

# APPROVAL SHEET (RoHS)

**CUSTOMER** : Laird  
**CUSTOMER'S PART NO.** :  
**DESCRIPTION** : RF ANTENNA ASSEMBLY  
**PART NO.** : EDA-8709-2G4C1-B27-CY  
**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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**MAG.LAYERS**

EDA-8709-2G4C1-B27\_V01 Dec. 2012

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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 (Max)
- 1.4 Return Loss..... -10dB (Max)
- 1.5 Radiation..... Omni-directional (Only Antenna)
- 1.6 Gain(peak)..... 2.0dBi (Only Antenna)
- 1.7 Cable Loss..... 0.7dB
- 1.8 Polarization..... Linear Vertical
- 1.9 Admitted Power..... 1W

## PHYSICAL PROPERTIES

- 2.1 Cable..... § 1.13 Black
- 2.2 Antenna Cover.....TPEE
- 2.3 Antenna Base..... PC/PBT
- 2.4 Operating Temp.....-25°C ~ +75°C
- 2.5 Storage Temp.....-30°C ~ +75°C
- 2.6 Color..... Black
- 2.7 Connector..... IPEX Compatible(MHF4)



# Mechanical Specification

LTR	DESCRIPTION	DATE	REQ. BY
△	NEW Release	12/05/12'	HWCHAN

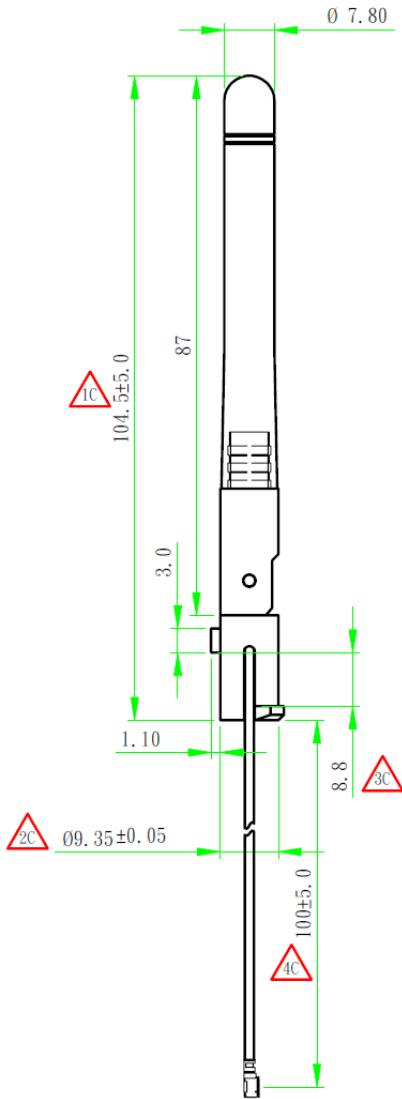
RoHS COMPLIANT

## MECHANICAL

Antenna Cover : TPEE  
 Antenna Base : PC/PBT  
 Color: Black

## ELECTRICAL

Frequency : 2.4GHz  
 Cable : Coaxial Cable 1.13(Black)  
 Connector : IPEX Compatible(MHF4)



※凡標記△記號者, 為品管檢驗之尺寸

設計 DR. HWCHAN 2012/12/05	核准 APPD. Marco 2012/12/05	容許公差 TOLERANCE .XXX ±0.20 .XX ±0.35 .X ±0.50 X ±1.00 ANG ±5	品名 ARTICLE EDA-8709-2G4C1-B27
版本說明 REVISION NOTE			
<b>MAGLAYERS</b>			單位 UNIT mm
			比例 SCALE ****
			張數 SHEET 1
			版本 REV. A



