HannStar Electronics Corporation

Molokai Antenna Regulatory Report

HannStar Electronics Corporation

No. 431, RueiGuang Rd., NeiHu 114, Taipei, Taiwan, R.O.C.

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Antenna Specifications

Antenna Type (Material, Technology)	**Metal PIFA Antenna**
Antenna Model Number	**Molokai / WA00122, WA00123**
Operating Frequency Range(s)	**2.4~2.4835 GHz, 4.9~5.35 GHz, 5.47~5.875 GHz**
Peak Gain (802.11b/g / 2.4GHz Band) (dBi)	**0.23 for Main, -0.08 for Aux**
Peak Gain (802.11a / 5GHz Band) (dBi)	**-0.34 for Main, -0.95 for Aux**
Radio Connector Type	**I-Pex MHF, Hirose U.FL-LP**
Mid-Line Connector Type (If Applicable)	**N/A**

Note: Peak Gain should include all system losses (connector, cable, etc)

Cable Specifications

Cable Parameters	**Main**			**Aux**		
	LCD Side	**Base Side**	**Total**	**LCD Side**	**Base Side**	**Total**
Length (mm)	**N/A**	**N/A**	**628.5**	**N/A**	**N/A**	**607.5**
Loss (Including Connectors) (dB)			**-1.56 for 2.4GHz -2.03 for 5.0GHz**			**-1.48 for 2.4GHz -1.98 for 5.0GHz**
Description (Color, Diameter, Manufacturer)	**White, ϕ1.13mm, Hannstar**			**Black, ϕ1.13mm, Hannstar**		

Note: For single cable assembly (no mid-line connector), use the 'Total' column for each cable length and list N/A in the ‘LCD’ and ‘Base’ fields

Cable Loss should be reported for the total cable assembly (for both Main and Aux antennas)

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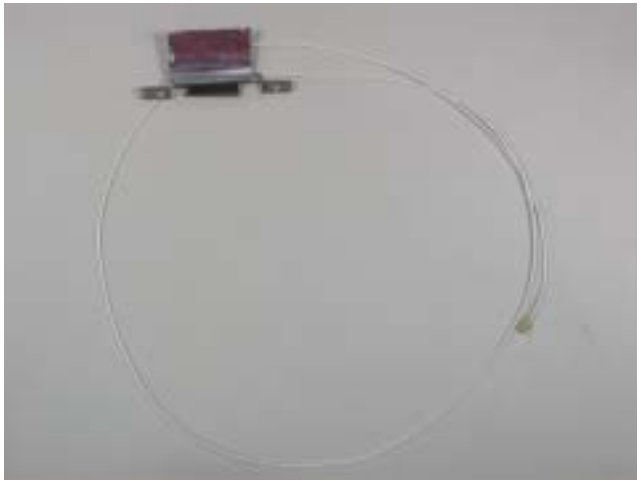
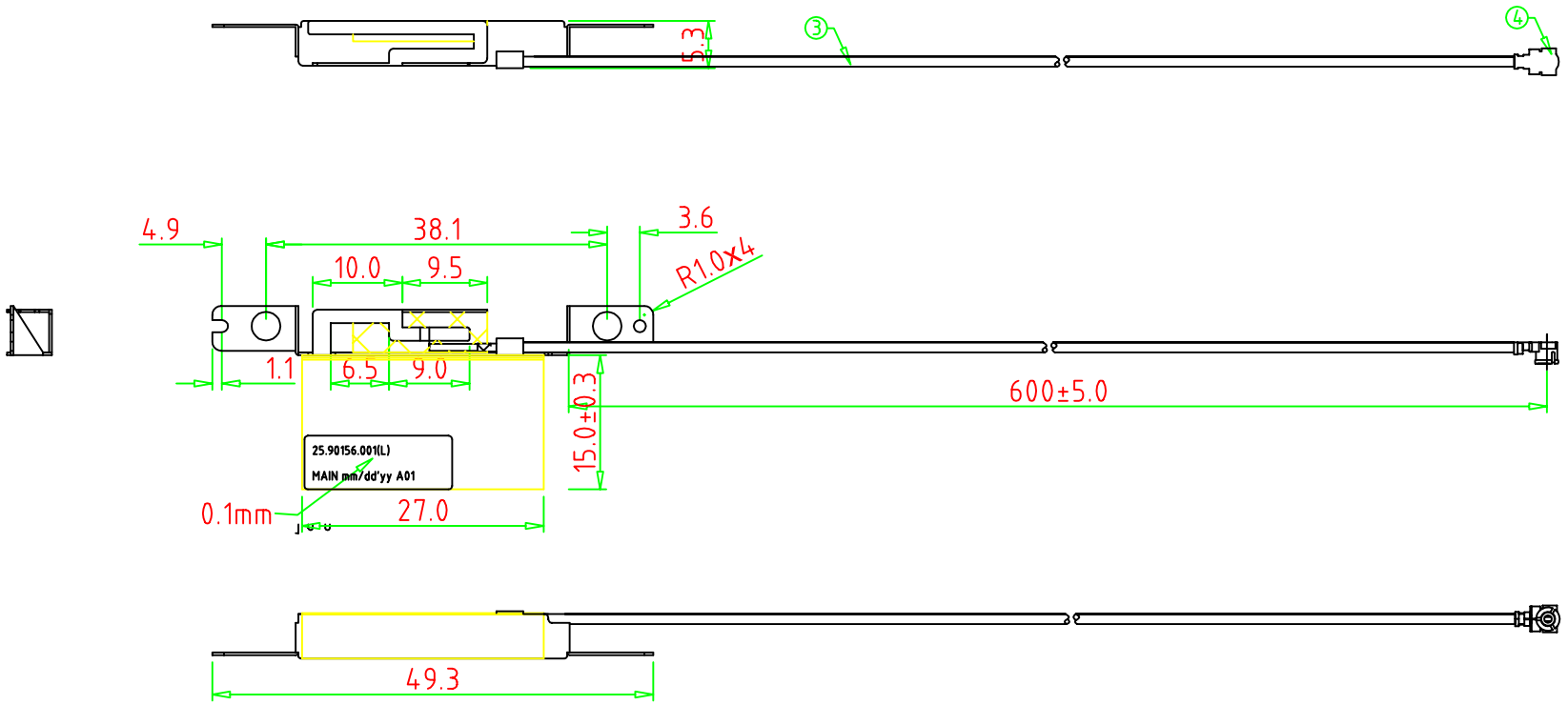
1. Pictures of Antennas

Main Antenna	Aux Antenna
	
	

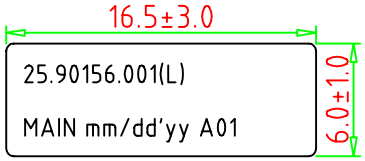
2. Antenna Drawings (See Next 2 Pages)

REVISIONS				
REV.	ECN NO.	ECN BY.	DESCRIPTION	DATE
A	EP030885	Leo	New Release	10/10 '03



Coaxial Cable HITACHI Φ1.13 White 600mm

Detail of Label
SCALE 2:1



字形:Arial
大小:4 粗體

ITEM NO.	QTY REQD	PART NUMBER	DESCRIPTION
1	1	U013-012-0021	SPONGE H48 3M467 8x3.5x5t
2	1	U010-007-0079	Molocai Metal Antenna Left
3	1	U011-002-0010-12	Coaxial Cable HITACHI ?1.13 White 616mm
4	1	U006-002-0010	I-PEX MHF Connector

X. ±
.X ±
.XX ±
.XXX ±
X°. ±
.X° ±

UNIT: mm (Inch)
SCALE: NONE

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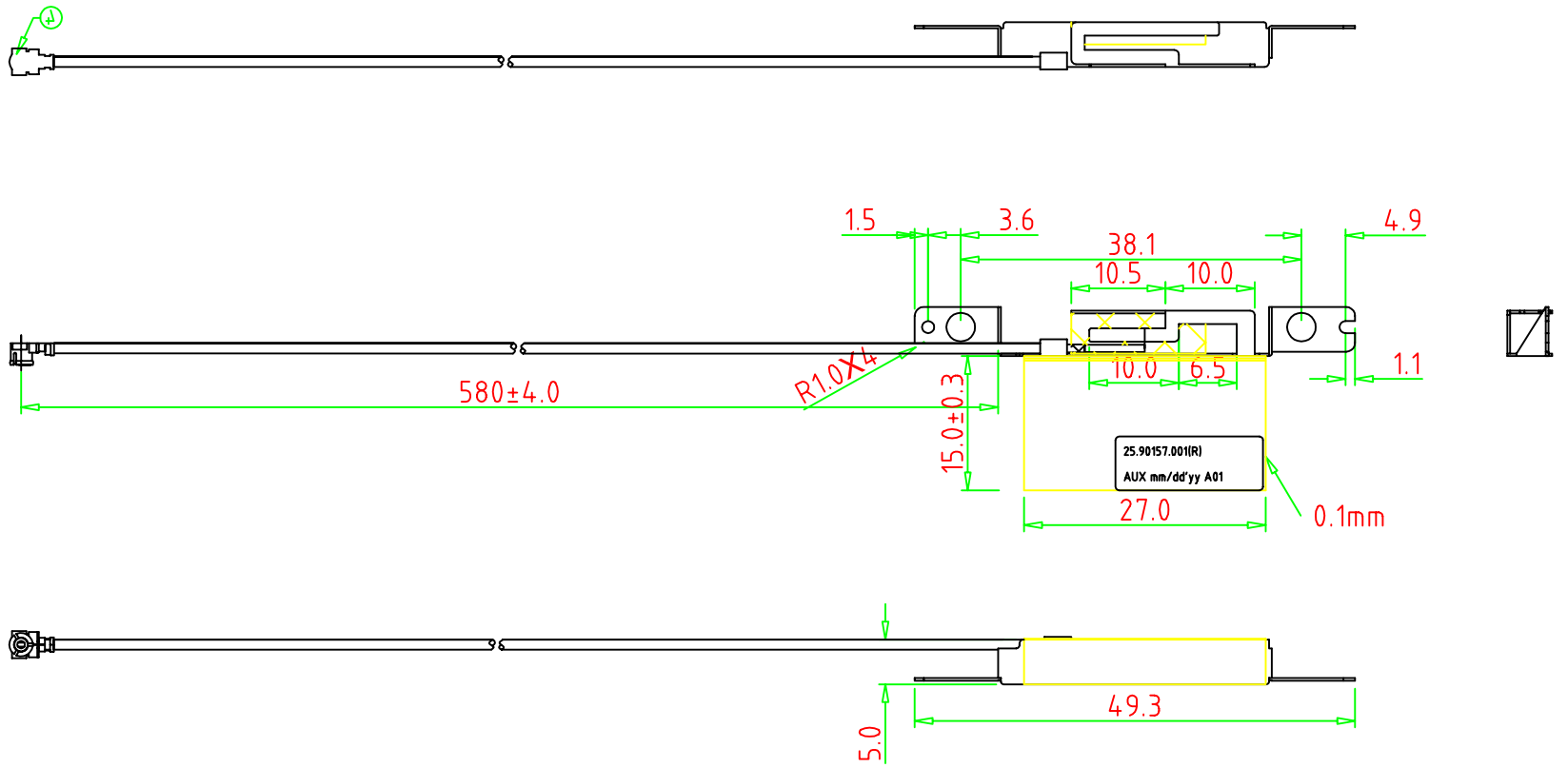
APPD: James 10/01'03
CHKD:
DR: Leo 10/01'03

