

# APPROVAL SHEET

## **PCB ANTENNA**

### **2.4 GHz Band Working Frequency**

### **Halogens Free Product**

### **P/N: RFPCA460611IMAB301**

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

\*Contents in this sheet are subject to change without prior notice.

Version	Date	Description	Author
V01	2015 Mar.	New Release	HWCHAN

### ELECTRICAL CHARACTERISTICS

Item	Specification
Frequency Range	2.4 ~ 2.5 GHz
Impedance	50 Ohm Nominal
Return Loss	-10 dB (Max)
Peak Gain	3.85 dBi
VSWR	2.0 (Max)
Radiation	Omni-directional
Polarization	Linear Vertical
Admitted Power	1W

\*note-1: Electrical characteristics will depend on customer's final application.

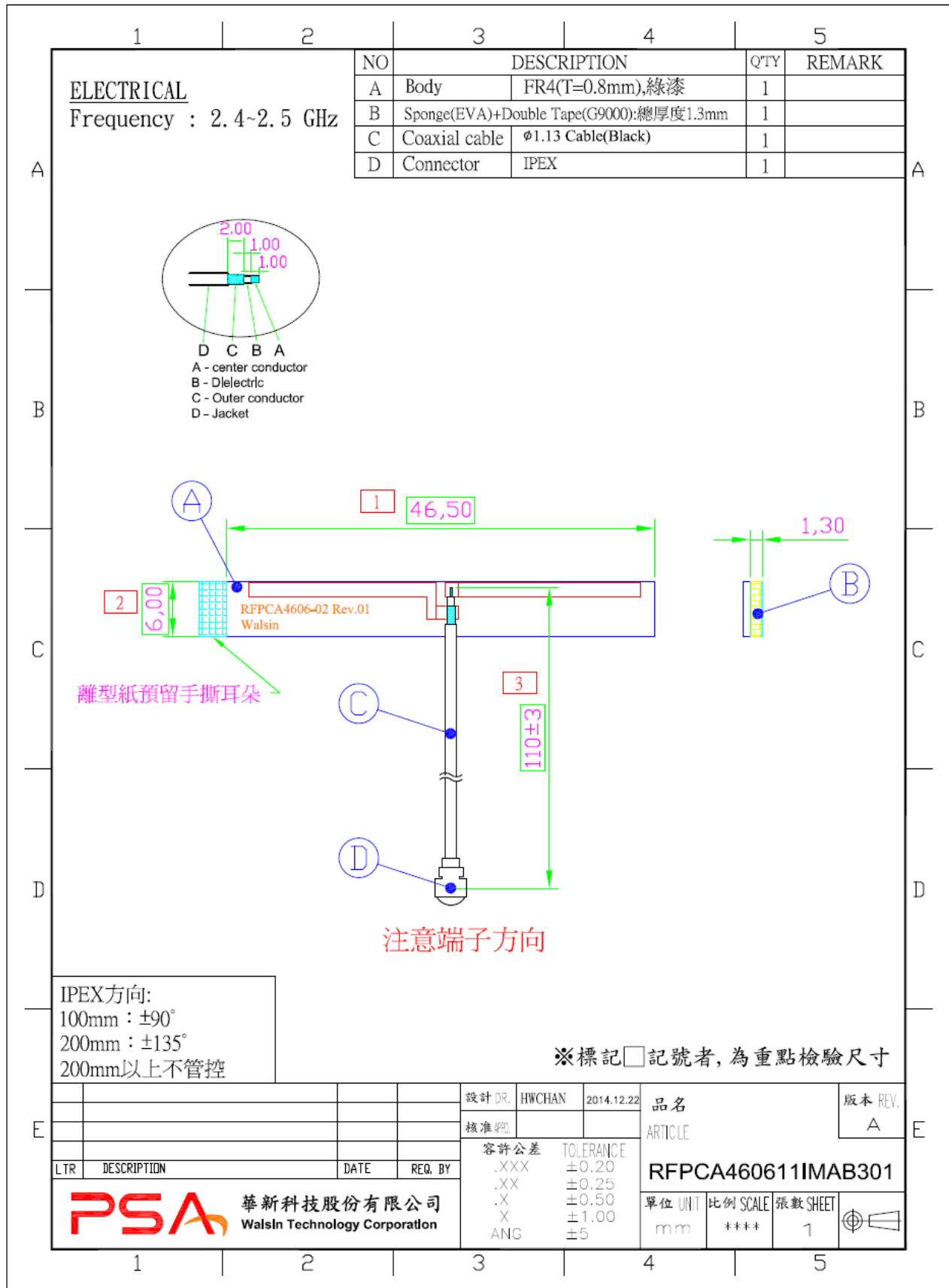
### MATERIAL TABLE

Items	Description
Cable	∅ 1.13(Black)
Connector	IPEX
FPC Antenna	FR4(綠漆板) T=0.8mm
Sponge+Double Tape	EVA+G9000

### ORDERING RULE

RF	PCA	4606	11	I	M	A	B	3	01
Type Code	Product Code	PCB Dimension (Unit: mm)	Cable Length (unit: cm)	Connector Brand	Type of Connector	Application	Project status	Wire Diameter	Project
Walsin RF Device	PCA: PCB Antenna	Per 2 digits of length, width  e.g.: 4606 Length 46.5mm, Width 6.0mm	2 digits for cable length  e.g.: 11 Cable Length:11cm	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: 5GHz 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:Durin g Test X: Pile Run	0:None 1:∅ 0.81 3:∅ 1.13 6:RG316 7:∅ 1.37 8:RG178	01~99 series number

