皇捷通讯科技
iphone-line.com

规 格 书
specification

客　户 Customer :	Ohio Model Products LLC
客户料号 Customer P/N:	
产品名称 Part Name:	built-in aerial
皇捷料号 HJ P/N:	3N0101GY-001
规格描述 Spec Description :	1.13 Silver tin gray,P1 Sweat copper tubing,P2 MHF-1 PLUG ,L=140mm
编制日期 Prepared Date:	6月21日

签署Signature			
客户Customer		供应商Supplier	
承认 Confirmed by		编制 Prepared by	S.He
批准 Approved by		审核 Checked by	何修明
		批准 Approved by	

公司网址Website：Http://www.iphone-line.com
工厂地址Address：3,TaiheAve,Quantang,Liaobu Town,DongGuan City,GuangDong Province.China
电话Tel ：0769-83328111
传真Fax：0769-83327688

DONGGUAN HUANGJIE COMMUNICATION TECHNOLOGY CO., LTD.

东莞市皇捷通讯科技有限公司

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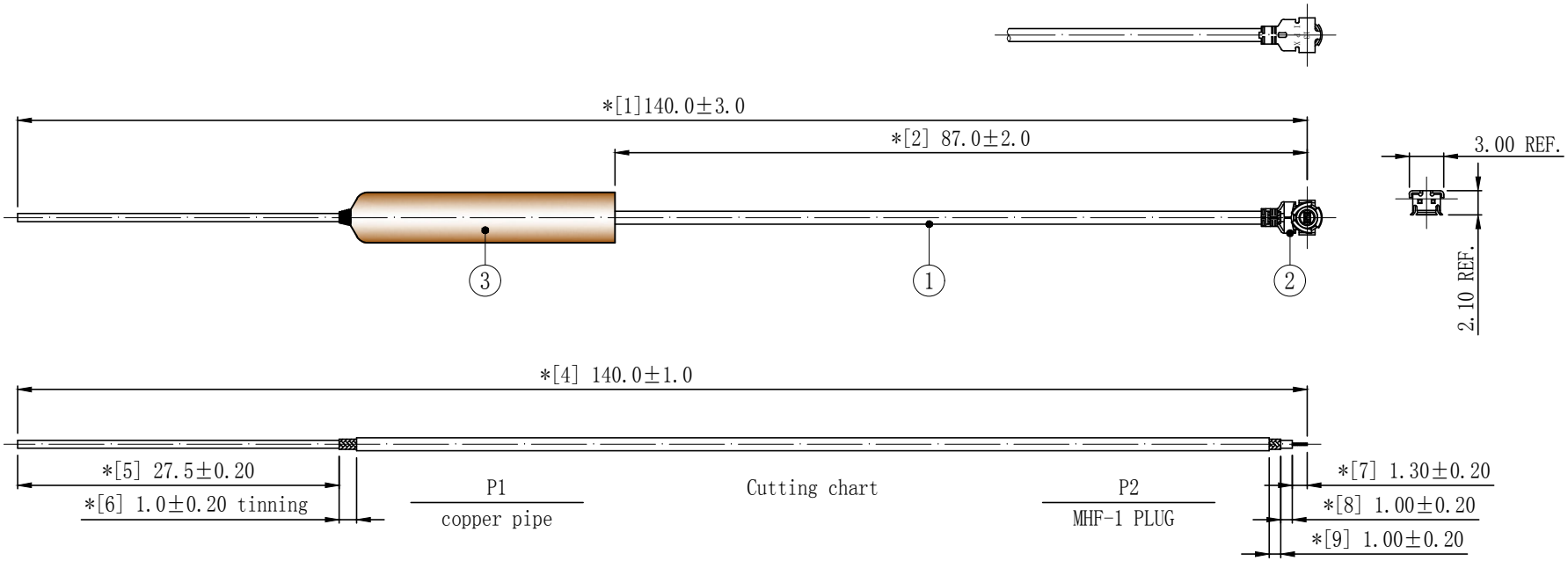
REVISION	DESCRIPTION	DATE	DRAFTER
A0	initial issue	21.02.23	S.He

Antenna type: Coaxial cable Antenna



Technical requirements:

1 Electrical characteristics: characteristic impedance :50Ω; Frequency range :2.4GHz-2.5GHz;
Inspection method: Naked antenna test, using network analyzer 100% comparison waveform test.

2 Pull-out test: minimum 1.30kgf.
Test method: The 1.30kg weight was lifted vertically from the table along the central axis of the cable at a speed of about 25±3 mm/min.

3 Dimensional inspection: [*] is the FAI inspection item; * is the key detection item; ■ For CPK control projects.

4 Appearance inspection: the surface of the product shall not be scratched, damaged and dirty; The color of the coating is bright and uniform, and there shall be no oxidation.
Inspection method: Complete visual inspection.

5 Packing specification: 50PCS/ bundle, 2 bundles/pack, i.e. 100PCS/ pack.

6 Environmental requirements: The products and the materials used shall meet the requirements of RoHS.

H551

COMPLIANCE WITH THE REQUIREMENT: ■RoHS; □HF; □SONY SS-00259; □OTHERS
*NO USING ESTRICTED AND BANNED SUBSTANCE

No.	PART NUMBER	PART NAME & DESCRIPTION	Q'TY	REMARKS
			1	---
3	2YG067	OD4.4*L24.5*OD1.30mm,copper pipe	1	---
2	2LM10P113210	MHF-1 PLUG FOR OD1.13mm CABLE	1	---
1	2C5M11311GY1	coaxial-cable,OD1.13mm,Silver tin,gray	1	---

GENERAL TOLERANCE:

LINEAR:	
X	±3.00
X.X	±1.00
X.XX	±0.50
X.XXX	±0.01
ANGLE:	
X°	±4.00°
X.X°	±3.00°
X.XX°	±2.00°
X.XXX°	±1.00°

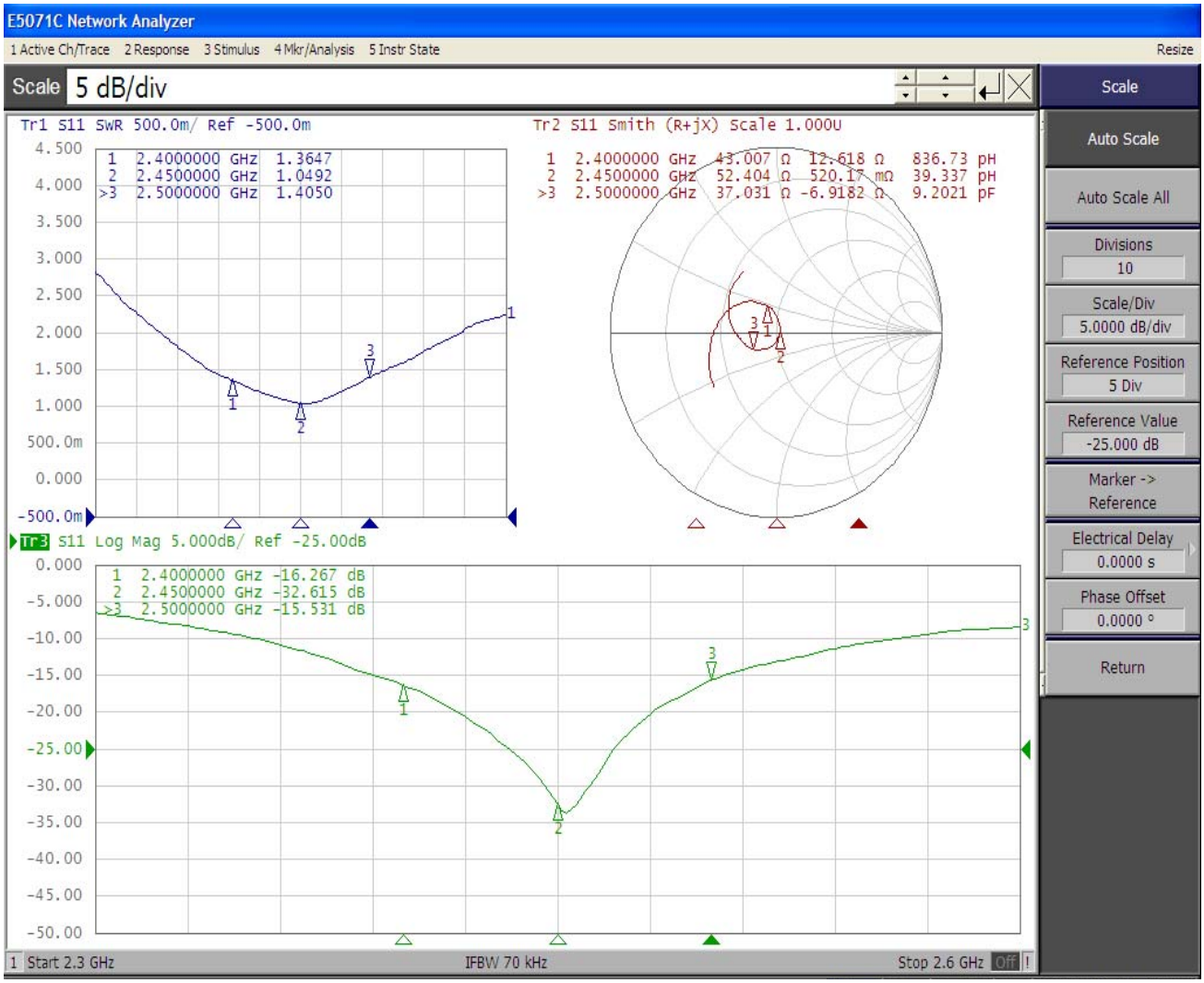
HJ-Tech 东莞市皇捷通讯科技有限公司

FILE NAME: product drawing	TITLE: Radio frequency antenna module built-in aerial,1.13 Silver tin gray, P1 Sweat copper tubing,P2 MHF-1 PLUG ,L=140mm			
ENG/DATE: XIU HE/20.10.20				
CHE/DATE: .	P/N: 3N0101GY-001			
APP/DATE: .	UNIT: mm	SCALE: 1:1	REVISION: A0	SHEET: 1/1

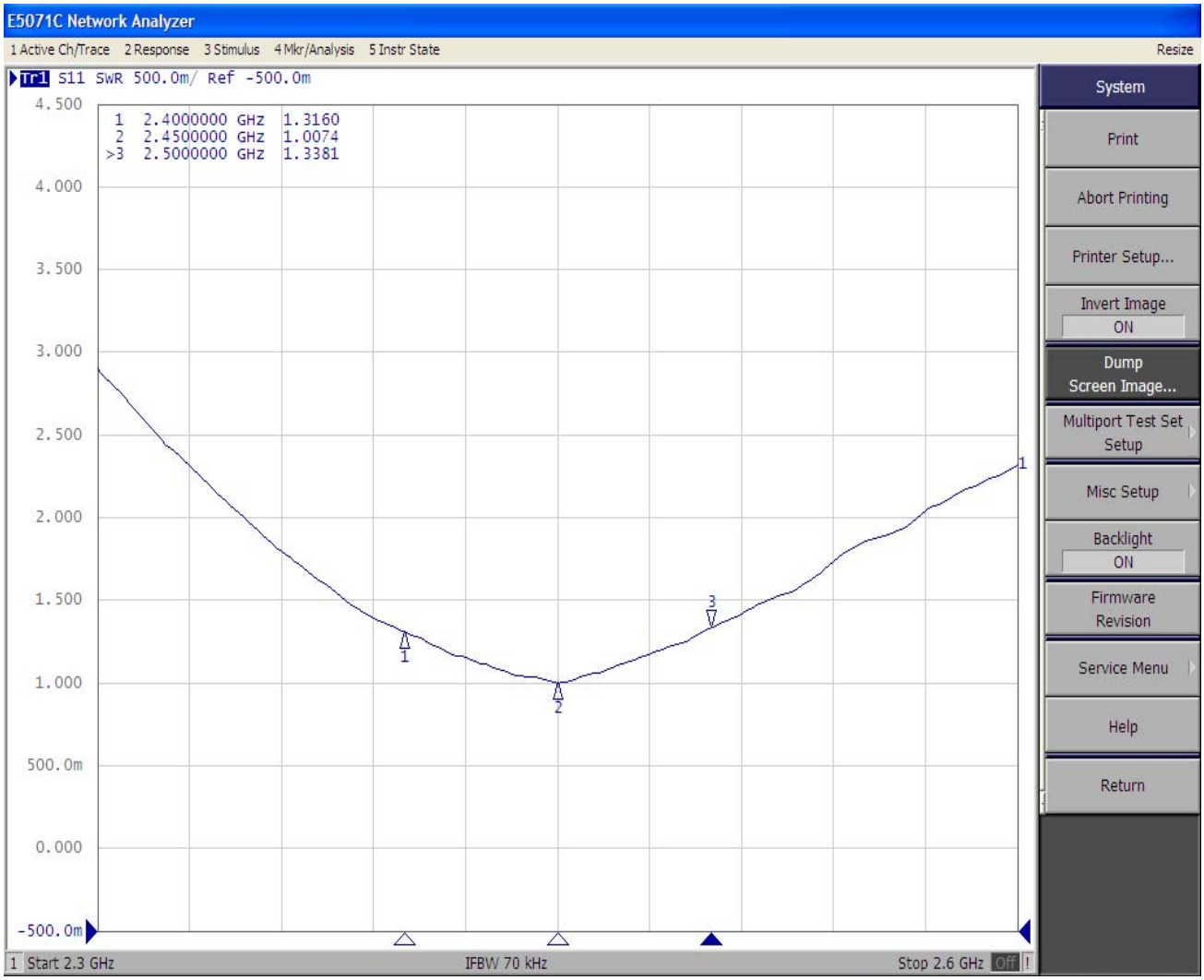
DONGGUAN HUANGJIE COMMUNICATION TECHNOLOGY CO., LTD.

东莞市皇捷通讯科技有限公司

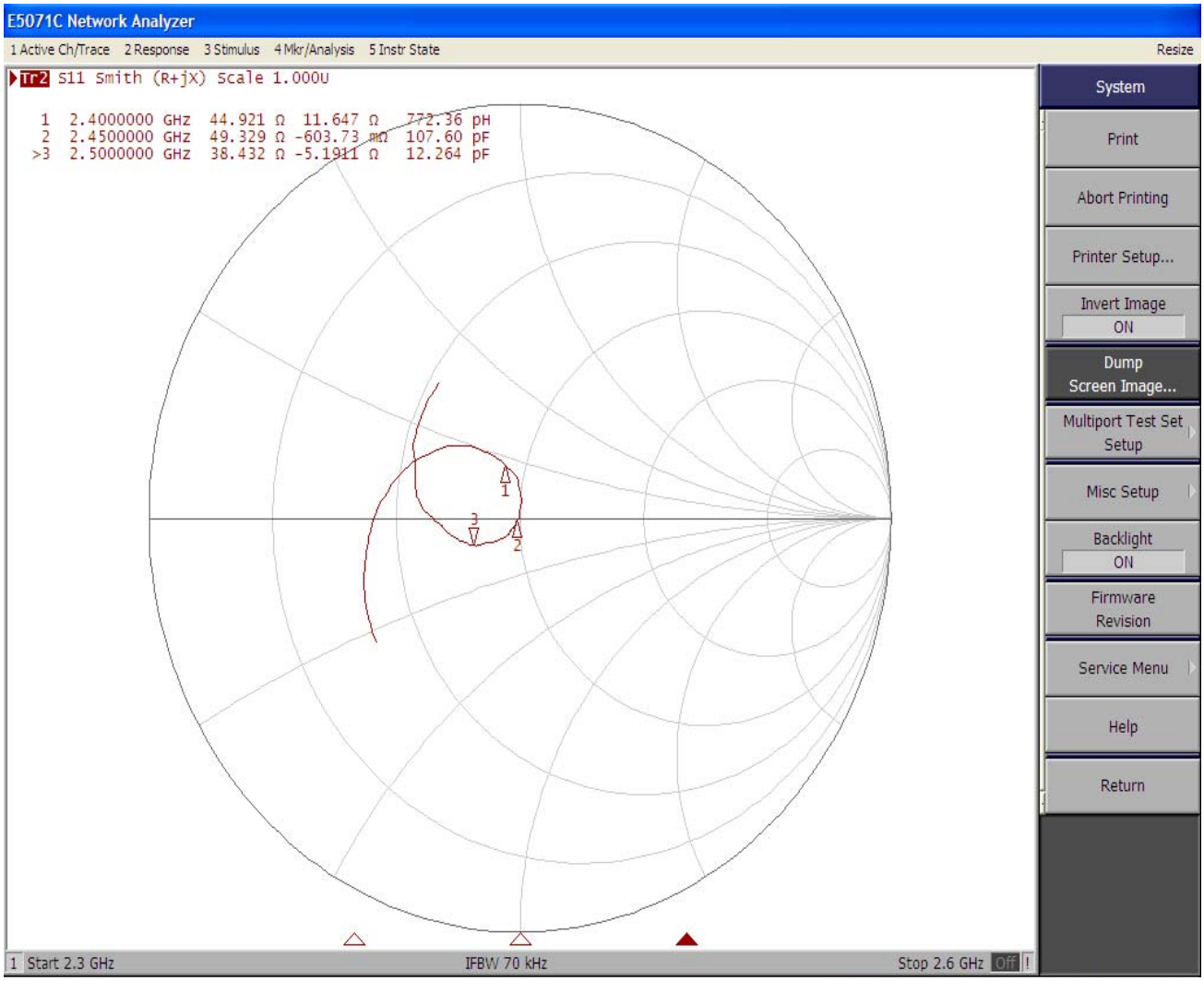
1 Electrical characteristics test report



