

3D Antenna Measurement Summary Report

REPORT NO.: W7L-P22100013OT01

**PLATFORM
MANUFACTURER:** ALTYOR Industries(Shanghai) Co., Ltd

PLATFORM NAME: P2013 MB

ANTENNA TYPE: PCB Antenna

TESTED DATE: 2022.10.13

ISSUED: 2022.10.21

APPLICANT: ALTYOR Industries(Shanghai) Co., Ltd

ADDRESS : 152/1421 Zhuan Xing Dong Road, Minhang District,
ShangHai 201108, China

ISSUED BY : BV 7Layers Communications Technology (Shenzhen)
Co., Ltd.

ADDRESS : No. B102, Dazu Chuangxin Mansion, North of Beihuan
Avenue, North Area, Hi-Tech Industry Park, Nanshan
District, Shenzhen, Guangdong, China

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RELEASE CONTROL RECORD

REPORT NO.	REASON FOR CHANGE	DATE ISSUED
W7L-P22100013OT01	Original release	2022.10.21

Table of Contents

GENERAL INFORMATION	3
1. Test Equipment List	4
2. Measurement Uncertainty	4
3. Characteristics of antenna	5
Appendix A. Testing Setup Photo	10



BUREAU
VERITAS

GENERAL INFORMATION

APPLICANT:	ALTYOR Industries(Shanghai) Co., Ltd
MANUFACTURER:	ALTYOR Industries(Shanghai) Co., Ltd
MODEL NO.:	P2013 MB

Test Standard: ANSI/IEEE Std. 149-2021.

PREPARED BY : Leon Guo , DATE : 2022.10.21
Leon Guo / Engineer

APPROVED BY : Luke Lu , DATE : 2022.10.21
Luke Lu / Manager

1. Test Equipment List

TYPE OF EQUIPMENT	MODEL NUMBER	SERIAL NUMBER	CALIBRATION DUE DATE
Network Analyzer	E5071C	MY46214638	2023.05.06
OTA Chamber	ETS AMS8500	N/A	N/A
RF Switch	ETS EMCenter	N/A	N/A
Measurement Antenna	ETS 3164-06	N/A	N/A

2. Measurement Uncertainty

Expanded Uncertainty for Measurement (k=2 or 95% Confidence Level) at Passive antenna test over frequency range 780 – 2200MHz is +/- 1.52 dB.

3. Characteristics of antenna

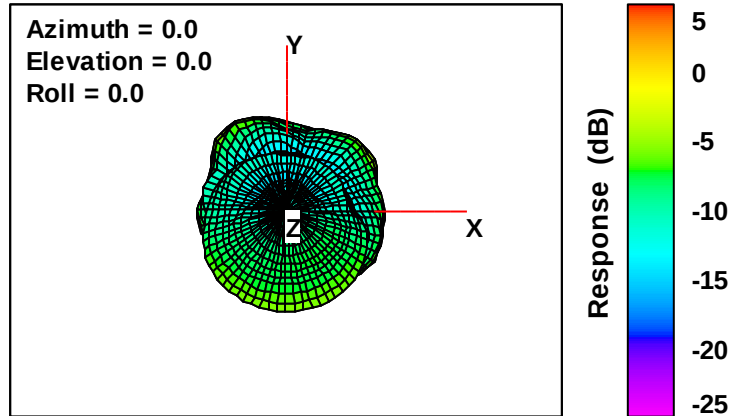
3.1. 3D Antenna Gain-Free Space

Frequency (MHz)	Directivity (dBi)	Efficiency (dB)	Efficiency (%)	Gain (dBi)
2400	6.99	-6.76	21.10	0.24
2420	7.42	-6.57	22.03	0.85
2440	7.66	-6.46	22.59	1.20
2460	7.82	-6.19	24.02	1.63
2480	7.89	-6.04	24.86	1.85
2500	7.83	-5.70	26.94	2.13