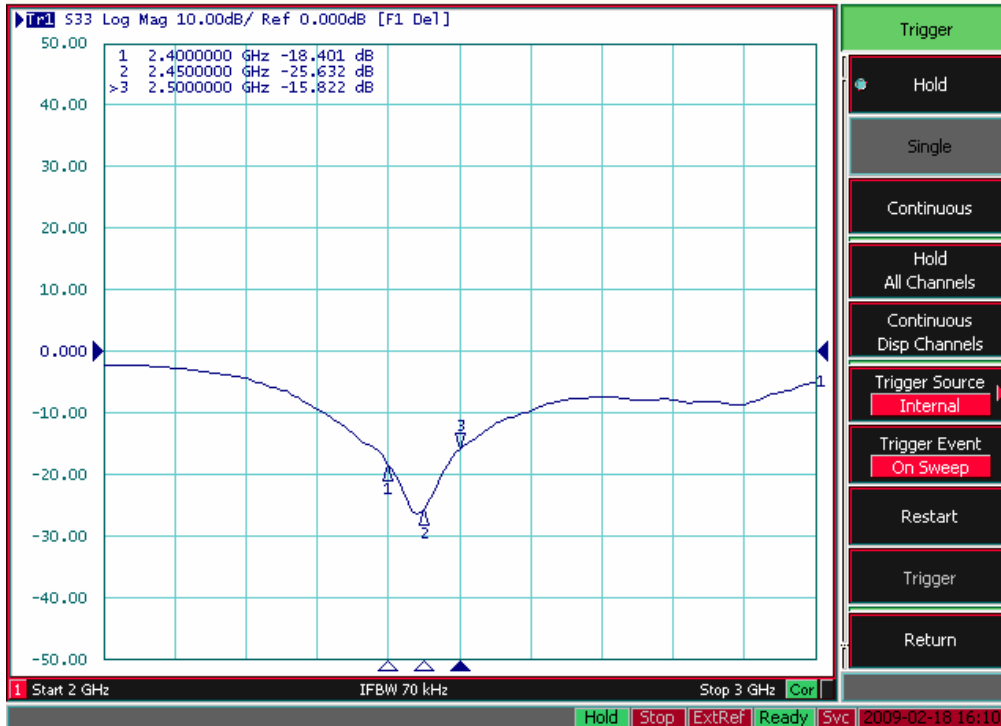
# Test Report

## ELECTRICAL CHARACTERISTICS

P/NO: EDA-8709-2G4C1-B27

Spec: 2.4 GHz ~2.5GHz

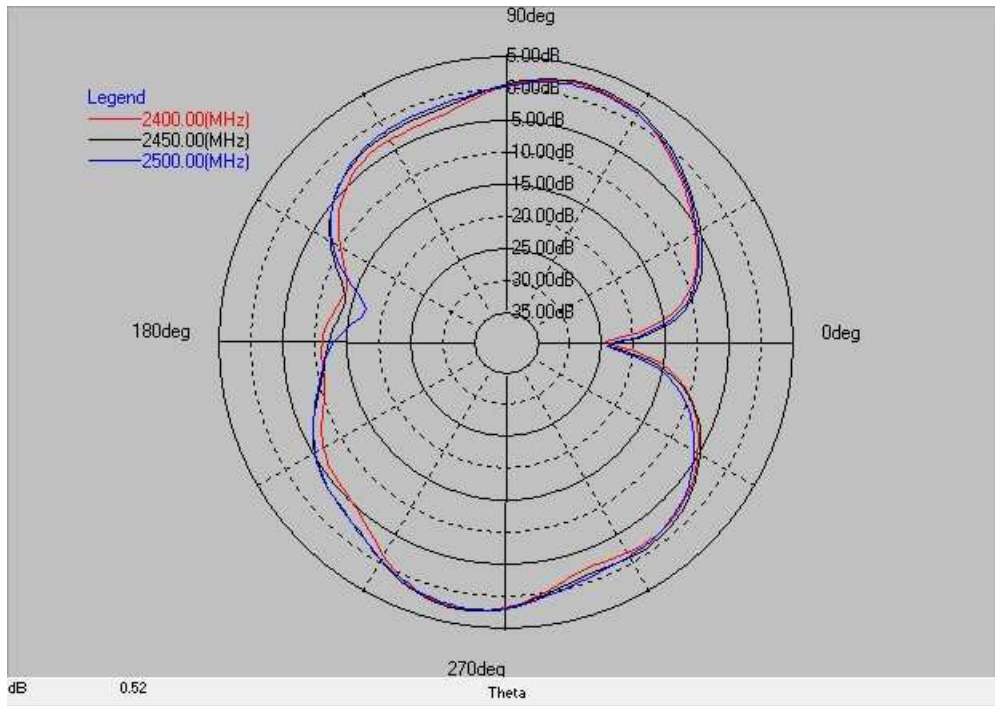
S11



### VSWR

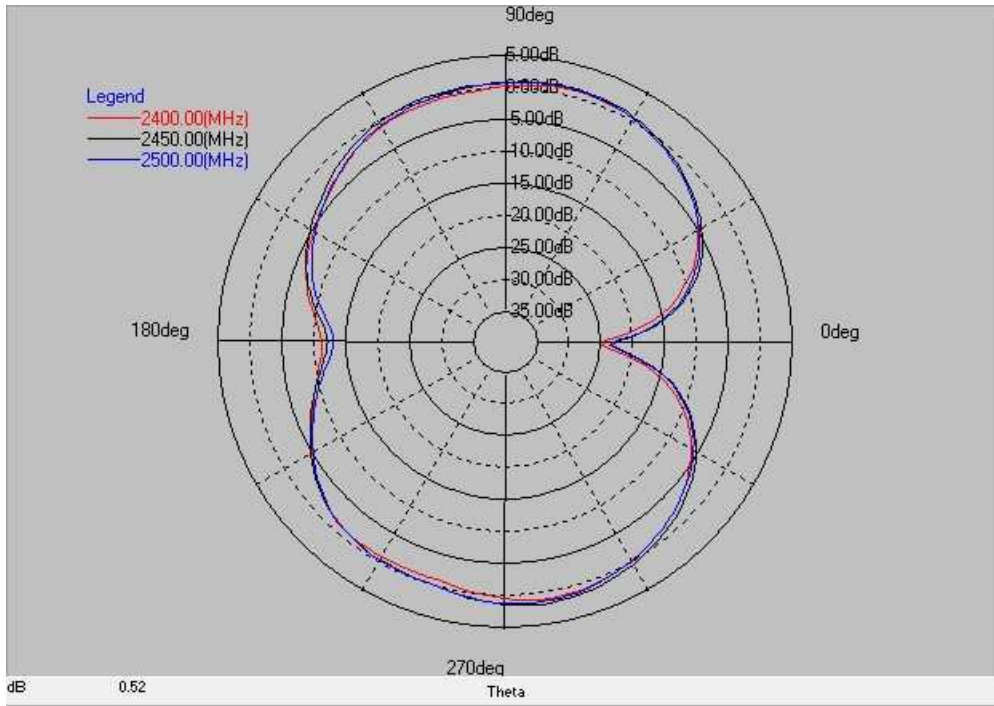


Frequency(MHz) : 2400~2500. Pattern Field : X-Z plane



