

(台灣) 譚裕實業股份有限公司

(大陸) 東莞台霖電子通訊有限公司  
蘇州華廣電通有限公司  
普翔電子貿易(上海)有限公司  
東莞倍能電子有限公司

品名： 無線網路設備用天線

規格： RF Antenna Assembly

料號： C059-510394-A

客戶： 訊舟科技股份有限公司

客戶料號： \_\_\_\_\_

日期： 2017/07/10

譚裕實業地址： No. 326, Sec. 2, Kung Tao 5 Road, Hsin Chu City,  
Taiwan, R. O. C.

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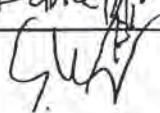
傳真： +86-21-64959059

東莞倍能地址： Hupan Industrial District, Shida Road, Tai Ling Shan  
Town, Dong Guan City, Guangdong, China

電話： +86-769-81662366

傳真： +86-769-81602681

確認				客戶確認
製作	審核	核准	業務	
熊伊				



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# RF Antenna Assembly

## Specification

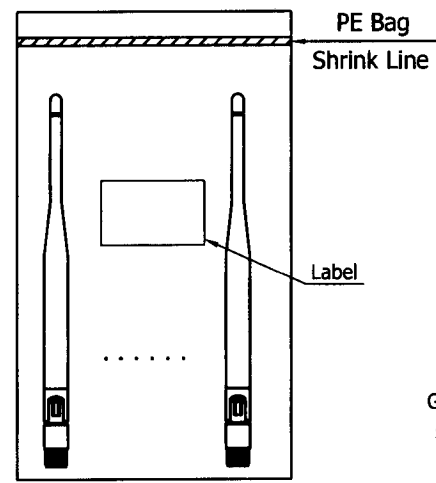
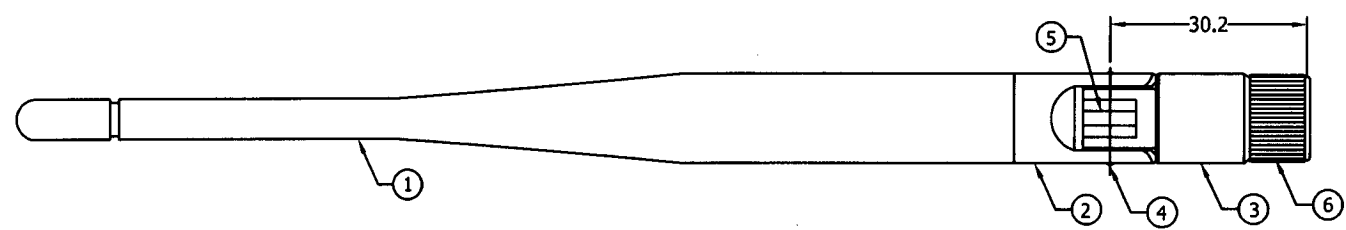
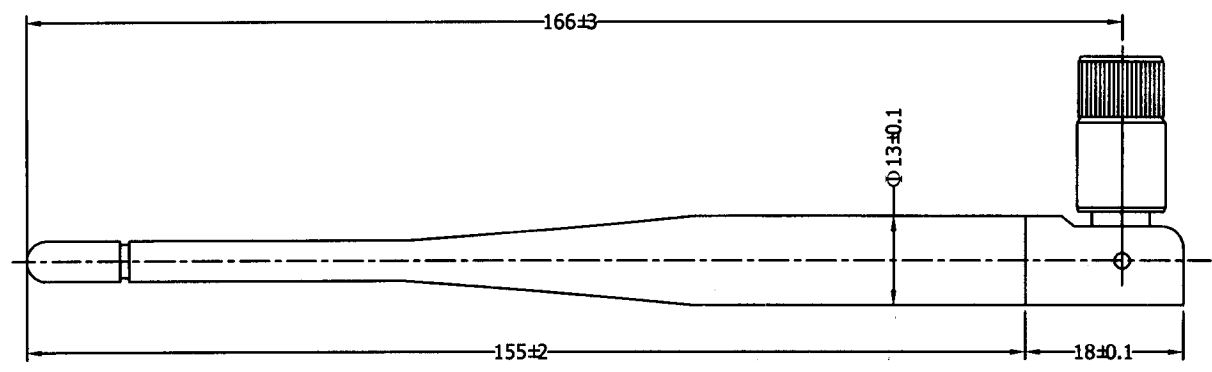
### 1. Electrical Properties :

- 1.1 Frequency Range..... 2.4GHz ~ 2.5GHz ;4.9GHz~5.825GHz
- 1.2 Impedance ..... 50Ω Nominal
- 1.3 VSWR ..... 1.92 :1Max.
- 1.4 Return Loss..... -10 dB Max.
- 1.5 Radiation ..... Omni-directional
- 1.6 Gain(peak)..... 3.9dBi @ 2.4GHz ~ 2.5GHz  
4.4dBi @ 4.9GHz ~ 5.825GHz
- 1.7 Polarization..... Linear; Vertical
- 1.8 Admitted Power..... 1W
- 1.9 Cable..... RG-178 Coaxial Cable
- 1.10 Connector..... SMA Plug Straight/Reverse

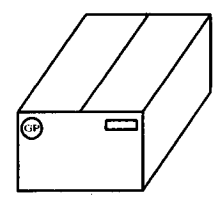
### 2. Physical Properties :

- 2.1 Antenna Body..... TPE
- 2.2 Antenna Base..... PC
- 2.3 Antenna Base..... PC+PBT
- 2.4 Operating Temp. .... -10 ~ +60
- 2.5 Storage Temp. .... -10 ~ +70
- 2.6 Color ..... White

REV	DATE	DESCRIPTION
X1	07/03-2017	New Issue



Packing: 10pcs/bag



GP標籤貼於紙箱側麥左上角(共2PCS)  
外箱標籤貼於紙箱側麥右上角(共1PCS)  
成品淨重: 23600±5%mg

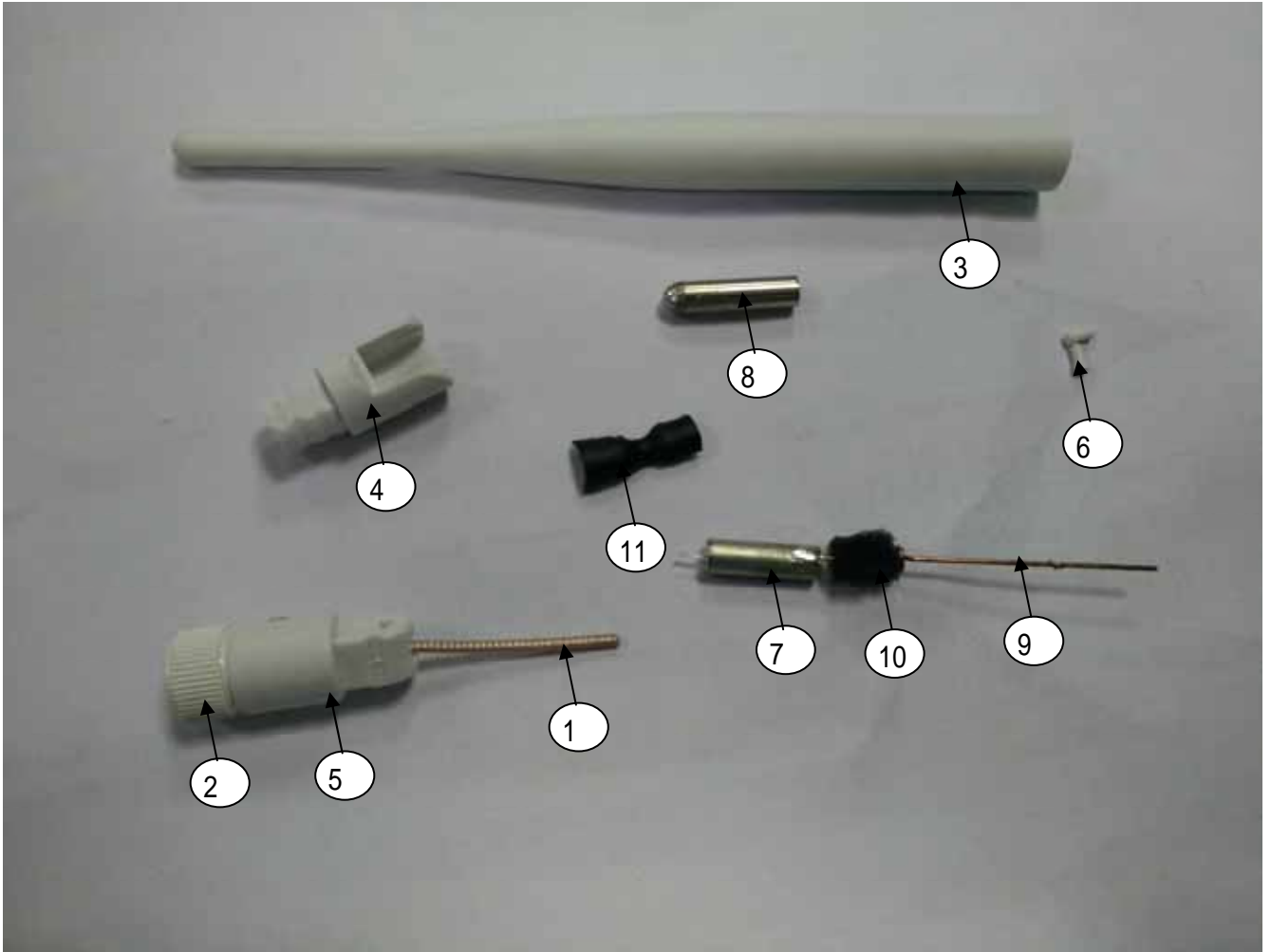
NO	DESCRIPTION	Q'TY	REMARK
6	Connector SMA Straight Plug Reverse	1	
5	Cable RG-178 Cable, Transparency Brown, 50Ω	1	
4	Rivet POM; Color: White	2	
3	Antenna Base (CD-13)PC+PBT; Color: White	1	
2	Antenna Base (CD-384)PC; Color: White	1	
1	Antenna Body (CD-383)TPE; Color: White	1	

CUSTOMER'S SINGATURE	XX.	±5.0	APPROVED	CUSTOMER:	訊舟		
	X.	±3.0	何四春 2017.07.03	PART NO :			
	.X	±1.0	CHECKED	PART NAME:	RF Antenna Assembly		
	.XX	±0.5		W.Y P/NO :	C059-510394-A		
	.XXX	±0.1	DRAWING	REV	UNIT	FILE :	SRF2017901
	⊙	≡	熊伊 2017.07.03	X1	mm	SHEET :	1/1

**M.gear** Wha Yu Group

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# 爆炸圖



**BILL OF MATERIAL**

CUSTOMER P/N: 訊舟科技股份有限公司

DATE:2017.07.17

W.Y.P/N:C059-510394-A

PART NO:SRF2017901

PART NAME:RF Antenna Assembly

序號	零件名稱	供應商	規格描述	用量/PCS
1	Cable	SHEN YU	RG-178 Cable	1
2	Connector	KAIXUAN	Reverse;Straight;Plug;RG-178;6GHz(白色塑膠外殼包銅牙;本體壓鑄鍍白鎳)	1
3	Antenna Cap	CHANGCHUN	(CD-383) $\phi$ 13.0*154.0mm;TPEE 55D(純料>90%);White	1
4	Antenna Base	CHIMEI	(CD-384) $\phi$ 13*28.2mm;PC-110(純料100%);White	1
5	Antenna Base	SHINKONG	(CD-13) $\phi$ 13.0*25.30mm;PC+PBT(純料100%);White	1
6	Rivet	YOU SHENG	$\Phi$ 2.4*5.1mm,POM,White	2
7	Signal Tube	GUANGDONG	$\phi$ 5.5*18;鋅合金 ; for:1.37Cable;鍍錫	1
8	Ground Tube	GUANGDONG	$\phi$ 5.5*23mm(T)0.25mm;Brass;For RG-178;鍍錫;抽心式	1
9	Helix	JUEMAO	$\phi$ 0.8 $\times$ 10T;OD:4.3mm;F:7.0mm;B:39mm;P:1mm;Phosphor Bronze	1
10	泡棉	JUNZHANG	黑色海綿+3M9448單面背膠;(L)18*(W)16*(T)3.0mm	1
11	H.S TUBE	WOER	W3F2 1/4 $\phi$ 6.4 $\times$ 22 mm .含膠	1

