

产品规格书

PRODUCT SPECIFICATION

Product description: 2.4G patch Antenna

Uni Link's part number: MS-2.4G-TP1

Issue Date: 2022-12-30

Note: 2400-2500MHz, 5100-5800MHz

male

Application and Features

Applications:

- 1: 2.4G/5.8G ISM band applications**
- 2: ISM, RFID applications**
- 3: Remote antenna location better reception**

Features :

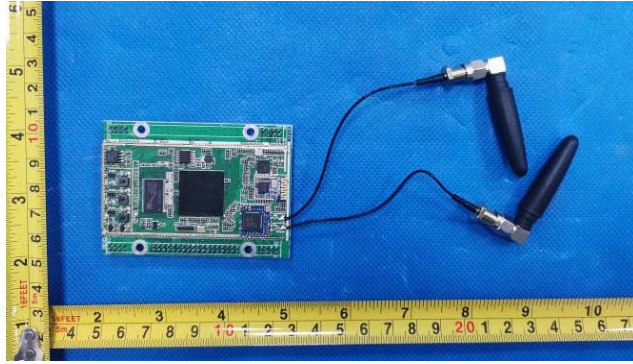
- 1: Compact size**
- 2: Mounting foam tape on back**
- 3: Indoor or outdoor use**

一、目录

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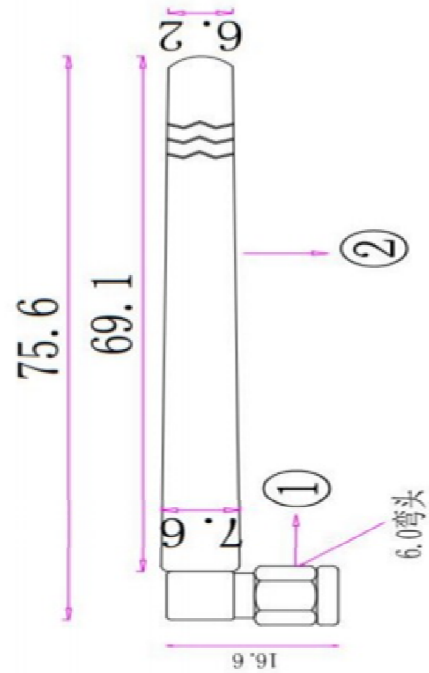
电性能指标 Electrical Specifications	
频率范围 Frequency Range (MHz)	2400-2500
频带宽度 Bandwidth (MHz)	100
输入阻抗 Input Impedance (Ω)	50
电压驻波比 V.S.W.R	≤ 1.5
增益 Gain (dBi)	2.4G:2dBi 5.8G:1.73dBi
最大输入功率 Max Input Power (w)	50
机械指标 Mechanical Specifications	
天线长度 Antenna Length (mm)	50*8
连接器型号 Connect Type	SMA male(用户指定)
外壳颜色 Radome Color	黑色 Black

2、产品图片 (PICTURE)



3、产品规格图(DRAWING)

