

**2.4~2.5/5.15~5.9/6.0~6.9/7.0~7.125 GHz**  
**Working Frequency**  
**Halogens Free Product**

**RFDPA191300SBLB811**

## **Specification**

<b>Product Name</b>	<b>INPAQ RF Dipole Antenna</b>
<b>Series/PN</b>	<b>RFDPA191300SBLB811</b>

## ELECTRICAL CHARACTERISTICS

Item	Specification
Working Frequency Range	2.4~2.5/5.15~5.9/ 6.0~6.9/7.0~7.125 GHz (Note-1)
Gain	1.91 dBi@2400~2500 MHz 4.5 dBi@5150~6000 MHz 3.37 dBi @6100~7200 MHz
Return Loss	-10 dB(Max)
VSWR	2 max.
Polarization	Linear
Radiation Pattern	Omni-directional
Impedance	50
Operation Temperature	-20°C ~ +65°C

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

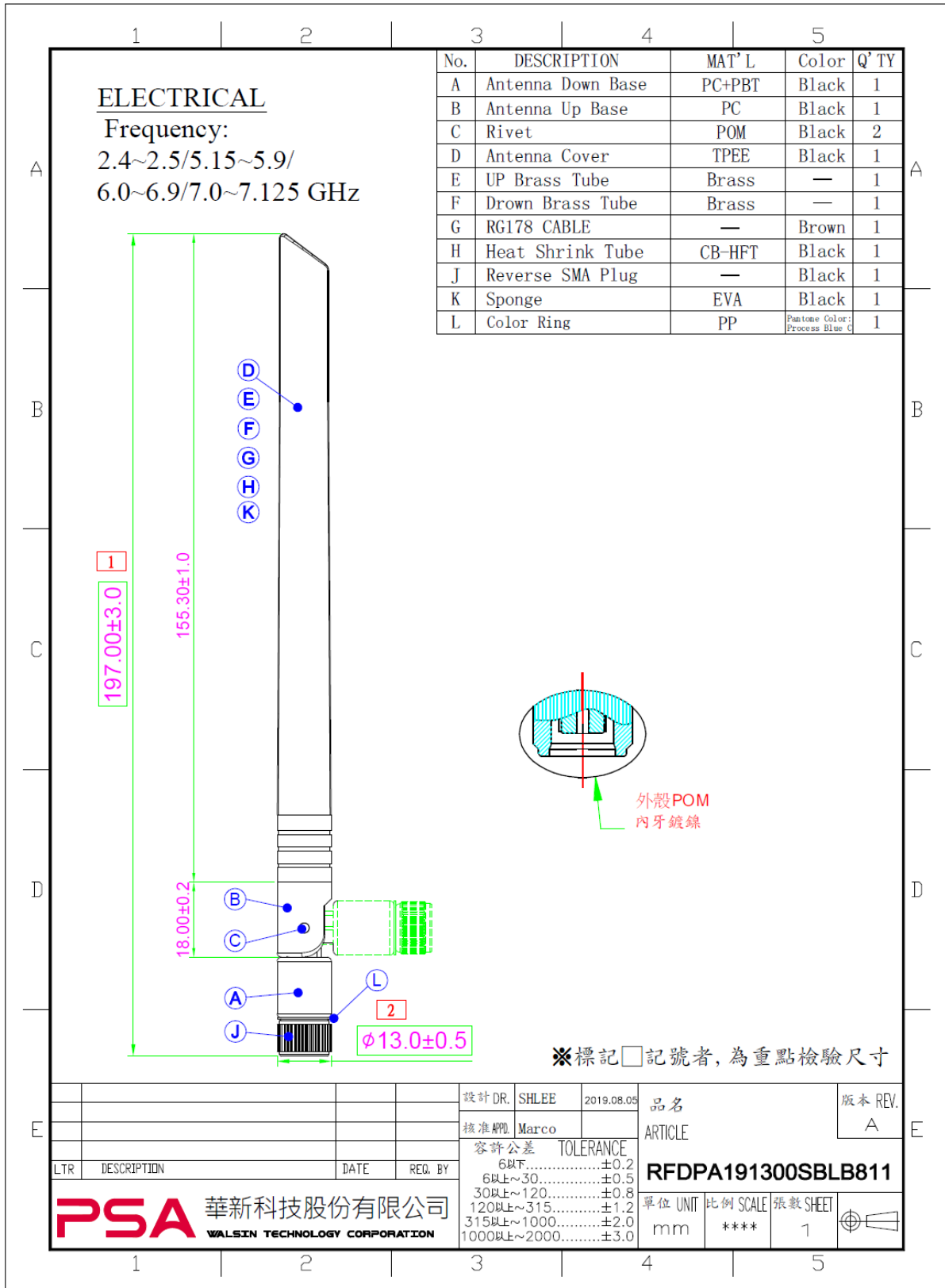
## MATERIAL TABLE

Items	Description
Cable	RG178 Cable(Brown)
Connector	Reverse SMA Plug(Black)
Antenna Cover	TPEE(Black)
Antenna Down Base	PC/PBT(Black)
Antenna Up Base	PC(Black)
Rivet	POM(Black)
UP Brass Tube	Brass
Drown Brass Tube	Brass
Sponge	EVA
Color Ring	PP(Process Blue C)
Heat Shrink Tube	CB-HFT (Black)

