Antenna Regulatory Information

• **Product type**	• **UWB antenna**
• **Model number**	• **Gilligan**
• **Revision**	• **Rev.1**
• **Manufacturer Part No. :**	• **AMP8P-700012**
• **Dell Part No. :**	•

ADVANCED-CONNECTEK INC.

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Template Revision 052107

1. Specifications

Antenna Specifications

Antenna Type (Material, Technology)	PIFA
Antenna Model Number	Gilligan
Operating Frequency Range(s)	3.168~4.752 GHz
Peak Gain (dBi)	BG1: UWB 1.8
	BG3: N/A
Radio Connector Type	Hirose U.FL-LP-88 or IPEX 20308-111R-32/ 20363-111R-37 or equivalent connector
Mid-Line Connector Type (If Applicable)	N/A

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

Cable Specifications

Cable Parameters	**UWB antenna**		
	LCD Side	**Base Side**	**Total**
Length (mm)	N/A	N/A	118
Loss (Including Connectors) (dB, 4GHz)			0.6
Description (Color, Diameter, Manufacturer)	Color: Blue OD: 1.32~1.37 mm Kurabe/Hitachi/Sumitomo		

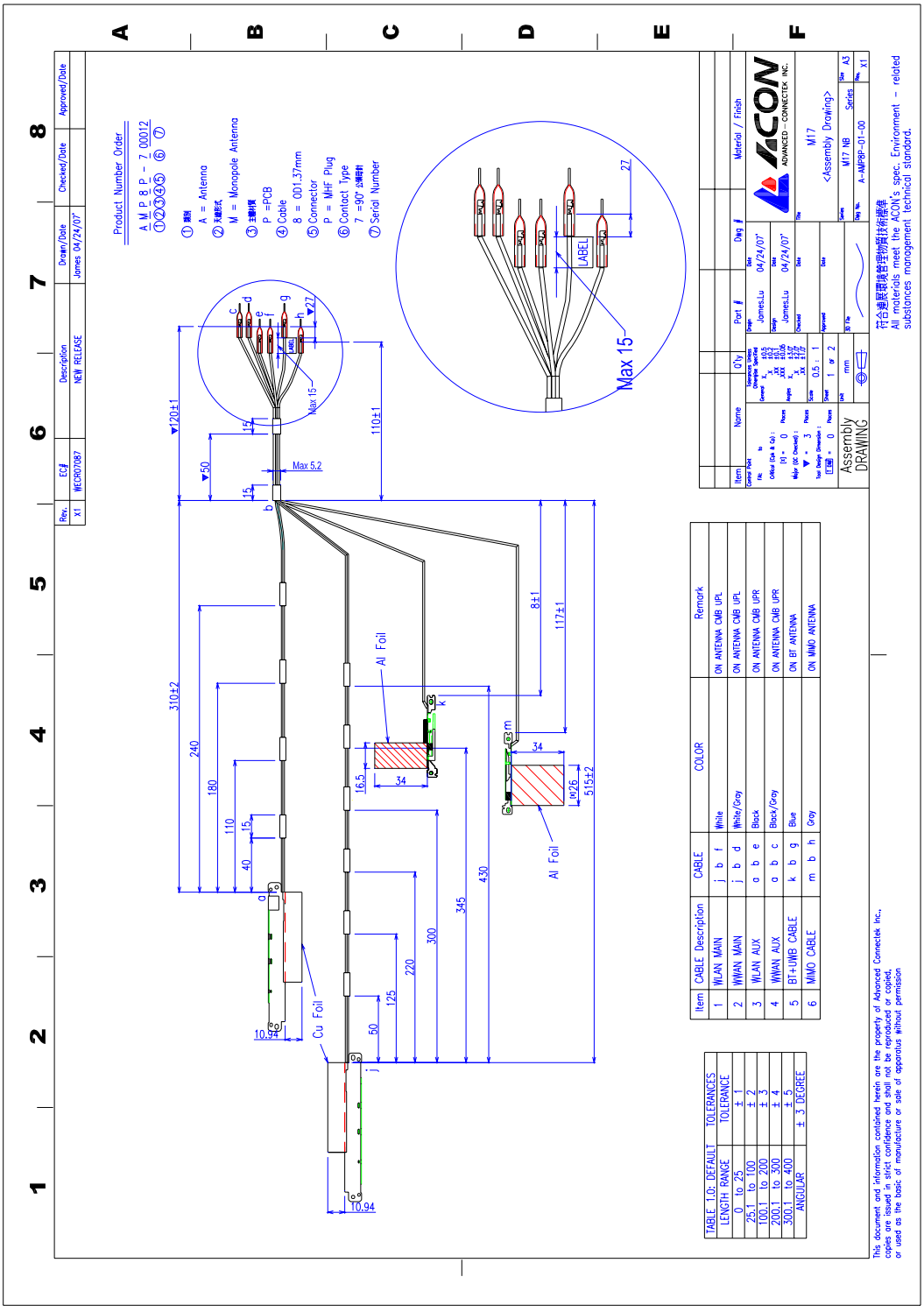
2. Antenna Assembly

UWB Antenna

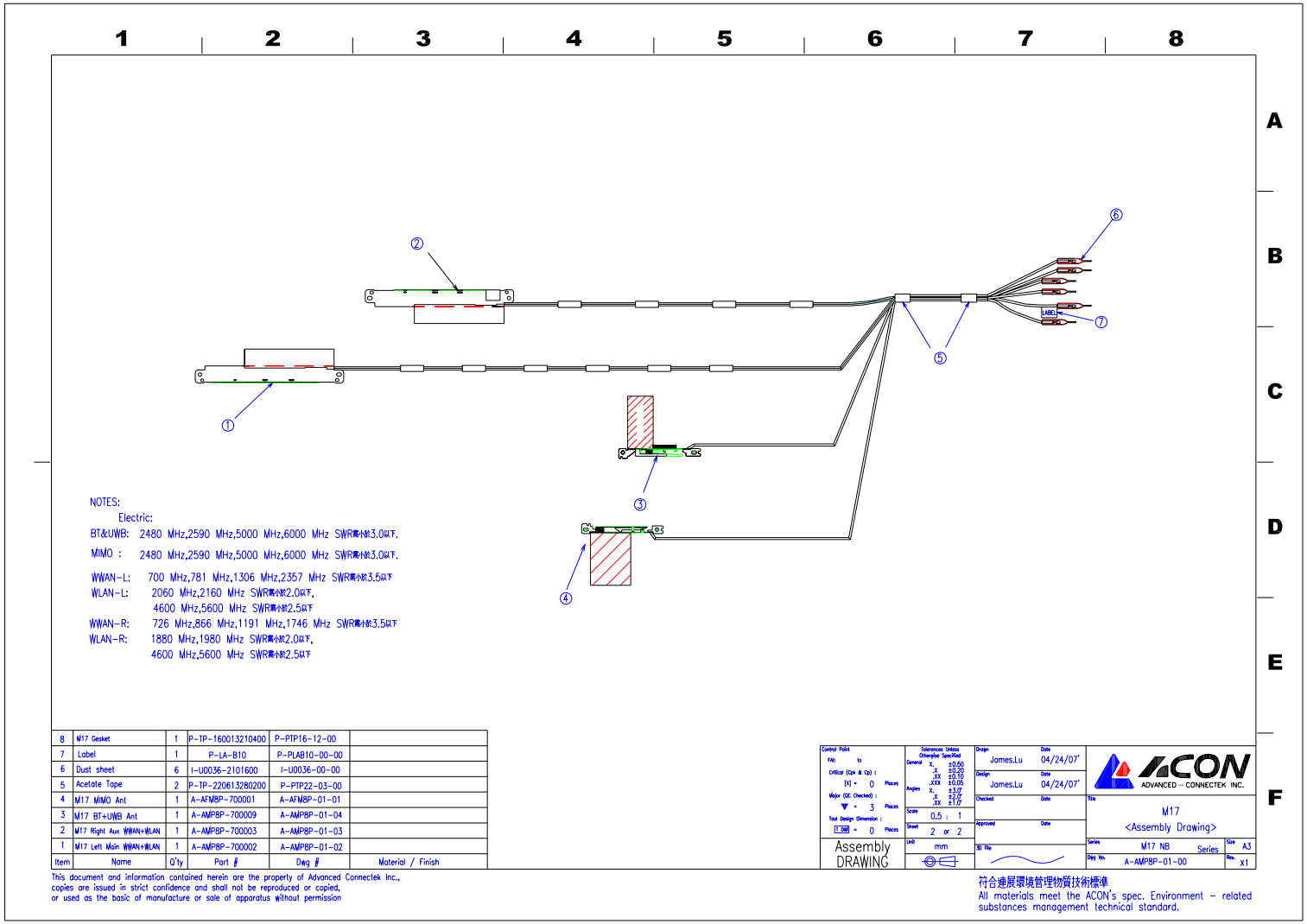
3. Antenna Assembly Installed in The Notebook

