

Antenna Report

Product Name: KM-290

Manufacture: Dong guan xinshenchuang Electronic Technology.Co.,Ltd

Address:Room 301, Building 2, No.4 Shijie Xinan 4th Street, Shijie Town, Dongguan City, Guangdong Province, P.R.China

Antenna Type: PCB antenna

Antenna Size:15mm*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: 2026-03-01

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

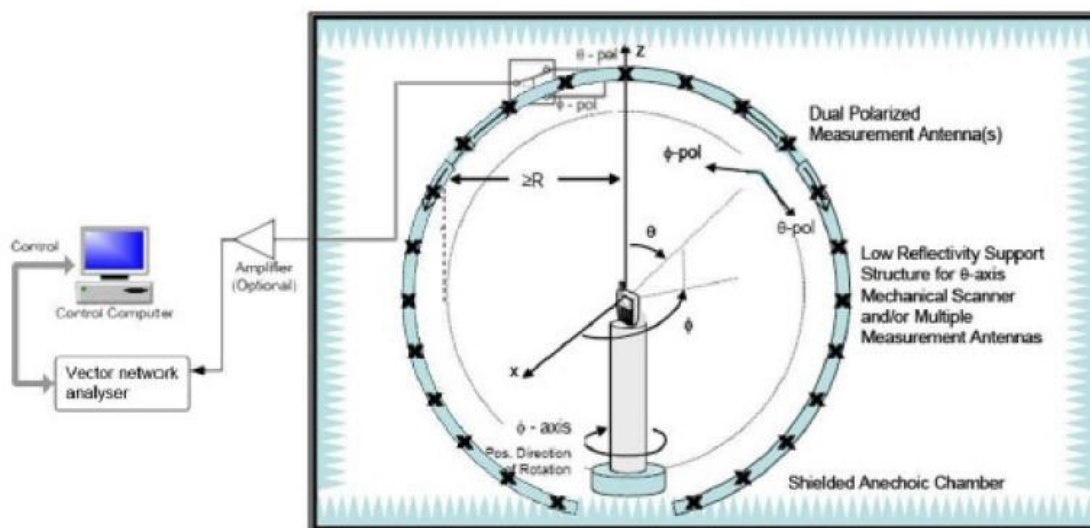
Equipment	Manufacturer	Mode No	Serial No	Cal date	Cal Due
Network Analyzer	Agilent	E5071B	MY48360957	2021/5/20	2022/5/19
Quad-Ridge Horn Antenna	ETS	Apr-64	62743	2021/5/20	2022/5/19
700 MHz-6 GHz MAPS Controller	ETS	7006	59957	2021/12/17	2022/12/16
Switch Control System	ETS	7001	MY42001152	2021/12/17	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 KM-290

