

TEST REPORT

FCC MPE Test for HT1K03-60A

APPLICANT

SAMSUNG Electronics Co., Ltd.

REPORT NO.

HCT-RF-2003-FC014

DATE OF ISSUE

March 13, 2020

HCT Co., Ltd.

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HT1K03-60A

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FCC ID
A3LHT1K03-60A

Applicant **SAMSUNG Electronics Co., Ltd.**
129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea

EUT Type AT&T 39GHz 5G NR 1024T/R MICRO HRU

Model Name HT1K03-60A

The result shown in this test report refer only to the sample(s) tested unless otherwise stated.

This test results were applied only to the test methods required by the standard.

Tested by
Kyung Soo Kang

(signature)

Technical Manager
Jong Seok Lee

(signature)

HCT CO., LTD.

Soo Chan Lee
SooChan Lee / CEO

REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	March 13, 2020	Initial Release

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.

RF Exposure Statement

1. Limit

- According to § 1.1310 RF exposure is calculated.

Table 1 – Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
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
300-1,500			f/1500	30
1,500-100,000			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

1cc ~ 4cc Mode

EIRP[Radiated Power]	62.00	dBm
EIRP[Radiated Power]	1584893.192	mW
Prediction distance	400.00	cm
Prediction frequency	37 000 ~ 40 000	MHz
Power density at prediction frequency (S)	0.78826	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.00	mW/cm ²