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TEST REPORT

FCC MPE Test for FR-R5G39AO33ASUE

APPLICANT
FRTEK CO., LTD.

REPORT NO.
HCT-RF-2201-FC107

DATE OF ISSUE
February 10, 2022

Tested by
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Additional Model
-

Applicant	**FRTEK CO., LTD.** 11-25, Simin-daero 327beon-gil, Dongan-gu, Anyang-si, Gyeonggi-do, Republic of Korea
FCC ID	2AFEG-R5G39AO33ASUE
Product Name	PrimAer SU_E39
Model Name	FR-R5G39AO33ASUE

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.

REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	February 10, 2022	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.

If this report is required to confirmation of authenticity, please contact to www.hct.co.kr

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

[SISO]

EIRP[Radiated Power]	41.50	dBm
EIRP[Radiated Power]	14125.38	mW
Prediction distance	48.00	cm
Prediction frequency	37 600 ~ 40 000	MHz
Power density at prediction frequency (S)	0.4879	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm^2

[MIMO]

EIRP[Radiated Power]	44.50	dBm
EIRP[Radiated Power]	28183.829	mW
Prediction distance	48.00	cm
Prediction frequency	37 600 ~ 40 000	MHz
Power density at prediction frequency (S)	0.9734	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm^2