## ORDERING RULE

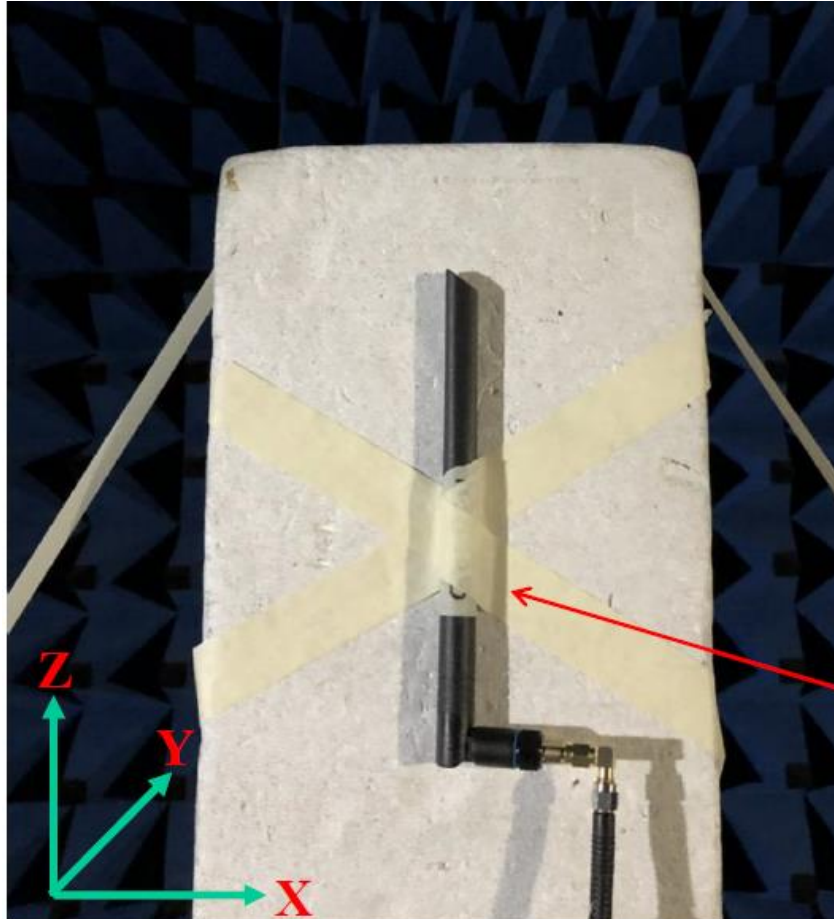
RF	DPA	1913	00	S	B	L	B	8	11
Type Code	Product Code	Dimension (Unit: mm)	Cable Length (unit: cm)	Connector Brand	Type of Connector	Application	Project status	Wire Diameter	Project
Walsin RF Device	Dipole Antenna	Per 2 digits of length, width e.g.: 1913 Length 191.9mm, Width φ13mm	2 digits for cable length e.g.:00 None Cable	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: 5 GHz 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:φ0.81 3:φ1.13 4:φ1.13 Low Loss 6:RG316 7:φ1.37 8:RG178 9:φ1.37 Low Loss	01-99 series number