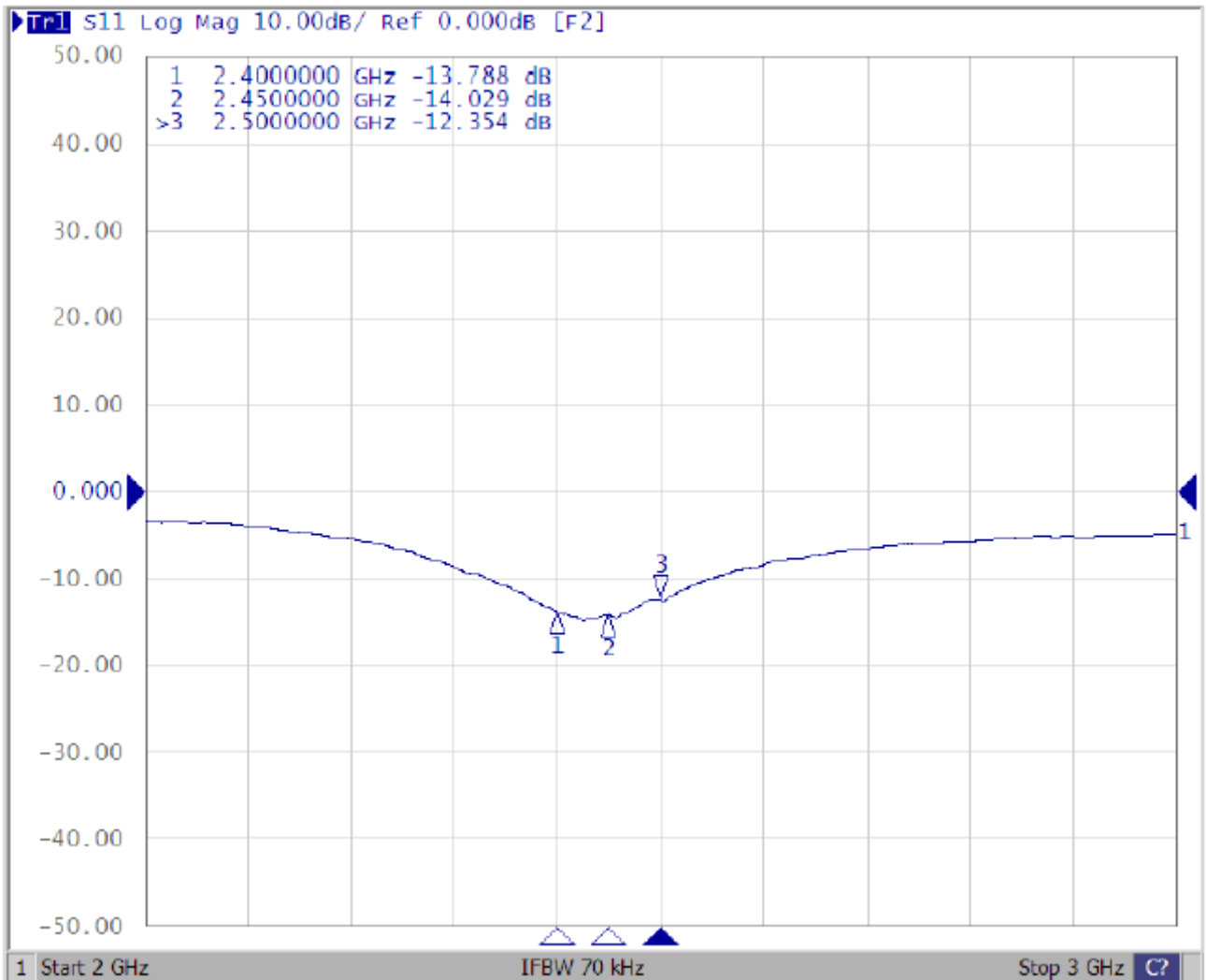
Appendix A: Dimensions



