SPECIFICATION

for

Onboard antenna

Customer No.

Product No.

Presence sensor

Author：XiaofengZeng Review：Liming

Release Date： 2025.2.5

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Contents

1. Bilateral Confirmation page

1.1 Customer signature

Customer：

Separtment/post	Sign	Date
Hardware Engineer/RD		
Mechanical/MD		
Project Manager/PM		
Commercial/Puchasing		
Checker		

1.2 Signature of ShuoDian Technology company

Separtment/post	Sign	Date
Antenna Engineer/RD		
Mechanical/MD		
Project Manager/PM		
QA		
Checker		

2. General

2.1 Scope of application

This specification is only applicable to WOAN Onboard antenna

2.2 Operating temperature range

Temperature range of this product: -20 ~ +65 ℃

2.3 Storage temperature range:

This product is stored at - 30 ~ + 75 ℃

3. General product specifications

NO.	ITEMS	DETAILS
1	Type	Onboard antenna
2	Operating Frequency Band	**2400-2500MHz**
3	**VSWR**	**≤2.0**
4	Impedance	**50 Ω**
5	Antenna Type	**IFA**
6	Antenna composition	Onboard antenna

4. Specification Detials

4.1 Mechanical Properties

4.11 Product Composition：

4.12 Apperance

Good appearance without scars 、dirts、protuberances, etc.

