

罗森伯格技术有限公司
Rosenberger Technologies Co., Ltd.



QP-TQ4DCC-012/1.0

*为必填项

采购件供应商文件评审

Title	PCB天线模块（791MHz~960MHz）
Item*	693186
Description*	ANT-C6512-510044-A_1A_H
Project No.	AK01
Supplier	
Security Level.	C
Remark	

S3	CN-AC21-246	YH.B	2021.06.11
S2	CN AC21-150	YH.B	2021.04.07
S1	inital	YH.B	2021.03.18
Rev.	ECN	Name	Date

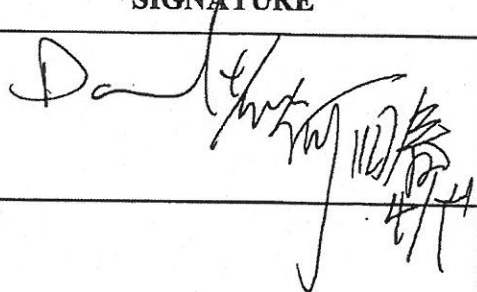
	Name	Date
Draft	白 云 海	2021.06.11
Check	张 瑞	2021.06.11
Approval	闵 海 军	2021.06.11



WHA YU INDUSTRIAL CO., LTD.(HEAD OFFICE)
DONGGUAN AEON TECH CO.,LTD.(CHINA)

SPECIFICATION FOR APPROVAL

CUSTOMER:	羅森伯格		
PART NAME:	PIFA Antenna		
PART NO.:	693186	REVISION:	
W. Y. P/NO.:	C6512-510044-A(SZ2101-036)	REV.:	X2

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
APPROVED BY :		
DATE :		

WHA YU GROUP

WHA YU INDUSTRIAL CO., LTD.(HEAD OFFICE)

譚裕實業股份有限公司

Address: No. 326, Sec. 2, Kung Tao 5 Road, Hsin Chu City, Taiwan, R.O.C.

Tel: +886-3-5714225(REP.) Fax: + 886-3-5713853 · + 886-3-5723600

DONGGUAN AEON TECH CO., LTD.(CHINA)

東莞台霖電子通訊有限公司

Address: Hupan Industrial District, Tai Ling Shan Town, Dong Guan City, Guangdong, China