Center Frequency 2400MHz 2.21dBi

2440MHz 1.85dBi

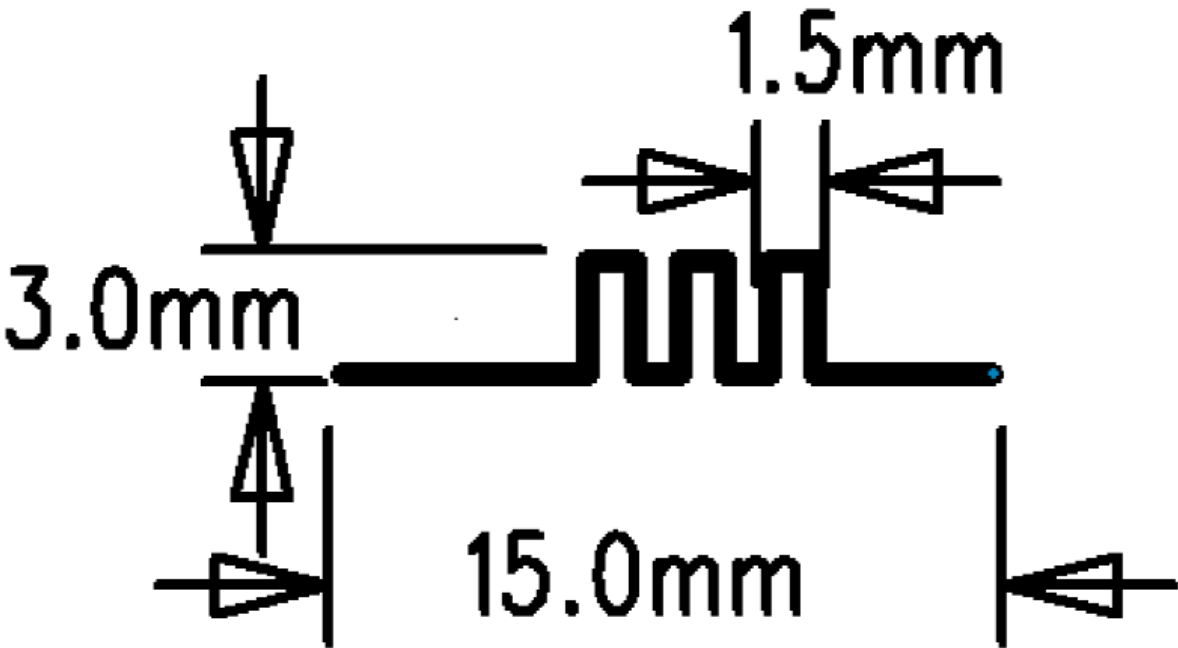
2500MHz 1.03dBi

MAX. GAIN 2.21 dBi

Polarization Horizontal

Azimuth Beam Pattern Omni directional

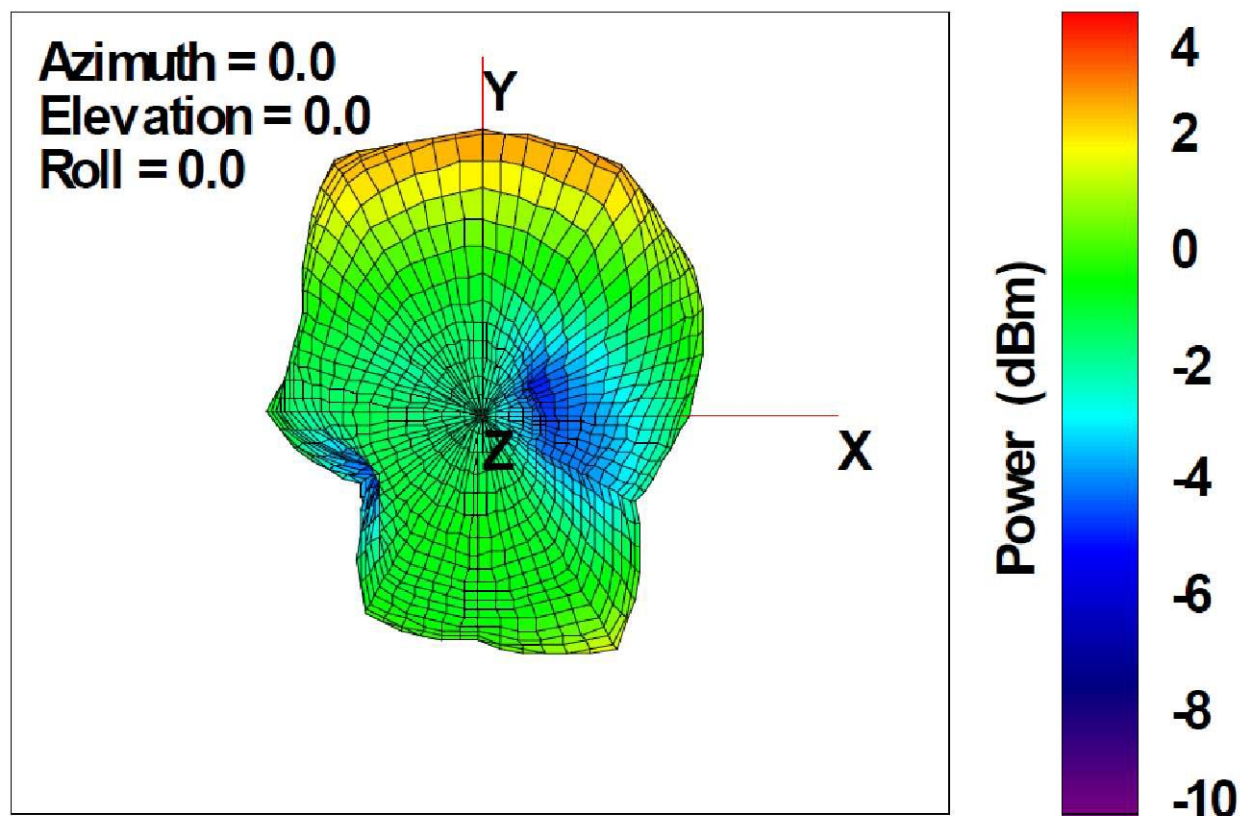
Impedance 50Ω



1. Main antenna : 2400MHz

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

