

# APPROVAL SHEET

## **PCB ANTENNA**

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

### **Halogens Free Product**

### **P/N: RFPCA331630IMAB301**

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 Oct.	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	3.96 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.

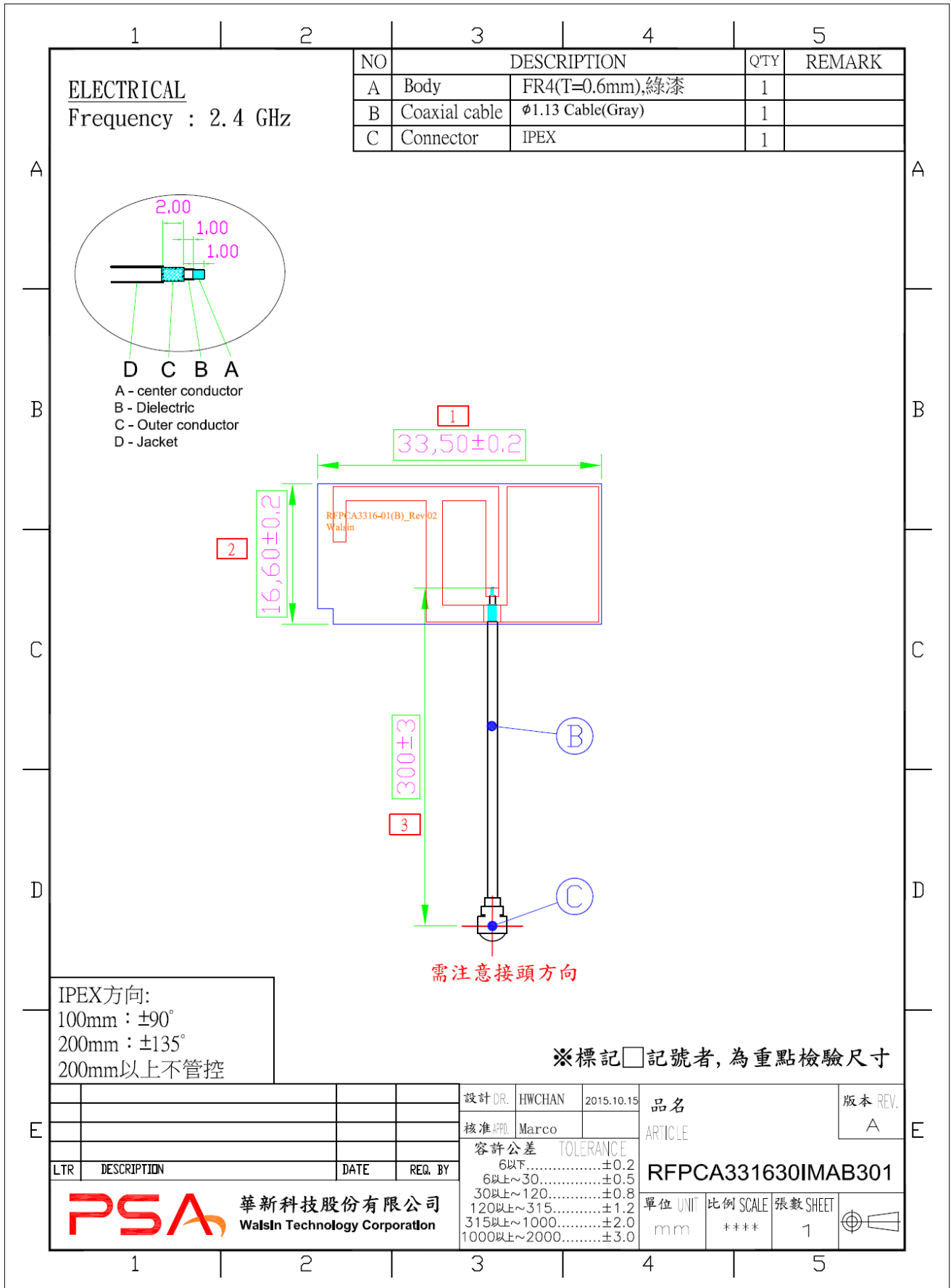
**MATERIAL TABLE**

Items	Description
Cable	∅ 1.13(Gray)
FPC Antenna	FR4(綠漆板) T=0.6mm
Connector	IPEX

**ORDERING RULE**

RF	PCA	3316	30	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.:3316 Length 33.5mm, Width 16.6mm	2 digits for cable length e.g.:30 Cable Length:30cm	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

