

APPROVAL SHEET (RoHS)

CUSTOMER : Peplink

CUSTOMER'S PART NO. : 04-410155-00

DESCRIPTION : Dual Band Omni Antenna

PART NO. : ACA-0040-6G1A1-A10

DATE : 2022/09/20

AUTHORIZED BY : Alvin Chen

	FULLY APPROVED	PARTIALLY APPROVED	REJECTED
SIGN	<i>Alvin Chen</i>		
SUGGESTION			

遠誠科技股份有限公司

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遠誠科技股份有限公司

YUAN CHEN TECH CO.,LTD

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Mechanical Specification

		變更歷程																																																																												
		符號	年月日	變更內容	備註																																																																									
		△	2021/12/10	新製發行																																																																										
		△	2022/03/08	更改外觀比例																																																																										
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<p>內構圖</p> <p>1 接頭 2 下蓋 3 上蓋 4 焊材 5 下蓋 6 下蓋 7 PCB 8 貼池棉</p>																																																																														
<p>印字內容: 2.45GHz WiFi</p> <p>字高: 1.6mm 顏色: 白色 位置: 如圖居中</p>																																																																														
<p>上下蓋超音波不得有開裂 大小不均勻</p>																																																																														
<p>1.SMA 公頭母針(半塑鍍銀) 2.頻率: 2.4-2.5GHz/5.15-5.85GHz 3.特性阻抗: 50Ω 4.Return Loss: -10 Max. 5.接頭扭力值: 0.6-1.5Kg cm 6.RoHS: 符合RoHS2.0 7.1/4-36UNS-2B順通</p>																																																																														
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Antenna Specification

■ ELECTRICAL PROPERTIES

- 1.1 Frequency Range..... 2.4~2.5GHz / 5.15~5.85GHz
- 1.2 Impedance..... 50 Ohm Nominal
- 1.3 Return Loss.....-10dB
- 1.4 Radiation.....Omni-directional
- 1.5 Polarization..... Linear Vertical

■ PHYSICAL PROPERTIES

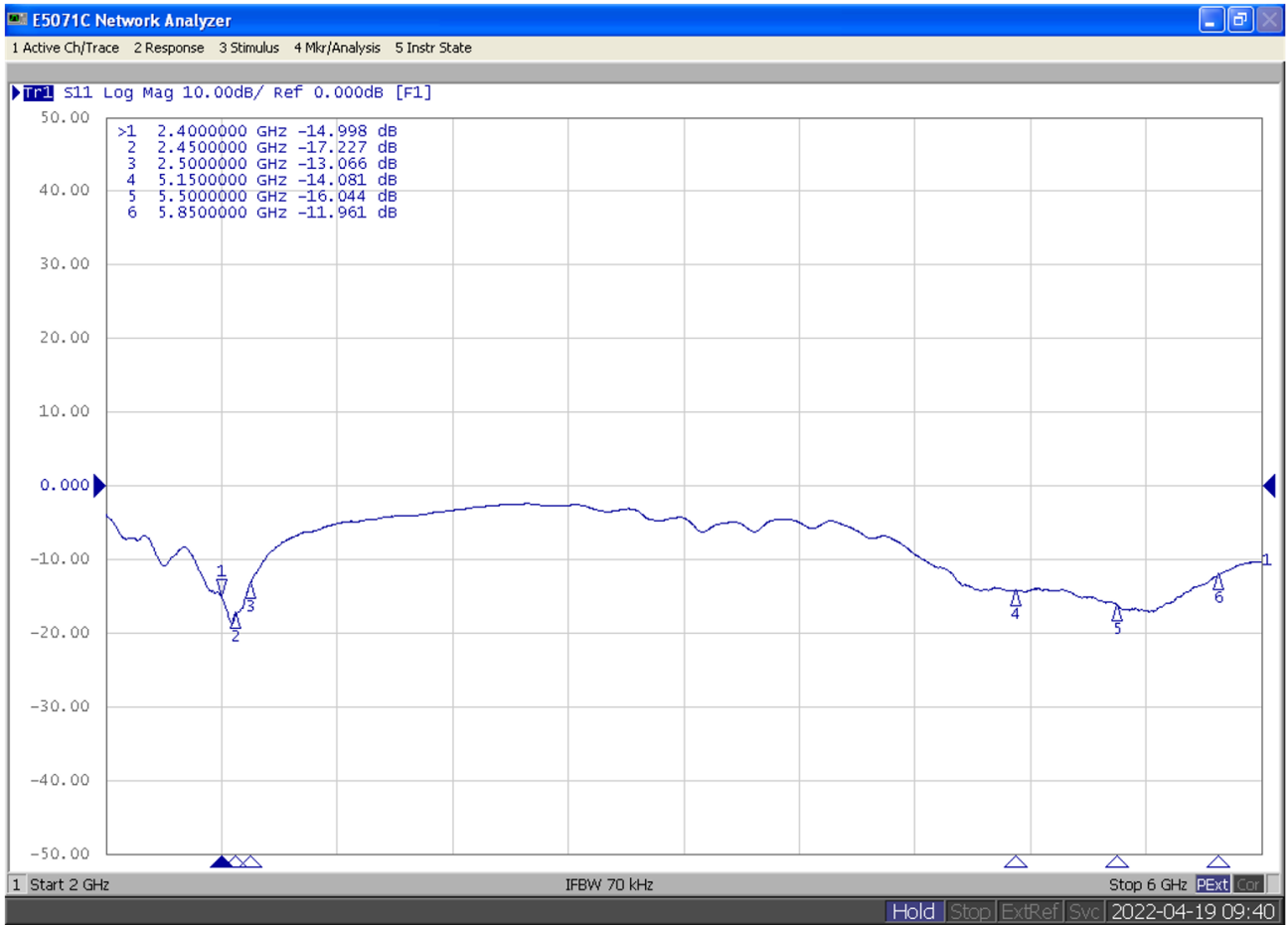
- 2.1 Antenna Cover..... ABS (Black)
- 2.2 Antenna Upper Fixed Base.. ABS (Black)
- 2.3 Antenna Bottom Fixed Base ABS+PC (Black)
- 2.4 Cable..... RG178
- 2.5 Connector..... RP SMA
- 2.6 Operating Temp..... -20°C ~ +65°C
- 2.7 Storage Temp..... -30°C ~ +75°C



