Antenna Report

Product Name：MS-659

Manufacture：Dingnan Jinpeng Electronic Co., LTD
Address: Jinpeng Industrial Park, Futian Industrial Park, Dingnan County, Ganzhou City, Jiangxi Province

Antenna Type：PCB antenna

Antenna Size:18.1mm*2.3mm

Project Engineer：Issac

Test Standards：ANSI/IEEE Std 149-2021

Test software being used: Emquest

Software Version:1.13

Test Result：PASS

Issued Date：2022-03-21

Name	Parameter	Method	Standard no.
Antenna performance	Radiation efficiency	IEEE Standard Test Procedures for Antennas	ANSI/IEEE Std 149- 2021

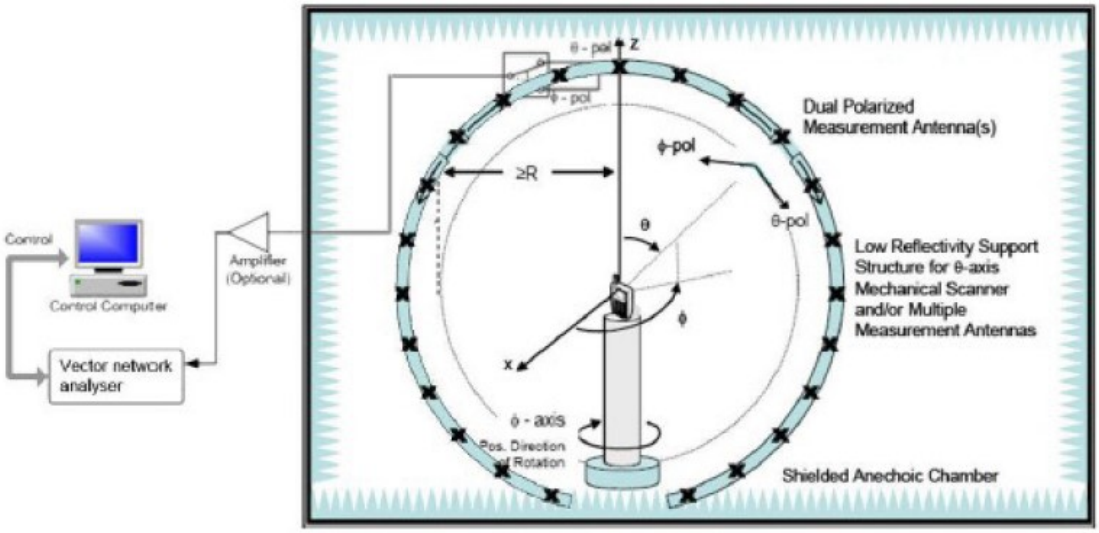
Equipment	Manufacturer	Mode No	Serial No	Cal date	Cal Due
Network Analyzer	Agilent	E5071B	MY48360957	2021/5/20	2022/5/19
Quad-Ridge Horm Antenna	ETS	Apr-64	62743	2021/5/20	2022/5/19
700 MHz-6 GHz MAPS Controller	ETS	7006	59957	2021/12/17	2022/12/16
Switch Control System	ETS	7001	MY42001152	2021/12/17	2022/12/16

2 Test Temperature and Humidity

Temperature: 23.2°C

Humidity: 65%

Test Setup

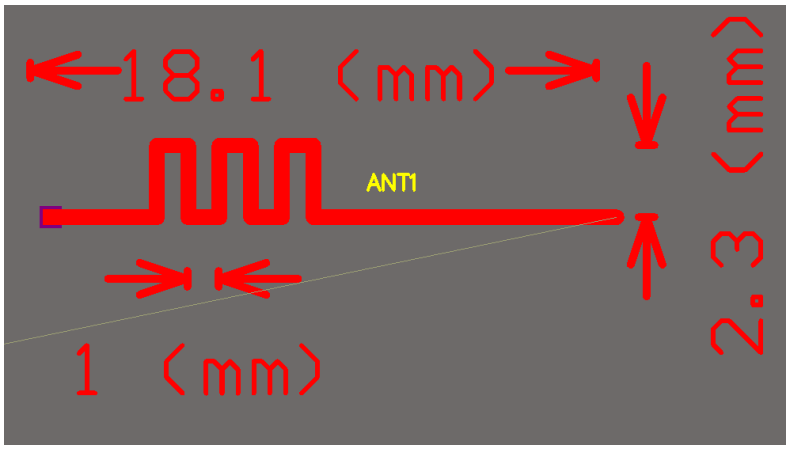


Name	Shenzhen RFI-LAB Communication Technology Co.,Ltd.
Address	10/F A, Lingyun Bld, Liufang Rd, Baoan District, SZ
Tel	13682621346
E-mail	rfi-lab@tech-now.com

Antenna Report

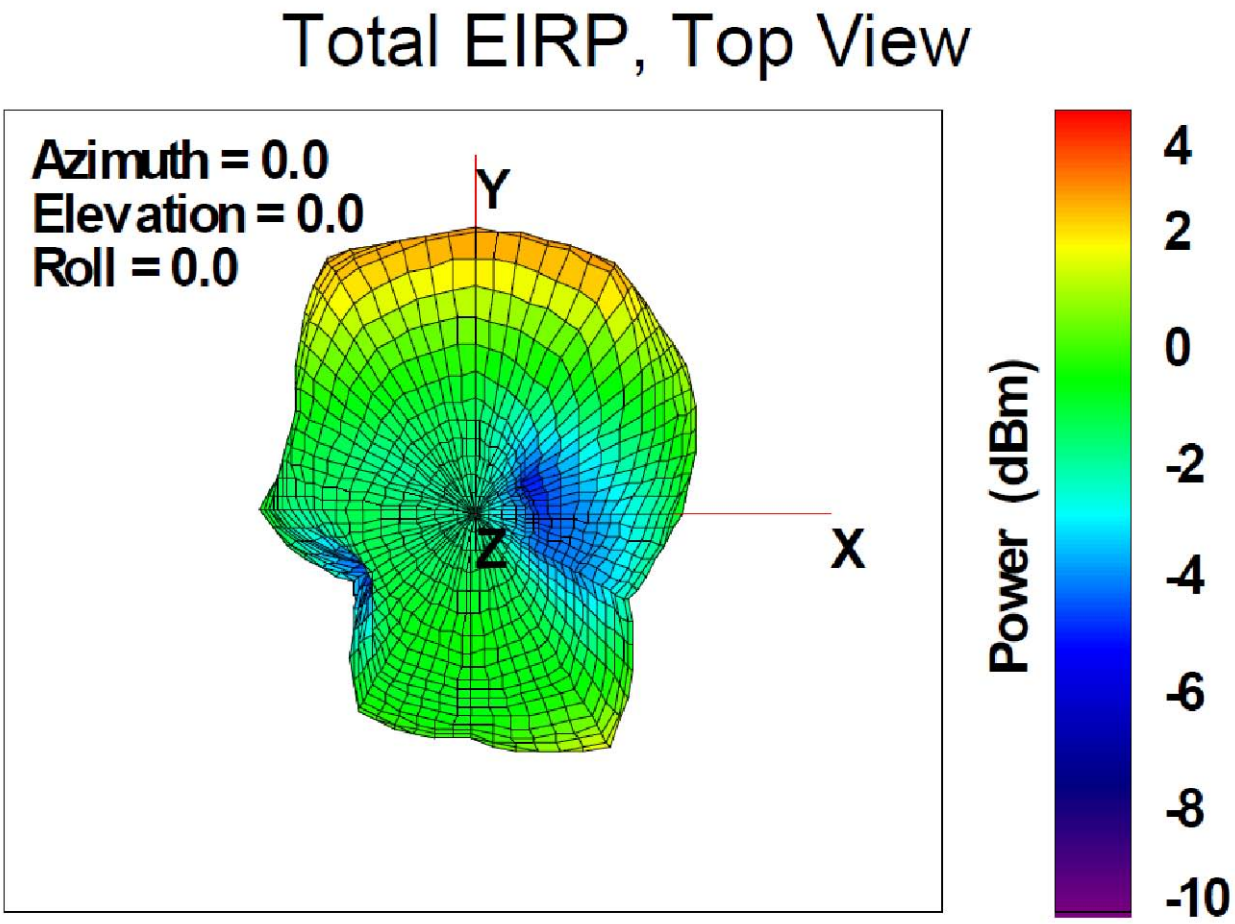
Specifications

Summary	ITEM	SPEC
	Model Name :	MS-659
	Center Frequency	2402MHz -2.64dBi
		2440MHz -1.89dBi
		2480MHz -1.66dBi
	MAX. GAIN	-1.66 dBi