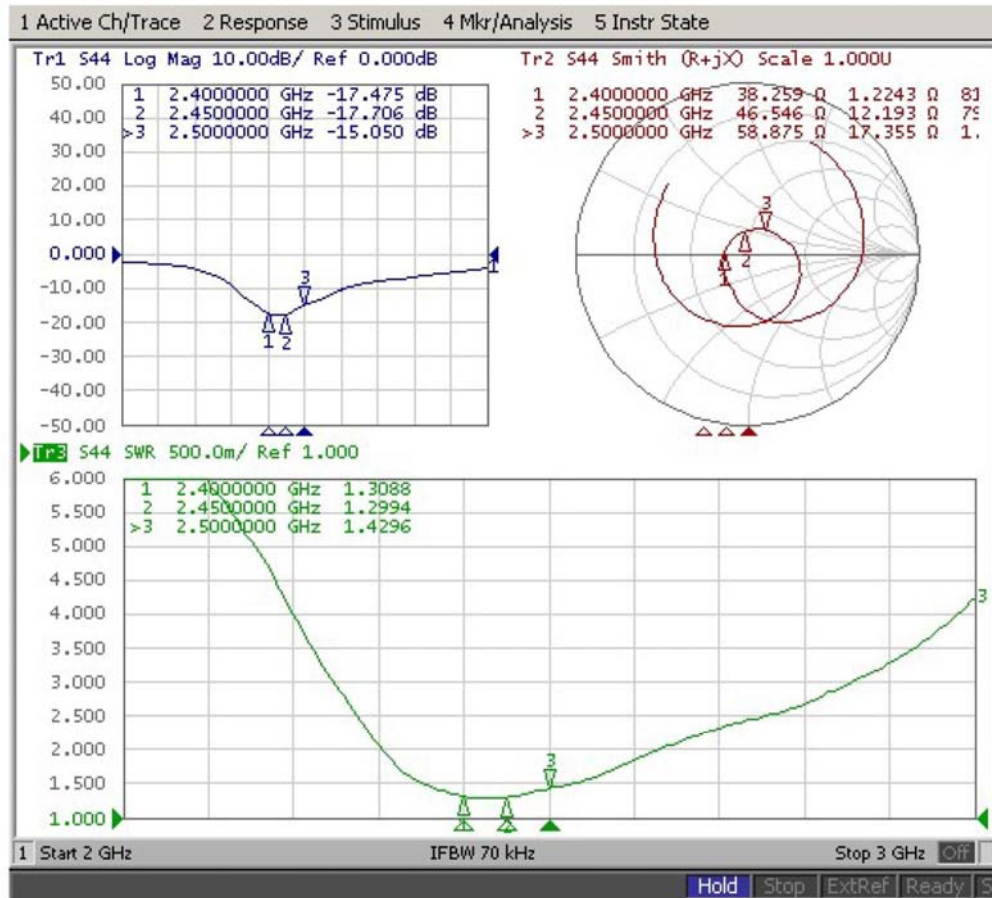
单位: mm 比例: 1:1



4、机械性能（MECHANICAL CHARACTERISTICS）

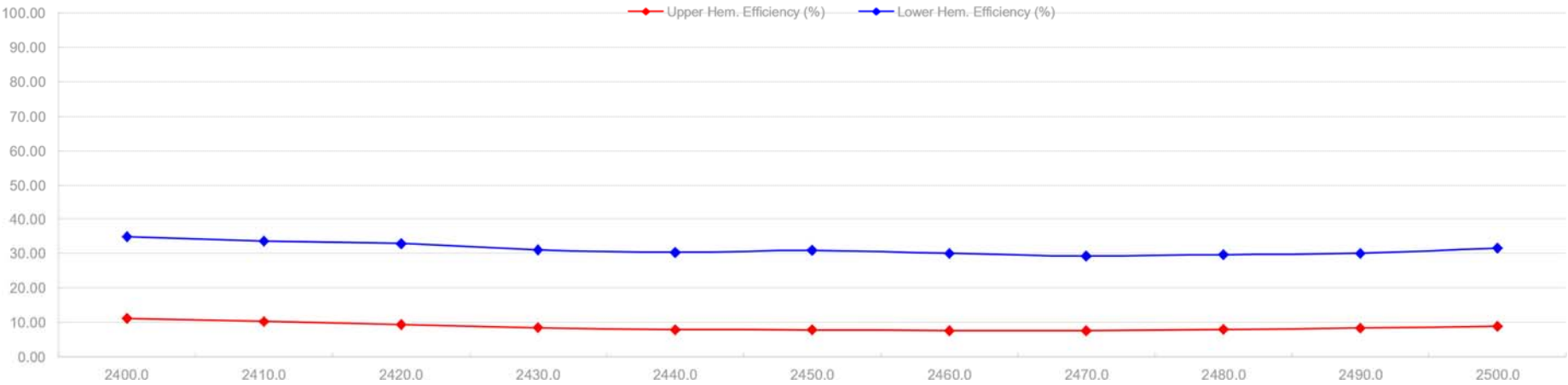
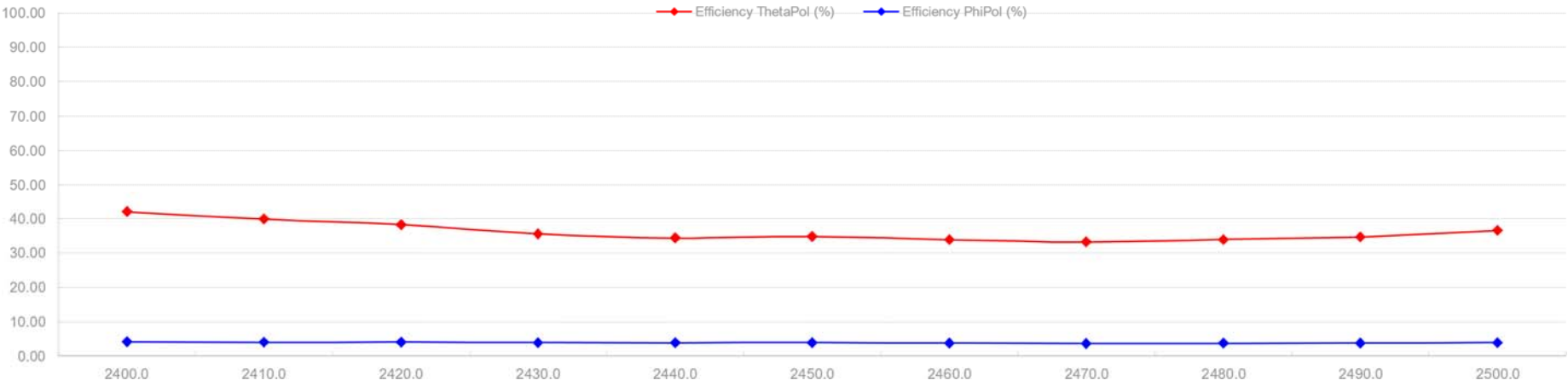
1	摇摆测试 BENDING TEST	放离接头 30CM 的线端上荷重 120g， 固定接头后进行摇摆测试，摇摆角度左 右各 60 度，摇摆 1000 次后测试特性。 Put load 120g to 30cm cable from the end of the connector, fixed joints, swaying test at an angle of 60 degrees , test features after 1000 times	特性无任何现象显 示电器性能之损坏。 after 1000 times test no visible damage
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7、驻波图（VSWR）

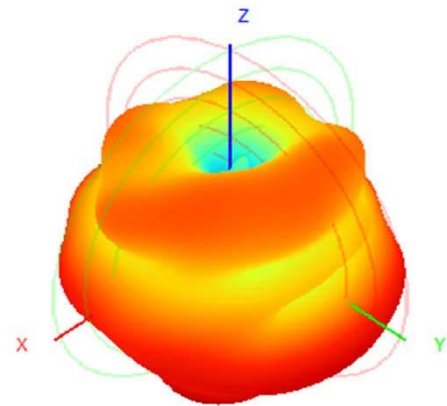


 科信无线											
Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Efficiency (dBi)	-3.36	-3.57	-3.74	-4.03	-4.17	-4.11	-4.24	-4.33	-4.24	-4.15	-3.93
Gain (dBi)	1.98	1.97	1.90	1.89	1.91	2.0	1.97	1.94	1.93	1.92	1.95
Efficiency (%)	46.11	43.91	42.30	39.55	38.26	38.78	37.65	36.90	37.67	38.49	40.48
Directivity (dB)	6.68	6.72	6.86	7.00	7.17	7.32	7.39	7.37	7.31	7.22	7.14
Peak Gain Position (Theta)	144.00	144.00	144.00	144.00	144.00	144.00	145.00	145.00	146.00	146.00	146.00
Peak Gain Position (Phi)	24.00	26.00	27.00	28.00	30.00	30.00	29.00	29.00	28.00	28.00	28.00
Efficiency ThetaPol (%)	41.95	39.80	38.17	35.54	34.32	34.80	33.83	33.16	33.88	34.65	36.47
Efficiency PhiPol (%)	4.16	4.11	4.13	4.01	3.94	3.98	3.82	3.74	3.78	3.84	4.01
Upper Hem. Efficiency (%)	11.21	10.30	9.41	8.51	7.96	7.88	7.67	7.66	8.02	8.39	8.91
Lower Hem. Efficiency (%)	34.90	33.61	32.90	31.05	30.30	30.90	29.98	29.24	29.65	30.09	31.57
T90(H)圆度	4.66	4.84	5.14	5.55	6.26	7.19	8.21	9.00	9.21	8.64	7.90
Gain 15deg (dBi)											
E1(XZ)波瓣宽度	25.00	26.00	26.00	25.00	25.00	25.00	25.00	25.00	24.00	24.00	24.00
E1(XZ)前后比	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2(YZ)波瓣宽度	21.00	20.00	20.00	43.00	43.00	43.00	43.00	43.00	42.00	42.00	41.00
E2(YZ)前后比	1.63	1.61	1.38	0.98	0.80	0.62	0.50	0.35	0.20	0.04	0.03
最大增益处轴比(P)	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
仰角 10 度最差(大)轴比(P)	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Hc(XY)波瓣宽度	317.00	315.00	274.00	270.00	268.00	268.00	267.00	267.00	267.00	270.00	271.00
Hc(XY)前后比	0.07	0.15	0.28	0.37	0.39	0.45	0.65	0.72	0.56	0.28	0.06
Empty											

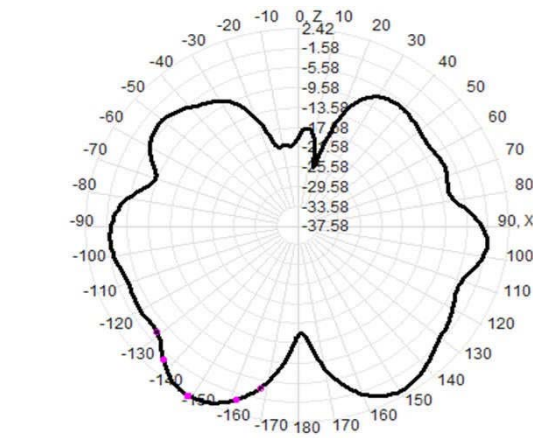
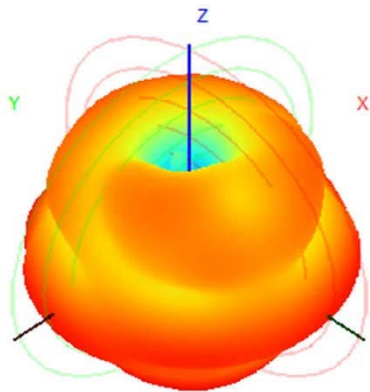




