



### 1.Explanation of part number :

RF	MTA	1107	00	N	N	L	B	0	04
Type Code	Product Code	Metal Dimension (Unit: mm)	Cable Length (unit: cm)	Connector Brand	Type of Connector	Application	Project status	Wire Diameter	Project
Walsin RF Device	Metal Antenna	Per 2 digits of length, width e.g.:1107 Length 11.35 mm, Width 7.85mm	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>B: Reverse Male</b> F: Female M: Male N: None	<b>0: 0GHz</b> <b>3: 3GHz</b> <b>6: 6GHz</b> A: 2.4GHz ISM band B: GSM 900/1800 dual band G: GPS band L: 2.4/5.2/5.8 GHz tri-band <b>N: NFC</b> <b>T: LTE band</b> 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 / 5.15 ~ 5.85 GHz (Note-1)
Return Loss	-10dB(Max)
Peak Gain	ANT1:1.20 dBi(@2.4 ~ 2.5 GHz) ANT1:3.25 dBi(@5.15 ~ 5.85 GHz) ANT2:1.76 dBi(@2.4 ~ 2.5 GHz) ANT2:3.55 dBi(@5.15 ~ 5.85 GHz)
VSWR	< 2.0
Polarization	Linear Vertical
Admitted Power	1W
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



**INPAQ TECHNOLOGY CO., LTD.**

SCALE : N/A

UNIT : mm

DRAWN BY : 詹惠雯

CHECKED BY : 詹惠雯

DESIGNED BY : 黃瑞郎

APPROVED BY : 陳振榮

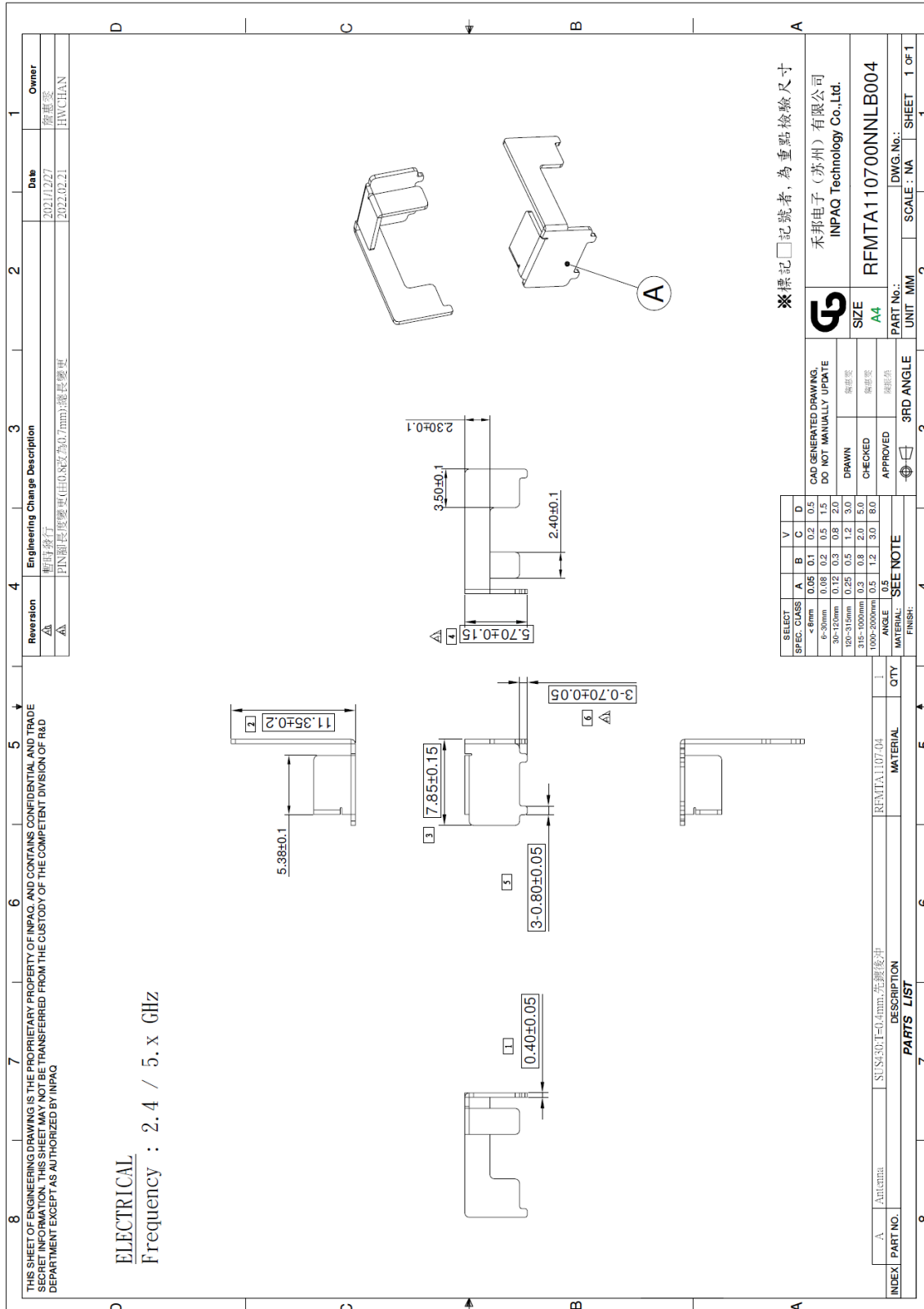
THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION


TITLE : RFMTA110700NNLB004

DOCUMENT NO.

