



Report No.: XCL-AC202401-0024

TEST REPORT

Product Name: Printed Inverted-F PCB Antenna

Model: Printed Inverted-F PCB Antenna

Test Sort: External Commission Test

Client: Eleven Engineering Incorporated.

Test by: Xingci Lab

GUANGDONG XINGCI TESTING TECHNOLOGY RESEARCH Co.,Ltd.



Announcement

1. This report is invalid without seal.
2. This report must not be partially duplicated without permission.
3. The manufacturer would be responsible for the test samples.
4. Xingci Lab would be only responsible for report items of the test sample, this test result is only used for scientific research, teaching, and internal control, and does not have a proof function to the society.
5. If the client has any question about the test report, please contact our lab as agreed within 15 days. Disagreement couldn't be accepted over 15 days.
6. Test report inquires telephone No.:+ 86-757-87744743

Add: No#4, Jinye 2nd road, Yundonghai street, Sanshui, Foshan, Guangdong
Province, China, 528100

Tel: 0086-(0757)-87744743

Post Code: 528100

Test Report

Product Name		Printed Inverted-F PCB Antenna		Manufacture Date	/
Product Model		Printed Inverted-F PCB Antenna		Brand Name	/
Client	Name	Eleven Engineering Incorporated			
	Address	10150-100 Street, Suite 800 Edmonton, AB, Canada T5J 0P6			
Test Type		External Commission Test			
Test Place		SG64 Anechoic Chamber (Guangdong Xingci testing technology research Co., Ltd.)			
Sample Qty		1pc		Test Date	Jan 10, 2024
Test Environment		Temperature: (21~22) °C		Relative Humidity: (62~65) %	
Test Item		Electrical performance: Radiation Pattern, Gain, Efficiency			
Test Standard		According to the client's requirements, refer to the following standard: IEEE Std 149 TM -2021			
Test Description		Guangdong Xingci testing technology research Co., Ltd. tested the electrical performance of 1pc of Pcb Antenna under the guideline of relevant standard. Please see test result in page 5, Radiation Patterns in pages 6-8.			
Remarks					
Tested by: <i>Guanzhiliang</i>		Checked by: <i>zhang xiao jun</i>		Approved by: (Authorized signatory) <i>luojianhui</i>	
Date: Jan 10, 2024		Date: Jan 11, 2024		Date: Jan 11, 2024	

Sample Description

Accessories	☒ No ☐ Yes:
Outlook/Appearance	☒ Qualified ☐ Unqualified:
Status at the beginning of Test	☒ Working Normally ☐ Working Abnormally:
Status after Test	☒ Working Normally ☐ Other:
Photograph	☐ No ☒ In page 9
Remarks (Provided by the customer)	Antenna size: 45mm×10mm Antenna weight: 11g

