REPORT No.: SZ22090068E01

TEST REPORT

APPLICANT	:	Beijing Xinyoulingxi Technology Co., Ltd
PRODUCT NAME	:	Totwoo Smart Jewelry(NB16)
MODEL NAME	:	NB16-4(Main test), NB16-1,NB16-2,NB16-3,NB16-4, NB16-1J,NB16-2J,NB16-3J,NB16-4J, NB16-1G,NB16-2G,NB16-3G,NB16-4G, NB16-1F,NB16-2F,NB16-3F,NB16-4F, NB16-1P,NB16-2P,NB16-3P,NB16-4P, NB16M-1,NB16M-2,NB16M-3,NB16M-4,NB16M-5
TRADE NAME	:	Totwoo
BRAND NAME	:	N/A
STANDARD(S)	:	IEEE Std 149-2021
RECEIPT DATE	:	2022-09-06
TEST DATE	:	2022-09-08
ISSUE DATE	:	2022-09-20

Edited by: Fang Jinshan

Fang Jinshan(Rapporteur)

Approved by:

Chi Shide(Supervisor)

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DIRECTORY

Change History		
Version	Date	Reason for change
1.0	2022-09-20	First edition

1.Technical Information

Note: Provide by manufacturer.

1.1. Applicant and Manufacturer Information

Applicant:	Beijing Xinyoulingxi Technology Co., Ltd
Applicant Address:	Room 106, Building A, Shong8 Design Park No.27 West Dawang Road, Chaoyang District, Beijing
Manufacturer:	N/A
Manufacturer Address:	N/A

1.2. Equipment Under Test (EUT) Description

Wireless Type	Bluetooth
Frequency	N/A
IMEI	N/A
Sample No.	1#

Note:

The product have 25(qty) models as below.NB16(model name) are the same products.These models only differ in model name and brand/trade name.

Model Name	NB16	NB16-1,NB16-2,NB16-3,NB16-4, NB16-1J,NB16-2J,NB16-3J,NB16-4J, NB16-1G,NB16-2G,NB16-3G,NB16-4G, NB16-1F,NB16-2F,NB16-3F,NB16-4F, NB16-1P,NB16-2P,NB16-3P,NB16-4P, NB16M-1,NB16M-2,NB16M-3,NB16M-4,NB16M-5
Brand/Trade Name	Totwoo	

Their electrical circuit design,layout,components used and internal wiring are identical.

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:	+10 °C to +30 °C

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.

Item	Measurement Uncertainty(dB)
Gain	±0.5
VSWR	±0.2
Measurement Uncertainty(95% Confidence Interval) K=2	