UWB Antenna

4. Mechanical Drawing of Antennas



Item	CABLE Description	CABLE	COLOR	Remark
1	WLAN MAIN	j b f	White	ON ANTENNA CMB UPL
2	WWAN MAIN	j b d	White/Gray	ON ANTENNA CMB UPL
3	WLAN AUX	o b e	Black	ON ANTENNA CMB UPR
4	WWAN AUX	o b c	Black/Gray	ON ANTENNA CMB UPR
5	BT+UWB CABLE	k b g	Blue	ON BT ANTENNA
6	MIMO CABLE	m b h	Gray	ON MIMO ANTENNA



NOTES:

Electric:

BT&UWB: 2480 MHz,2590 MHz,5000 MHz,6000 MHz SWR≦小於3.0以下.

MIMO : 2480 MHz,2590 MHz,5000 MHz,6000 MHz SWR≦小於3.0以下.

WWAN-L: 700 MHz,781 MHz,1306 MHz,2357 MHz SWR≦小於3.5以下

WLAN-L: 2060 MHz,2160 MHz SWR≦小於2.0以下,
4600 MHz,5600 MHz SWR≦小於2.5以下

WWAN-R: 726 MHz,866 MHz,1191 MHz,1746 MHz SWR≦小於3.5以下

WLAN-R: 1880 MHz,1980 MHz SWR≦小於2.0以下,
4600 MHz,5600 MHz SWR≦小於2.5以下

Item	Name	Q'ty	Part #	Dwg #	Material / Finish
8	M17 Gasket	1	P-TP-160013210400	P-PTP16-12-00	
7	Label	1	P-LA-B10	P-PLAB10-00-00	
6	Dust sheet	6	I-U0036-2101600	I-U0036-00-00	
5	Acetate Tape	2	P-TP-220613280200	P-PTP22-03-00	
4	M17 MIMO Ant	1	A-AFM8P-700001	A-AFM8P-01-01	
3	M17 BT+UWB Ant	1	A-AMP8P-700009	A-AMP8P-01-04	
2	M17 Right Aux WWAN+WLAN	1	A-AMP8P-700003	A-AMP8P-01-03	
1	M17 Left Main WWAN+WLAN	1	A-AMP8P-700002	A-AMP8P-01-02	

Control Point
FAI: to
Critical (Cpk ≥ Cp) :
[X] = 0 Places
Major (QC Checked) :
▼ = 3 Places
Tool Design Dimension :
[.XXX] = 0 Places

Assembly DRAWING

Tolerances Unless Otherwise Specified
General X ±0.50, .X ±0.20, .XX ±0.10, .XXX ±0.05
Angles X ±3.0°, .X ±1.0°, .XX ±1.0°

Scale 0.5 : 1
Sheet 2 or 2
Unit mm

Drawn James.Lu Date 04/24/07'
Design James.Lu Date 04/24/07'
Checked Date
Approved Date
3D File

ACON ADVANCED CONNECTEK INC.

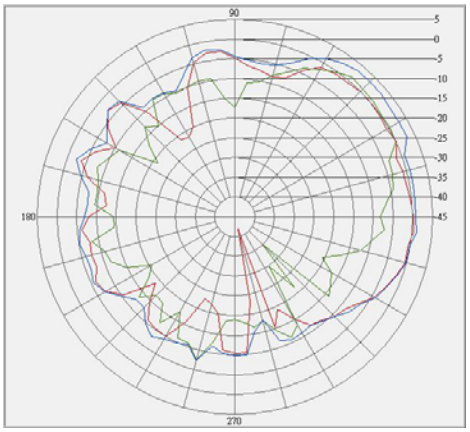
Title: M17 <Assembly Drawing>
Series: M17 NB Series
Size: A3
Dwg No.: A-AMP8P-01-00
Rev.: X1

符合連展環境管理物質技術標準
All materials meet the ACON's spec. Environment – related substances management technical standard.