Total EIRP, Top View



Frequency (MHZ): 2400 Antenna Polarity: Horizontal

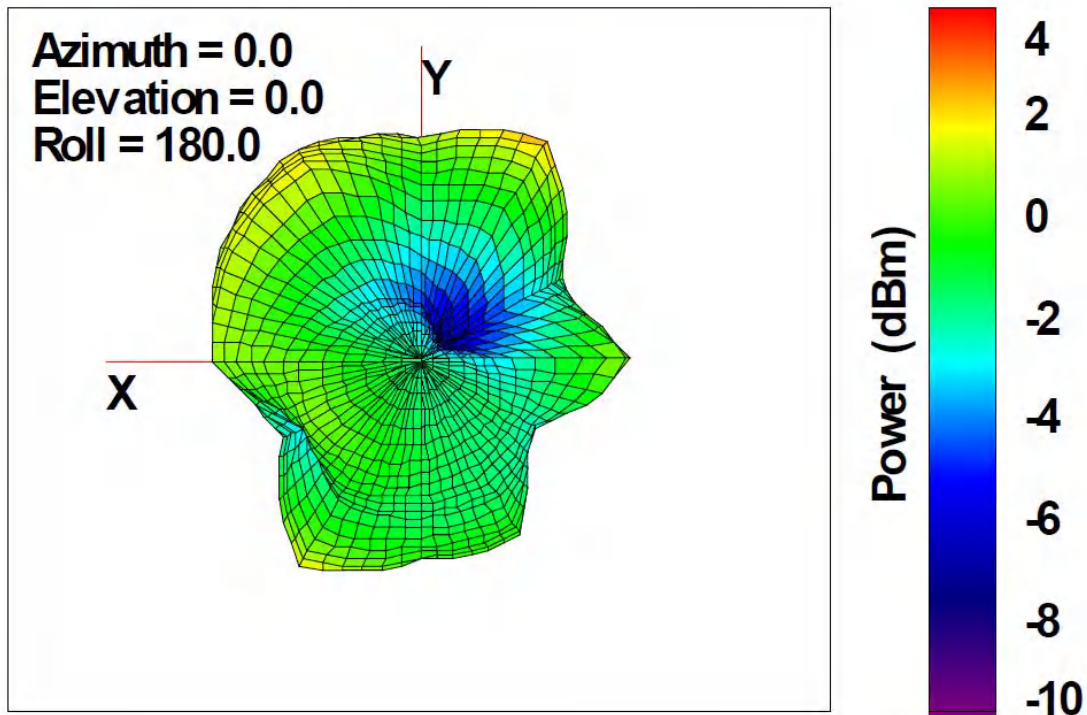
Maximum Value (dBi): 2.21

Average Gain (dBi) : - 1.4

Minimum Gain (dBi):-61.26

1.2.Vertical

Total EIRP, Bottom View



Frequency (MHZ): 2400 Antenna Polarity: Vertical

Maximum Value (dBi): -2.85