**DIMENSIONS**



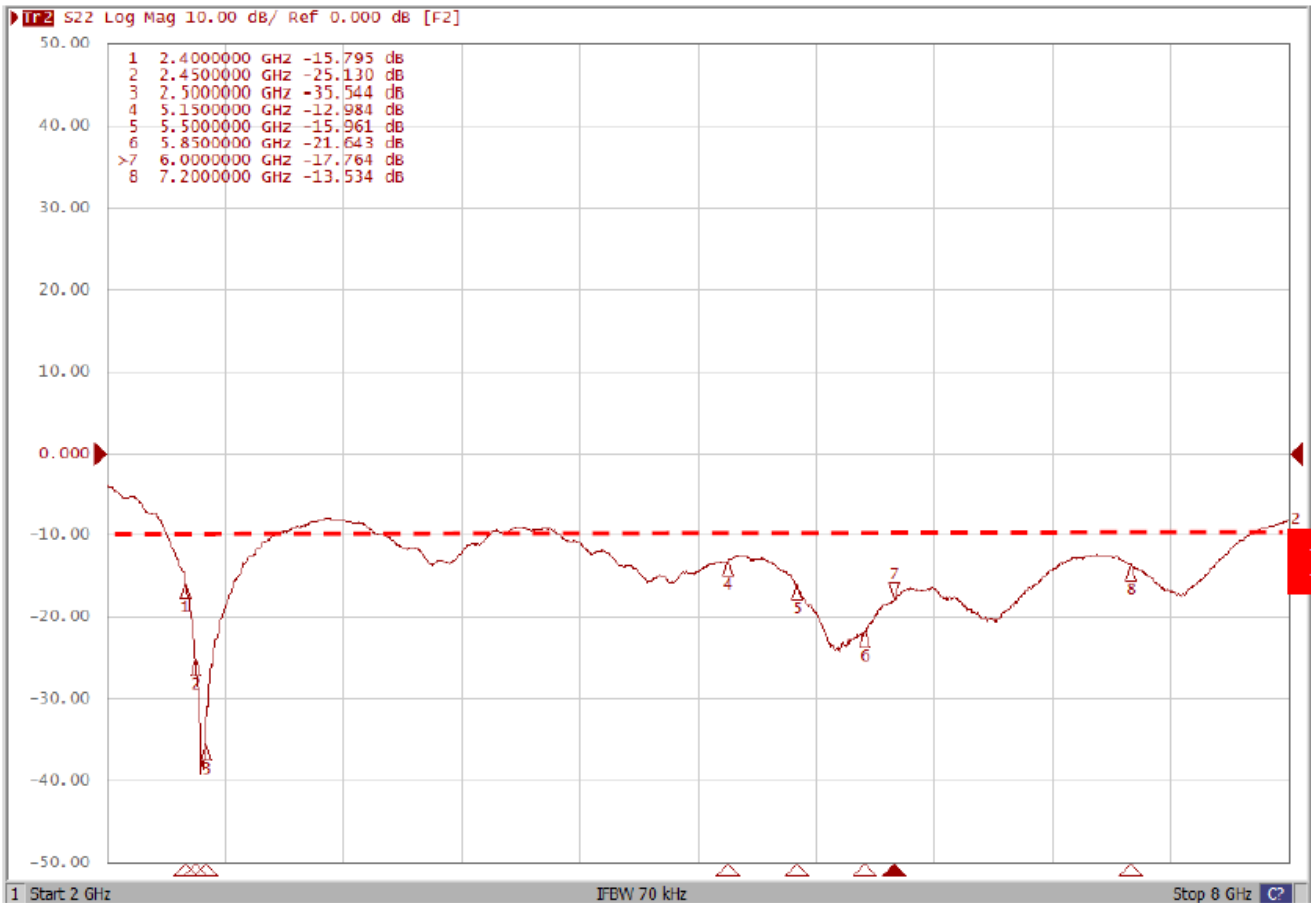
## Test Report

### ■ ELECTRICAL CHARACTERISTICS



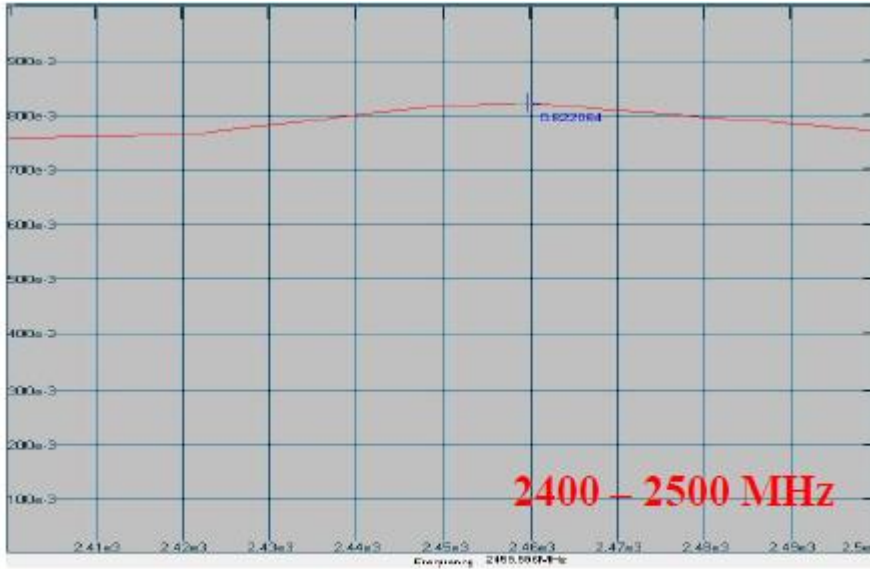
## ELECTRICAL CHARACTERISTICS

### Return Loss

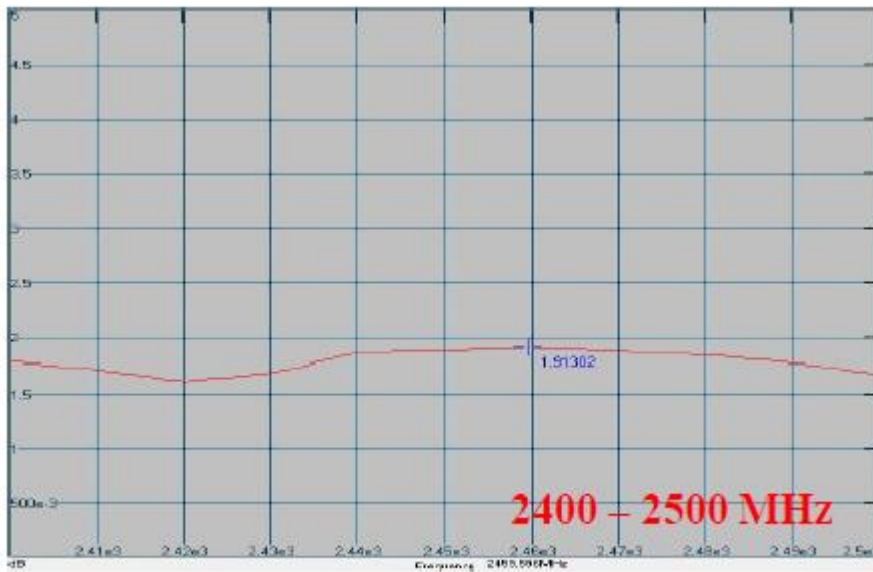


■ **Antenna Efficiency & Peak Gain**