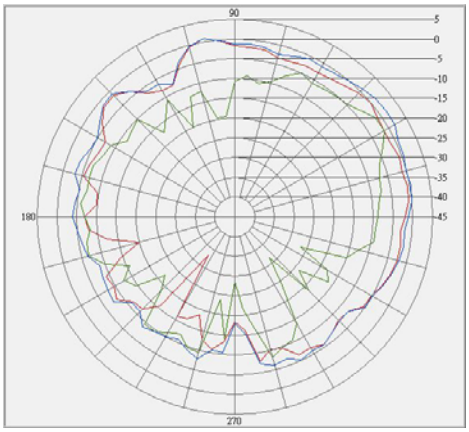
5. Gain Patterns

UWB Antenna H-pol. V-pol. H+V

Fre. = 3168 MHz

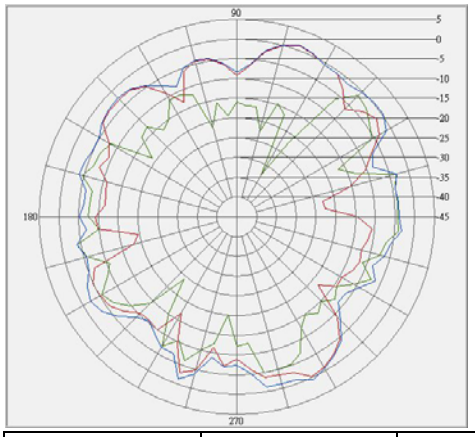


Fre. = 3300 MHz

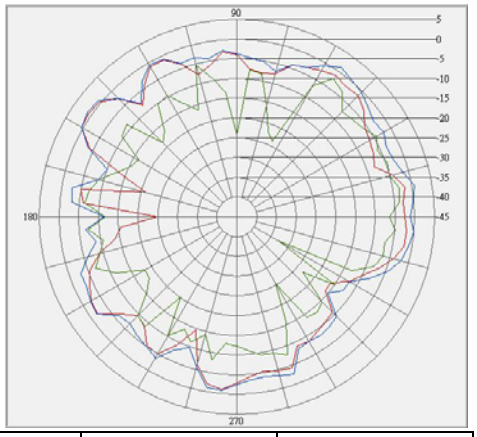


H-Pol. (Peak.)	0.4	dBi	H-Pol. (Peak.)	0.7	dBi
V-Pol. (Peak.)	1.2	dBi	V-Pol. (Peak.)	-1.4	dBi
H+V. (Peak.)	3.8	dBi	H+V. (Peak.)	2.7	dBi
H-Pol. (Avg.)	-4.8	dBi	H-Pol. (Avg.)	-4.4	dBi
V-Pol. (Avg.)	-7.1	dBi	V-Pol. (Avg.)	-8.8	dBi
H+V. (Avg.)	-2.8	dBi	H+V. (Avg.)	-3.1	dBi

