

FCC MPE REPORT

Certification

Applicant Name:
FRTEK CO., LTD.

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

Date of Issue:
April 26, 2019

Test Site/Location:
HCT CO., LTD., 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA
Report No.: HCT-RF-1904-FC017-R1

FCC ID: 2AFEG-EHUB-BT

APPLICANT: FRTEK CO., LTD.

Model: FR-RLWFEHUBUC

EUT Type: INOVA EHUB

Frequency Range: 2402 MHz - 2480 MHz (Bluetooth)

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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Engineer of Telecommunication testing center



Approved by : Jong Seok Lee
Manager of Telecommunication testing center

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Version

TEST REPORT NO.	DATE	DESCRIPTION
HCT-RF-1904-FC017	April 12, 2019	- First Approval Report
HCT-RF-1904-FC017-R1	April 26, 2019	- Revised the Average output Power on Page 4

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/cm²)	Averaging time (minutes)
0.3	-	-	-	-
1.34.....	-	-	-	-
1.34	614	1.63	*(100)	30
30.....	824/f	2.19/f	*(180/ f²)	30
30 - 300.....	27.5	0.073	0.2	30
300	-	f/1500	30
1500.....	1.0	30
1500	-		
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

3-1. Bluetooth

Average output Power at antenna input terminal	5.000	dBm
Average output Power at antenna input terminal	3.16	mW
Prediction distance	20.00	cm
Prediction frequency	2402 – 2480	MHz
Antenna Gain(typical)	1.00	dBi
Antenna Gain(numeric)	1.259	-
Power density at prediction frequency(S)	0.001	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²

2.1091

EIRP	6.000 (dBm)
ERP	3.85 (dBm)
ERP	0.00 (W)
ERP Limit	1.50 (W)
MARGIN	27.91 (dB)