



# 3D Antenna Measurement Summary Report

**REPORT NO.:** OR170817W002  
**PLATFORM MANUFACTURER:** Averos FZCO  
**PLATFORM NAME:** BLE Tag  
**TRADE NAME:** CoreBlu- X1 Pro2  
**ANTENNA TYPE:** Embedded Antenna  
**TESTED DATE:** 2017.09.15  
**ISSUED:** 2017.11.24

**APPLICANT:** Averos FZCO

**ADDRESS :** 1-D-FXD-149, Thub Dubai Silicon Oasis Dubai, United Arab Emirates

**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
OR170817W002	Original release	2017.11.24

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### GENERAL INFORMATION

<b>APPLICANT:</b>	Averos FZCO
<b>MANUFACTURER:</b>	Averos FZCO
<b>MODEL NO.:</b>	1002-017

Test Standard: ANSI/IEEE Std. 149 1979.

PREPARED BY : Li'Bo , DATE : 2017.11.24  
Bo Li / Engineer

APPROVED BY : Aidan Huang , DATE : 2017.11.24  
Aidan Huang / Supervisor

## 1. Test Equipment List

TYPE OF EQUIPMENT	MODEL NUMBER	SERIAL NUMBER	CALIBRATION DUE DATE
Network Analyzer	E5071C	MY46214638	2018.07.23
RF Switch	ETS EMCenter	00160145	N/A
Axis Controller	ETS 2090-opt1	00101738	N/A
Measurement Antenna	ETS 3164-06	00158068	N/A

## 2. Measurement Uncertainty

Expanded Uncertainty for Measurement (k=2 or 95.45% Confidence Level) at Passive antenna test over frequency range 780 – 2200MHz is +/- 1.52 dB.

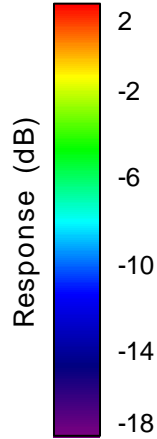
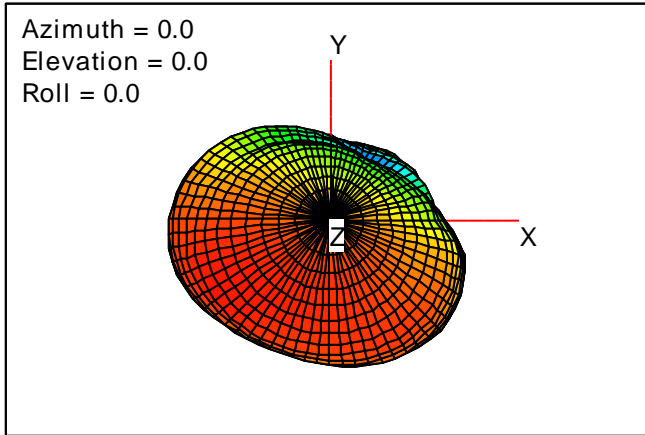
### 3. Characteristics of antenna

Test Item / Position	3D Gain/Free Space		
	2402	2440	2480
Frequency(MHz)			
Directivity (dBi)	4.40	4.84	4.48
Efficiency (dB)	-2.65	-3.00	-3.55
Efficiency (%)	<b>54.30</b>	<b>50.07</b>	<b>44.18</b>
Gain (dBi)	1.75	1.83	0.93

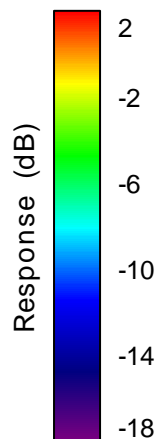
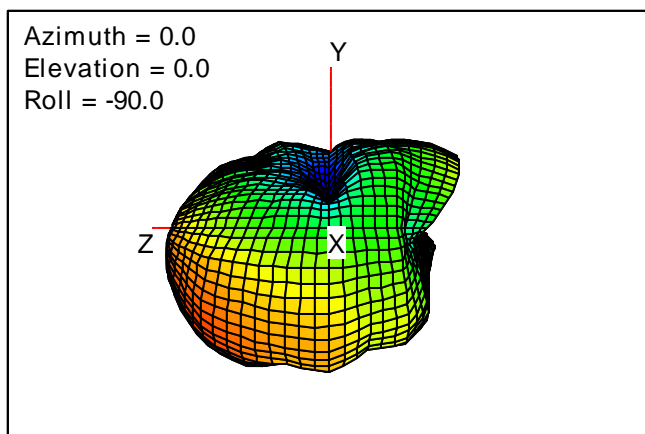
# 4. Antenna Pattern

