太赫電通有限公司

承 認 書
Approval sheet

Customer :	億豐綜合工業股份有限公司
Customer P/N :	84601-11714
Brand :	INPAQ
Supplier P/N :	RFPCA310503IMAB302
Description :	2.4GHz PCB Antenna

廠 商 簽 認	
承辦人 ：	楊榮翔
技術 / 負責人:	孫主助
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Date : 2021/6/21

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品名：**RFPCA310503IMAB302** **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	李欣樺	ALL	Temporary Release	2020/08/31	According to the date of PLM Release	N/A

品名：RFPCA310503IMAB302

1. Explanation of part number：

RF	PCA	3105	03	I	M	A	B	3	02
Type Code	Product Code	Dimension (Unit: mm)	Cable Length (unit: cm)	Connector Brand	Type of Connector	Application	Project status	Wire Diameter	Project
RF Device	PCB Antenna	Per 2 digits of length, width e.g.: 3105 Length 31mm, Width1 5.6mm	2 digits for cable length e.g.:03 Length 3.3cm	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 5: 5GHz A: 2.4GHz ISM band B: GSM 900/1800 dual band G: GPS band L: 2.4/5.X GHz tri-band M:3300~4200MHz 5G：5150~7150MHz N: NFC R: 860~875MHz/ 900~928MHz T: LTE band W: WCDMA band	B: MP **T:During Test** 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
VSWR	2 max.
Peak Gain	1.18 dBi
Impedance	50 Ohm Nominal
Radiation	Omni-directional
Polarization	Linear Vertical
Admitted Power	1W
Operation Temperature	－20℃ ～ ＋65℃

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	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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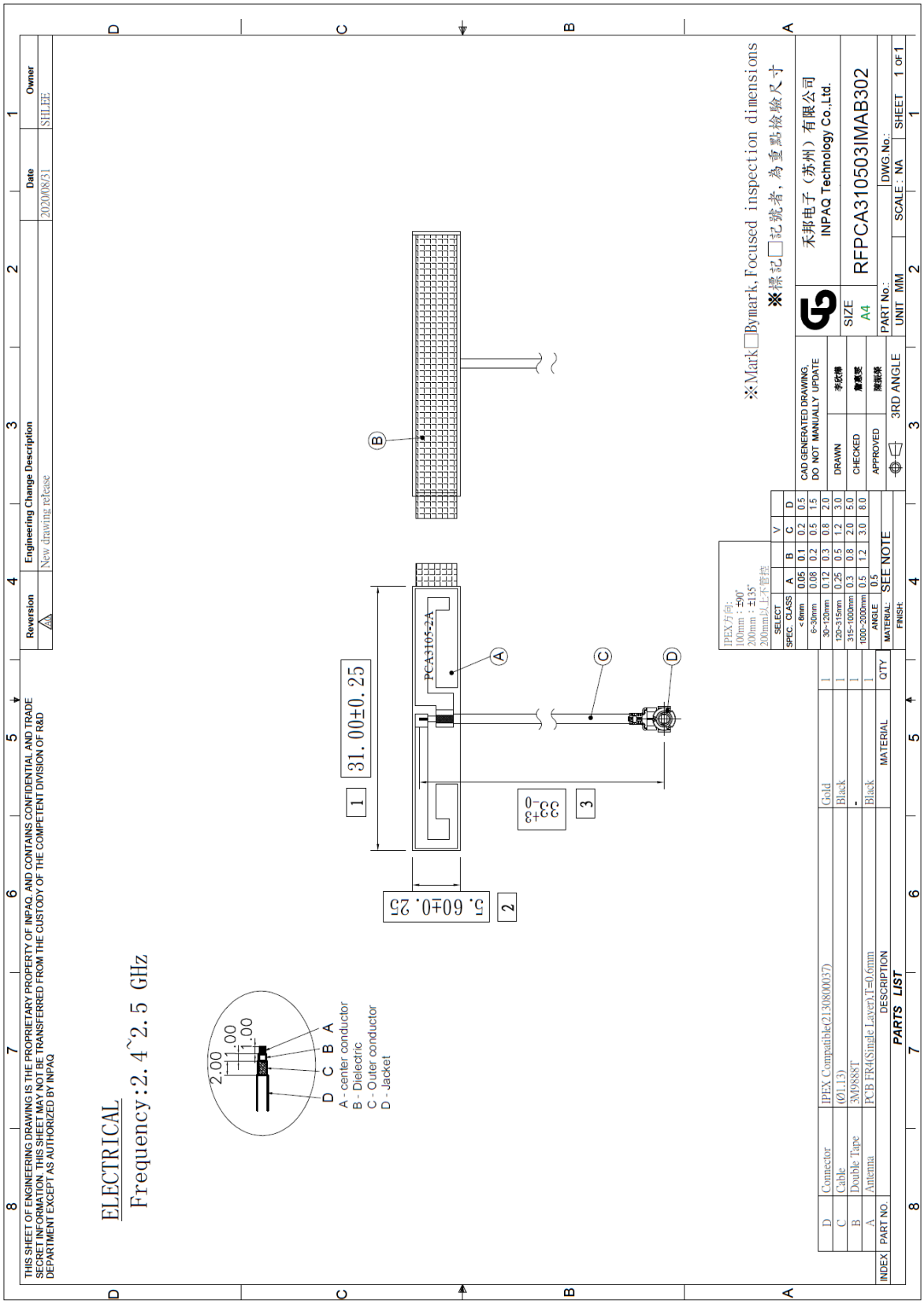
DESIGNED BY：林育帆	APPROVED BY：陳振榮	
TITLE：RFPCA310503IMAB302	DOCUMENT NO.	SPEC REV. P0

