

# MMT PRECISION CORPORATION

承 認 書

SPECIFICATION FOR APPROVAL

品名

PART NAME

WLAN ANTENNA

品號

PART NO.

WAS002-000178B-S12

機種(客戶)

MODEL NO.

品號(客戶)

PART NO.

承認印 APPROVED BY



加琪精密股份有限公司

臺北市復興南路二段 157 號 9 樓之 6

MMT PRECISION CO., LTD.

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Tel: 886-2-2755-3193

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# 機械特性規格

## Mechanical Specifications

接頭種類 ( Connector Type )	RP-SMA Plug
塑膠顏色 ( Plastic Color )	Black
同軸線材 (Coaxial Cable Type)	RG-178
同軸線材規格 (Coaxial Cable Spec.)	See attached file
天線罩材質 (Radom Material)	TPE
同軸線材顏色 (Coaxial Cable Color)	淡橘色
輻射材料 (Radiator Material)	Copper
工作溫度與溼度 (Working Temperature & Humidity)	-25°C ~ +65°C 90% @ 25°C
儲存溫度與溼度 (Storage Temperature & Humidity)	-25°C ~ +65°C 95% @ 25°C
重量 (Weight)	11 g
扭力 (Torque force)	150~400 gf.cm

# 電氣特性規格

## Electrical Specifications

頻率範圍 (Frequency Range)	2400MHz - 2500MHz
增益 (Gain)	1.5 dBi (Nominal)
電壓駐波比 (VSWR)	< 2 : 1
極化 (Polarzation)	Linear, Vertical
半功率水平波束寬 (HPBW/Horizontal)	360°
半功率垂直波束寬 (HPBW/Vertical)	78°(typical)
最大功率 (Max. Power Rating)	2 W (CW)
阻抗匹配 (Impedance)	50 Ohms (typical)

# 電氣特性測試

## Electrical Specifications Test

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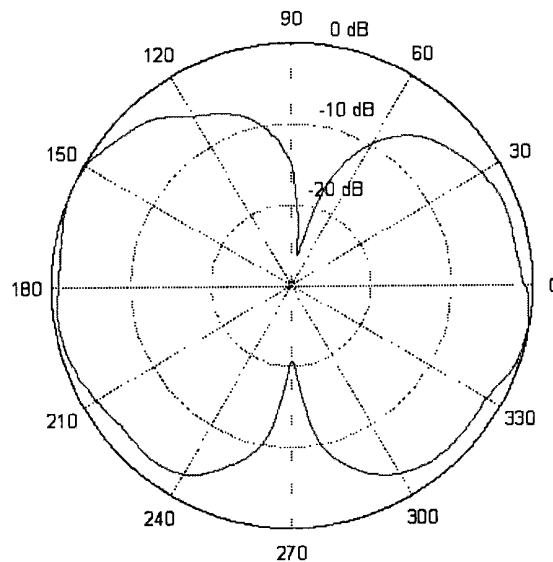
### 1. 輻射場型測試 (Radiation Pattern Test):

測試儀器 ( Test Instrument ) :

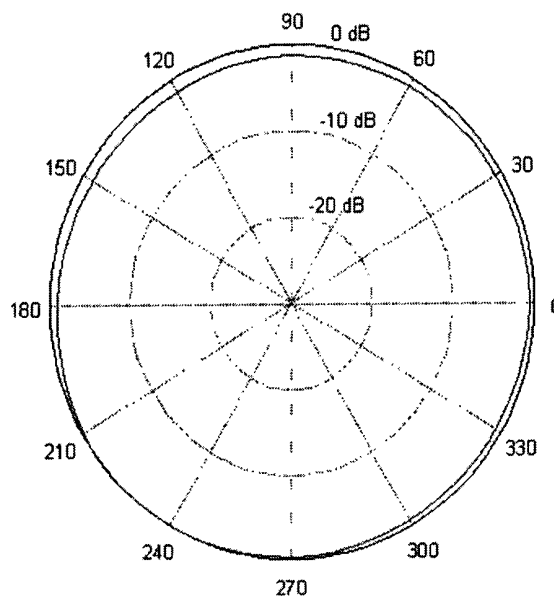
**Ancom 6 ft Near-field antenna test system**

