



3D Antenna Measurement Summary Report

REPORT NO.: OR170817W003
PLATFORM MANUFACTURER: Averos FZCO
PLATFORM NAME: BLE Tag
TRADE NAME: CoreBlu - X2 Pro
ANTENNA TYPE: Embedded Antenna
TESTED DATE: 2017.09.14
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
OR170817W003	Original release	2017.11.24

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GENERAL INFORMATION

APPLICANT:	Averos FZCO
MANUFACTURER:	Averos FZCO
MODEL NO.:	1002-028

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.

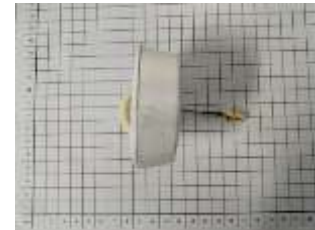
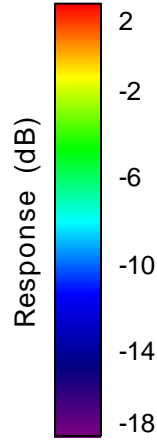
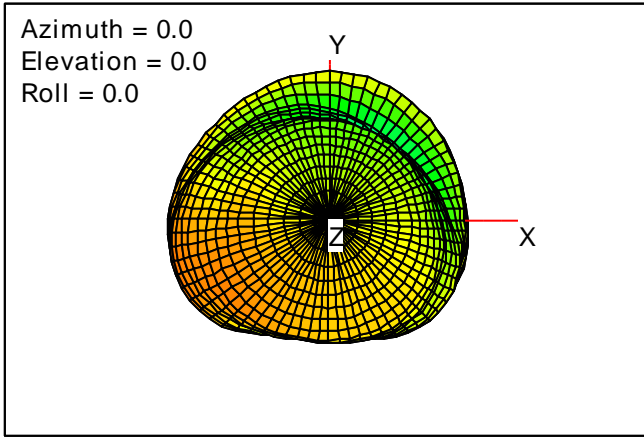
3. Characteristics of antenna

Test Item / Position	3D Gain/Free Space		
	2402	2440	2480
Frequency(MHz)			
Directivity (dBi)	3.31	3.35	3.05
Efficiency (dB)	-2.29	-2.44	-2.44
Efficiency (%)	58.98	57.05	57.06
Gain (dBi)	1.02	0.91	0.62

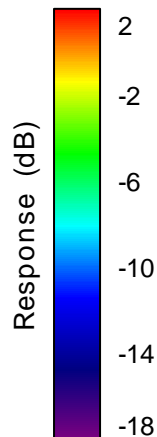
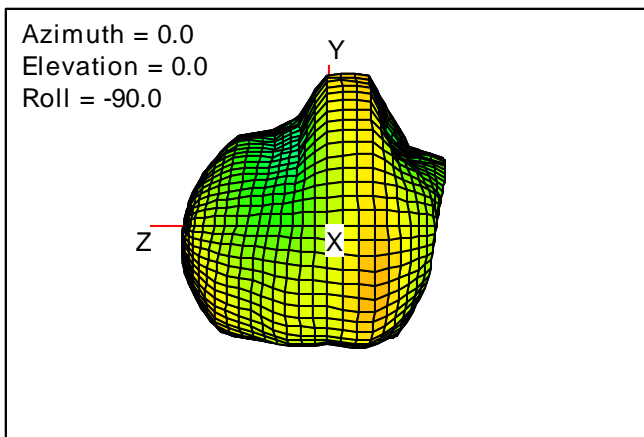
4. Antenna Pattern