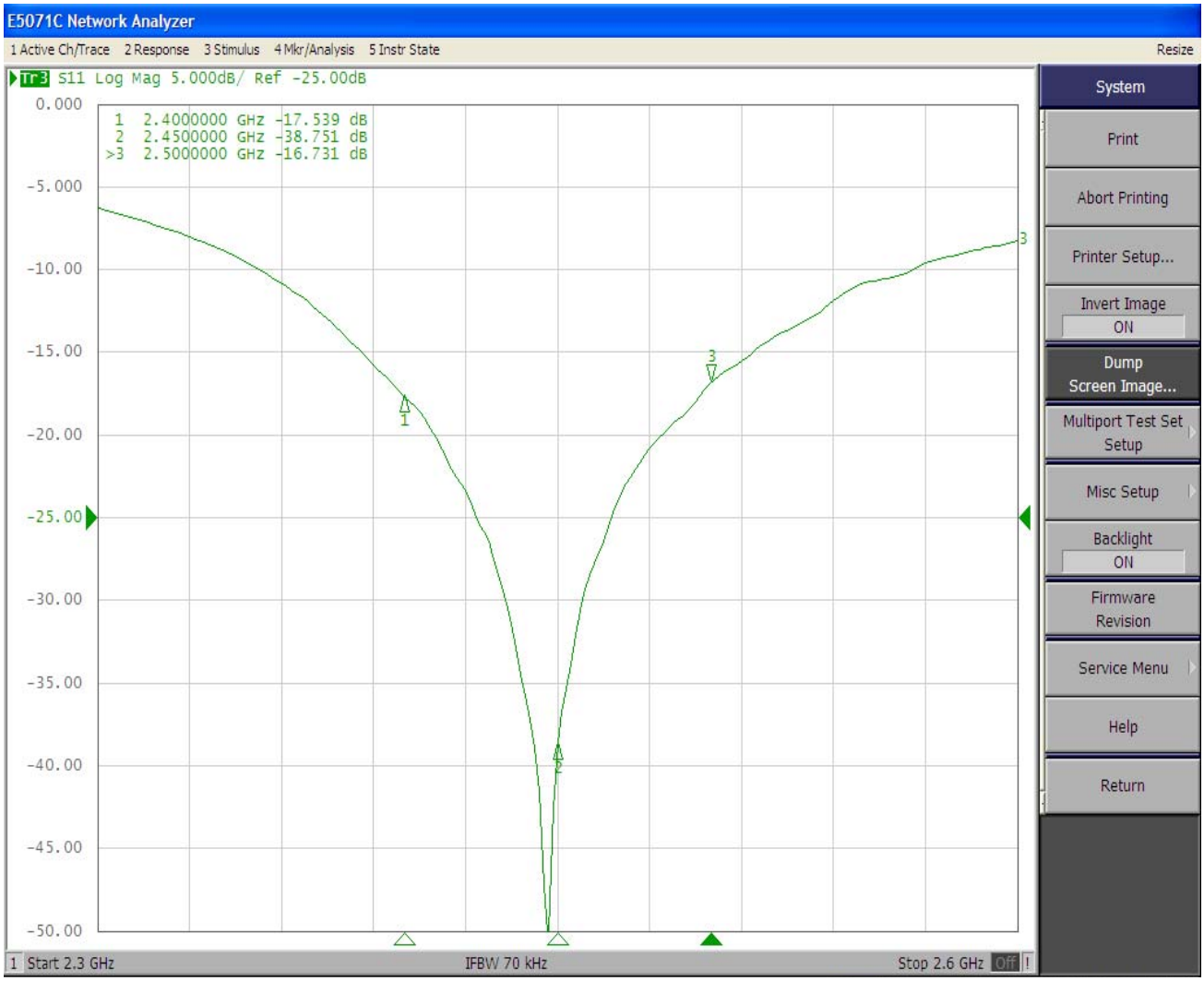
2 VSWR


E5071C Network Analyzer
1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State
Resize
Tr1 S11 SWR 500.0m/ Ref -500.0m
1 2.4000000 GHz 1.3160
2 2.4500000 GHz 1.0074
>3 2.5000000 GHz 1.3381
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
500.0m
0.000
-500.0m
System
Print
Abort Printing
Printer Setup...
Invert Image
ON
Dump
Screen Image...
Multiport Test Set
Setup
Misc Setup
Backlight
ON
Firmware
Revision
Service Menu
Help
Return
1 Start 2.3 GHz
IFBW 70 kHz
Stop 2.6 GHz

3 SMITH CHART



4 RETURN LOSS



Antenna Test Report (Passive)

Comments:

This antenna is good. Yeah!

