

Antenna Regulatory Information

• Product type	• WLAN antenna
• Model number	• DS1
• Revision	• Rev. 1
• Manufacturer Part No. : Main / Aux / MIMO	• AMP8P-700022
• Dell Part No. : Main / Aux / MIMO	• 60.4Q612.031

ADVANCED-CONNECTEK INC.

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Template Revision 083106

1. Specifications

Antenna Specifications

Antenna Type (Material, Technology)	PIFA
Antenna Model Number	Siberia
Operating Frequency Range(s)	2.4GHz ~ 2.5GHz and 4.9GHz ~ 5.9GHz
Peak Gain (802.11b/g / 2.4GHz Band) (dBi)	Main -1.5/ Aux 0.3/ MIMO 0.5
Peak Gain (802.11a / 5GHz Band) (dBi)	Main 1.4/ Aux 2.6/ MIMO 1.8
Radio Connector Type	IPEX 20308-111R-32/ 20363-111R-37/ 20531-111R-37
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	757	N/A	N/A	313	N/A	N/A	355
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: 1.32~1.37 mm Vendor: Kurabe/Hitachi/Sumitomo			Color: Black OD: 1.32~1.37 mm Vendor: Kurabe/Hitachi/Sumitomo			Color: Gray OD: 1.32~1.37 mm Vendor: Kurabe/Hitachi/Sumitomo		

2. Antenna Assembly



Main Antenna

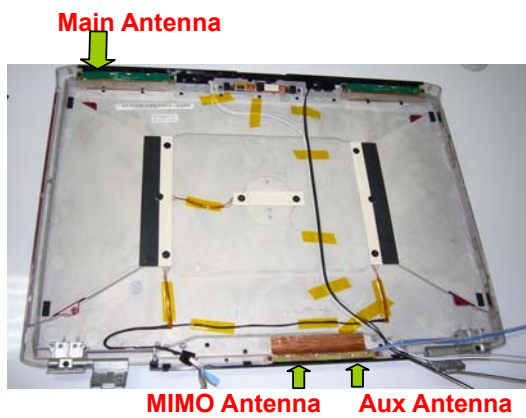


Aux Antenna



MIMO Antenna

3. Antenna Assembly Installed in The Notebook

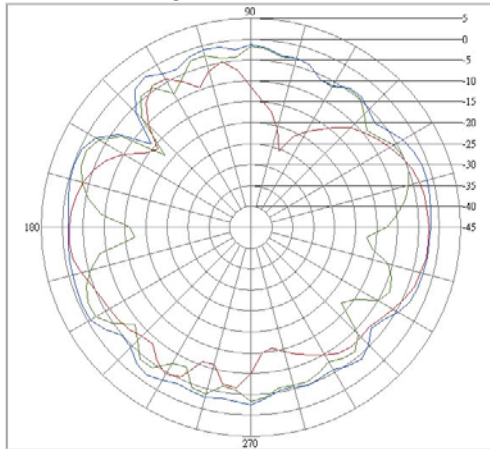


[illegible]