**2400~2500 MHz**

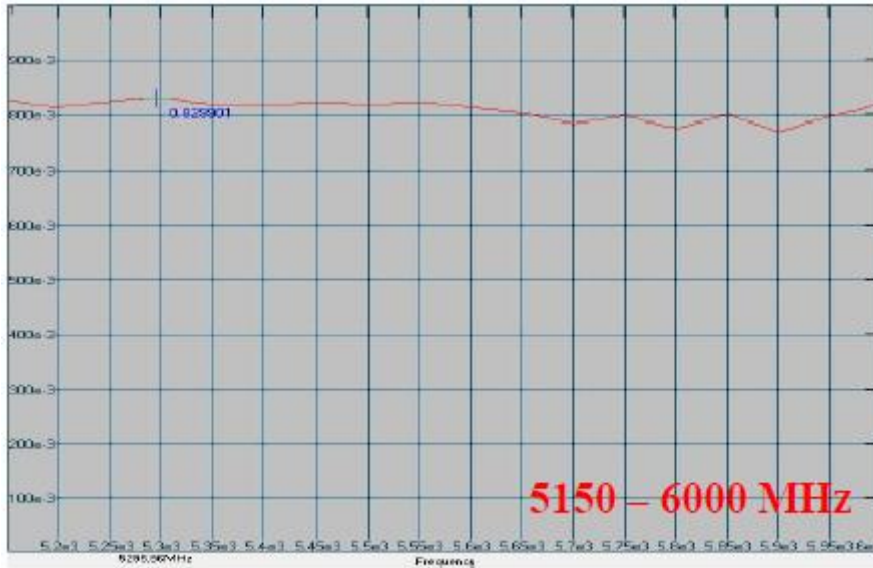


**Maximum Efficiency at 2460 MHz : 82.21 %**

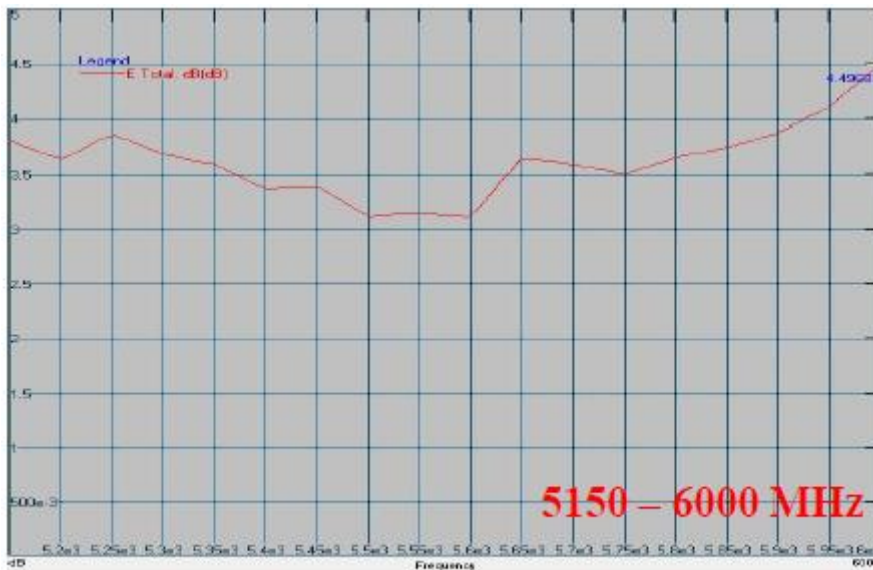


**Maximum Peak Gain at 2460 MHz : 1.91 dBi**

**5150~6000 MHz**



**Maximum Efficiency at 5296 MHz : 82.99 %**



**Maximum Peak Gain at 6000 MHz : 4.50 dBi**