SPEC REV.  
**A0**

### 3. Antenna Drawing :



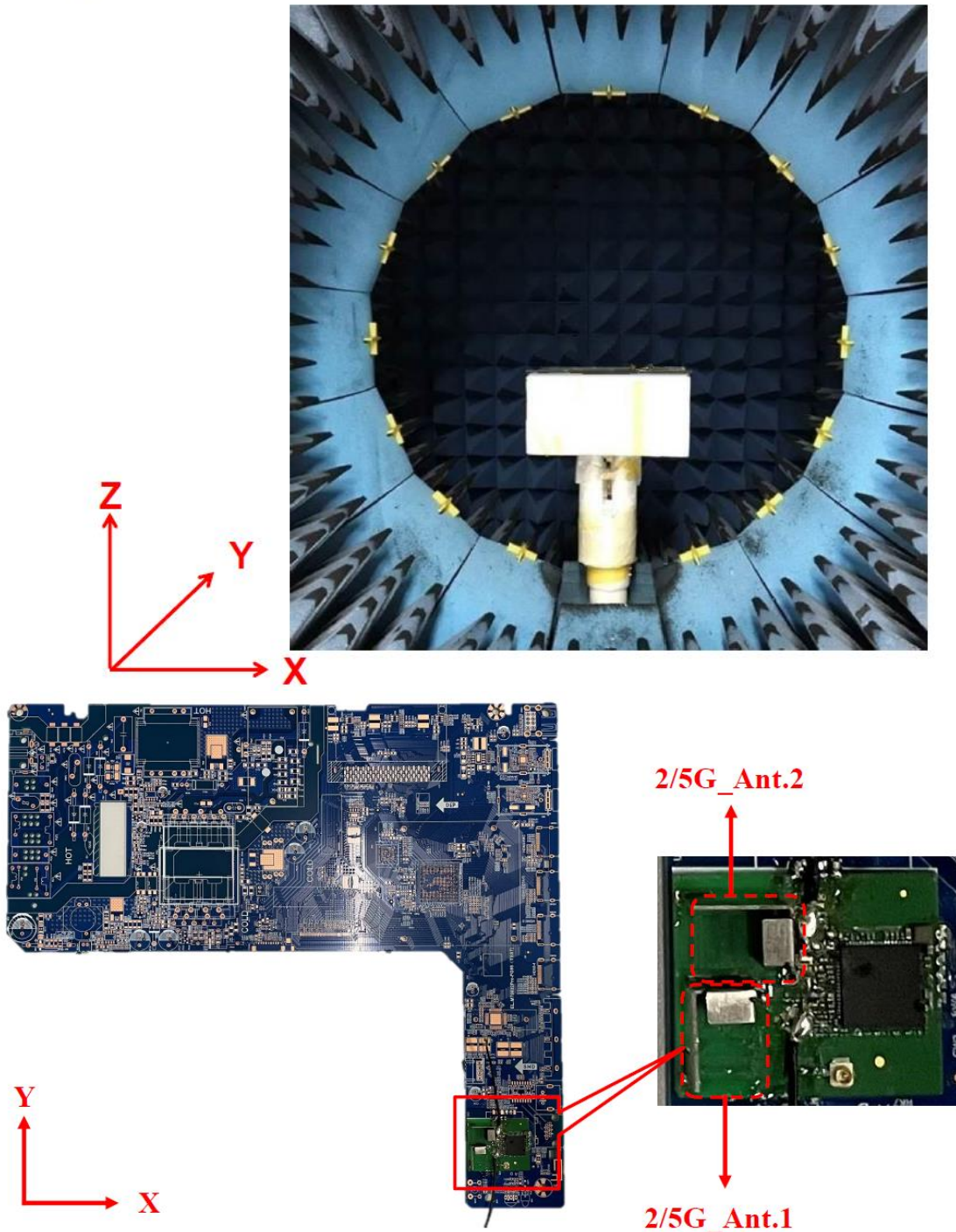
UNLESS OTHER SPECIFIED TOLERANCES ON :		 <b>INPAQ TECHNOLOGY CO., LTD.</b>	
X = N/A	X.X = N/A      X.XX = N/A		
ANGLES = N/A		THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION	
HOLEDIA = N/A			
SCALE : N/A	UNIT : mm	DOCUMENT NO.	
DRAWN BY : 詹惠愛	CHECKED BY : 詹惠愛		SPEC REV. <b>A0</b>
DESIGNED BY : 黃瑞郎	APPROVED BY : 陳振榮		
TITLE : RFMTA110700NNLB004			


4. Performance Report :

**Test Report**

**Experimental Setup**

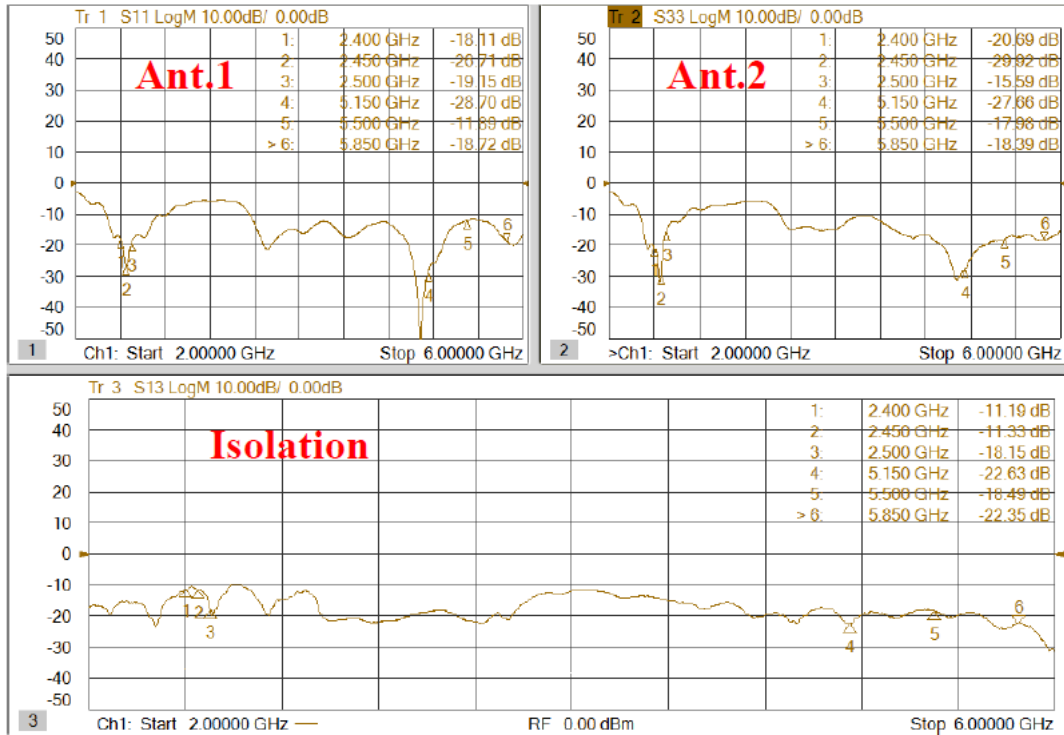
Experimental Setup




UNLESS OTHER SPECIFIED TOLERANCES ON :			<b>INPAQ TECHNOLOGY CO., LTD.</b>
X = N/A	X.X = N/A		
ANGLES = N/A		HOLEDIA = N/A	
E : N/A	UNIT : mm		
DRAWN BY : 詹惠雯	CHECKED BY : 詹惠雯		
DESIGNED BY : 黃瑞郎	APPROVED BY : 陳振榮		
TITLE : RFMTA110700NNLB004		DOCUMENT NO.	SPEC REV.
			A0