Tel: +86-769-85655858 Fax: +86-769-85655258

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PIFA Antenna

Specification

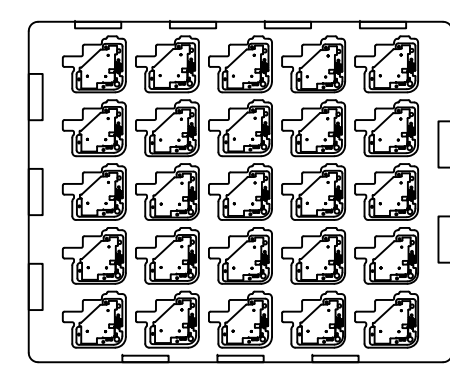
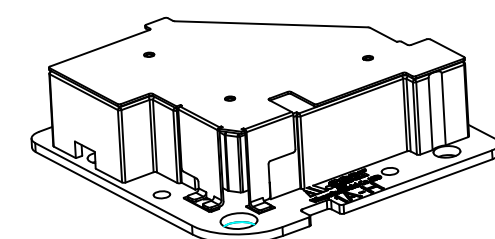
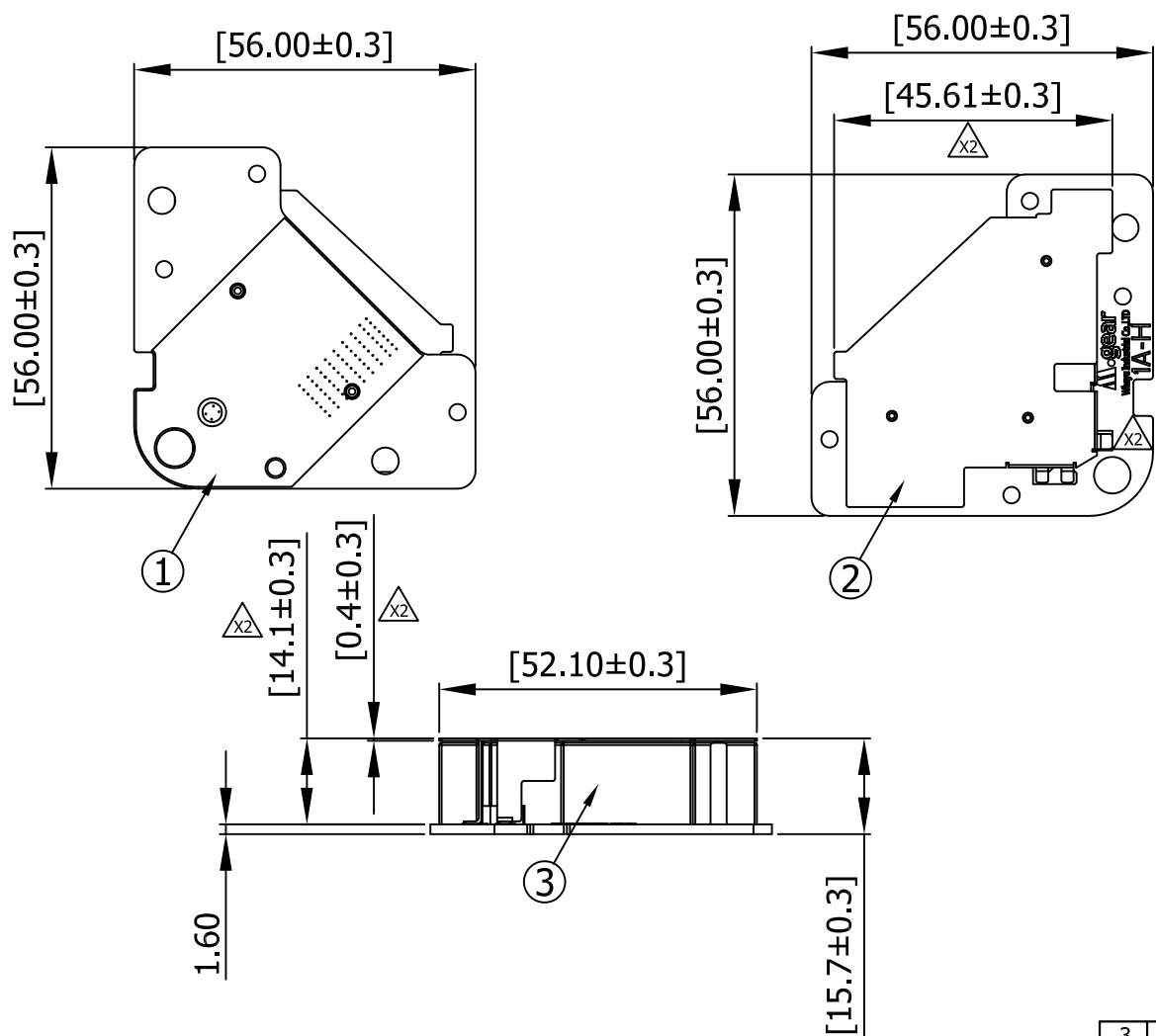
1. Electrical Properties : With Housing

- 1.1 Frequency Range..... 0.791-0.96 GHz
- 1.2 Impedance 50Ω Nominal
- 1.3 VSWR 2.5 : 1 Max.
- 1.4 Return Loss 7.36 dB Min.
- 1.5 Radiation Omni-directional
- 1.6 Peak Gain..... 2.63 dBi Max.@0.791-0.96 GHz
- 1.7 Polarization..... Linear

