PSA

佳邦科技股份有限公司

INPAQ TECHNOLOGY CO., LTD.

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

PSA

PASSIVE SYSTEM ALLIANCE

INPAQ TECHNOLOGY CO., LTD.

FG-601F, FG-600F, FG-601F-DC, FG-600F-DC

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Revision History

Released Date	Version	Record
Aug. 24th, 2022	0.0	Initial Release
Sep. 22th, 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]

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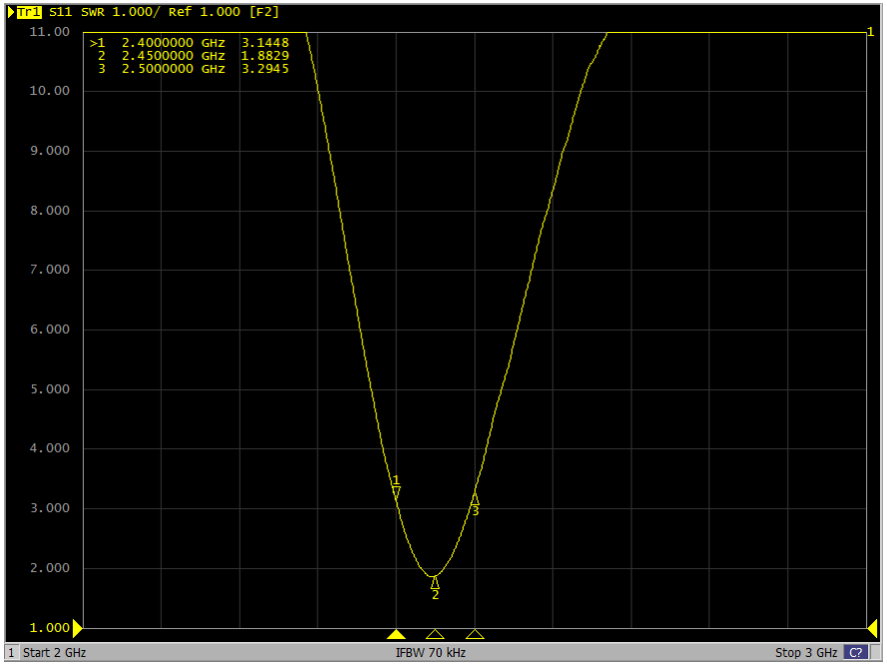

Results Summary

Peak gain & Efficiency – BT

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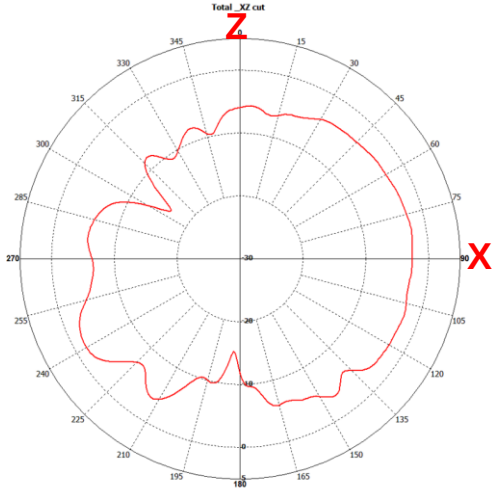
Frequency (MHz)	Avg. Gain (dB)	Efficiency (%)	Peak Gain (dBi)	Peak Gain w/o Cable Loss (dBi)	Cable Loss
2400	-4.54	35.16	-1.75	-1.37	0.380
2410	-3.91	40.69	-1.22	-0.84	0.381
2420	-3.61	43.55	-0.24	0.14	0.381
2430	-3.35	46.21	0.06	0.44	0.382
2440	-3.38	45.93	0.1	0.48	0.382
2450	-3.12	48.75	0.49	0.88	0.385
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