## RF Antenna Assembly

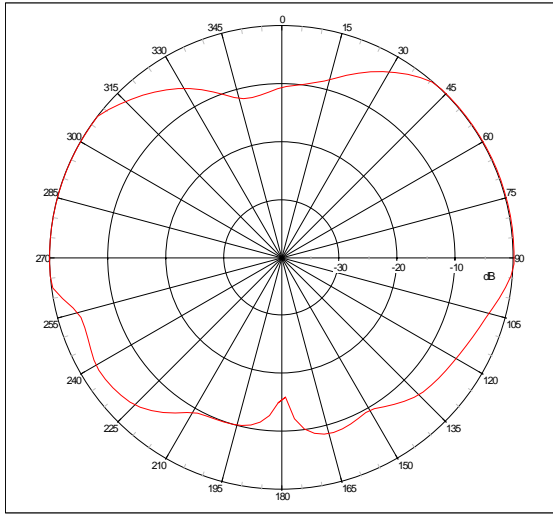
P/No. C059-510394-A

Spec:2.4~2.5GHz / 4.9~5.825GHz



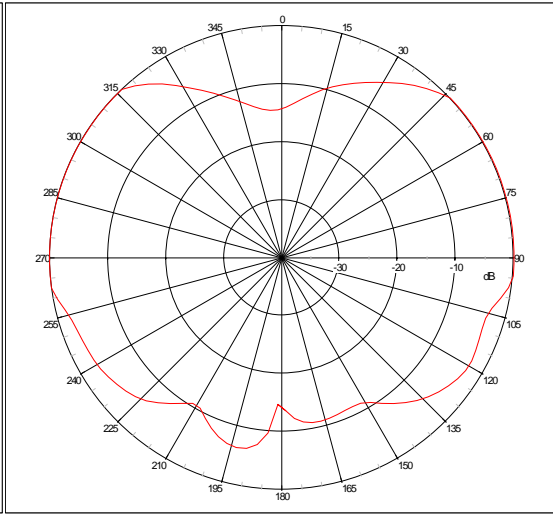
Far-field Power Distribution(H+V) on X-Z Plane

Plot Peak Gain(H+V)= 3.0 dBi; Plot AvgGain(H+V)= -3.2dBi @2.4000 GHz



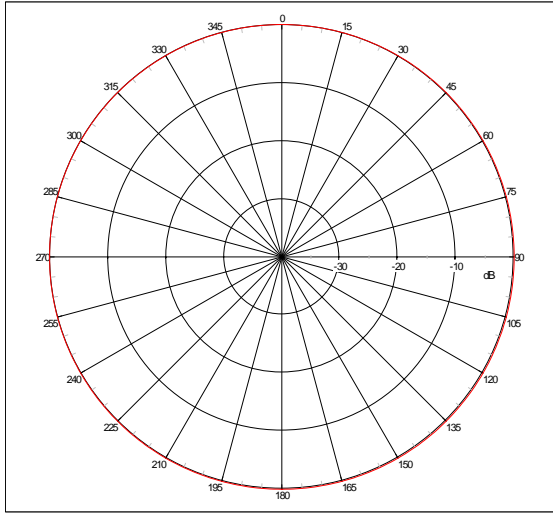
Far-field Power Distribution(H+V) on Y-Z Plane

Plot Peak Gain(H+V)= 4.1 dBi; Plot AvgGain(H+V)= -2.7dBi @2.4000 GHz



Far-field Power Distribution(H+V) on X-Y Plane

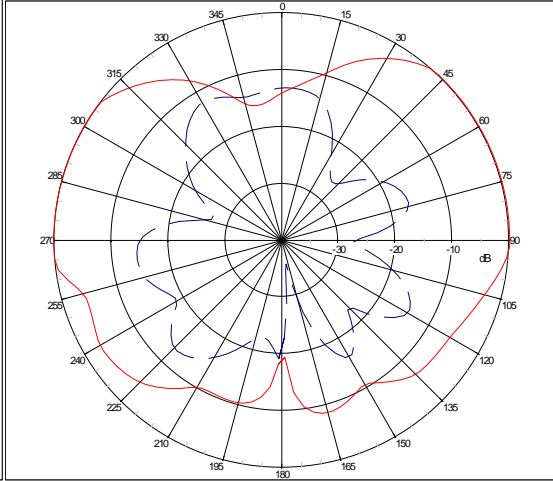
Plot Peak Gain(H+V)= 2.6 dBi; Plot AvgGain(H+V)= 1.8dBi @2.4000 GHz



Far-field Patterns of H-Pol & V-Pol @ Phi=0 deg/(X-Z Plane-Cut)

Plot PeakGain(H-Pol): 3.0 dBi; Plot PeakGain(V-Pol): -12.0dBi @ Freq: 2.40000 GHz

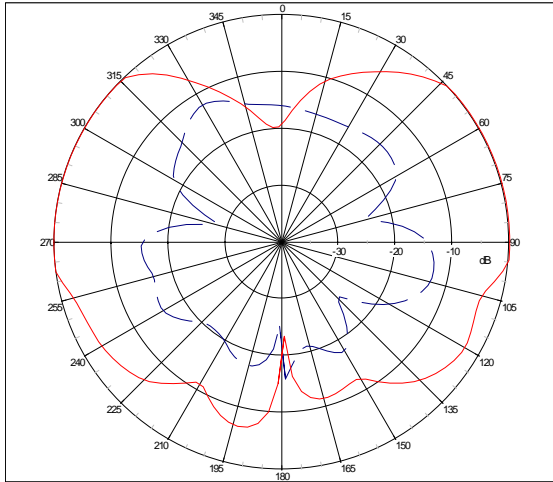
Ppol Xpol



Far-field Patterns of H-Pol & V-Pol @ Phi=90 deg/(Y-Z Plane-Cut)

Plot PeakGain(H-Pol): 4.1 dBi; Plot PeakGain(V-Pol): -12.2dBi @ Freq: 2.40000 GHz

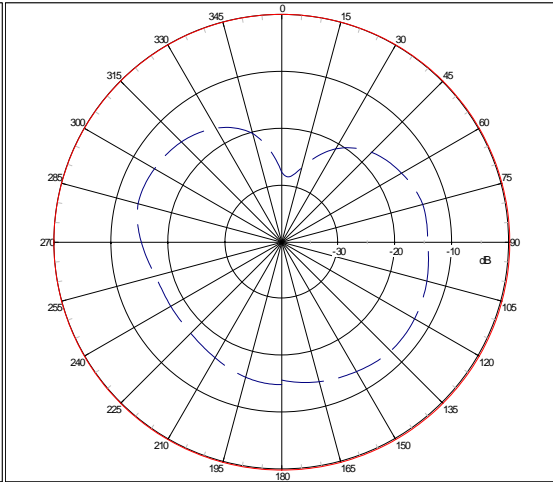
Ppol Xpol



Far-field Patterns of H-Pol & V-Pol @ Theta=90 deg/(X-Y Plane-Cut)

Plot PeakGain(H-Pol): 2.5 dBi; Plot PeakGain(V-Pol): -13.0dBi @ Freq: 2.40000 GHz

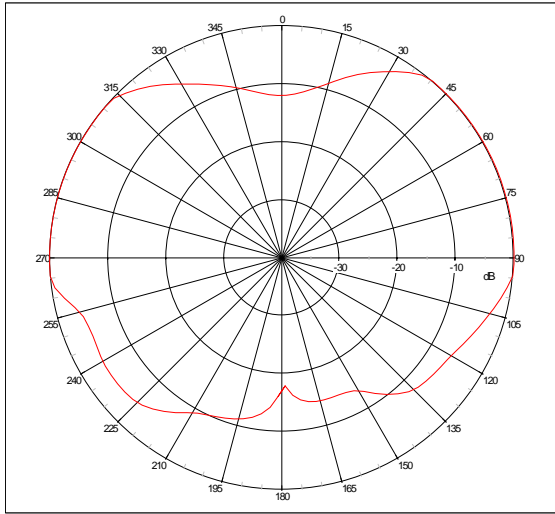
Ppol Xpol





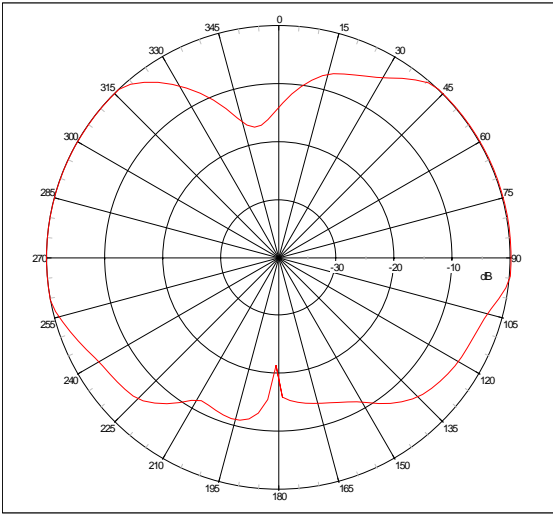
Far-field Power Distribution(H+V) on X-Z Plane

Plot Peak Gain(H+V)= 3.2 dBi; Plot AvgGain(H+V)= -3.3dBi @2.4500 GHz



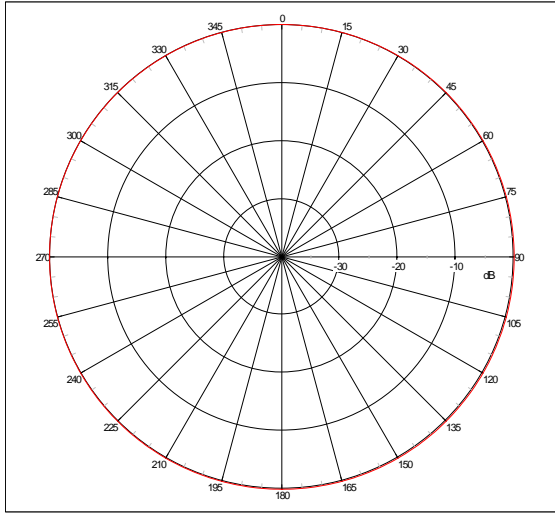
Far-field Power Distribution(H+V) on Y-Z Plane

Plot Peak Gain(H+V)= 4.5 dBi; Plot AvgGain(H+V)= -2.7dBi @2.4500 GHz



Far-field Power Distribution(H+V) on X-Y Plane

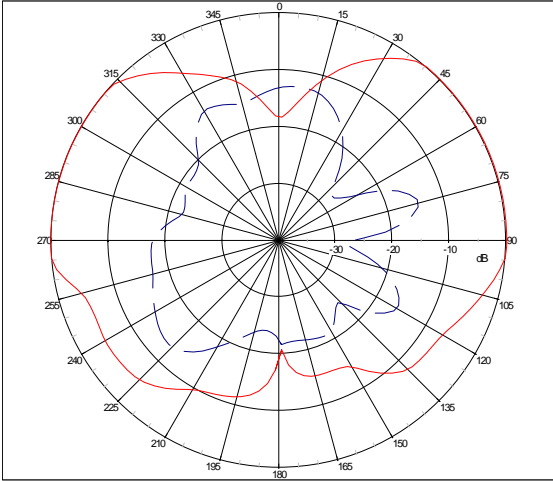
Plot Peak Gain(H+V)= 2.6 dBi; Plot AvgGain(H+V)= 1.8dBi @2.4500 GHz



