



Shenzhen Anwei Wireless Technology Co., Ltd.

Antenna specifications

APPROVAL SHEET

客户 Customer	Shenzhen VStarcam Technology Co., Ltd		
地址 Address	VStarcam Industrial Park, No. 8 Bao Tian Rd, Shuitian Community, Shiyan Town, Bao'an District, Shenzhen City, Guangdong Province China		
制造商 Manufacturer	Shenzhen Anwei Wireless Technology Co., Ltd.		
地址 Address	Building 5, Huailian Industrial Park, Huanning Road, Dalong Subdistrict, Longhua District, Shenzhen City		
规格型号 Specs	BW4-A		
安威料号 Part Number	AW006-BW4-A-021-A0	频 段 Frequency Band	2.4G-WIFI
颜 色 Color	Black	版 本 Edition	REV:A0
销 售 Salesperson	Huang He	设 计 Design	Huang He
结 构 Structure	Qin Yunlin	日 期 Date	2022.12.16
客户确认 Customer confirmation:			
携手共进 共创未来 Join hands to create the future			



1. Product Specifications

The report mainly provides parameter tests for the performance of the BW4 antenna. The BW4 antenna is a WIFI antenna. (As shown in Figure 1 below)

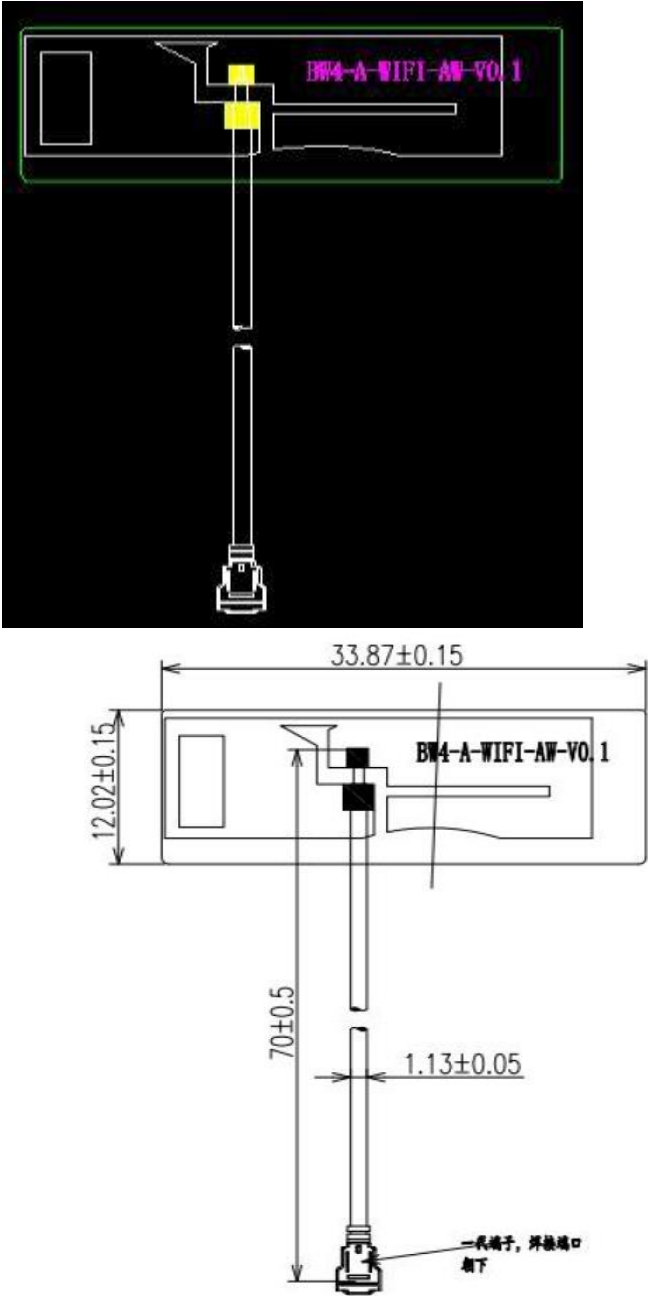


Figure 1 BW4 Antenna



2. Electrical Performance

2.1 Specification Standards

The BW4 antenna operates at a frequency of 2450 MHz, resonating within this frequency band.

