

Antenna Gain Test Report

Project No.:	DJ-20230424
Client Name:	PRIMAX ELECTRONICS LTD.
Client Address:	NO.669, Ruey Kuang Road, Neihu, Taipei, Taiwan, R.O.C
Product Name:	HP 650 Rechargeable Wireless Mouse
Product Model:	TPA-P007M
Manufacture:	Walsin Technology Corporation
Antenna Type:	MULTILAYER CERAMIC ANTENNA / RFANT2012090A0T
Antenna Size:	Refer to section 6
Test Personnel:	James Qin
Test Standards:	ANSI/IEEE std 149-2021
Test Date:	2023.4.24

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Revision History

Rev.	Issue Date	Revisions	Revised By
V0	2023.4.24	Initial Issue	\

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1 Test Equipment Information

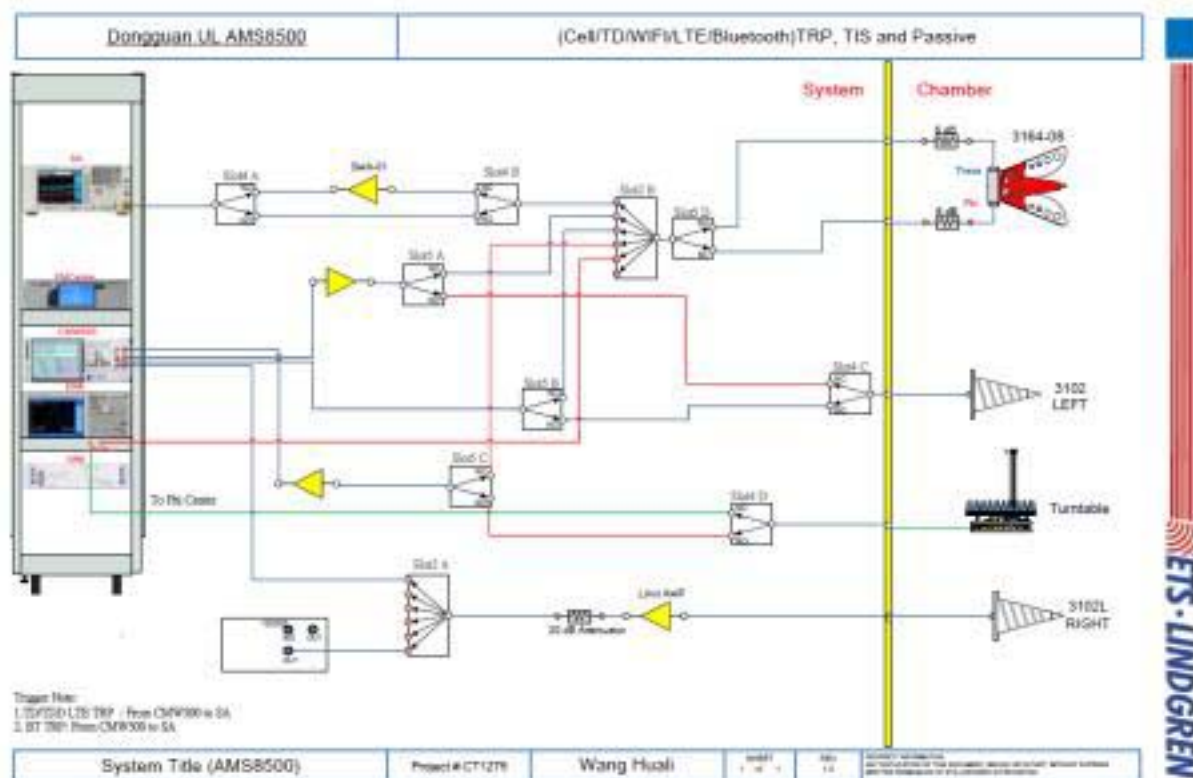
Equipment	Manufacturer	Model No.	Serial No.	Cal date	Cal Due
Test Chamber	ETS-Lindgren	8500	/	/	/
Test Software	ETS-Lindgren	EMQuest V1.12	1496	/	/
Network Analyzer	Keysight	E5071C	MY46524531	2022.10.17	2023.10.16
EXA Singal Analyzer	Keysight	N9010A	MY55150514	2022.10.17	2023.10.16

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2 Setup block diagram



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3 Test Temperature and Humidity

