



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 / Vice Manager

Approved by:

Kevin Chu / Manager

Sporton International (Kunshan) Inc.

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



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Revision History

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



1. Administration Data

1.1 Testing Laboratory

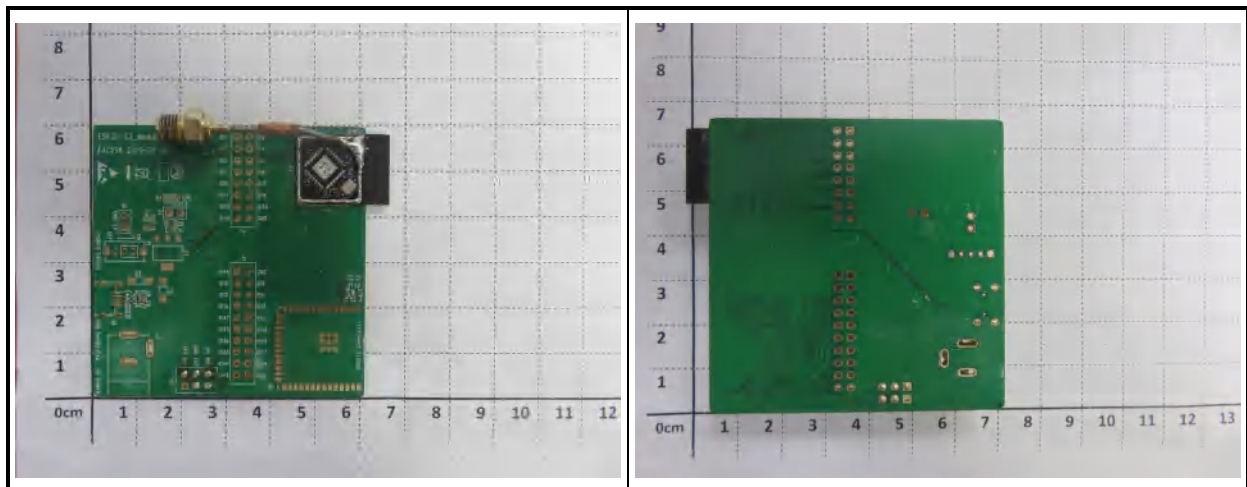
Test Site	Sporton International (Kunshan) Inc.
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958
Chamber	☐ OTA01-KS ☐ OTA02- KS ☐ OTA03-KS ☐ OTA04-KS ☒ OTA05-KS

■: 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





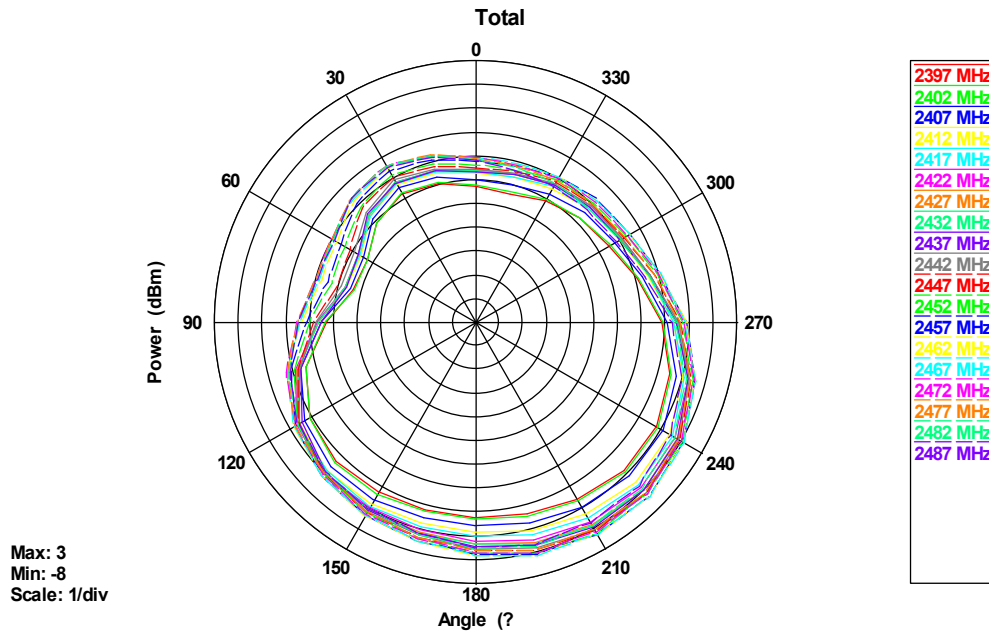
3. Summary of Test Results

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

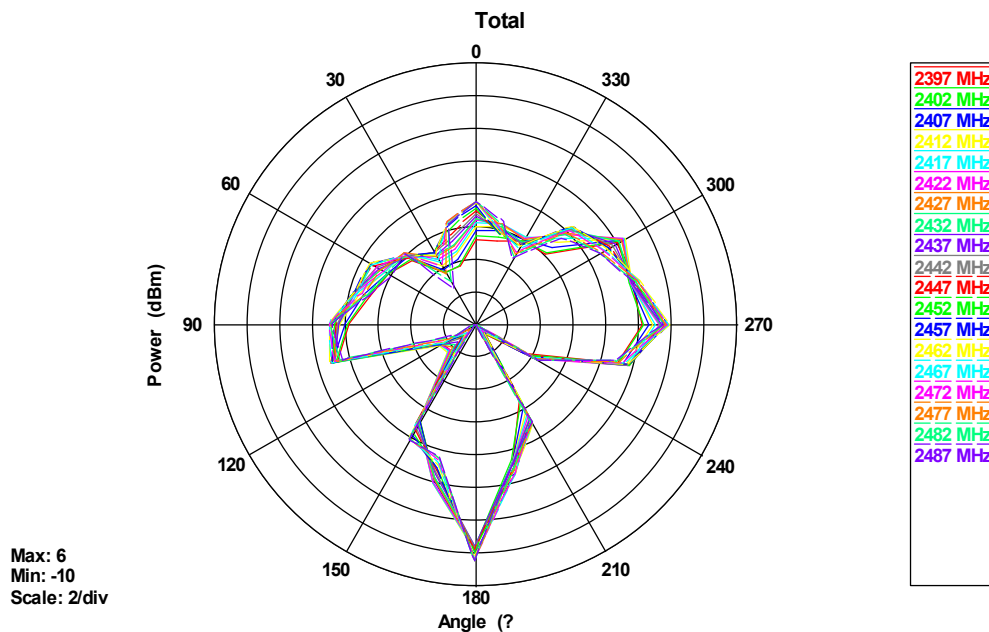