2402MHz

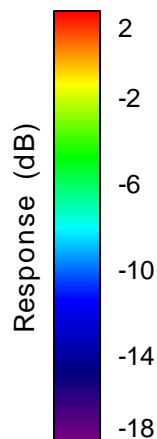
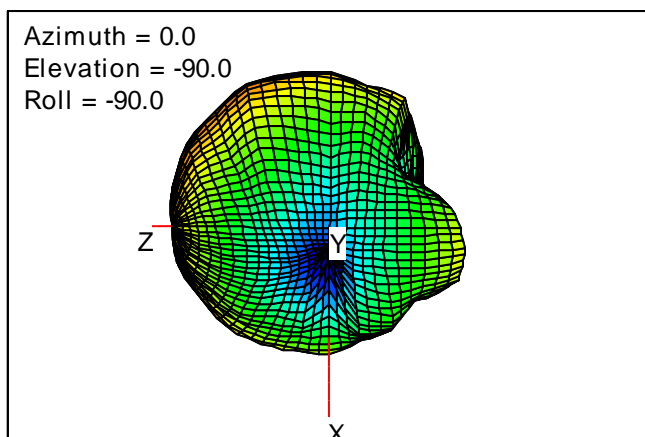
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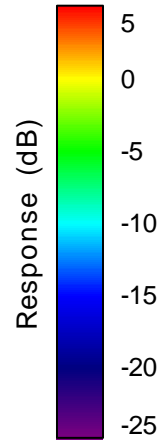
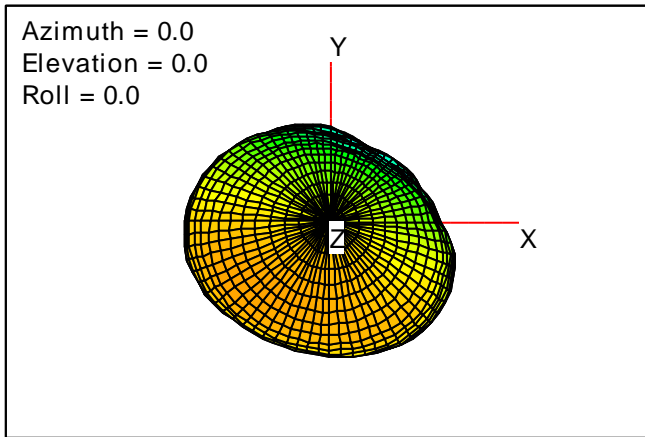


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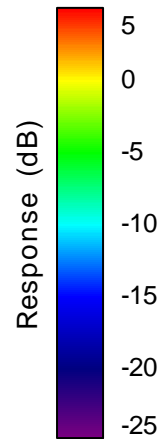
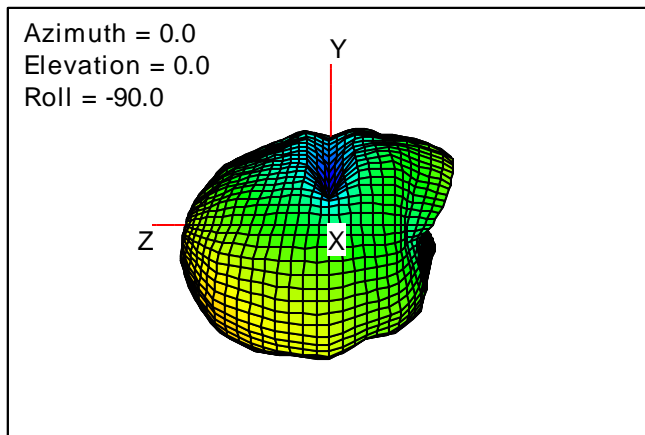


