

APPROVAL SHEET

PCB ANTENNA

2.4 GHz Working Frequency

Halogens Free Product

P/N: RFPCA310920IMAB301

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	2016 May.	New Release	SHLEE

ELECTRICAL CHARACTERISTICS

Item	Specification
Working Frequency Range	2.4 ~ 2.5GHz (Note-1)
Impedance	50 Ohm Nominal
VSWR	2.0 (Max)
Radiation	Omni-directional
Gain(peak)	-0.81dBi
Polarization	Linear Vertical
Admitted Power	1W

*Note 1. Central Frequency should be defined after customers' application approval.

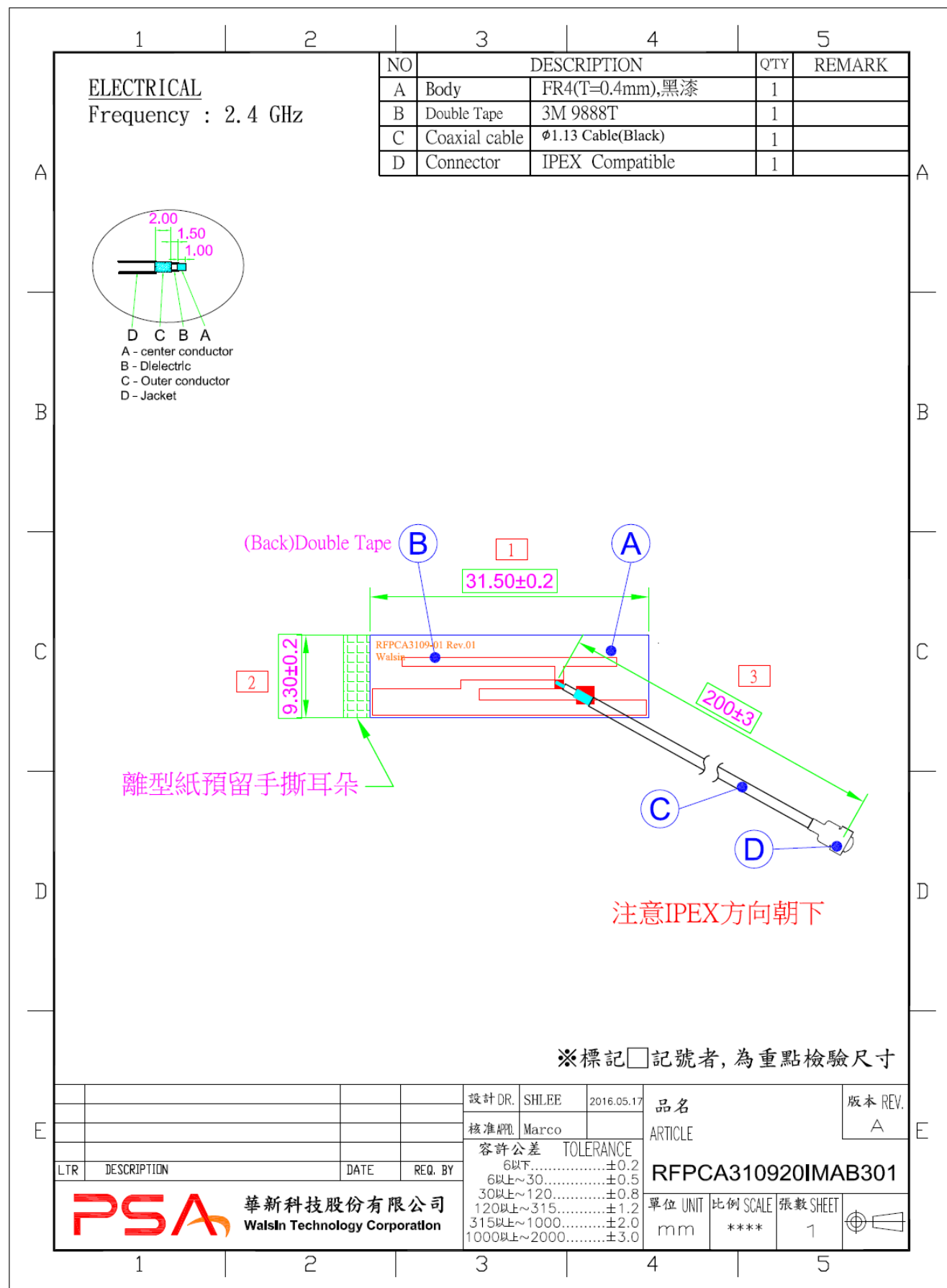
MATERIAL TABLE

Items	Description
Reflector	FR4 T=0.4mm
Double Tape	3M 9888T
Cable	Coaxial Cable Ø1.13 (Black)
Connector	IPEX Compatible

