

# APPROVAL SHEET

**Dipole Antenna**

**5.15~5.85 GHz Working Frequency**

**P/N: RFDPA161530IM5B901**

Customer : 威強電工業電腦股份有限公司

Customer 's Part No. : CKP-32505-012800-100-HF

Approval No. :

Issue Date :

佳邦科技股份有限公司 INPAQ TECHNOLOGY CO., LTD.

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(566-1,Ko-Shi Road, Yang-Mei, Tao-Yuan 32668,Taiwan.

電話號碼 Tel : 03 475 8711



品名：RFDPA161530IM5B901

History List

版本 REV.	修訂者 EDITOR	修訂頁次 PAGE	修訂內容 ITEMS OF CHANGE	申請日期 DATE	生效日期 VALID DATE	ECN 編號 ECN NO.
P0	邱瑩鈺	ALL	New drawing release	2024/07/02	According to the date of PLM Release	N/A


品名：RFDPA161530IM5B901

1. Explanation of part number :

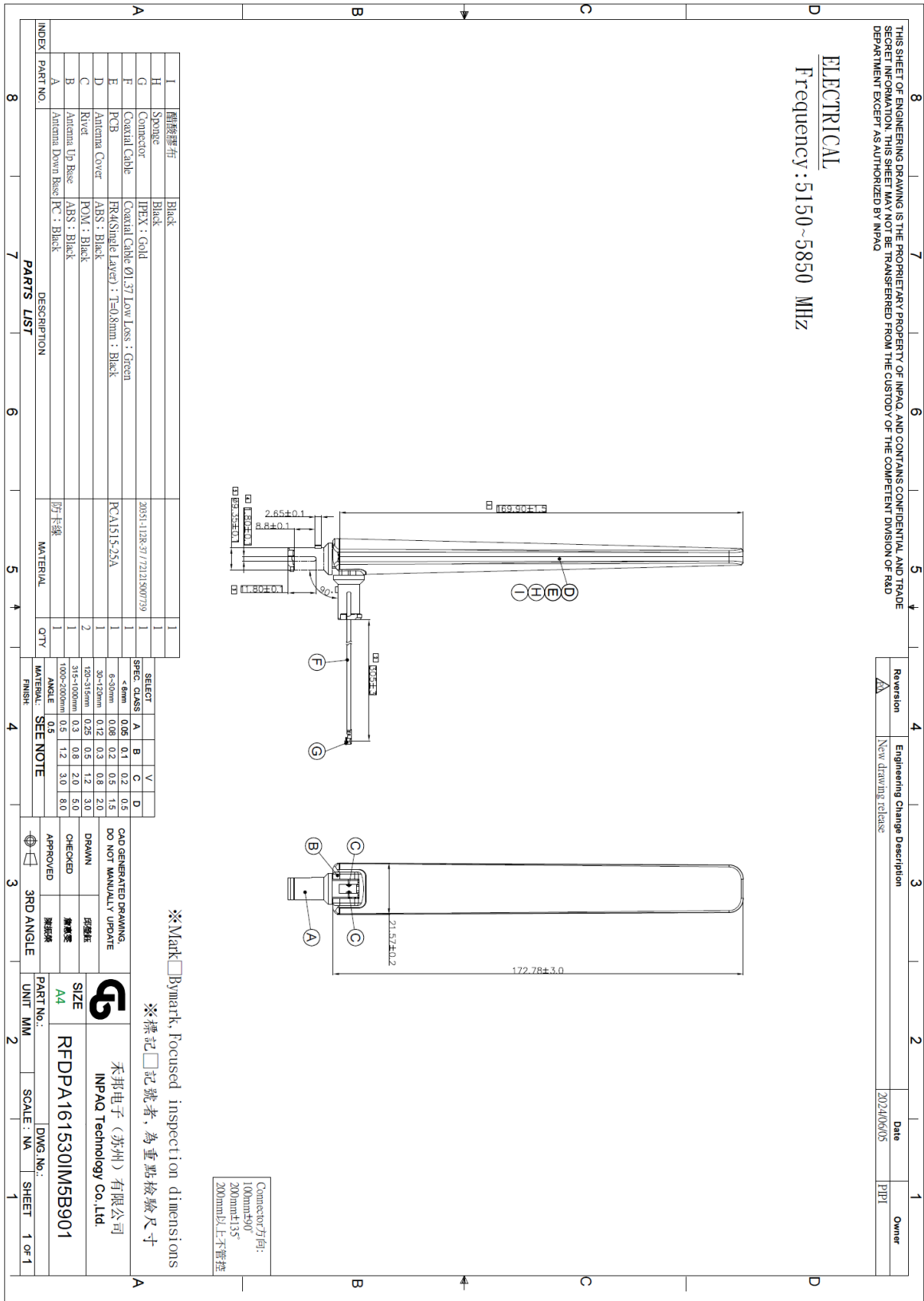
RF	DPAA	1615	30	I	M	5	B	9	01
Type Code	Product Code	Dipole Dimension (Unit: mm)	Cable Length (unit: cm)	Connector Brand	Type of Connector	Application	Project status	Wire Diameter	Project
RF Device	Dipole Antenna	Per 2 digits of length, width e.g.: 1614 Length 160.0mm, Width 140.0mm	2 digits for cable length e.g.: 20 5G1 : Length 17.5cm 5G2 : Length 17.5cm 2G1 : Length 20.0cm 2G2 : Length 13.0cm BT : Length 7.0cm	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> <b>5: 5GHz</b> A: 2.4GHz ISM band B: GSM 900/1800 dual band G: GPS band L: 2.4/5.X 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: Ø0.81 2: Ø1.32 3: Ø1.13 4: Low Loss Ø1.13 5: Ø0.5 6: RG316 7: Ø1.37 8: RG178 9: Low Loss Ø1.37	01~99 series number