ELECTRICAL CHARACTERISTICS

Spec: 2.4~2.5 GHz / 5.15 ~5.85 GHz

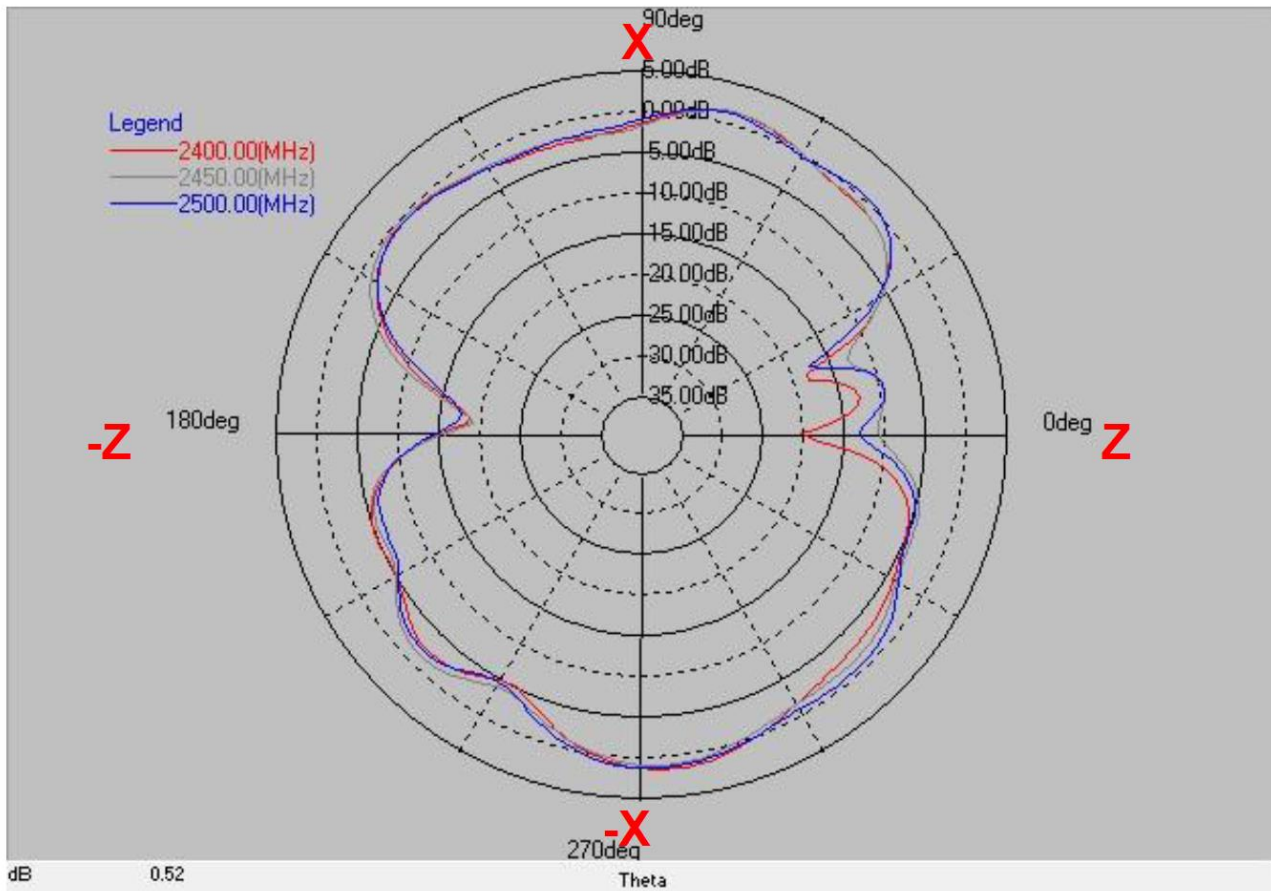
S11



Frequency(MHz) : 2400~2500. Pattern Field : Z-X plane

25G1_2G

Phi=0
Z-X



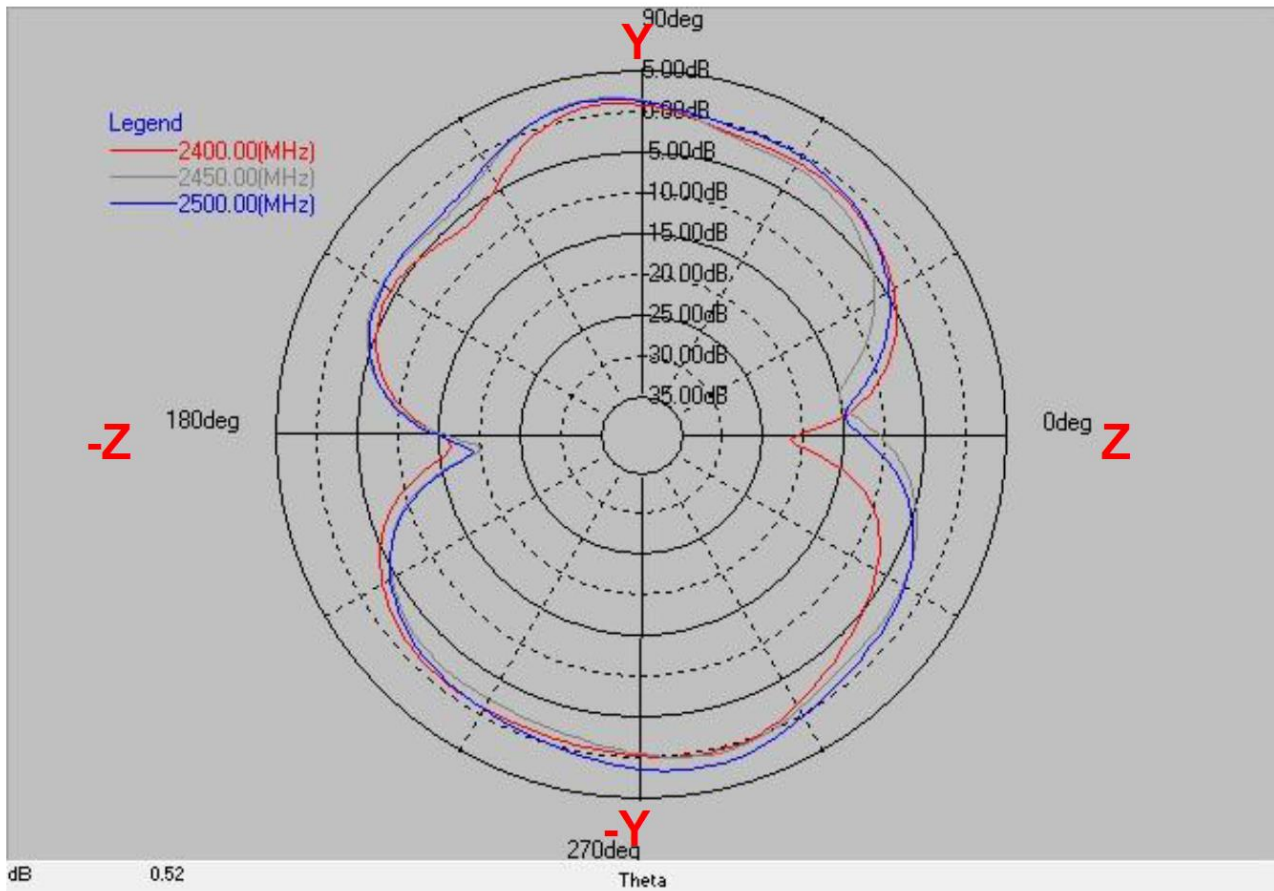
Frequency	Max value	Min value	Average
2400(MHz)	1.38 dB	-20.21 dB	-2.64 dB
2450(MHz)	1.36 dB	-19.17 dB	-2.41 dB
