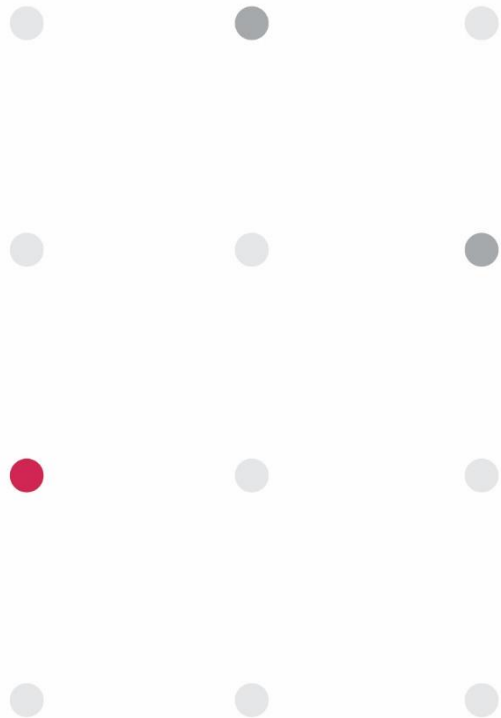


PSA

佳邦科技股份有限公司

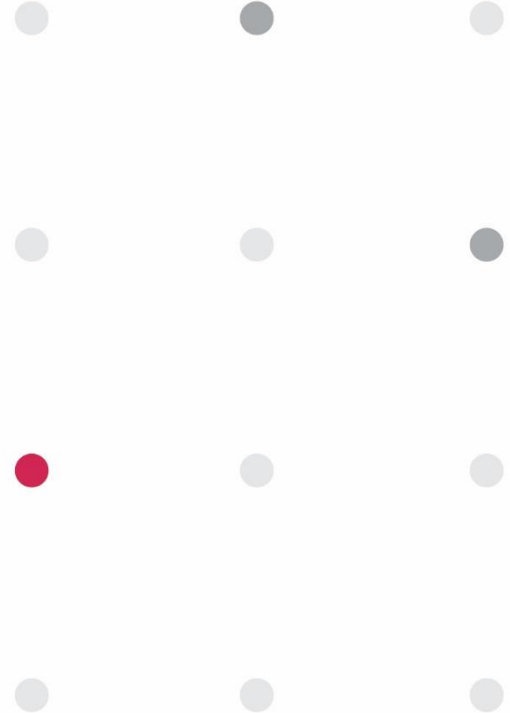
INPAQ TECHNOLOGY CO., LTD.

INPAQ P/N: WA-F-LA-02-119



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FORTINET®

FG-1001F, FG-1000F, FG-1001F-DC, FG-1000F-DC

Presented by :Kevin Chen, RF R&D Dept.

Checked by :Leeting Hsieh

Approved by :ZhiWei Chen

INPAQ Technology Co., Ltd.

Last updated in Dec. 19 , 2022

Version:V0.0

Contents

Content Details

- Revised History
- Requirement of Antenna Design and Specification
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Revision History