2402MHz

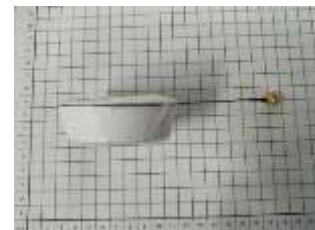
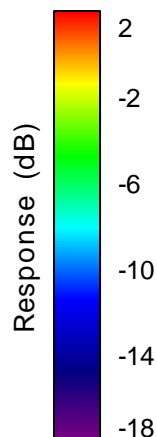
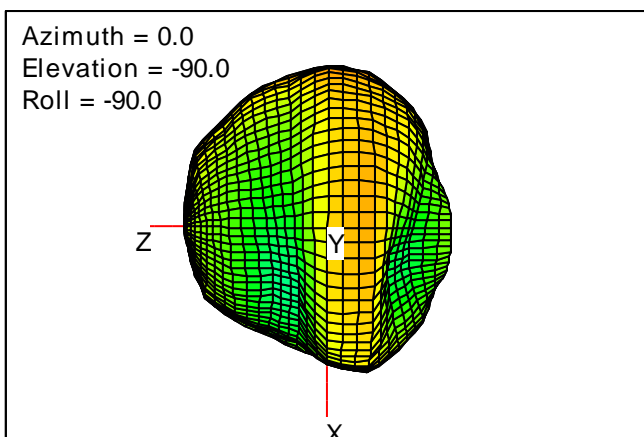
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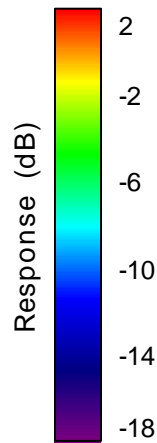
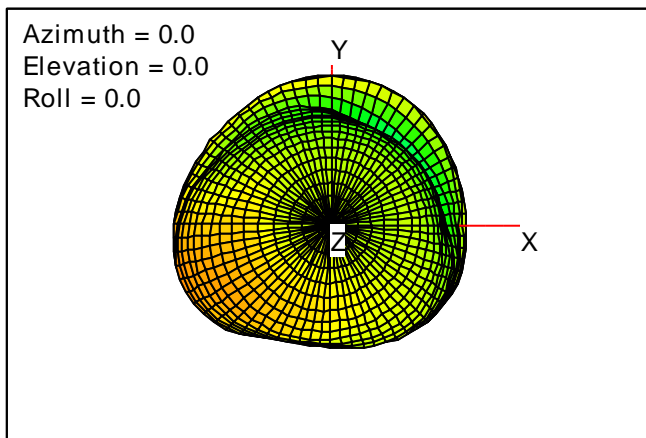


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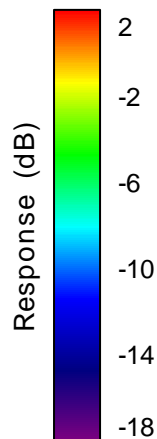
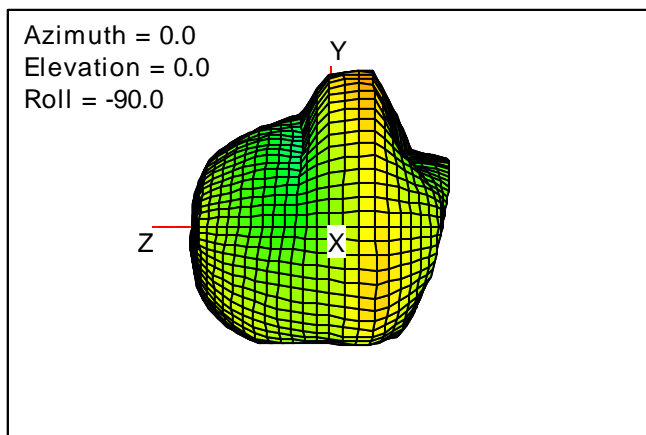


2440MHz

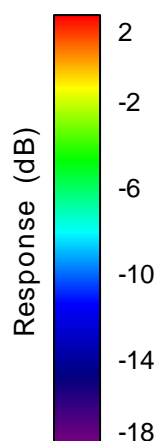
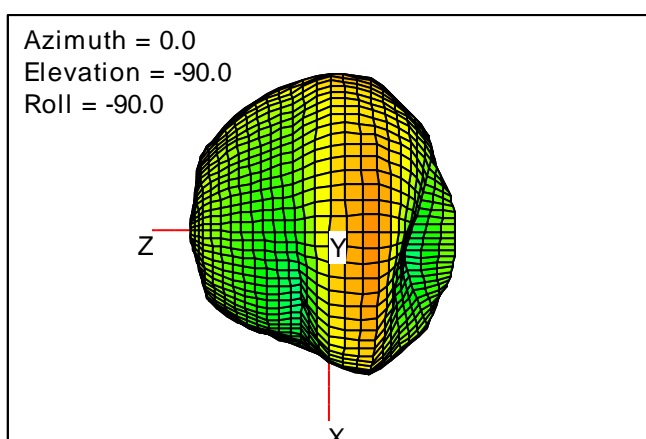
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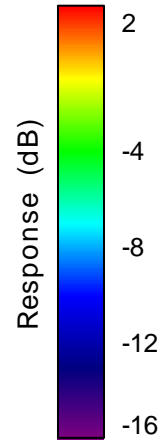
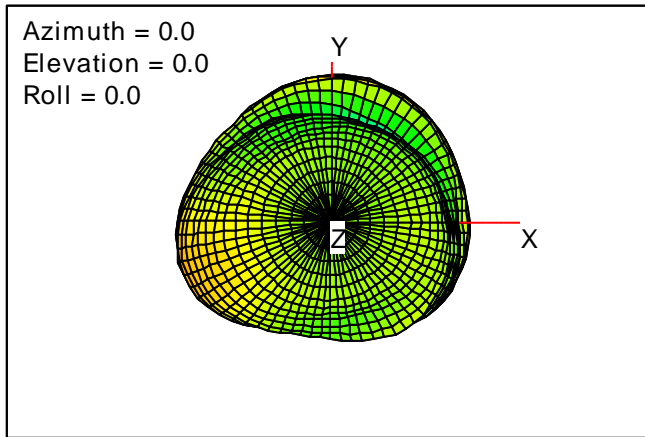