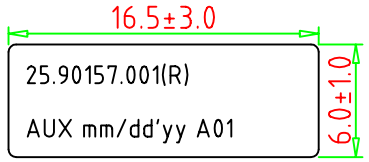
Title: WA00122
MOLOKAI_L Main Assembly
DWG No.:
SHEET: 1 / 1
REV: A01

ED001-980729

REVISIONS				
REV.	ECN NO.	ECN BY.	DESCRIPTION	DATE
A	EP030885	Leo	New Release	10/10 '03



Detail of Label
SCALE 2:1



字形:Arial
大小:4 粗體

ITEM NO.	QTY REQD	PART NUMBER	DESCRIPTION
1	1	U013-012-0021	SPONGE H48 3M467 8x3.5x5t
2	1	U010-007-0080	Molocai Metal Antenna Left
3	1	U011-002-0010-12	Coaxial Cable HITACHI ?1.13 Black 595mm
4	1	U006-002-0010	I-PEX MHF Connector

X. ±
.X ±
.XX ±
.XXX ±
X°. ±
.X° ±

UNIT: mm (Inch)
SCALE: NONE

HannStar Electronics Corp.

APPD: James 10/01'03
CHKD:
DR: Leo 10/01'03

Title: WA00123 MOLOKAI_R AUX. Assembly
DWG No.:
SHEET: 1 / 1
REV: A01

ED001-980729

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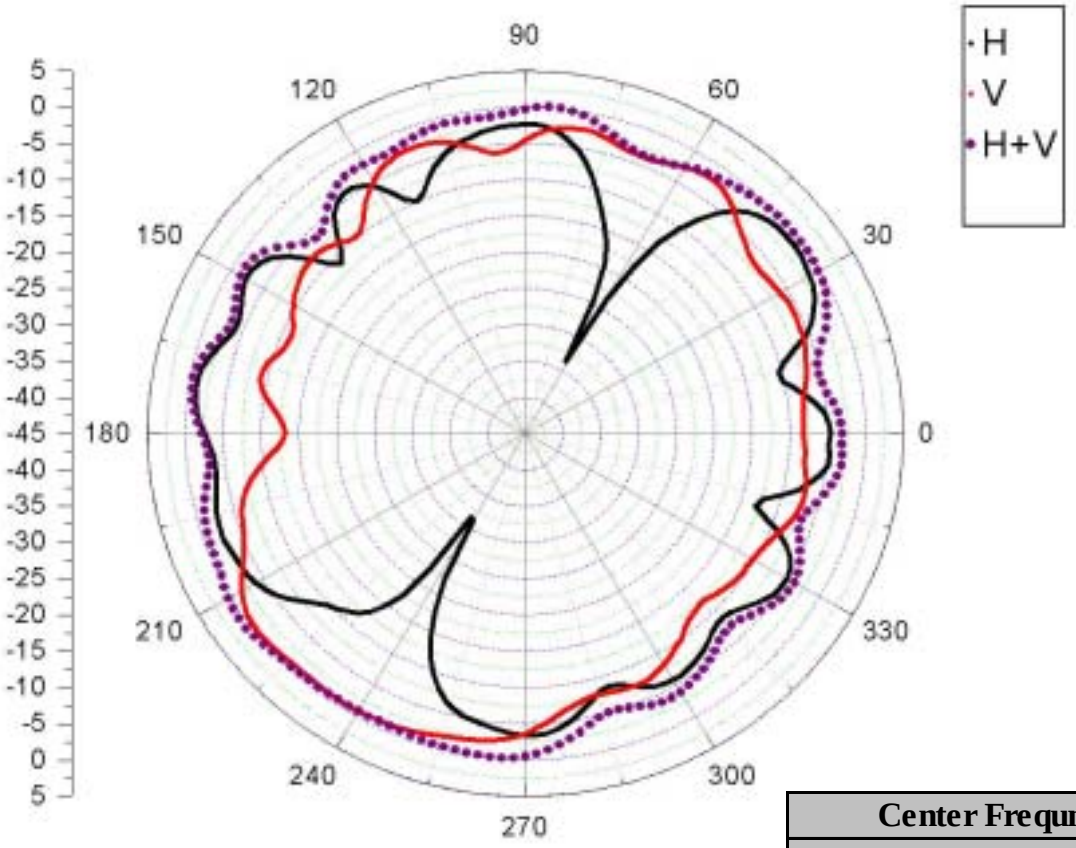
3. Radiation Pattern

(a) Main (Left) Antenna

2400 MHz Horz+Vert



Center Frequency	2400 MHz
Horizontal peak gain (dBi)	-1.74
Vertical peak gain (dBi)	-0.37
Horz +Vert peak gain(dBi)	0.11

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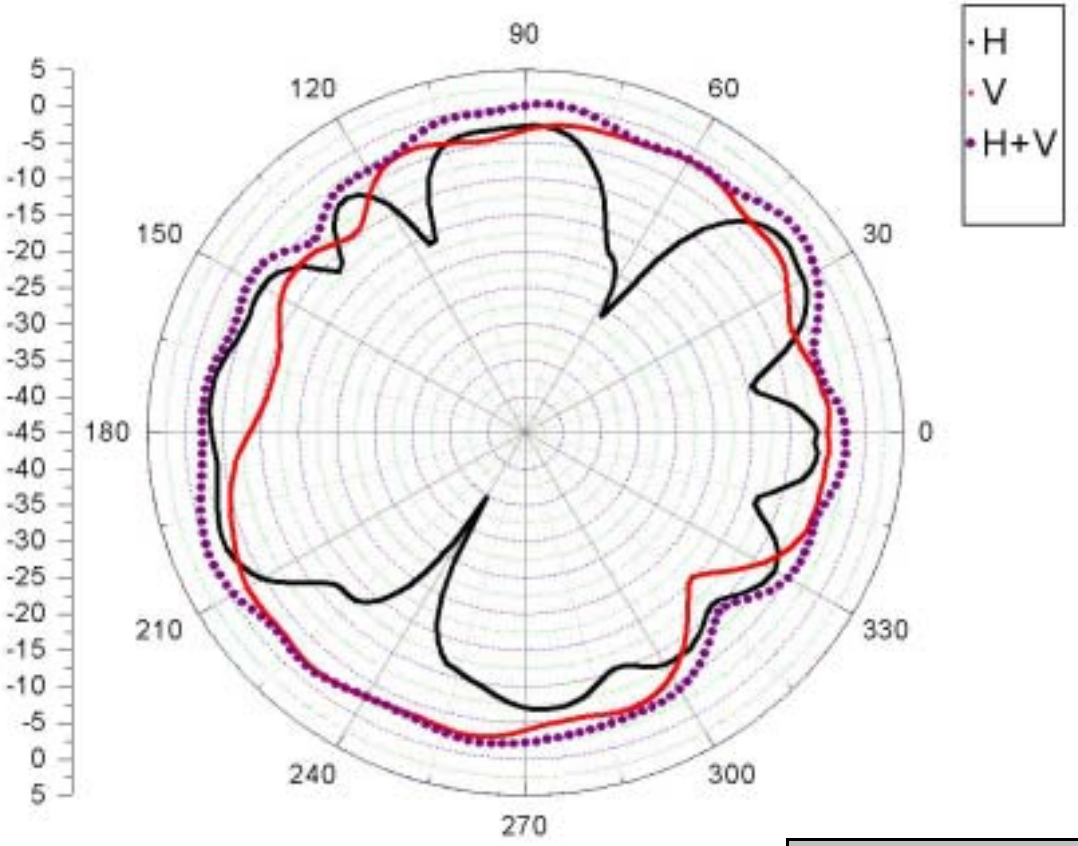
2450 MHz Horz+Vert



Center Frequnency	2450 MHz
Horizontal peak gain (dBi)	-1.06
Vertical peak gain (dBi)	0.23
Horz +Vert peak gain(dBi)	-0.18