ORDERING RULE

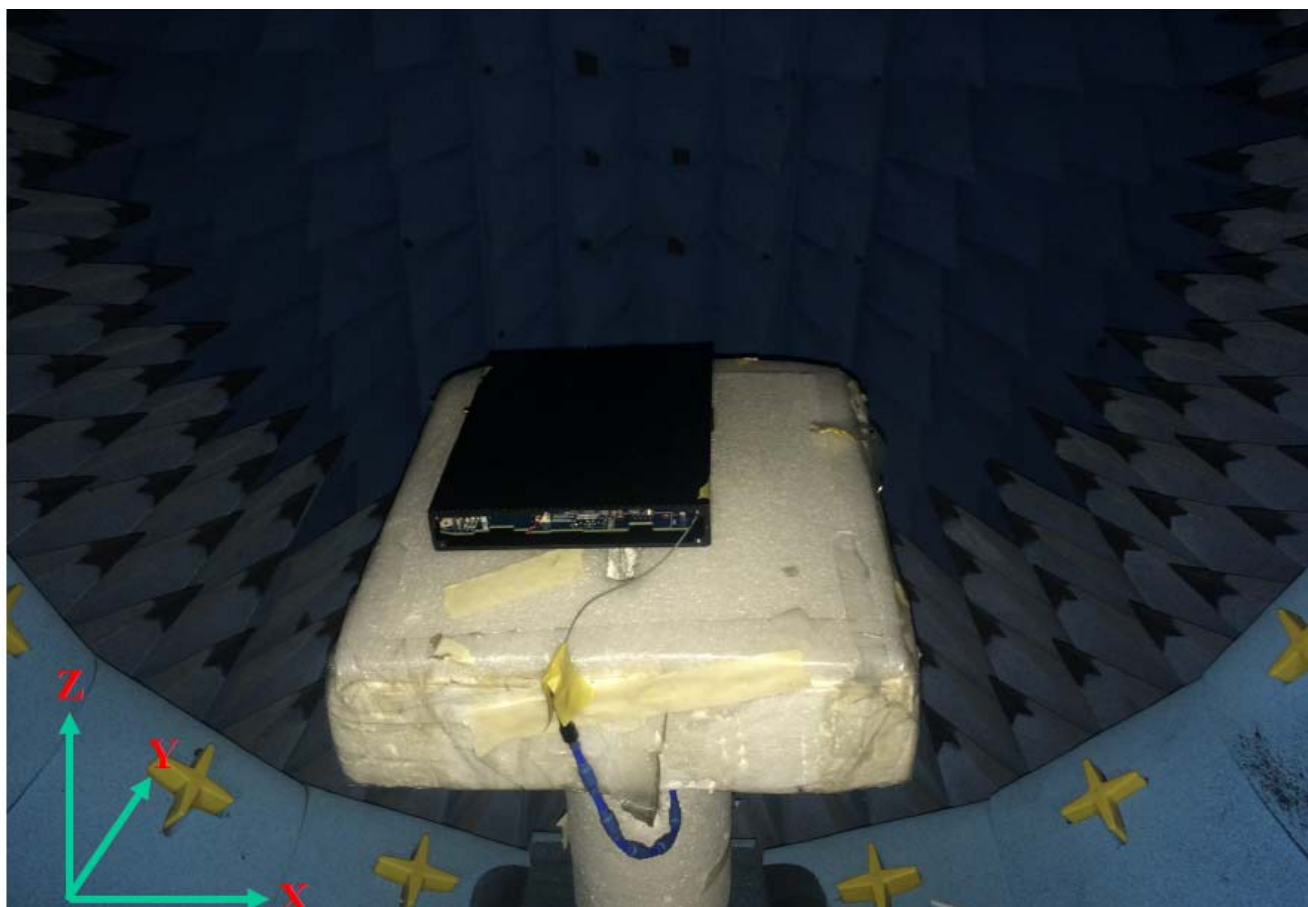
RF	PCA	3109	20	I	M	A	B	3	01
Type Code	Product Code	PCB Dimension (Unit: mm)	Cable Length (unit: cm)	Connector Brand	Type of Connector	Application	Project status	Wire Diameter	Project
Walsin RF Device	PCB Antenna	Per 2 digits of length, width e.g.: 9090 Length 90mm, Width 90mm	2 digits for cable length e.g.: 157 Cable Length: 17.3cm	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 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: During Test X: Pile Run	0: None 1: Ø 0.81 2: Ø 1.32 3: Ø 1.13 4: Low Loss Ø 1.13 5: Ø 0.5 6: RG316 7: Ø 1.37 8: RG178 9: Low Loss Ø 1.37	01~99 series number