2. Physical Properties :

- 2.1 Operating Temp. -40°C ~ +85°C
- 2.2 Storage Temp. -40°C ~ +85°C

REV		DATE	DESCRIPTION
X1		04/07-2021	New Issue
X2		06/01-2021	PIN脚取消打孔&增加铁件尺寸



Packing:25PCS/Tray

3	Holder	LCP	1	black
2	PIFA	SUS430;(L)52.1*(W)45.61*(H)14.1*(T)0.4mm	1	
1	PCB	FR4,雙面板; (L)56*(W)56*(T)1.6mm	1	black
NO	DESCRIPTION		Q'TY	REMARK

CUSTOMER'S SINGATURE	XX.	±3.0	APPROVED Spring	CUSTOMER: 羅森伯格	
	X.	±1.0		PART NO : 693186	
	.X	±0.5	CHECKED	PART NAME: RF Antenna Assembly	
	.XX	±0.2		W.Y P/NO : C6512-510044-A	
	.XXX	±0.1	DRAWING 白玉俠	REV	UNIT
				X2	mm

**Wha Yu Group**

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C6512-510044-A

HG-20019

Version: V 1.00

Released Date: 2021/03/16

Prepared By: huanggengen

Reviewed By: Pingxiaodong

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- Revised History
- Conclusion & Comments
- Specification
- Antenna Placement & Solution
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- 2D Radiation Pattern Results
- Results Summary (return loss, isolation, peak gain, efficiency)

Revision History

Released Date	Version	Record
2021/03/16	1.00	Antenna Test

Specification

受控文件

CONTROLLED DOCUMENT

保密等级

一般保密

SECURITY:

NORMAL

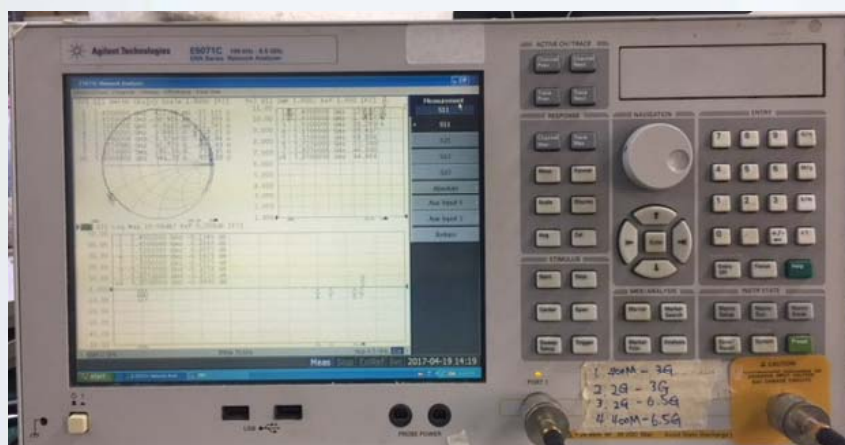
Requirements of Antenna Design

RF Function	Number of ANT	Frequency Band	Remark
LTE	1	791-960MHz	

Requirements of Measurement

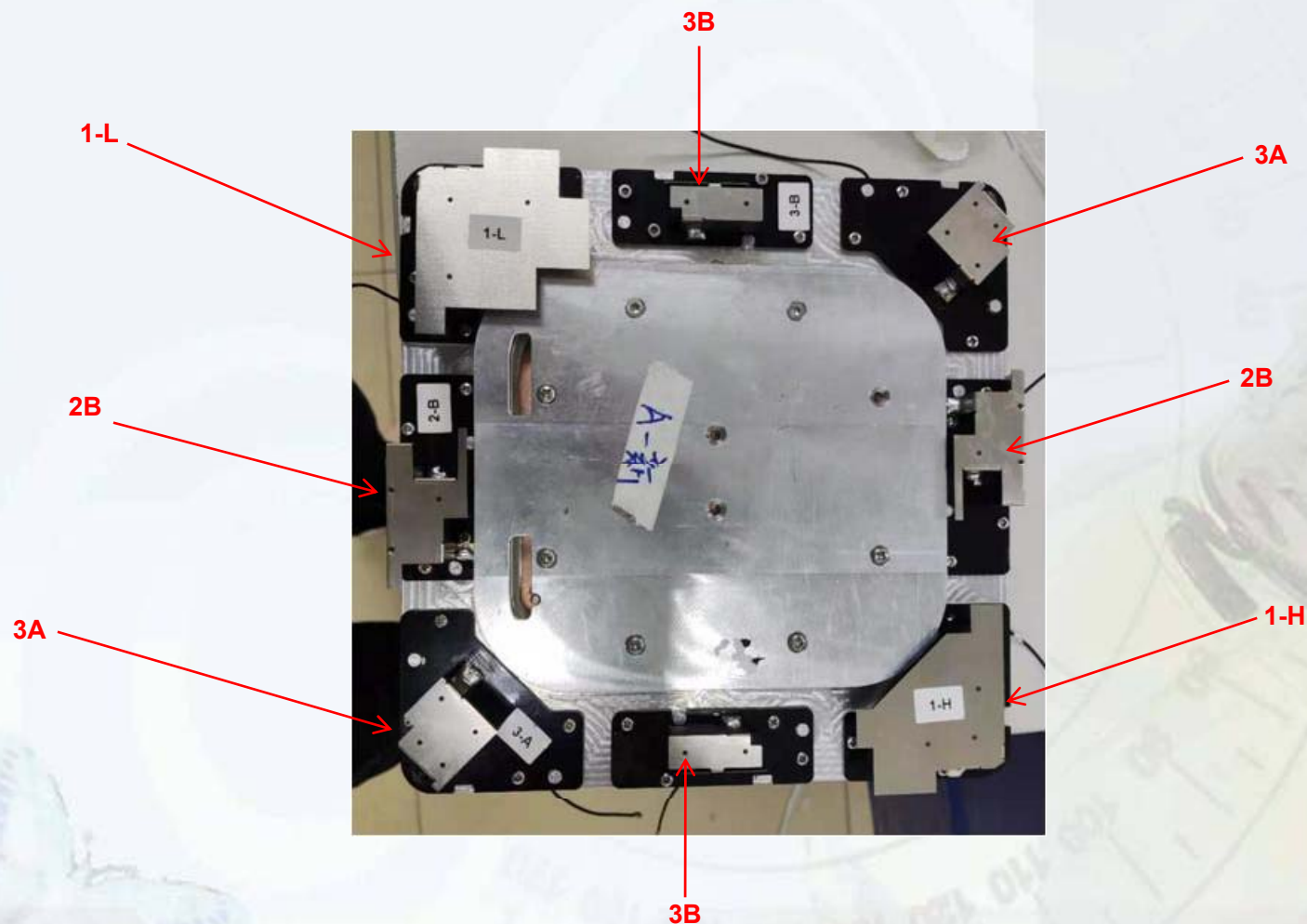
Test Item	Specification	Remark
VSWR	<2.5	
Peak gain	>0.5dBi	
Efficiency	>50%	

