



TEST REPORT

ISSUED FOR

Shenzhen ALEX Electronics Co., Ltd.

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MANUFACTURER	:	Shenzhen ALEX Electronics Co., Ltd.
PRODUCT NAME	:	PCB Antenna
MODEL NAME	:	F052
MAX Gain	:	1.03 dBi
TRADE NAME	:	N/A
Test Standard	:	IEEE149-1979
TEST DATE	:	2022-09-01
ISSUE DATE	:	2022-09-09

Testing Engineer :

Peter peng

Peter peng

Authorized Signatory :

Jim he

Jim he





DIRECTORY

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Change History		
Issue	Date	Reason
1.0	2022-09-09	First edition

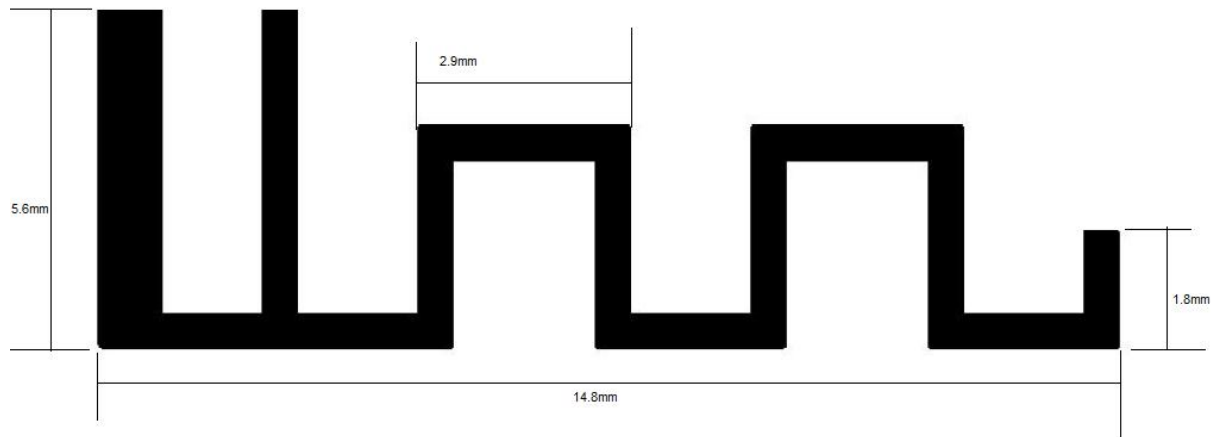
1. Technical Information

Note: Provide by manufacturer.

1.1. Equipment Under Test (EUT) Description

Frequency Range(MHZ)	2400-2500
Impedance(Ω)	50 $\pm$ 10
Gain(dBi)	1.03
ReTurnLoss(dB)	$\leq$ -10
VSWR	$\leq$ 1.92
Polarization	omni

1.2. Equipment Under Test (EUT) Specification





2. Test Results

2.1. Applied Reference Documents

Leading reference documents for testing:

No.	Identity	Document Title
1	IEEE149-1979	IEEE Standard Test Procedures for Antennas

2.2. Test Conditions

Test Environment Conditions:

Relative Humidity:	15 ... 75 %
Temperature:	+10 °C to +30 °C

2.3. Test Results lists

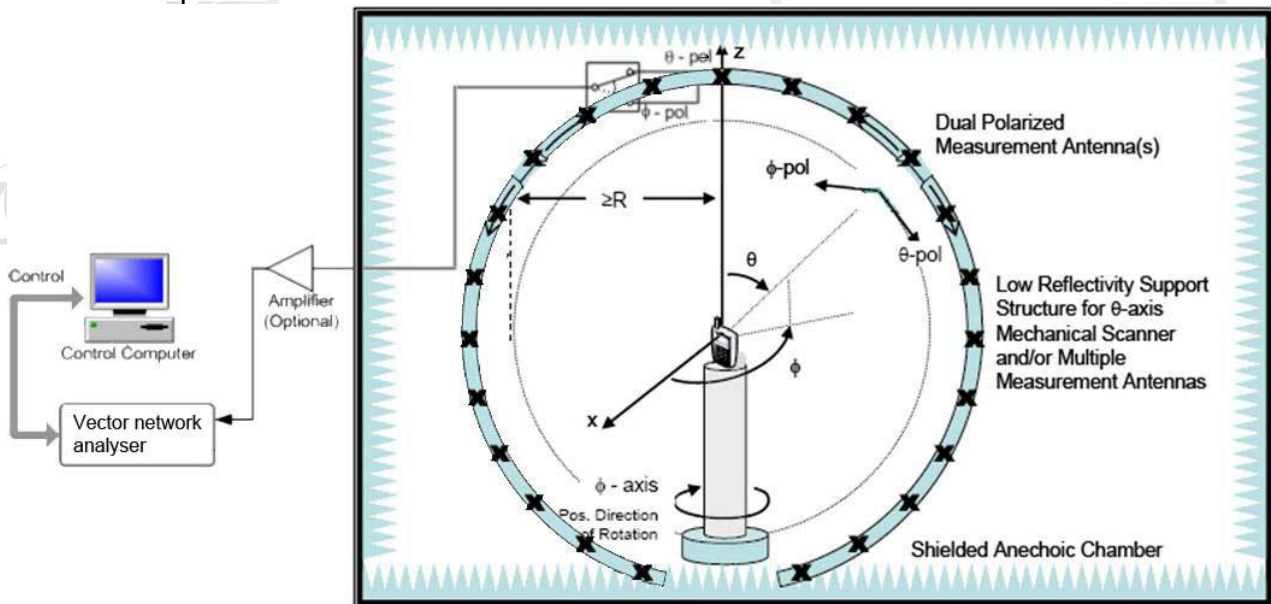
2.3.1. Gain

Frequency (MHz)	Efficiency (%)	Gain (dBi)
频率	效率	增益
2400	9.4125	-1.05
2410	10.3365	-0.05
2420	11.2108	-0.74
2430	11.9845	0.65
2440	13.5167	1.02
2450	15.3369	0.27
2460	16.0597	0.74
2470	17.1025	-0.11
2480	17.3316	1.03
2490	18.2557	0.89
2500	19.1582	0.51



