

东莞市淼泰电子有限公司
Dongguan MiaoTEC Electronics Co.,Ltd.
承认书
Specification For Approval

品名
(DESCRIPTION):

RF Antenna ASSEMBLY
1.13 Cable 黑色 L50mm + 2.4/5.8G FPC+IPEX PLUG

客户料号
(PART NO):

CP0850

料 号
(PART NO):

500101-00110-016R

送样日期
(DATE):

2025. 02. 19

版本
Revision:

A1

承认号码
(APPROVED
NO):

MT. 承-250219-002

CUSTOMER APPROVED BY

APPROVAL

CHIEF

SUPERVISOR

SUPPLIER SIGNATURE

APPROVAL

CHECK

DESIGN

东莞市森泰电子有限公司
Dongguan MiaoTEC Electronics Co.,Ltd.

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Spec Item

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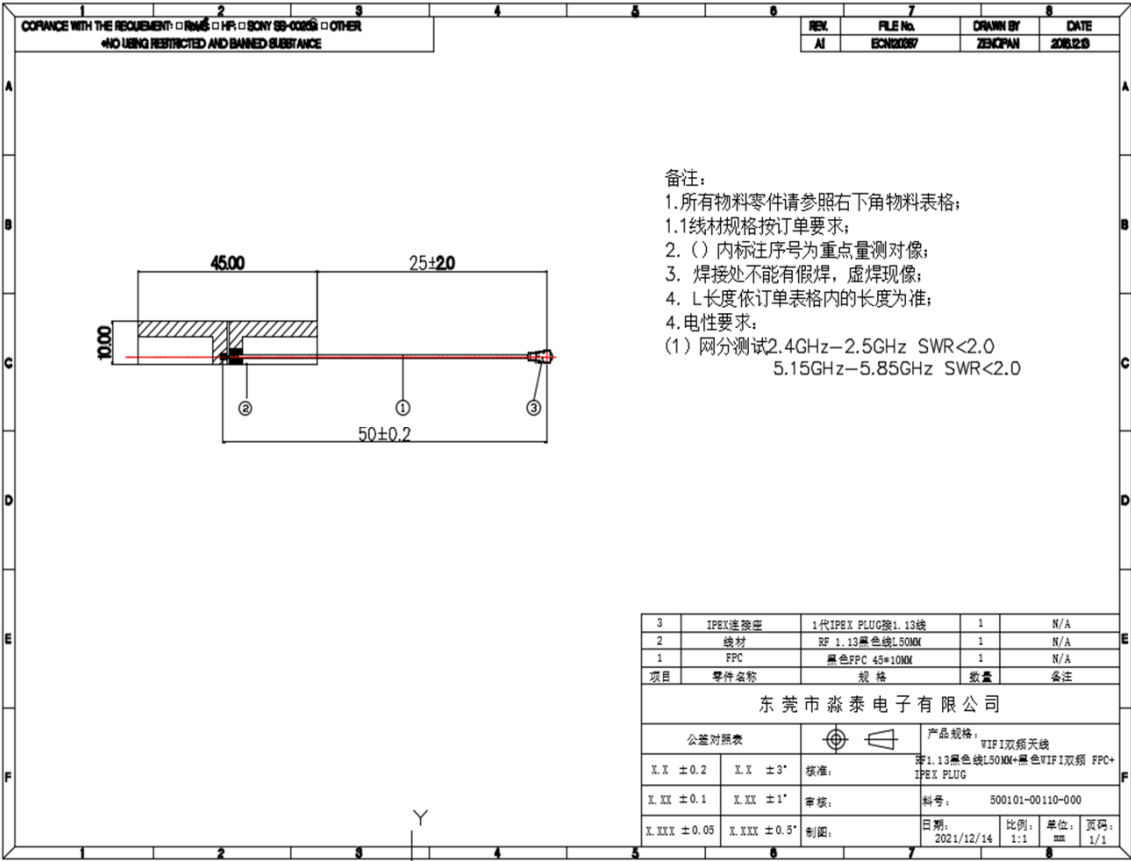
电气参数 Electrical Specifications		
频率范围 Frequency range (MHz)	2.4-2.5GHz	5.15-5.85GHz
带宽 Bandwidth (MHz)	100MHz	700MHz
增益 Gain (dBi)	4dBi	2dBi
半功率波瓣宽度 Half-power beam width(°)	H:360 V:14	
电压驻波比 VSWR	≤3.5	
输入阻抗 Input Impedance(Ω)	50	
极化方式 Polarization	垂直Vertical	
最大功率 Maximum input power (W)	50	
雷电保护 Lightning protection	直流接地 DC Ground	
接头型号 Input connector type	1代IPEX PLUG	
机械参数 Mechanical Specifications		
天线尺寸 Dimensions (mm)	见工程图	
天线重量 Antenna weight (kg)	2g	
工作温度 Operating temperature (℃)	~ 40-55	
天线颜色 Antenna color	White(黑色)	