Sample Number

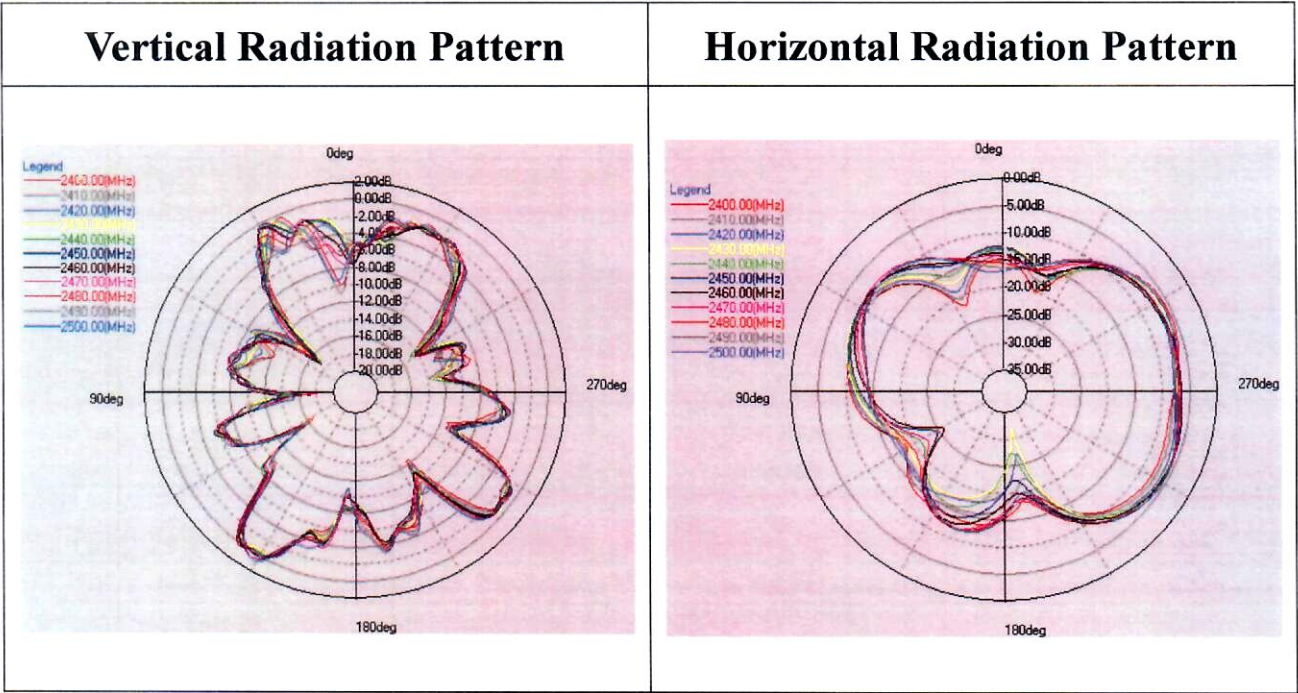
Item	Sample Number	Serial Number
1	AC2024011003	/

Electrical Performance Test Result

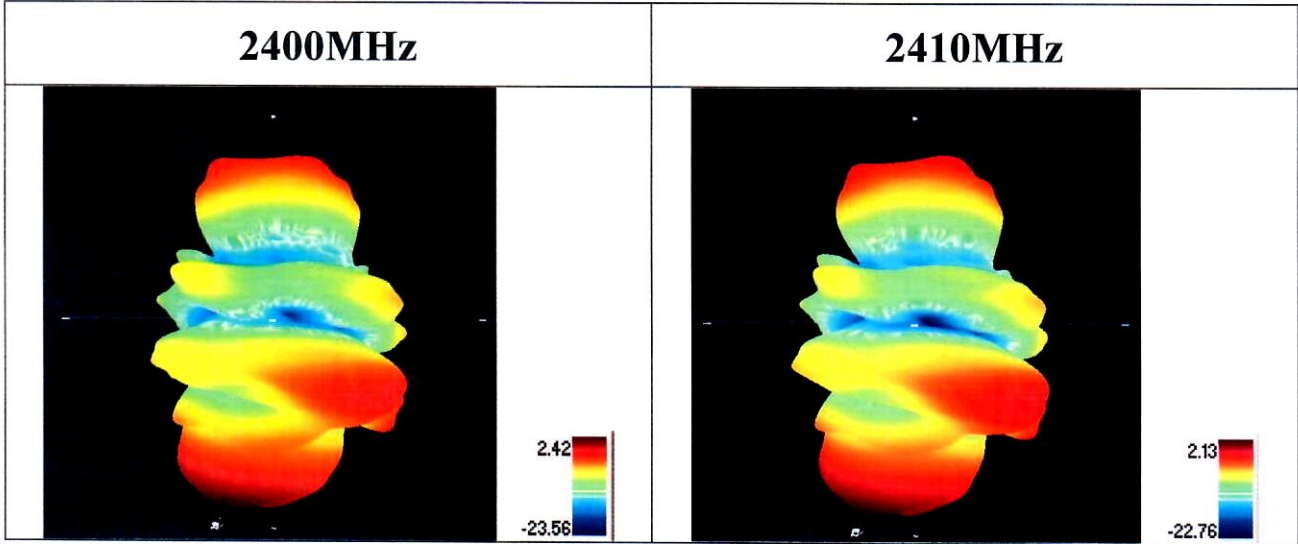
Item	Test Item	Technical Requirement	Unit	Test Frequency (MHz)	Test Result
1	Gain	/	dBi	2400	2.42
				2410	2.13
				2420	2.27
				2430	2.45
				2440	2.69
				2450	3.06
				2460	2.95
				2470	3.29
				2480	2.76
				2490	2.87
				2500	3.20
2	Efficiency	/	%	2400	24.34
				2410	23.84
				2420	25.13
				2430	25.34
				2440	24.90
				2450	26.82
				2460	25.65
				2470	27.50
				2480	26.42
				2490	26.22
				2500	27.66
3	Radiation Pattern	/	/	2400-2500	Pages 6-8
Note: Test Method: Near Field Measurement Method.					