Temperature: 22.8°C

Humidity: 63.6%

4 Test Step Flow

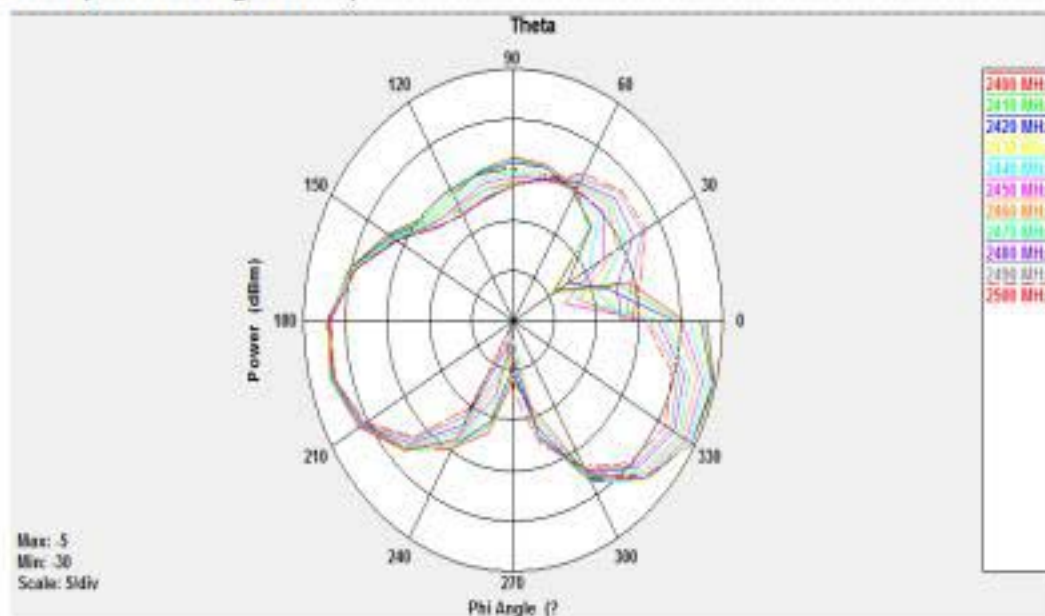
- 1) Maintain the test ambient temperature of 23 ± 2 C, the instrument is powered on and preheated for more than 30 minutes;
- 2) Turn on the darkroom power supply, connect the test cable, and set up the sample according to the standard;
- 3) Outline sets the test content objectives and conducts calibration tests;
- 4) Run the software, when the test is completed, export the corresponding test diagram and test data, and save to the corresponding directory.

5 Test Result

Frequency (MHz)	Efficiency (%)	Gain (dBi)
2400	29.97	1.75
2410	28.73	1.61
2420	27.57	1.43
2430	26.14	1.17
2440	24.74	0.91
2450	23.10	0.59
2460	21.41	0.28
2470	19.91	-0.06
2480	18.84	-0.33
2490	18.10	-0.70
2500	17.61	-0.90

Polarization Pattern Photos

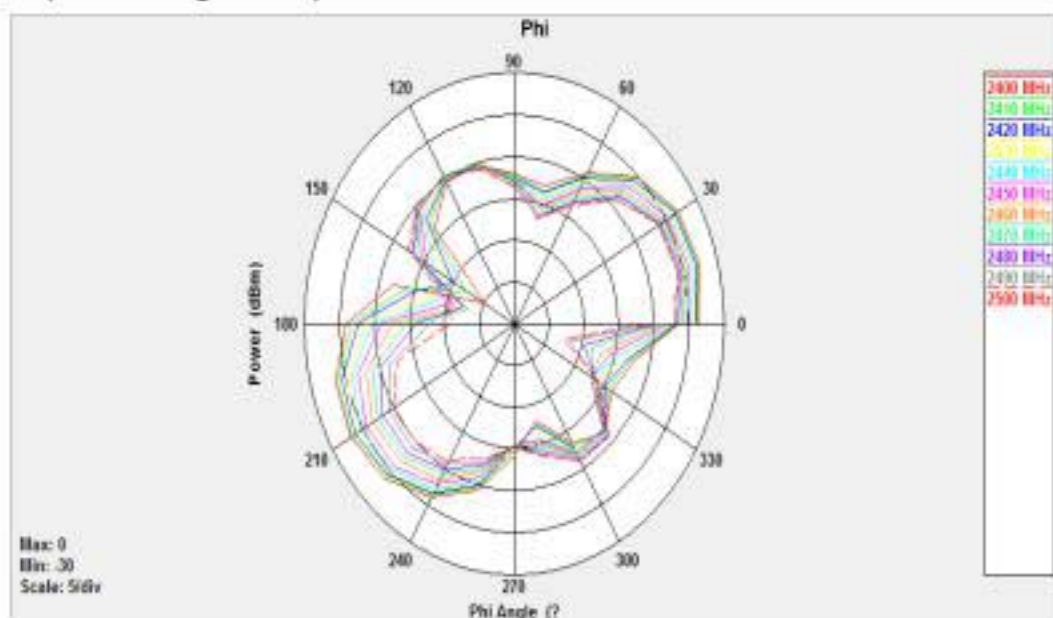
Theta Polarization(Theta Angle=90°)



