深圳市雨盛通讯电子有限公司
Shenzhen Yu Sheng Communications Electronics co., LTD

TEL：+86 0755-28640107 FAX：+86 0755-28694967

承认书
APPROVAL

版本：A1

客　　户
CUSTOMER:

品 名 规 格
DESCRIPTION: **SMA-2.4G2DB Black antenna**

料　　号
PART NO.:

客 户 料 号
CUS PART NO.:

日　　期
D A T E: 2018-3-30

呈样签章:

工　程 ENGINEERING DEPARTMENT	品　　保 Q C DEPARTMENT	业　务 SALES DEPARTMENT

客户承认签章 ：

工　程 ENGINEERING DEPARTMENT	品　　保 Q C DEPARTMENT	采　购 PURCHASING DEPARTMENT

ADDRESS：3-4 floors, No. 102, Ao West Road, Ao Bei Village, Henggang Town, Longgang District, Shenzhen

深圳市雨盛通讯电子有限公司
Shenzhen Yu Sheng Communications Electronics co., LTD

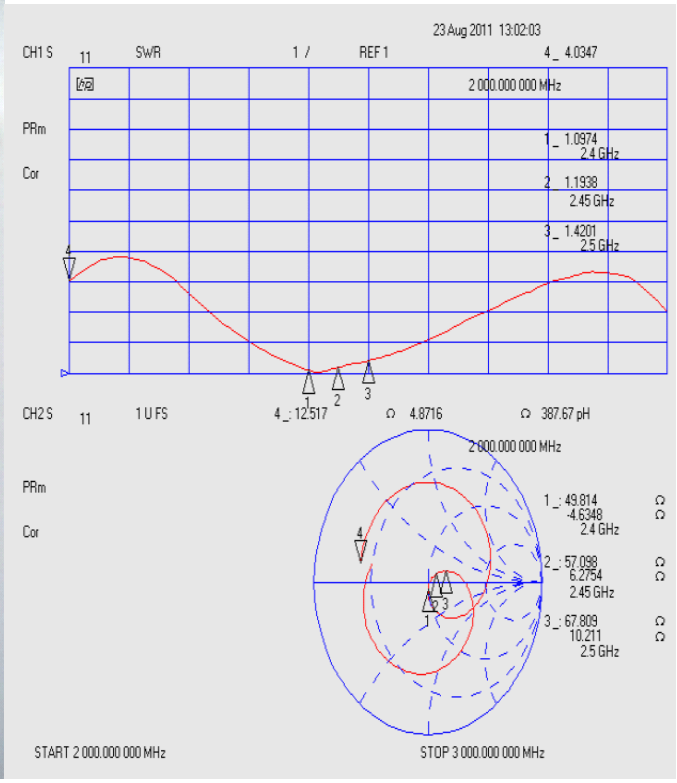
TEL：+86 0755-28640107 FAX：+86 0755-28694967

电器技术参数

电 性 能 指 标		Electrical Specifications	
频率范围	5150-5850MHZ、 2400MHz~2483.5 MHZ	Frequency Range	5150-5850MHZ、2400MHz~2483.5 MHZ
电压驻波比	≤2.0	VSWR	≤2.0
增益	3.18DBI、0.82dBi	GAIN	3.18DBI、0.82dBi
输入阻抗	50 Ω	Input Impedance	50 Ω
机 械 指 标		Mechanical Specifications	
天线颜色	黑色	Antenna Color	BLACK
接口形式	SMA+孔	Input connector	SMA
天线长度	108mm	Cable length	108mm
工作温度	-40℃~+85℃	Working Temperature	-40℃~+85℃
工作湿度	20~80%	Working Humidity	20~80%

产品图片

网分测试



深圳市雨盛通讯电子有限公司
Shenzhen Yu Sheng Communications Electronics co., LTD

TEL：+86 0755-28640107 FAX：+86 0755-28694967

铁耐克-C®(TENAC-C®) 性能 (ASTM)

项目		测试方法 (ASTM)	单位 / 等级	标准等级				
				高粘度型	中等粘度型		高流动型	
				3510	4520	5520	7520	8520
比重		D 792	–	1.41	1.41	1.41	1.41	1.41
吸湿率		D 570	%	0.2	0.2	0.2	0.2	0.2
机械性能	抗拉强度	D 638	MPa	61	61	61	61	61
	延伸率	D 638	%	75	60	55	50	45
	抗挠强度	D 790	MPa	88	88	88	90	90
	抗挠系数	D 790	MPa	2600	2600	2620	2630	2630
	悬臂梁式冲击强度（带缺口）	D 256	J/m	78	59	59	59	39
	洛氏硬度	D 785	M-scale	78	80	80	80	80
			R-scale	–	115	115	115	115
	磨耗率	D 1044	mg/1000次	14	14	14	14	14
热性能	熔流指数	D 1238	gr/10min	2.8	9	15	30	45
	线性膨胀系数	(TMA)	x10⁻⁵cm/cm·°C	10	10	10	10	10
	热变形温度	D 645	°C(1.82MPa)	110	110	110	110	110
			°C(0.45MPa)	158	158	158	158	158
阻燃性		(UL 94)	–	HB	HB	HB	HB	HB
成型收缩率		(旭化成方法)	%	1.6~2.0	1.6~2.0	1.6~2.0	1.6~2.0	1.6~2.0
特点				高抗冲击、高延伸率等级，具有较高的分子量。	标准流动等级，具有最小的注塑模垢。	与4520类似，但具有较高的流动性和最小的注塑模垢。	高流动等级，具有最小的注塑模垢。	超高流动等级，具有最小的注塑模垢。

项目		测试方法 (ASTM)	单位 / 等级	HC 系列		高循环等级	耐气候性等级			
				中等粘度型	高流动型	高流动型	高粘度型	中等粘度型		高流动型
				HC450	HC750	7554	3513	4513	4563	7513
比重		D 792	–	1.41	1.41	1.41	1.41	1.41	1.41	1.41
吸湿率		D 570	%	0.2	0.2	0.2	0.2	0.2	0.2	0.2
机械性能	抗拉强度	D 638	MPa	65	65	60	60	60	60	60
	延伸率	D 638	%	60	50	50	75	55	55	45
	抗挠强度	D 790	MPa	95	98	90	88	88	88	89
	抗挠系数	D 790	MPa	2890	2990	2630	2600	2600	2600	2630
	悬臂梁式冲击强度（带缺口）	D 256	J/m	69	59	39	69	59	59	59
	洛氏硬度	D 785	M-scale	–	–	80	78	80	80	80
			R-scale	–	–	115	–	115	115	115
	磨耗率	D 1044	mg/1000times	–	–	14	14	14	14	14
热性能	熔流指数	D 1238	gr/10min	8	30	30	3	9	9	30
	线性膨胀系数	(TMA)	x10⁻⁵cm/cm·°C	–	–	10	10	10	10	10
	热变形温度	D 645	°C(1.82MPa)	124	124	110	110	110	110	110
			°C(0.45MPa)	163	163	158	158	158	158	158
阻燃性		(UL 94)	–	HB	HB	HB	–	–	–	–
成型收缩率		(旭化成方法)	%	1.6~2.0	1.6~2.0	1.5~1.9	1.6~2.0	1.6~2.0	1.6~2.0	1.6~2.0
特点				革新共聚物，对标准等级的物理性能有所增强。		高流动等级，具有录像机卷轴所需性能。	耐气候性等级，含有紫外线吸收剂和其他添加剂，因而具有良好的耐气候性。			

