

TEST REPORT

Product Name : Evoluent VMCRR Antenna
Model/Type reference : VMCRR
Report Number : JXT250221002
Date of Issue : Feb 24, 2025
Test Standards : GB/T 9410-2008
ANSI/IEEE Std149-1979

Compiled by:

Eason

Reviewed by:

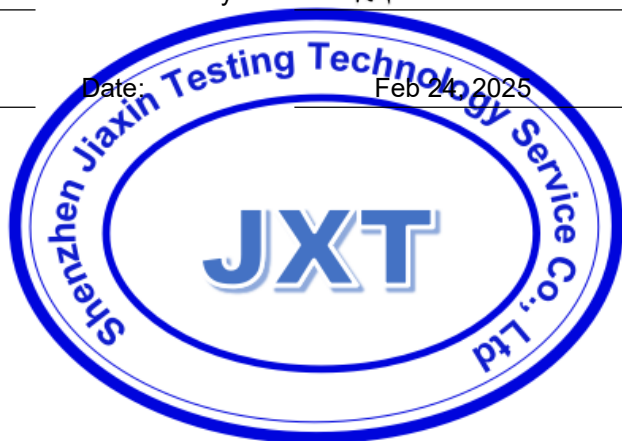
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Approved by:

Frazer

Date:

Feb 24, 2025



Prepared by:

**Shenzhen Jiaxin Testing
Technology Service Co., Ltd
E-mail: jiaxintesting@163.com**

Version

Version No.	Date	Description
00	Feb 24, 2025	Original

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1. General Information

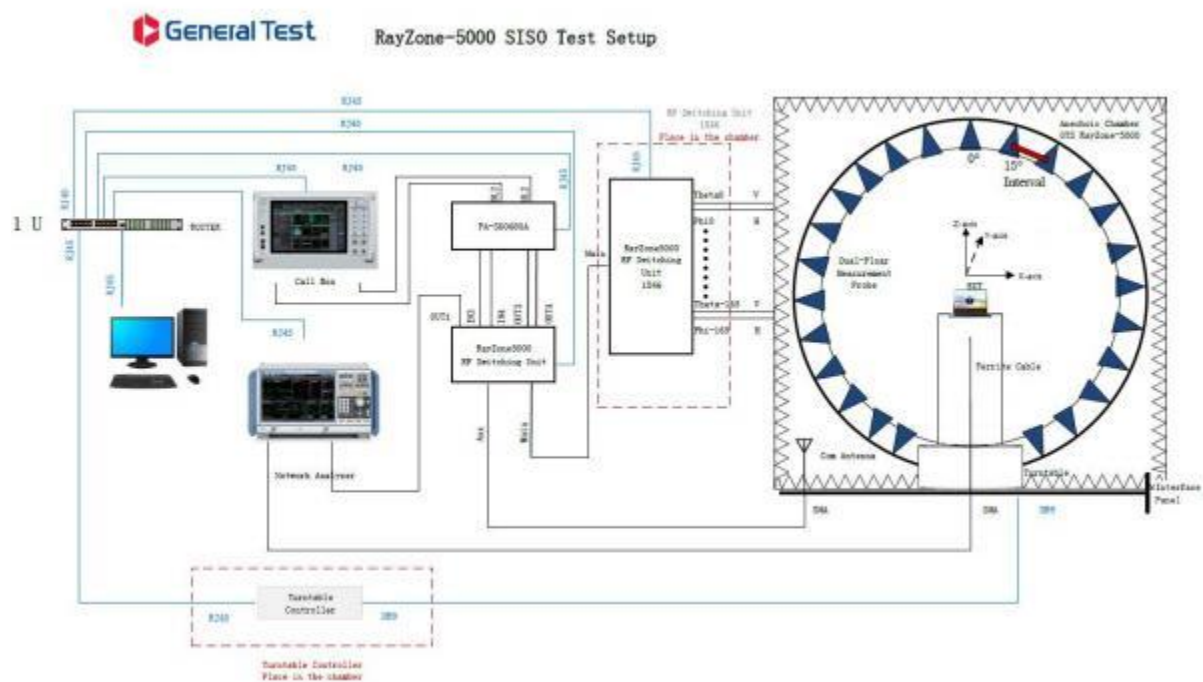
1.1 General information of testing institutions

Name	Shenzhen Jiaxin Testing Technology Service Co., Ltd
Address	Tian'an Digital City, Tian'an Chegongmiao Industrial Zone, Tian'an Community, Shatou Street, Futian District, Shenzhen

All projects will be tested at the following locations:

Name	Evolutent
Address	925 Linden Ave., Unit C, South San Francisco, CA 94080 USA

1.2 Testing principle



1.3 Test equipment

Equipment	Model No.	Serial No.	Manufacturer	Calibration date	Next calibration date
OTA Test System	RayZone-5000	A0011	GTS	2023.8.14	2025.8.13
Network Analyzer	E5071C	C0017	KEYSIGHT	2024.5.11	2025.5.10

1.4 Test environment

Temperature	21.5°C
Humidity	58%RH
Pressure	100.30kPa

1.5 Statement

- (1) The test results in the report are only applicable to the tested samples and the tested samples work under the environment described in the report.
- (2) Only Shenzhen RFI-LAB Communication Technology Co., Ltd. have the right to modify the report, and the modification information shall be annotated in the revision form.
- (3) Any objection to this report shall be raised within 30 days after formal confirmation of the report.
- (4) This report is invalid if there is any evidence that the sample information provided is falsified.
- (5) The report is invalid without the signature of the auditor and approver.

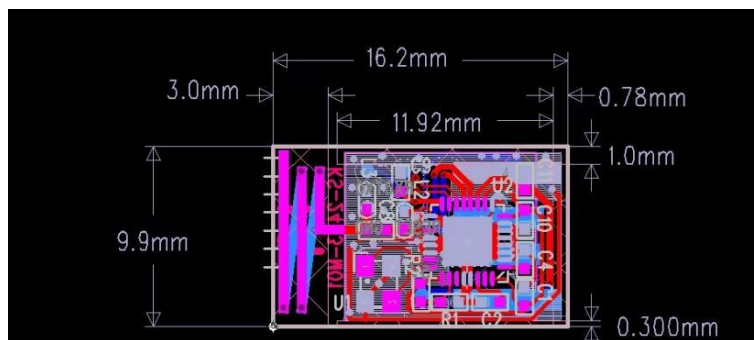
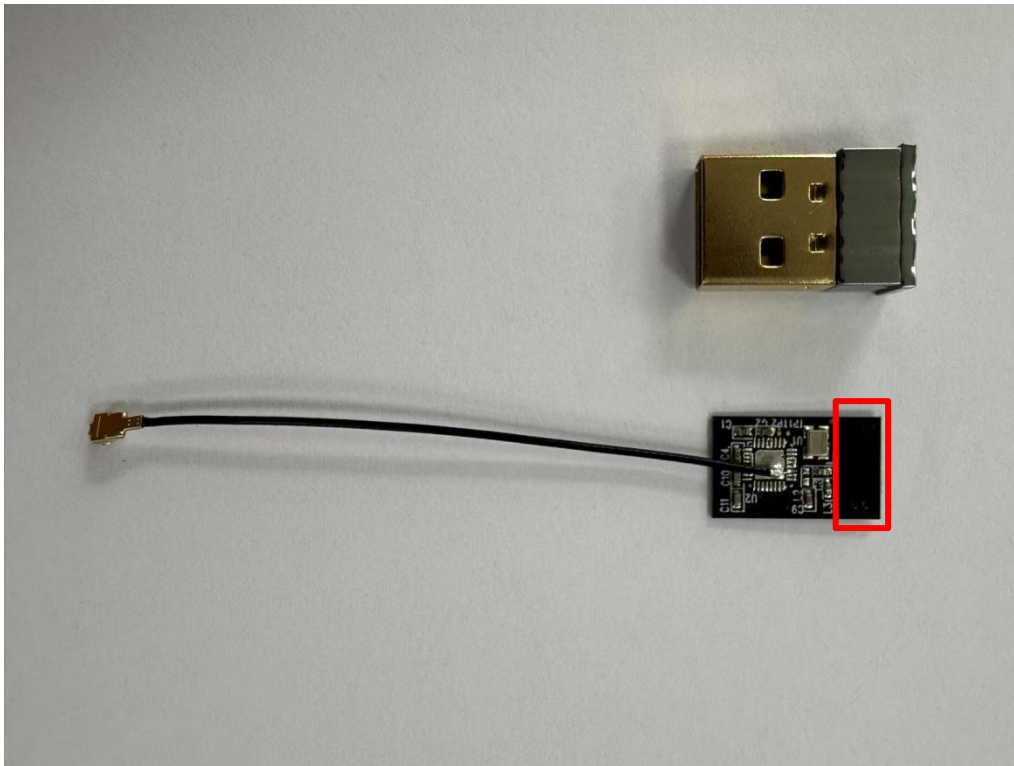
2.Sample Information

2.1 Description of EUT(S)

Test Item	VSWR;Antenna gain; Efficiency; Radiation pattern
Frequency Range	2400-2500MHz
Received Date	Feb 20, 2025
Test Date	Feb 24, 2025

2.2 EUT appearance





2.3 EUT setup photo of free space OTA testing



3. Test Results

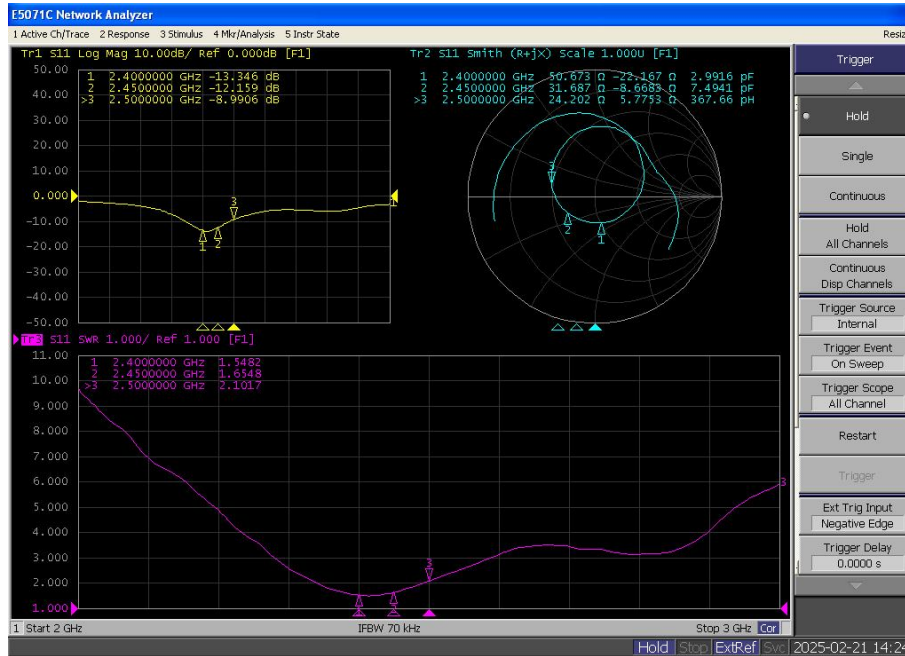
3.1 Test uncertainty

The uncertainty was calculated on the basis of the GUM published by ISO, using the inclusion factor of $K=2$ and the 95% confidence level to express the extended uncertainty.

Item	Uncertainty
VSWR	± 0.3
Antenna gain	$\pm 0.72\text{dB}$
Radiation efficiency	$\pm 0.72\text{dB}$

3.2 Test data

3.2.1 VSWR parameters3.2.2 VSWR data



3.3.2 VSWR data

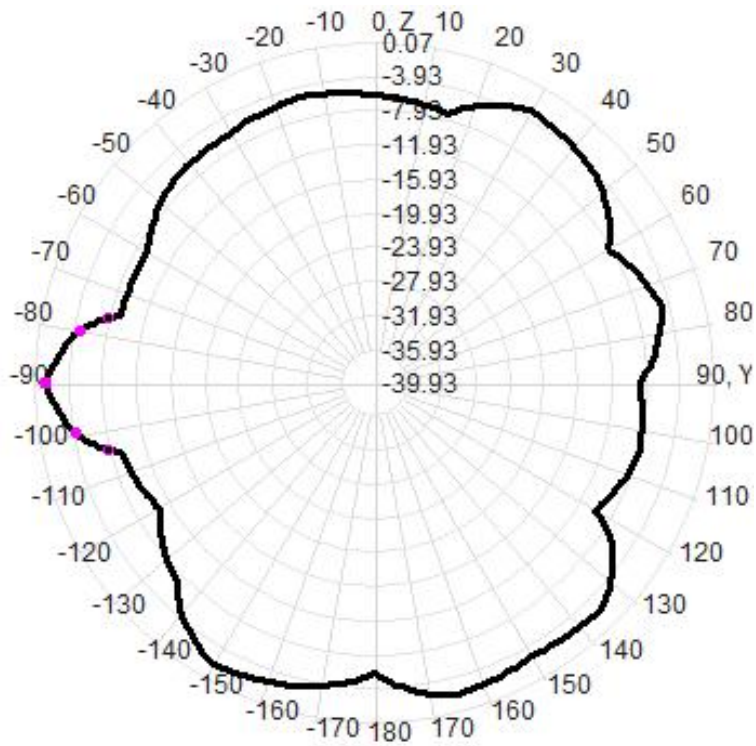
Frequency/MHz	2400	2450	2500
VSWR	1.55	1.65	2.10

3.2.3 Typical free space efficiency and gain

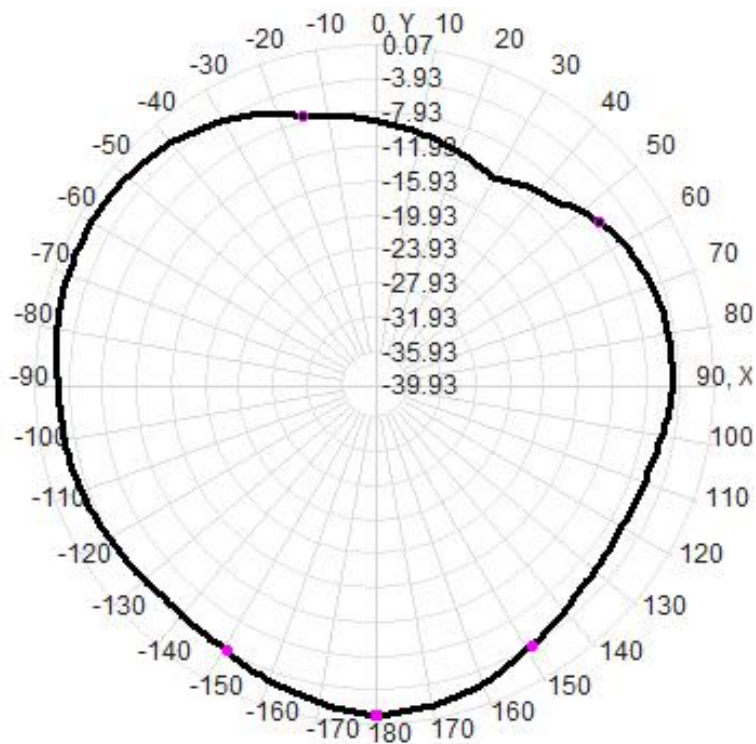
Frequency/MHz	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Peak Gain/dBi	0.84	0.68	0.74	0.67	0.60	0.61	0.61	0.79	0.71	0.69	0.72
Efficiency/%	30.31	30.44	29.22	28.89	28.82	27.83	27.91	28.22	28.82	28.06	29.34