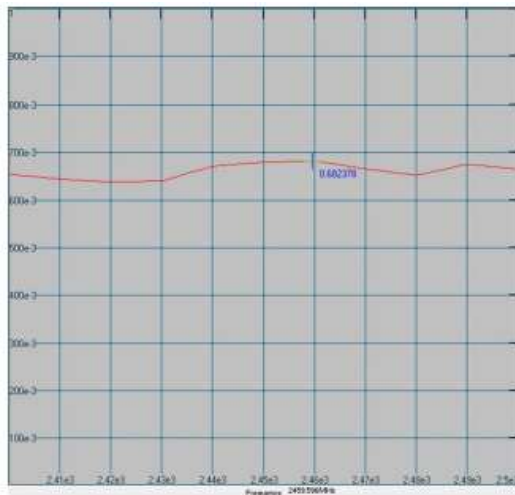
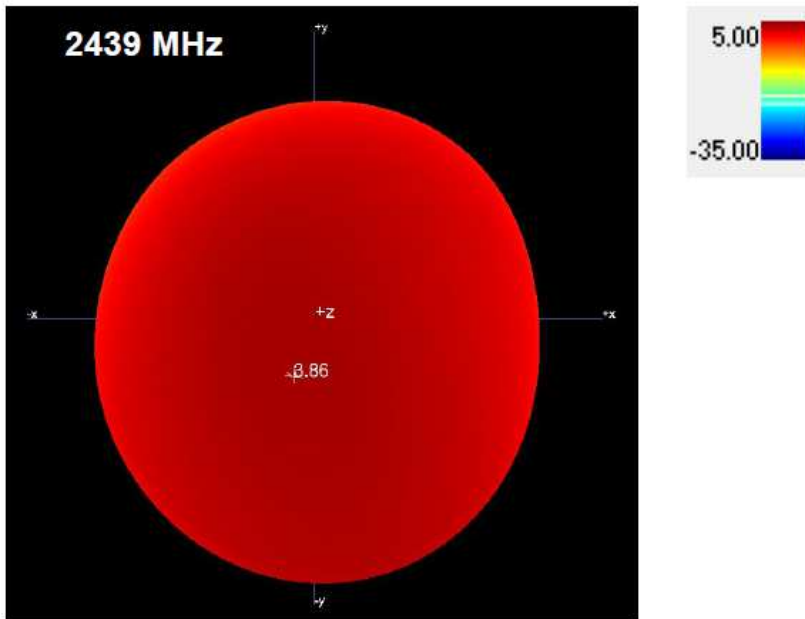
# Test Report

## ELECTRICAL CHARACTERISTICS

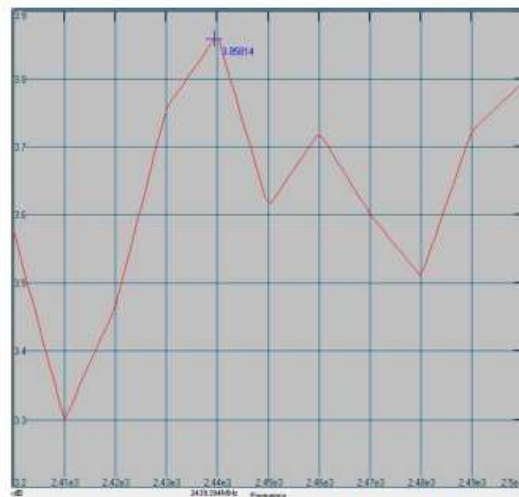
### Return Loss



**Antenna Efficiency & Peak Gain**  
2400~2500 MHz



**Maximum Efficiency at 2459 MHz : 68.2 %**



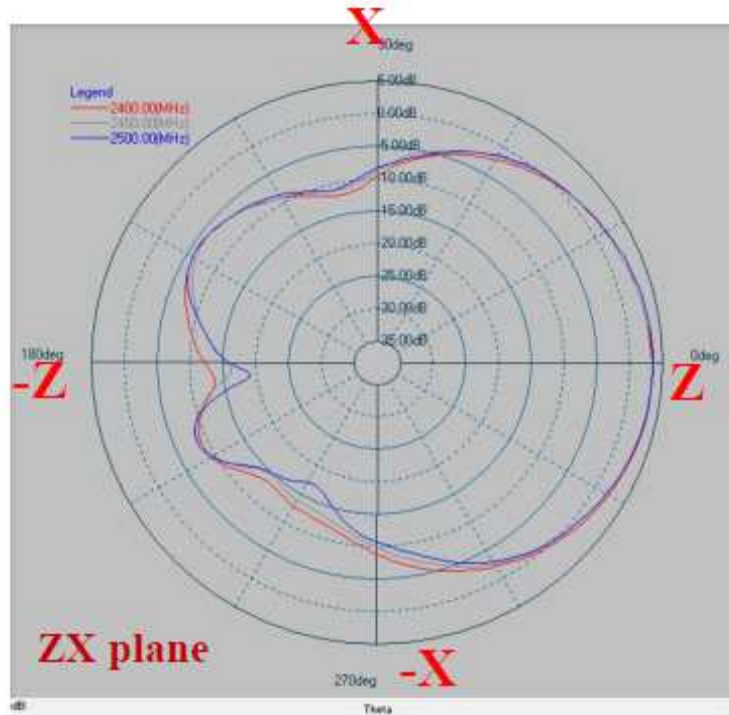
**Maximum Peak Gain at 2439 MHz : 3.85dBi**

## RADIATION PATTERN

2400~2500 MHz

Phi=0.00deg

Gain . dB

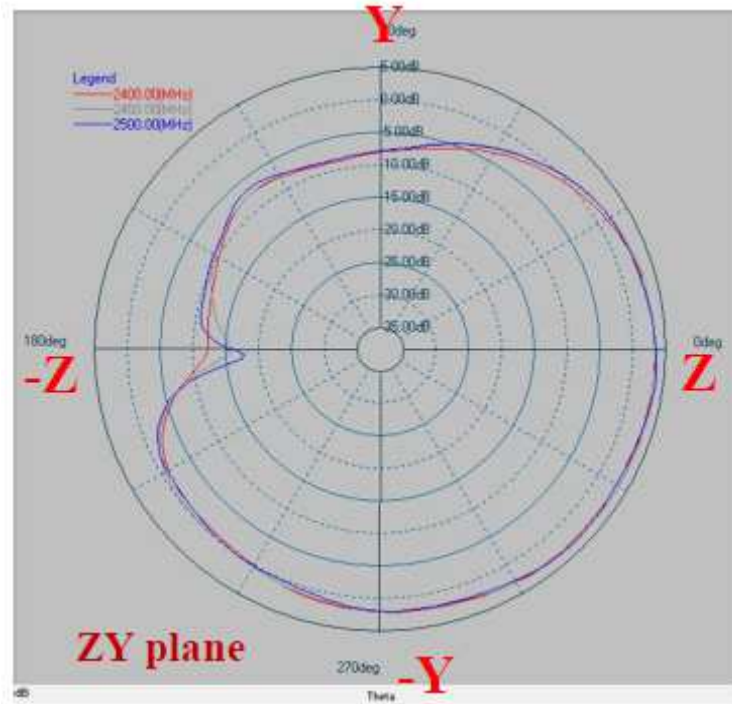


	ZX plane	
Frequency [MHz]	Max Value [dB]	Average [dB]
<b>2400</b>	<b>3.52</b>	<b>-2.13</b>
<b>2450</b>	<b>3.42</b>	<b>-2.24</b>
<b>2500</b>	<b>3.62</b>	<b>-2.18</b>