- 请注意，所有的数据和数值都是用所示试验方法获得的典型结果，只能作为等级选择的基本参考，而不能作为任何形式的产品规格或保证。如有更改，恕不另行通知。
- 处理和使用之前必须阅读相关的MSDS，并一定要遵守重要注意事项能。
- 铁耐克或铁耐克-C用于接触食品的用途之前，应当与旭化成联系。

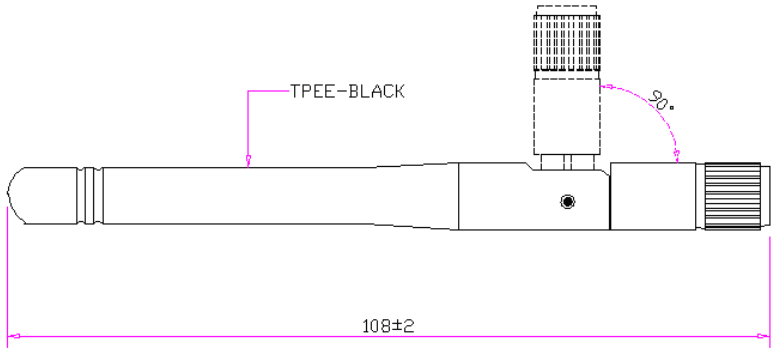
深圳市雨盛通讯电子有限公司

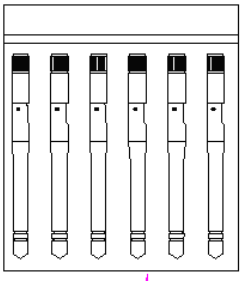
Shenzhen Yu Sheng Communications Electronics co., LTD

TEL：+86 0755-28640107 FAX：+86 0755-28694967

RoHS Compliant

REV	DATE	DESCRIPTION	NAME
A1			
A2			





50PCS/bag

频率范围 Frequency Range	2400-2500MHZ
输入阻抗 Impedance	50 OHM
驻波比VSWR	<2.0
增益 Gain	3.0DBI
极化 Polarization	垂直
方向性Radiation	全向

要求1：成品须100%测试导通OK
2. 成品须100%全检OK.
3. 采用环保制程,成品
4. 符合ROHS要求.
接头拉力：5KG~
5. 未注公差请以一般公差为准.

NO.	NAME	Description	Q' TY	Part No.
6	线 材	1.78棕-48锡-PTFE（耐高温）L=80.5mm	1	1301-0054
5	橡胶外套	6.5黑色橡胶-不出线	1	1203-0017
4	橡胶上座	6.5黑色橡胶 不出线	1	1201-0016
3	橡胶下座	6.5黑色橡胶-不出线	1	1201-0015
2	五金件	1.6*5.0*L24	1	1701-0065
1	S M A	6.5镀黑小S+母针	1	1101-0111

一般公差	
0~1	±0.1
1~10	±0.3
11~30	±0.5
31~100	±0.8
101~300	±1.0
301~	±2.0
ANGULAR	±1°

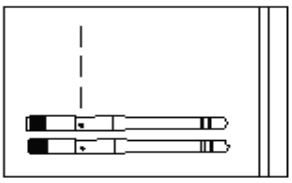
圆 法

深圳市雨盛通讯电子有限公司
ShenZhen Yu Sheng Communications Electronics co., LTD

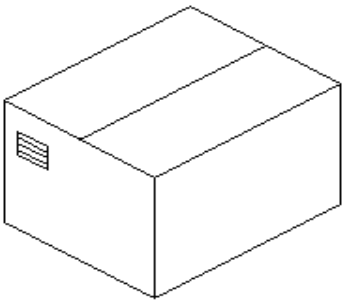
品名规格 (PRODUCT NAME)	SMA (K) -2.4G 2DB橡胶天线-L108		
料 号 (PART NAME)	GDT030-0024		
客户料号 (CUS PART NAME)			
绘 图 (DRAW)	NELR	版 本 (REV)	A1
审 核 (CHECK)	CHEM	日 期 (DATE)	2018-8-14
核 准 (APP.)	JERL R	页 码 (PAGE)	1/1

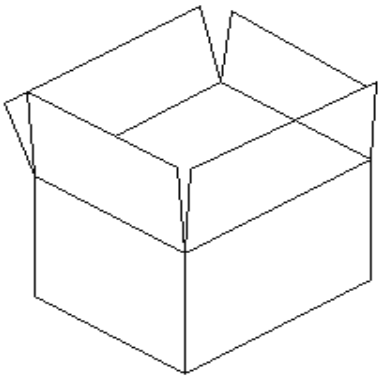
RoHS Compliant

REV	DATE	DESCRIPTION	NAME
A1			
A2			



500PCS/1袋





1000PCS/1箱
每箱贴产品标签

深圳市雨盛通讯电子有限公司
ShenZhen Yu Sheng Communications Electronics co., LTD

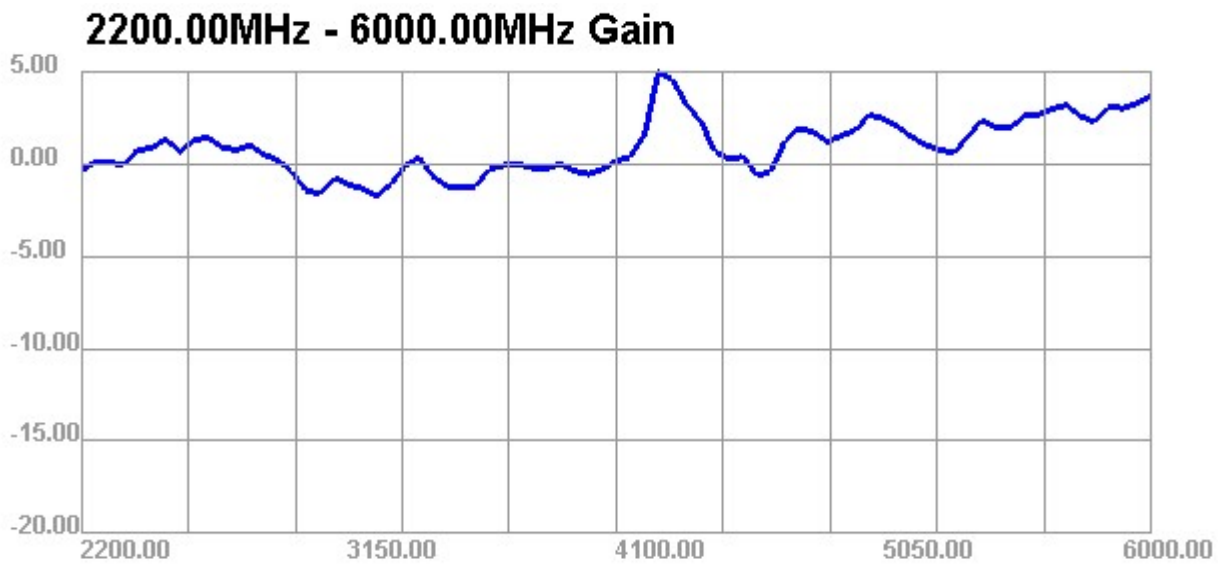
品名规格 (PRODUCT NAME)	2.4G2DB天线包装图		
料 号 (PART NAME)			
客户料号 (CUS PART NAME)			
绘 图 (DRAW)	NELR	版 本 (REV)	A1
审 核 (CHECK)	CHEM	日 期 (DATE)	2018-8-8
核 准 (APP.)	JERL R	页 码 (PAGE)	1/2