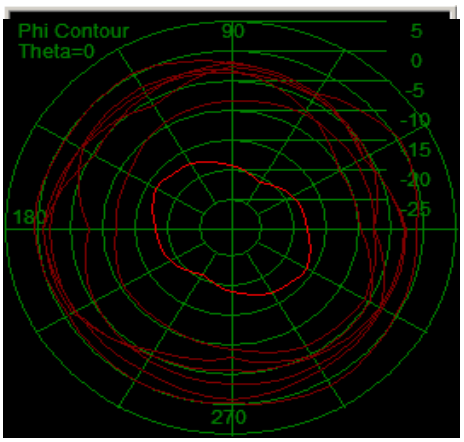
Test Point ID	Freq. (MHz)	TRP (dBm)	Gain (dBi)	Directivity (dBi)	Efficiency (%)	Efficiency (dB)	Max (dBm)	Theta of Max	Phi of Max	Min (dBm)	Theta of Min	Phi of Min	AVG (dBm)	Max/Min (dB)	Max/AVG (dB)	Min/AVG (dB)
1	2300.0	2300.00	1.35	4.65	46.7%	-3.31	1.35	90	120	-16.91	0	150	-3.66	18.26	5.01	-13.25
2	2310.0	2310.00	1.05	4.47	45.5%	-3.42	1.05	90	120	-17.52	0	150	-3.90	18.57	4.95	-13.62
3	2320.0	2320.00	0.93	4.23	46.8%	-3.30	0.93	90	120	-18.13	0	150	-3.86	19.06	4.79	-14.27
4	2330.0	2330.00	0.84	3.93	49.1%	-3.09	0.84	90	120	-19.56	0	120	-3.69	20.41	4.53	-15.88
5	2340.0	2340.00	0.91	3.80	51.5%	-2.88	0.91	90	120	-20.42	0	120	-3.38	21.33	4.29	-17.04
6	2350.0	2350.00	0.89	3.69	52.5%	-2.80	0.89	90	120	-19.11	0	120	-3.24	20.00	4.13	-15.86
7	2360.0	2360.00	0.77	3.28	56.1%	-2.51	0.77	90	120	-20.83	0	30	-3.34	21.59	4.11	-17.49
8	2370.0	2370.00	0.64	3.16	56.0%	-2.51	0.64	90	120	-23.08	0	30	-3.51	23.73	4.15	-19.58
9	2380.0	2380.00	0.73	3.07	58.3%	-2.35	0.73	90	300	-23.38	0	30	-3.52	24.11	4.25	-19.86
10	2390.0	2390.00	0.59	3.03	57.0%	-2.44	0.59	90	300	-22.50	0	60	-3.81	23.09	4.40	-18.69
11	2400.0	2400.00	0.78	3.07	59.1%	-2.29	0.78	90	300	-21.04	0	60	-3.72	21.82	4.50	-17.32
12	2410.0	2410.00	0.96	3.12	60.9%	-2.15	0.96	90	300	-20.54	0	90	-3.53	21.50	4.49	-17.01
13	2420.0	2420.00	1.11	3.12	63.0%	-2.01	1.11	90	300	-20.55	0	120	-3.25	21.66	4.37	-17.29
14	2430.0	2430.00	2.00	3.01	66.2%	-1.79	1.22	90	300	-18.86	0	120	-2.93	20.08	4.14	-15.93
15	2440.0	2440.00	1.06	2.74	67.9%	-1.68	1.06	90	300	-17.16	0	150	-2.84	18.23	3.90	-14.32
16	2450.0	2450.00	0.96	2.39	71.8%	-1.44	0.96	90	300	-15.96	0	150	-2.78	16.91	3.74	-13.17
17	2460.0	2460.00	0.90	2.29	72.7%	-1.39	0.90	90	150	-15.44	0	0	-2.93	16.35	3.84	-12.51
18	2470.0	2470.00	0.90	2.22	73.8%	-1.32	0.90	90	150	-15.58	0	30	-3.01	16.48	3.92	-12.56
19	2480.0	2480.00	0.85	2.14	74.3%	-1.29	0.85	90	150	-15.91	0	60	-3.06	16.76	3.91	-12.85
20	2490.0	2490.00	0.76	2.06	74.1%	-1.30	0.76	90	150	-17.06	0	90	-3.03	17.82	3.79	-14.03
21	2500.0	2500.00	0.87	2.21	73.5%	-1.34	0.87	90	240	-17.98	0	90	-2.87	18.85	3.74	-15.11
22	2510.0	2510.00	0.92	2.32	72.5%	-1.40	0.92	90	240	-17.98	0	90	-2.75	18.90	3.67	-15.23
23	2520.0	2520.00	0.95	2.26	74.1%	-1.30	0.95	90	150	-17.38	0	90	-2.60	18.34	3.56	-14.78
24	2530.0	2530.00	1.00	2.35	73.4%	-1.35	1.00	90	150	-17.29	0	30	-2.62	18.29	3.62	-14.66
25	2540.0	2540.00	1.13	2.34	75.7%	-1.21	1.13	90	150	-18.43	0	30	-2.61	19.56	3.74	-15.82
26	2550.0	2550.00	1.02	2.32	74.0%	-1.31	1.02	90	150	-20.00	0	0	-2.83	21.01	3.84	-17.17
27	2560.0	2560.00	0.95	2.39	71.8%	-1.44	0.95	90	150	-21.07	0	0	-3.00	22.01	3.95	-18.06
28	2570.0	2570.00	0.74	2.37	68.8%	-1.63	0.74	90	150	-21.19	0	0	-3.24	21.93	3.99	-17.94
29	2580.0	2580.00	0.47	2.41	64.0%	-1.94	0.47	90	150	-20.95	0	0	-3.50	21.41	3.96	-17.45
30	2590.0	2590.00	0.39	2.47	62.0%	-2.08	0.39	90	150	-20.71	0	0	-3.55	21.10	3.94	-17.16
31	2600.0	2600.00	0.19	2.58	57.6%	-2.39	0.19	90	150	-20.60	0	0	-3.76	20.79	3.95	-16.85
32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
39	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

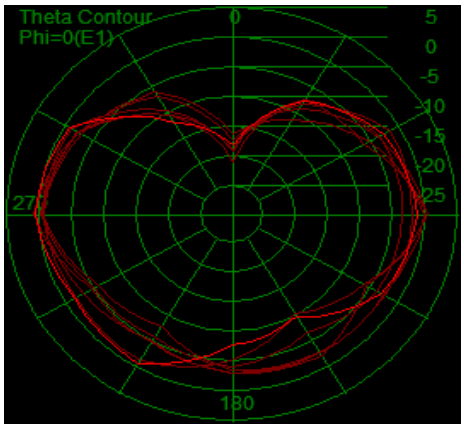
Passive -Freq2400.00MHZ

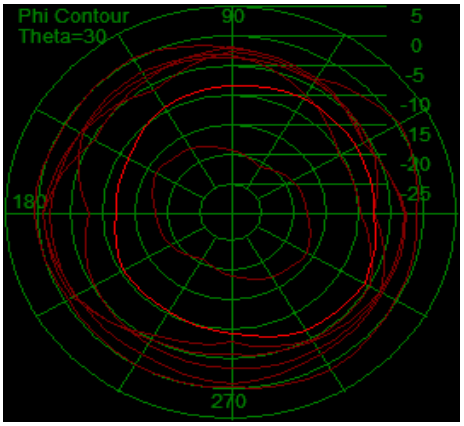
		0	30	60	90	120	150	180	210	240	270	300	330	360
H+V Total (30° Step)	0	-18.26	-19.04	-21.04	-19.39	-17.44	-16.42	--	--	--	--	--	--	--
	30	-7.87	-7.65	-7.61	-8.35	-9.34	-11.61	-12.11	-10.75	-10.71	-9.62	-7.02	-6.19	--
	60	-2.94	-6.33	-3.68	-1.89	-3.91	-5.55	-0.84	-2.24	-2.33	-1.10	-2.45	-2.89	--
	90	-1.29	0.18	-3.60	-2.07	0.35	-0.24	0.58	-0.81	-0.26	-0.44	0.78	-0.48	--
	120	-3.24	-6.26	-4.09	-2.64	-6.09	-3.05	-1.90	-2.00	-5.23	-6.03	-4.89	-3.36	--
	150	-10.03	-10.71	-6.83	-3.15	-2.47	-2.92	-0.84	-1.57	-6.07	-8.13	-5.01	-5.24	--
	180	-7.84	-5.35	-4.21	-3.68	-3.17	-3.25	--	--	--	--	--	--	--

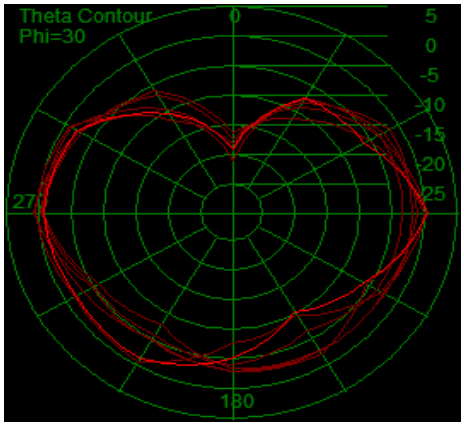
		0	30	60	90	120	150	180	210	240	270	300	330	360
H (30° Step)	0	-18.61	-19.55	-24.54	-29.50	-19.40	-17.93	--	--	--	--	--	--	--
	30	-8.35	-7.82	-7.62	-8.87	-10.25	-12.56	-13.25	-11.03	-10.72	-9.67	-7.17	-6.63	--
	60	-3.13	-6.86	-3.70	-2.29	-5.13	-5.67	-1.05	-2.66	-2.60	-1.12	-2.66	-3.76	--
	90	-1.78	-0.16	-3.73	-2.42	0.13	-0.51	-0.46	-1.47	-0.79	-0.47	0.39	-1.36	--
	120	-3.64	-6.46	-4.16	-3.04	-6.42	-8.04	-2.47	-3.22	-6.38	-6.27	-6.52	-5.96	--
	150	-19.33	-25.85	-11.95	-5.14	-2.90	-3.80	-6.46	-6.81	-7.70	-9.83	-10.97	-12.37	--
	180	-10.53	-6.07	-4.25	-5.73	-10.89	-12.20	--	--	--	--	--	--	--