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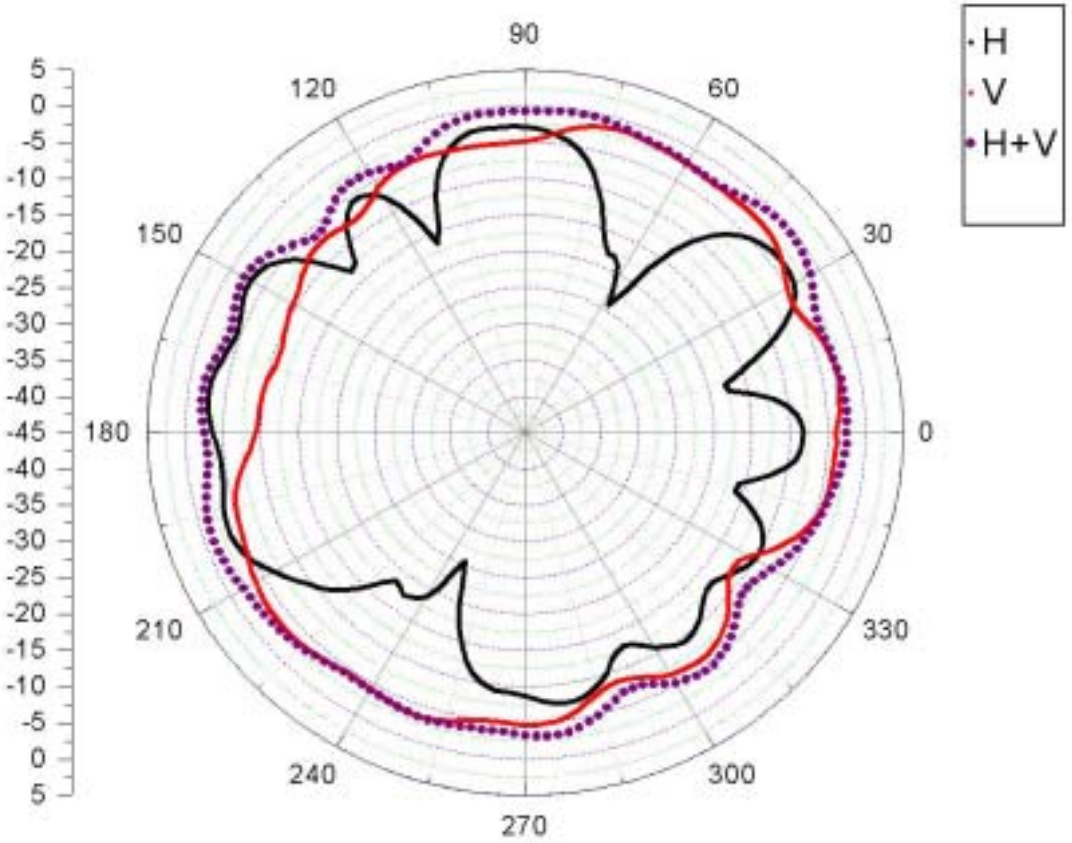
2500 MHz Horz+Vert



Center Frequnency	2500 MHz
Horizontal peak gain (dBi)	-2.15
Vertical peak gain (dBi)	-1.16
Horz +Vert peak gain(dBi)	0.46

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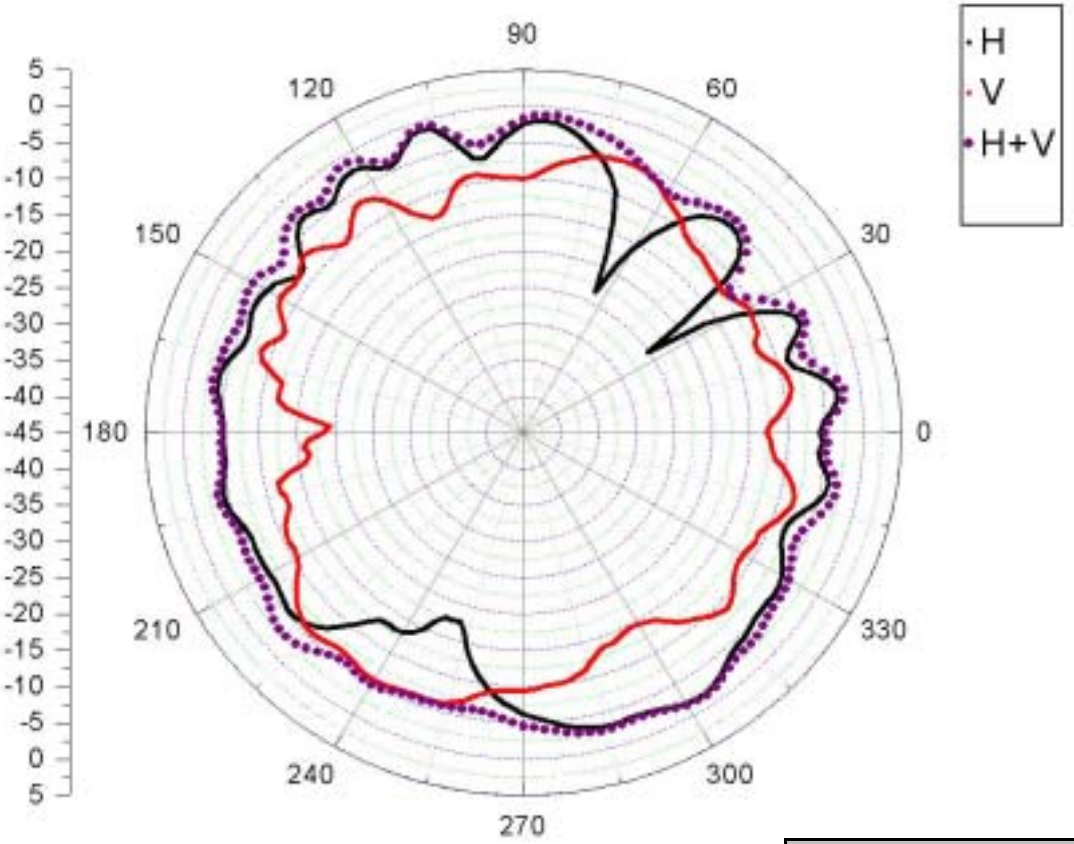
4900 MHz Horz+Vert



Center Frequnency	4900 MHz
Horizontal peak gain (dBi)	0.81
Vertical peak gain (dBi)	-5.45
Horz +Vert peak gain(dBi)	-0.95

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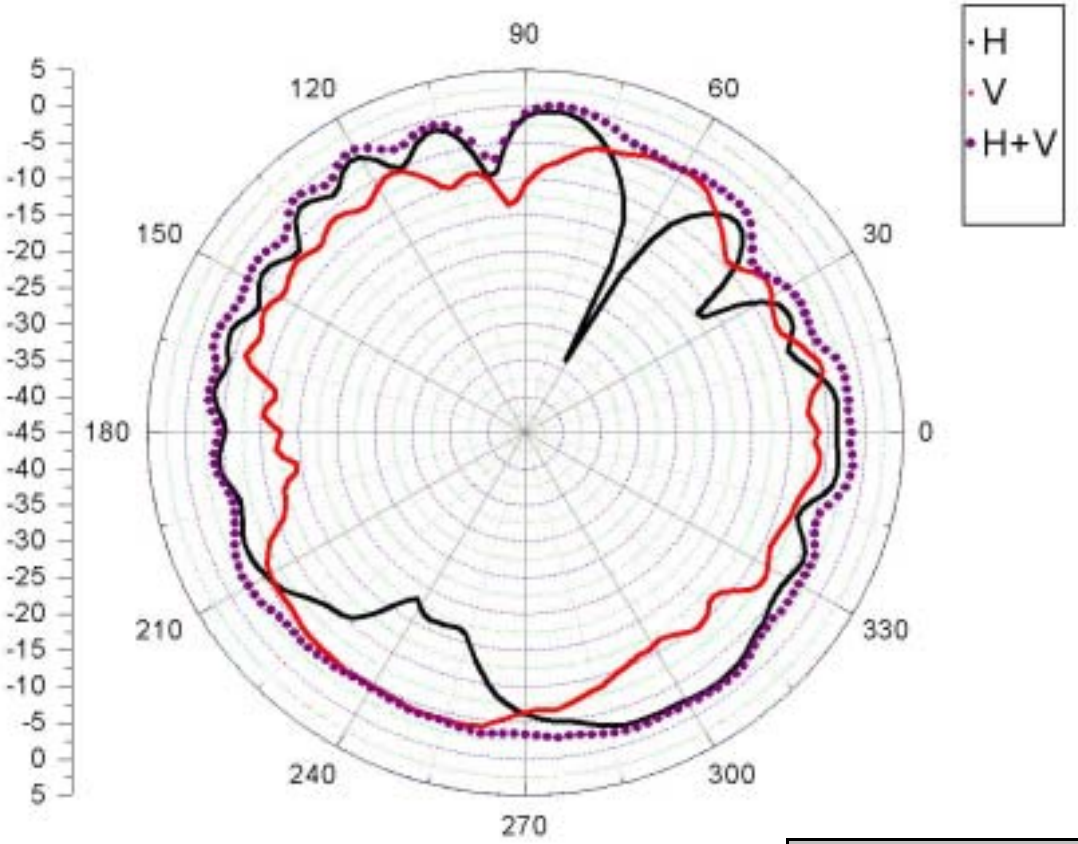
5150 MHz Horz+Vert



Center Frequnency	5150 MHz
Horizontal peak gain (dBi)	-0.59
Vertical peak gain (dBi)	-3.14
Horz +Vert peak gain(dBi)	-0.30

