

RF Exposure Evaluation Report

Product : 2.4G Baby Monitor
Trade mark : Simyke
Model/Type reference : 2AT2MBMU0S-TX
Serial Number : N/A
Report Number : EED32L00198403
FCC ID : 2AT2MBMU0S-TX
Date of Issue : Aug. 20, 2019
Test Standards : 47 CFR Part 1.1307
47 CFR Part 1.1310
KDB447498D01v06
Test result : PASS

Prepared for:

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2 Version

Version No.	Date	Description
00	Aug. 20, 2019	Original

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4 General Information

4.1 Client Information

Applicant:	Abellstar Technology Limited
Address of Applicant:	F1 Building of Dongguan Tianan-Cyber Park Huangjin Road, No.1, Nancheng , Dongguan, Guangdong Province, China 523080
Manufacturer:	DONGGUAN SOUTHSTAR ELECTRONICS LTD
Address of Manufacturer:	3 Chengtian Road, Mintian, Shatian Town, Dongguan, Guangdong Province, China
Factory:	DONGGUAN SOUTHSTAR ELECTRONICS LTD
Address of Factory:	3 Chengtian Road, Mintian, Shatian Town, Dongguan, Guangdong Province, China

4.2 General Description of EUT

Product Name:	2.4G Baby Monitor
Model No.(EUT):	2AT2MBMU0S-TX
Trade Mark:	Simyke
EUT Supports Radios application	2410.875MHz - 2471.625MHz

4.3 Product Specification subjective to this standard

Frequency Range:	2410.875MHz - 2471.625MHz					
Modulation Type:	GFSK					
Test Power Grade:	N/A					
Test Software of EUT:	N/A					
Antenna Type:	Chip Antenna					
Antenna Specification	2.4G Antenna Gain : 3.70 dBi (Numeric gain 2.34)					
Maximum tune up power	<table border="1"><tr><td>2.4G</td><td>12.00 dBm</td><td>(15.849 mW)</td></tr></table>			2.4G	12.00 dBm	(15.849 mW)
2.4G	12.00 dBm	(15.849 mW)				
Power Supply:	AC adapter	Model: DCS10-0501000F Input:100-240V~50/60Hz 0.3A Output: 5.0V  1000mA				
Sample Received Date:	Jul. 24, 2019					
Sample tested Date:	Jul. 24, 2019 to Aug. 19, 2019					
The tested sample(s) and the sample information are provided by the client.						

4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, Guangdong, China

Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 RF Exposure Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 Limits

According to FCC Part1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in part1.1307(b)

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 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

A rough estimation of the expected exposure in power flux density on a given point can be made with the following equation:

$$S = \frac{P \times G}{4 \times \pi \times R^2}$$

Where:

S = power density

P = power input to the antenna

G = numeric gain of the antenna in the direction of interest relative to an isotropic radiator

R= distance to the centre of radiation of the antenna

EIRP = P*G

The antenna of the product, under normal use condition is at least 20 cm away from the body of the user.

Warning statement to the user for keeping at least 20cm separation distance and the prohibition of operating to a person has been printed on the user's manual. Therefore, the S of the device is calculated with R=20cm, and if it is below the limit S, then we can conclude the device complies with the rules.

5.1.2 Test Procedure

Software provided by client enabled the EUT to transmit data at lowest, middle and highest channel individually.

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5.1.3 EUT RF Exposure Evaluation

Antenna Gain: 3.7dBi

Output Power Into Antenna & RF Exposure Evaluation Distance:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm	Limit (mW/cm2)
0	2471.625	15.849	2.34	20	0.0074	1

Note: Refer to report No. EED32L00198401 for EUT test Max Conducted Peak Output Power value.

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32L00198401 for EUT external and internal photos.

*** End of Report ***

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