Shenzhen CTA Testing Technology Co., Ltd.
Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community,
Fuhai Street, Bao"an District, Shenzhen, China

RF Exposure evaluation

Report Reference No.....:	**CTA24072303404**
FCC ID.....:	**2AG7C-GO2T2-C6**
Compiled by (position+printed name+signature)..:	File administrators Jinghua Xiao
Supervised by (position+printed name+signature)..:	Test Engineer Lushan Kong
Approved by (position+printed name+signature)..:	Manager Eric Wang
Date of issue.....:	Aug.13, 2024
Representative Laboratory Name.:	**Shenzhen CTA Testing Technology Co., Ltd.**
Address.....:	Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community,Fuhai Street, Bao„an District, Shenzhen, China
Applicant's name.....:	**Hangzhou Meari Technology Co., Ltd.**
Address.....:	Building 4,Huiding Intelligent Innovation Center,No. 825,Ruquan Road,Changhe Street,Binjiang District,Hangzhou,Zhejiang,China
Test specification.....:	
Standard.....:	**47CFR §1.1310** **47CFR §2.1091** **KDB447498 D01 General RF Exposure Guidance v06**
TRF Originator.....:	Shenzhen CTA Testing Technology Co., Ltd.
Master TRF.....:	Dated 2014-12

Test item description.....:	**Battery Camera**
Trade Mark.....:	N/A
Manufacturer.....:	Hangzhou Meari Technology Co., Ltd.
Model/Type reference.....:	Snap 27F
Listed Models .....:	Snap 27T, Snap 27S, GO3F, GO3T, GO3, GO3F Kit2, GO3F Kit1, GO2, GO2T, GO2F, GO2T Kit1, GO2T Kit2, GO2F Kit1, GO2F Kit2, Snap 25F, Snap 25T, Snap 25S, Snap 26F, Snap 26T, Snap 26S
Operation Frequency.....:	From 2412MHz to 2462MHz, 2402MHz to 2480MHz
Hardware Version .....:	N/A
Software Version.....:	N/A
Rating.....:	DC 3.65V by Battery Recharged by DC 5.0V
Result.....:	**PASS**

TEST REPORT

Test Report No. :	CTA24072303404	Aug.13, 2024 Date of issue

Equipment under Test	:	Battery Camera
Model /Type	:	Snap 27F
Listed model	:	Snap 27T, Snap 27S, GO3F, GO3T, GO3, GO3F Kit2, GO3F Kit1, GO2, GO2T, GO2F, GO2T Kit1, GO2T Kit2, GO2F Kit1, GO2F Kit2, Snap 25F, Snap 25T, Snap 25S, Snap 26F, Snap 26T, Snap 26S
Applicant	:	**Hangzhou Meari Technology Co., Ltd.**
Address	:	Building 4,Huiding Intelligent Innovation Center,No. 825,Ruquan Road,Changhe Street,Binjiang District,Hangzhou,Zhejiang,China
Manufacturer	:	**Hangzhou Meari Technology Co., Ltd.**
Address	:	4F of Building 1 and 2-4F of Building 2, No. 91 Chutian Road, Xixing Street, Binjiang District, Hangzhou, Zhejiang, China

