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ANTENNA TEST REPORT

Report No: STS1505056001

Issued for

SHANGHAI MOUNTAIN VIEW SILICON Co.,Ltd.

**Floor6,Olympic Plaza,2 Shangbao Road,Futian
District,Shenzhen,China**

Product Name:	Bluetooth Antenna
Brand Name:	N/A
Model No.:	V3-BT
Series Model:	N/A
Test Standard:	N/A

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TEST RESULT CERTIFICATION

Applicant's name : SHANGHAI MOUNTAIN VIEW SILICON Co.,Ltd.
Address : Floor6,Olympic Plaza,2 Shangbao Road,Futian District,Shenzhen,China
Manufacture's Name : SHANGHAI MOUNTAIN VIEW SILICON Co.,Ltd.
Address : Floor6,Olympic Plaza,2 Shangbao Road,Futian District,Shenzhen,China

Product description

Product name : Bluetooth Antenna
Trademark : N/A
Model and/or type reference : MV-MTK-A
Serial Model : MV-MTK-XXX

Standards : IEEE149-1979

This device described above has been tested by STS, and the test results show that the equipment under test (EUT) is in compliance with the IEEE149-1979 requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test :
Date (s) of performance of tests : 21 May. 2015 ~22 May. 2015
Date of Issue : 22 May. 2015
Test Result : Pass

Testing Engineer : [Signature]
(Jin Ming)

Technical Manager : [Signature]
(Vita Li)

Authorized Signatory : [Signature]
(Bovey Yang)





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Revision History

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	22 May. 2015	STS1505056001	ALL	Initial Issue





1. TESTING LABORATORY

1.1 LOCATION

Company Name:	Shenzhen STS Test Services Co., Ltd.
Address:	1/F., Building B, Zhuoke Science Park, No.190, Chongqing Road, Fuyong Street, Bao'an District, Shenzhen, Guangdong, China
Telephone:	+86-755 3688 6288
Fax:	+86-755 3688 6277
Registration No.:	CNAS Registration No.: L7649; FCC Registration No.: 842334; IC Registration No.: 12108A-1

1.2 TEST ITEM

Identification of the Equipment under Test

Product Name:	Bluetooth Antenna
Band Name:	N/A
Model No	MV-MTK-A
Frequency Bands:	2402-2480MHz
Antenna Type:	Coil Antenna
Hard Ware Version:	N/A
Soft Ware Version:	N/A



2. SUMMARY OF TEST RESULTS

2.1 TEST STANDARDS

Identity	Document Title
IEEE149-1979	IEEE Standard Test Procedures for Antennas

2.2 TEST ITEM

ITEM	Remark
ANTENNA GAIN	--
INSERTION LOSS	--
RETURN LOSS	--
VSWR	--
SMITH CHART	--

2.3 TEST UNCERTANINTY

The uncertainty is calculated using the methods suggested in the "Guide to the Expression of Uncertainty in Measurement" (GUM) published by ISO.

ITEM	UNCERTAINTY
VSWR(S11)	0.2dB
Gain	0.0dBi

3. GENERAL TEST CONFIGURATIONS

3.1 TEST ENVIRONMENT

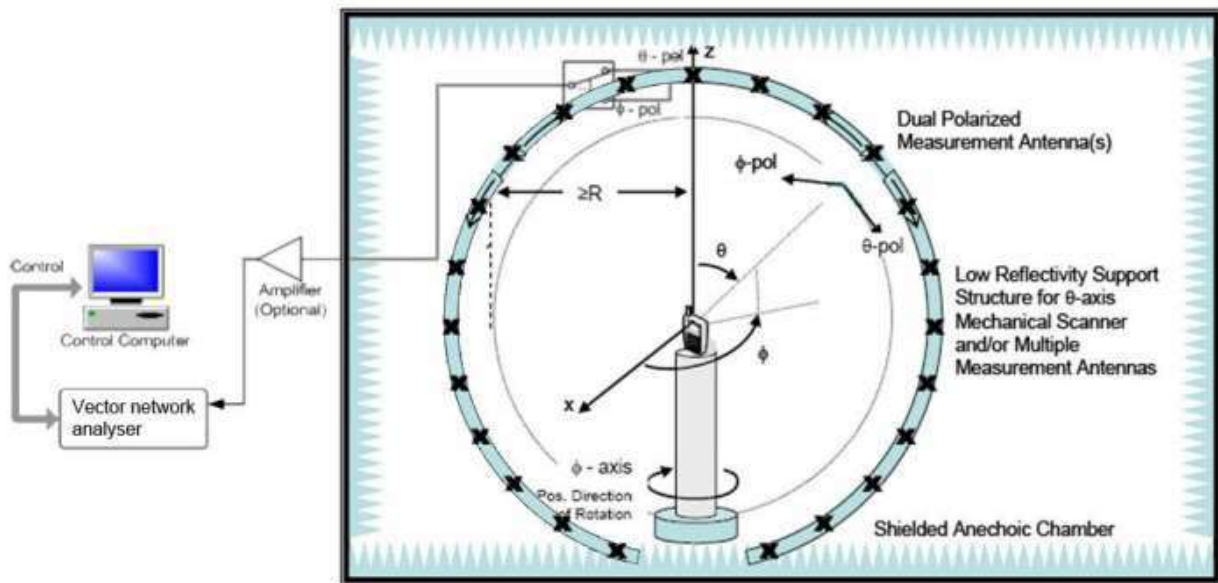
Ambient conditions in the laboratory:

Items	Required	Actual
Temperature (°C)	18-25	21± 2
Humidity (%RH)	30-70	55±2

3.2 TEST EQUIPMENT LIST

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Vector Network Analyzer	AGILENT	E5071C	MY46103472	2015.01.28	2016.01.27
5*5*5 Full Anechoic Chamber	SATIMO	5*5*5	CN-1307-555	2013.09.28	2015.09.27
Sg24 Multi-Probe Antenna Measurement System	SATIMO	SG24-L	1101855-0001	2014.09.14	2015.09.13

3.3 TEST SETUP





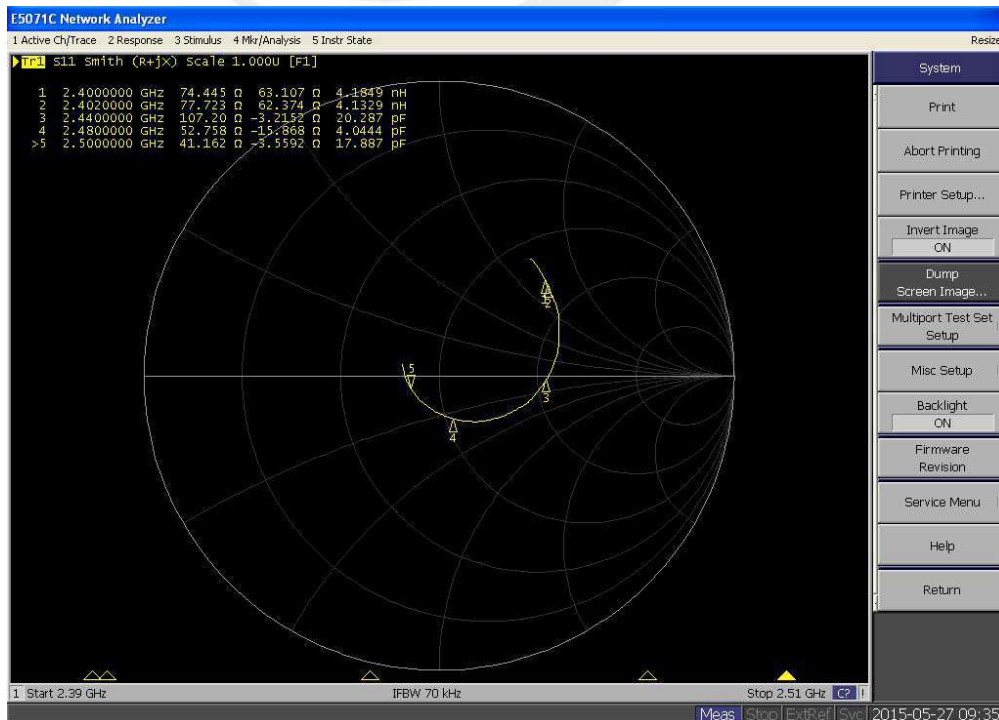
4. TEST RESULT

4.1 GAIN AND EFFICIENCY

Frequency	Gain (dBi)	Efficiency (%)
2402MHz	0.00	31%
2420MHz	-0.08	31%
2440MHz	-0.13	28%
2460MHz	-0.21	27%
2480MHz	-0.29	25%

