

# ANTENNA SPECIFICATION

## 1. Explanation of part number :

RF	FPA	2715	04	E	M	A	B	1	01
Type Code	Product Code	PCB Dimension (Unit: mm)	Cable Length (unit: cm)	Connector Brand	Type of Connector	Application	Project status	Wire Diameter	Project
RF Device	FPA Antenna	Per 2 digits of length, width e.g.: 2715 Length 25.6mm, Width 15mm	2 digits for cable length e.g.: 04 Length 4cm	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>B: Reverse Male</b> 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 R:902~928 MHz N: NFC T: LTE band U:430~470 MHz W: WCDMA band	B: MP <b>T:During Test</b> X: Pile Run	0:None 1:∅ 0.81 2:∅ 1.32 3:∅ 1.13 4:Low Loss ∅ 1.13 5:∅ 0.5 6:RG316 7: ∅ 1.37 8:RG178 9:Low Loss ∅ 1.37	01~99 series number

## 2. Electrical Specification :

Item	Specification
Working Frequency Range	2.4~2.5 GHz
Return Loss	-10 dB(Max)
VSWR	< 2
Impedance	50 Ohm Nominal
Radiation	Omni-directional
Polarization	Linear Vertical
Operation Temperature	-20° C ~ +65° C

UNLESS OTHER SPECIFIED TOLERANCES ON :  
 X = N/A      X.X = N/A      X.XX = N/A  
 ANGLES = N/A      HOLEDIA = N/A



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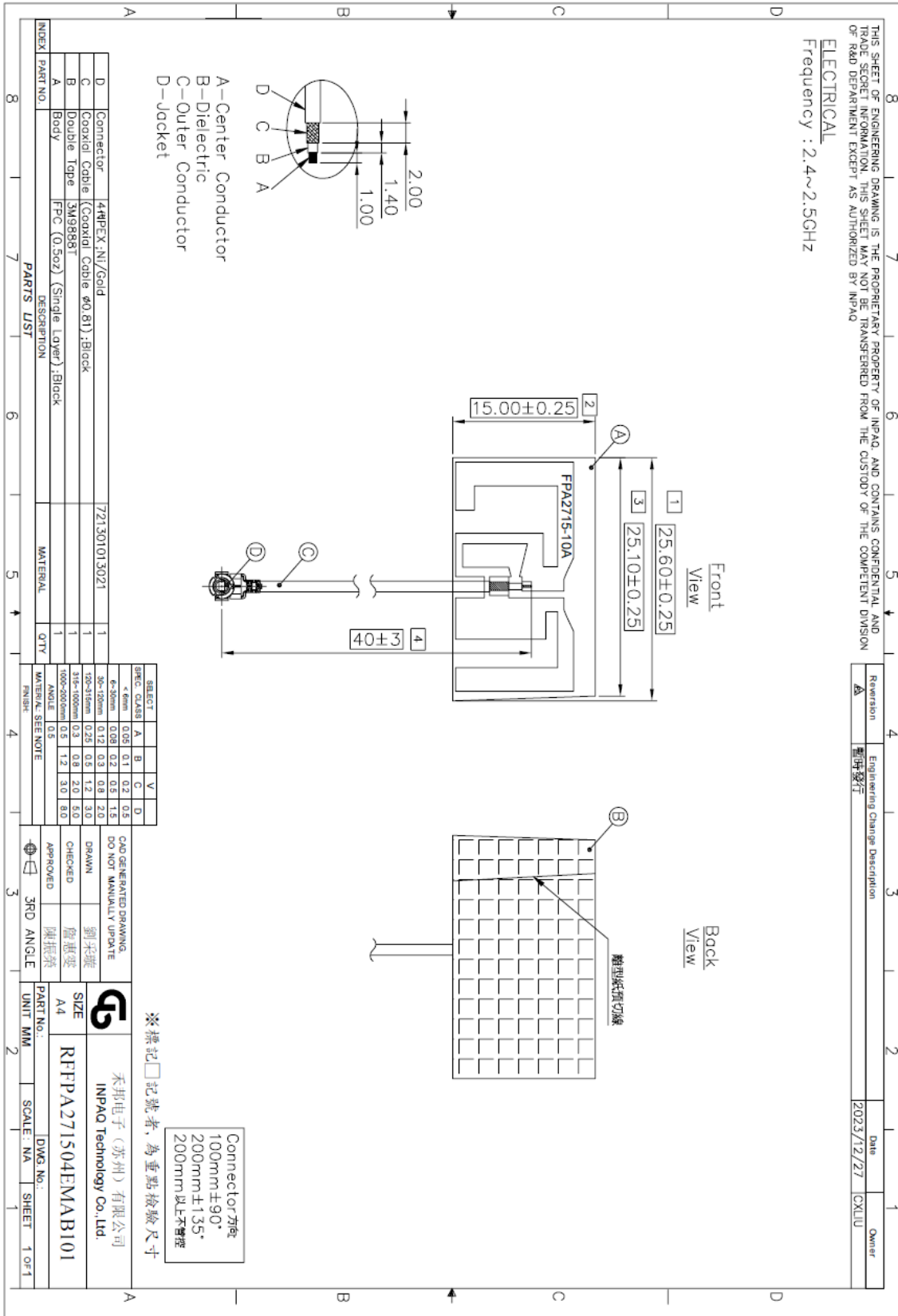
SCALE : N/A      UNIT : mm  
 DRAWN BY : 李欣樺      CHECKED BY : 詹惠雯  
 DESIGNED BY : 黃瑞郎      APPROVED BY : 陳振榮

