

TEST REPORT

FCC MPE Test for GCM4701NA
Certification

APPLICANT
CM PARTNER INC.

REPORT NO.
HCT-RF-2406-FC008

DATE OF ISSUE
June 21, 2024

Tested by
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**TEST
REPORT**

REPORT NO.
HCT-RF-2406-FC008

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Applicant **CM PARTNER INC.**
479-11, Gyeonggidong-ro, Namsa-myeon, Cheoin-gu, Yongin-si, Gyeonggi-do,
17121, South Korea

Product Name LTE Module
Model Name GCM4701NA

Date of Test May 16, 2024 ~ June 18, 2024

Location of Test Permanent Testing Lab On Site Testing
(Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383 Republic of Korea)

FCC ID 2BGOOGCM4701NA

FCC Classification: Citizens Band End User Devices (CBE)

Test Standard Used FCC Rule Part(s) : § 96

Test Results PASS

REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	June 21, 2024	Initial Release

Notice

Content

The measurements shown in this report were made in accordance with the procedures specified in CFR47 section § 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)

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. Limit

According to § 1.1310, § 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 to the antenna in the direction of interest relative to an isotropic radiator

R = Distance to the center of radiation of the antenna

3. RESULTS

- LTE B2 -

Max output power at antenna input terminal	25.70	dBm
Max output power at antenna input terminal	371.54	mW
Prediction distance	20.00	cm
Prediction frequency	1 850.7 ~ 1 900.0	MHz
Antenna gain (typical)	7.30	dBi
Antenna gain (numeric)	5.37	-
Power density at prediction frequency (S)	0.3969	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

EIRP	33.00	(dBm)
ERP	30.85	(dBm)
ERP	1.216	(W)
ERP Limit	3.00	(W)
MARGIN	3.92	(dB)

- LTE B48 -

Max output power at antenna input terminal	25.70	dBm
Max output power at antenna input terminal	371.54	mW
Prediction distance	20.00	cm
Prediction frequency	3 552.5 ~ 3 697.5	MHz
Antenna gain (typical)	-2.70	dBi
Antenna gain (numeric)	0.54	-
Power density at prediction frequency (S)	0.0397	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

EIRP	23.00	(dBm)
ERP	20.85	(dBm)
ERP	0.122	(W)
ERP Limit	3.00	(W)
MARGIN	13.92	(dB)

- LTE B54-

Max output power at antenna input terminal	25.70	dBm
Max output power at antenna input terminal	371.54	mW
Prediction distance	20.00	cm
Prediction frequency	1 670.7 ~ 1 672.5	MHz
Antenna gain (typical)	10.30	dBi
Antenna gain (numeric)	10.72	-
Power density at prediction frequency (S)	0.7920	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

EIRP	36.00	(dBm)
ERP	33.85	(dBm)
ERP	2.427	(W)
ERP Limit	3.00	(W)
MARGIN	0.92	(dB)

- LTE B66 -

Max output power at antenna input terminal	25.70	dBm
Max output power at antenna input terminal	371.54	mW
Prediction distance	20.00	cm
Prediction frequency	1 710.7 ~ 1 770.0	MHz
Antenna gain (typical)	4.30	dBi
Antenna gain (numeric)	2.69	-
Power density at prediction frequency (S)	0.1989	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

EIRP	30.00	(dBm)
ERP	27.85	(dBm)
ERP	0.610	(W)
ERP Limit	3.00	(W)
MARGIN	6.92	(dB)