

# APPROVAL SHEET

**Metal Stamping Antenna**  
**2.4 ~ 2.5 GHz Working Frequency**  
**P/N: RFMTA271200NNAB001**

Customer : \_\_\_\_\_  
Customer 's Part No. : \_\_\_\_\_  
Approval No. : \_\_\_\_\_  
Issue Date : \_\_\_\_\_

Version	Date	Description	Author
V01	2015 Aug.	New Release	HWCHAN

## Antenna Specification

### ELECTRICAL CHARACTERISTICS

Item	Specification
Working Frequency Range	2.4 ~2.5 GHz
Return Loss	-10dB(Max)
VSWR	2 max.
Peak Gain	3.38 dBi
Polarization	Linear Vertical
Radiation Pattern	Directional
Impedance	50Ω

\*Note 1. Central Frequency should be defined after customers' application approval.

### MATERIAL TABLE

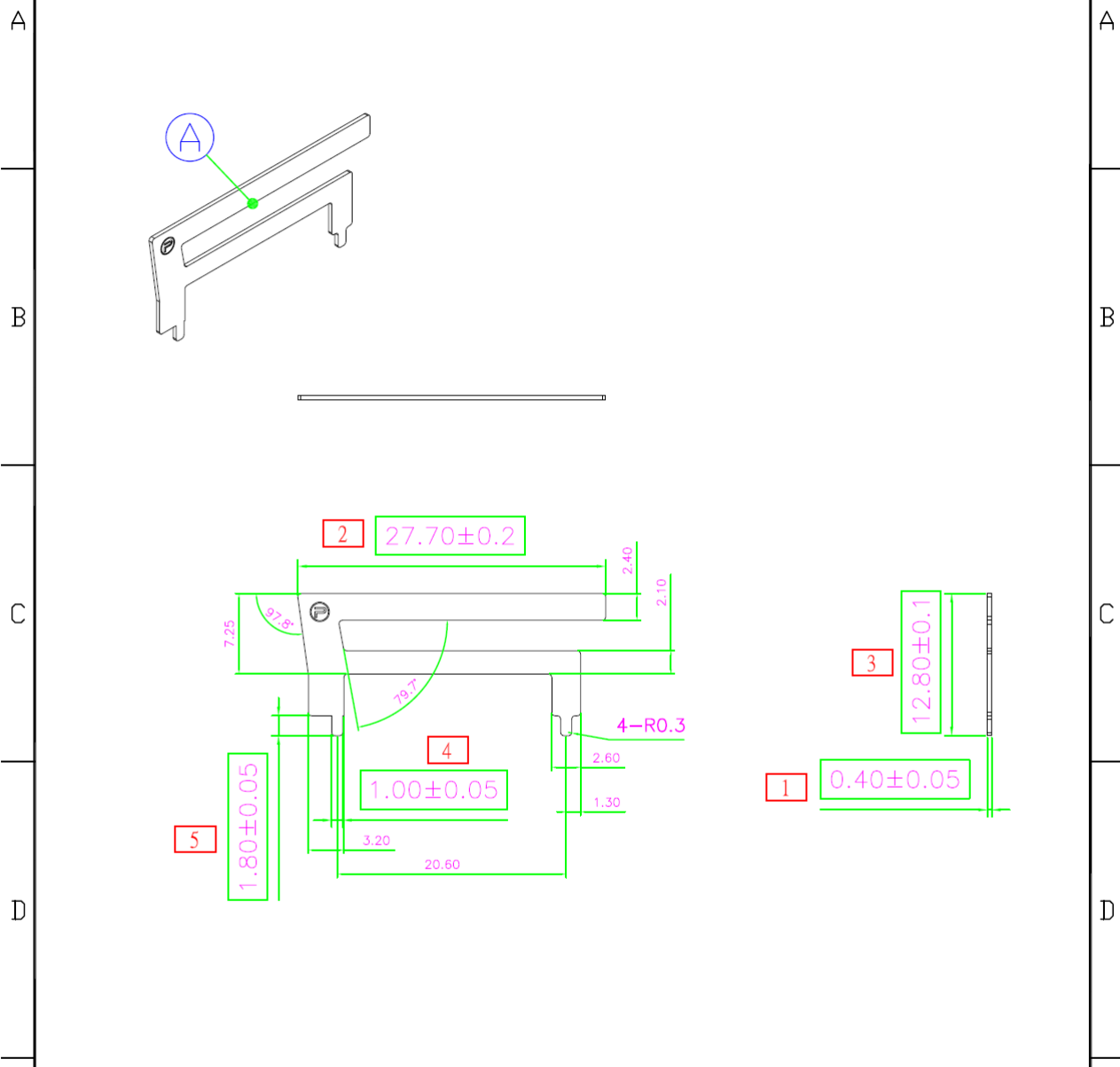
Items	Description
Antenna Material	SUS430 鍍鎳 T=0.4mm

