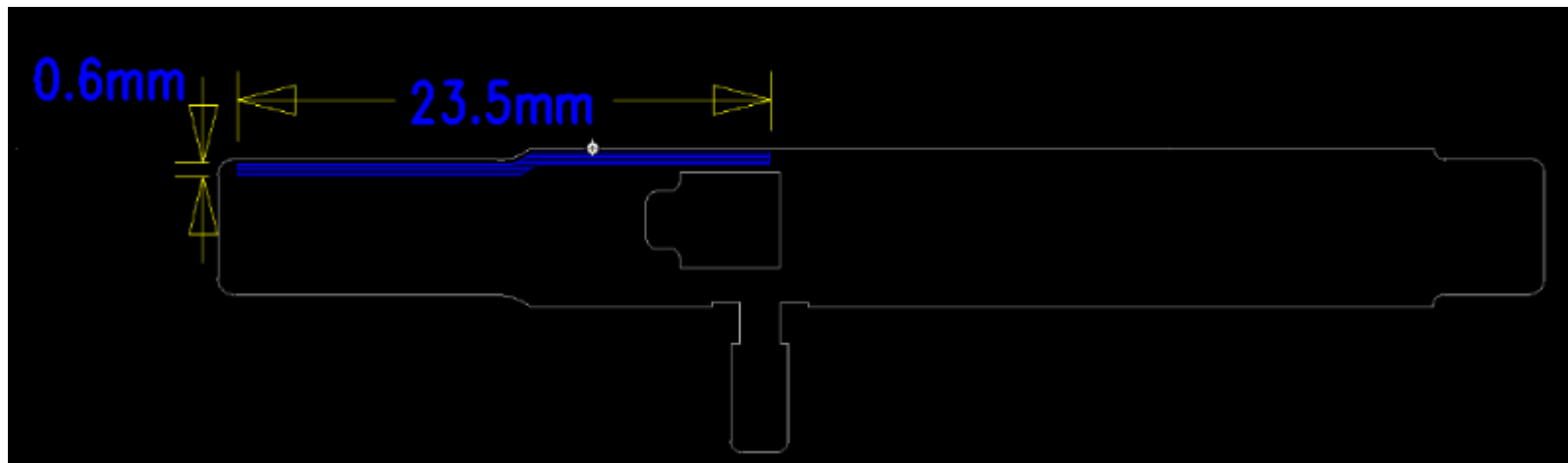
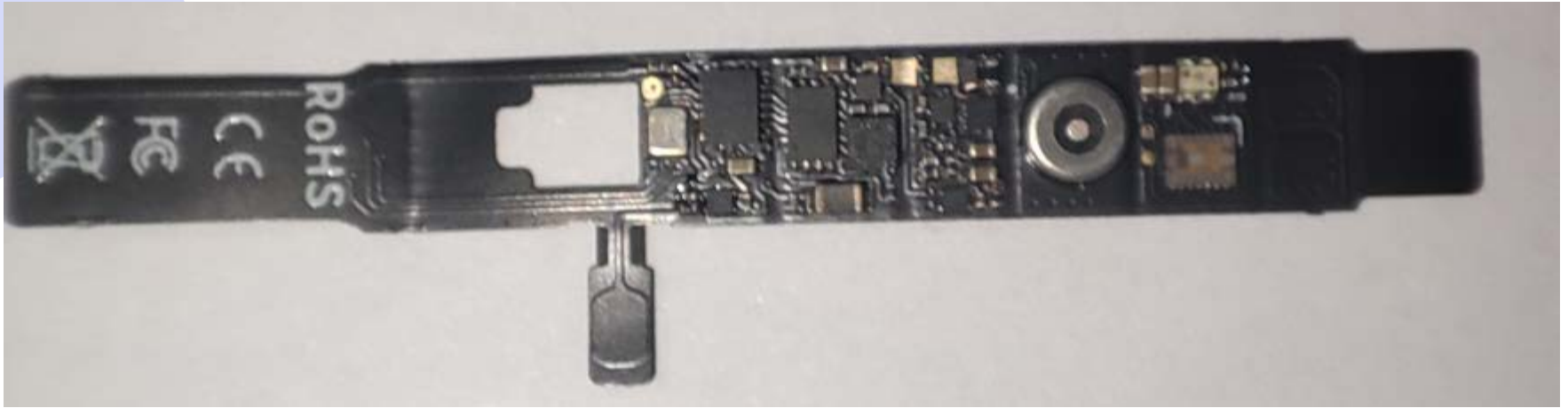


