# RF TEST REPORT

Product Name: 5G Smart phone

Model Name: OB-A98, TANK 4 Pro, SHARK 3

FCC ID: 2BAVY-OBA98

Issued For : Shenzhen OBLUE Communication Technology Co.,Ltd.

Room 702, Hepingdayou industrial and trade industrial park, No. 41, Yonghe Road, Heping Community, Fuhai Street, Baoan District, Shenzhen City,China

Issued By : Shenzhen LGT Test Service Co., Ltd.

Room 205, Building 13, Zone B, Zhenxiong Industrial Park, No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan District, Shenzhen, Guangdong, China

| | |
|---|---|
| Report Number: | LGT25L465RF13 |
| Sample Received Date: | Dec. 29, 2025 |
| Date of Test: | Dec. 29, 2025 ~ Jan. 09, 2026 |
| Date of Issue: | Jan. 09, 2026 |

# TEST REPORT CERTIFICATION

| | |
|---|---|
| **Applicant:** | Shenzhen OBLUE Communication Technology Co.,Ltd. |
| Address: | Room 702, Hepingdayou industrial and trade industrial park, No. 41, Yonghe Road, Heping Community, Fuhai Street, Baoan District, Shenzhen City,China |
| **Manufacturer:** | Shenzhen OBLUE Communication Technology Co.,Ltd. |
| Address: | Room 702, Hepingdayou industrial and trade industrial park, No. 41, Yonghe Road, Heping Community, Fuhai Street, Baoan District, Shenzhen City,China |
| Product Name: | 5G Smart phone |
| Trademark: | 8849,Unihertz,iHunt |
| Model Name: | OB-A98, TANK 4 Pro, SHARK 3 |
| Sample Status: | Normal |

| APPLICABLE STANDARDS | |
|---|---|
| STANDARD | TEST RESULTS |
| FCC Part 15.247, Subpart C<br>ANSI C63.10-2020 | PASS |

Prepared by:

Zane Shan

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Engineer

Approved by:

Vita Li
Technical Director

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## Revision History

| Rev. | Issue Date | Revisions |
|---|---|---|
| 00 | Jan. 09, 2026 | Initial Issue |
| | | |

Note: Has been added an adapter and updated battery label, please refer to P5 for retest information.

## 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:
KDB 558074 D01 15.247 Meas Guidance v05r02.

| FCC Part 15.247, Subpart C | | | |
|---|---|---|---|
| Standard Section | Test Item | Judgment | Remark |
| 15.207 | Conducted Emission | PASS | -- |
| 15.247(a)(1) | Hopping Channel Separation | Not Test[1] | -- |
| 15.247(a)(1)&(b)(1) | Output Power | Not Test[1] | -- |
| 15.209 | Radiated Spurious Emission | Not Test[1] | -- |
| 15.247(d) | Conducted Spurious & Band Edge Emission | Not Test[1] | -- |
| 15.247(a)(1)(iii) | Number of Hopping Frequency | Not Test[1] | -- |
| 15.247(a)(1)(iii) | Dwell Time | Not Test[1] | -- |
| 15.247(a)(1) | Bandwidth | Not Test[1] | -- |
| 15.205 | Restricted bands of operation | Not Test[1] | -- |
| Part 15.247(d)/part 15.209(a) | Band Edge Emission | Not Test[1] | -- |
| 15.203 | Antenna Requirement | Not Test[1] | -- |

NOTE:

(1) Not Test means after evaluation, test items are no need to test, the test results please refer to Original Report, the report number is LGT24I060RF13.

(2) All tests are according to ANSI C63.10-2020.

## 1.1 TEST FACTORY

| | |
|---|---|
| Company Name: | Shenzhen LGT Test Service Co., Ltd. |
| Address: | Room 205, Building 13, Zone B, Zhenxiong Industrial Park, No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan District, Shenzhen, Guangdong, China |
| Accreditation Certificate | A2LA Certificate No.: 6727.01 |
| | FCC Registration No.: 746540 |
| | CAB ID: CN0136 |

## 1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement **y** ± **U**, where expended uncertainty **U** is based on a standard uncertainty multiplied by a coverage factor of **k=2**, providing a level of confidence of approximately **95** %.

| No. | Item | Uncertainty |
|---|---|---|
| 1 | RF output power, conducted | ±0.68dB |
| 2 | Unwanted Emissions, conducted | ±2.988dB |
| 3 | All emissions, radiated 9K-30MHz | ±2.84dB |
| 4 | All emissions, radiated 30M-1GHz | ±4.39dB |
| 5 | All emissions, radiated 1G-6GHz | ±5.10dB |
| 6 | All emissions, radiated>6G | ±5.48dB |
| 7 | Conducted Emission (9KHz-150KHz) | ±2.79dB |
| 8 | Conducted Emission (150KHz-30MHz) | ±2.80dB |

Note: The measurement uncertainty is not included in the test result.