	Polarization	Horizontal
	Azimuth Beam Pattern	Omni directional
	Impedance	50Ω



1. Main antenna : 2402MHz

1 . 1 H o r i z o n t a l



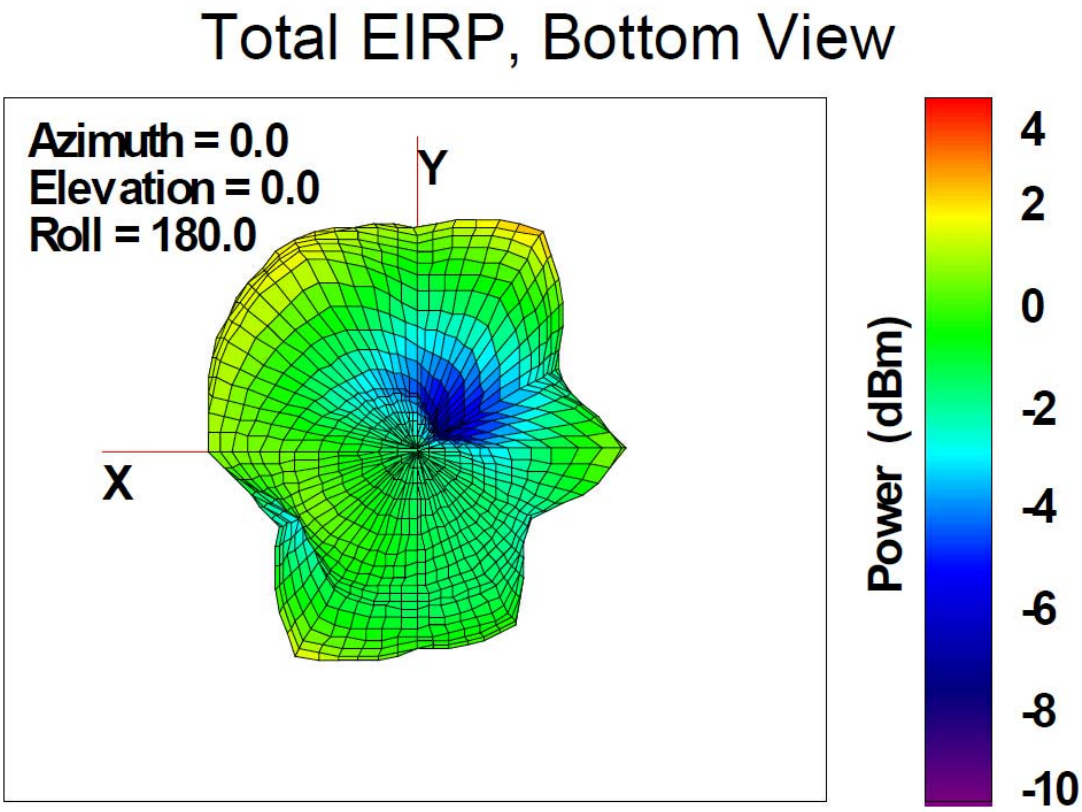
Frequency (MHz): 2402 Antenna Polarity: Horizontal