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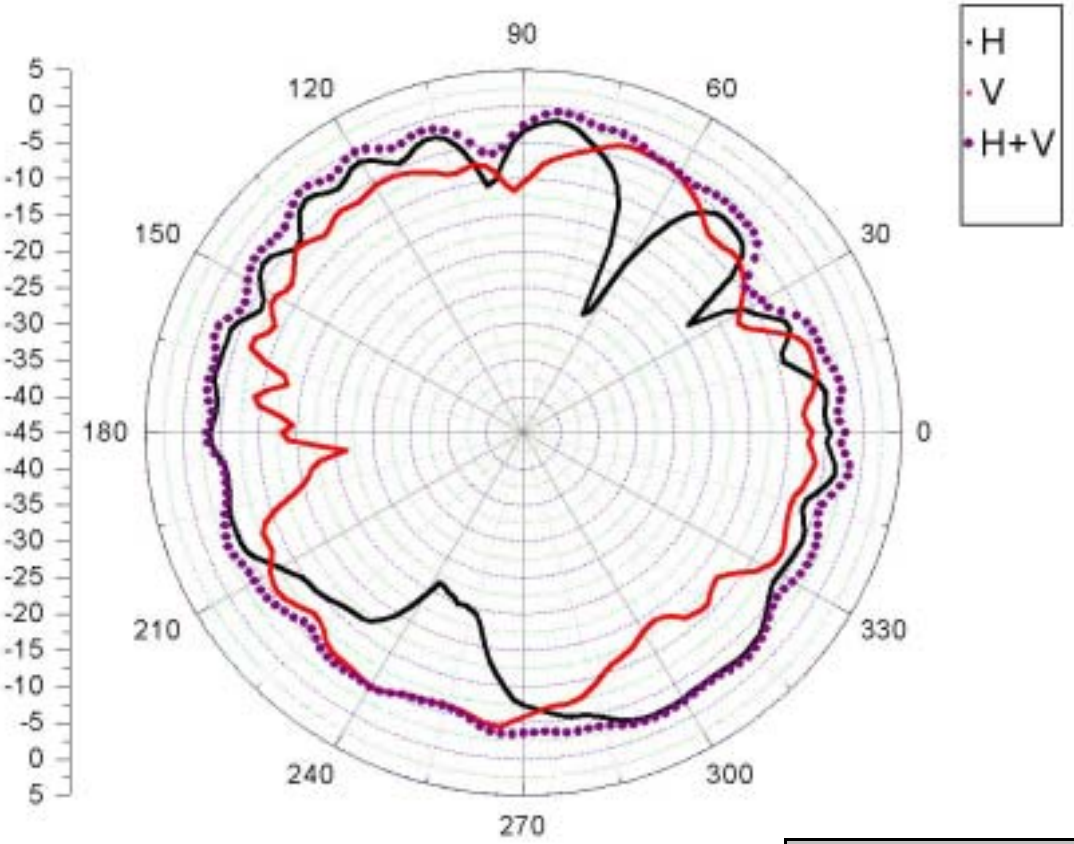
5250 MHz Horz+Vert



Center Frequnency	5250 MHz
Horizontal peak gain (dBi)	-0.34
Vertical peak gain (dBi)	-3.32
Horz +Vert peak gain(dBi)	-0.15

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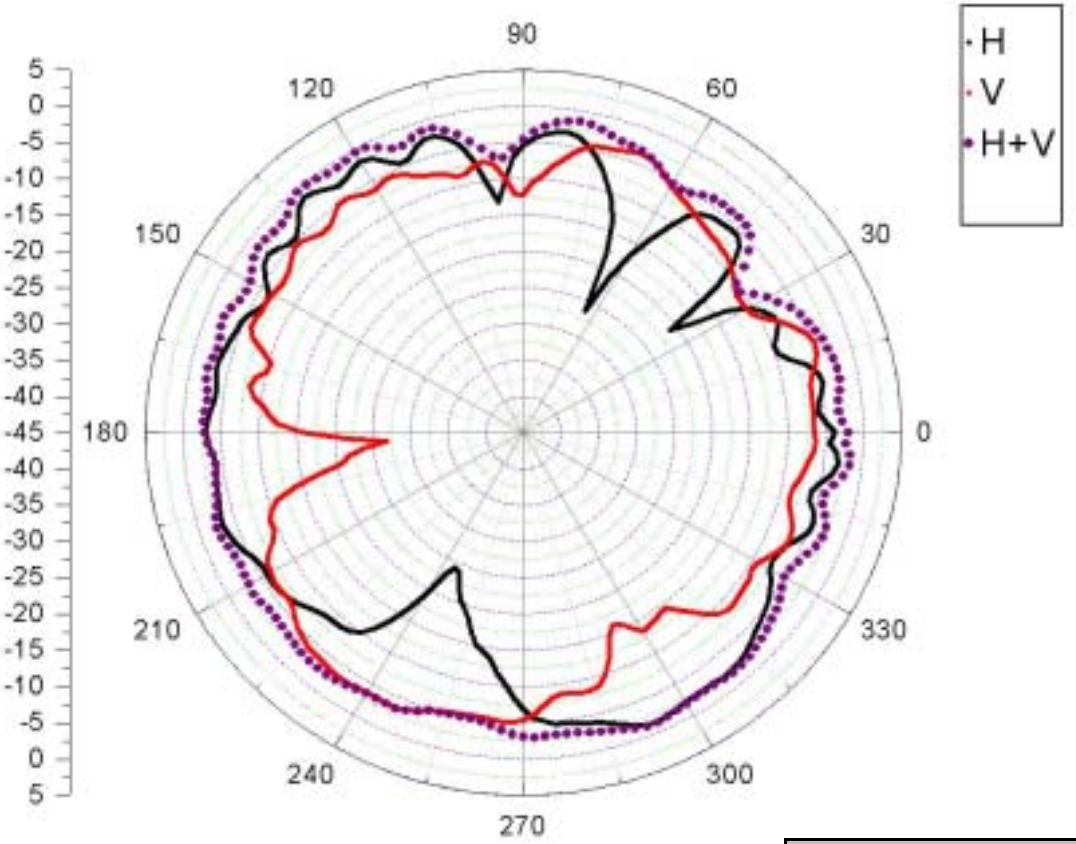
5350 MHz Horz+Vert



Center Frequnency	5350 MHz
Horizontal peak gain (dBi)	-0.41
Vertical peak gain (dBi)	-3.47
Horz +Vert peak gain(dBi)	-0.17

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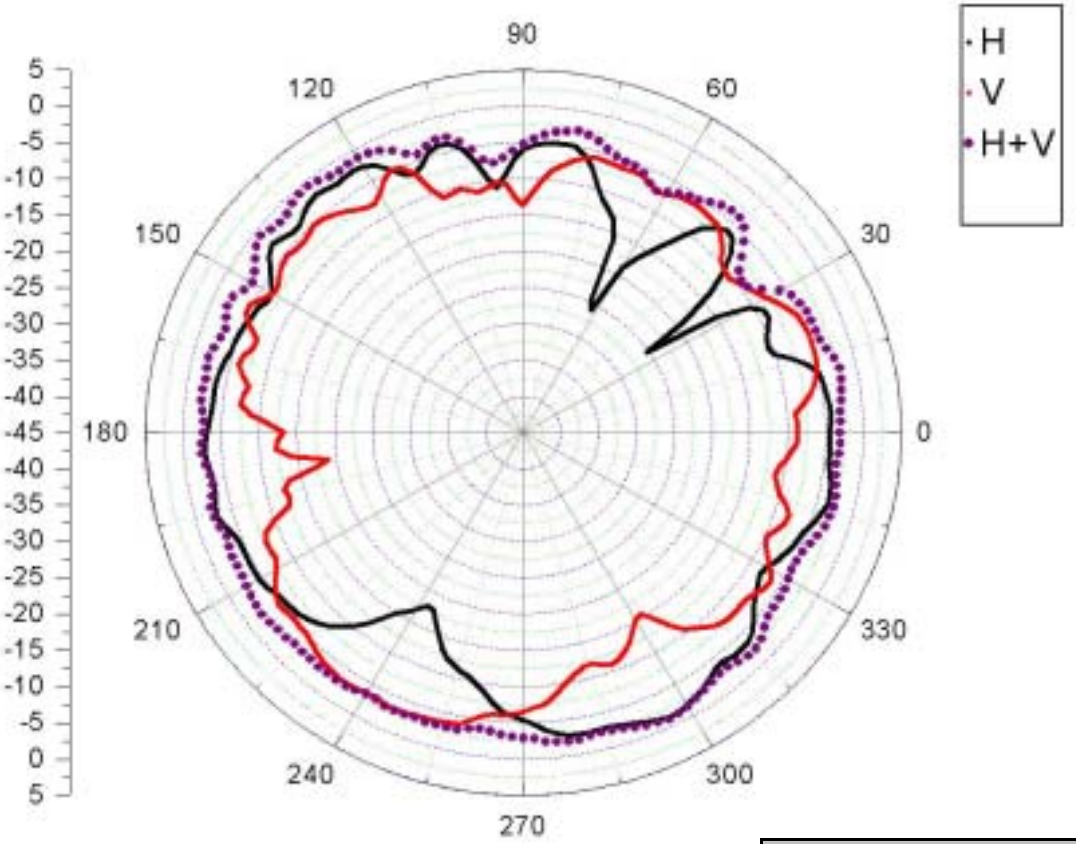
5470 MHz Horz+Vert



Center Frequency	5470 MHz
Horizontal peak gain (dBi)	-0.48
Vertical peak gain (dBi)	-3.39
Horz +Vert peak gain(dBi)	-0.26

