

# APPROVAL SHEET

For : 華宇電腦股份有限公司  
ARIMA Computer Corporation

MODEL : UM700-L Wireless PIFA Antenna

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wgt P/N : ARUMPWIPI01+D

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DATE : 11 OCT.,2007

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DESCRIPTION : CABLE ANTENNA WLAN (L) WGT G AB150

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CUSTOMER P/N : B1755050G00001

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Manager	Chief	Engineer
Johnson Chang	Joy Hsueh	Henry He

Check	Responder

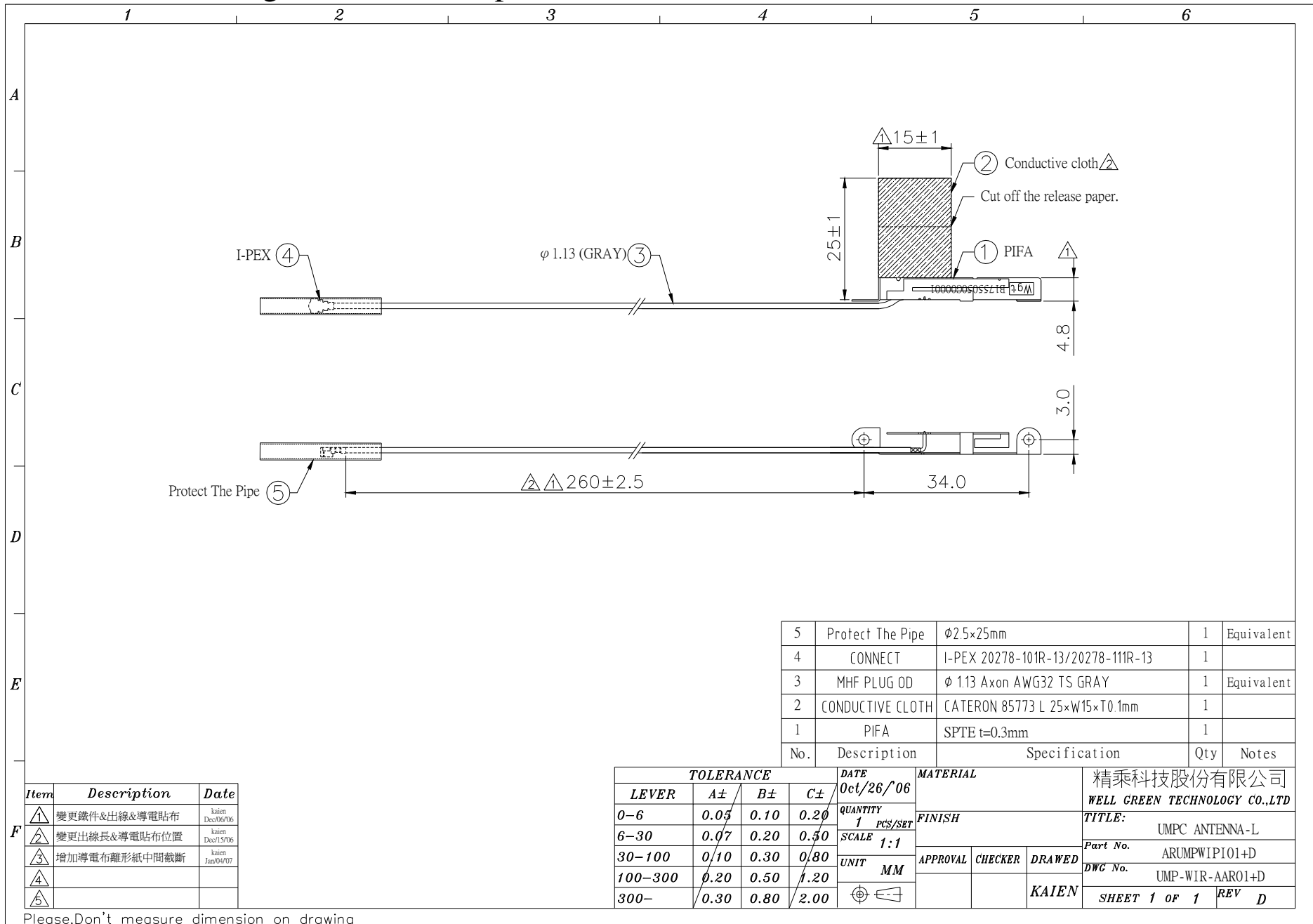


精乘科技股份有限公司

Well Green Technology Co., Ltd.

