

# Antenna Regulatory Information

• <b>Product type</b>	• <b>WLAN antenna</b>
• <b>Model number</b>	• <b>Parker</b>
• <b>Revision</b>	• <b>Rev. 1</b>
• <b>Manufacturer Part No. : Main / Aux / MIMO</b>	• <b>AMP8P-700023 (MIMO)</b> • <b>AMP6P-700000 (Main &amp;Aux)</b>
• <b>Dell Part No. : Main / Aux / MIMO</b>	•

**ADVANCED-CONNECTEK INC.**

B1, No. 205, Sec.3, Bei-Hsin Rd., Hsin-Tien

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FAX : 886-2-8913-2538

Http : //www.acon.com

Template Revision 083106

# 1. Specifications

## Antenna Specifications

Antenna Type (Material, Technology)	PIFA
Antenna Model Number	Parker
Operating Frequency Range(s)	2.4GHz ~ 2.5GHz and 4.9GHz ~ 5.9GHz
Peak Gain (802.11b/g / 2.4GHz Band) (dBi)	Main 1/ Aux -2.4/ MIMO 0.6
Peak Gain (802.11a / 5GHz Band) (dBi)	Main -2.1/ Aux-0.5/ MIMO 0.5
Radio Connector Type	IPEX 20278-111R-13
Mid-Line Connector Type (If Applicable)	N/A

**Remark:** Peak Gains include all system losses (connector, cable, etc)

## Cable Specifications

Cable Parameters	Main			Aux			MIMO		
	LCD Side	Base Side	Total	LCD Side	Base Side	Total	LCD Side	Base Side	Total
Length (mm)	N/A	N/A	497	N/A	N/A	537	N/A	N/A	493
Loss (Including Connectors) (dB, 2.4GHz / 5GHz)			1.5 / 2.3			1.2 / 1.8			0.5 / 0.8
Description (Color, Diameter, Manufacturer)	Color: White OD: 1.13 mm(low loss) Vendor: Kurabe/Hitachi/Sumitomo			Color: Black OD:1.13 mm(low loss) Vendor: Kurabe/Hitachi/Sumitomo			Color: Gray OD: 1.13mm(low loss) Vendor: Kurabe/Hitachi/Sumitomo		

## 2. Antenna Assembly



Main/Aux Antenna



MIMO Antenna

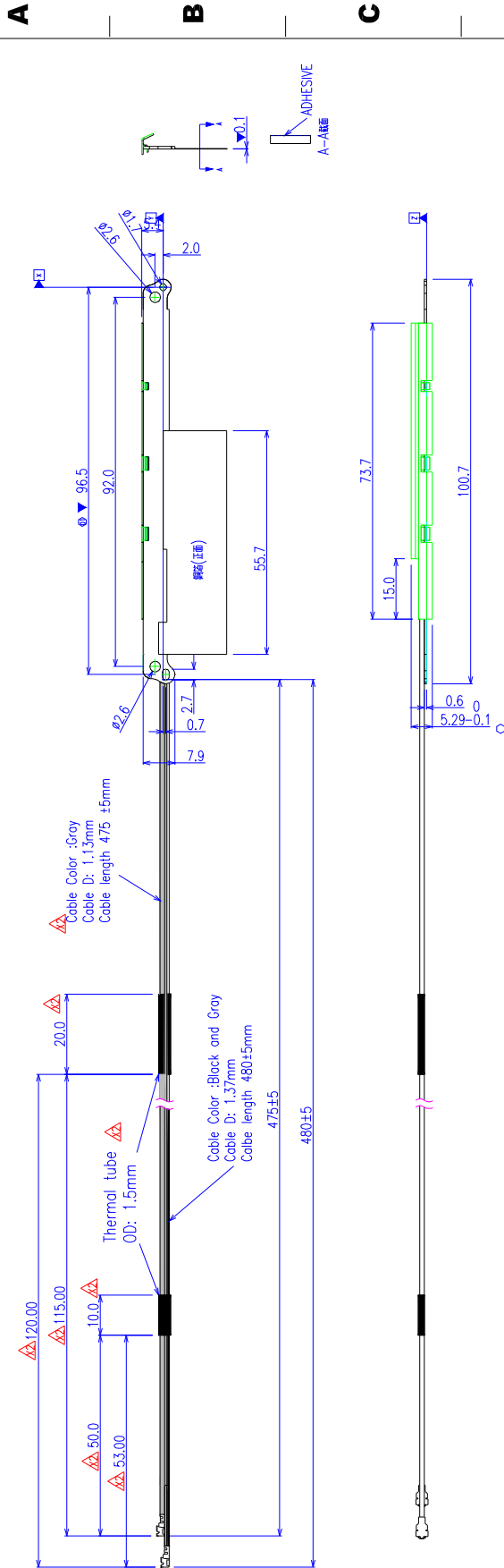
## 3. Antenna Assembly Installed in The Notebook