**6100~7200 MHz**

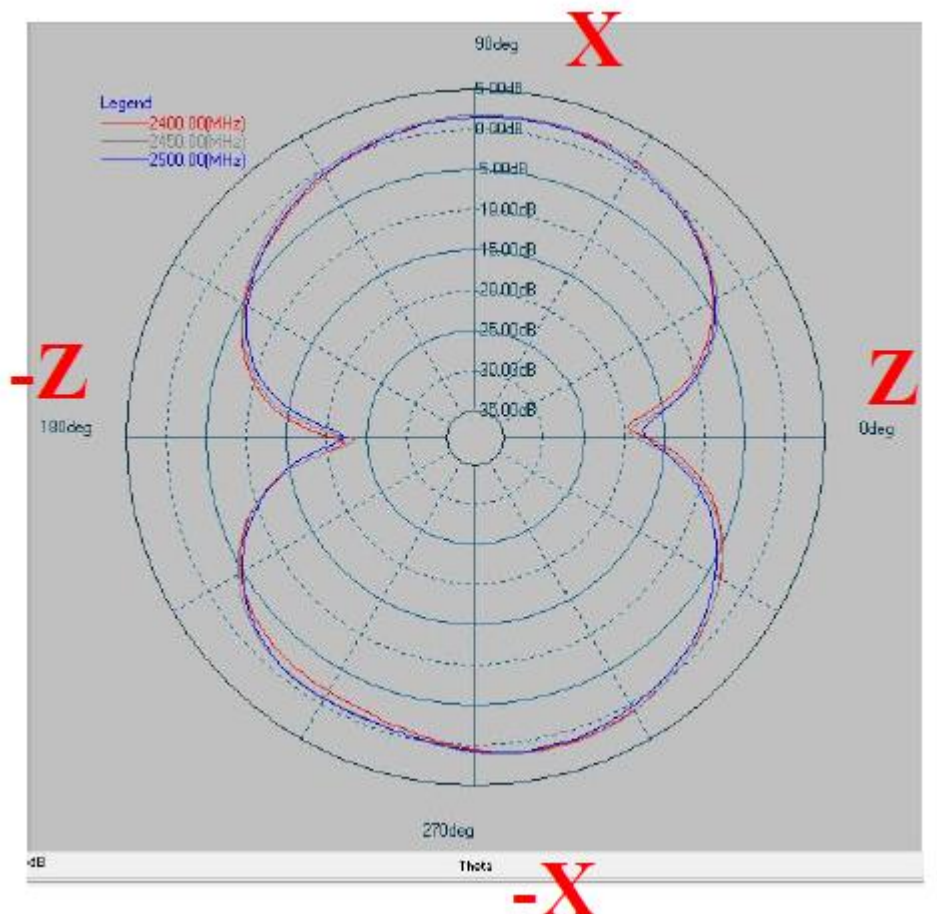
Frequency (MHz)	6100	6200	6300	6400	6500	6600	6700	6800	6900	7000	7100	7200
Efficiency (%)	78.00	77.13	77.48	75.44	75.98	78.53	78.01	71.88	73.66	80.08	78.19	71.08
Peak Gain (dBi)	3.21	3.13	3.15	3.21	2.82	2.90	3.14	2.82	2.93	3.12	3.21	3.37