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TITLE : RFFPA271504EMAB101

DOCUMENT NO.      SPEC REV. **P0**

### 3. Antenna Drawing :



UNLESS OTHER SPECIFIED TOLERANCES ON :  
 X=N/A      X.X=N/A      X.XX=N/A  
 ANGLES=N/A      HOLEDIA=N/A



**INPAQ TECHNOLOGY CO., LTD.**

SCALE : N/A

UNIT : mm

DRAWN BY : 李欣樺

CHECKED BY : 詹惠愛

DESIGNED BY : 黃瑞郎

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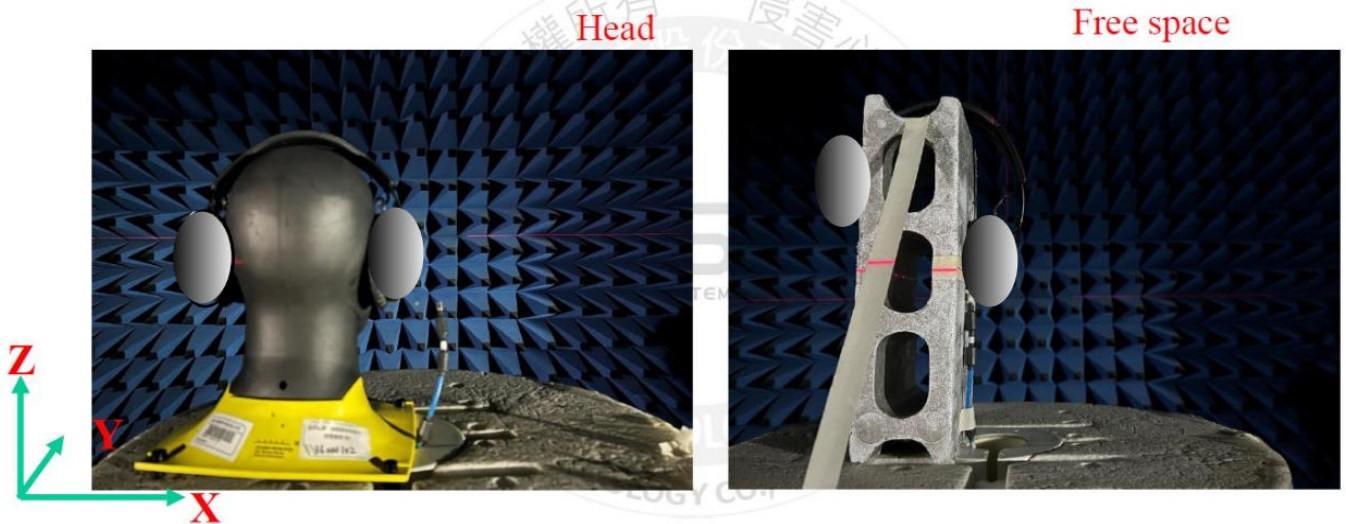
TITLE : RFFPA271504EMAB101