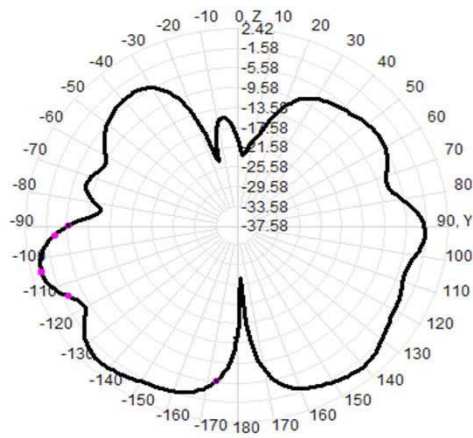
2400.0MHz H+V, Eff: 46.1%
View



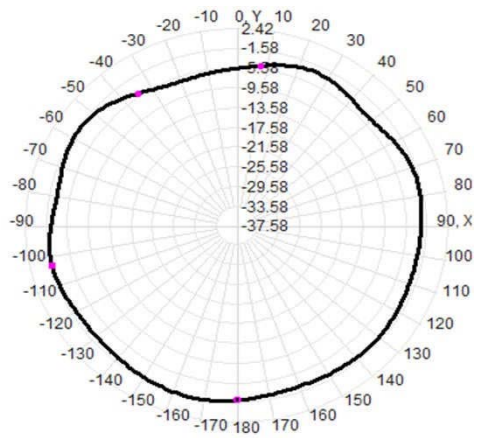
Back
2400.0MHz Total(E1-XZ), Max=



2.42dBi2400.0MHz Total(E2-YZ), Max= 0.43dBi
3.31

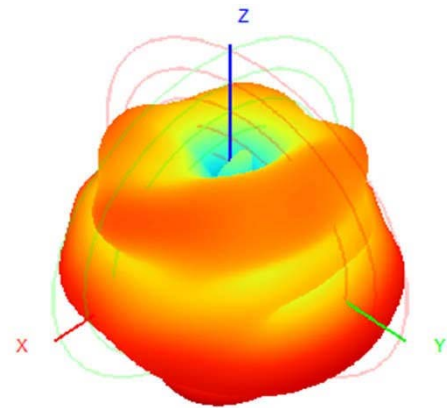


Total(H-XY), Max= -1.79dBi, CirD=4.66

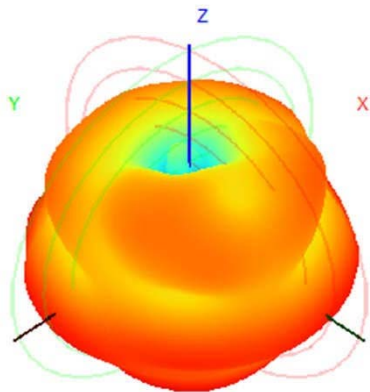


Total(H-XY), Max= -2.13dBi,
CirD=4.84

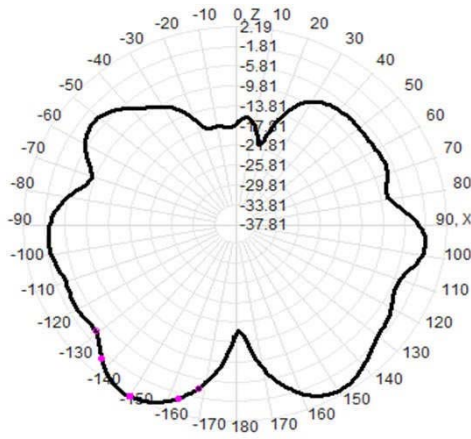
2410.0MHz H+V, Eff: 43.9%



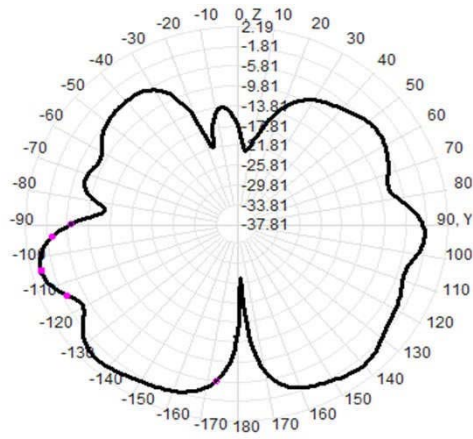
Back View



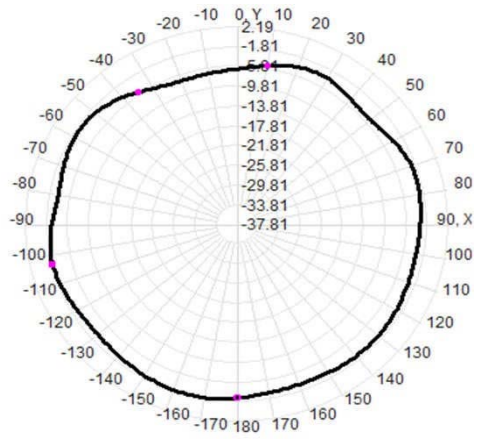
2410.0MHz Total(E1-XZ), Max= 2.19dBi



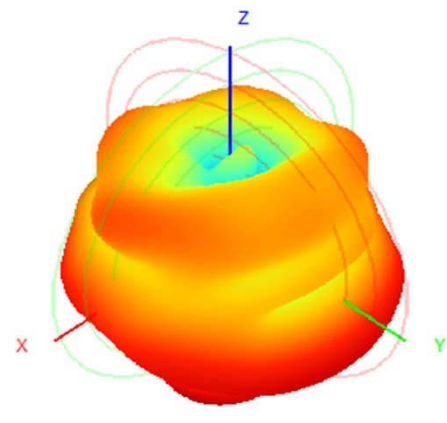
2410.0MHz Total(E2-YZ), Max= 0.30dBi



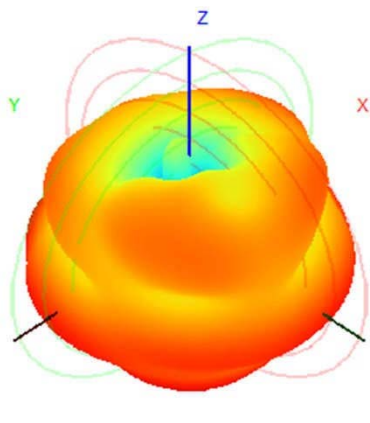
Total(H-XY), Max= -2.13dBi,
CirD=4.84



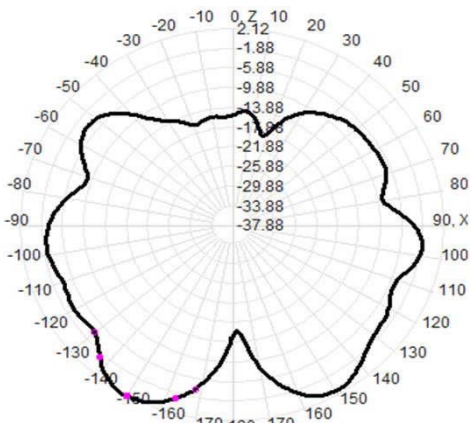
2420.0MHz H+V, Eff: 42.3%



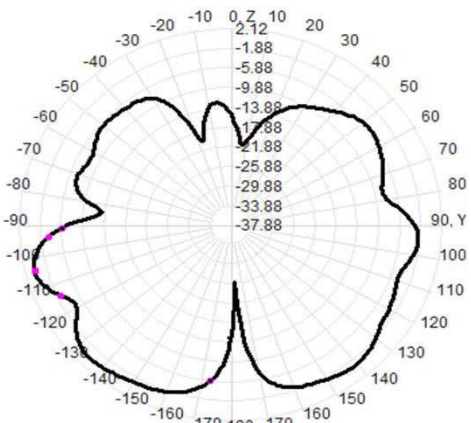
Back View



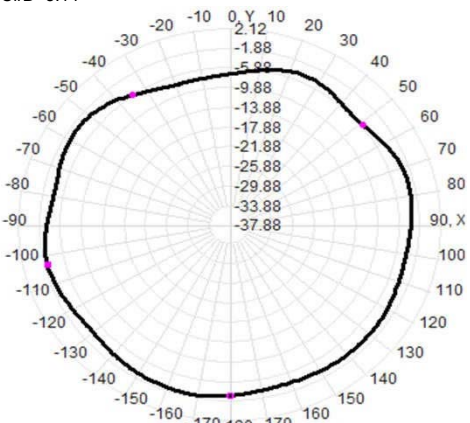
2420.0MHz Total(E1-XZ), Max= 2.12dBi



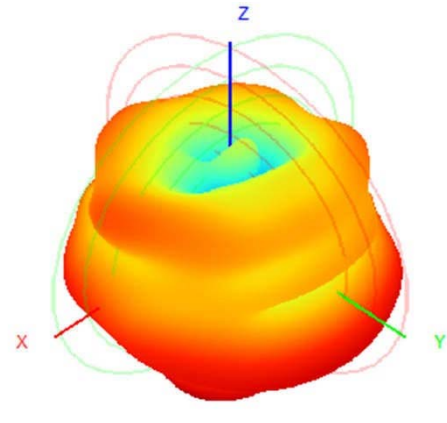
2420.0MHz Total(E2-YZ), Max= 0.25dBi



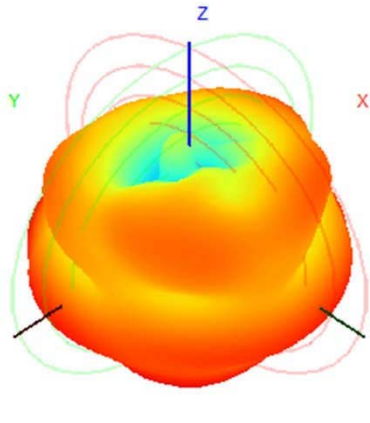
Total(H-XY), Max= -2.51dBi, CirD=5.14



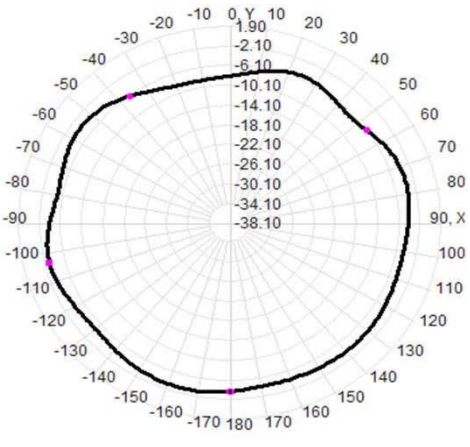
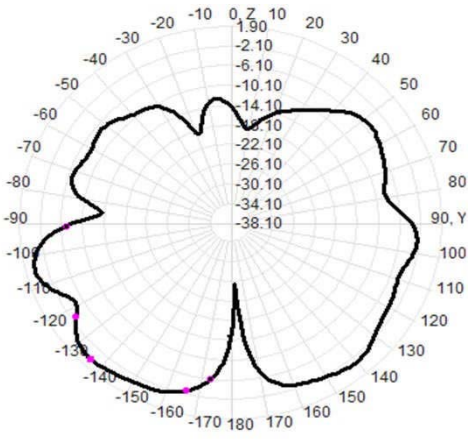
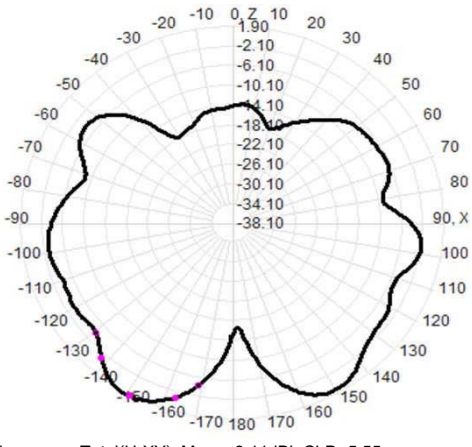
2430.0MHz H+V, Eff: 39.6%



Back View 2430.0MHz Total(E1-XZ), Max= 1.90dBi



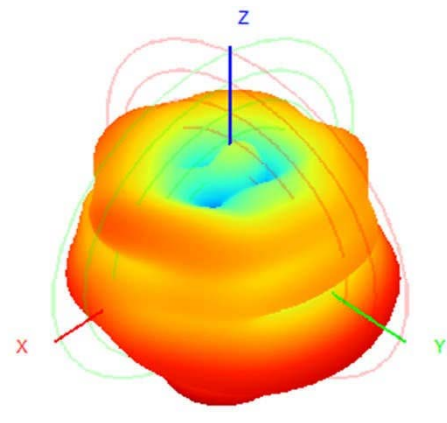
2430.0MHz Total(E2-YZ), Max= -



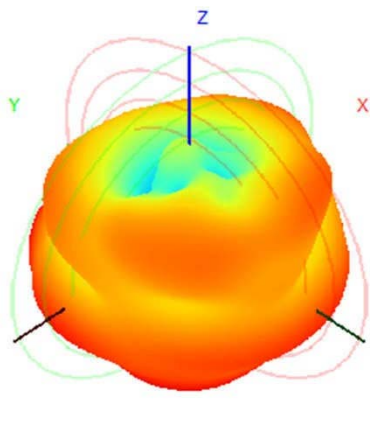
0.00dBi

Total(H-XY), Max= -3.11dBi, CirD=5.55

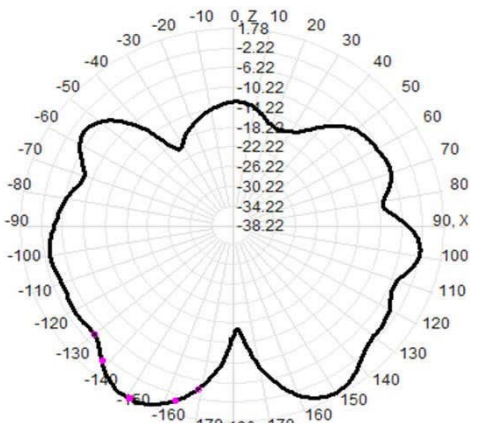
2440.0MHz H+V, Eff: 38.3%



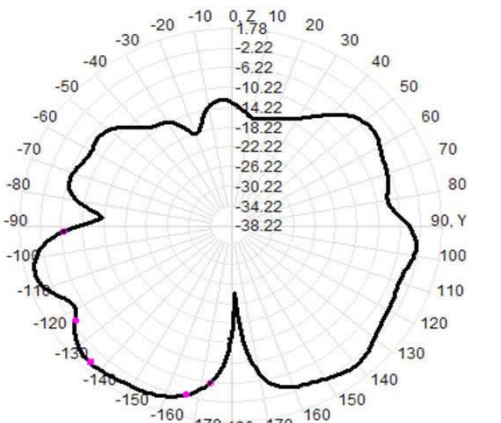
Back View



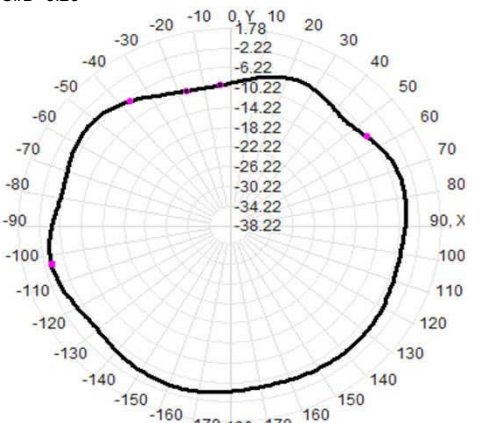
2440.0MHz Total(E1-XZ), Max= 1.78dBi



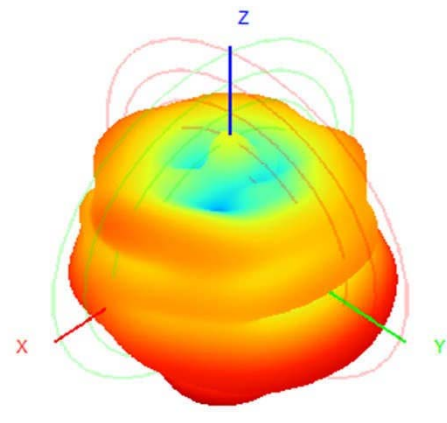
2440.0MHz Total(E2-YZ), Max= 0.11dBi



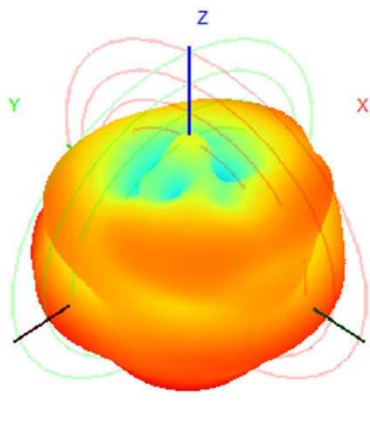
Total(H-XY), Max= -3.68dBi, CirD=6.26



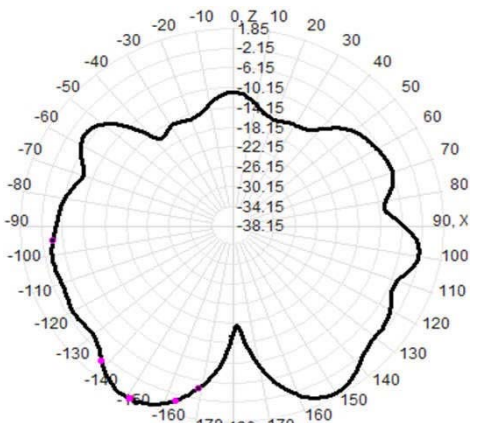
2450.0MHz H+V, Eff: 38.8%



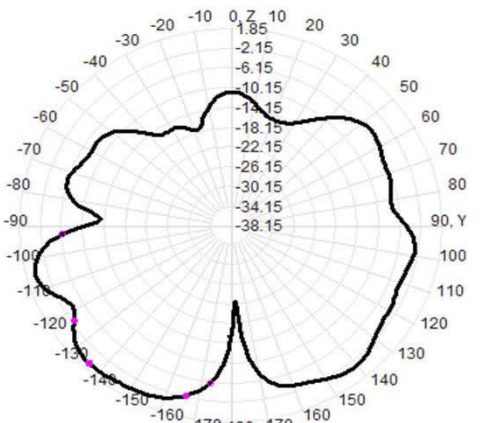
Back View



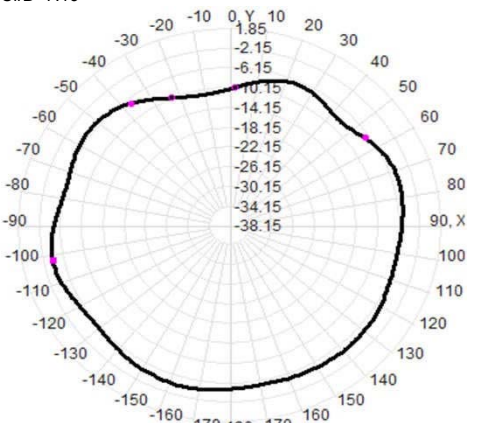
2450.0MHz Total(E1-XZ), Max= 1.85dBi



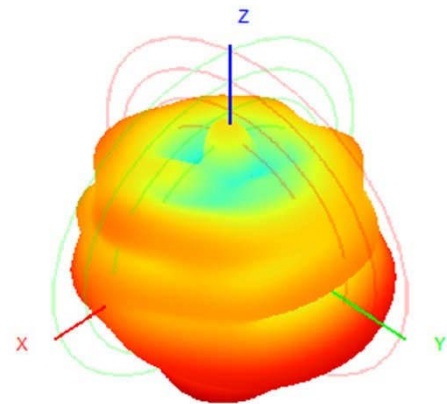
2450.0MHz Total(E2-YZ), Max= 0.38dBi



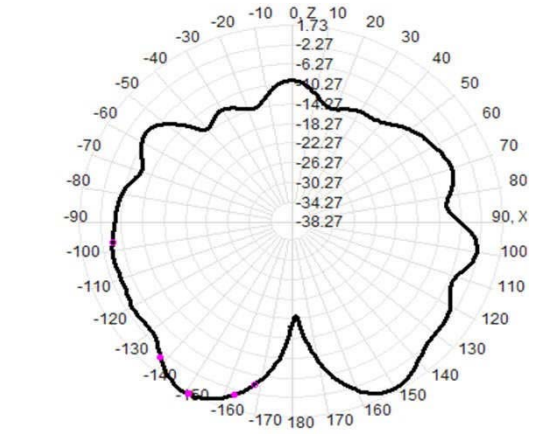
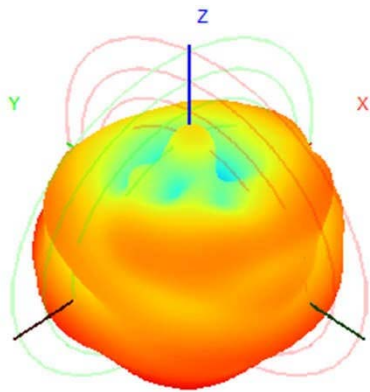
Total(H-XY), Max= -4.01dBi, CirD=7.19