Fre. = 3432 MHz



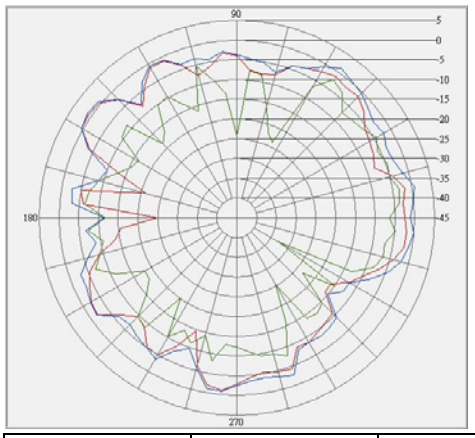
Fre. = 3564 MHz



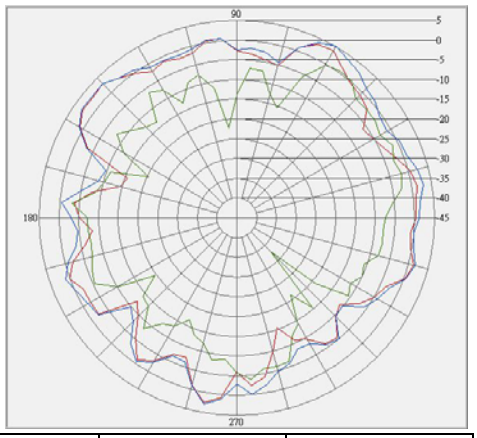
H-Pol. (Peak.)	0.5	dBi	H-Pol. (Peak.)	1.1	dBi
V-Pol. (Peak.)	-1.4	dBi	V-Pol. (Peak.)	-1.7	dBi
H+V. (Peak.)	2.6	dBi	H+V. (Peak.)	2.9	dBi
H-Pol. (Avg.)	-5.8	dBi	H-Pol. (Avg.)	-5.4	dBi
V-Pol. (Avg.)	-7.5	dBi	V-Pol. (Avg.)	-8.2	dBi
H+V. (Avg.)	-3.5	dBi	H+V. (Avg.)	-3.6	dBi

H-pol. V-pol. H+V

Fre. = 3696 MHz

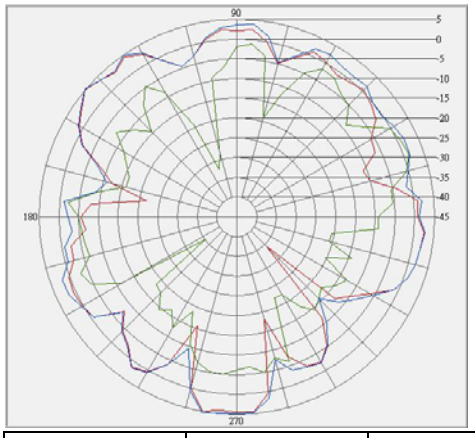


Fre. = 3828 MHz

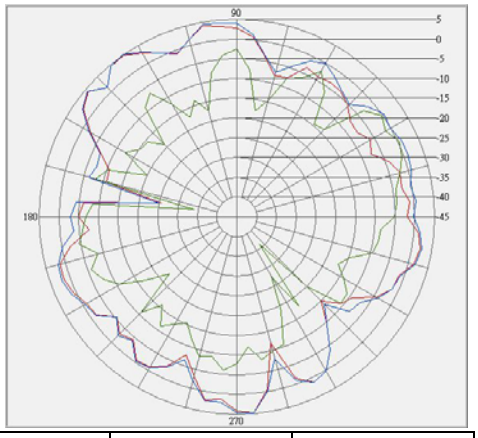


H-Pol. (Peak.)	0.6	dBi	H-Pol.(Peak.)	1.7	dBi
V-Pol. (Peak.)	-2.3	dBi	V-Pol.(Peak.)	0.5	dBi
H+V. (Peak.)	2.3	dBi	H+V. (Peak.)	4.1	dBi
H-Pol. (Avg.)	-4.5	dBi	H-Pol. (Avg.)	-1.6	dBi
V-Pol. (Avg.)	-8.8	dBi	V-Pol. (Avg.)	-6.7	dBi
H+V. (Avg.)	-3.1	dBi	H+V. (Avg.)	-1.1	dBi