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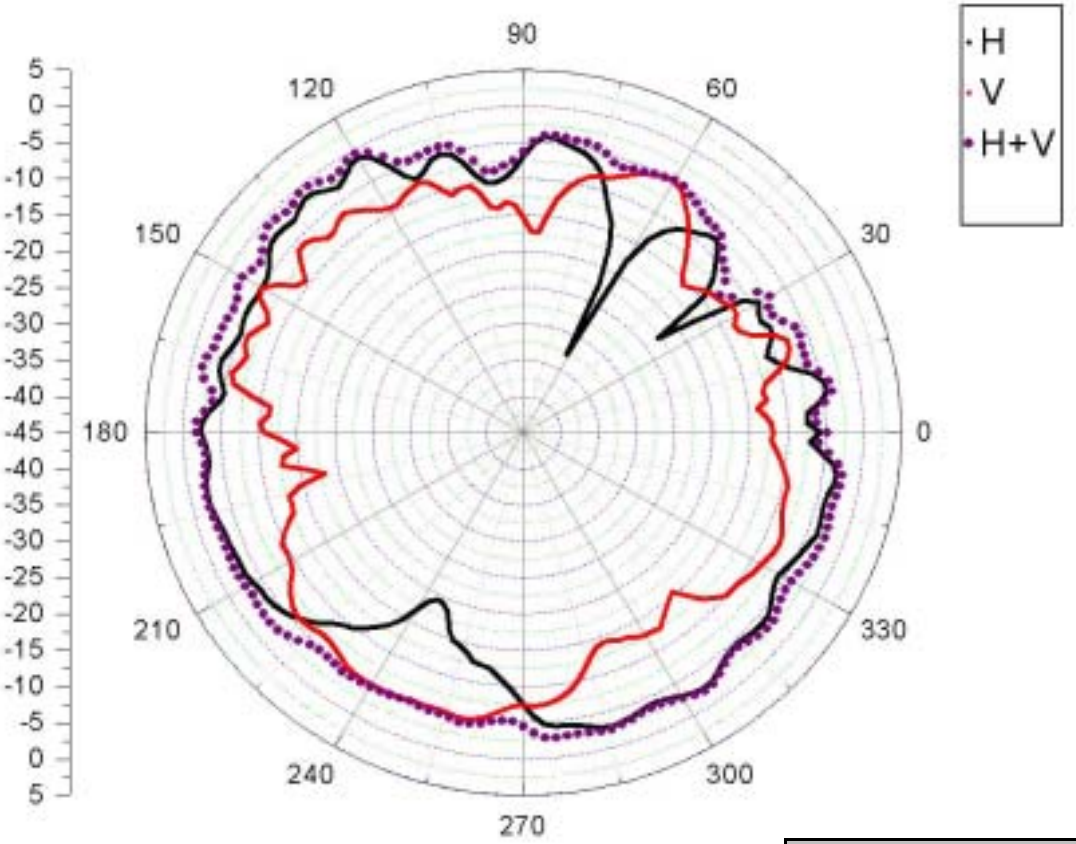
5647.5 MHz Horz+Vert



Center Frequnency	5647.5 MHz
Horizontal peak gain (dBi)	-2.20
Vertical peak gain (dBi)	-4.37
Horz +Vert peak gain(dBi)	-0.25

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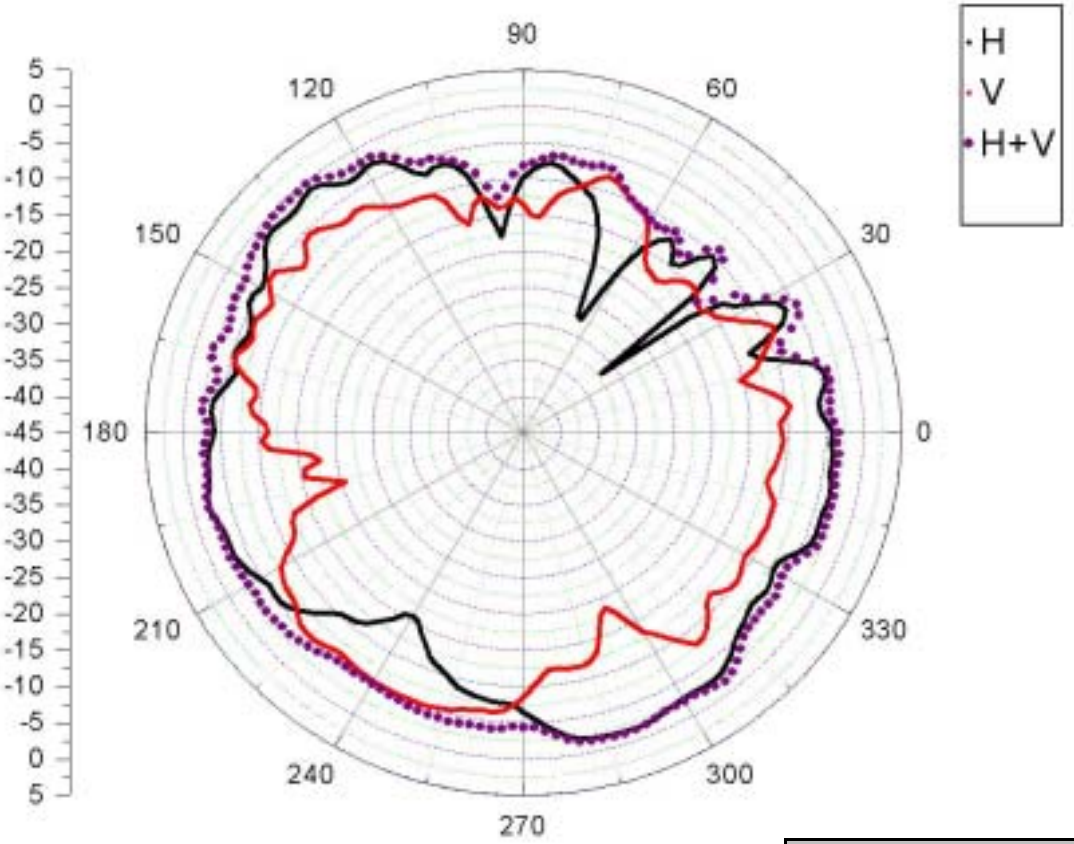
5825 MHz Horz+Vert



Center Frequency	5825 MHz
Horizontal peak gain (dBi)	-1.76
Vertical peak gain (dBi)	-5.77
Horz +Vert peak gain(dBi)	-0.18

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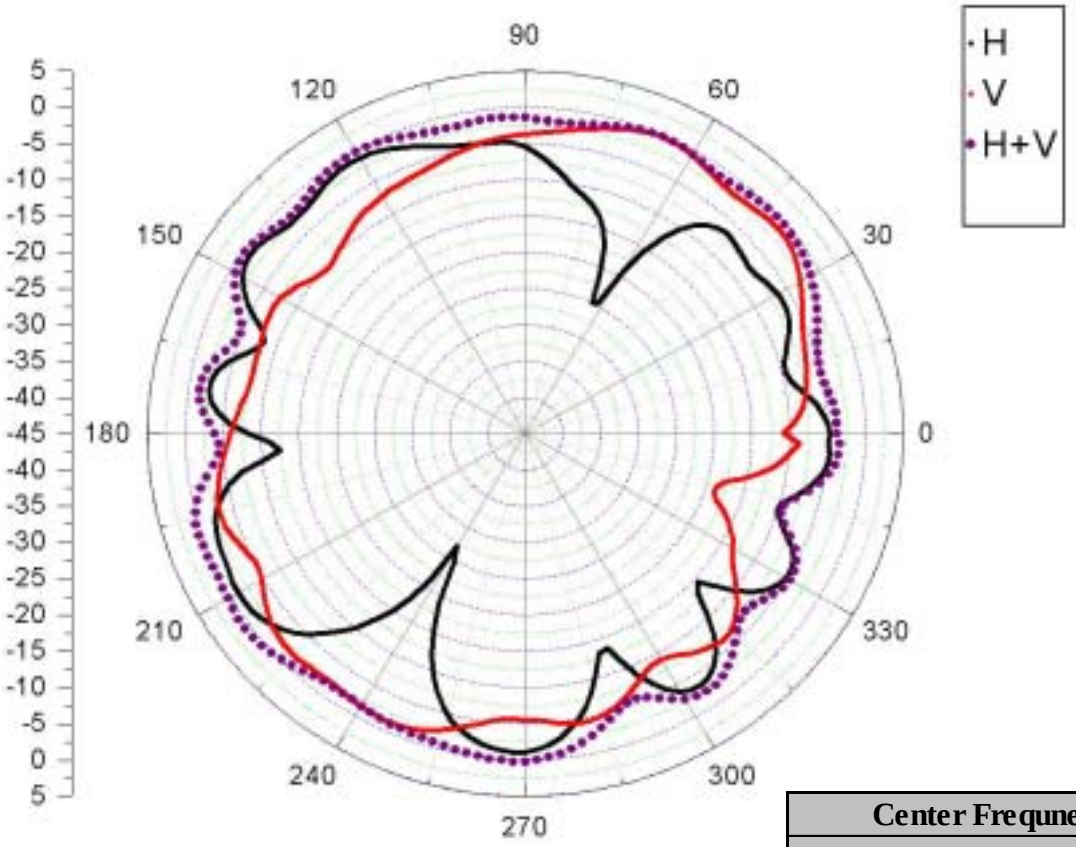
(b) Aux (Right) Antenna

2400 MHz Horz+Vert



Center Frequnency	2400 MHz
Horizontal peak gain (dBi)	-0.08
Vertical peak gain (dBi)	-0.28
Horz +Vert peak gain(dBi)	0.26