# ELECTRICAL CHARACTERISTICS

## Return Loss & Isolation

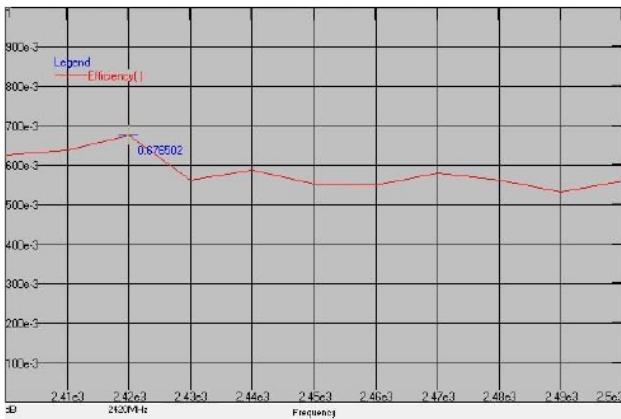
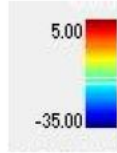
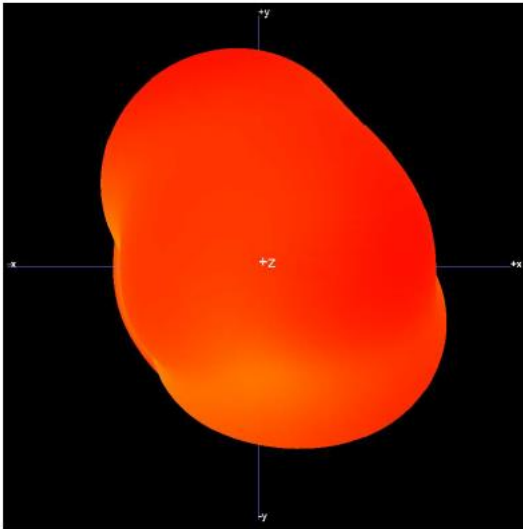


UNLESS OTHER SPECIFIED TOLERANCES ON : X=N/A      X.X=N/A      X.XX=N/A ANGLES=N/A      HOLEDIA=N/A		 <b>INPAQ TECHNOLOGY CO., LTD.</b>	
SCALE : N/A	UNIT : mm		
DRAWN BY : 詹惠雯	CHECKED BY : 詹惠雯	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION	
DESIGNED BY : 黃瑞郎	APPROVED BY : 陳振榮		
TITLE : RFMTA110700NNLB004		DOCUMENT NO.	SPEC REV. <b>A0</b>

# Antenna Efficiency and Peak Gain


Ant.1\_2G

2450 MHz



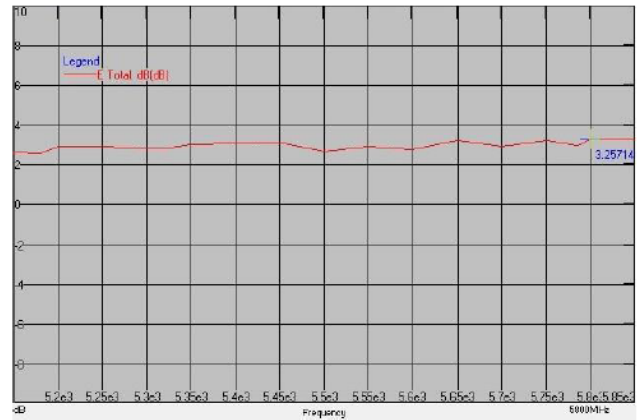
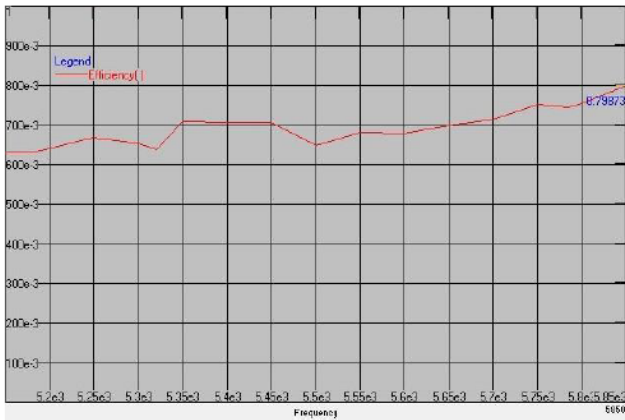
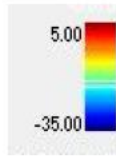
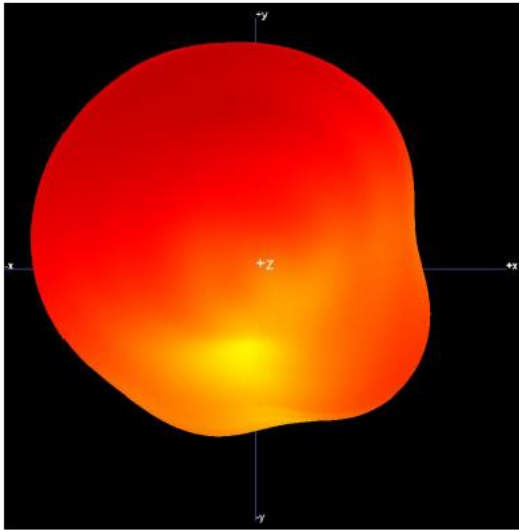
Maximum Efficiency at 2420 MHz : 67.65 %

Maximum Peak Gain at 2420 MHz : 1.20 dBi

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>
SCALE : N/A	UNIT : mm	
DRAWN BY : 詹惠雯	CHECKED BY : 詹惠雯	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
DESIGNED BY : 黃瑞郎	APPROVED BY : 陳振榮	
TITLE : RFMTA110700NNLB004		DOCUMENT NO.
		SPEC REV. <b>A0</b>