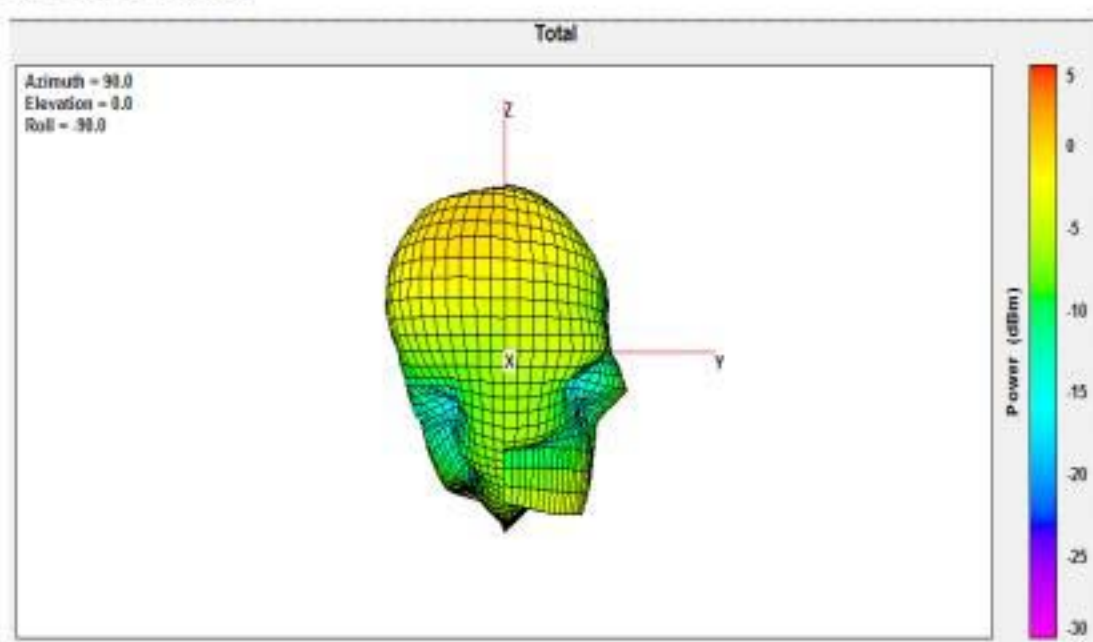
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Phi Polarization(Theta Angle=90°)