## 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF THE EUT

| | |
|---|---|
| Product Name: | 5G Smart phone |
| Trademark: | 8849,Unihertz,iHunt |
| Model Name: | OB-A98 |
| Series Model: | TANK 4 Pro, SHARK 3 |
| Model Difference: | Different make and model. |
| Channel List: | Please refer to the Note 3. |
| Bluetooth: | Frequency:2402 – 2480 MHz<br>Modulation: GFSK(1Mbps), π/4-DQPSK(2Mbps), 8DPSK(3Mbps) |
| Antenna Type: | FPC |
| Antenna Gain: | 0.81dBi |
| Adapter: | Model: HJ-PD120W-US<br>Input: 100-240V, 50/60Hz, 1.8A<br>Output: 5V 3A 15W, OR 9V 3A 27W, OR 12V 3A 36W, OR 15V 3A 45W, OR 20V 5A 100W, PPS: 3.6V-20V 6A 120W MAX<br>Model: HJ-PD120W-D-US<br>Input: 100-240V, 50/60Hz, 1.8A<br>Output: 5V 3A 15W, OR 9V 3A 27W, OR 12V 3A 36W, OR 15V 3A 45W, OR 20V 5A 100W, PPS: 5V-20V 6A 120W MAX |
| Battery: | Capacity: 5750mAh<br>Rated Voltage: 7.74V |
| Hardware Version: | G98_V2.0 |
| Software Version: | OB-A98_20240912 |
| Connecting I/O Port(s): | Please refer to the Note 1. |

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User Manual.
2. The antenna information refers to the manufacturer provide report, applicable only to the tested sample identified in the report. Due to the incorrect antenna information, a series of problems such as the accuracy of the test results will be borne by the customer.

3.

| Channel List | | | | | |
|---|---|---|---|---|---|
| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
| 00 | 2402 | 27 | 2429 | 54 | 2456 |
| 01 | 2403 | 28 | 2430 | 55 | 2457 |
| 02 | 2404 | 29 | 2431 | 56 | 2458 |
| 03 | 2405 | 30 | 2432 | 57 | 2459 |
| 04 | 2406 | 31 | 2433 | 58 | 2460 |
| 05 | 2407 | 32 | 2434 | 59 | 2461 |
| 06 | 2408 | 33 | 2435 | 60 | 2462 |
| 07 | 2409 | 34 | 2436 | 61 | 2463 |
| 08 | 2410 | 35 | 2437 | 62 | 2464 |
| 09 | 2411 | 36 | 2438 | 63 | 2465 |
| 10 | 2412 | 37 | 2439 | 64 | 2466 |
| 11 | 2413 | 38 | 2440 | 65 | 2467 |
| 12 | 2414 | 39 | 2441 | 66 | 2468 |
| 13 | 2415 | 40 | 2442 | 67 | 2469 |
| 14 | 2416 | 41 | 2443 | 68 | 2470 |
| 15 | 2417 | 42 | 2444 | 69 | 2471 |
| 16 | 2418 | 43 | 2445 | 70 | 2472 |
| 17 | 2419 | 44 | 2446 | 71 | 2473 |
| 18 | 2420 | 45 | 2447 | 72 | 2474 |
| 19 | 2421 | 46 | 2448 | 73 | 2475 |
| 20 | 2422 | 47 | 2449 | 74 | 2476 |
| 21 | 2423 | 48 | 2450 | 75 | 2477 |
| 22 | 2424 | 49 | 2451 | 76 | 2478 |
| 23 | 2425 | 50 | 2452 | 77 | 2479 |
| 24 | 2426 | 51 | 2453 | 78 | 2480 |
| 25 | 2427 | 52 | 2454 | | |
| 26 | 2428 | 53 | 2455 | | |

