

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			

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遠誠科技股份有限公司

YUAN CHEN TECH CO.,LTD

Revisions

REV.	Description	Date	Prepared by	Approved by
V01	New Release	2021/12/10	<i>Daria</i>	<i>Alvin</i>
V02	更新接頭為母針	2022/1/17	<i>Daria</i>	<i>Alvin</i>
V02	更新 2D 圖	2022/3/8	<i>Daria</i>	<i>Alvin</i>
V03	更新 Peak Gain 表	2022/4/19	<i>Daria</i>	<i>Alvin</i>
V04	更新包裝=單支包裝	2022/5/2	<i>Daria</i>	<i>Alvin</i>
V05	增加 14 頁 Gain 值備註	2022/09/20	<i>Daria</i>	<i>Alvin</i>



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Mechanical Specification

變更圖歷			
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	
△			

內構圖							
① 接頭	② 下蓋	⑤ 上蓋	③ 線材	⑥ 下蓋	⑦ PCB	⑧ 貼泡棉	
印字內容: 2.45GHz WiFi							
字高: 1.6mm 顏色: 白色 位置: 如圖居中							
上下蓋超音波不得有開裂 大小不均勻							
1.SMA 公頭母針(半硬鍍銀) 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							

9	2L-GT-S6-1371208	天線上蓋	ABS 黑色	1			
8	2L-PC-707030G	泡棉	20*4*4.5 EVA 39448	1			
7	2L-PCB-14-0010	PCB	單邊單面板OSP	1			
6	2L-GT-XG-1371208	天線下蓋	ABS 黑色	1			
5	2L-SD-102B	上固定座	PC+PBT 黑色	1			
4	2L-SD-301B	轉軸	PPA 黑色	2			
3	2L-R0170BR-3V	座材	RO170BR 黑色, L=40mm	1			
2	2L-SD-138	2008 接頭式下蓋	PC+PBT 黑色	1			
1	2L-SMA000-X13161PB-I	180度公頭母針	黑色 鍍銀	1			
字號	料號	名稱	材料	數量			
1	2	3	4	5	6	7	8

遠誠科技股份有限公司 Yuan Chen Technology Co., Ltd.				自由公差
名稱: 2.5/5G Dual Band Dipole				X, XXX +/-0.20
料號: A330-00001-01				X, XX +/-0.35
核准				X, X +/-0.5
審核				X +/-1.0
設計				AWC +/-5
版本: B				角度
2022/03/08				X ° ±1°



