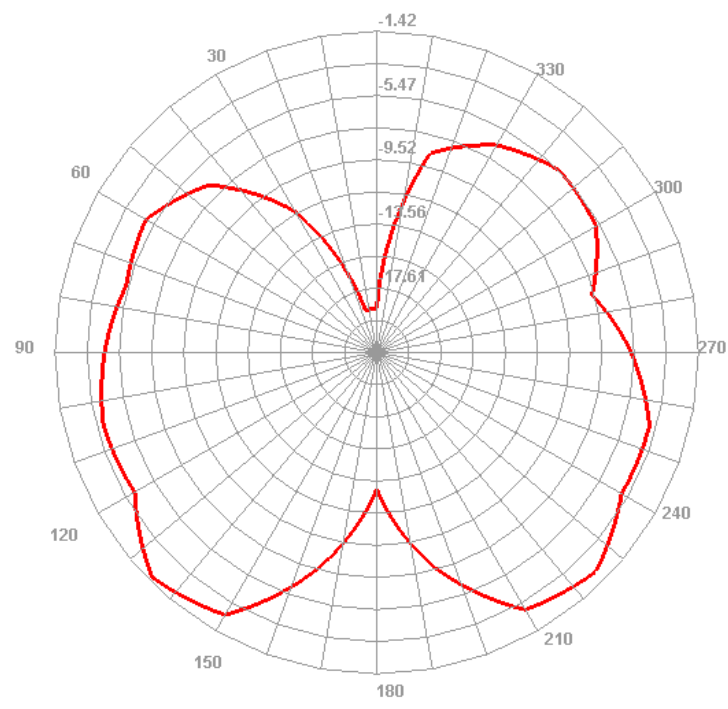
710.000MHz H



710.000MHz E1

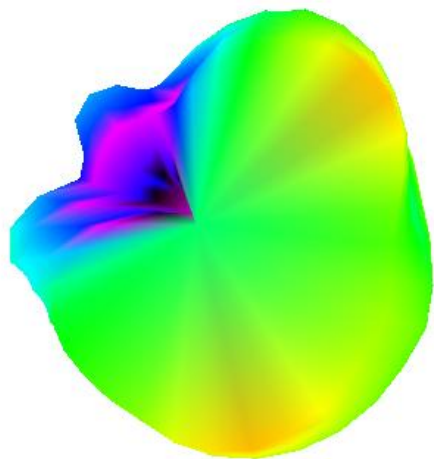


710.000MHz E2

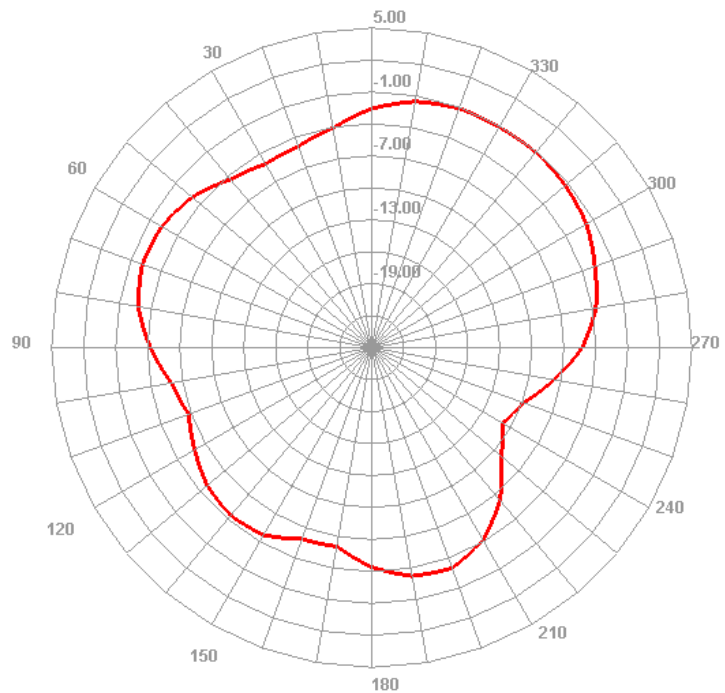


Efficient (2.4GWIFI/BT)