Layer	Max value	Min value	Average
2400(MHz)	2.05 dB	-24.34 dB	-2.61 dB
2450(MHz)	2.25 dB	-23.80 dB	-2.07 dB
2500(MHz)	2.16 dB	-24.13 dB	-2.29 dB

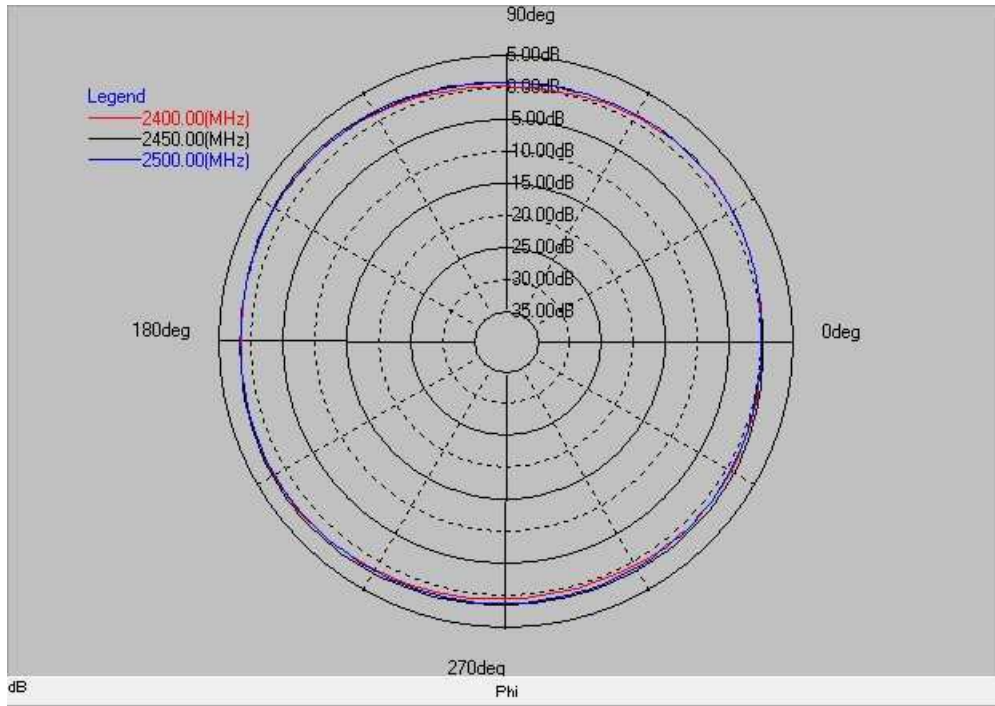
Frequency(MHz) : 2400~2500. Pattern Field : Y-Z plane



