



# 權億科技股份有限公司

Master Wave Technology Co., Ltd.

## 承認書

### APPROVAL SHEET

Customers: Pepwave Ltd.

Customer Model No.:

Master Wave Model No.: 98614PRSX000

Product Description: 8614 Replacement Antenna

Issue Date: 2023. 02. 10

REV.: 02

客戶承認用印 Customer Approved		權億承認用印 Confirmation Signature	
			
核准 Approve	主管 Chief	承辦 Responsible	
Tony	Pierce	Alice	

#### MASTER WAVE TECHNOLOGY CO., LTD.

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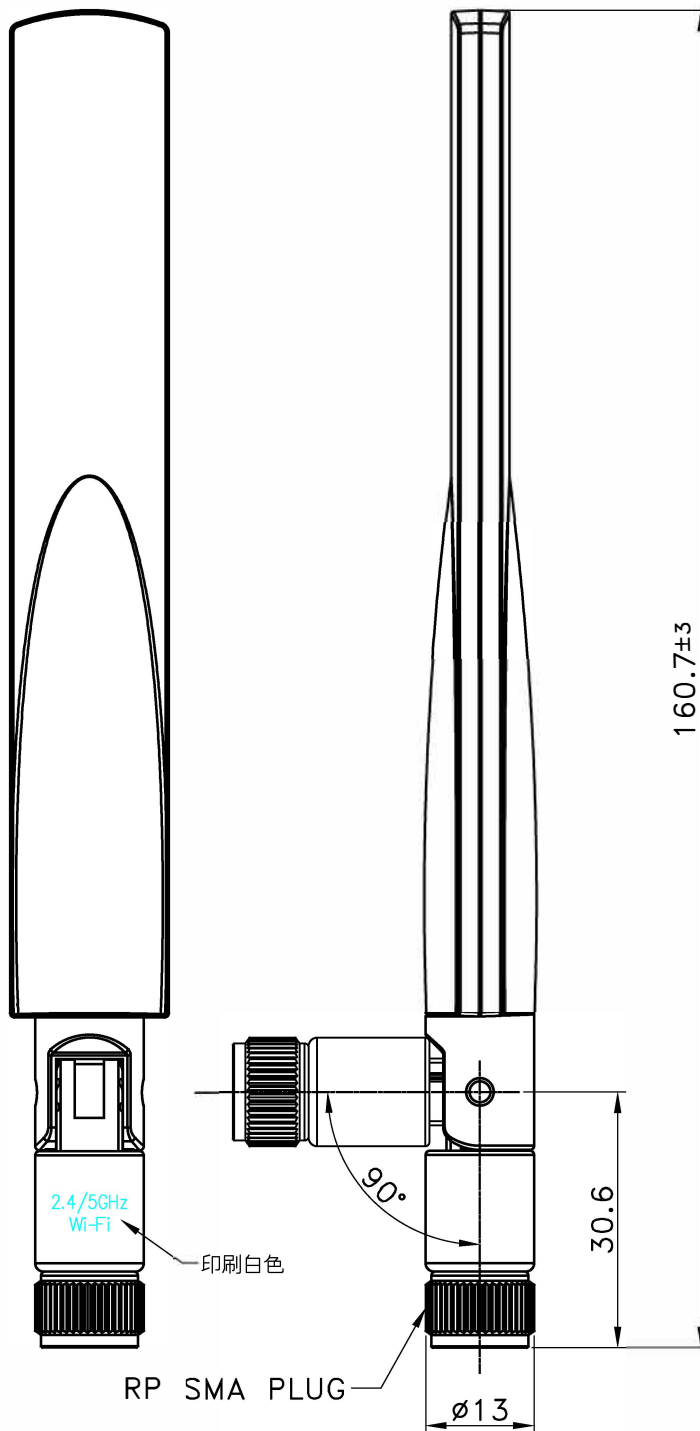
-Cable

### Modification History:

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REV.	Date	Content
00	2017.05.03	
01	2020.12.07	更新包裝標示
02	2023.02.10	更新測報、場型

REV	ZONE	DESCRIPTION	ENG	APPROVED	DATE
00		NEW RELEASE	Pierce	Tony	2017/05/03
01		Add Peak Gain	Pierce	Tony	2023/02/09