桃園縣平鎮市民族路雙連二段 118 巷 51 弄 20 號  
No. 20, Alley51 ,Lane 118,ShuangLian Sec.2,Mintzu Rd.,  
PingJen City, TaoYuan Hsien, Taiwan, R.O.C  
TEL: +886-3-420-6428 ; FAX: +886-3-420-6418

# 一、Finished Drawing Antenna-Left up



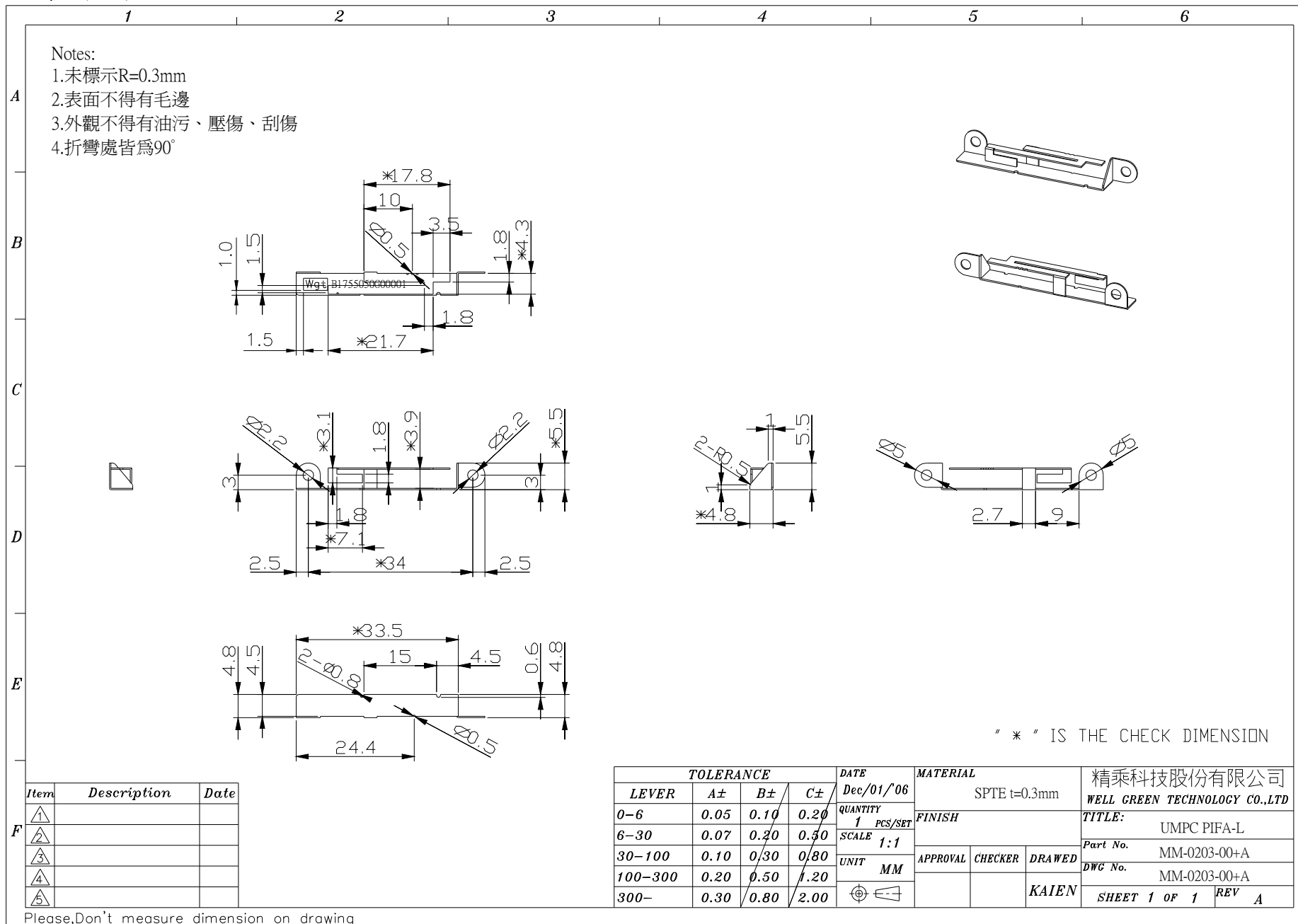
5	Protect The Pipe	∅2.5×25mm	1	Equivalent
4	CONNECT	I-PEX 20278-101R-13/20278-111R-13	1	
3	MHF PLUG OD	∅ 1.13 Axon AWG32 TS GRAY	1	Equivalent
2	CONDUCTIVE CLOTH	CATERON 85773 L 25×W15×T0.1mm	1	
1	PIFA	SPTE t=0.3mm	1	
No.	Description	Specification	Qty	Notes

Item	Description	Date
△1	變更鐵件&出線&導電貼布	kaien Dec/06/06
△2	變更出線長&導電貼布位置	kaien Dec/15/06
△3	增加導電布離形紙中間截斷	kaien Jan/04/07
△4		
△5		

TOLERANCE				DATE	MATERIAL			精乘科技股份有限公司	
LEVER	A±	B±	C±	0ct/26/06				WELL GREEN TECHNOLOGY CO.,LTD	
0-6	0.05	0.10	0.20	QUANTITY	FINISH			TITLE: UMPC ANTENNA-L	
6-30	0.07	0.20	0.50	1 PCS/SET				Part No. ARUMPWIP101+D	
30-100	0.10	0.30	0.80	SCALE 1:1	APPROVAL CHECKER DRAWED			DWG No. UMP-WIR-AAR01+D	
100-300	0.20	0.50	1.20	UNIT MM	KAIEN			SHEET 1 OF 1 REV D	
300-	0.30	0.80	2.00						