1 2 3 4 5 6 7 8

Rev.	EC#	Description	Drawn/Date	Checked/Date	Approved/Date
X1	MEC007071	NEW RELEASE	James 04/03/07		
X2		Add Dim. $\Delta$ X9	James 05/11/07		



Product Number Order  
 A - AMP 8 P - 7 00023  
 ①②③④⑤ ⑥ ⑦

- ① 類別
- A = Antenna
- ② 天線形狀
- M = Monopole Antenna
- ③ 主材料
- P = PCB
- ④ Cable
- 8 = OD1.37mm
- ⑤ Connector
- P = MHF Plug
- ⑥ Contact Type
- 7 = 90° 公插針
- ⑦ Serial Number

TABLE 1.0: DEFAULT TOLERANCES	TOLERANCES
LENGTH RANGE	TOLERANCE
0 to 25	± 1
25.1 to 100	± 2
100.1 to 200	± 3
200.1 to 300	± 4
300.1 to 400	± 5
ANGULAR	± 3 DEGREE

9	1																												
8	1	Thermal Tube 20mm																											
7	1	Thermal Tube 10mm																											
6	1	I-Pex	20351-111R-37																										
5	1	Cable Gray	1000006-0509000	B-CF7006-02-00																									
4	1	Cable Black/Gray	1000006-0560000	B-CF7006-02-00																									
3	1	Copper Foil-L	P-TP-17652081300	P-PIP17-02-00																									
2	1	COMBO-L PCB	D-AMPBP-1EG300	D-AMPBP-03-00																									
1	1	COMBP-L Ant	H-AMPBP-04MCO04	H-AMPBP-03-00																									
Item Name		Part #	Material / Finish																										
<table border="0"> <tr> <td>James.Lu</td> <td>Design</td> <td>04/03/07</td> <td colspan="3">Box</td> </tr> <tr> <td>James.Lu</td> <td>Design</td> <td>04/03/07</td> <td colspan="3">Box</td> </tr> <tr> <td>Kyo Hsu</td> <td>Approve</td> <td>04/03/07</td> <td colspan="3">Box</td> </tr> <tr> <td>Akils.chen</td> <td>Approve</td> <td>04/03/07</td> <td colspan="3">Box</td> </tr> </table>						James.Lu	Design	04/03/07	Box			James.Lu	Design	04/03/07	Box			Kyo Hsu	Approve	04/03/07	Box			Akils.chen	Approve	04/03/07	Box		
James.Lu	Design	04/03/07	Box																										
James.Lu	Design	04/03/07	Box																										
Kyo Hsu	Approve	04/03/07	Box																										
Akils.chen	Approve	04/03/07	Box																										
Customer Drawing		Parker COMBO-L																											
Series		AMPBP																											
Part No.		A-AMPBP-03-00																											
Size		A3																											
Rev.		V2																											

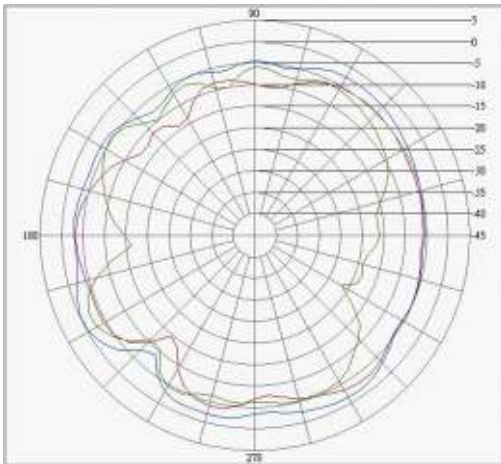


符合發展管理技術標準  
 All materials meet the ACON's spec. Environment - related substances management technical standard.