4. FS Pattern

Cut1

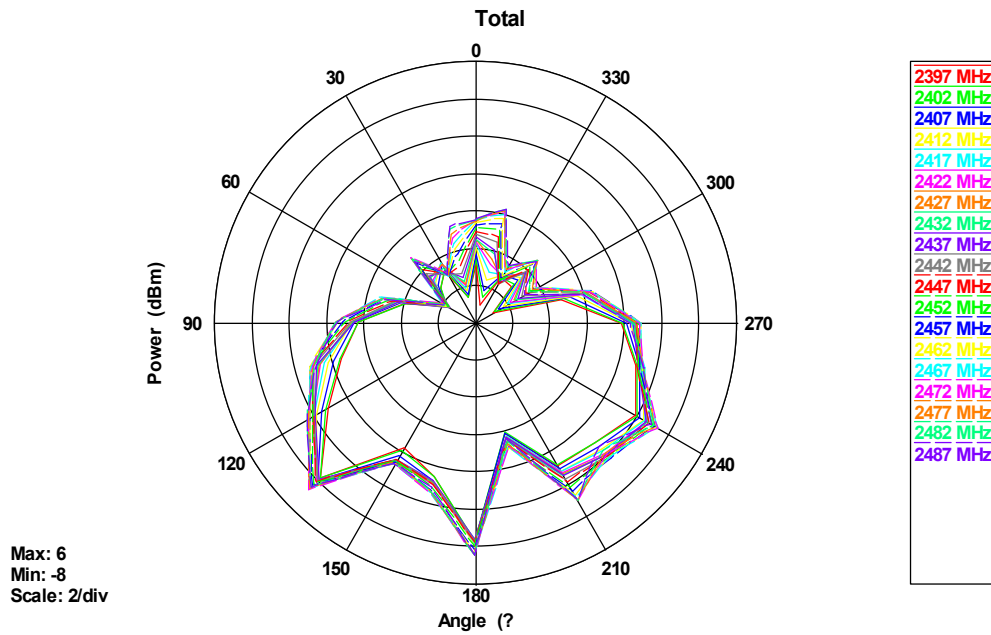


Cut2

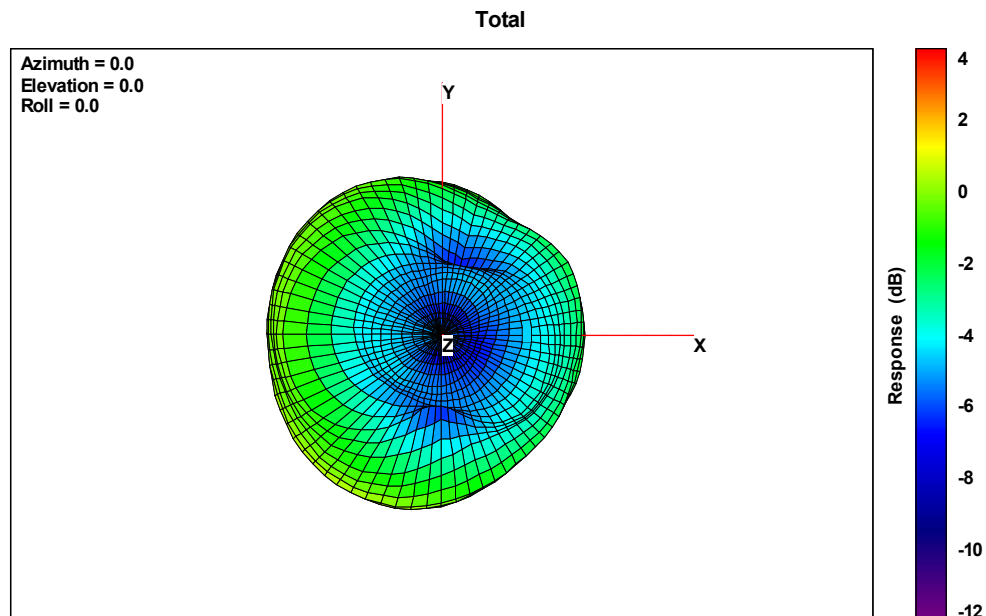




Cut3

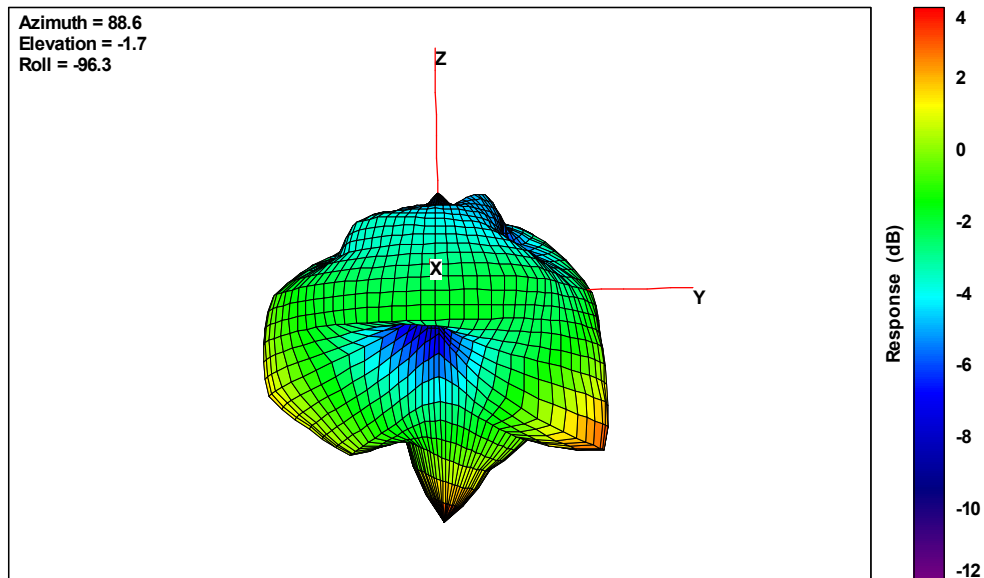


Free Space Gain Pattern

