PSA

PASSIVE SYSTEM ALLIANCE

INPAQ TECHNOLOGY CO., LTD.

Copyright © by Passive System Alliance | All rights reserved.

BSJ-C115 Antenna Test Report

Presented by: Yong_xiong, 华南研发
Checked by :Apple_Zhao
Approved by :Zhiwei_Chen
INPAQ Technology Co., Ltd.

Last updated in Sep.29th, 2022

Copyright © by Passive System Alliance | All rights reserved.

Contents

- Revised History
- Requirement of Antenna Design and Measurement
- Antenna Placement & Solution
- Antenna S-Parameter
- Test Setup for Radiation Pattern Measurement
- Results Summary （ 2D/3D Radiation Pattern/Efficiency&Gain）
- Conclusion

COPYRIGHT © INPAQ TECHNOLOGY CO., LTD ALL RIGHTS RESERVED.
PSA PASSIVE SYSTEM ALLIANCE

Revision History

Released Date	Version	Record
Mar.11th,2022	V0.0	First commissioning
Aug. 17th,2022	V0.1	New machine antenna verification
Sep. 8th,2022	V0.2	English version
Sep. 29th,2022	V0.3	optimization report

INPAQ TECHNOLOGY CO., LTD ALL RI

Requirements of Antenna Design and Measurement

Requirements of Antenna Design

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

Requirements of Measurement

Test Item	Specification	Remark
VSWR	N/A	
Peak gain	N/A	
Efficiency	N/A	
Isolation	N/A	

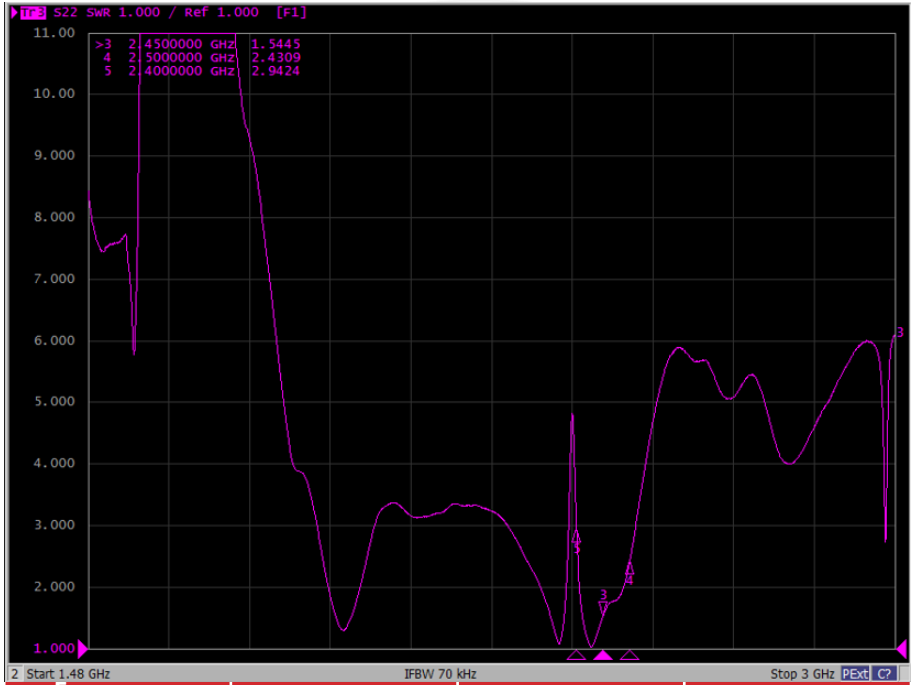
Antenna Placement & Solution

Antenna Placement & Solution

- shows the right side of the red Kuang; The internal cable of the machine needs to be fixed on one side;