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### 4. Performance Report :

### ■ Experimental Setup

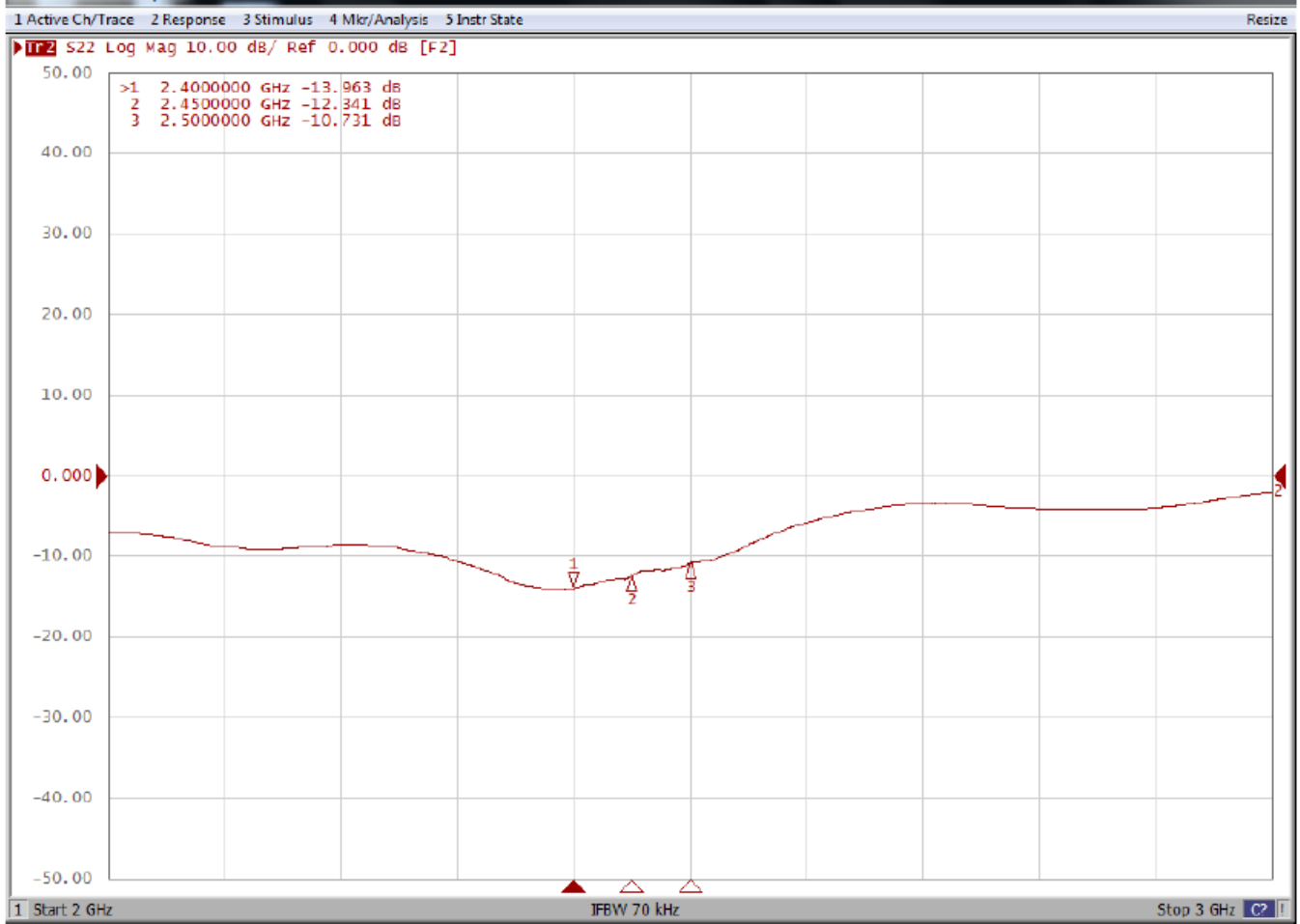



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# ELECTRICAL CHARACTERISTICS