2. Electrical Specification :

Item	Specification
Working Frequency Range	5.15 ~ 5.85 GHz
Gain	3.49 dBi
Return Loss	-10dB(Max)
VSWR	2 max.
Polarization	Linear
Radiation Pattern	Omni-directional
Impedance	50Ω
Operation Temperature	-20°C ~ +65°C
Cable Loss	5GHz ≤ 1.52 dB

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 : 邱瑩鈺	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 : 王章程	APPROVED BY : 陳振榮		
TITLE : RFDPA161530IM5B901		DOCUMENT NO.	SPEC REV. <b>P0</b>

3. Drawing :

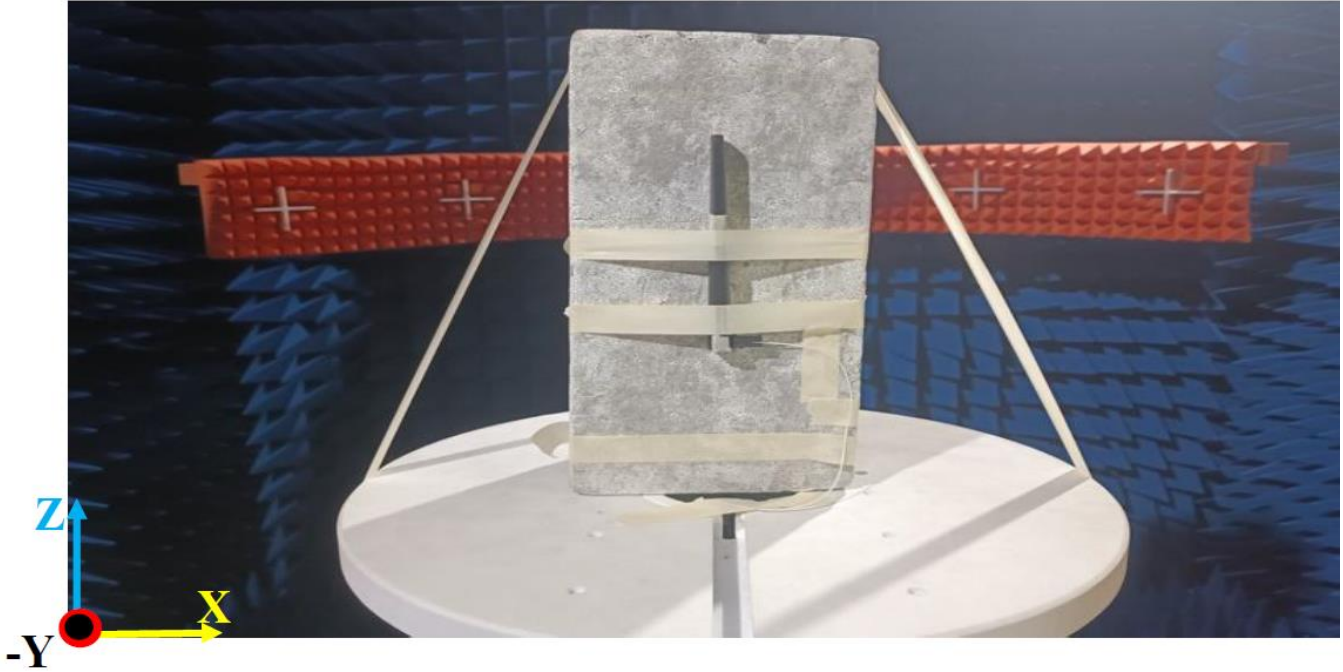



