

# RF EXPOSURE REPORT

Applicant	Clarion Co., Ltd.
Address	6F, No.40, Guanri Road, Software Park Stage II, Xiamen, China

Manufacturer or Supplier	Clarion Co., Ltd.
Address	6F, No.40, Guanri Road, Software Park Stage II, Xiamen, China
Product	Audio Display
Brand Name	Clarion
Model	PP-4330
Additional Model & Model Difference	N/A
Date of tests	Aug. 27, 2020 ~ Sep. 24, 2020

- **◯** FCC Part 2 (Section 2.1091)
- **KDB 447498 D01**
- **⊠ IEEE C95.1**

#### CONCLUSION: The submitted sample was found to **COMPLY** with the test requirement

Tested by Madison Luo	Approved by Chris Chen
Assistant Manager / EMC Department	Manager / EMC Department
Janes	Morris

Date: Oct. 09, 2020

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## **RELEASE CONTROL RECORD**

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FM2008WDG0104	Original release	Oct. 09, 2020

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## 1. CERTIFICATION

FCC ID:	WY2-PP4330
PRODUCT:	Audio Display
BRAND NAME:	Clarion
MODEL NO.:	PP-4330
ADDITIONAL NO.:	N/A
APPLICANT:	Clarion Co., Ltd.
STANDARDS:	FCC Part 2 (Section 2.1091)
	KDB 447498 D01
	IEEE C95.1

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## 2. RF EXPOSURE LIMIT

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

FREQUENCY RANGE (MHz)	ELECTRIC FIELD STRENGTH (V/m)	MAGNETIC FIELD STRENGTH (A/m)	POWER DENSITY (mW/cm²)	AVERAGE TIME (minutes)			
LIMI	LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE						
300-1500		F/1500	30				
1500-100,000			1.0	30			

F = Frequency in MHz

## 3. MPE CALCULATION FORMULA

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

where

Pd = power density in mW/cm<sup>2</sup>

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

#### 4. CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

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## 5. ANTENNA GAIN

The antennas provided to the EUT, please refer to the following table:

Transmitter Circuit	Peak Gain (dBi)	Antenna Type
Wi-Fi 2.4GHz	-0.38	PCB Antenna
BT	0	PCB Antenna

## 6. CALCULATION RESULT OF MAXIMUM CONDUCTED AV POWER

The tuned conducted Average Power (declared by client)

Mode	Frequency (MHz)	Target Power (dBm)	Tolerance (dBm)	Lower Tolerance (dBm)	Upper Tolerance (dBm)
GFSK	2402-2480	-1	+-2	-3	1
8DPSK	2402-2480	-1	+-2	-3	1
802.11b	2412-2462	13	+-2	11	15
802.11g	2412-2462	13	+-2	11	15
802.11n HT20	2412-2462	13	+-2	11	15

The measured conducted Average Power

Mode	Frequency (MHz)	Averaged Power (dBm)
GFSK	2402	-1.22
8DPSK	2402	-0.29
802.11b	2462	13.11
802.11g	2437	12.69
802.11n HT20	2437	12.38

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FREQUENCY BAND (MHz)	MAX AVERAGE POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm²)	LIMIT (mW/cm²)
ВТ	1	0	20	0.000250	1
Wi-Fi 2.4GHz	15	-0.38	20	0.005763	1

#### **CONCLUSION:**

The BT and WIFI can transmit simultaneously, the formula of calculated the MPE is:

CPD1 / LPD1 + CPD2 / LPD2 + .....etc. < 1

**CPD = Calculation power density** 

LPD = Limit of power density

(0.000250/1)+(0.005763/1) = 0.006013<1, which is less than the "1" limit.

--- END ---

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