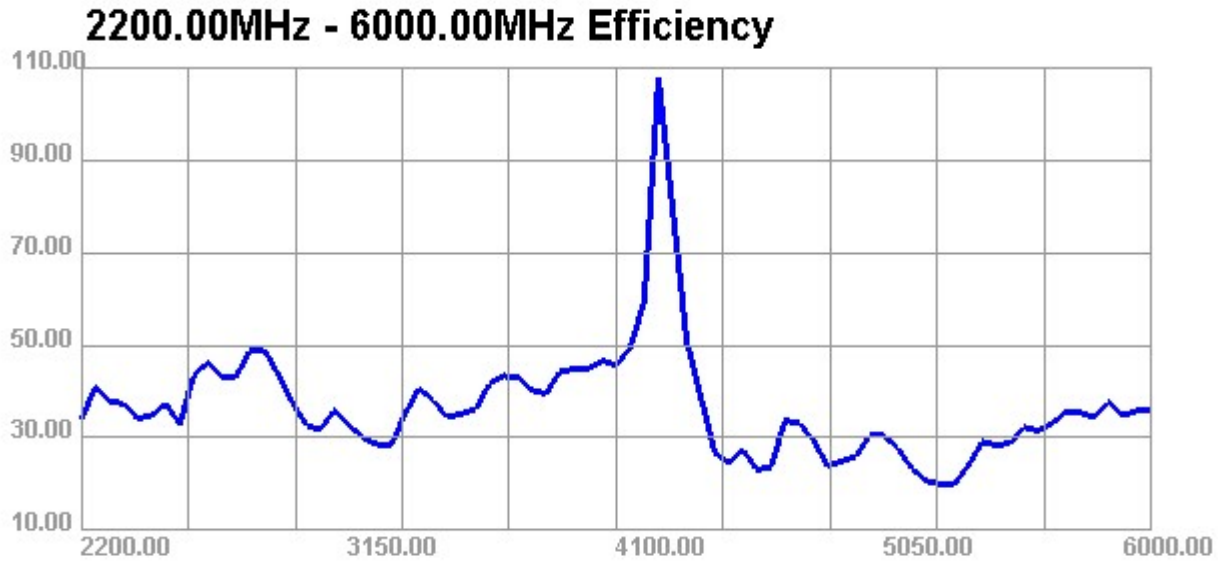
一般公差	
0~1	±0.1
1~10	±0.3
11~30	±0.5
31~100	±0.8
101~300	±1.0
301~	±2.0
ANGULAR	±1°