Test Setup for S-parameter Measurement



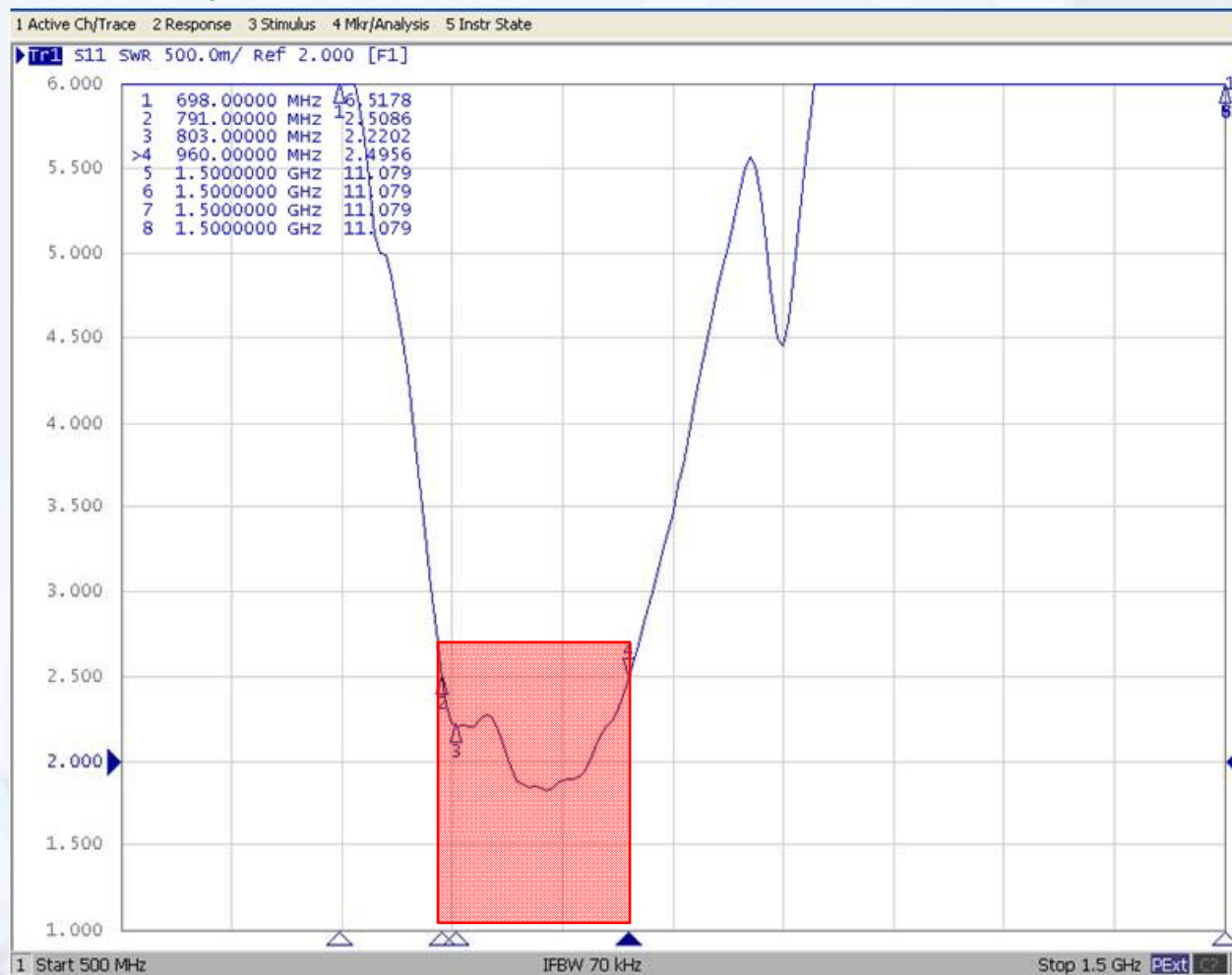
Equipment	Brand	Model	S/N
Network Analyzer	Keysight	E5071C	MY46107744