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

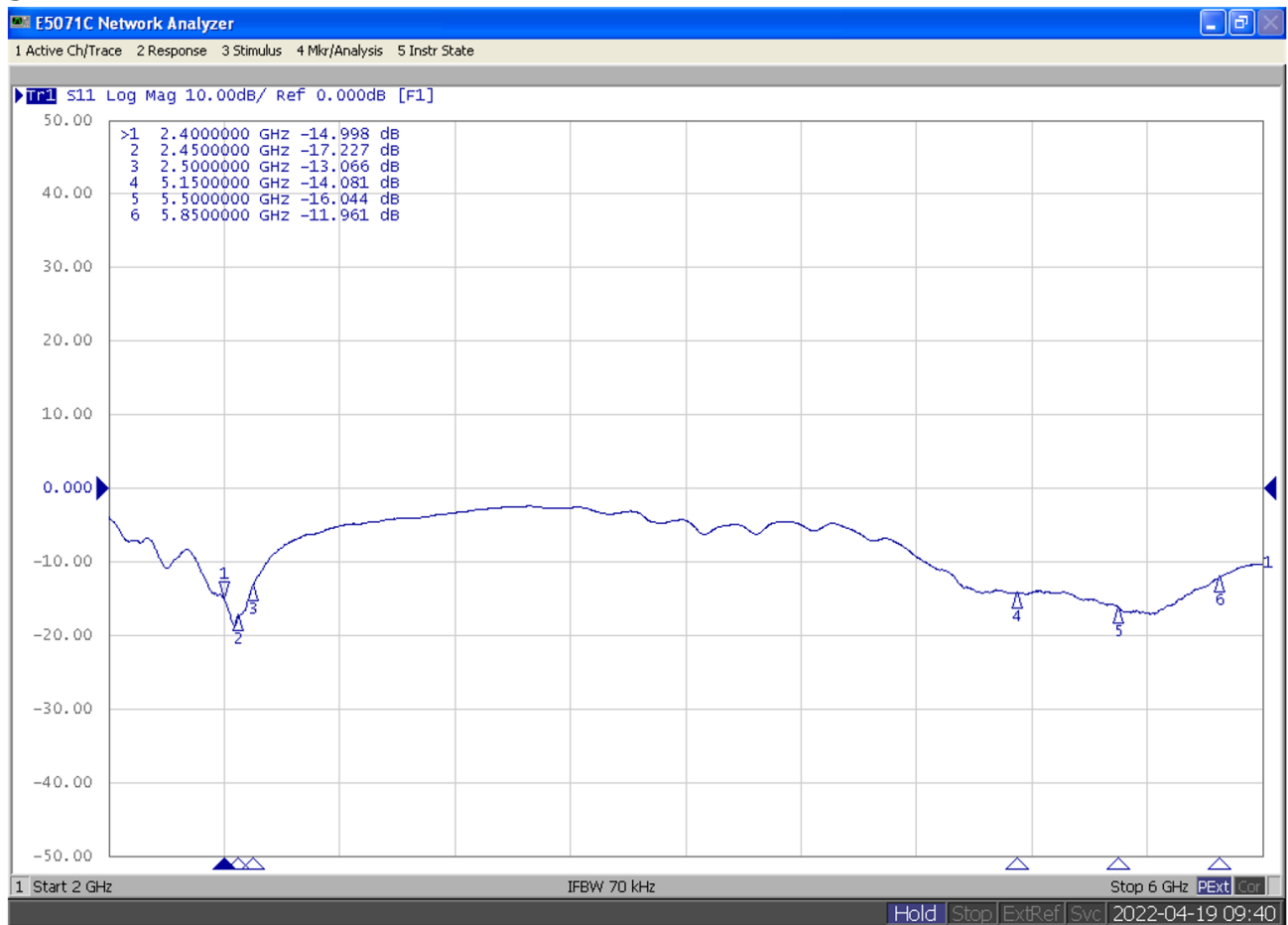
2.7 Storage Temp.....-30°C ~ +75°C



ELECTRICAL CHARACTERISTICS

Spec: 2.4~2.5 GHz / 5.15 ~5.85 GHz

S11

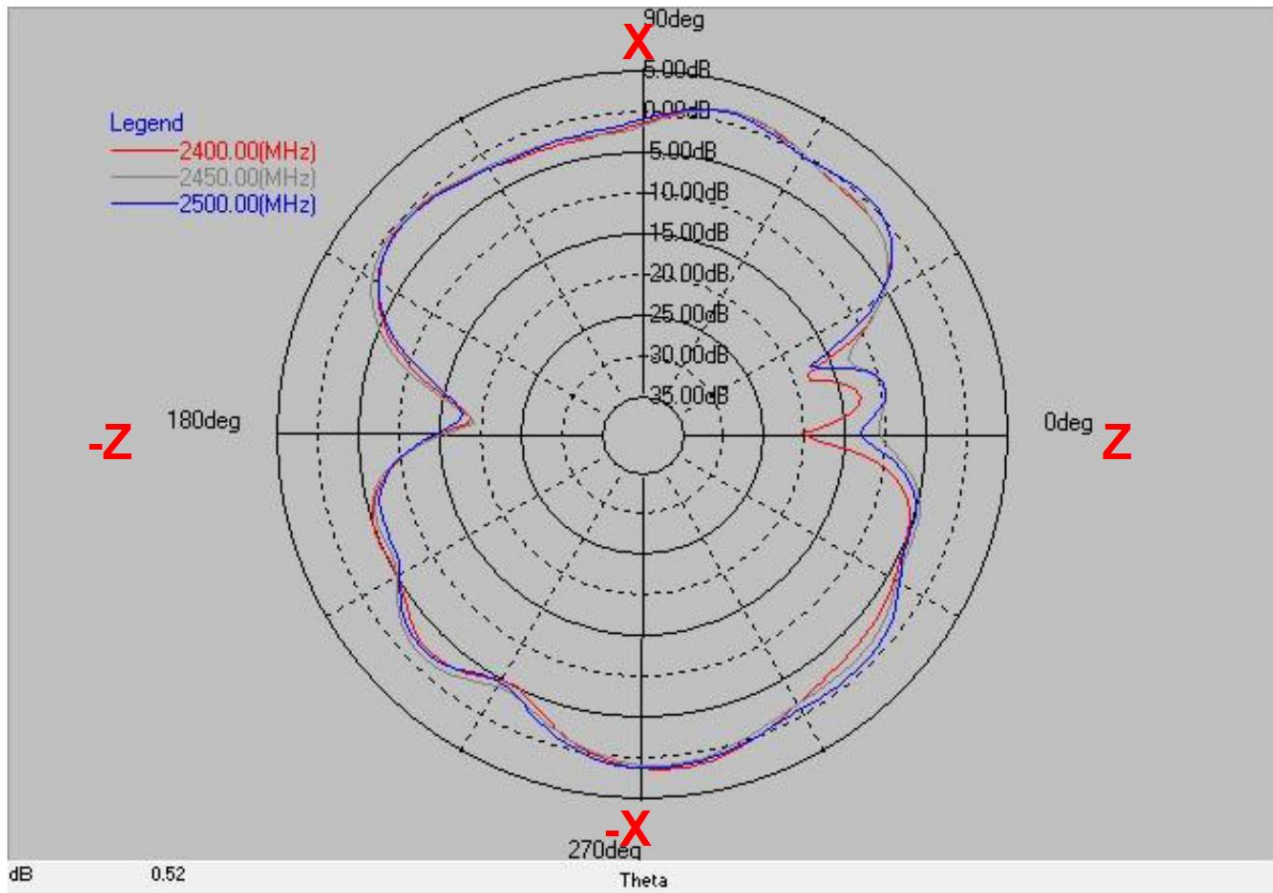


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Frequency(MHz) : 2400~2500. Pattern Field : Z-X plane