Far-field Patterns of H-Pol & V-Pol @ Phi=0 deg/(X-Z Plane-Cut)

Plot PeakGain(H-Pol): 3.2 dBi; Plot PeakGain(V-Pol): -12.8dBi @ Freq: 2.45000 GHz

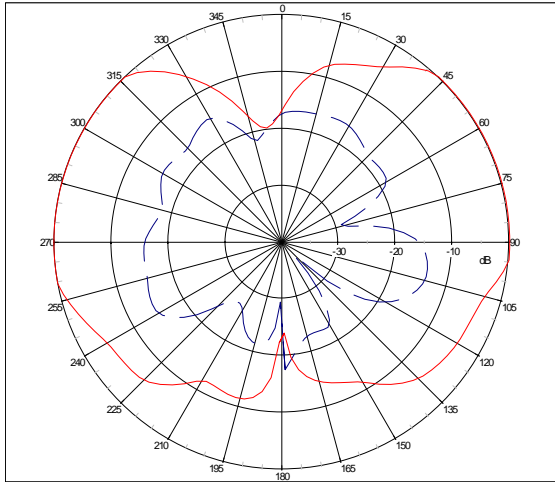
Ppol Xpol



Far-field Patterns of H-Pol & V-Pol @ Phi=90 deg/(Y-Z Plane-Cut)

Plot PeakGain(H-Pol): 4.5 dBi; Plot PeakGain(V-Pol): -14.0dBi @ Freq: 2.45000 GHz

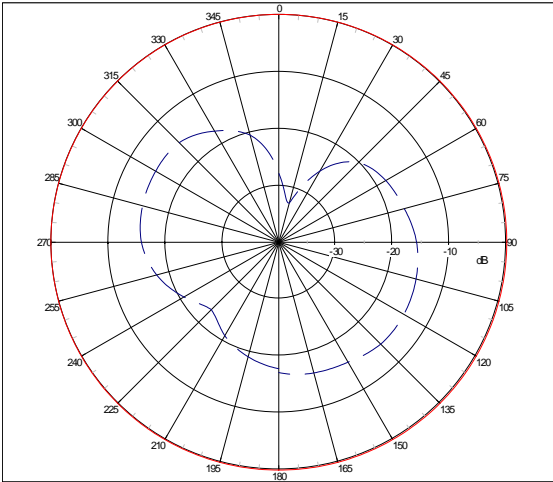
Ppol Xpol



Far-field Patterns of H-Pol & V-Pol @ Theta=90 deg/(X-Y Plane-Cut)

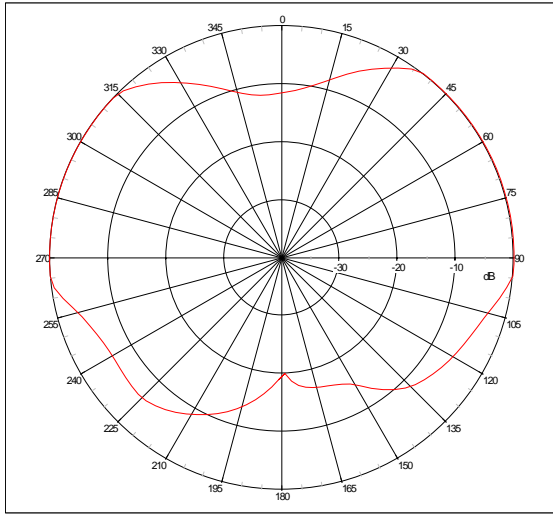
Plot PeakGain(H-Pol): 2.6 dBi; Plot PeakGain(V-Pol): -14.6dBi @ Freq: 2.45000 GHz

Ppol Xpol



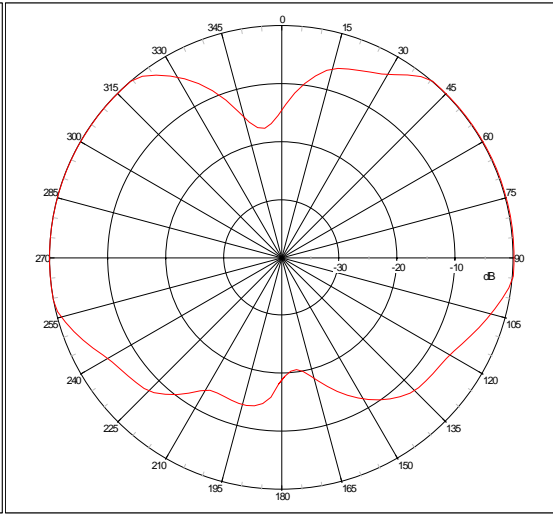
Far-field Power Distribution(H+V) on X-Z Plane

Plot Peak Gain(H+V)= 3.8 dBi; Plot AvgGain(H+V)=-3.1dBi @2.5000 GHz



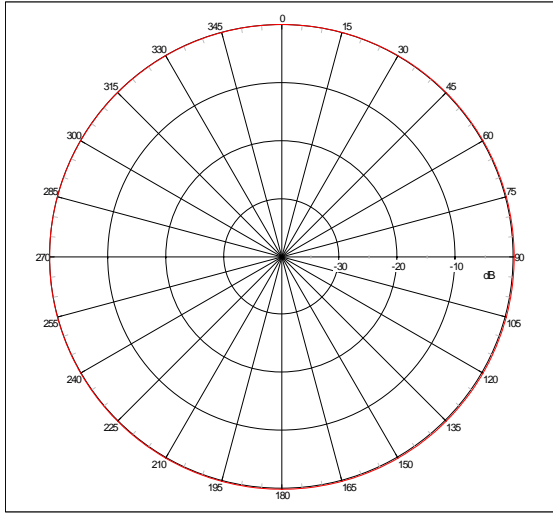
Far-field Power Distribution(H+V) on Y-Z Plane

Plot Peak Gain(H+V)= 4.8 dBi; Plot AvgGain(H+V)=-2.5dBi @2.5000 GHz



Far-field Power Distribution(H+V) on X-Y Plane

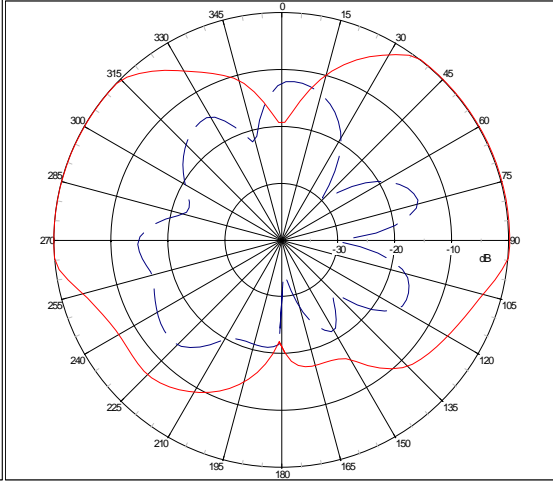
Plot Peak Gain(H+V)= 2.7 dBi; Plot AvgGain(H+V)= 1.9dBi @2.5000 GHz



Far-field Patterns of H-Pol & V-Pol @ Phi=0 deg/(X-Z Plane-Cut)

Plot PeakGain(H-Pol): 3.8 dBi; Plot PeakGain(V-Pol): -12.0dBi @ Freq: 2.50000 GHz

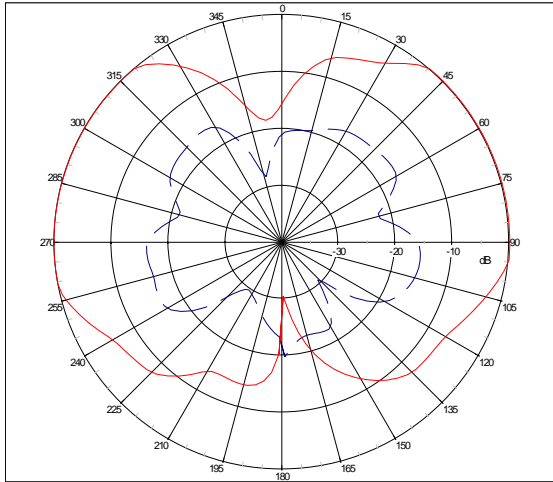
Ppol Xpol



Far-field Patterns of H-Pol & V-Pol @ Phi=90 deg/(Y-Z Plane-Cut)

Plot PeakGain(H-Pol): 4.8 dBi; Plot PeakGain(V-Pol): -15.5dBi @ Freq: 2.50000 GHz

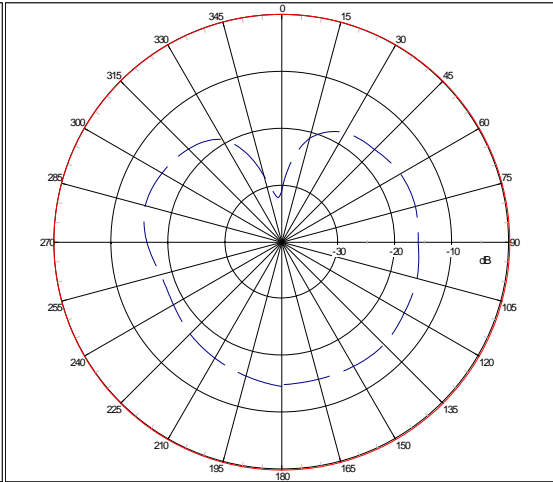
Ppol Xpol



Far-field Patterns of H-Pol & V-Pol @ Theta=90 deg/(X-Y Plane-Cut)

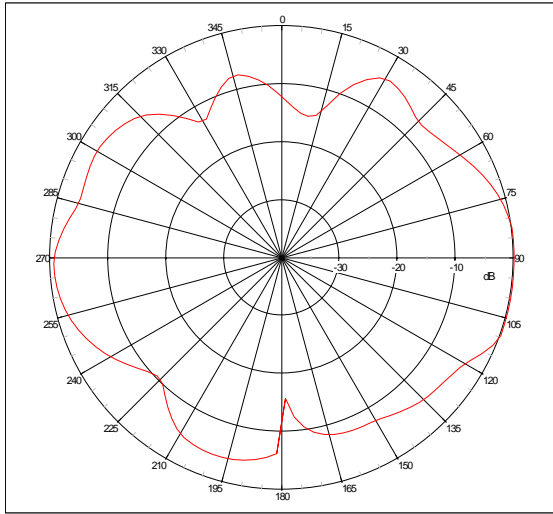
Plot PeakGain(H-Pol): 2.6 dBi; Plot PeakGain(V-Pol): -14.6dBi @ Freq: 2.50000 GHz

Ppol Xpol



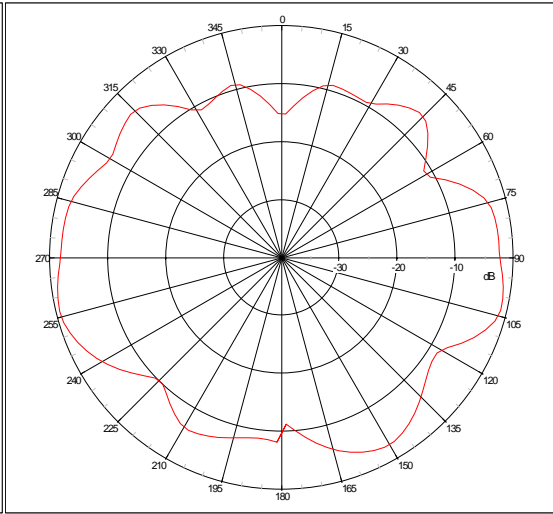
Far-field Power Distribution(H+V) on X-Z Plane