# Ant.1\_5G

5500 MHz



Maximum Efficiency at 5850 MHz : 79.87 %

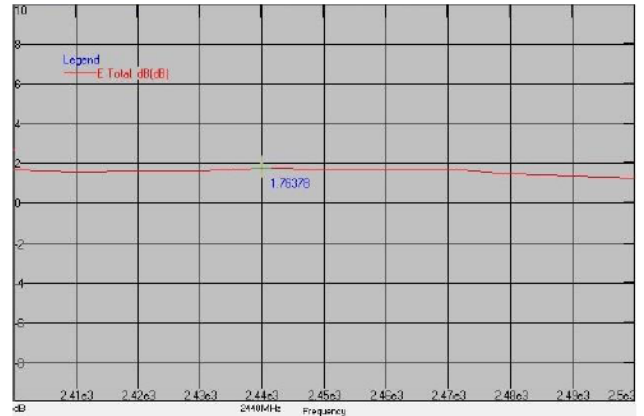
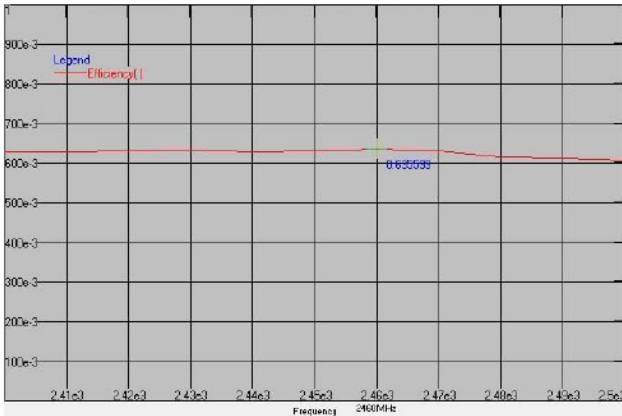
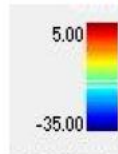
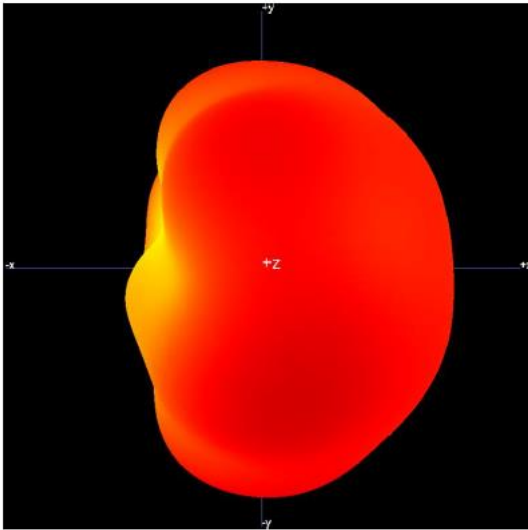
Maximum Peak Gain at 5800 MHz : 3.25 dBi

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>
SCALE : N/A	UNIT : mm	
DRAWN BY : 詹惠雯	CHECKED BY : 詹惠雯	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
DESIGNED BY : 黃瑞郎	APPROVED BY : 陳振榮	
TITLE : RFMTA110700NNLB004		DOCUMENT NO.
		SPEC REV. A0




**Ant.2\_2G**

**2450 MHz**



Maximum Efficiency at 2460 MHz : 63.55 %

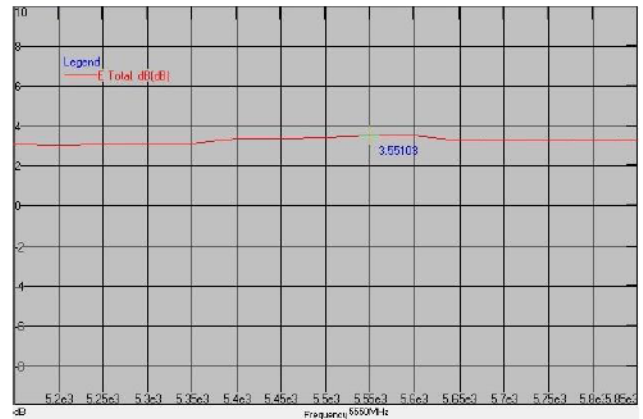
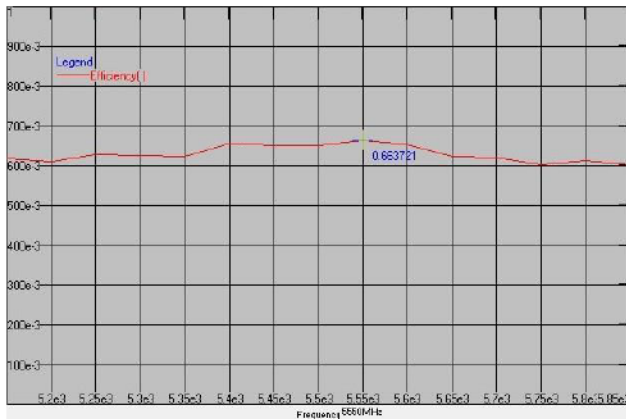
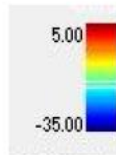
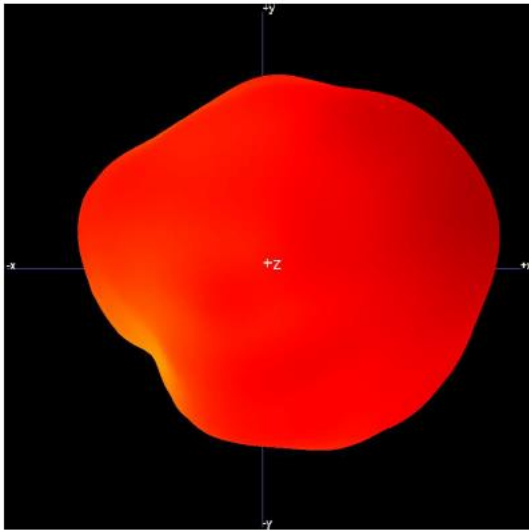
Maximum Peak Gain at 2440 MHz : 1.76 dBi

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>	
SCALE : N/A	UNIT : mm		
DRAWN BY : 詹惠雯	CHECKED BY : 詹惠雯	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	
DESIGNED BY : 黃瑞郎	APPROVED BY : 陳振榮		
TITLE : RFMTA110700NNLB004		DOCUMENT NO.	SPEC REV. <b>A0</b>



**Ant.2\_5G**

**5500 MHz**



Maximum Efficiency at 5550 MHz : 66.37 %

Maximum Peak Gain at 5550 MHz : 3.55 dBi

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 : 詹惠雯	CHECKED BY : 詹惠雯
DESIGNED BY : 黃瑞郎	APPROVED BY : 陳振榮

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TITLE : RFMTA110700NNLB004

DOCUMENT NO.	SPEC REV.

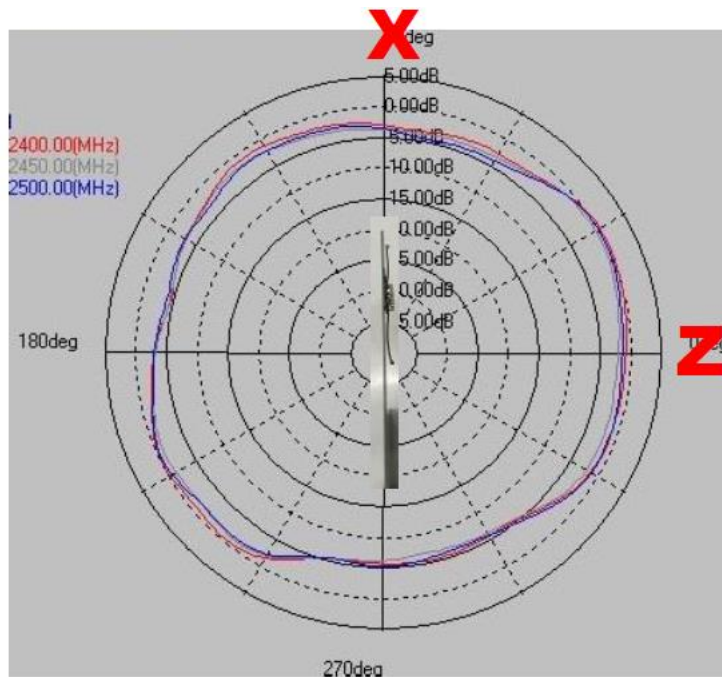
# RADIATION PATTERN


**Ant.1**  
**2400 ~ 2500MHz**

**X-Z Plane**

**Phi=0.00deg**

**Gain . dB**

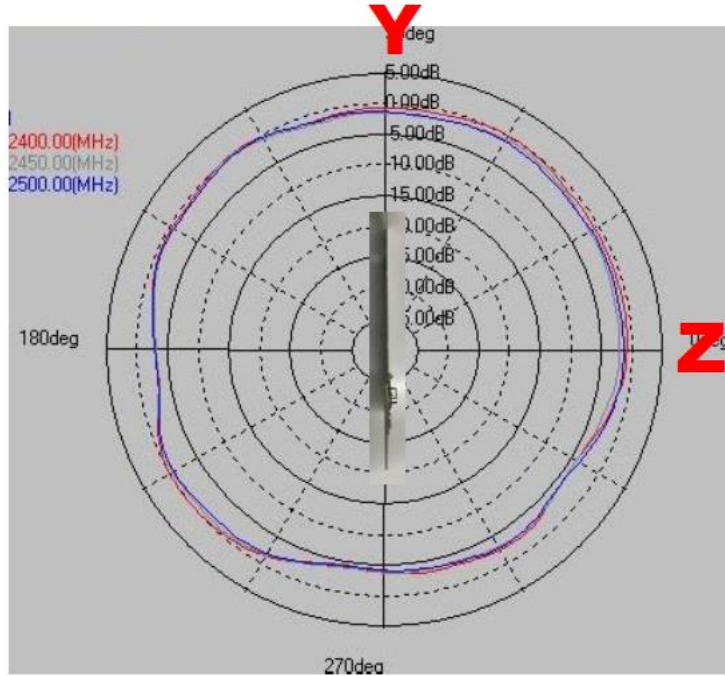



UNLESS OTHER SPECIFIED TOLERANCES ON : X=N/A      X.X=N/A      X.XX=N/A ANGLES=N/A      HOLEDIA=N/A		 <b>INPAQ TECHNOLOGY CO., LTD.</b>	
SCALE : N/A	UNIT : mm		
DRAWN BY : 詹惠雯	CHECKED BY : 詹惠雯	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION	
DESIGNED BY : 黃瑞郎	APPROVED BY : 陳振榮		
TITLE : RFMTA110700NNLB004		DOCUMENT NO.	SPEC REV. <b>A0</b>

Y-Z Plane

Phi=90.00deg

Gain . dB

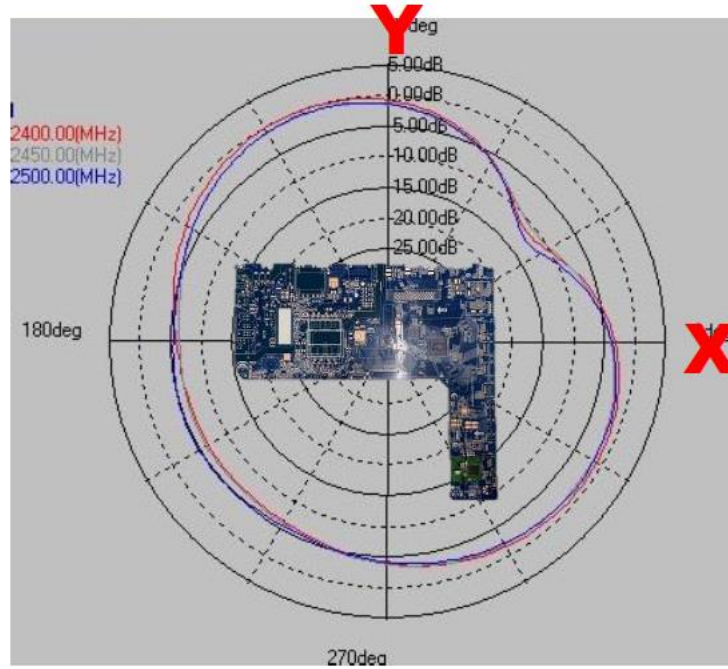


UNLESS OTHER SPECIFIED TOLERANCES ON :			<b>INPAQ TECHNOLOGY CO., LTD.</b>
X = N/A	X.X = N/A		
ANGLES = N/A		HOLEDIA = N/A	
SCALE : N/A	UNIT : mm		
DRAWN BY : 詹惠雯	CHECKED BY : 詹惠雯		
DESIGNED BY : 黃瑞郎	APPROVED BY : 陳振榮		
TITLE : RFMTA110700NNLB004		DOCUMENT NO.	SPEC REV.
			A0


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	0.42	-2.19	0.17	-1.44	-0.13	-3.25
2450	0.39	-2.67	-0.10	-1.95	-0.92	-3.80
2500	0.11	-2.59	-0.19	-1.90	-0.84	-3.67