3. Antenna Drawing：



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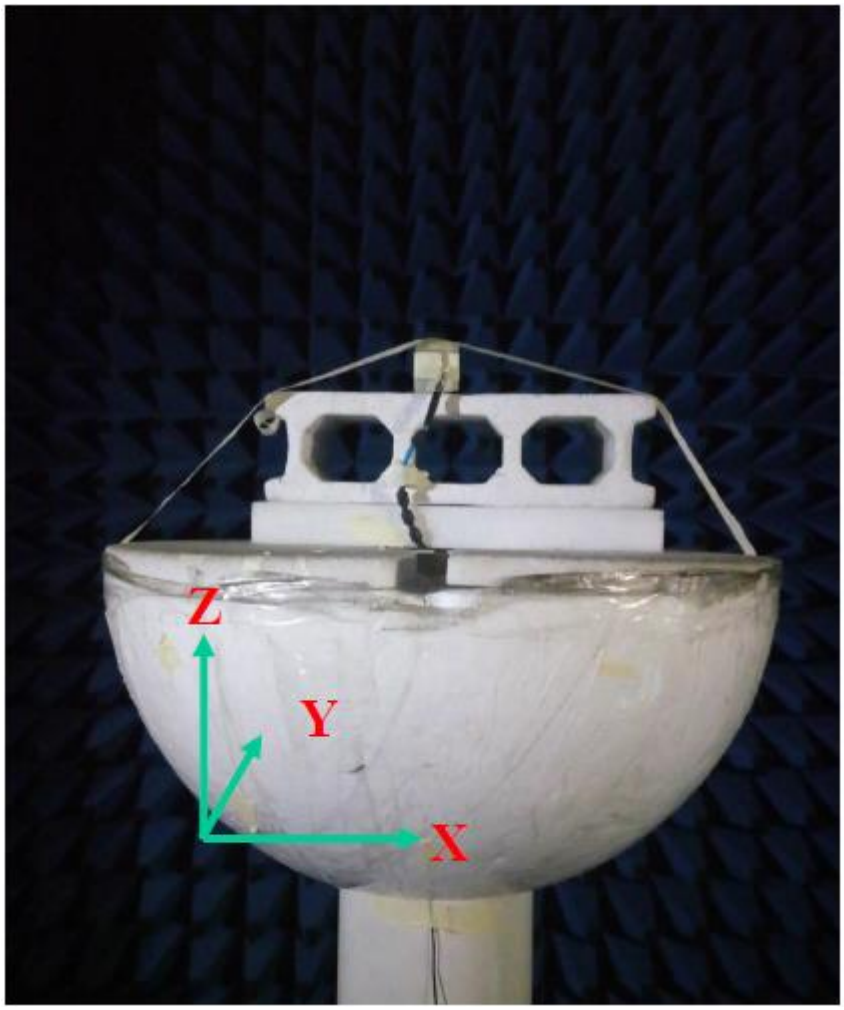
1 Performance Report：