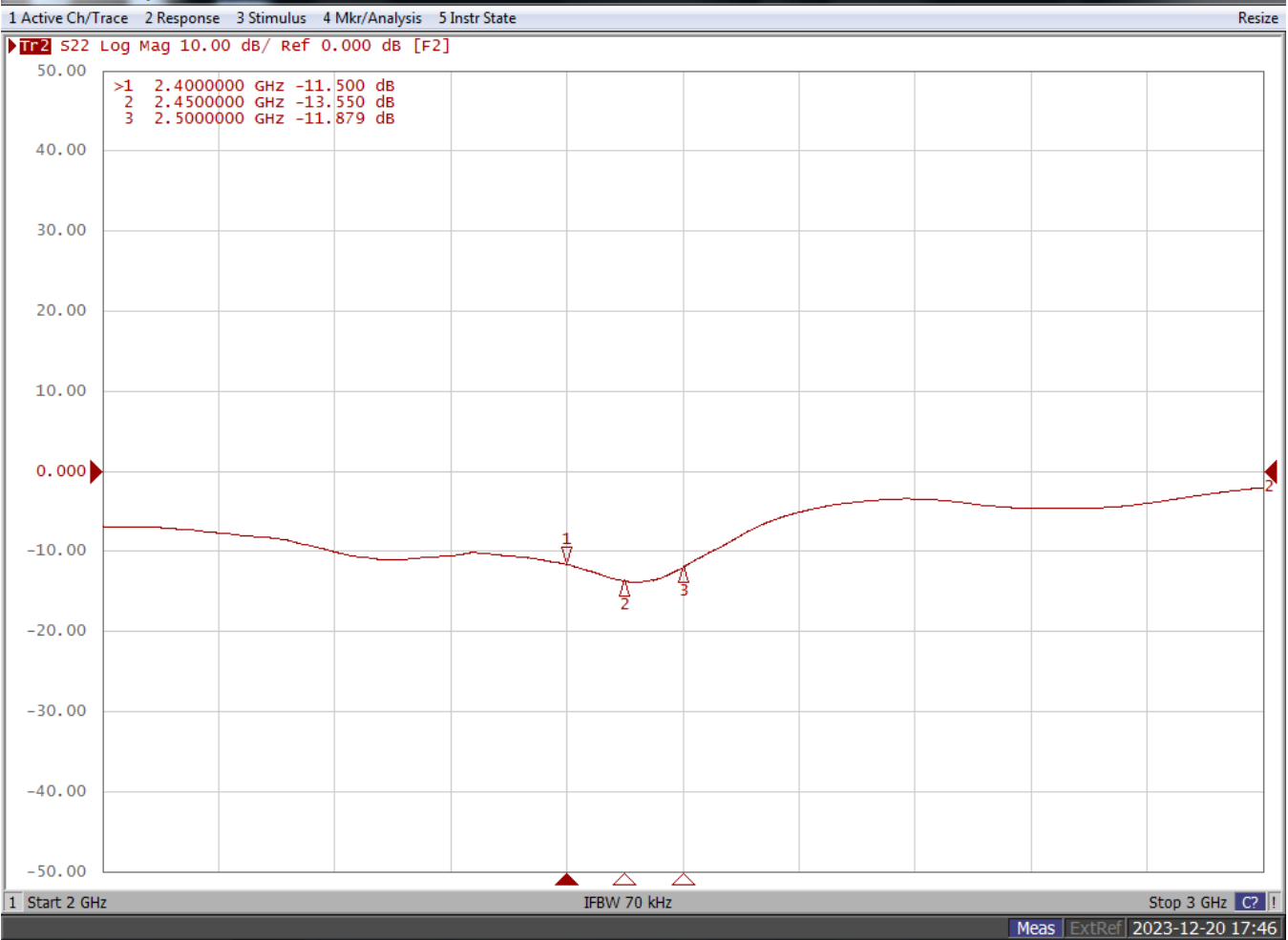
Free space

## Return Loss



UNLESS OTHER SPECIFIED TOLERANCES ON : X=N/A      X.X=N/A      X.XX=N/A ANGLES=N/A      HOLEDIA=N/A		 <b>INPAQ TECHNOLOGY CO., LTD.</b>	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION
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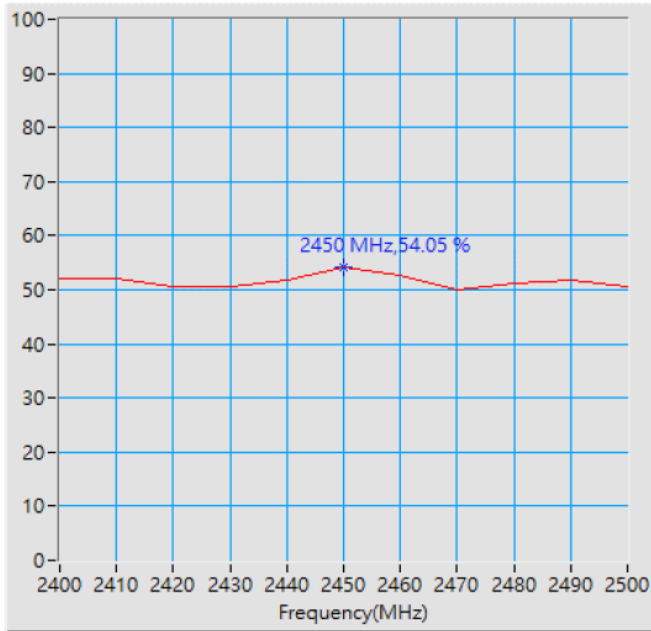
# Head



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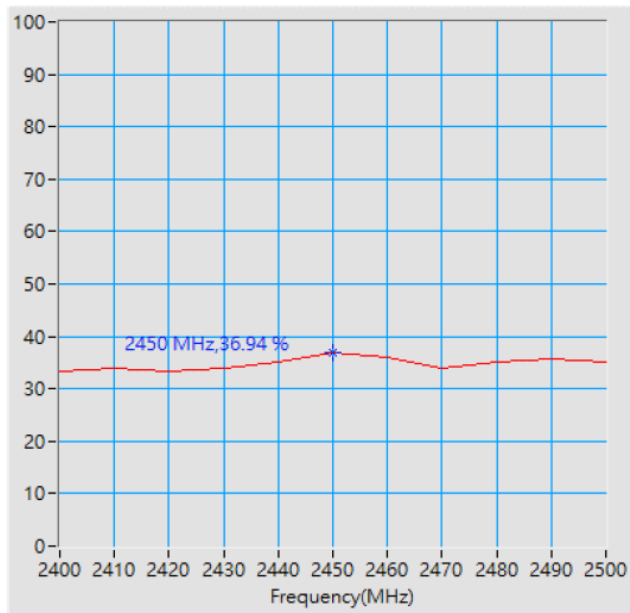