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产品图纸

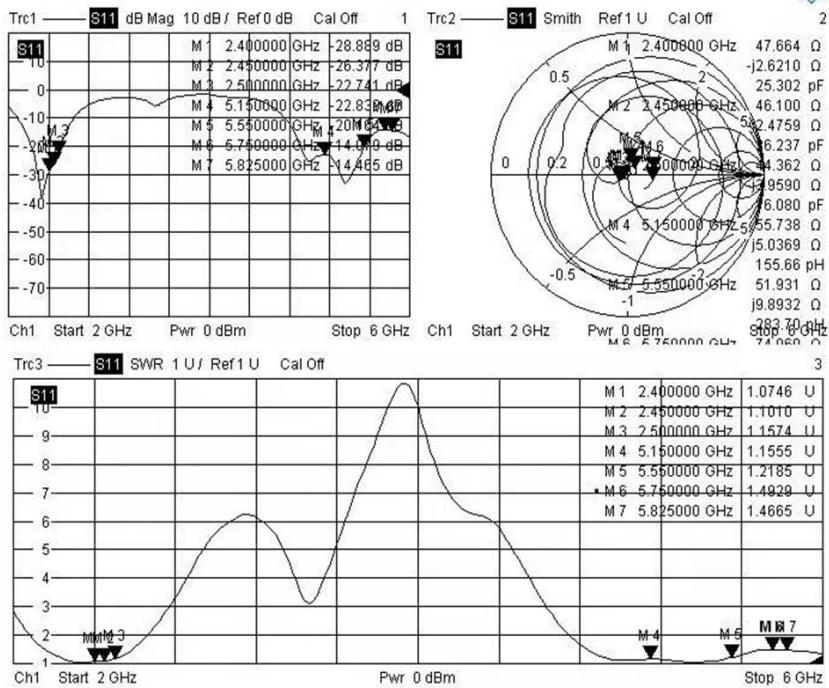
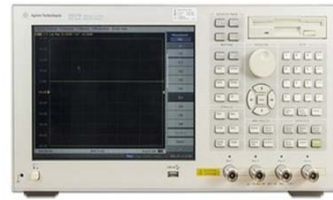
Product drawing



