

TEST REPORT

FCC MPE Test for GCM6201NA Certification

APPLICANT GCT SEMICONDUCTOR, INC

REPORT NO. HCT-RF-2410-FC001

DATE OF ISSUE October 2, 2024

> **Tested by** Jae Ryang Do

Technical Manager Jong Seok Lee



F-TP22-03(Rev.06)

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T E S T R E P O R T	REPORT NO. HCT-RF-2410-FC001 DATE OF ISSUE October 2, 2024	
Applicant	GCT SEMICONDUCTOR, INC 11F Construction Financial Building 15, Boramae-ro 5-gil, Dongjak-gu, Seoul, 07071, South Korea	
Product Name Model Name	LTE Module GCM6201NA	
Date of Test	August 19, 2024 ~ September 27, 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)	
FCC ID	2ALIY-GCM6201NA	
FCC Classification:	Licensed Non-Broadcast Station Transmitter (TNB)	
Test Standard Used	FCC Rule Part(s): §1.1310, 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	October 2, 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.

Frequency range	Electric field	Magneticfield	Powerdensity	Averagingtime
(MHz)	Strength (V/m)	Strength (A/m)	(mW/cm²)	(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 -			1.0	30
100.000				

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

- L	TE	B24	_
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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	1626.5~1660.5	MHz
Antenna gain (typical)	4.00	dBi
Antenna gain (numeric)	2.512	-
Power density at prediction frequency (S)	0.1857	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

- 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	1670.0~1675.0	MHz
Antenna gain (typical)	4.00	dBi
Antenna gain (numeric)	2.512	_
Power density at prediction frequency (S)	0.1857	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²