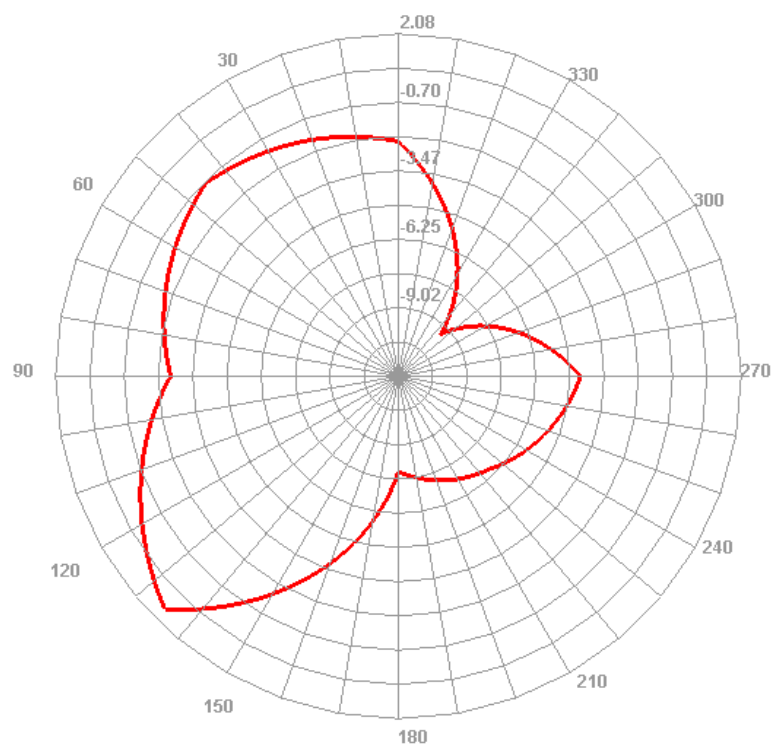
2440.000MHz



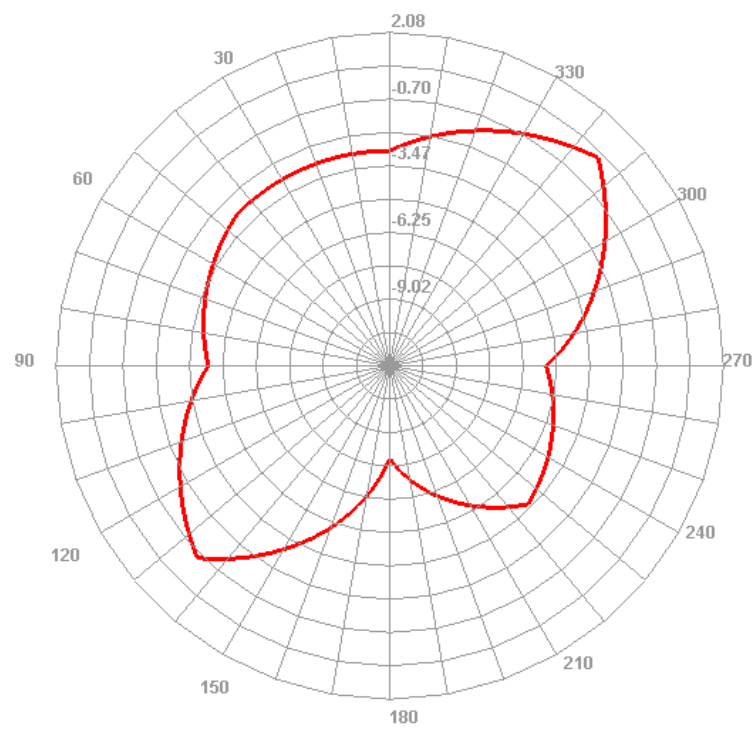
2440.000MHz H



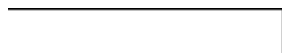
2440.000MHz E1



2440.000MHz E2



Master antenna specifications



版本	修改内容	修改者	修改日期

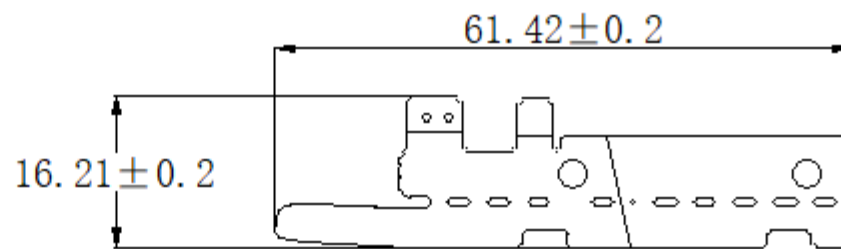
外形+丝印 →

亚黑油墨丝印亮黑字符



基 材	半对1/3	✓
	半对半	
	一对半	
	一对一	

总厚 0.12 ± 0.01 mm



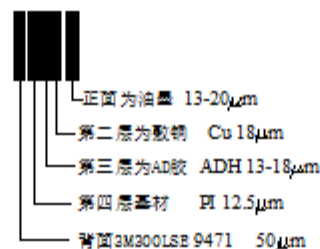
成品图-正面

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 0.12 mm;
4. 精确公差范围: ± 0.03 mm;
5. 只允许产品图导电;