Please, Don't measure dimension on drawing

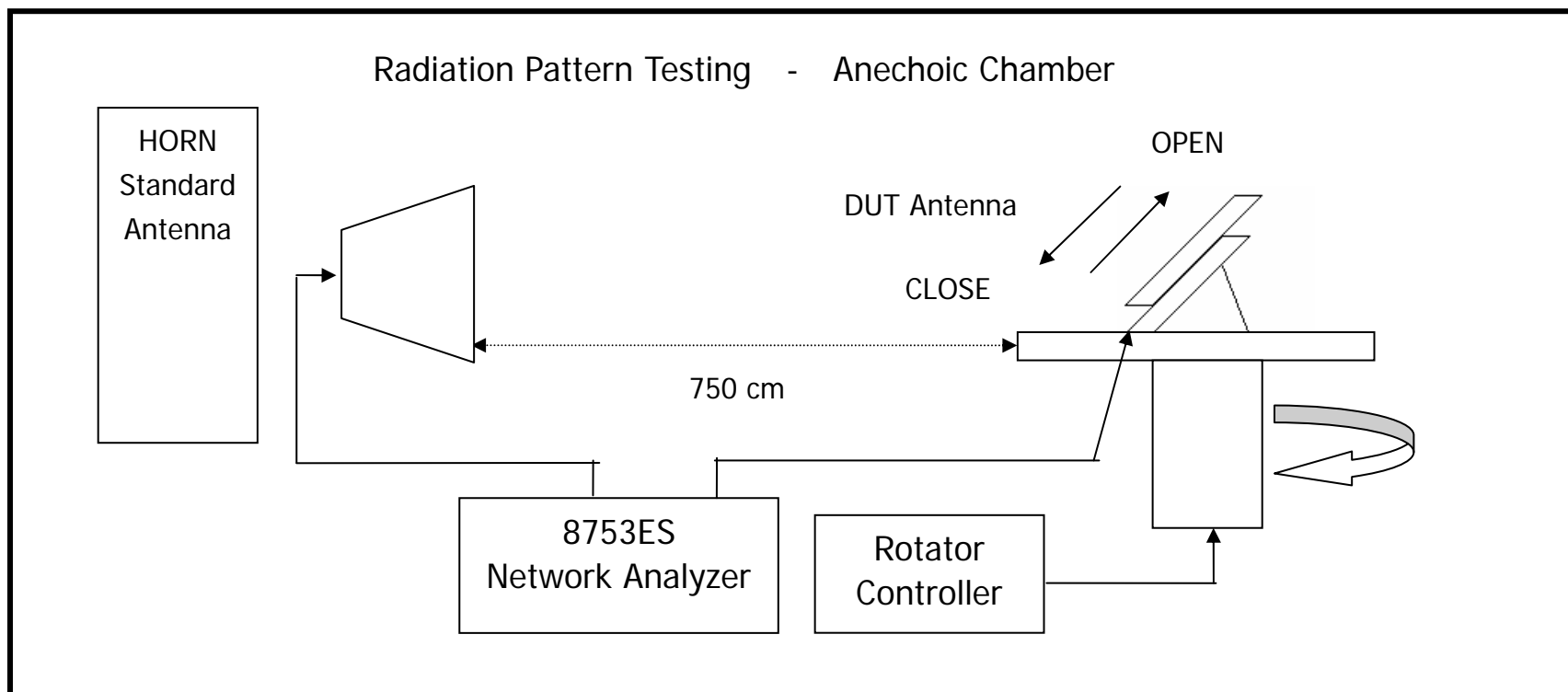
## 二、零件圖





三、Antenna Testing Conditions:

1. Testing set up:

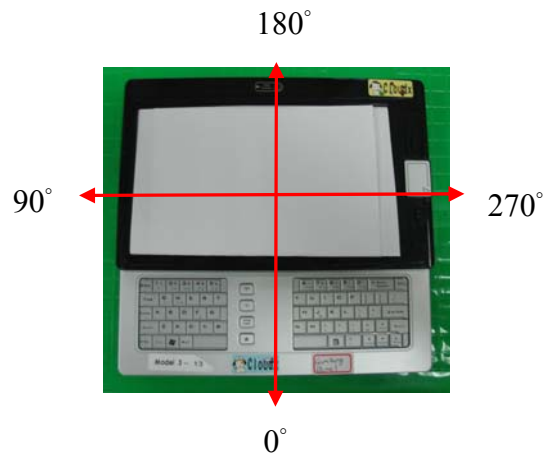
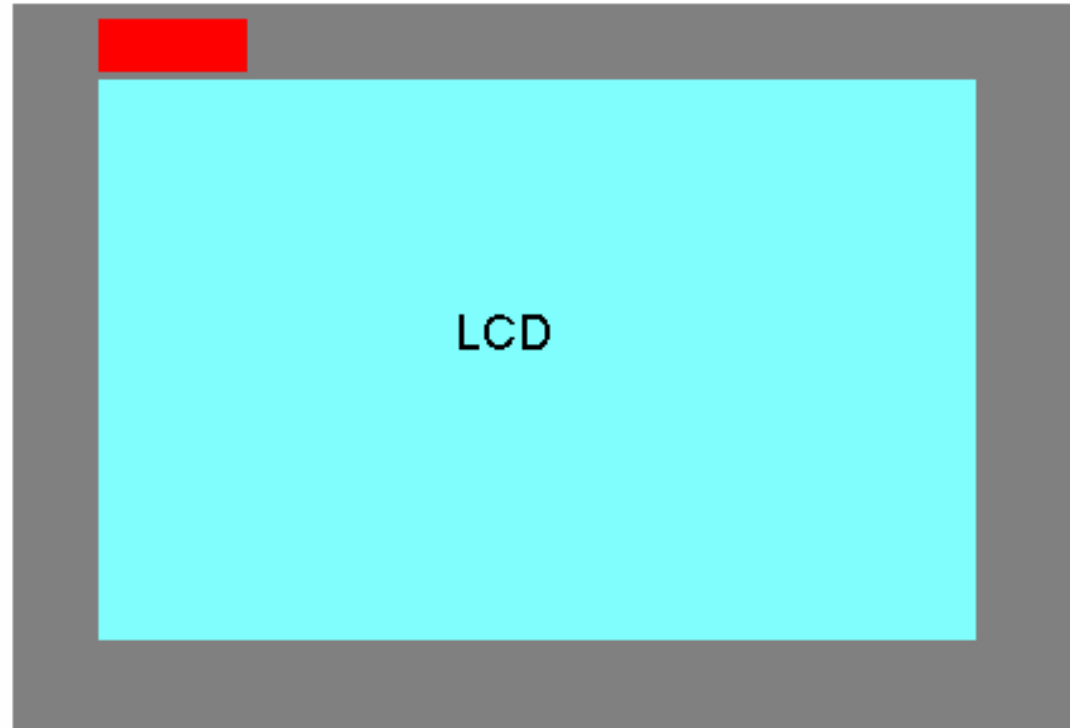
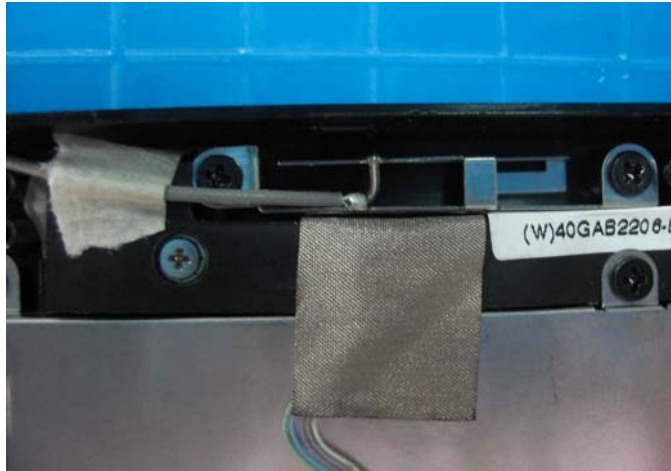