Phi=0
Z-X

25G1_2G

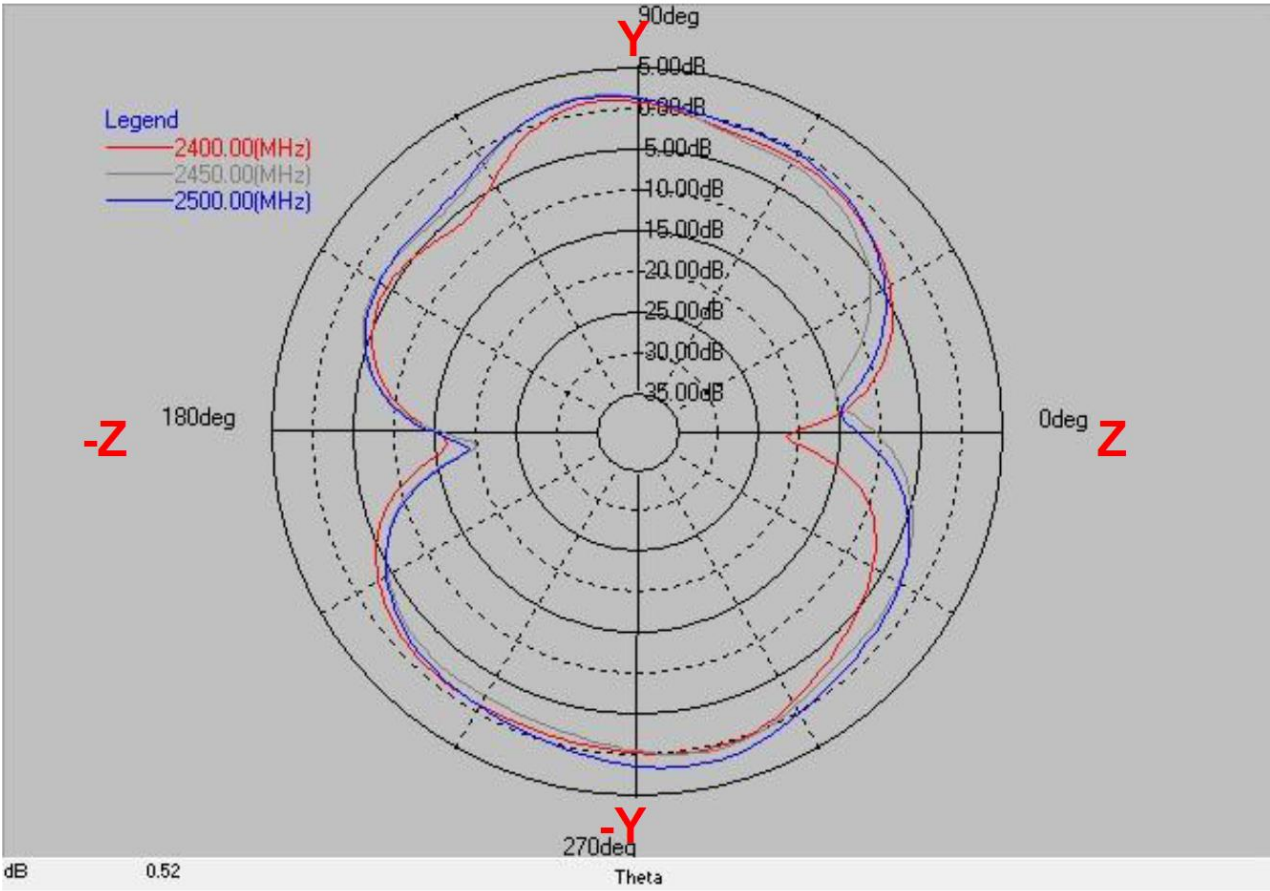


Frequency	Max value	Min value	Average
2400(MHz)	1.38 dB	-20.21 dB	-2.64 dB
2450(MHz)	1.36 dB	-19.17 dB	-2.41 dB
2500(MHz)	1.17 dB	-17.67 dB	-2.30 dB