### ORDERING RULE

RF	MTA	2712	00	N	N	A	B	0	01
Type Code	Product Code	Metal Dimension (Unit: mm)	Cable Length (unit: cm)	Connector Brand	Type of Connector	Application	Project status	Wire Diameter	Project
Walsin RF Device	MTA: Metal Antenna	Per 2 digits of length, width e.g.: 2712 Length 27.7mm, Width 12.8mm	2 digits for cable length e.g.: 00 None Cable	A: N C: MCX D: IPEX III E: IPEX IV F: IPEX A13 H: Hirose I: IPEX M: MMCX S: SMA T: TNC U: MURATA N: None	A: Reverse Female B: Reverse Male F: Female M: Male N: None	0: 0GHz 3: 3GHz 5: 5 GHz 6: 6GHz A: 2.4GHz ISM band B: GSM 900/1800 dual band G: GPS band L: 2.4/5.2/5.8 GHz tri-band N: NFC T: LTE band W: WCDMA band	B: MP T: During Test X: Pile Run	0: None 1: $\phi$ 0.81 3: $\phi$ 1.13 6: RG316 7: $\phi$ 1.37 8: RG178	01~99 series number

**DIMENSIONS**

1	2	3	4	5		
<u>ELECTRICAL</u> Frequency: 2.4 ~ 2.5 GHz		No.	DESCRIPTION	MAT'L	Finish	Q'TY
		A	Antenna	SUS430 T=0.4mm	鍍銀	1