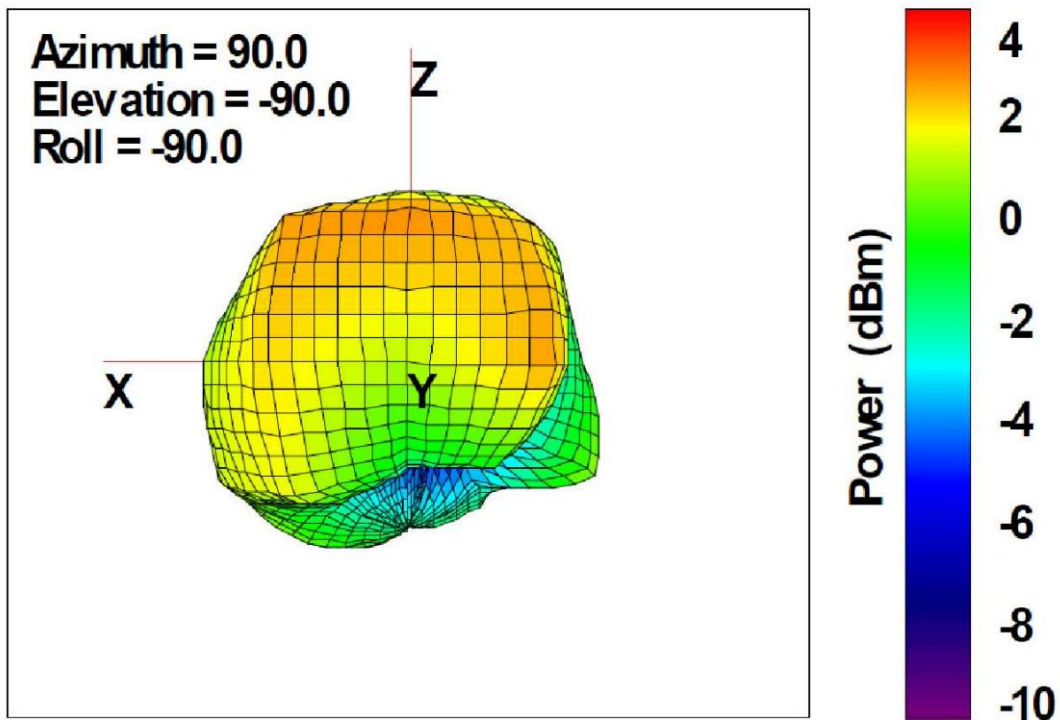
Average Gain (dBi): -12

Minimum Gain dBi: -64

2. Main antenna : 2440 MHz

2.1 Horizontal

Total EIRP, Right Side View



Frequency (MHZ): 2440 Antenna Polarity:Horizontal

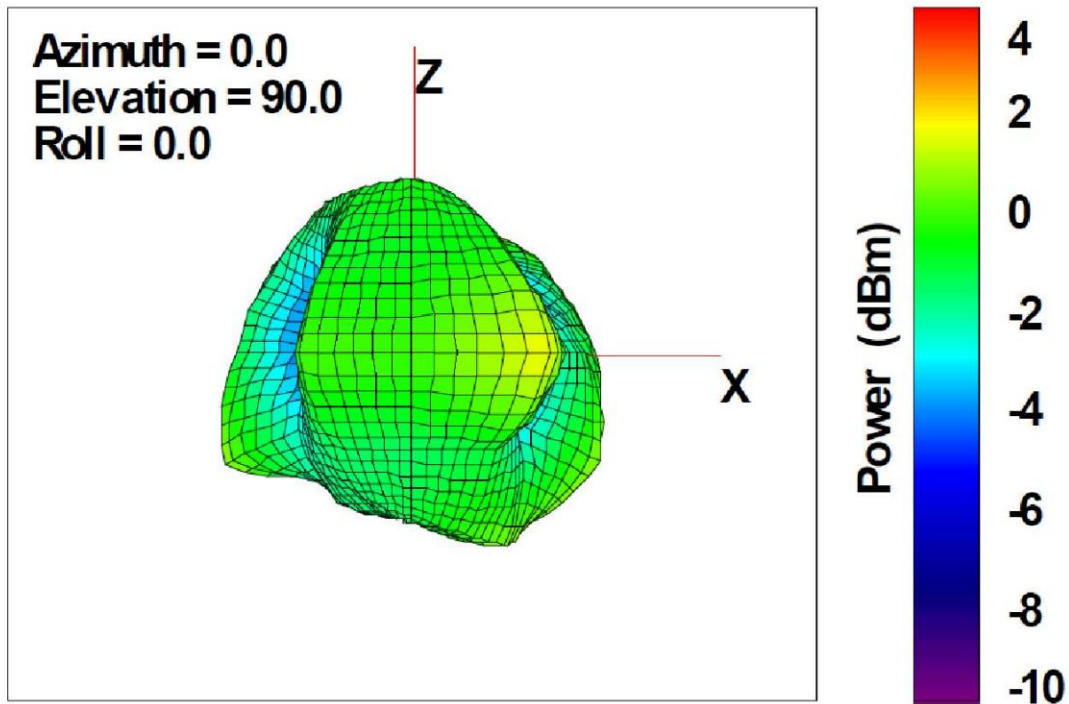
Maximum Value (dBi): 1.85

Average Gain (dBi): - 1.2

Minimum Gain(dBi):- 60