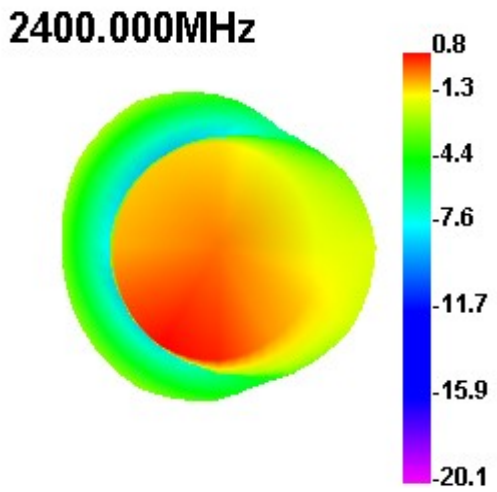
圆 法

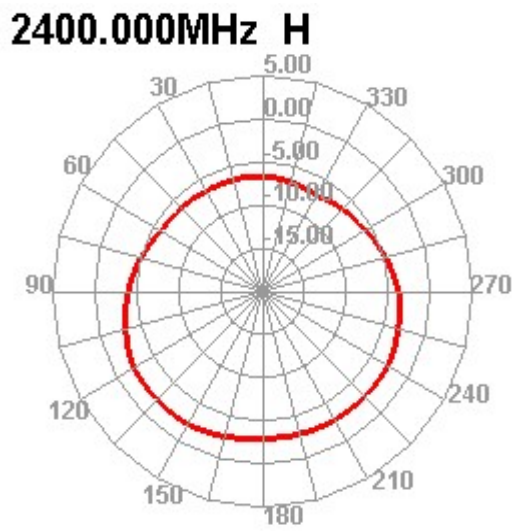
Passive Test For 2.4-5.8										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHIS (%)	DHIS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
2200	33.96	-4.69	-0.38	-2.53	20.318	13.645	-0.38	-20.54	44.82	43.93
2250	41.03	-3.87	0.11	-2.04	24.423	16.604	0.11	-18.71	45.23	44.53
2300	37.92	-4.21	0.1	-2.05	23.408	14.512	0.1	-21.08	45.78	45.31
2350	37.41	-4.27	-0.07	-2.22	22.677	14.729	-0.07	-19.21	46.38	45.92
2400	34.11	-4.67	0.79	-1.36	22.873	11.234	0.79	-20.1	46.87	46.67
2450	34.91	-4.57	0.82	-1.33	26.498	8.41	0.82	-20.44	47.72	47.63
2500	37.35	-4.28	1.35	-0.8	30.749	6.6	1.35	-16.56	47.75	47.52
2550	33.02	-4.81	0.64	-1.51	28.059	4.962	0.64	-19.86	47.22	46.83
2600	43.64	-3.6	1.28	-0.87	36.884	6.755	1.28	-17.04	47.84	47.56
2650	46.2	-3.35	1.43	-0.72	38.444	7.758	1.43	-16.52	48.18	48.08
2700	43.25	-3.64	0.9	-1.25	35.536	7.714	0.9	-16	48.52	48.56
2750	43.27	-3.64	0.74	-1.41	34.558	8.715	0.74	-14.41	49.05	49.21
2800	49.02	-3.1	1.01	-1.14	38.365	10.654	1.01	-13.09	49.69	49.92
2850	49.05	-3.09	0.49	-1.66	37.492	11.555	0.49	-12.68	49.92	49.65
2900	43.72	-3.59	0.19	-1.96	32.97	10.752	0.19	-12.45	50.13	49.97
2950	37.71	-4.24	-0.47	-2.62	28.157	9.556	-0.47	-11.61	50.16	49.99
3000	32.66	-4.86	-1.47	-3.62	24.182	8.477	-1.47	-12.74	50.19	49.92
3050	31.84	-4.97	-1.62	-3.77	23.601	8.242	-1.62	-12.36	50.03	50.16
3100	36	-4.44	-0.73	-2.88	26.874	9.126	-0.73	-12.35	51.1	51.19
3150	32.91	-4.83	-1.14	-3.29	24.581	8.327	-1.14	-12.05	51.44	51.49
3200	30.02	-5.23	-1.33	-3.48	21.964	8.061	-1.33	-13.12	51.56	51.69
3250	28.63	-5.43	-1.72	-3.87	20.191	8.438	-1.72	-15.02	51.76	51.61
3300	28.36	-5.47	-1.1	-3.25	19.588	8.768	-1.1	-13.03	51.51	51.47
3350	35.14	-4.54	-0.12	-2.27	24.493	10.644	-0.12	-12.46	51.99	52
3400	40.79	-3.89	0.35	-1.8	28.108	12.684	0.35	-13.69	52.22	52.24
3450	38.02	-4.2	-0.7	-2.85	25.689	12.335	-0.7	-13.53	52.03	52.26
3500	34.48	-4.62	-1.21	-3.36	22.704	11.779	-1.21	-14.58	52.56	52.81
3550	35.28	-4.52	-1.26	-3.41	22.888	12.391	-1.26	-14.47	53.02	53.08
3600	36.07	-4.43	-1.21	-3.36	22.711	13.359	-1.21	-13.86	53.04	53.03
3650	41.74	-3.79	-0.29	-2.44	26.448	15.292	-0.29	-13.31	53.47	53.47
3700	43.38	-3.63	-0.07	-2.22	27.626	15.754	-0.07	-14.07	53.51	53.33
3750	43.17	-3.65	0.01	-2.14	27.549	15.619	0.01	-14.2	53.33	53.38
3800	40.41	-3.93	-0.21	-2.36	25.992	14.42	-0.21	-15.09	52.81	52.96
3850	39.45	-4.04	-0.27	-2.42	25.225	14.228	-0.27	-15.87	52.56	52.78
3900	44.26	-3.54	0.02	-2.13	28.436	15.82	0.02	-14.87	52.83	53.15
3950	44.85	-3.48	-0.37	-2.52	28.967	15.883	-0.37	-15.34	52.87	53.08
4000	44.88	-3.48	-0.54	-2.69	28.696	16.182	-0.54	-16.81	52.98	53.25
4050	46.66	-3.31	-0.28	-2.43	29.537	17.118	-0.28	-17.05	54.18	54.59
4100	45.68	-3.4	0.14	-2.01	29.102	16.577	0.14	-18.23	54.65	54.9
4150	49.38	-3.06	0.39	-1.76	31.376	18.005	0.39	-22.26	54.24	54.65
4200	59.77	-2.24	1.54	-0.61	37.658	22.113	1.54	-20.93	54.33	54.56
4250	107.86	0.33	4.96	2.81	68.804	39.057	4.96	-18.82	57.13	56.88
4300	79.87	-0.98	4.55	2.4	52.246	27.627	4.55	-22.58	56.6	56.6
4350	51.02	-2.92	3.17	1.02	34.591	16.426	3.17	-23.53	55.85	55.88
4400	38.95	-4.09	2.33	0.18	27.581	11.372	2.33	-23.16	56.15	56.33
4450	26.81	-5.72	0.68	-1.47	19.694	7.112	0.68	-21.32	55.99	56.41
4500	24.77	-6.06	0.25	-1.9	18.479	6.29	0.25	-22.43	54.66	55.3
4550	27.39	-5.62	0.4	-1.75	20.685	6.703	0.4	-24.02	54.96	55.53
4600	23.04	-6.38	-0.65	-2.8	17.469	5.572	-0.65	-28.7	55.05	55.65
4650	23.74	-6.24	-0.38	-2.53	17.914	5.828	-0.38	-28.58	56.08	56.92
4700	33.75	-4.72	1.27	-0.88	25.304	8.442	1.27	-19.69	59.35	59.13
4750	33.13	-4.8	1.94	-0.21	25.863	7.265	1.94	-18.63	55.93	56.25
4800	29.58	-5.29	1.71	-0.44	23.681	5.897	1.71	-19.46	55.94	56.47
4850	23.92	-6.21	1.18	-0.97	19.671	4.245	1.18	-19	55.74	56.25
4900	24.88	-6.04	1.53	-0.62	20.972	3.904	1.53	-18.49	55.7	55.99
4950	25.91	-5.87	1.84	-0.31	22.185	3.72	1.84	-19.2	55.16	55.18
5000	30.61	-5.14	2.66	0.51	26.462	4.148	2.66	-19.34	54.98	55.11
5050	30.49	-5.16	2.43	0.28	26.366	4.122	2.43	-18.09	54.72	54.84
5100	27.72	-5.57	2.01	-0.14	24.107	3.611	2.01	-20.14	55	54.91
5150	23.35	-6.32	1.45	-0.7	20.361	2.99	1.45	-21.73	54.78	54.67
5200	20.78	-6.82	1.04	-1.11	17.993	2.784	1.04	-27.68	54.75	54.81
5250	20.06	-6.98	0.76	-1.39	17.028	3.033	0.76	-22.09	54.73	54.93
5300	19.77	-7.04	0.6	-1.55	16.152	3.62	0.6	-21.03	54.5	54.73
5350	24.01	-6.2	1.52	-0.63	19.002	5.004	1.52	-20.62	55.24	55.51
5400	29.14	-5.36	2.37	0.22	22.214	6.925	2.37	-21.61	55.55	56.05
5450	28.43	-5.46	1.95	-0.2	20.873	7.555	1.95	-21.81	55.31	56.11
5500	28.9	-5.39	1.94	-0.21	21.086	7.816	1.94	-22.92	55.63	56.65
5550	32.31	-4.91	2.58	0.43	23.886	8.424	2.58	-23.63	56.59	57.66
5600	31.5	-5.02	2.67	0.52	23.84	7.664	2.67	-26.5	57.26	57.88
5650	33.21	-4.79	2.99	0.84	25.469	7.745	2.99	-29.71	57.84	58.26
5700	35.75	-4.47	3.18	1.03	27.078	8.668	3.18	-24.89	57.82	58.3
5750	35.35	-4.52	2.57	0.42	26.185	9.169	2.57	-19.94	57.87	58.19