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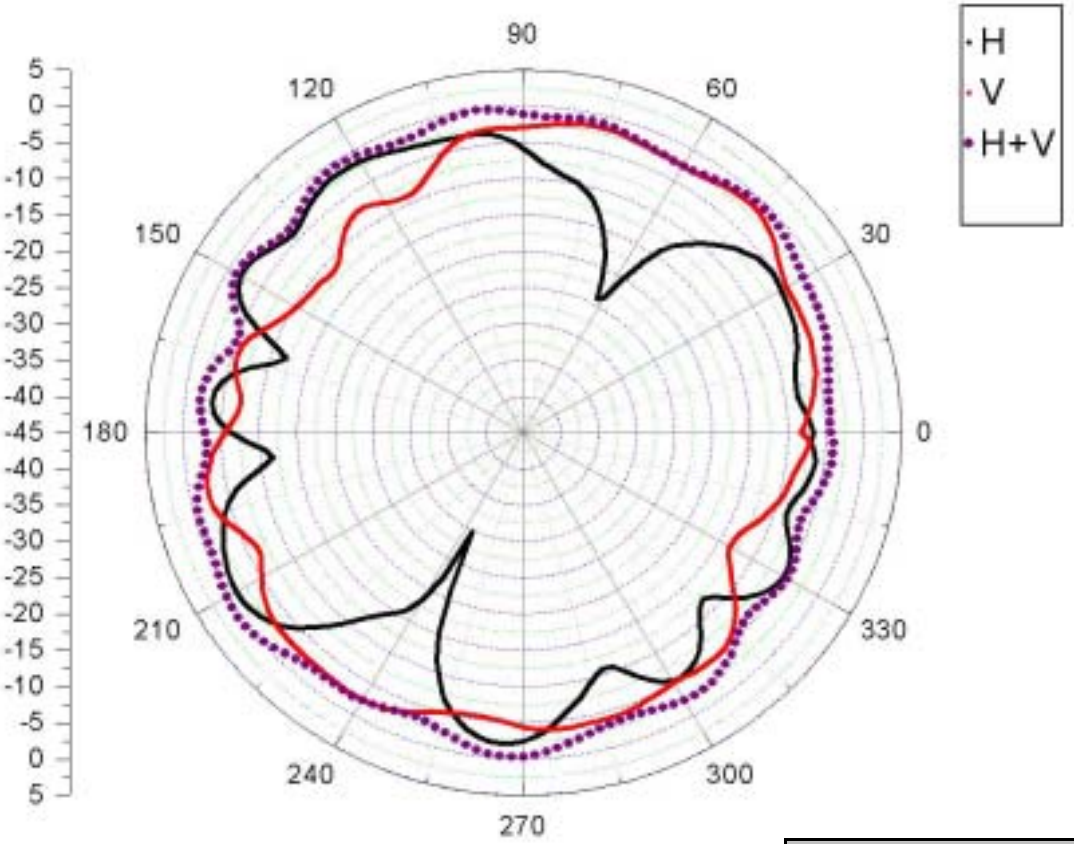
2450 MHz Horz+Vert



Center Frequnency	2450 MHz
Horizontal peak gain (dBi)	-1.73
Vertical peak gain (dBi)	-1.69
Horz +Vert peak gain(dBi)	0.71

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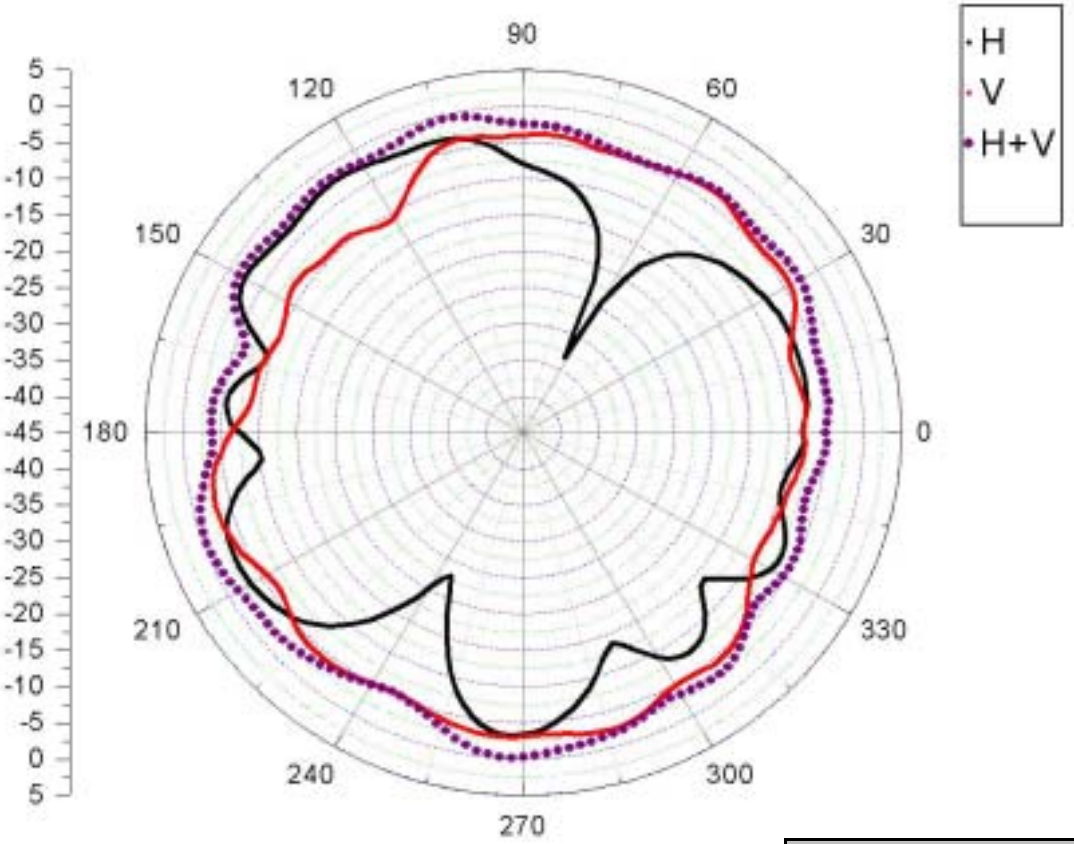
2500 MHz Horz+Vert



Center Frequency	2500 MHz
Horizontal peak gain (dBi)	-2.73
Vertical peak gain (dBi)	-2.09
Horz +Vert peak gain(dBi)	-0.73

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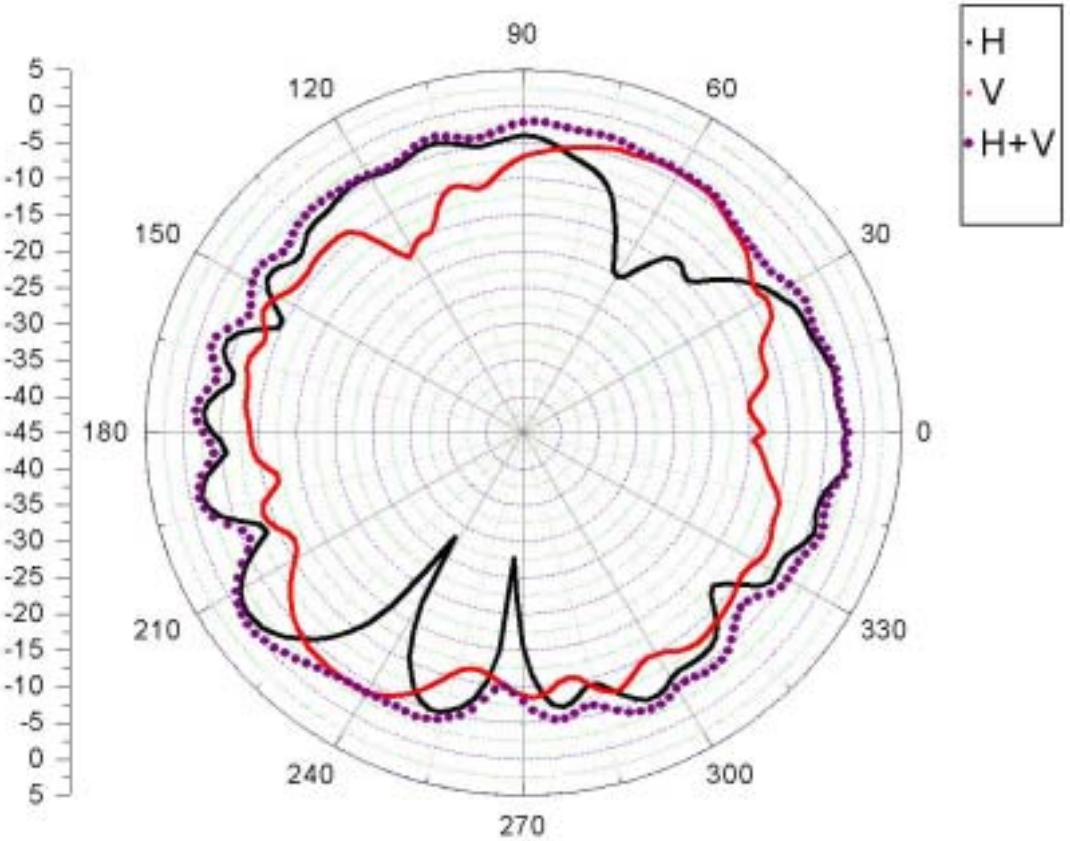
4900 MHz Horz+Vert



Center Frequency	4900 MHz
Horizontal peak gain (dBi)	-0.92
Vertical peak gain (dBi)	-3.54
Horz +Vert peak gain(dBi)	-0.12