UNLESS OTHER SPECIFIED TOLERANCES ON : X=N/A      X.X=N/A      X.XX=N/A ANGLES=N/A      HOLEDIA=N/A		 <b>INPAQ TECHNOLOGY CO., LTD.</b>
SCALE : N/A	UNIT : mm	
DRAWN BY : 邱發鈺	CHECKED BY : 詹惠愛	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION
DESIGNED BY : 王章程	APPROVED BY : 陳振榮	
TITLE : RFDPA161530IM5B901		DOCUMENT NO.
		SPEC REV. P0

4. Performance Report :

**Test Report**

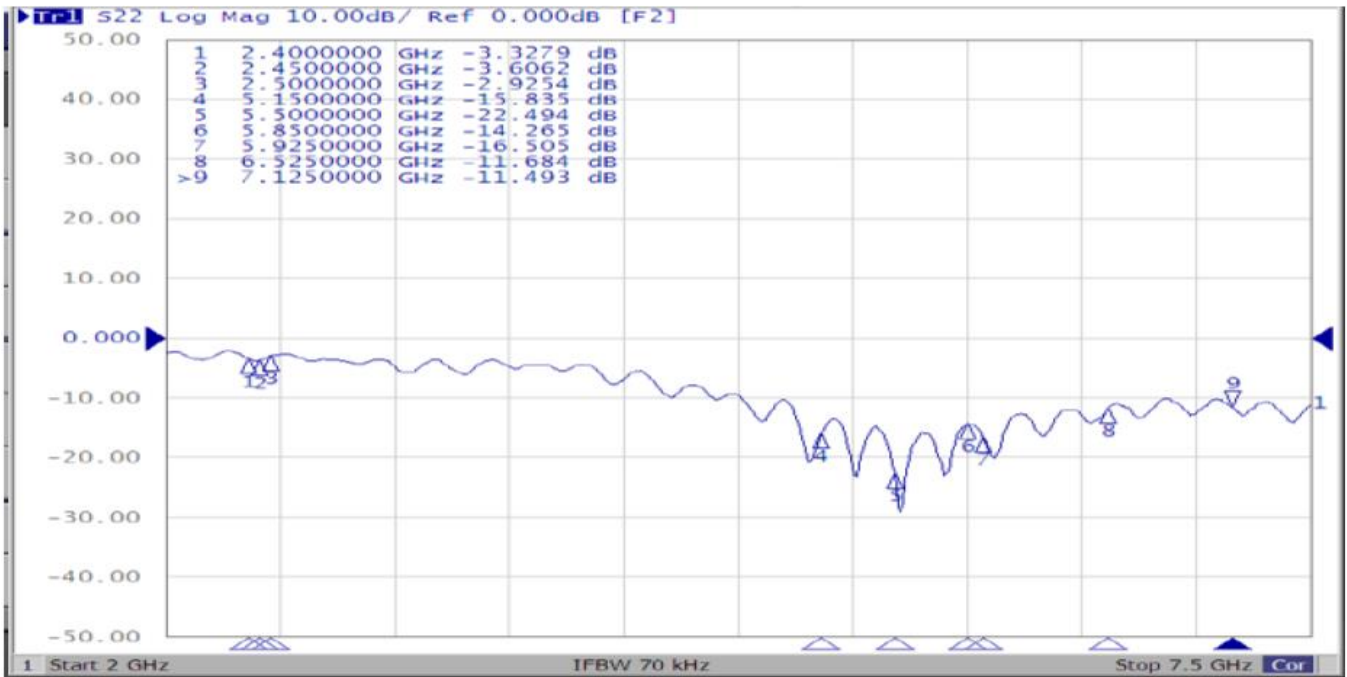
**Experimental Setup**




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 : 邱瑩鈺	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
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		SPEC REV. <b>P0</b>