2400~2500 MHz

Phi=90.00deg

Gain . dB



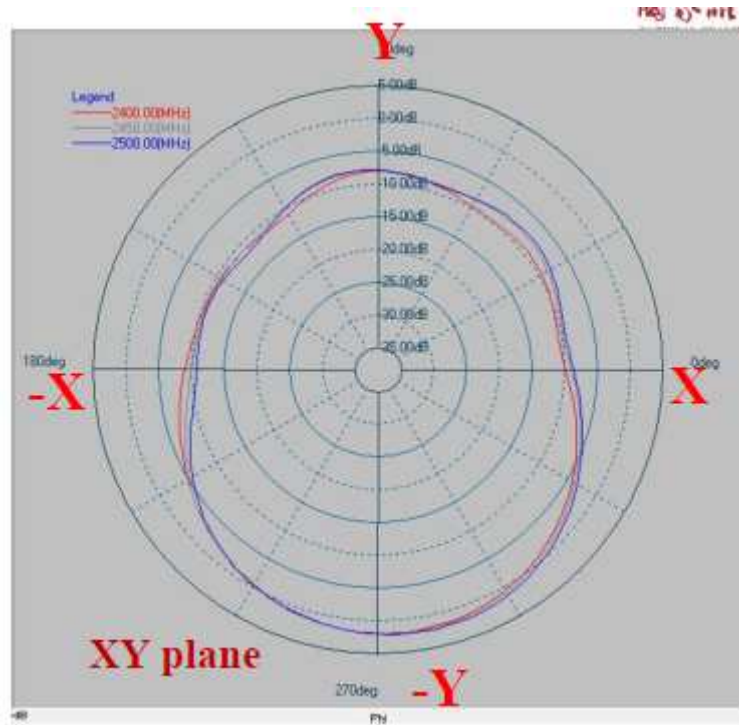
	ZY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]
<b>2400</b>	<b>3.53</b>	<b>-0.10</b>
<b>2450</b>	<b>3.61</b>	<b>0.12</b>
<b>2500</b>	<b>3.79</b>	<b>-0.01</b>



2400~2500 MHz












Theta=90.00deg

Gain . dB



	XY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]
2400	1.83	-3.81
2450	1.91	-3.62
2500	2.10	-3.52

# Packaging

華新科技股份有限公司						
RFPCA460611IMAB301製品工程表			頁次： 4 之 3			
			規章編號：	版次：A版		
			制修訂日期：2015/1/5			
<b>產品包裝圖示：</b>						
圖一						
	⇒		⇒			
單pcs產品		PE袋		每10pcs一扎，每PE袋放10扎，PE袋需封口		
圖二						
	⇒		⇒			
珍珠棉		外箱		珍珠棉放入外箱		
圖三						
	⇒		⇒		⇒	
<b>產品包裝規範：</b>						
1.將每10pcs產品使用珍珠棉將IPEX端用白色橡皮筋包扎,然後裝入PE袋內，每PE袋裝10扎，每PE袋100pcs，PE袋需封口，如圖示（一）						
2.將珍珠棉放入外箱中（如圖示二）						
3.將裝好的成品(如圖示三)放入外箱中，每箱放2000pcs產品，上下各放1片珍珠棉，將包裝好的外箱貼標籤，標籤需貼到最小包裝。						
製造標籤圖示：實物標籤內容僅作參考 具體內容以出貨料號為準 (NO 1): Spec desc.						
			(NO 2): 料號 批號 數量(PN & LOT & QTY)			
			(NO 3): 盤點條碼(Inventory check barcode)			
			(NO 4): 列印時間-總張數(print system time-total piece this print)			
			(NO 5): 表示 BULK LOT			
			(NO 6):表示該張標籤流水序號			
核准：	何耀輝	審核：	袁蕊蕊	制定：	印芸	