3.2.4 Radiation pattern

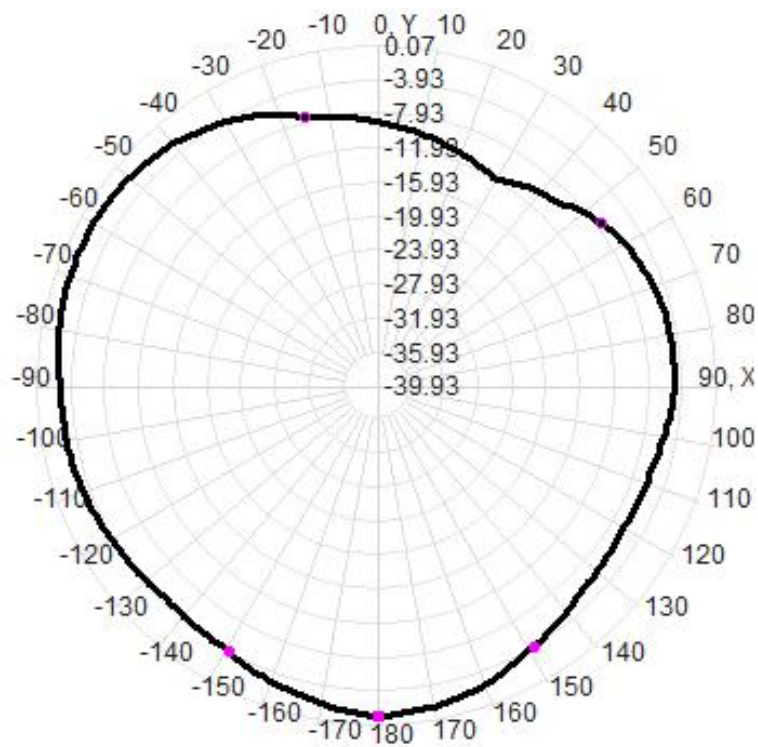
2400.0MHz Total(E2-YZ), Max= -1.24dBi



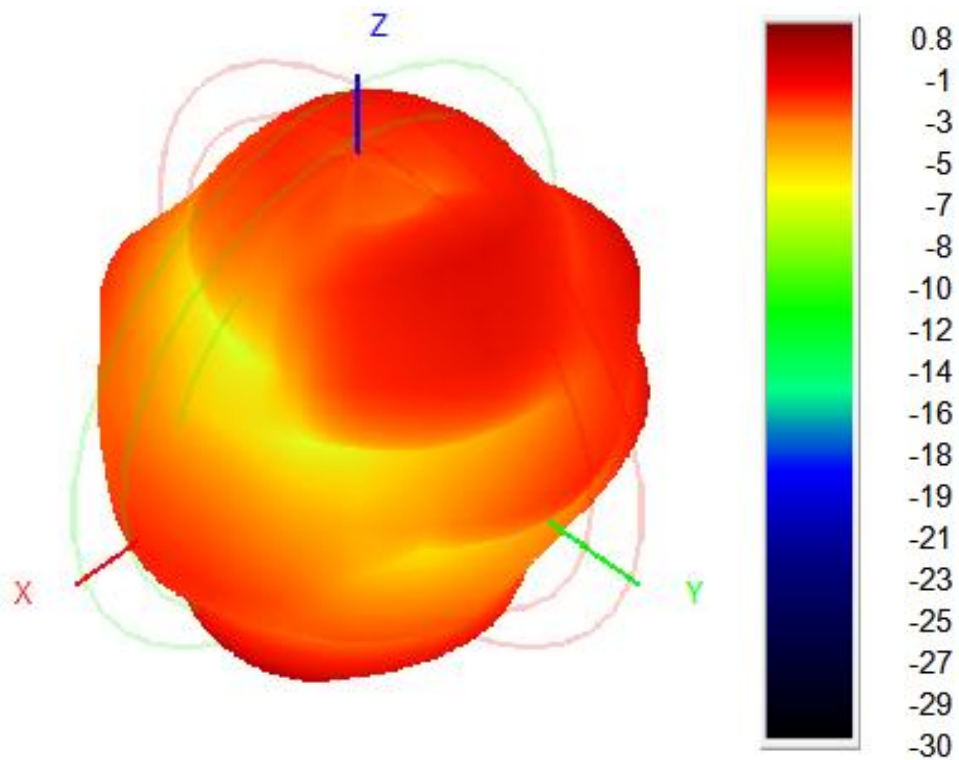
Total(H-XY), Max= -1.24dBi, CirD=10.75



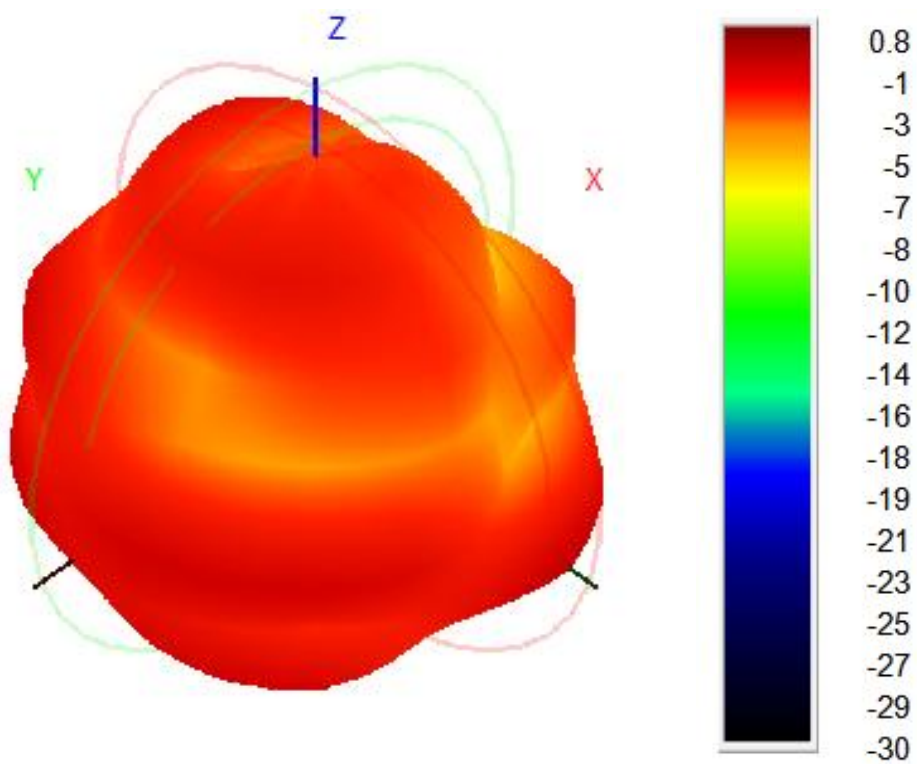
Total(H-XY), Max= -1.24dBi, CirD=10.75



2400.0MHz H+V, Eff: 30.3%



Back View



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