MPE REPORT

FCC ID: ZUXIBB-M8

Date of issue: Nov. 13, 2020

Report number:	MTi20091506-6E3
Sample description:	iBaby Monitor M8
Model(s):	M8, M7L Pro, M7 Pro, M8C, M8 Pro, M8 Plus, M8L, M9, M9 Pro
Applicant:	iBaby Labs, Inc.
Address:	Room 601, 6/F, Block T2-B, Software Park, No.22, S . Gaoxin7th Ave., Nanshan District, Shenzhen, Guangdong, China
Date of test:	Oct. 12, 2020 to Nov. 13, 2020

Shenzhen Microtest Co., Ltd.

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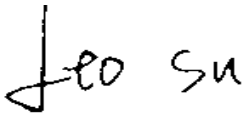
TEST RESULT CERTIFICATION	
Applicant's name:	iBaby Labs, Inc.
Address:	Room 601, 6/F, Block T2-B, Software Park, No.22, S . Gaoxin7th Ave., Nanshan District, Shenzhen, Guangdong, China
Manufacture's name:	iBaby Labs, Inc.
Address:	Room 601, 6/F, Block T2-B, Software Park, No.22, S . Gaoxin7th Ave., Nanshan District, Shenzhen, Guangdong, China
Product name:	iBaby Monitor M8
Trademark:	iBaby
Model and/or type reference:	M8
Serial model:	M7L Pro, M7 Pro, M8C, M8 Pro, M8 Plus, M8L, M9, M9 Pro
RF exposure procedures:	KDB 447498 D01 v06

This device described above has been tested by Shenzhen Microtest Co., Ltd and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

Tested by: 

Danny Xu Nov. 13, 2020

Reviewed by: 

Leo Su Nov. 13, 2020

Approved by: 

Tom Xue Nov. 13, 2020

RF EXPOSURE EVALUATION

According to FCC 1.1310: 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 §1.1307(b)

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 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
300-1,500			f/300	6
1,500-100,000			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
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz * = Plane-wave equivalent power density

MPE Calculation Method

Friis transmission formula: $Pd= (Pout*G)\ (4*pi*R^2)$

Where

Pd= Power density in mW/cm2

Pout=output power to antenna in mW

G= Numeric gain of the antenna relative to isotropic antenna

Pi=3.1415926

R= distance between observation point and center of the radiator in cm(20cm)

Pd the limit of MPE, 1mW/cm2. If we know the maximum gain of the antenna and total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

Measurement Result

WIFI:

Operation Frequency:

2.4G WIFI 802.11b/g/n HT20: 2412-2462MHz,

802.11n HT40: 2422-2452MHz,

5G WIFI 802.11a/ac20/n20: 5180-5240 MHz, 5260-5320 MHz, 5500-5700 MHz, 5745-5825 MHz

802.11ac40/n40: 5190-5230 MHz, 5270-5310 MHz, 5510-5670 MHz, 5755-5795 MHz

802.11ac80: 5210 MHz, 5290 MHz, 5530 MHz, 5775 MHz

Power density limited: 1mW/ cm^2

Antenna Type: FPC Antenna;
WIFI antenna gain: 3dBi

R=20cm

mW=10^(dBm/10)

antenna gain Numeric=10^(dBi/10)= 10^(3/10)=2

2.4G WIFI

Channel Freq. (MHz)	modulation	conducted power	Tune-up power	Max		Antenna	Evaluation result at 20cm	Power density Limits
		(dBm)	(dBm)	tune-up power		Gain	Power density(mW/cm2)	(mW/cm2)
				(dBm)	(mW)	Numeric		
		Ant A	Ant A	Ant A	Ant A	Ant A	Ant A	
2412	802.11b	13.59	15±1	16	39.810717	2	0.01584	1
2437		14.45	15±1	16	39.810717	2	0.01584	1
2462		14.26	15±1	16	39.810717	2	0.01584	1
2412	802.11g	12.43	13±1	14	25.118864	2	0.00999	1
2437		12.32	13±1	14	25.118864	2	0.00999	1
2462		12.4	13±1	14	25.118864	2	0.00999	1
2412	802.11n H20	12.39	13±1	14	25.118864	2	0.00999	1
2437		12.33	13±1	14	25.118864	2	0.00999	1
2462		12.24	13±1	14	25.118864	2	0.00999	1
2422	802.11n H40	11.31	12±1	13	19.952623	2	0.00794	1
2437		11.87	12±1	13	19.952623	2	0.00794	1
2452		11.86	12±1	13	19.952623	2	0.00794	1

5G WIFI

modulation	conducted power	Tune-up power	Max		Antenna	Evaluation result at 20cm	Power density Limits
	(dBm)	(dBm)	tune-up power		Gain	Power density(mW/cm2)	(mW/cm2)
			(dBm)	(mW)	Numeric		
	Ant A	Ant A	Ant A	Ant A	Ant A	Ant A	
UNII-1	9.79	9±1	10	10	2	0.00397	1
UNII-2A	11.70	12±1	13	19.9526	2	0.00792	1
UNII-2C	10.96	11±1	12	15.8489	2	0.00629	1
UNII-3	8.35	8±1	9	7.9433	2	0.00315	1

Conclusion:

For the max result: 0.01584≤ 1.0 for 1g SAR, No SAR is required.

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