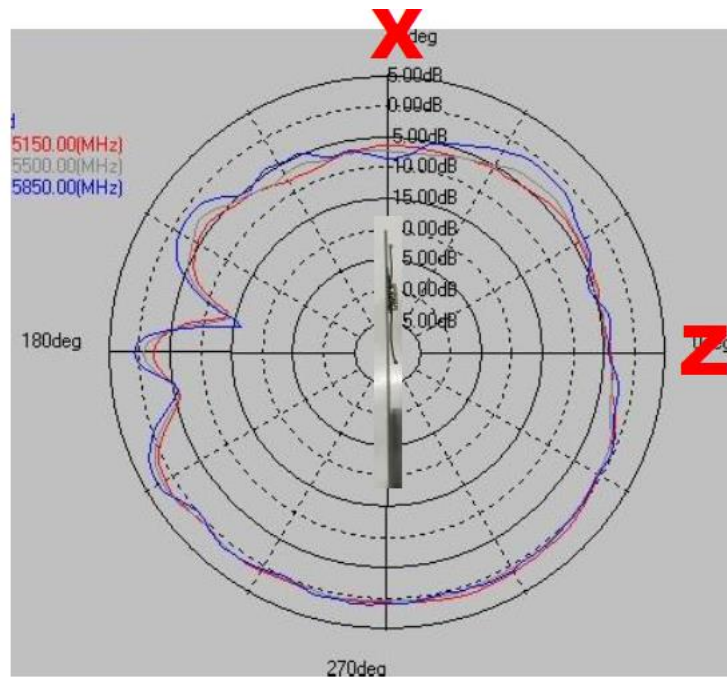
UNLESS OTHER SPECIFIED TOLERANCES ON : X=N/A      X.X=N/A      X.XX=N/A ANGLES=N/A      HOLEDIA=N/A		 <b>INPAQ TECHNOLOGY CO., LTD.</b>	
SCALE : N/A	UNIT : mm		
DRAWN BY : 詹惠雯	CHECKED BY : 詹惠雯	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION	
DESIGNED BY : 黃瑞郎	APPROVED BY : 陳振榮		
TITLE : RFMTA110700NNLB004		DOCUMENT NO.	SPEC REV. <b>A0</b>

**Ant.1**  
**5150 ~ 5850MHz**

**X-Z Plane**

**Phi=0.00deg**

**Gain . dB**

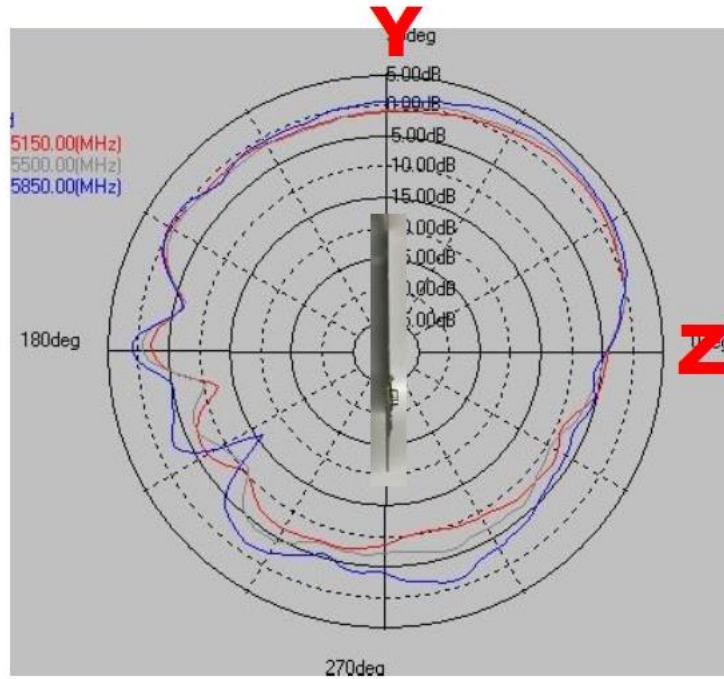



UNLESS OTHER SPECIFIED TOLERANCES ON : X=N/A      X.X=N/A      X.XX=N/A ANGLES=N/A      HOLEDIA=N/A		 <b>INPAQ TECHNOLOGY CO., LTD.</b>
SCALE : N/A	UNIT : mm	
DRAWN BY : 詹惠雯	CHECKED BY : 詹惠雯	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION
DESIGNED BY : 黃瑞郎	APPROVED BY : 陳振榮	
TITLE : RFMTA110700NNLB004		DOCUMENT NO.
		SPEC REV. <b>A0</b>

Y-Z Plane

Phi=90.00deg

Gain . dB



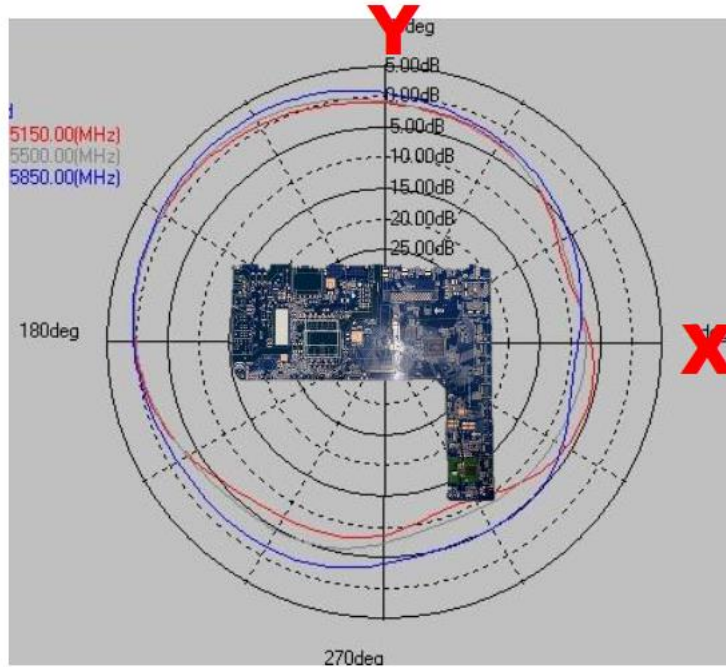
UNLESS OTHER SPECIFIED TOLERANCES ON :			<b>INPAQ TECHNOLOGY CO., LTD.</b>
X = N/A	X.X = N/A      X.XX = N/A		
ANGLES = N/A		THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION	
SCALE : N/A	UNIT : mm		
DRAWN BY : 詹惠雯	CHECKED BY : 詹惠雯		
DESIGNED BY : 黃瑞郎	APPROVED BY : 陳振榮	DOCUMENT NO.	
TITLE : RFMTA110700NNLB004			
		SPEC REV.	
		<b>A0</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]
5150	1.57	-1.96	1.76	-2.74	1.38	-2.78
5500	1.97	-1.98	2.40	-2.38	1.58	-2.54
5850	2.76	-1.40	3.13	-1.14	2.36	-1.37