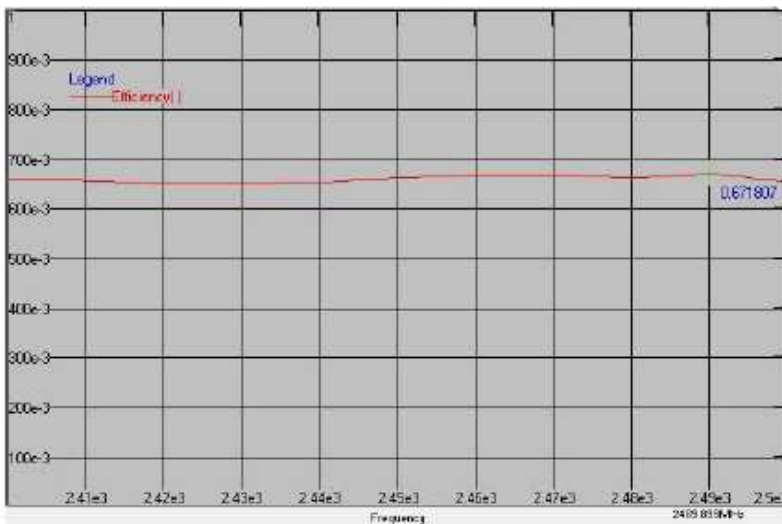
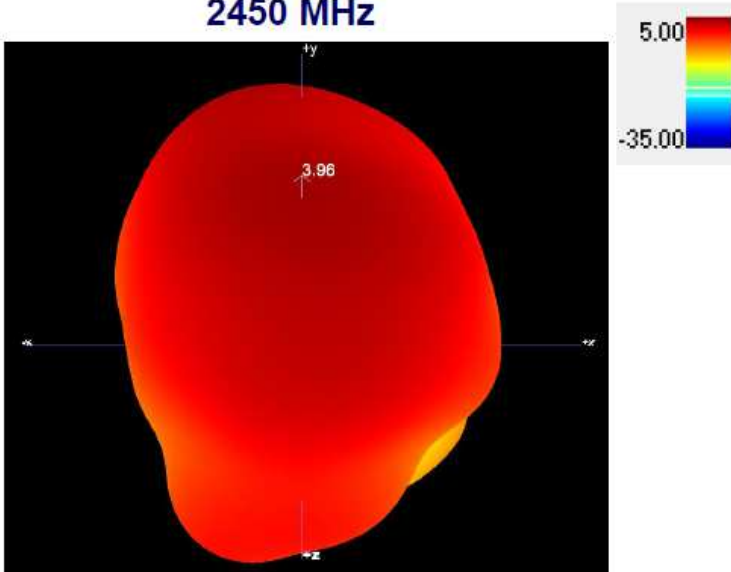
## ELECTRICAL CHARACTERISTICS