2500(MHz)	1.17 dB	-17.67 dB	-2.30 dB



Frequency(MHz) : 2400~2500. Pattern Field : Z-Y plane

**Phi=90
Z-Y**

25G1_2G



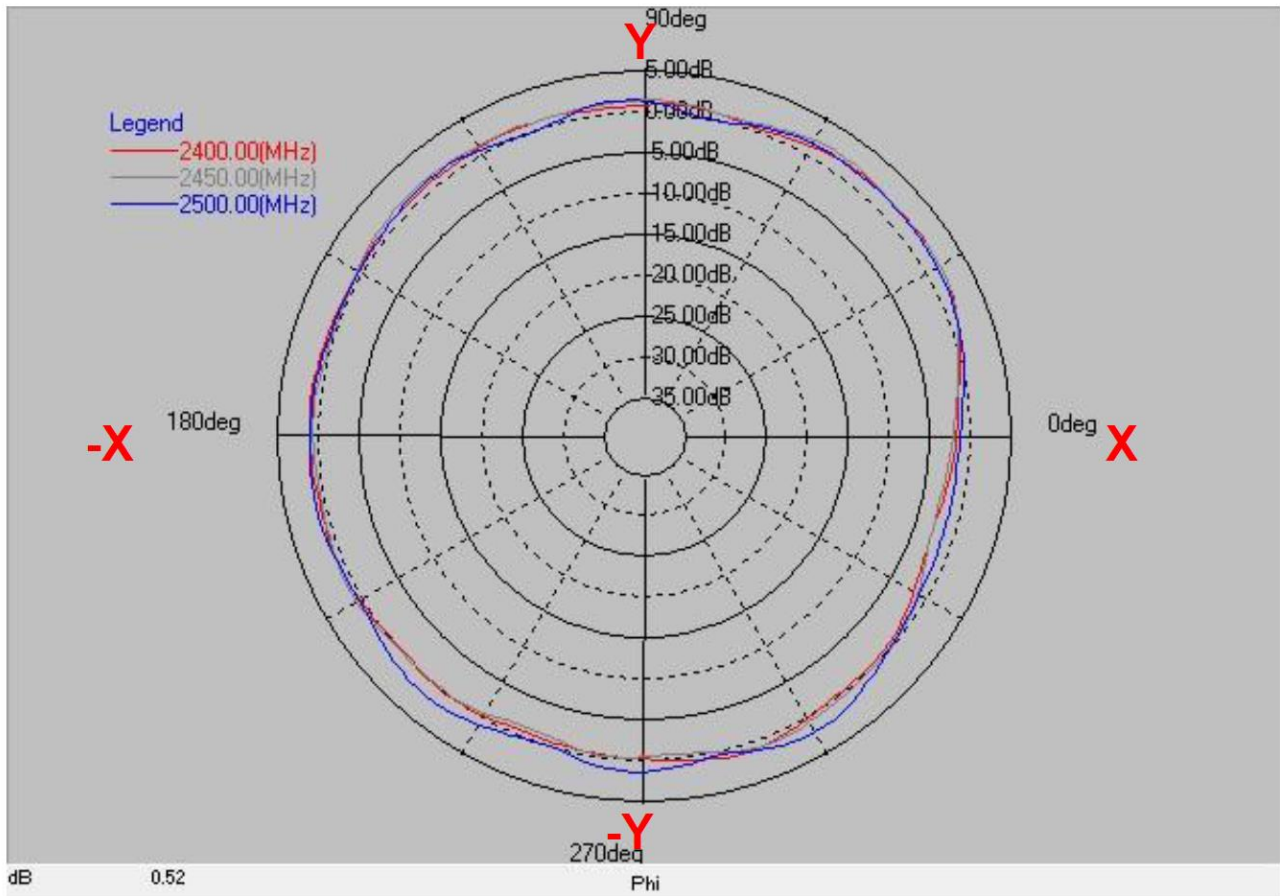
Frequency	Max value	Min value	Average
2400(MHz)	0.97 dB	-21.50 dB	-2.87 dB
2450(MHz)	1.76 dB	-19.97 dB	-2.64 dB
2500(MHz)	1.75 dB	-19.06 dB	-1.83 dB