4. 2 Electric Performance

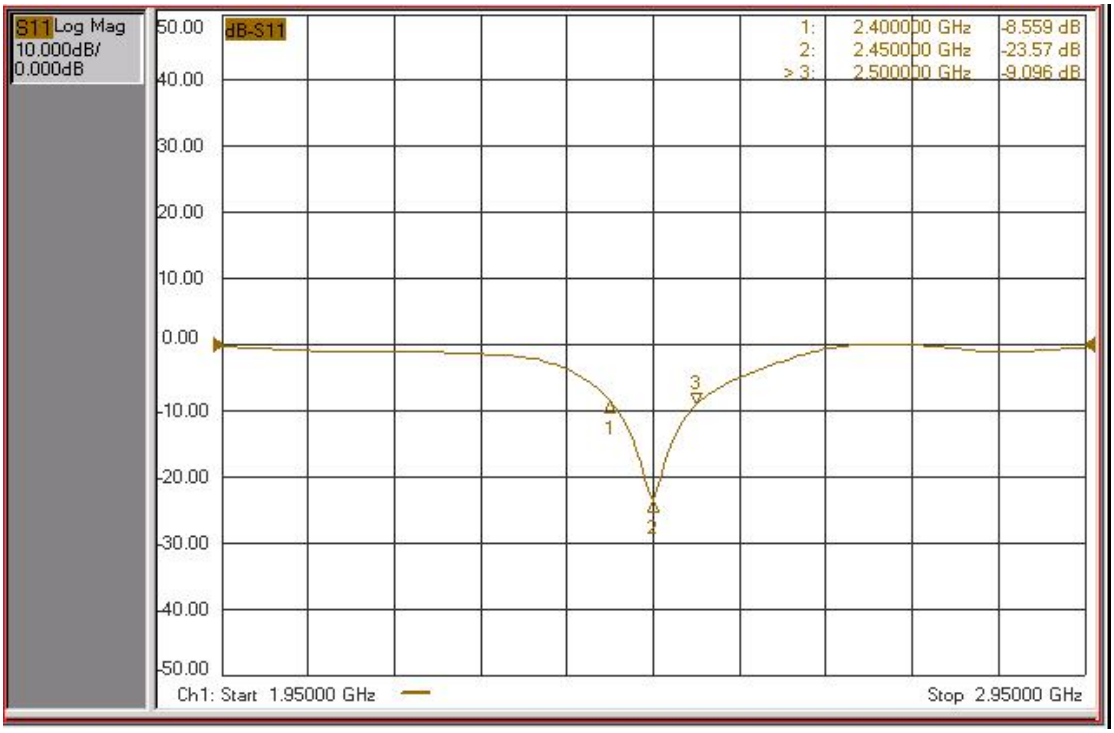
4. 21 Test condition

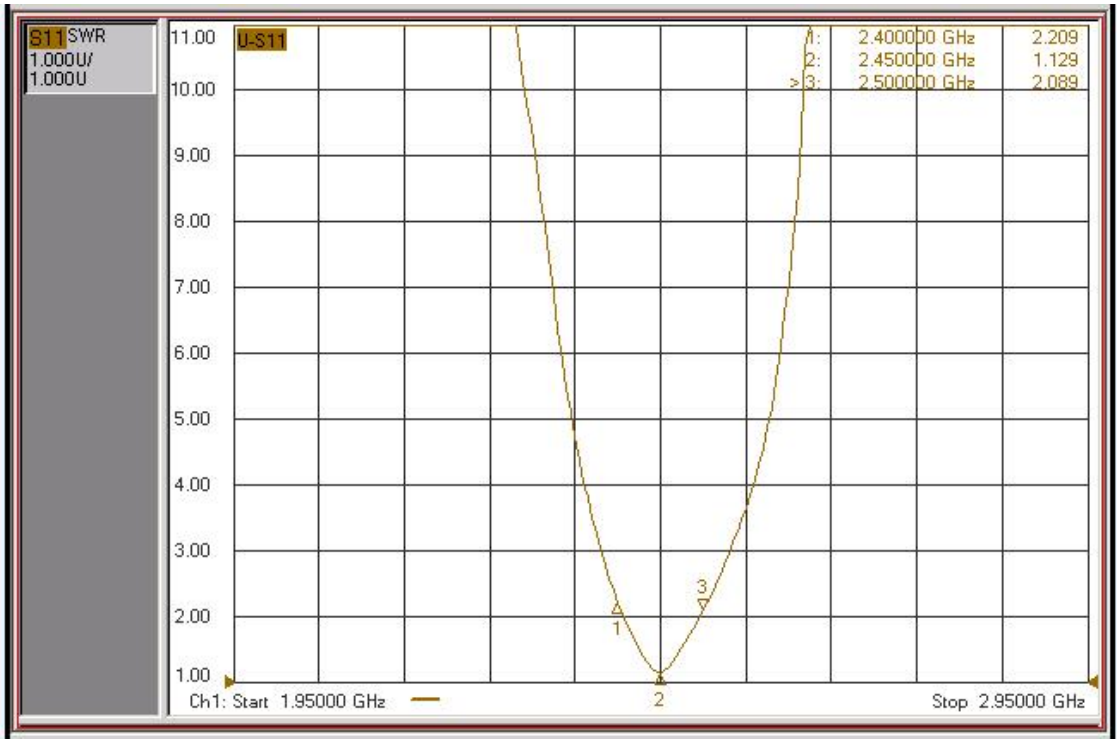
Environment： Temperature：　10℃——+30℃ Humidity：　≤80%（+40℃） Atmospher：　750mmkg±30mmkg	Equipment： Network Analyzer:　Agilent E8358A Multi-probe microwave anechoic chamber

4. 22 Test Data for Electrical Performance:

4.22.1 S11 of the Antenna:

Marker	2400MHz	2450MHz	2500MHz
Returnloss	-8.55	-23.57	-9.09
VSWR	2.2	1.12	2.09


S11 Log Mag
10.000dB/
0.000dB
dB-S11
1: 2.400000 GHz -8.559 dB
2: 2.450000 GHz -23.57 dB
> 3: 2.500000 GHz -9.096 dB
50.00
40.00
30.00
20.00
10.00
0.00
-10.00
-20.00
-30.00
-40.00
-50.00
Ch1: Start 1.95000 GHz
Stop 2.95000 GHz