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S Parameter Test

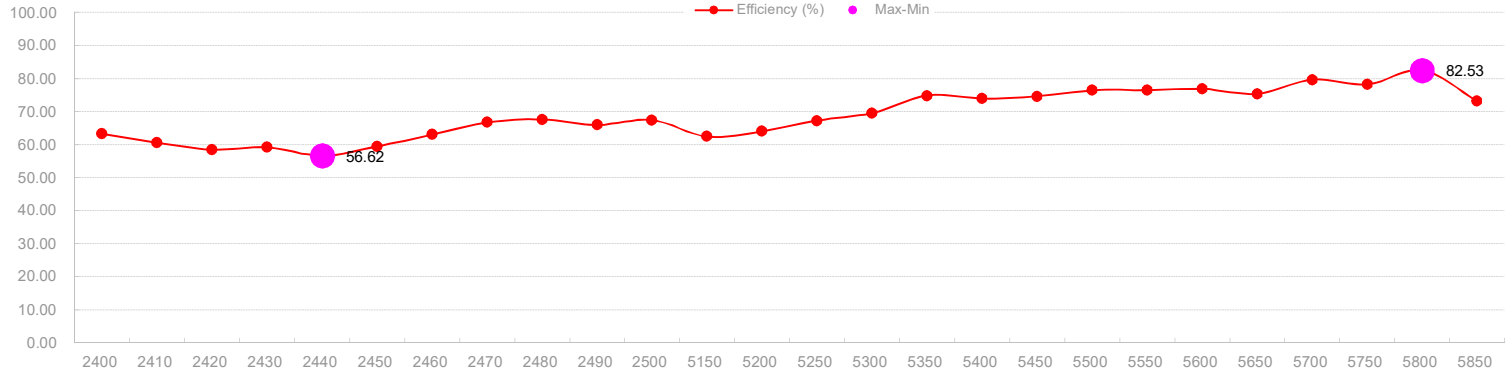
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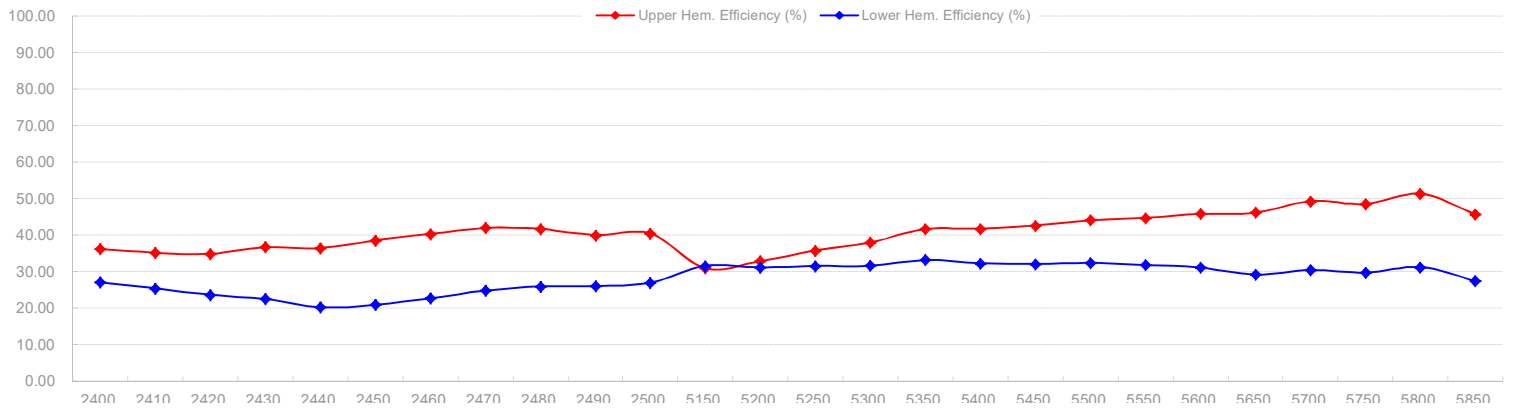
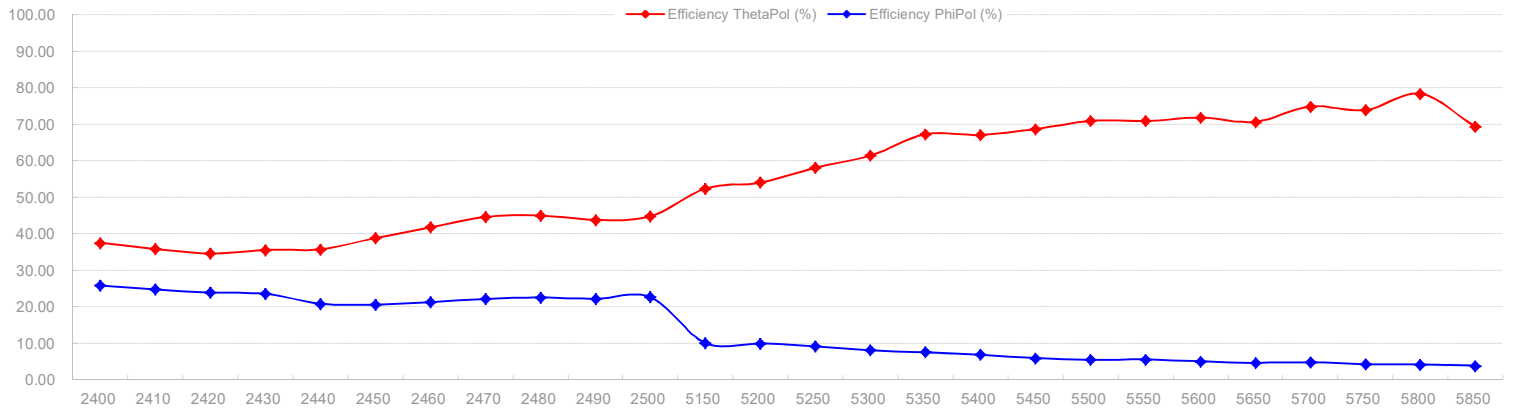
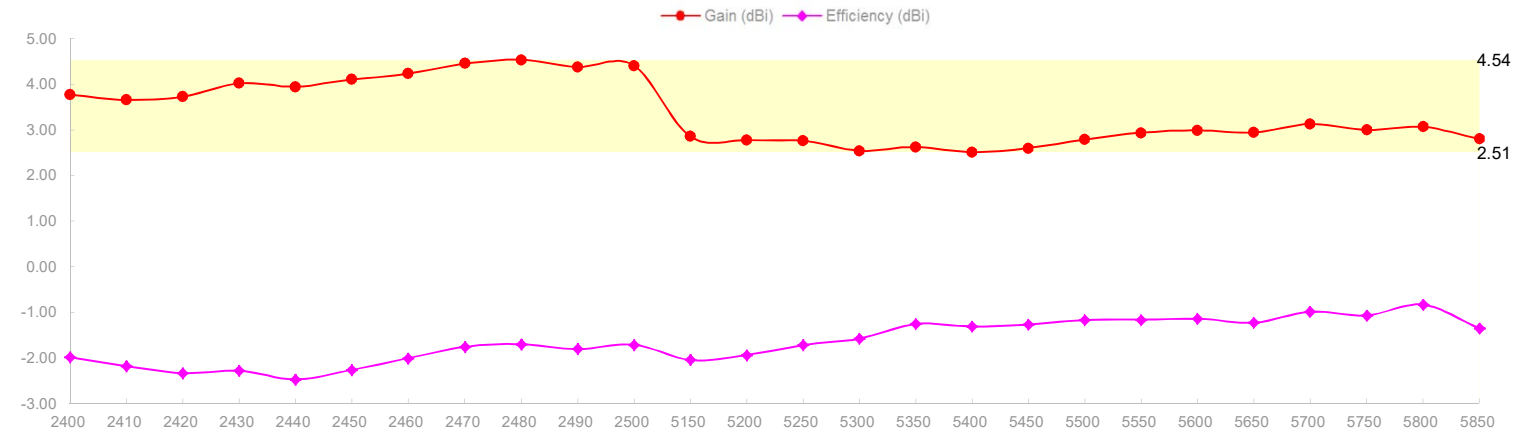