## 5. Gain Patterns

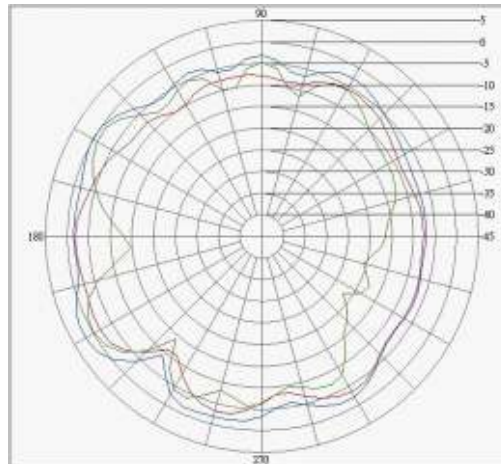
- Main Antenna — H-pol. — V-pol. — H+V

Fre. = 2412 MHz



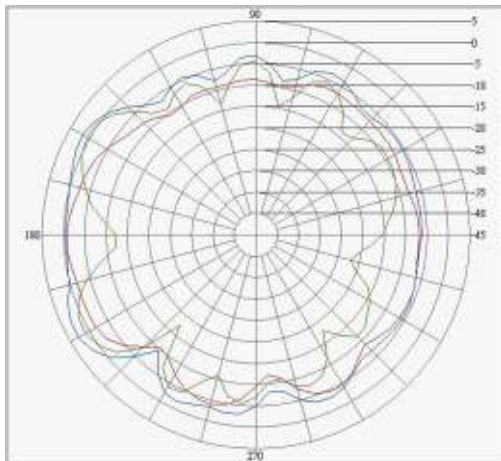
H-pol. (Aver.)	-5.9 dBi
H-pol. (Max.)	-3.0 dBi
V-pol (Aver.)	-7.4 dBi
V-pol. (Max.)	-2.3dBi
H+V (Aver.)	-3.6 dBi
H+V (Max.)	-0.2 dBi

Fre. = 2437 MHz



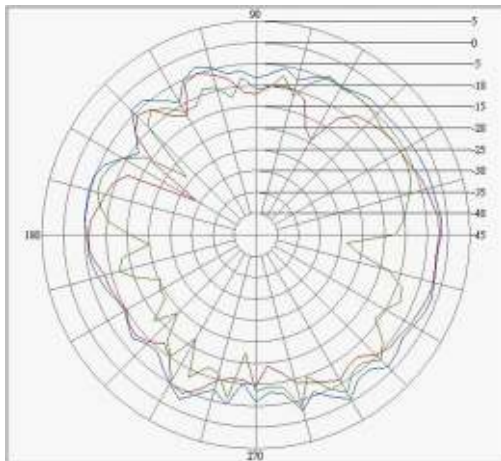
H-pol. (Aver.)	-5.7 dBi
H-pol. (Max.)	-1.8 dBi
V-pol (Aver.)	-6.7dBi
V-pol. (Max.)	-0.3 dBi
H+V (Aver.)	-3.1dBi
H+V (Max.)	2.1 dBi

Fre. = 2462 MHz



H-pol. (Aver.)	-5.6 dBi
H-pol. (Max.)	-0.8dBi
V-pol (Aver.)	-6.0 dBi
V-pol. (Max.)	1.0dBi
H+V (Aver.)	-2.8 dBi
H+V (Max.)	2.6 dBi

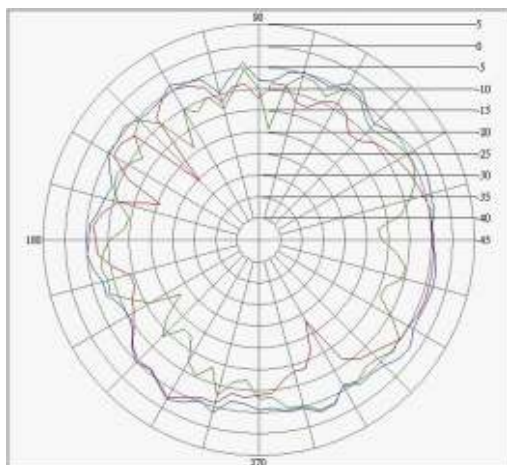
Fre. = 4900 MHz



H-pol. (Aver.)	-2.1 dBi
H-pol. (Max.)	-6.7dBi
V-pol (Aver.)	-2.2 dBi
V-pol. (Max.)	-8.4 dBi
H+V (Aver.)	-4.4dBi
H+V (Max.)	-0.6dBi

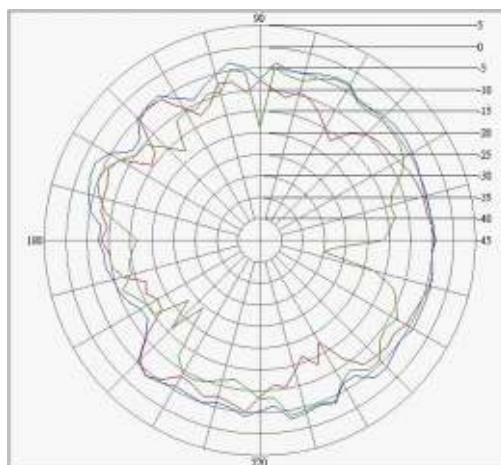
— H-pol. — V-pol. — H+V

**Fre. = 5150 MHz**



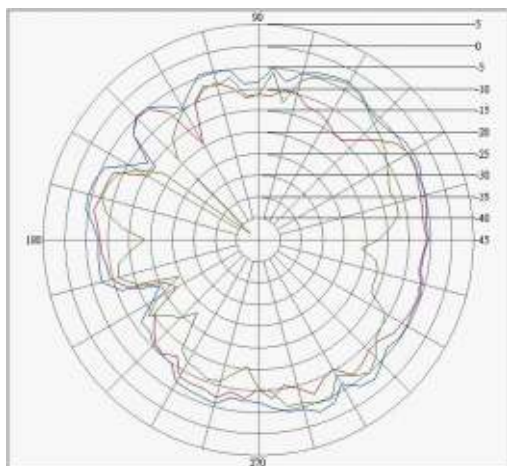
H-pol. (Aver.)	-7.5 dBi
H-pol. (Max.)	-2.8 dBi
V-pol (Aver.)	-8.3 dBi
V-pol. (Max.)	-3.1 dBi
H+V (Aver.)	-4.9 dBi
H+V (Max.)	-2.1 dBi