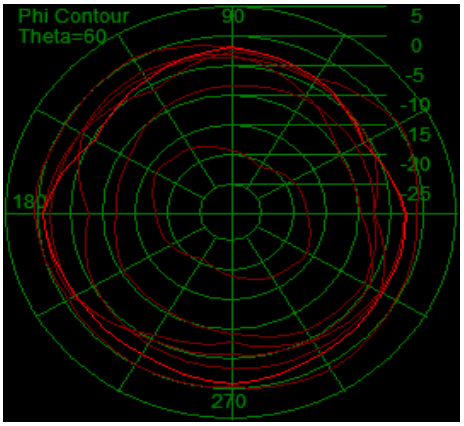
		0	30	60	90	120	150	180	210	240	270	300	330	360
V (30° Step)	0	-29.31	-28.61	-23.61	-19.84	-21.84	-21.75	--	--	--	--	--	--	--
	30	-17.66	-21.70	-35.72	-17.82	-16.55	-18.68	-18.47	-22.82	-38.98	-29.38	-21.76	-16.33	--
	60	-16.53	-15.73	-28.07	-12.46	-10.02	-21.29	-14.19	-12.61	-14.49	-25.00	-15.78	-10.31	--
	90	-11.02	-10.99	-18.95	-13.20	-12.64	-12.46	-6.14	-9.29	-9.65	-22.03	-9.86	-7.87	--
	120	-13.81	-19.66	-22.23	-13.22	-17.51	-4.70	-11.03	-8.09	-11.57	-18.69	-9.93	-6.83	--
	150	-10.57	-10.84	-8.42	-7.49	-12.75	-10.26	-2.23	-3.12	-11.10	-13.02	-6.28	-6.18	--
	180	-11.19	-13.52	-24.75	-7.93	-3.97	-3.84	--	--	--	--	--	--	--

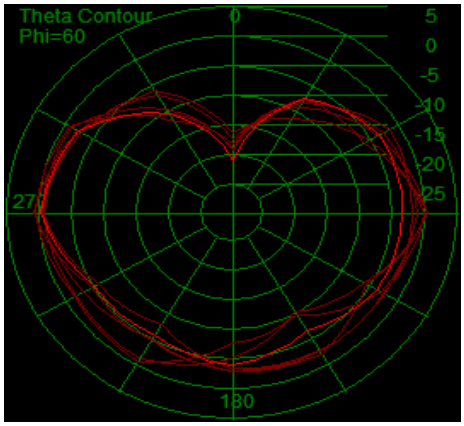


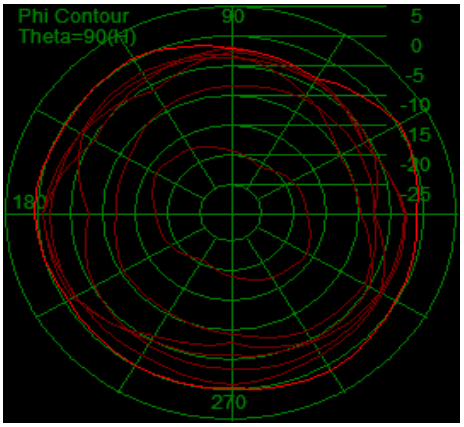


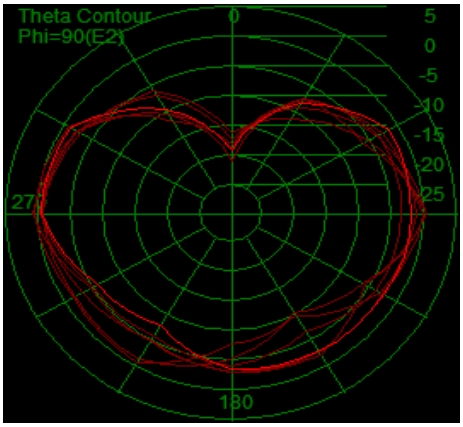









Phi Contour
Theta=90(H)
90
180
270
5
0
-5
-10
-15
-20
-25


Theta Contour
Phi=90(E2)
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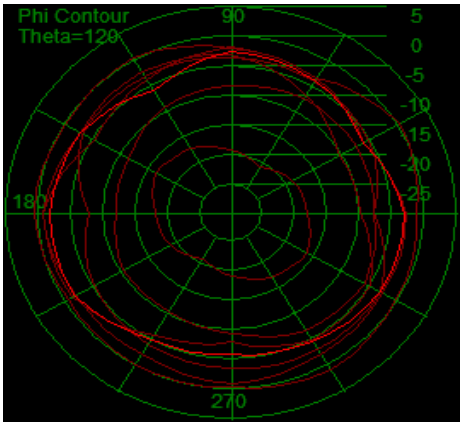
270
180
5
0
-5
-10
-15
-20
-25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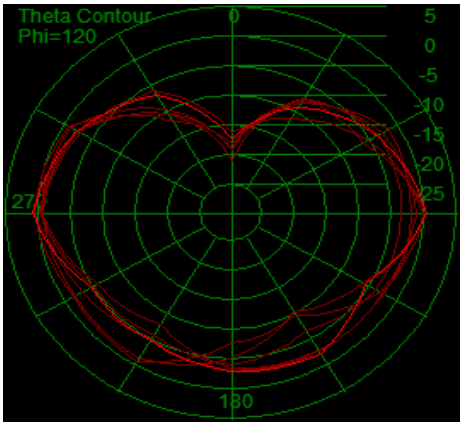
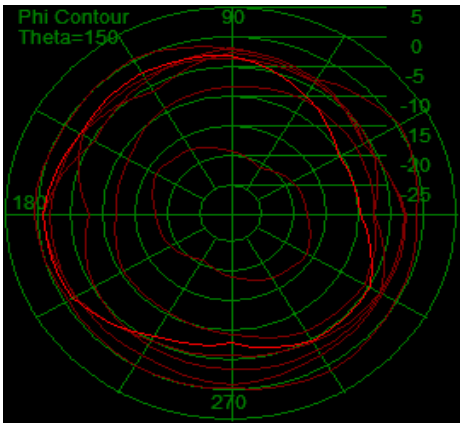
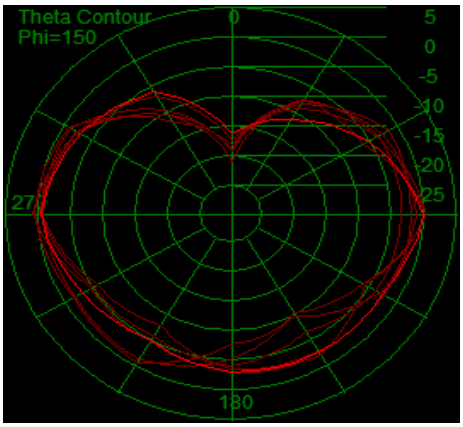
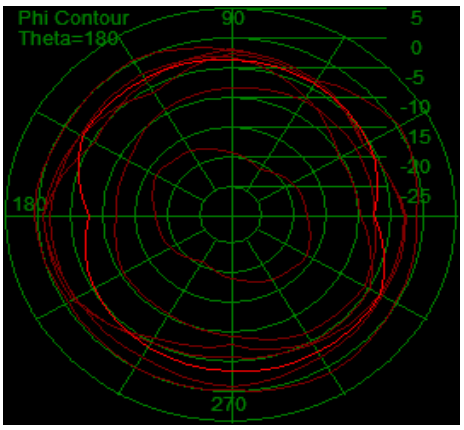
Theta=120
90
180
270
5
0
-5
-10
-15
-20
-25


Theta Contour
Phi=120
0
270
180
5
0
-5
-10
-15
-20
-25


Phi Contour
Theta=150
90
180
270
5
0
-5
-10
-15
-20
-25


Theta Contour
Phi=150
0
270
180
5
0
-5
-10
-15
-20
-25


Phi Contour
Theta=180
90
180
270
5
0
-5
-10
-15
-20
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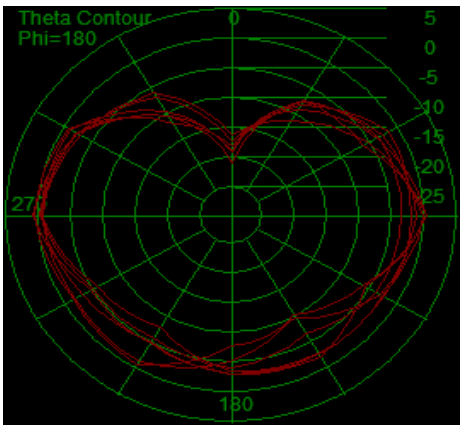
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Phi=180
0
270
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5
0
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-25

