

# APPROVAL SHEET

## (RoHS)

**CUSTOMER** : 海信  
**CUSTOMER'S PART NO.** :  
**DESCRIPTION** : METAL STAMPING ANTENNA ASSEMBLY  
**PART NO.** : MSA-3411-25GC1-A1-B300MM  
**DATE** :  
**AUTHORIZED BY** : *Marco Hsu*

	FULLY APPROVED	PARTIALLY APPROVED	REJECTED
SIGN			
SUGGESTION			

美磊科技股份有限公司

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## Revision History

Version	Date	Description	Author
V01	2012 December	New Release	HWCHAN

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# RF Antenna Assembly Specification

## ELECTRICAL PROPERTIES

- 1.1 Frequency Range.....2.4GHz ~2.5GHz
- 1.2 Impedance.....50 Ohm Nominal
- 1.3 VSWR.....2.4GHz~2.5GHz : 2 (Max)
- 1.4 Return Loss.....-10dB (Max)
- 1.5 Radiation.....Omni-directional
- 1.6 Gain(peak).....4.2dBi
- 1.7 Cable Loss.....-0.65dB (2.4G)
- 1.8 Polarization.....Linear Vertical
- 1.9 Admitted Power.....1W

## PHYSICAL PROPERTIES

- 2.1 Cable.....Coaxial Cable  $\phi$  1.13 (Black)
- 2.2 Antenna Material.....SUS430(鍍鎳) T=0.3mm
- 2.3 Operating Temp& Humidity.. ....-20°C~ +85°C RH 80% MAX
- 2.4 Storage Temp& Humidity.....-30°C~ +85°C RH 90% MAX
- 2.5 Double Tape .....G4000
- 2.6 Connector.....IPEX Compatible

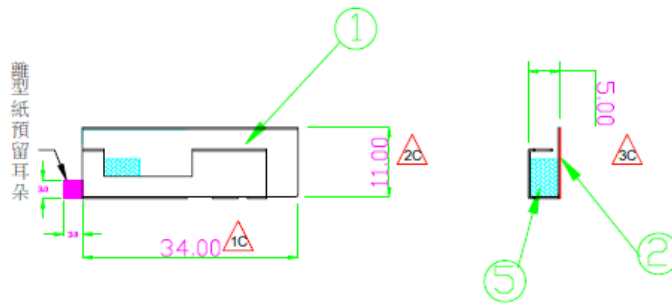
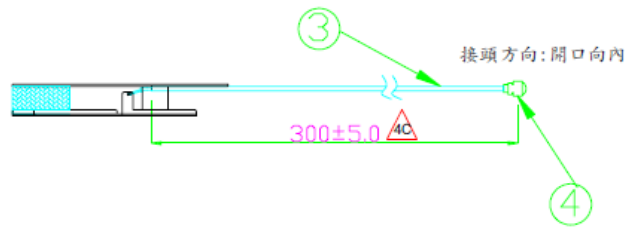
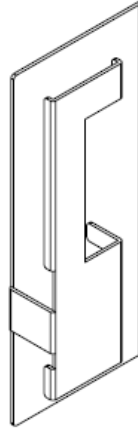