Smart Ring Antenna Specification Document

Customer	Janyun Technology
Project	Smart Ring
Antenna BAND	BT
Product Description	On-board FPC 0.6mm*23.5mm
date	2026.06.09

Product Overview & Dimension



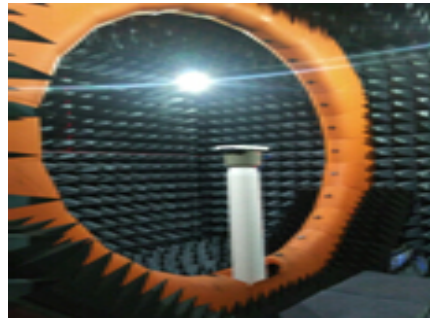
This report is to measure the performance of BT antenna for Smart Ring
.The antennaoperating frequency at
(2400–2500MHZ) , All test data are showed as below.

Content

1. Product Overview & Dimension
2. Test system
3. Antenna Matching Network
4. Test Result
 - 4.1 S11 Parameter
 - 4.2 Gain & Efficiency
 - 4.3 Test coordinate
 - 4.4 2D Pattern
 - 4.5 OTA Data
 - 4.6 BT Boot measured
5. Antenna Assembly & environmental processing

2. Test System

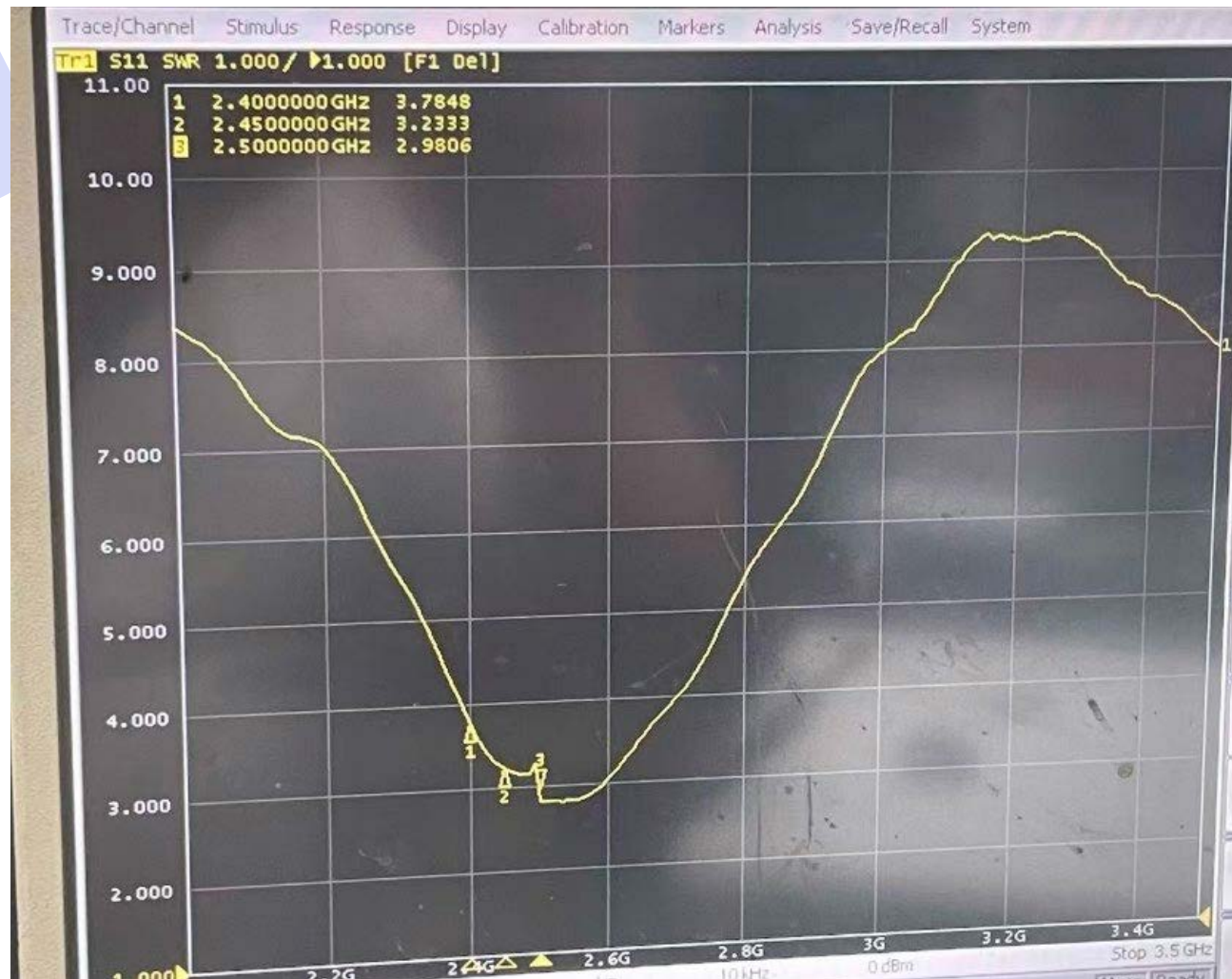
Sequence Number	Test Item	equipment
S parameter	VSWR	Agilent 5071C & HP 8753
OTA Test	TRP&TIS	CMW500 & CMW270 ETS& FT SG24
Gain & Efficiency	Gain & Efficiency	ETS&FT SG24 Agilent 5071C