2440MHz

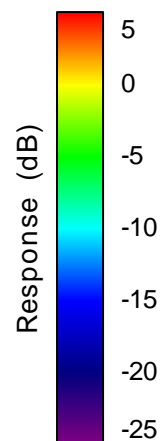
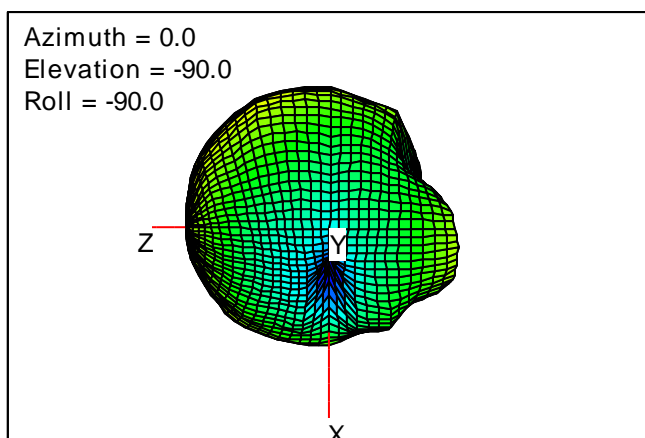
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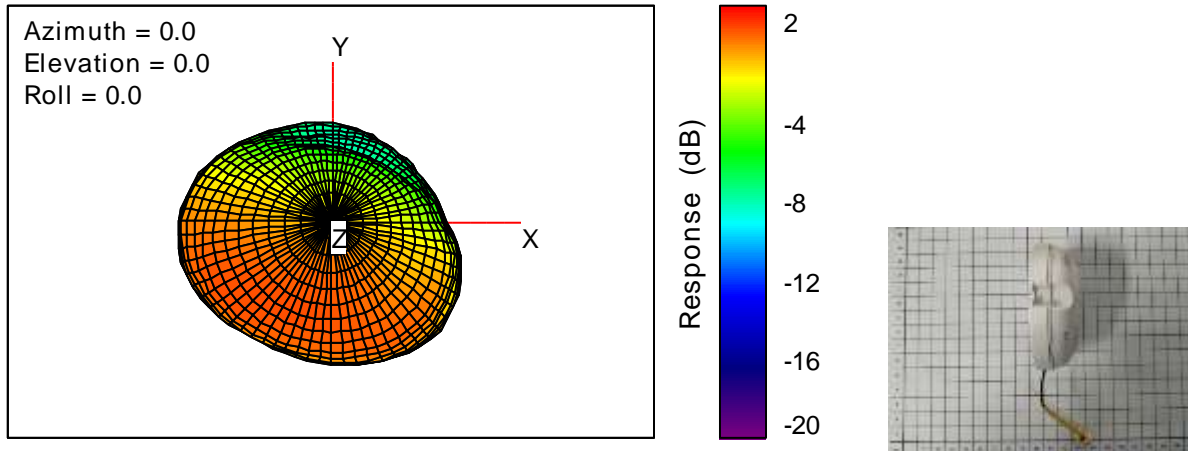


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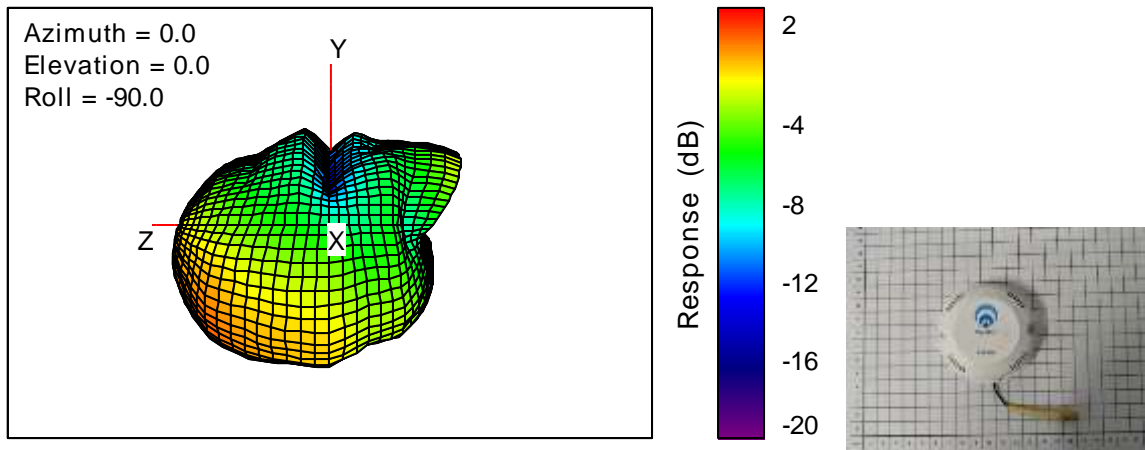