Test Report

■Experimental Setup



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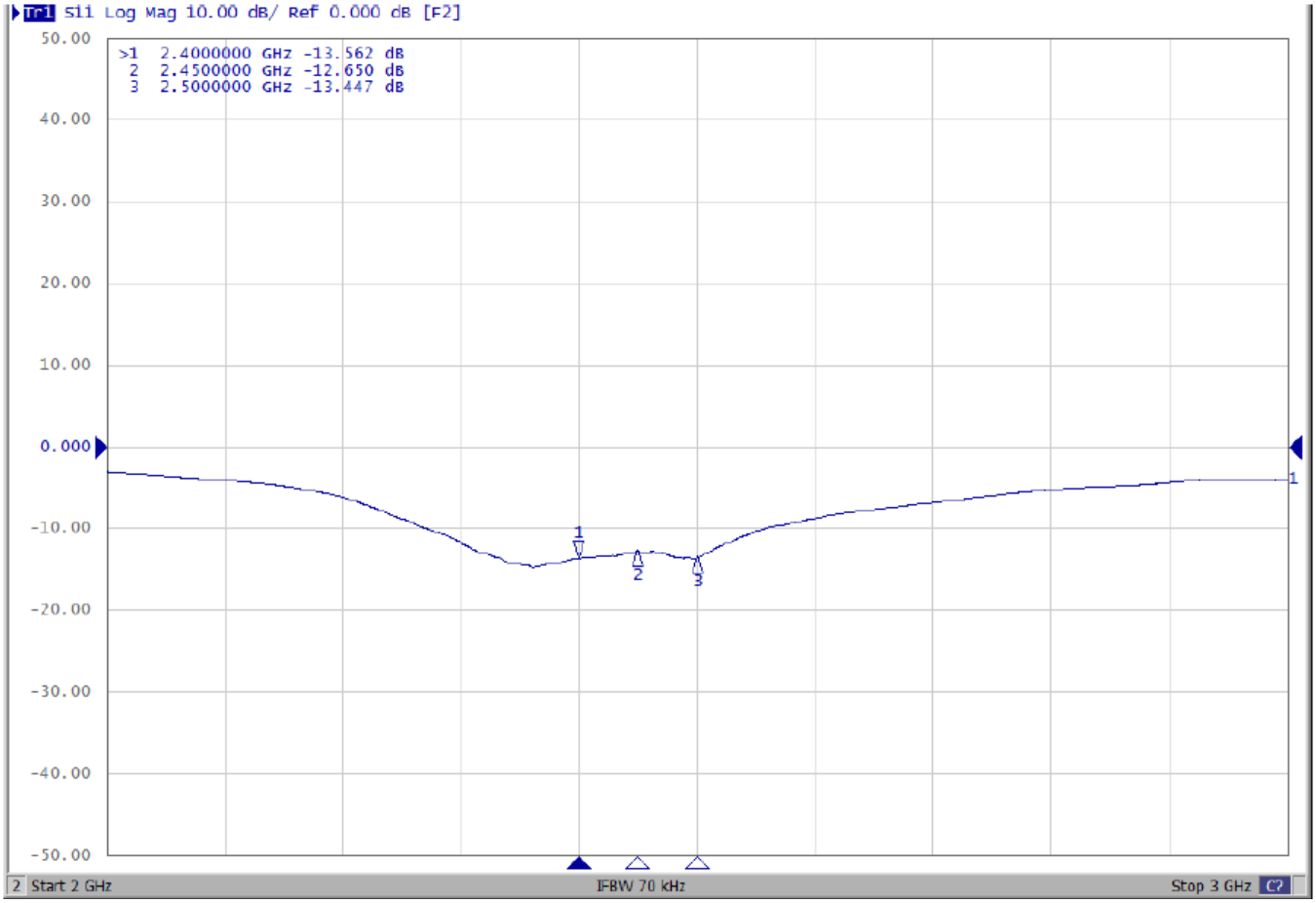
ELECTRICAL CHARACTERISTICS