Frequency(MHz) : 2400~2500. Pattern Field : X-Y plane

**Theta=90
X-Y**

25G1_2G



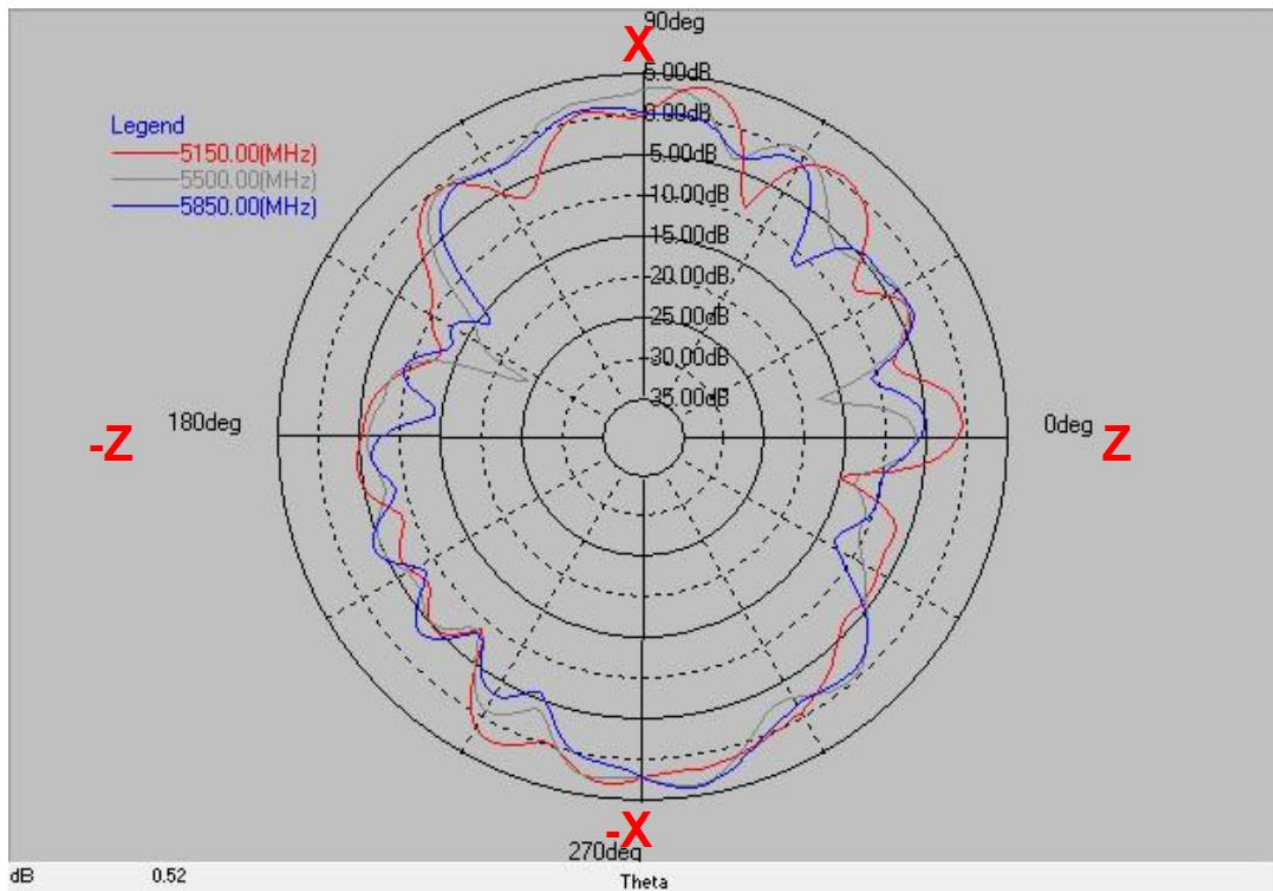
Frequency	Max value	Min value	Average
2400(MHz)	1.95 dB	-2.70 dB	0.32 dB
2450(MHz)	2.19 dB	-2.84 dB	0.39 dB
2500(MHz)	1.97 dB	-1.39 dB	0.68 dB