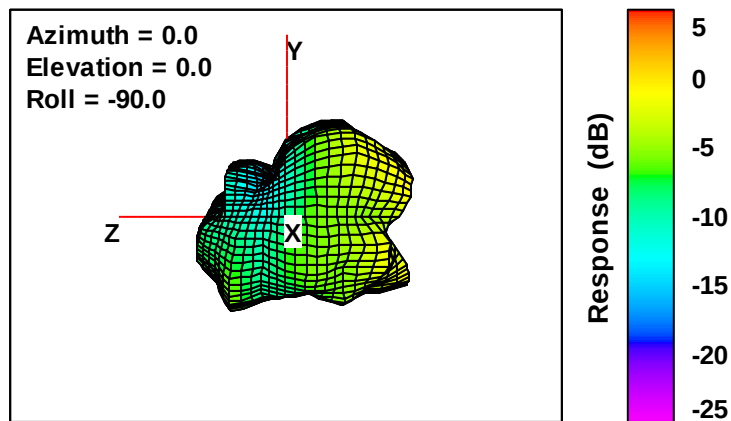
3.2. Antenna Pattern

2400MHz

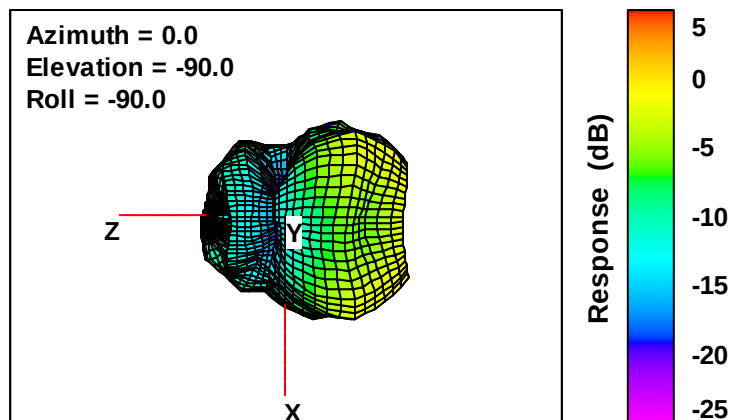
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Total

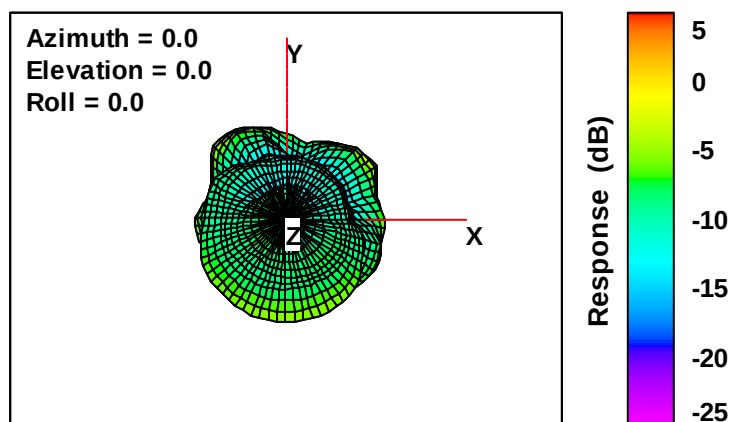


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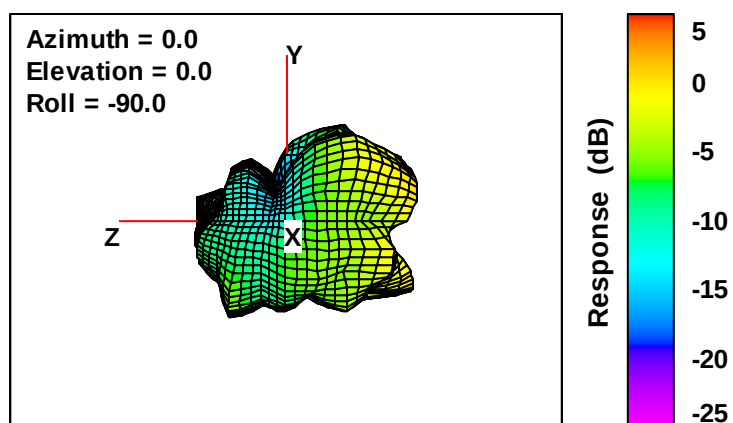