Antenna S-Parameter （VSWR ）

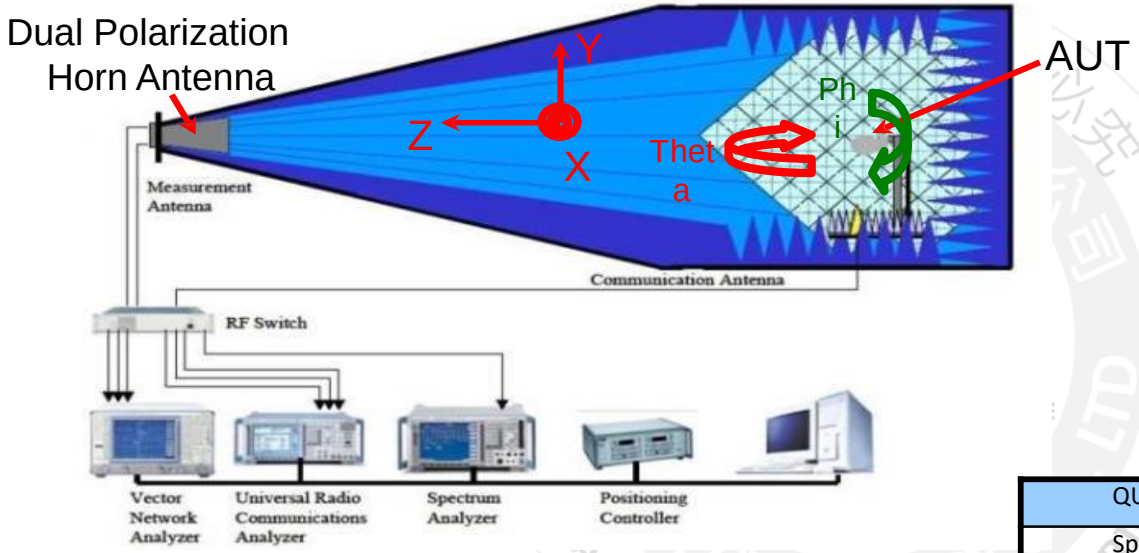
BT：



Frequency（MHz）	2400	2450	2500
VSWR	2.94	1.54	2.43

Test Setup for Radiation Pattern Measurement

ETS Ams-8600 12.91x3.05x3.05 m3 Tapered Chamber



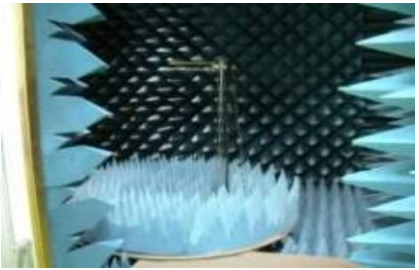
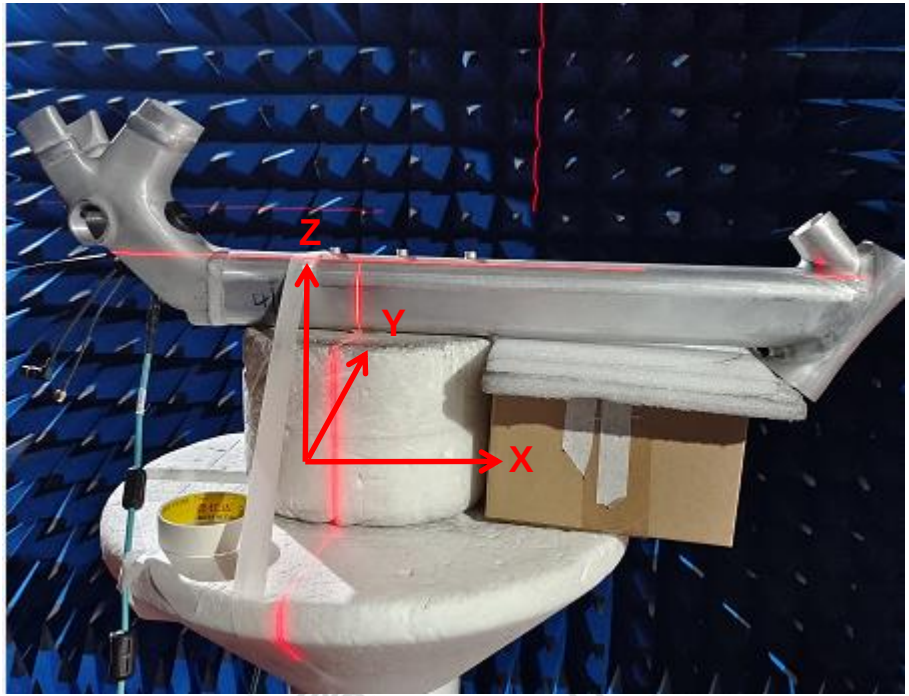


Figure 1: System diagram for test system including compact-size tapered anechoic chamber and optional test instrumentation