5. Gain Patterns

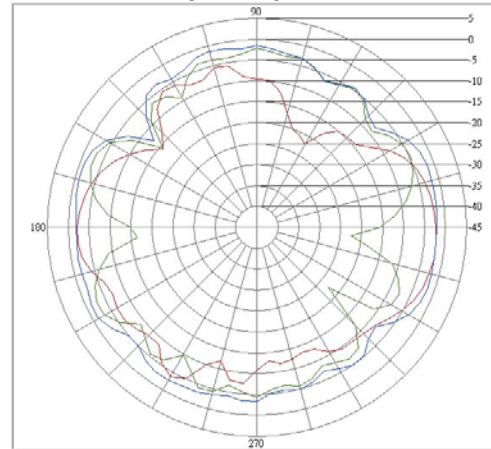
- Main Antenna — H-pol. — V-pol. — H+V

Fre. = 2412 MHz



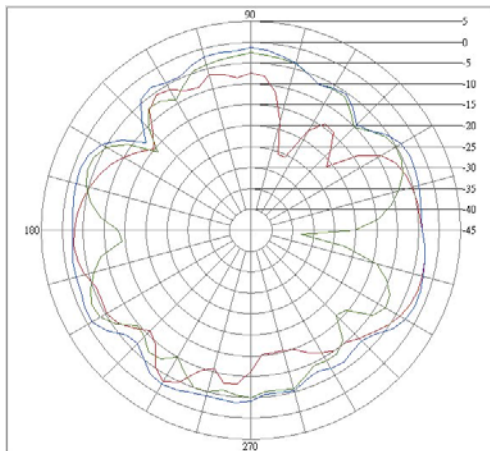
H-pol. (Aver.)	-6.1 dBi
H-pol. (Max.)	-1.5 dBi
V-pol (Aver.)	-5.5 dBi
V-pol. (Max.)	-1.7 dBi
H+V (Aver.)	-2.8 dBi
H+V (Max.)	-0.3 dBi

Fre. = 2437 MHz



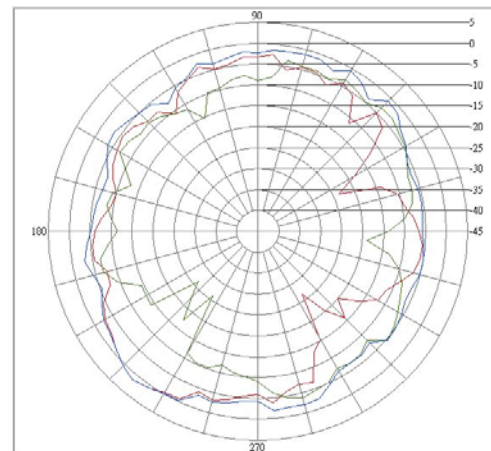
H-pol. (Aver.)	-6.4 dBi
H-pol. (Max.)	-2.1 dBi
V-pol (Aver.)	-6.1 dBi
V-pol. (Max.)	-2.1 dBi
H+V (Aver.)	-3.2 dBi
H+V (Max.)	-1 dBi

Fre. = 2462 MHz



H-pol. (Aver.)	-6.8 dBi
H-pol. (Max.)	-2.6 dBi
V-pol (Aver.)	-6.6 dBi
V-pol. (Max.)	-2.6 dBi
H+V (Aver.)	-3.5 dBi
H+V (Max.)	-1.2 dBi

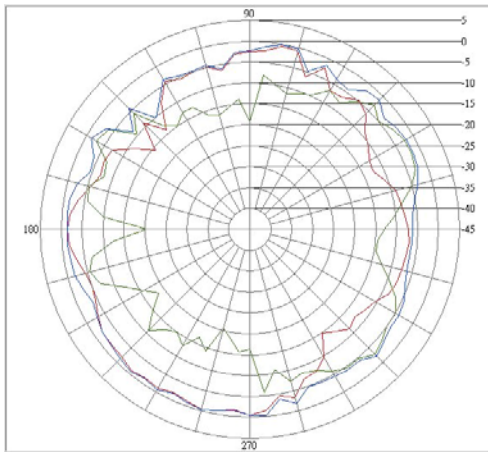
Fre. = 4900 MHz



H-pol. (Aver.)	-5.3 dBi
H-pol. (Max.)	1.4 dBi
V-pol (Aver.)	-7.4 dBi
V-pol. (Max.)	-3.2 dBi
H+V (Aver.)	-3.3 dBi
H+V (Max.)	1.4 dBi