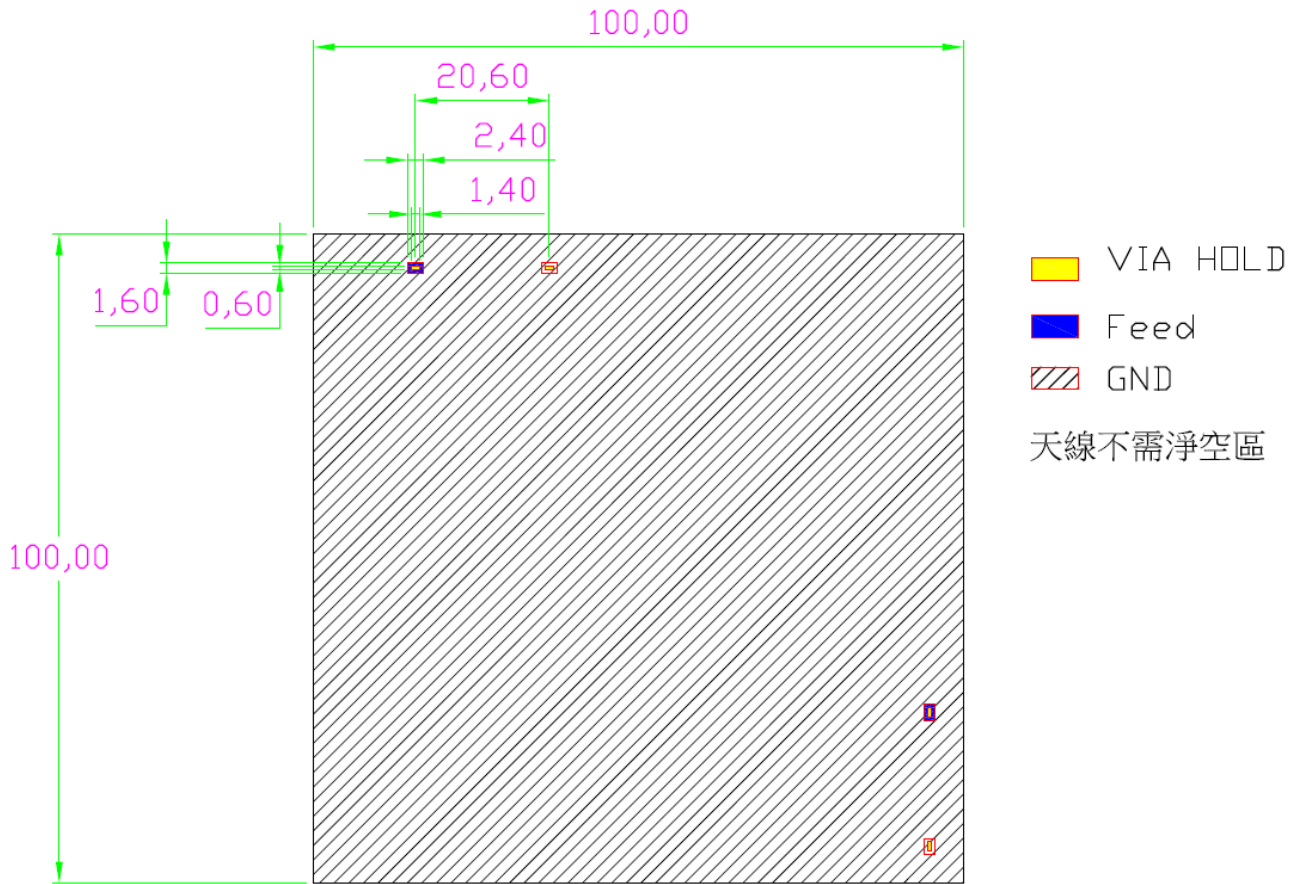
※標記□記號者, 為重點檢驗尺寸

		設計 DR.	HWCHAN	2015.08.20	品名	版本 REV.
		核准 APD.	Marco		ARTICLE	A
		容許公差 TOLERANCE			RFMTA271200NNAB001	
		6以下.....±0.2			單位 UNIT	
		6以上~30.....±0.5			比例 SCALE	
		30以上~120.....±0.8			張數 SHEET	
		120以上~315.....±1.2			1	
		315以上~1000.....±2.0			☉	
		1000以上~2000.....±3.0			mm	
					****	