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

Phi=90
Z-Y

25G1_2G

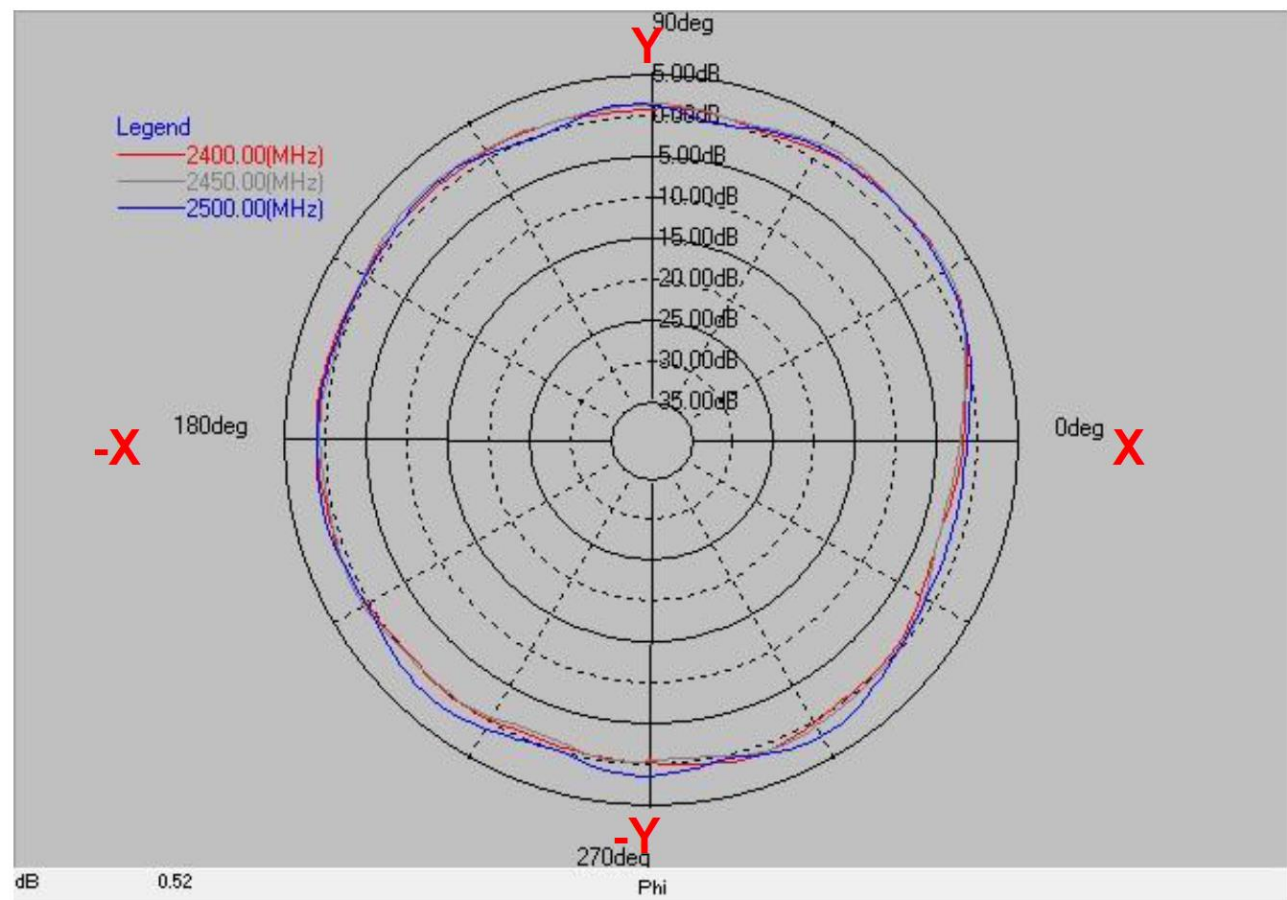


Frequency	Max value	Min value	Average
2400(MHz)	0.97 dB	-21.50 dB	-2.87 dB
2450(MHz)	1.76 dB	-19.97 dB	-2.64 dB
2500(MHz)	1.75 dB	-19.06 dB	-1.83 dB