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>	
SCALE : N/A	UNIT : mm		
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DESIGNED BY : 黃瑞郎	APPROVED BY : 陳振榮		
TITLE : RFMTA110700NNLB004		DOCUMENT NO.	SPEC REV. <b>A0</b>



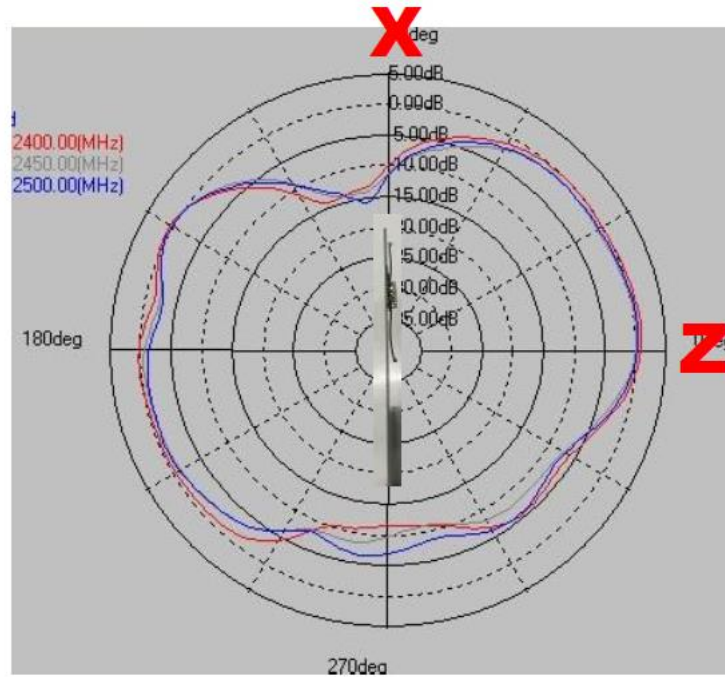
**Ant.2**


**2400 ~ 2500MHz**

**X-Z Plane**

**Phi=0.00deg**

**Gain . dB**

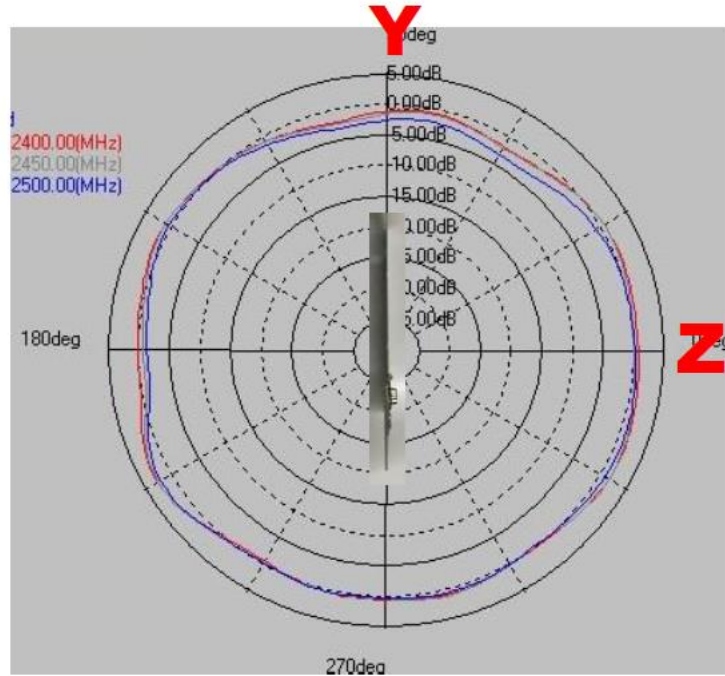



UNLESS OTHER SPECIFIED TOLERANCES ON :			<b>INPAQ TECHNOLOGY CO., LTD.</b>
X = N/A	X.X = N/A      X.XX = N/A		
ANGLES = N/A      HOLEDIA = N/A		THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION	
SCALE : N/A	UNIT : mm		
DRAWN BY : 詹惠雯	CHECKED BY : 詹惠雯		
DESIGNED BY : 黃瑞郎	APPROVED BY : 陳振榮		
TITLE : RFMTA110700NNLB004		DOCUMENT NO.	SPEC REV. <b>A0</b>

Y-Z Plane

Phi=90.00deg

Gain . dB

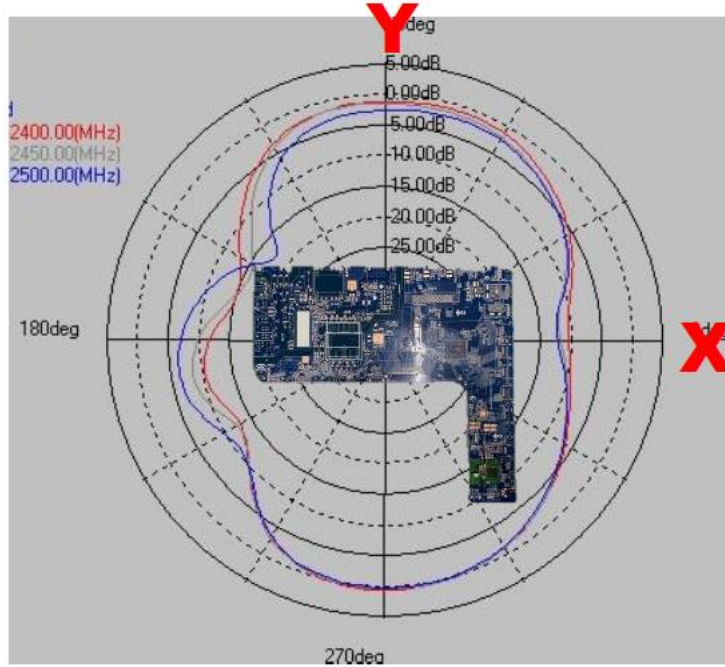


UNLESS OTHER SPECIFIED TOLERANCES ON : X=N/A      X.X=N/A      X.XX=N/A ANGLES=N/A      HOLEDIA=N/A		 <b>INPAQ TECHNOLOGY CO., LTD.</b>	
SCALE : N/A	UNIT : mm		
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TITLE : RFMTA110700NNLB004		DOCUMENT NO.	SPEC REV. <b>A0</b>


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	1.03	-2.47	1.63	0.31	0.36	-3.85
2450	0.30	-3.23	1.58	0.13	0.18	-4.12
2500	0.50	-3.08	1.10	-0.36	0.01	-4.47