# Antenna Efficiency and Peak Gain

## Free space




Maximum Efficiency at 2450 MHz : 54.05 %

## Head



Maximum Efficiency at 2450 MHz : 36.94 %

UNLESS OTHER SPECIFIED TOLERANCES ON : X=N/A      X.X=N/A      X.XX=N/A ANGLES=N/A      HOLEDIA=N/A		 <b>INPAQ TECHNOLOGY CO., LTD.</b>	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION
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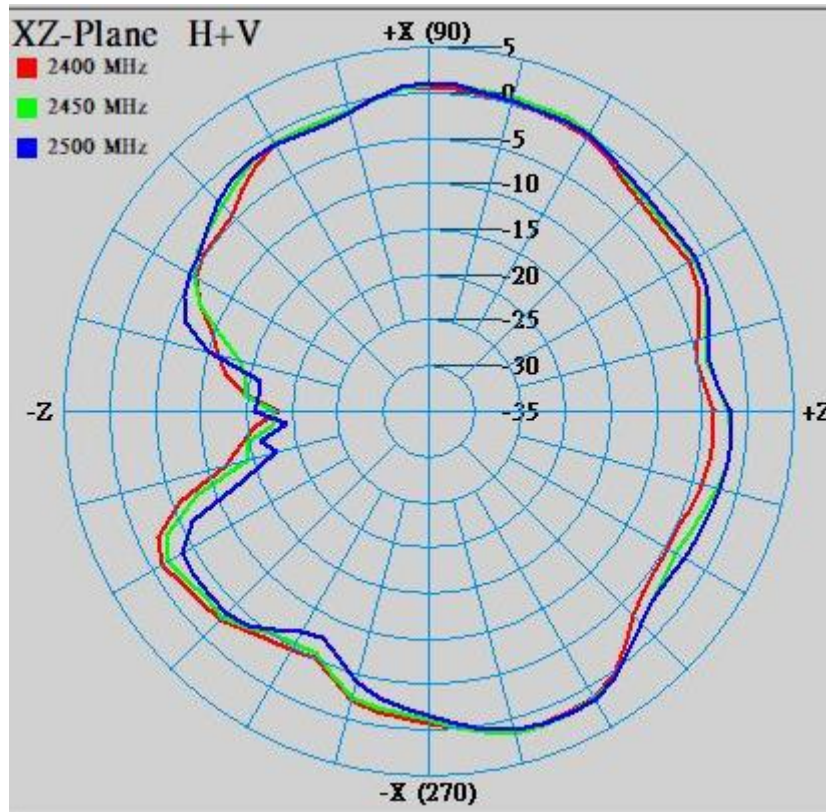
# Radiation Patterns