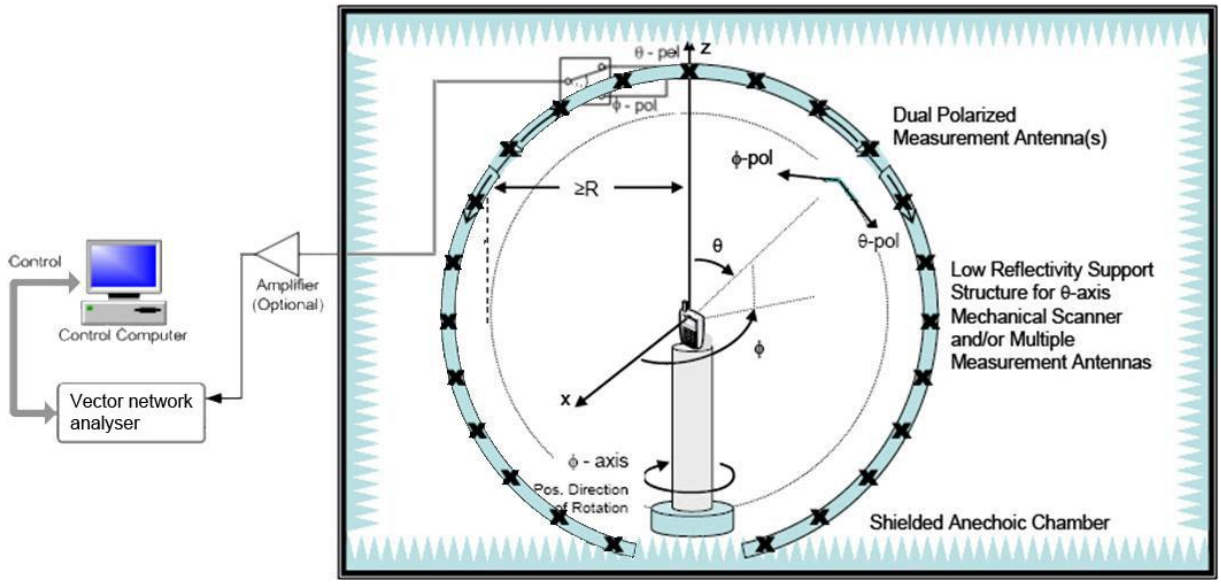
2.4. Test Result

2.4.1. Gain

Frequency (MHz)	Gain(dBi)
2400	-0.66
2410	-0.89
2420	-1.27
2430	-1.58
2440	-1.54
2450	-1.64
2460	-1.74
2470	-1.93
2480	-2.21
2490	-2.36
2500	-2.42