Released Date	Version	Record
Dec. 19 th , 2022	0.0	Initial Release

Requirements of Antenna Design and Specification

Requirements of Antenna Design

RF Function	Number of ANT	Frequency Band	Remark
BT	1	2400 – 2500MHz	

Requirements of Antenna Design and Specification

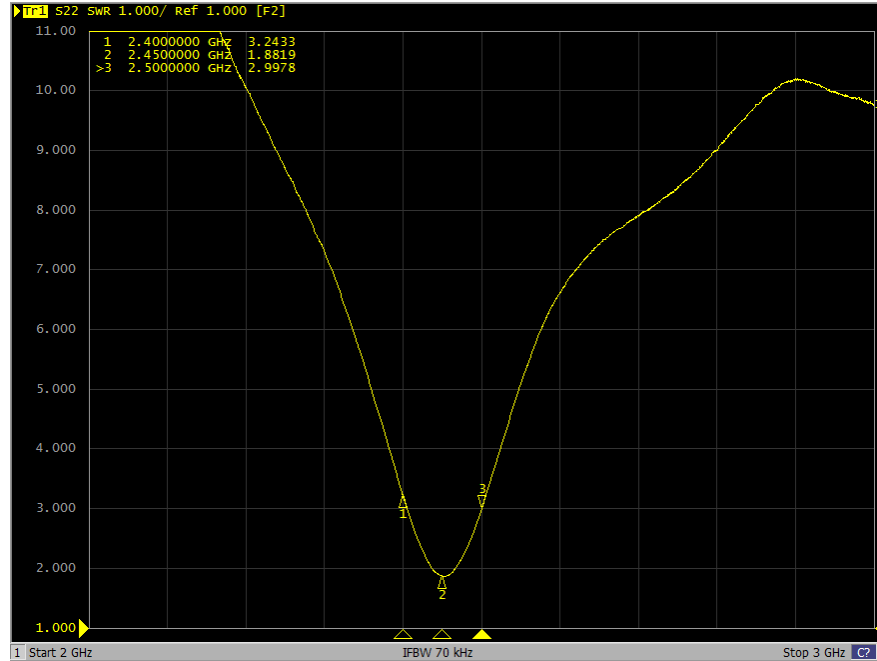
Requirements of Measurement

Item	Specification
Antenna Type	PIFA
Operating Frequency (MHz)	2400-2500
Bandwidth	100MHz
Return Loss	6 dB Typical
Polarization	Linear
Azimuth Bandwidth	Omni-directional
Peak Gain	1.64 dBi (Max)
Impedance	50Ω
Material	FPC
Maximum Power	1W
V.S.W.R	3:1
Radiation	Omni directional
Efficiency	48% (Max)
Connector / Cable Type	MHF I / O.D 1.13

VSWR Results

BT [2400 – 2500 MHz]