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## 2. Mechanical dimensions

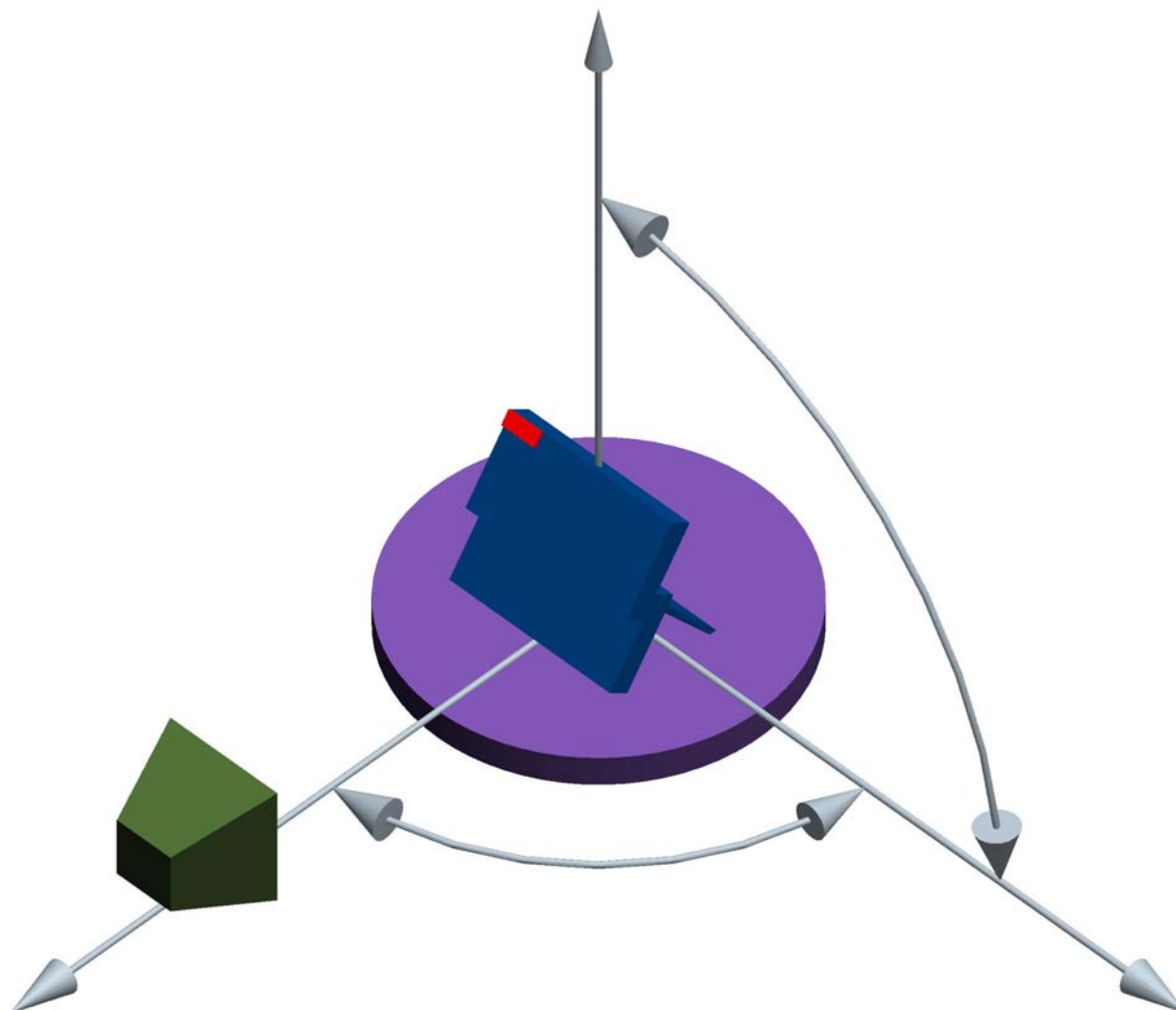




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**OPEN**





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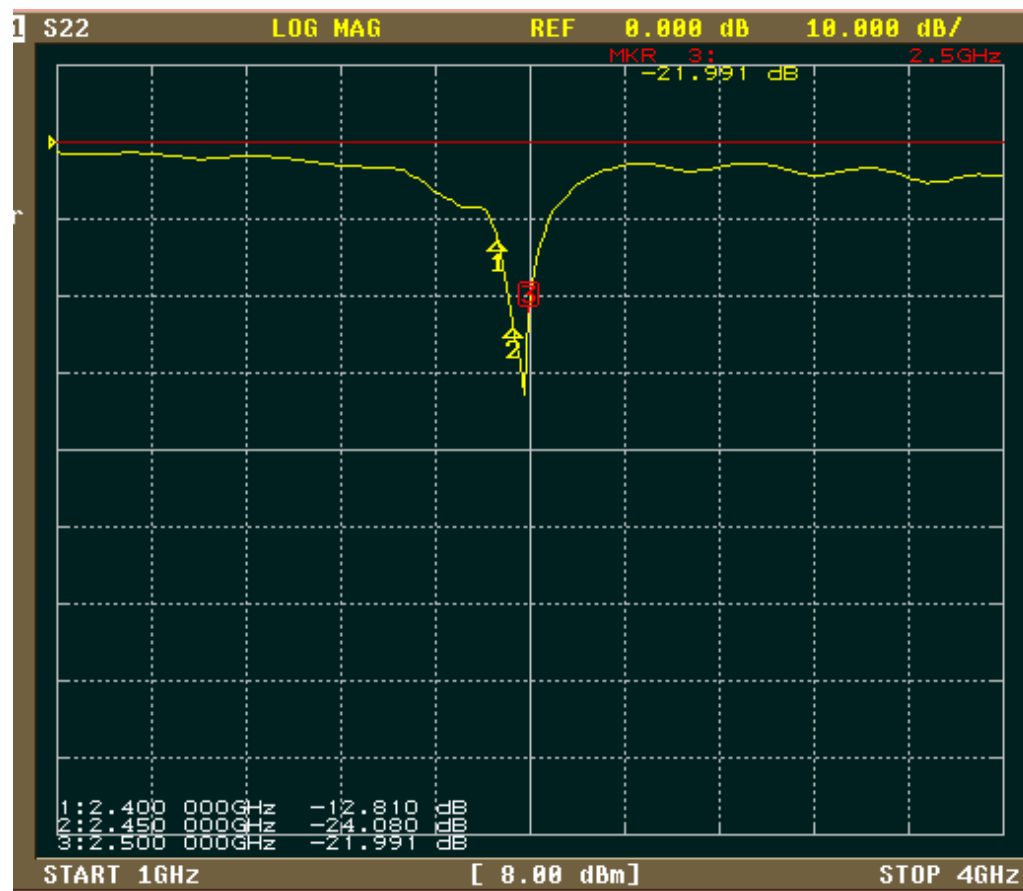
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四、Test results

Antenna	Application	Placement	Cable dia. Φ mm
<u>UM700 (OPEN)</u>	<u>Wireless LAN</u>	<u>Left up</u>	<u>1.13</u>

1. Return Loss

Antenna	Center freg. @MHz	BW @MHz	Return Loss		
			2.4GHz	2.45GHz	2.5GHz
UM700	2450		-12.81	-24.08	-21.99





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## 2. VSWR

Antenna	Center freg. @MHz	BW @MHz	VSWR		
			2.4GHz	2.45GHz	2.5GHz
UM700	2450		1.61	1.13	1.17



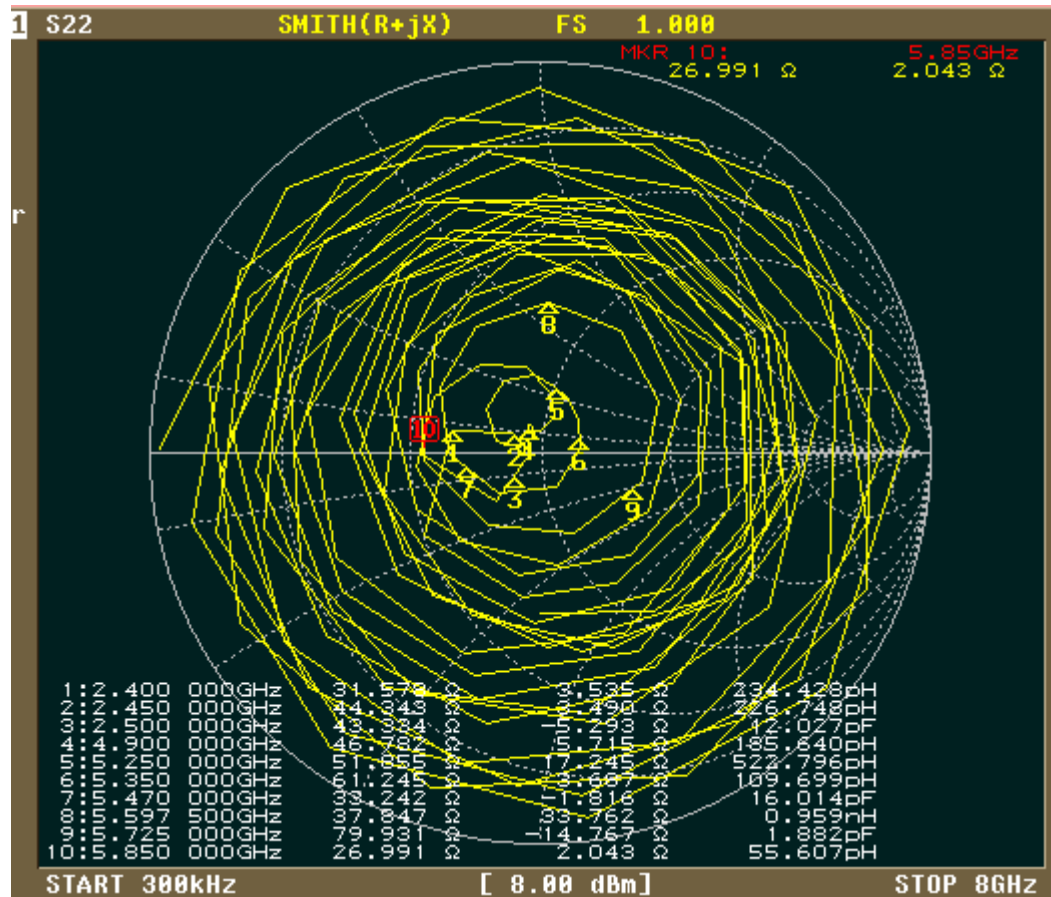




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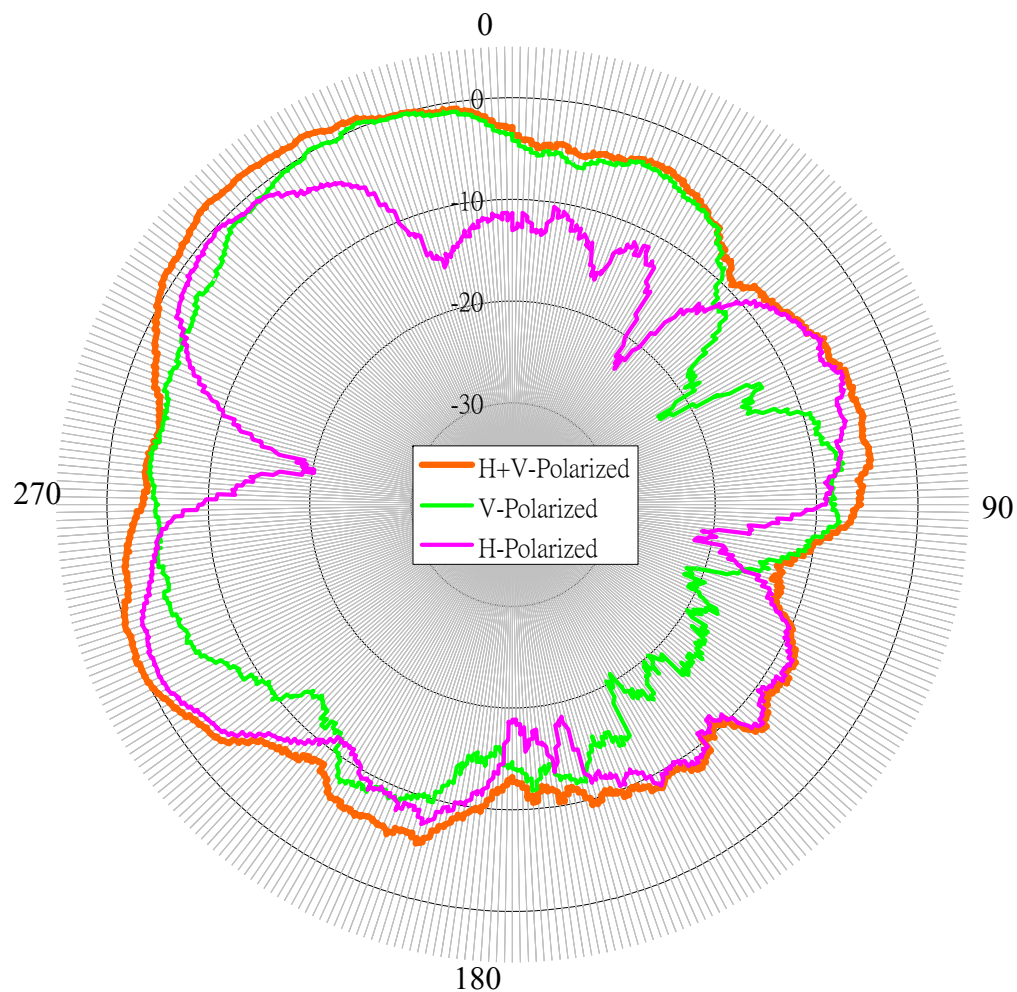
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### 3. Smith Chart