Plot Peak Gain(H+V)= 1.4 dB; Plot AvgGain(H+V)= -4.9dB @4.9000 GHz



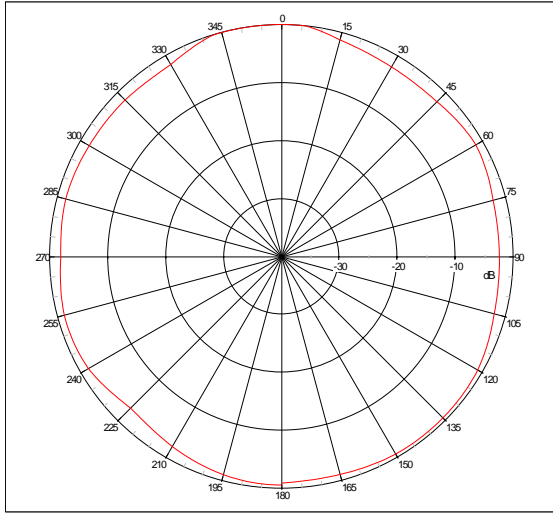
Far-field Power Distribution(H+V) on Y-Z Plane

Plot Peak Gain(H+V)= -0.7 dB; Plot AvgGain(H+V)= -5.7dB @4.9000 GHz



Far-field Power Distribution(H+V) on X-Y Plane

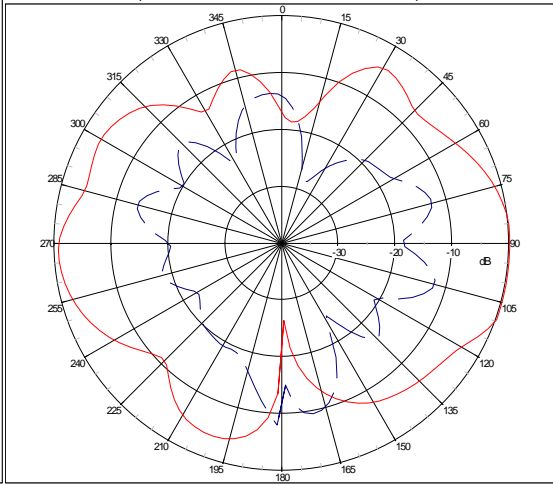
Plot Peak Gain(H+V)= 0.7 dB; Plot AvgGain(H+V)= -1.5dB @4.9000 GHz



Far-field Patterns of H-Pol & V-Pol @ Phi=0 deg/(X-Z Plane-Cut)

Plot PeakGain(H-Pol): 1.3 dB; Plot PeakGain(V-Pol): -8.1dB @ Freq: 4.9000 GHz

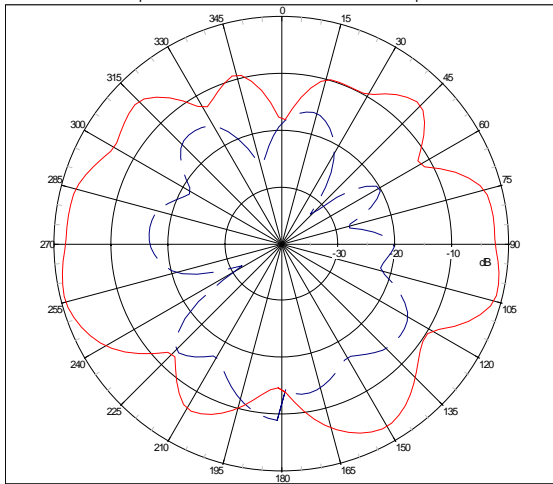
— Ppol — Xpol



Far-field Patterns of H-Pol & V-Pol @ Phi=90 deg/(Y-Z Plane-Cut)

Plot PeakGain(H-Pol): -0.7 dB; Plot PeakGain(V-Pol): -9.1dB @ Freq: 4.9000 GHz

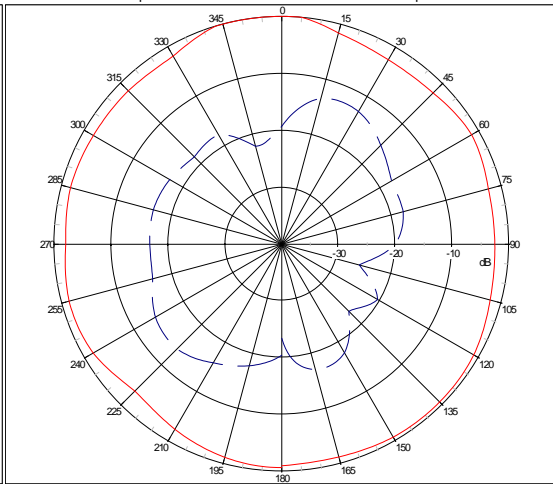
— Ppol — Xpol



Far-field Patterns of H-Pol & V-Pol @ Theta=90 deg/(X-Y Plane-Cut)

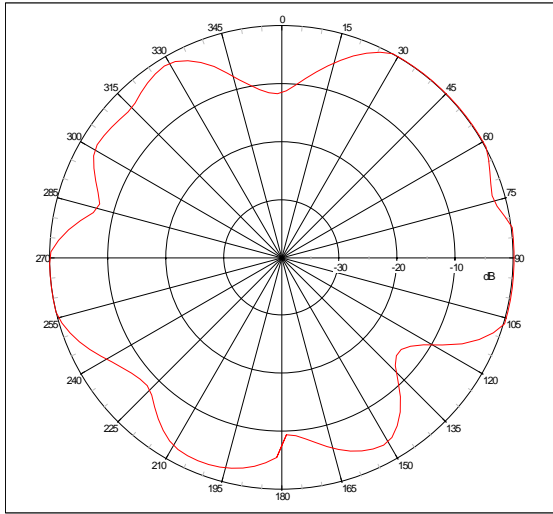
Plot PeakGain(H-Pol): 0.7 dB; Plot PeakGain(V-Pol): -12.9dB @ Freq: 4.9000 GHz

— Ppol — Xpol



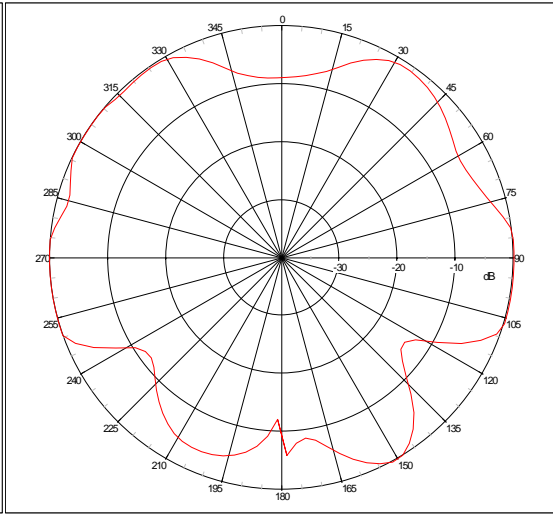
Far-field Power Distribution(H+V) on X-Z Plane

Plot Peak Gain(H+V)= 2.1 dBi; Plot AvgGain(H+V)=-3.1dBi @5.15000 GHz



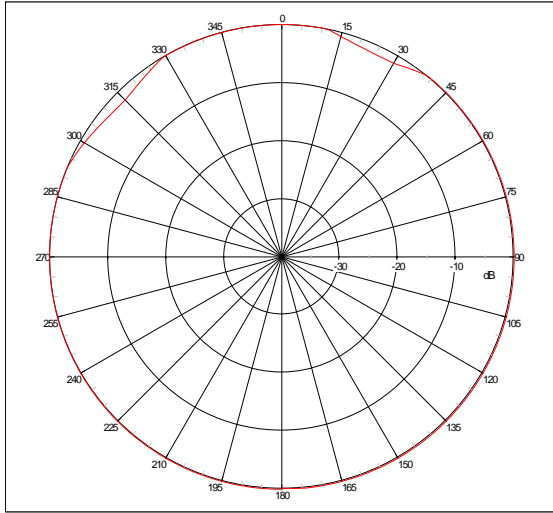
Far-field Power Distribution(H+V) on Y-Z Plane

Plot Peak Gain(H+V)= 2.6 dBi; Plot AvgGain(H+V)=-2.9dBi @5.15000 GHz



Far-field Power Distribution(H+V) on X-Y Plane

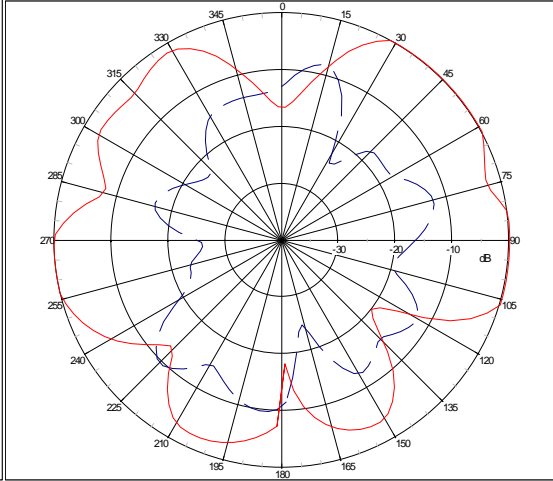
Plot Peak Gain(H+V)= 2.3 dBi; Plot AvgGain(H+V)= 0.8dBi @5.15000 GHz



Far-field Patterns of H-Pol & V-Pol @ Phi=0 deg/(X-Z Plane-Cut)

Plot PeakGain(H-Pol): 2.1 dBi; Plot PeakGain(V-Pol): -8.2dBi @ Freq: 5.15000 GHz

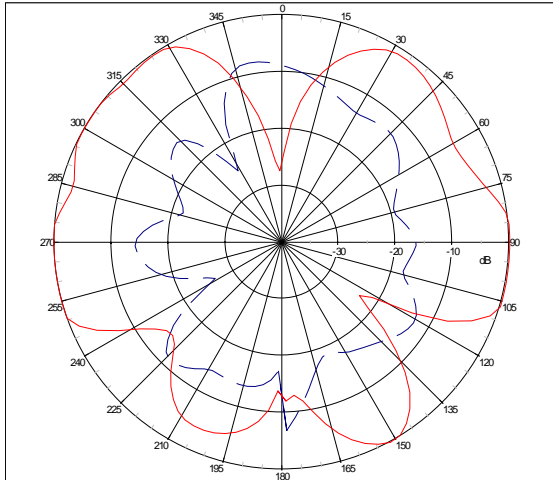
Legend: Ppol (red line), Xpol (blue line)



Far-field Patterns of H-Pol & V-Pol @ Phi=90 deg/(Y-Z Plane-Cut)

Plot PeakGain(H-Pol): 2.5 dBi; Plot PeakGain(V-Pol): -6.9dBi @ Freq: 5.15000 GHz

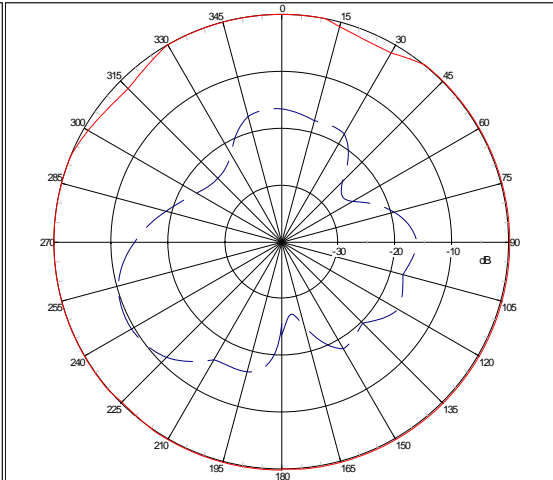
Legend: Ppol (red line), Xpol (blue line)



Far-field Patterns of H-Pol & V-Pol @ Theta=90 deg/(X-Y Plane-Cut)