# Mechanical Specification

RoHS COMPLIANT

ELECTRICAL

Frequency : 2.4GHz/5GHz



凡標註△記號者為品管檢驗之尺寸

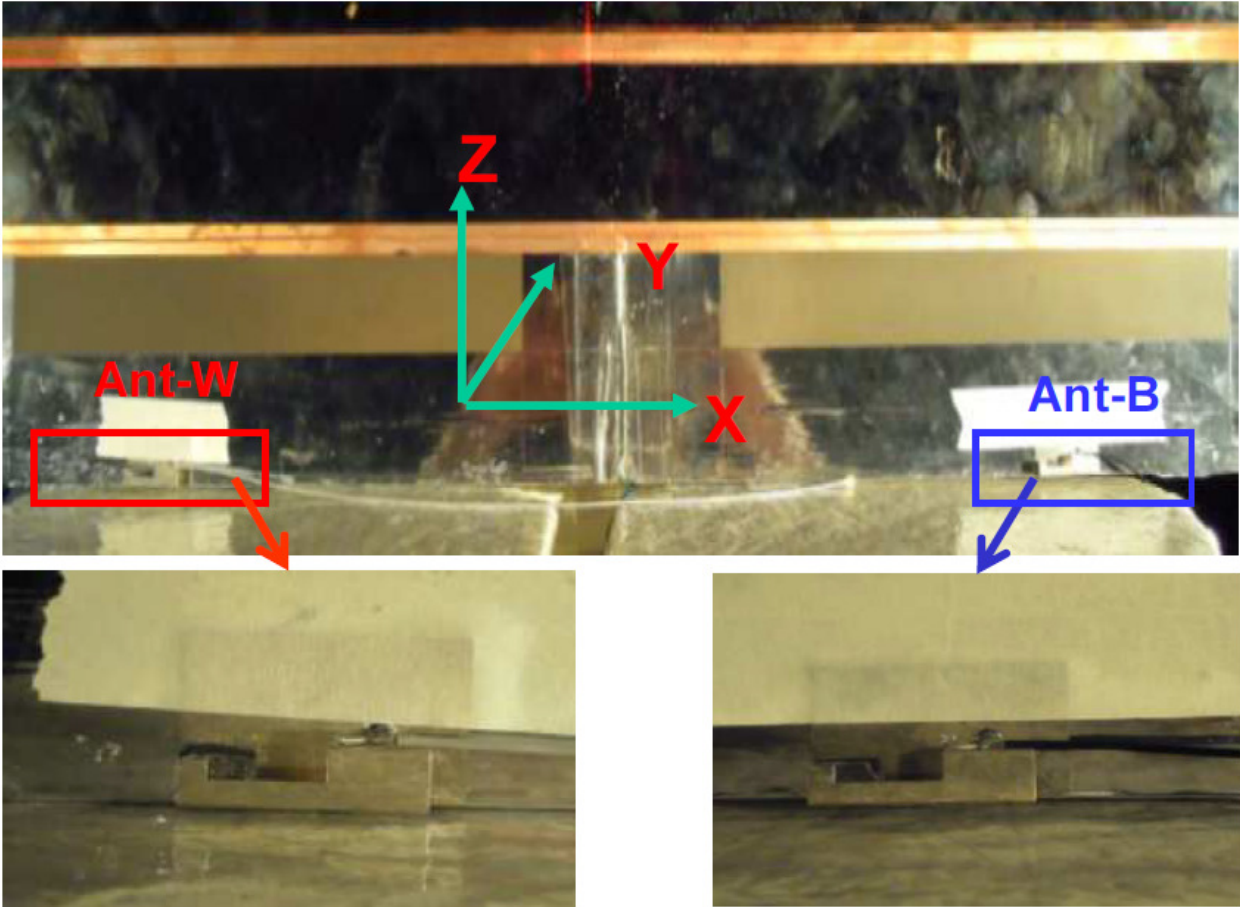
5	Sponge	EPDM L9*W6*T4.5	士豐 (Shifeng)	1	
4	Connector	IPEX Compatible	Digi Master	1	
3	Coaxial cable	Ø 1.13 Black	神宇 (Shen Yu)	1	
2	Double Tape	G4000 L34*W11	士豐 (Shifeng)	1	
1	Body	SUS430(鍍鎳) T=0.3mm	言品 (Yanpin)	1	
NO	DESCRIPTION		SUPPLIER	Q'TY	REMARK

設計 DR. HWCHAN 2012/12/10	核准 APPD. Marco 2012/12/10	容許公差 TOLERANCE .XXX ±0.1 .XX ±0.5 .X ±1.0 X ±3.0 ANG ±5	品名 ARTICLE <b>MSA-3411-25GC1-A1-B300MM</b>
版本說明 REVISION NOTE			
<b>MAGLAYERS</b>			單位 UNIT mm 比例 SCALE **** 張數 SHEET 1 版本 REV. A



