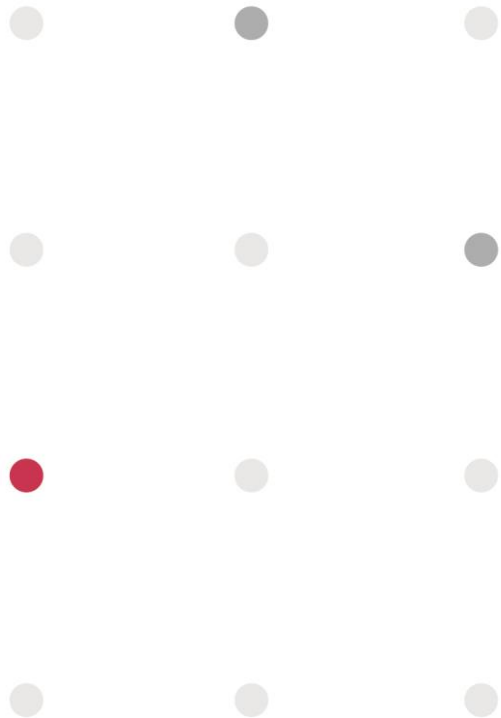


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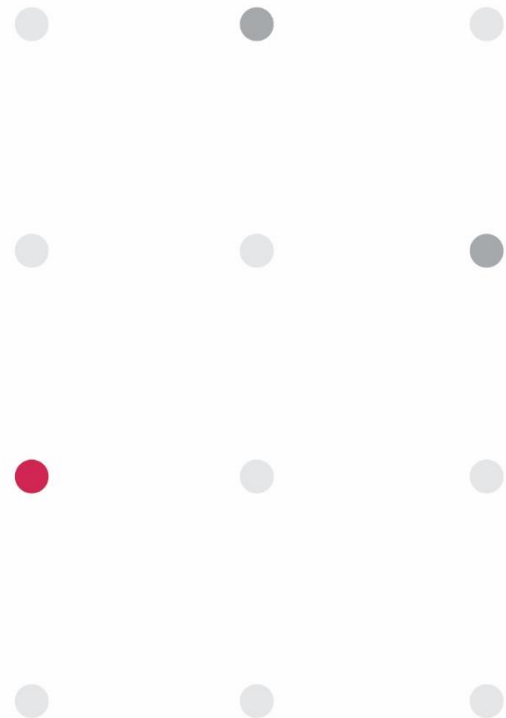
INPAQ TECHNOLOGY CO., LTD.

INPAQ P/N: WA-F-LA-02-114



PSA

PASSIVE SYSTEM ALLIANCE
INPAQ TECHNOLOGY CO., LTD.





FG-1501G

**FG-1500G, FG-1500G-DC, FG-1501G-DC, FG-801F, FG-800F, FG-800F-DC,
FG-801F-DC**

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

Checked by :Leeting Hsieh

Approved by :ZhiWei Chen

INPAQ Technology Co., Ltd.

Last updated in Sep. 22 , 2022

Version:V0.1

Contents

Content Details

- Revised History
- Requirement of Antenna Design and Specification
- Results Summary (VSWR , peak gain, efficiency)
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Revision History

Released Date	Version	Record
Aug. 24 th , 2022	0.0	Initial Release
Sep. 22 th , 2022	0.1	Factory sample

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

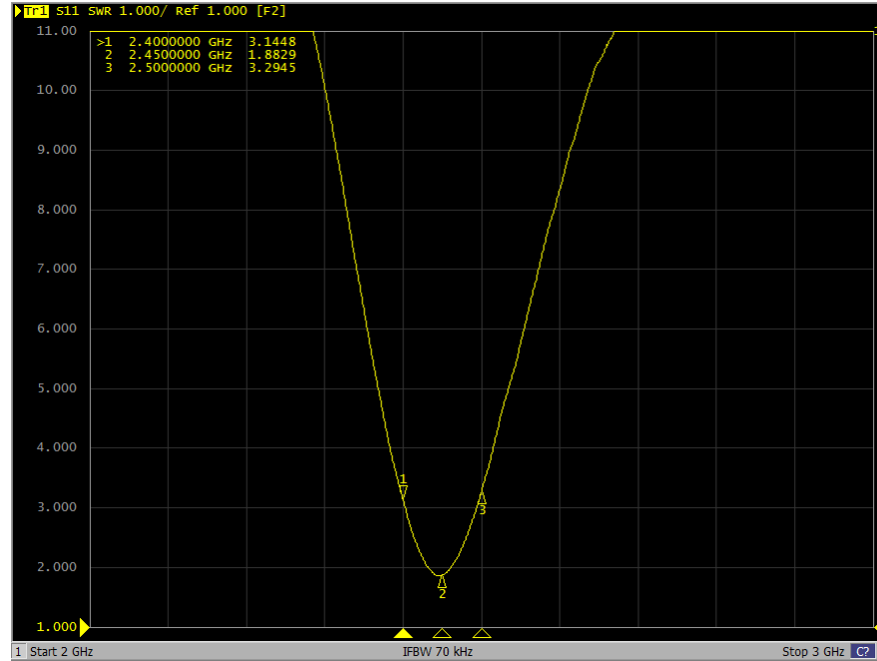
Requirements of Measurement

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	0.73 dBi (Max)
Impedance	50Ω
Material	FPC
Maximum Power	1W
V.S.W.R	3:1
Radiation	Omni directional
Efficiency	50% (Max)
Connector / Cable Type	MHF I / O.D 1.13