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>
SCALE : N/A	UNIT : mm		
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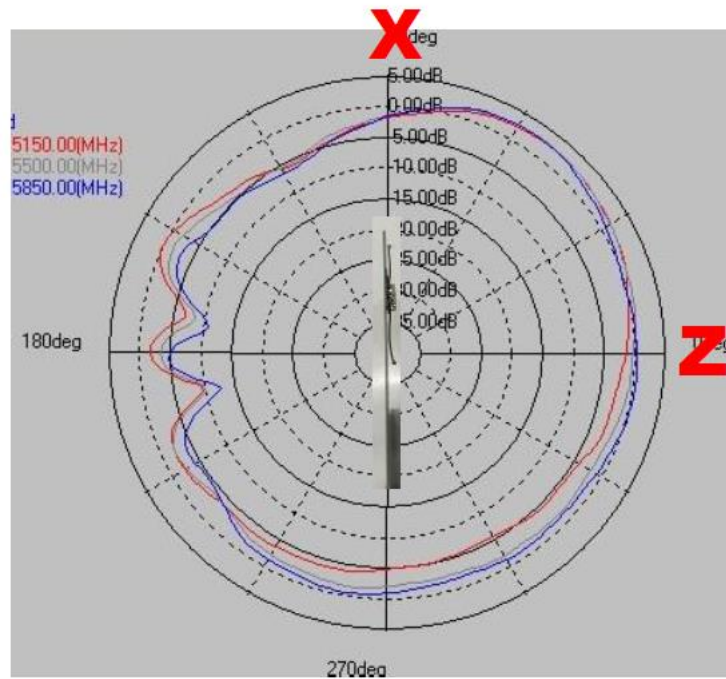
**Ant.2**


**5150 ~ 5850MHz**

**X-Z Plane**

**Phi=0.00deg**

**Gain . dB**

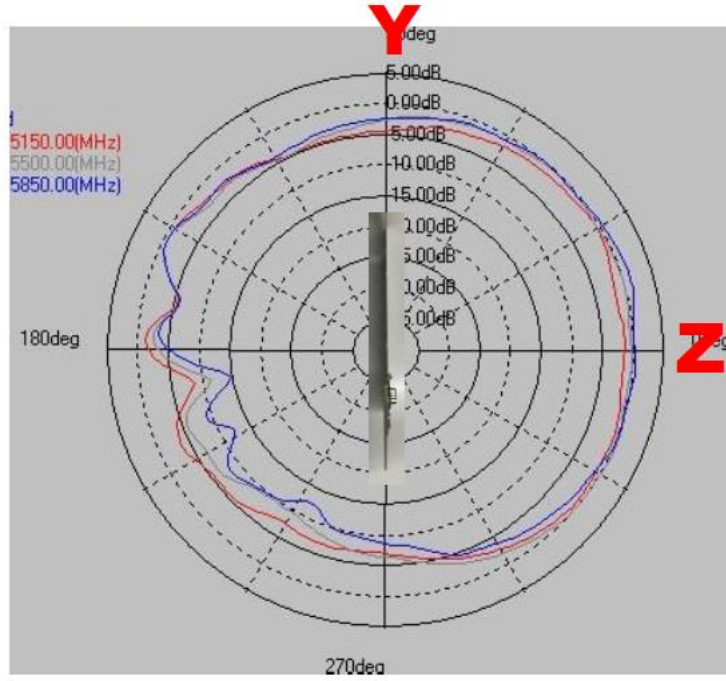



UNLESS OTHER SPECIFIED TOLERANCES ON :		 <b>INPAQ TECHNOLOGY CO., LTD.</b>	
X = N/A	X.X = N/A      X.XX = N/A		
ANGLES = N/A      HOLEDIA = N/A		THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION	
SCALE : N/A	UNIT : mm		
DRAWN BY : 詹惠雯	CHECKED BY : 詹惠雯		
DESIGNED BY : 黃瑞郎	APPROVED BY : 陳振榮		
TITLE : RFMTA110700NNLB004		DOCUMENT NO.	SPEC REV.
			<b>A0</b>

Y-Z Plane

Phi=90.00deg

Gain . dB

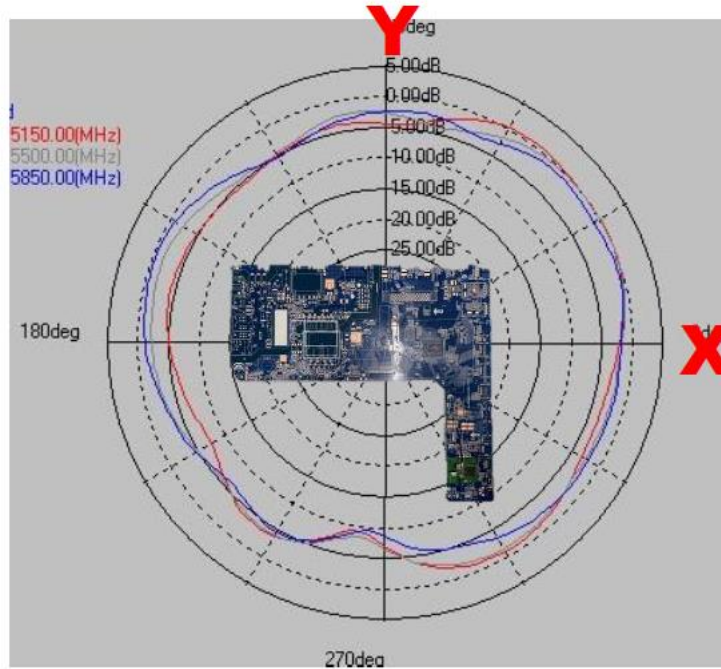


UNLESS OTHER SPECIFIED TOLERANCES ON :			<b>INPAQ TECHNOLOGY CO., LTD.</b>
X = N/A	X.X = N/A		
ANGLES = N/A		HOLEDIA = N/A	
SCALE : N/A	UNIT : mm	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION	
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			A0


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]
5150	2.54	-1.91	0.47	-2.95	0.36	-3.06
5500	2.67	-1.34	0.44	-2.51	0.08	-2.64
5850	2.59	-1.38	1.27	-2.67	0.33	-2.79

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>	
SCALE : N/A	UNIT : mm		
DRAWN BY : 詹惠雯	CHECKED BY : 詹惠雯	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	
DESIGNED BY : 黃瑞郎	APPROVED BY : 陳振榮		
TITLE : RFMTA110700NNLB004		DOCUMENT NO.	SPEC REV. <b>A0</b>