Frequency(MHz) : 5150~5850. Pattern Field : Z-X plane

25G1_5G

Phi=0
Z-X



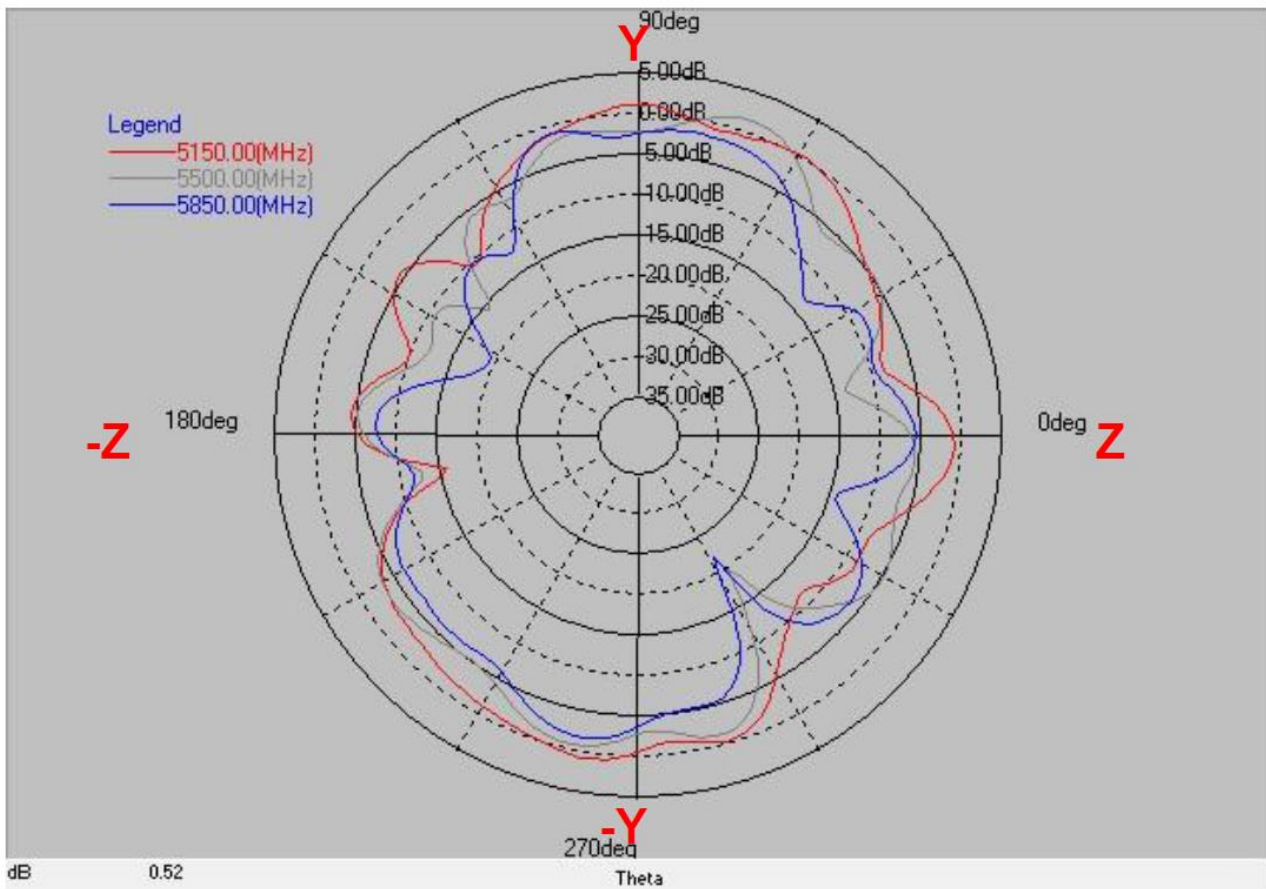
Frequency	Max value	Min value	Average
5150(MHz)	3.63 dB	-15.07 dB	-1.99 dB
5500(MHz)	3.50 dB	-24.36 dB	-2.11 dB
5850(MHz)	3.72 dB	-16.47 dB	-2.85 dB



Frequency(MHz) : 5150~5850. Pattern Field : Z-Y plane

**Phi=90
Z-Y**

25G1_5G



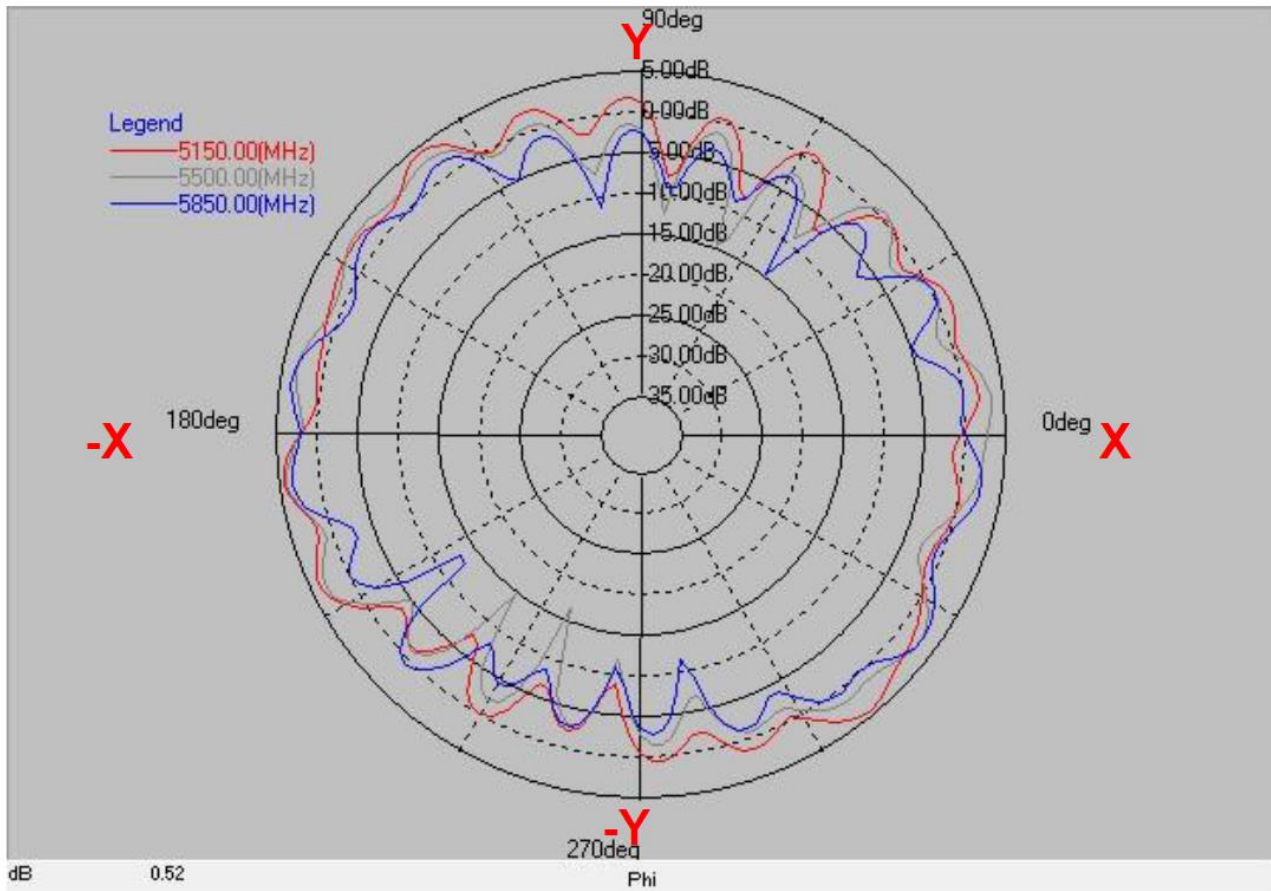
Frequency	Max value	Min value	Average
5150(MHz)	0.83 dB	-15.91 dB	-2.99 dB
5500(MHz)	1.35 dB	-19.83 dB	-4.34 dB
5850(MHz)	-1.24 dB	-22.12 dB	-6.18 dB



