

MAXIMUM PERMISSIBLE EXPOSURE EVALUATION REPORT

Applicant: Anker Innovations Limited

Address: Unit 56, 8th Floor, Tower 2, Admiralty Centre, 18 Harcourt Road, Hong Kong

Product Name: eufy FamiLock S3 Max, eufy FamiLock S3

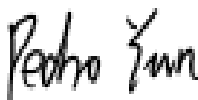
FCC ID: 2AOKB-T85V0

Standard(s): 47 CFR §1.1310, 47 CFR §2.1091,
47 CFR §15.247(i), 47 CFR §15.407(f)

Report Number: 2402Z106115E-RF-00E

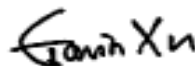
Report Date: 2024/12/11

The above device has been tested and found compliant with the requirement of the relative standards by Bay Area Compliance Laboratories Corp. (Dongguan).



Reviewed By: Pedro Yun

Title: Project Engineer



Approved By: Gavin Xu

Title: RF Supervisor

Bay Area Compliance Laboratories Corp. (Dongguan)
No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, China

Tel: +86-769-86858888

Fax: +86-769-86858891

www.baclcorp.com.cn

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1. GENERAL INFORMATION

1.1 General Description Of Equipment under Test

EUT Name:	eufy FamiLock S3 Max, eufy FamiLock S3
EUT Model:	T85V0
Multiple Model:	T85V0C
Rated Input Voltage:	DC 3.85V from Battery or DC 1.5V*4 AAA from Battery
EUT Received Date:	2024/11/22
EUT Received Status:	Good

Note: The difference between the two models is that the T85V0 with a screen and the T85V0C without. Please refer to the declaration letter for more detail, which was provided by manufacturer.

2. RF EXPOSURE EVALUATION (MPE)

2.1 RF Exposure Evaluation

2.1.1 Applicable Standard

According to subpart 15.247(i), 15.407(f) and subpart §1.1310, 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.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
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;

According to §1.1310 and §2.1091 RF exposure is calculated.

2.1.2 Calculation formula:

Prediction of power density at the distance of the applicable MPE limit

$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm²);

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

For simultaneously transmit system, the calculated power density should comply with:

$$\sum_i \frac{S_i}{S_{Limit,i}} \leq 1$$

2.1.3 Calculated Data:

Mode	Frequency (MHz)	Antenna Gain		Conducted output power including Tune-up Tolerance▲		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)
		(dBi)	(numeric)	(dBm)	(mW)			
BLE	2402-2480	3.67	2.33	6	3.98	20.00	0.0018	1.0
2.4G WiFi	2412-2462	3.67	2.33	21.5	141.25	20.00	0.0655	1.0
24G Radar	24060-24240	2	1.58	0.57	1.14	20.00	0.0004	1.0

Note:

The Conducted output power including Tune-up Tolerance provided by manufacturer.

Radar: E Field@3m is 97.77 dBuV/m =2.57dBm

E[dBμV/m] = EIRP[dBm] + 95.2 for d = 3 m.

Conducted output power=EIRP-Gain=2.57-2dBm=0.57dBm

BLE and 2.4G WiFi can't transmit simultaneously, BLE or 2.4G WiFi can transmit simultaneously with 24G Radar:

$$\sum_i \frac{S_i}{S_{Limit,i}}$$

$$=S_{2.4GWiFi}/S_{limit-2.4GWiFi} + S_{24G Radar}/S_{limit-24G Radar}$$

$$=0.0655/1+0.0004/1$$

$$=0.066$$

$$< 1.0$$

Result: The device meet FCC MPE at 20 cm distance

EXHIBIT A - EUT PHOTOGRAPHS

Please refer to the attachment 2402Z106115E-RF-EXP EUT EXTERNAL PHOTOGRAPHS and 2402Z106115E-RF-INP EUT INTERNAL PHOTOGRAPHS.

******* END OF REPORT *******