# TEST REPORT

FCC MPE Test for WEH37-TM24B
Certification

**APPLICANT**
Wave Electronics co.,Ltd

**REPORT NO.**
HCT-RF-2412-FC049-R2

**DATE OF ISSUE**
December 27, 2024

**Tested by**
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**Technical Manager**
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BongJai Huh / CEO



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| | |
|---|---|
| Applicant | **Wave Electronics co.,Ltd**<br>402, 114-6, Central town-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea |
| Product Name<br>Model Name | 5G O-RU<br>WEH37-TM24B |
| FCC ID | 2BKZBWEH37-TM24B |
| Date of Test | November 19, 2024 ~ December 17, 2024 |
| Location of Test | ■ Permanent Testing Lab ☐ On Site Testing<br>(Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea) |
| Test Standard Used | CFR 47 Part 2.1091 |
| Test Results | PASS |

## REVISION HISTORY

The revision history for this test report is shown in table.

| Revision No. | Date of Issue | Description |
|---|---|---|
| 0 | December 17, 2024 | Initial Release |
| 1 | December 24, 2024 | Revised the results. |
| 2 | December 27, 2024 | Revised the Applicant Address. |

## Notice

| Content |
|---|
| Engineering Statement:<br>The measurements shown in this report were made in accordance with the procedures indicated, and the emissions from this equipment were found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. It is further stated that upon the basis of the measurements made, the equipment tested is capable of operation in accordance with the requirements of the FCC Rules under normal use and maintenance.<br><br>The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated.<br>The test results have only been applied with the test methods required by the standard(s).<br><br>The laboratory is not accredited for the test results marked *.<br>Information provided by the applicant is marked **.<br>Test results provided by external providers are marked ***.<br><br>When confirmation of authenticity of this test report is required, please contact www.hct.co.kr<br><br>The test results in this test report are not associated with the ((KS Q) ISO/IEC 17025) accreditation by KOLAS (Korea Laboratory Accreditation Scheme) / A2LA (American Association for Laboratory Accreditation) that are under the ILAC (International Laboratory Accreditation Cooperation) Mutual Recognition Agreement (MRA). |

## 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 ($mW/cm^2$) | Averaging time (minutes) |
|---|---|---|---|---|
| 0.3 - 1.34…… | 614 | 1.63 | #)(100) | 30 |
| 1.34 - 30…… | 824/f | 2.19/f | #)($180/f^2$) | 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. RESULTS

(4 Port) 5G NR n48 10 MHz 1 Carrier

| | | |
|---|---|---|
| Max output Power at antenna input terminal | 20.50 | dBm |
| Max output Power at antenna input terminal | 112.20 | mW |
| Prediction distance | 20.00 | cm |
| Prediction frequency | 3 550.00 | MHz |
| Antenna Gain(typical) | 6.00 | dBi |
| Antenna Gain(numeric) | 3.98 | - |
| Power density at prediction frequency(S) | 0.0889 | $mW/cm^2$ |
| MPE limit for uncontrolled exposure at prediction frequency | 1.0000 | $mW/cm^2$ |

(4 Port) 5G NR n48 20 MHz 1 Carrier

| | | |
|---|---|---|
| Max output Power at antenna input terminal | 23.51 | dBm |
| Max output Power at antenna input terminal | 224.39 | mW |
| Prediction distance | 20.00 | cm |
| Prediction frequency | 3 550.00 | MHz |
| Antenna Gain(typical) | 6.00 | dBi |
| Antenna Gain(numeric) | 3.98 | - |
| Power density at prediction frequency(S) | 0.1777 | $mW/cm^2$ |
| MPE limit for uncontrolled exposure at prediction frequency | 1.0000 | $mW/cm^2$ |

(4 Port) 5G NR n48 40 MHz 1 Carrier

| | | |
|---|---|---|
| Max output Power at antenna input terminal | 26.52 | dBm |
| Max output Power at antenna input terminal | 448.75 | mW |
| Prediction distance | 20.00 | cm |
| Prediction frequency | 3 550.00 | MHz |
| Antenna Gain(typical) | 6.00 | dBi |
| Antenna Gain(numeric) | 3.98 | - |
| Power density at prediction frequency(S) | 0.3554 | $mW/cm^2$ |
| MPE limit for uncontrolled exposure at prediction frequency | 1.0000 | $mW/cm^2$ |