TEST REPORT

Report No.: 20230517G04176X-W4

Product Name: 2.4G Antenna

Model No.: 2.4G PCB Antenna

Applicant: Shenzhen Leqi Network Technology Co., LTD

Address: Rooms 103, 501 and 601, Building 5, Fenghe Industrial Park, Nos. 1301-50 Guanguang Road, Longhua District, Shenzhen, Guangdong, China.

Dates of Testing: 05/29/2023 - 05/30/2023

Issued by: CCIC Southern Testing Co., Ltd.

Lab Location: Electronic Testing Building, No. 43 Shahe Road, Xili Street, Nanshan District, Shenzhen, Guangdong, China.

Tel： 86 755 26627338 **Fax：** 86 755 26627238

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Test Report

Product .....:	2.4G Antenna
Brand Name.....:	NA
Trade Name .....:	NA
Applicant.....:	Shenzhen Leqi Network Technology Co., LTD
Applicant Address.....:	Rooms 103, 501 and 601, Building 5, Fenghe Industrial Park, Nos. 1301-50 Guanguang Road, Longhua District, Shenzhen, Guangdong, China.
Manufacturer .....:	Shenzhen Leqi Network Technology Co., LTD.
Manufacturer Address .....:	Rooms 103, 501 and 601, Building 5, Fenghe Industrial Park, Nos. 1301-50 Guanguang Road, Longhua District, Shenzhen, Guangdong, China.
Test Standards .....:	ANSI/IEEE Std 149-2003
Test Result.....:	Pass

Tested by .....: 2023.05.30

Chuiwang Zhang, Test Engineer

Reviewed by .....: 2023.05.30

Chris You, Senior Engineer

Approved by .....: 2023.05.30

Yang Fan, Manager

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Change History		
Issue	Date	Reason for change
1.0	2023.05.30	First edition

1. General Information

1.1. Description of EUT

EUT Type	2.4G Antenna
Type of the Equipment	Stand-alone
Frequency Range	2400~2500MHz

1.2. Test Standards and Results

No.	Identity	Document Title
1	ANSI/IEEE Std 149-2003	Standard Test Procedures for Antennas

1.3. List of Equipment Used

Description	Manufacturer	Model No.	Serial No.	Cal. Date
EMI Horn Antenna	R&S	HF906	A0304225	2022.04.17
Signal Generator	R&S	SMB100A	A180502936	2022.03.19
Network Analyzer	R&S	ZVB8	100343	2023.02.20
OTA Chamber	R&S	/	/	/

1.4. Environmental Conditions

Ambient temperature:	15~35 ℃
Relative humidity:	20~75%
Atmosphere pressure:	86-106kPa

1.5. Measurement Uncertainty

PARAMETER	UNCERTAINTY
RF frequency	±5.1kHz
ANTENNA GAIN	±1.3dB
Humidity	±3.1%
Temperature	±0.8° C
DC and low frequency voltages	±2.9%

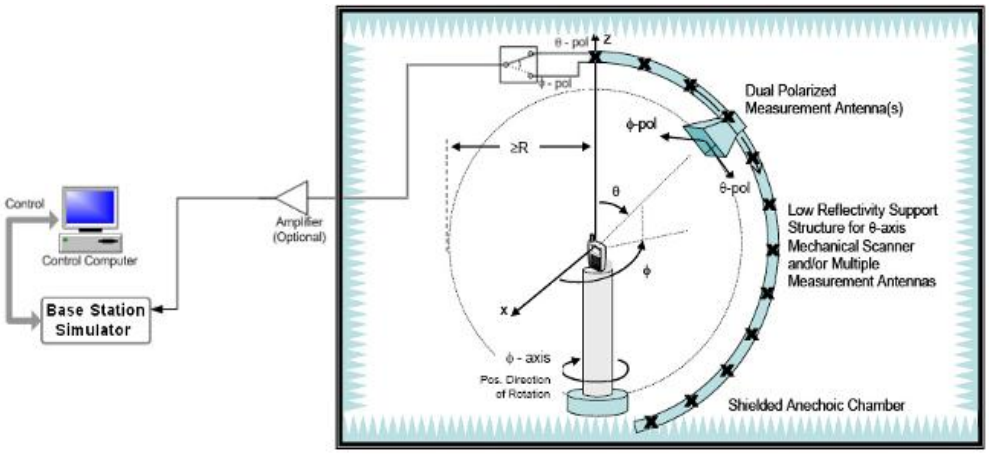
For the test methods, according to the present document, the measurement uncertainty figures shall be calculated in according with TR 100 028-1[2] and shall correspond to an expansion to expansion factor (coverage factor) k=1.96 or k=2(which provide confidence levels of respectively 95% and 95.45% in the case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian)).