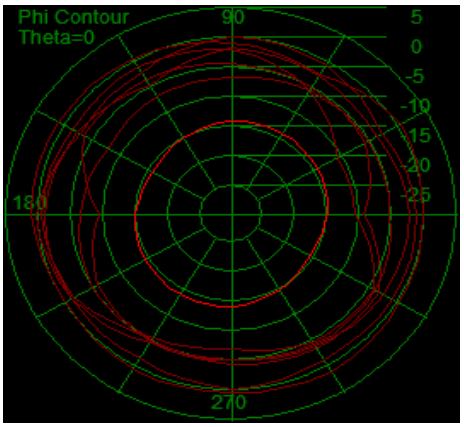
Go to Cover Page

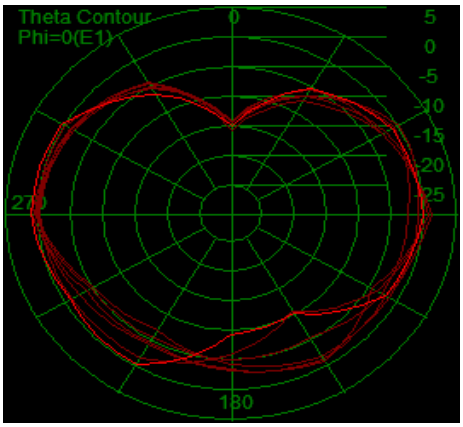
Passive -Freq2450.00MHZ

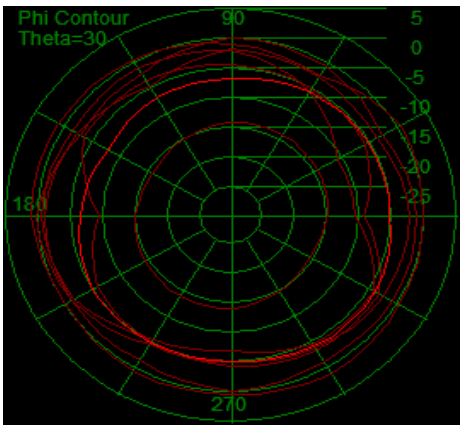
		0	30	60	90	120	150	180	210	240	270	300	330	360
H+V Total (30° Step)	0	-15.19	-14.60	-14.16	-14.28	-15.09	-15.96	--	--	--	--	--	--	--
	30	-5.48	-5.42	-5.80	-6.98	-7.06	-7.96	-6.63	-5.12	-5.13	-5.38	-4.38	-4.17	--
	60	-1.28	-2.92	-0.90	0.10	-2.27	-3.03	0.35	-1.46	-1.69	-0.39	-1.46	-1.08	--
	90	-0.40	0.41	-2.73	-1.00	0.41	0.91	0.95	-0.34	0.47	0.22	0.96	0.11	--
	120	-2.32	-4.03	-2.94	-1.89	-4.73	-2.46	-1.13	-1.37	-4.81	-5.27	-4.10	-2.71	--
	150	-10.76	-11.07	-5.74	-2.14	-1.31	-1.52	-0.49	-1.84	-5.88	-7.20	-4.85	-4.63	--
	180	-9.49	-6.12	-5.24	-4.57	-3.68	-3.56	--	--	--	--	--	--	--

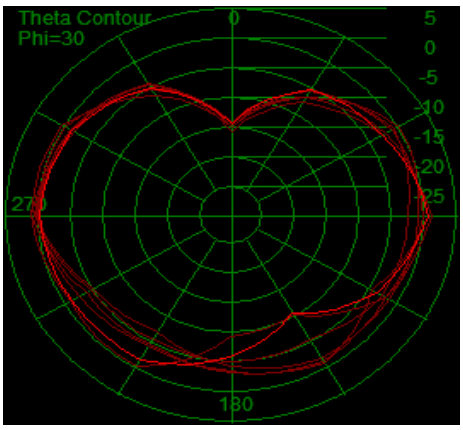
		0	30	60	90	120	150	180	210	240	270	300	330	360
H (30° Step)	0	-18.33	-14.88	-14.37	-15.86	-16.25	-17.76	--	--	--	--	--	--	--
	30	-5.67	-5.71	-6.03	-7.05	-7.20	-8.30	-7.09	-5.20	-5.16	-5.42	-4.53	-4.38	--
	60	-1.34	-3.14	-0.92	-0.18	-2.83	-3.05	0.28	-1.69	-1.90	-0.39	-1.62	-1.31	--
	90	-0.93	0.13	-2.80	-1.17	0.29	0.68	0.24	-0.86	0.14	0.22	0.70	-0.73	--
	120	-2.66	-4.44	-2.94	-2.15	-4.96	-6.15	-1.41	-2.39	-5.43	-5.51	-5.28	-4.02	--
	150	-16.58	-14.19	-8.14	-3.35	-1.53	-2.24	-4.68	-6.00	-7.33	-8.61	-9.18	-9.56	--
	180	-13.93	-7.27	-5.31	-6.49	-9.55	-10.22	--	--	--	--	--	--	--

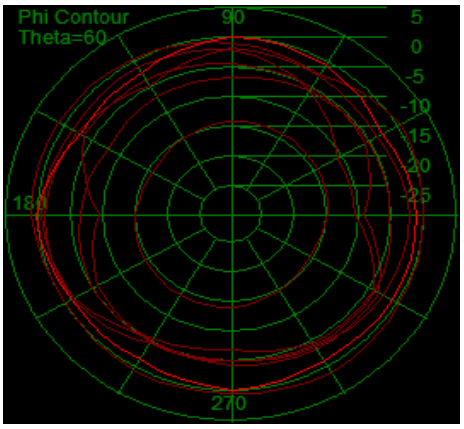
		0	30	60	90	120	150	180	210	240	270	300	330	360
V (30° Step)	0	-18.08	-26.71	-27.48	-19.45	-21.41	-20.65	--	--	--	--	--	--	--
	30	-19.12	-17.34	-18.60	-24.90	-21.98	-19.20	-16.57	-22.36	-26.95	-25.44	-19.05	-17.39	--
	60	-19.73	-15.92	-24.04	-11.93	-11.42	-27.34	-17.41	-14.26	-14.92	-31.21	-15.93	-13.92	--
	90	-9.76	-11.57	-20.89	-15.12	-15.21	-12.04	-7.27	-9.83	-10.91	-33.28	-11.47	-7.46	--
	120	-13.61	-14.52	-35.71	-14.29	-17.64	-4.89	-13.15	-8.18	-13.59	-18.03	-10.34	-8.54	--
	150	-12.08	-13.98	-9.45	-8.29	-14.33	-9.66	-2.57	-3.95	-11.35	-12.77	-6.85	-6.32	--
	180	-11.43	-12.45	-23.35	-9.05	-4.98	-4.62	--	--	--	--	--	--	--