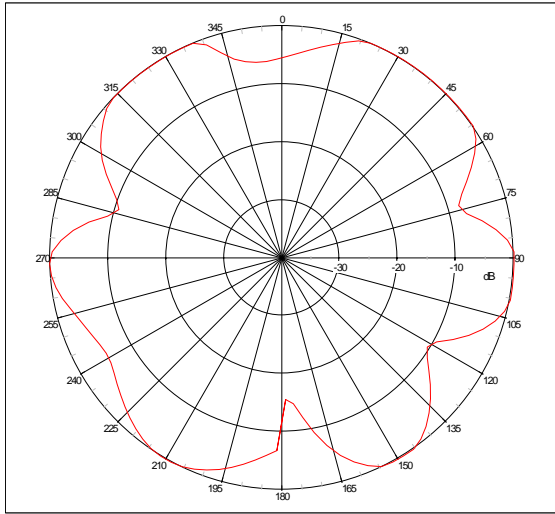
Plot PeakGain(H-Pol): 2.3 dBi; Plot PeakGain(V-Pol): -9.5dBi @ Freq: 5.15000 GHz

Legend: Ppol (red line), Xpol (blue line)



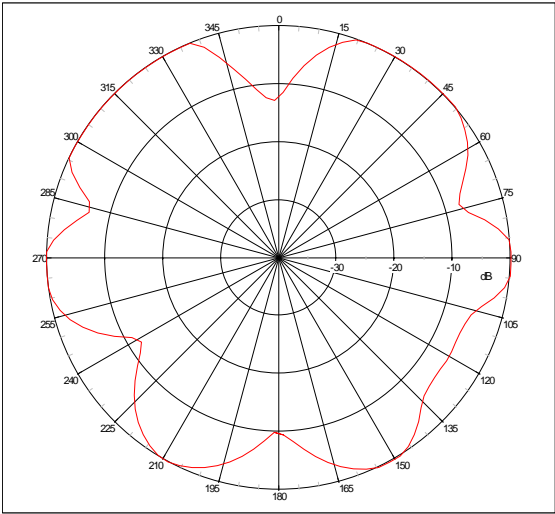
Far-field Power Distribution(H+V) on X-Z Plane

Plot Peak Gain(H+V)= 3.4 dBi; Plot AvgGain(H+V)=-2.1dBi @5.35000 GHz



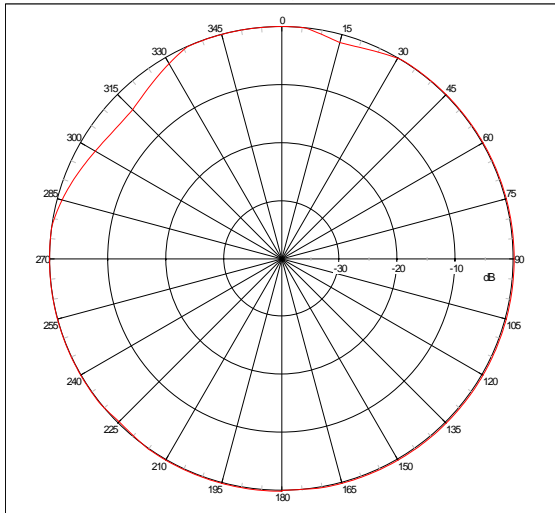
Far-field Power Distribution(H+V) on Y-Z Plane

Plot Peak Gain(H+V)= 3.7 dBi; Plot AvgGain(H+V)=-2.1dBi @5.35000 GHz



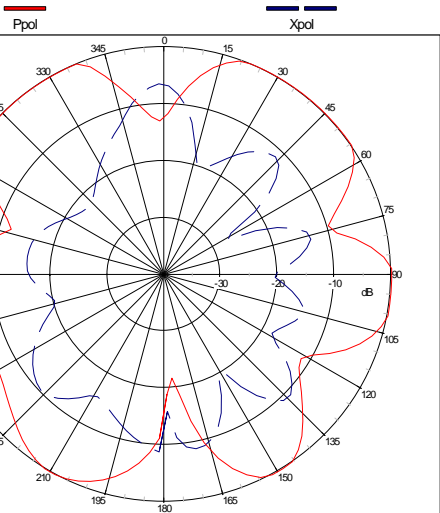
Far-field Power Distribution(H+V) on X-Y Plane

Plot Peak Gain(H+V)= 2.6 dBi; Plot AvgGain(H+V)= 0.5dBi @5.35000 GHz



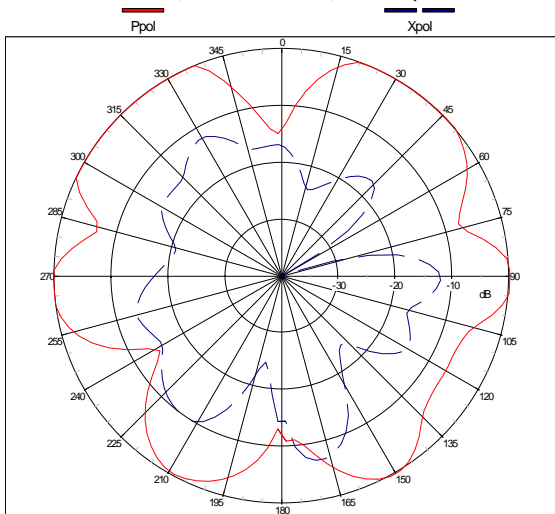
Far-field Patterns of H-Pol & V-Pol @ Phi=0 deg/(X-Z Plane-Cut)

Plot PeakGain(H-Pol): 3.4 dBi; Plot PeakGain(V-Pol): -6.5dBi @ Freq: 5.35000 GHz



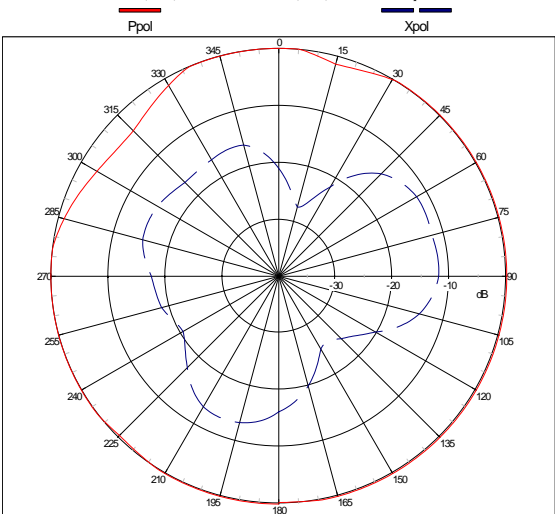
Far-field Patterns of H-Pol & V-Pol @ Phi=90 deg/(Y-Z Plane-Cut)

Plot PeakGain(H-Pol): 3.6 dBi; Plot PeakGain(V-Pol): -7.1dBi @ Freq: 5.35000 GHz



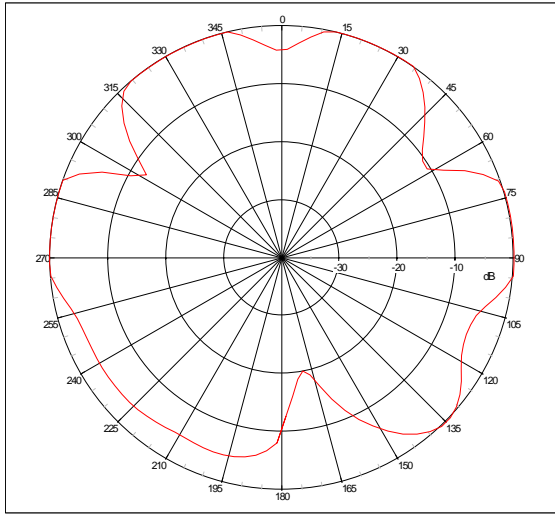
Far-field Patterns of H-Pol & V-Pol @ Theta=90 deg/(X-Y Plane-Cut)

Plot PeakGain(H-Pol): 2.6 dBi; Plot PeakGain(V-Pol): -11.9dBi @ Freq: 5.35000 GHz



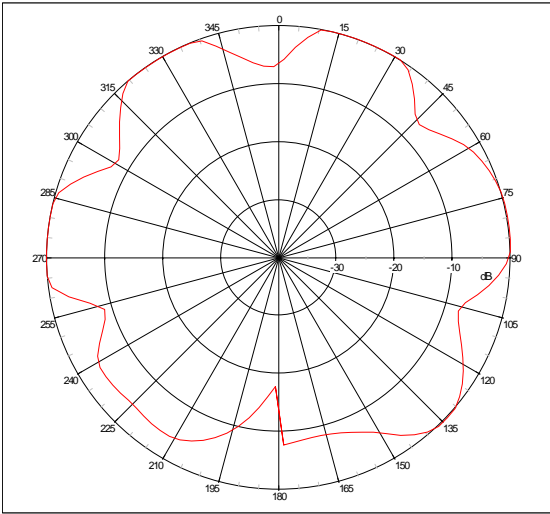
Far-field Power Distribution(H+V) on X-Z Plane

Plot Peak Gain(H+V)= 2.9 dBi; Plot AvgGain(H+V)= -2.3dBi @5.75000 GHz



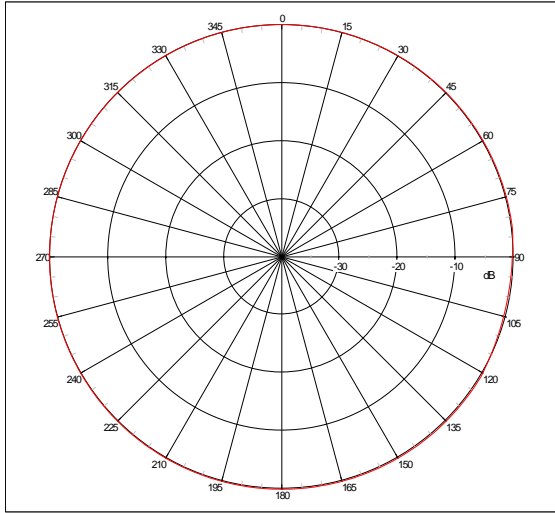
Far-field Power Distribution(H+V) on Y-Z Plane

Plot Peak Gain(H+V)= 3.3 dBi; Plot AvgGain(H+V)= -2.7dBi @5.75000 GHz



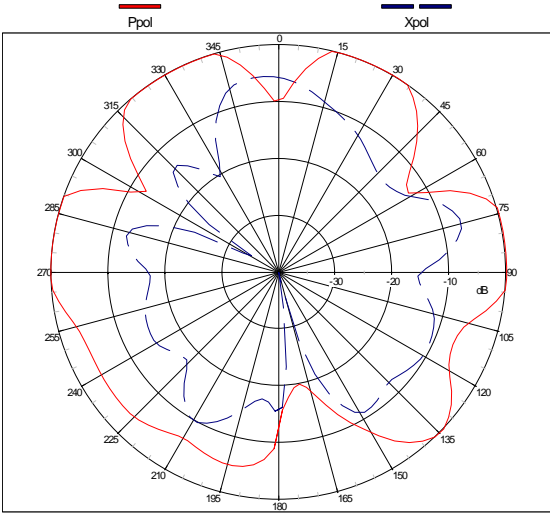
Far-field Power Distribution(H+V) on X-Y Plane