1.6. Test Facility

CCIC Southern Testing Co., Ltd. CCIC is a third party testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L1659.

2. TEST SETUP AND RESULTS

2.1 Test Setup



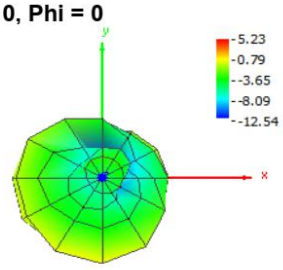
2.2 Test results

Frequency(MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Peak Gain(dBi)	5.76	5.52	5.47	5.62	5.67	5.23	5.09	4.66	4.29	4.24	4.10
Efficiency (%)	63.58	75.24	75.26	79.13	79.91	57.2	69.79	64.52	61.63	62.62	52.05

2.3 Test Plots

2450MHz 3D Pattern

Theta = 0, Phi = 0



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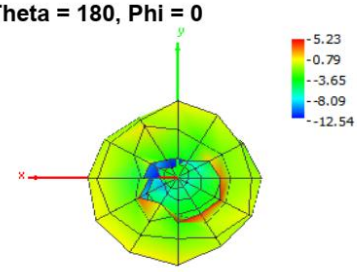

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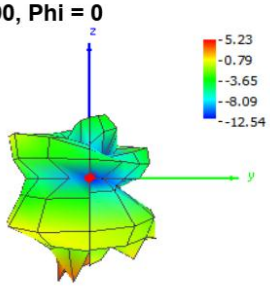

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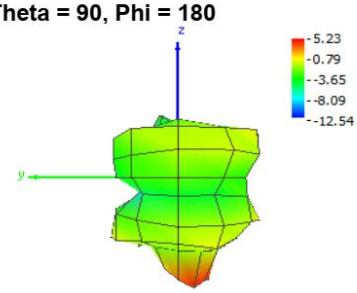

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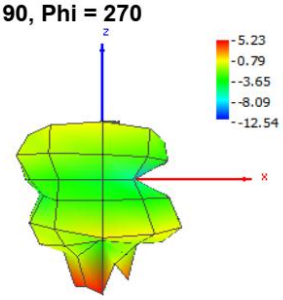