# ELECTRICAL CHARACTERISTICS

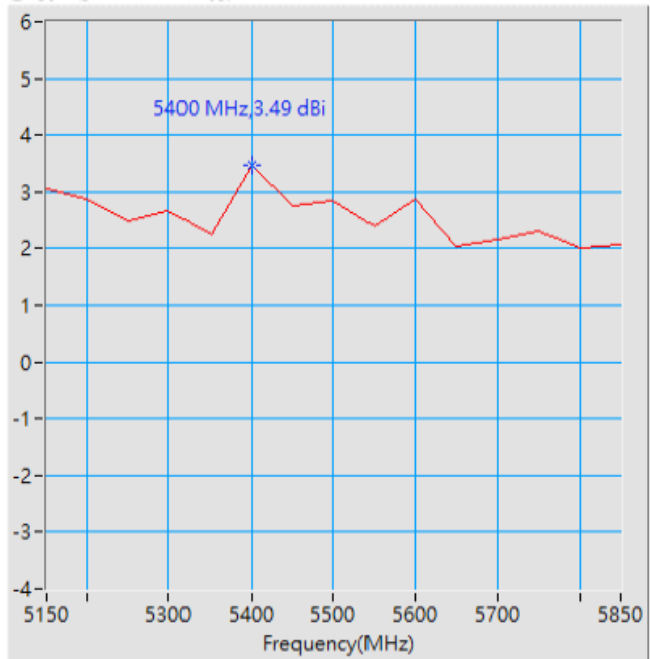
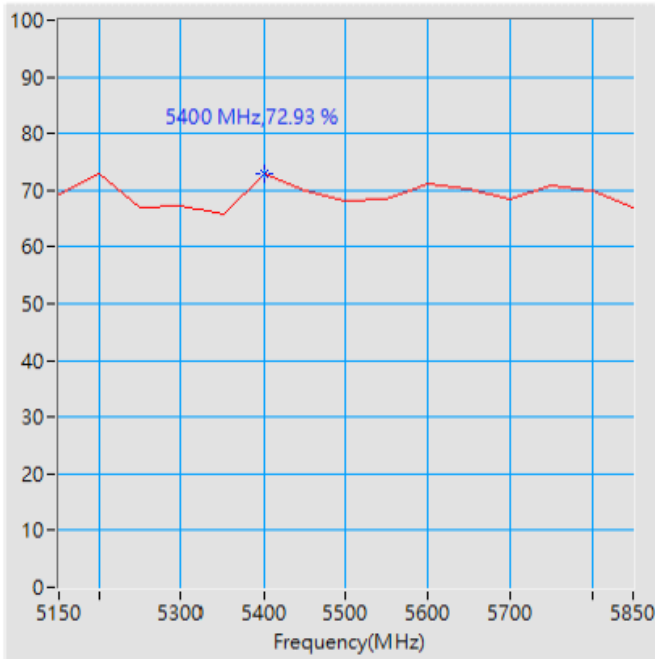
## S-parameter




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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# Antenna Efficiency and Peak Gain