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

25G1_2G

Theta=90
X-Y

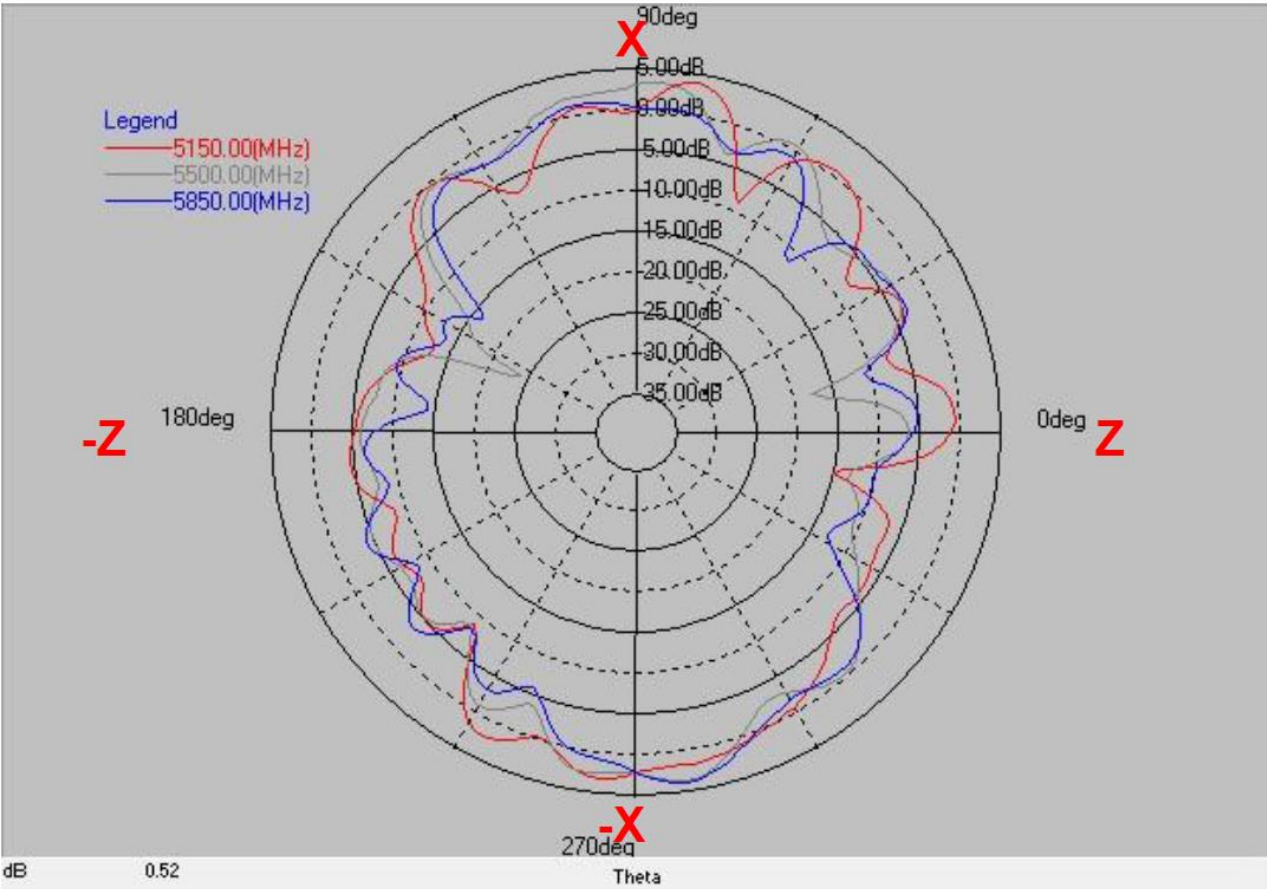


Frequency	Max value	Min value	Average
2400(MHz)	1.95 dB	-2.70 dB	0.32 dB
2450(MHz)	2.19 dB	-2.84 dB	0.39 dB
2500(MHz)	1.97 dB	-1.39 dB	0.68 dB