### Return Loss

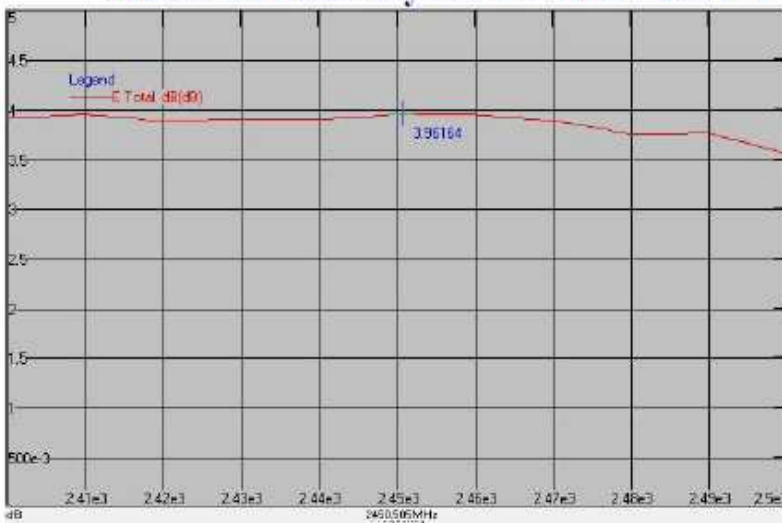


## ■ Antenna Efficiency & Peak Gain

2450 MHz



**Maximum Efficiency at 2490 MHz : 67.18%**



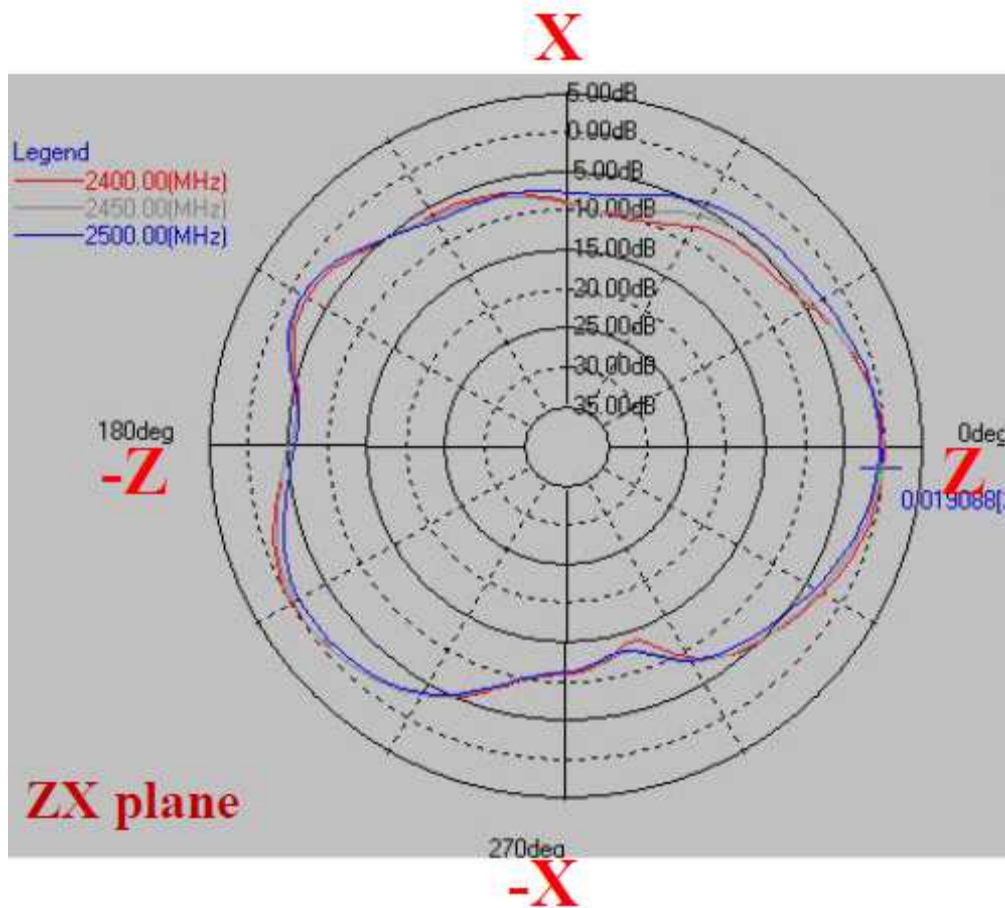
**Maximum Peak Gain at 2450 MHz : 3.96 dBi**

