



**FCC RF EXPOSURE REPORT**

*For*

**Wireless Moudle**

**MODEL NUMBER: VS0B9MW3565UE**

**PROJECT NUMBER: 4790751248**

**REPORT NUMBER: 4790751248-15**

**FCC ID: 2AL8S-0211C5L1**

**ISSUE DATE: Apr. 12, 2023**

*Prepared for*

**ZHEJIANG UNIVIEW TECHNOLOGIES CO., LTD**

*Prepared by*

**UL-CCIC COMPANY LIMITED**

**No. 2, Chengwan Road, Suzhou Industrial Park, Suzhou 215122, China**

**Tel: + 86-512-6808 6400**

**Fax: + 86-512-6808 4099**

**Website: [www.ul.com](http://www.ul.com)**

Form-ULID-008536-13 V3.0

The results reported herein have been performed in accordance with the laboratory's terms of accreditation. This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report apply to the test sample(s) mentioned above at the time of the testing period only and are not to be used to indicate applicability to other similar products.

## Revision History

Rev.	Issue Date	Revisions	Revised By
V0	04/12/2023	Initial Issue	

## TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS.....	4
2. TEST METHODOLOGY .....	5
3. FACILITIES AND ACCREDITATION.....	5
4. MEASUREMENT UNCERTAINTY .....	6
5. REQUIREMENT .....	7

# 1. ATTESTATION OF TEST RESULTS

## Applicant Information

Company Name: ZHEJIANG UNIVIEW TECHNOLOGIES CO., LTD  
Address: 88 JIANGLING RD BINJIANG DISTRICT HANGZHOU ZHEJIANG  
310051 CHINA

## Manufacturer Information

Company Name: ZHEJIANG UNIVIEW TECHNOLOGIES CO., LTD  
Address: 88 JIANGLING RD BINJIANG DISTRICT HANGZHOU ZHEJIANG  
310051 CHINA

## EUT Description

Product Name: Wireless Moudle  
Model Name: VS0B9MW3565UE  
Sample Number: 5811281  
Data of Receipt Sample: Feb. 21, 2023  
Test Date: Feb. 23, 2023~ Apr. 11, 2023

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC 47CFR§2.1091	Complies
KDB-447498 D01 V06	

Prepared By:

*Tom Tang*

Tom Tang

Reviewed By:

*Leon Wu*

Leon Wu

Authorized By:

*Chris Zhong*

Chris Zhong  
EMC&RF Lab Operations Manager

## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 447498 D01 General RF Exposure Guidance v06.

## 3. FACILITIES AND ACCREDITATION

Accreditation Certificate	<b>A2LA (Certificate No.: 4829.01)</b> <b>UL-CCIC COMPANY LIMITED has been assessed and proved to be in compliance with A2LA.</b> <b>FCC (FCC Designation No.: CN1247)</b> <b>UL-CCIC COMPANY LIMITED has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules.</b> <b>IC (IC Designation No.: 25056; CAB No.: CN0073)</b> <b>UL-CCIC COMPANY LIMITED has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules.</b>
---------------------------	--

Note 1: All tests measurement facilities use to collect the measurement data are located at No. 2, Chengwan Road, Suzhou Industrial Park, Suzhou 215122, China

Note 2: For below 30MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. These measurements below 30MHz had been correlated to measurements performed on an OFS.

Note 3: The test anechoic chamber in UL-CCIC COMPANY LIMITED had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.

#### 4. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Item	Uncertainty
Maximum Conducted Output Power	$\pm 0.69$ dB

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k=2$ .

## 5. REQUIREMENT

### LIMIT

Limits for General Population/Uncontrolled Exposure

Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	PowerDensity (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes)
0.3-1.34	614	1.63	(100) *	30
1.34-30	824/f	2.19/f	(180/f <sup>2</sup> ) *	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/150	30
1500-100,000	--	--	1.0	30

Note 1: f = frequency in MHz, \* means Plane-wave equivalent power density

Note 2: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Note 3: The limit value 1.0mW/cm<sup>2</sup> is available for this EUT.

### MPE CALCULATION METHOD

$$S = PG/(4\pi R^2)$$

where: S = power density (in appropriate units, e.g. mW/ cm<sup>2</sup>)

P = power input to the antenna (in appropriate units, e.g., mW)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

**CALCULATED RESULTS**

1) For 8822 Module

2.4G WIFI (Worst case)							
Mode	Output Power to Antenna		Antenna Gain		Power Density	Limit	Verdict
	(dBm)	(mW)	(dBi)	(Numeric)	(mW/cm <sup>2</sup> )	(mW/cm <sup>2</sup> )	
11B	17.5	56.23	2.16	1.64	0.0184	1	Complies

5G WIFI (Worst case)							
Mode	Output Power to Antenna		Antenna Gain		Power Density	Limit	Verdict
	(dBm)	(mW)	(dBi)	(Numeric)	(mW/cm <sup>2</sup> )	(mW/cm <sup>2</sup> )	
11ac20 MIMO	15.5	35.48	8.27	6.71	0.0474	1	Complies

For M921 Module:

2.4G BT (Worst case)							
Mode	Output Power to Antenna		Antenna Gain		Power Density	Limit	Verdict
	(dBm)	(mW)	(dBi)	(Numeric)	(mW/cm <sup>2</sup> )	(mW/cm <sup>2</sup> )	
BLE	7.0	5.01	2.65	1.84	0.0018	1	Complies

2.4G WIFI (Worst case)							
Mode	Output Power to Antenna		Antenna Gain		Power Density	Limit	Verdict
	(dBm)	(mW)	(dBi)	(Numeric)	(mW/cm <sup>2</sup> )	(mW/cm <sup>2</sup> )	
11n40 MIMO	14.0	25.12	6.05	4.03	0.0201	1	Complies



5G WIFI (Worst case)							
Mode	Output Power to Antenna		Antenna Gain		Power Density	Limit	Verdict
	(dBm)	(mW)	(dBi)	(Numeric)	(mW/cm <sup>2</sup> )	(mW/cm <sup>2</sup> )	
Band UNII-2C_11a	14.0	25.12	4.46	2.79	0.0140	1	Complies

Note:

1. The output power to antenna and antenna gain are from reports: 4790751248-1, 4790751248-2, 4790751248-6, 4790751248-7, 4790751248-8, 4790751248-9.
2. The minimum separation distance of the device is greater than 20 cm.
3. All the modes and channels had been tested, but only the worst data was recorded in the report.
4. The calculated result for the sample received is <Pass> according to < 47 CFR FCC Part 2 Subpart J, section 2.1091> when <Accuracy Method> decision rule is applied.

**END OF REPORT**