



Wireless Device Over the Air Performance Data Summary

REPORT NO. : OQ1D0806
EQUIPMENT : ESP-ANT S-H
BRAND NAME : ESPRESSIF
MODEL NAME : ESP32-S3-MINI-1
DEVICE RECEIVING DATE : Nov. 16, 2021
TEST DATE(S) : Nov. 16, 2021 ~ Nov. 16, 2021

Reviewed by:

Feynman Liu

Feynman Liu / Vice Manager

Approved by:

Kevin Chu

Kevin Chu / Manager

Sporton International (Kunshan) Inc.

***No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China***



Table of Contents

Revision History	3
1. Administration Data	4
1.1 Testing Laboratory	4
1.2 Applicant	4
2. Product Photo	4
3. Summary of Test Results	5
4. FS Pattern	6
5. Description for EUT Testing Position	9

Only For Artificial Machines



Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
OQ1D0806	1.0	Initial issue of report	Dec. 14, 2021

Only For Artificial Machines

1. Administration Data

1.1 Testing Laboratory

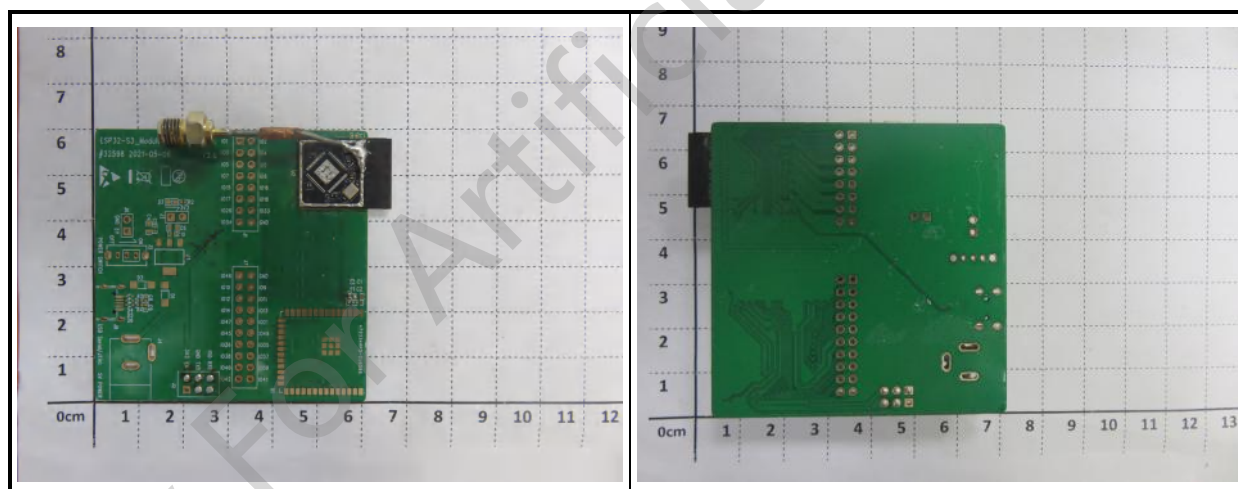
Test Site	Sporton International (Kunshan) Inc.
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958
Chamber	☐ OTA01-KS ☐ OTA02- KS ☐ OTA03-KS ☐ OTA04-KS ☒ OTA05-KS

■: Indicates the chamber(s) used in this test report.

1.2 Applicant

Company Name	ESPRESSIF SYSTEMS (SHANGHAI) CO., LTD
Address	Suite 204, Block 2, 690 Bibo Road, Zhang Jiang Hi-Tech Park, Shanghai, China