4.2 INSERTION LOSS/RETURN LOSS/VSWR

Frequency	Input Impedance(Ω)	Return Loss (dB)	VSWR
2402MHz	74.44	-5.237	2.703
2420MHz	77.72	-5.287	2.683
2440MHz	107.20	-6.925	2.118
2460MHz	52.75	-12.343	1.372
2480MHz	41.16	-17.069	1.209



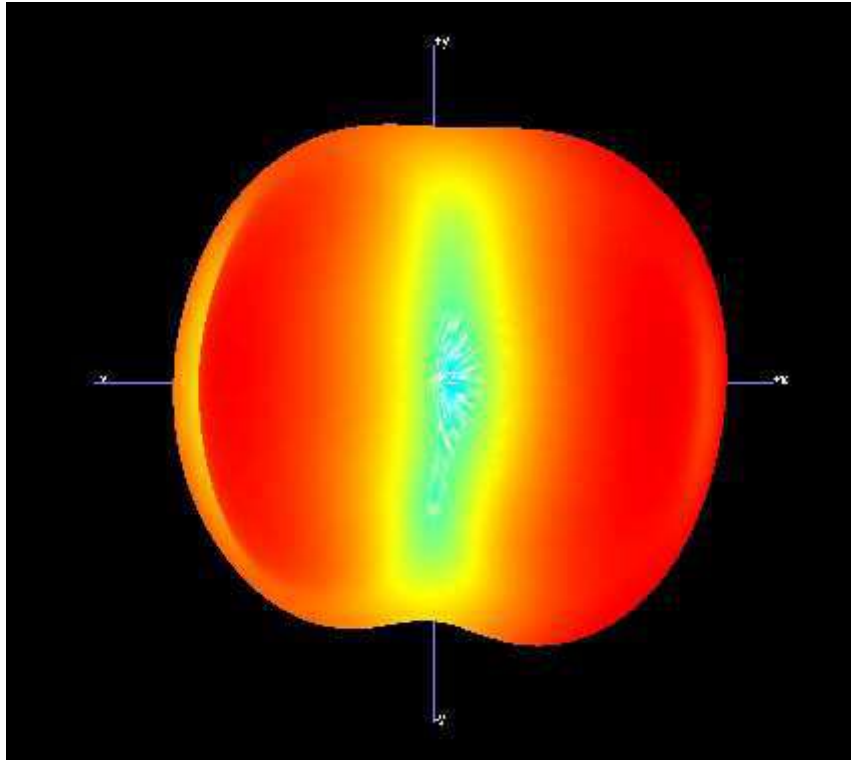




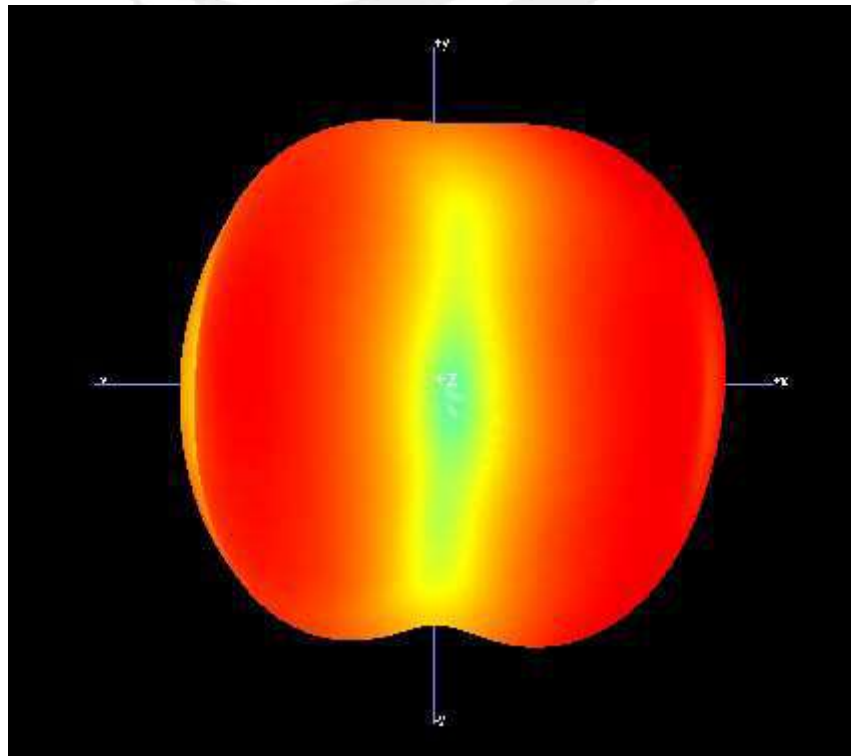
ANNEX 1 RADIATION PATTERN

3D Pattern

2402MHz

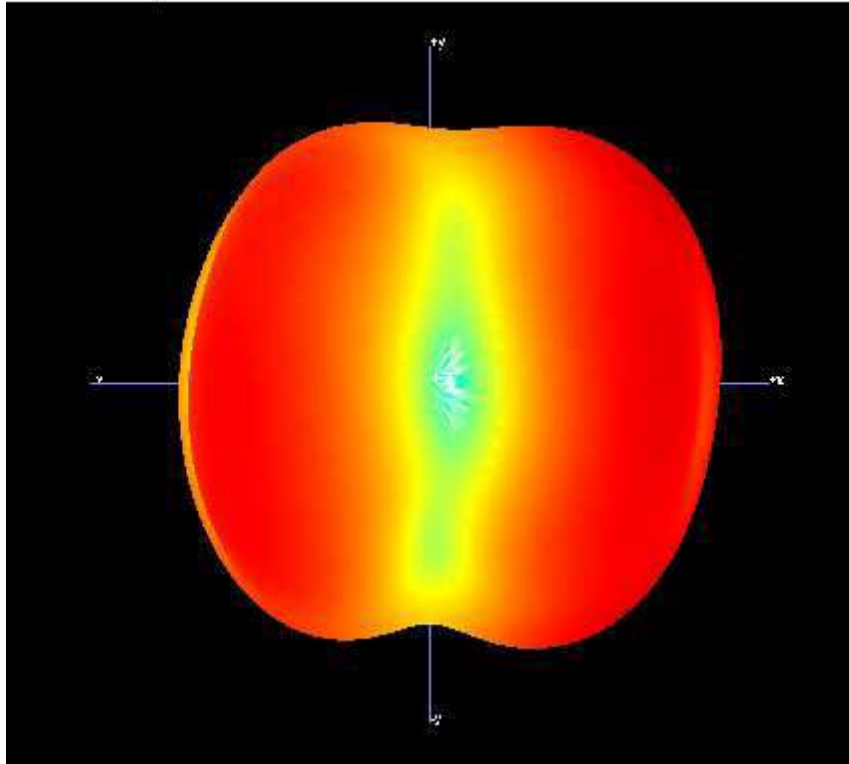