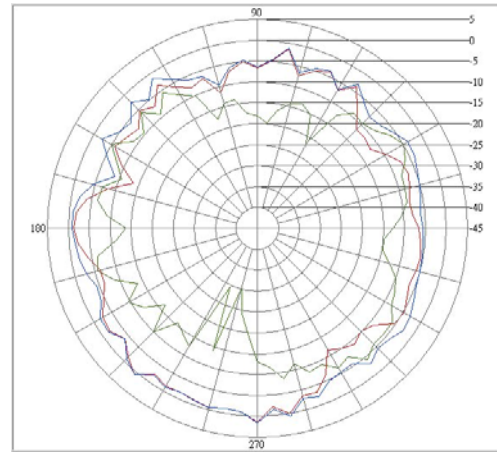
— H-pol. — V-pol. — H+V

Fre. = 5150 MHz



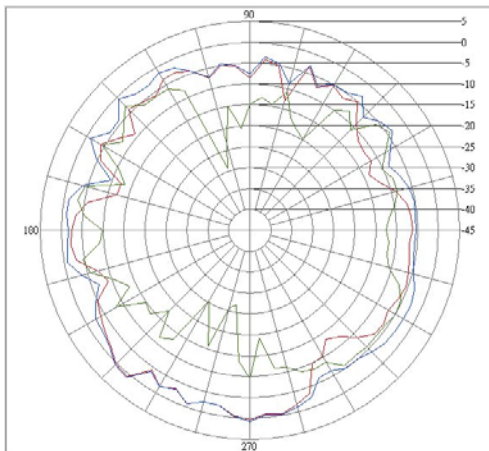
H-pol. (Aver.)	-4.5 dBi
H-pol. (Max.)	-0.4 dBi
V-pol (Aver.)	-7.6 dBi
V-pol. (Max.)	-2.4 dBi
H+V (Aver.)	-2.8 dBi
H+V (Max.)	-0.2 dBi

Fre. = 5350 MHz



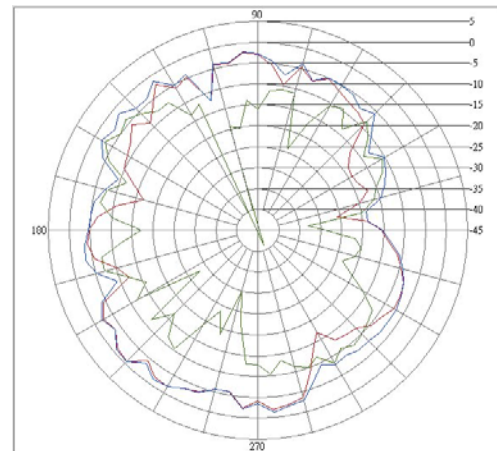
H-pol. (Aver.)	-4.4 dBi
H-pol. (Max.)	1.4 dBi
V-pol (Aver.)	-9.3 dBi
V-pol. (Max.)	-4.2 dBi
H+V (Aver.)	-3.2 dBi
H+V (Max.)	1.6 dBi

Fre. = 5470 MHz



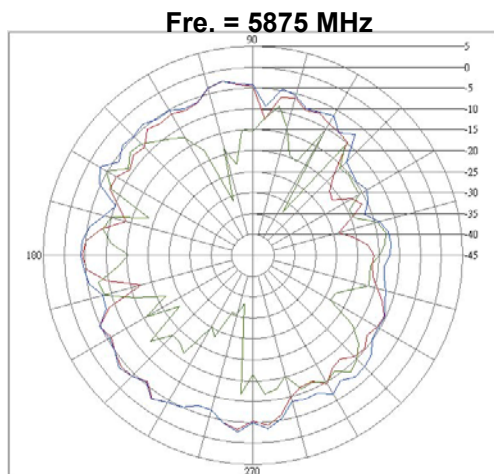
H-pol. (Aver.)	-4.6 dBi
H-pol. (Max.)	0.6 dBi
V-pol (Aver.)	-8.6 dBi
V-pol. (Max.)	-3.1 dBi
H+V (Aver.)	-3.1 dBi
H+V (Max.)	0.8 dBi

Fre. = 5725 MHz



H-pol. (Aver.)	-6.1 dBi
H-pol. (Max.)	-0.7 dBi
V-pol (Aver.)	-10.9 dBi
V-pol. (Max.)	-2.9 dBi
H+V (Aver.)	-4.9 dBi
H+V (Max.)	-0.6 dBi