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

25G1_5G

Phi=0
Z-X

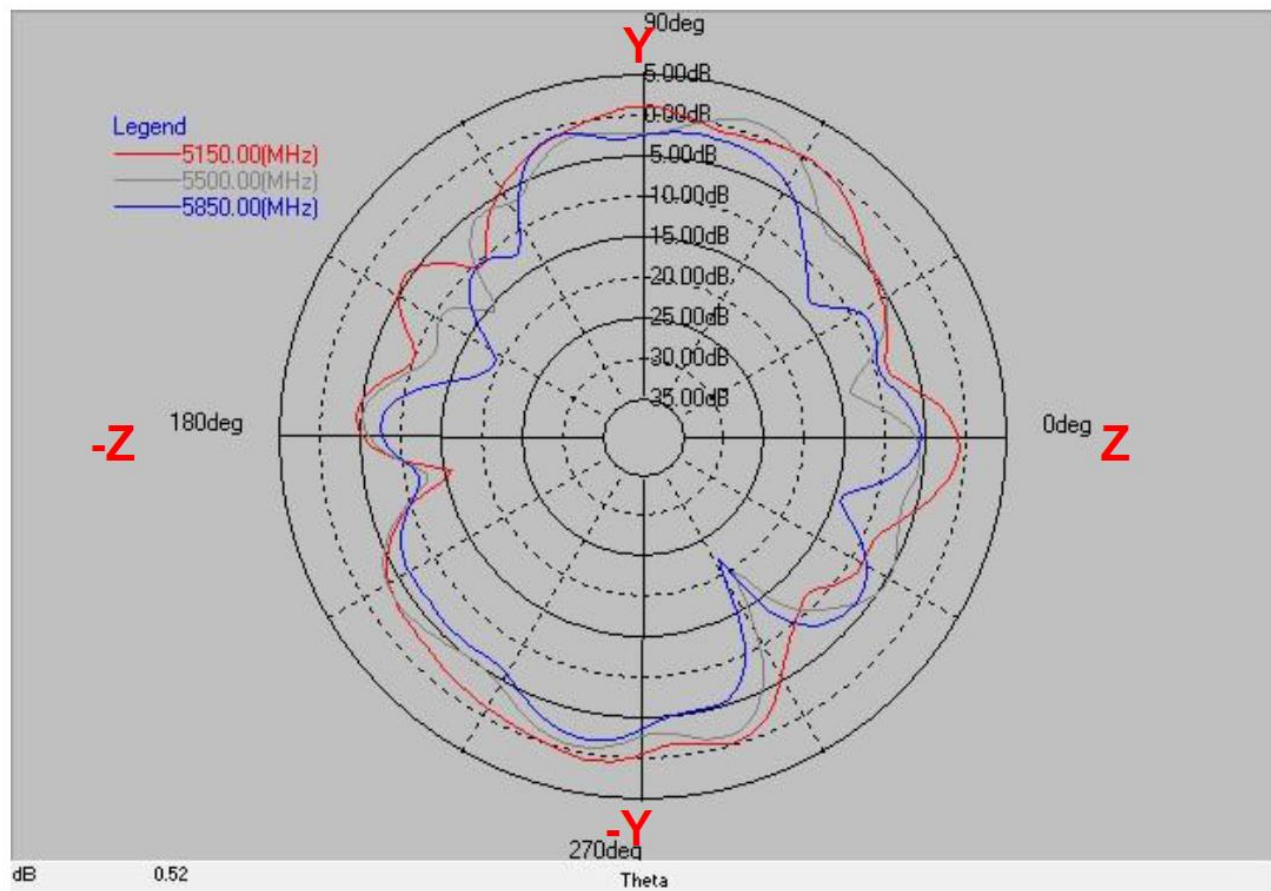


Frequency	Max value	Min value	Average
5150(MHz)	3.63 dB	-15.07 dB	-1.99 dB
5500(MHz)	3.50 dB	-24.36 dB	-2.11 dB
5850(MHz)	3.72 dB	-16.47 dB	-2.85 dB