測試資料 ( Test Result ) :

頻率 (Frequency) : **2.45GHz**



**Vertical Pattern**



**Horizontal pattern**

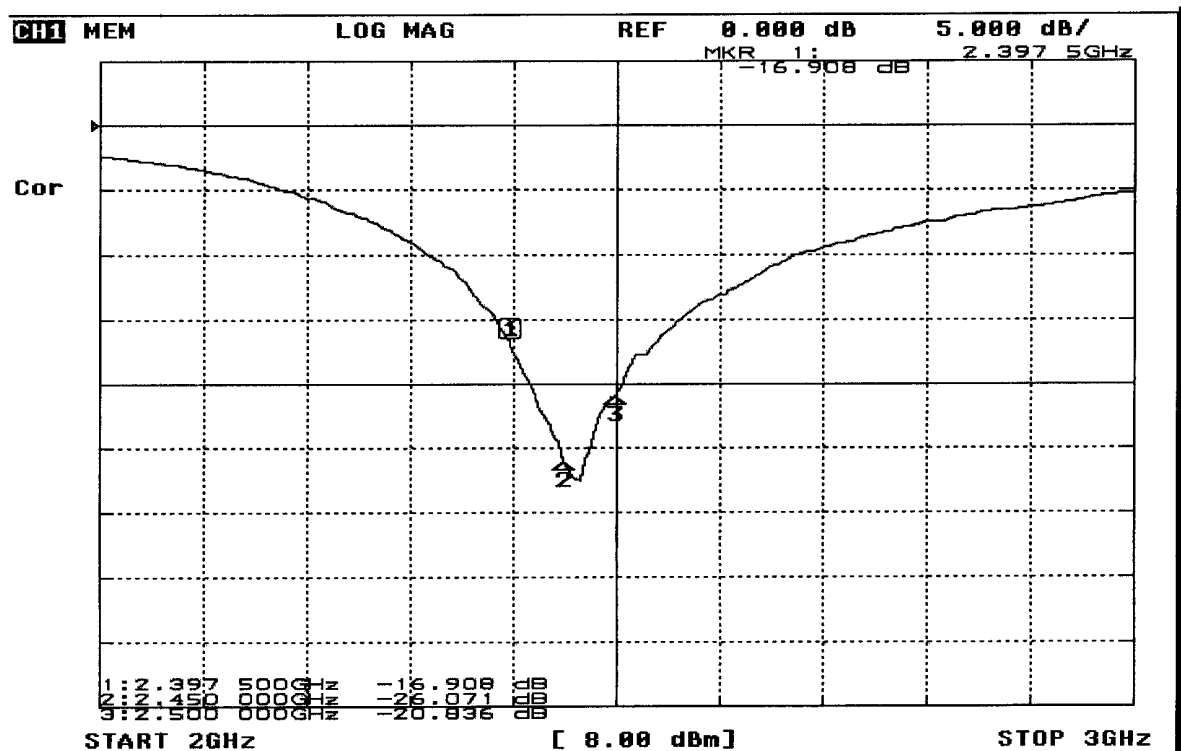
## 2. Function Test :

測試儀器 ( Test Instrument ):