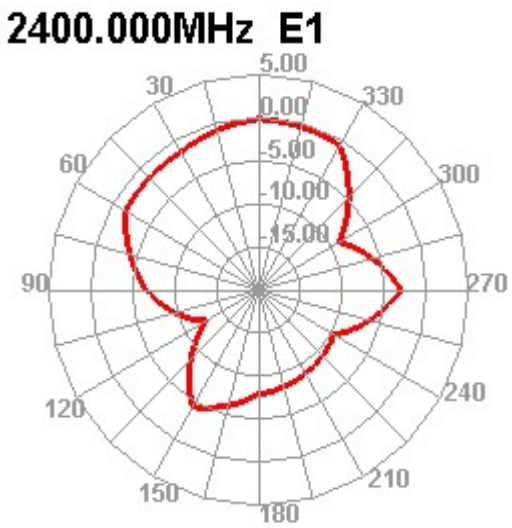
5800	34.45	-4.63	2.26	0.11	24.76	9.69	2.26	-17.96	57.78	58.22
5850	37.81	-4.22	3.08	0.93	26.612	11.203	3.08	-16.65	58.5	59.08
5900	34.87	-4.58	3.02	0.87	24.073	10.8	3.02	-19.04	58.59	59.29
5950	35.81	-4.46	3.26	1.11	23.582	12.232	3.26	-22.58	59.52	60.37
6000	36.14	-4.42	3.72	1.57	23.013	13.128	3.72	-16.06	61.25	62.09