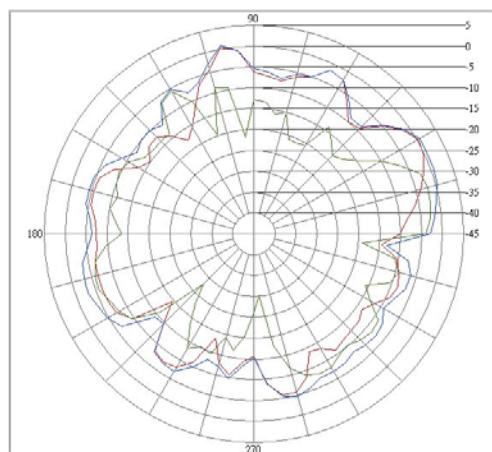
— H-pol. — V-pol. — H+V



H-pol. (Aver.)	-7.5 dBi
H-pol. (Max.)	-2.7 dBi
V-pol. (Aver.)	-12.6 dBi
V-pol. (Max.)	-4.7 dBi
H+V (Aver.)	-6.3 dBi
H+V (Max.)	-2.5 dBi

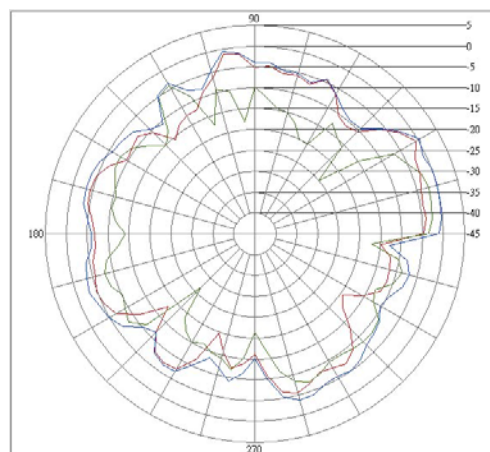
- Aux Antenna

Fre. = 2412 MHz



H-pol. (Aver.)	-6.7 dBi
H-pol. (Max.)	0.3 dBi
V-pol. (Aver.)	-9.6 dBi
V-pol. (Max.)	-2.1 dBi
H+V (Aver.)	-4.9 dBi
H+V (Max.)	0.7 dBi

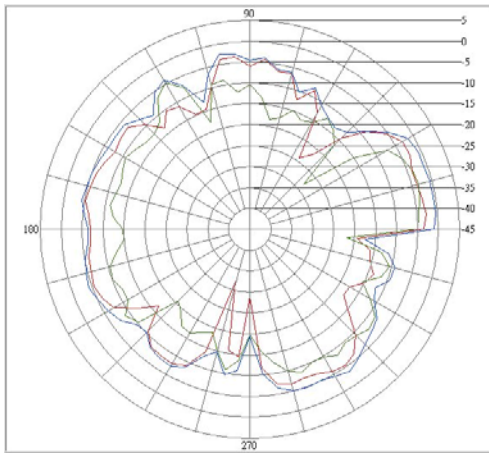
Fre. = 2437 MHz



H-pol. (Aver.)	-6.8 dBi
H-pol. (Max.)	-0.5 dBi
V-pol. (Aver.)	-9.2 dBi
V-pol. (Max.)	-2.1 dBi
H+V (Aver.)	-4.8 dBi
H+V (Max.)	0.4 dBi