## 2.2 DESCRIPTION OF THE TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

| Test Mode | Description | Data Rate/Modulation |
|---|---|---|
| Mode 1 | TX CH00 | 1Mbps/GFSK |
| Mode 2 | TX CH39 | 1Mbps/GFSK |
| Mode 3 | TX CH78 | 1Mbps/GFSK |
| Mode 4 | TX CH00 | 2 Mbps/π/4-DQPSK |
| Mode 5 | TX CH39 | 2 Mbps/π/4-DQPSK |
| Mode 6 | TX CH78 | 2 Mbps/π/4-DQPSK |
| Mode 7 | TX CH00 | 3 Mbps/8DPSK |
| Mode 8 | TX CH39 | 3 Mbps/8DPSK |
| Mode 9 | TX CH78 | 3 Mbps/8DPSK |
| Mode 10 | Hopping | GFSK |
| Mode 11 | Hopping | π/4-DQPSK |
| Mode 12 | Hopping | 8DPSK |

Note:

(1) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported.

(2) We tested for all available U.S. voltage and frequencies (For 120V, 50/60Hz and 240V, 50/60Hz) for which the device is capable of operation, and the worst case of 120V/ 60Hz is shown in the report.

(3) The battery is fully charged during the radiated and RF conducted test.

For AC Conducted Emission

| Test Case | |
|---|---|
| AC Conducted Emission | Mode 13: Keeping BT TX |

## 2.3 FREQUENCY HOPPING SYSTEM REQUIREMENTS

(1) Standard and Limit

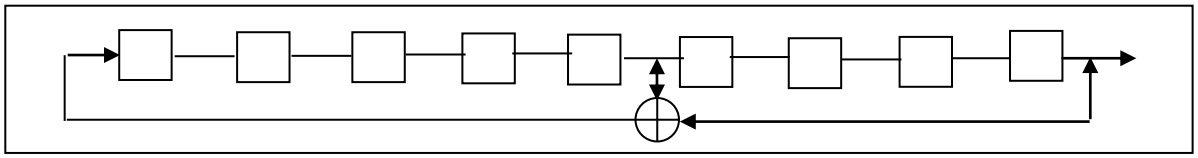
According to FCC Part 15.247(a)(1), The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

Frequency hopping spread spectrum systems are not required to employ all available hopping channels during each transmission. However, the system, consisting of both the transmitter and the receiver, must be designed to comply with all of the regulations in this section should the transmitter be presented with a continuous data (or information) stream. In addition, a system employing short transmission bursts must comply with the definition of a frequency hopping system and must distribute its transmissions over the minimum number of hopping channels specified in this section.

The incorporation of intelligence within a frequency hopping spread spectrum system that permits the system to recognize other users within the spectrum band so that it individually and independently chooses and adapts its hop sets to avoid hopping on occupied channels is permitted. The coordination of frequency hopping systems in any other manner for the express purpose of avoiding the simultaneous occupancy of individual hopping frequencies by multiple transmitters is not permitted.

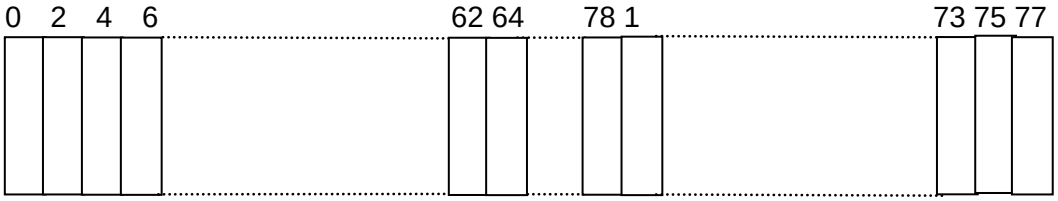
(2) The Pseudorandom sequence may be generated in a nin-stage shift register whose 5$^{th}$ and 9$^{th}$

stage outputs are added in a modulo-two addition stage. And the result is fed back to the input of the first stage. The sequence begins with the first one of 9 consecutive ones: i.e. the shift register is initialized with nine ones.
Numver of shift register stages:9
Length of pseudo-random sequence:$2^9$-1=511bits
Longest sequence of zeros: 8(non-inverted signal)



Liner Feedback Shift Register for Generator of the PRBS sequence

An example of Pseudorandom Frequency Hoppong Sequence as follow:




Each frequency used equally on th average by each transmitter.
The system receivers have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shift frequencies ini synchronization with the transmitted signals.

