

# **RF Exposure Evaluation Declaration**

	Report No.: YTC21113001-NJLZ-002-4		
	Report Version: V01		
	Issue Date: 01-10-2022		
Applicant:	Wallys Communications(SuZhou)Co., LTD		
Address:	Room 2723, Le Jia building, Jia Rui Xiang No.8, Suzhou		
	Industrial Park, Suzhou, P.R.China		
FCC ID:	2AG7VDR600VX		
Application Type:	Certification		
Product:	Dual Band 11AC Wireless Module		
Model No.:	DR600VX, DR600VX-M		
Trade Mark:	1		
FCC Classification	Digital Transmission System (DTS)		
	Unlicensed National Information Infrastructure (UNII)		

Reviewed By	Yume Jiong
	(Yuwei Jiang) Senior Test Engineer
Approved By	KeChen
Approved by -	(Ke Chen) Engineer Manager

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
YTC21113001-NJLZ-002-4	Rev. 01	/	01-10-2022



## 1. PRODUCT INFORMATION

## 1.1. Equipment Description

Product Name:	Dual Band 11AC Wireless Module		
Model Name:	DR600VX		
Additional Model:	DR600VX-M		
Input Voltage Range:	DC 3.3V		
Wi-Fi Specification:	2.4G:802.11b/g/n-HT20/ n-HT40		
	5G:802.11a/n-HT20/ n-HT40/ac-VHT20/ac-VHT40/ac-VHT80		
Antenna Type:	Dual band Dipole Antenna		
Antenna Gain:	2dBi		
CDD Directional Gain:	5dBi		



## 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)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
	(i) Limits for	Occupational/Controlled Exp	osure	
0.3-3.0	614	1.63	*(100)	≤6
3.0-30	1842/f	4.89/f	*(900/f <sup>2</sup> )	<6
30-300	61.4	0.163	1.0	<6
300-1,500			f/300	<6
1,500-100,000			5	<6
	(ii) Limits for Gen	eral Population/Uncontrolled	l Exposure	
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
300-1,500			f/1500	<30
1,500-100,000			1.0	<30

TABLE 1 TO \$1.1310(E)(1)-LIMITS FOR	MAXIMUM PERMISSIBLE	EXPOSURE (MPE)
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f = frequency in MHz. \* = Plane-wave equivalent power density.

#### 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<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.



#### 2.2. Test Result of RF Exposure Evaluation

Product	Dual Band 11AC Wireless Module	
Test Item	RF Exposure Evaluation	

Test Mode	Frequency Band	Maximum PK	Power Density at	Limit
	(MHz)	Output Power	R = 20 cm	(mW/cm <sup>2</sup> )
		(dBm)	(mW/cm <sup>2</sup> )	
	2402 ~ 2480			
WIFI	5150 ~ 5250	17.6	0.036	1
	5750 ~ 5850			
Note: /				

#### CONCULISON:

The Max Power Density at R (20 cm) = 0.036 mW/cm<sup>2</sup> < 1mW/cm<sup>2</sup>.

So the EUT complies with the requirement.

The End