2.2 Vertical

Total EIRP, Left Side View



Frequency (MHZ): 2440 Antenna Polarity: Vertical

Maximum Value (dBi): -3.0

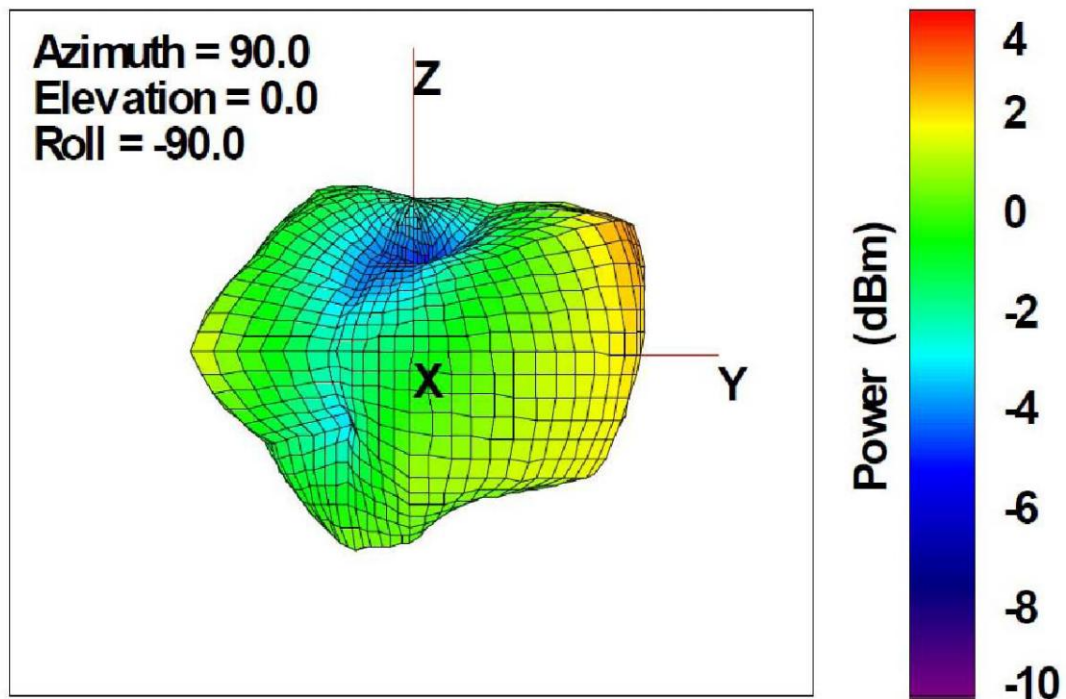
Average Gain(dBi): -12

Minimum Gain (dBi) : -54

3. Main antenna : 2500MHz

2.1 Horizontal

Total EIRP, Front View



Frequency (MHZ): 2500 Antenna Polarity: Horizontal

