

# TEST REPORT

FCC MPE Test for SBM-2715-C2R  
Certification

**APPLICANT**  
HFR, Inc.

**REPORT NO.**  
HCT-RF-2402-FC002

**DATE OF ISSUE**  
February 7, 2024

**Tested by**  
Kyung Jun Woo



**Technical Manager**  
Jong Seok Lee



**HCT CO., LTD.**  
*BongJai Huh*  
BongJai Huh / CEO



**HCT Co., Ltd.**

74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383 KOREA  
Tel. +82 31 634 6300 Fax. +82 31 645 6401

# TEST REPORT

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**Applicant**

**HFR, Inc.**

Hana EZ Tower, 5F, 10 Seongnam-daero 43beon-gil, Bundang-gu, Seongnam-si,  
Gyeonggi-do, 13636, Korea

**Eut Type  
Model Name**

HFR Bluetooth Module  
SBM-2715-C2R

**FCC ID**

2BEQ9HFRBTSBM2715

**Frequency range**

2 402 MHz – 2 480 MHz (Bluetooth)

**Location of Test**

☒ Permanent Testing Lab ☐ On Site Testing

(Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea)

## REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	February 07, 2024	Initial Release

## Notice

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### Content

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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.

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).

When confirmation of authenticity of this test report is required, please contact [www.hct.co.kr](http://www.hct.co.kr)

The above Test Report is not related to the accredited test result by (KS Q) ISO/IEC 17025 and KOLAS(Korea Laboratory Accreditation Scheme) / A2LA(American Association for Laboratory Accreditation)(4114.01), which signed the ILAC-MRA.

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## 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/cm <sup>2</sup> )	Averaging time (minutes)
0.3 - 1.34.....	614	1.63	※(100)	30
1.34 - 30.....	824/f	2.19/f	※ (180/ f <sup>2</sup> )	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 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

Maximum output Power at antenna input terminal	4.00	dBm
Maximum output Power at antenna input terminal	2.51	mW
Prediction distance	20.00	cm
Prediction frequency	2402 – 2480	MHz
Antenna Gain(typical)	1.90	dBi
Antenna Gain(numeric)	1.549	-
Power density at prediction frequency( S)	0.0008	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm <sup>2</sup>

#### 2.1091

EIRP	5.90	(dBm)
ERP	3.75	(dBm)
ERP	0.002	(W)
ERP Limit	3.00	(W)
MARGIN	31.02	(dB)