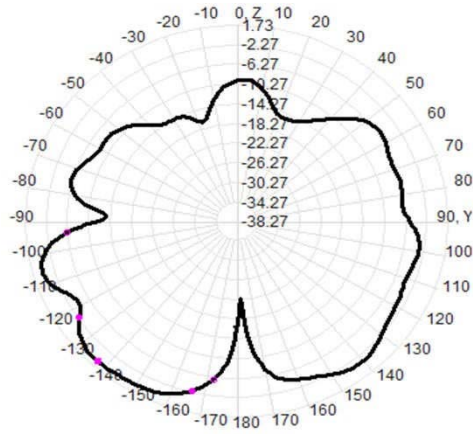
2460.0MHz H+V, Eff: 37.7%
View



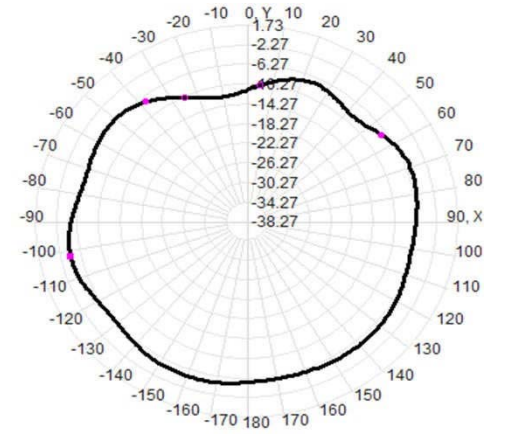
Back
2460.0MHz Total(E1-XZ), Max=



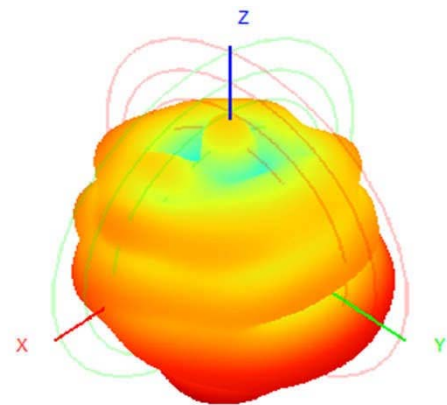
1.73dBi2460.0MHz Total(E2-YZ), Max= 0.38dBi
3.14



