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# KDB 447498 D03 47 C.F.R. Part 1, Subpart I, Section 1.1310 47 C.F.R. Part 2, Subpart J, Section 2.1091

### RF EXPOSURE REPORT

For

**Tablet** 

Model: MP7-ARGON2-C

Trade Name: ICON/iFit

Issued to

Compal Electronics Inc
No.581 & 581-1, Ruiguang Rd., Neihu District, Taipei city, 11492 Taiwan

Issued by

Compliance Certification Services Inc.
Wugu Laboratory

No.11, Wugong 6th Rd., Wugu Dist., New Taipei City, Taiwan. (R.O.C.) Issue Date: August 2, 2021

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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# **Revision History**

| Rev. | Issue Date     | Revisions                       | Effect Page | Revised By   |
|------|----------------|---------------------------------|-------------|--------------|
| 00   | June 26, 2021  | Initial Issue                   | ALL         | Allison Chen |
| 01   | August 2, 2021 | See the following Note Rev.(01) | P.7, P.9    | Allison Chen |

### Note: Rev.(01)

1. Modified max. AV of BT value and 802.11b mode P(mW) value.



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### 1. TEST RESULT CERTIFICATION

# We hereby certify that:

The above equipment was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10: 2013 and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules Part 15.207, 15.209, 15.247.

The test results of this report relate only to the tested sample EUT identified in this report.

| APPLICABLE STANDARDS   |                             |  |  |  |  |  |  |
|--|-----------------------------|--|--|--|--|--|--|
| STANDARD TEST RESULT   |                             |  |  |  |  |  |  |
| KDB 447498 D03   |                             |  |  |  |  |  |  |
| 47 C.F.R. Part 1, Subpart I, Section 1.1310  | No non-compliance noted     |  |  |  |  |  |  |
| 47 C.F.R. Part 2, Subpart J, Section 2.1091  |                             |  |  |  |  |  |  |
| Statements of Conformity   |                             |  |  |  |  |  |  |
| Determination of compliance is based on the results of the compliance measurement, |                             |  |  |  |  |  |  |
| not taking into account measurement i  | nstrumentation uncertainty. |  |  |  |  |  |  |

Approved by:

Kevin Tsai

**Deputy Manager** 

Compliance Certification Services Inc.

Konil Tyni



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### 2. LIMIT

According to §15.247(i), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines. See § 1.1307(b)(1) of this chapter.

§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), except in the case of portable devices which shall be evaluated according to the provisions of FCC part 2.1093 of the chapter.

TABLE 1 - LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

|   |                                     | AMINON I EIMIN                      | 70.DII                    | <u> </u>                 |  |  |  |  |
|---|-------------------------------------|-------------------------------------|---------------------------|--------------------------|--|--|--|--|
| Frequency<br>range<br>(MHz)                             | Electric field<br>strength<br>(V/m) | Magnetic field<br>strength<br>(A/m) | Power density<br>(mW/cm²) | Averaging time (minutes) |  |  |  |  |
| (A) Limits for Occupational/Controlled Exposure         |                                     |                                     |                           |                          |  |  |  |  |
| 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                        |  |  |  |  |
| (B) Limits for General Population/Uncontrolled 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                       |  |  |  |  |

f = frequency in MHz

Note 1 to Table 1: Occupational/controlled exposure limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when a person is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

Note 2 to Table 2: General population/uncontrolled exposure limits apply in situations in which the general public may be exposed, or in which persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

