

FCC MPE REPORT

FCC Certification

Applicant Name:
FRTEK CO., LTD.

Date of Issue:
March 20, 2019

Address:
11-25, Simin-daero 327beon-gil, Dongan-gu, Anyang-si,
Gyeonggi-do, Republic of Korea

Location of test lab:
HCT CO., LTD.,
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Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA

Report No.: HCT-RF-1904-FC004

FCC ID: 2AFEG-2100-24

APPLICANT: FRTEK CO., LTD.

Model: ROTECH2100-70FRT

EUT Type: INOVA ERU

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



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Manager of Telecommunication testing center

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Version

TEST REPORT NO.	DATE	DESCRIPTION
HCT-RF-1904-FC004	March 20, 2019	- First Approval Report

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

- AWS

Max Peak output Power at antenna input terminal	25.000	dBm
Max Peak output Power at antenna input terminal	316.23	mW
Prediction distance	20.00	cm
Prediction frequency	2 112.50	MHz
Antenna Gain(typical)	6.000	dBi
Antenna Gain(numeric)	3.981	-
Power density at prediction frequency(S)	0.250	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm2