Antenna Passive Test Report

Project No.	:	TCED250900782
Product Type	:	Control Panel for Surfing SwimJet
Test Mode	:	Free Space
Date of Receipt	:	2025/09/08
Date of Test	:	2025/09/08
Issued Date	:	2025/09/10
Test Sample	:	TCED250900782-M-01
Standard(s)	:	ANSI/IEEE Std 149-2008
Applicant	:	AQUAGEM TECHNOLOGY LIMITED
Address	:	FLAT/RM H 19/F, MAXGRAND PLAZA, 3 TAI YAU STREET, SAN PO KONG KL. HONG KONG
Manufacturer	:	AQUAGEM TECHNOLOGY LIMITED
Address	:	FLAT/RM H 19/F, MAXGRAND PLAZA, 3 TAI YAU STREET, SAN PO KONG KL. HONG KONG

TOWE. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

the results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of the model are manufactured with identical electrical and mechanical components. All sample tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise. without written approval of TOWE, the test report shall not be reproduced except in full.

Lin Qilong	**Fan Jiafu**
Approved By:	**Reviewed By:**

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REVISION HISTORY

Rev.	Issue Date	Description	Revised by
01	2025/09/10	Original	Fan Jiafu

1. CERTIFICATE OF COMPLIANCE

1.1 DESCRIPTION OF EUT AND TEST(S) PERFORMED

Manufacturer	AQUAGEM TECHNOLOGY LIMITED
Model	DCP15DV
Serial Number(s) / ESN(s) / IMEI(s)	N/A
Hardware Version	N/A
Software Version	N/A

1.2 LABORATORY ENVIRONMENT

Temperature	Min = 20℃ , Max = 24℃	
Relative humidity	Min = 30% , Max = 70%	
Shield effect	0.6 – 8.5G	> 100dB
Ground resistance	< 0.5Ω	

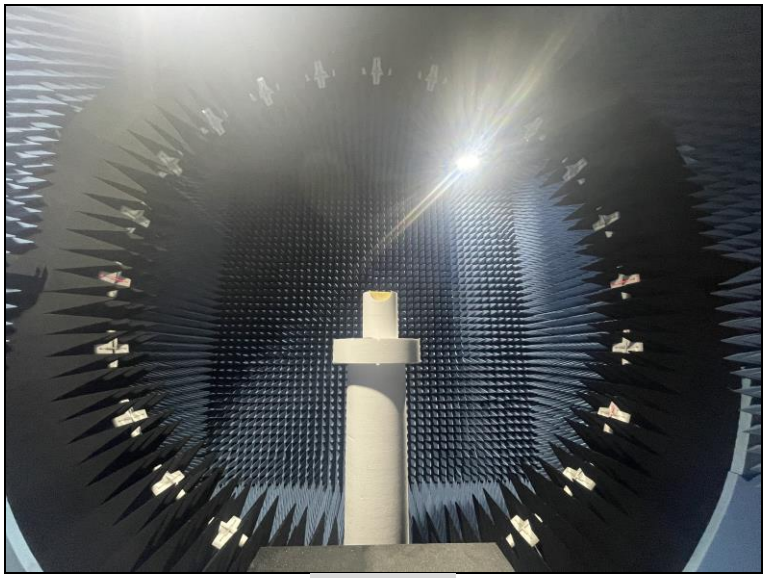
2. MEASUREMENT SYSTEM INFORMATION

2.1 GENERAL INFORMATION

Measurement Facility:

- Measurement Chamber: ETS-Lindgren 3D fully anechoic chamber and its measuring system (AMS-8923)
- ETS-Lindgren EMCenter
- Vector Network Analyzer: R&S ZNB8

Instruments View



Inside View

2.2 LIST OF EQUIPMENT

Equipment Description	Manufacturer	Identification No.	SN	Current Calibration Date	Next Calibration Date
Vector Network Analyzer	R&S	ZNB8	101413	2025/7/15	2026/7/14
RF switch control	ETS-Lindgren	EMCenter	00251211	N/A	N/A
Measurement software	ETS-Lindgren	EMQuest	N/A	N/A	N/A

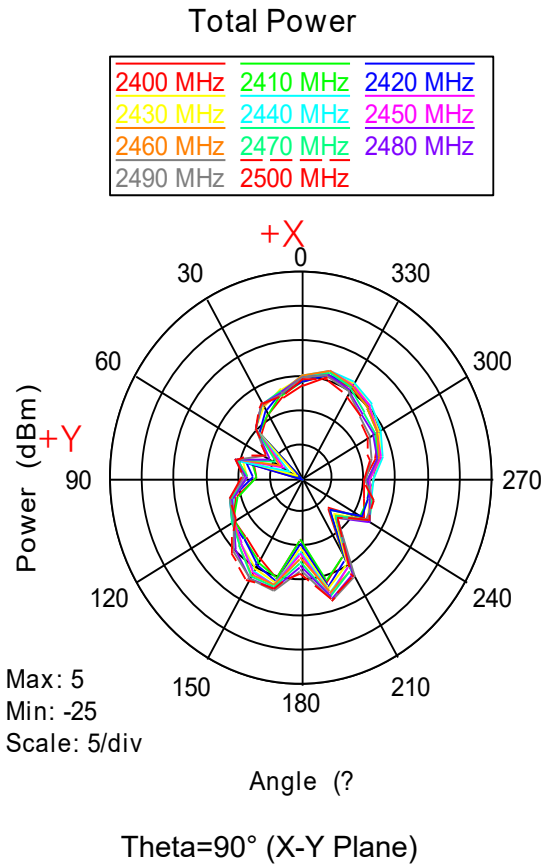
2.3 MEASUREMENT UNCERTAINTY

Item	2400 – 2500MHz
Gain	0.83 dB
Efficiency	0.83 dB
Measurement Uncertainty (95% Confidence Interval) K=2	

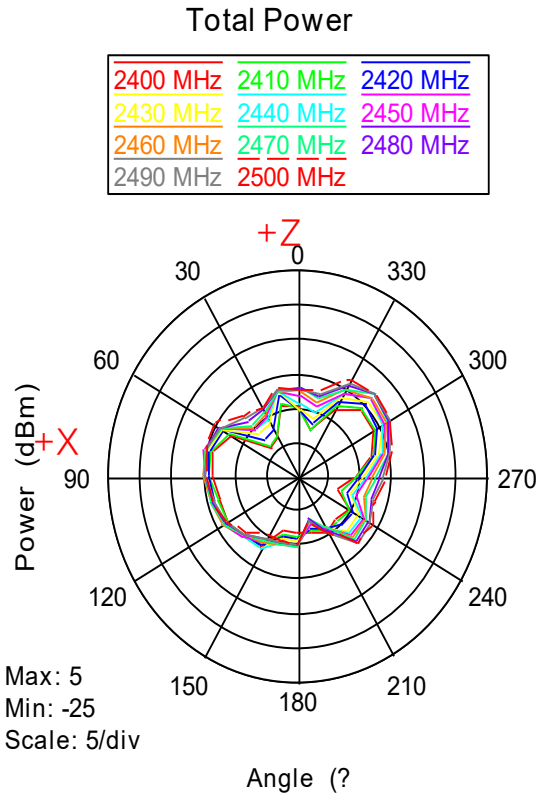
3.TEST RESULTS

Free Space		
Frequency (MHz)	Efficiency (%)	Gain (dBi)
2400	4.83	-8.20
2410	5.04	-8.13
2420	5.54	-7.80
2430	6.06	-7.51
2440	6.46	-7.19
2450	6.61	-7.11
2460	6.73	-6.81
2470	6.90	-6.55
2480	7.05	-6.25
2490	7.23	-6.10
2500	7.28	-6.11

4. 2-D PATTERN PLOTS

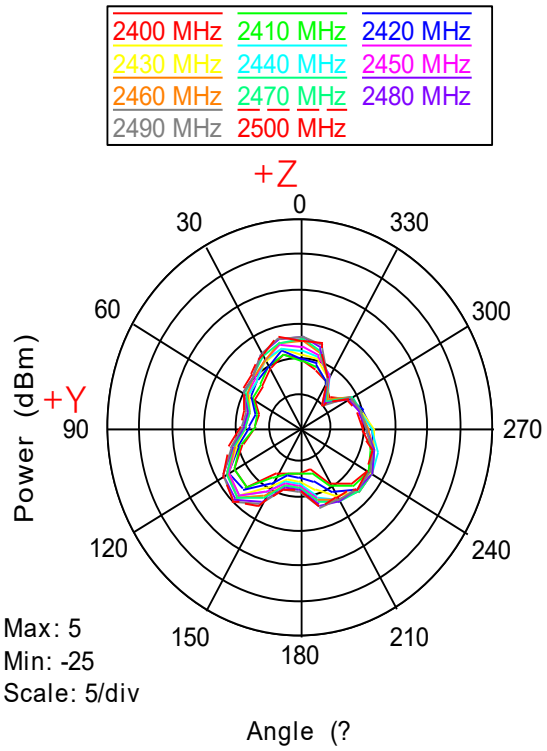


Theta=90° (X-Y Plane)