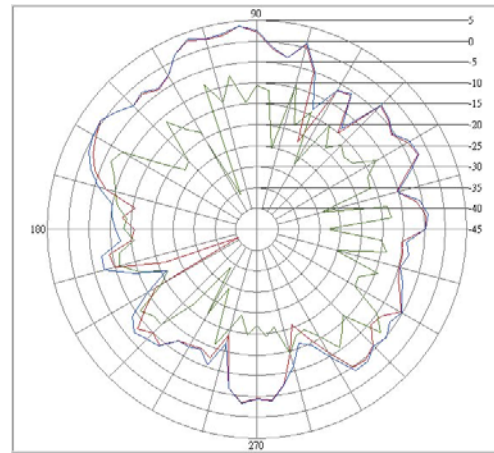
— H-pol. — V-pol. — H+V

Fre. = 2462 MHz



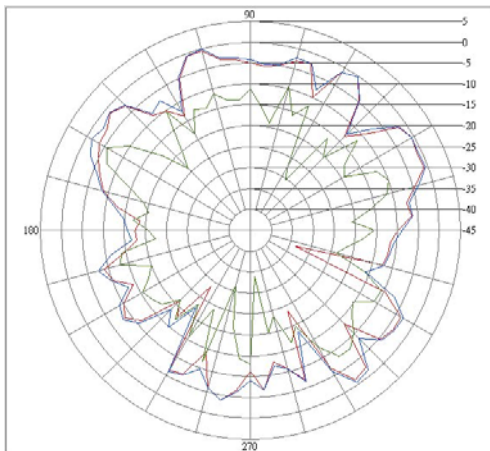
H-pol. (Aver.)	-7.5 dBi
H-pol. (Max.)	-2.8 dBi
V-pol (Aver.)	-10.1 dBi
V-pol. (Max.)	-3.3 dBi
H+V (Aver.)	-5.6 dBi
H+V (Max.)	-0.5 dBi

Fre. = 4900 MHz



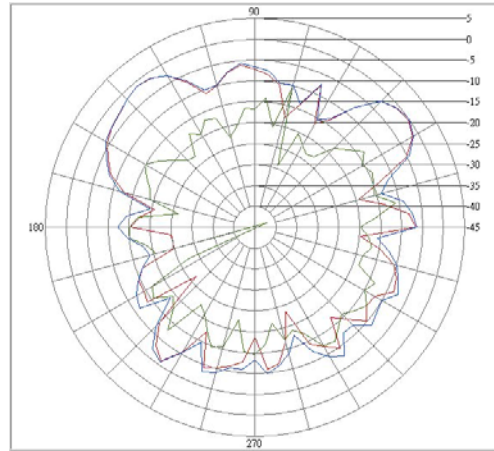
H-pol. (Aver.)	-4.2 dBi
H-pol. (Max.)	2.4 dBi
V-pol (Aver.)	-13.6 dBi
V-pol. (Max.)	-8.6 dBi
H+V (Aver.)	-3.7 dBi
H+V (Max.)	2.7 dBi

Fre. = 5150 MHz



H-pol. (Aver.)	-5.6 dBi
H-pol. (Max.)	-0.3 dBi
V-pol (Aver.)	-13.8 dBi
V-pol. (Max.)	-5.5 dBi
H+V (Aver.)	-5.0 dBi
H+V (Max.)	-0.2 dBi

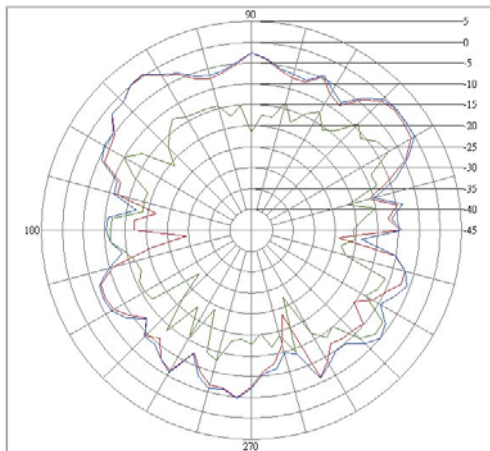
Fre. = 5350 MHz



H-pol. (Aver.)	-7.8 dBi
H-pol. (Max.)	-0.3 dBi
V-pol (Aver.)	-16.4 dBi
V-pol. (Max.)	-10.6 dBi
H+V (Aver.)	-7.2 dBi
H+V (Max.)	-0.1 dBi

