



REPORT No.: SZ24040032E10

TEST REPORT

APPLICANT : TECMEN ELECTRONICS CO., LTD

PRODUCT NAME : Active over-the-head earmuff/Active hard-hat-mount earmuff

MODEL NAME : AMB S3A/AMB S3E

TRADE NAME : Tecmen

BRAND NAME : Tecmen

STANDARD(S) : IEEE Std 149-2021

RECEIPT DATE : 2024-05-23

TEST DATE : 2024-06-21

ISSUE DATE : 2024-07-16



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MORLAB

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Change History		
Version	Date	Reason for change
1.0	2024-07-16	First edition



1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	TECMEN ELECTRONICS CO., LTD
Applicant Address:	NO. 8 HUYUE EAST ROAD, LONGCHI STREET, LUHE DISTRICT, NANJING 211599, P.R.CHINA
Manufacturer:	TECMEN ELECTRONICS CO., LTD
Manufacturer Address:	NO. 8 HUYUE EAST ROAD, LONGCHI STREET, LUHE DISTRICT, NANJING 211599, P.R.CHINA
Factory:	TECMEN ELECTRONICS CO., LTD
Factory Address:	BUILDING D-B, NO.21 NORTH LIUZHOU ROAD, XIAOLIU INDUSTRY PARK, NANJING 210031, P.R.CHINA

1.2. Equipment Under Test (EUT) Description

Wireless Type	Bluetooth
Frequency	2400MHz-2500MHz
Antenna Type	PCB Antenna
Product HW Version	N/A
Product SW Version	N/A
IMEI	N/A
Sample No.	3#

Note:

We, TECMEN ELECTRONICS CO., LTD declare that for product name:Active over-the-head earmuff,model name:AMB S3A and product name:Active hard-hat-mount earmuff,model name:AMB S3E, only have differences in appearance , model name and whether with a hat. Except for the differences shown above. Their electrical circuit design, layout, components used and internal wiring are identical. No other changes.

2. Test Results

2.1. Applied Reference Documents

Leading reference documents for testing:

No.	Identity	Document Title
1	IEEE Std 149-2021	IEEE Recommended Practice for Antenna Measurements

2.2. Test Conditions

Test Environment Conditions:

Relative Humidity(%):	25 - 75
Temperature(°C):	10 - 30

2.3. Measurement Uncertainty

The uncertainty is calculated using the methods suggested in the “Guide to the Expression of Uncertainty in Measurement” (GUM) published by ISO. When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% Confidence intervals.