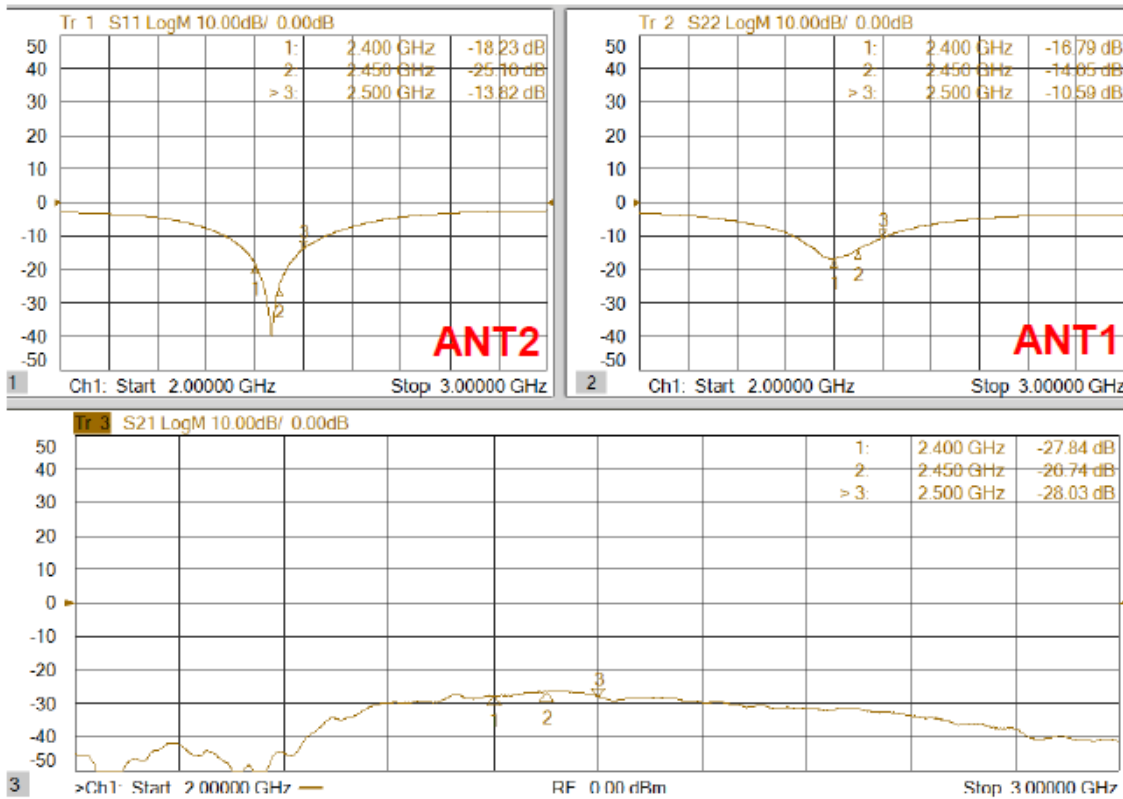
# Test Report

## PCB Layout

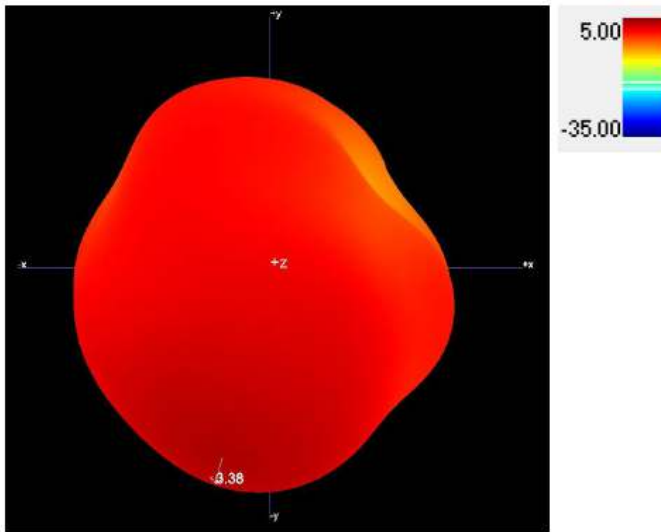


## ELECTRICAL CHARACTERISTICS

### Return Loss



## Antenna Efficiency and Peak Gain



**Maximum Efficiency at 2400 MHz : 73.9%**



**Maximum Peak Gain at 2410 