2440MHz

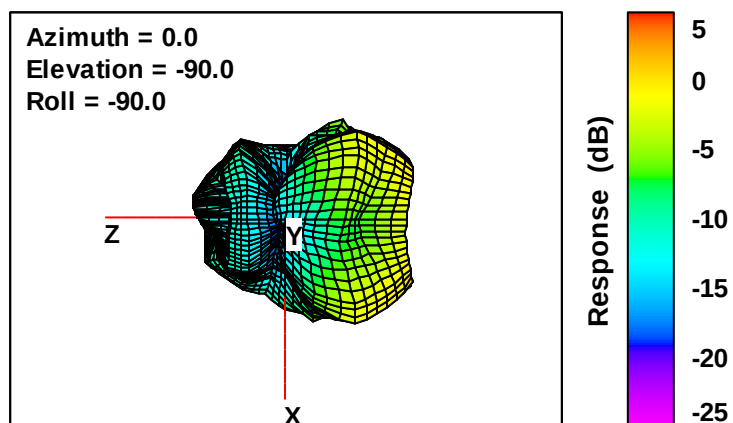
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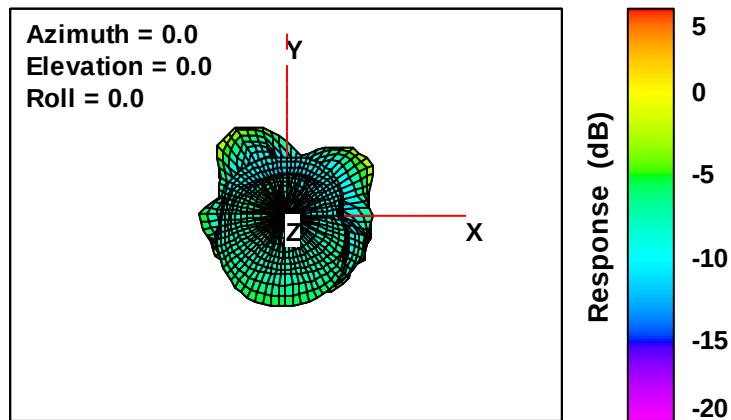


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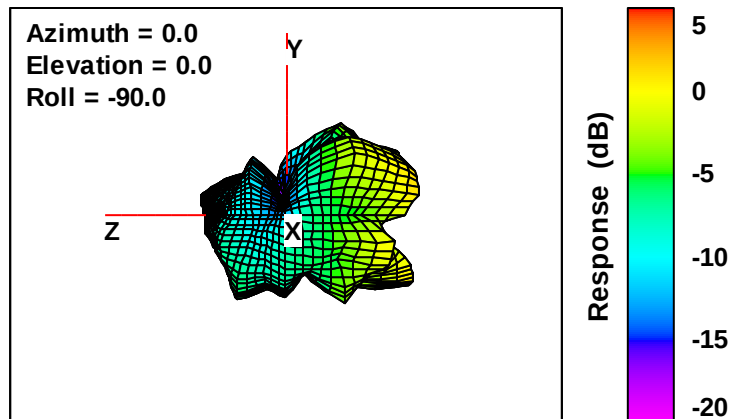