**Fre. = 5350 MHz**



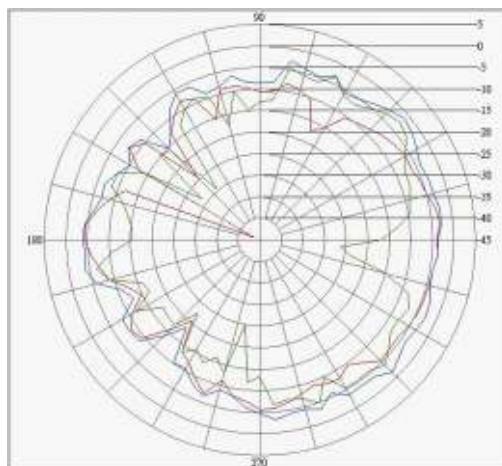
H-pol. (Aver.)	-7.9 dBi
H-pol. (Max.)	-3.9 dBi
V-pol (Aver.)	-8.3 dBi
V-pol. (Max.)	-3.5 dBi
H+V (Aver.)	-5.1 dBi
H+V (Max.)	-2.9 dBi

**Fre. = 5470 MHz**



H-pol. (Aver.)	-8.4 dBi
H-pol. (Max.)	-4.5 dBi
V-pol (Aver.)	-9.3 dBi
V-pol. (Max.)	-3.1 dBi
H+V (Aver.)	-5.8 dBi
H+V (Max.)	-2.6 dBi

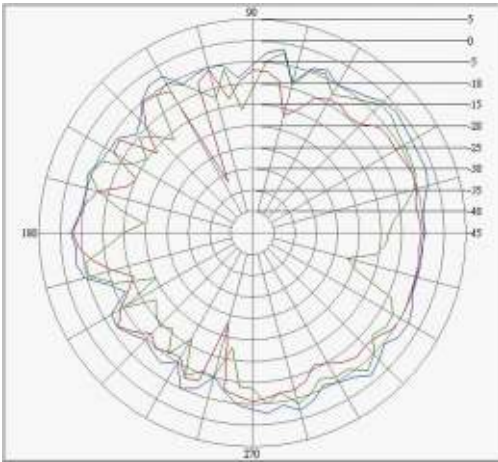
**Fre. = 5725 MHz**



H-pol. (Aver.)	-7.6 dBi
H-pol. (Max.)	-3.1 dBi
V-pol (Aver.)	-8.7 dBi
V-pol. (Max.)	-2.5 dBi
H+V (Aver.)	-5.1 dBi
H+V (Max.)	-1.3 dBi

— H-pol. — V-pol. — H+V

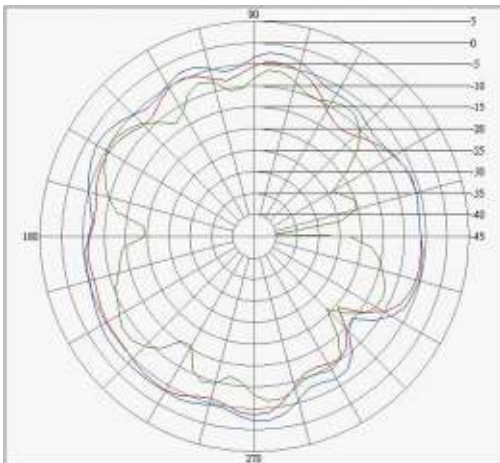
**Fre. = 5875 MHz**



H-pol. (Aver.)	-7.4dBi
H-pol. (Max.)	-2.8 dBi
V-pol (Aver.)	-7.3 dBi
V-pol. (Max.)	-2.2 dBi
H+V (Aver.)	-4.3 dBi
H+V (Max.)	-1.0 dBi