MHz : 3.38dBi**

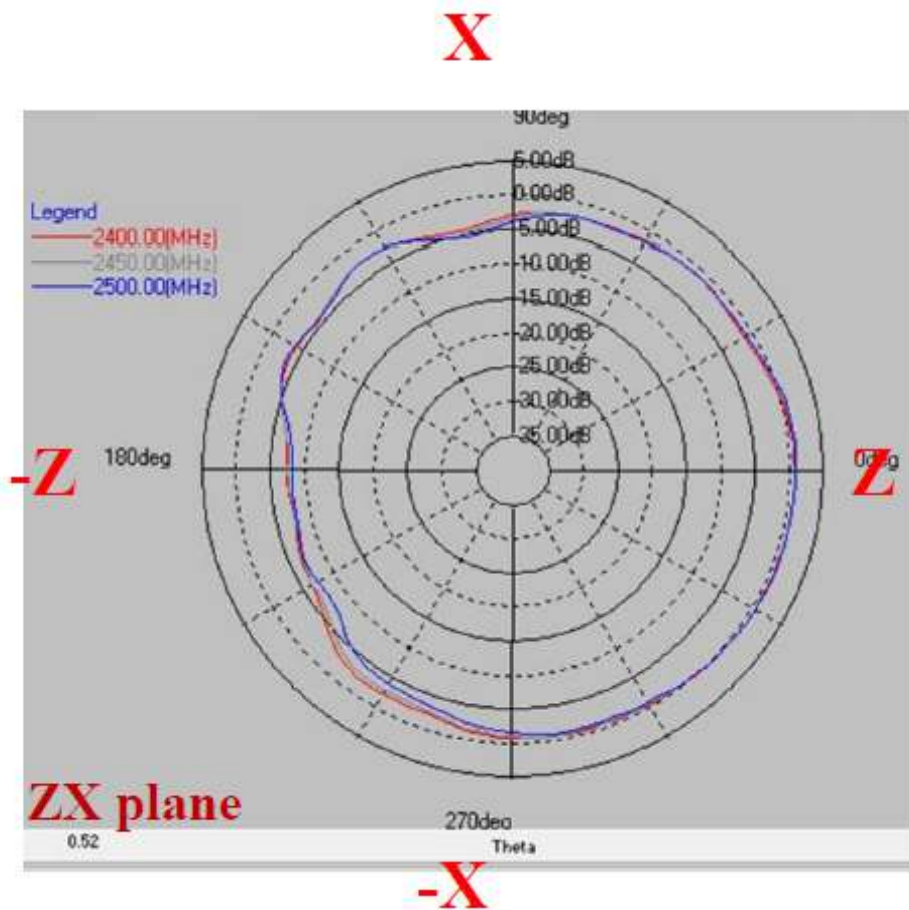
**RADIATION PATTERN**

2400~2500 MHz

X-Z Plane

Phi=0.00deg

Gain . dB



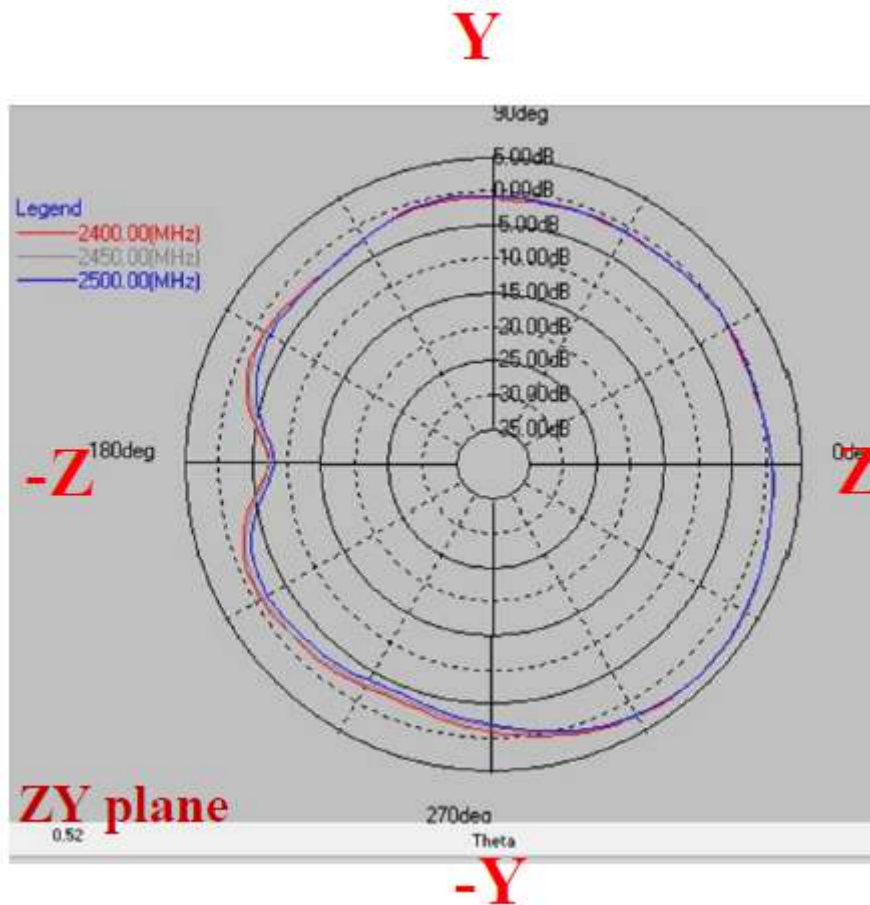
	ZX plane	
Frequency [MHz]	Max Value [dB]	Average [dB]
2400	0.91	-1.93
2450	0.83	-2.00
2500	0.99	-2.18