# Test Report

## Experimental Setup



# ELECTRICAL CHARACTERISTICS

P/NO: MSA-3411-25GC1-A1

Spec: 2.4 GHz ~2.5GHz

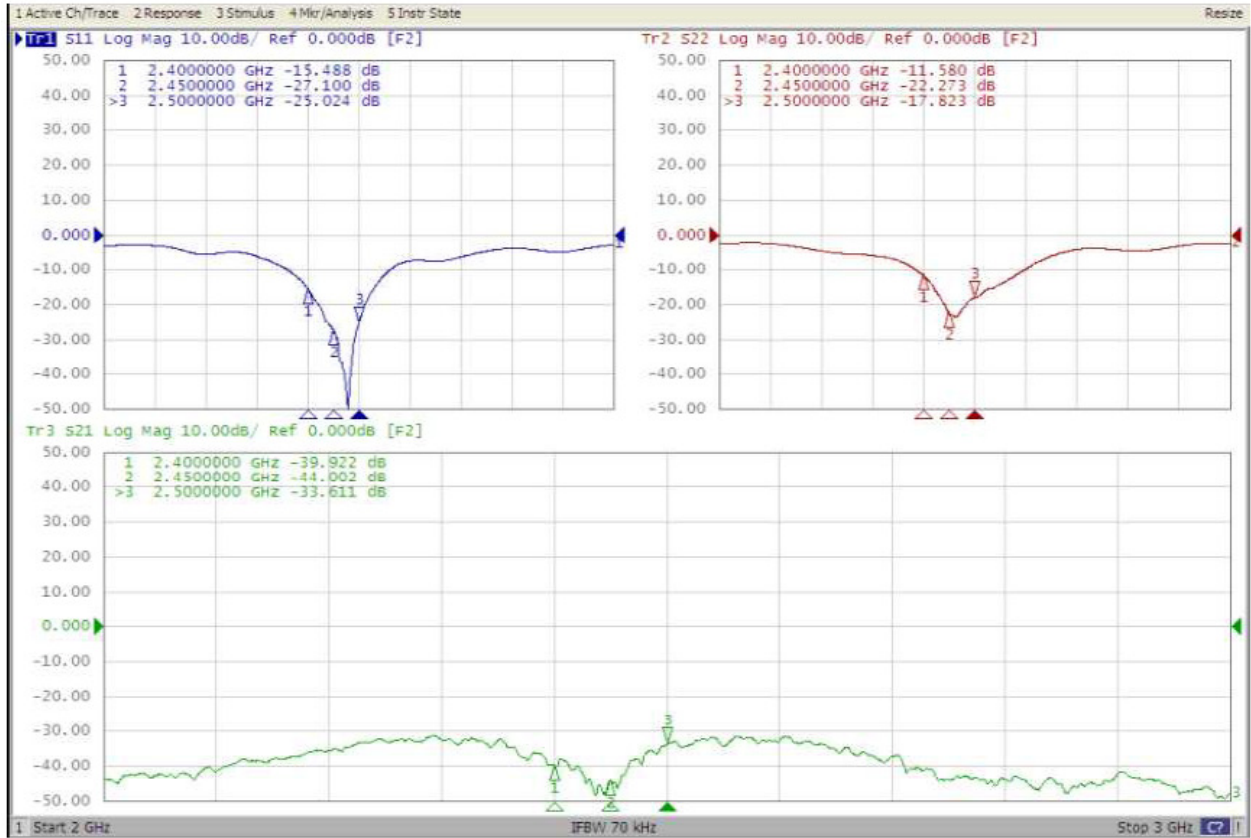
S33

Return Loss

S11 : Ant-B

S22:Ant-W

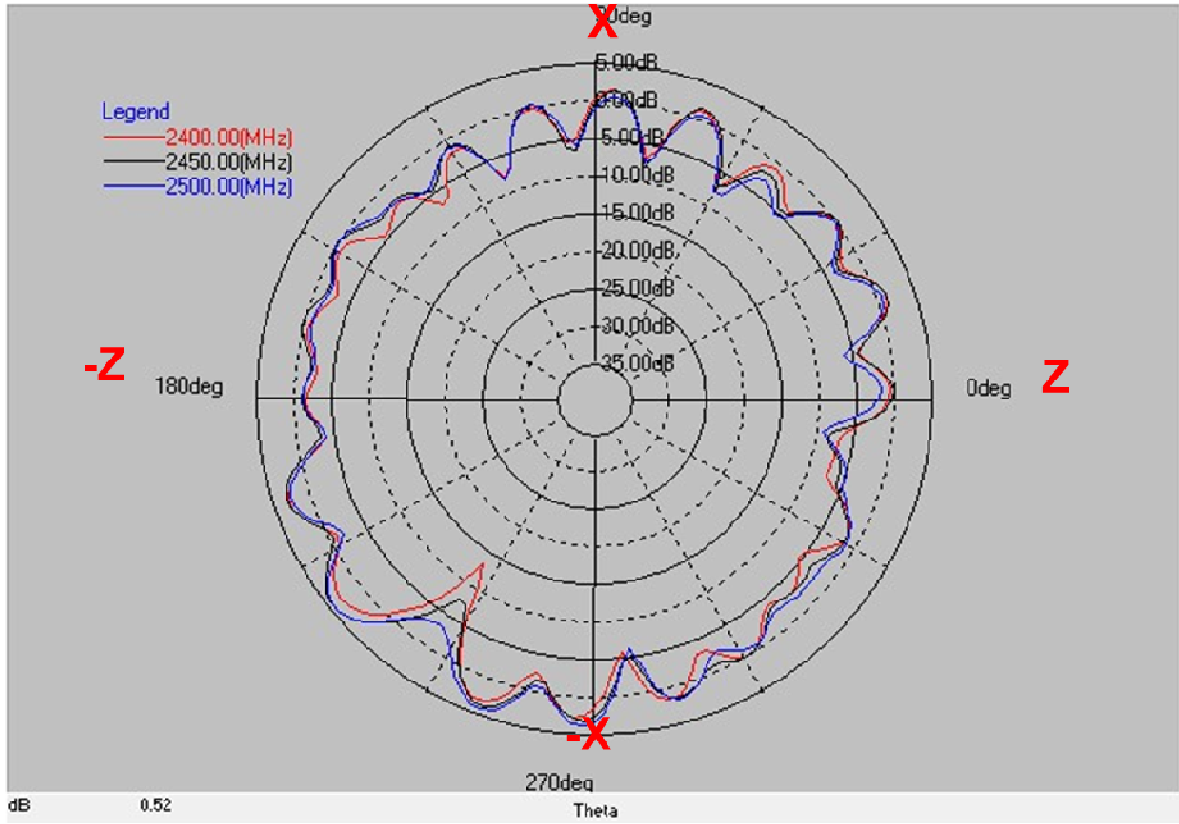
S21:Isolation



