# RF Exposure Evaluation

For

Shenzhen Dayun Links Co., Ltd

Wifi Baby Monitor

Test Model: BM55BW5

Additional Model No.: Please Refer to Page 6

| | | |
|---|---|---|
| Prepared for | : | Shenzhen Dayun Links Co., Ltd |
| Address | : | Room 501, No.B Building 1, Bestda Medical Device Building, No.28, Nantong Avenue, Baolong Street, Longgang District, Shenzhen City, Guangdong Province, China |
| Prepared by | : | Shenzhen LCS Compliance Testing Laboratory Ltd. |
| Address | : | 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China |
| Tel | : | (+86)755-82591330 |
| Fax | : | (+86)755-82591332 |
| Web | : | www.LCS-cert.com |
| Mail | : | webmaster@LCS-cert.com |
| Date of receipt of test sample | : | May 07, 2025 |
| Number of tested samples | : | 2 |
| Sample number | : | A250423056-1, A250423056-2 |
| Serial number | : | Prototype |
| Date of Test | : | May 07, 2025 ~ May 26, 2025 |
| Date of Report | : | May 27, 2025 |

## RF Exposure Evaluation

| | | |
|---|---|---|
| **Report Reference No. .....** | **:** | **LCSA04015119EC** |
| Date of Issue..... | : | May 27, 2025 |
| **Testing Laboratory Name.....** | **:** | **Shenzhen LCS Compliance Testing Laboratory Ltd.** |
| Address..... | : | 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China |
| Testing Location/ Procedure..... | : | Full application of Harmonised standards ■<br>Partial application of Harmonised standards □<br>Other standard testing method □ |
| **Applicant's Name.....** | **:** | **Shenzhen Dayun Links Co., Ltd** |
| Address..... | : | Room 501, No.B Building 1, Bestda Medical Device Building, No.28, Nantong Avenue, Baolong Street, Longgang District, Shenzhen City, Guangdong Province, China |
| **Test Specification** | | |
| Standard..... | : | FCC KDB publication 447498 D01 General RF Exposure Guidance v06<br>FCC CFR 47 part1 1.1310<br>FCC CFR 47 part2 2.1091 |
| **Test Report Form No.....** | **:** | TRF-4-E-214 A/0 |
| TRF Originator..... | : | Shenzhen LCS Compliance Testing Laboratory Ltd. |
| Master TRF..... | : | Dated 2011-03 |



| | | |
|---|---|---|
| **EUT Description.....** | **:** | **Wifi Baby Monitor** |
| Trade Mark..... | : | N/A |
| Test Model..... | : | BM55BW5 |
| Ratings..... | : | Please Refer to Page 6 |
| **Result .....** | **:** | **PASS** |

| **Compiled by:** | **Supervised by:** | **Approved by:** |
|---|---|---|
| Joker.Hu | Jack Liu | Gavin Liang |
| Joker Hu/Administrator | Jack Liu/ Technique principal | Gavin Liang/ Manager |

# RF Exposure Evaluation

| Test Report No. : | LCSA04015119EC | May 27, 2025<br>Date of issue |
|---|---|---|

| | |
|---|---|
| Test Model..... | : BM55BW5 |
| EUT..... | : Wifi Baby Monitor |
| **Applicant.....** | **: Shenzhen Dayun Links Co., Ltd** |
| Address..... | : Room 501, No.B Building 1, Bestda Medical Device Building, No.28, Nantong Avenue, Baolong Street, Longgang District, Shenzhen City, Guangdong Province, China |
| Telephone..... | : / |
| Fax..... | : / |
| **Manufacturer.....** | **: Shenzhen Dayun Links Co., Ltd** |
| Address..... | : Room 501, No.B Building 1, Bestda Medical Device Building, No.28, Nantong Avenue, Baolong Street, Longgang District, Shenzhen City, Guangdong Province, China |
| Telephone..... | : / |
| Fax..... | : / |
| **Factory.....** | **: Shenzhen Dayun Links Co., Ltd** |
| Address..... | : Room 501, No.B Building 1, Bestda Medical Device Building, No.28, Nantong Avenue, Baolong Street, Longgang District, Shenzhen City, Guangdong Province, China |
| Telephone..... | : / |
| Fax..... | : / |

| Test Result | PASS |
|---|---|

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

# Revision History

| Report Version | Issue Date | Revision Content | Revised By |
|---|---|---|---|
| 000 | May 27, 2025 | Initial Issue | -- |
| | | | |
| | | | |