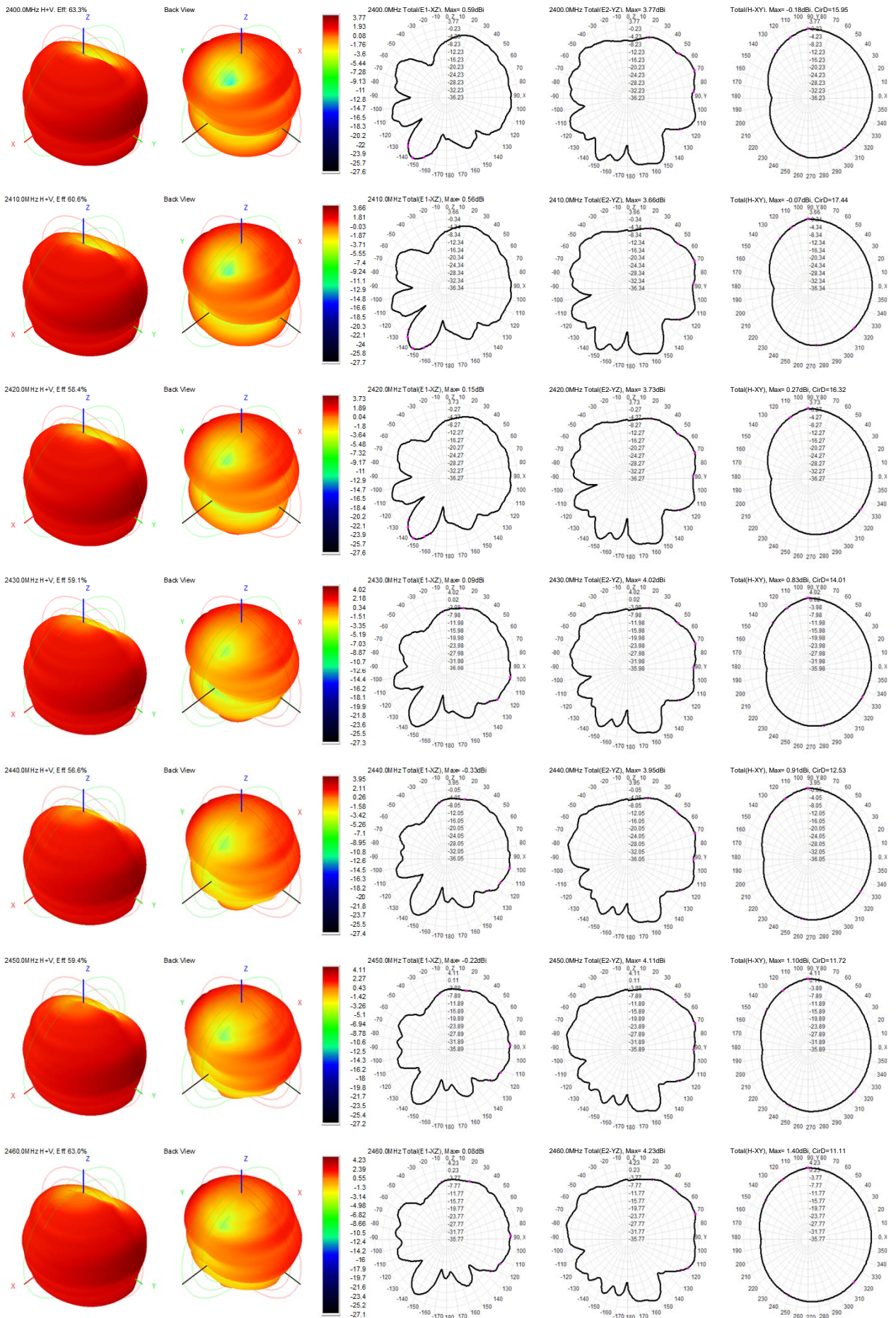


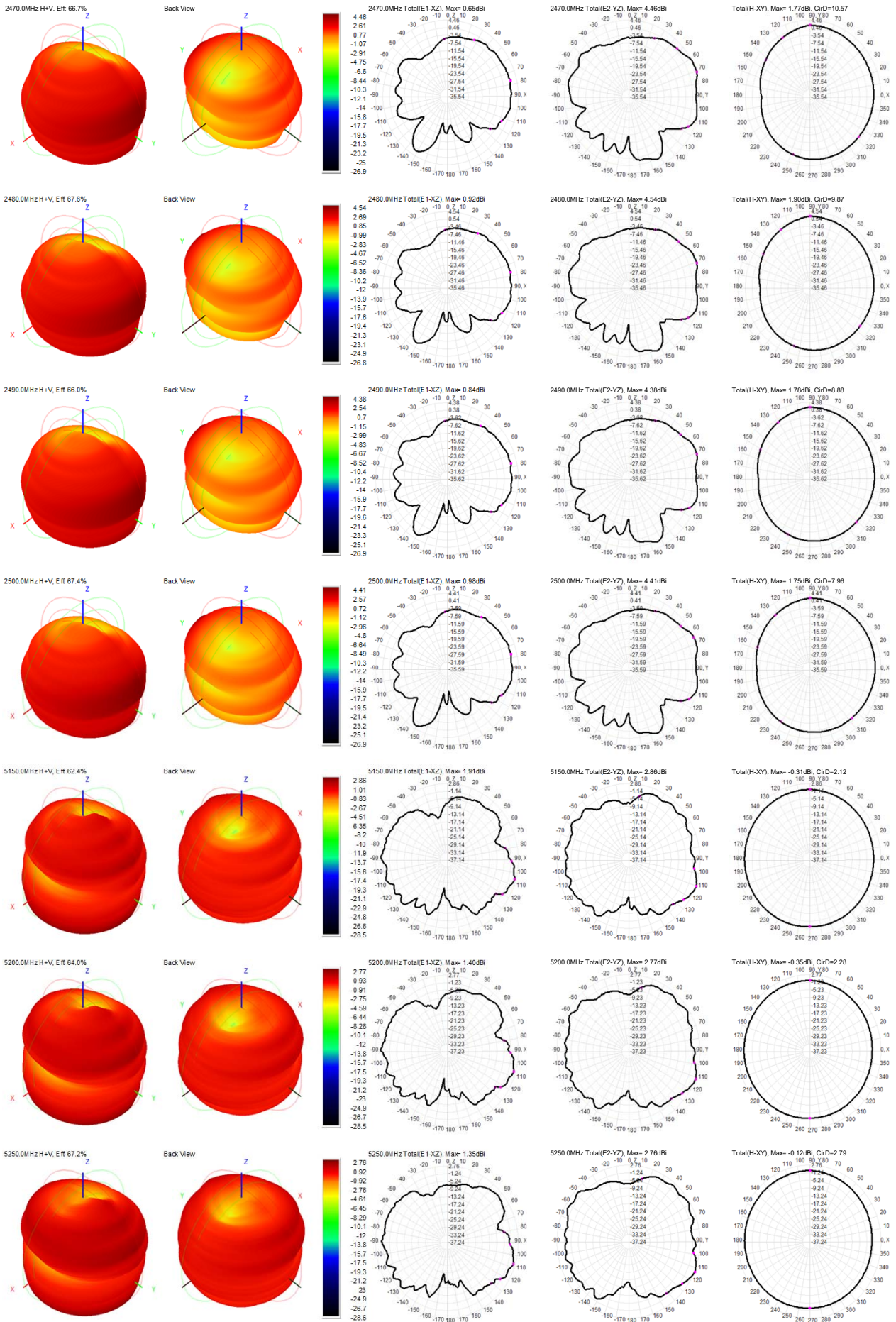
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Frequency ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500	5150	5200	5250	5300	5350	5400	5450	5500	5550	5600	5650	5700	5750	5800	5850
Efficiency (dBi)	-1.99	-2.18	-2.33	-2.28	-2.47	-2.26	-2.01	-1.76	-1.70	-1.81	-1.71	-2.05	-1.94	-1.72	-1.58	-1.26	-1.31	-1.27	-1.17	-1.16	-1.14	-1.23	-0.99	-1.07	-0.83	-1.36
Gain (dBi)	3.77	3.66	3.73	4.02	3.95	4.11	4.23	4.46	4.54	4.38	4.41	2.86	2.77	2.76	2.54	2.63	2.51	2.60	2.79	2.94	2.99	2.94	3.13	3.00	3.06	2.80
Efficiency (%)	63.26	60.57	58.45	59.15	56.62	59.41	63.01	66.72	67.58	65.97	67.40	62.42	64.00	67.25	69.55	74.80	73.97	74.61	76.41	76.50	76.87	75.35	79.65	78.22	82.53	73.14
Directivity (dB)	5.76	5.83	6.06	6.30	6.42	6.37	6.24	6.21	6.24	6.19	6.12	4.90	4.71	4.49	4.12	3.89	3.82	3.87	3.95	4.10	4.14	4.17	4.12	4.07	3.90	4.16
Peak Gain Position (Theta)	69.00	69.00	70.00	71.00	70.00	70.00	71.00	71.00	71.00	71.00	65.00	110.00	111.00	113.00	113.00	114.00	114.00	115.00	59.00	61.00	63.00	64.00	67.00	70.00	65.00	62.00
Peak Gain Position (Phi)	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Efficiency ThetaPol (%)	37.48	35.84	34.61	35.60	35.77	38.83	41.75	44.58	45.00	43.82	44.78	52.39	54.07	58.13	61.47	67.27	67.11	68.68	70.96	70.95	71.83	70.70	74.91	73.93	78.39	69.31
Efficiency PhiPol (%)	25.78	24.72	23.84	23.55	20.85	20.59	21.25	22.14	22.59	22.15	22.61	10.03	9.93	9.12	8.08	7.53	6.87	5.92	5.45	5.54	5.04	4.65	4.75	4.29	4.13	3.82
Upper Hem. Efficiency (%)	36.16	35.17	34.84	36.68	36.45	38.55	40.33	41.94	41.69	39.99	40.40	30.91	32.88	35.74	37.98	41.65	41.71	42.57	44.04	44.71	45.80	46.16	49.26	48.50	51.32	45.69
Lower Hem. Efficiency (%)	27.10	25.40	23.61	22.47	20.17	20.86	22.68	24.78	25.90	25.98	27.00	31.51	31.12	31.51	31.57	33.15	32.26	32.04	32.38	31.79	31.07	29.20	30.39	29.71	31.21	27.45
T90(H)圆度	15.95	17.44	16.32	14.01	12.53	11.72	11.11	10.57	9.87	8.88	7.96	2.12	2.28	2.79	2.78	1.74	1.79	1.99	1.92	2.03	2.10	2.35	3.06	3.38	3.56	4.42
Gain 15deg (dBi)																										
E1(XZ)波瓣宽度	18.00	18.00	18.00	103.00	95.00	92.00	90.00	86.00	82.00	80.00	79.00	29.00	31.00	31.00	32.00	32.00	38.00	38.00	68.00	65.00	63.00	62.00	63.00	65.00	66.00	67.00
E1(XZ)前后比	0.03	0.05	0.04	0.74	1.79	2.50	2.81	3.16	3.24	2.96	2.55	6.21	6.45	7.13	7.70	8.59	9.32	9.23	10.04	9.93	9.79	10.03	9.15	8.21	7.23	6.14
E2(YZ)波瓣宽度	34.00	35.00	37.00	39.00	42.00	44.00	68.00	68.00	66.00	63.00	62.00	27.00	27.00	27.00	27.00	28.00	24.00	23.00	44.00	44.00	43.00	44.00	53.00	63.00	61.00	