2440MHz





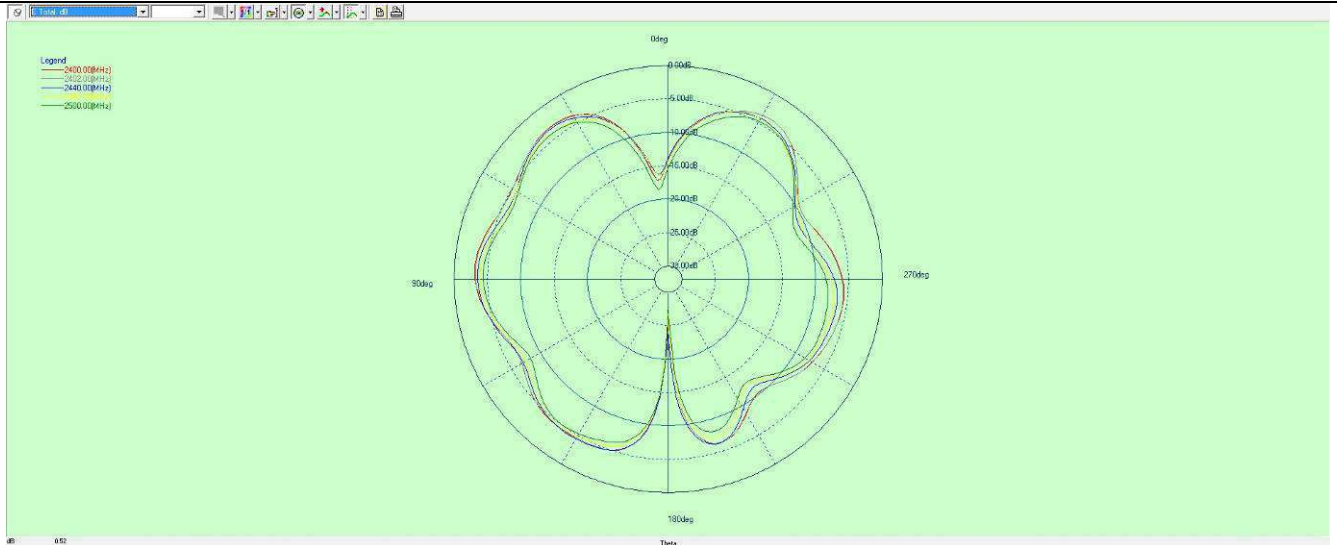
2480MHz



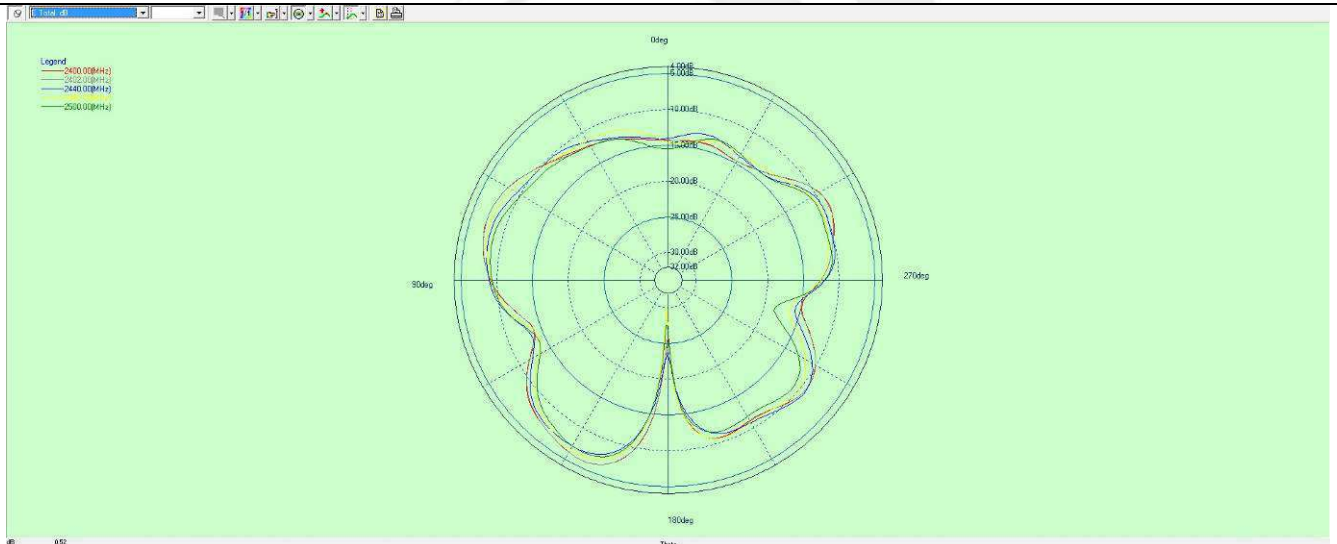


1D Radiation Pattern

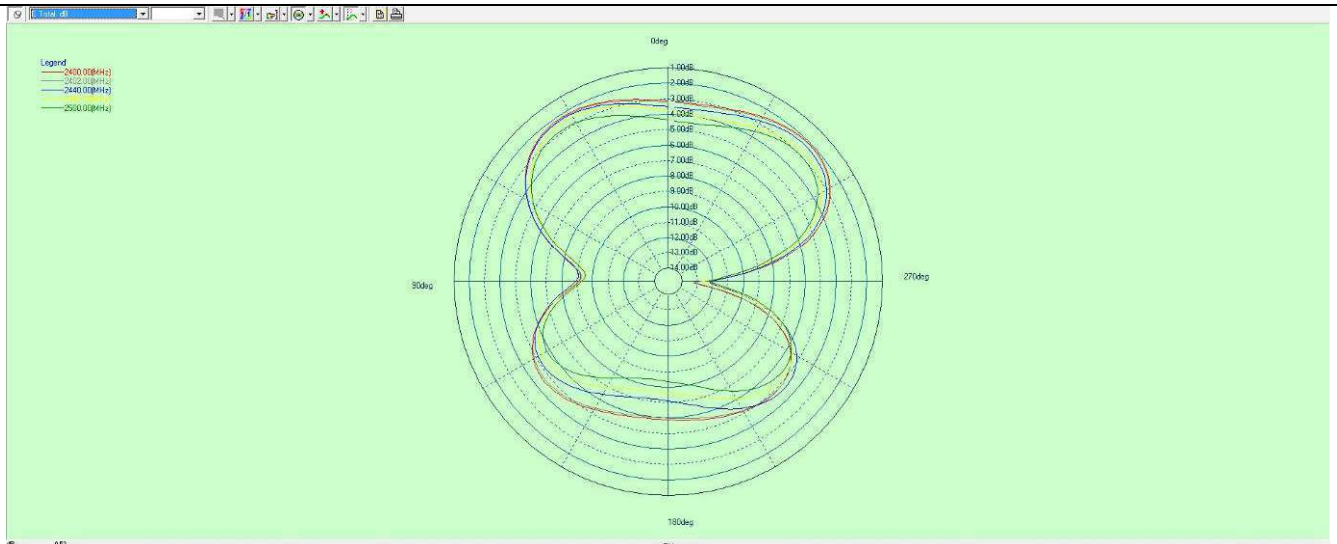