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Results Summary

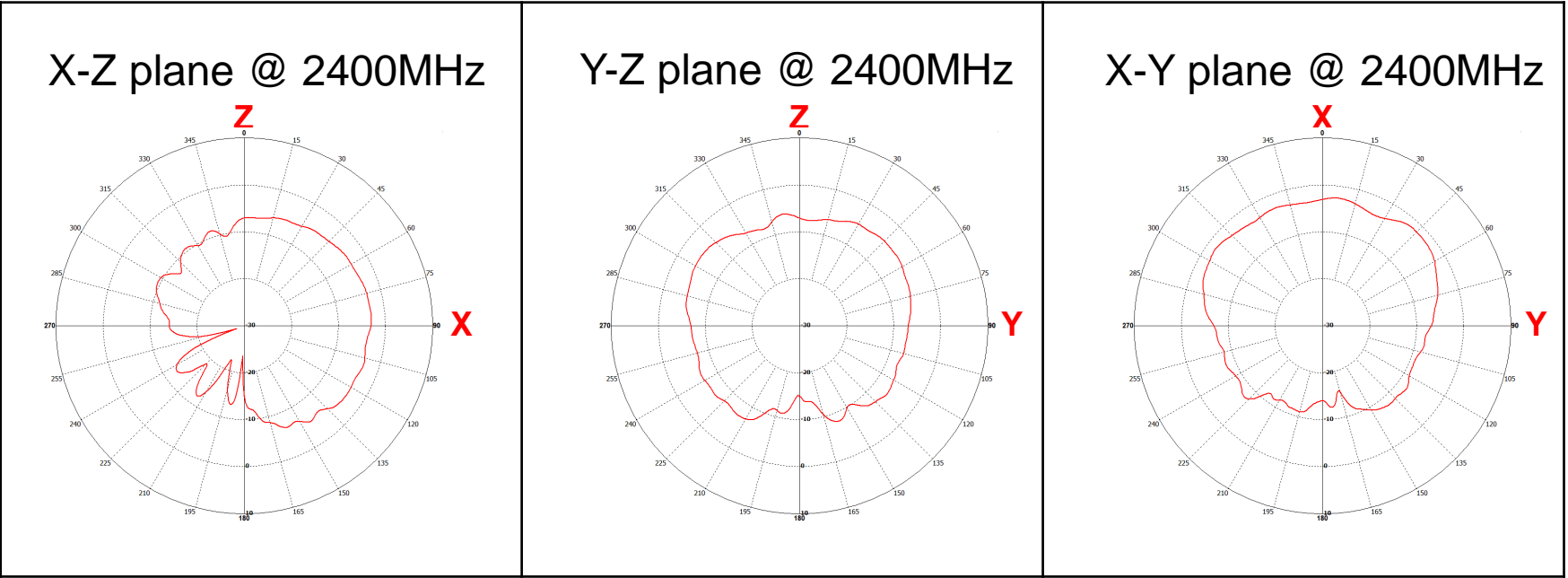
Peak gain & Efficiency – BT

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Frequency (MHz)	Avg. Gain (dB)	Efficiency (%)	Peak Gain (dBi)	Peak Gain w/o Cable Loss (dBi)	Cable Loss
2400	-4.6	34.67	-0.24	0.56	0.797
2410	-4.33	36.9	0.31	1.11	0.799
2420	-3.71	42.56	1.01	1.81	0.8
2430	-3.3	46.77	1.35	2.15	0.802
2440	-3.41	45.6	1.42	2.22	0.802
2450	-3.35	46.24	1.62	2.43	0.808
2460	-3.17	48.19	1.64	2.45	0.808
2470	-3.34	46.34	1.57	2.38	0.809
2480	-3.52	44.46	1.34	2.15	0.812
2490	-3.98	39.99	0.72	1.53	0.813
2500	-4.37	36.56	0.15	0.97	0.816