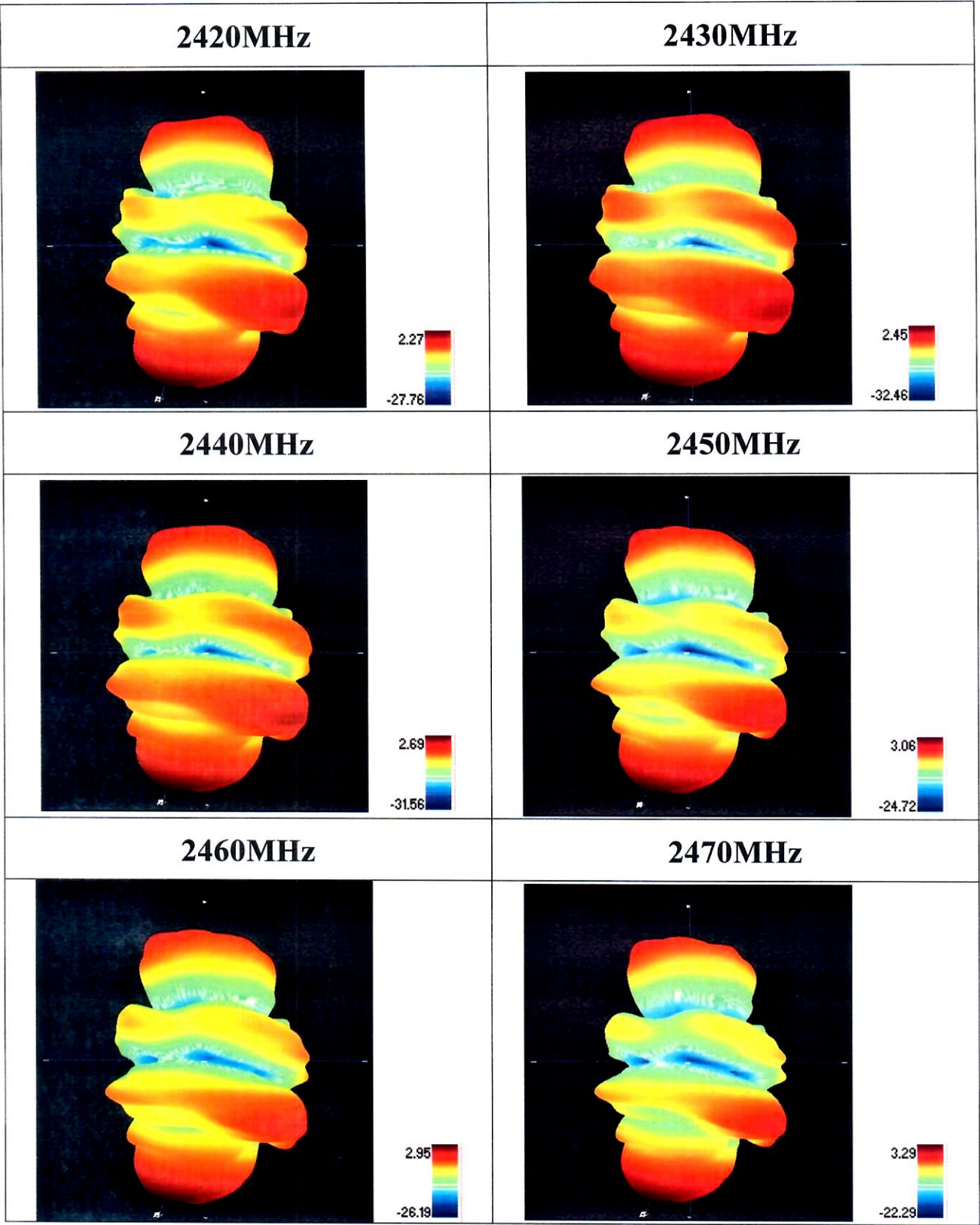
Electrical Performance Pattern

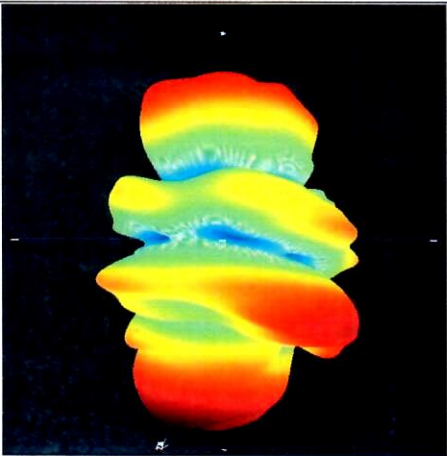
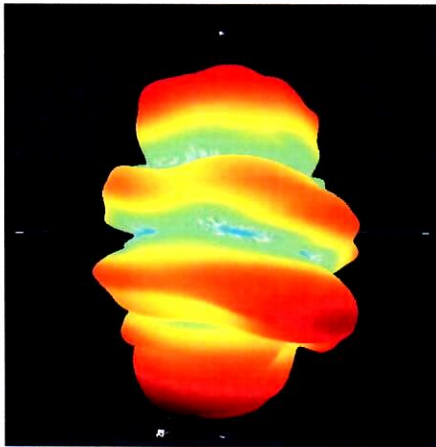
