



Shenzhen Shuodian Electronic Technology Co.,Ltd

Page number 1-10

specification

for

DOORBELL Indoor Unit - Metal Sheet - BLE Antenna

Woan Technology (Shenzhen) Co., Ltd.

Customer Item Number

Company Material Code

WA-DOORBELL indoor unit-**RF2-BLE**-metal piece

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date : 2024.10.08

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contents

specification.....	1
Shenzhen Shuodian Electronics Technology Co., Ltd.....	1
contents.....	2
1.Both parties confirm.	3
2.General Matters.....	4
3.Product General Specifications.....	4
4.Product Specification Details.....	5
4.1 Product structural parameters.....	5
4. 2 Product electrical performance test data.....	7
5. Product Packaging Method.....	10
6. Document History.....	10



1.Both parties confirm.

1.1 Customer Confirmation Signature

customer: Woan Technology (Shenzhen) Co., Ltd.

Customer Department/Position	Signer	Confirmation Date
Hardware RF		
structure		
project manager		
Business Procurement		
Review		

1.2 Shuodian Technology Confirm and Sign

Customer Department/Position	Signer	Confirmation Date
Antenna Engineer		
construction engineer		
project manager		
QA		
Review		



2.General Matters

2.1 scope of application

This specification document applies solely to the DOORBELL indoor unit RF2-BLE antenna by WOAN Technology.

2.2 Operating temperature range

Operating temperature range-20 ~ +65 °C

2.3 Storage Temperature Range

This product should be stored in-30 ~ +75 °C

3.Product General Specifications

NO.	ITEMS	DETAILS
1	type	DOORBELL indoor unit RF2-BLE
2	frequency range	2400-2500MHz
3	VSWR	≤2.0
4	impedance	50 Ω
5	Antenna type	IFA
6	Antenna implementation form	metal piece
7	Antenna image	



4.Product Specification Details

4.1 Product structural parameters

4.11 Product Material Composition:

order number	makings	specifications (MM)
1	Foreign brass	18.6*8.45 silvery

4.12 Appearance

The product has a good appearance with no defects that would significantly affect its visual appearance, such as scratches, sweat stains, or protrusions.

4.13 structure size

product drawing:



4.2 Product electrical performance test data

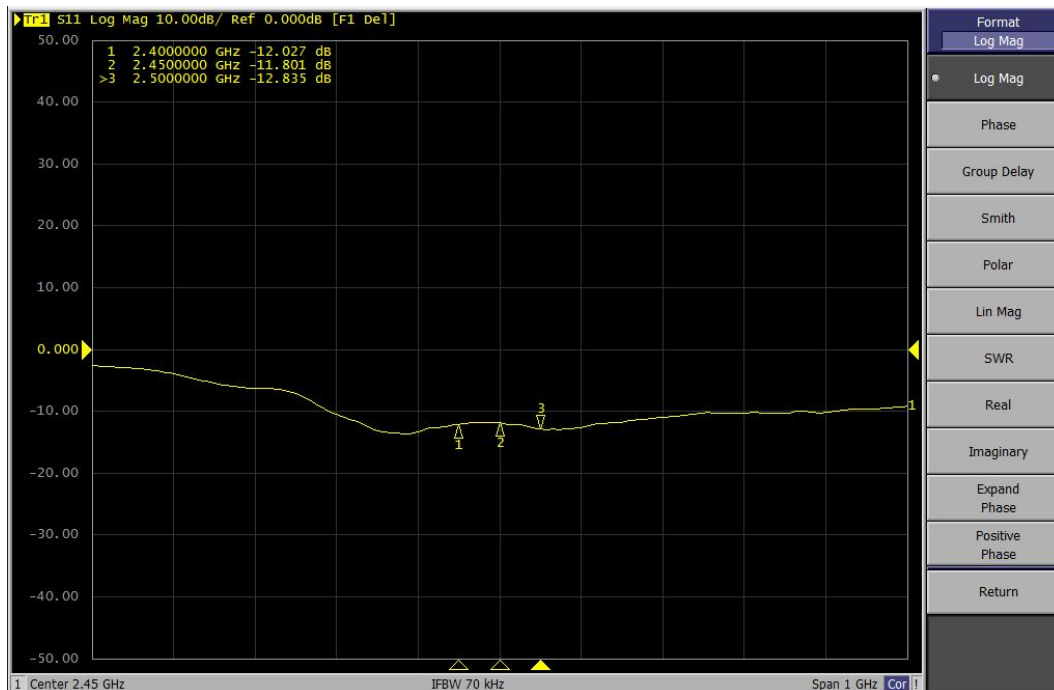
4.21 Test Environment and Instrumentation