Annex A Photographs

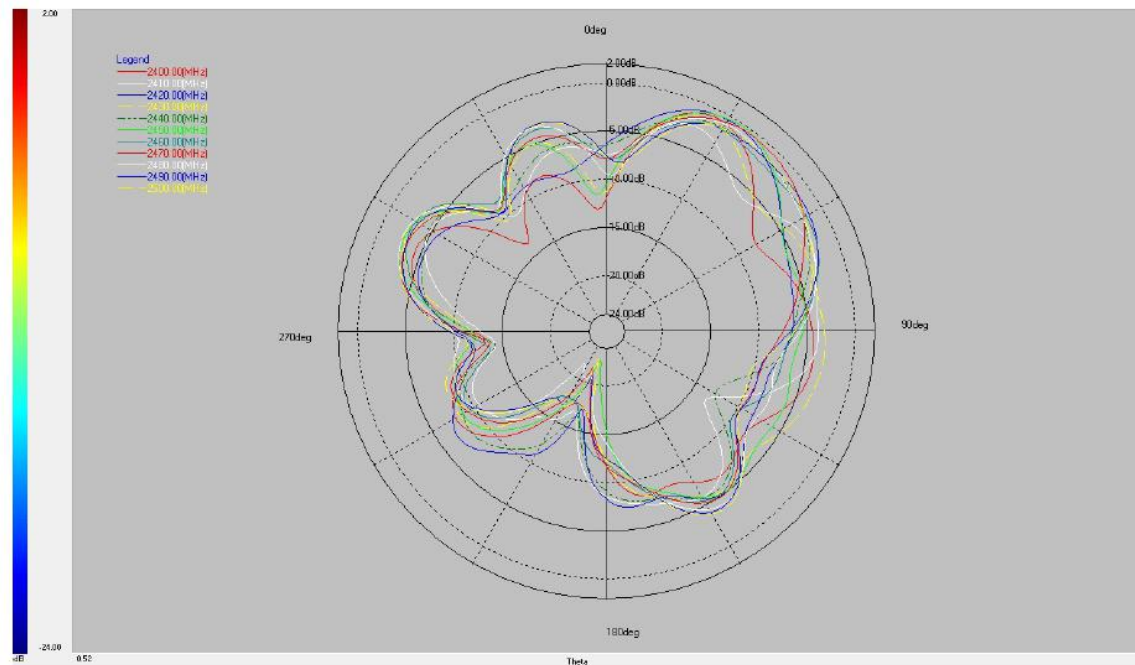
1. Test Setup



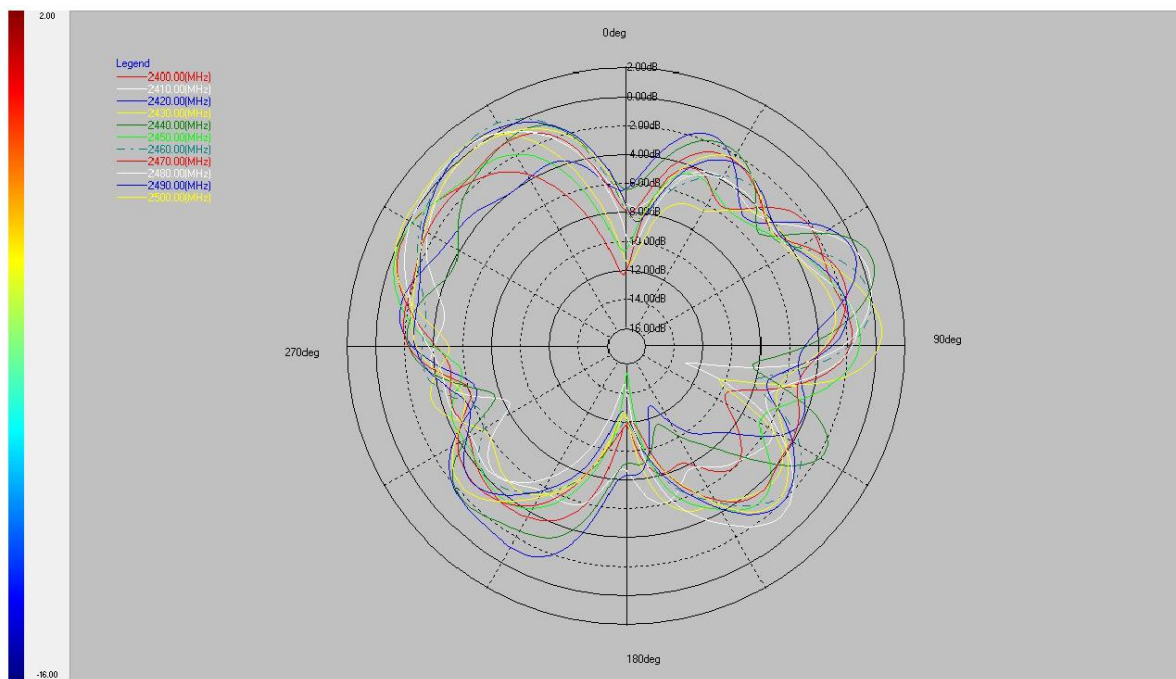
Annex B Figures

1. 2D Radiation Pattern

