

3D Antenna Measurement Summary Report

REPORT NO.: OTA26708PB001-01

**PLATFORM
MANUFACTURER:** ShenZhen Powerful Technology CO.,Limited

PLATFORM NAME: Matt Kafer

ANTENNA TYPE: PCB Antenna

TESTED DATE: 2026.07.06-2026-07.06

ISSUED: 2026.07.23

APPLICANT: Examinetics, Inc.

ADDRESS : 10561 Barkley St Suite 400, Overland Park, KS, United States 66212

ISSUED BY : Boomwave (Shenzhen) Co., Ltd.

ADDRESS : Room b38, Warehouse A5, No.3 Chiwan 4th Road, Zhaoshang Street, Nanshan District Shenzhen, Guangdong, People's Republic of China

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RELEASE CONTROL RECORD

REPORT NO.	REASON FOR CHANGE	DATE ISSUED
OTA26708PB001-01	Original release	2026.07.23

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GENERAL INFORMATION

APPLICANT:	Examinetics, Inc.
MANUFACTURER:	ShenZhen Powerful Technology CO.,Limited
MODEL NO.:	YL-3001-RF1
HARDWARE VERSION:	V1.0
SOFTWARE VERSION:	V1.0

Test Standard: ANSI/IEEE Std. 149 2021.

PREPARED BY : Jojo Liao , **DATE :** 2026.07.23
Jojo / Engineer

APPROVED BY : Simon , **DATE :** 2026.07.23
Simon / Manager

1. Test Equipment List

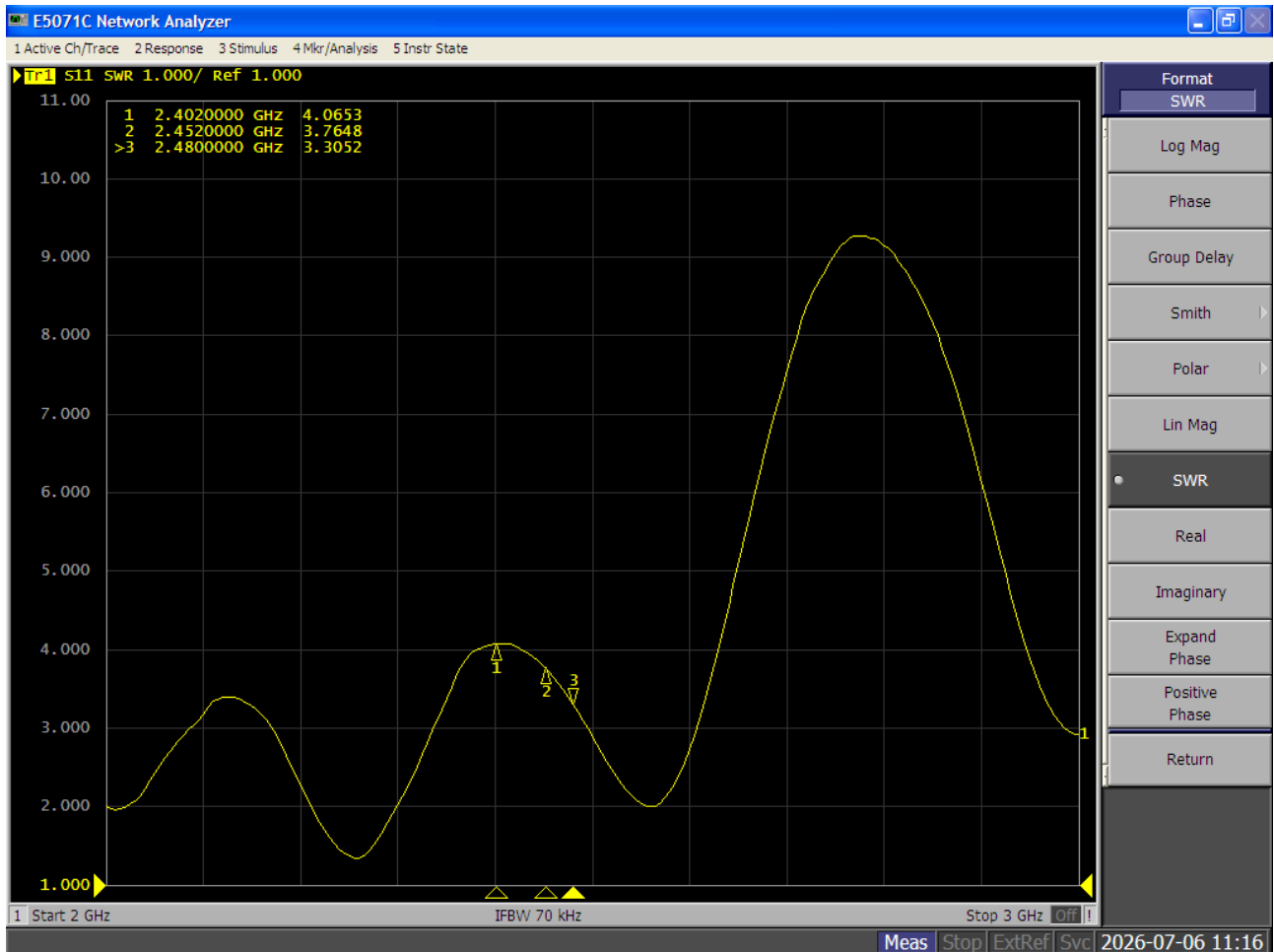
TYPE OF EQUIPMENT	MODEL NUMBER	SERIAL NUMBER	CALIBRATION DUE DATE
Network Analyzer	E5071C	102314	2027.05.29
OTA Chamber	AMS-8500	N/A	N/A
Measurement Antenna	ETS-Lindgren	3164-06	N/A