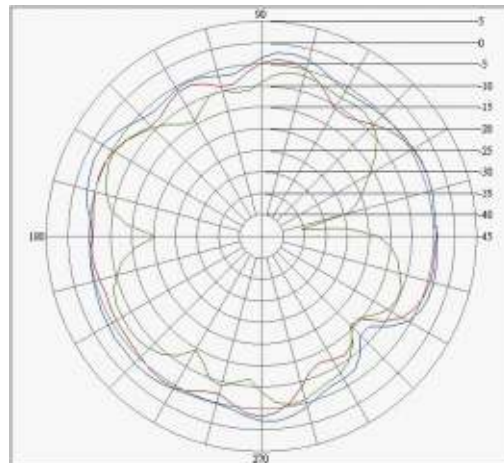
- Aux Antenna

**Fre. = 2412 MHz**



H-pol. (Aver.)	-6.5 dBi
H-pol. (Max.)	-3.5 dBi
V-pol (Aver.)	-10.0 dBi
V-pol. (Max.)	-5.3 dBi
H+V (Aver.)	-4.9 dBi
H+V (Max.)	-2.1 dBi

**Fre. = 2437 MHz**

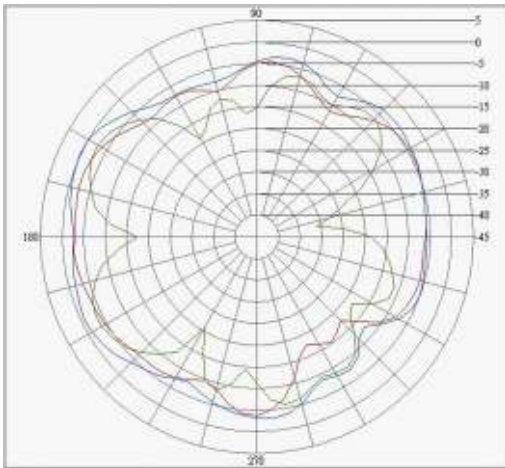


H-pol. (Aver.)	-6.0 dBi
H-pol. (Max.)	-3.2 dBi
V-pol (Aver.)	-9.4 dBi
V-pol. (Max.)	-5.4 dBi
H+V (Aver.)	-4.4 dBi
H+V (Max.)	-1.9 dBi



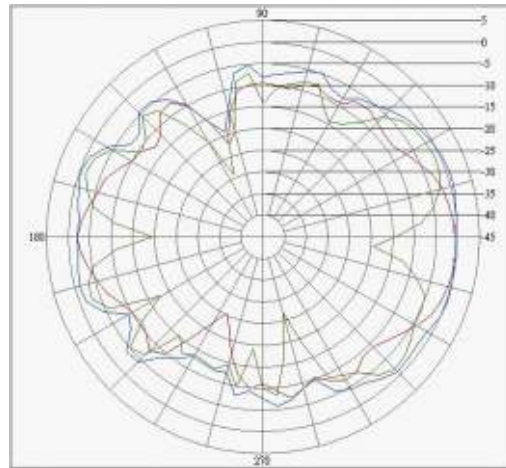
— H-pol.   
 — V-pol.   
 — H+V

**Fre. = 2462 MHz**



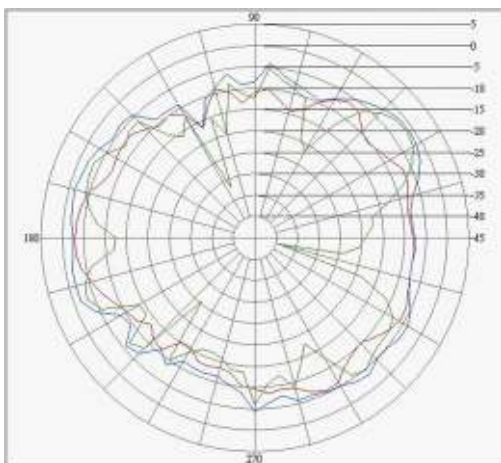
H-pol. (Aver.)	-6.0 dBi
H-pol. (Max.)	-2.4 dBi
V-pol (Aver.)	-8.5 dBi
V-pol. (Max.)	-2.6 dBi
H+V (Aver.)	-4.1dBi
H+V (Max.)	0.2 dBi

**Fre. = 4900 MHz**



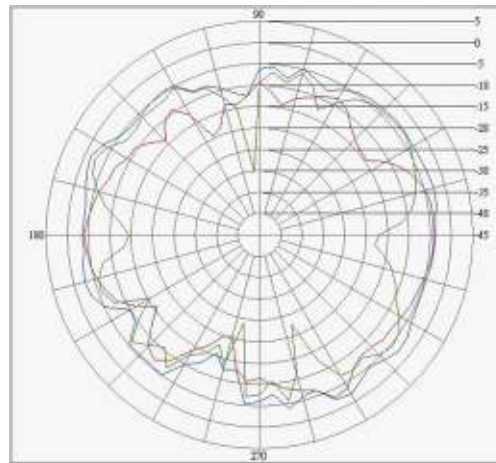
H-pol. (Aver.)	-6.2 dBi
H-pol. (Max.)	-0.5 dBi
V-pol (Aver.)	-6.6 dBi
V-pol. (Max.)	-1.3 dBi
H+V (Aver.)	-3.4 dBi
H+V (Max.)	0.7 dBi