Return Loss



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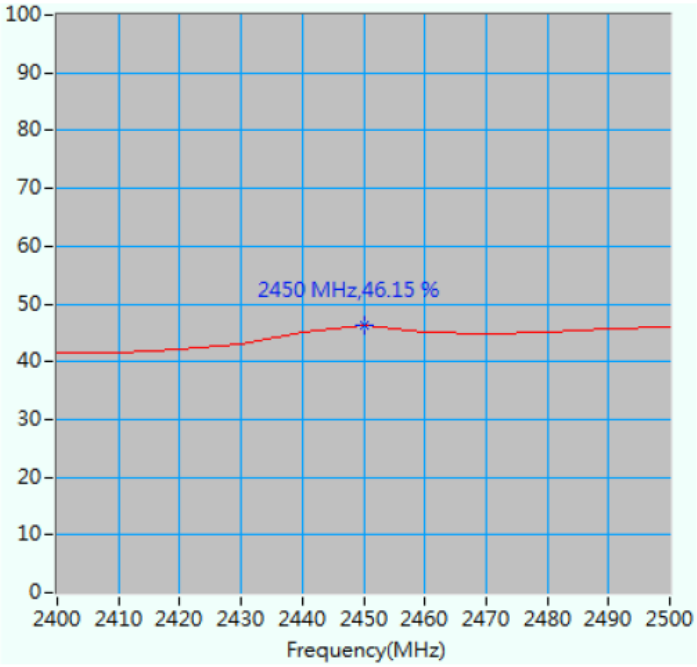
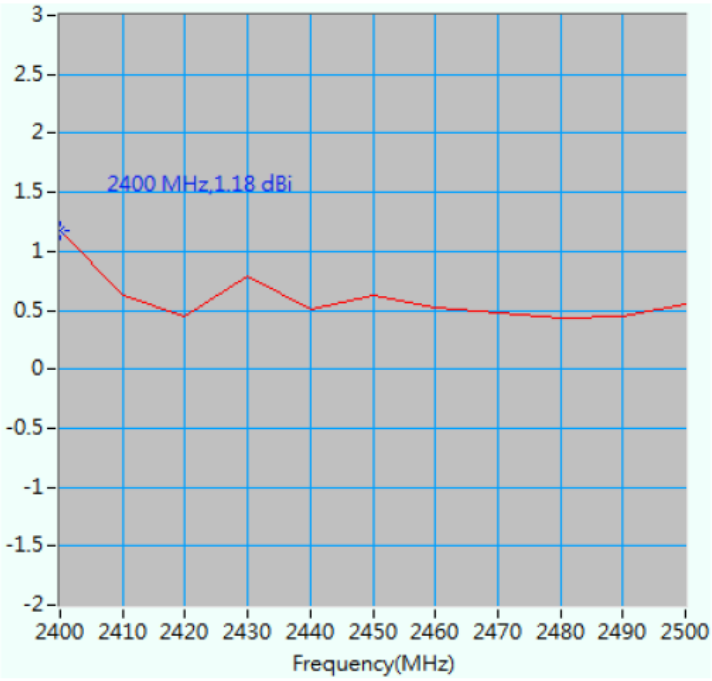
Antenna Efficiency and Peak Gain