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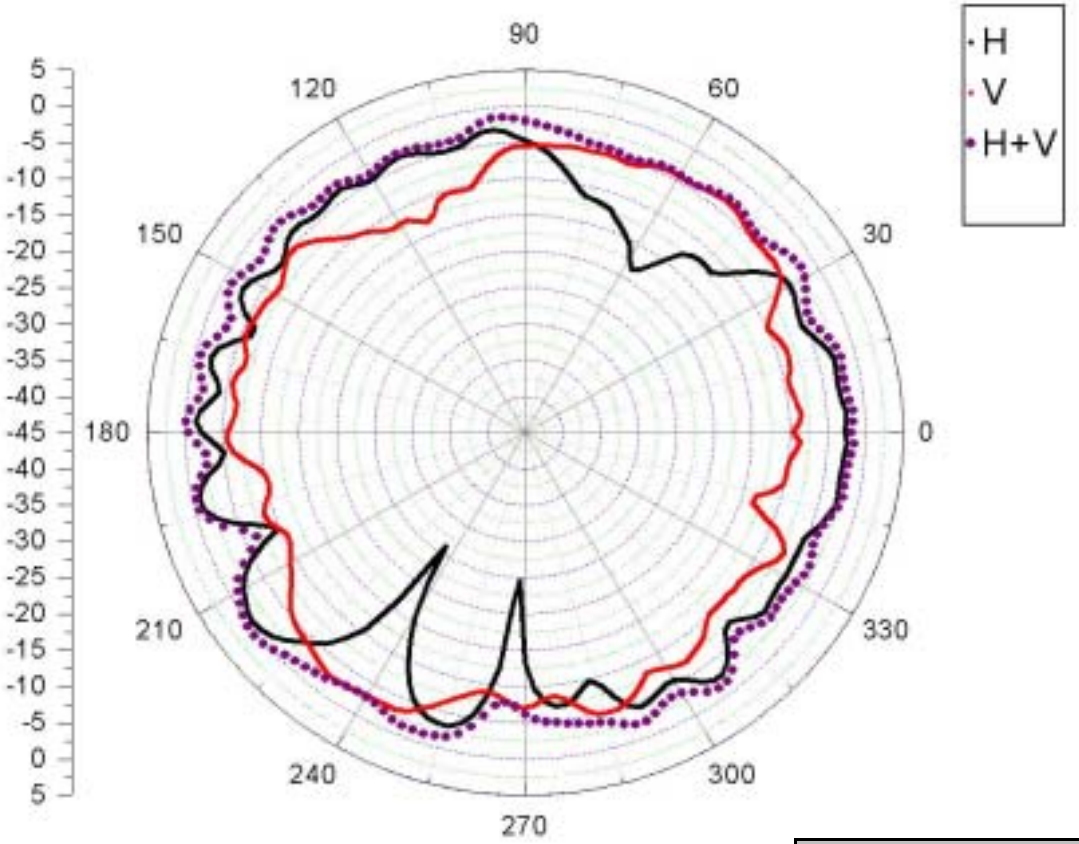
5150 MHz Horz+Vert



Center Frequency	5150 MHz
Horizontal peak gain (dBi)	-0.95
Vertical peak gain (dBi)	-2.25
Horz +Vert peak gain(dBi)	0.39

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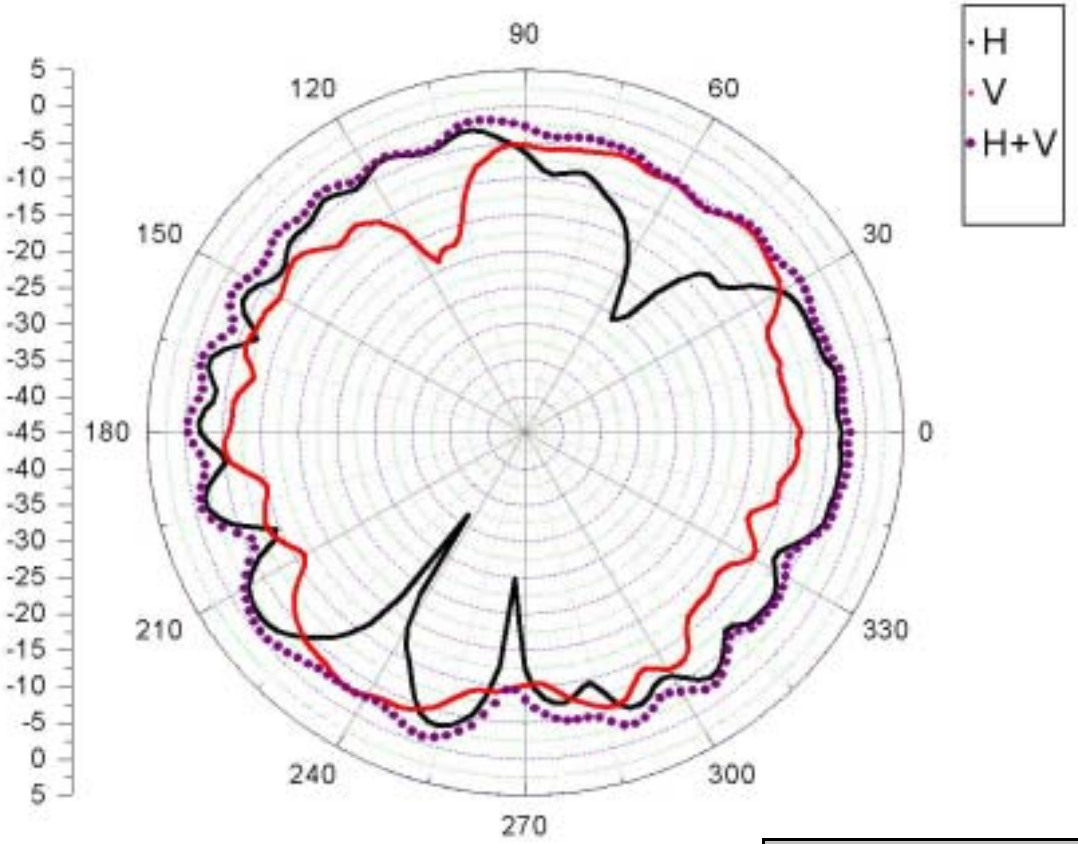
5250 MHz Horz+Vert



Center Frequnency	5250 MHz
Horizontal peak gain (dBi)	-1.09
Vertical peak gain (dBi)	-2.78
Horz +Vert peak gain(dBi)	-0.41

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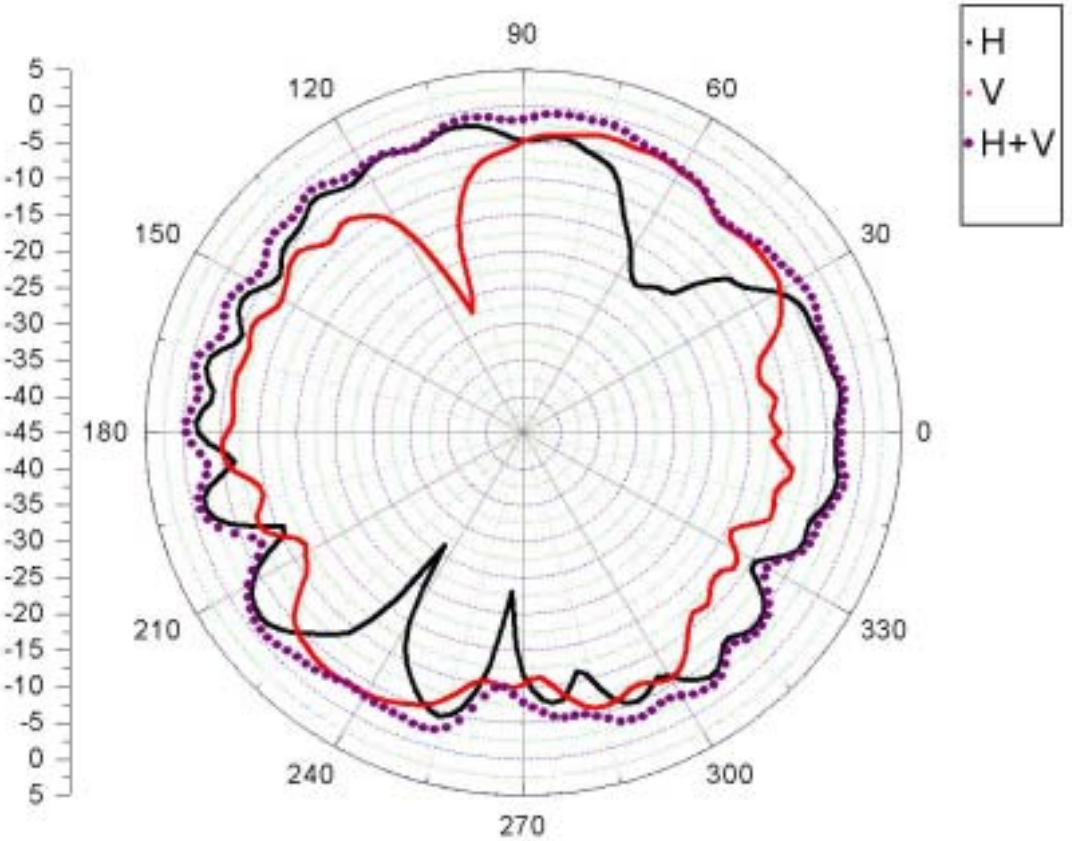
5350 MHz Horz+Vert



Center Frequency	5350 MHz
Horizontal peak gain (dBi)	-1.40
Vertical peak gain (dBi)	-2.46
Horz +Vert peak gain(dBi)	-0.18

