

# FCC MPE REPORT

## Certification

**Applicant Name:**

I&C Technology Co.,Ltd.

**Address:**

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**Date of Issue:**

August 21, 2018

**Test Site/Location:**

HCT CO., LTD., 74,Seoicheon-ro 578beon-gil,Majang-myeo,Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA

**Report No.:** HCT-RF-1808-FC008-R1

**FCC ID:**

**2ADXS-WFM60-SFP2501**

**APPLICANT:**

**I&C Technology Co.,Ltd.**

**Model:**

WFM60-SFP2501

**EUT Type:**

Dual Module

The measurements shown in this report were made in accordance with the procedures specified in §2.947. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them.

HCT CO., LTD. Certifies that no party to this application has subject to a denial of Federal benefits that includes FCC benefits pursuant to section 5301 of the Anti-Drug Abuse Act of 1998,21 U.S. C.853(a)



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**Approved by : Jong Seok Lee**  
**Manager of Telecommunication testing center**

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## Version

| TEST REPORT NO.      | DATE            | DESCRIPTION  |
|----------------------|-----------------|--|
| HCT-RF-1808-FC008    | August 08, 2018 | - First Approval Report                                  |
| HCT-RF-1808-FC008-R1 | August 21, 2018 | - Apply U-NII BAND Average Power tolerance (Page 5 to 6) |
|                      |                 |  |
|                      |                 |  |

# RF Exposure Statement

## 1. LIMITS

According to §1.1310 and §2.1091 RF exposure is calculated.

(B) Limits for General Population/Uncontrolled Exposures

| Frequency range (MHz) | Electric field Strength (V/m) | Magnetic field Strength (A/m) | Power density (mW/cm <sup>2</sup> ) | Averaging time (minutes) |
|-----------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| 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 - 1500.....       | .....                         | .....                         | f/1500                              | 30                       |
| 1500 - 100.000.....   | .....                         | .....                         | 1.0                                 | 30                       |

F = frequency in MHz

\* = Plane-wave equivalent power density

## 2. MAXIMUM PERMISSIBLE EXPOSURE Prediction

Prediction of MPE limit at a given distance

$$S = PG/4\pi R^2$$

S = Power density

P = power input to antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

### 3. RESULT

#### 3-1. 2.4 GHz Band (DTS)

##### (2412 – 2462)

|   |               |                    |
|---|---------------|--------------------|
| Max Peak output Power at antenna input terminal             | 27.000        | dBm                |
| Max Peak output Power at antenna input terminal             | 501.187       | mW                 |
| Prediction distance   | 20.000        | cm                 |
| Prediction frequency  | 2 412 ~ 2 462 | MHz                |
| Antenna Gain(typical)                                       | 1.980         | dBi                |
| Antenna Gain(numeric)                                       | 1.578         | -                  |
| Power density at prediction frequency( S)                   | 0.157301      | mW/cm <sup>2</sup> |
| MPE limit for uncontrolled exposure at prediction frequency | 1.000         | mW/cm <sup>2</sup> |

3-2. 5 GHz Band

(UNII 1)

|   |               |                    |
|---|---------------|--------------------|
| Max Average output Power at antenna input terminal          | 16.500        | dBm                |
| Max Average output Power at antenna input terminal          | 44.668        | mW                 |
| Prediction distance   | 20.000        | cm                 |
| Prediction frequency  | 5 180 ~ 5 240 | MHz                |
| Antenna Gain(typical)                                       | 2.900         | dBi                |
| Antenna Gain(numeric)                                       | 1.950         | -                  |
| Power density at prediction frequency( S)                   | 0.017327      | mW/cm <sup>2</sup> |
| MPE limit for uncontrolled exposure at prediction frequency | 1.000         | mW/cm <sup>2</sup> |

(UNII 2A)

|   |               |                    |
|---|---------------|--------------------|
| Max Average output Power at antenna input terminal          | 16.000        | dBm                |
| Max Average output Power at antenna input terminal          | 39.811        | mW                 |
| Prediction distance   | 20.000        | cm                 |
| Prediction frequency  | 5 260 ~ 5 320 | MHz                |
| Antenna Gain(typical)                                       | 3.500         | dBi                |
| Antenna Gain(numeric)                                       | 2.239         | -                  |
| Power density at prediction frequency( S)                   | 0.017731      | mW/cm <sup>2</sup> |
| MPE limit for uncontrolled exposure at prediction frequency | 1.000         | mW/cm <sup>2</sup> |

(UNII 2C)

|   |               |                    |
|---|---------------|--------------------|
| Max Average output Power at antenna input terminal          | 15.500        | dBm                |
| Max Average output Power at antenna input terminal          | 35.481        | mW                 |
| Prediction distance   | 20.000        | cm                 |
| Prediction frequency  | 5 500 ~ 5 700 | MHz                |
| Antenna Gain(typical)                                       | 3.340         | dBi                |
| Antenna Gain(numeric)                                       | 2.158         | -                  |
| Power density at prediction frequency( S)                   | 0.015231      | mW/cm <sup>2</sup> |
| MPE limit for uncontrolled exposure at prediction frequency | 1.000         | mW/cm <sup>2</sup> |

(UNII 3)

|   |               |                    |
|---|---------------|--------------------|
| Max Average output Power at antenna input terminal          | 16.000        | dBm                |
| Max Average output Power at antenna input terminal          | 39.811        | mW                 |
| Prediction distance   | 20.000        | cm                 |
| Prediction frequency  | 5 745 ~ 5 825 | MHz                |
| Antenna Gain(typical)                                       | 3.010         | dBi                |
| Antenna Gain(numeric)                                       | 2.000         | -                  |
| Power density at prediction frequency( S)                   | 0.015839      | mW/cm <sup>2</sup> |
| MPE limit for uncontrolled exposure at prediction frequency | 1.000         | mW/cm <sup>2</sup> |