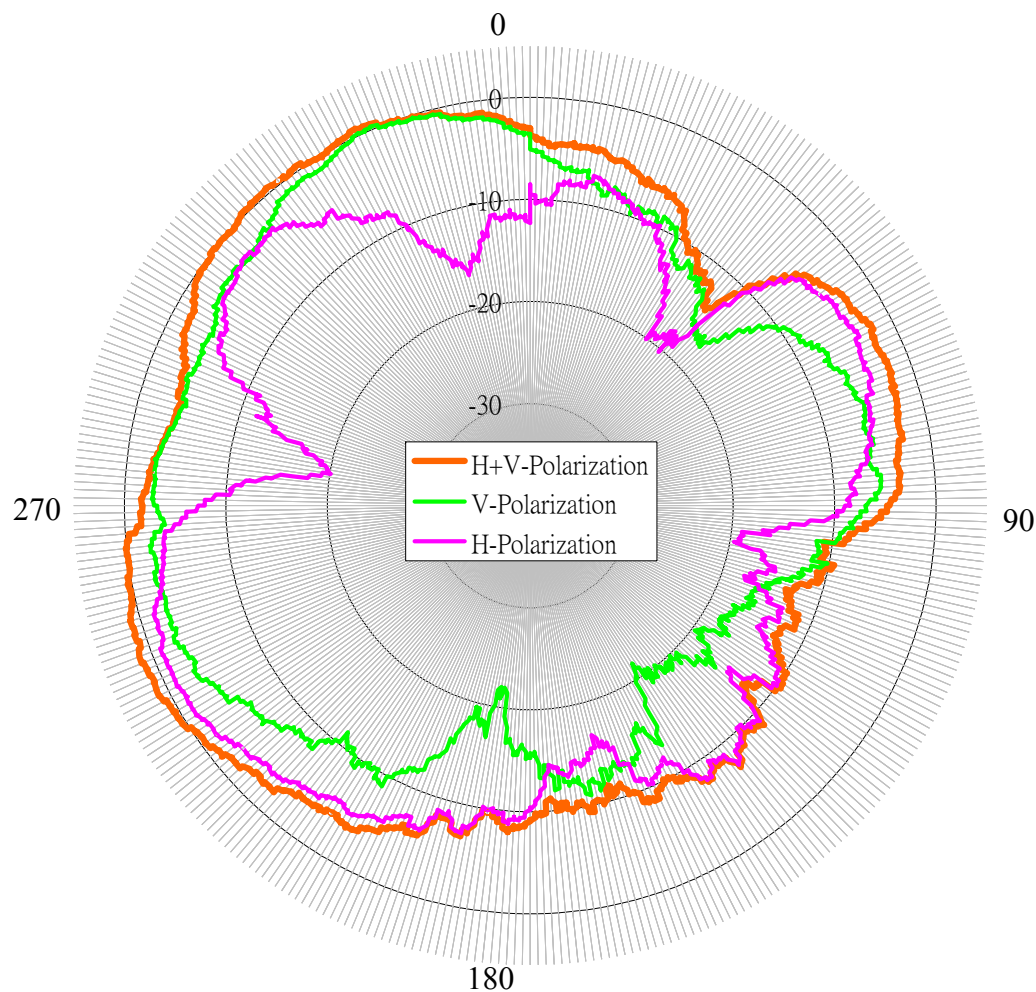
4. Radiation Pattern of XY Plane(Azimuth)-(Open)



Center Frequency	2400 MHz
Vertical peak Gain (dBi)	0.55
Vertical Average Gain (dBi)	-5.92
Horizontal peak Gain (dBi)	-0.18
Horizontal Average Gain (dBi)	-6.85
Hori+Vert peak Gain (dBi)	2.21
Hori+Vert Average Gain (dBi)	-3.35