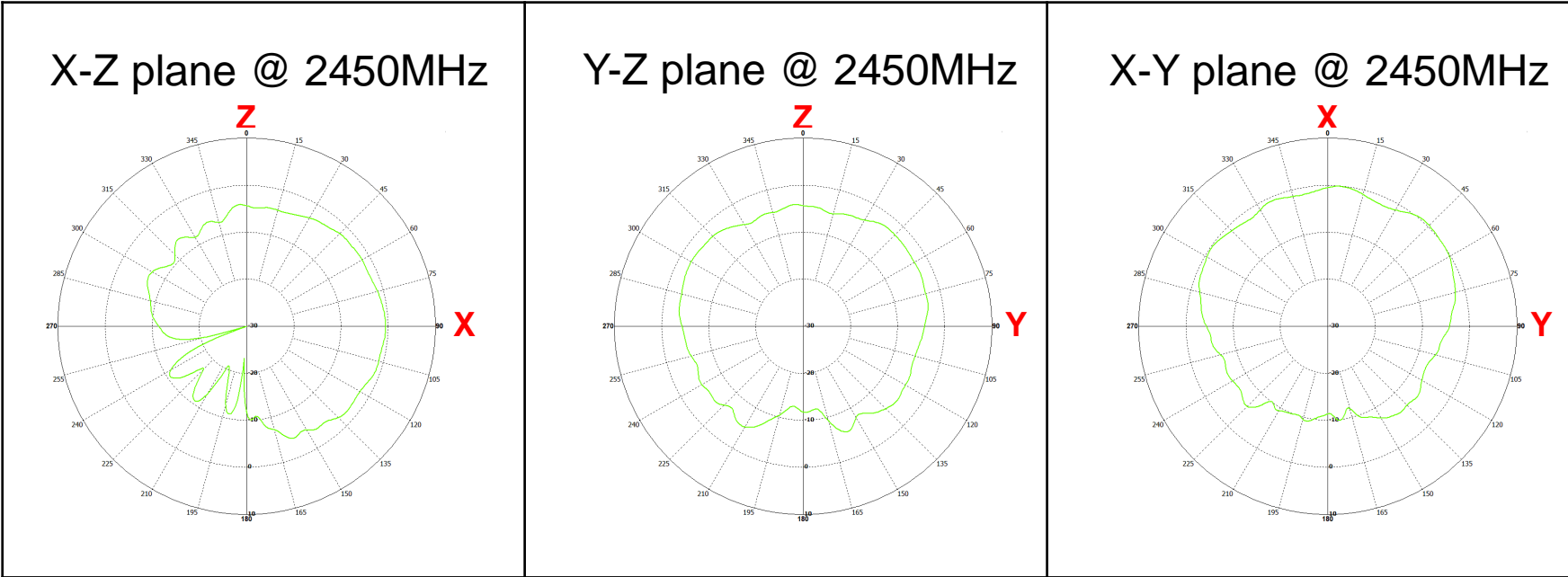
2D Radiation Pattern Results

BT@ 2400MHz



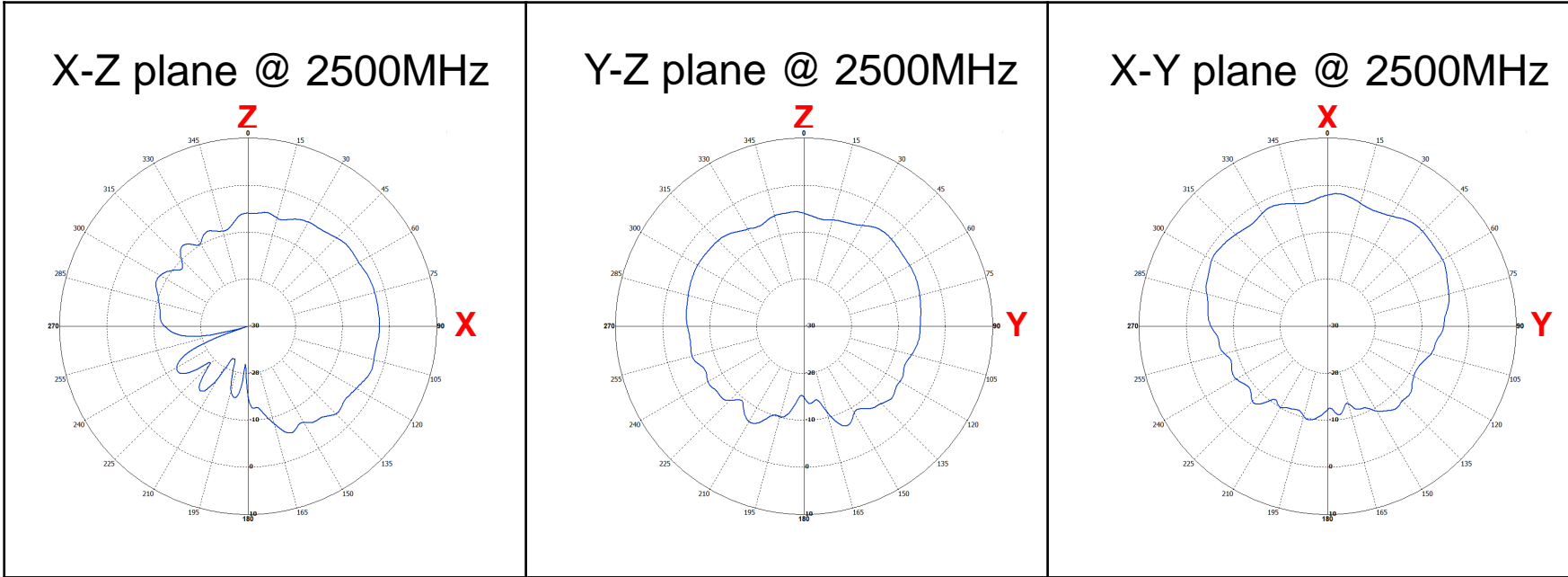
2D Radiation Pattern Results

BT@ 2450MHz



2D Radiation Pattern Results

BT@ 2500MHz



Conclusion & Comments

Antenna Performance Summary

- The efficiency of BT Antenna is 34.67~48.19%.
- The peak gain of BT Antenna is -0.24~1.64dB.

Thank you

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