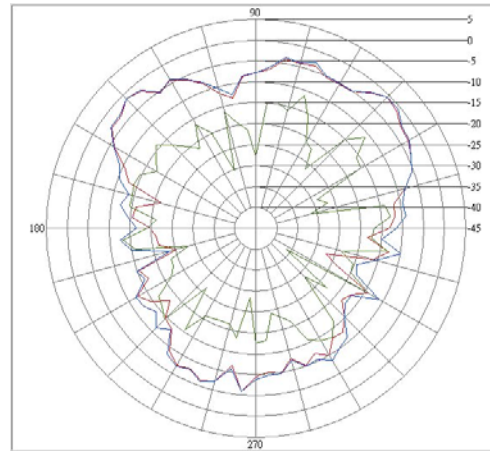
— H-pol. — V-pol. — H+V

Fre. = 5470 MHz



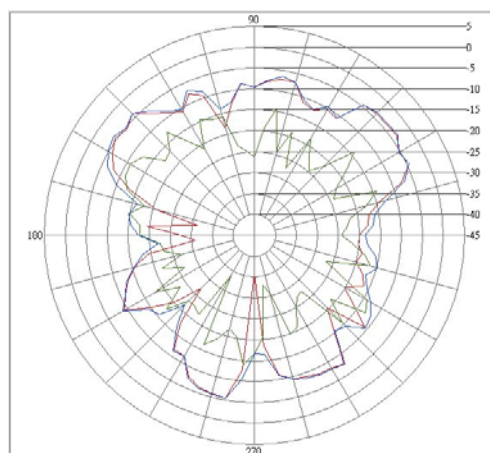
H-pol. (Aver.)	-6.3 dBi
H-pol. (Max.)	0.2 dBi
V-pol (Aver.)	-13.7 dBi
V-pol. (Max.)	-6.6 dBi
H+V (Aver.)	-5.6 dBi
H+V (Max.)	0.4 dBi

Fre. = 5725 MHz



H-pol. (Aver.)	-7.4 dBi
H-pol. (Max.)	-0.8 dBi
V-pol (Aver.)	-17.0 dBi
V-pol. (Max.)	-11.1 dBi
H+V (Aver.)	-6.9 dBi
H+V (Max.)	-0.7 dBi

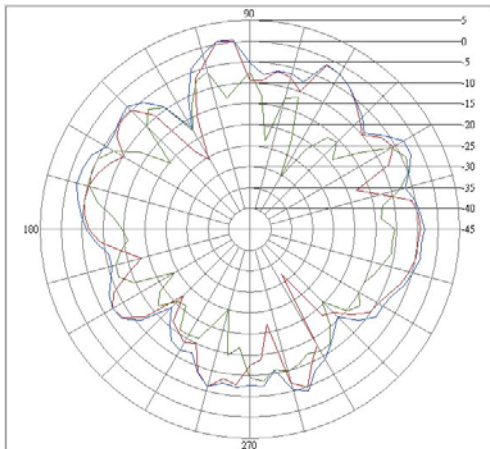
Fre. = 5875 MHz



H-pol. (Aver.)	-9.4 dBi
H-pol. (Max.)	-3.5 dBi
V-pol (Aver.)	-17.7 dBi
V-pol. (Max.)	-10.9 dBi
H+V (Aver.)	-8.8 dBi
H+V (Max.)	-3.3 dBi

