

TEST REPORT

Application No.: HKEM2209000891AT
Applicant: VTech Telecommunications Ltd.
Address of Applicant: 23/F, Tai Ping Industrial Centre, Block 1, 57 Ting Kok Road, Tai Po, Hong Kong.
Equipment Under Test (EUT):
EUT Name: Baby Monitor
Model No.: LF1726FHD BU, LF1726-2FHD BU, LF1726HD BU, LF1726-2HD BU
Additional Model: Please refer to section 2 of this report which indicates which item was actually tested and which were electrically identical.
Trademark: Leap frog
FCC ID: EW780-2950-00
IC: 1135B-80295000
HVIN: 35-400445BU
Standard(s) : 47 CFR Part 1.1307; 47 CFR Part 2.1093
KDB447498D01 General RF Exposure Guidance v06
RSS102 Issue 5
Date of Receipt: 2022-09-13
Date of Test: 2022-09-14 to 2022-09-26
Date of Issue: 2022-09-28

Test Result:	The submitted sample was found to comply with the test requirement
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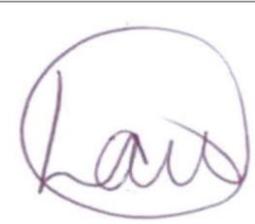


Law Man Kit
EMC Manager

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Revision Record			
Revision No.	Date	Report superseded	Remark

Authorized for issue by:			
			
		Panny Leung /Project Engineer	Date: 2022-09-28
			
		Law Man Kit /Reviewer	Date: 2022-09-28

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
RF Exposure	RSS102 Issue 5	RSS-102 Section 2.5.1	RSS102 Issue 5	PASS

Declaration of EUT Family Grouping:

Item no.: LF1726FHD BU, LF1726-2FHD BU, LF1726HD BU, LF1726-2HD BU

According to the confirmation from the applicant, the above models are identical in all electrical aspects in relating to the electronics/electrical designs, including software & firmware, PCB layout, construction design/ physical design/Enclosure. The differences are only the model/item No, and color.

Therefore, only the model LF1726FHD BU was tested in this report.

Abbreviation:

- Tx: In this whole report Tx (or tx) means Transmitter.
- Rx: In this whole report Rx (or rx) means Receiver.
- RF: In this whole report RF means Radiated Frequency.
- CH: In this whole report CH means channel.
- Volt: In this whole report Volt means Voltage.
- Temp: In this whole report Temp means Temperature.
- Humid: In this whole report Humid means humidity.
- Press: In this whole report Press means Pressure.
- N/A: In this whole report not application.

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4 General Information

4.1 Details of E.U.T.

Power supply:	Model: VT07EUS05150 Input: AC 100-240V, 50/60Hz, 0.5A Output: DC 5V, 1.5A, 7.5W
Test voltage:	AC 120V
Cable:	Power Cable: 180cm unshielded 2 wires DC cable
Antenna Gain:	Maximum antenna gain at 900MHz: 0.53 dBi
Antenna Type:	FPC Antenna
Modulation Type:	OFDM (64QAM, 16QAM, QPSK, BPSK)
Number of Channels:	802.11ah: 3
Operation Frequency:	802.11ah: 908MHz to 924MHz
Series number:	A1
Hardware Version:	V1.1
Software Version:	RC01
	Remark: Power level setting was not adjustable and fixed default through SW Version.

4.2 Description of Support Units

The EUT has been tested as an independent unit.

4.3 Test Location

All tests were performed at:

SGS Hong Kong Limited
Unit 2 and 3, G/F, Block A, Po Lung Centre,
11 Wang Chiu Road, Kowloon Bay, Kowloon, Hong Kong
Tel: +852 2305 2570 Fax: +852 2756 4480

No tests were sub-contracted.

4.4 Test Facility

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

• IAS Accreditation (Lab Code: TL-817)

SGS Hong Kong Limited has met the requirements of AC89, IAS Accreditation Criteria for Testing Laboratories, and has demonstrated compliance with ISO/IEC Standard 17025:2017, General requirements for the competence of testing and calibration laboratories. This organization is accredited to provide the services specified in the scope of accreditation maintained on the IAS website (www.iasonline.org).

The report must not be used by the client to claim product certification, approval, or endorsement by IAS, NIST, or any agency of the Federal Government.

• FCC Recognized Accredited Test Firm (CAB Registration No.: 514599)

SGS Hong Kong Limited has been accredited and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Designation Number: HK0015, Test Firm Registration Number: 514599.

• Industry Canada (Site Registration No.: 26103; CAB Identifier No.: HK0015)

SGS Hong Kong Limited has been recognized by Department of Innovation, Science and Economic Development (ISED) Canada as a wireless testing laboratory. The acceptance letter from the ISED is maintained in our files. CAB Identifier No: HK0015, Site Registration Number: 26103.

4.5 Deviation from Standards

None

4.6 Abnormalities from Standard Conditions

None

5 Radio Spectrum Technical Requirement

5.1 RF Exposure

5.1.1 Test Requirement:

CFR 47 Part 1.1310

Limit:

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 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

According to IEEE C95.3:2002 section 5.5.1.1, The power density S at a point on the axis at a distance d from a transmitting antenna is given by the Friis free-space transmission formula

$$S = \frac{PG}{4\pi d^2}$$

S = power density (mW/cm²)
P = the net power delivered to the antenna (mW)
G = gain of the antenna in linear scale
d = distance between observation point and center of the radiator (cm)

5.1.1 IC Radiofrequency radiation

According to RSS-102 Issue 5, section 2.5.2 Exemption.

RF exposure evaluation is required if the separation distance between the user and the device's radiating element is greater than 20 cm, except when the device operates as follows:

below 20 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 1 W (adjusted for tune-up tolerance);

at or above 20 MHz and below 48 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than $22.48/f^{0.5}$ W (adjusted for tune-up tolerance), where f is in MHz;

at or above 48 MHz and below 300 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 0.6 W (adjusted for tune-up tolerance);

at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than $1.31 \times 10^{-2} f^{0.6834}$ W (adjusted for tune-up tolerance), where f is in MHz;

at or above 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 5 W (adjusted for tune-up tolerance).

5.1.2 EUT RF Exposure Evaluation

Antenna Gain:

The maximum Gain measured in fully anechoic chamber is 1.13 in linear scale.

Output Power Into Antenna & RF Exposure Evaluation Distance:

For FCC;

802.11ah:

Channel	Frequency (MHz)	Conduct power (including Tune-up tolerance) (dBm)	Conduct power (mW)	Power Density at R = 20 cm (mW/cm ²)	Limit	MPE Ratios	Result
Low	908.000	28.1	645.654	0.15	0.61	0.15	PASS
Middle	916.000	28.1	645.654	0.15	0.61	0.15	PASS
High	924.000	28.0	630.957	0.14	0.62	0.14	PASS

For IC:

802.11ah:

Channel	Frequency (MHz)	Conduct power (including Tune-up tolerance) (dBm)	E.I.R.P (dBm)	E.I.R.P (W)	Limit (W)	Result
Low	908.000	28.1	28.63	0.73	1.38	PASS
Middle	916.000	28.1	28.63	0.73	1.38	PASS
High	924.000	28.0	28.53	0.71	1.39	PASS

Note: 1. Refer to report No. HKEM220900089102 for EUT test conducted power value. requirement.



6 Photographs

Remark: Photos refer to Appendix: External Photo, Internal Photo and setup Photo.

- End of the Report -