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**(ANT-B)**

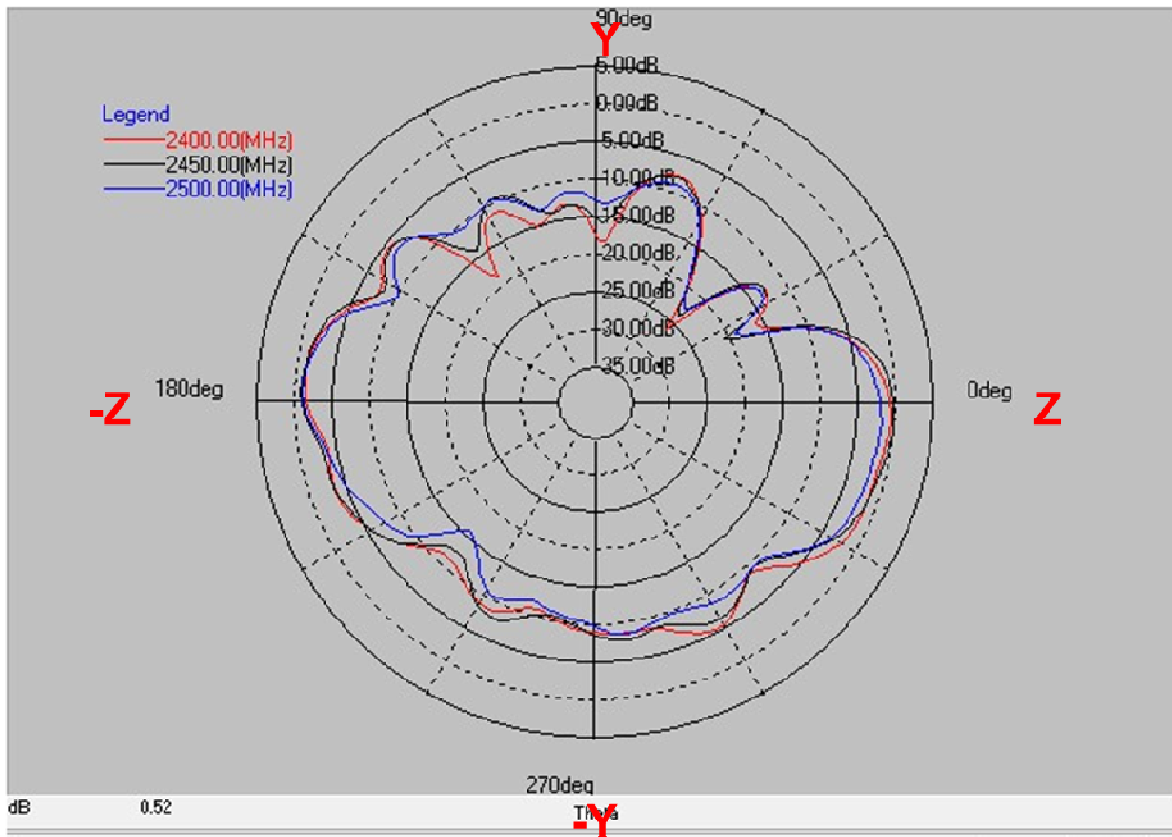
Frequency(MHz) : 2400~2500 X- Z Plane



Layer	Max value	Min value	Average
2400(MHz)	3.10 dB	-13.5 dB	-1.29 dB
2450(MHz)	4.1 dB	-8.61 dB	-0.75 dB
2500(MHz)	4.2 dB	-9.28 dB	-0.91 dB