2480MHz

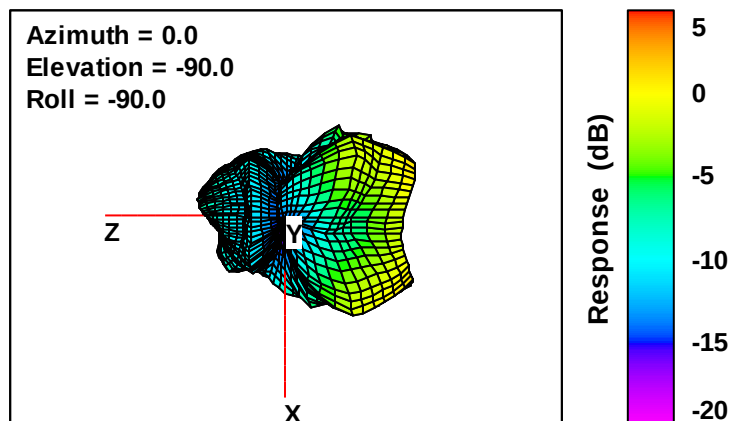
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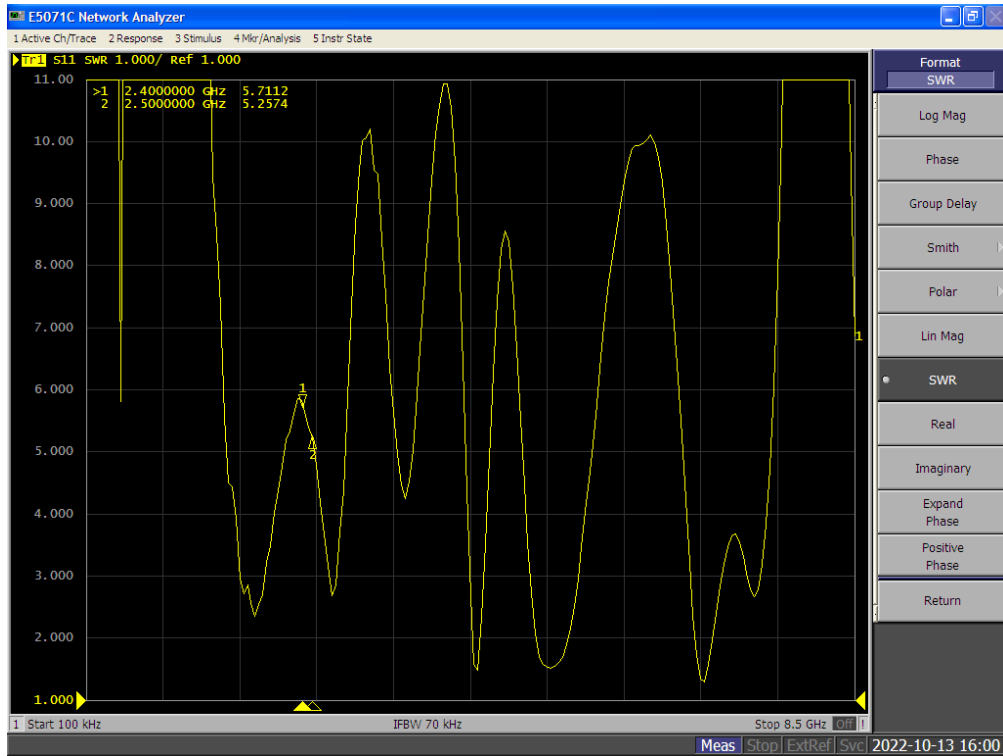
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