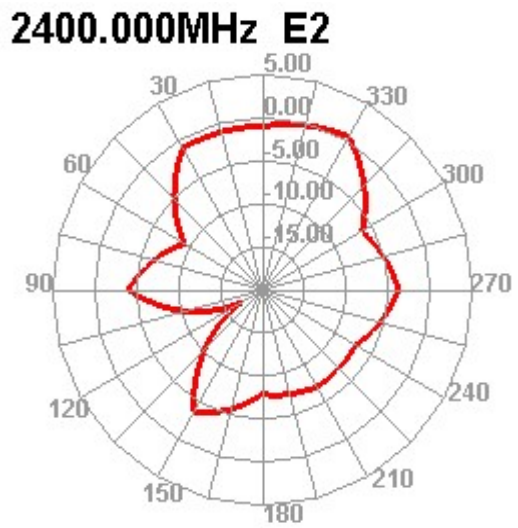




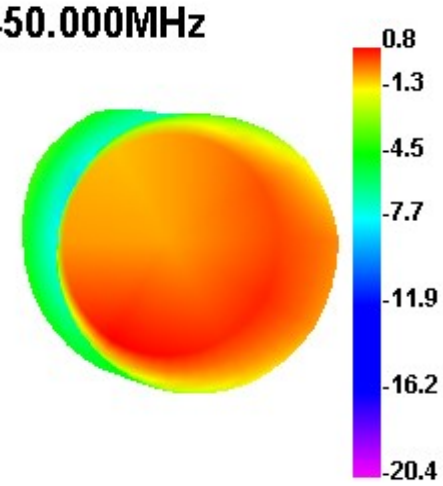




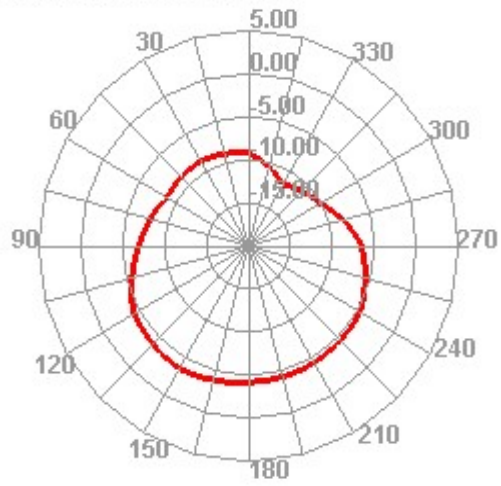




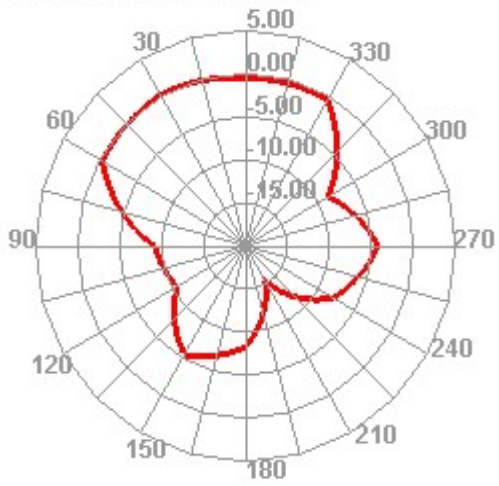
2450.000MHz



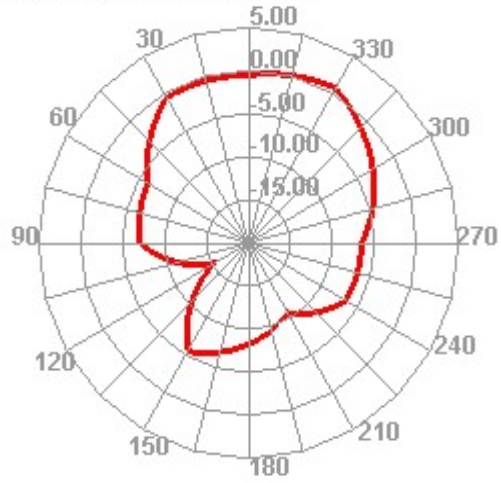
2450.000MHz H



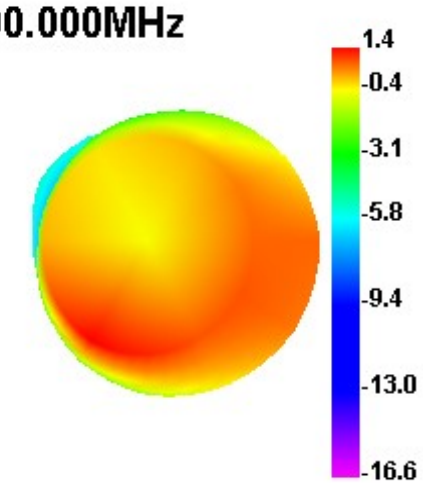
2450.000MHz E1



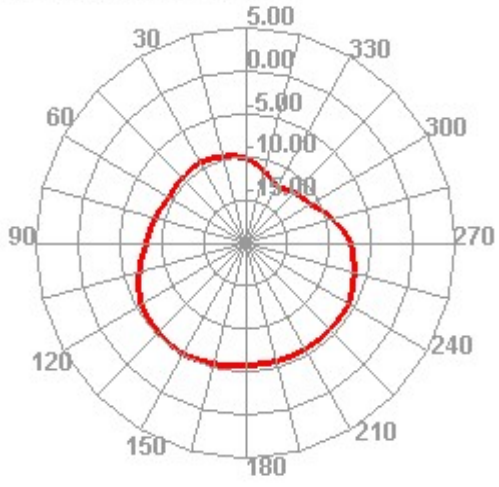
2450.000MHz E2



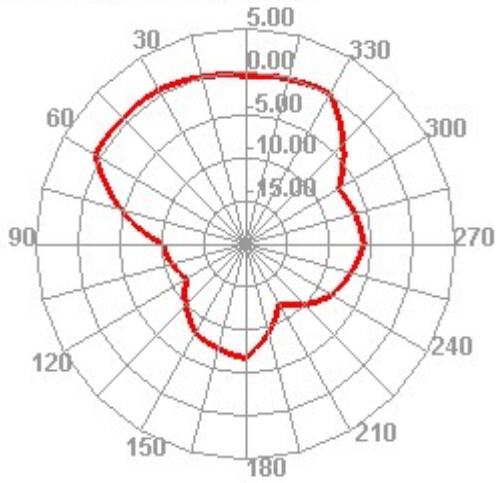
2500.000MHz



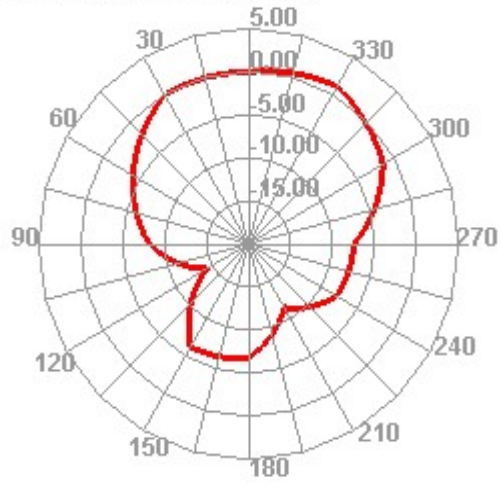
2500.000MHz H



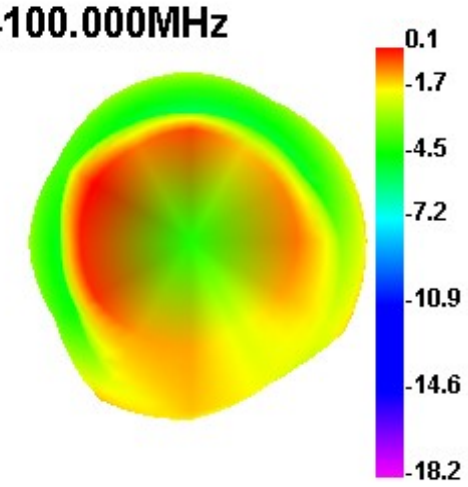
2500.000MHz E1



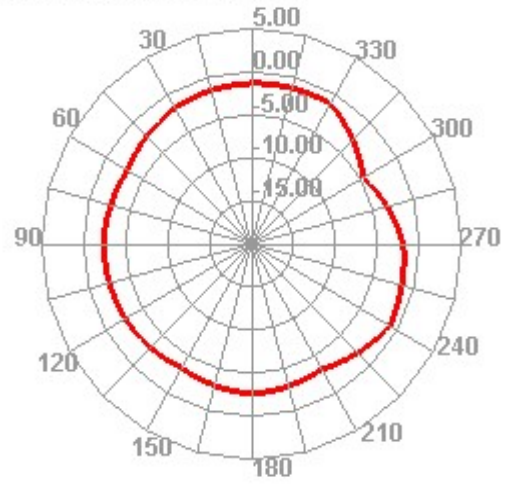
2500.000MHz E2



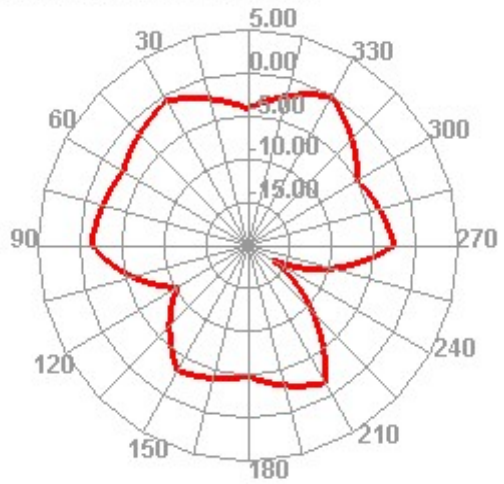