2. Product Photo

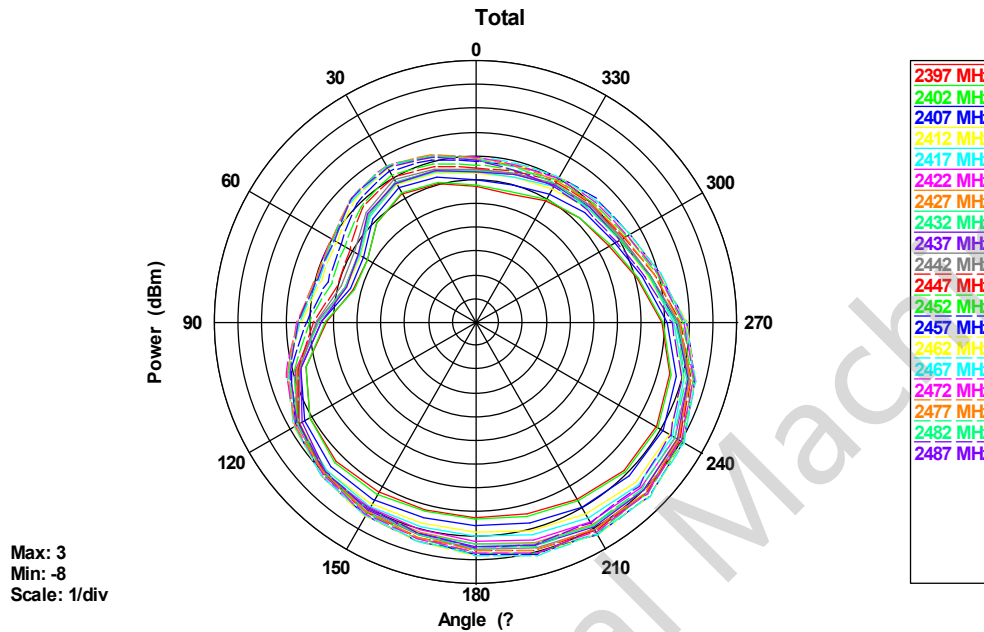


3. Summary of Test Results

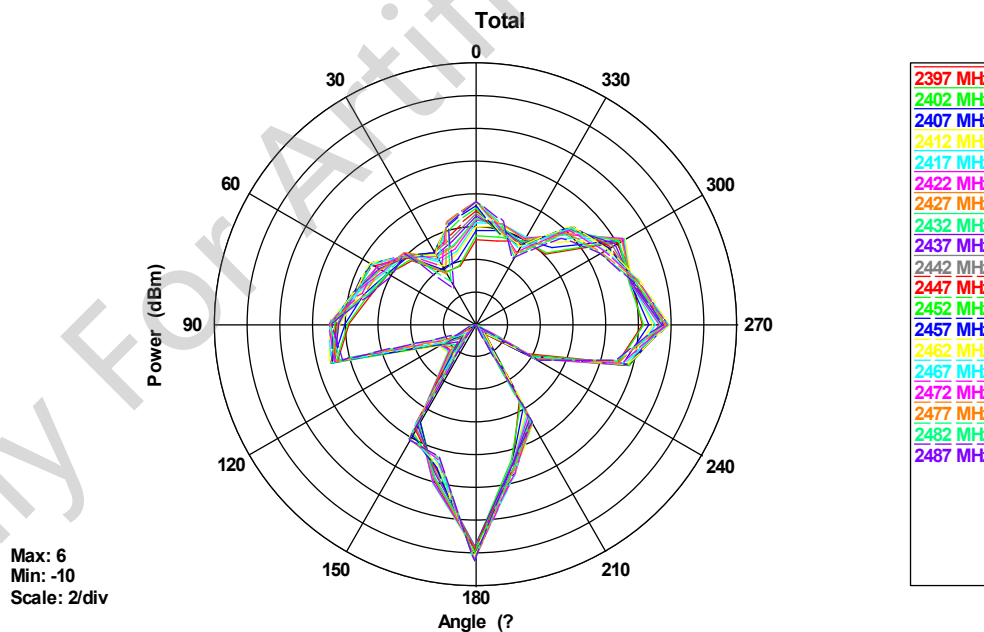
Test / Position	Frequency (MHz)	Avg Gain (dBi)	Peak Gain (dBi)	Directivity (dBi)	Efficiency (dB)	Efficiency (%)
Free Space	2397	-1.79	3.72	5.51	-1.79	66.15
	2402	-1.74	3.69	5.43	-1.74	66.94
	2407	-1.53	3.86	5.39	-1.53	70.28
	2412	-1.32	3.99	5.31	-1.32	73.85
	2417	-1.25	3.99	5.24	-1.25	75.07
	2422	-1.17	4.00	5.17	-1.17	76.35
	2427	-1.15	3.94	5.09	-1.15	76.67
	2432	-1.18	3.87	5.05	-1.18	76.21
	2437	-1.22	3.79	5.01	-1.22	75.58
	2442	-1.15	3.92	5.06	-1.15	76.82
	2447	-1.07	3.99	5.06	-1.07	78.12
	2452	-0.99	4.17	5.16	-0.99	79.65
	2457	-0.88	4.31	5.19	-0.88	81.71
	2462	-0.82	4.43	5.25	-0.82	82.72
	2467	-0.82	4.49	5.31	-0.82	82.81
	2472	-0.86	4.54	5.40	-0.86	82.07
	2477	-0.95	4.47	5.42	-0.95	80.40
	2482	-1.04	4.42	5.45	-1.04	78.77
	2487	-1.12	4.40	5.51	-1.12	77.31

4. FS Pattern

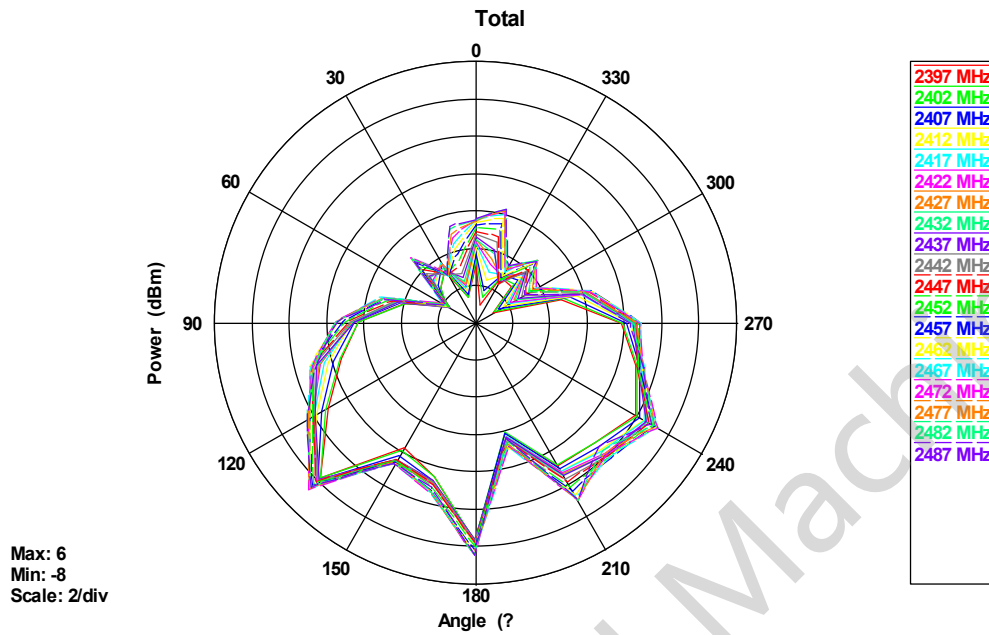
Cut1



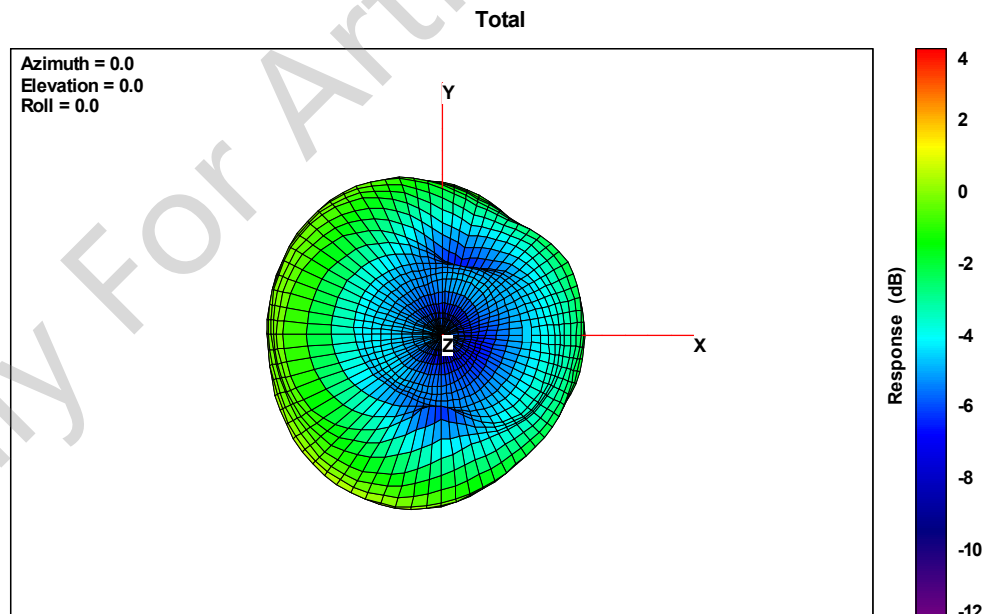
Cut2



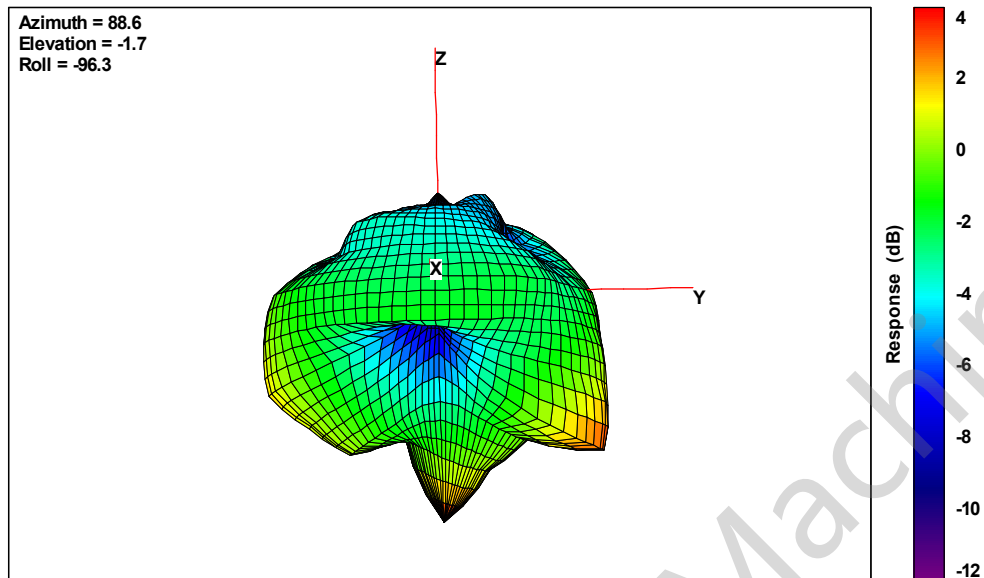
Cut3



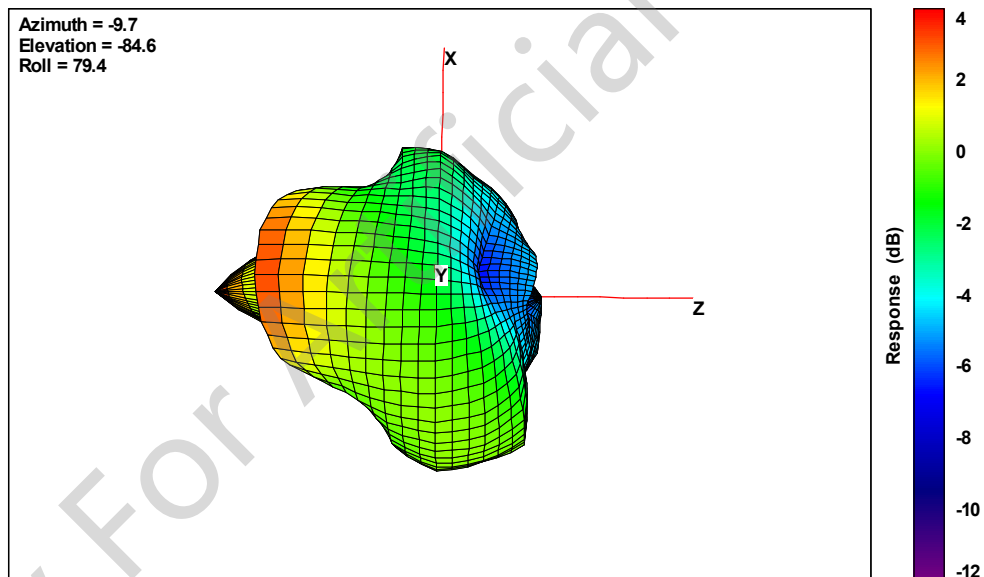