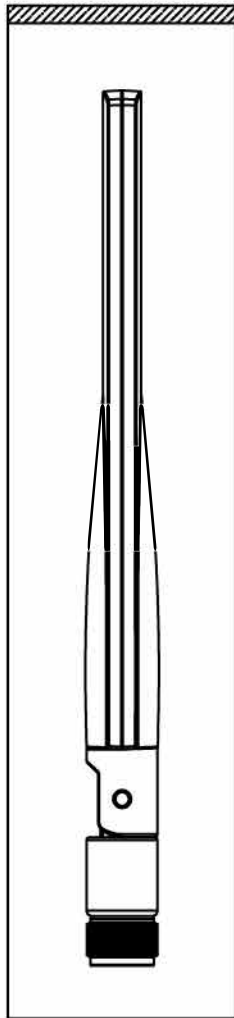


Electrical Properties				
Frequency Range (GHz)	2.4~2.5	5.15~5.25	5.25~5.35	5.35~5.875
Impedance	50Ω			
V.S.W.R.	≤2.0			
Radiation	Omni			
Gain	3 dBi	4.1 dBi	4.2 dBi	4.2 ~ 4.8dBi
Polarization	Vertical			
Mechanical Properties				
Whip	ABS			
Connector	Brass			
Weight	-			
Operating Temp	-20°C~+65°C			

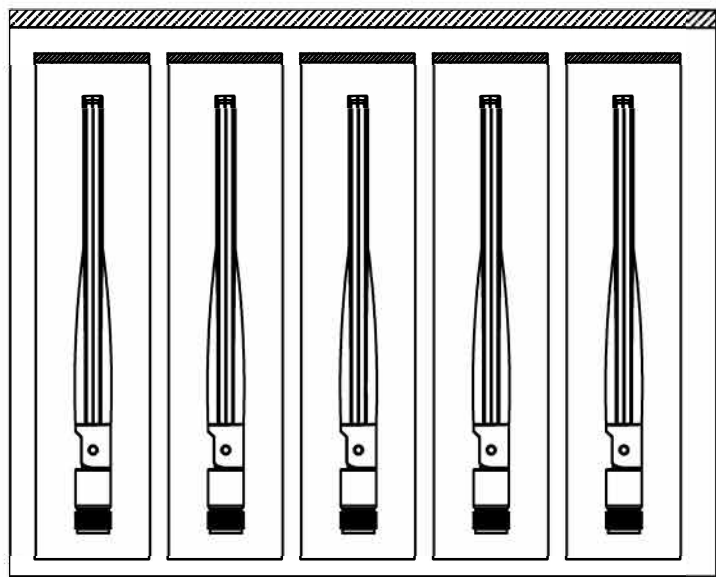
UNLESS OTHERWISE SPECIFIED TOLERANCES ON : ±0.5	DATE: 2017/5/3	MAT'L:	Master Wave Technology CO.,LTD		
	UNIT: mm	FINISH: Black			
	THIRD ANGLE PROJECTION	SCALE: 1/1			
APPROVED BY:	CHECKED BY:	DESIGNED BY:	DRAWN BY:	MODEL NO. : 98614PRSX000	REV
Tony	Pierce	Daniel	Mango	PART NO. : 8614PRSX000	01

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MASTER WAVE AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION.

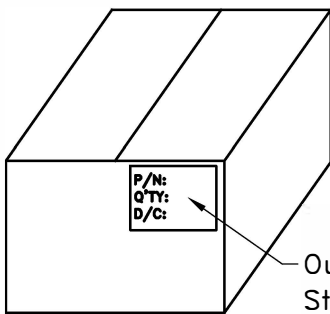
REV	ZONE	DESCRIPTION	ENG	APPROVED	DATE
00		New Release	Tony	Tony	2017/5/3
01	F3	更新包裝標示	Doris	Tony	2020/12/7





1PCS Antenna of A bag and seal  
(每支天線裝入袋並封口)



50PCS ANTENNA OF A BIG BAG AND SEAL  
(50個天線裝入大袋子並封口)