## ■ RADIATION PATTERN

2400~2500 MHz

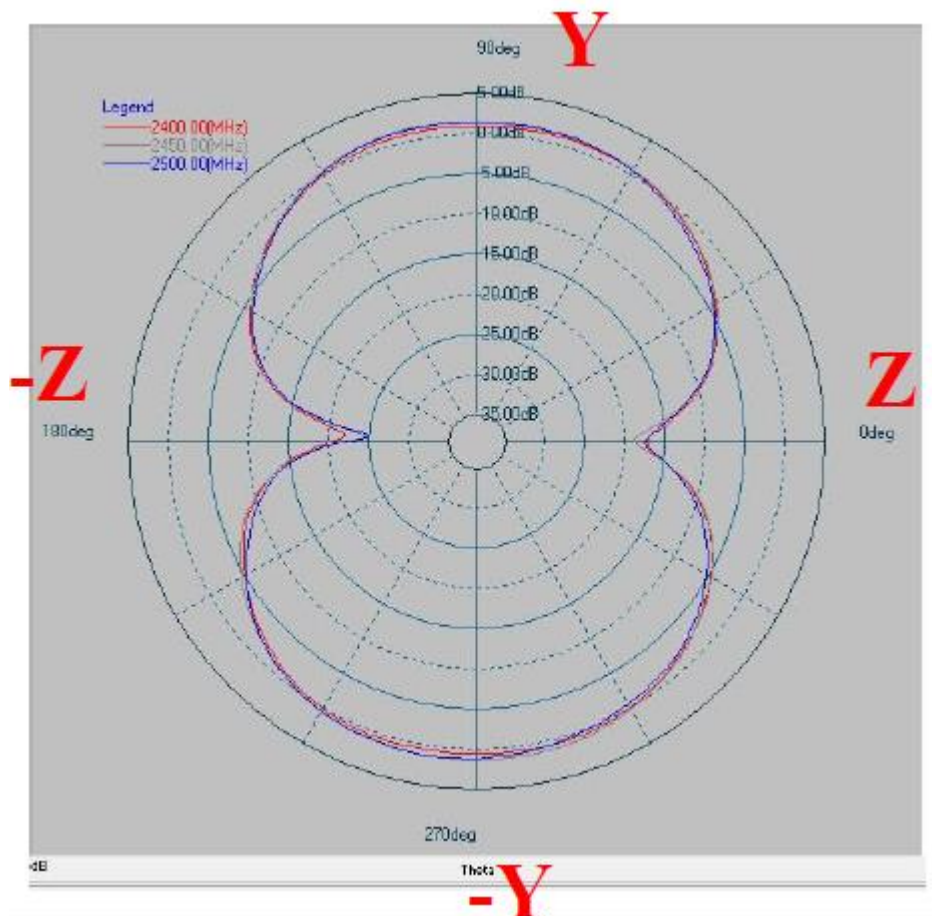
X-Z Plane  
Phi=0.00deg

Gain . dB



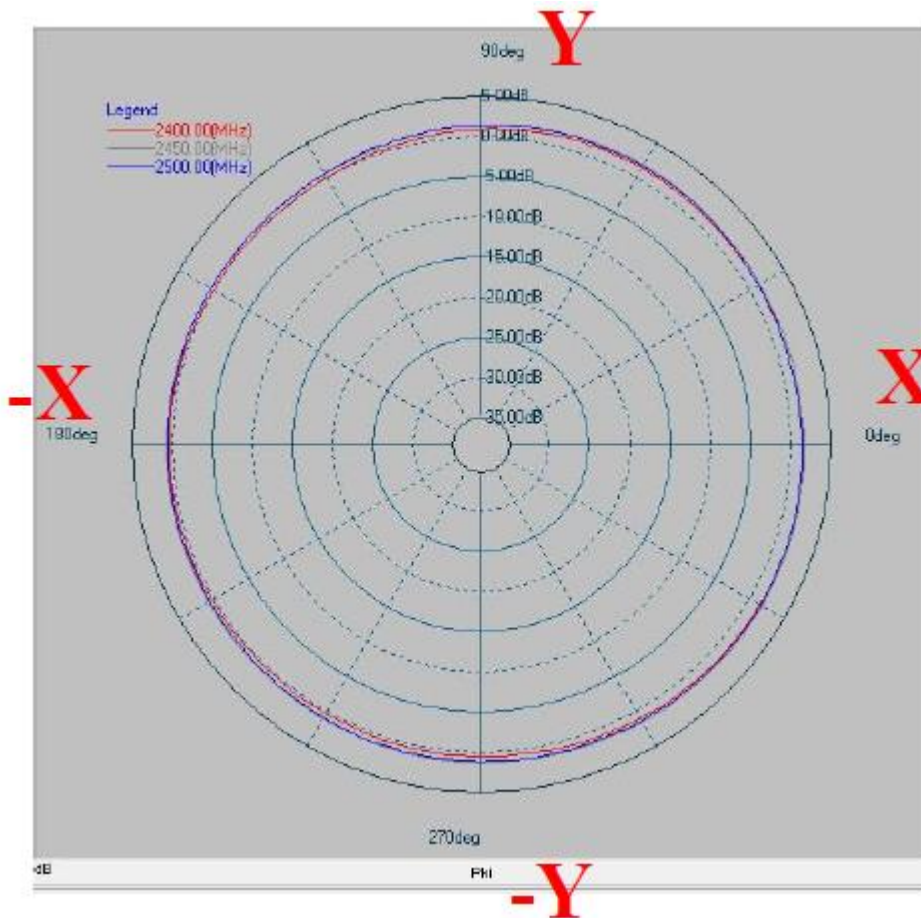
Y-Z Plane  
Phi=90.00deg

Gain . dB



**X-Y Plane**  
**Theta=90.00deg**

**Gain . dB**

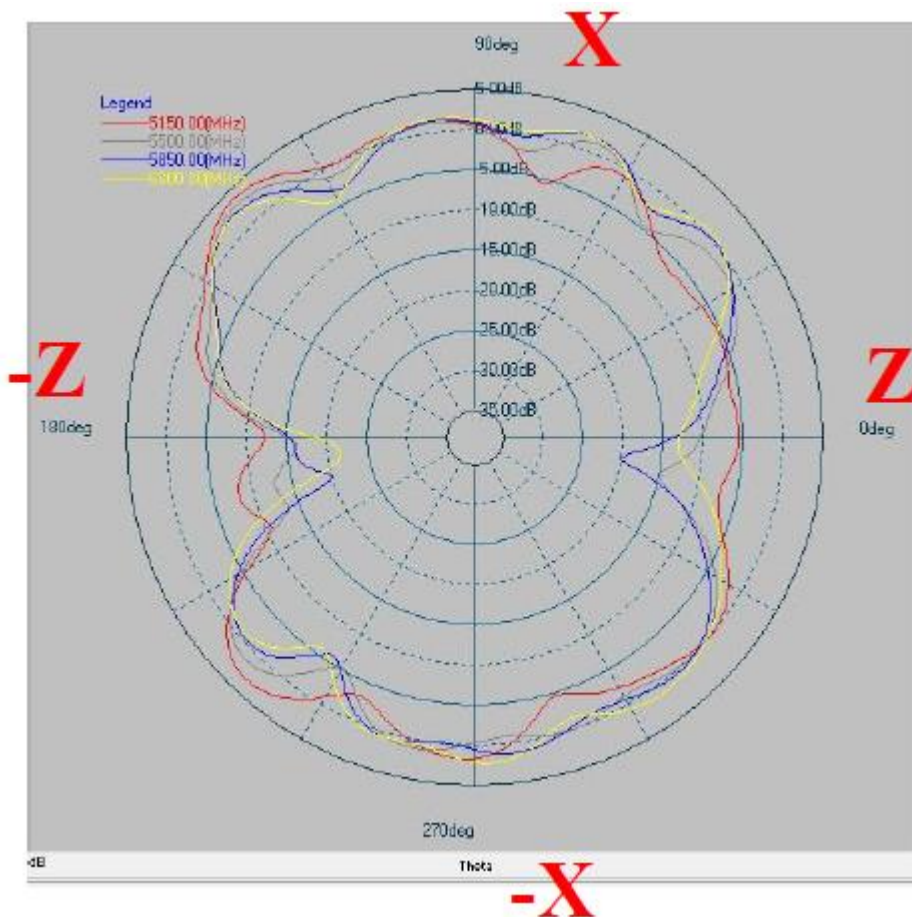


Frequency [MHz]	ZX plane		ZY plane		XY plane	
	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
2400	1.76	-1.82	0.86	-1.97	1.59	0.75
2450	1.78	-1.55	1.40	-1.60	1.80	1.17
2500	1.61	-1.86	1.30	-1.84	1.60	1.06

