

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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TEST REPORT

REPORT NO.

HCT-RF-2412-FC049-R2

DATE OF ISSUE

December 27, 2024

Applicant

Wave Electronics co.,Ltd

402, 114-6, Central town-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Product Name

5G O-RU

Model Name

WEH37-TM24B

FCC ID

2BKZBWEH37-TM24B

Date of Test

November 19, 2024 ~ December 17, 2024

Location of Test

☒ Permanent Testing Lab ☐ On Site Testing

(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:

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.

The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated.

The test results have only been applied with the test methods required by the standard(s).

The laboratory is not accredited for the test results marked *.

Information provided by the applicant is marked **.

Test results provided by external providers are marked ***.

When confirmation of authenticity of this test report is required, please contact www.hct.co.kr

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