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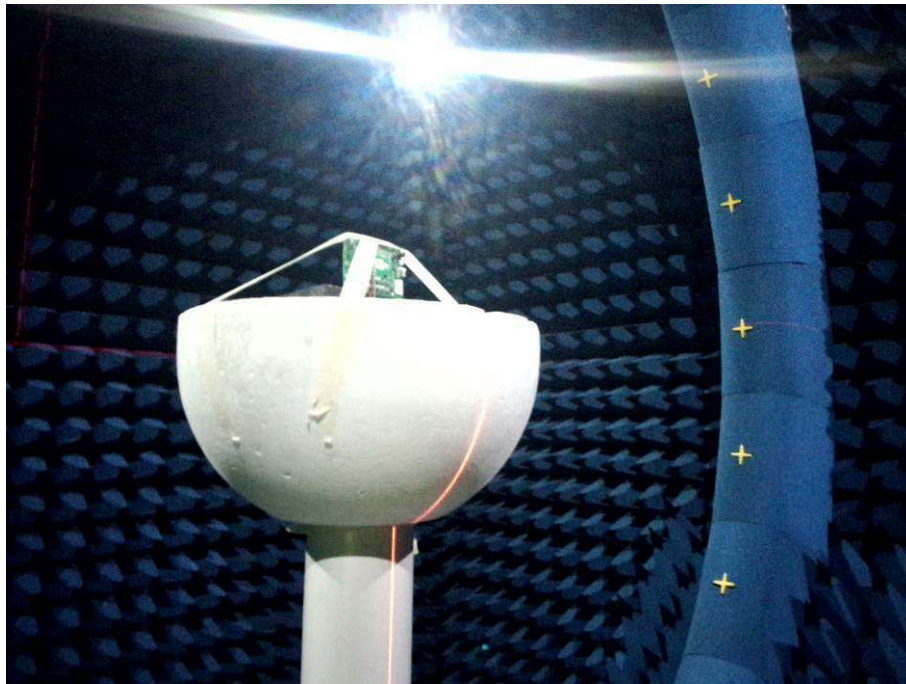
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THETA=90



ANNEX 2 TEST SETUP PHOTO



ANNEX 3 ANTENNA DIMENSIONS