2480MHz

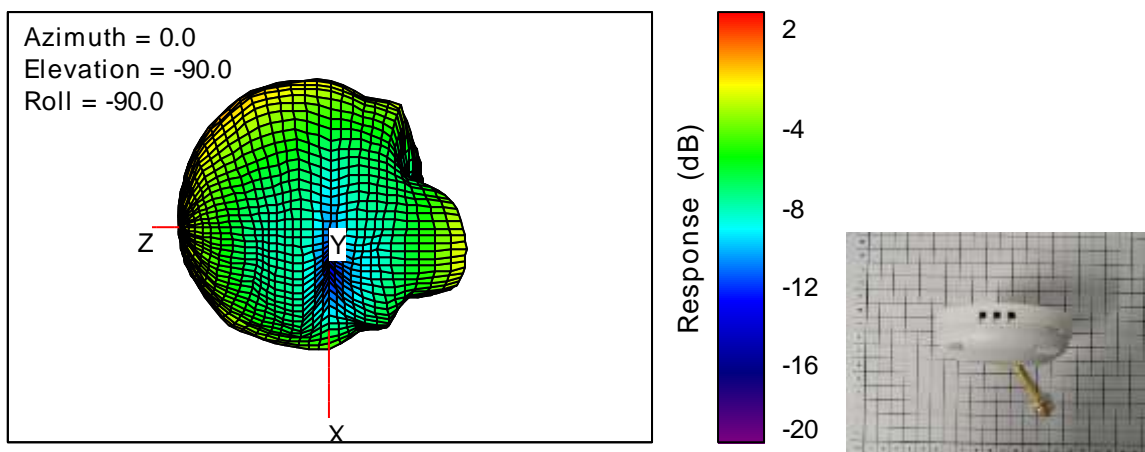
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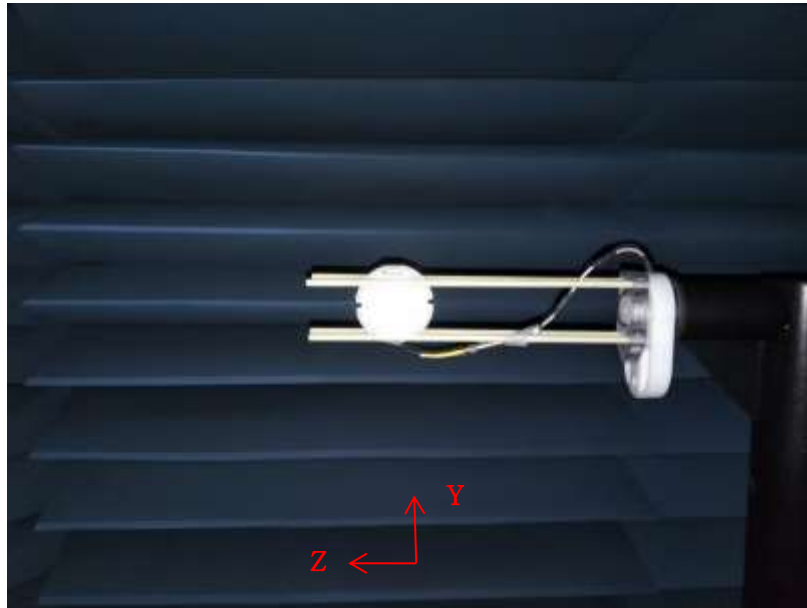


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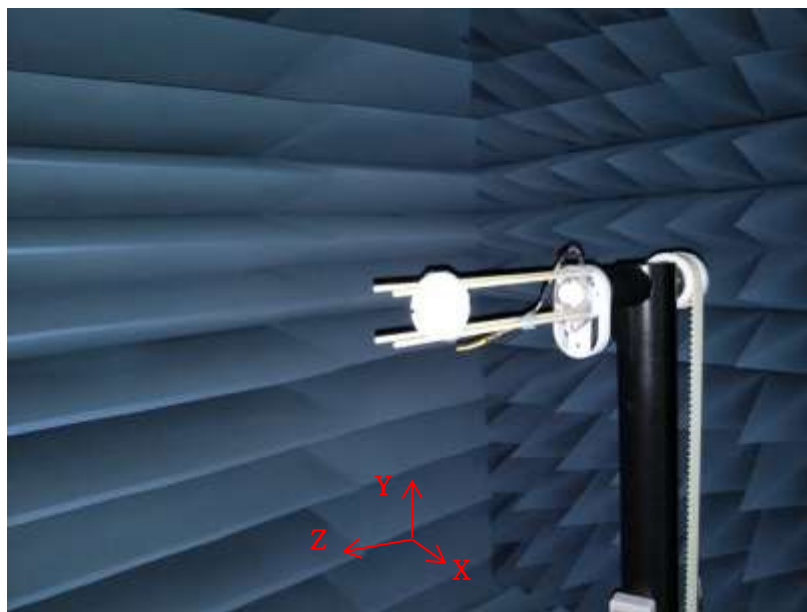




## Appendix A. Testing Setup Photo



Free Space



Free Space