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

Phi=90
Z-Y

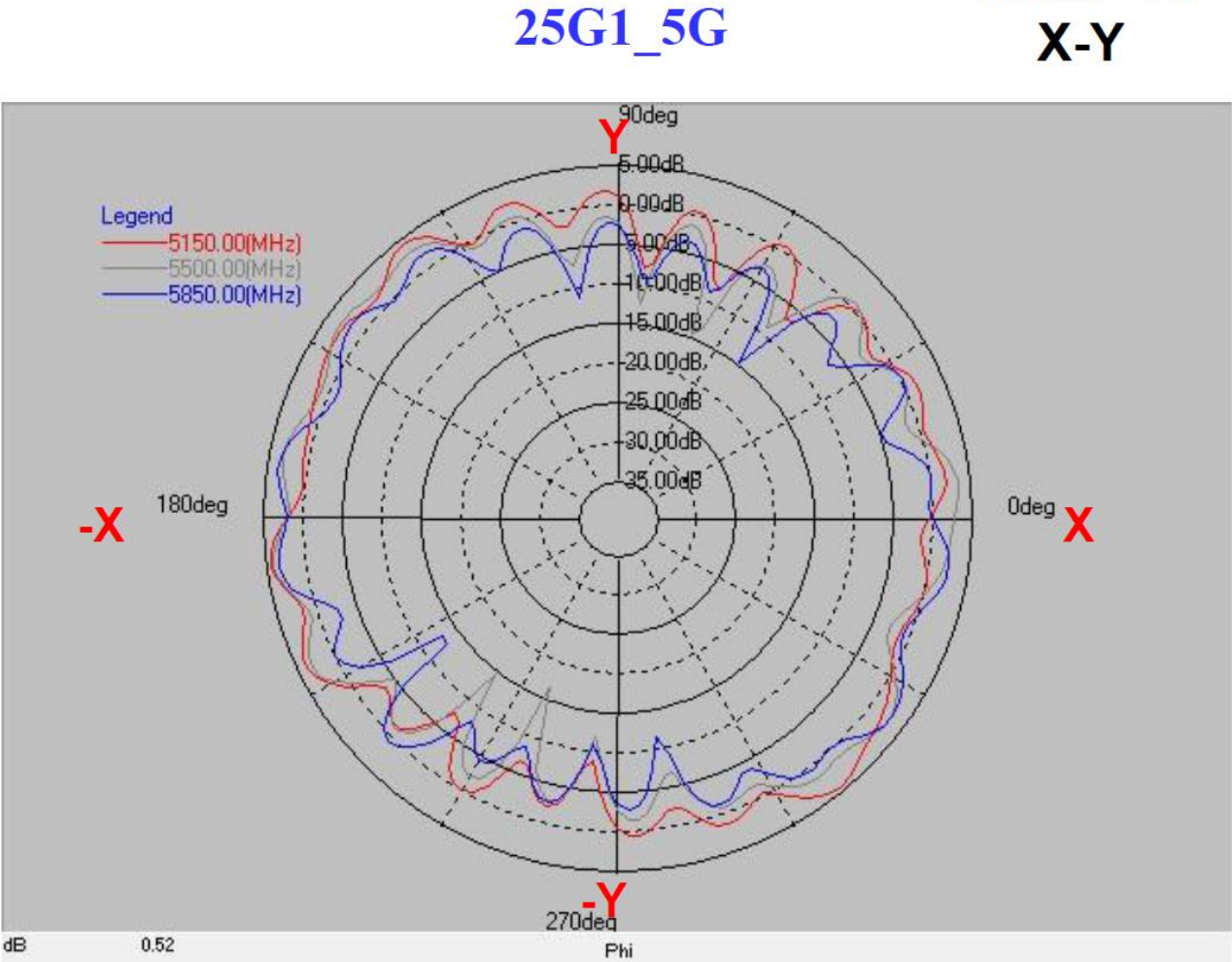
25G1_5G



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

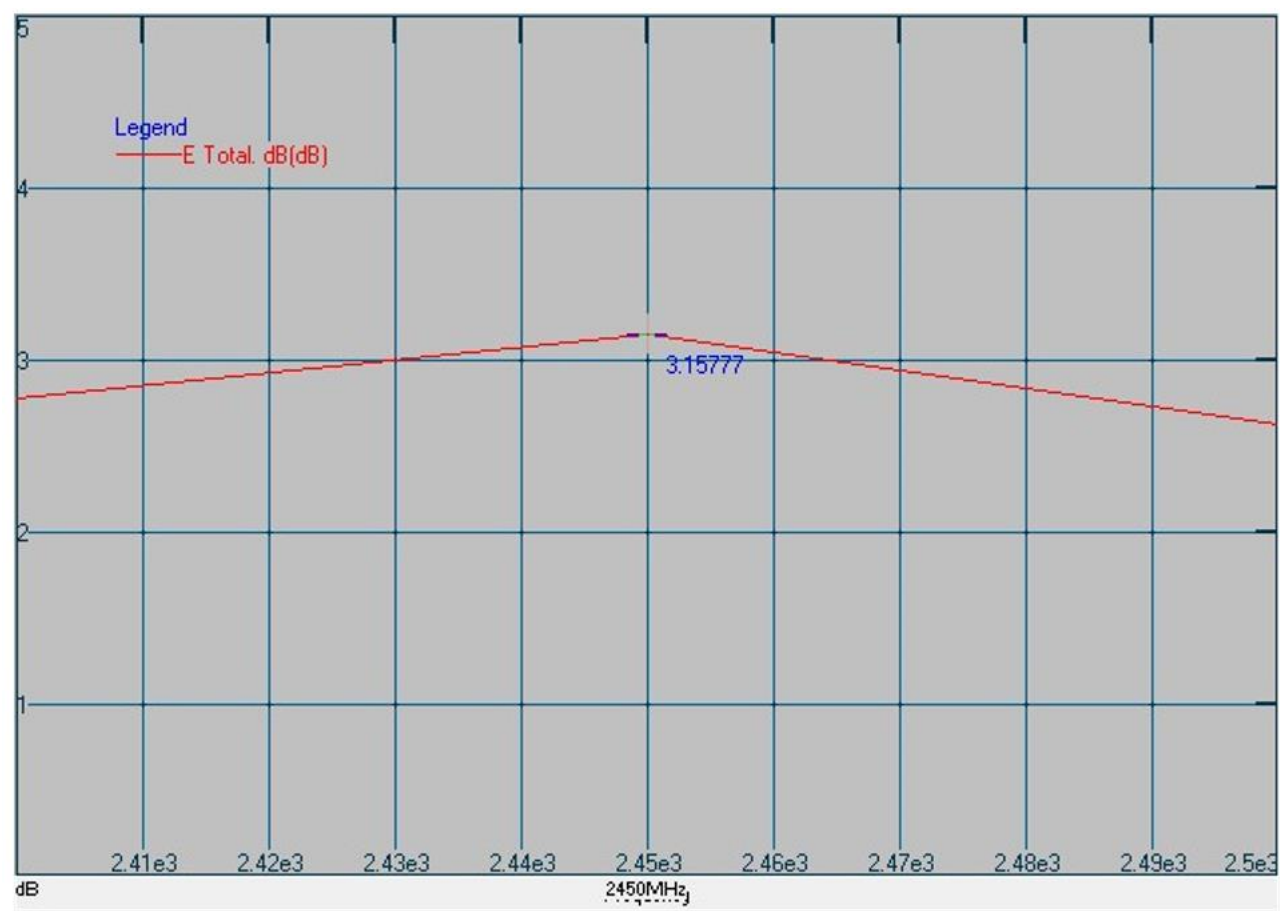


Frequency	Max value	Min value	Average
5150(MHz)	4.42 dB	-8.97 dB	0.62 dB
5500(MHz)	4.14 dB	-16.98 dB	0.09 dB
5850(MHz)	3.64 dB	-14.85 dB	-0.95 dB



