

# TEST REPORT

FCC MPE Test for WHM200A  
Certification

**APPLICANT**  
SJIT Co.,Ltd

**REPORT NO.**  
HCT-RF-2401-FC002

**DATE OF ISSUE**  
January 23, 2024

**Tested by**  
Kyung Jun Woo



**Technical Manager**  
Jong Seok Lee



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**TEST  
REPORT****REPORT NO.**

HCT-RF-2401-FC002

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<b>Applicant</b>	<b>SJIT Co.,Ltd</b> 54-11, Dongtanhana 1-gil, Hwaseong-si, Gyeonggi-do, Republic of Korea
<b>Eut Type</b>	WIFI Halow Module
<b>Model Name</b>	WHM200A
<b>FCC ID</b>	2BEK7WHM200A
<b>Frequency range</b>	902.0 MHz – 928.0 MHz (802.11ah)
<b>Location of Test</b>	<input checked="" type="checkbox"/> Permanent Testing Lab <input type="checkbox"/> 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	January 23, 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	<sup>(a)</sup> (100)	30
1.34 - 30.....	824/f	2.19/f	<sup>(a)</sup> (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

<sup>(a)</sup> = 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. 802.11ah

Average output Power at antenna input terminal	25.000	dBm
Average output Power at antenna input terminal	316.228	mW
Prediction distance	20.000	cm
Prediction frequency	902.0 – 928.0	MHz
Antenna Gain(typical)	3.026	dBi
Antenna Gain(numeric)	2.007	-
Power density at prediction frequency( S)	0.1263	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	0.6013	mW/cm <sup>2</sup>

#### 2.1091

EIRP	28.03	(dBm)
ERP	25.88	(dBm)
ERP	0.387	(W)
ERP Limit	1.50	(W)
MARGIN	5.89	(dB)