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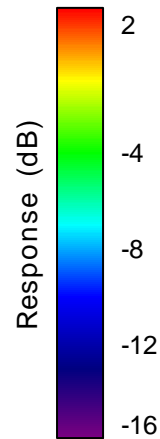
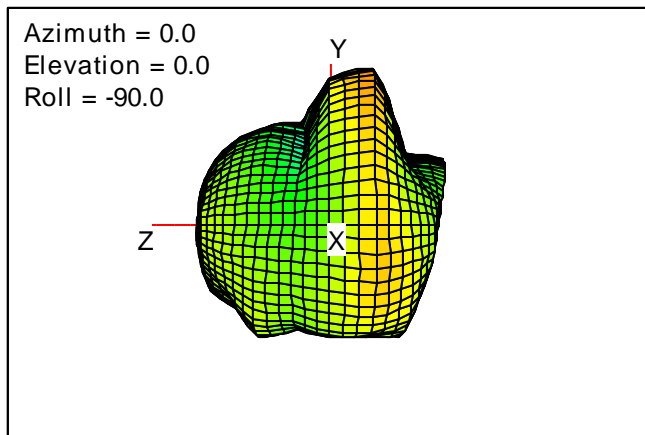


2480MHz

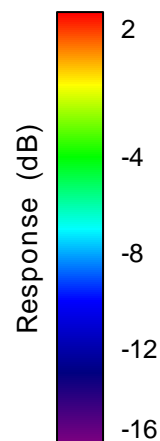
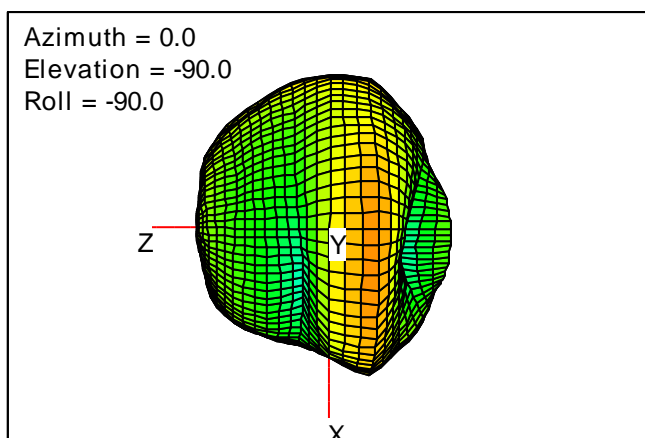
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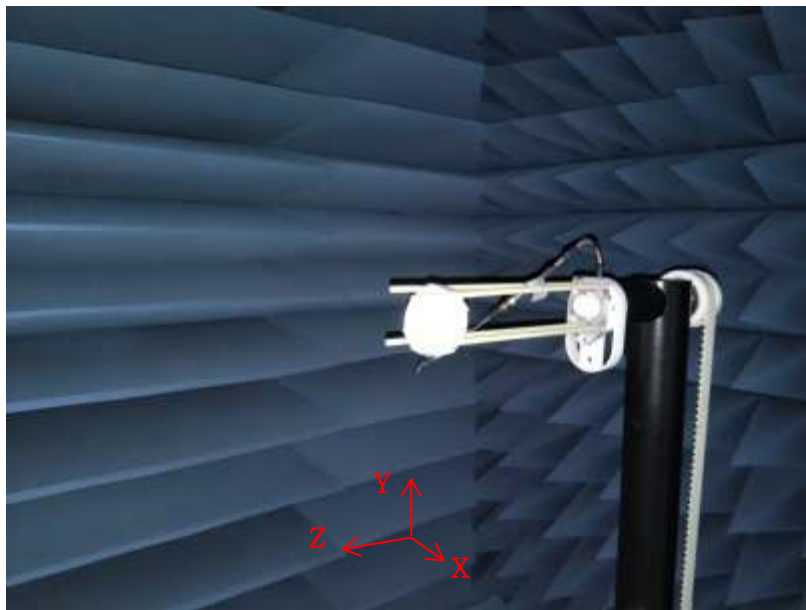
Total



Appendix A. Testing Setup Photo



Free Space



Free Space