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TEST REPORT

FCC MPE Test for JAS-U2-2018

Certification

APPLICANT
Jastec Co., Ltd.

REPORT NO.
HCT-RF-1909-FC012

DATE OF ISSUE
September 25, 2019

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TEST REPORT

FCC MPE Test for JAS-U2-2018

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FCC ID
UK4JAS-U2-2018

Applicant	**Jastec Co., Ltd.** Jastec B/D, 92-7, Kumgok-Dong, Boondang-Gu Seongnam-Si, Kyunggi-Do N/A
Eut Type Model Name	uvim-W JAS-U2-2018
Date of Receipt	April 15, 2019
Frequency range	2402 MHz - 2480 MHz (Bluetooth) 2 412 MHz ~ 2 462 MHz (WLAN)

This test results were applied only to the test methods required by the standard.

Tested by
Jeong Ho Kim (signature)

Technical Manager
Kwon Jeong (signature)

HCT CO., LTD.
Soo Chan Lee
SooChan Lee / CEO
Accredited by KOLAS, Republic of KOREA

REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	September 25, 2019	Initial Release

This laboratory is not accredited for the test results marked *.
The above Test Report is the accredited test result by KOLAS(Korea Laboratory Accreditation Scheme), which signed the ILAC-MRA. (HCT Accreditation No.: KT197)

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)

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^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 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

Max Peak output Power at antenna input terminal	14.00	dBm
Max Peak output Power at antenna input terminal	25.12	mW
Prediction distance	20.00	cm
Prediction frequency	2402 – 2480	MHz
Antenna Gain(typical)	4.00	dBi
Antenna Gain(numeric)	2.512	-
Power density at prediction frequency(S)	0.01255	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm^2

2.1091

EIRP	18.00	(dBm)
ERP	15.85	(dBm)
ERP	0.038	(W)
ERP Limit	3.00	(W)
MARGIN	18.92	(dB)

3-1. DTS

Max Peak output Power at antenna input terminal	17.50	dBm
Max Peak output Power at antenna input terminal	56.23	mW
Prediction distance	20.00	cm
Prediction frequency	2412 – 2462	MHz
Antenna Gain(typical)	2.70	dBi
Antenna Gain(numeric)	1.862	-
Power density at prediction frequency(S)	0.02083	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm^2

2.1091

EIRP	20.20	(dBm)
ERP	18.05	(dBm)
ERP	0.064	(W)
ERP Limit	3.00	(W)
MARGIN	16.72	(dB)

Worst Case: Simultaneous MPE 20cm is

BT (0.01255) + 2.4G WLAN (0.02083) = 0.03338 < 1