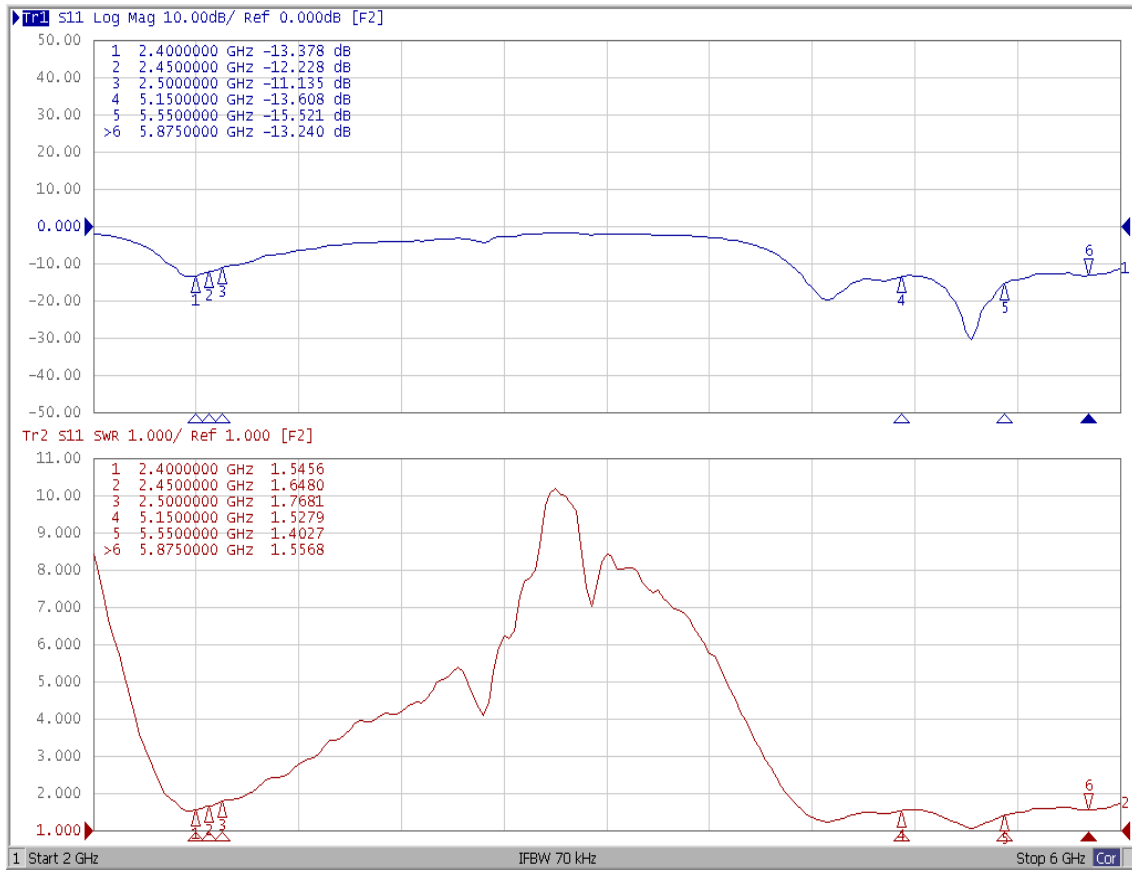
Outside the carton:  
Stick the label on the side mark  
(將標籤黏貼於外箱側麥)

DATE: 2017/5/3		MAT'L:		 <b>權億科技股份有限公司</b> Master Wave Technology Co., Ltd.		
UNIT: mm		FINISH: Black				
THIRD ANGLE PROJECTION 		SCALE: -		TITLE : 8614 Replacement Ant. Packing		
APPROVED BY: Tony	CHECKED BY: Pierce	DESIGNED BY: Sandy	DRAWN BY: Alice	WEIGHT:	MODEL NO. : 98614PRSX000	REV
					PART NO. : 8614PRSX000	01

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MASTER WAVE AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION.