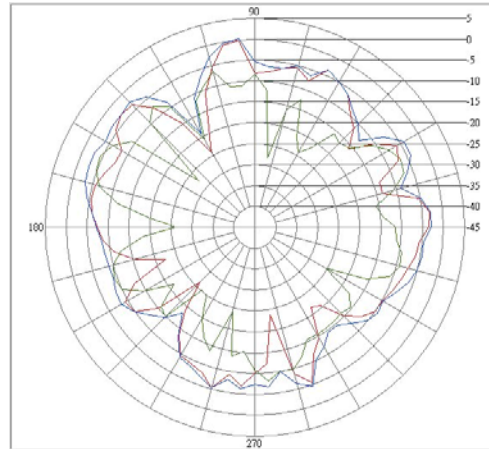
- MIMO Antenna — H-pol. — V-pol. — H+V

Fre. = 2412 MHz



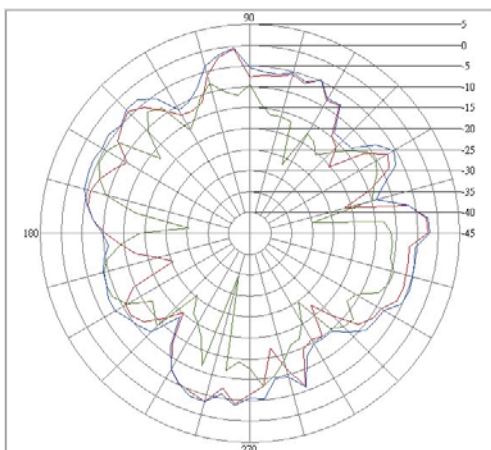
H-pol. (Aver.)	-7.1 dBi
H-pol. (Max.)	0.5 dBi
V-pol (Aver.)	-10.9 dBi
V-pol. (Max.)	-4.1 dBi
H+V (Aver.)	-5.6 dBi
H+V (Max.)	0.7 dBi

Fre. = 2437 MHz



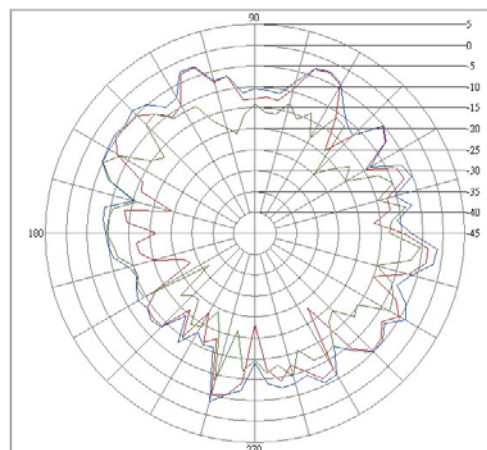
H-pol. (Aver.)	-7.5 dBi
H-pol. (Max.)	0.0 dBi
V-pol (Aver.)	-11.3 dBi
V-pol. (Max.)	-4.4 dBi
H+V (Aver.)	-6.0 dBi
H+V (Max.)	0.3 dBi

Fre. = 2462 MHz



H-pol. (Aver.)	-7.6 dBi
H-pol. (Max.)	-0.8 dBi
V-pol (Aver.)	-11.8 dBi
V-pol. (Max.)	-5.2 dBi
H+V (Aver.)	-6.2 dBi
H+V (Max.)	-0.4 dBi

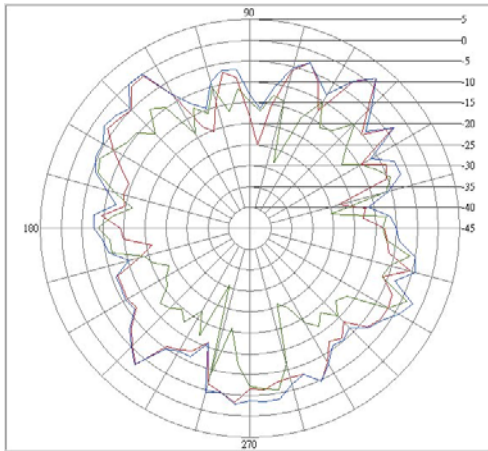
Fre. = 4900 MHz



H-pol. (Aver.)	-8.5 dBi
H-pol. (Max.)	-2.6 dBi
V-pol (Aver.)	-12.1 dBi
V-pol. (Max.)	-5.2 dBi
H+V (Aver.)	-6.9 dBi
H+V (Max.)	-1.4 dBi