Test Result:	**PASS**

The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

Contents

1. SUMMARY

1.1 EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

● - supplied by the manufacturer

○ - supplied by the lab

●	/	Length (m) :	/
		Shield :	/
		Detachable :	/

1.2 Product Description

Product Name	Battery Camera
Trade Mark	N/A
Model/Type reference	Snap 27F
List Models	Snap 27T, Snap 27S, GO3F, GO3T, GO3, GO3F Kit2, GO3F Kit1, GO2, GO2T, GO2F, GO2T Kit1, GO2T Kit2, GO2F Kit1, GO2F Kit2, Snap 25F, Snap 25T, Snap 25S, Snap 26F, Snap 26T, Snap 26S
Model Declaration	PCB board, structure and internal of these model(s) are the same, Only the model name different , So no additional models were tested.
Power supply:	DC 3.65V by Battery Recharged by DC 5.0V
Sample ID	CTA24072303402-1#&CTA24072303402-2#
Bluetooth	
Operation frequency	2402-2480MHz
Channel Number	40 channels for Bluetooth (DTS)
Channel Spacing	2MHz for Bluetooth (DTS)
Modulation Type	GFSK for Bluetooth (DTS)
WIFI(2.4G Band)	
Frequency Range	2412MHz ~ 2462MHz
Channel Spacing	5MHz
Channel Number	11 Channel for 20MHz bandwidth(2412~2462MHz) 7 Channel for 40MHz bandwidth(2422~2452MHz)
Modulation Type	802.11b: DSSS; 802.11g/n: OFDM; 802.11ax: OFDMA
Antenna Description	Omni Antenna, 4.42dBi(Max.) for 2.4G Band

2. TEST ENVIRONMENT

2.1 Address of the test laboratory

Shenzhen CTA Testing Technology Co., Ltd.
Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community,Fuhai Street, Bao„an District, Shenzhen, China.

2.2 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:
FCC-Registration No.: 517856 Designation Number: CN1318
Shenzhen CTA Testing Technology Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.
A2LA-Lab Cert. No.: 6534.01
Shenzhen CTA Testing Technology Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.
The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.10 and CISPR 16-1-4:2010.

2.3 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15-35 ° C
Humidity:	30-60 %
Atmospheric pressure:	950-1050mbar

2.4 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01" Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 2 " and is documented in the Shenzhen CTA Testing Technology Co., Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen CTA laboratory is reported:

Test Items	Measurement Uncertainty	Notes
Transmitter power conducted	0.57 dB	(1)

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

3. METHOD OF MEASUREMENT

3.1 Applicable Standard

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.
According to §1.1310 and §2.1091 RF exposure is calculated.
KDB447498 D01 GeneralRF Exposure Guidance v06: Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies

3.2 Requirement

Systems operating under the provisions of FCC 47 CFRsection shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2m normally can be maintained betweenthe user and the device, and below RF Permissible Exposure limit shall comply with.
In accordance with KDB447498 D01 General RF Exposure Guidance v06for Simultaneous transmissionMPE test exclusion applies when the sum of the MPE ratios for all simultaneous transmitting antennas incorporated in a host device, based on the calculated/estimated, numerically modeled or measured field strengths or power density, is ≤ 1.0. The MPE ratio of each antenna is determined at the minimum test separation distance required by the operating configurations and exposure conditions of the host device, according to the ratio of field strengths or power density to MPE limit, at the test frequency. Either the maximum peak or spatially averaged results from measurements or numerical simulations may be used to determine the MPE ratios. Spatial averaging does not apply when MPE is estimated using simple calculations based on far-field plane-wave equivalent conditions. The antenna installation and operating requirements for the host device must meet the minimum test separation distances required by all antennas, in both standalone and simultaneous transmission operations, to satisfy compliance.

3.3 Limit

Limits for Maximum Permissible Exposure (MPE)/Controlled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm^2)	Averaging Time (minute)
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 – 1500	/	/	f/300	6
1500 – 100,000	/	/	5	6

Limits for Maximum Permissible Exposure (MPE)/Uncontrolled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm^2)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) *	30
3.0 – 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

3.4 MPE Calculation Method

Predication of MPE limit at a given distance
Equation from page 18 of OET Bulletin 65, Edition 97-01
$S=PG/4\pi R^2$
Where: 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

As declared by the Applicant, the EUT transmits with the maximum soure-baed Duty Cycle of 100%-see the User manual, and the EUT is a wireless device used in a mobile application, at least 20 cm from any body part of the user or nearby persons; from the maximum EUT RF output power, the minimum mobile separation distance, r =20cm, as well as the gain of the used antenna is 4.42dBi for BT&WLAN, and the power drift from Turn-up Procedure provide by manufacturer as following states, the RF power density can be obtained.