## Electrical Test



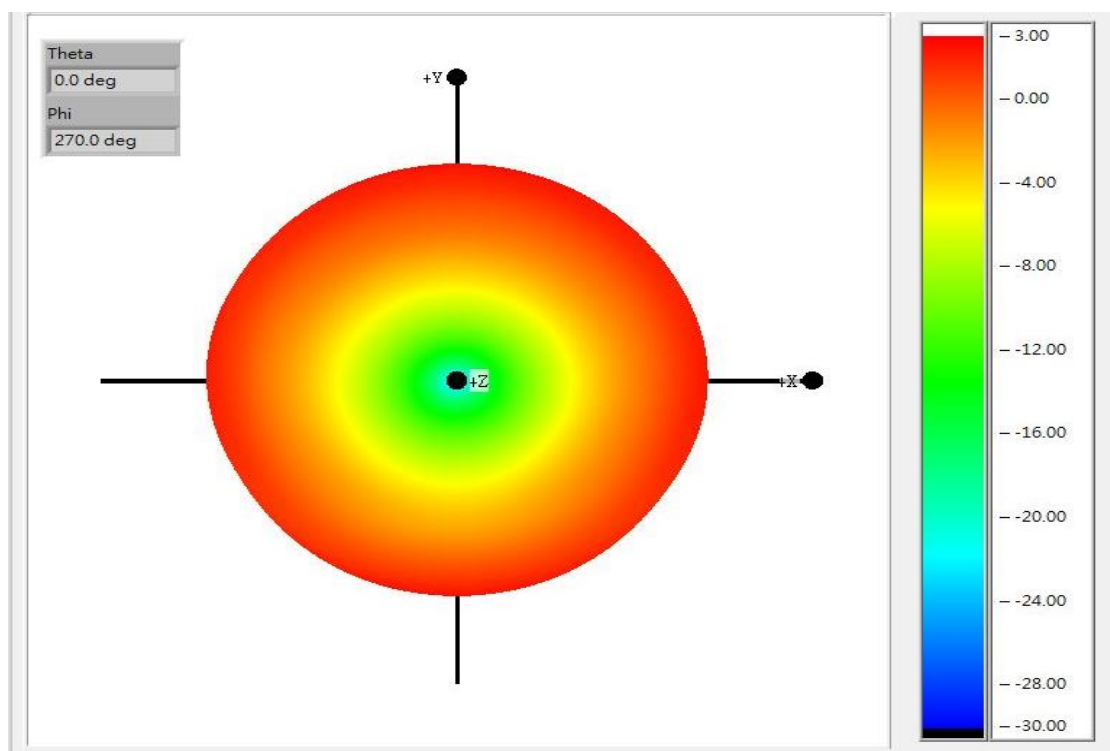


## Antenna Efficiency

Frequency	2400MHz	2450MHz	2500MHz	5150MHz	5250MHz	5350MHz	5450MHz	5550MHz	5650MHz	5750MHz	5850MHz	5875MHz
Efficiency	75.60%	74.51%	73.14%	62.21%	60.17%	60.05%	61.13%	60.56%	60.15%	61.22%	60.08%	64.57%
PeakGain (dBi)	2.44	2.15	2.21	4.10	4.08	4.20	3.98	4.41	4.55	4.54	4.44	4.73