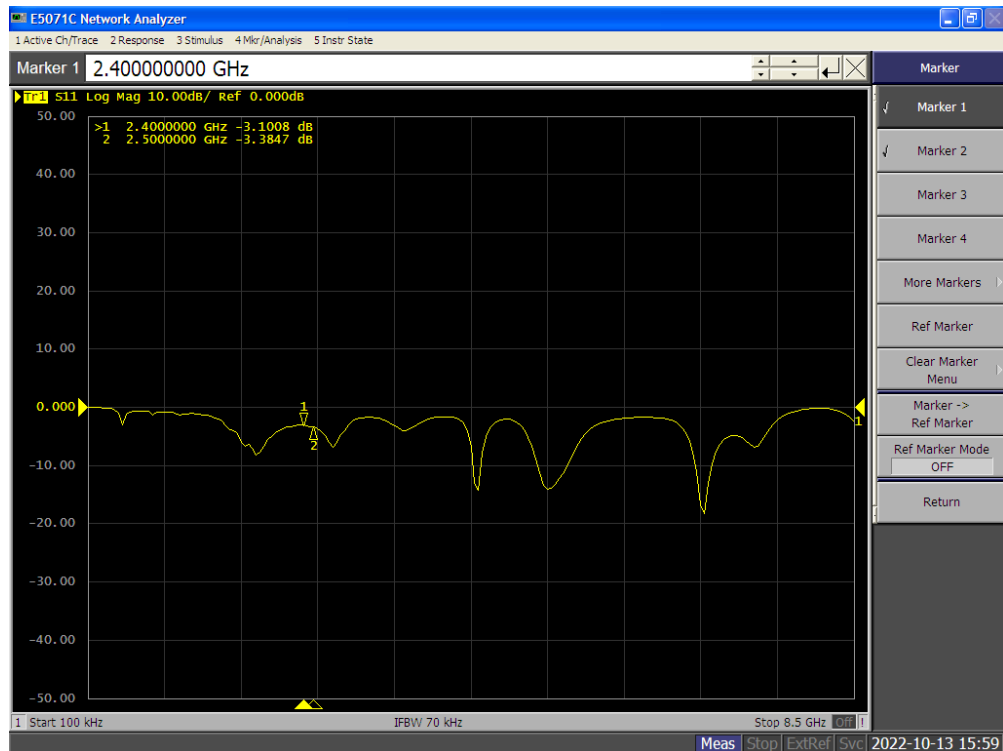
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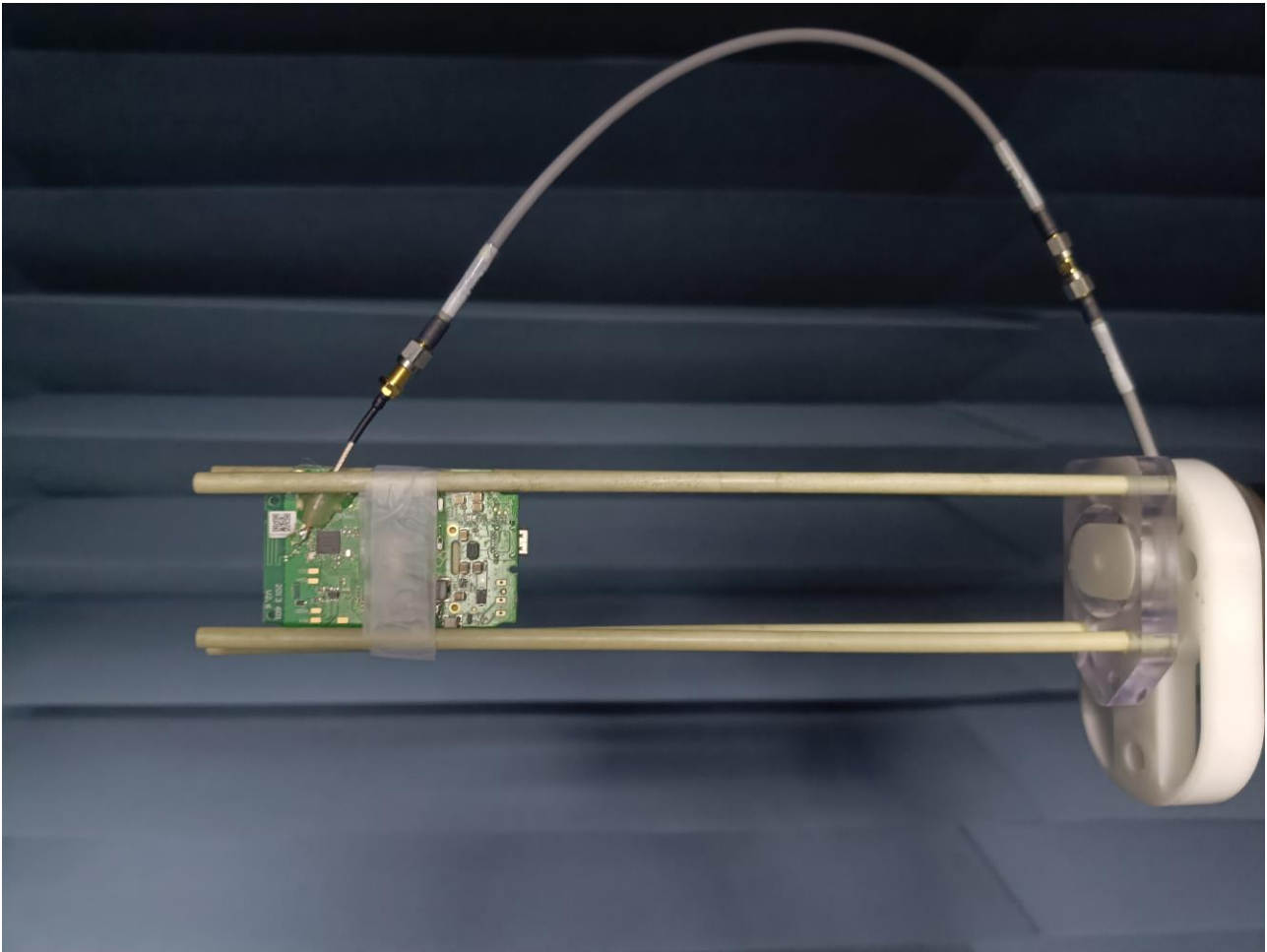
3.3. LOG MAG



3.4. SWR



Appendix A. Testing Setup Photo



Free Space