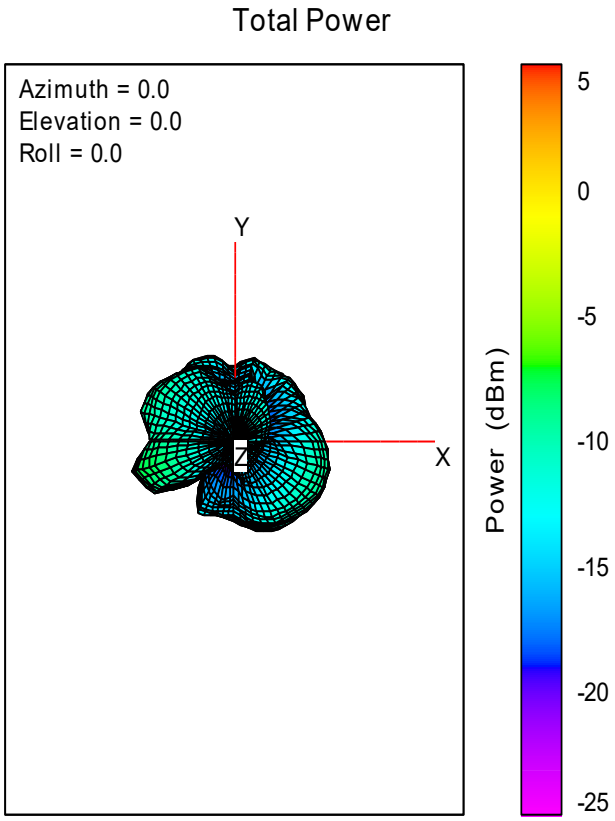
Phi=0° (X-Z Plane)

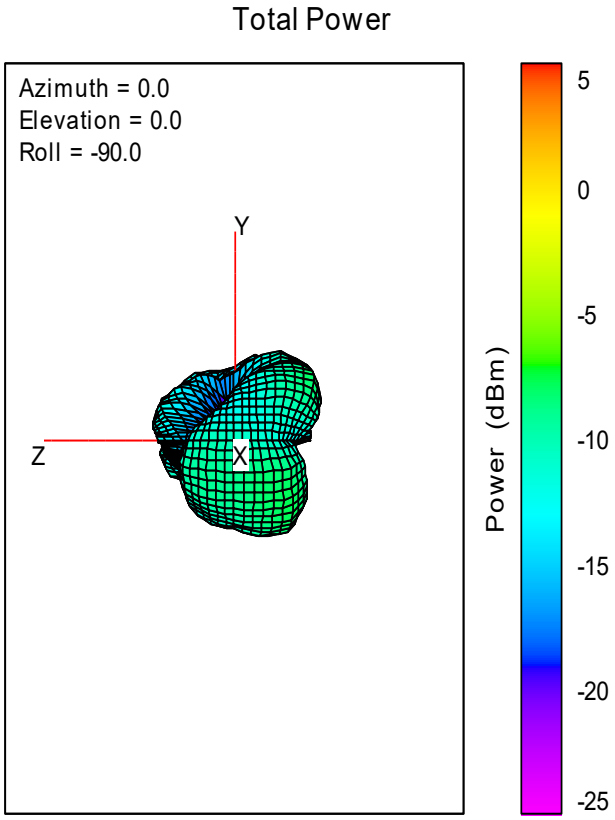
Total Power



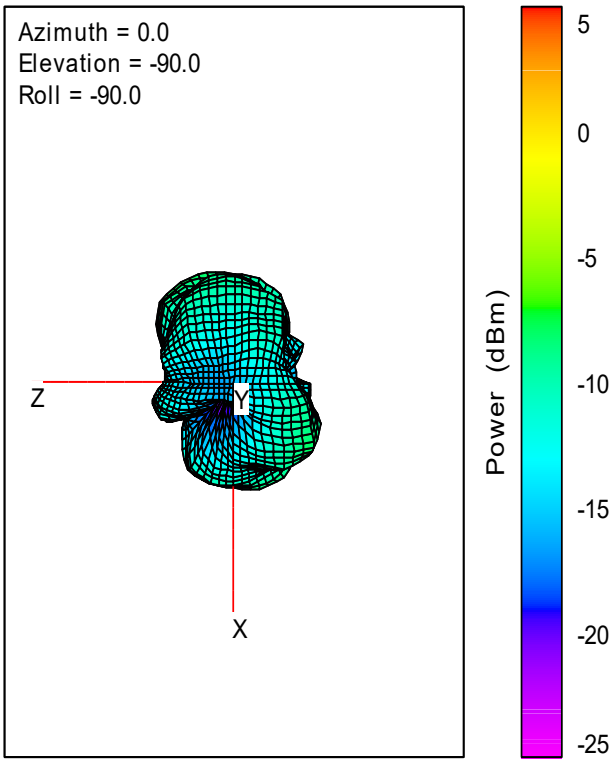
Phi=90° (Y-Z Plane)