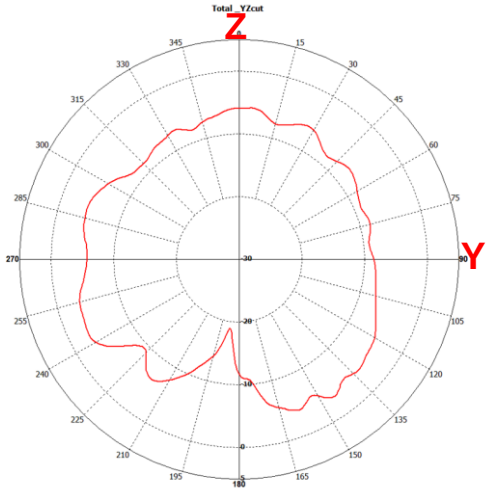
2D Radiation Pattern Results

BT@ 2400MHz

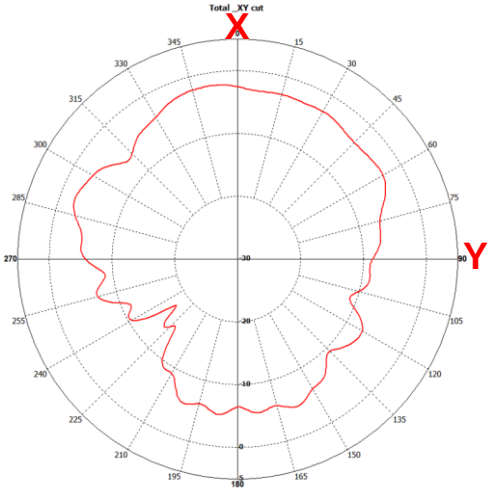
X-Z plane @ 2400MHz



Y-Z plane @ 2400MHz



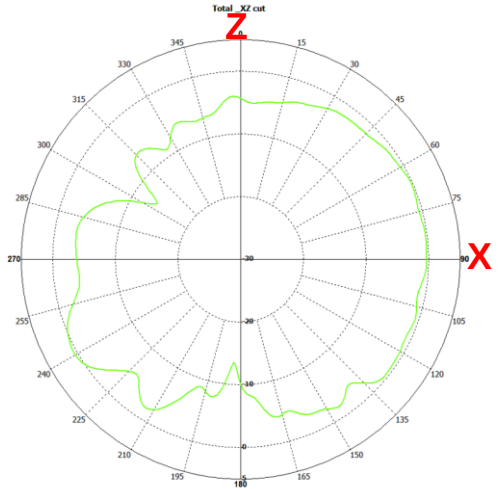
X-Y plane @ 2400MHz



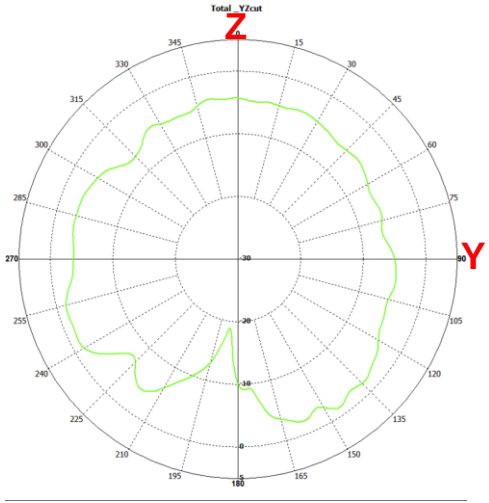
2D Radiation Pattern Results

BT@ 2450MHz

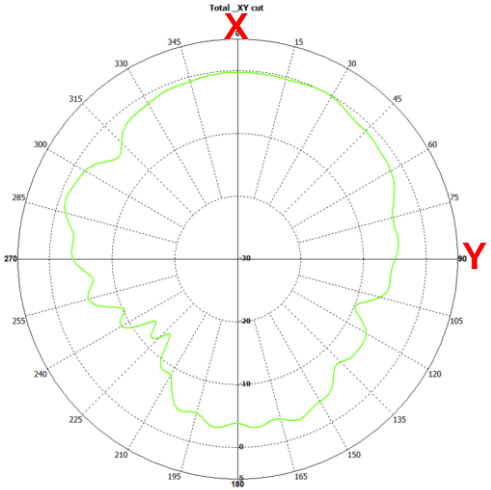
X-Z plane @ 2450MHz



Y-Z plane @ 2450MHz



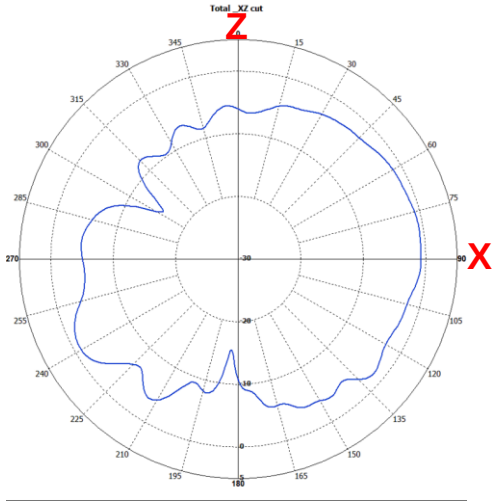
X-Y plane @ 2450MHz



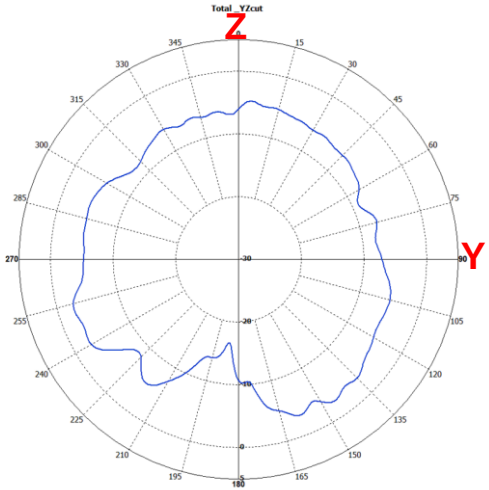
2D Radiation Pattern Results

BT@ 2500MHz

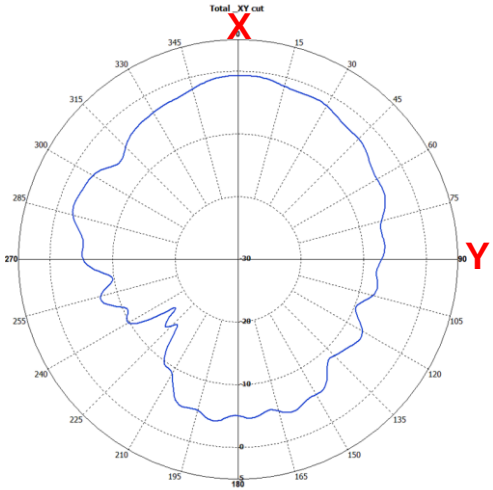
X-Z plane @ 2500MHz



Y-Z plane @ 2500MHz



X-Y plane @ 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