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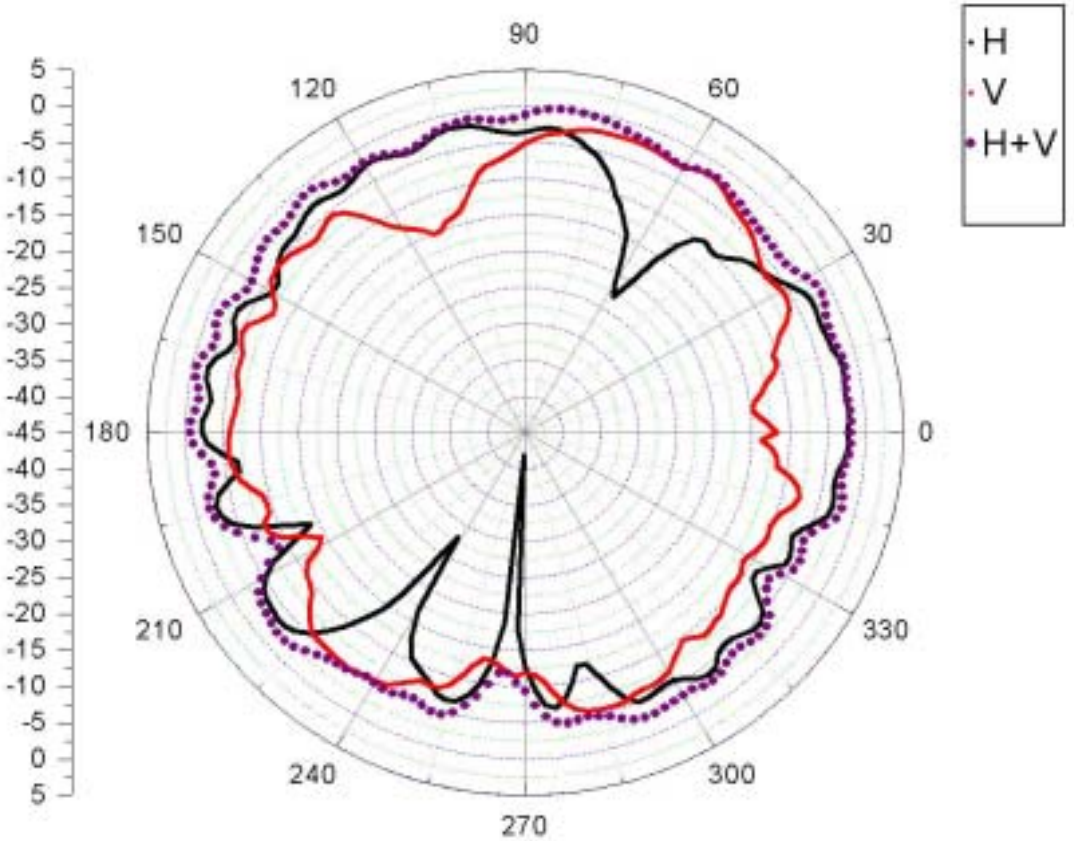
5470 MHz Horz+Vert



Center Frequnency	5470 MHz
Horizontal peak gain (dBi)	-1.80
Vertical peak gain (dBi)	-1.93
Horz +Vert peak gain(dBi)	-0.52

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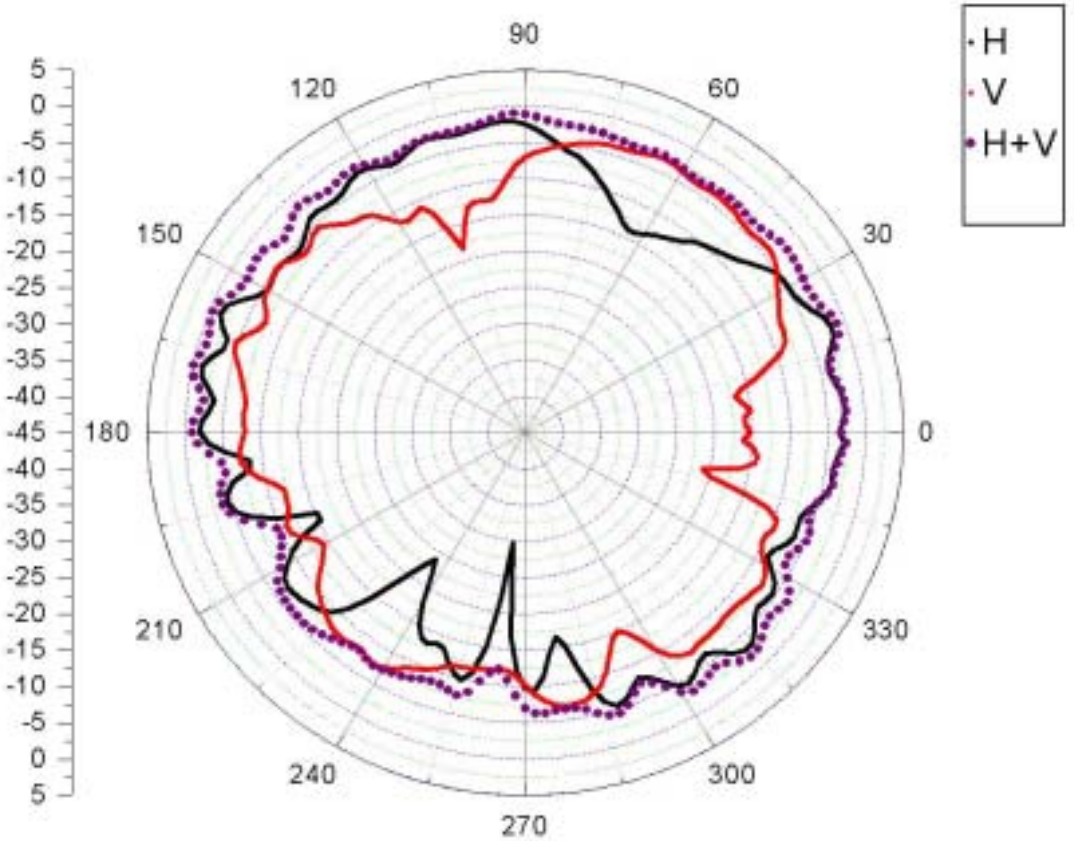
5647.5 MHz Horz+Vert



Center Frequnency	5647.5 MHz
Horizontal peak gain (dBi)	-1.29
Vertical peak gain (dBi)	-2.62
Horz +Vert peak gain(dBi)	-0.59

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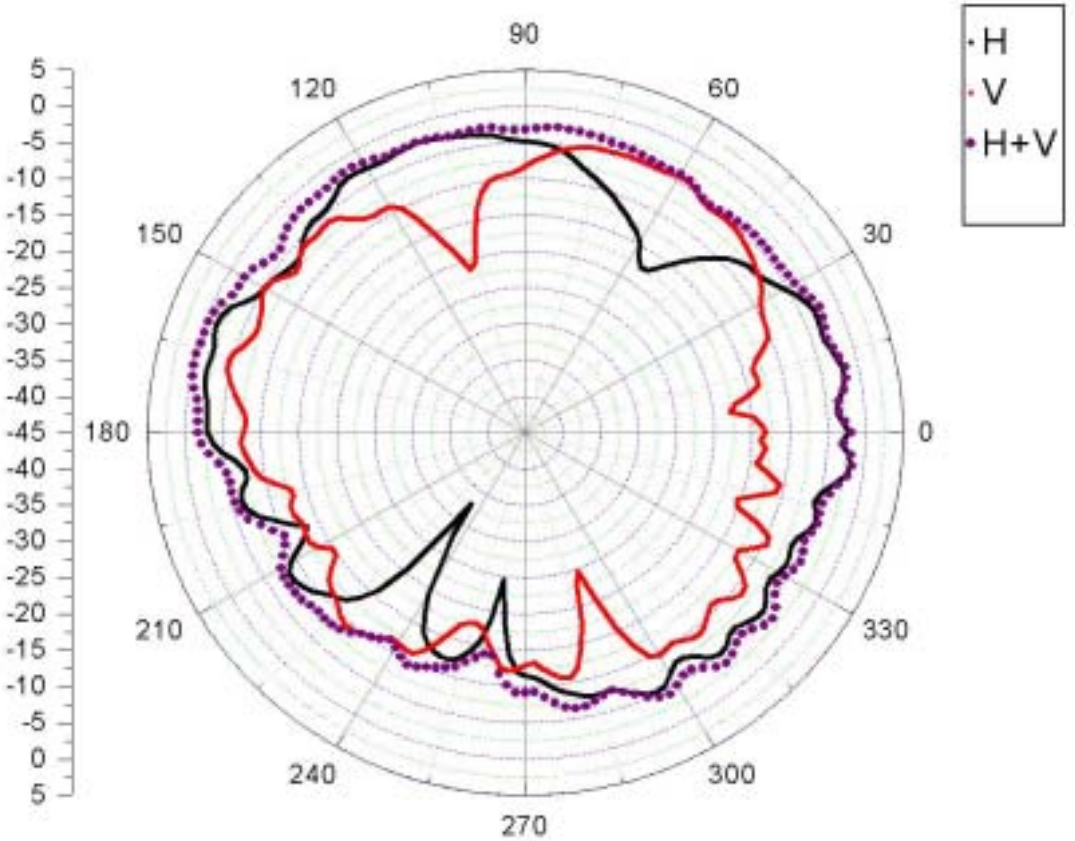
5825 MHz Horz+Vert



Center Frequency	5825 MHz
Horizontal peak gain (dBi)	-1.29
Vertical peak gain (dBi)	-3.81
Horz +Vert peak gain(dBi)	-0.87