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## 1. Product Information

| | | |
|---|---|---|
| EUT | : | Wifi Baby Monitor |
| Test Model | : | BM55BW5 |
| Additional Model No. | : | BM55B59, BM5R59, BM55B, BM5R, BMY03, BMY09, BMXHR, BM55B89, BM55B99, BM5R89, BM5R99 |
| Model Declaration | : | PCB board, structure and internal of these model(s) are the same, So no additional models were tested |
| Power Supply | : | Input: DC 5V, 2A<br>For AC Adapter Input: AC 100-240V, 50/60Hz, 0.35A Max<br>Adapter Output: DC 5.0V⎓2.0A 10.0W |
| Hardware Version | : | BM900M_TX_MAIN_V1.0.0.1 |
| Software Version | : | 6021117 |
| WIFI(2.4G Band): | | |
| Frequency Range | : | 2412MHz~2462MHz |
| Channel Spacing | : | 5MHz |
| Channel Number | : | 11 Channels for 20MHz bandwidth (2412~2462MHz)<br>7 Channels for 40MHz bandwidth (2422~2452MHz) |
| Modulation Type | : | IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK)<br>IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK)<br>IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK) |
| Antenna Description | : | Internal Antenna, 3.16dBi(Max.) |
| SRD | : | |
| Frequency Range | : | 906MHz-926MHz |
| Channel Number | : | 6 channels |
| Channel Spacing | : | 4MHz |
| Modulation Type | : | GFSK |
| Antenna Description | : | Internal Antenna, 2.45dBi(Max.) |
| Exposure category | : | General population/uncontrolled environment |
| EUT Type | : | Production Unit |
| Device Type | : | Mobile Device |

Note: For a more detailed antenna description, please refer to the antenna specifications or the antenna report provided by the customer.

## 2. Evaluation Method

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.
In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.
In accordance with KDB447498D01 for Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneous transmitting antennas incorporated in a host device, based on the calculated/estimated, numerically modelled or measured field strengths or power density, is ≤ 1.0. The MPE ratio of each antenna is determined at the minimum test separation distance required by the operating configurations and exposure conditions of the host device, according to the ratio of field strengths or power density to MPE limit, at the test frequency. Either the maximum peak or spatially averaged results from measurements or numerical simulations may be used to determine the MPE ratios. Spatial averaging does not apply when MPE is estimated using simple calculations based on far-field plane-wave equivalent conditions. The antenna installation and operating requirements for the host device must meet the minimum test separation distances required by all antennas, in both standalone and simultaneous transmission operations, to satisfy compliance.

## 3. Limit

3. 1 Refer Evaluation Method

ANSI C95.1–2019: IEEE Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz to 300 GHz
FCC KDB publication 447498 D01 General 1 RF Exposure Guidance v06: Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.
FCC CFR 47 part1 1.1310: Radiofrequency radiation exposure limits.
FCC CFR 47 part2 2.1091: Radiofrequency radiation exposure evaluation: mobile devices.

3. 2 Limit

Limits for Maximum Permissible Exposure (MPE)/Controlled Exposure

| Frequency Range(MHz) | Electric Field Strength(V/m) | Magnetic Field Strength(A/m) | Power Density ($mW/cm^2$) | Averaging Time (minute) |
|---|---|---|---|---|
| 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 – 1500 | / | / | f/300 | 6 |
| 1500 – 100,000 | / | / | 5 | 6 |

Limits for Maximum Permissible Exposure (MPE)/Uncontrolled Exposure

| Frequency Range(MHz) | Electric Field Strength(V/m) | Magnetic Field Strength(A/m) | Power Density ($mW/cm^2$) | Averaging Time (minute) |
|---|---|---|---|---|
| Limits for Occupational/Uncontrolled Exposure | | | | |
| 0.3 – 3.0 | 614 | 1.63 | (100) * | 30 |
| 3.0 – 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

## 4. MPE Calculation Method

Predication of MPE limit at a given distance
Equation from page 18 of OET Bulletin 65, Edition 97-01

$S=PG/4\pi R^2$

Where: S=power density
P=power input to antenna
G=power gain of the antenna in the direction of interest relative to an isotropic radiator
R=distance to the center of radiation of the antenna

## 5. Conducted Power

[2.4G WIFI]

| Mode | Channel | Frequency (MHz) | Max Conducted Power(dBm) |
|---|---|---|---|
| 11B | 1 | 2412 | 12.71 |
| | 6 | 2437 | 11.67 |
| | 11 | 2462 | 11.88 |
| 11G | 1 | 2412 | 15.0 |
| | 6 | 2437 | 14.13 |
| | 11 | 2462 | 14.29 |
| 11N20 SISO | 1 | 2412 | 14.41 |
| | 6 | 2437 | 13.66 |
| | 11 | 2462 | 13.79 |
| 11N40 SISO | 3 | 2422 | 13.84 |
| | 6 | 2437 | 12.77 |
| | 9 | 2452 | 13.48 |

**Test Procedure**

TX frequency range: 926MHz
Device category: Portable device (Distance:20cm)
Max. Field Strength: 82.47dBuV/m @3m
EIRP=E-104.8+20logD=82.47-104.8+20log3=-12.79dBm
Maximum Conducted Output Power: -12.79dBm
Turn-up: -12±1

## 6. Manufacturing Tolerance

[2.4G WIFI]

| 11B (Peak) | | | |
|---|---|---|---|
| Channel | Channel 1 | Channel 6 | Channel 11 |
| Target (dBm) | 12.0 | 11.0 | 11.0 |
| Tolerance ±(dB) | 1.0 | 1.0 | 1.0 |
| 11G (Peak) | | | |
| Channel | Channel 1 | Channel 6 | Channel 11 |
| Target (dBm) | 15.0 | 14.0 | 14.0 |
| Tolerance ±(dB) | 1.0 | 1.0 | 1.0 |
| 11N20 (Peak) | | | |
| Channel | Channel 1 | Channel 6 | Channel 11 |
| Target (dBm) | 14.0 | 13.0 | 13.0 |
| Tolerance ±(dB) | 1.0 | 1.0 | 1.0 |
| 11N40 (Peak) | | | |
| Channel | Channel 3 | Channel 6 | Channel 9 |
| Target (dBm) | 13.0 | 12.0 | 13.0 |
| Tolerance ±(dB) | 1.0 | 1.0 | 1.0 |

## 7. Measurement Results

7.1 Standalone MPE Evaluation

As declared by the Applicant, the EUT is a wireless device used in a fix application, at least 20 cm from any body part of the user or nearby persons; from the maximum EUT RF output power, the minimum separation distance, r =20cm, as well as the gain of the used antenna refer to antenna information, the RF power density can be obtained.

[2.4G WIFI]

| Modulation Type | Output power | | Antenna Gain (dBi) | Antenna Gain (linear) | MPE (mW/cm2) | MPE Limits (mW/cm2) |
|---|---|---|---|---|---|---|
| | dBm | mW | | | | |
| IEEE 802.11b | 13.0 | 19.9526 | 2.45 | 1.7579 | 0.0070 | 1.0000 |
| IEEE 802.11g | 16.0 | 39.8107 | 2.45 | 1.7579 | 0.0139 | 1.0000 |
| IEEE 802.11n HT20 | 15.0 | 31.6228 | 2.45 | 1.7579 | 0.0111 | 1.0000 |
| IEEE 802.11n HT40 | 14.0 | 25.1189 | 2.45 | 1.7579 | 0.0088 | 1.0000 |

[926MHz]

| Modulation Type | Output power | | Antenna Gain (dBi) | Antenna Gain (linear) | MPE (mW/cm2) | MPE Limits (mW/cm2) |
|---|---|---|---|---|---|---|
| | dBm | mW | | | | |
| GFSK | -11.0 | 0.0794 | 2.45 | 1.7579 | 0.00003 | 0.6100 |

*Remark:*
*1. Output power including tune-up tolerance;*
*2. Output power was adjusted to duty cycle at 100% if measured duty cycle less than 98%;*
*3. MPE evaluate distance is 20cm from user manual provide by manufacturer.*

7.2 Simultaneous Transmission MPE Evaluation

The sample support one 2.4GWIFI transmit antenna, another one 926MHz transmit antenna, so need consider simultaneous transmission;

*Simultaneous transmission MPE*
*According to KDB447498 for Transmitters used in mobile exposure conditions for simultaneous transmission operations;*
*∑∑of MPE ratios ≤ 1.0*

| Mode | WIFI MPE ($mW/cm^2$) | 915MHz MPE ($mW/cm^2$) | ∑MPE ratios | Limit | Results |
|---|---|---|---|---|---|
| 2.4GWIFI+926MHz | 0.0139 | 0.00003 | 0.01393 | 1.0 | PASS |

## 8. Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

## 9. Description of Test Facility

NVLAP Accreditation Code is 600167-0.
FCC Designation Number is CN5024.
CAB identifier is CN0071.
CNAS Registration Number is L4595.
Test Firm Registration Number: 254912.

## 10. Measurement Uncertainty

| Test Item | | Frequency Range | Uncertainty | Note |
|---|---|---|---|---|
| Output power | : | 1GHz-40GHz | ±0.57dB | (1) |

(1). This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

----------THE END OF REPORT----------