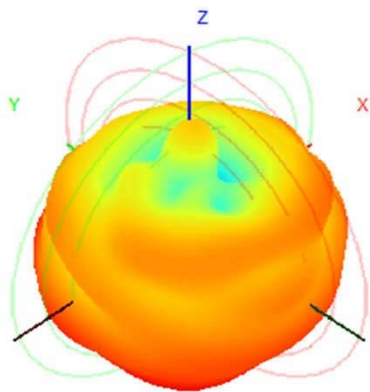
Total(H-XY), Max= -4.29dBi, CirD=8.21



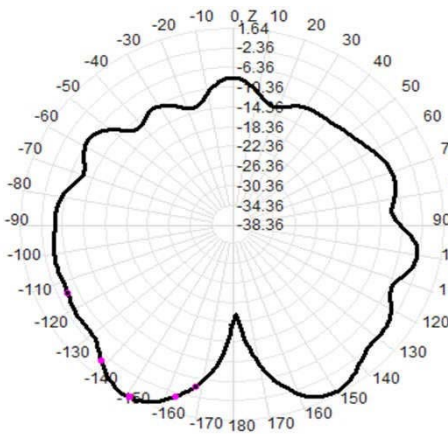
2470.0MHz H+V, Eff: 36.9%



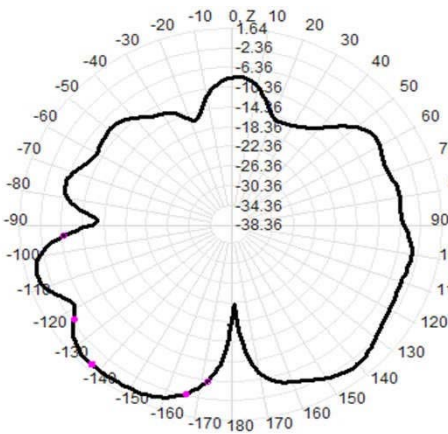
Back View



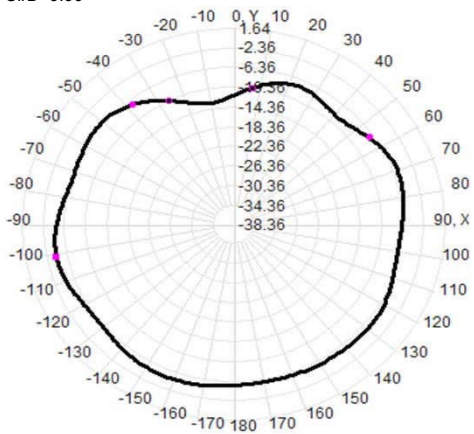
2470.0MHz Total(E1-XZ), Max= 1.64dBi



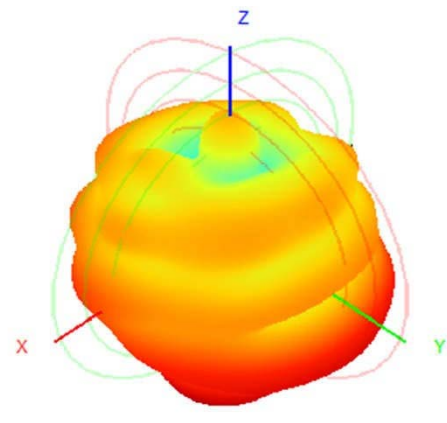
2470.0MHz Total(E2-YZ), Max= 0.29dBi



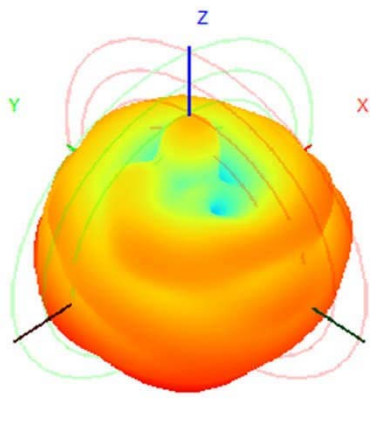
Total(H-XY), Max= -4.26dBi, CirD=9.00



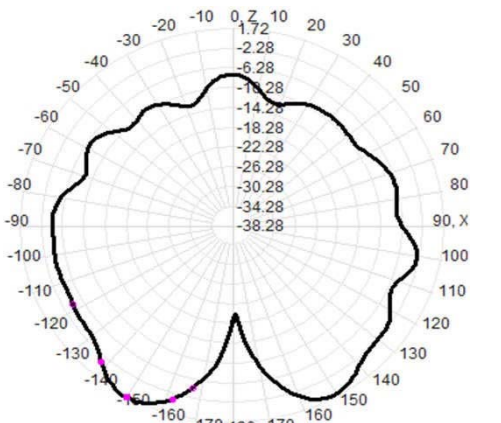
2480.0MHz H+V, Eff: 37.7%



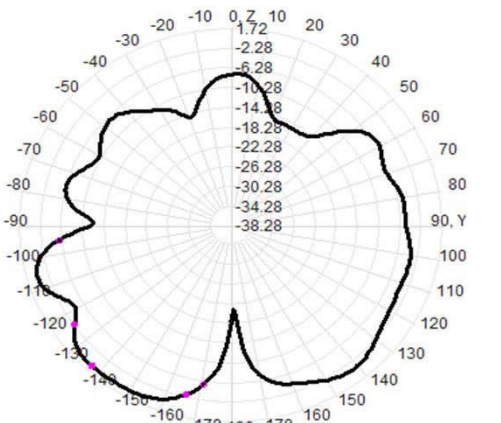
Back View



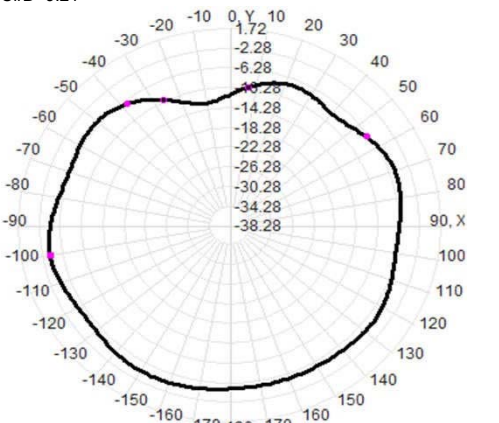