Plot Peak Gain(H+V)= 3.4 dBi; Plot AvgGain(H+V)= 1.6dBi @5.75000 GHz



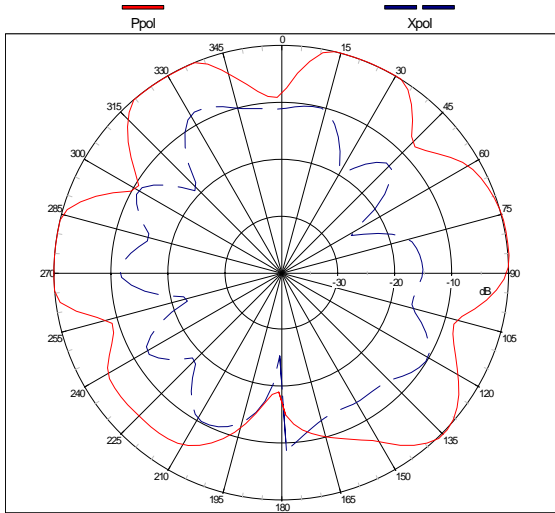
Far-field Patterns of H-Pol & V-Pol @ Phi=0 deg/(X-Z Plane-Cut)

Plot PeakGain(H-Pol): 2.7 dBi; Plot PeakGain(V-Pol): -5.5dBi @ Freq: 5.75000 GHz



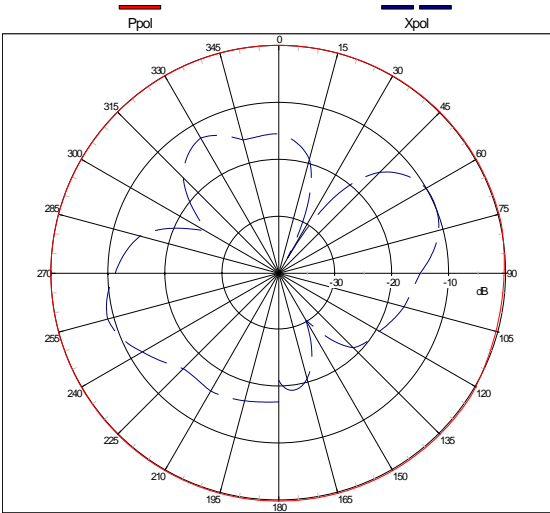
Far-field Patterns of H-Pol & V-Pol @ Phi=90 deg/(Y-Z Plane-Cut)

Plot PeakGain(H-Pol): 3.2 dBi; Plot PeakGain(V-Pol): -7.8dBi @ Freq: 5.75000 GHz



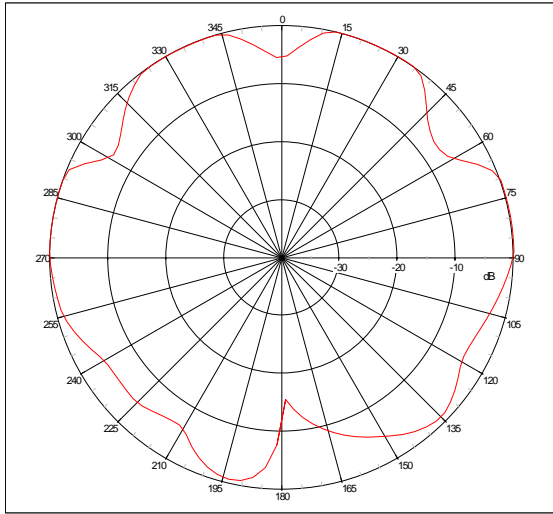
Far-field Patterns of H-Pol & V-Pol @ Theta=90 deg/(X-Y Plane-Cut)

Plot PeakGain(H-Pol): 3.2 dBi; Plot PeakGain(V-Pol): -8.9dBi @ Freq: 5.75000 GHz



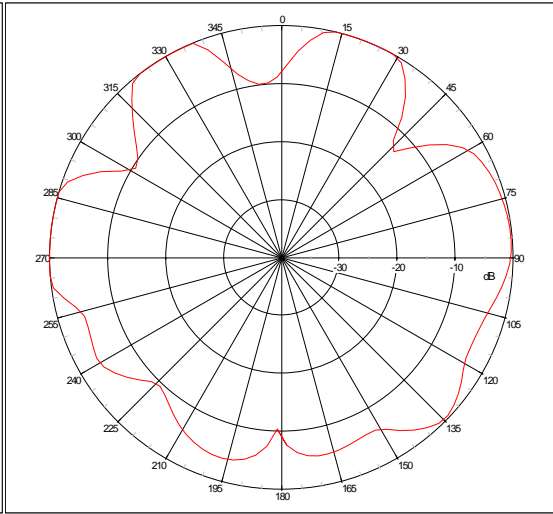
Far-field Power Distribution(H+V) on X-Z Plane

Plot Peak Gain(H+V)= 2.9 dBi; Plot AvgGain(H+V)=-2.1dBi @5.8250 GHz



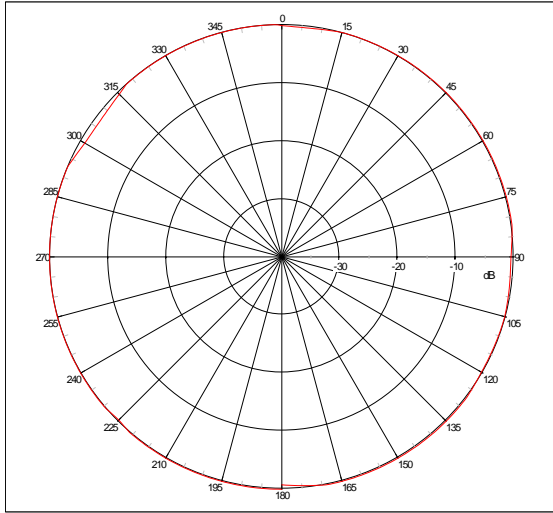
Far-field Power Distribution(H+V) on Y-Z Plane

Plot Peak Gain(H+V)= 3.0 dBi; Plot AvgGain(H+V)=-2.9dBi @5.8250 GHz



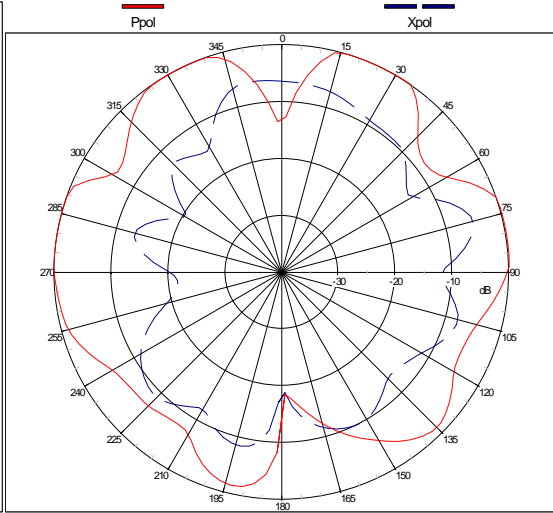
Far-field Power Distribution(H+V) on X-Y Plane

Plot Peak Gain(H+V)= 2.6 dBi; Plot AvgGain(H+V)= 0.8dBi @5.8250 GHz



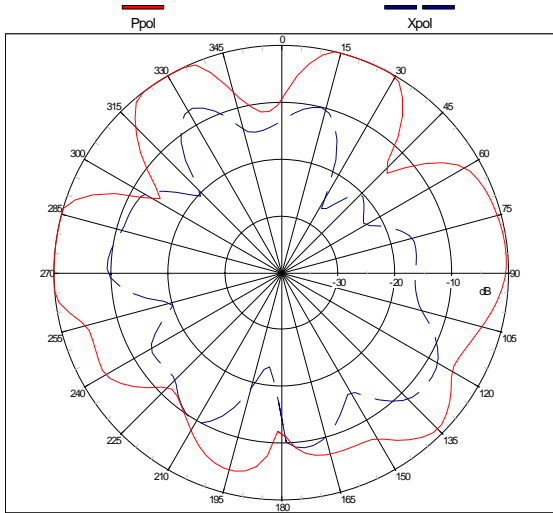
Far-field Patterns of H-Pol & V-Pol @ Phi=0 deg/(X-Z Plane-Cut)

Plot PeakGain(H-Pol): 2.7 dBi; Plot PeakGain(V-Pol): -5.3dBi @ Freq: 5.82500 GHz



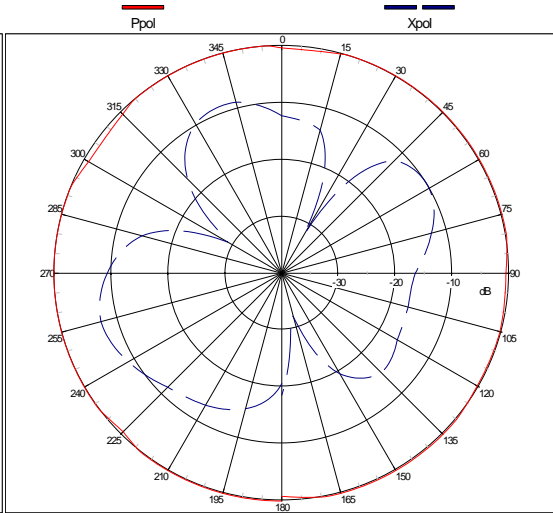
Far-field Patterns of H-Pol & V-Pol @ Phi=90 deg/(Y-Z Plane-Cut)