Free Space Gain Pattern



Total



Total



Free Space Gain Pattern

5. Description for EUT Testing Position

Placed and fixed with tape shown as below.

Initial Position:



Fig. 5-1 Free Space

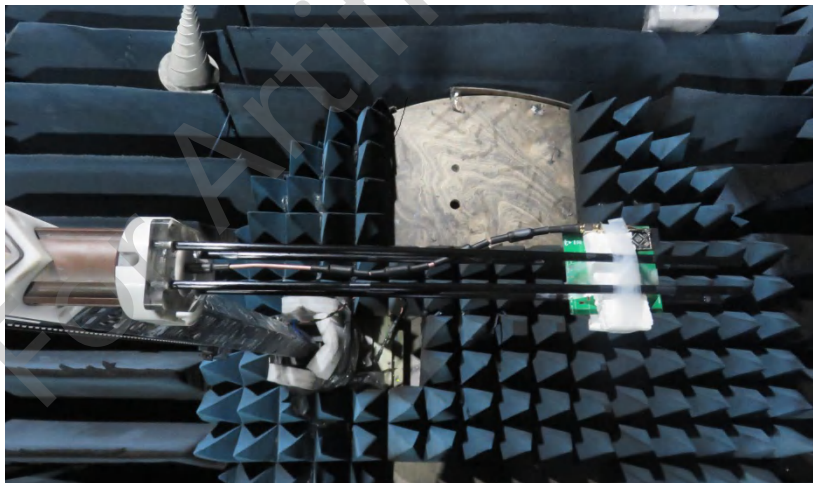


Fig. 5-2 Free Space

Testing Position:

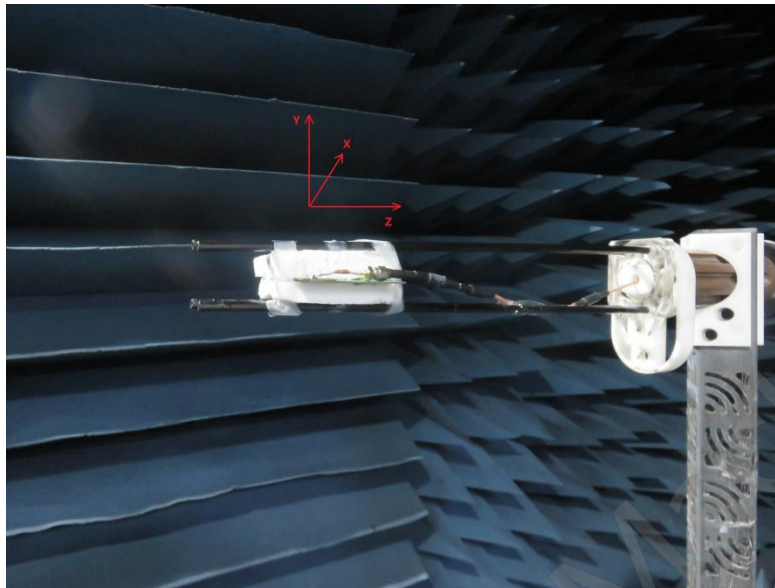


Fig. 5-3 Free Space

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