5. 3-D PATTERN PLOTS

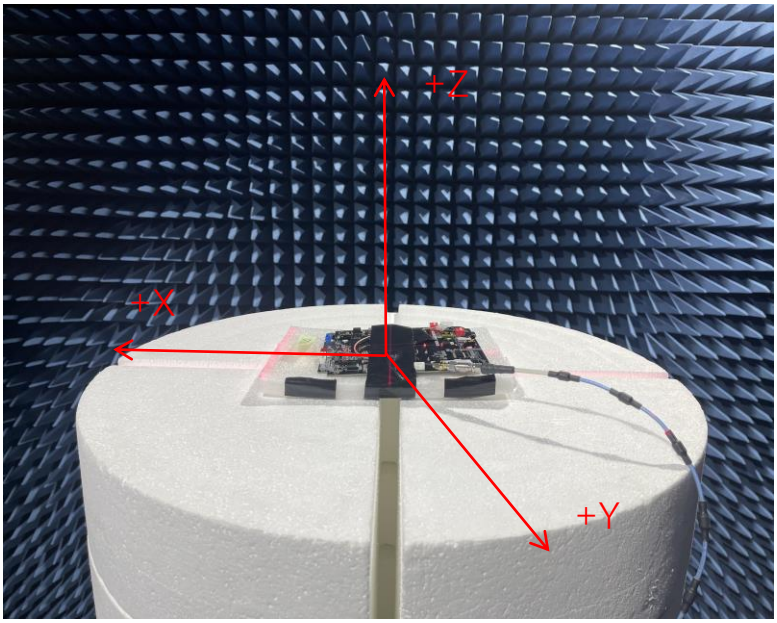




Total Power

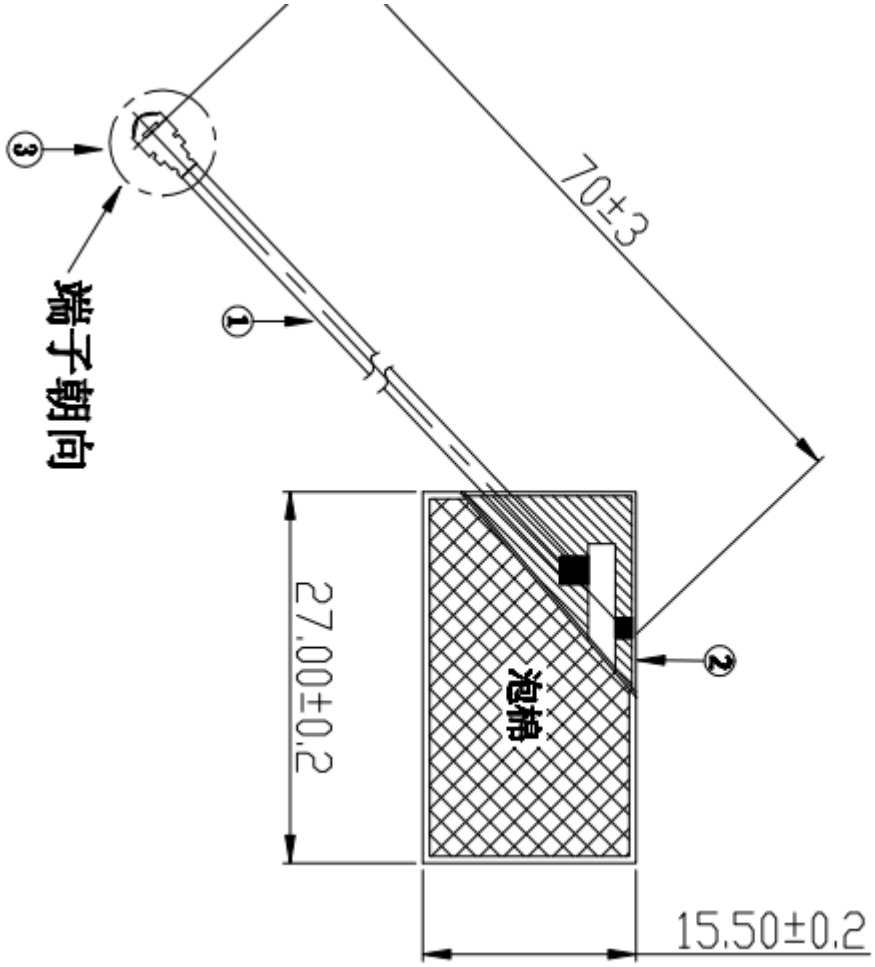


6. THE EUT AND TEST CONFIGURATION



Free Space View

APPENDIX A ANTENNA SPECIFICATION



End of Test Report