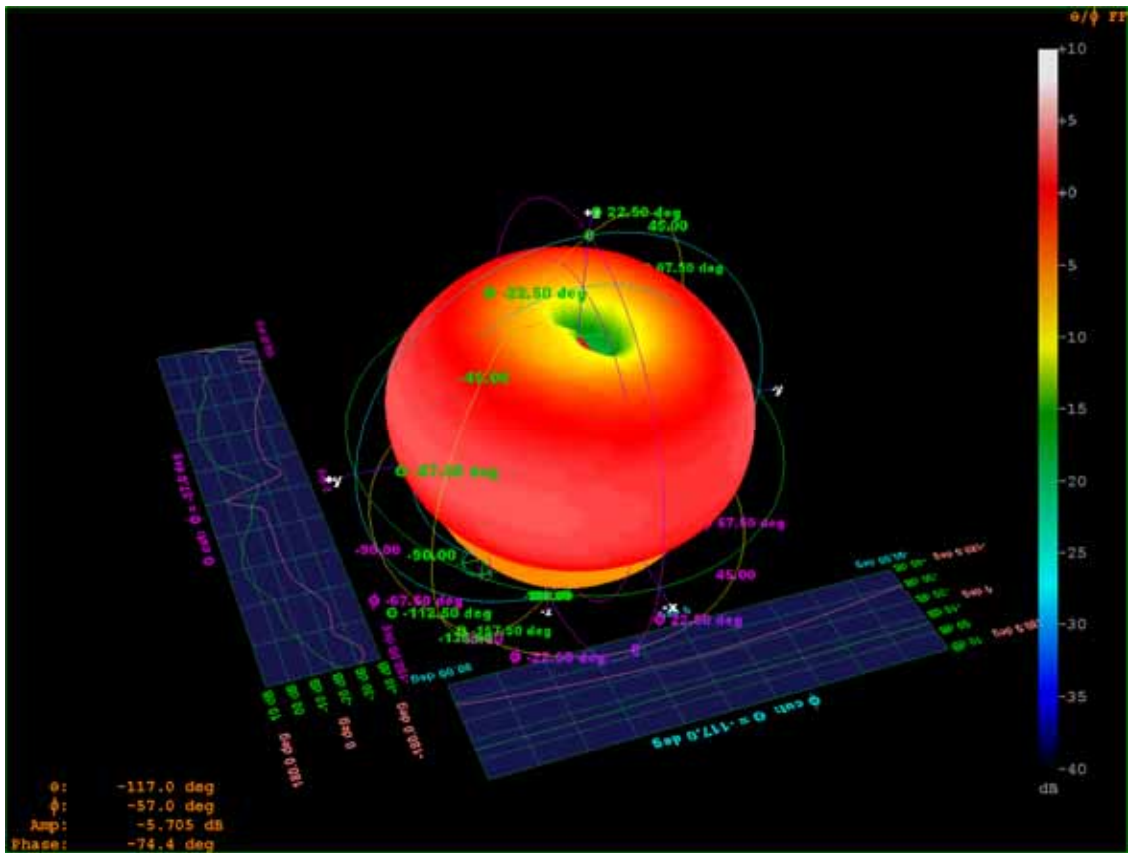
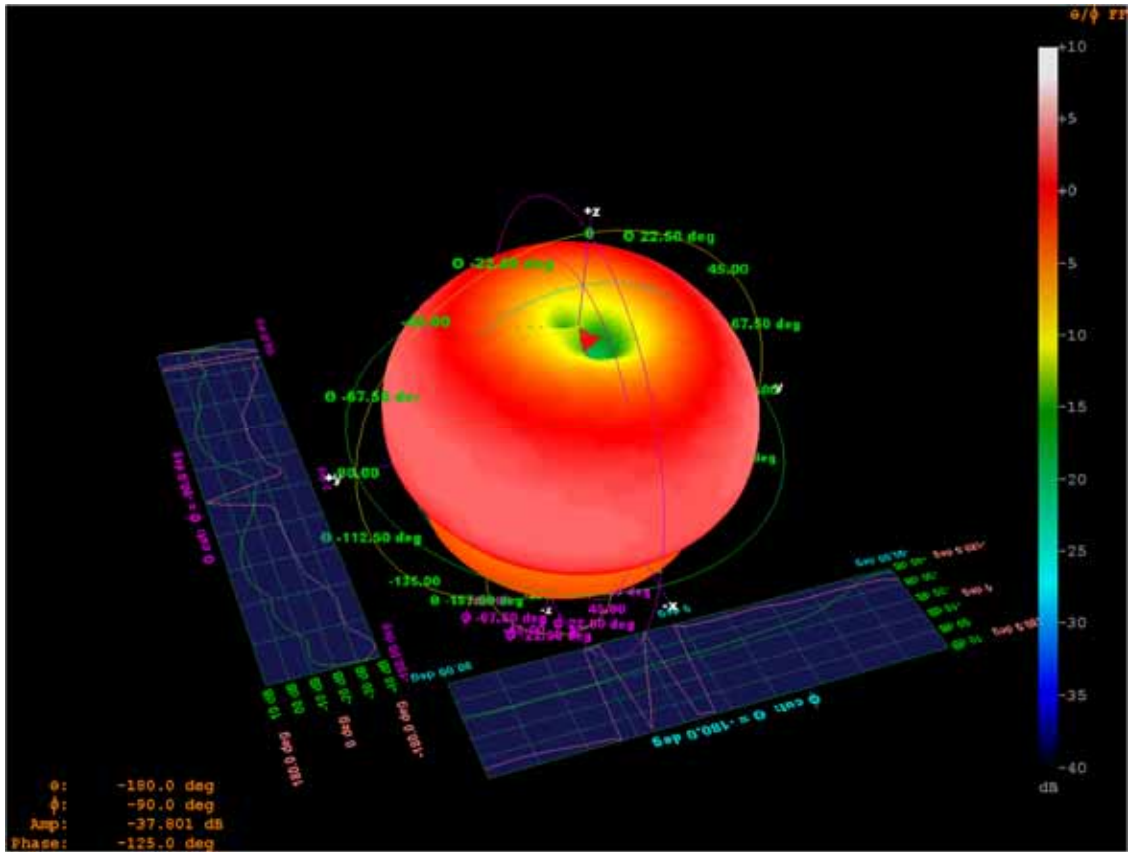
Plot PeakGain(H-Pol): 2.6 dBi; Plot PeakGain(V-Pol): -7.0dBi @ Freq: 5.82500 GHz



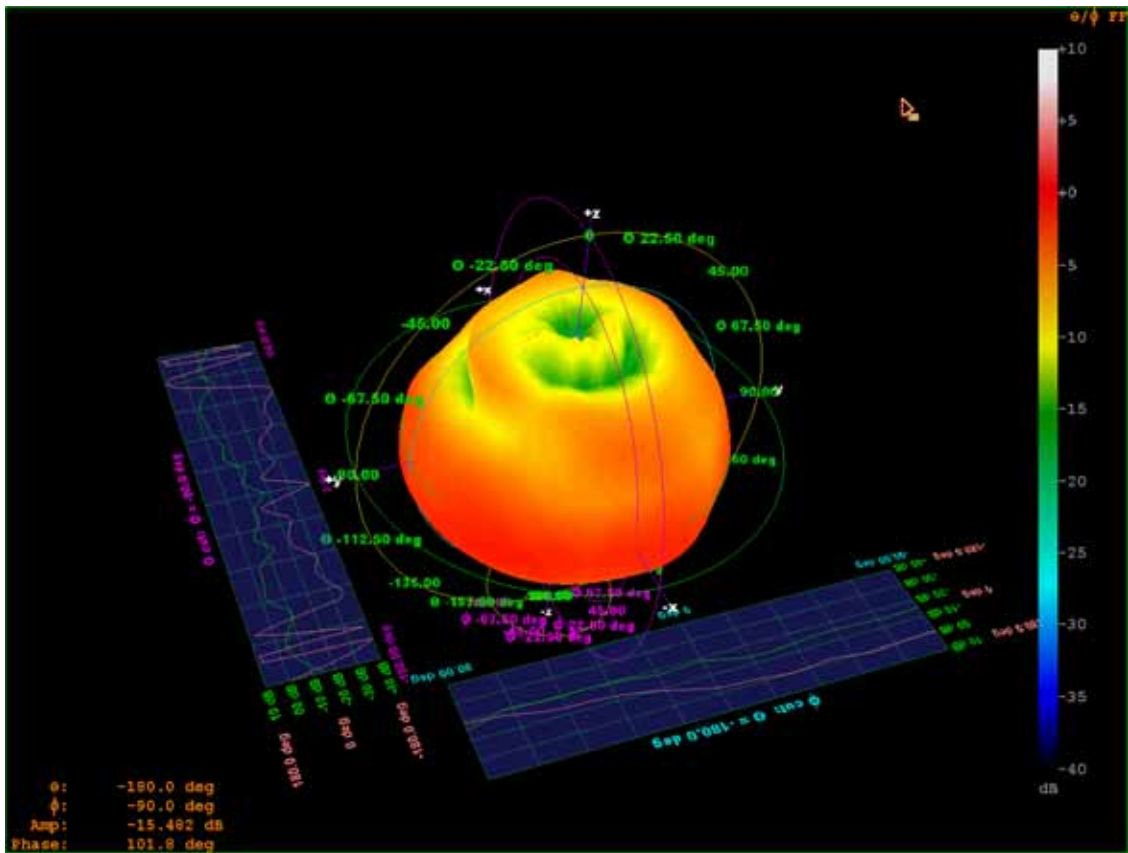
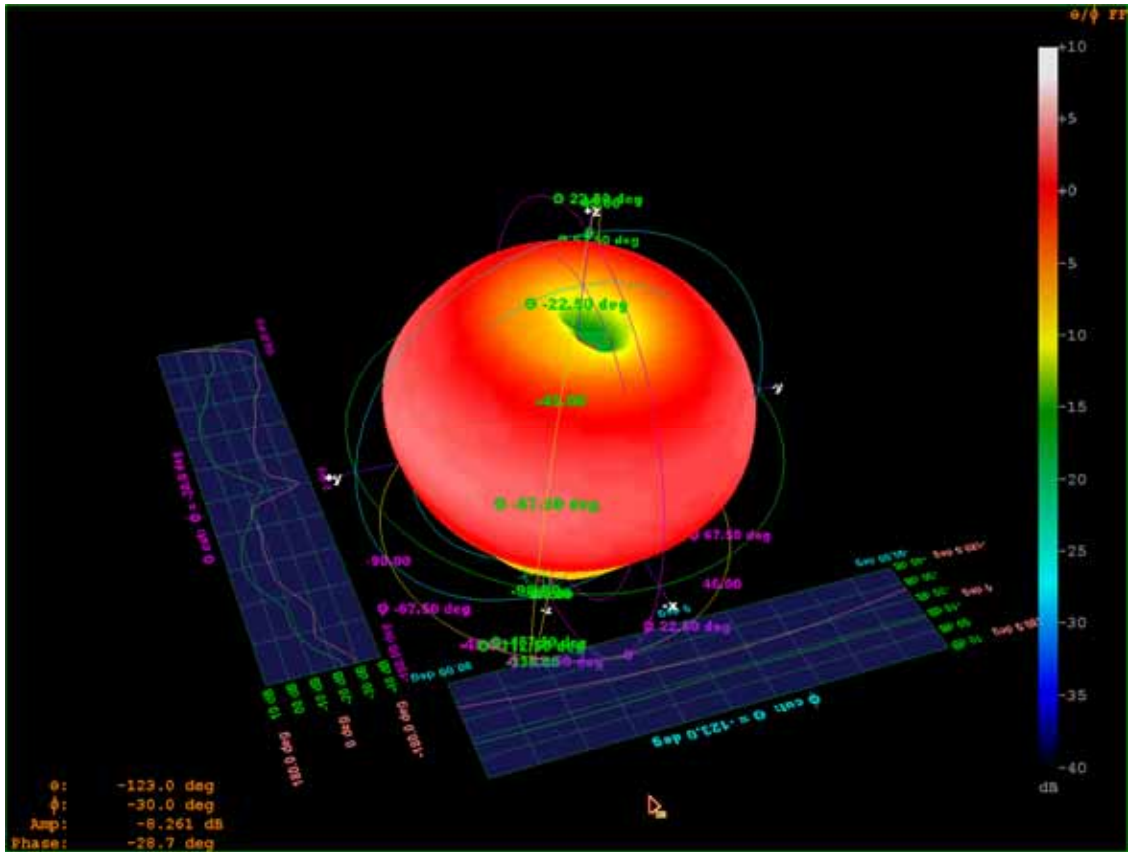
Far-field Patterns of H-Pol & V-Pol @ Theta=90 deg/(X-Y Plane-Cut)