Antenna Placement & Solution

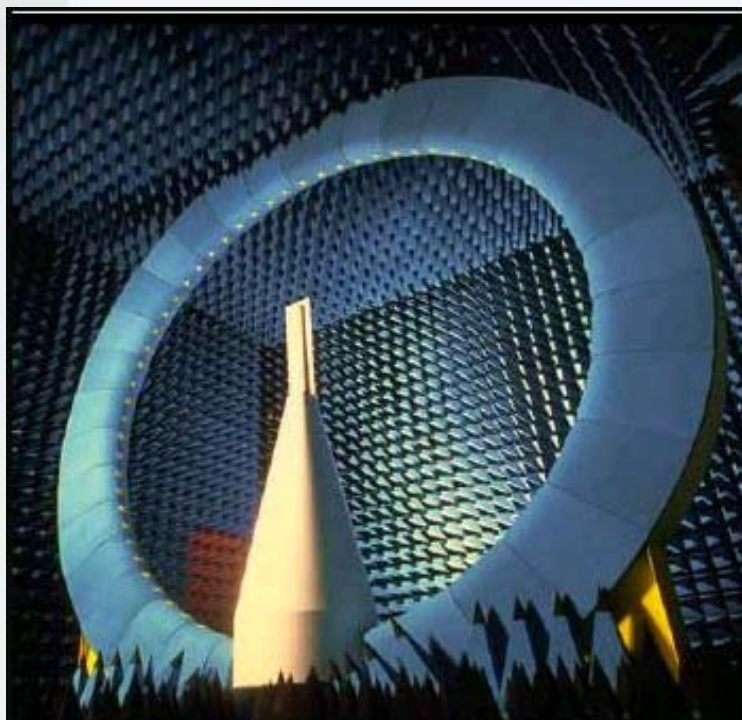


VSWR

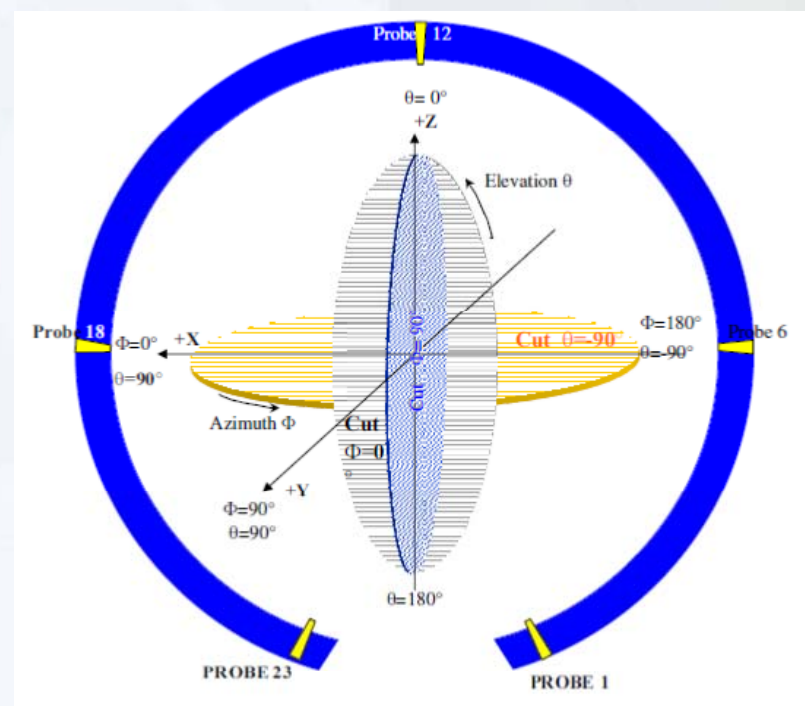
ANT 1-H (791-960MHz)