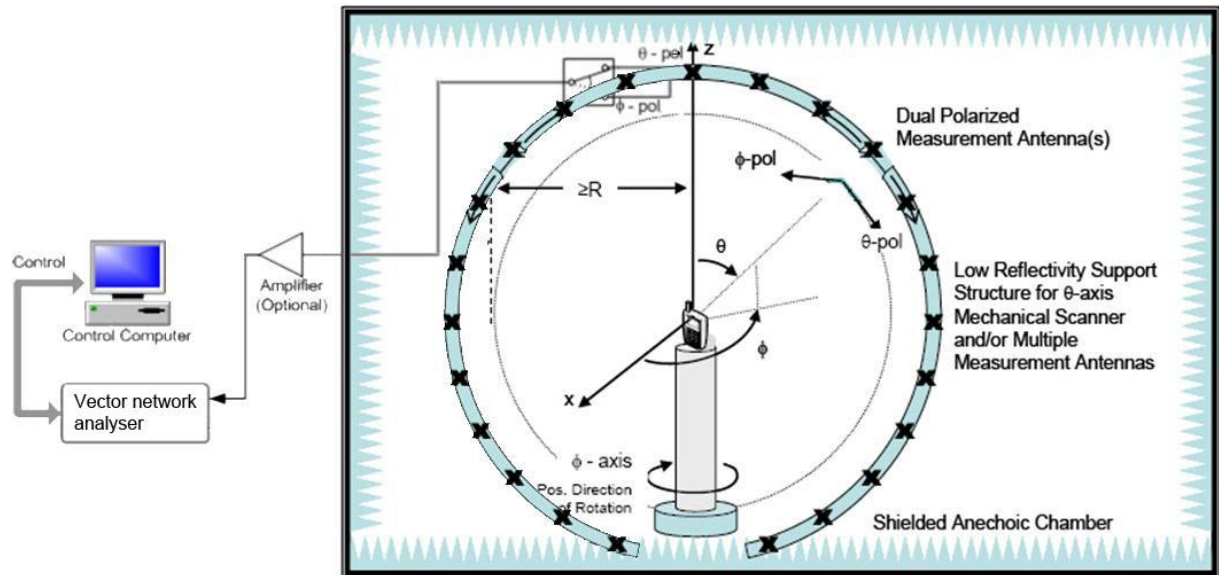


2.4. Test Results lists

2.4.1. Gain

Frequency (MHz)	Gain(dBi)
2400	-0.40
2410	-0.19
2420	0.03
2430	0.17
2440	0.31
2450	0.74
2460	1.07
2470	1.24
2480	1.30
2490	1.16
2500	1.01