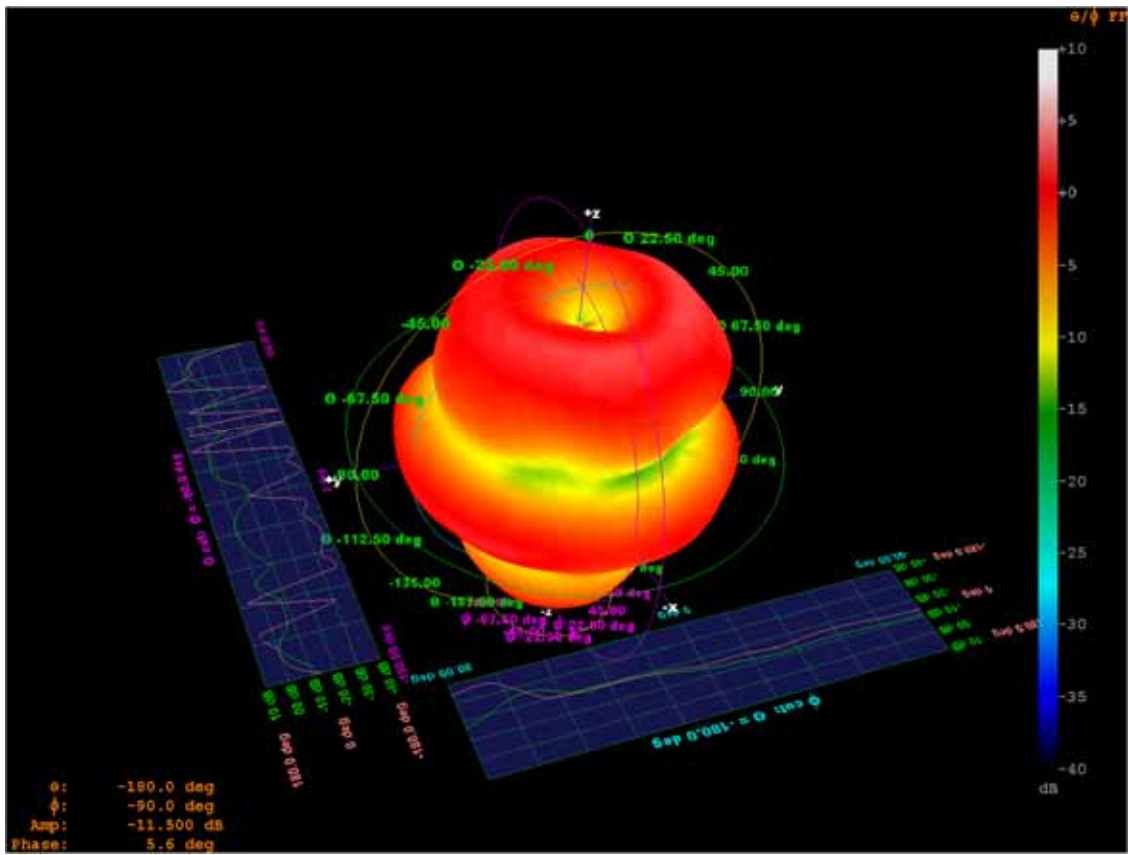
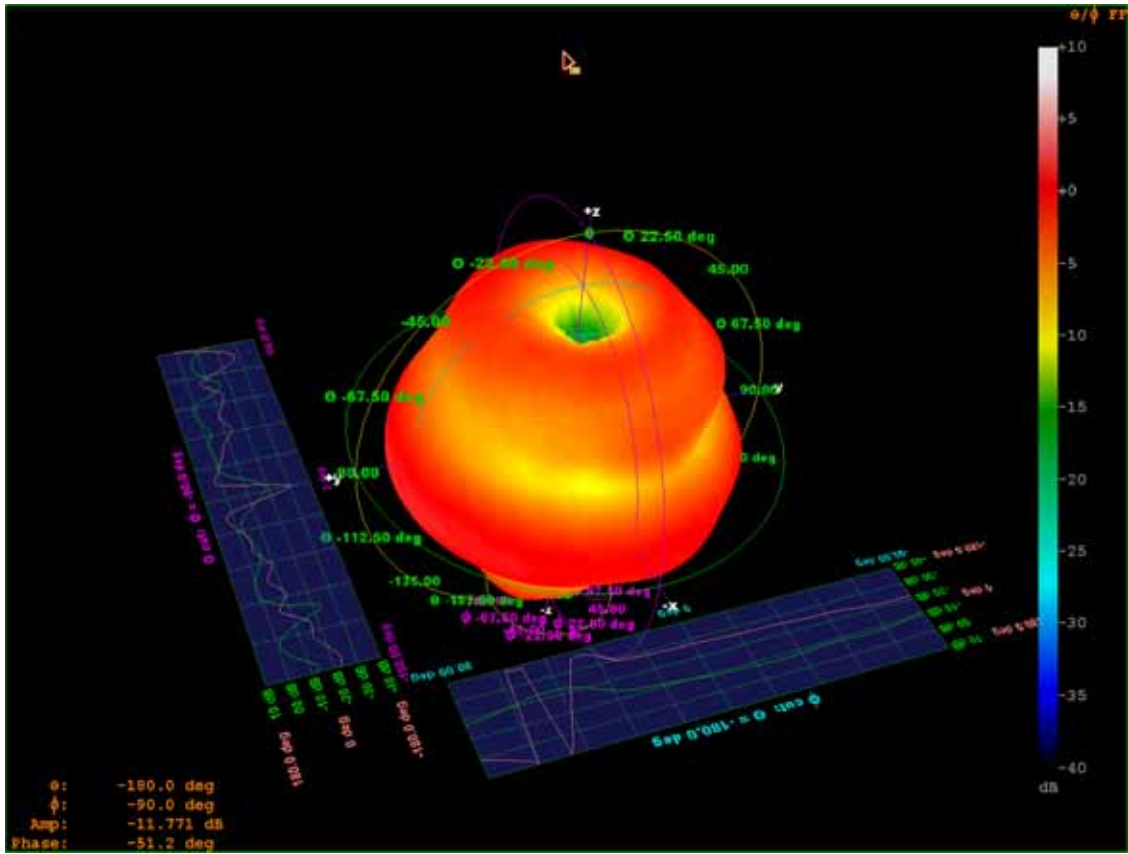
Plot PeakGain(H-Pol): 2.4 dBi; Plot PeakGain(V-Pol): -7.1dBi @ Freq: 5.82500 GHz

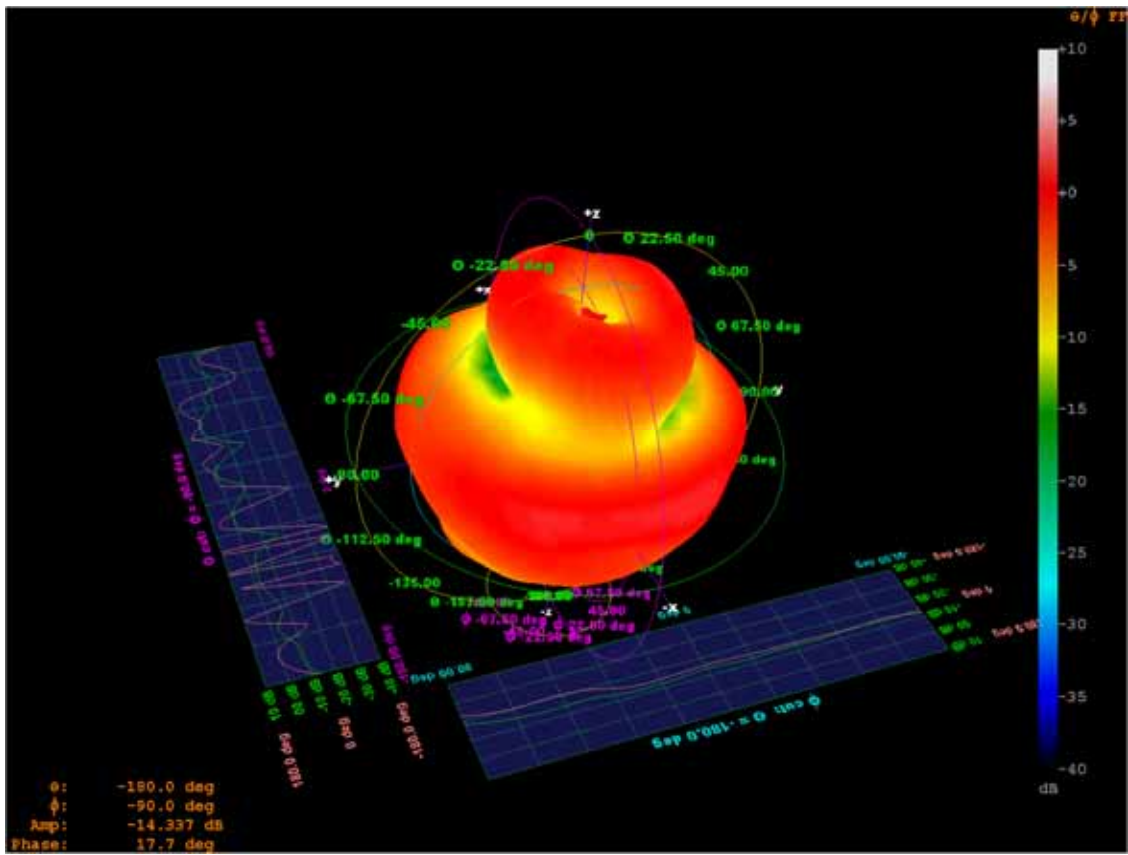
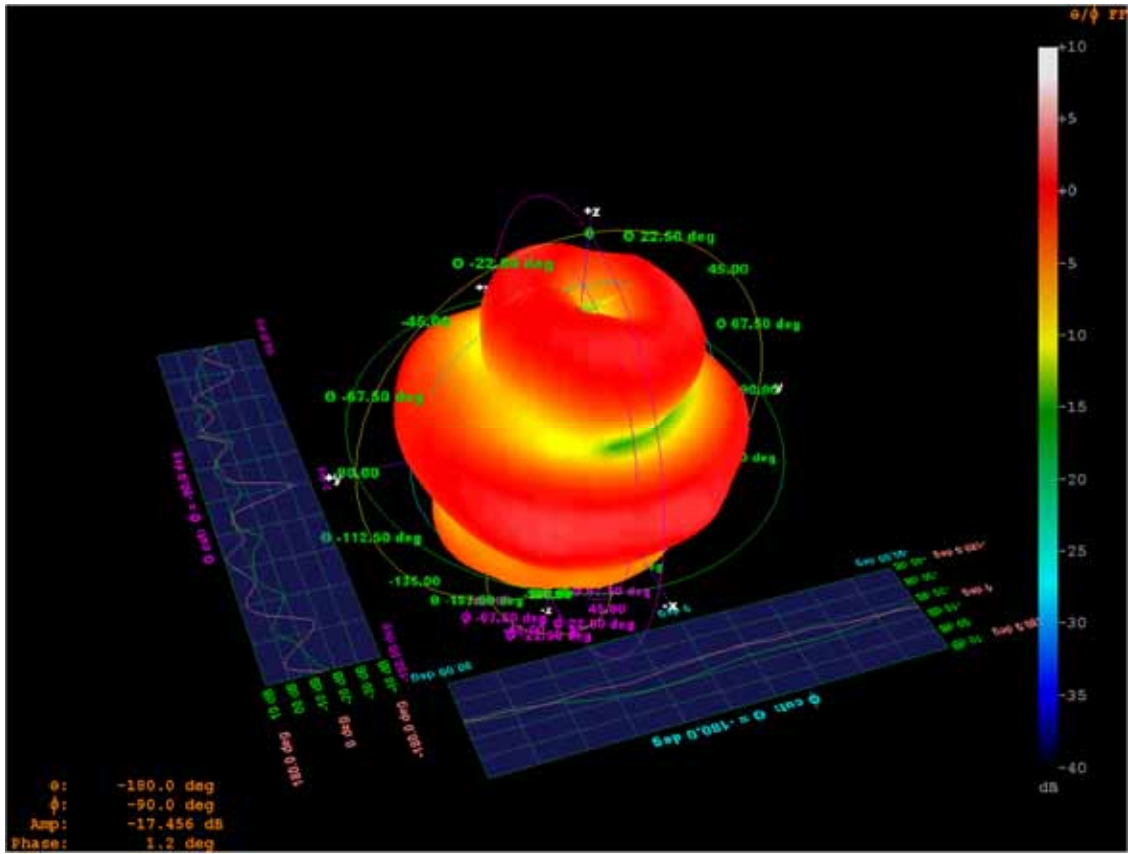












Frequency(MHz)	X-Z plane(Phi=0)		Y-Z plane(Phi=90)		X-Y plane(Theta=90)		Gain-3D (H+V) dBi	Efficiency (%)
	Peak Gain (H+V)	Avg. Gain (H+V)	Peak Gain (H+V)	Avg. Gain (H+V)	Peak Gain (H+V)	Avg. Gain (H+V)		
2400	3	-3.2	3.1	-2.7	2.6	1.8	3.1	82
2450	3.2	-3.3	3.5	-2.7	2.6	1.8	3.5	88
2500	3.8	-3.1	3.9	-2.5	2.7	1.9	3.9	87
4900	2.4	-4.9	-0.7	-5.7	0.7	-1.5	2.4	39
5150	2.1	-3.1	2.6	-2.9	2.3	0.8	2.7	66
5350	3.4	-2.1	3.7	-2.1	2.6	0.5	3.7	72
5750	2.9	-2.3	3.3	-2.7	3.4	1.6	4.2	74
5825	2.9	-2.1	3	-2.9	2.6	0.8	4.4	72