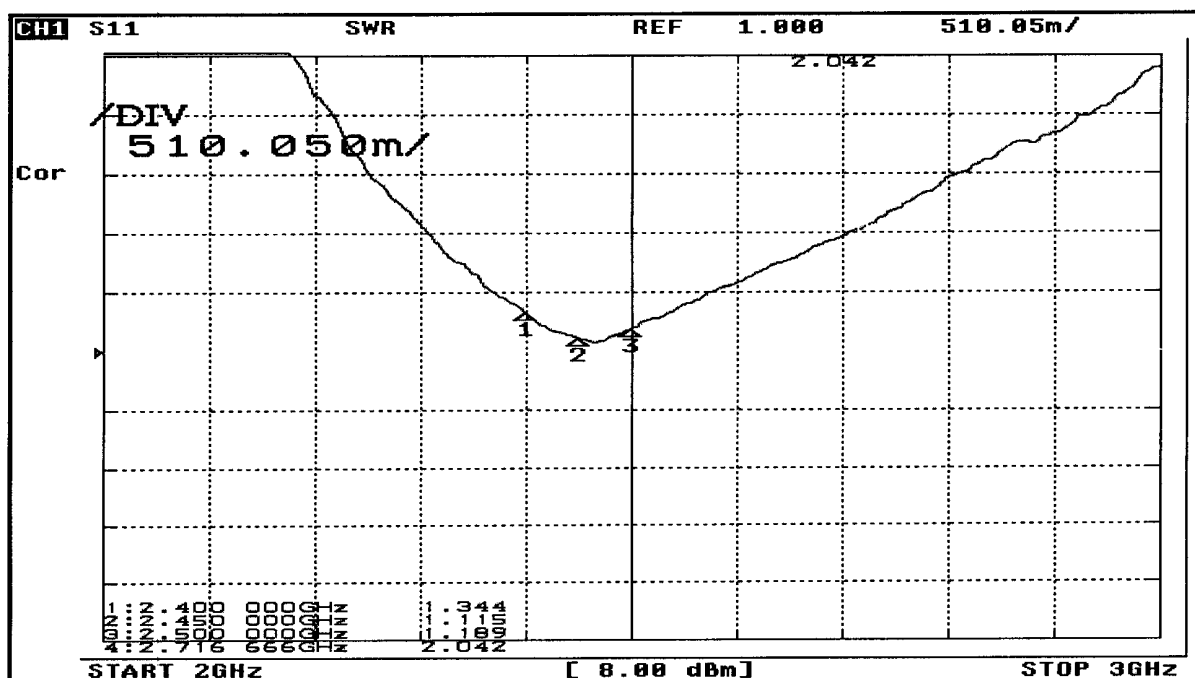
☐ HP 8753E Network Analyzer 30 KHz ~ 3GHz

