

FCC MPE REPORT

Certification

Applicant Name:

UCOMM TECHNOLOGY CO., LTD.

Date of Issue:

October 10, 2018

Address:

#2108-2112, Pyeongchon Smart Bay 21floor, 123
Beolmal-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea

Location of test lab:

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

Report No.: HCT-RF-1809-FC106-R1

FCC ID:

2ABTKSC300

APPLICANT:

UCOMM TECHNOLOGY CO., LTD.

Model:

SC300

EUT Type:

Swing Caddie

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.



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Engineer of telecommunication testing center



Approved by : Jong Seok Lee
Manager of telecommunication testing center

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Version

TEST REPORT NO.	DATE	DESCRIPTION
HCT-RF-1809-FC106	September 28, 2018	- First Approval Report
HCT-RF-1809-FC106-R1	October 10, 2018	- Added the notes on page 5.

RF Exposure Statement

1. Limit

- According to § 1.1310 RF exposure is calculated.

Table 1 – Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
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
300-1,500			f/1500	30
1,500-100,000			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. BT LE

Max peak output power at antenna input terminal (dBm)	-6.424 dBm
Max peak output power at antenna input terminal (mW)	0.228 mW
Prediction distance	20.000 cm
Prediction frequency	2402.000 MHz
Antenna gain (typical)	1.800 dBi
Antenna gain (numeric)	1.514 -
Power density at prediction frequency	0.0001 mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000 mW/cm ²

3-2. Radar

Max peak output power at antenna input terminal (dBm)	4.860 dBm
Max peak output power at antenna input terminal (mW)	3.062 mW
Prediction distance	20.000 cm
Prediction frequency	24125.000 MHz
Antenna gain (typical)	8.600 dBi
Antenna gain (numeric)	7.244 -
Power density at prediction frequency	0.0044 mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000 mW/cm ²

Simultaneous transmission operations

1. The power density level at 20 cm is **0.0001 mW/cm²**, which is below the uncontrolled exposure limit of **1.0 mW/cm²** at **Bluetooth**.
2. The power density level at 20 cm is **0.0044 mW/cm²**, which is below the uncontrolled exposure limit of **1.0 mW/cm²** at **Radar (24.125 GHz)**.

->Simultaneous MPE 20 cm is Radar(24.125 GHz) (0.0044/1.0) + Bluetooth (0.0001/1.0) = 0.0045 < 1

***Note:**

1. Because of provided actual use conditions, the 20 cm separation distance is allowed, even though this device is battery powered and can be handheld.