Chamber Information

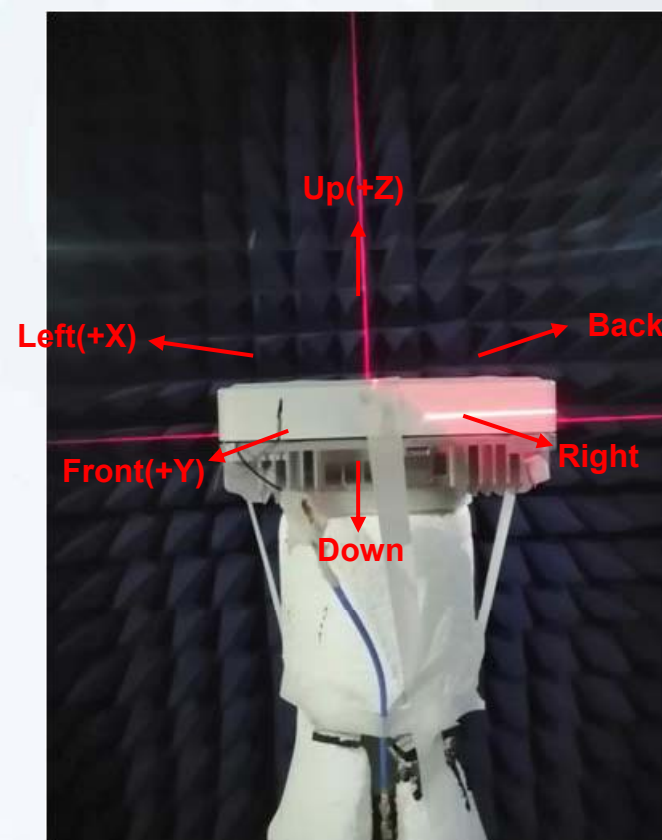


Chamber	Brand	Model	Location
SATIMO	SATIMO	SG-24	Suzhou HG



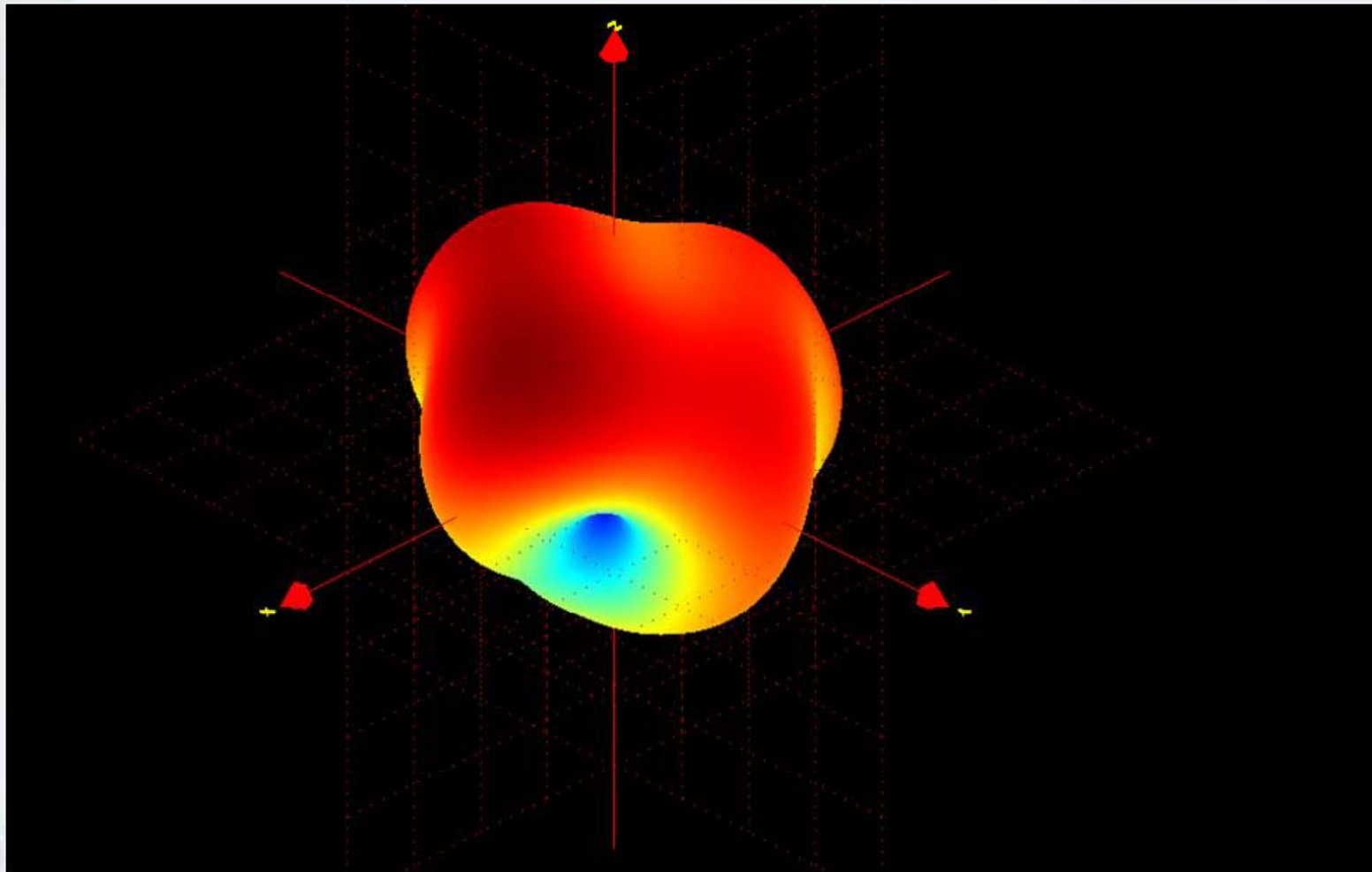
	θ	ϕ
Total angle	175°	360°
How many angle scan one point	5°	5°
Total scan point	36	73