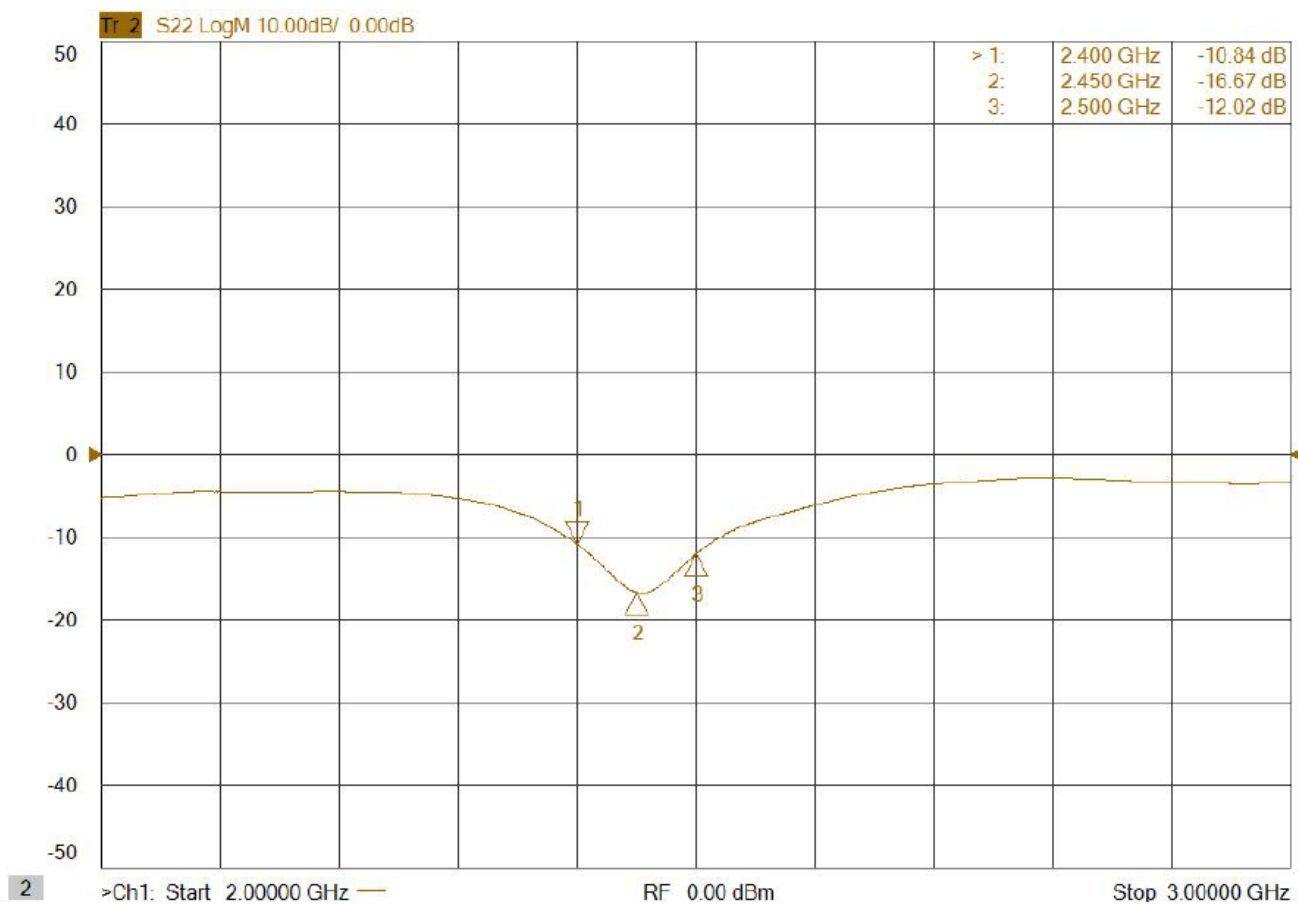
DIMENSIONS