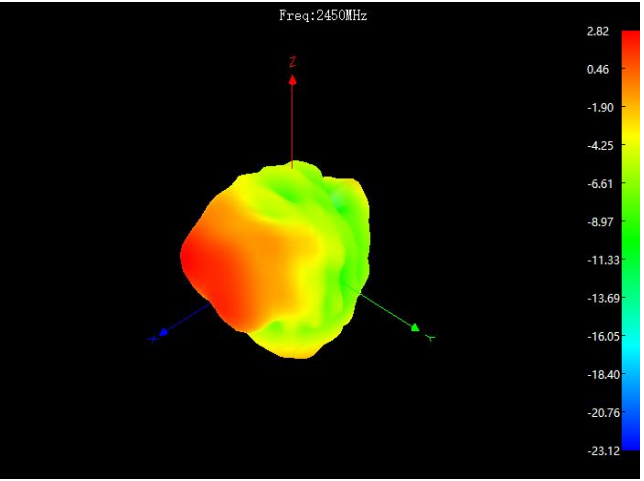
QUIPMENT	BRAND	MODULE TYPE
Spectrum	Agilent	E4402B
Signal Generator	Agilent	8960
Switch	Agilent	3499A
Switch	ETS	2090
Network Analyzer	Agilent	N5230A

Results Summary



Results Summary

3D Radiation Pattern

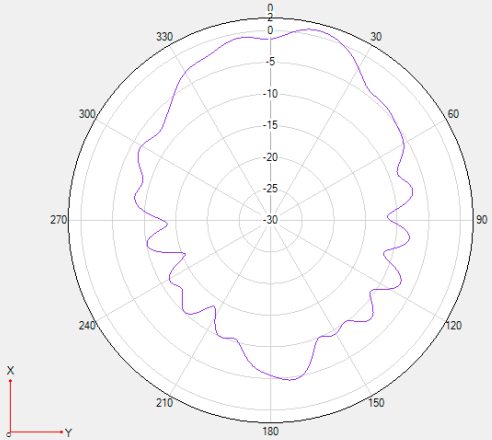


2450MHz
BT

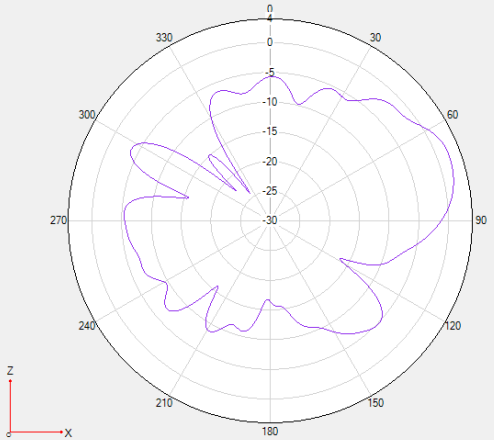
Results Summary

2D Radiation Pattern

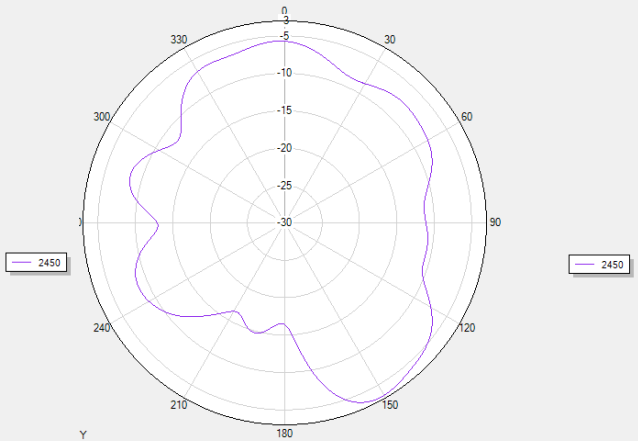
XY-H-plane



XZ-E1-plane



YZ-E2-plane



2450MHz

Results Summary-BT

Efficiency

Freq. (MHz)	Efficiency (%)	Peak Gain (dBi)
2400	22.66	-0.59
2410	30.79	1.76
2420	32.51	2.37
2430	32.84	2.56
2440	32.25	2.54
2450	31.99	2.82
2460	32.25	3.06
2470	32.91	3.05
2480	32.51	2.65
2490	30	1.79
2500	26.96	0.78

Conclusion

1. The cable arrangement is shown in P8 and P9；

2. The antenna passive data is as follows 。

Antenna		BT	
Average of Efficiency		**≈30%**	

著作權所有 侵害必究
佳邦科技股份有限公司
COPYRIGHT © INPAQ TECHNOLOGY CO., LTD ALL RIGHTS RESERVED.

Thank you

本資料均屬機密，僅供指定之收件人使用，未經寄件人許可不得揭露、複製或散佈本信件。

This message and any attachments are confidential and may be legally privileged. Any unauthorized review, use or distribution by anyone other than the intended recipient is strictly prohibited. If you are not the intended recipient, please immediately notify the sender, completely delete this documents, and destroy all copies. Your cooperation will be highly appreciated.