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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



# Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China









# APPROVAL SHEET

# PCB ANTENNA 2.4 GHz Band Working Frequency Halogens Free Product P/N: RFPCA460605NNAB301

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

Version	Date	Description	Author
V01	2015	New Release	PIPI
V 01	Mar.	New Release	



#### **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

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

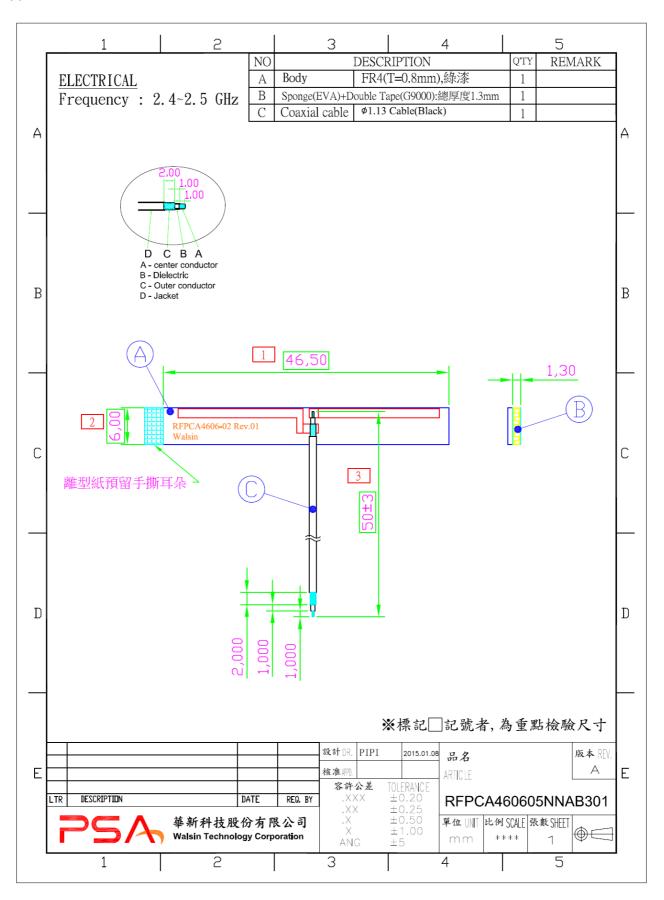
#### **MATERIAL TABLE**

Items	Description
Cable	§ 1.13(Black)
FPC Antenna	FR4(綠漆板) T=0.8mm
Sponge+Doubel Tape	EVA+G9000

#### **ORDERING RULE**

RF	PCA	4606	05	N	N	Α	В	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	length, width e.g.: 4606 Lenath	2 digits for cable length e.g.: 11 Cable Length:11cm	H: Hirose I: IPEX M: MMCX	A: Reverse Female B: Reverse Male F: Female M: Male N: None	dual band G: GPS band	g Test X: Pile Run	3:∅ 1.13 6:RG316	01~99 series number