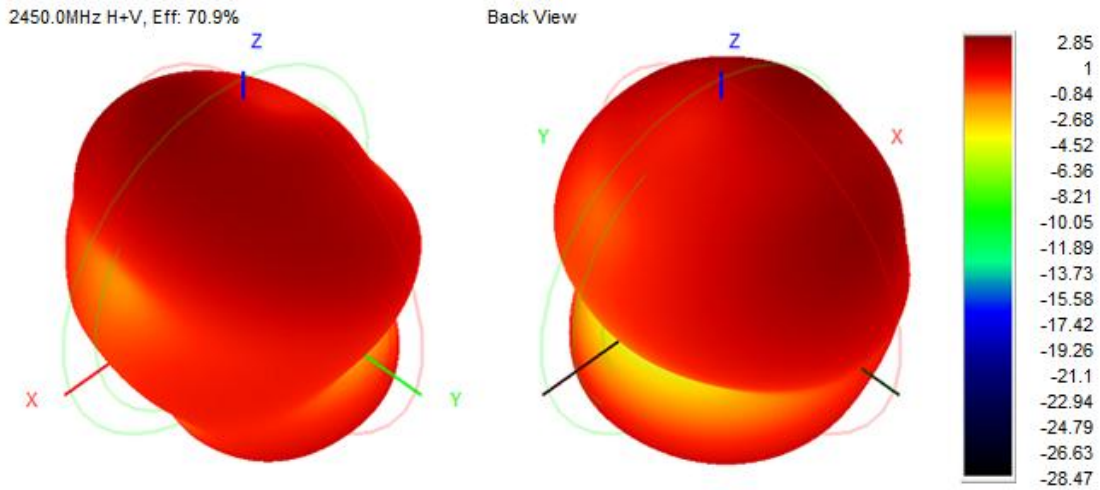

S11 SWR
1.000U/
1.000U
U-S11
1: 2.400000 GHz 2.209
2: 2.450000 GHz 1.129
> 3: 2.500000 GHz 2.089
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
Ch1: Start 1.95000 GHz
Stop 2.95000 GHz

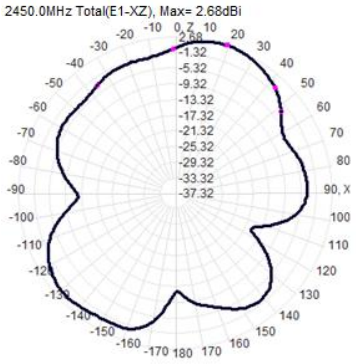
4. 22. 2 Passive gain、 efficiency and Radiation Pattern:

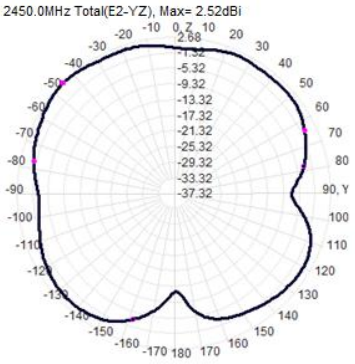
Frequency（MHz）	Gain（dBi）	Efficiency（%）
2400.0	2.13	62.6
2410.0	2.11	65.1
2420.0	2.24	67.3
2430.0	2.43	68.3
2440.0	2.71	69.7
2450.0	2.85	70.2
2460.0	2.64	69.0
2470.0	2.18	64.8
2480.0	1.98	60.4
2490.0	1.66	55.7
2500.0	1.33	52.2

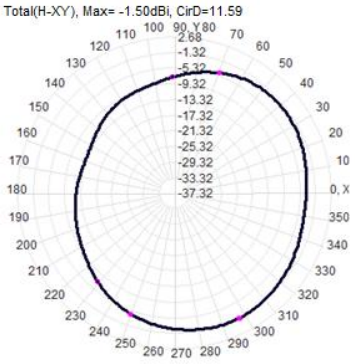
Radiation Pattern 2450MHz

@2450MHz









5. Product Packaging

Manner of packing**:**

Packed in self sealed bags, 200 pcs each.

6. Document Resume

Document No.	
Release Date	2025/2/5
Author	XiofengZeng
Review	LiMing

Revised History

Date	Version	Revised Record
2025/2/5	1.00	New Project