A 处放大



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

华信微通信技术有限公司					
		单位: mm	名称: FPC		日期: 2023-03-08
一般公差:			料号: N62F-GSM		设计: 朱顺身
.I		±0.5	材质: FPC+3M9471		R F:
.X		±0.25	表面处理: 清洁		确认:
.XX		±0.05	颜色:		比例: 1:1
.XXX		±0.05			
ANGULAR		± 0.5°	版本: A		

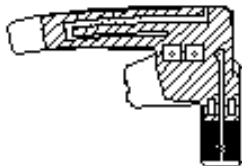
版本	修改内容	修改者	修改日期

外形+丝印

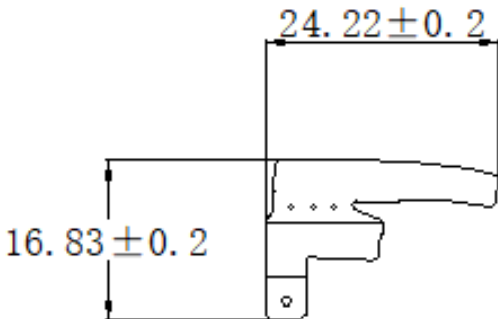


亚白油墨丝印亮白字符
亚黑油墨丝印亮黑字符

基 材	半对1/3	✓
	半对半	
	一对半	
	一对一	



成品图-正面



总厚0.12±0.01mm

A

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



华信微通信技术有限公司				
	单位: mm	名称: FPC	日期: 2023-03-08	
一般公差:		料号: N62F-G/W/B	设计: 朱顺身	
.I	±0.5	材质: FPC+9471	R F:	
.II	±0.25	表面处理: 清洁	确认:	
.III	±0.05	颜色:	比例: 1:1	版本: A
.XXX	±0.05			
ANGULAR	≤ ± 0.5°			

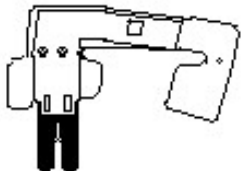
0000.0
0000.1
0000.2
0000.3
0000.4
0000.5
0000.6
0000.7
0000.8
0000.9
0000.10

02

外形+丝印



亚白油墨丝印亮白字符
亚黑油墨丝印亮黑字符



成品图-正面

手撕线背胶图-背面

NOTES:

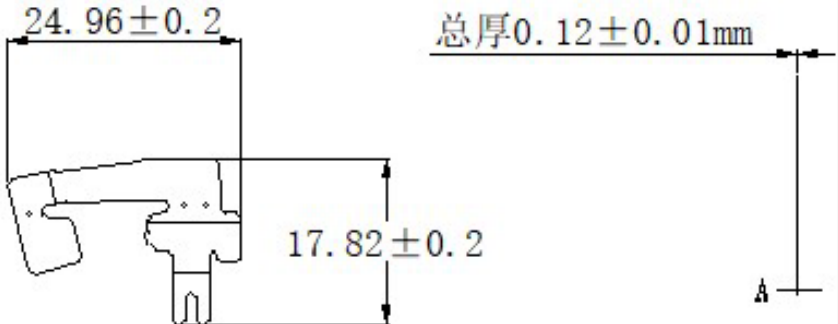
1. 胶纸为：3M300LSE；
2. 金手指表面镀金0.5~3u"；注意用材, 此位置不可有氧化现象.
3. 总体厚度应小于或等于0.12mm；
4. 精确公差范围: ±0.03mm；
5. 只允许产品图导电；

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	
	一对半	
	一对一	



02
03
04
05
06
07
08
09
10

华信微通信技术有限公司			
单位: mm	名称: FPC	日期: 2023-03-08	
一般公差:	料号: N62F-LTE	设计: 朱顺身	
.I ±0.5	材质: FPC+3M300LSE	R F:	
.II ±0.25	表面处理: 清洁	确认:	
.III ±0.05	颜色:	比例: 1:1	版本: A
ANGULAR ≤ ± 0.5°			