E2(YZ)前后比	1.88	2.09	2.53	3.23	3.98	4.33	4.22	3.97	3.77	3.52	3.36	6.45	5.97	5.83	5.55	6.15	6.69	7.11	7.57	7.75	8.53	9.52	9.13	9.06	8.32	8.34
最大增益处轴比(P)	19.28	12.85	8.08	10.23	29.40	13.91	11.85	9.81	7.94	6.41	7.30	16.07	12.45	9.29	8.81	8.25	7.10	5.65	24.43	32.91	28.56	22.45	14.92	15.49	39.15	23.40
顶点(Theta=0)处轴比(P)	2.21	0.61	3.82	6.99	9.53	11.20	12.58	14.58	17.21	23.41	46.14	7.68	20.86	47.16	21.00	25.95	11.87	7.80	3.80	2.89	4.41	9.15	12.39	12.85	11.23	8.79
仰角10度最差(大)轴比(P)	53.49	81.98	45.57	56.50	47.62	50.17	50.89	58.92	52.99	53.41	52.10	71.88	56.76	51.91	64.21	61.70	63.73	52.51	58.20	55.25	73.24	57.77	60.09	55.63	50.66	57.24
Hc(XY)波瓣宽度	160.00	145.00	135.00	136.00	142.00	154.00	156.00	153.00	153.00	162.00	171.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	358.00	340.00	332.00	298.00
Hc(XY)前后比	3.42	4.55	5.47	5.21	4.23	3.64	3.62	3.87	4.02	3.81	3.61	1.60	1.62	2.14	1.97	1.00	0.97	0.92	0.73	0.62	0.44	0.09	0.01	0.08	0.14	0.19
左旋圆极化效率(%)	39.92	38.97	37.89	37.76	34.94	35.47	37.06	38.99	39.04	37.33	37.35	31.56	32.77	35.08	35.88	38.03	37.91	38.66	40.58	41.75	42.13	40.13	41.84	40.63	41.62	36.16
右旋圆极化效率(%)	23.34	21.59	20.56	21.39	21.68	23.95	25.95	27.73	28.54	28.64	30.04	30.86	31.23	32.17	33.67	36.77	36.07	35.94	35.83	34.75	34.74	35.22	37.82	37.58	40.90	36.98
Empty																										