<sup>\* =</sup> Plane-wave equivalent power density



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# 3. EUT SPECIFICATION

| EUT                        | Tablet   |  |  |  |  |  |  |
|----------------------------|--|--|--|--|--|--|--|
| Model                      | MP7-ARGON2-C   |  |  |  |  |  |  |
| Model<br>Discrepancy       | N/A  |  |  |  |  |  |  |
| Frequency band (Operating) | <ul> <li>☑ Bluetooth: 2402MHz-2480MHz</li> <li>☑ 802.11b/g/n HT20: 2412MHz ~ 2462 MHz</li> <li>☑ 802.11n HT40: 2422MHz ~ 2452MHz</li> <li>☑ 802.11a/n HT20: 5180MHz ~ 5240MHz / 5260 ~ 5320MHz</li> <li>☑ 5500 ~ 5720MHz / 5745MHz ~ 5825MHz</li> <li>☑ 802.11n HT40: 5190MHz ~ 5230MHz / 5270 ~ 5310MHZ</li> <li>☑ 5510 ~ 5710MHz / 5755MHz ~ 5795MHz</li> <li>☑ 802.11ac VHT80: 5210MHz / 5290MHz /</li> <li>☑ 5530 MHz~5610MHz / 5775MHz</li> <li>☑ Others</li> </ul> |  |  |  |  |  |  |
| Device category            | ☐ Portable (<20cm separation) ☐ Mobile (>20cm separation) ☐ Others   |  |  |  |  |  |  |
| Exposure classification    | ☐ Occupational/Controlled exposure (S = 5mW/cm²) ☐ General Population/Uncontrolled exposure (S=1mW/cm²)  |  |  |  |  |  |  |
| Antenna<br>Specification   | PIFA Antenna  BT & WIFI 2.4GHz: 1.95 dBi WIFI 5GHz: Band 1: 5.09 dBi Band 2a: 5.09 dBi Band 2c: 3.12 dBi Band 3: 2.74 dBi  BT: Antenna Gain: 1.95 dBi (Numeric gain: 1.57) Worst 2.4GHz: Antenna Gain: 1.95 dBi (Numeric gain: 1.57) Worst 5GHz: Antenna Gain: 5.09 dBi (Numeric gain: 3.23) Worst   |  |  |  |  |  |  |



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|               | [D.T.                    | lo 50 ID   | 1(0,000, 14/)                         |
|---------------|--------------------------|------------|---------------------------------------|
|               | BT                       | 3.56 dBm   | (2.268 mW)                            |
|               | 2.4GHz                   |            |                                       |
|               | IEEE 802.11b Mode:       | 17.37 dBm  | (54.576 mW)                           |
| Maximum       | IEEE 802.11g Mode:       | 15.51 dBm  | (35.563 mW)                           |
| Measurement   | IEEE 802.11n HT 20 Mode: | 15.45 dBm  | (35.075 mW)                           |
| Average Power | IEEE 802.11n HT 40 Mode: | 15.55 dBm  | (35.892 mW)                           |
| _             | 5GHz                     |            |                                       |
|               | IEEE 802.11a Mode:       | 14.45 dBm  | (27.847 mW)                           |
|               | IEEE 802.11n HT 20 Mode: | 14.54 dBm  | (28.460 mW)                           |
|               | IEEE 802.11n HT 40 Mode: | 14.20 dBm  | (26.319 mW)                           |
|               | -                        |            | · · · · · · · · · · · · · · · · · · · |
|               | ВТ                       | 4.00 dBm   | (2.512 mW)                            |
|               | 2.4GHz                   | 4.00 UDIII | (2.512 11100)                         |
|               |                          | 40.00 dD   | (62,000,\/\/)                         |
|               | IEEE 802.11b Mode:       | 18.00 dBm  | (63.096 mW)                           |
| Maximum       | IEEE 802.11g Mode:       | 16.00 dBm  | (39.811 mW)                           |
| tune up power | IEEE 802.11n HT 20 Mode: | 16.00 dBm  | (39.811 mW)                           |
|               | IEEE 802.11n HT 40 Mode: | 16.00 dBm  | (39.811 mW)                           |
|               | 5GHz                     | 1-00 15    | 1/24 222 140                          |
|               | IEEE 802.11a Mode:       | 15.00 dBm  | (31.623 mW)                           |
|               | IEEE 802.11n HT 20 Mode: | 15.00 dBm  | (31.623 mW)                           |
|               | IEEE 802.11n HT 40 Mode: | 14.50 dBm  | (28.184 mW)                           |
|               |                          |            |                                       |
| Evaluation    | SAR Evaluation           |            |                                       |
| applied       | □ N/A                    |            |                                       |

#### Remark:

- 1. For more details, please refer to the User's manual of the EUT.
- 2. Disclaimer: Antenna information is provided by the applicant, test results of this report are applicable to the sample EUT received.
- 3. The tune up power referred the AVG power of the test report T210413W01-RP1, T210413W01-RP2, T210413W01-RP3 and T210413W01-RP4 for RF Exposure assessment purpose.