Phi=0°

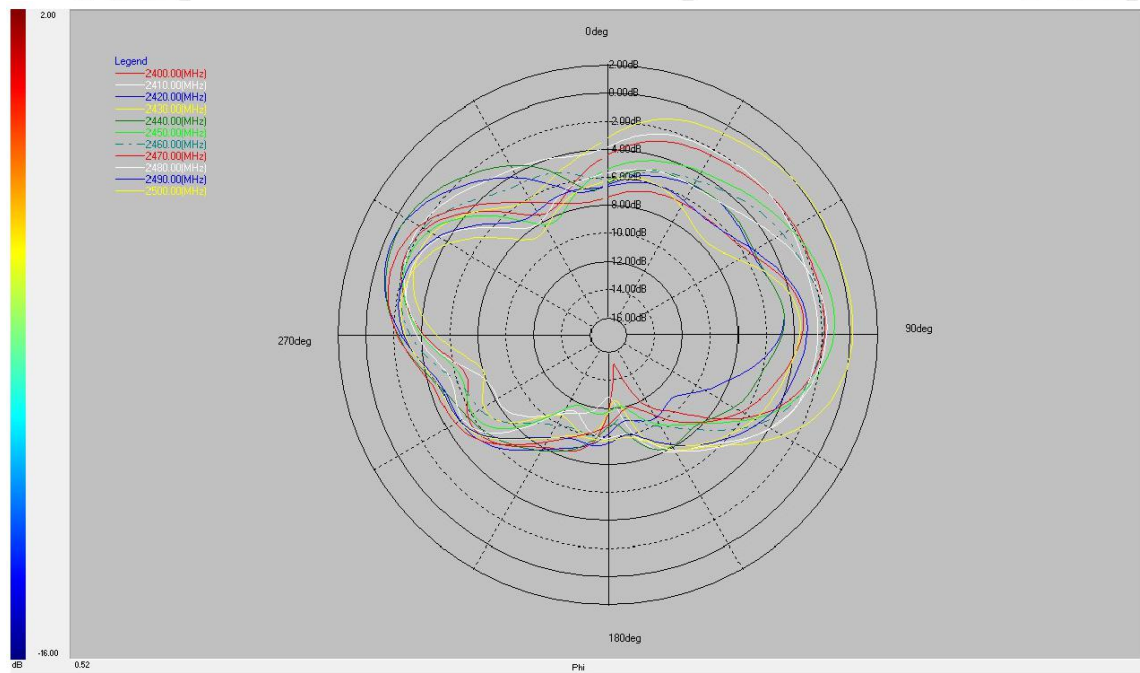


Phi=90°

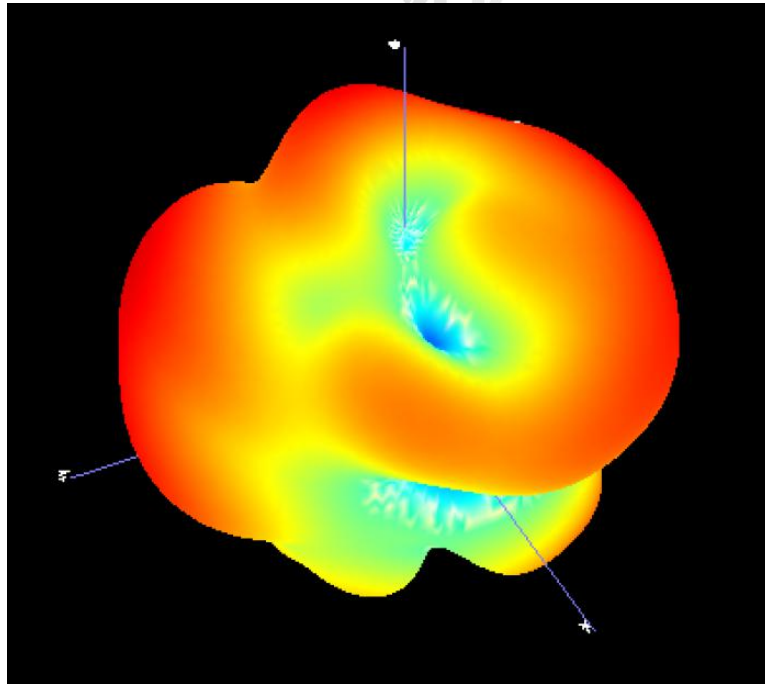




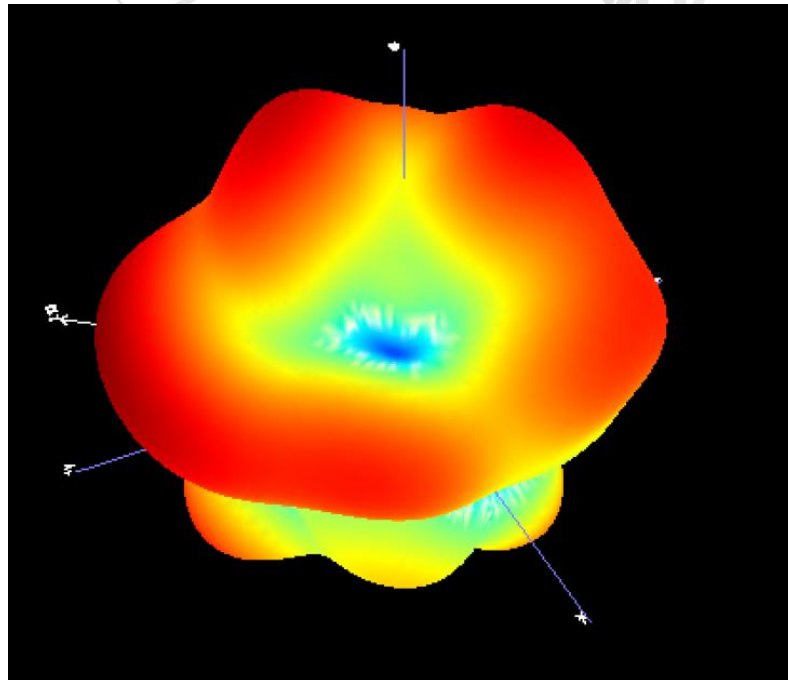
Theta=90°