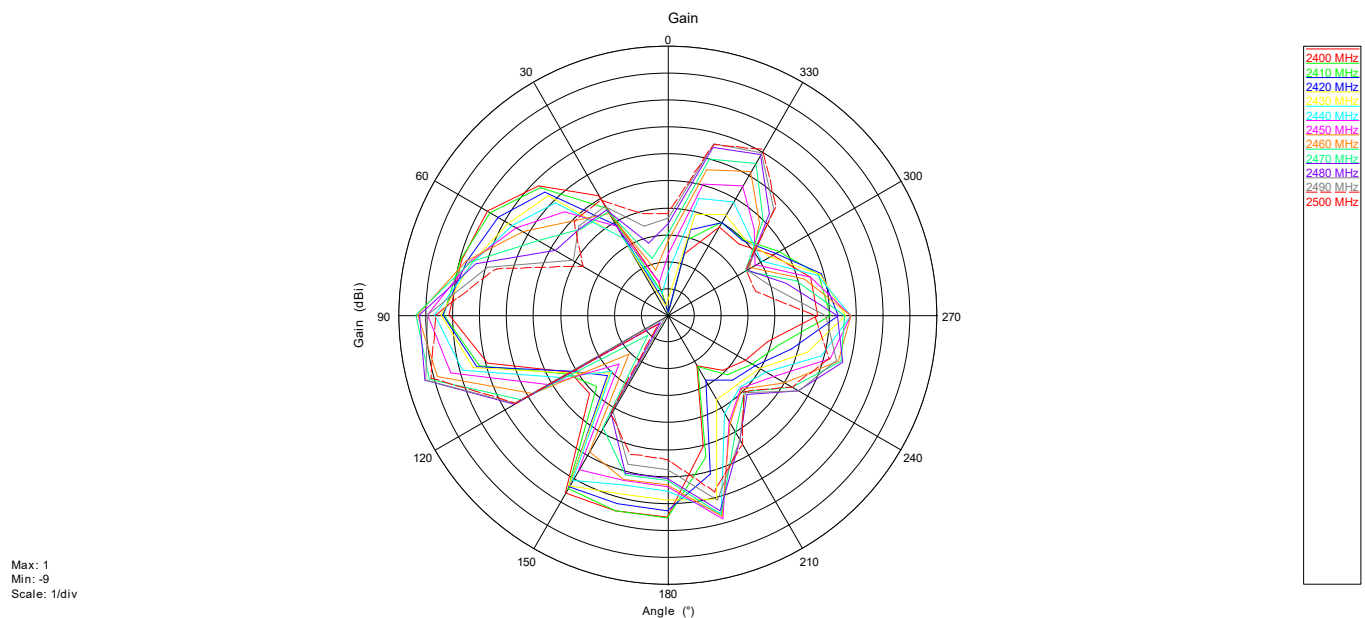
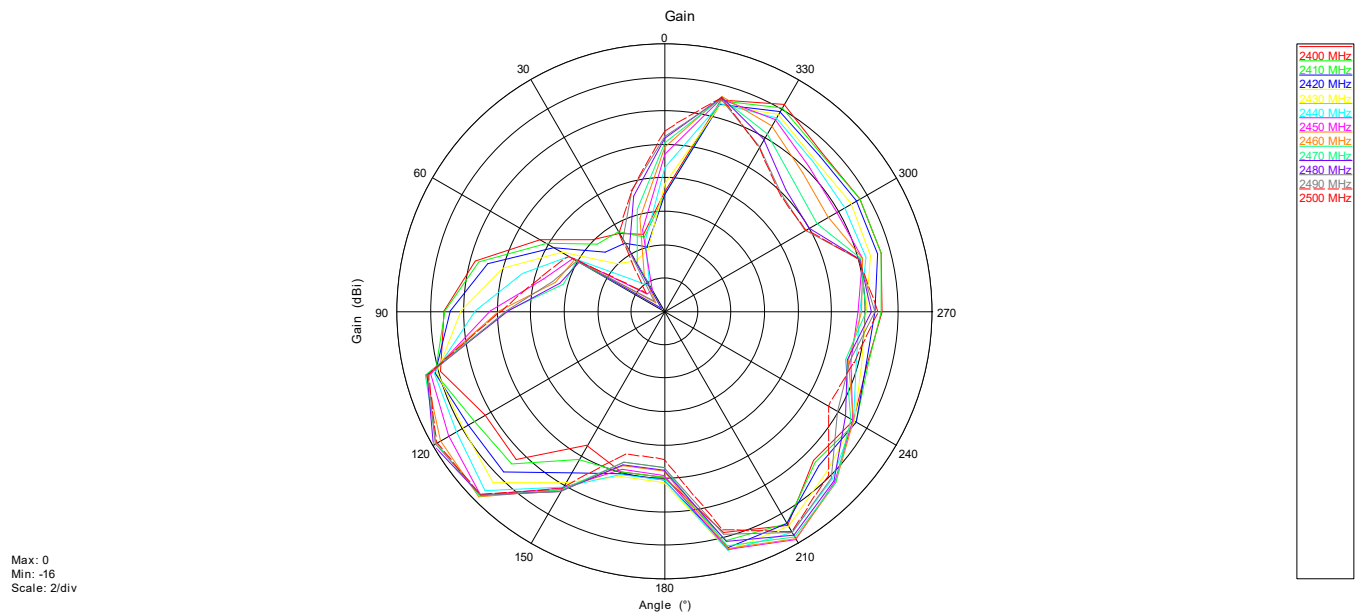
Annex A Test Setup Photos