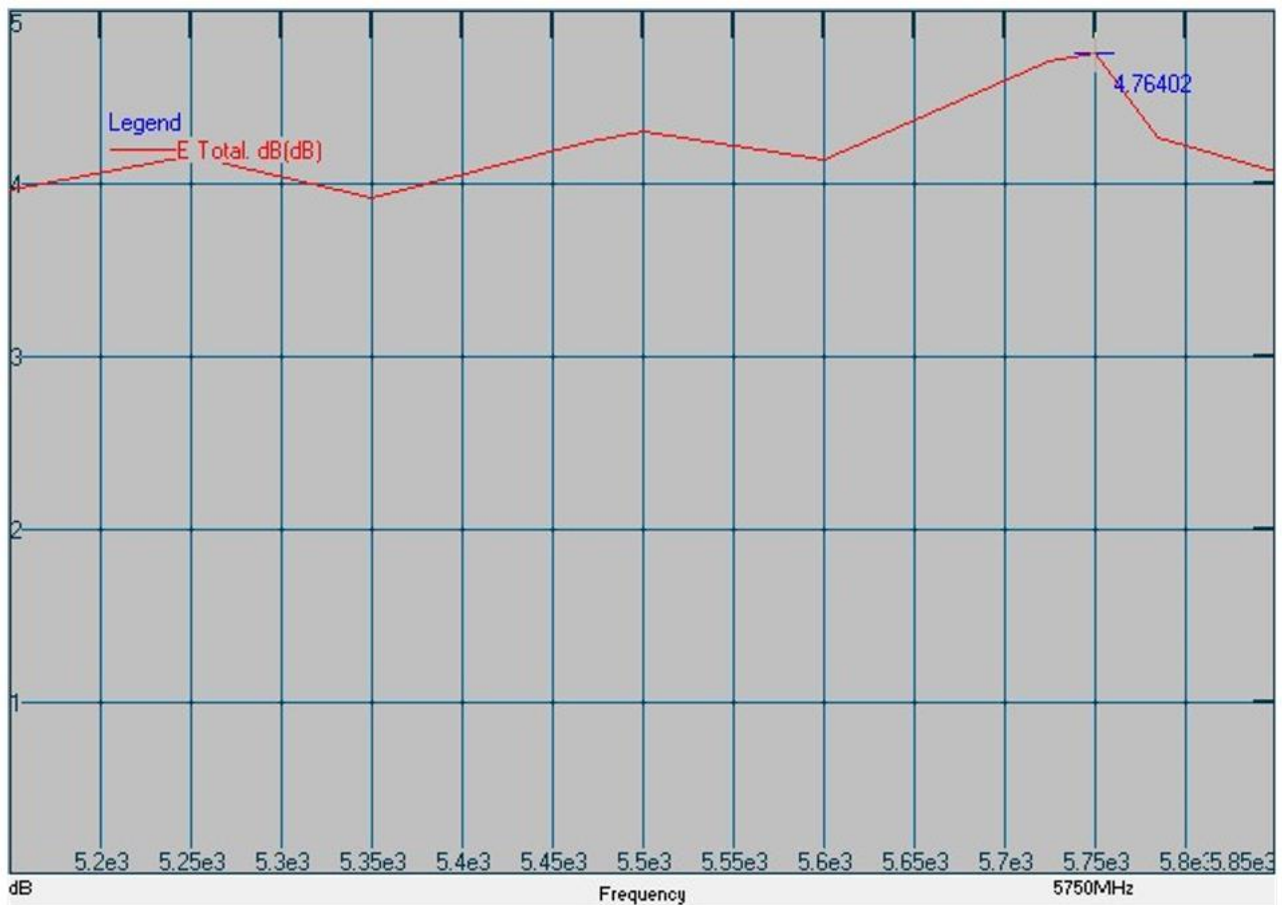
Peak Gain

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



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Connector Specification

Connector

SMA

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-lbs.min

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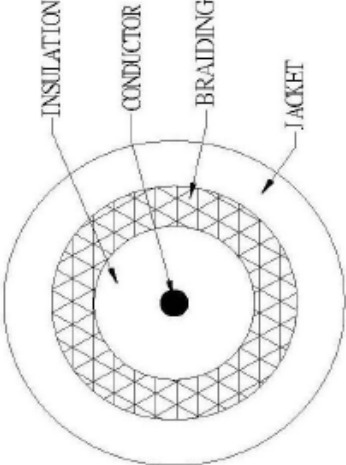
Material Specifications	Material Data	Material
	Body	Brass
	Center Contact	Brass
	Insulator	Teflon



Cable Specification

線材規格

CABLE SPECIFICATION

SPECIFICATION: RG178 CABLE			CONSTRUCTION D.W.G		
ITEM		SPECIFICATION			
CONDUCTOR	MATERIAL	Silverplated Copper coated steel Wire			
	Composition(No./mm)	7/0.102			
	NOM.O.D	0.306±0.03			
INSULATION	Material	FEP(Natural)/PTFE			
	Norm.Thick.(mm)	0.275			
	NOM.O.D	0.88±0.03			
BRAIDING	MATERIAL	Silver-coated annealed copper wire			
	Composition	16*3/0.1; Coverage ≥ 90%			
	MATERIAL	FEP(*color)			
JACKET	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					
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		℃	-55~150		
Standing wave(0-6GHz)		/	≤ 1.35		
MASTER WAVE TECHNOLOGY CO., LTD.					
CHECKED	DATE		2013/8/8		
DRAWING	Charlene		REV	01	



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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)

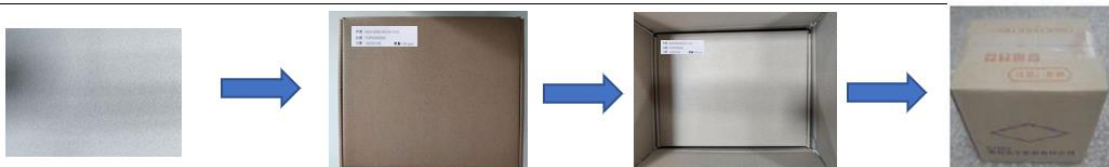
圖示一



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)



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