



SPECIFICATION

for

Permanent Outdoor Lights

Woan Technology (Shenzhen) Co., Ltd

Customer No.

Product No.

WA-RGBICWW Ceiling light_ANT-Onboard antenna

Author: LiWen Review: ZhouXiaoBo

Release Date: 2026.05.09

Foshan Electrical & Lighting Co.,Ltd

**Building 2, Fozhao Building, No. 8 Zhihui Road, Zhangcha Subdistrict,
Chancheng District, Foshan City**



Contents

SPECIFICATION	1
FOSHAN ELECTRICAL & LIGHTING CO.,LTD	1
CONTENTS	2
1. BILATERAL CONFIRMATION PAGE	3
2. GENERAL	4
3. GENERAL PRODUCT SPECIFICATIONS	4
4. SPECIFICATION DETIALS	5
4.1 MECHANICAL PROPERTIES	5
4.2 ELECTRIC PERFORMANCE	7
5. PRODUCT PACKAGING	9
6. DOCUMENT RESUME	9



1. Bilateral Confirmation page

1.1 Customer signature

Customer: Woan Technology (Shenzhen) Co., Ltd

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

1.2 Foshan Electrical & Lighting Co.,Ltd

Seapartment/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 Permanent Outdoor Lights

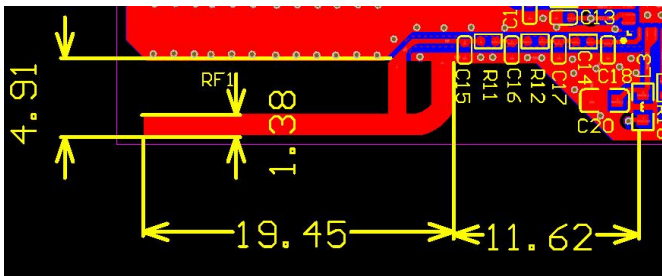
2.2 Operating temperature range

Temperature range of this product: -20 ~ +60 °C

2.3 Storage temperature range:

This product is stored at - 20 ~ + 60 °C

3. General product specifications

NO.	ITEMS	DETAILS
1	Type	Permanent Outdoor Lights
2	Operating Frequency Band	2.4~2.5GHz
3	Radiation Efficiency	≥50%
4	Impedance	50Ω
5	Antenna Type	IFA
6	Antenna composition	Onboard antenna
7	Antenna size: (mm)	



4. Specification Detials

4.1 Mechanical Properties

4.11 Product Composition:

4.12 Apperance

Good appearance without scars 、 dirt、 protuberances, etc.

4.13 Antenna Picture and Structure Dimension

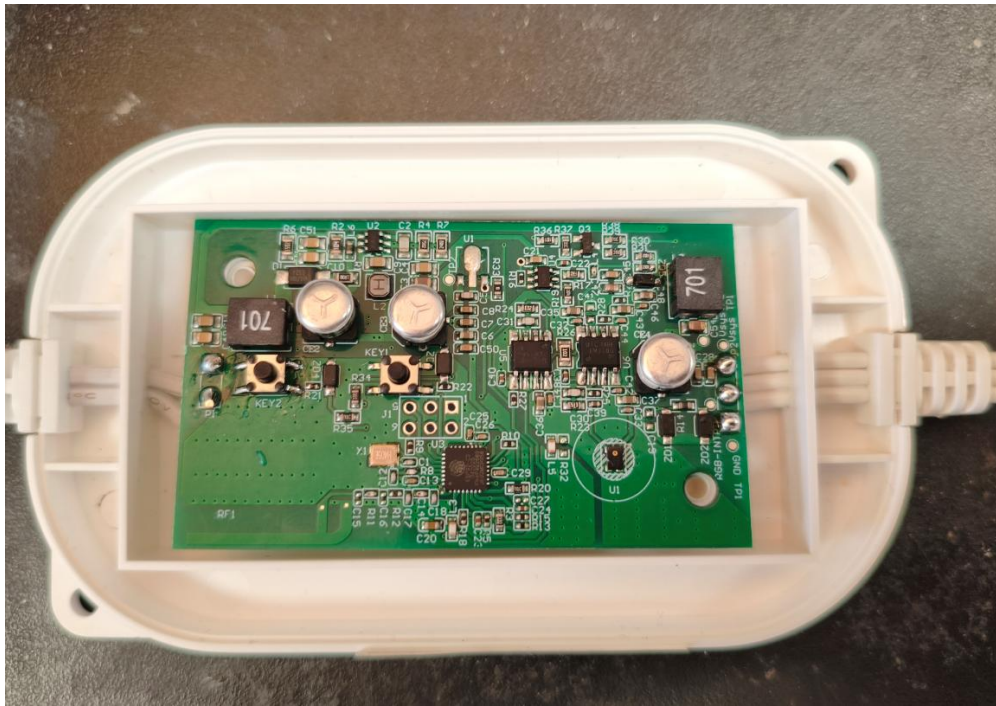
Refer to product drawings:



Foshan Electrical & Lighting Co.,Ltd

Page number 6-10

Product drawings:



Foshan Electrical & Lighting Co.,Ltd



4.2 Electric Performance

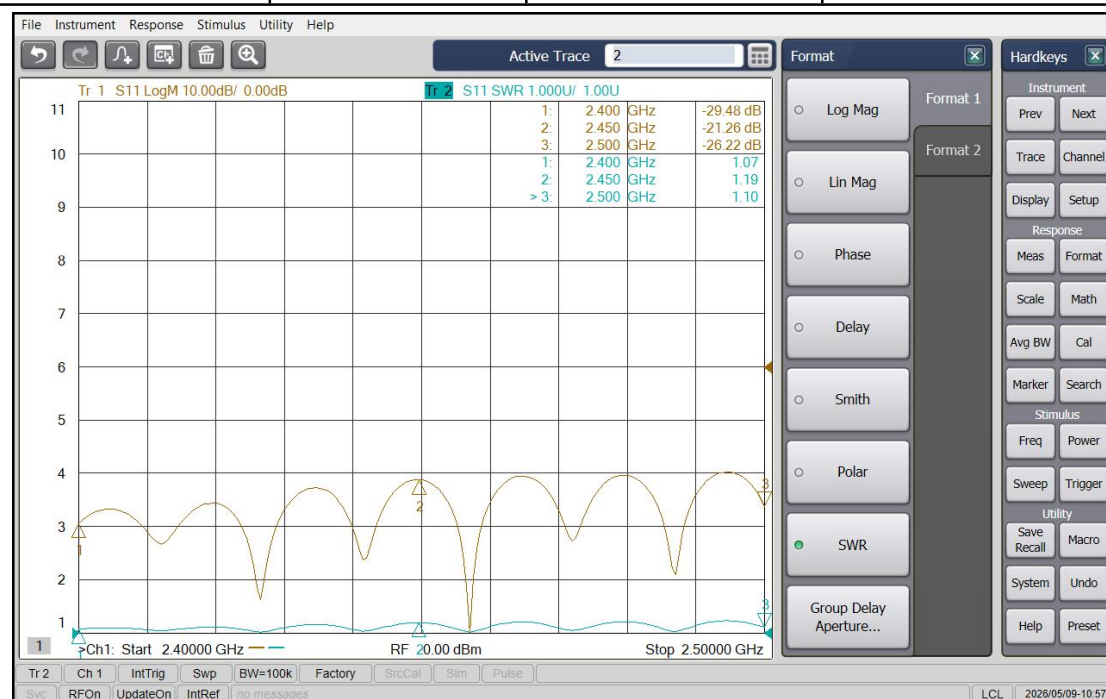
4.21 Test condition

Environment:	Equipment:
Temperature: 10℃——+30℃	Network Analyzer: KEYSIGHT E5080B
Humidity: ≤80% (+40℃)	Anechior Chamber: Sunvey
Atmospher: 750mmkg±30mmkg	

4.22 Test Data for Electrical Performance:

4.22.1 S11 of the Antenna:

Marker	2400MHz	2450MHz	2500MHz
Returnloss	-29.48	-21.26	-26.22
VSWR	1.07	1.19	1.10

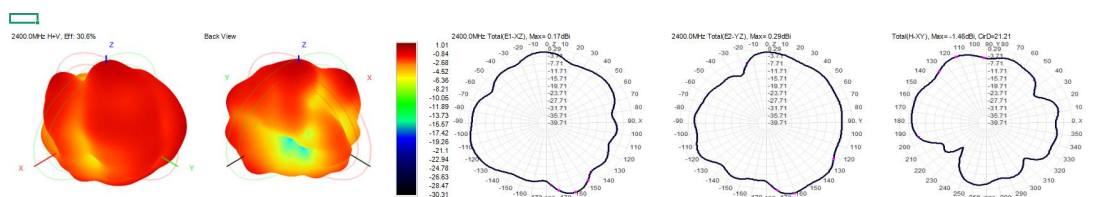




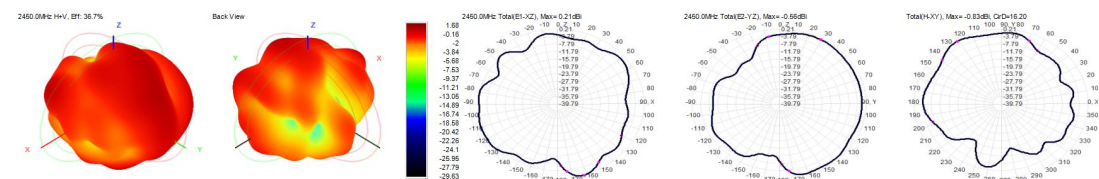
4. 22. 2 Passive gain、 efficiency and Radiation Pattern:

Frequency (MHz)	Gain (dBi)	Efficiency (%)
2400.0	1.01	30.63
2410.0	0.74	30.64
2420.0	1.00	30.80
2430.0	1.26	32.53
2440.0	1.45	34.88
2450.0	1.68	36.74
2460.0	2.05	37.31
2470.0	2.35	37.98
2480.0	2.34	36.93
2490.0	2.52	37.21
2500.0	2.53	36.83

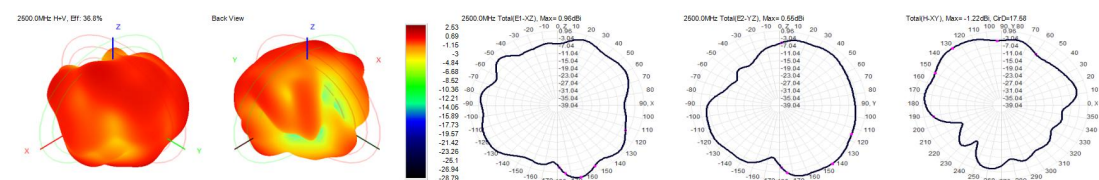
2400MHz



2450MHz



2500MHz





5. Product Packaging

Manner of packing:

6. Document Resume

Document No.	
Release Date	2026/05/09
Author	LiWen
Review	ZhouXiaoBo

Revised History

Date	Version	Revised Record
2025/05/05	1.00	New Project