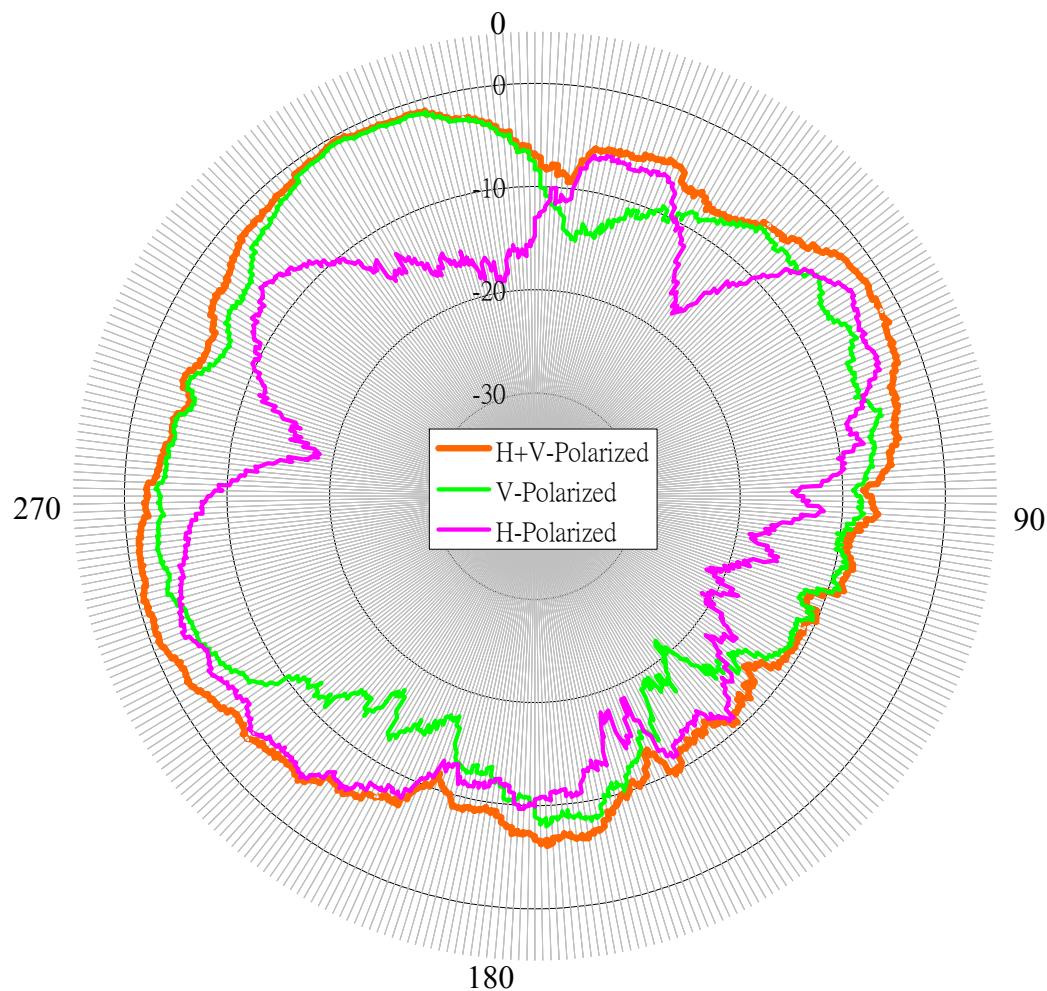
5. Radiation Pattern of XY Plane(Azimuth)- (Open)



Center Frequency	2450 MHz
Vertical peak Gain (dBi)	0.35
Vertical Average Gain (dBi)	-5.81
Horizontal peak Gain (dBi)	-0.89
Horizontal Average Gain (dBi)	-6.70
Hori+Vert peak Gain (dBi)	1.29
Hori+Vert Average Gain (dBi)	-3.22



6. Radiation Pattern of XY Plane(Azimuth)- (Open)



Center Frequency	2500 MHz
Vertical peak Gain (dBi)	-0.64
Vertical Average Gain (dBi)	-6.46
Horizontal peak Gain (dBi)	-3.15
Horizontal Average Gain (dBi)	-8.76
Hori+Vert peak Gain (dBi)	-0.44
Hori+Vert Average Gain (dBi)	-4.45



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### I Antenna Type

<b>Position</b>	<b>Antenna</b>
<b>Antenna Type</b>	<b>PIFA</b>
<b>Material</b>	<b>Metal sheet</b>

### II VSWR

<u>VSWR</u>	<u>2G4 ISM</u> (2.400GHz-2.5GHz)		
	<b>2.40</b>	<b>2.45</b>	<b>2.50</b>
<b>OPEN</b>	1.61	1.13	1.17

### III Peak Gain

<u>Antenna Gain</u>		<u>2G4 ISM</u> (2.400GHz-2.5GHz)		
		<b>2.40</b>	<b>2.45</b>	<b>2.50</b>
<b>OPEN</b>	<b>Peak dBi</b>	2.21	1.29	-0.44
	<b>Avg dBi</b>	-3.35	-3.22	-4.45

## 五、 SPECIFICATIONS

### ● Electrical Properties

Frequency Range	: 2.4~2.5GHz
Impedance	: 50Ohms nominal
VSWR	: $\leq 2.0$
Peak Gain	: $-5.0\text{dBi} \leq \text{peak gain} \leq 3\text{dBi}$
Standard Connector	: I-PEX Connector