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FCC MPE REPORT

Certification

Applicant Name:
SmartWitness USA, LLC

Address:
1108 Lunt Avenue, Schaumburg, IL 60193 USA

Date of Issue:

October 05, 2018

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-1809-FC051-R1

FCC ID: 2AQ2S-CP2-NA

APPLICANT: SmartWitness USA, LLC

Model: CP2-NA

Additional Model: CP2, CP2-NA-L1, TX2000

EUT Type: 3G ENABLED VEHICLE RECORDER

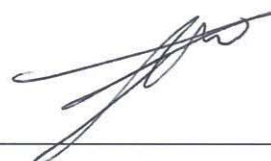
Frequency Range: 2412 MHz - 2462 MHz (2.4 GHz Band)

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)



Report prepared by : Jeong Ho Kim
Engineer of Telecommunication testing center



Approved by : Jeong Kwon
Manager of Telecommunication testing center

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Version

TEST REPORT NO.	DATE	DESCRIPTION
HCT-RF-1809-FC051	September 27, 2018	- First Approval Report
HCT-RF-1809-FC051-R1	October 05, 2018	- Delete WCDMA RF exposure result

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. RESULT

3-1. 2.4 GHz Band (DTS)

(2412 MHz – 2462 MHz)

Max Peak output Power at antenna input terminal	23.000	dBm
Max Peak output Power at antenna input terminal	0.199526	W
Prediction distance	20.000	cm
Prediction frequency	2412 ~ 2462	MHz
Antenna Gain(typical)	3.500	dBi
Antenna Gain(numeric)	2.239	-
Power density at prediction frequency(S)	0.08886	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²

2.1091

EIRP	26.50 (dBm)
ERP	24.35 (dBm)
ERP	0.272 (W)
ERP Limit	3.0 (W)
MARGIN	10.42 (dB)