3.5 Antenna Information

Snap 27F can only use antennas certificated as follows provided by manufacturer;

Internal Identification	Antenna Identification in Internal photos	Antenna type and antenna number	Operate frequency band	Maximum antenna gain
Antenna 1	BLE&WLAN ANT	Omni antenna	2400 – 2500MHz	4.42dBi(Max.)

4. Conducted Power Results

Bluetooth

Mode	Channel	Frequency (MHz)	Peak Power (dBm)
GFSK(BT LE)	0	2402	10.58
	19	2440	10.92
	39	2480	10.47

2.4GWLAN

Mode	Channel	Frequency (MHz)	Peak Power (dBm)
802.11b	01	2412	19.43
	06	2437	19.43
	11	2462	19.93
802.11g	01	2412	23.43
	06	2437	21.00
	11	2462	21.58
802.11n(HT20)	01	2412	21.07
	06	2437	21.02
	11	2462	21.50
802.11n(HT40)	03	2422	21.16
	06	2437	21.41
	09	2452	21.69
802.11ax(HE20)	01	2412	21.47
	06	2437	21.28
	11	2462	21.77

5. Manufacturing Tolerance

Bluetooth

GFSK BT LE (Peak)			
Channel	Channel 0	Channel 19	Channel 39
Target (dBm)	10.0	10.0	10.0
Tolerance ±(dB)	1.0	1.0	1.0

2.4GWLAN

IEEE 802.11b (Peak)			
Channel	Channel 01	Channel 06	Channel 11
Target (dBm)	19.00	21.00	21.00
Tolerance ±(dB)	1.0	1.0	1.0
IEEE 802.11g (Peak)			
Channel	Channel 01	Channel 06	Channel 11
Target (dBm)	23.00	21.00	21.00
Tolerance ±(dB)	1.0	1.0	1.0
IEEE 802.11n HT20 (Peak)			
Channel	Channel 01	Channel 06	Channel 11
Target (dBm)	21.00	21.00	21.00
Tolerance ±(dB)	1.0	1.0	1.0
IEEE 802.11n HT40 (Peak)			
Channel	Channel 03	Channel 06	Channel 09
Target (dBm)	21.00	21.00	21.00
Tolerance ±(dB)	1.0	1.0	1.0
IEEE 802.11ax HE20 (Peak)			
Channel	Channel 01	Channel 06	Channel 11
Target (dBm)	21.00	21.00	21.00
Tolerance ±(dB)	1.0	1.0	1.0

6. Measurement Results

6.1 Standalone MPE Evaluation

As declared by the Applicant, the EUT is a wireless device used in a fix application, at least 20 cm from any body part of the user or nearby persons; from the maximum EUT RF output power, the minimum separation distance, r =20cm, as well as the gain of the used antenna refer to antenna information, the RF power density can be obtained.

BT

Modulation Type	Tune up Power		Antenna Gain (dBi)	EIRP (W)	EIRP MPE Limits (W)
	dBm	W			
GFSK(BT LE)	11.00	0.0126	4.42	0.0348	2.68

2.4GWLAN

Modulation Type	Tune up Power		Antenna Gain (dBi)	EIRP (W)	EIRP MPE Limits (W)
	dBm	W			
802.11b	22.00	0.2512	4.42	0.4385	2.68
802.11g	24.00	0.1585	4.42	0.6950	2.68
802.11n(HT20)	22.00	0.1585	4.42	0.4385	2.68
802.11n(HT40)	22.00	0.1585	4.42	0.4385	2.68
802.11ax(HE20)	22.00	0.2512	4.42	0.4385	2.68

Remark:
1. Output power including tune-up tolerance;
2. MPE evaluate distance is 20cm from user manual provide by manufacturer;

7. Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB447498 D01 General RF Exposure Guidance v06, No SAR is required.

.....End of Report.....