2. Measurement Uncertainty

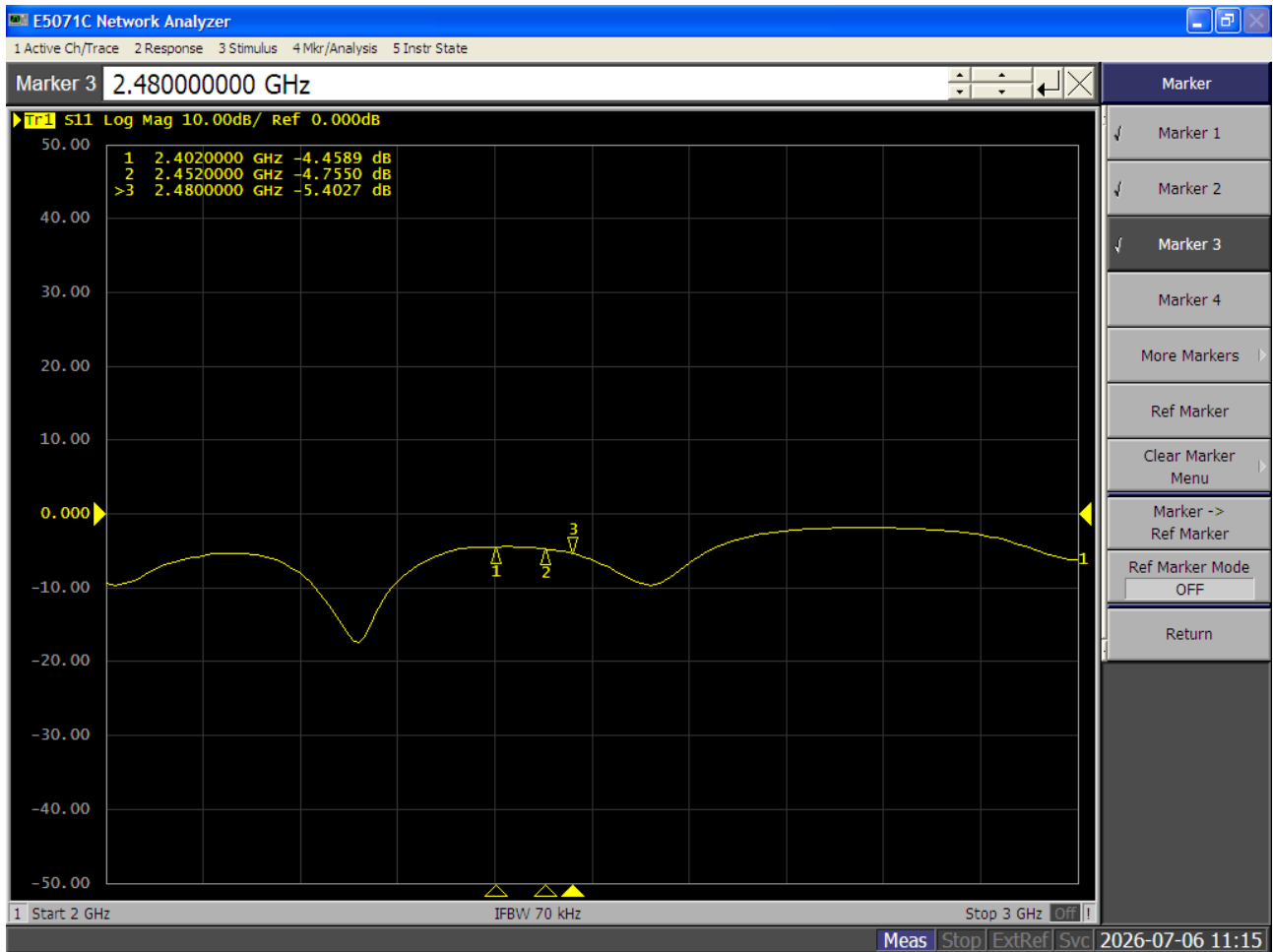
Expanded Uncertainty for Measurement (k=2 or 95% Confidence Level) at Passive antenna test over frequency range 600 – 2600MHz is +/- 1.52 dB.