5150~6000 MHz

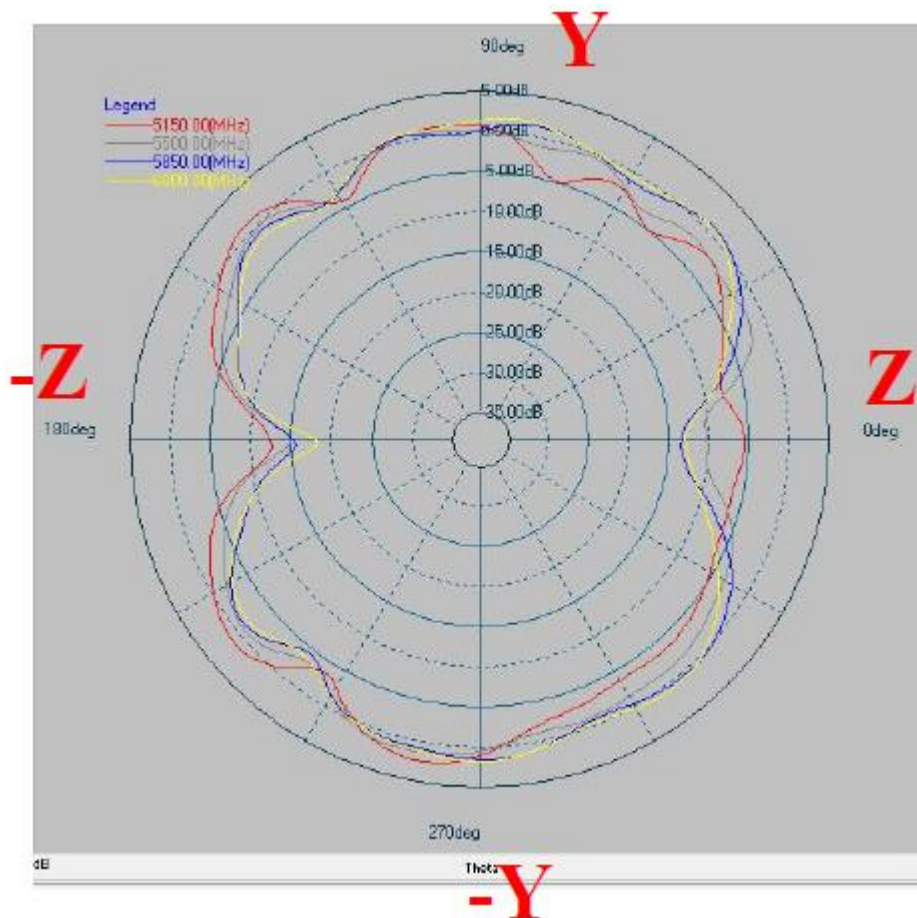
X-Z Plane  
Phi=0.00deg

Gain . dB



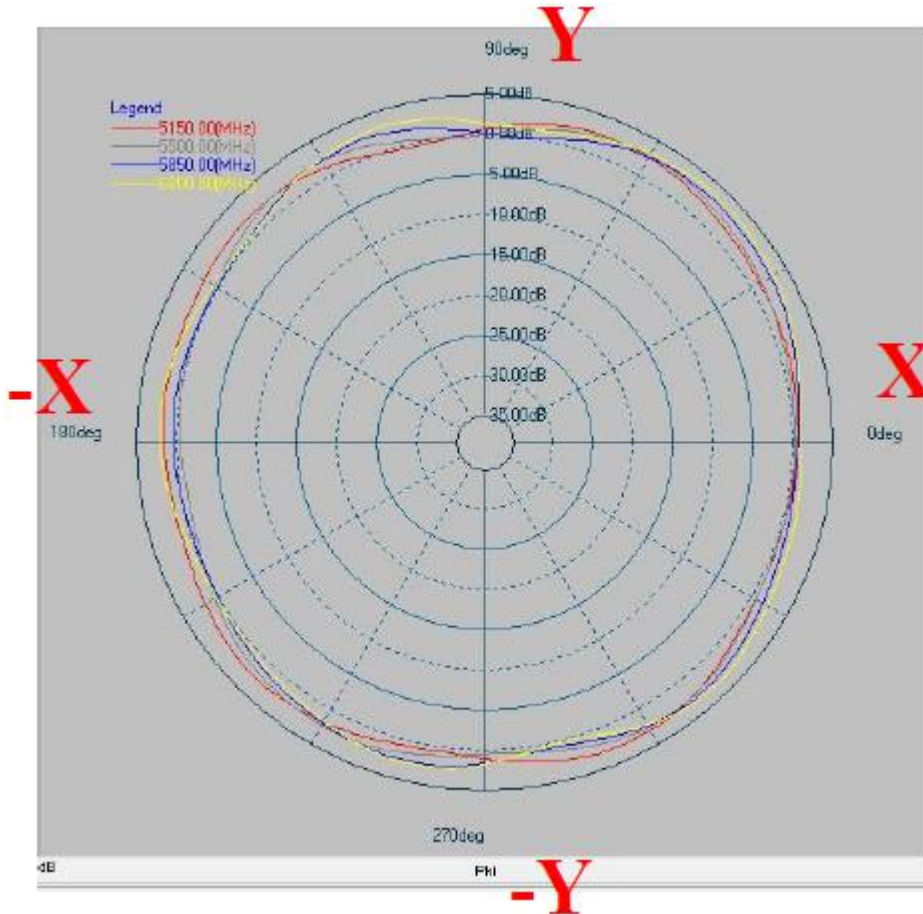
Y-Z Plane  
Phi=90.00deg

Gain . dB



**X-Y Plane**  
**Theta=90.00deg**

**Gain . dB**

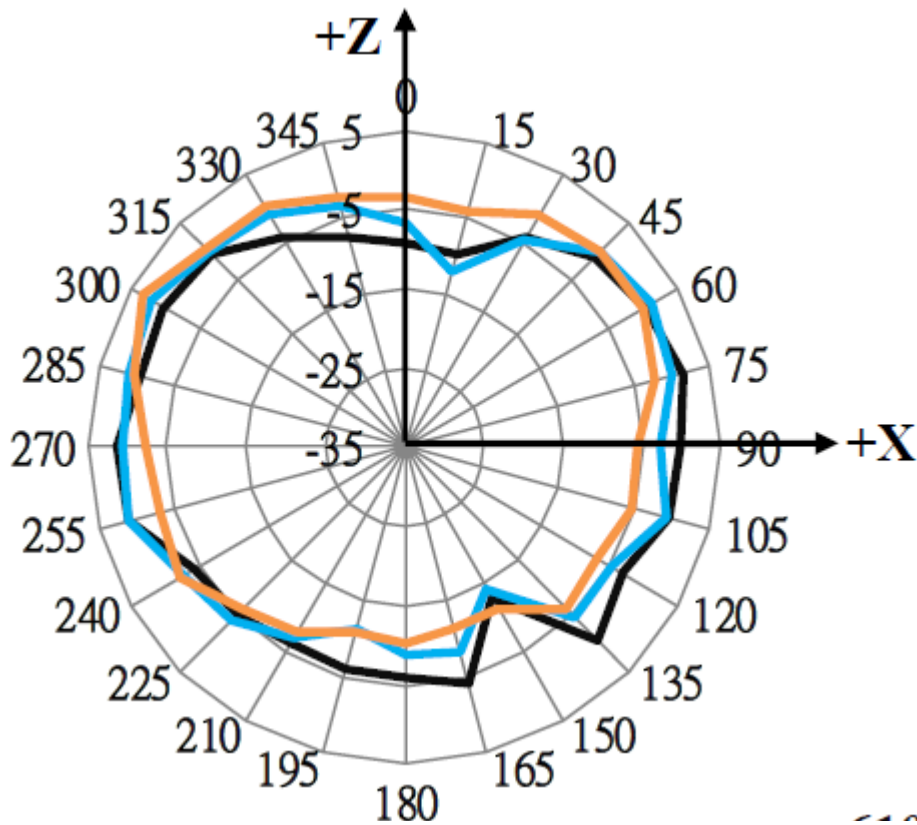


Frequency [MHz]	ZX plane		ZY plane		XY plane	
	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
5150	3.80	-1.32	2.29	-2.08	3.01	1.53
