



REPORT No. : SZ18080103S01

FCC RF EXPOSURE EVALUATION REPORT

APPLICANT : Anker Innovations Limited

PRODUCT NAME : Entry Sensor

MODEL NAME : T8900

BRAND NAME : eufy Security

FCC ID : 2AOKB-T8900

STANDARD(S) : 47CFR 2.1091
KDB 447498

ISSUE DATE : 2018-09-03

Tested by:

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Approved by:

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MORLAB

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Change History		
Issue	Date	Reason for change
1.0	2018-09-03	First edition



1. Technical Information

Note: Provide by manufacturer.

1.1 Applicant and Manufacturer Information

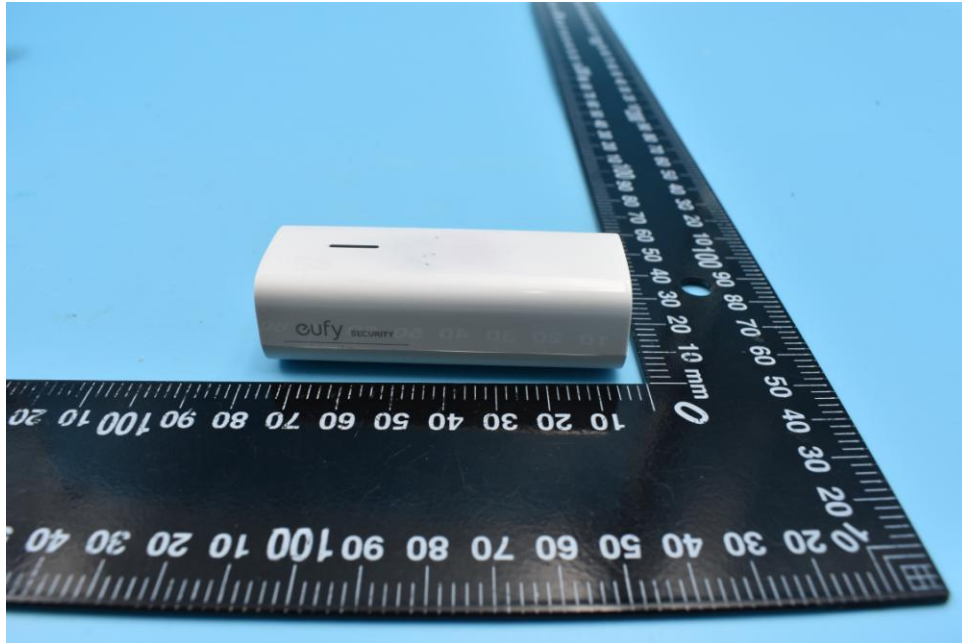
Applicant:	Anker Innovations Limited
Applicant Address:	Room 1318-19,Hollywood Plaza,610 Nathan Road, Mongkok, Kowloon,Hong Kong
Manufacturer:	Anker Innovations Limited
Manufacturer Address:	Room 1318-19,Hollywood Plaza,610 Nathan Road, Mongkok, Kowloon,Hong Kong

1.2 Equipment Under Test (EUT) Description

EUT Type:	Entry Sensor
Hardware Version:	0.2
Software Version:	0.0.5
Frequency Bands:	920.0MHz ~ 920.8MHz
Modulation Mode:	GFSK
Antenna Type:	Monopole Antenna
Antenna Gain:	0dBi

1.3 Photographs of the EUT

1. EUT front view



2. EUT rear view





1.4 Identification of all used EUT

The EUT identity consists of numerical and letter characters, the letter character indicates the test sample, and the following two numerical characters indicate the software version of the test sample.

EUT Identity	Hardware Version	Software Version
1#	0.2	0.0.5

1.5 Applied Reference Documents

Leading reference documents for testing:

No.	Identity	Document Title
1	47 CFR§2.1091	Radio frequency Radiation Exposure Evaluation: mobile devices
2	KDB 447498 D01v06	General RF Exposure Guidance



2. Device Category and RF Exposure Limit

Per user manual, Based on 47CFR 2.1091, this device belongs to mobile device category with General Population/Uncontrolled exposure.

Mobile Devices:

47CFR 2.1091(b)

For purposes of this section, a mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons. In this context, the term "fixed location" means that the device is physically secured at one location and is not able to be easily moved to another location. Transmitting devices designed to be used by consumers or workers that can be easily re-located, such as wireless devices associated with a personal computer, are considered to be mobile devices if they meet the 20 centimeter separation requirement.

GENERAL POPULATION / UNCONTROLLED EXPOSURE

The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity. Warning labels placed on low-power consumer devices such as cellular telephones are not considered sufficient to allow the device to be considered under the occupational/controlled category, and the general population/uncontrolled exposure limits apply to these devices.

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)
(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

f = frequency in MHz

* = Plane-wave equivalent power density

3. Measurement of RF Output Power

<915 Band>

Band	Channel	Frequency (MHz)	Peak Power(dBm)	
			Power Level	GFSK
915MHz	CH 90	920.2	14.00	14.20
	CH 91	920.4	14.00	14.17
	CH 93	920.8	14.00	14.15
Tune-up Limit			14.5	

Note: According to KDB 447498 section 7.1, the source-based time-averaged maximum radiated power, according to the maximum antenna gain, must be applied to calculate the field strength and power density required to establish the minimum test separation distance.

4. RF Exposure Evaluation

Standalone transmission MPE evaluation

Bands	Frequency (MHz)	Maximum Tune-up Limit (dBm)	Antenna Gain (dBi)	Results (mW)	Power density (mW/cm ²)	Limit for MPE (mW/cm ²)
915MHz	920.2	14.5	0	28.18	0.006	0.613

1. MPE calculation method

$$\text{Power Density} = P \cdot G / 4\pi R^2$$

Where:

P = Output power

G = Antenna gain

R = Separation distance (20cm)



Annex A General Information

1. Identification of the Responsible Testing Laboratory

Company Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Department:	Morlab Laboratory
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