VSWR Results

BT [2400 – 2500 MHz]

INPAQ



Results Summary

Peak gain & Efficiency – BT

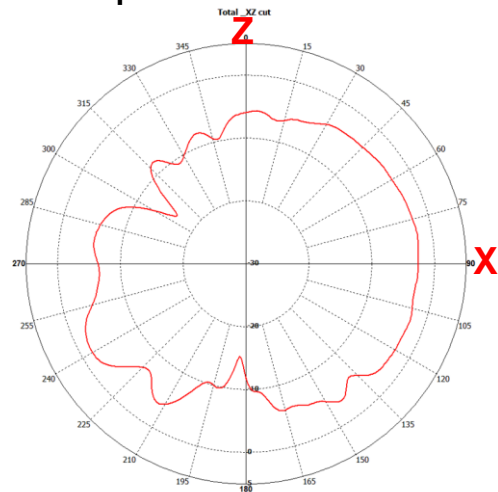
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Frequency (MHz)	Avg. Gain (dB)	Efficiency (%)	Peak Gain (dBi)	Peak Gain w/o Cable Loss (dBi)	Cable Loss
2400	-4.54	35.16	-1.75	-1.37	0.380
2410	-3.91	40.69	-1.22	-0.84	0.381
2420	-3.61	43.55	-0.24	0.14	0.381
2430	-3.35	46.21	0.06	0.44	0.382
2440	-3.38	45.93	0.1	0.48	0.382
2450	-3.12	48.75	0.49	0.88	0.385
2460	-2.93	50.92	0.73	1.12	0.385
2470	-3.12	48.75	0.48	0.87	0.385
2480	-3.41	45.64	0.28	0.67	0.386
2490	-3.71	42.58	-0.02	0.37	0.387
2500	-4.21	37.89	-0.6	-0.21	0.388