2.Test System

Equipment	Type No.	Serial No.	Firmware Version	Calibrated Date	Calibrated until	
Spectrum Analyzer	N9020A	MY52090073	A.14.16	2026/4/10	2027/4/09	
Power Sensor	U2021XA	MY56120032	/	2026/4/10	2027/4/09	
Power Sensor	U2021XA	MY56120034	/	2026/4/10	2027/4/09	
Communication test set	CMW270	108053	V3.5.80	2026/4/10	2027/4/09	
Spectrum Analyzer	N9010A	MY51289896	A.14.16	2026/4/10	2027/4/09	
Signal Generator	N5181A	MY50140365	A.01.60	2026/4/10	2027/4/09	
Vector signal generator	N5182B	MY47420193	A.01.87	2026/4/10	2027/4/09	

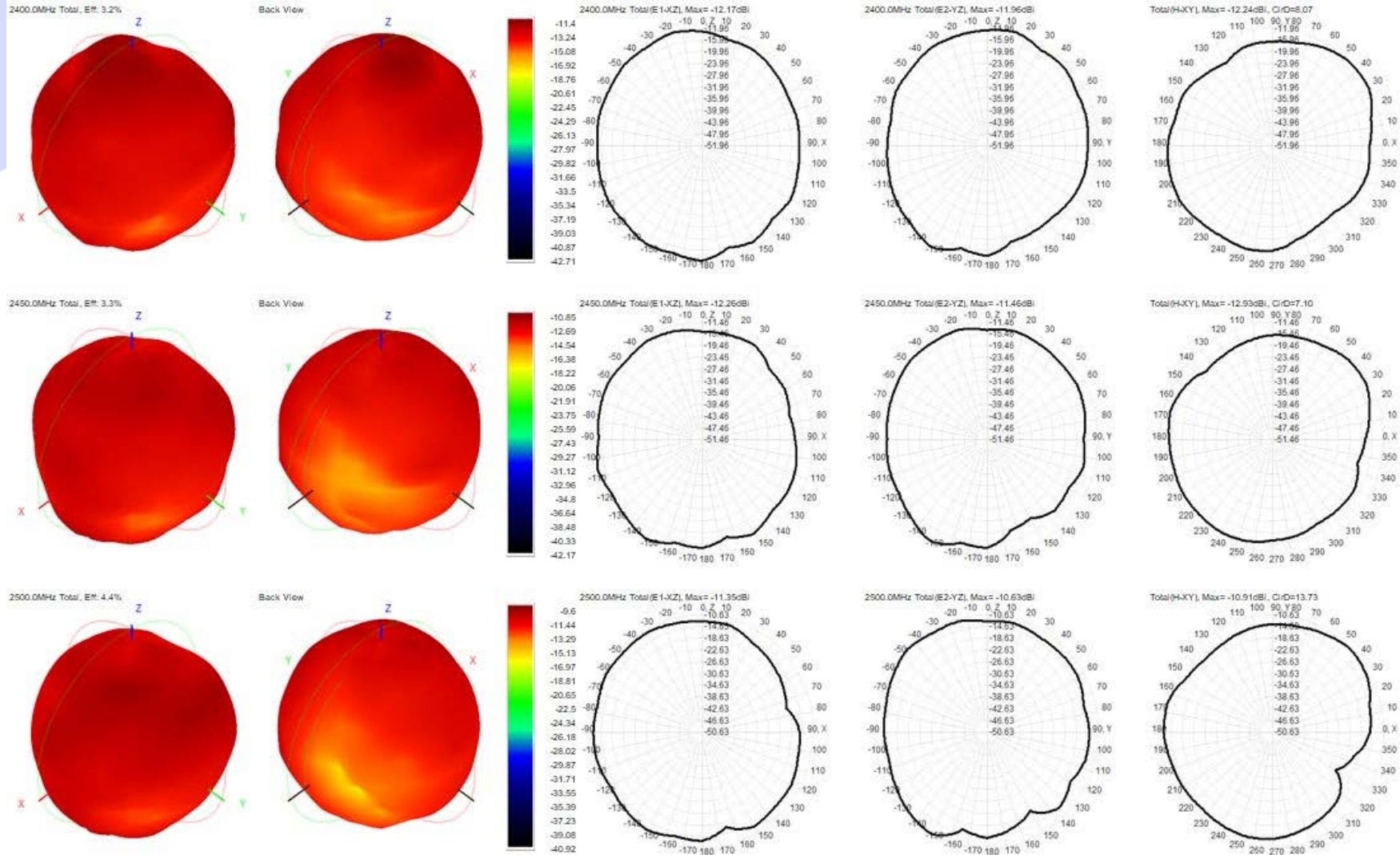
The diagram illustrates a circular environment with a central robot (yellow circle) and a ring of sensors (grey blocks). The robot is positioned at the center, and the sensors are arranged in a ring around it. The angle θ (Theta) is measured from the positive Z -axis (vertical) to the line connecting the robot to the sensor. The angle ϕ (Phi) is measured from the positive Y -axis (horizontal) to the line connecting the robot to the sensor. The Z -axis is vertical, and the Y -axis is