Free space

X-Z Plane

Phi=0.00deg

Gain . dB

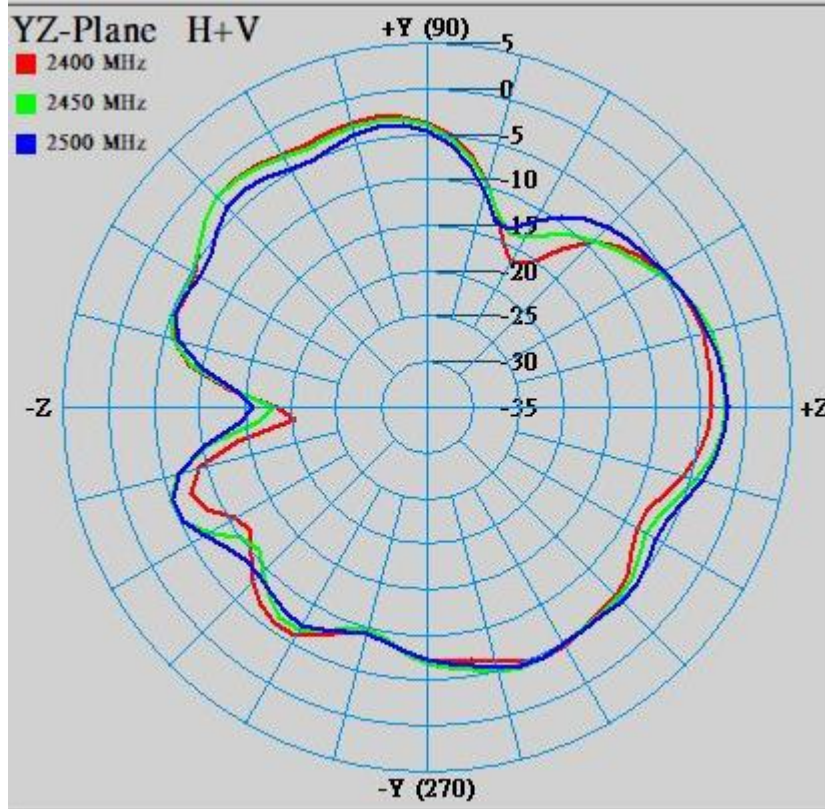



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Y-Z Plane

Phi=90.00deg

Gain . dB



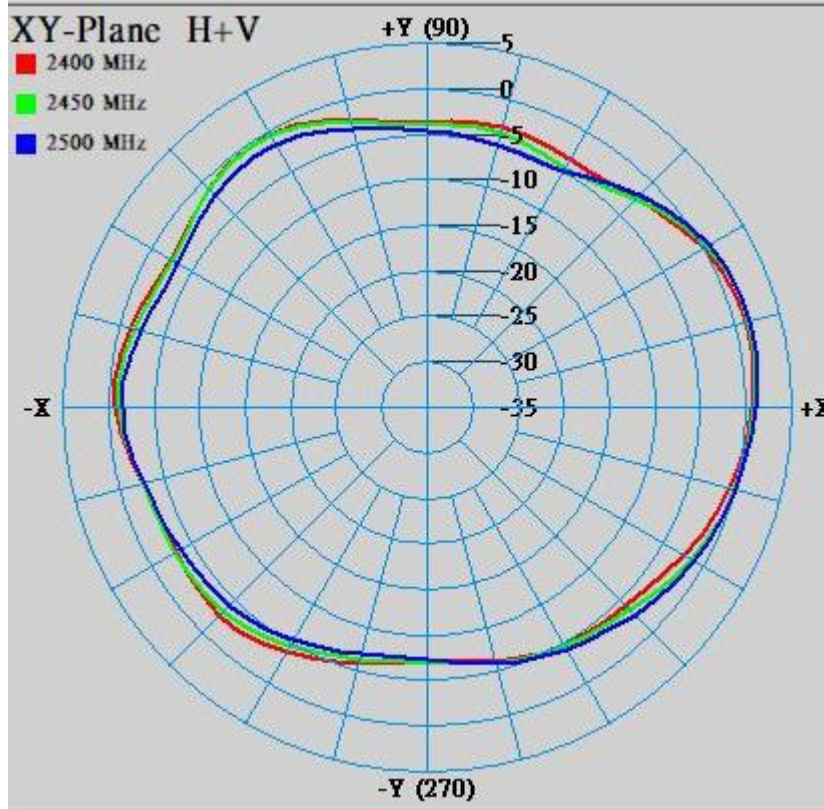
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		SPEC REV. <b>P0</b>