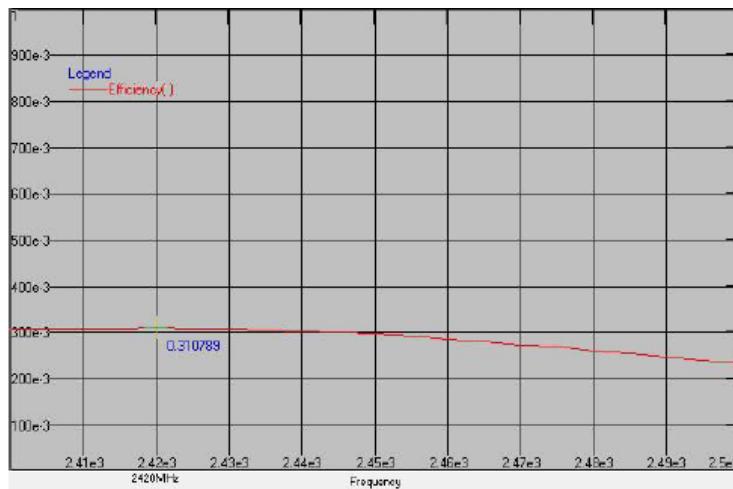
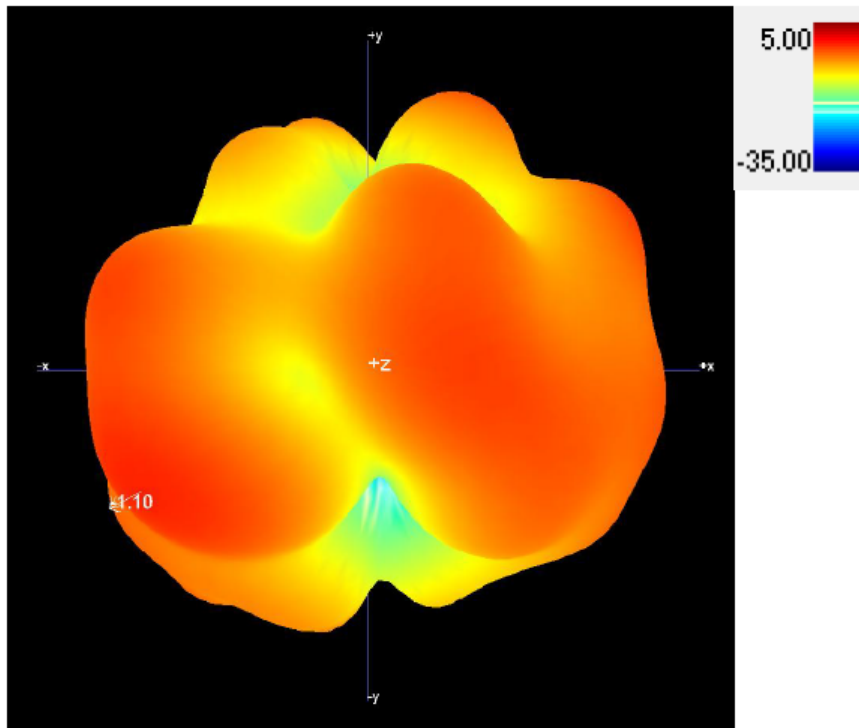
Test Report