horizontal. The X -axis is indicated by a red cross at $\theta = 90^\circ$. The Y -axis is indicated by a red cross at $\phi = 0^\circ$. The diagram shows the robot's field of view (FOV) as a yellow cone originating from the robot. The FOV is divided into segments by dashed lines representing the sensor's FOV. The segments are labeled with their respective θ values: $0^\circ, 15^\circ, 30^\circ, 45^\circ, 60^\circ, 75^\circ, 90^\circ, 105^\circ, 120^\circ, 135^\circ, 150^\circ, 165^\circ, -150^\circ, -165^\circ, -135^\circ, -120^\circ, -105^\circ, -90^\circ, -75^\circ, -60^\circ, -45^\circ, -30^\circ, -15^\circ$. The Z -axis is labeled $+Z$ and the Y -axis is labeled $+Y$. The X -axis is labeled $+X$. The θ axis is labeled θ and the ϕ axis is labeled ϕ .



Antenna S11

Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Gain (dBi)	-11.40	-11.89	-10.61	-10.91	-10.53	-10.85	-10.15	-10.51	-9.37	-9.71	-9.60
Efficiency (%)	3.22	2.85	3.60	3.21	3.55	3.27	3.83	3.51	4.55	4.26	4.44

3D Pattern



Thanks for your comment!

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