

FCC MPE REPORT

Certification

Applicant Name:
EVERINT Co.,Ltd.

Address:
(Yongtan-dong) 129, Chungjusan-dan 1-ro, Chungju-si,
Chungcheongbuk-do, Korea

Date of Issue:

December 28, 2016

Test Site/Location:

HCT CO., LTD., 74, Seoicheon-ro 578beon-gil,
Majang-myeon, Icheon-si, Gyeonggi-do, 17383,
Rep. of KOREA

Report No.: HCT-R-1612-E025

HCT FRN: 0005866421

FCC ID: 2AKMF-WD-MSO

APPLICANT: EVERINT Co.,Ltd.

Model(s): WD-MSO

EUT Type: WLAN Module (Data transmission equipment)

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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Version

TEST REPORT NO.	DATE	DESCRIPTION
HCT-R-1612-E025	December 28, 2016	- 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

3-1. WLAN 802.11b

Max Peak output Power at antenna input terminal	21.780	dBm
Max Peak output Power at antenna input terminal	150.661	mW
Prediction distance	20.000	cm
Prediction frequency	2412.000	MHz
Antenna Gain(typical)	0.270	dBi
Antenna Gain(numeric)	1.064	-
Power density at prediction frequency(S)	0.032	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²

3-2. WLAN 802.11g

Max Peak output Power at antenna input terminal	22.020	dBm
Max Peak output Power at antenna input terminal	159.221	mW
Prediction distance	20.000	cm
Prediction frequency	2437.000	MHz
Antenna Gain(typical)	0.270	dBi
Antenna Gain(numeric)	1.064	-
Power density at prediction frequency(S)	0.034	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²

3-3. WLAN 802.11n(HT20)

Max Peak output Power at antenna input terminal	22.040	dBm
Max Peak output Power at antenna input terminal	159.956	mW
Prediction distance	20.000	cm
Prediction frequency	2437.000	MHz
Antenna Gain(typical)	0.270	dBi
Antenna Gain(numeric)	1.064	-
Power density at prediction frequency(S)	0.034	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²

[UNII1 Band]**3-4. WLAN 802.11a (5180 ~ 5240)**

Max Peak output Power at antenna input terminal	13.670	dBm
Max Peak output Power at antenna input terminal	23.281	mW
Prediction distance	20.000	cm
Prediction frequency	5240.000	MHz
Antenna Gain(typical)	0.380	dBi
Antenna Gain(numeric)	1.091	-
Power density at prediction frequency(S)	0.005	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²

3-5. WLAN 802.11n (HT20) - (5180 ~ 5240)

Max Peak output Power at antenna input terminal	13.780	dBm
Max Peak output Power at antenna input terminal	23.878	mW
Prediction distance	20.000	cm
Prediction frequency	5240.000	MHz
Antenna Gain(typical)	0.380	dBi
Antenna Gain(numeric)	1.091	-
Power density at prediction frequency(S)	0.005	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²

[UNII2A Band]**3-6. WLAN 802.11a (5260 ~ 5320)**

Max Peak output Power at antenna input terminal	14.010	dBm
Max Peak output Power at antenna input terminal	25.177	mW
Prediction distance	20.000	cm
Prediction frequency	5300.000	MHz
Antenna Gain(typical)	0.200	dBi
Antenna Gain(numeric)	1.047	-
Power density at prediction frequency(S)	0.005	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²

3-7. WLAN 802.11n (HT20) - (5260 ~ 5320)

Max Peak output Power at antenna input terminal	14.260	dBm
Max Peak output Power at antenna input terminal	26.669	mW
Prediction distance	20.000	cm
Prediction frequency	5320.000	MHz
Antenna Gain(typical)	0.200	dBi
Antenna Gain(numeric)	1.047	-
Power density at prediction frequency(S)	0.006	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²

[UNII2C Band]**3-8. WLAN 802.11a (5500 – 5720)**

Max Peak output Power at antenna input terminal	14.000	dBm
Max Peak output Power at antenna input terminal	25.119	mW
Prediction distance	20.000	cm
Prediction frequency	5580.000	MHz
Antenna Gain(typical)	0.820	dBi
Antenna Gain(numeric)	1.208	-
Power density at prediction frequency(S)	0.006	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²

3-9. WLAN 802.11n (HT20) - (5500 – 5720)

Max Peak output Power at antenna input terminal	14.430	dBm
Max Peak output Power at antenna input terminal	27.733	mW
Prediction distance	20.000	cm
Prediction frequency	5500.000	MHz
Antenna Gain(typical)	0.820	dBi
Antenna Gain(numeric)	1.208	-
Power density at prediction frequency(S)	0.007	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²

[UNII3 Band]**3-10. WLAN 802.11a (5745 – 5825)**

Max Peak output Power at antenna input terminal	13.810	dBm
Max Peak output Power at antenna input terminal	24.044	mW
Prediction distance	20.000	cm
Prediction frequency	5745.000	MHz
Antenna Gain(typical)	1.340	dBi
Antenna Gain(numeric)	1.361	-
Power density at prediction frequency(S)	0.007	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²

3-11. WLAN 802.11n (HT20) - (5745 – 5825)

Max Peak output Power at antenna input terminal	13.750	dBm
Max Peak output Power at antenna input terminal	23.714	mW
Prediction distance	20.000	cm
Prediction frequency	5825.000	MHz
Antenna Gain(typical)	1.340	dBi
Antenna Gain(numeric)	1.361	-
Power density at prediction frequency(S)	0.006	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²