



RF Exposure Evaluation Report

APPLICANT : CHEP
EQUIPMENT : Asset Tracker
BRAND NAME : CHEP
MODEL NAME : Ultra Scout Halo
FCC ID : 2APRD-SCOUTHALO
STANDARD : 47 CFR Part 2.1091
FCC KDB 447498 D01 v06

The product evaluation date was started from Jul. 31, 2025 and completed on Jul. 31, 2025. We, Sporton International Inc. (Shenzhen), would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1091 and FCC KDB 447498 D01 v06, and pass the limit. Without written approval of Sporton International Inc. (Shenzhen), the test report shall not be reproduced except in full.

Hank Huang



Approved by: Hank Huang

Sportun International Inc. (Shenzhen)
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People's Republic of China



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Revision History



1. Administration Data

1.1. Testing Laboratory

Sportun International Inc. (Shenzhen) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Testing Laboratory			
Test Firm	Sportun International Inc. (Shenzhen)		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	Sportun Site No.	FCC Designation No.	FCC Test Firm Registration No.
	SAR01-SZ	CN1256	421272

Applicant	
Company Name	CHEP
Address	2901 Tasman Drive Suite 101 Santa Clara, CA 95054

Manufacturer	
Company Name	MINEWING VIET NAM ELECTRONICS CO., LTD
Address	Lot CN-09, Hoa Phu Industrial Park, Xuan Cam Commune, Bac Ninh Province, Vietnam



2. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	Asset Tracker
Brand Name	CHEP
Model Name	Ultra Scout Halo
FCC ID	2APRD-SCOUTHALO
Wireless Technology and Frequency Range	WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz
Mode	WLAN 2.4GHz 802.11b/g/n HT20/HT40 Bluetooth LE
Antenna Gain	WLAN2.4GHz: -2.50 dBi Bluetooth: 2.80 dBi
Antenna Type	Bluetooth: Chip Antenna WLAN: PCB Antenna
HW Version	GEN1
SW Version	10.01.0006-P
EUT Stage	Production Unit

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. This is a variant report, the purpose is to update model name and the Manufacturer information. The change has no influence on the MPE analysis results, all the MPE analysis results are leveraged from original report FA543007.

Comments and Explanations:

1. The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.
2. The maximum RF output tune up power, antenna gain also the safe distance used for evaluate RF exposure were declared by manufacturer.



3. Maximum RF average output tune up power among production units

<2.4GHz WLAN >

Mode		Maximum Average Power (dBm)
2.4GHz	802.11b	11.00
	802.11g	12.00
	802.11n-HT20	12.00
	802.11n-HT40	12.00

<Bluetooth>

Mode		Maximum Average power(dBm)
Bluetooth	LE	1.00



4. RF Exposure Limit Introduction

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

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 Exposures				
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
300-1500			f/300	6
1500-100,000			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
300-1500			f/1500	30
1500-100,000			1.0	30

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = Power Density

P = Output Power at Antenna Terminals

G = Gain of Transmit Antenna (linear gain)

R = Distance from Transmitting Antenna



5. Radio Frequency Radiation Exposure Evaluation

5.1. Standalone Power Density Calculation

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Average EIRP (mW)	Power Density at 20cm (mW/cm^2)	Limit (mW/cm^2)
Bluetooth	2402	2.80	1.00	3.800	2.399	0.0005	1.000
2.4GHz WLAN	2412	-2.50	12.00	9.500	8.913	0.0018	1.000

Note:

1. For conservativeness, the lowest frequency of each band is used to determine the MPE limit of that band.
2. Chose the maximum power to do MPE analysis.
3. According to the EUT characteristic, WLAN 2.4GHz and Bluetooth cannot transmit simultaneously.

Conclusion:

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.

-----THE END-----