Frequency(MHz) : 5150~5850. Pattern Field : X-Y plane

Theta=90
X-Y

25G1_5G

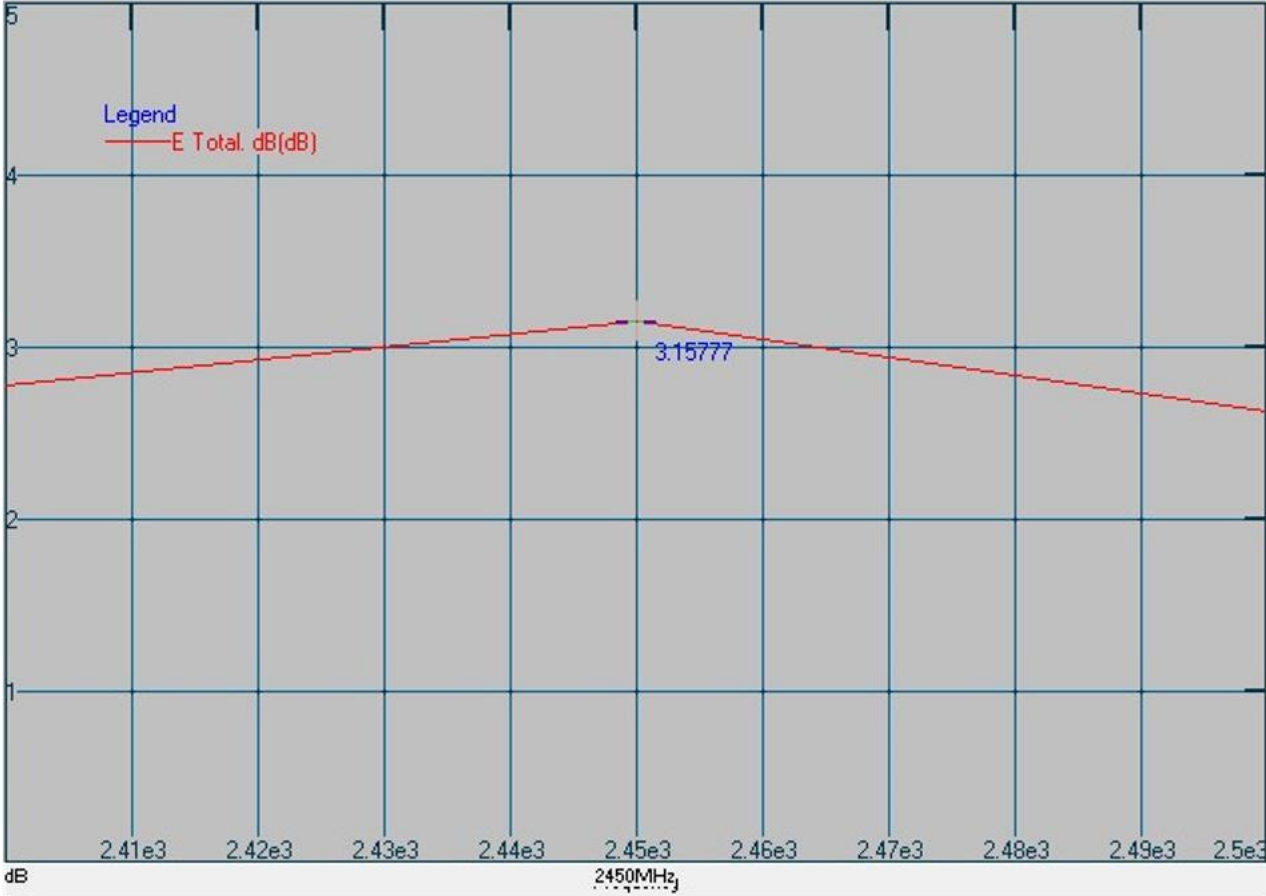


Frequency	Max value	Min value	Average
5150(MHz)	4.42 dB	-8.97 dB	0.62 dB
5500(MHz)	4.14 dB	-16.98 dB	0.09 dB
5850(MHz)	3.64 dB	-14.85 dB	-0.95 dB



Peak Gain

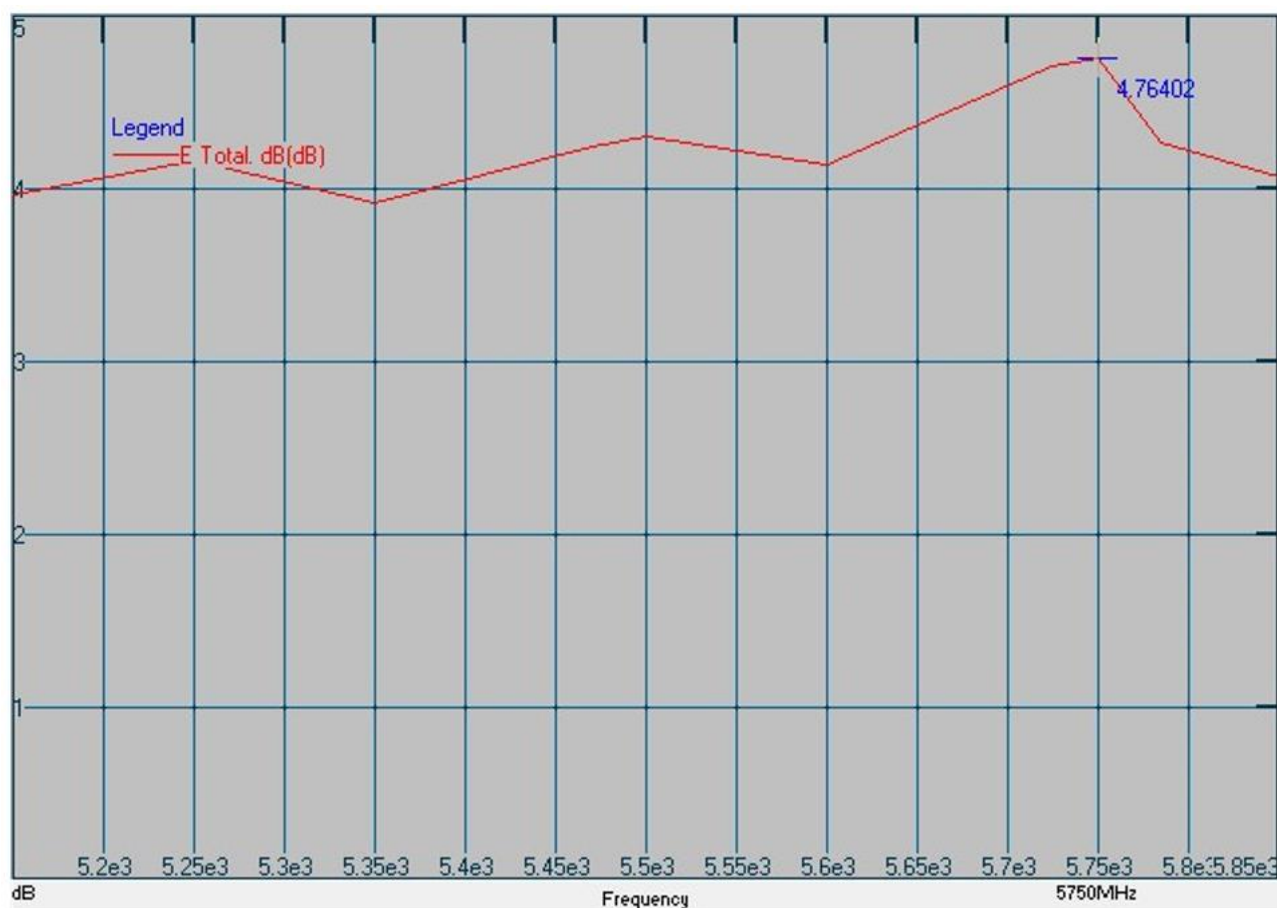
25G1_2G



Peak Gain: 3.15dBi



25G1_5G



Peak Gain 5150 ~ 5250 MHz : 3.29 dBi

Peak Gain 5250 ~ 5350 MHz : 3.15 dBi

Peak Gain 5470 ~ 5725 MHz : 4.5 dBi

Peak Gain 5725 ~ 5850 MHz : 4.76 dBi



Connector Specification

Connector

SMA & RPSMA

Electrical Properties	Impedance	50 ohm
	Frequency Range	0~6 GHz
	V.S.W.R	≤ 1.5
	Working Voltage	$\leq 170\text{Vrms}$
	Dielectric Withstanding	$\leq 500\text{Vrms}$
	Voltage Insulation Resistance	$\geq 2000\text{ Megohms}$
	Contact Resistance	Center contact: 3.0 Milliohms (Max.) Outer contact: 2.0 Milliohms (Max.)
	Recommended coupling nut torque	4.0 in. lbs. ~ 8.8in. lbs.
	Coupling nut retention force	$\geq 60\text{ lbs.}$
	Contact captivation axial	$\geq 6\text{ lbs.}$
	Coupling Proof Torque	15 in-1bs.min