■ Experimental Setup



ELECTRICAL CHARACTERISTICS**Return Loss**

■ Antenna Efficiency and Peak Gain 2450MHz



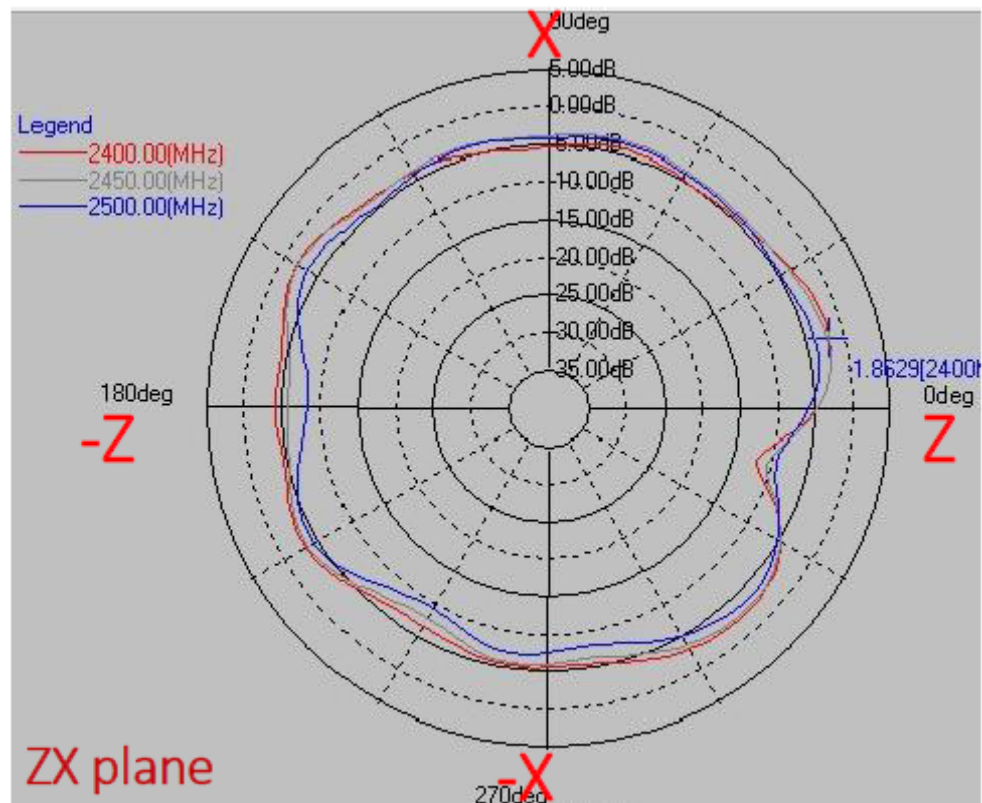
Maximum Efficiency at 2420 MHz : 31.07%

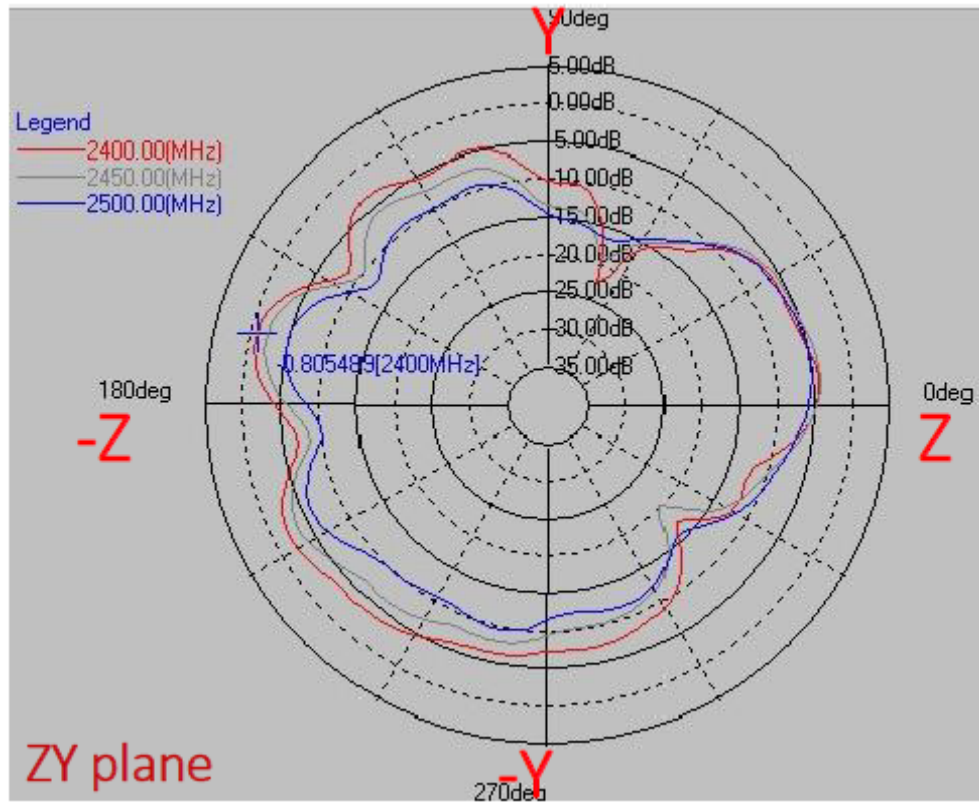
RADIATION PATTERN

2400~2500 MHz

Phi=0.00deg