Maximum Value (dBi): -2.64

Average Gain (dBi) : - 9.77

Minimum Gain (dBi):-30.67

1.2.Vertical



Frequency (MHz): 2402 Antenna Polarity: Vertical

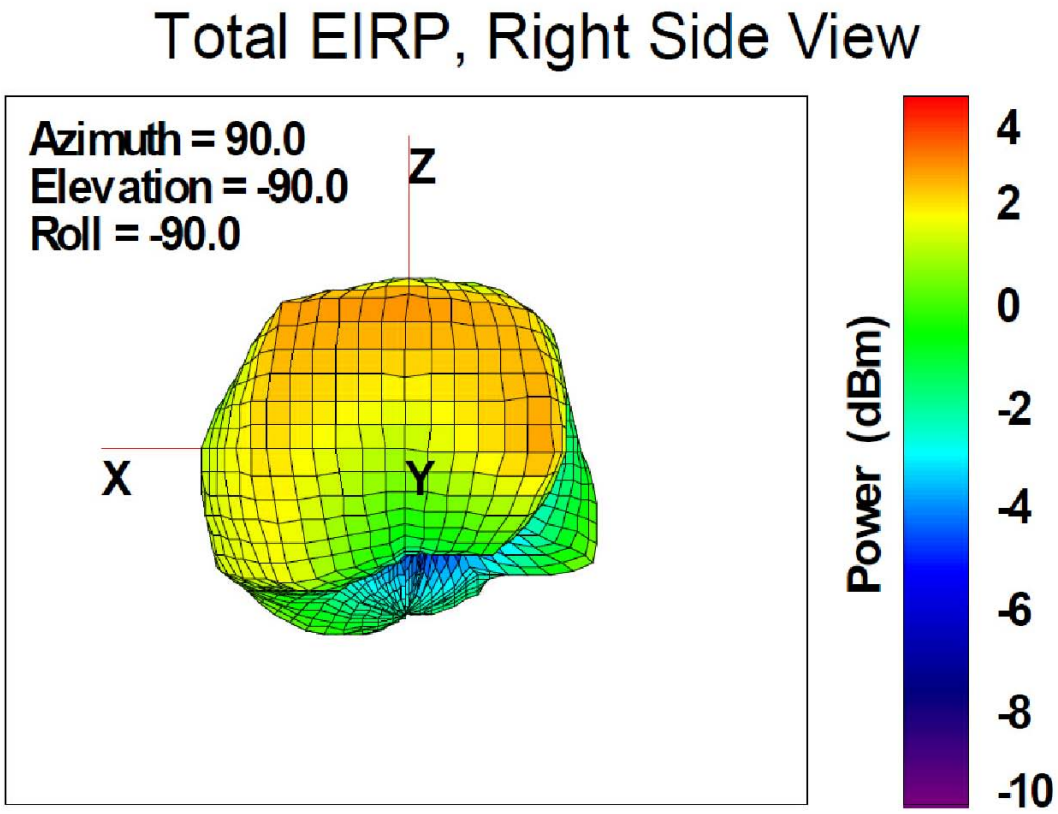
Maximum Value (dBi): -7.09

Average Gain (dBi): -13.51

Minimum Gain dBi: -24.18

2. Main antenna : 2440MHz

2.1 Horizontal



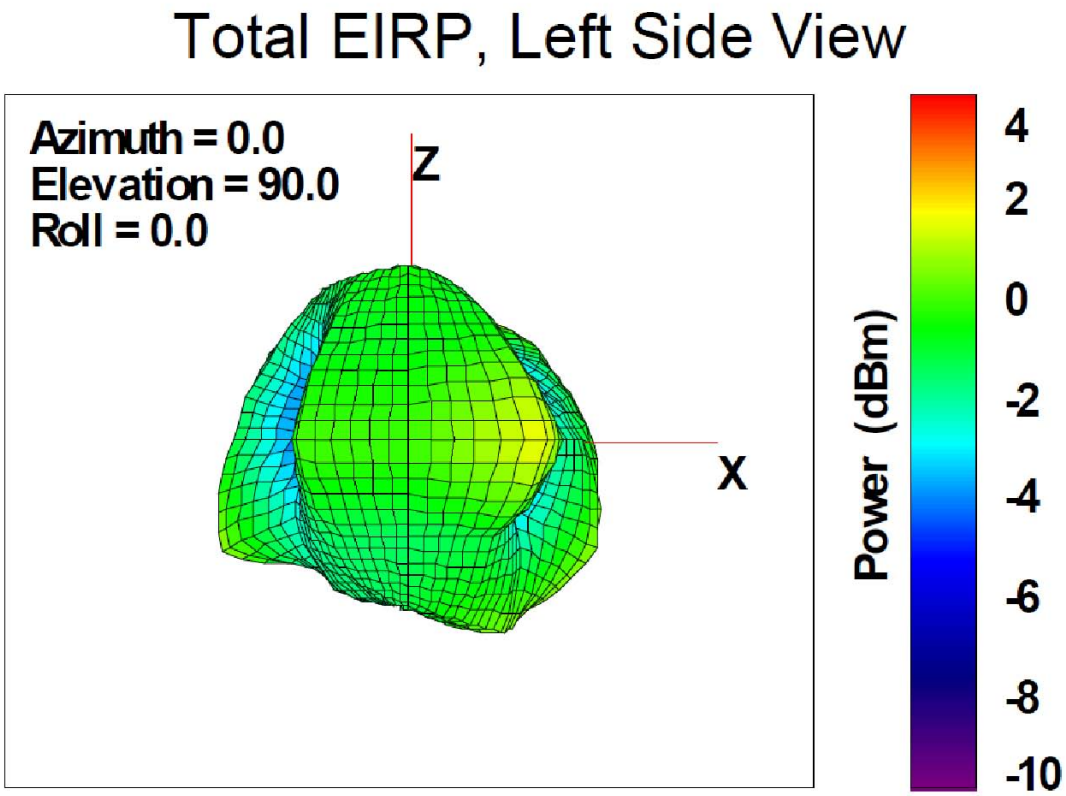
Frequency (MHz): 2440 Antenna Polarity:Horizontal

