

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/NISSAN
Model	PN-4300
Additional Model & Model Difference	PN-4303
Date of tests	Apr. 20, 2020 ~ Aug. 03, 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
Assistant Manager / EMC Department

Approved by Glyn He
Assistant Manager / EMC Department




Date: Aug. 10, 2020

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Test Report No.: FM200420N031

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FM200420N031	Original release	Aug. 10, 2020

1. CERTIFICATION

FCC ID:	WY2-PN4300
PRODUCT:	Audio Display
BRAND NAME:	Clarion/NISSAN
MODEL NO.:	PN-4300
ADDITIONAL NO.:	PN-4303
APPLICANT:	Clarion Co., Ltd.
STANDARDS:	FCC Part 2 (Section 2.1091)
	KDB 447498 D01
	IEEE C95.1

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/cm ²)	AVERAGE TIME (minutes)
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

$$P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$$

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 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**.

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	-3	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	2412-2472	11	+2	9	13
802.11g	2412-2472	11	+2	9	13
802.11n HT20	2412-2472	11	+2	9	13

The measured conducted Average Power

Mode	Frequency (MHz)	Averaged Power (dBm)
GFSK	2402	-1.22
8DPSK	2402	-0.29
802.11b	2412	11.20
802.11g	2412	11.34
802.11n HT20	2412	11.47



FREQUENCY BAND (MHz)	MAX AVERAGE POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm²)	LIMIT (mW/cm²)
BT	1	0	20	0.000250	1
Wi-Fi 2.4GHz	13	-3	20	0.001989	1

CONCLUSION:

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

$$\text{CPD1} / \text{LPD1} + \text{CPD2} / \text{LPD2} + \dots \text{etc.} < 1$$

CPD = Calculation power density

LPD = Limit of power density

$$(0.000250/1) + (0.001989/1) = 0.002239 < 1, \text{ which is less than the "1" limit.}$$

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