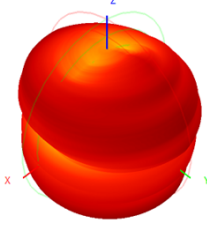




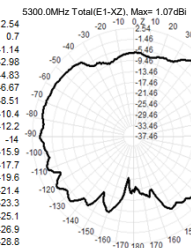
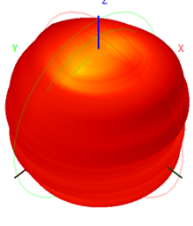




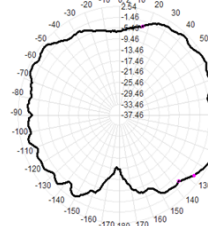
5300.0MHz H+V, Eff: 69.5%



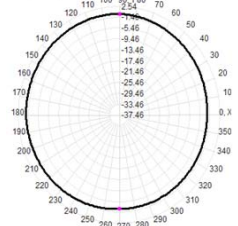
Back View



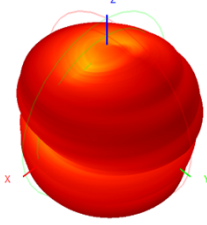
5300.0MHz Total(E1-XZ), Max= 1.07dBi



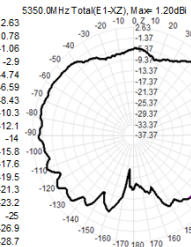
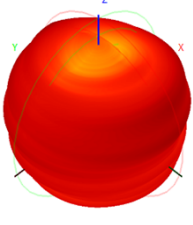
Total(H+V), Max= -0.25dBi, CirD=2.78



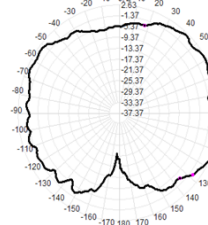
5350.0MHz H+V, Eff: 74.6%



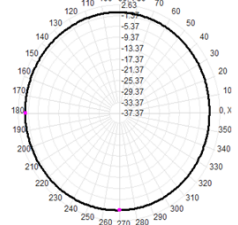
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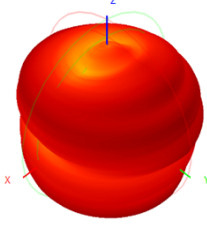
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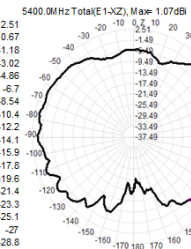
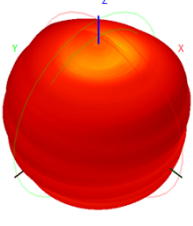
Total(H+V), Max= -0.11dBi, CirD=1.74



