

MRT Technology (Suzhou) Co., Ltd Phone: +86-512-66308358 Web: www.mrt-cert.com Report No.: 1809RSU030-U4 Report Version: V01 Issue Date: 11-13-2018

# RF Exposure Evaluation Declaration

FCC ID: T2C-CP930W

**APPLICANT:** YEALINK(XIAMEN) NETWORK TECHNOLOGY CO.,

LTD

**Application Type:** Certification

**Product:** DECT Conference Phone

Model No.: CP930W

Brand Name: YEALINK

FCC Classification: FCC Part 15 Spread Spectrum Transmitter(DSS)

Unlicensed PCS Base Station (PUB)

Test Procedure(s): KDB 447498 D01v06

Reviewed By:

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Approved By:

obin Wu



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.

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# **Revision History**

Report No.	Version	Description	Issue Date	Note
1809RSU030-U4	Rev. 01	Initial Report	11-13-2018	Valid

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### 1. PRODUCT INFORMATION

# 1.1. Equipment Description

Product Name:	DECT Conference Phone		
Model No.:	CP930W		
Brand Name:	YEALINK		
Bluetooth Version:	v4.0 (Only support Bluetooth v3.0+HS)		
DECT Version:	v6.0		
Components			
Adapter:	Model: YLPS121000C-US		
	INPUT: 100-240V ~ 50/60Hz, 0.5A		
	OUTPUT: 12Vdc, 1.0A		
Battery:	Model:YLLR1865C7800WLS		
	P/N:1ICR20/57/73-3		
	Rating:3.6Vdc,7800mAh,28Wh		
	Limited Charge Voltage:4.2V		

# 1.2. Product Specification Subjective to this Standard

Bluetooth v3.0 Specification		
Operating Frequency:	2402~2480MHz	
Maximum Output Power:	8.16dBm	
Antenna Type:	FPC Antenna	
Antenna Gain:	3dBi	
DECT Specification		
Frequency Range:	1921.536 ~ 1928.448MHz	
Maximum Output Power:	18.79dBm	
Antenna Type:	PCB	
Antenna Gain:	-1dBi	

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## 2. RF Exposure Evaluation

#### 2.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

#### LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range	Electric Field	Magnetic Field	Power Density	Average Time
(MHz)	Strength (V/m)	Strength (A/m)	(mW/cm <sup>2</sup> )	(Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	-	1	f/300 6	
1500-100,000			5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500			f/1500	
1500-100,000	-	1	1	30

f= Frequency in MHz

Calculation Formula:  $P_d = (P_{out}*G)/(4*P_i*r^2)$ 

#### Where

 $P_d$  = power density in mW/cm<sup>2</sup>

P<sub>out</sub> = output power to antenna in mW

G = gain of antenna in linear scale

 $P_i = 3.1416$ 

r = distance between observation point and center of the radiator in cm

Pd is the limit of MPE, 1mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

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## 2.2. Test Result of RF Exposure Evaluation

Product	DECT Conference Phone
Test Item	RF Exposure Evaluation

Test Mode	Frequency Band (MHz)	Maximum Output power (dBm)	Maximum EIRP (dBm)	Power Density at R = 20 cm (mW/cm²)	Limit (mW/cm²)
DECT	1921.536 ~ 1928.448	18.79	17.79	0.0120	1
Bluetooth	2402 ~ 2480	5.16	8.16	0.0013	1

Note 1: Maximum EIRP(dBm) = Maximum output power(dBm) + Antenna Gain(dBi)

Note 2: Antenna Gain refers to clause 1.2 of this report.

#### **CONCULISON:**

Due to DECT and Bluetooth can transmit simultaneously, so Max Power Density (R = 20 cm) =  $0.0001+0.0158 = 0.0159 \text{ mW/cm}^2$ .

Therefore, the Min Safety Distance is 20cm.