# RADIATION PATTERN

2400~2500 MHz

Phi=0.00deg

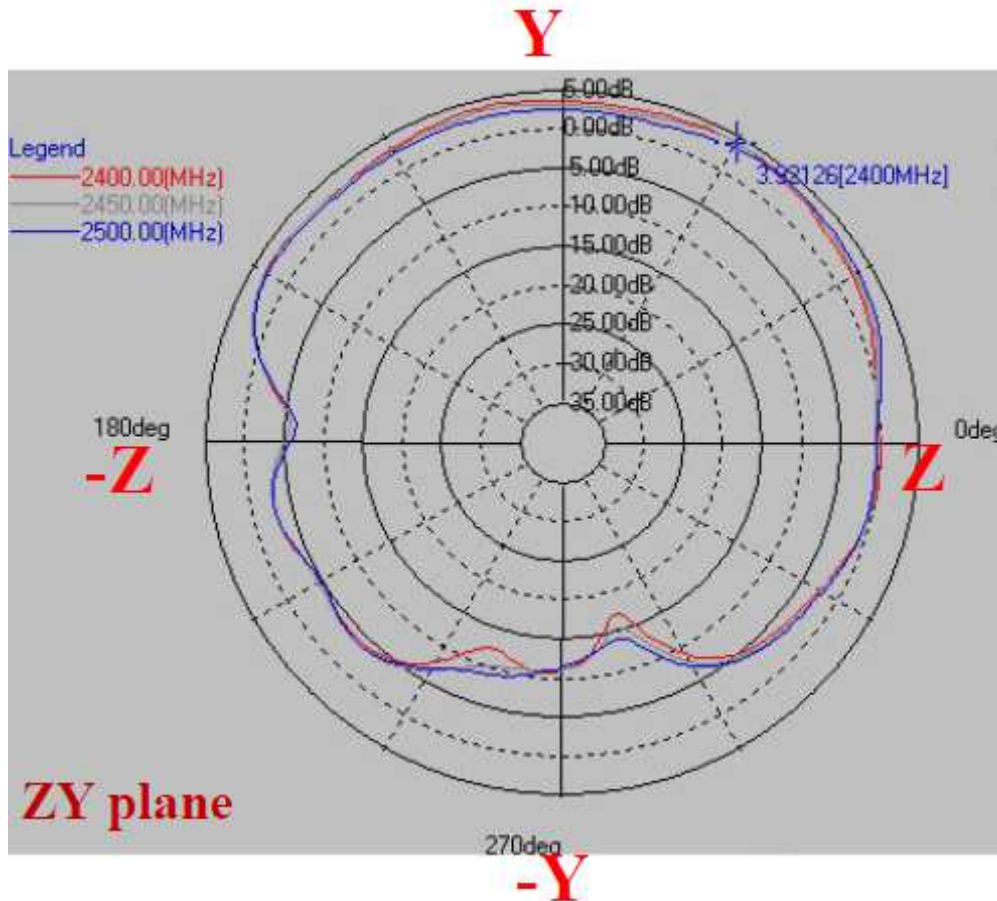
Gain . dB



	ZX plane	
Frequency [MHz]	Max Value [dB]	Average [dB]
2400	0.02	-4.00
2450	-0.39	-4.02
2500	-0.42	-4.02

Phi=90.00deg

Gain . dB

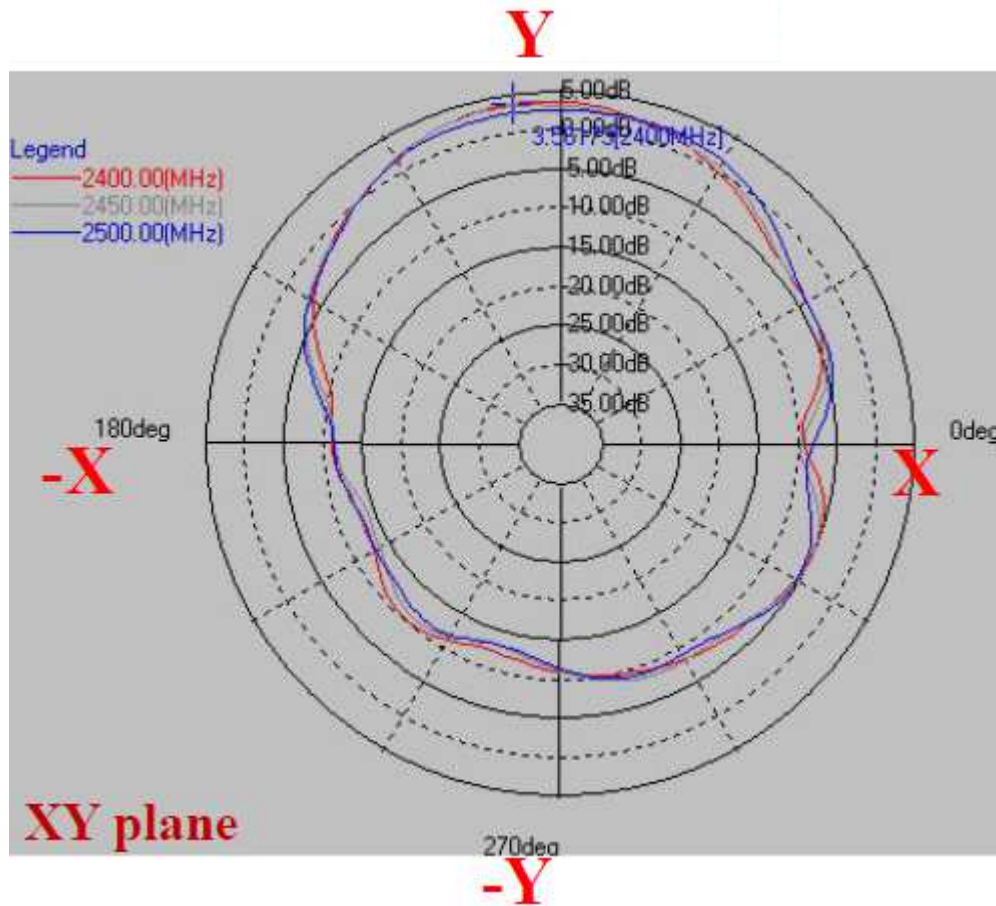


	ZY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]
2400	3.92	0.26
2450	3.96	0.21
2500	3.55	-0.04



Theta=90.00deg

Gain . dB



	XY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]
2400	3.56	-2.85
2450	3.23	-2.92
2500	2.28	-2.97