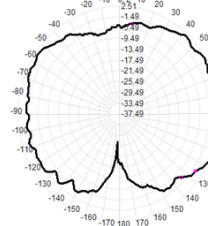
5400.0MHz H+V, Eff: 74.0%



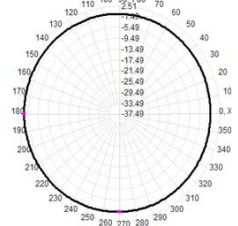
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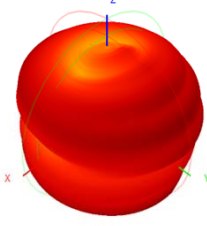
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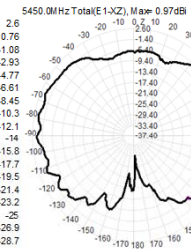
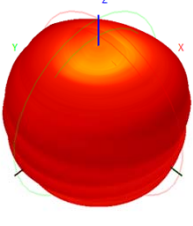
Total(H+V), Max= 0.18dBi, CirD=1.79



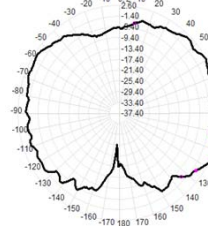
5450.0MHz H+V, Eff: 74.6%



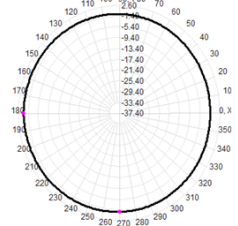
Back View



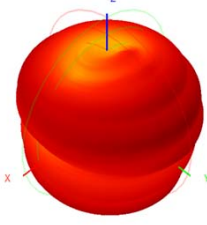
5450.0MHz Total(E1-XZ), Max= 0.97dBi



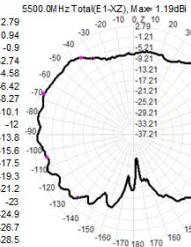
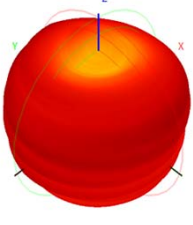
Total(H+V), Max= 0.41dBi, CirD=1.99



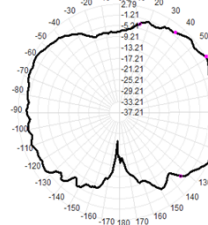
5500.0MHz H+V, Eff: 76.4%



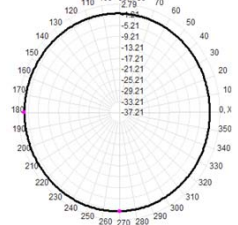
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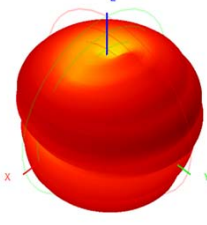
5500.0MHz Total(E1-XZ), Max= 1.19dBi



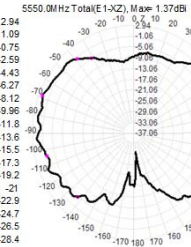
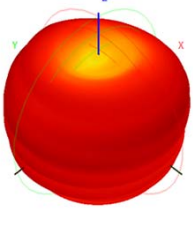
Total(H+V), Max= 0.32dBi, CirD=1.92



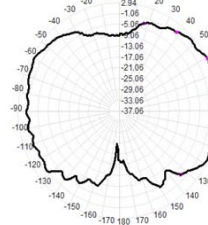
5550.0MHz H+V, Eff: 76.5%



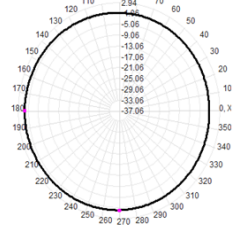
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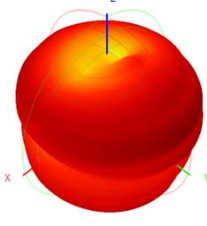
5550.0MHz Total(E1-XZ), Max= 1.37dBi



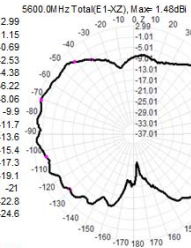
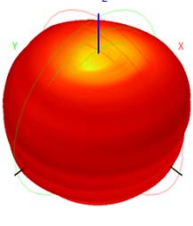
Total(H+V), Max= 0.40dBi, CirD=2.03



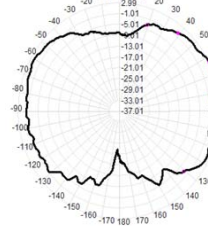
5600.0MHz H+V, Eff: 76.5%



Back View



5600.0MHz Total(E1-XZ), Max= 1.48dBi



Total(H+V), Max= 0.20dBi, CirD=2.10