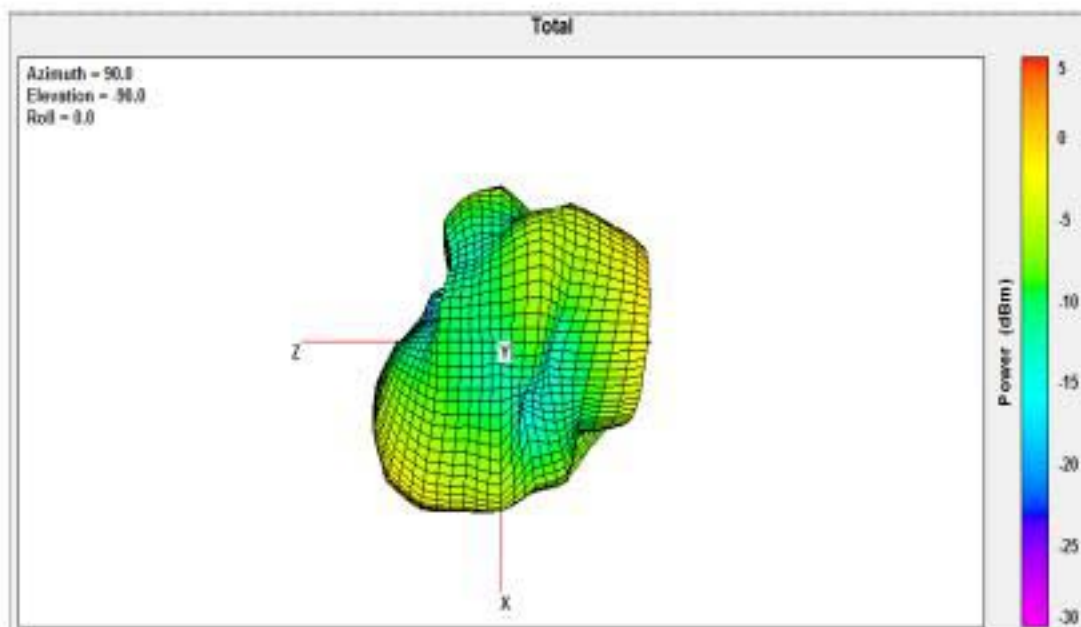
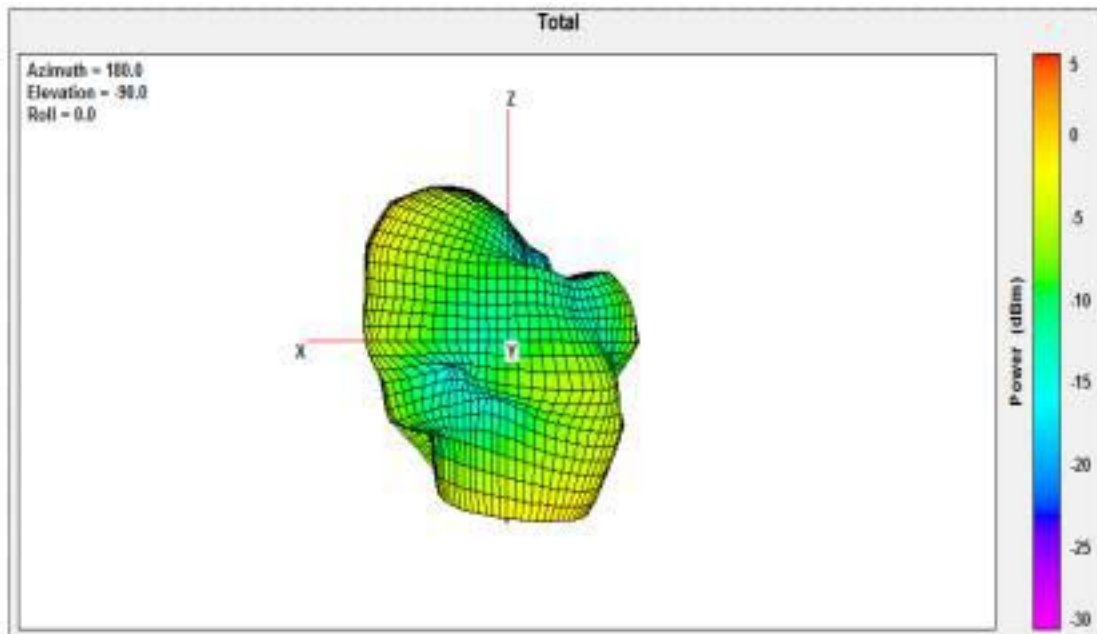


Total 3D Plot(Fre.2500MHz)



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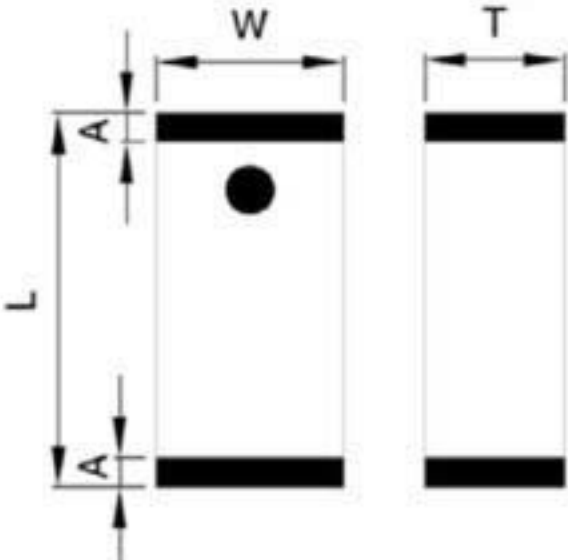
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6 Antenna Dimension

Figure	Symbol	Dimension (mm)
	L	2.0 ± 0.20
	W	1.25 ± 0.20
	T	0.90 ± 0.10
	A	0.25 ± 0.15

7 Photo



END OF REPORT

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