**Fre. = 5150 MHz**



H-pol. (Aver.)	-8.1 dBi
H-pol. (Max.)	-2.9 dBi
V-pol (Aver.)	-8.0 dBi
V-pol. (Max.)	-1.7 dBi
H+V (Aver.)	-5.0 dBi
H+V (Max.)	-1.0 dBi

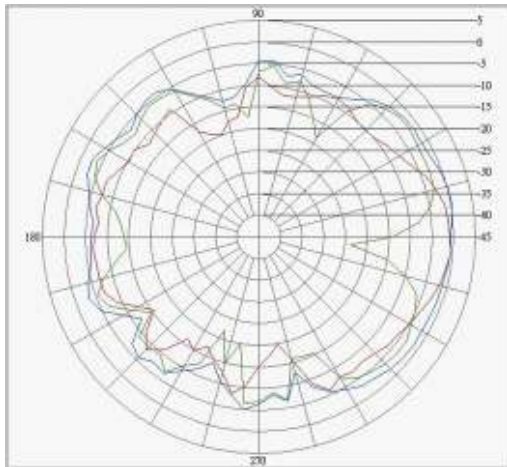
**Fre. = 5350 MHz**



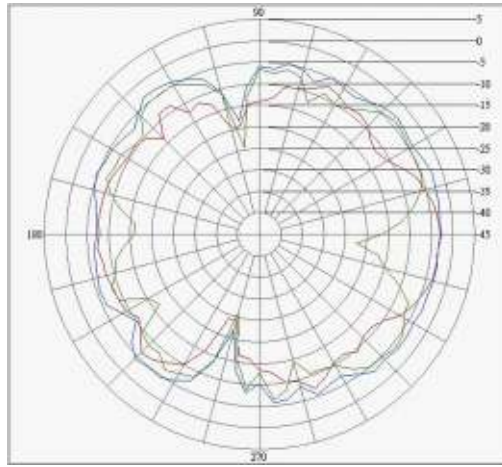
H-pol. (Aver.)	-7.8 dBi
H-pol. (Max.)	-3.1 dBi
V-pol (Aver.)	-7.6 dBi
V-pol. (Max.)	-2.5 dBi
H+V (Aver.)	-4.7 dBi
H+V (Max.)	-1.4 dBi

— H-pol.   
 — V-pol.   
 — H+V

**Fre. = 5470 MHz**



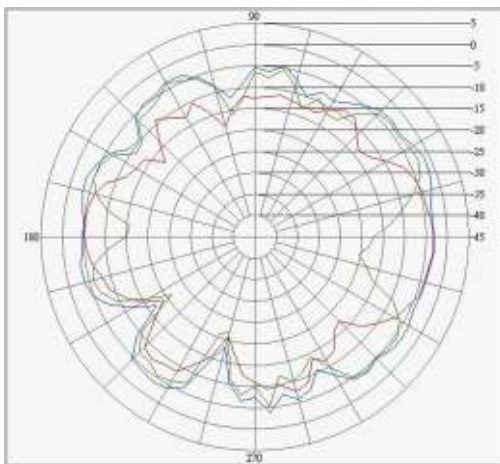
**Fre. = 5725 MHz**



H-pol. (Aver.)	-7.2 dBi
H-pol. (Max.)	-0.6 dBi
V-pol (Aver.)	-7.0 dBi
V-pol. (Max.)	-2.3 dBi
H+V (Aver.)	-4.1 dBi
H+V (Max.)	0.2 dBi

H-pol. (Aver.)	-8.4 dBi
H-pol. (Max.)	-3.0 dBi
V-pol (Aver.)	-8.1 dBi
V-pol. (Max.)	-3.8 dBi
H+V (Aver.)	-5.2 dBi
H+V (Max.)	-2.4 dBi

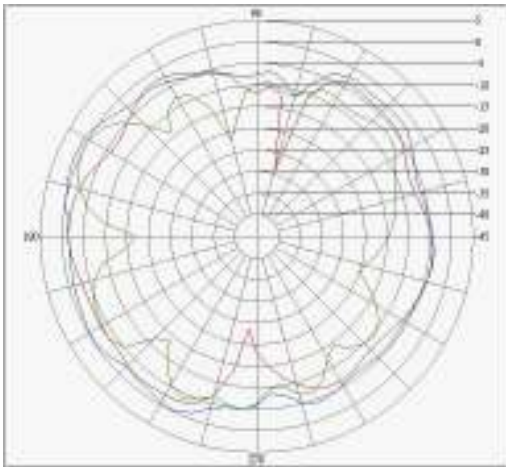
**Fre. = 5875 MHz**



H-pol. (Aver.)	-8.6 dBi
H-pol. (Max.)	-3.1 dBi
V-pol (Aver.)	-7.4 dBi
V-pol. (Max.)	-2.9 dBi
H+V (Aver.)	-4.9 dBi
H+V (Max.)	-1.4 dBi