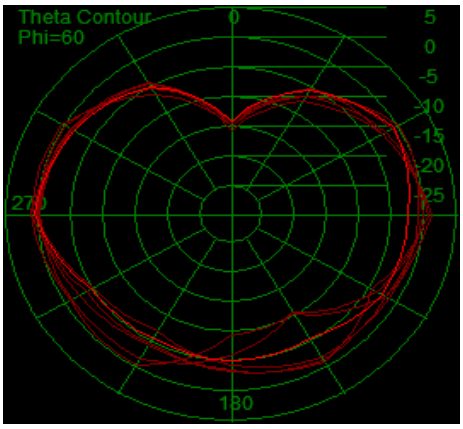


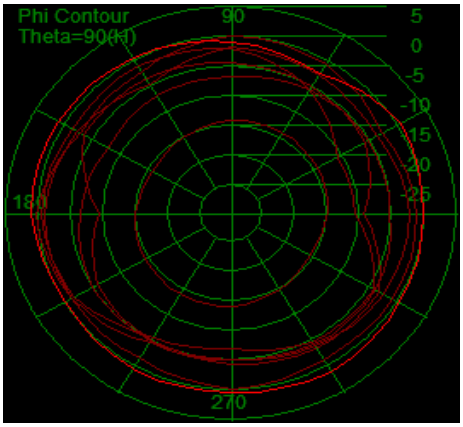








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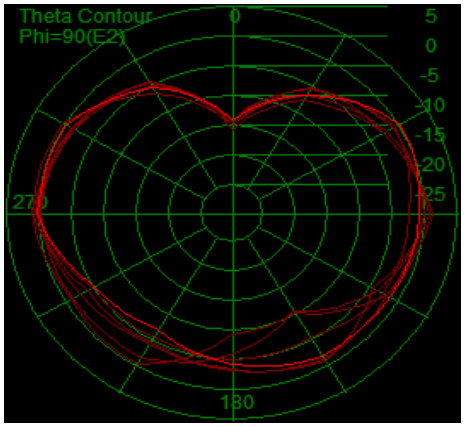
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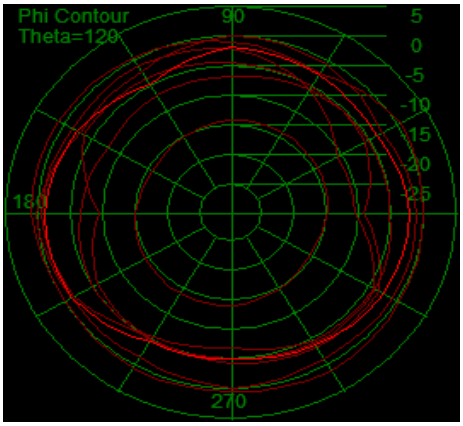
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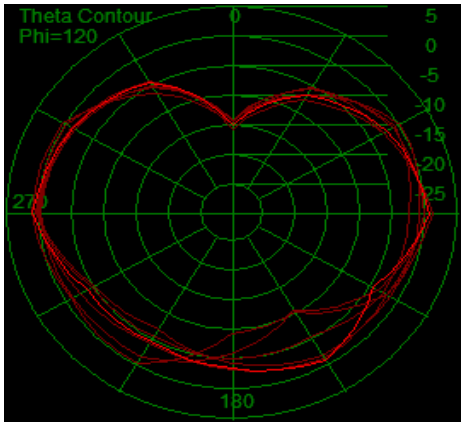
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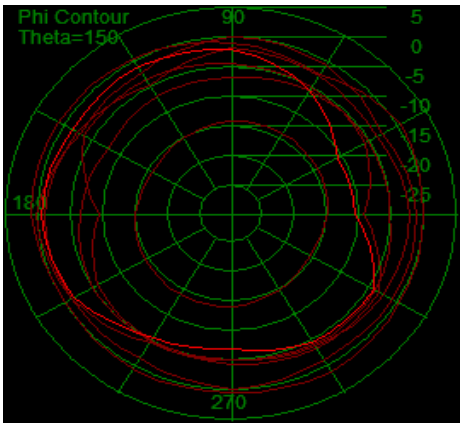
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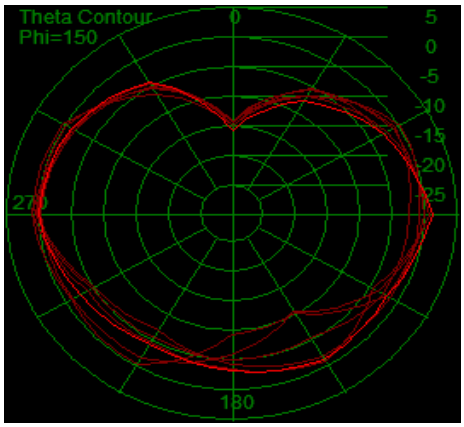
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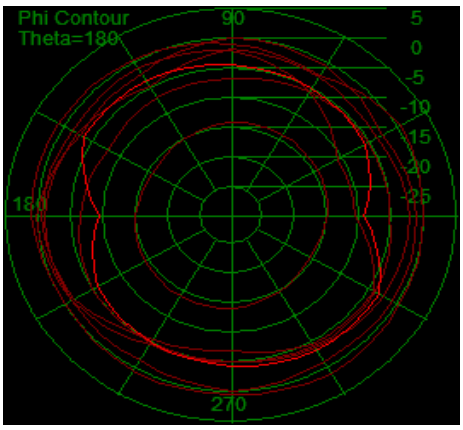
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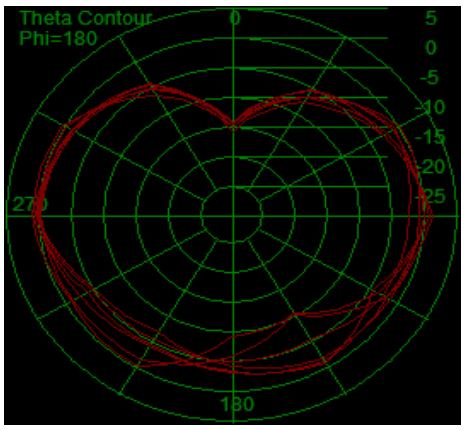
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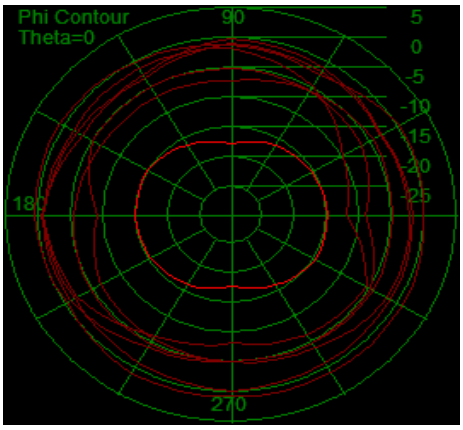
-20
-25

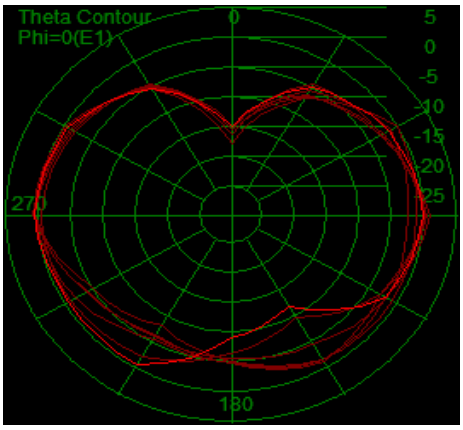
Passive -Freq2500.00MHZ

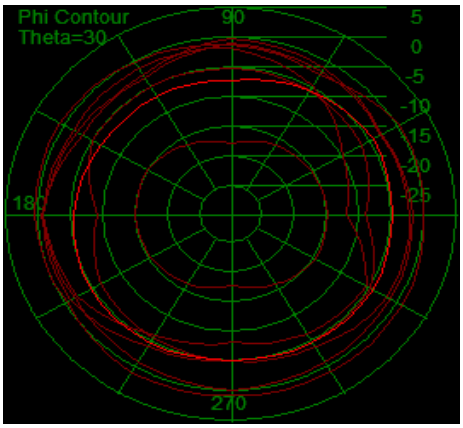
		0	30	60	90	120	150	180	210	240	270	300	330	360
H+V Total (30° Step)	0	-15.17	-15.58	-16.35	-17.98	-16.33	-14.98	--	--	--	--	--	--	--
	30	-5.13	-4.56	-5.88	-7.43	-6.98	-6.72	-5.54	-4.79	-4.88	-5.38	-5.01	-4.68	--
	60	-1.83	-3.10	-1.37	-0.30	-2.80	-3.41	-0.65	-1.97	-1.26	-0.37	-1.15	-1.59	--
	90	-0.17	0.18	-2.77	-1.36	-0.15	0.77	0.47	-0.42	0.87	0.63	0.79	0.56	--
	120	-2.35	-3.20	-2.05	-1.12	-3.38	-2.27	-0.90	-1.12	-4.32	-5.24	-4.10	-2.06	--
	150	-12.20	-10.15	-4.81	-1.83	-1.34	-1.69	-0.88	-2.47	-6.39	-8.36	-6.72	-5.90	--
	180	-9.20	-6.65	-5.86	-5.34	-5.01	-5.10	--	--	--	--	--	--	--

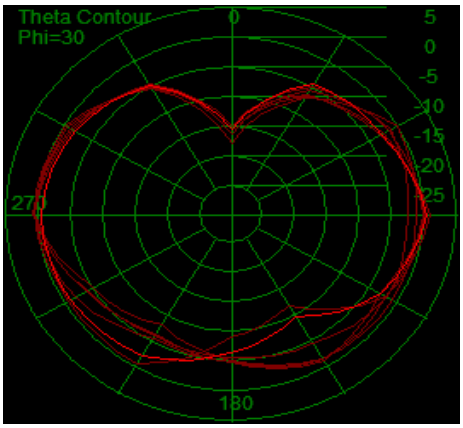
		0	30	60	90	120	150	180	210	240	270	300	330	360
H (30° Step)	0	-22.69	-17.30	-16.61	-18.65	-19.91	-22.64	--	--	--	--	--	--	--
	30	-5.24	-4.83	-6.17	-7.47	-7.05	-6.88	-5.78	-4.93	-5.09	-5.39	-5.16	-4.82	--
	60	-1.92	-3.44	-1.45	-0.66	-3.44	-3.45	-0.72	-2.17	-1.50	-0.38	-1.42	-1.69	--
	90	-0.50	-0.15	-2.98	-1.53	-0.30	0.59	-0.11	-1.08	0.61	0.62	0.60	-0.11	--
	120	-2.72	-3.82	-2.10	-1.31	-3.50	-4.75	-1.03	-1.98	-4.82	-5.32	-4.91	-2.80	--
	150	-14.84	-11.77	-6.39	-2.68	-1.47	-2.44	-4.70	-6.29	-7.99	-9.44	-10.23	-9.72	--
	180	-13.40	-8.31	-6.01	-6.97	-10.87	-12.40	--	--	--	--	--	--	--