☒ Advantest R3767CG Network Analyzer 300 KHz ~ 8GHz

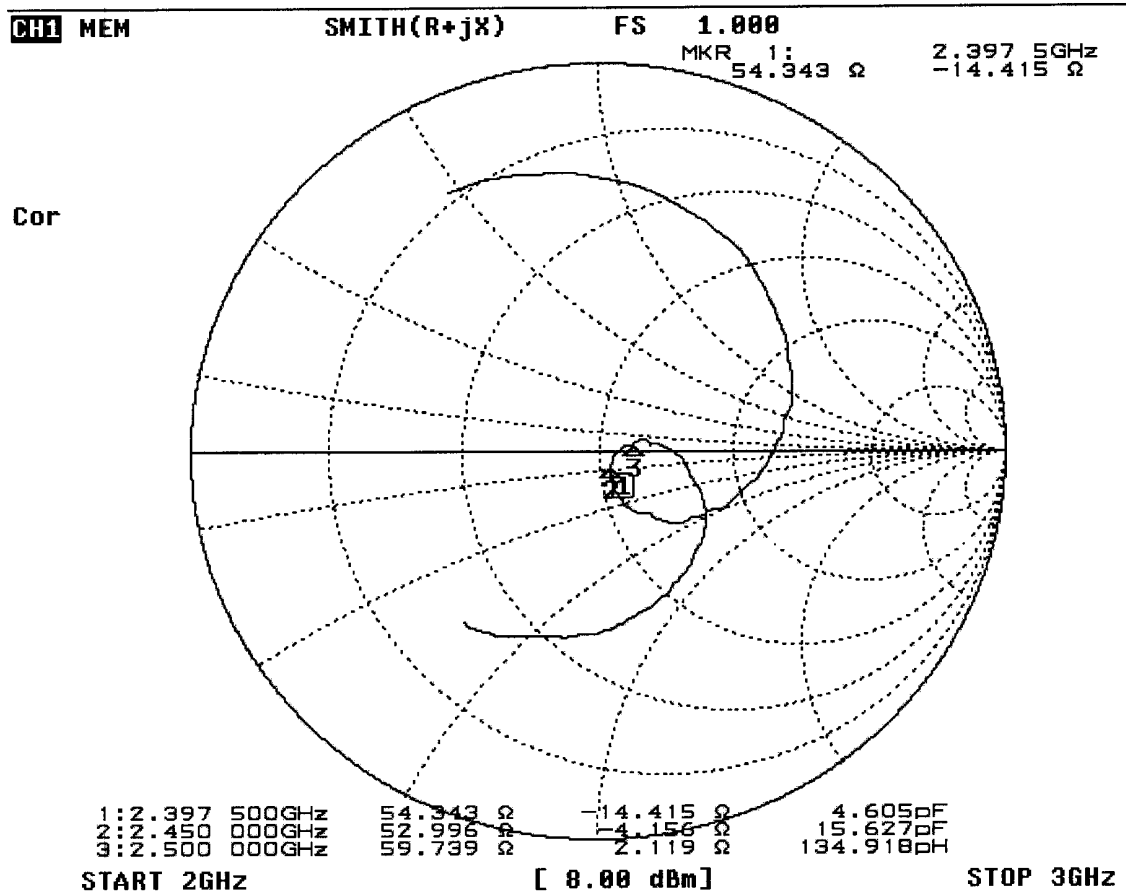
### 2.1 Return Loss



### 2.2 VSWR :



## 2.3 Smith Chart :



# SPECIFICATION FOR APPROVAL

DOCUMENT: A30178B001

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STYLE : 105°C 30V  
RG-178B/U

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SIZE: 7/0.102 SCCS

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RECOGNIZED: UL 1979

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WONDERFUL HI-TECH CO.,LTD

OFFICE : 72WU KONG 6TH ROAD,  
WU KU IND. DISTRICT  
TAIPEI HSIEN, TAIWAN

TEL : (02)22988033  
FAX : (02)22988031-2

FACTORY : 17 PEI YUAN ROAD,  
CHUNG-LI IND. PARK  
TAIWAN, R.O.C.

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FAX : (03)4517214



**WONDERFUL HI-TECH CO., LTD**  
**SPECIFICATION**

STYLE	105°C 30V UL1979	DOCUMENT NO : A30178B001
SIZE	RG-178B/U	ESTABLISHED DATE: 2004/03/22
STANDARD : MIL-C-17		
Conductor	Size	AWG 30
	Material	Silver-Coated Copper Clad Steel
	Conductors No.	7
	Conductors Size	mm 0.102
	O.D.	mm 0.30
Insulation	Average Thickness	mm 0.28
	Diameter	mm 0.86 ±0.03
	Material	---- FEP
	Color	---- Clear
Braid	Material	---- Silver-Coated Copper
	Construction	mm 16 / 3 / 0.10
	Coverage	% 95
Jacket	Average Thickness	mm 0.25
	Diameter	mm 1.80 ±0.05
	Material	---- FEP
	Color	---- Brown
Marking		
Drawing		

**WONDERFUL HI-TECH CO., LTD.**  
**SPECIFICATION**

Electrical & Physical Properties							
Item				RG-178B/U			
Rating Temp Voltage				105°C 30V			
Conductor Resistance				838 OHM/KM/20°C MAX.			
Insulation Resistance				3000 MEGA OHM/KM MIN.			
Dielectric Strength				AC 500V/Minute			
Spark Test				2.5 KV			
Insulation	Unaged	Tensile Strength		2500 PSI MIN.( 1.76 Kg / m m²)			
		Elongation		200% MIN.			
	Aged	Tensile Strength		UNAGED MIN 75%(168HRS×232°C)			
		Elongation		UNAGED MIN 75%(168HRS×232°C)			
Jacket	Unaged	Tensile Strength		2500 PSI MIN.( 1.76 Kg / m m²)			
		Elongation		200% MIN.			
	Aged	Tensile Strength		UNAGED MIN.75%(168HRS×232°C)			
		Elongation		UNAGED MIN.75%(168HRS×232°C)			
Nom. Impedance				50 Ohms			
Nom. Capacitance				95.8 pF/m			
Nom. Vel. of Prop.				69.5%			
VSWR (0 – 6 GHZ)				UNDER 1.3			
Attenuation (dB/100m)	100MHz	1GHz	1.8GHz	2.4GHz	5.2GHz	6GHz	
	46	155	295	340	505	550	

AK001/210X297/1.0

PAGE : 2

EDITION : 1.2

MAKER : C.Y.CHEN

CONFIRM : S.N.WONG

APPROVAL : W.J.WANG