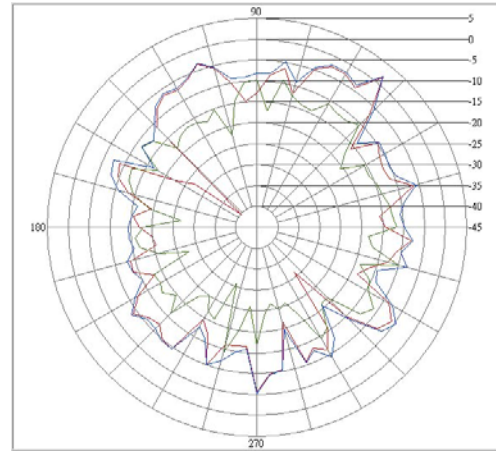
— H-pol. — V-pol. — H+V

Fre. = 5150 MHz



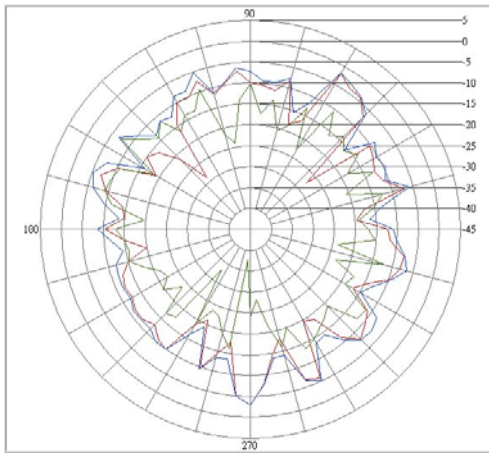
H-pol. (Aver.)	-7.2 dBi
H-pol. (Max.)	1.7 dBi
V-pol (Aver.)	-11.5 dBi
V-pol. (Max.)	-3.8 dBi
H+V (Aver.)	-5.8 dBi
H+V (Max.)	1.8 dBi

Fre. = 5350 MHz



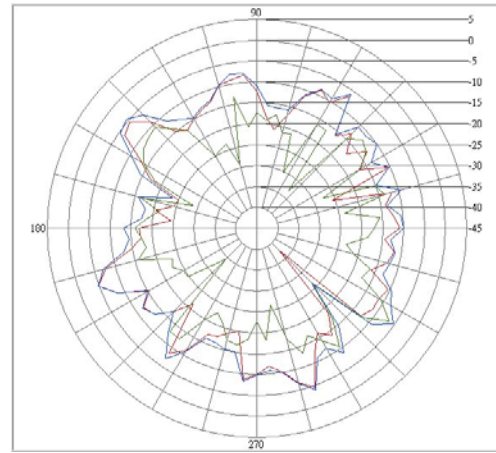
H-pol. (Aver.)	-8.9 dBi
H-pol. (Max.)	1.8 dBi
V-pol (Aver.)	-15.0 dBi
V-pol. (Max.)	-9.3 dBi
H+V (Aver.)	-7.9 dBi
H+V (Max.)	1.9 dBi

Fre. = 5470 MHz



H-pol. (Aver.)	-9.9 dBi
H-pol. (Max.)	-1.9 dBi
V-pol (Aver.)	-14.7 dBi
V-pol. (Max.)	-7.5 dBi
H+V (Aver.)	-8.6 dBi
H+V (Max.)	-1.9 dBi

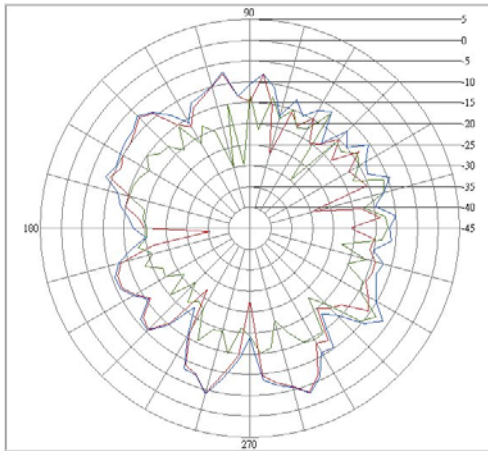
Fre. = 5725 MHz



H-pol. (Aver.)	-11.5 dBi
H-pol. (Max.)	-4.5 dBi
V-pol (Aver.)	-15.9 dBi
V-pol. (Max.)	-6.4 dBi
H+V (Aver.)	-10.1 dBi
H+V (Max.)	-3.9 dBi

— H-pol. — V-pol. — H+V

Fre. = 5875 MHz



H-pol. (Aver.)	-11.6 dBi
H-pol. (Max.)	-3.2 dBi
V-pol (Aver.)	-16.1 dBi
V-pol. (Max.)	-8.3 dBi
H+V (Aver.)	-10.3 dBi
H+V (Max.)	-3.0 dBi