4100.000MHz



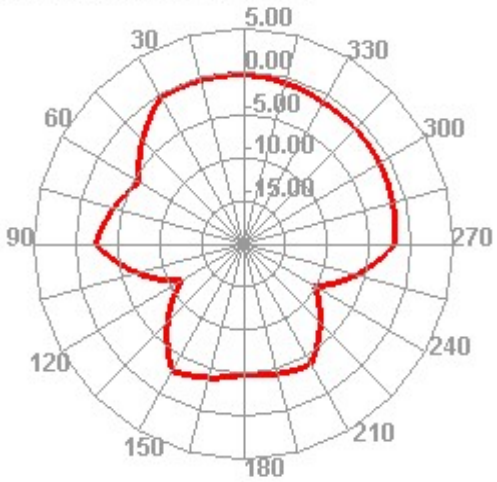
4100.000MHz H



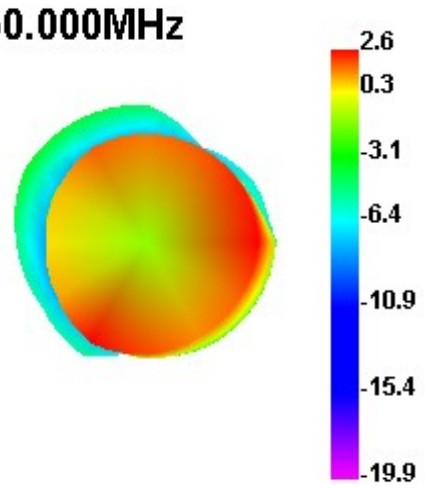
4100.000MHz E1



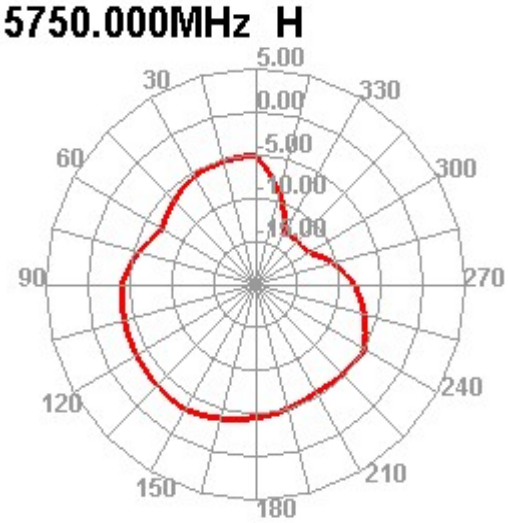
4100.000MHz E2



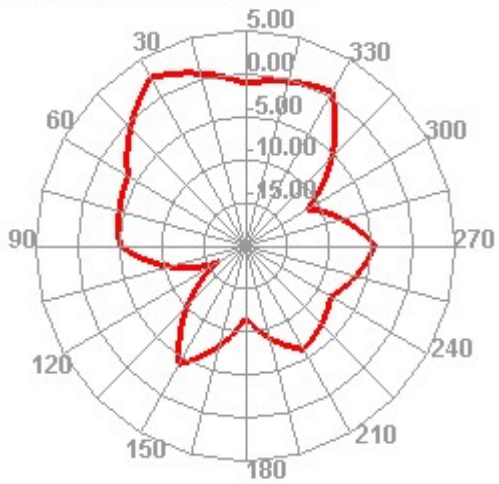
5750.000MHz



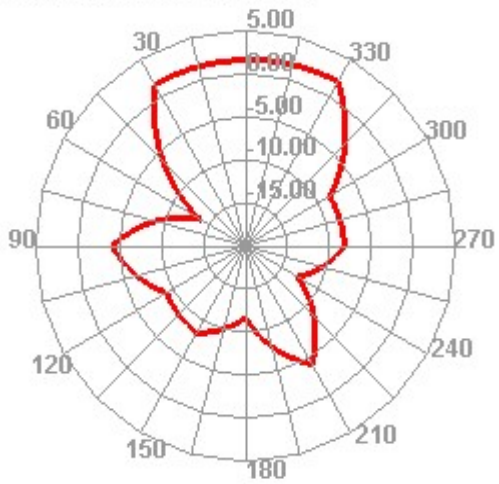
5750.000MHz H



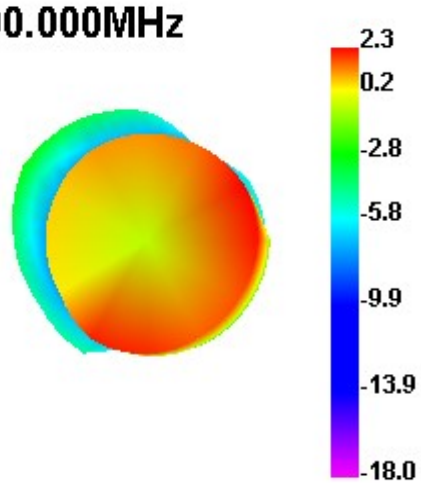
5750.000MHz E1



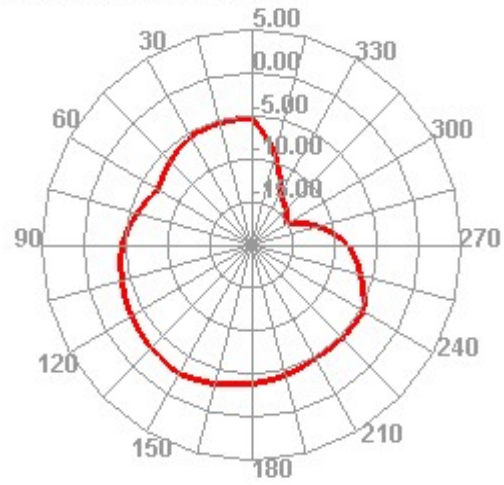
5750.000MHz E2



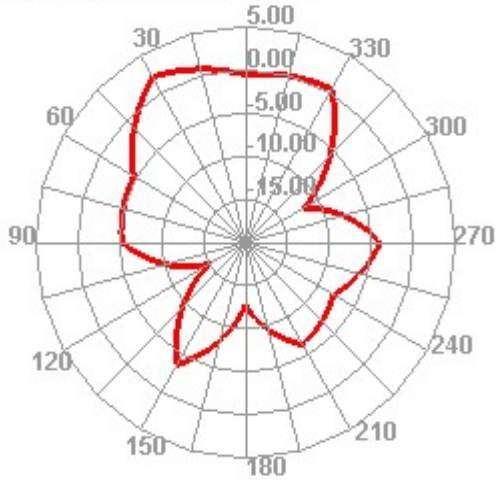
5800.000MHz



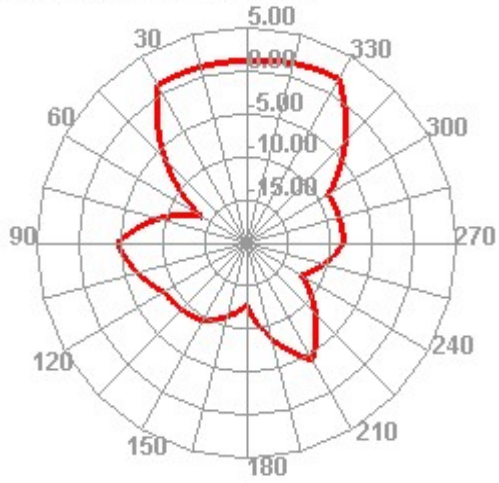
5800.000MHz H



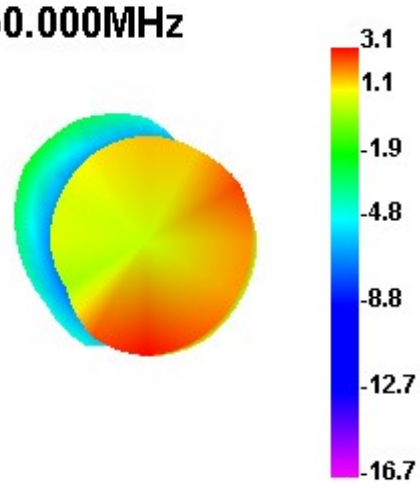
5800.000MHz E1



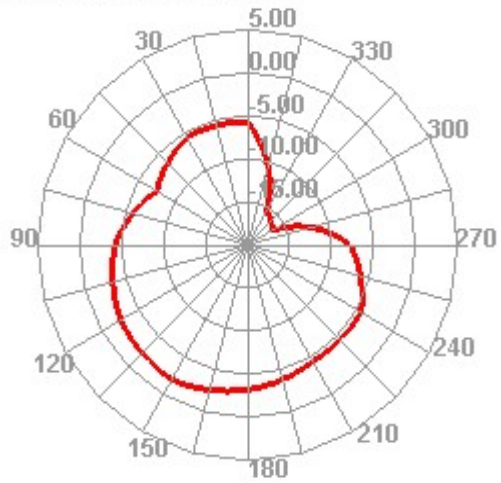
