RF Exposure Evaluation Declaration

FCC ID:	T2C-CP960
APPLICANT:	YEALINK(XIAMEN) NETWORK TECHNOLOGY CO.,LTD

Application Type:	Certification
Product:	HD IP Conference Phone
Model No.:	CP960
Brand Name:	YEALINK
FCC Classification:	Digital Transmission System (DTS) FCC Part 15 Spread Spectrum Transmitter(DSS)
Test Procedure(s):	KDB 447498 D01v06
Test Date:	May 05 ~ June 05, 2017

Reviewed By : Sunny Sun
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Approved By : Marlin Chen
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Revision History

Report No.	Version	Description	Issue Date	Note
1705RSU00807	Rev. 01	Initial report	06-19-2017	Valid

1. PRODUCT INFORMATION

1.1. Equipment Description

Product Name:	HD IP Conference Phone
Model No.:	CP960
Brand Name:	YEALINK
Wi-Fi Specification:	802.11a/b/g/n/ac
Bluetooth Version:	v3.0 + HS, v4.0
DECT Specification:	DECT 6.0
Wi-Fi Specification	
Frequency Range:	802.11b/g/n-HT20: 2412 ~ 2462 MHz 802.11n-HT40: 2422 ~ 2452 MHz For 802.11a/n-HT20: 5180~5320MHz, 5500~5700MHz, 5745~5825MHz For 802.11ac-VHT20: 5180~5320MHz, 5500~5720MHz, 5745~5825MHz For 802.11n-HT40: 5190~5310MHz, 5510~5670MHz, 5755~5795MHz For 802.11ac-VHT40: 5190~5310MHz, 5510~5710MHz, 5755~5795MHz For 802.11ac-VHT80: 5210MHz, 5290MHz, 5530MHz, 5610MHz, 5690MHz, 5775MHz
Type of Modulation:	802.11b: DSSS 802.11a/g/n/ac: OFDM
Antenna Gain	2.4GHz: 1.49dBi 5GHz: 2.19dBi
Bluetooth Specification	
Frequency Range:	2402~2480MHz
Data Rate	1Mbps(GFSK), 2Mbps(Pi/4 DQPSK), 3Mbps (8DPSK)
Antenna Gain	1.49dBi
DECT Specification	
Frequency Range	1921.536 ~ 1928.448MHz
Type of Modulation	Digital (Gaussian Frequency Shift Keying)
Antenna Gain	1.49dBi

2. RF Exposure Evaluation

2.1. Limits

FCC Rules:

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

Formula as follows:

f= Frequency in MHz

Calculation Formula: $Pd = (Pout*G)/(4*pi*r^2)$

Where
Pd = power density in mW/cm^2
Pout = output power to antenna in mW
G = gain of antenna in linear scale
Pi = 3.1416
r = distance between observation point and center of the radiator in cm

Pd is the limit of MPE, $1mW/cm^2$. 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.

2.2. Test Result of RF Exposure Evaluation

Product	HD IP Conference Phone
Test Item	RF Exposure Evaluation

Antenna Gain: Refer to Section 1.1

For Wi-Fi Band:

Test Mode	Frequency Band (MHz)	Maximum Average Output Power (dBm)	Power Density at r = 20 cm (mW/cm^2)	FCC Limit (mW/cm^2)
802.11b/g/n	2412 ~ 2462	14.45	0.0078	1
802.11a/n/ac	5180 ~ 5240	6.20	0.0014	1
	5260 ~ 5320	7.21	0.0017	1
	5500 ~ 5720	9.23	0.0028	1
	5745 ~ 5825	7.02	0.0017	1

For Bluetooth Band:

Test Mode	Frequency Band (MHz)	Maximum Output Power (dBm)	Power Density at r = 20 cm (mW/cm^2)	FCC Limit (mW/cm^2)
BLE	2402 ~ 2480	2.81	0.0005	1
DH5/2DH5/3DH5	2402 ~ 2480	5.24	0.0009	1

For DECT Band:

Test Mode	Frequency Band (MHz)	Maximum Output Power (dBm)	Power Density at r = 20 cm (mW/cm^2)	FCC Limit (mW/cm^2)
DECT 6.0	1921.536 ~ 1928.448	14.82	0.0085	1

CONCULISON:

Both of the WLAN, Bluetooth & DECT can transmit simultaneously. Therefore, the Max Power Density at r (20 cm) = $0.0078mW/cm^2 + 0.0009mW/cm^2 + 0.0085mW/cm^2 = 0.0172mW/cm^2 < 1mW/cm^2$.

So the EUT complies with the FCC requirement.

The End