Test Setup for Radiation Pattern Measurement



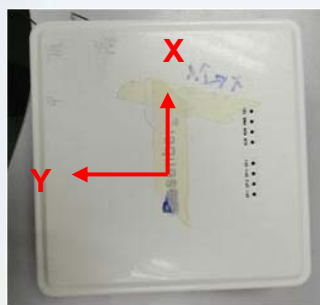
3D

Ant 1-H (791-960MHz)

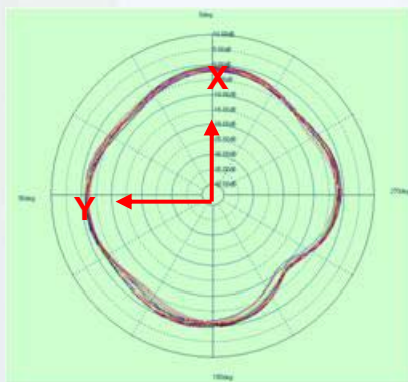


2D Radiation Pattern Results

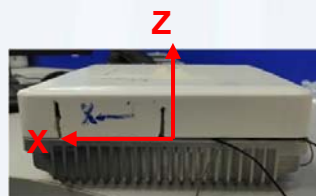
Ant 1-H (791-960MHz)



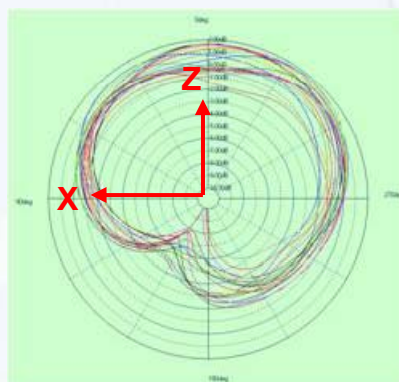
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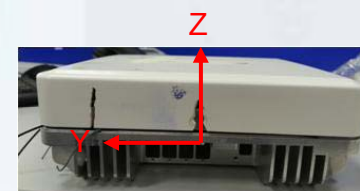
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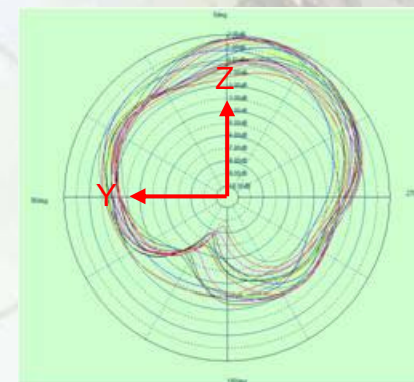
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0



90



0

Results Summary

VSWR

Ant 1-H (791~960MHz)

Frequency	
791MHz	2.50
960MHz	2.49

Results Summary

Peak gain & Efficiency

Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
790MHz	0.64	51%
800MHz	0.93	54%
810MHz	0.87	56%
820MHz	1.29	57%
830MHz	1.46	61%
840MHz	2.02	64%
850MHz	2.47	68%
860MHz	2.63	72%
870MHz	2.62	74%
880MHz	2.61	77%
890MHz	2.59	77%
900MHz	2.55	75%
910MHz	2.41	72%
920MHz	2.21	68%
930MHz	1.99	64%
940MHz	1.84	61%
950MHz	1.58	56%
960MHz	1.45	54%