Layer	Max value	Min value	Average
2400(MHz)	0.89 dB	-24.94 dB	-2.45 dB
2450(MHz)	1.59 dB	-23.09 dB	-1.85 dB
2500(MHz)	1.30 dB	-23.44 dB	-2.16 dB



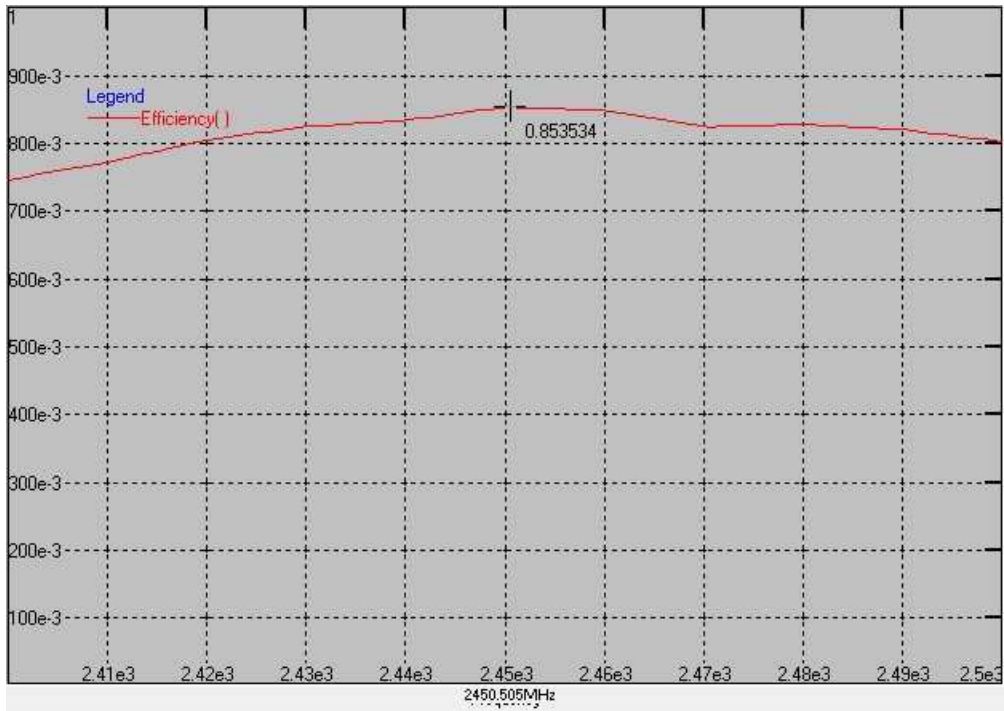
Frequency(MHz) : 2400~2500. Pattern Field : X-Y plane



Layer	Max value	Min value	Average
2400(MHz)	2.12 dB	-0.06 dB	1.02 dB
2450(MHz)	2.32 dB	0.34 dB	1.40 dB
2500(MHz)	1.91 dB	0.16 dB	1.15 dB



## Antenna Efficiency



Maximum Efficiency At 2.4~2.5GHz: 85.35%