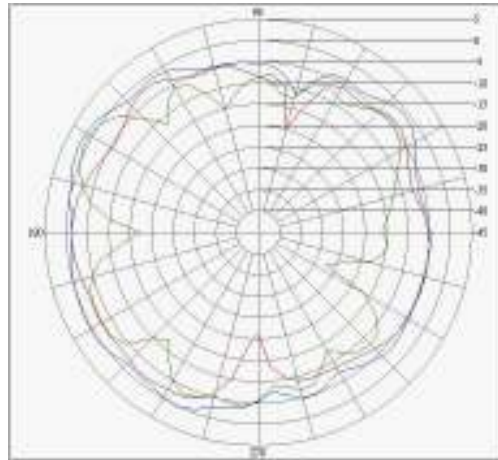
- MIMO Antenna — H-pol. — V-pol. — H+V

**Fre. = 2412 MHz**



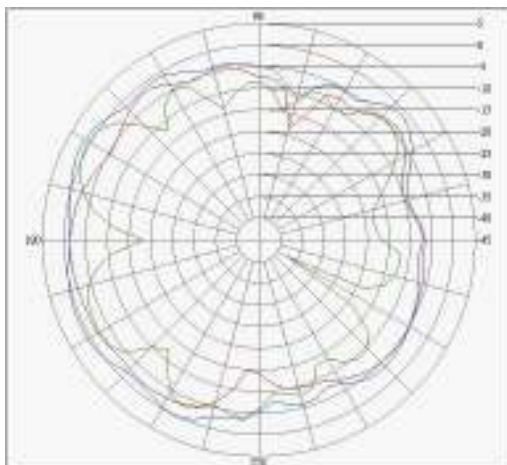
H-pol. (Aver.)	-5 dBi
H-pol. (Max.)	-1.5 dBi
V-pol (Aver.)	-7.2 dBi
V-pol. (Max.)	-0.2dBi
H+V (Aver.)	-2.9 dBi
H+V (Max.)	1.1 dBi

**Fre. = 2437 MHz**



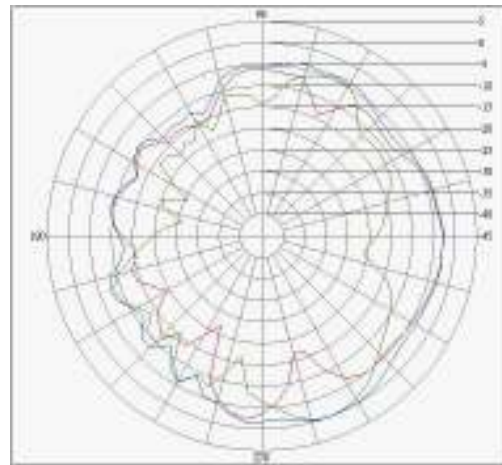
H-pol. (Aver.)	-4.7 dBi
H-pol. (Max.)	-1.3 dBi
V-pol (Aver.)	-6.3 dBi
V-pol. (Max.)	0.6 dBi
H+V (Aver.)	-2.4 dBi
H+V (Max.)	1.6 dBi

**Fre. = 2462 MHz**



H-pol. (Aver.)	-4.8dBi
H-pol. (Max.)	-1.3 dBi
V-pol (Aver.)	-6.5 dBi
V-pol. (Max.)	0.4 dBi
H+V (Aver.)	-2.5 dBi
H+V (Max.)	1.4 dBi

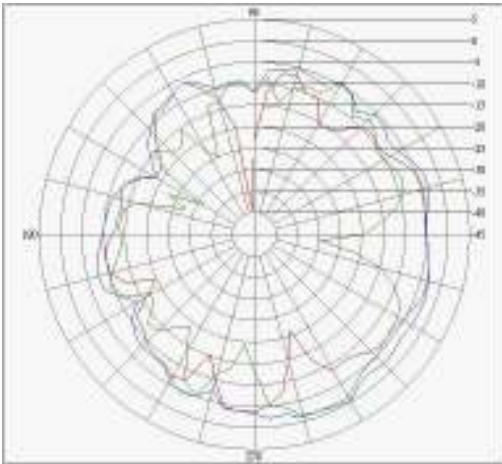
**Fre. = 4900 MHz**



H-pol. (Aver.)	-7.4 dBi
H-pol. (Max.)	-2.2 dBi
V-pol (Aver.)	-8.3 dBi
V-pol. (Max.)	0 dBi
H+V (Aver.)	-4.8 dBi
H+V (Max.)	0.1dBi