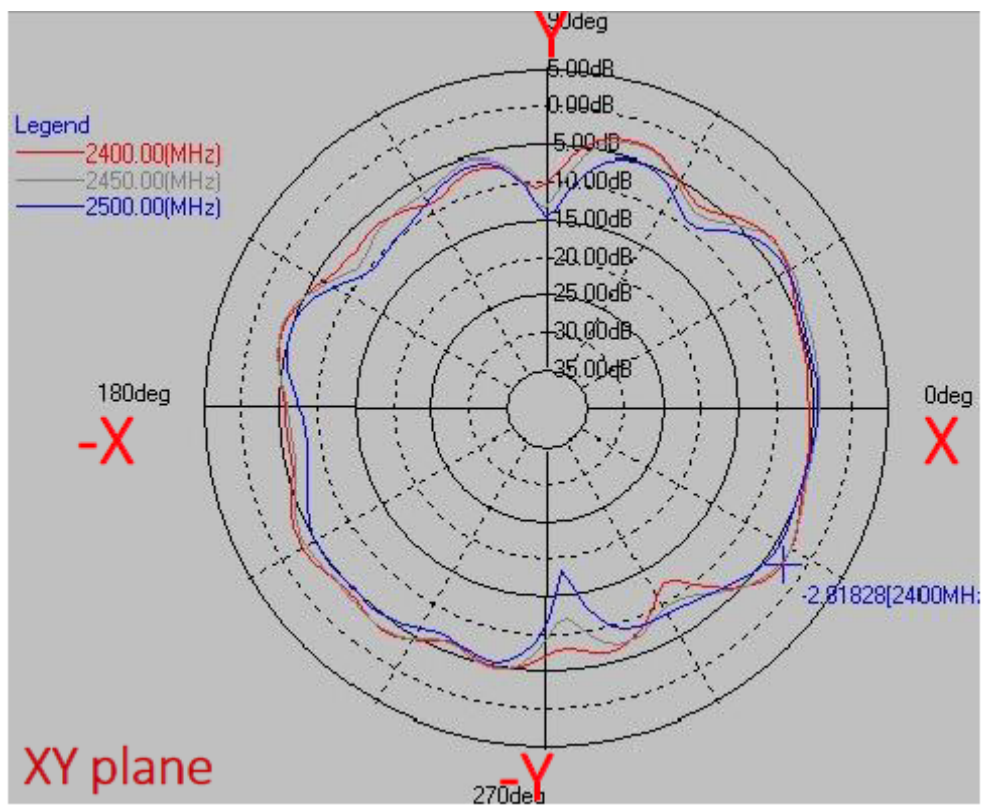
Gain . dB



Phi=90.00deg**Gain . dB**

Theta=90.00deg

Gain . dB



	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
2400	-1.86	-4.31	-0.81	-6.00	-2.82	-5.40
2450	-2.13	-4.39	-2.14	-7.37	-2.73	-5.40
2500	-3.59	-5.39	-4.93	-9.13	-3.53	-6.53