Annex A Photographs

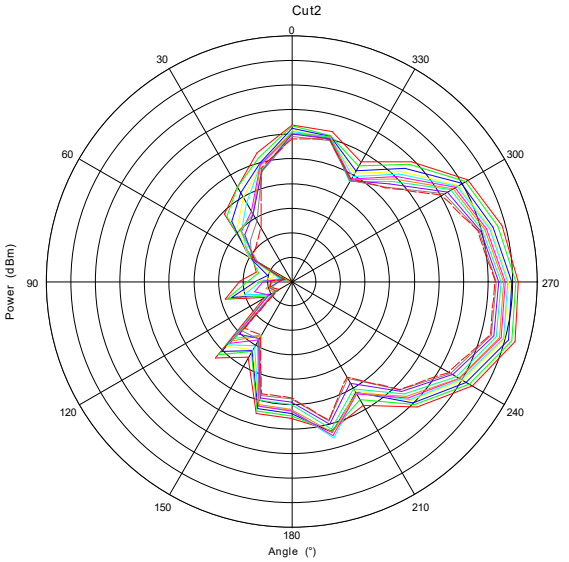
1. Test Setup



Annex B Figures

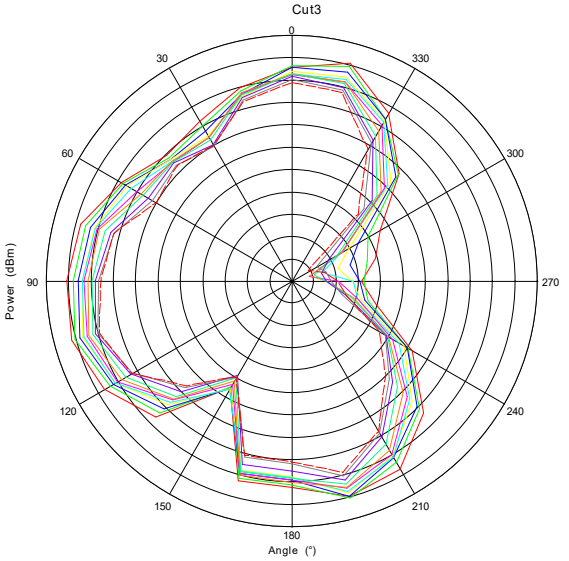
1. 2D Radiation Pattern

Phi=0°



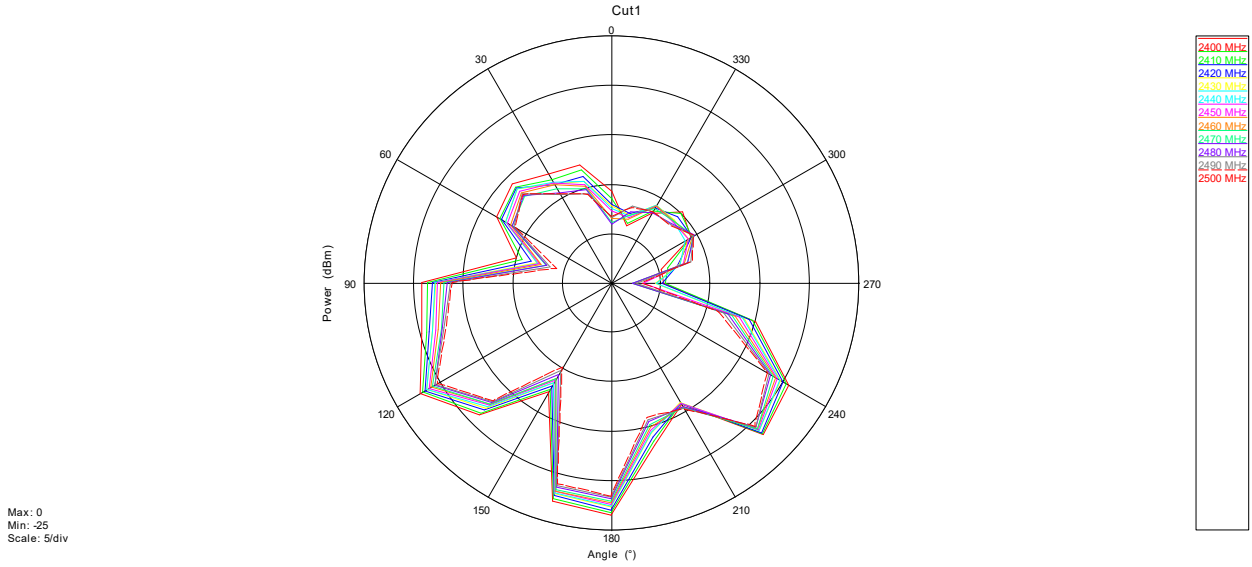
Max: 0
Min: -20
Scale: 2/div

Phi=90°

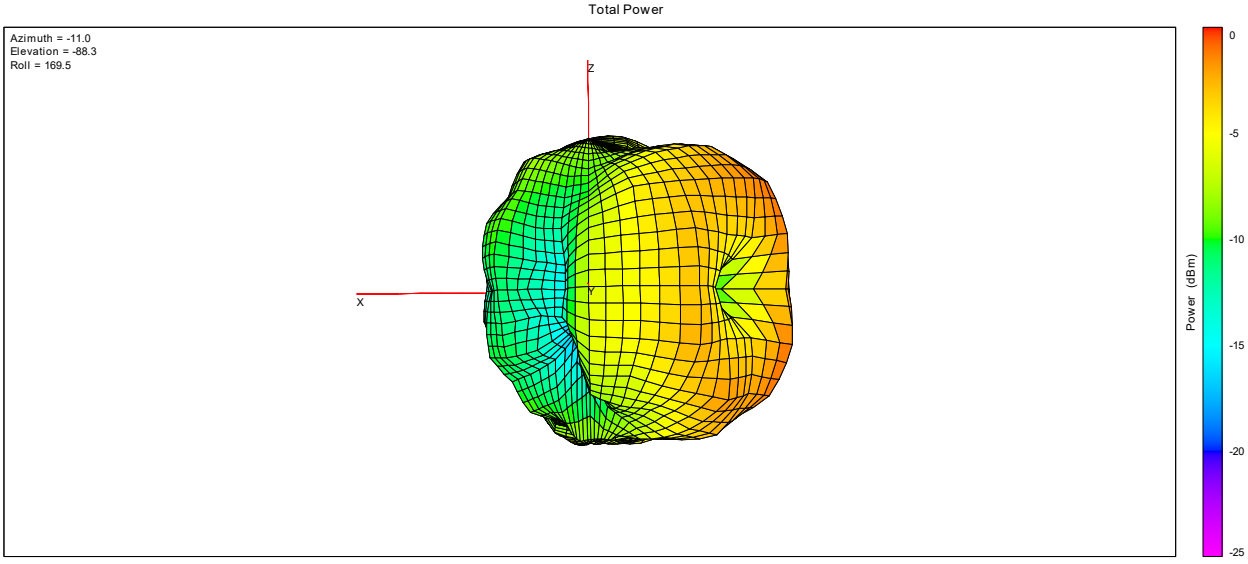