5500	3.04	-1.57	1.25	-2.11	2.71	1.17
5850	2.44	-1.60	1.48	-1.70	3.05	1.44
6000	2.23	-1.32	1.71	-1.64	3.64	1.91

**6100~7200 MHz**

**X-Z Plane**  
**Phi=0.00deg**

**Gain . dB**

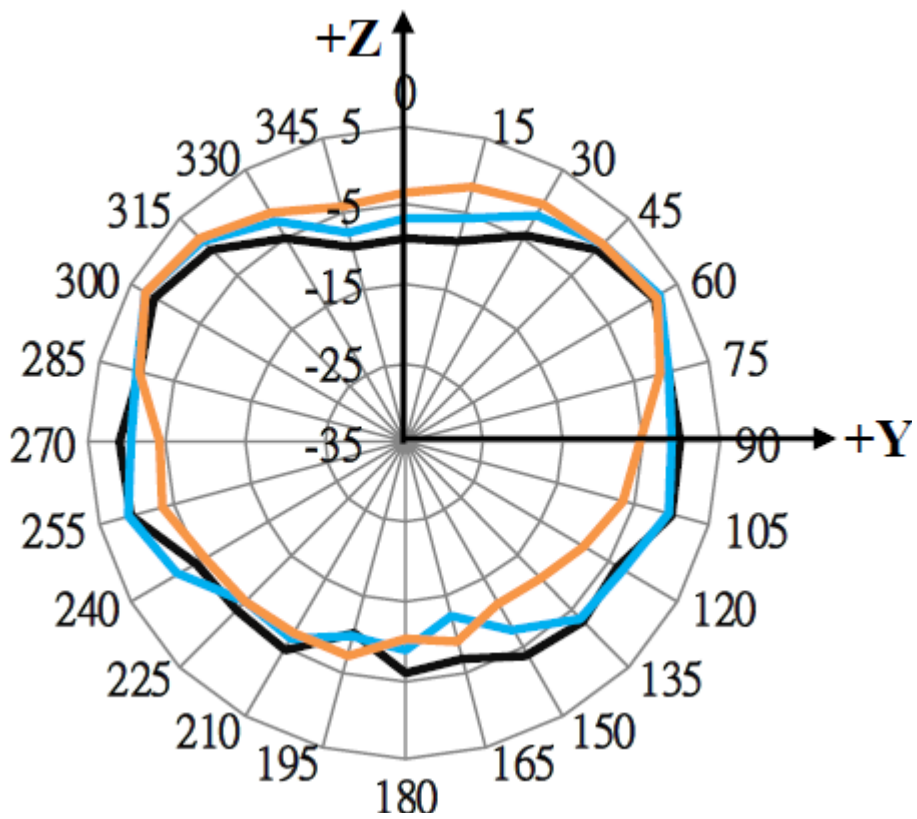


- **6100 MHz**
- **6500 MHz**
- **7200 MHz**



**Y-Z Plane**  
**Phi=90.00deg**

**Gain . dB**



**X-Y Plane**  
**Theta=90.00deg**

**Gain . dB**