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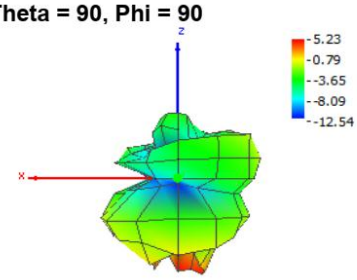
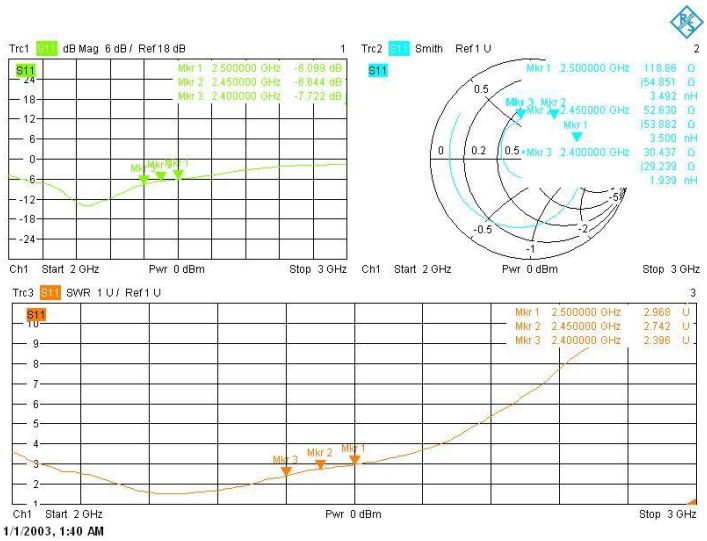
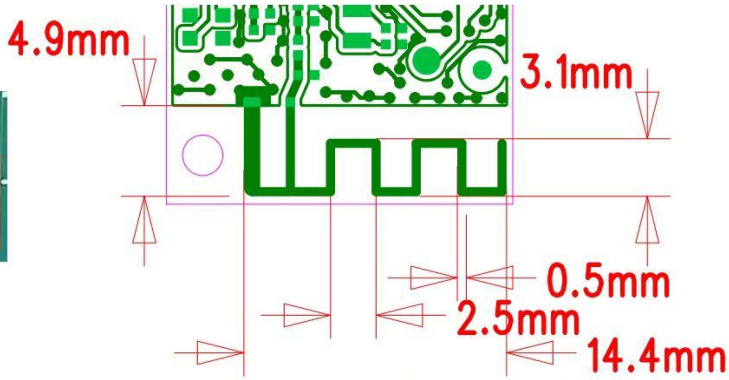
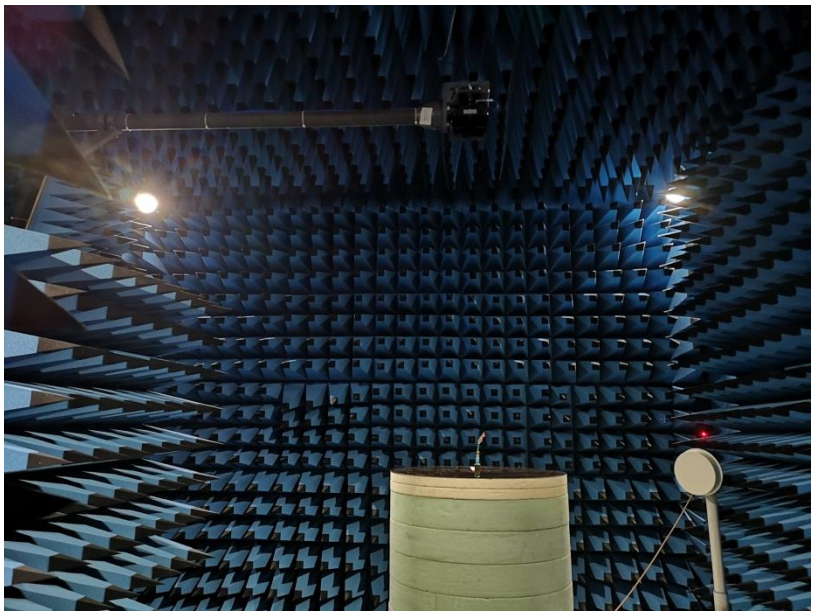


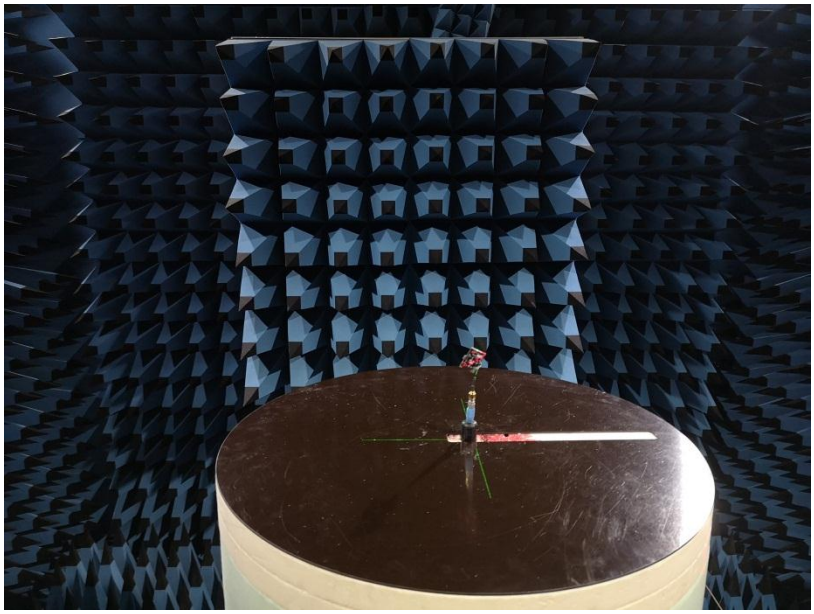


Annex A Photos of the EUT



Annex B Photos of Test Setup





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