2480.0MHz Total(E1-XZ), Max= 1.72dBi



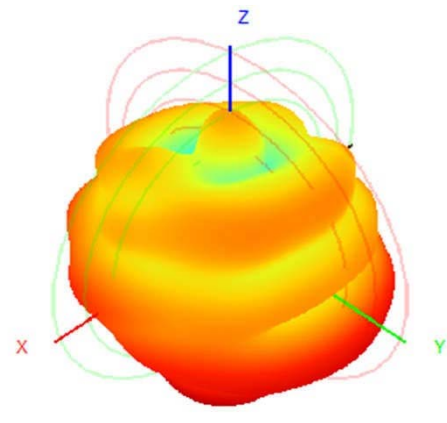
2480.0MHz Total(E2-YZ), Max= 0.32dBi



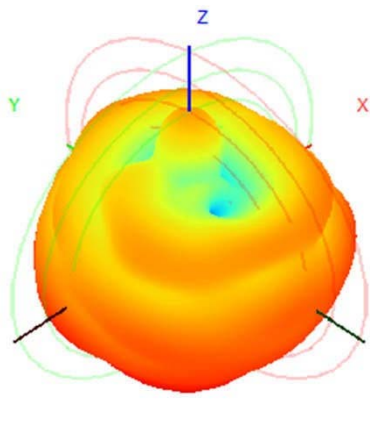
Total(H-XY), Max= -3.85dBi, CirD=9.21



2490.0MHz H+V, Eff: 38.5%

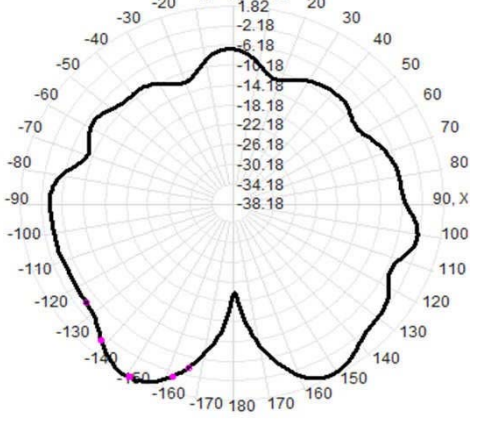


Back View 2490.0MHz Total(E1-XZ), Max= 1.82dBi

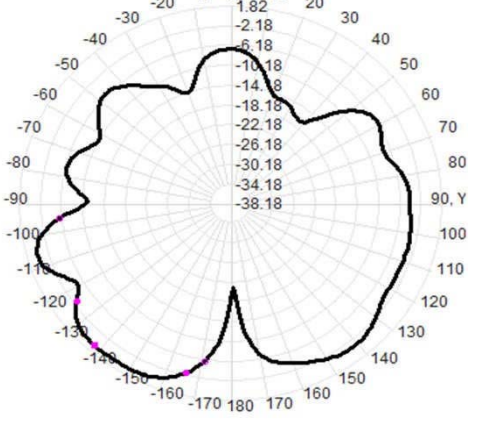


0.26dBi

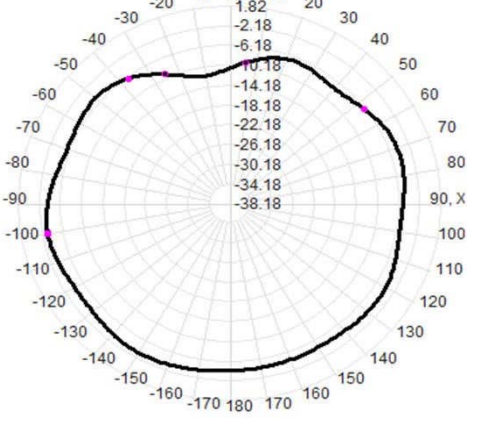
2490.0MHz Total(E1-XZ), Max= 1.82dBi



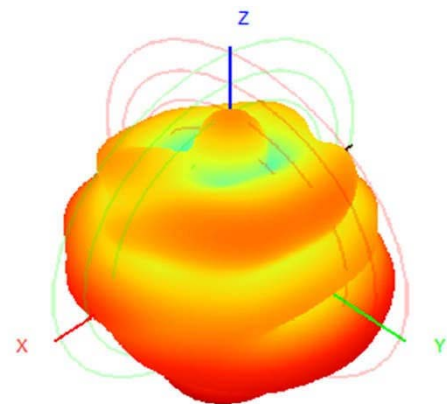
2490.0MHz Total(E2-YZ), Max=



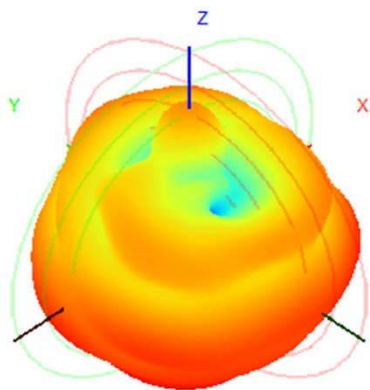
Total(H-XY), Max= -3.30dBi, CirD=8.64



