



Certificate #4312.01

# RF EXPOSURE EVALUATION REPORT

**Product Name:** USB Speakerphone  
**Trade Mark:** Yealink  
**Model No.:** SP92  
**Report Number:** 24122515425RFC-3  
**Test Standards:** FCC 47 CFR Part 1 Subpart I  
RSS-102 Issue 6  
**FCC ID:** T2C-SP92  
**IC:** 10741A-SP92  
**Test Result:** PASS  
**Date of Issue:** February 11, 2025

Prepared for:

**YEALINK(XIAMEN) NETWORK TECHNOLOGY CO., LTD**  
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Prepared by:

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**Version**

Version No.	Date	Description
V1.0	February 11, 2025	Original

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## 1. GENERAL INFORMATION

### 1.1 CLIENT INFORMATION

Applicant:	YEALINK(XIAMEN) NETWORK TECHNOLOGY CO., LTD
Address of Applicant:	No.666 Hu'an Rd. Huli District Xiamen City, Fujian, P.R. China
Manufacturer:	YEALINK(XIAMEN) NETWORK TECHNOLOGY CO., LTD
Address of Manufacturer:	No.666 Hu'an Rd. Huli District Xiamen City, Fujian, P.R. China

### 1.2 EUT INFORMATION

Product Name:	USB Speakerphone	
Model No.:	SP92	
Trade Mark:	Yealink	
DUT Stage:	Identical Prototype	
EUT Supports Function: (Provided by the customer)	2.4 GHz ISM Band:	Bluetooth 5.2
Sample Received Date:	December 18, 2024	
Remark: The above EUT's information was provided by customer. Please refer to the specifications or user's manual for more detailed description.		

### 1.3 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD

For Bluetooth	
Frequency Band:	2400 MHz to 2483.5 MHz
Frequency Range:	2402 MHz to 2480 MHz
Bluetooth Version:	Bluetooth 5.2
Bluetooth Mode:	BR + EDR + LE +2LE
Type of Modulation:	GFSK, $\pi/4$ DQPSK, 8DPSK
Number of Channels:	79 / 40
Channel Separation:	1MHz / 2 MHz
Antenna Type: (Provided by the customer)	PCB Antenna
Antenna Gain: (Provided by the customer)	2.23 dBi

### 1.4 OTHER INFORMATION

None.

### 1.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product, according to the specifications of the manufacturers. It must comply with the requirements of the following standards:

**FCC 47 CFR Part 1 Subpart I**  
**RSS-102 Issue 6**

All test items have been performed and recorded as per the above standards

### 1.6 DEVIATION FROM STANDARDS

None.

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**1.7 ABNORMALITIES FROM STANDARD CONDITIONS**


None.

**1.8 OTHER INFORMATION REQUESTED BY THE CUSTOMER**

None.

**2. EQUIPMENT LIST**

Please refer to the RF test report.



### 3. MPE EVALUATION

#### 3.1 REFERENCE DOCUMENTS FOR EVALUATION

No.	Identity	Document Title
1	FCC 47 CFR Part 1 Subpart I	PROCEDURES IMPLEMENTING THE NATIONAL ENVIRONMENTAL POLICY ACT OF 1969
2	RSS-102 Issue 6	Radio Frequency (RF) Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)
3	KDB 447498 D01 General RF Exposure Guidance v06	RF EXPOSURE PROCEDURES AND EQUIPMENT AUTHORIZATION POLICIES FOR MOBILE AND PORTABLE DEVICES

#### 3.2 MPE COMPLIANCE REQUIREMENT

##### 3.2.1 Limits

##### 3.2.1.1 FCC 47 CFR Part 1 Subpart I

According to §1.1307(b)(1), system operating under the provisions of this section shall be operating in a manner that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure.