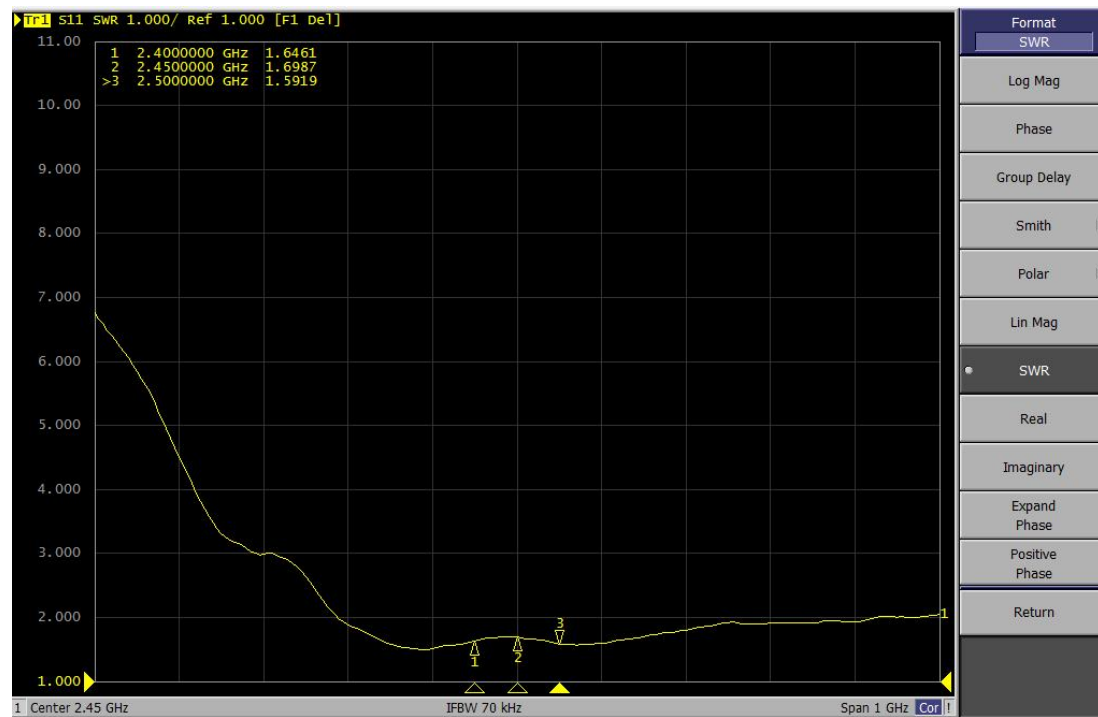
Test Environment:	instrumentation:
Temperature: 10℃——+30℃	network analyzer
relative humidity: ≤80% (+40℃)	KEYSIGHT E5071C
barometric : 750mmkg±30mmkg	Multi-probe microwave anechoic chamber

4.22 Product electrical performance test data:

4.22.1 Product S11 Diagram:

frequency (MHz)	2400	2450	2500
ReturnLoss	-12.03	-11.80	-12.83
VSWR	1.64	1.69	1.59



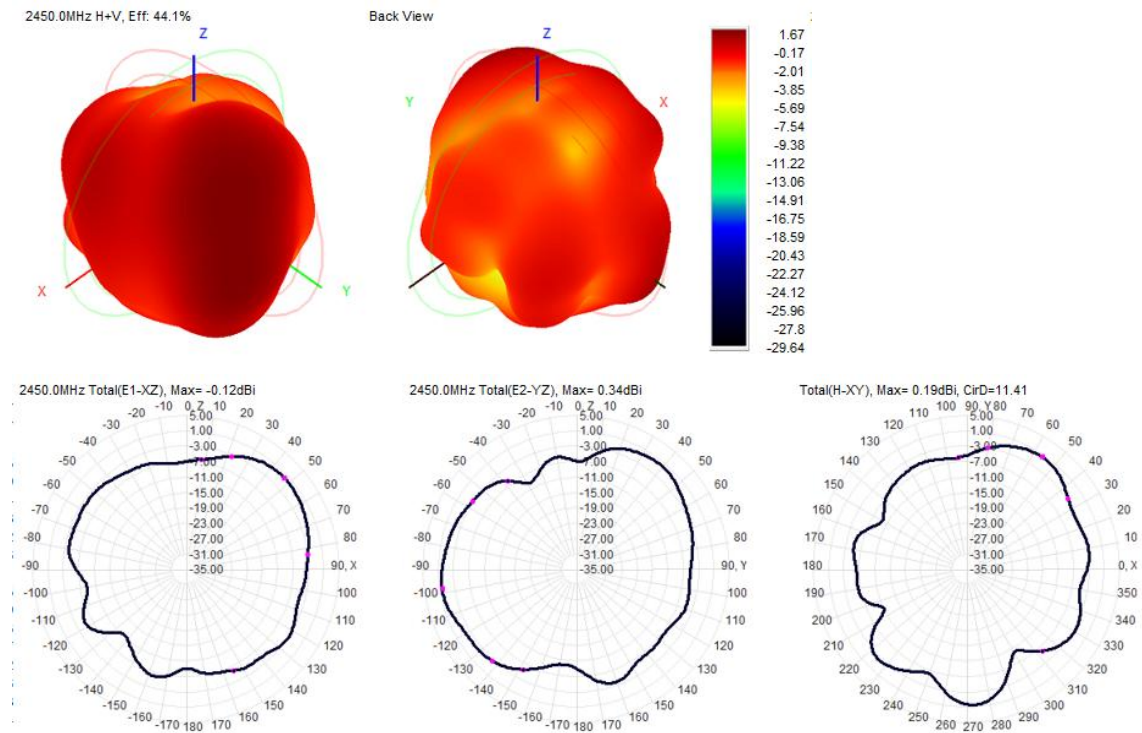


4.22.2 Gain, efficiency, and radiation pattern

FrQ (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	2.15	2.13	2.07	1.96	1.79	1.67	1.91	2.22	2.18	2.14	2.20
Efficiency (%)	42.9	42.9	42.1	41.9	43.2	44.1	44.6	45.9	44.8	45.2	45.8



antenna pattern@2450MHz





5. Product Packaging

manner of packing:

Self-sealing bag packaging; one bag per package 200PCS.

6. Document History

文件编号 Document No.	
日期 Release Date	2024/10/08
编制 Author	Hungjie
复核 Review	WH

文件历次表

Revised History

Date	Version	Revised Record
2024/10/08	1.00	New Project