Operating Temperature	-65°C ~ +165°C
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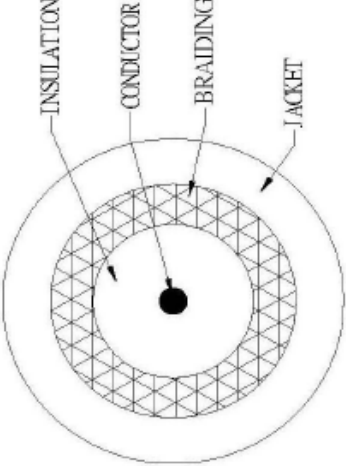
Material Specifications	Material Data	Material
	Body	Brass
	Center Contact	Brass
	Insulator	Teflon



Cable Specification

線材規格

CABLE SPECIFICATION

SPECIFICATION: RG178 CABLE		CONSTRUCTION D.W.G																																
ITEM	SPECIFICATION																																	
CONDUCTOR	MATERIAL	Silver plated Copper coated steel Wire																																
	Composition(No./mm)	7/0.102																																
INSULATION	NOM.O.D	0.306±0.03																																
	Material	FEP(Natural)/PTFE																																
BRAIDING	Norm.Thick.(mm)	0.275																																
	NOM.O.D	0.88±0.03																																
JACKET	MATERIAL	Silver-coated annealed copper wire																																
	Composition	16*3/0.1; Coverage ≥ 90%																																
	MATERIAL	FEP(*color)																																
	Norm.Thick(mm)	0.25																																
	Norm.O.D(mm)	1.78±0.05																																
	Color	Brown																																
Electrical Properties(at 20 °C)																																		
Item	Unit	Details																																
Conductor Resistance	Ω/km	Max.800																																
Insulation Resistance	MΩ.km	Min.500																																
Dielectric Strength	V(AC)/min	1000																																
Capacitance	pF/m	105(1kHz)																																
REMARK																																		
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Characteristic Impedance</th> <th>Ω</th> <th colspan="2">50±2.0</th> </tr> </thead> <tbody> <tr> <td rowspan="6">Attenuation</td> <td>dB/m</td> <td>1GHz</td> <td>1.70</td> </tr> <tr> <td></td> <td>2GHz</td> <td>2.42</td> </tr> <tr> <td></td> <td>3GHz</td> <td>3.08</td> </tr> <tr> <td></td> <td>4GHz</td> <td>3.63</td> </tr> <tr> <td></td> <td>5GHz</td> <td>4.15</td> </tr> <tr> <td></td> <td>6GHz</td> <td>4.80</td> </tr> <tr> <td>Temperature range</td> <td>°C</td> <td colspan="2">-55~150</td> </tr> <tr> <td>Standing wave(0-6GHz)</td> <td>/</td> <td colspan="2">≦ 1.35</td> </tr> </tbody> </table>				Characteristic Impedance	Ω	50±2.0		Attenuation	dB/m	1GHz	1.70		2GHz	2.42		3GHz	3.08		4GHz	3.63		5GHz	4.15		6GHz	4.80	Temperature range	°C	-55~150		Standing wave(0-6GHz)	/	≦ 1.35	
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CHECKED	DRAWING	DATE	REV																															
	Charlene	2013/8/8	01																															



遠誠科技股份有限公司

YUAN CHEN TECH CO.,LTD

Package

品名	Dipole天線	客戶	N/A(通用)	版次:E	
				修訂日期:2022/5/2	
料號	N/A(通用)	客戶料號	N/A(通用)	變更日期	變更內容
				5月2日	更改為單獨包裝

產品周包裝示意圖(圖片僅供參考)

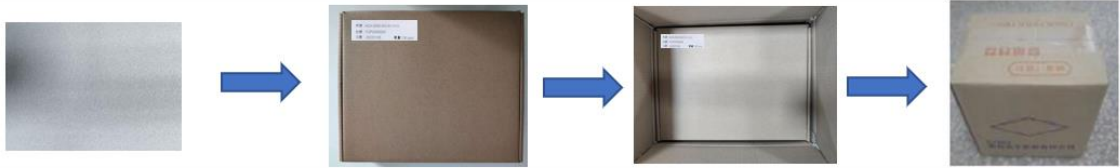
圖示一



圖示二



圖示三



產品包裝說明：

- 1.將每PCS產品裝入PE袋格子中(每格1pcs/10pcs/紮),用橡皮筋紮好,並在PE袋中上方處貼製造標籤(如圖示一)
- 2.將每捆紮好的道品裝進360*260*60紙盒裏,裝10紮共100pcs,封盒貼上製造標(如圖示二)
- 4.將裝好盒並貼標籤的紙盒裝進390*290*350的紙箱中,5盒/箱,共500pcs產品.(如圖示三)