Maximum Value (dBi): -1.89

Average Gain (dBi): - 8.87

Minimum Gain(dBi):- 35.91

2.2 Vertical



Frequency (MHz): 2440 Antenna Polarity: Vertical

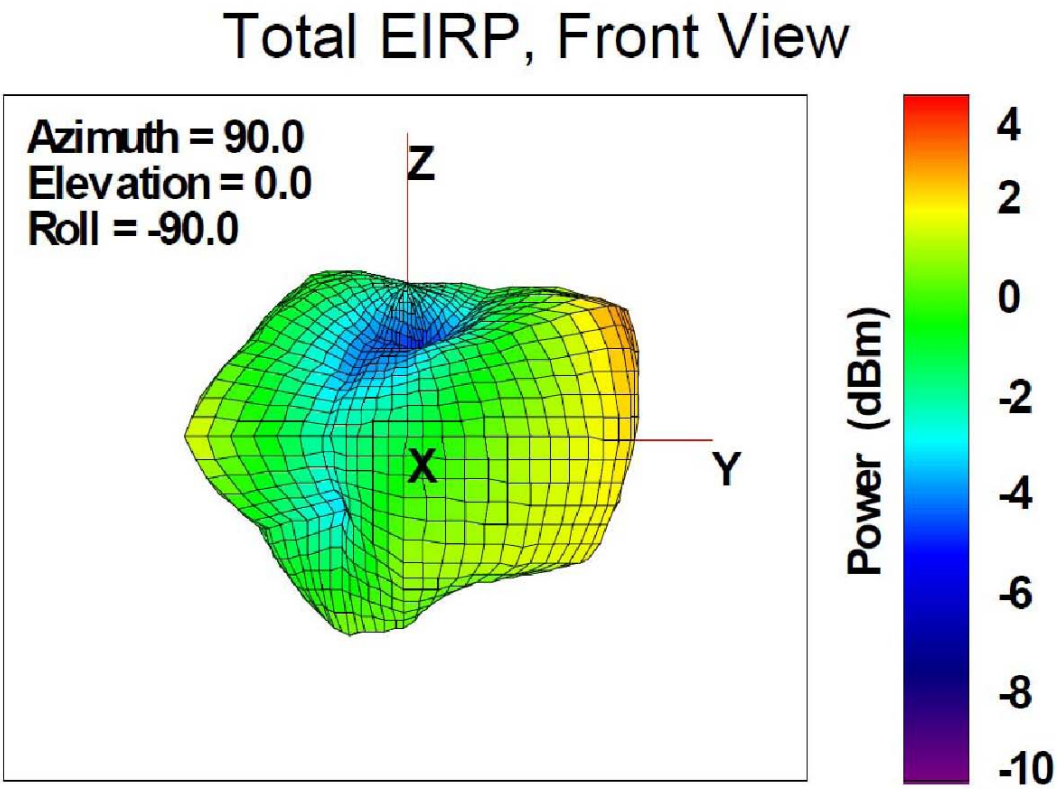
Maximum Value (dBi): -4.7

Average Gain(dBi): -11.66

Minimum Gain (dBi) : -27.82

3. Main antenna : 2480MHz

2.1 Horizontal



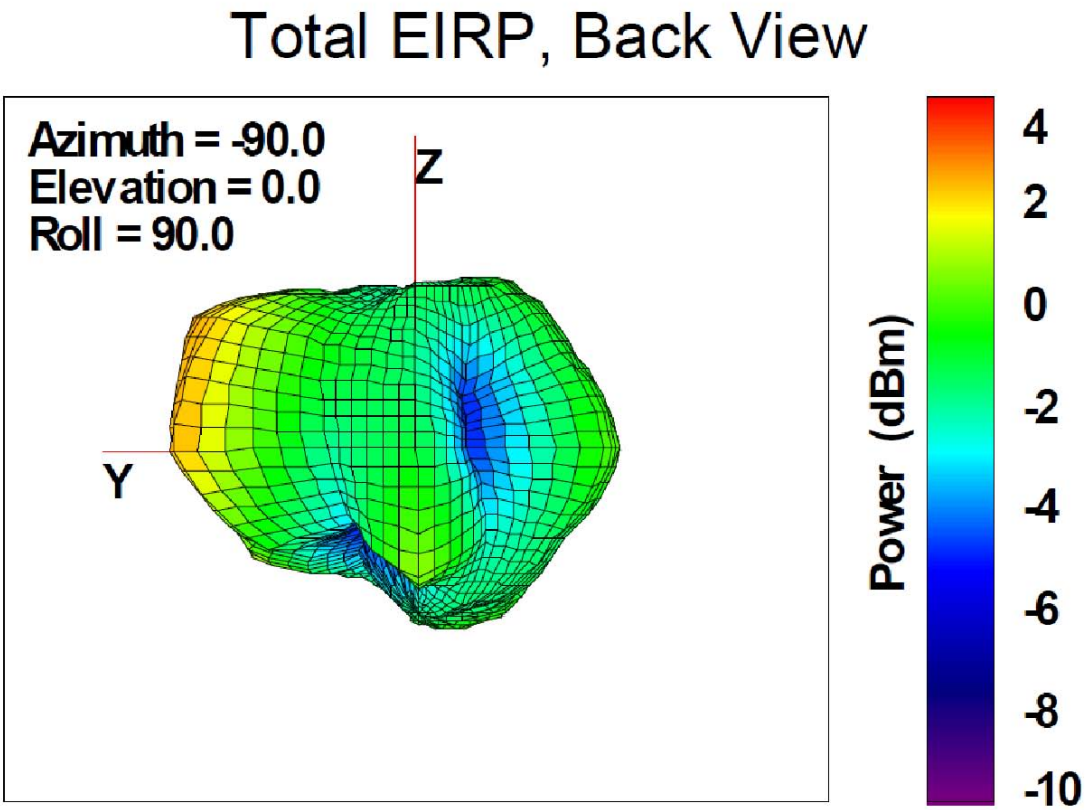
Frequency (MHz): 2480 Antenna Polarity: Horizontal