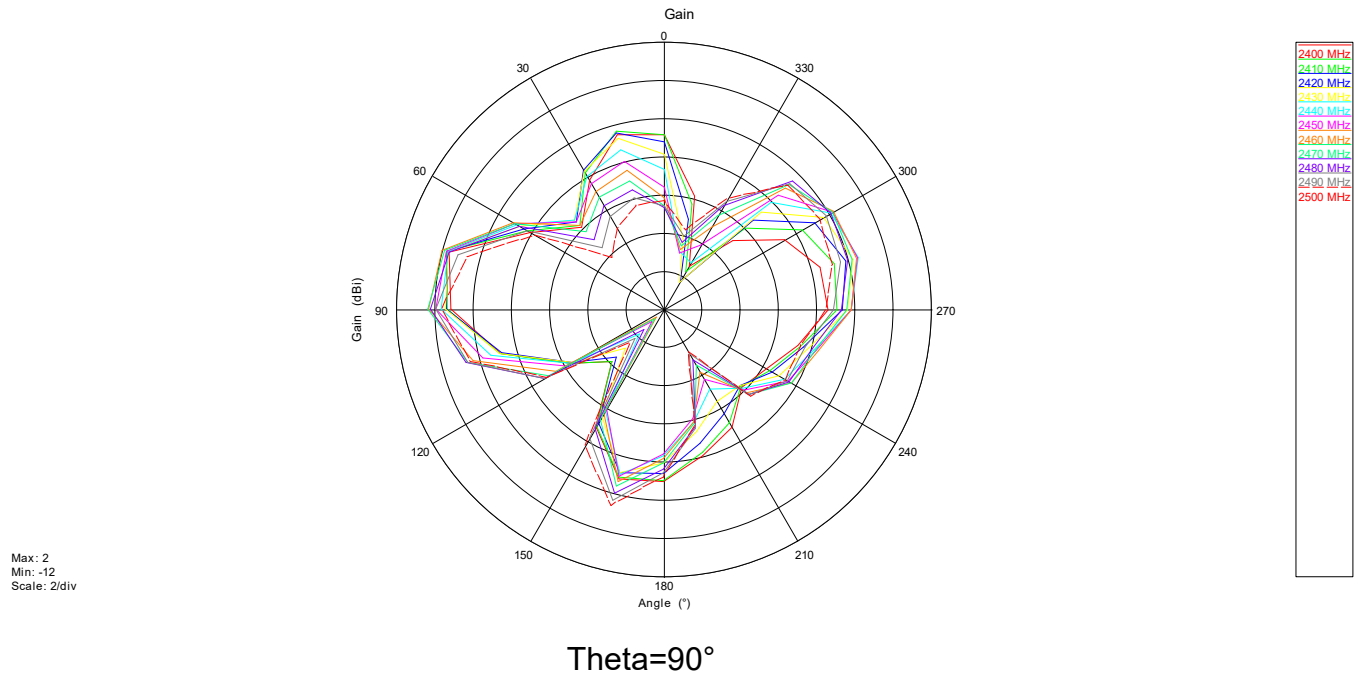
Annex B Figures

1. 2D Radiation Pattern

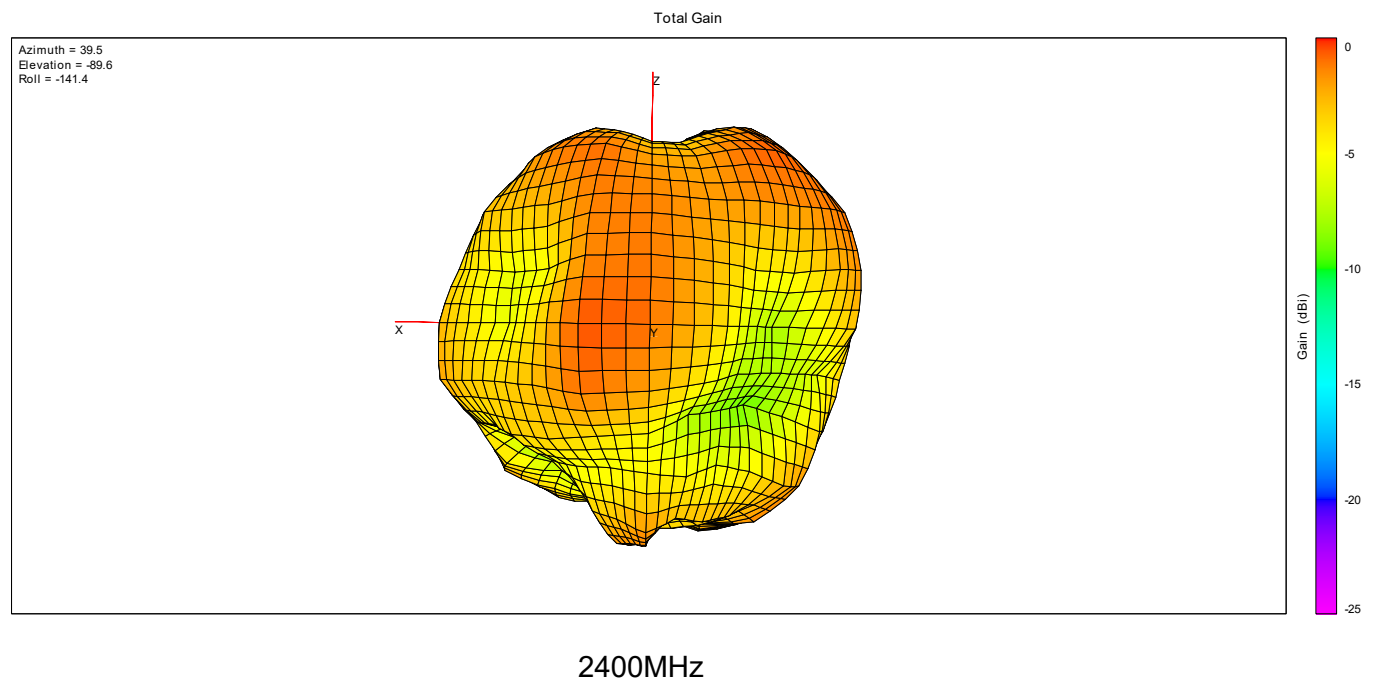


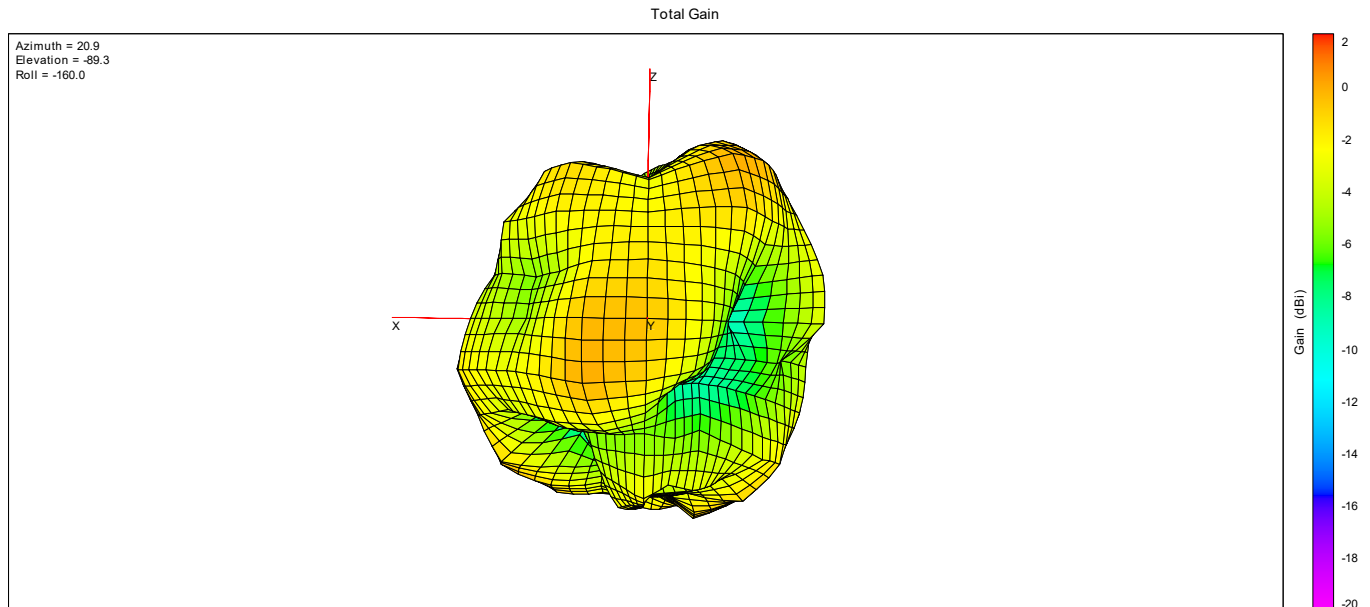


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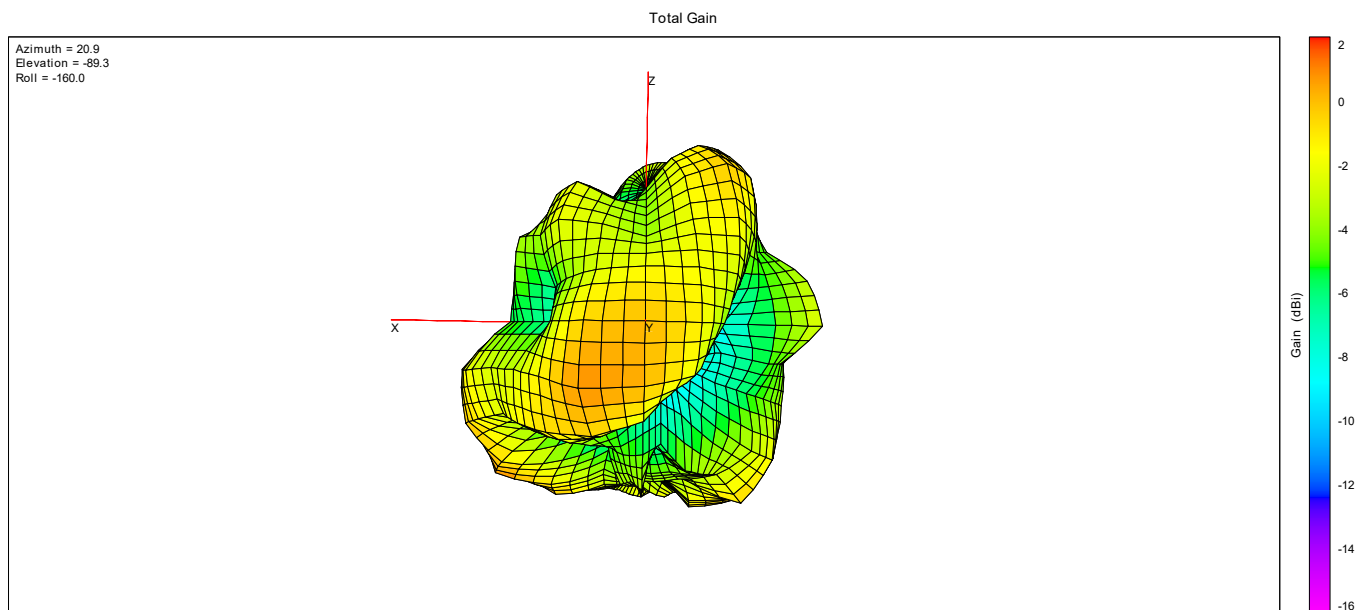


2. 3D Radiation Pattern





2440MHz



2480MHz



Annex C General Information

1.1 Identification of the Responsible Testing Laboratory

Laboratory Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Laboratory Address:	FL.1-3, Building A, FeiYang Science Park, No.8 LongChang Road, Block67, BaoAn District, ShenZhen , Guangdong Province, P. R. China
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

1.2 Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Address:	FL.1-3, Building A, FeiYang Science Park, No.8 LongChang Road, Block67, BaoAn District, ShenZhen , Guangdong Province, P. R. China

1.3 Test Equipments Utilized

No.	Equipement Name	Serial No.	Type	Manufacturer	Cal.Date	Cal.Due Date
1	Network Analyzer	MY46110140	E5071C	Agilent	2024.05.30	2025.05.29
2	OTA Chamber	TJ2235-Q1793	AMS-8923 -150	ETS	2022.11.30	2025.11.29

1.4 Test Software Utilized

No.	Software Name	Serial No.	Version	Manufacturer
1	Antenna Measurement System	1685	EMQuest EMQ-100 V 1.13 Build 21267	ETS

Note:The Main report is end here and the other Annex D will be submitted separately.

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