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# 4. TEST RESULTS

No non-compliance noted.

### **Calculation**

Given

$$E = \frac{\sqrt{30 \times P \times G}}{d} \quad \& \quad S = \frac{E^2}{377}$$

Where E = Field strength in Volts / meter

P = Power in Watts

G = Numeric antenna gain

d = Distance in meters

S = Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{377 d^2}$$

Changing to units of mW and cm, using:

$$P(mW) = P(W) / 1000$$
 and

$$d(cm) = d(m) / 100$$

Yields

$$S = \frac{30 \times (P/1000) \times G}{377 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2}$$
 Equation 1

Where d = Distance in cm

P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm<sup>2</sup>



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### 5. MAXIMUM PERMISSIBLE EXPOSURE

Substituting the MPE safe distance using d = 20 cm into Equation 1:

 $S = 0.000199 \times P \times G$ 

Where P = Power in mW

G = Numeric antenna gain

 $S = Power density in mW / cm^2$ 

#### BT:

| ĺ | Ch. | Frq.(MHz) | P (mW) | Gain (num.) | D (cm) | Power density in mW / cm <sup>2</sup> | Limit (mW/cm2) |
|---|-----|-----------|--------|-------------|--------|---------------------------------------|----------------|
| I | 1   | 2402      | 2.512  | 1.57        | 20     | 0.0008                                | 1              |

#### **IEEE 802.11b mode:**

| Ch. | Frq.(MHz) | P (mW) | Gain (num.) | D (cm) | Power density in mW / cm <sup>2</sup> | Limit (mW/cm2) |
|-----|-----------|--------|-------------|--------|---------------------------------------|----------------|
| 11  | 2462      | 63.096 | 1.57        | 20     | 0.0197                                | 1              |

### **IEEE 802.11g mode:**

| Ch. | Frq.(MHz) | P (mW) | Gain (num.) | D (cm) | Power density in mW / cm <sup>2</sup> | Limit (mW/cm2) |
|-----|-----------|--------|-------------|--------|---------------------------------------|----------------|
| 6   | 2437      | 39.811 | 1.57        | 20     | 0.0124                                | 1              |

#### **IEEE 802.11n HT20 mode:**

|   | Ch. | Frq.(MHz) | P (mW) | Gain (num.) | D (cm) | Power density in mW / cm <sup>2</sup> | Limit (mW/cm2) |
|---|-----|-----------|--------|-------------|--------|---------------------------------------|----------------|
| ſ | 6   | 2437      | 39.811 | 1.57        | 20     | 0.0124                                | 1              |

### IEEE 802.11n HT40 mode:

| Ch. | Frq.(MHz) | P (mW) | Gain (num.) | D (cm) | Power density in mW / cm <sup>2</sup> | Limit (mW/cm2) |
|-----|-----------|--------|-------------|--------|---------------------------------------|----------------|
| 6   | 2437      | 39.811 | 1.57        | 20     | 0.0124                                | 1              |

#### **IEEE 802.11a mode:**

| Ch. | Frq.(MHz) | P (mW) | Gain (num.) | D (cm) | Power density in mW / cm <sup>2</sup> | Limit (mW/cm2) |
|-----|-----------|--------|-------------|--------|---------------------------------------|----------------|
| 44  | 5220      | 31.623 | 3.23        | 20     | 0.0203                                | 1              |

#### IEEE 802.11n HT20 mode:

| Ch. | Frq.(MHz) | P (mW) | Gain (num.) | D (cm) | Power density in mW / cm <sup>2</sup> | Limit (mW/cm2) |
|-----|-----------|--------|-------------|--------|---------------------------------------|----------------|
| 36  | 5180      | 31.623 | 3.23        | 20     | 0.0203                                | 1              |

### IEEE 802.11n HT40 mode:

| Ch. | Frq.(MHz) | P (mW) | Gain (num.) | D (cm) | Power density in mW / cm <sup>2</sup> | Limit (mW/cm2) |
|-----|-----------|--------|-------------|--------|---------------------------------------|----------------|
| 46  | 5230      | 28.184 | 3.23        | 20     | 0.0181                                | 1              |

#### Remark:

The BT function could not be trasmitted with WIFI function simultaneously.

#### -- End of Report--