**Y-Z Plane**

**Phi=90.00deg**

**Gain . dB**

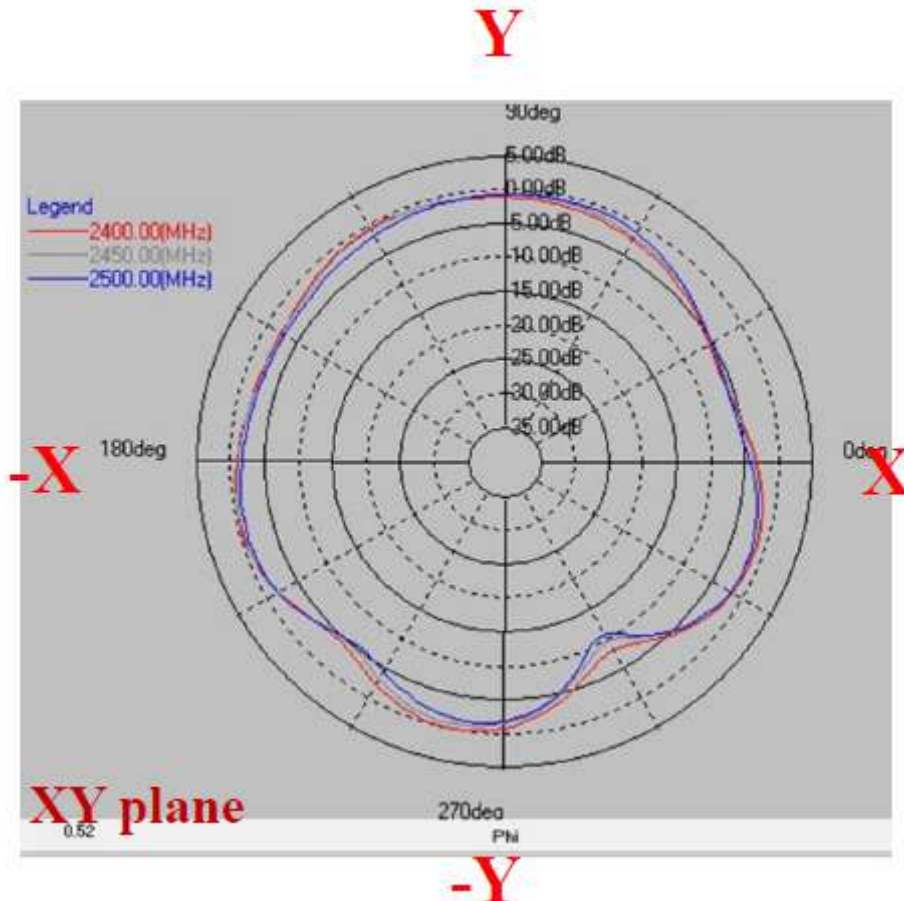


	ZY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]
2400	3.20	-0.43
2450	3.22	-0.52
2500	3.06	-0.72

**X-Y Plane**

Theta=90.00deg

Gain . dB



	XY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]
2400	-0.29	-2.30
2450	-0.50	-2.45
2500	-0.76	-2.78