Fre. = 3960 MHz



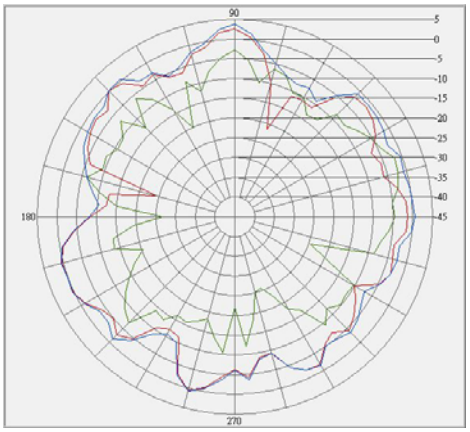
Fre. = 4029 MHz



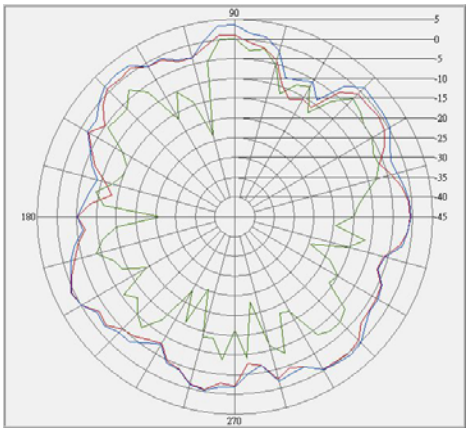
H-Pol. (Peak.)	1.7	dBi	H-Pol. (Peak.)	1.8	dBi
V-Pol. (Peak.)	1.4	dBi	V-Pol. (Peak.)	0.2	dBi
H+V. (Peak.)	4.5	dBi	H+V. (Peak.)	4.0	dBi
H-Pol. (Avg.)	-2.2	dBi	H-Pol. (Avg.)	-2.6	dBi
V-Pol. (Avg.)	-6.4	dBi	V-Pol. (Avg.)	-7.5	dBi
H+V. (Avg.)	-0.8	dBi	H+V. (Avg.)	-1.3	dBi

H-pol. V-pol. H+V

Fre. = 4224 MHz

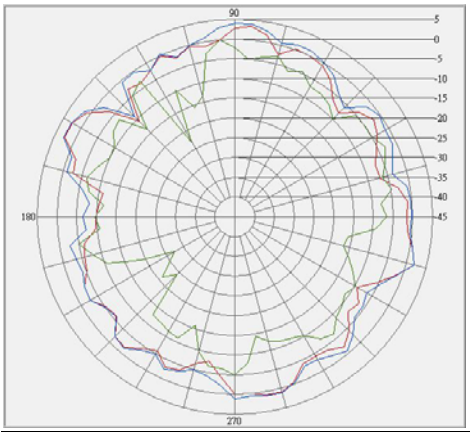


Fre. = 4356 MHz

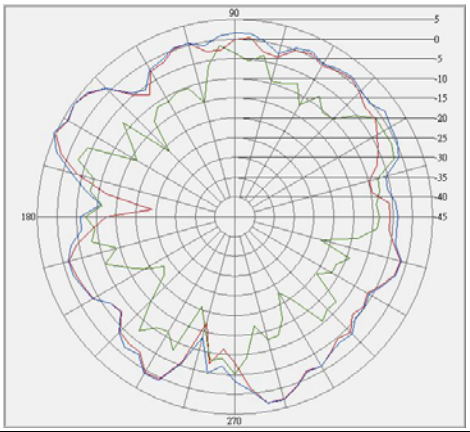


H-Pol. (Peak.)	**1**	**dBi**	**H-Pol. (Peak.)**	**1.6**	**dBi**
V-Pol. (Peak.)	**0.2**	**dBi**	**V-Pol. (Peak.)**	**-1.9**	**dBi**
H+V. (Peak.)	**3.6**	**dBi**	**H+V. (Peak.)**	**3.2**	**dBi**
H-Pol. (Avg.)	**-2.6**	**dBi**	**H-Pol. (Avg.)**	**-3.3**	**dBi**
V-Pol. (Avg.)	**-8.1**	**dBi**	**V-Pol. (Avg.)**	**-8.9**	**dBi**
H+V. (Avg.)	**-1.5**	**dBi**	**H+V. (Avg.)**	**-2.3**	**dBi**

Fre. = 4620 MHz



Fre. = 4752 MHz



H-Pol. (Peak.)	**1.6**	**dBi**	**H-Pol.(Peak.)**	**1.8**	**dBi**
V-Pol. (Peak.)	**-0.1**	**dBi**	**V-Pol.(Peak.)**	**-1.2**	**dBi**
H+V. (Peak.)	**3.8**	**dBi**	**H+V. (Peak.)**	**3.5**	**dBi**
H-Pol. (Avg.)	**-2.1**	**dBi**	**H-Pol. (Avg.)**	**-2.6**	**dBi**
V-Pol. (Avg.)	**-7.4**	**dBi**	**V-Pol. (Avg.)**	**-8.1**	**dBi**
H+V. (Avg.)	**-1.0**	**dBi**	**H+V. (Avg.)**	**-1.5**	**dBi**