X-Y Plane

Theta=90.00deg

Gain . dB



Frequency [MHz]	ZX plane		ZY plane		XY plane	
	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]
2400	1.51	-2.28	-2.20	-5.93	1.12	-2.20
2450	1.74	-1.94	-2.19	-5.59	1.49	-2.17
2500	1.65	-2.04	-2.14	-5.80	1.62	-2.38

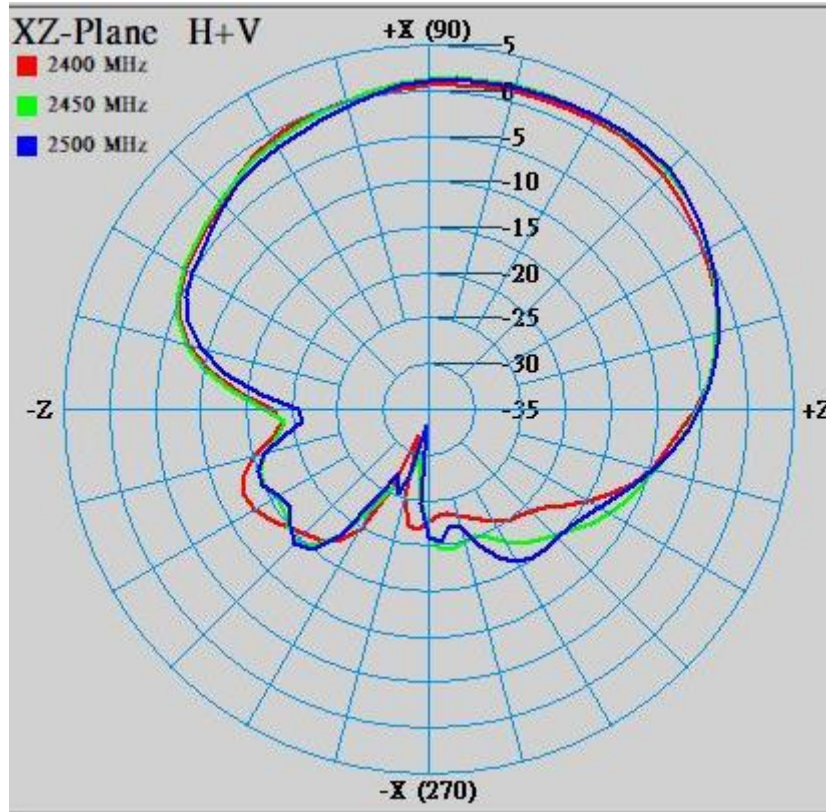
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Head