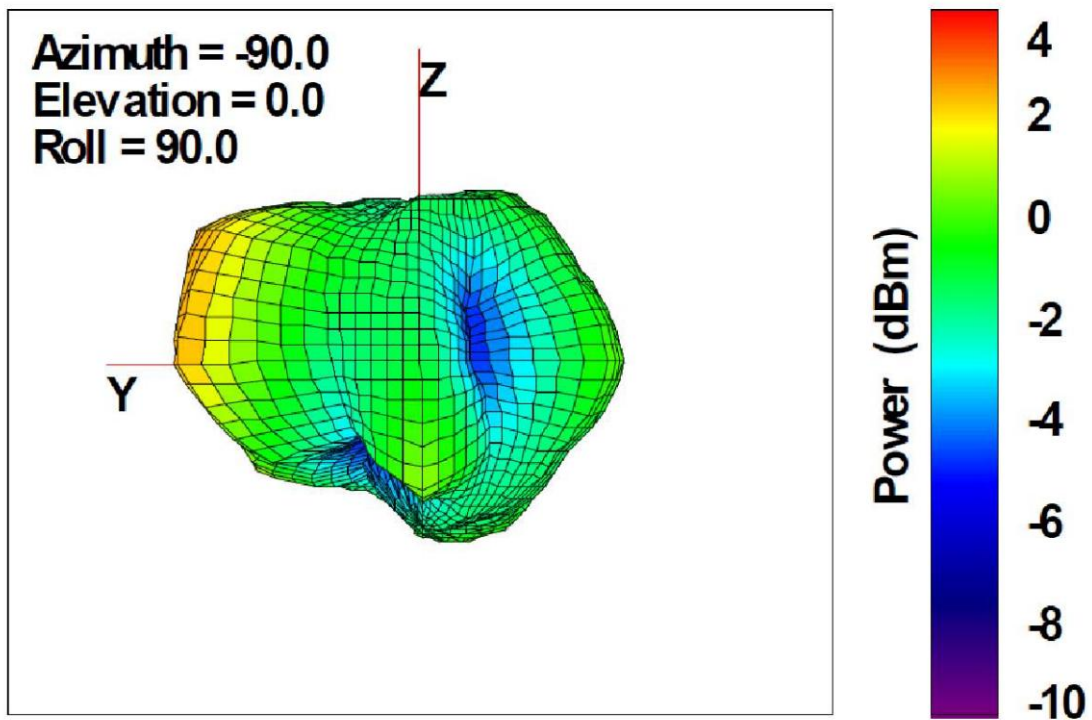
Maximum Value (dBi) : 1.03

Average Gain (dBi) : - 2.5

Minimum Gain (dBi) : - 52

2.2 Vertical

Total EIRP, Back View



Frequency (MHZ) : 2500 Antenna Polarity: Vertical

Maximum Value (dBi): - 4.5

Average Gain (dBi): - 11

Minimum Gain (dBi): - 50

ANNEX C TEST SETUP PHOTO