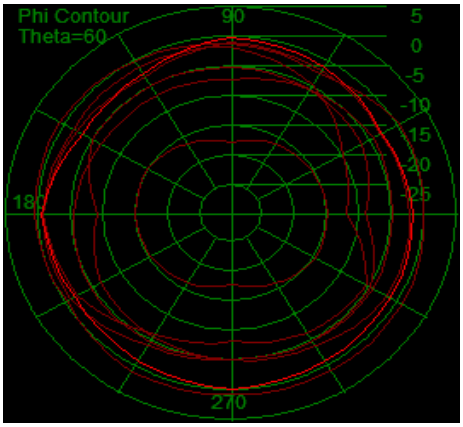
		0	30	60	90	120	150	180	210	240	270	300	330	360
V (30° Step)	0	-16.02	-20.43	-28.78	-26.44	-18.83	-15.80	--	--	--	--	--	--	--
	30	-21.19	-16.79	-17.77	-27.32	-25.13	-21.06	-18.30	-19.93	-18.11	-32.30	-19.59	-19.66	--
	60	-18.62	-14.31	-18.95	-11.31	-11.42	-23.88	-18.87	-15.37	-14.01	-26.30	-13.29	-18.03	--
	90	-11.56	-11.16	-16.11	-15.42	-14.73	-13.05	-8.59	-8.96	-11.51	-27.76	-12.96	-7.88	--
	120	-13.17	-11.96	-21.29	-14.84	-19.12	-5.89	-16.34	-8.56	-13.99	-22.49	-11.82	-10.10	--
	150	-15.61	-15.21	-9.98	-9.35	-16.53	-9.66	-3.21	-4.80	-11.51	-14.92	-9.28	-8.23	--
	180	-11.28	-11.64	-20.64	-10.39	-6.31	-6.00	--	--	--	--	--	--	--

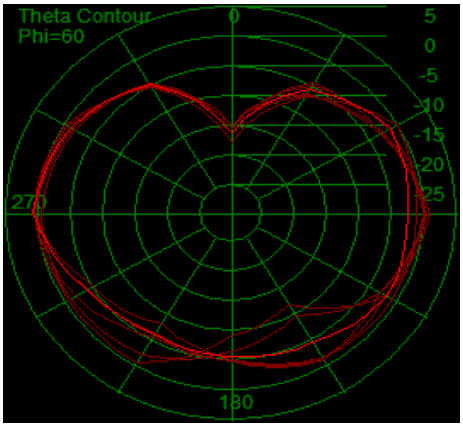


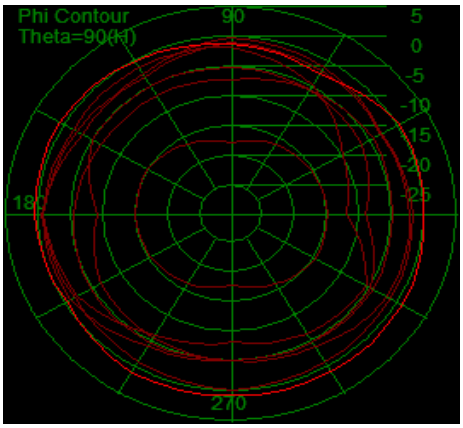








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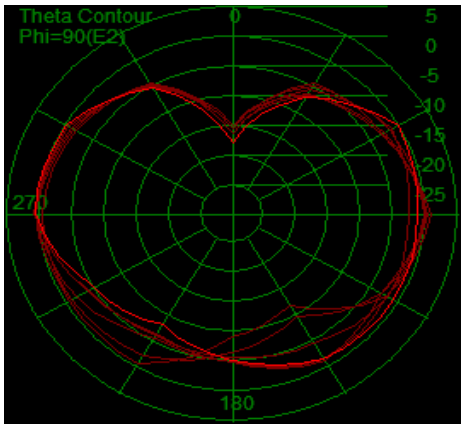
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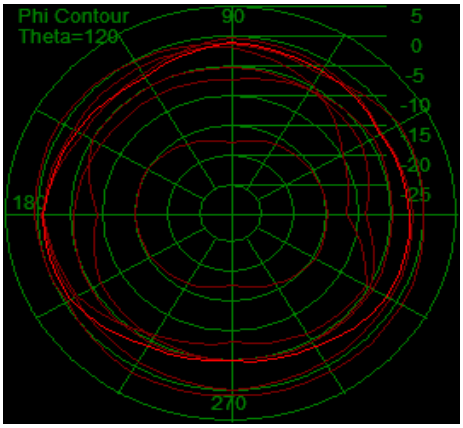
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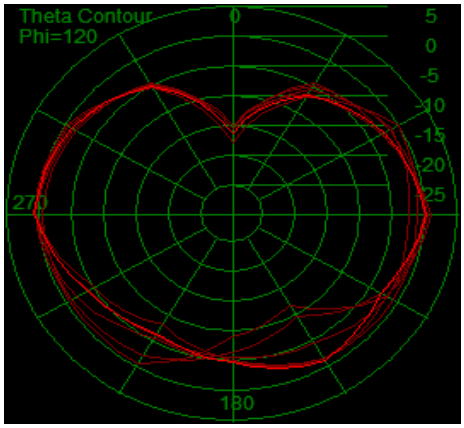
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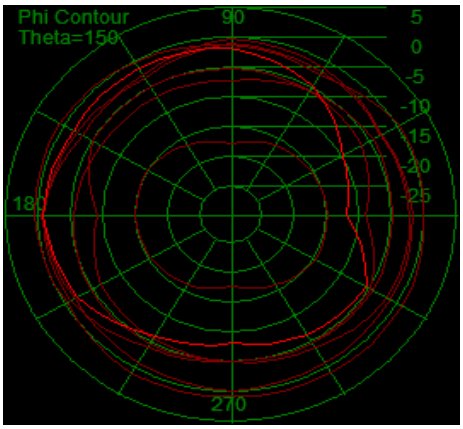
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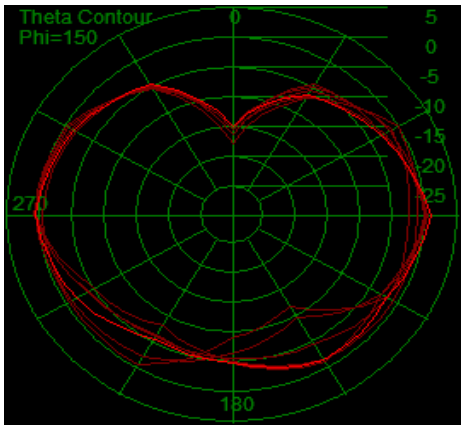
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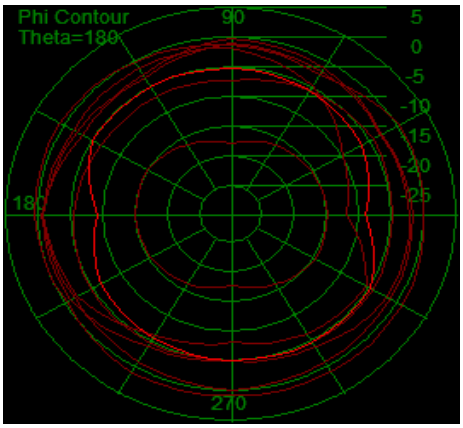
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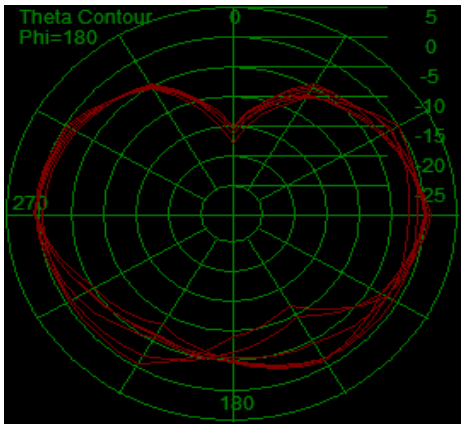
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