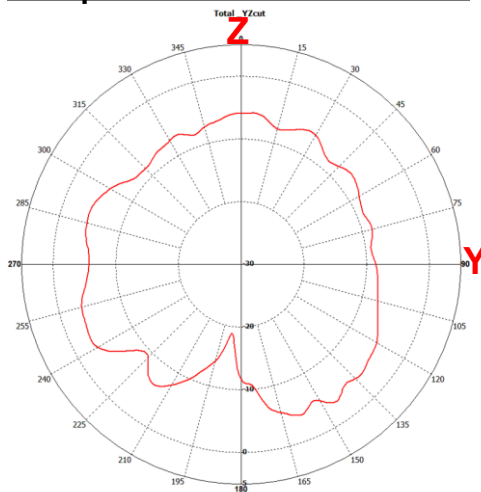
2D Radiation Pattern Results

BT@ 2400MHz

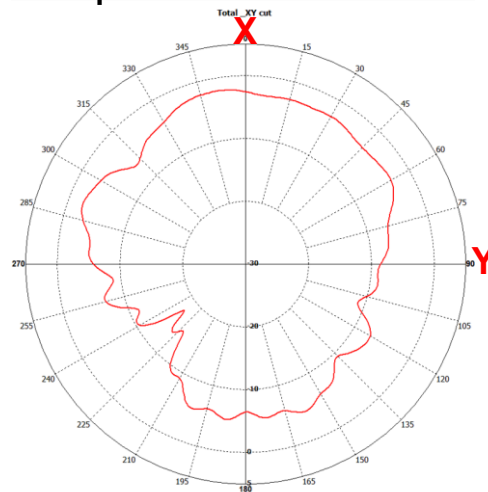
X-Z plane @ 2400MHz



Y-Z plane @ 2400MHz



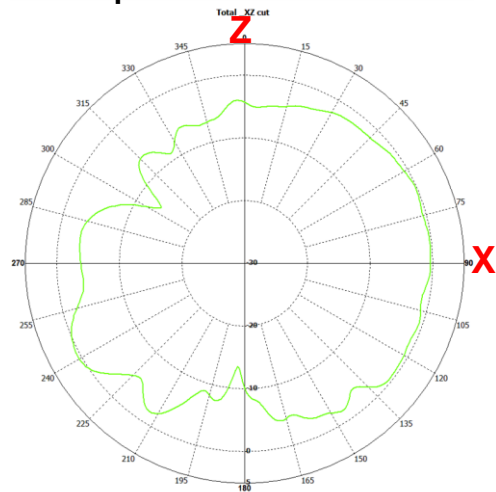
X-Y plane @ 2400MHz



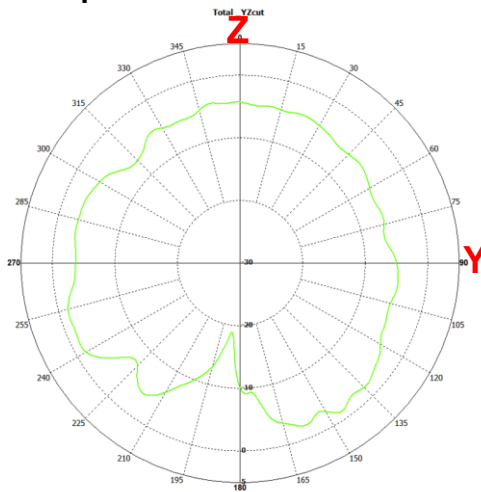
2D Radiation Pattern Results

BT@ 2450MHz

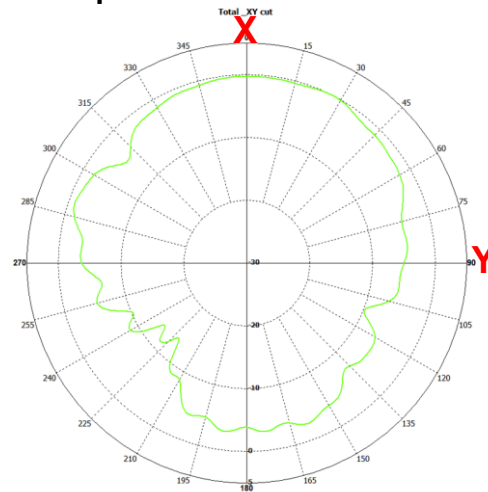
X-Z plane @ 2450MHz



Y-Z plane @ 2450MHz

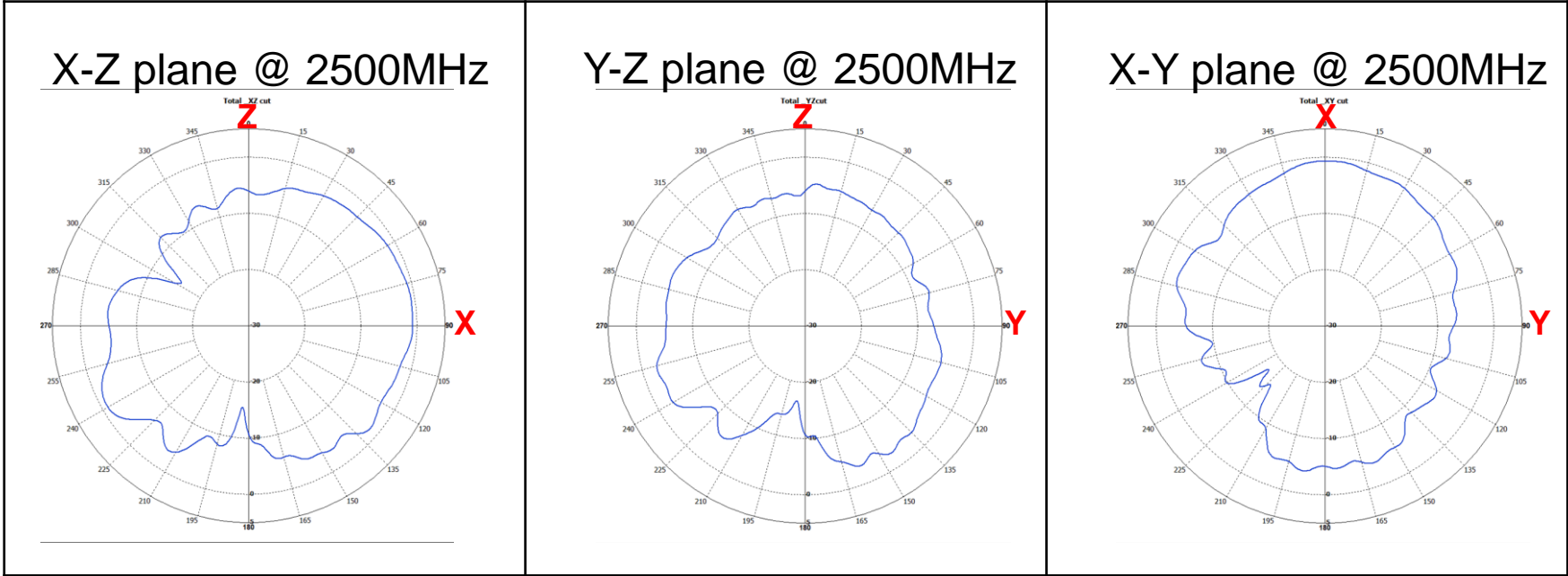


X-Y plane @ 2450MHz



2D Radiation Pattern Results

BT@ 2500MHz



Conclusion & Comments

Antenna Performance Summary

- The efficiency of BT Antenna is 35.16~50.92%.
- The peak gain of BT Antenna is -1.75~0.73dB.

Thank you

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