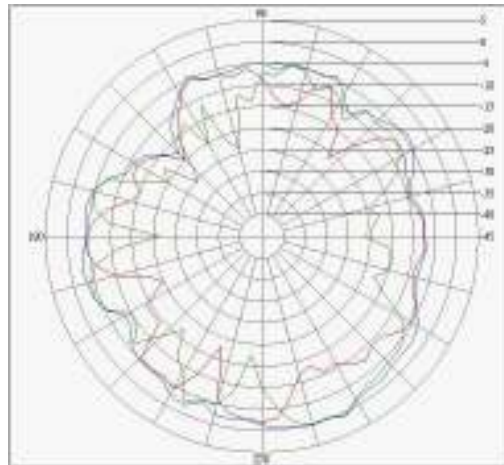
— H-pol.   
 — V-pol.   
 — H+V

**Fre. = 5150 MHz**



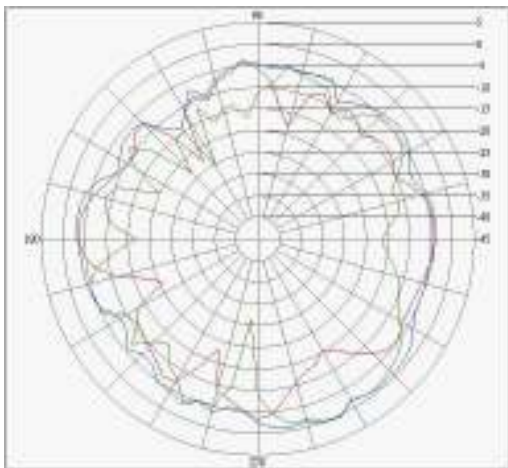
H-pol. (Aver.)	-8.1 dBi
H-pol. (Max.)	-3.3 dBi
V-pol (Aver.)	-8.6 dBi
V-pol. (Max.)	-1.2 dBi
H+V (Aver.)	-5.3 dBi
H+V (Max.)	-0.5 dBi

**Fre. = 5350 MHz**



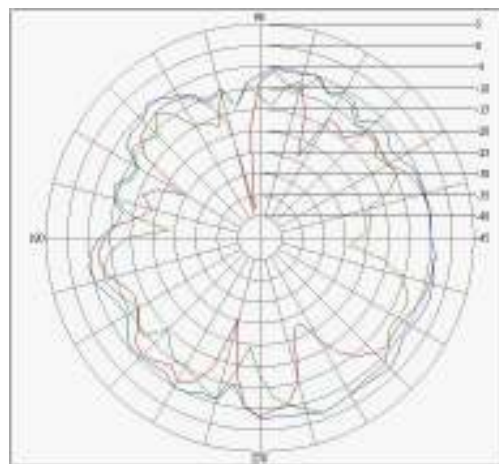
H-pol. (Aver.)	-7.9 dBi
H-pol. (Max.)	-2 dBi
V-pol (Aver.)	-6.9 dBi
V-pol. (Max.)	0.5 dBi
H+V (Aver.)	-4.4 dBi
H+V (Max.)	0.8 dBi

**Fre. = 5470 MHz**



H-pol. (Aver.)	-7.6 dBi
H-pol. (Max.)	-3.4 dBi
V-pol (Aver.)	-6.8 dBi
V-pol. (Max.)	0.1 dBi
H+V (Aver.)	-4.2 dBi
H+V (Max.)	0.3 dBi

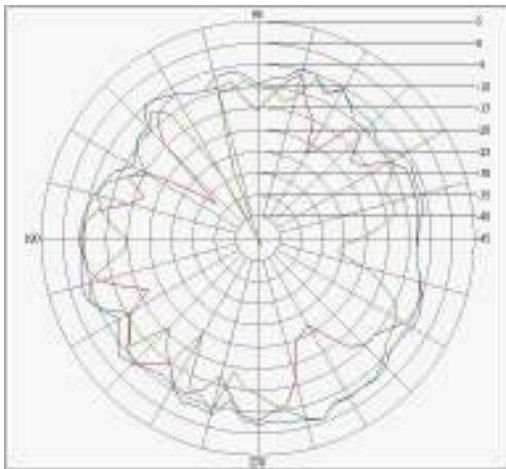
**Fre. = 5725 MHz**



H-pol. (Aver.)	-8.2 dBi
H-pol. (Max.)	-3.2 dBi
V-pol (Aver.)	-8.4 dBi
V-pol. (Max.)	-1.5 dBi
H+V (Aver.)	-5.3 dBi
H+V (Max.)	-1.5 dBi

— H-pol. — V-pol. — H+V

Fre. = 5875 MHz



H-pol. (Aver.)	-8.3 dBi
H-pol. (Max.)	-3 dBi
V-pol (Aver.)	-7.9dBi
V-pol. (Max.)	-0.9 dBi
H+V (Aver.)	-5.1 dBi
H+V (Max.)	-0.9 dBi