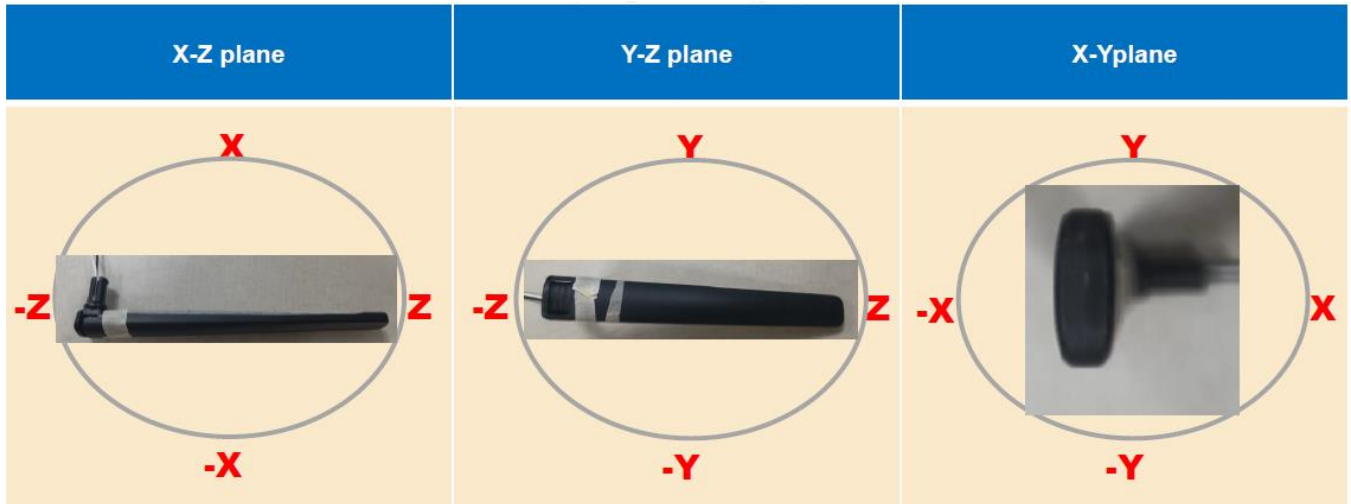
(5150 ~ 5850 ) MHz




Maximum Efficiency at 5400 MHz : 72.93 %    Maximum Peak Gain at 5400 MHz : 3.49 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 : 邱瑩鈺	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	
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TITLE : RFDPA161530IM5B901		DOCUMENT NO.	SPEC REV. <b>P0</b>

### 3 Views of antenna & 2D Radiation Patterns



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 : 邱瑩鈺	CHECKED BY : 詹惠雯		
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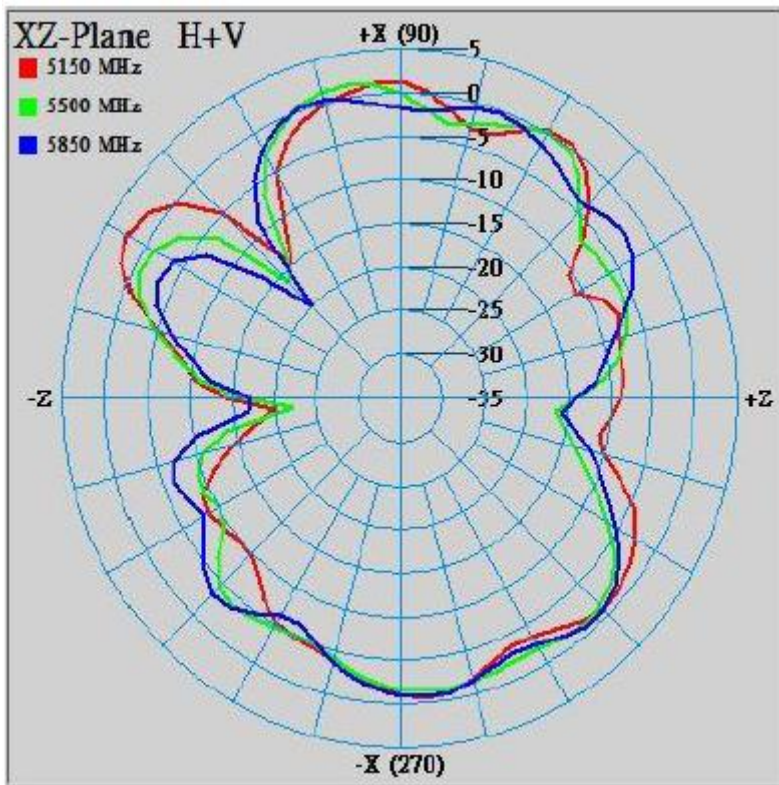



