



TEST REPORT

Application No.: HKEM2001000045AT
Applicant: BINATONE ELECTRONICS INTERNATIONAL LIMITED
Address of Applicant: Floor 23A, 9 Des Voeux Road West, Sheung Wan, Hong Kong
Equipment Under Test (EUT):
EUT Name: 4.3" Video Baby Monitor
Model No.: BLISS54PU
FCC ID: VLJ-BLISS54PU
Standard(s): 47 CFR Part 1.1307; 47 CFR Part 2.1093
KDB447498D01 General RF Exposure Guidance v06
Date of Receipt: 2020-01-28
Date of Test: 2020-01-31 to 2020-02-07
Date of Issue: 2020-02-11

Test Result: **PASS ***

* In the configuration tested, the EUT detailed in this report complied with the standards specified above.

Keny Xu

Keny Xu
EMC Laboratory Manager



SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch - EMC Laboratory

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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2020-02-11		Original

Authorized for issue by:			
		Vincent Chen	
		Vincent Chen /Project Engineer	
		Eric Fu	
		Eric Fu /Reviewer	

2 Test Summary

Radio Spectrum Technical Requirement				
Item	Standard	Method	Requirement	Result
RF Exposure	47 CFR Part 1.1307, 47 CFR Part 2.1093, KDB 447498 D01	KDB447498D01	KDB447498D01	PASS



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4 General Information

4.1 Details of E.U.T.

Power supply:	AC 120 V, 60 Hz;
Adapter	Adaptor 1
	AC 100-240V ~ 50/60Hz 150mA to DC 5.0V 1A
	Model no: S005BNU0500100
	Adaptor 2
	AC 100-240V ~ 50/60Hz 150mA to DC 5.0V 1A
	Model no: VT05EUS05100
	DC supply with internal rechargeable battery
Function	Monitoring Device (PU)
Test Voltage	AC120 V 60 Hz
Operation Frequency:	2405-2475MHz
Channel Numbers:	16
Channel Separation:	≥ 2MHz
Type of Modulation:	Frequency Hopping Spread Spectrum (FHSS)
Sample Type:	Indoor
Antenna Type:	Dipole
Antenna Gain:	0 dBi
Frequency List	

Channel Number	TX Freq (MHz)	Channel Number	TX Freq (MHz)	Channel Number	TX Freq (MHz)
1	2405	12	2428	23	2454
2	2407	13	2430	24	2456
3	2409	14	2433	25	2458.5
4	2411	15	2435	26	2460.5
5	2413	16	2437	27	2462.5
6	2415	17	2439	28	2467
7	2418	18	2441	29	2469
8	2420	19	2444	30	2471



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9	2422	20	2446	31	2473
10	2424	21	2450	32	2475
11	2426	22	2452		

Remark: 1. Operation channel is only 16.
2. Testing Channels are highlighted in **bold**.



4.2 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

No. 1 Workshop, M-10, Middle section, Science & Technology Park, Shenzhen, Guangdong, China 518057

Telephone: +86 (0) 755 2601 2053 Fax: +86 (0) 755 2671 0594

No tests were sub-contracted.

4.3 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

• VCCI

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

• FCC –Designation Number: CN1178

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1178. Test Firm Registration Number: 406779.

• Innovation, Science and Economic Development Canada

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

4.4 Deviation from Standards

None.

4.5 Abnormalities from Standard Conditions

None.



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4.6 Other Information Requested by the Customer

None.



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5 Radio Spectrum Technical Requirement

5.1 RF Exposure for FCC

5.1.1 FCC Radiofrequency radiation 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

F = Frequency in MHz

Friis Formula

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * R^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

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

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

5.1.2 Test Procedure

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



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5.1.3 EUT RF Exposure Evaluation

Antenna Gain: 0dBi

Output Power Into Antenna & RF Exposure Evaluation Distance:

For FCC:

Channel	Frequency (MHz)	Conduct power (including Tune-up tolerance) (dBm)	E.I.R.P (mW)	Power Density at R = 20 cm (mW/cm2)	Limit	MPE Ratios	Result
Low	2405	16.8	47.86	0.00952	1	0.00952	PASS
Middle	2439	16.7	46.77	0.00931	1	0.00931	PASS
High	2475	15.1	32.36	0.00644	1	0.00644	PASS

Note: Refer to report No. HKEM200100004501 on EUT test EIRP value. The distance (5th column) calculated from the Fries transmission formula is far greater than 20 cm separation requirement.

- End of the Report -



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