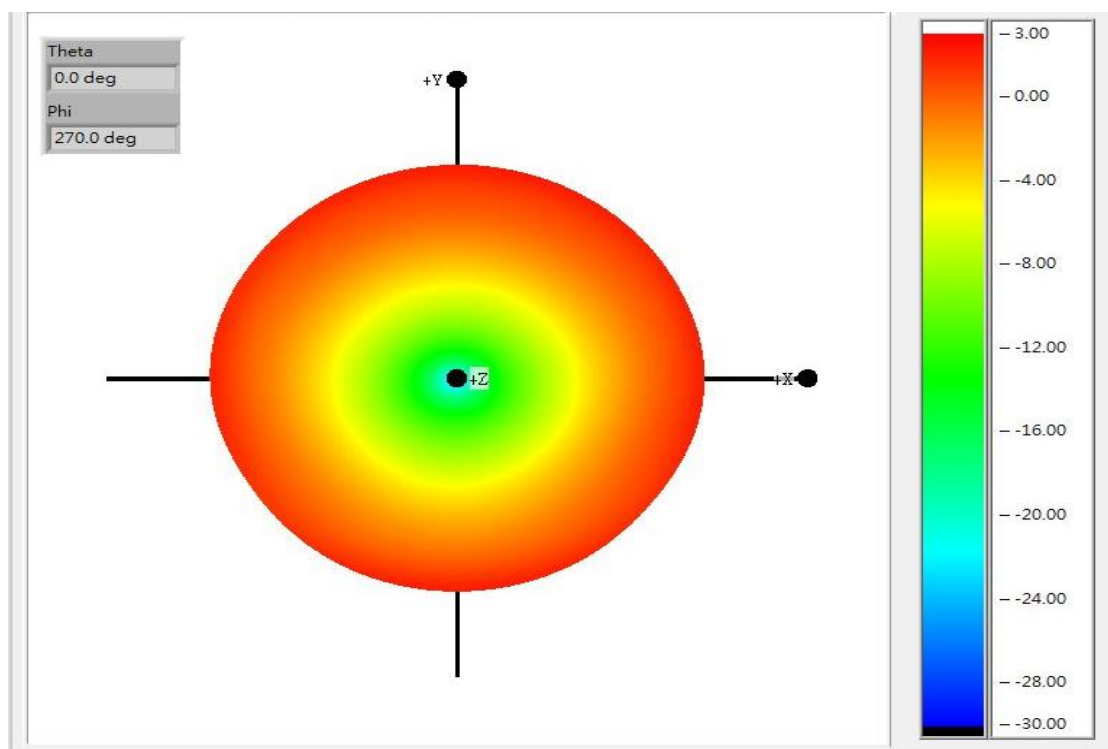


## 3D Radiation Pattern 2.4 GHz





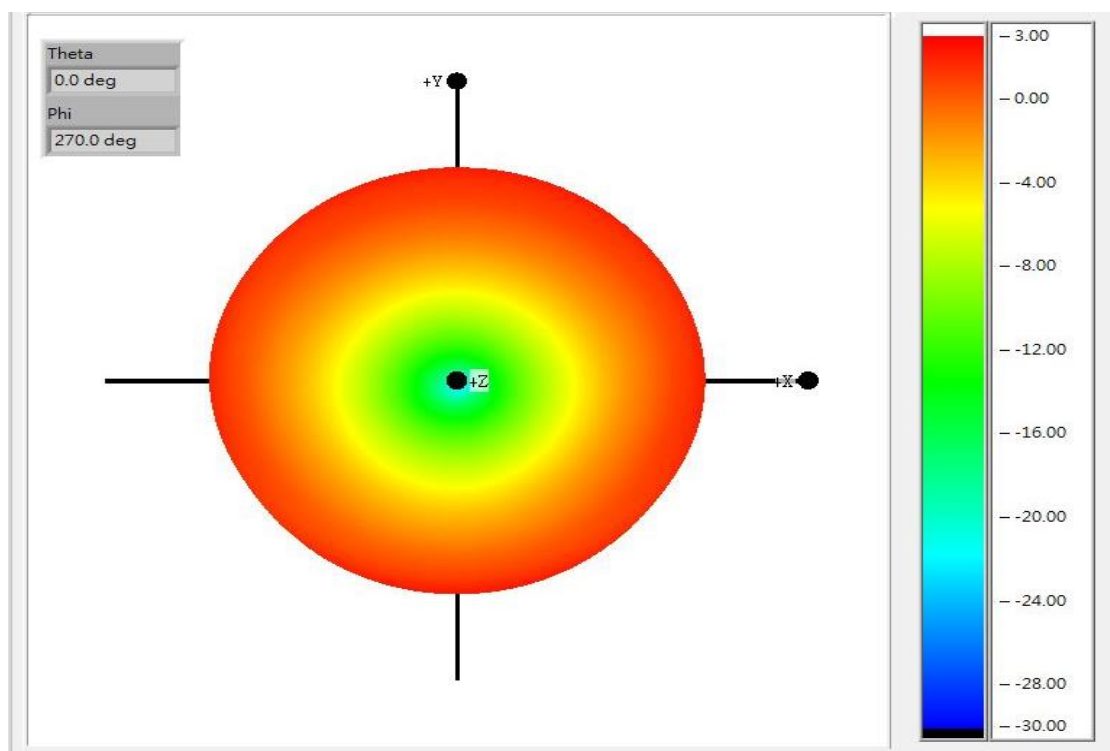
## 3D Radiation Pattern 2.45 GHz





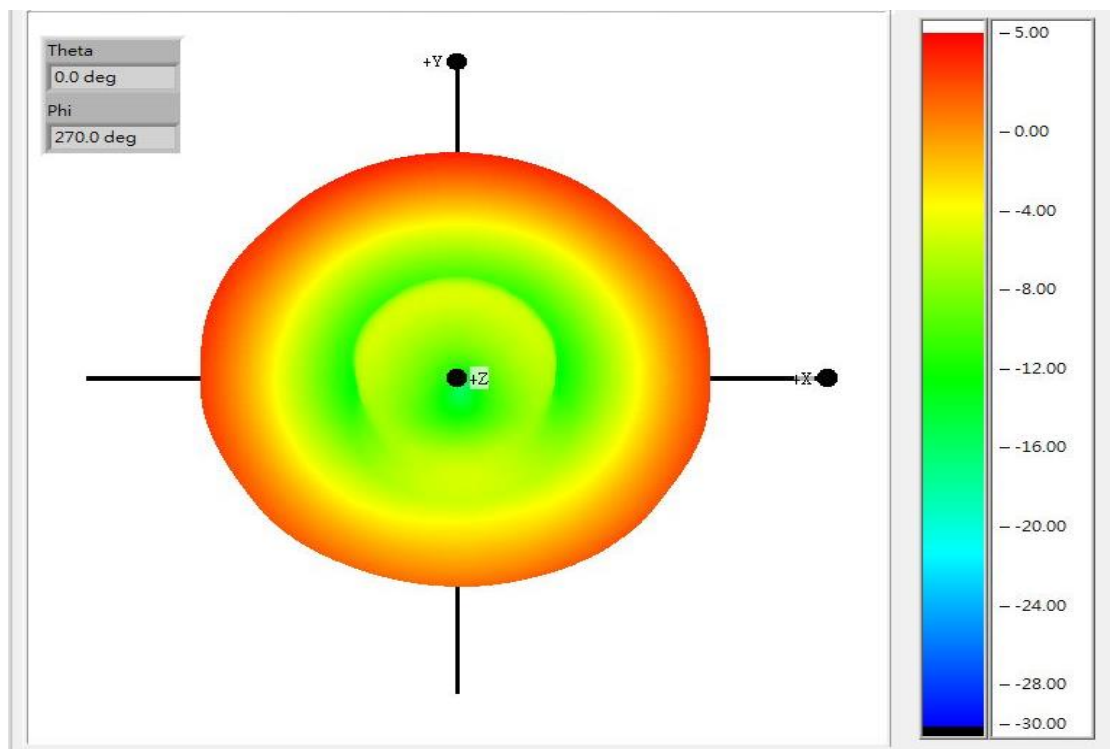


## 3D Radiation Pattern 2.5 GHz



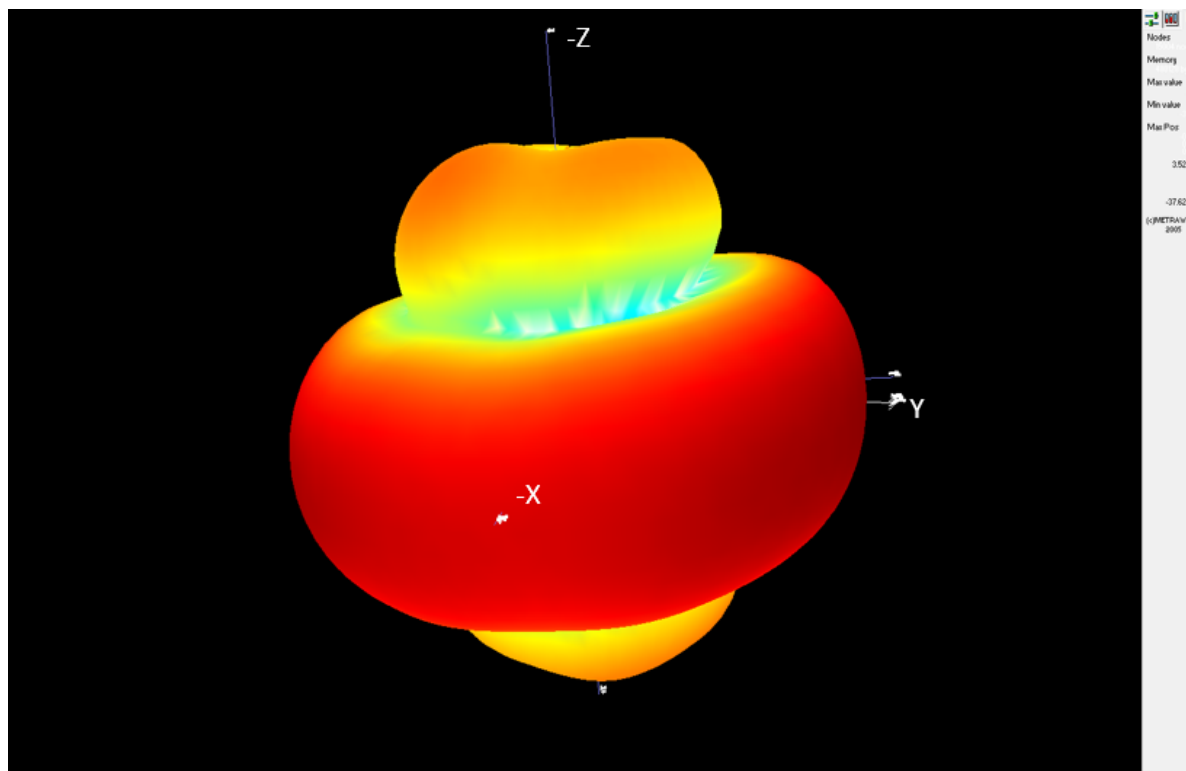


## 3D Radiation Pattern 5.15 GHz



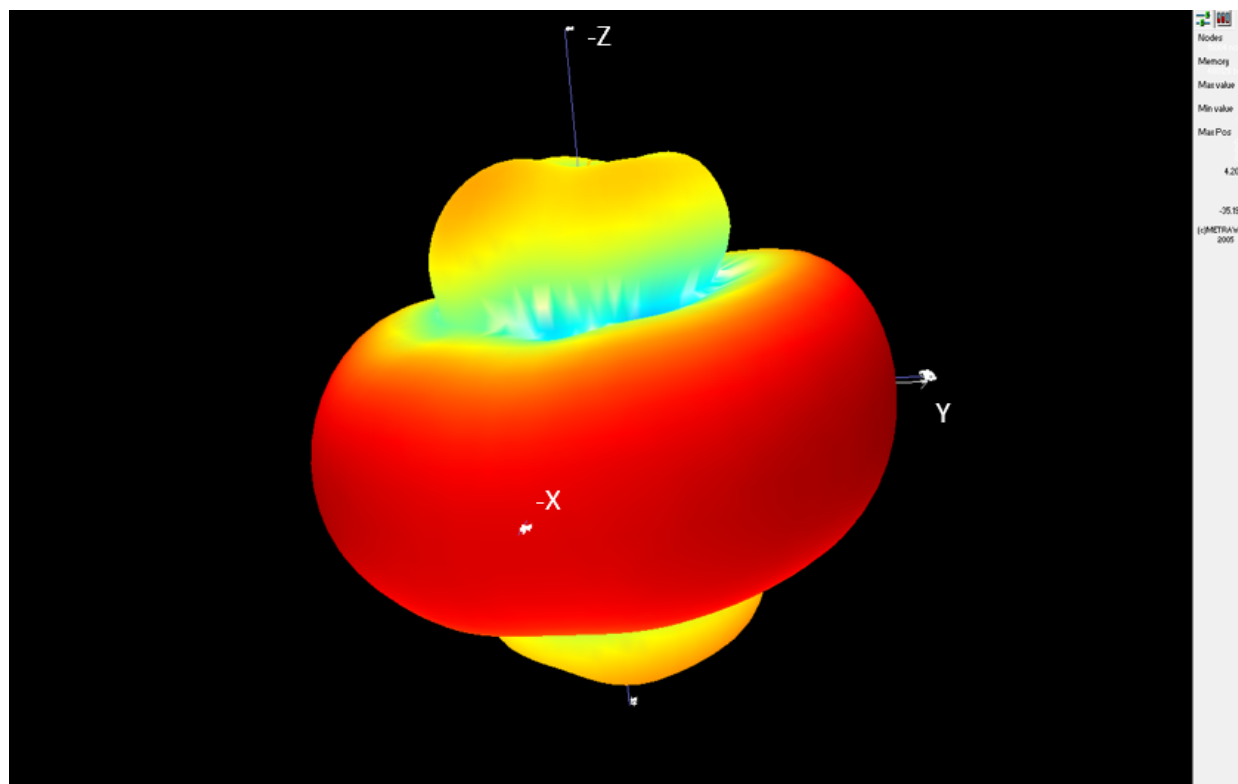