(3) Frequency Hopping System
This transmitter device is frequency hopping device and complies with FCC part 15.247 rule.

This device uses Bluetooth radio which operates in 2400-2483.5 MHz band. Bluetooth uses a radio technology called frequency-hopping spread spectrum, which chops up the data being sent and transmits chunks of it on up to 79 bands (1 MHz each; centred from 2402 to 2480 MHz) in the range 2,400-2,483.5MHz. The transmitter switches hop frequencies 1,600 times per second to assure a high degree of data security. All Bluetooth devices participating in a given piconet are synchronized to the frequency-hopping channel for the piconet. The frequency hopping sequence is determined by the master's device address and the phase of the hopping sequence (the frequency to hop at a specific time) is determined by the master's internal clock. Therefore, all slaves in a piconet must know the master's device address and must synchronize their clocks with the master's clock.

Adaptive Frequency Hopping (AFH) was introduced in the Bluetooth specification to provide an effective way for a Bluetooth radio to counteract normal interference. AFH identifies "bad" channels, where either other wireless device are interfering with the Bluetooth signal or the Bluetooth signal is interfering with another device. The AFH-enabled Bluetooth device will then communicate with other devices within its piconet to share details of any identified bad channels. The devices will then switch to alternative available "good" channels, away from the areas of interference, thus having no impact on the bandwidth used.

This device was tested with a bluetooth system receiver to check that the device maintained hopping synchronization, and the device complied with these requirements FCC Part 15.247 rule.

## 2.4 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of FHSS.

| Test software Version | Test program: Bluetooth | |
|---|---|---|
| Engineering Mode | Mode Or Modulation type | Power setting |
| | 1M | 6 |
| | 2M | 6 |
| | 3M | 6 |

## 2.5 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Accessories Equipment

| Description | Manufacturer | Model | S/N | Rating |
|---|---|---|---|---|
| Adapter | Shenzhen Huajin Electronics Co.,Ltd | HJ-PD120W-US | N/A | Input: 100-240V, 50/60Hz, 1.8A Output: 5V 3A 15W, OR 9V 3A 27W, OR 12V 3A 36W, OR 15V 3A 45W, OR 20V 5A 100W, PPS: 3.6V-20V 6A 120W MAX |
| Adapter | Shenzhen Huajin Electronics Co., Ltd | HJ-PD120W-D-US | N/A | Input: 100-240V, 50/60Hz, 1.8A Output: 5V 3A 15W, OR 9V 3A 27W, OR 12V 3A 36W, OR 15V 3A 45W, OR 20V 5A 100W, PPS: 5V-20V 6A 120W MAX |
| USB-C to USB-C Cable | N/A | N/A | N/A | 1m |
| | | | | |

Auxiliary Equipment

| Description | Manufacturer | Model | S/N | Rating |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |

Note:

(1) For detachable type I/O cable should be specified the length in cm in『Length』column.

(2) “YES” is means “with core”; “NO” is means “without core”.

## 2.6 EQUIPMENTS LIST

| **Conducted Emission** | | | | | |
|---|---|---|---|---|---|
| **Equipment** | **Manufacturer** | **Model No.** | **Serial No.** | **Cal. Date** | **Cal. Until** |
| EMI Test Receiver | R&S | ESU8 | 100372 | 2025.03.06 | 2026.03.05 |
| LISN | COM-POWER | LI-115 | 02032 | 2025.03.05 | 2026.03.04 |
| LISN | SCHWARZBECK | NNLK 8122 | 00160 | 2025.03.05 | 2026.03.04 |
| Transient Limiter | CYBERTEK | EM5010A | E2250100049 | 2025.03.05 | 2026.03.04 |
| Coaxial cables (9kHz-30MHz) | Juncoax | JMR600-NMNM-2M | N.A | 2025.03.06 | 2026.03.05 |
| Temperature & Humidity | JINGCHUANG | BT-3 | N.A | 2025.03.10 | 2026.03.09 |
| Testing Software | EMC-I_V1.4.0.3_SKET | | | | |

# 3. EMC EMISSION TEST

## 3.1 CONDUCTED EMISSION MEASUREMENT

### 3.1.1 POWER LINE CONDUCTED EMISSION LIMITS

The radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table.