Maximum Efficiency at 2450 MHz : 46.15 %



Maximum Peak Gain at 2400 MHz : 1.18 dBi

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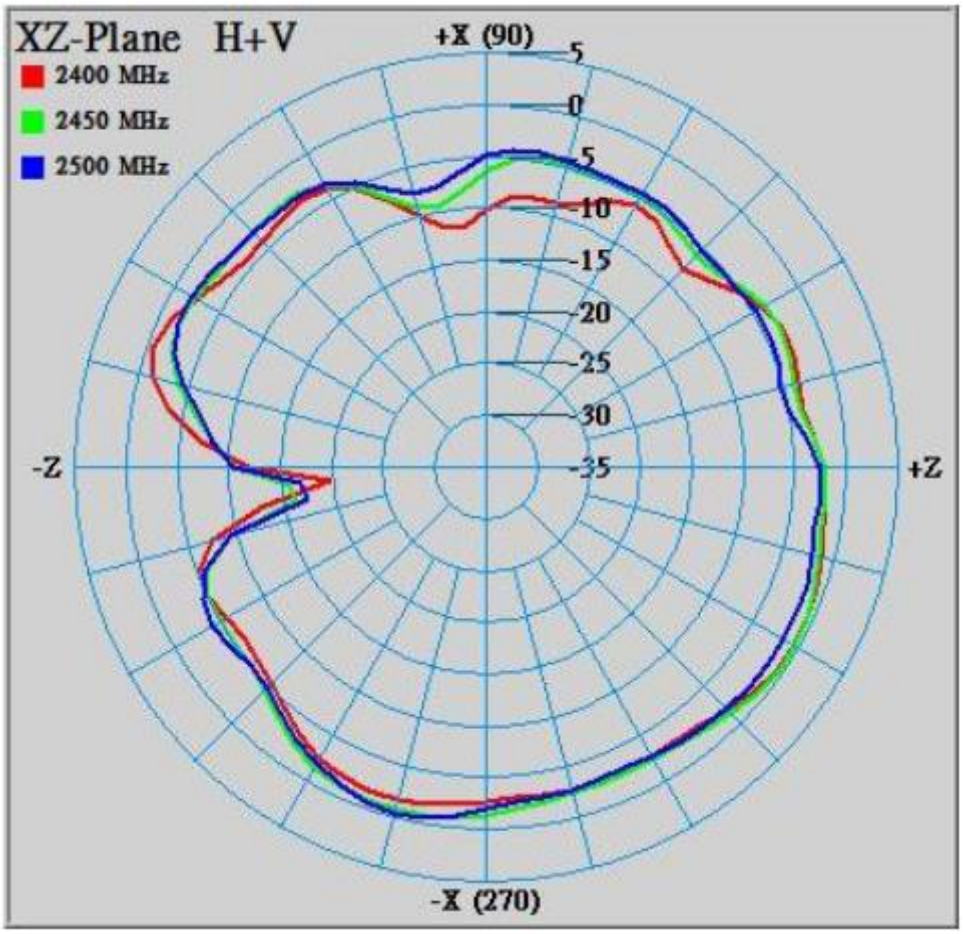
■RADIATION PATTERN

2.4~2.5 GHz

X-Z Plane
Phi=0.00deg

Gain . dB



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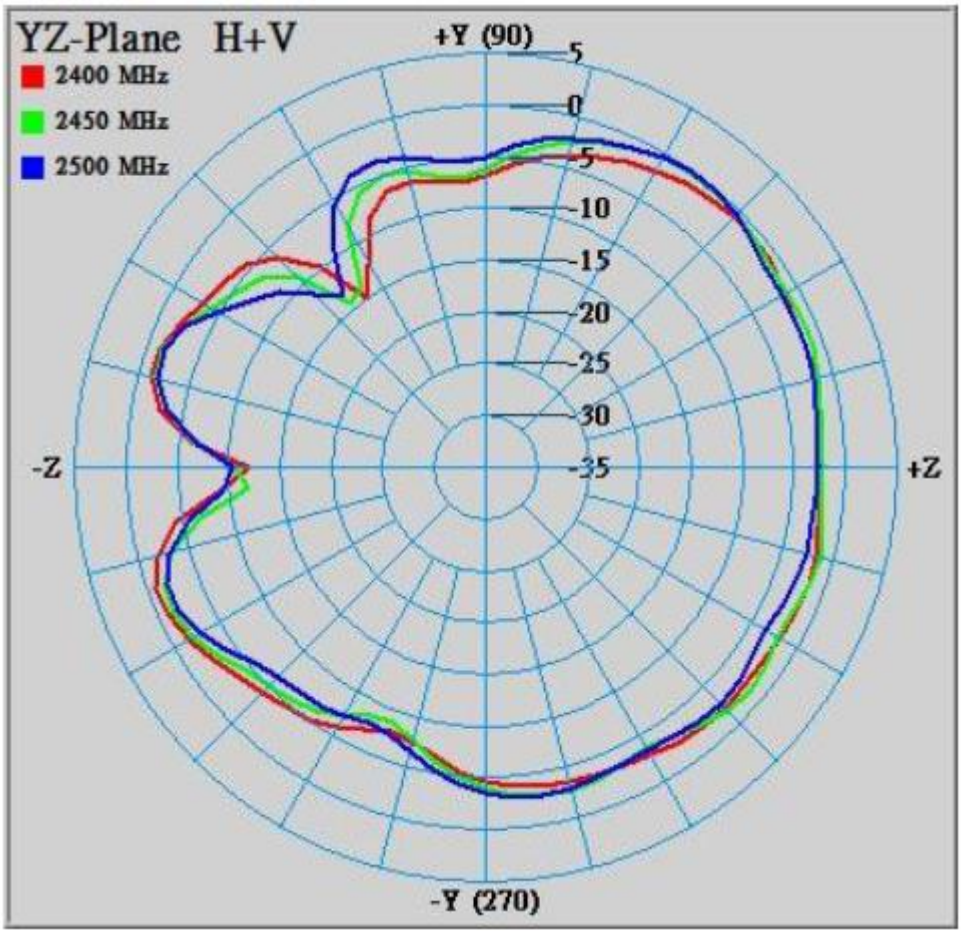
Y-Z Plane
Phi=90.00deg