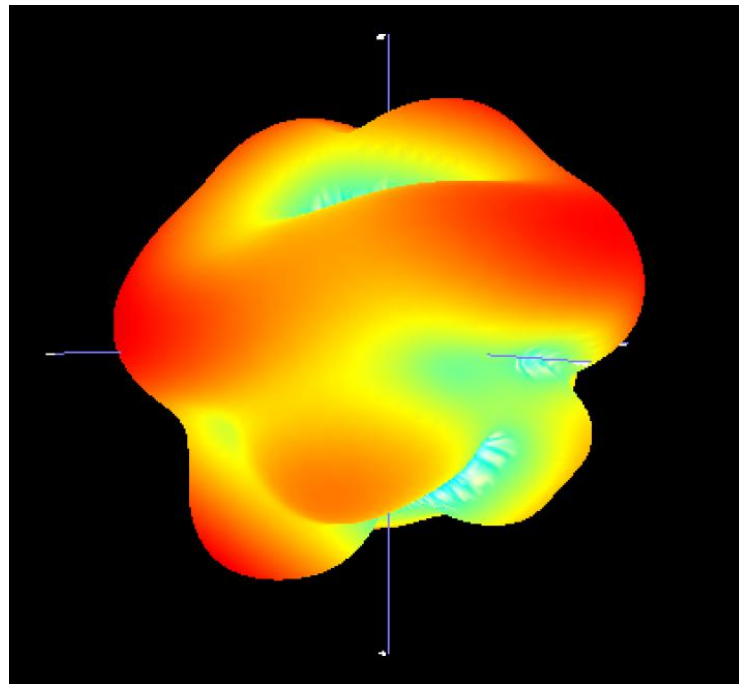
2. 3D Radiation Pattern



2400MHz



2450MHz



2500MHz

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