| FREQUENCY (MHz) | Conducted Emissionlimit (dBuV) | |
|---|---|---|
| | Quasi-peak | Average |
| 0.15 -0.5 | 66 - 56 * | 56 - 46 * |
| 0.50 -5.0 | 56.00 | 46.00 |
| 5.0 -30.0 | 60.00 | 50.00 |

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

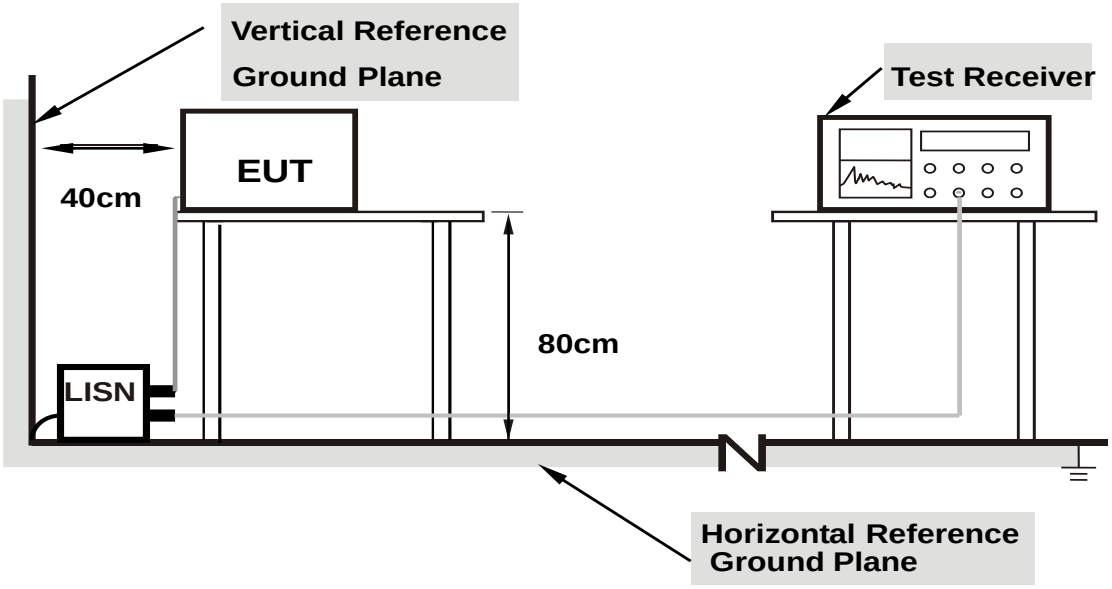
The following table is the setting of the receiver

| **Receiver Parameters** | **Setting** |
|---|---|
| Attenuation | 10 dB |
| Start Frequency | 0.15 MHz |
| Stop Frequency | 30 MHz |
| IF Bandwidth | 9 kHz |

3.1.2 TEST PROCEDURE

a. The EUT is 0.8 m from the horizontal ground plane and 0.4 m from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments are powered from additional LISN(s). The LISN provides 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
d. LISN is at least 80 cm from the nearest part of EUT chassis.
e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 TEST SETUP