X-Z Plane

Phi=0.00deg

Gain . dB

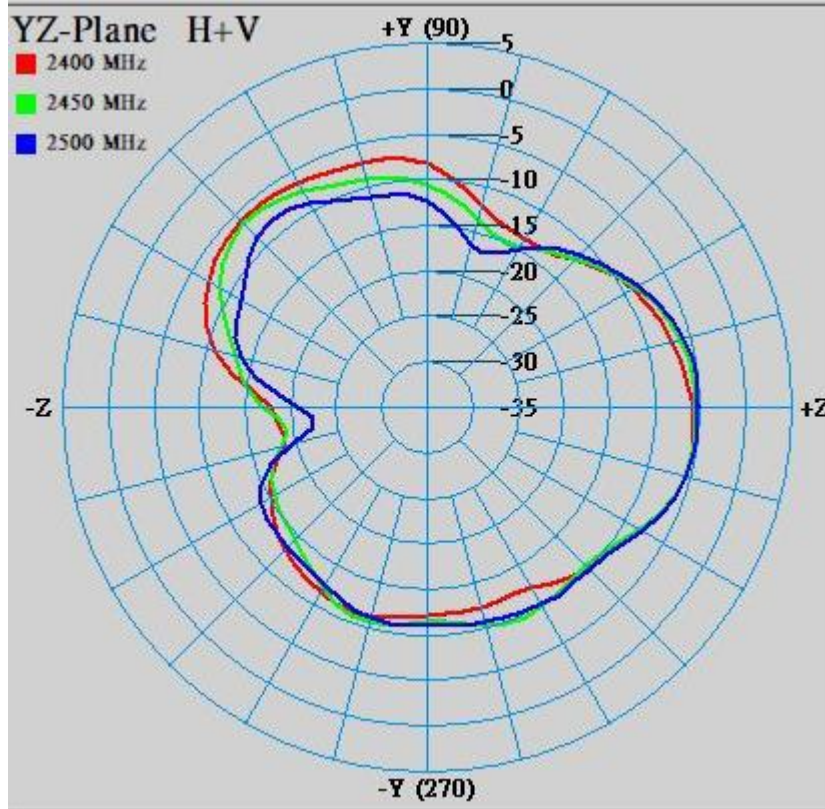



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Y-Z Plane

Phi=90.00deg

Gain . dB

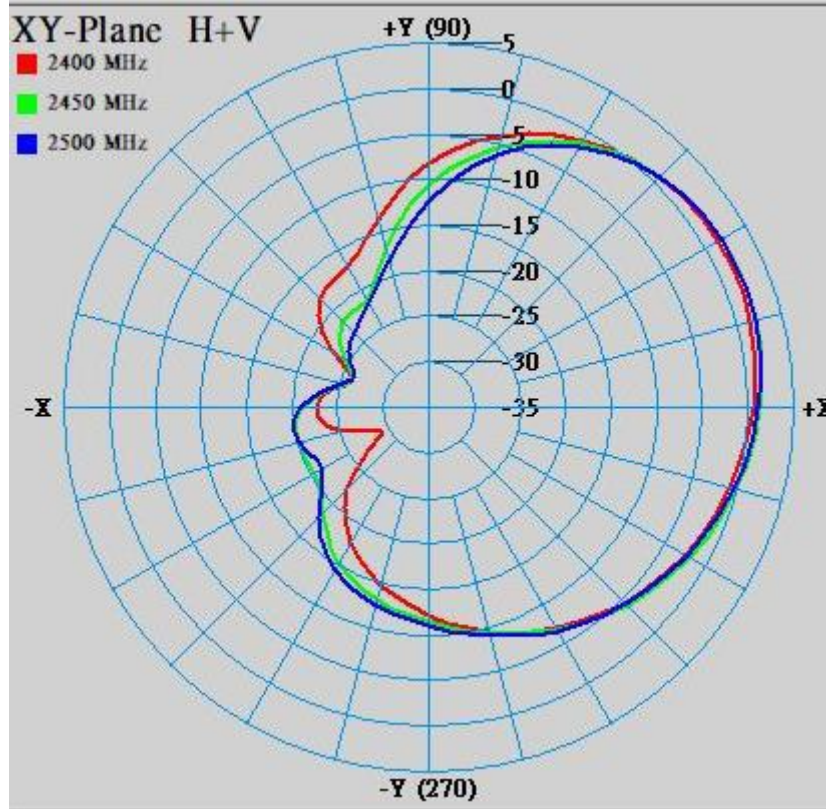


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X-Y Plane

Theta=90.00deg

Gain . dB



Frequency [MHz]	ZX plane		ZY plane		XY plane	
	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]
2400	1.63	-3.68	-5.51	-9.34	1.67	-4.40
2450	2.16	-3.28	-5.47	-9.63	2.22	-4.07
2500	2.33	-3.49	-5.23	-10.01	2.17	-4.23

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