# RADIATION PATTERN

**(5150 ~ 5850 ) MHz**

X-Z Plane  
Phi=0.00deg

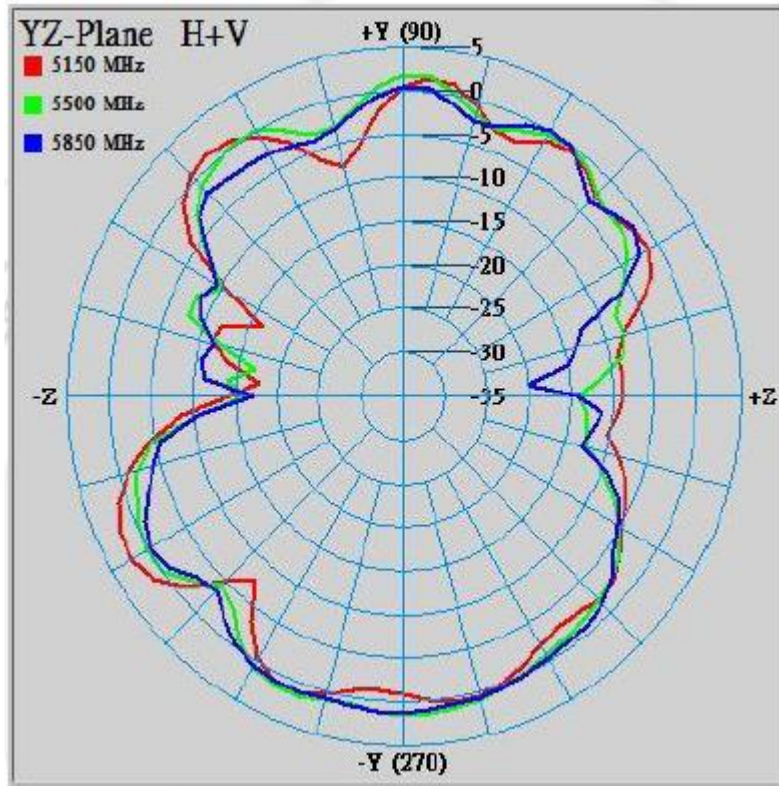
Gain . dB




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		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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DESIGNED BY : 王章程	APPROVED BY : 陳振榮	
TITLE : RFDPA161530IM5B901		DOCUMENT NO.
		SPEC REV. <b>P0</b>

Y-Z Plane  
Phi=90.00deg

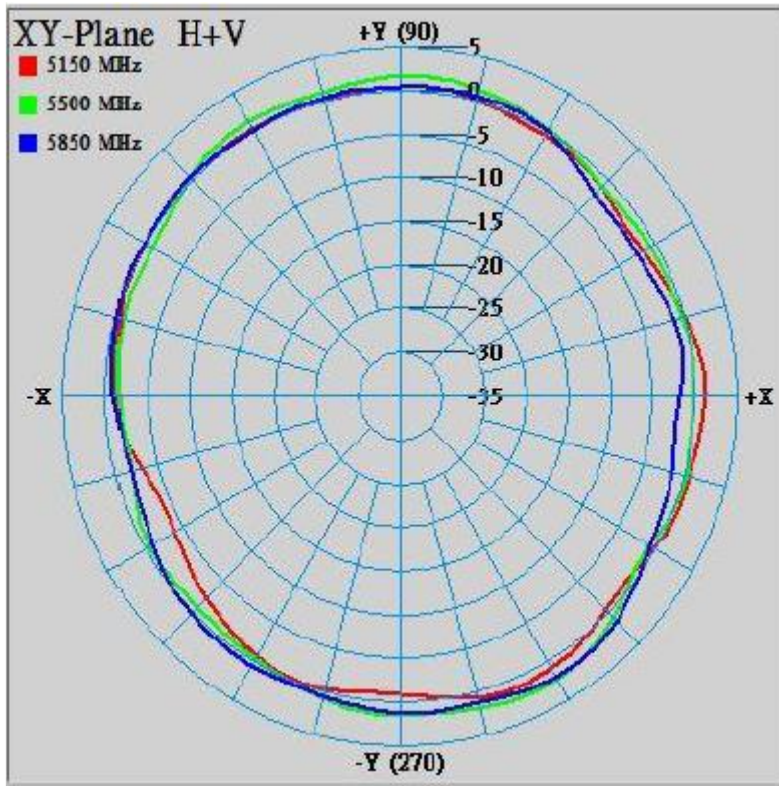
Gain . dB




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		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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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	2.32	-3.16	2.32	-2.05	1.24	-0.38
5500	1.28	-3.58	1.78	-1.91	2.31	0.25
5850	0.44	-3.68	1.30	-2.29	2.02	-0.06

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