3. Characteristics of antenna

3.1. VSWR



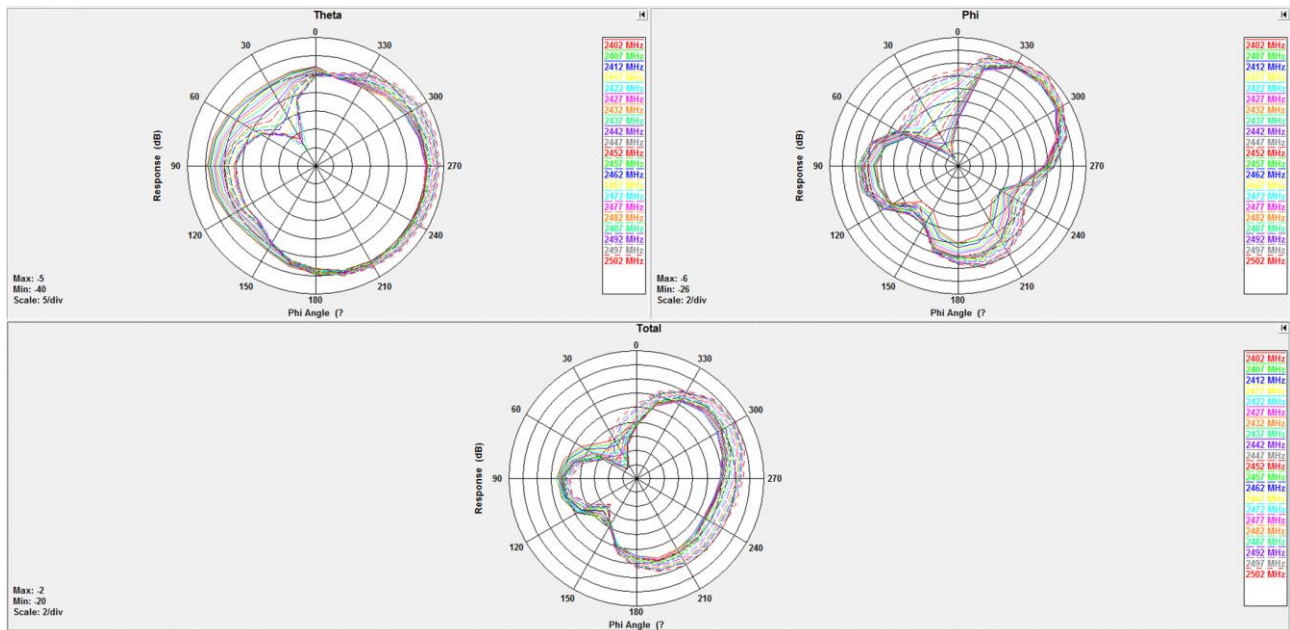
3.2. S11-ReturnLoss



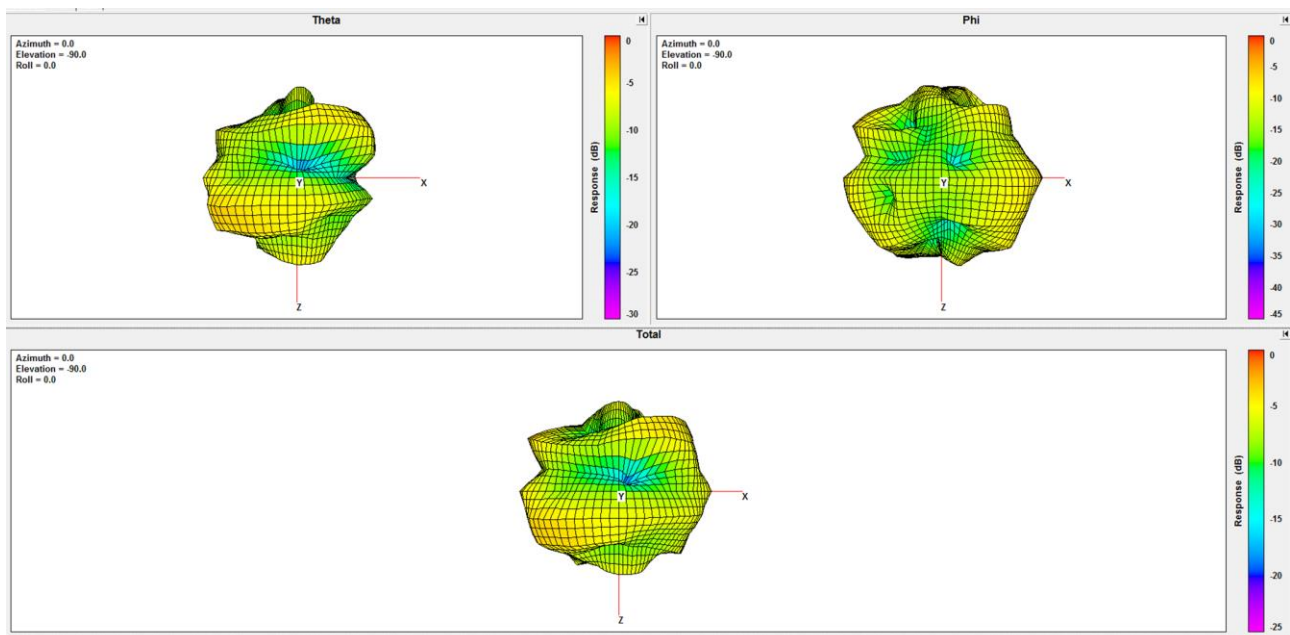
3.3. 3D Antenna Gain-Free Space

Frequency (MHz)	Directivity (dBi)	Efficiency (dB)	Efficiency (%)	Peak Gain (dBi)
2402	5.03	-6.73	21.25	-1.70
2407	5.06	-6.75	21.12	-1.69
2412	5.09	-6.80	20.87	-1.71
2417	5.16	-6.87	20.56	-1.71
2422	5.18	-6.89	20.45	-1.72
2427	5.23	-6.89	20.47	-1.66
2432	5.27	-6.76	21.10	-1.49
2437	5.29	-6.65	21.60	-1.36
2442	5.28	-6.65	21.63	-1.37
2447	5.32	-6.59	21.91	-1.27
2452	5.30	-6.49	22.41	-1.20
2457	5.23	-6.24	23.74	-1.01
2462	5.21	-6.07	24.69	-0.87
2467	5.16	-6.05	24.85	-0.89
2472	5.12	-5.93	25.53	-0.81
2477	5.06	-5.72	26.77	-0.66
2482	4.95	-5.47	28.41	-0.52
2487	4.88	-5.33	29.28	-0.45
2492	4.79	-5.32	29.37	-0.53
2497	4.70	-5.24	29.89	-0.54
2502	4.57	-5.11	30.82	-0.54
Average Efficiency	-6.22 dB		24.23%	
Peak Gain	-0.45 dBi			

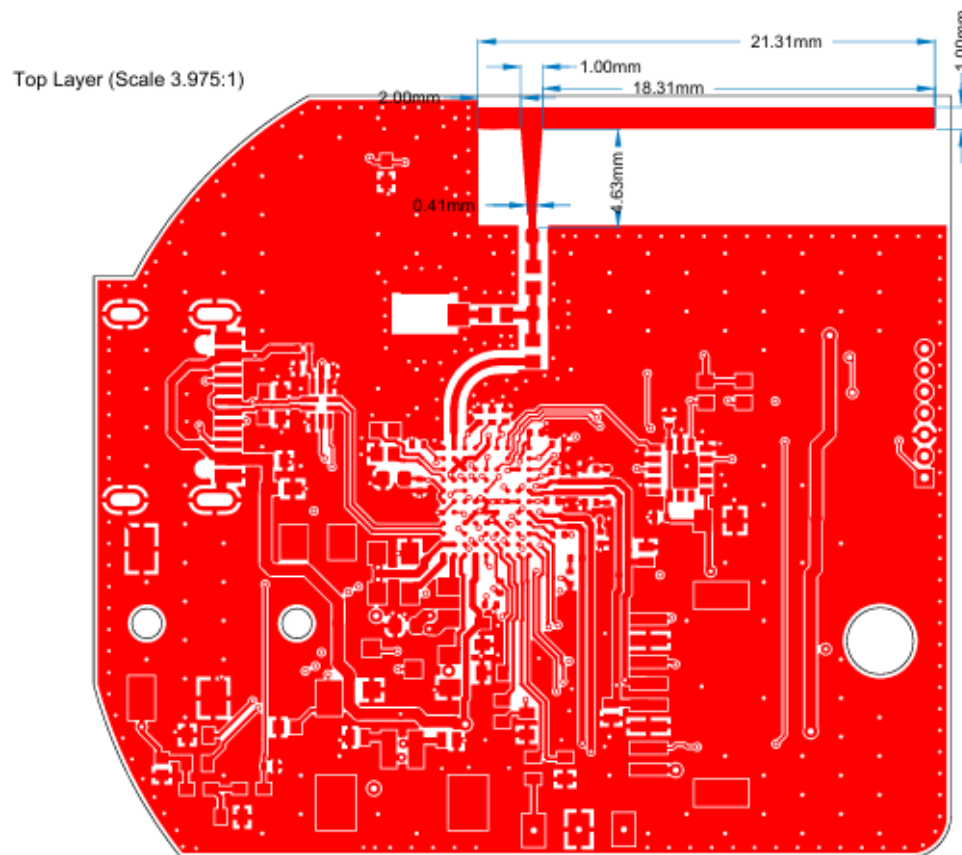
3.4 Antenna Pattern



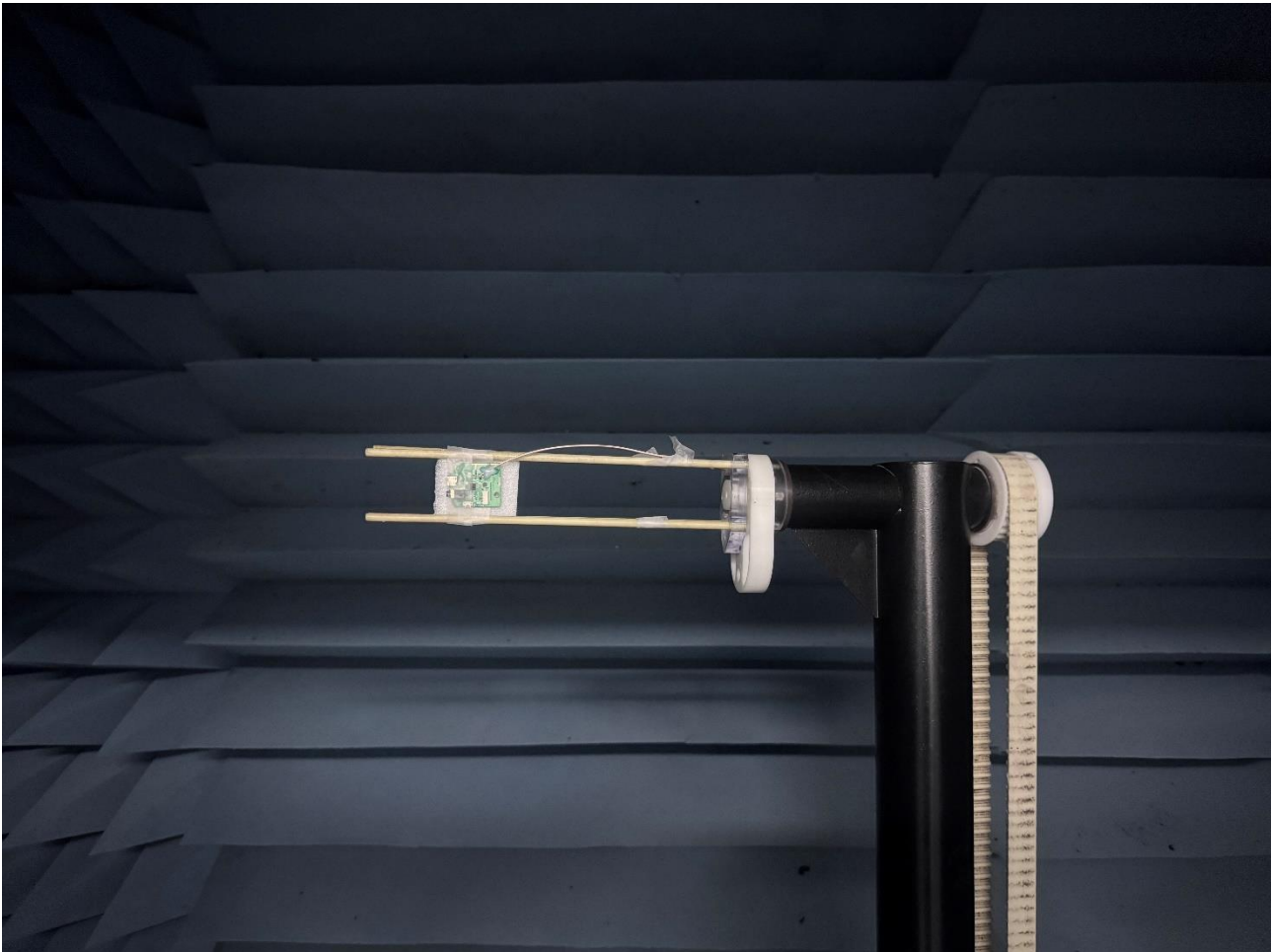
2452MHz



Appendix A. EUT Photographs



Appendix B. Testing Setup Photo



Free Space

END