**Note: 1. Support units were connected to second LISN.**

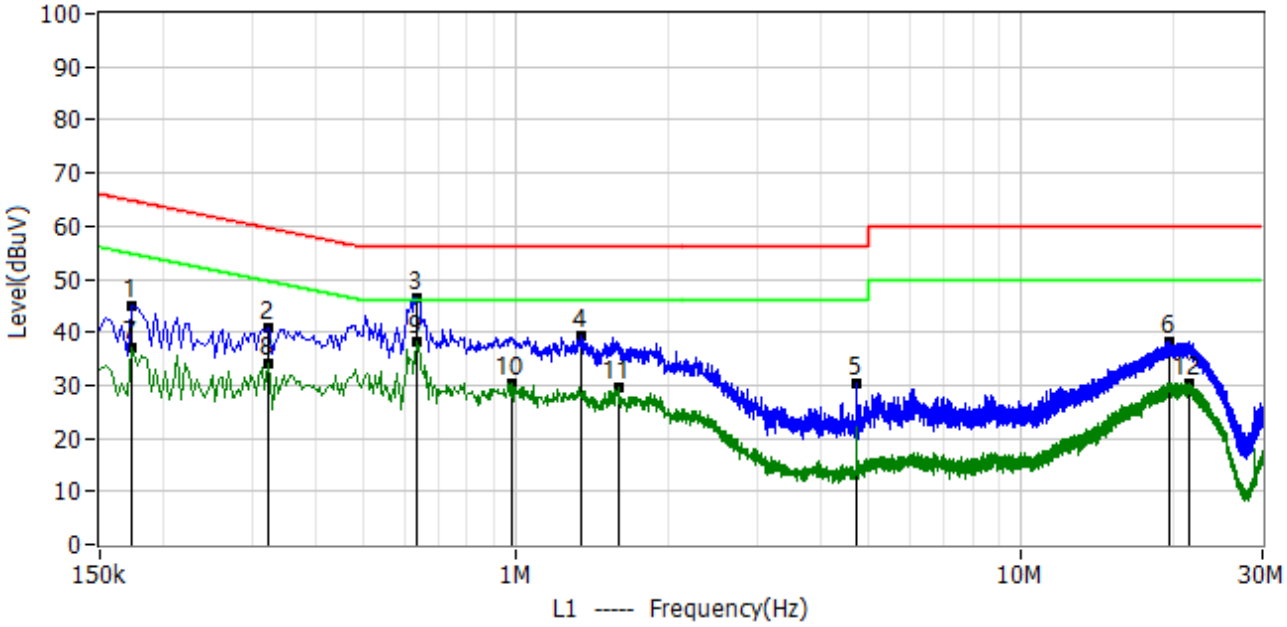
**2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes support units.**

3.1.4 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

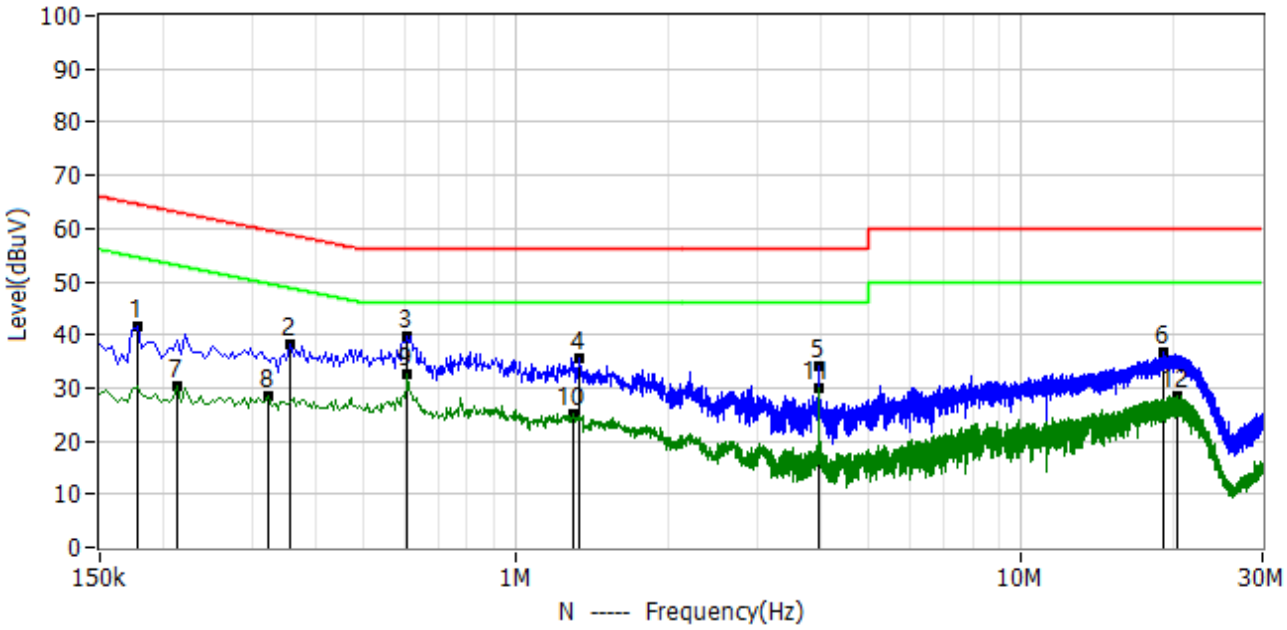
3.1.5 TEST RESULT

| | |
|---|---|
| Project: LGT25L465 | Test Engineer: LiuH |
| EUT: 5G Smart phone | Temperature: 23.5℃ |
| M/N: OB-A98 | Humidity: 54%RH |
| Test Voltage: AC 120V/60Hz | Test Data: 2025-12-31 |
| Test Mode: TX DH5 2402 | |
| Note: | |