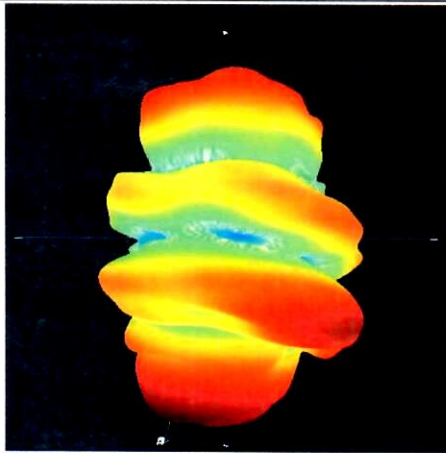
2D



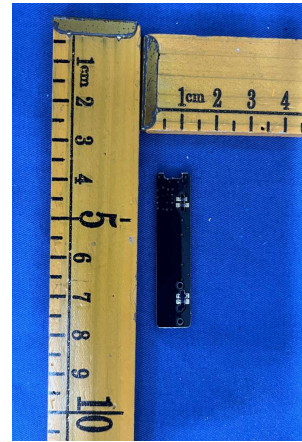
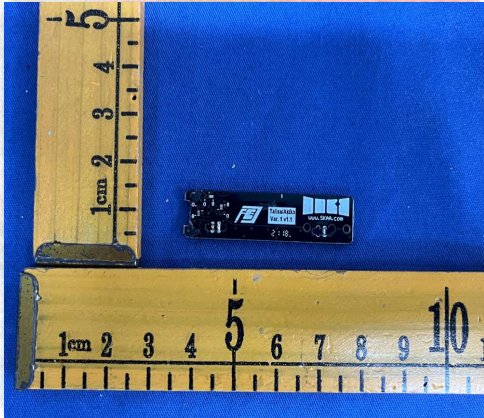
3D



