RF Exposure Evaluation Declaration

FCC ID:	T2C-WF50
IC:	10741A-WF50
APPLICANT:	YEALINK(XIAMEN) NETWORK TECHNOLOGY CO., LTD
Application Type:	Certification
Product:	Wi-Fi USB Dongle
Model No.:	WF50
Brand Name:	YEALINK
FCC Classification:	Digital Transmission System (DTS) Unlicensed National Information Infrastructure (UNII)
Test Procedure(s):	KDB 447498 D01
Test Date:	January 13 ~ March 11, 2018

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ACCREDITED
TESTING LABORATORY
CERTIFICATE #3628.01

Revision History

Report No.	Version	Description	Issue Date	Note
1802RSU004-U3	Rev. 01	Initial Report	04-04-2018	Valid

1. PRODUCT INFORMATION

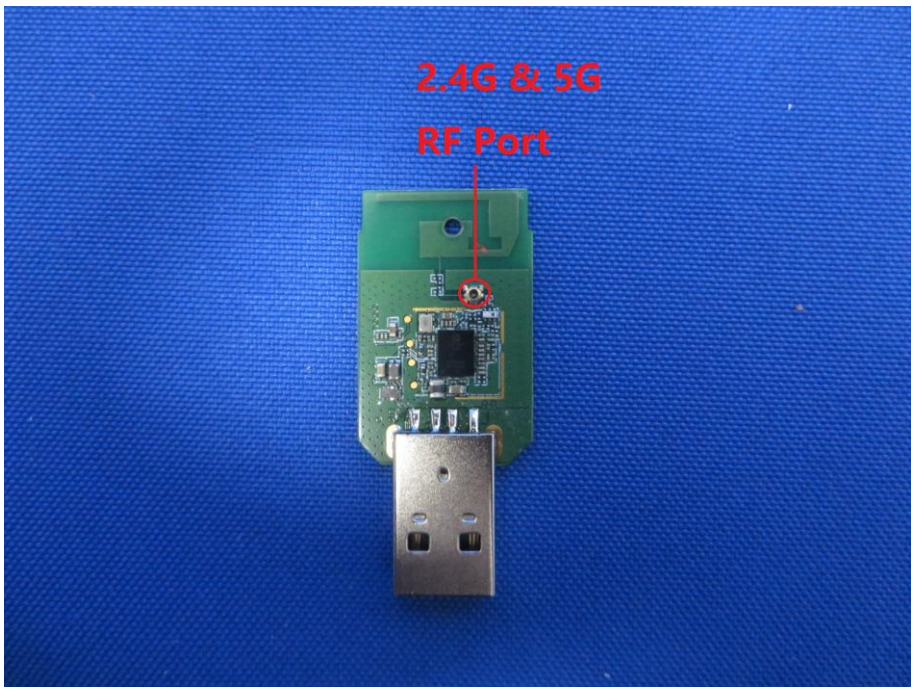
1.1. Equipment Description

Product Name	Wi-Fi USB Dongle
Model No.	WF50
Wi-Fi Specification	802.11a/b/g/n/ac

1.2. Antenna Description

Antenna Type	Frequency Band (MHz)	TX Paths	Max Peak Gain (dBi)
Built-in	2400 ~ 2483.5	1	3
	5150 ~ 5850	1	3

1.3. Description of Antenna RF Port

Antenna RF Port


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 (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

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	Wi-Fi USB Dongle
Test Item	RF Exposure Evaluation

Antenna Gain: Refer to Clause 1.2 of antenna description.

Test Mode	Frequency Band (MHz)	Maximum Total Average Output Power (dBm)	Power Density at R = 20 cm (mW/cm^2)	Limit (mW/cm^2)
802.11b/g/n	2412 ~ 2462	19.38	0.0344	1
802.11a/n/ac	5180 ~ 5240	17.10	0.0204	1
802.11a/n/ac	5745 ~ 5825	17.37	0.0217	1

CONCLUSION:

The WLAN 2.4GHz and WLAN 5GHz cannot transmit simultaneously. Therefore, the Max Power Density at R (20 cm) = $0.0344mW/cm^2$ < $1mW/cm^2$.
So the EUT complies with the requirement.

The End