Max: -4
Min: -26
Scale: 2/div

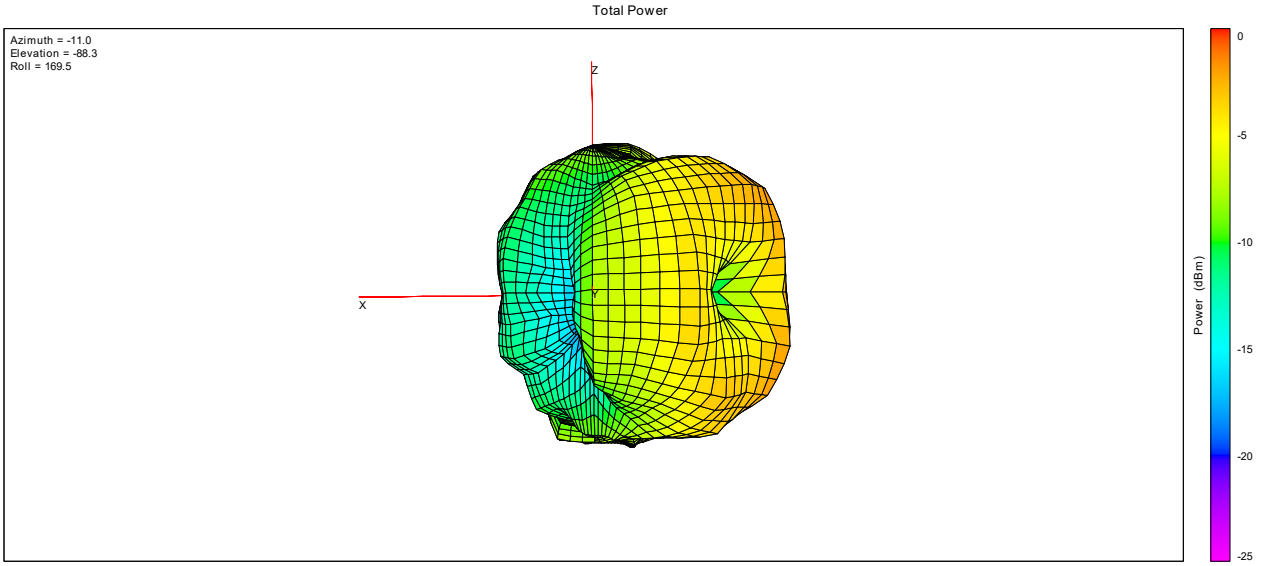
Theta=90°



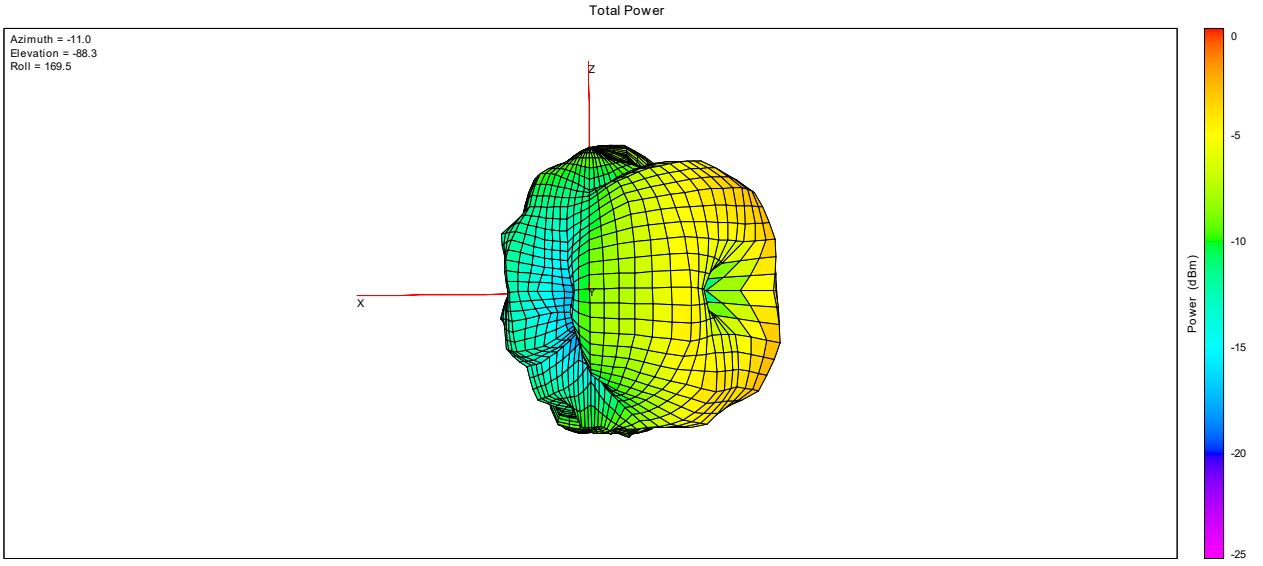
2. 3D Radiation Pattern



2400MHz



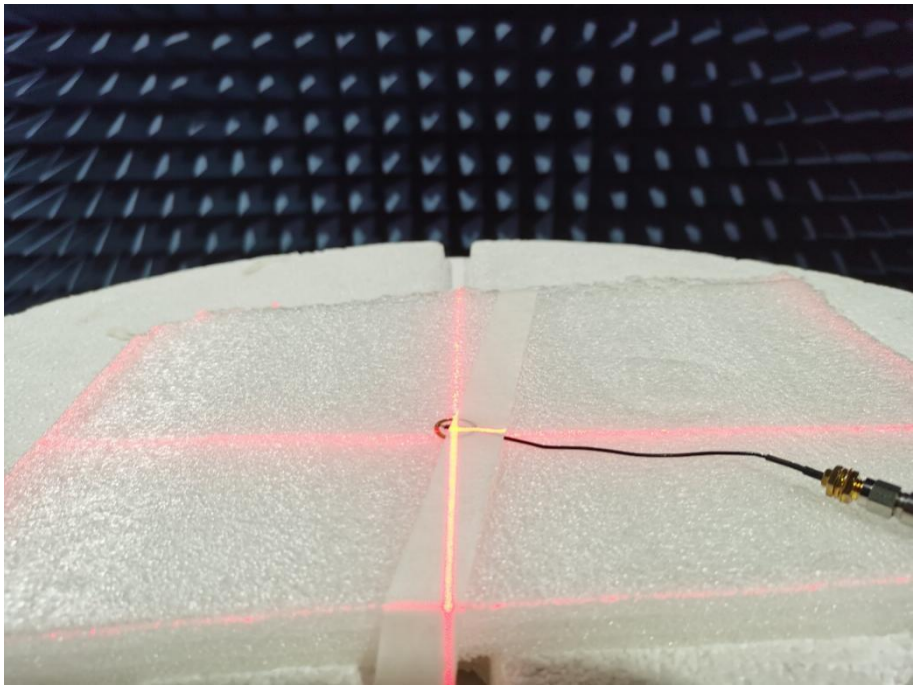
2440MHz



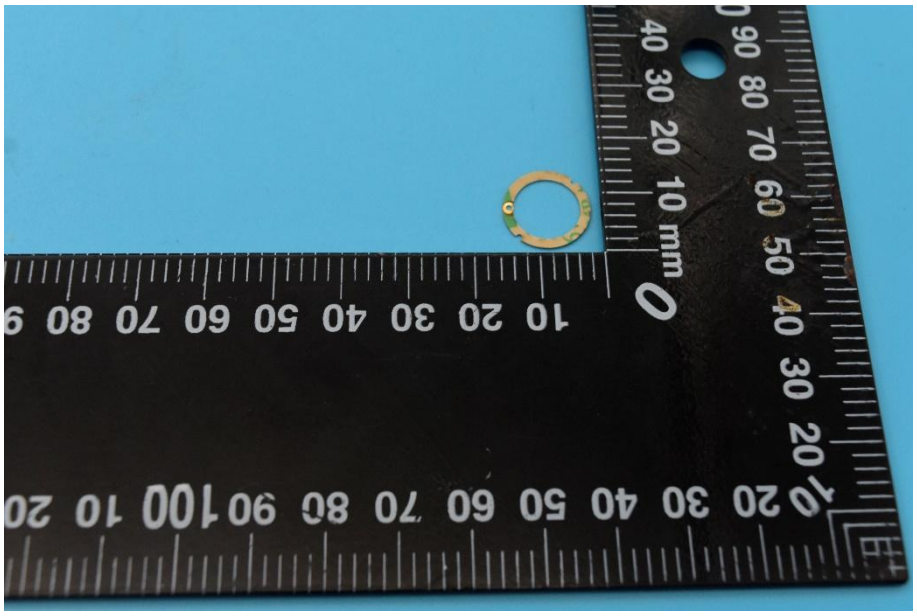
2480MHz

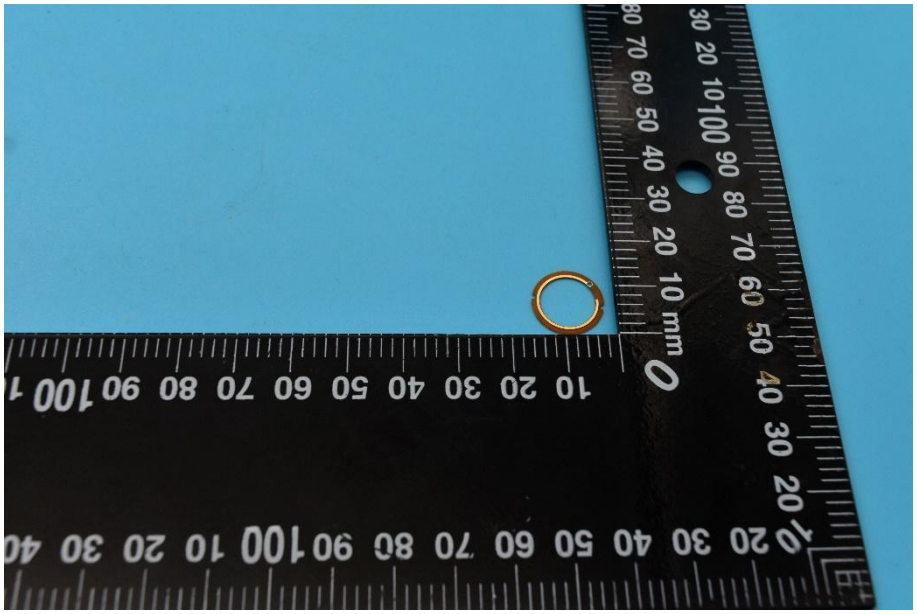
Annex C Photographs

1. Test environment



2. EUT

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Annex D General Information

1.1 Identification of the Responsible Testing Laboratory

Laboratory Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Laboratory Address:	FL1-3, 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:	FL1-3, 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	2022.07.04	2023.07.03
2	OTA Chamber	TJ2235-Q1793	AMS-8923-150	ETS	2020.01.06	2023.01.05
3	Antenna Measurement System	1685	EMQuest EMQ-100 V 1.13 Build 21267	ETS	N/A	N/A

END OF REPORT