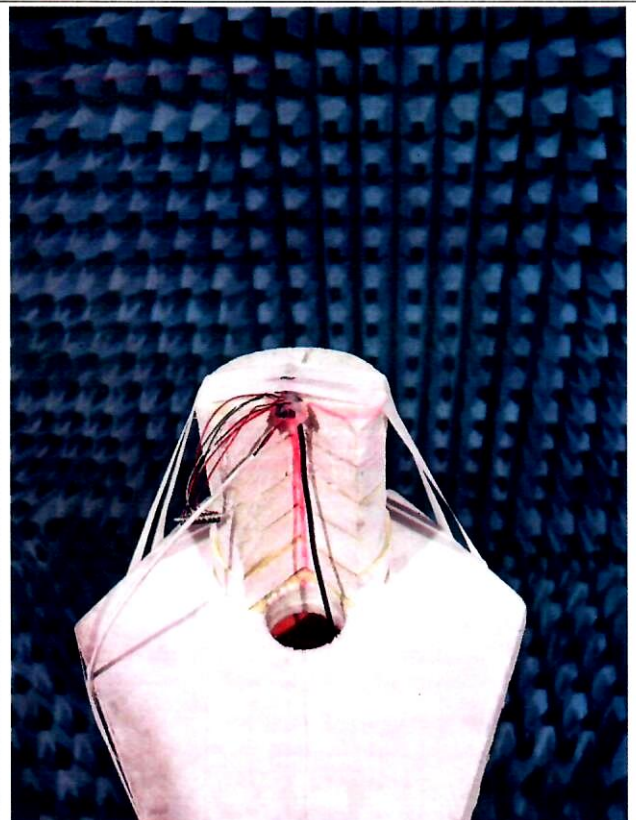
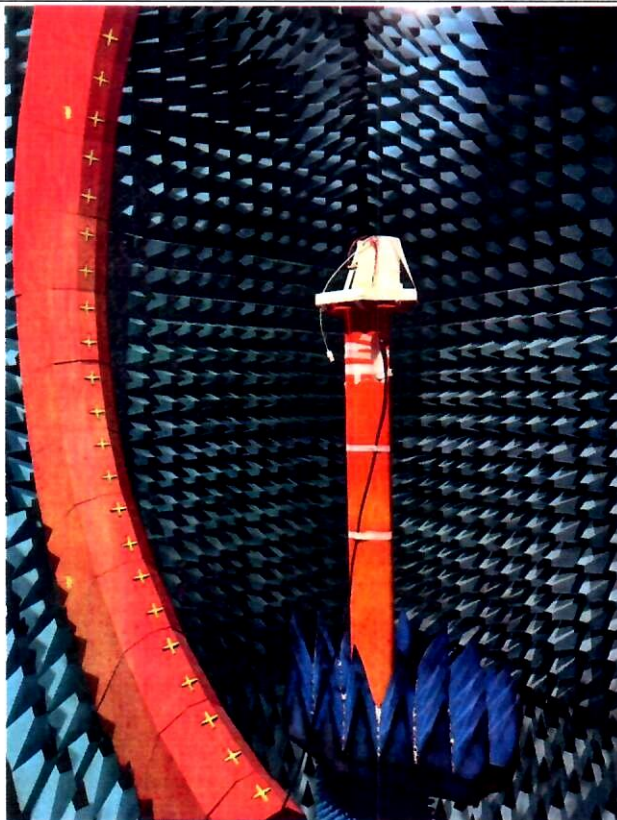


2480MHz	2490MHz
 2.76 -23.06	 2.87 -29.07
2500MHz	/
 3.20 -26.86	/

Sample photo



Test site



Main instruments and equipment for testing and test system

No.	NAME	Model	SERIAL NUMBER	VALIDITY DATE (DD/MM/YY)
1	Analog Signal Generator	N5172B	MY59100269	06/03/2024
2	Analog Signal Generator	N5181A	MY50140747	06/03/2024
3	Standard Gain Antenna	SH400-440	XCA014	22/11/2024
4	Microwave Anechoic Chamber	5m×5m×5m	XCC03	23/08/2024
5	SG64 Antenna Test System	SATENV 2.0.1.5 Build12	XCXT03	N/A

-----End of Report-----