## 3D Radiation Pattern 5.25 GHz



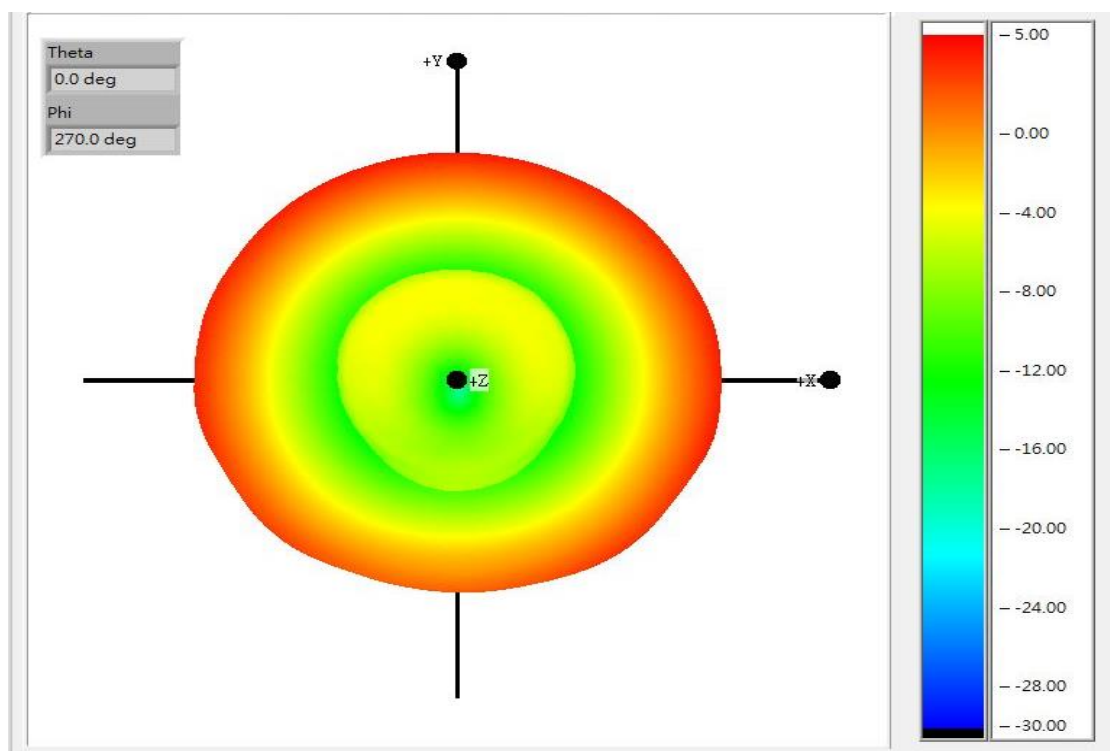


## 3D Radiation Pattern 5.35 GHz



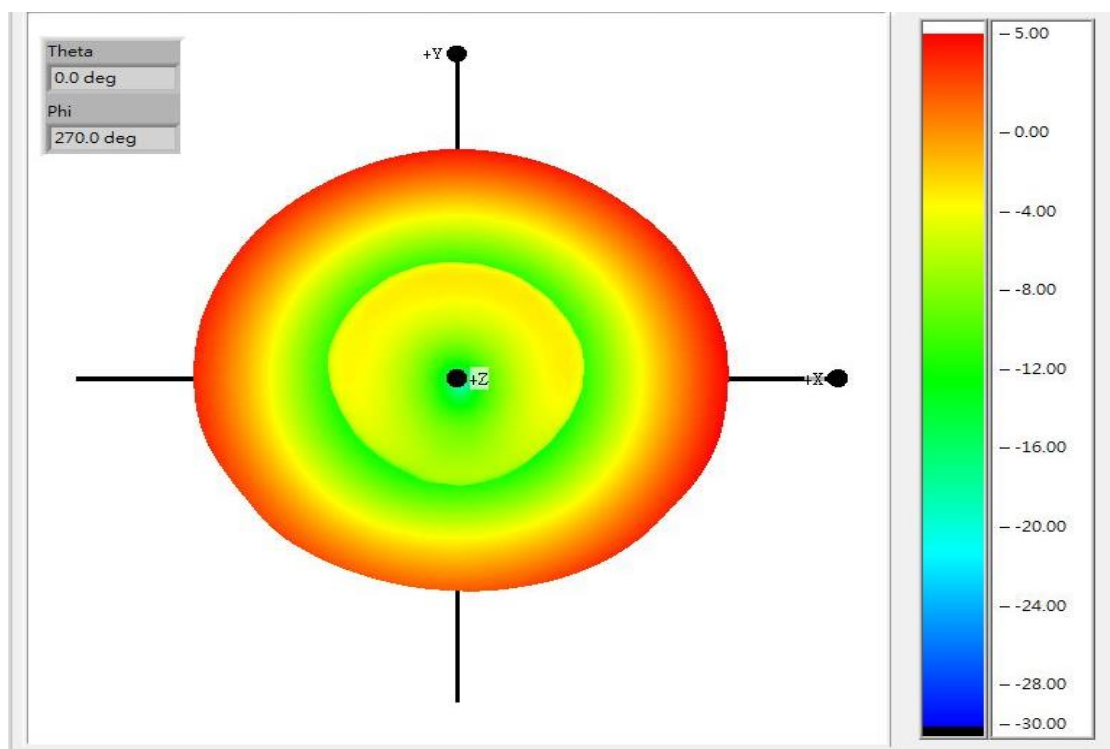


## 3D Radiation Pattern 5.55 GHz





## 3D Radiation Pattern 5.875 GHz





**Connector**

**SMA**

Electrical Properties	Impedance	50 ohm
	Frequency Range	0~6 GHz
	Working Voltage	$\leq 170V_{rms}$
	Dielectric Withstanding	$\leq 500 V_{rms}$
	Voltage Insulation Resistance	$\geq 2000$ 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	$\geq 60$ lbs.
	Contact captivation axial	$\geq 5$ 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



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	
	Nom. Thick.(mm)	0.275	
	NOM.O.D	0.86±0.03	
BRAIDING	MATERIAL	Silver-coated annealed copper wire	
	Composition	16*3/0.1; Coverage ≥ 90%	
JACKET	MATERIAL	FEP(*color)	
	Nom. Thick.(mm)	0.25	
	Nom.O.D(mm)	1.78±0.05	
Color		Brown	
<b>Electrical Properties(at 20 °C)</b>			
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)	
<b>REMARK</b>			
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	
<b>MASTER WAVE TECHNOLOGY CO., LTD.</b>			
CHECKED		DATE	2020/3/20
DRAWING		REV	02