##### Limits for Occupational / Controlled Exposure

Frequency range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Times   E   <sup>2</sup> ,   H   <sup>2</sup> or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f)*	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	F/300	6
1500-100000	/	/	5	6

##### Limits for General Population / Uncontrolled Exposure

Frequency range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Times   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)*	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	F/1500	30
1500-100000	/	/	1	30

**Note:** f = frequency in MHz: \* = Plane-wave equivalents power density.

##### 3.2.1.2 RSS-102 Issue 6

According to RSS-102 Issue 6, system operating under the provisions of this section shall be operating in a manner that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure.

According to RSS-102 Issue 6, system operating under the provisions of this section shall be operating in a manner that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure.

RF exposure evaluation is required if the separation distance between the user and/or bystander and the device's radiating element is greater than 20 cm, except when the device operates as follows:

- below 20 MHz<sup>6</sup> and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 1 W (adjusted for tune-up tolerance);
- at or above 20 MHz and below 48 MHz and the source-based, time-averaged maximum e.i.r.p. of the

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- device is equal to or less than  $4.49/f^{0.5}$  W (adjusted for tune-up tolerance), where  $f$  is in MHz;
- at or above 48 MHz and below 300 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 0.6 W (adjusted for tune-up tolerance);
- at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than  $1.31 \times 10^{-2} f^{0.6834}$  W (adjusted for tune-up tolerance), where  $f$  is in MHz;
- at or above 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 5 W (adjusted for tune-up tolerance).

In these cases, the information contained in the RF exposure technical brief may be limited to information that demonstrates how the e.i.r.p. was derived.

### 3.2.2 Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

## 3.3 MPE CALCULATION METHOD

### FCC 47 CFR Part 1 Subpart I

$$S = PG/4\pi R^2 = EIRP/4\pi R^2$$

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, the power gain factor is normally numeric gain.

R = 20cm distance to the center of radiation of the antenna (in appropriate units, e.g., cm)

## 3.4 MPE CALCULATION RESULTS

**Note:** For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.

### 3.4.1 For WLAN & Bluetooth

For Wi-Fi function, operating at 2412MHz to 2472 MHz for IEEE802.11b/g/n and

For Bluetooth function, operating at 2402 MHz to 2480 MHz for Bluetooth

#### 3.4.1.1 Antenna Type: PCB Antenna

**Antenna Gain:** 2.23 dBi

#### 3.4.1.2 Results for FCC 47 CFR Part 1 Subpart I

Operating Mode	Freq.	Declared maximum conducted Average output power	Max. positive tolerance according manufacturer	Max. Antenna Gain	Calculated maximum EIRP	Declared maximum EIRP	MPE Limit	MPE Value
	(MHz)	(dBm)		(dBi)	(dBm)	(mW)	(mW/cm <sup>2</sup> )	
Bluetooth BR+EDR	2402-2480	9.0	1	2.23	12.23	16.7109	1	0.0033
Bluetooth LE/2LE	2402-2480	8.0	1	2.23	11.23	13.2739	1	0.0026

### 3.4.1.3 Results for RSS-102 Issue 6

Operating Mode	Freq.	Declared maximum conducted avg output power	Max. positive tolerance according manufacturer	Antenna Gain	Calculated maximum EIRP	Declared maximum EIRP	Limit
	(MHz)	(dBm)		(dBi)	(dBm)	(W)	(W)
Bluetooth BR+EDR	2402-2480	9.0	1	2.23	12.23	0.0167	2.6764
Bluetooth LE/2LE	2402-2480	8.0	1	2.23	11.23	0.0133	2.6764

### 3.4.2 Simultaneous Multi-band Transmission MPE Analysis

Not Applicable



## APPENDIX 1 PHOTOS OF TEST SETUP

N/A

## APPENDIX 2 PHOTOS OF EUT CONSTRUCTIONAL DETAILS

Refer to Appendix 2 for EUT external and internal Photos.

\*\*\* End of Report \*\*\*

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The test report is effective only with both signature and specialized stamp. The result(s) shown in this report refer only to the sample(s) tested. Without written approval of UnionTrust, this report can't be reproduced except in full.

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