Maximum Value (dBi) : -1.66

Average Gain (dBi) : - 7.99

Minimum Gain (dBi) : - 24.74

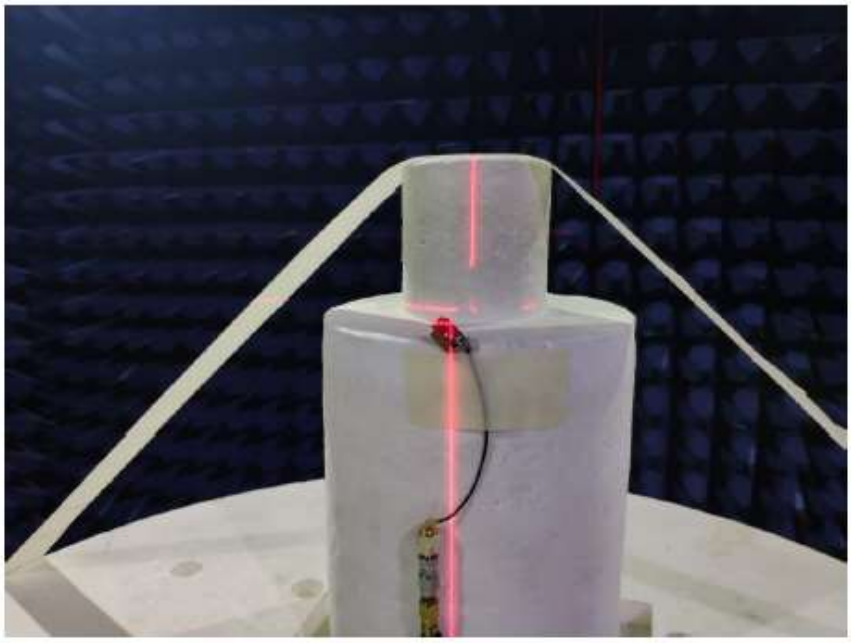
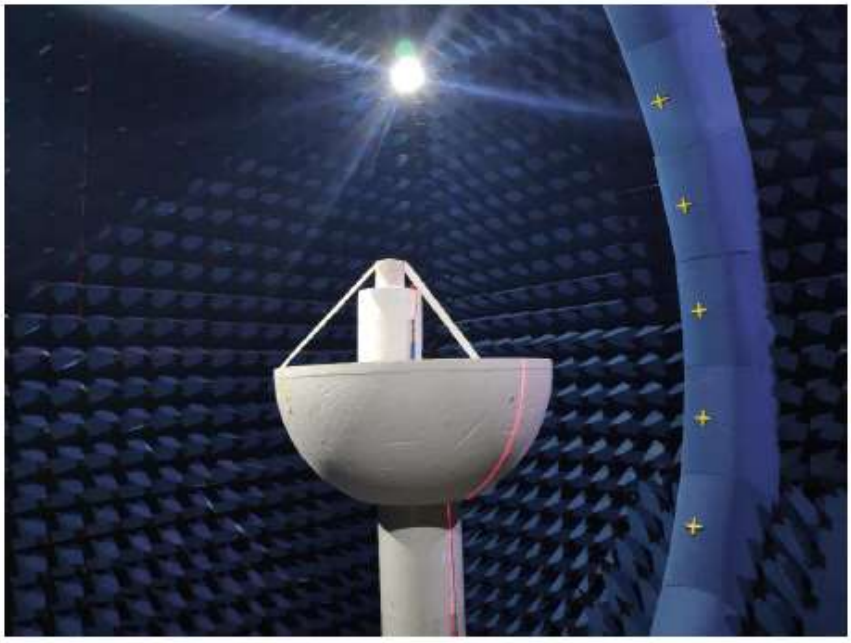
2.2 Vertical



Frequency (MHz) : 2480 Antenna Polarity: Vertical

Maximum Value (dBi): -3.15

Average Gain (dBi): - 10.56

Minimum Gain (dBi): - 29.48

ANNEX C TEST SETUP PHOTO