

# RF Exposure Evaluation Report

Product Name : Car Audio

Model No. : PI-4305A-A, PI-4306A-A

FCC ID : Q2ZPI4305A

Applicant : Clarion (M) Sdn Bhd

Address : Phase 3 FIZ, Bayan Lepas, Malaysia, 11400

Date of Receipt : Feb. 04, 2020

Date of Declaration : Mar. 13, 2020

Report No. : 2020024R-SAUSP03V00

Report Version : V1.0

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.

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Issued Date: Mar. 13, 2020

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|                     |                                           |                                                                                                                                     |
|---------------------|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Product Name        | Car Audio                                 |                                                                                                                                     |
| Applicant           | Clarion (M) Sdn Bhd                       |                                                                                                                                     |
| Address             | Phase 3 FIZ, Bayan Lepas, Malaysia, 11400 |                                                                                                                                     |
| Manufacturer        | Clarion Asia (Thailand) Co., Ltd.         |                                                                                                                                     |
| Model No.           | PI-4305A-A, PI-4306A-A                    |                                                                                                                                     |
| FCC ID.             | Q2ZPI4305A                                |                                                                                                                                     |
| Trade Name          | Clarion                                   |                                                                                                                                     |
| Applicable Standard | KDB 447498 D01 v06                        | <input type="checkbox"/> Minimum test separation distance $\geq 20$ cm<br><input checked="" type="checkbox"/> For low power devices |
| Test Result         | Complied                                  |                                                                                                                                     |

Documented By :



( Adm. Assistant / Ida Tung )

Tested By :



( Senior Engineer / Wen Lee )

Approved By :



( Director / Vincent Lin )

## 1. GENERAL INFORMATION

### 1.1. EUT Description

|                    |                                                          |
|--------------------|----------------------------------------------------------|
| Product Name       | Car Audio                                                |
| Trade Name         | Clarion                                                  |
| Model No.          | PI-4305A-A, PI-4306A-A                                   |
| FCC ID.            | Q2ZPI4305A                                               |
| Frequency Range    | 2402-2480MHz                                             |
| Channel Number     | 79                                                       |
| Type of Modulation | FHSS: GFSK(1Mbps) / $\pi$ / 4DQPSK(2Mbps) / 8DPSK(3Mbps) |
| Antenna Type       | PCB Antenna                                              |
| Channel Control    | Auto                                                     |
| Antenna Gain       | Refer to the table “Antenna List”                        |

#### Antenna List

| No. | Manufacturer | Part No. | Antenna Type | Peak Gain       |
|-----|--------------|----------|--------------|-----------------|
| 1   | Plextek      | N/A      | PCB antenna  | 0dBi for 2.4GHz |

## 2. RF Exposure Evaluation

### 2.1. Standard Applicable

According to 1.1307 (b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

### 2.2. Measurement Result:

According to KDB Publication 447498 D01, section 4.3.1, per the calculations of item 1  $(\text{Power(mW)}/\text{separation (mm)} \cdot \sqrt{f(\text{GHz})} \leq 3.0)$ , SAR is required as shown in the table below where calculated values are greater than 3.0:

- 1.) Operation frequency = 2450MHz and antenna separation distance = 5mm,  
SAR Test Exclusion Threshold = 10mW

| Frequency Band<br>(MHz) | Maximum output power<br>Peak Gain: 0dBi |               |              | SAR Test<br>Exclusion Threshold | Calculated Threshold Value<br>( $\leq 3.0$ SAR is not required) |
|-------------------------|-----------------------------------------|---------------|--------------|---------------------------------|-----------------------------------------------------------------|
|                         | Power<br>(dBm)                          | EIRP<br>(dBm) | EIRP<br>(mW) | (mW)                            |                                                                 |
| 2402 – 2480             | -1.41                                   | -1.41         | 0.72         | 10                              | 0.226                                                           |

Note1: The SAR/MPE measurement is not necessary.

Note2: The maximum peak output power is refer to report No.: 2020024R-RFUSP01V00 from the DEKRA.