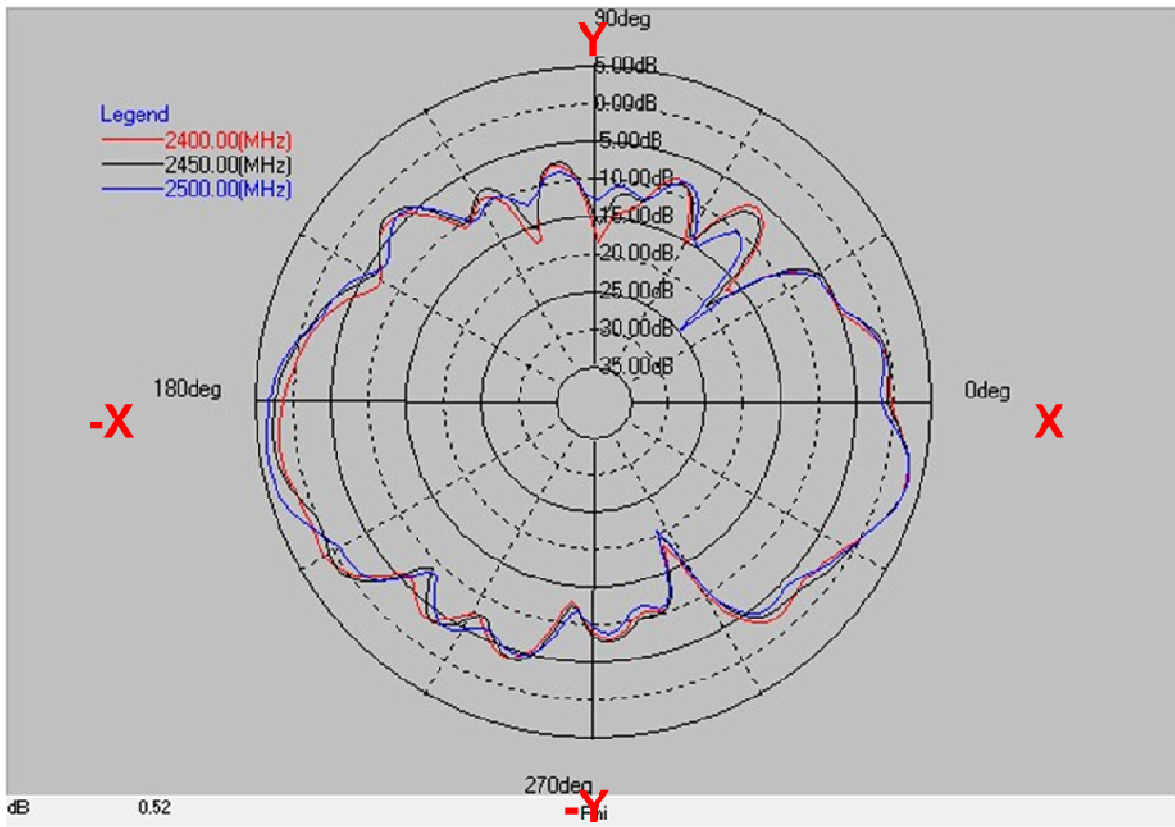


Frequency(MHz) : 2400~2500 Y-Z Plane



Layer	Max value	Min value	Average
2400(MHz)	-0.48 dB	-26.41 dB	-5.99 dB
2450(MHz)	-0.03 dB	-23.98 dB	-5.80 dB
2500(MHz)	-0.98 dB	-22.82 dB	-6.79 dB

Frequency(MHz) : 2400~2500 X-Y Plane



Layer	Max value	Min value	Average
2400(MHz)	3.19 dB	-18.76 dB	-2.91 dB
2450(MHz)	3.28 dB	-20.08 dB	-2.66 dB
2500(MHz)	4.05 dB	-25.19 dB	-2.56 dB