| No. | Frequency MHz | Reading dBuV | Factor dB | Result dBuV | Limit dBuV | Margin dB | Detector | Polar |
|---|---|---|---|---|---|---|---|---|
| 1* | 0.174 | 34.31 | 10.65 | 44.96 | 64.77 | -19.81 | QP | L1 |
| 2* | 0.322 | 29.85 | 10.83 | 40.68 | 59.66 | -18.98 | QP | L1 |
| 3* | 0.634 | 35.69 | 10.91 | 46.60 | 56.00 | -9.40 | QP | L1 |
| 4* | 1.342 | 28.33 | 11.08 | 39.41 | 56.00 | -16.59 | QP | L1 |
| 5* | 4.710 | 19.09 | 11.31 | 30.40 | 56.00 | -25.60 | QP | L1 |
| 6* | 19.678 | 26.37 | 11.83 | 38.20 | 60.00 | -21.80 | QP | L1 |
| 7* | 0.174 | 26.42 | 10.65 | 37.07 | 54.77 | -17.70 | AV | L1 |
| 8* | 0.322 | 23.19 | 10.83 | 34.02 | 49.66 | -15.64 | AV | L1 |
| 9* | 0.638 | 27.33 | 10.90 | 38.23 | 46.00 | -7.77 | AV | L1 |
| 10* | 0.978 | 19.65 | 10.84 | 30.49 | 46.00 | -15.51 | AV | L1 |
| 11* | 1.598 | 18.29 | 11.14 | 29.43 | 46.00 | -16.57 | AV | L1 |
| 12* | 21.570 | 18.62 | 11.84 | 30.46 | 50.00 | -19.54 | AV | L1 |

| | |
|---|---|
| Project: LGT25L465 | Test Engineer: LiuH |
| EUT: 5G Smart phone | Temperature: 23.5℃ |
| M/N: OB-A98 | Humidity: 54%RH |
| Test Voltage: AC 120V/60Hz | Test Data: 2025-12-31 |
| Test Mode: TX DH5 2402 | |
| Note: | |




| No. | Frequency MHz | Reading dBuV | Factor dB | Result dBuV | Limit dBuV | Margin dB | Detector | Polar |
|---|---|---|---|---|---|---|---|---|
| 1* | 0.178 | 30.83 | 10.64 | 41.47 | 64.58 | -23.11 | QP | N |
| 2* | 0.358 | 27.45 | 10.82 | 38.27 | 58.77 | -20.50 | QP | N |
| 3* | 0.610 | 28.89 | 10.86 | 39.75 | 56.00 | -16.25 | QP | N |
| 4* | 1.334 | 24.69 | 11.01 | 35.70 | 56.00 | -20.30 | QP | N |
| 5* | 3.974 | 22.66 | 11.27 | 33.93 | 56.00 | -22.07 | QP | N |
| 6* | 19.122 | 24.94 | 11.77 | 36.71 | 60.00 | -23.29 | QP | N |
| 7* | 0.214 | 19.71 | 10.69 | 30.40 | 53.05 | -22.65 | AV | N |
| 8* | 0.322 | 17.74 | 10.79 | 28.53 | 49.66 | -21.13 | AV | N |
| 9* | 0.610 | 21.78 | 10.86 | 32.64 | 46.00 | -13.36 | AV | N |
| 10* | 1.294 | 13.98 | 10.98 | 24.96 | 46.00 | -21.04 | AV | N |
| 11* | 3.974 | 18.80 | 11.27 | 30.07 | 46.00 | -15.93 | AV | N |
| 12* | 20.362 | 16.68 | 11.79 | 28.47 | 50.00 | -21.53 | AV | N |

# APPENDIX I - MEASUREMENT PHOTOS

Note: Please see the attached RF_Test Setup photos for FCC Part 15C.

# APPENDIX II - PHOTOGRAPHS OF EUT CONSTRUCTIONAL DETAILS

Note: Please see the attached OB-A98_EUT Photos.

※※※※※END OF THE REPORT※※※※※