#### **Appendix A: Dimensions**

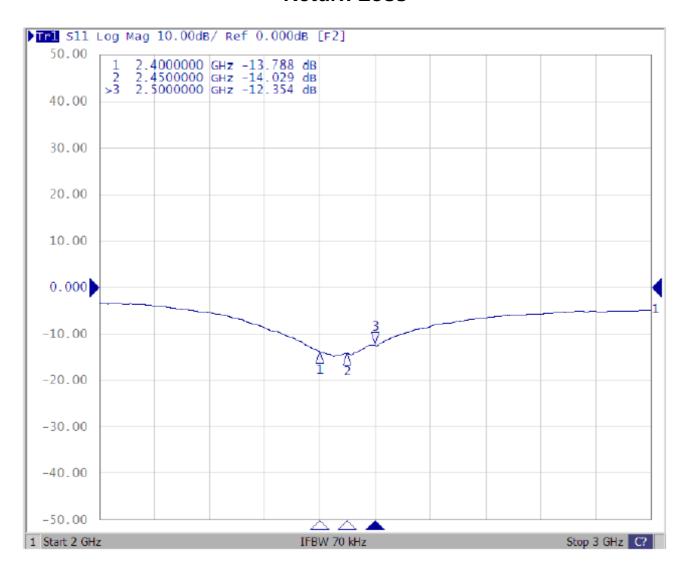




# **Test Report**

#### **ELECTRICAL CHARACTERISTICS**

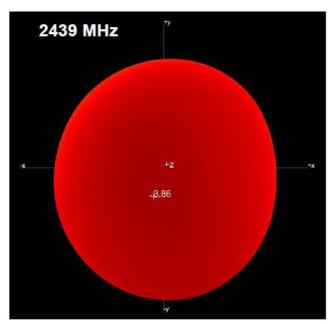
#### **Return Loss**



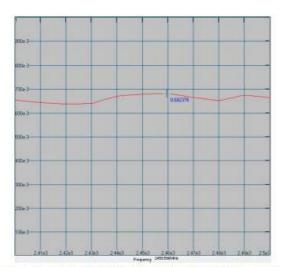


# ■Antenna Efficiency & Peak Gain

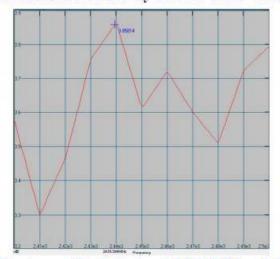
2400~2500 MHz







Maximum Efficiency at 2459 MHz: 68.2 %



Maximum Peak Gain at 2439 MHz: 3.85dBi

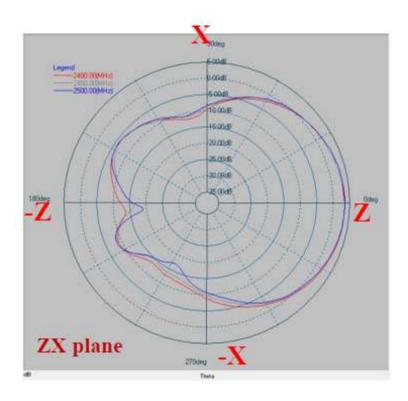


#### **RADIATION PATTERN**

2400~2500 MHz

### Phi=0.00deg

Gain . dB



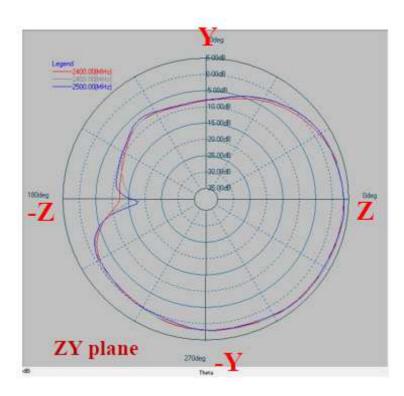
	ZX plane		
Frequency [MHz]	Max Value [dB]	Average [dB]	
2400	3.52	-2.13	
2450	3.42	-2.24	
2500	3.62	-2.18	



#### 2400~2500 MHz

#### Phi=90.00deg

Gain . dB



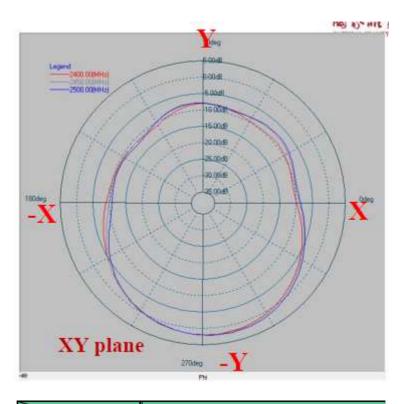
	ZY plane		
Frequency [MHz]	Max Value [dB]	Average [dB]	
2400	3.53	-0.10	
2450	3.61	0.12	
2500	3.79	-0.01	



#### 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**