5800.000MHz E2



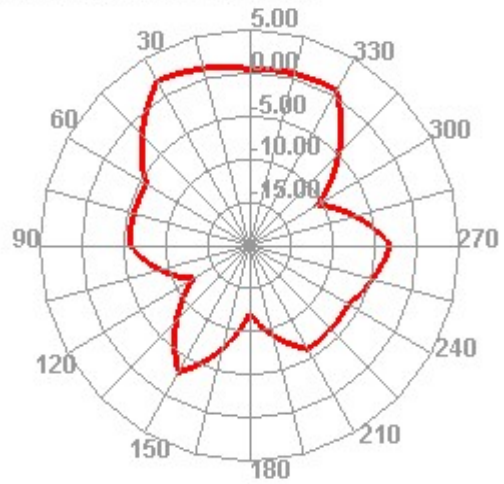
5850.000MHz



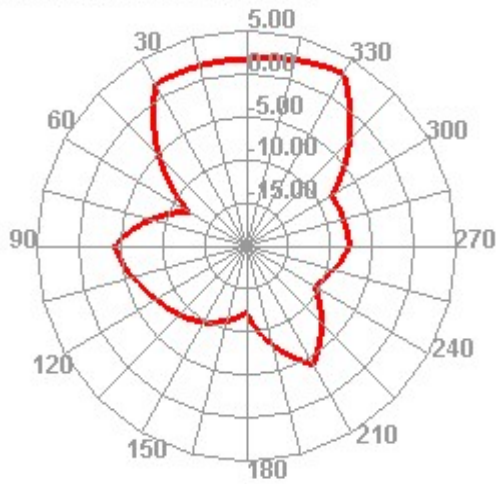
5850.000MHz H



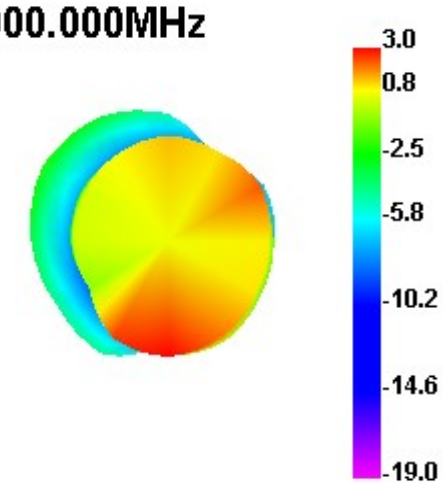
5850.000MHz E1



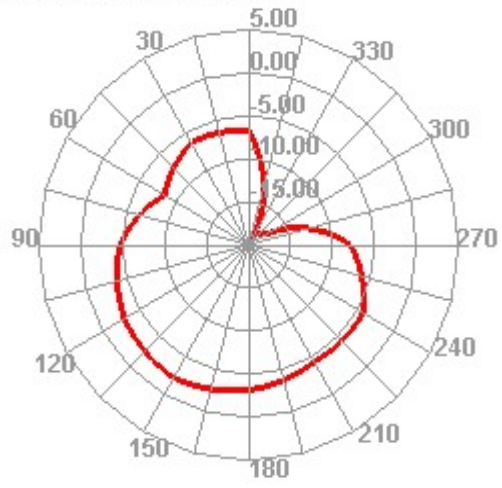
5850.000MHz E2



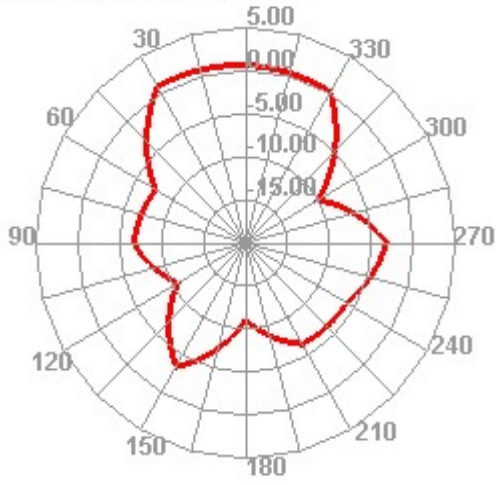
5900.000MHz



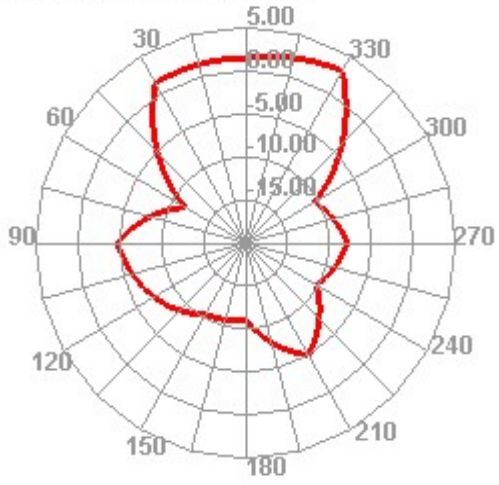
5900.000MHz H



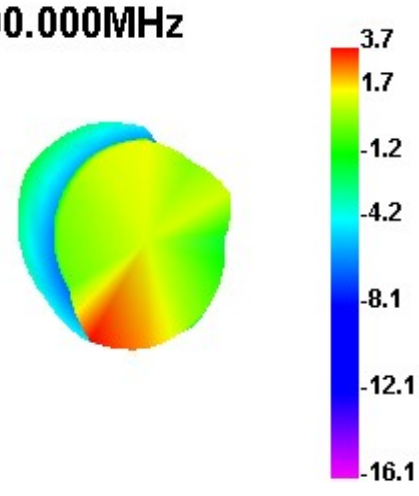
5900.000MHz E1



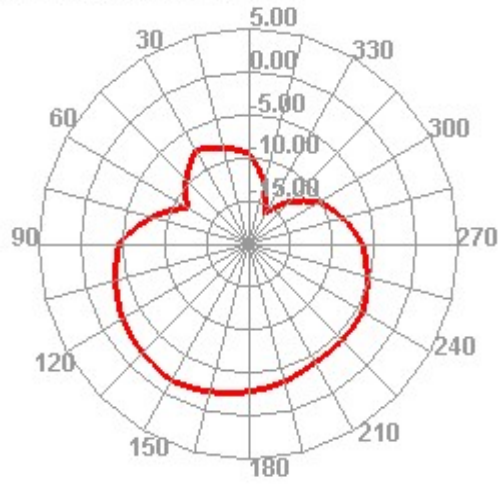
5900.000MHz E2



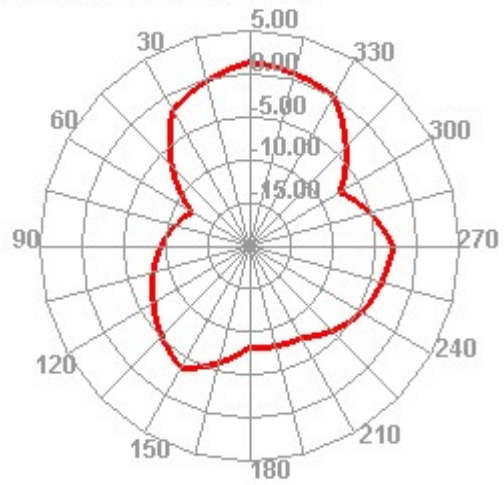
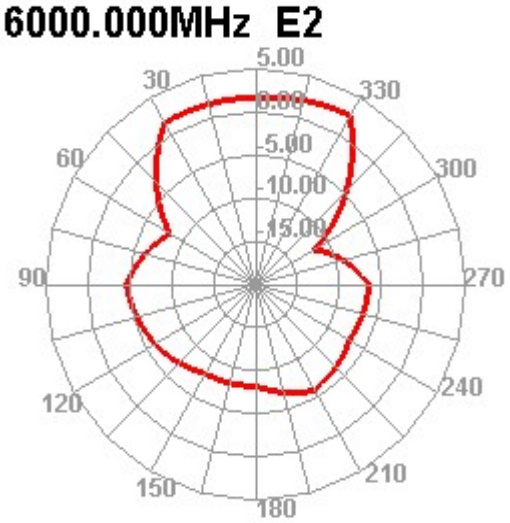
6000.000MHz



6000.000MHz H



6000.000MHz E1



6000.000MHz E2