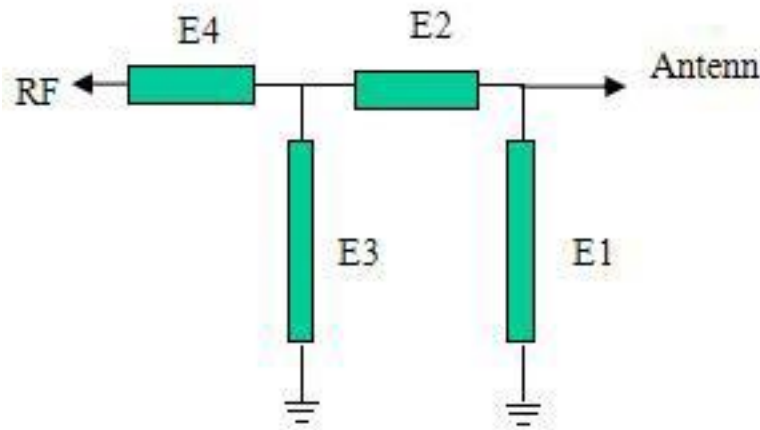
2.2 Matching circuit of the antenna

The structure of the antenna: FPC + coaxial line

Matching circuit

	Main Antenna	BGW	DRX	GPS
Element	Value	Value	Value	Value
E1 (0201)				
E2 (0201)				
E3 (0201)				
E4 (0201)				

(The precision of the matching value is recommended to be set higher.)



RF1	N/A	N/A
RF2	N/A	N/A
RF3	N/A	N/A
RF4	N/A	N/A

3. Parameter Testing

3.1 Test Setup

The VSWR testing device is connected in sequence as follows:

E5071B Network Analyzer--50-ohm coaxial cable--110mm-long copper tube-- test fixture

Handling of test fixtures:

SMA-J connector is led out from the 50-ohm test point on the antenna of the mobile phone PCB using a rigid cable, and is connected to a copper tube with a choke coil. Then, other devices are connected in sequence.

3.2 Test Results

PASS

4. Settings for Active Testing

4.1 Test Setup

The connected sequence of the active testing device is as follows:

Agilent8960--50-ohm coaxial cable--SUNYIELD SG24 Testing System--The object to be tested

4.2 Testing Site

AW Microwave Chamber: The test frequency range is from 400 MHz to 6 GHz, the quiet zone is a 40 cm circular area, and the reflection rate is less than -90 dB.

4.2 Test Results

Gain&Efficiency 增益和效率			
frequency 频率(MHz)	gain 增益(dBi)	mingain 最小增益(dBi)	efficiency 效率(%)
2400	3.53	-16.8	61.41
2410	3.58	-17.65	59.23
2420	3.22	-19.52	58.47
2430	3.37	-20.93	58.92
2440	3.55	-24.45	57.07
2450	3.48	-29.42	59.26
2460	3.09	-21.96	57.24
2470	3.45	-18.65	58.13
2480	3.49	-16.51	58.88
2490	3.41	-14.96	58.08
2500	3.35	-14.4	55.72

	Channel	TRP (dBm)	TIS (dBm)
WIFI-B	L	17.84	-83.45
	M	17.19	-83.36
	H	17.09	-83.09
WIFI-G	L	17.02	-70.23
	M	16.55	-69.96
	H	16.78	-69.82
WIFI-N	L	17.64	-66.42
	M	16.97	-66.26
	H	16.15	-65.37

5. Environmental Treatment & Installation Method