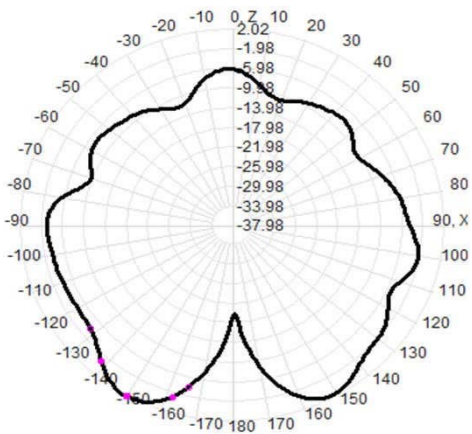
2500.0MHz H+V, Eff: 40.5%



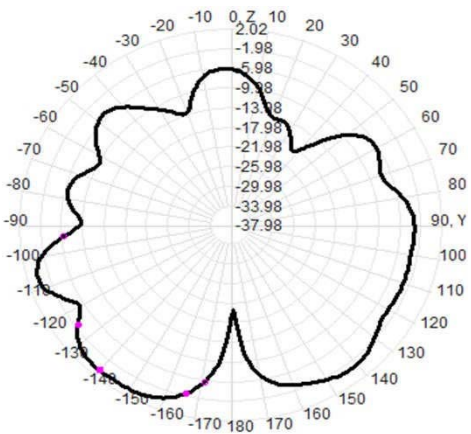
Back View



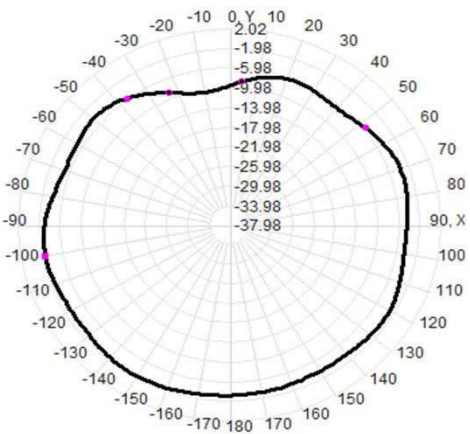
2500.0MHz Total(E1-XZ), Max= 2.02dBi

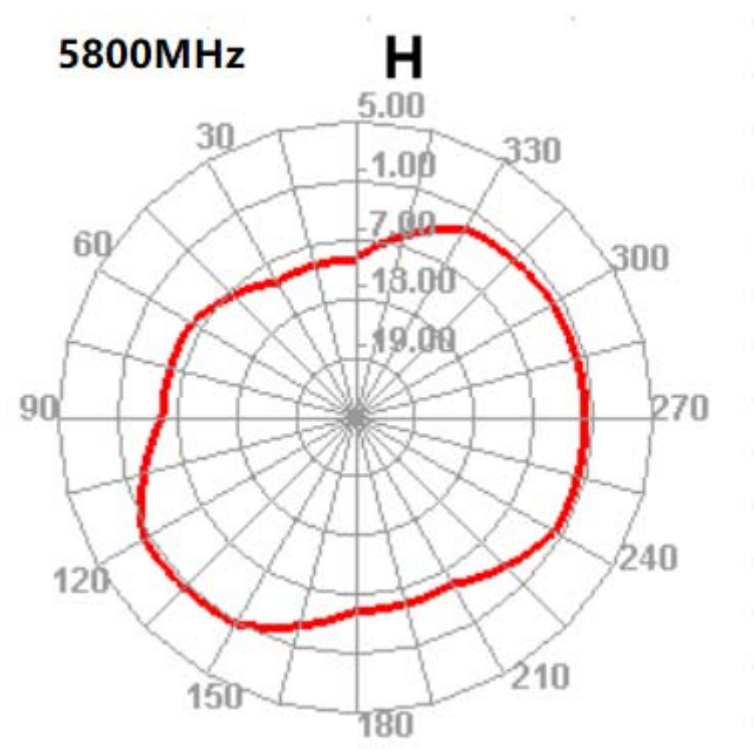
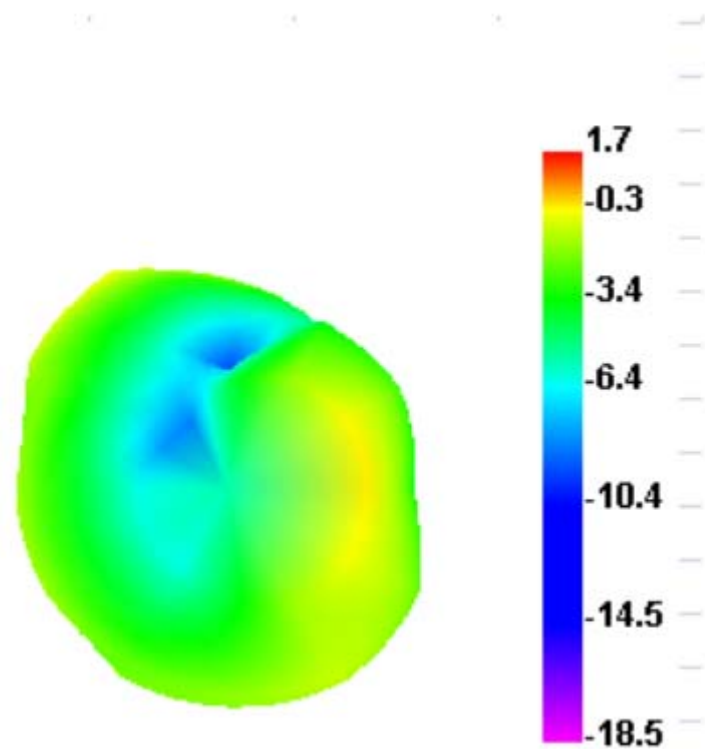


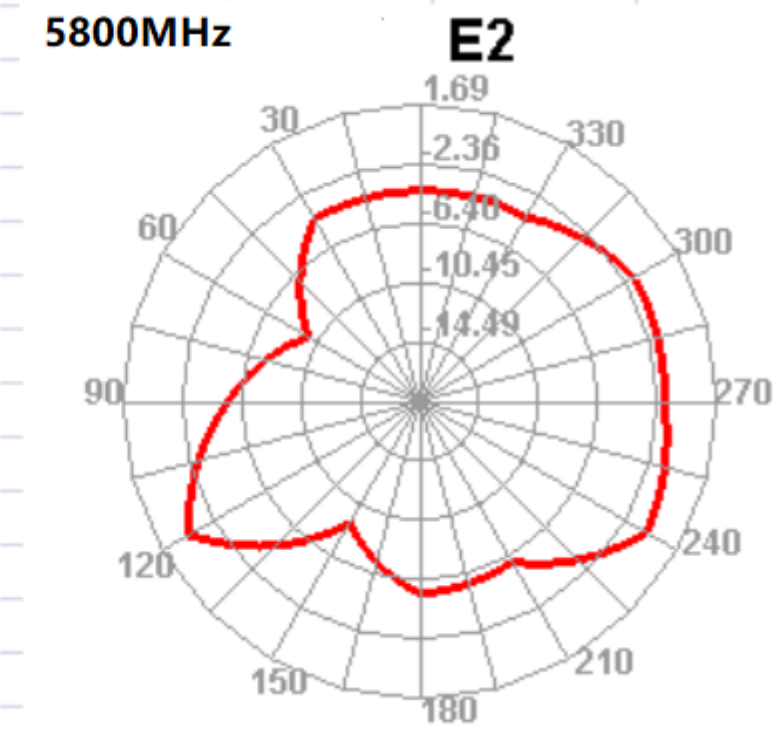
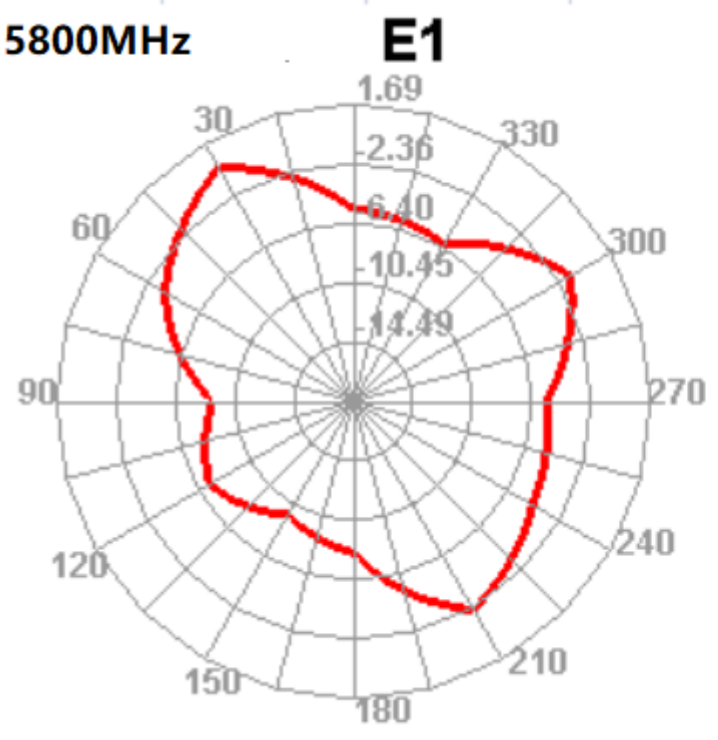
2500.0MHz Total(E2-YZ), Max= 0.37dBi



Total(H-XY), Max= -2.62dBi, CirD=7.90







5800MHz

Effi (%%)	Effi (dB)	Gain (dBi)	Gain (dBd)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
50.67	-2.95	1.73	-0.42	1.73	-18.33	51.53	51.61