Gain . dB



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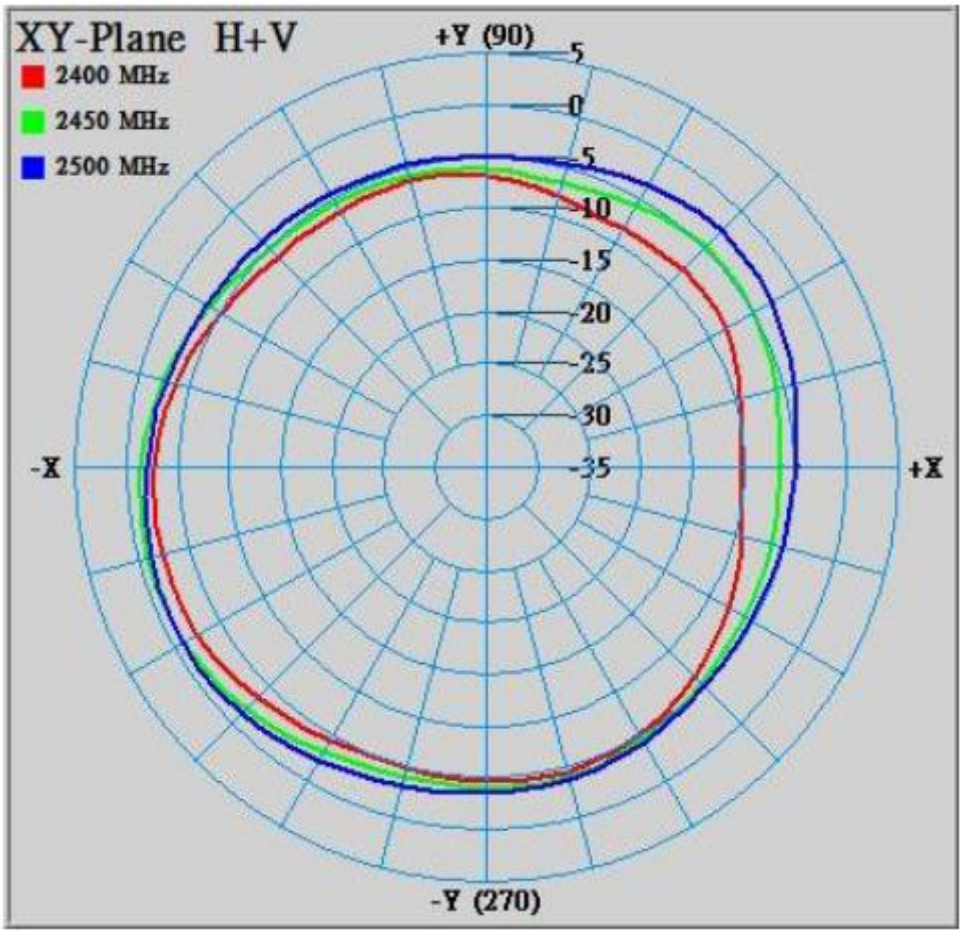
X-Y Plane
Theta=90.00deg

Gain . dB



	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
2400	-0.54	-3.76	-0.75	-3.32	-2.36	-5.55
2450	-0.40	-3.34	-0.26	-3.23	-0.89	-4.11
2500	-0.34	-3.54	-0.17	-3.46	-0.96	-3.42

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