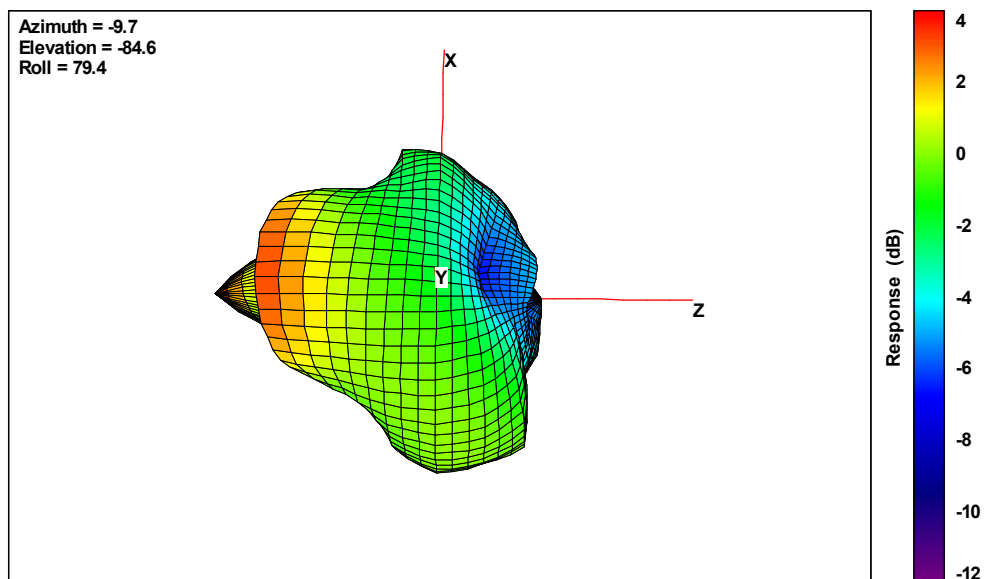




Total



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:

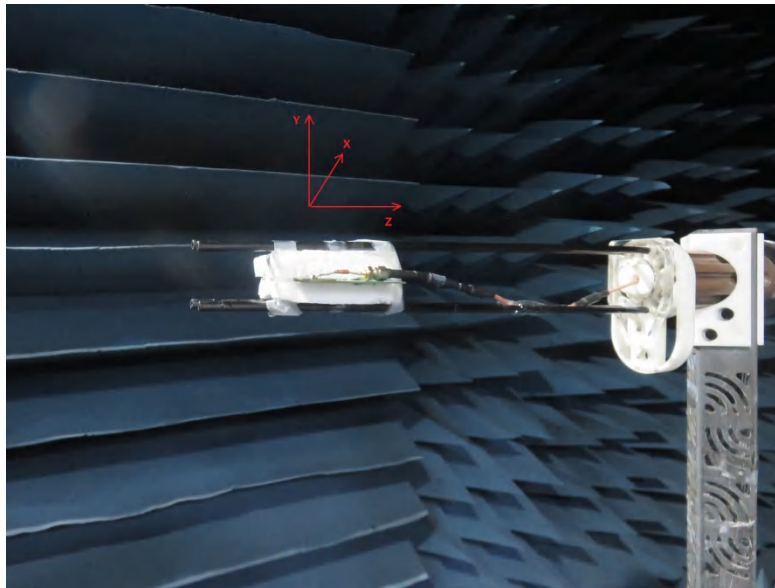


Fig. 5-3 Free Space

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