

# **TEST REPORT**

No. I23N02005-BLE

for

Schok LLC.

**Smartphone** 

Model Name: SV67332

with

Hardware Version: Q6703 V1.0

Software Version: SV67Q\_01.01.04

FCC ID: 2AM9L-SV67Q

Issued Date: 2024-01-25

**Designation Number: CN1210** 

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of SAICT.

### **Test Laboratory:**

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# **REPORT HISTORY**

| Report Number | Revision | Description | Issue Date |
|---------------|----------|-------------|------------|
| I23N02005-BLE | Rev.0    | 1st edition | 2024-01-25 |

Note: the latest revision of the test report supersedes all previous versions.



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## 1. Summary of Test Report

## 1.1. Test Items

Description Smartphone
Model Name SV67332
Applicant's name Schok LLC.

Manufacturer's Name Great Talent Technology Limited

### 1.2. Test Standards

FCC Part15-2021; ANSI C63.10-2013

### 1.3. Test Result

**Pass** 

Please refer to 5.2 Test Results.

### 1.4. Testing Location

Address: Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen, Guangdong, P. R. China 518000

## 1.5. Project data

Testing Start Date: 2023-12-11 Testing End Date: 2023-12-25

### 1.6. Signature

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(Prepared this test report)

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(Reviewed this test report)

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(Approved this test report)



# 2. Client Information

## 2.1. Applicant Information

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## 2.2. Manufacturer Information

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Contact Person: Chunli He

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Telephone: 0755-86638990

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## 3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

## 3.1. About EUT

Description Smartphone Model Name SV67332

Frequency Range 2400MHz~2483.5MHz Equipment type Bluetooth® Low Energy

Type of Modulation GFSK RF PHY LE 1M Number of Channels 40

Antenna Type Integrated
Antenna Gain 1.41 dBi

Power Supply 3.85V DC by Battery FCC ID 2AM9L-SV67Q

Condition of EUT as received No abnormality in appearance

Note: Components list, please refer to documents of the manufacturer; it is also included in the original test record of Shenzhen Academy of Information and Communications Technology.

## 3.2. Internal Identification of EUT

| EUT ID* | SN or IMEI      | <b>HW Version</b> | SW Version     | Date of Receipt |
|---------|-----------------|-------------------|----------------|-----------------|
| UT03aa  | 359341730782344 | Q6703_V1.0        | SV67Q_01.01.04 | 2023-12-06      |
| UT09aa  | 358036140000086 | Q6703_V1.0        | SV67Q_01.01.04 | 2023-12-11      |

<sup>\*</sup>EUT ID: is used to identify the test sample in the lab internally.

## 3.3. <u>Internal Identification of AE</u>

| AE No. | Description | AE ID* |
|--------|-------------|--------|
| AE1    | Battery     | /      |
| AE2    | Charger     | /      |
| AE3    | Data Cable  | /      |

<sup>\*</sup>AE ID: is used to identify the test sample in the lab internally.

#### 3.4. General Description

The Equipment under Test (EUT) is a model of Smartphone with integrated antenna and battery. It consists of normal options: Lithium Battery and Charger. Manual and specifications of the EUT were provided to fulfil the test. Samples undergoing test were selected by the client.

<sup>\*</sup>UT03aa is used for Conduction test; UT09aa is used for radiation test.



# 4. Reference Documents

## 4.1. <u>Documents supplied by applicant</u>

EUT feature information is supplied by the applicant or manufacturer, which is the basis of testing.

## 4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

| Reference   | Title   | Version |  |  |
|-------------|---|---------|--|--|
| FCC Part15  | FCC CFR 47, Part 15, Subpart C:                         | 2021    |  |  |
|             | 15.205 Restricted bands of operation;                   |         |  |  |
|             | 15.209 Radiated emission limits, general requirements;  |         |  |  |
|             | 15.247 Operation within the bands 902-928MHz,           |         |  |  |
|             | 2400-2483.5 MHz, and 5725-5850 MHz                      |         |  |  |
| ANSI C63.10 | American National Standard of Procedures for Compliance | 2013    |  |  |
|             | Testing of Unlicensed Wireless Devices                  |         |  |  |



## 5. Test Results

### 5.1. Testing Environment

Normal Temperature: 15~35°C Relative Humidity: 20~75%

#### 5.2. Test Results

| No | Test cases                                | Sub-clause of Part 15C | Verdict |
|----|---|------------------------|---------|
| 0  | Antenna Requirement                       | 15.203                 | Р       |
| 1  | Maximum Peak Output Power                 | 15.247 (b)             | Р       |
| 2  | Peak Power Spectral Density               | 15.247 (e)             | Р       |
| 3  | 6dB Bandwidth                             | 15.247 (a)             | Р       |
| 4  | Band Edges Compliance                     | 15.247 (d)             | Р       |
| 5  | Transmitter Spurious Emission - Conducted | 15.247 (d)             | Р       |
| 6  | Transmitter Spurious Emission - Radiated  | 15.247, 15.205, 15.209 | Р       |
| 7  | AC Power line Conducted Emission          | 15.107, 15.207         | Р       |

See ANNEX A for details.

### 5.3. Statements

SAICT has evaluated the test cases requested by the applicant/manufacturer as listed in section 5.2 of this report, for the EUT specified in section 3, according to the standards or reference documents listed in section 4.2.

#### Disclaimer:

- A. After confirmation with the customer, the sample information provided by the customer may affect the validity of the measurement results in this report, and the impact and consequences arising therefrom shall be borne by the customer.
- B. The samples in this report are provided by the customer, and the test results are only applicable to the samples received.



# 6. Test Equipments Utilized

### **Conducted test system**

| No. Equipmen | Equipment       | Model   | Serial      | Manufacturer    | Calibration | Calibration |
|--------------|-----------------|---------|-------------|-----------------|-------------|-------------|
|              | Equipment       |         | Number      |                 | Due Date    | Period      |
| 4            | Vector Signal   | FSV40   | 100003      | Rohde & Schwarz | 2023-12-28  | 1 voor      |
| '            | Analyzer F5V4   | F3V40   | 100903      | Ronde & Schwarz | 2023-12-28  | 1 year      |
| 2            | Power Sensor    | U2021XA | MY55430013  | Keysight        | 2023-12-28  | 1 year      |
| 3            | Data Acquisiton | U2531A  | TW55443507  | Keysight        | /           | /           |
| 1            | Shielding       | S81     | CT000986-13 | ETC Lindaron    | 2026 00 12  | Evere       |
| 4            | Room            |         | 44          | ETS-Lindgren    | 2026-09-12  | 5 years     |

## Radiated emission test system

|        | ated emission t |           | Serial             | I               | Calibration               | Calibration |
|--------|-----------------|-----------|--------------------|-----------------|---------------------------|-------------|
| No.    | No. Equipment   | Model     |                    | Manufacturer    |                           |             |
|        |                 |           | Number             |                 | Due Date                  | Period      |
| 1      | Test Receiver   | ESR7      | 101676             | Rohde & Schwarz | 2024-11-22                | 1 year      |
| 2      | BiLog Antenna   | 3142E     | 0224831            | ETS-lindgren    | 2024-05-27                | 3 years     |
| 3      | Horn Antenna    | 3117      | 00066577           | ETS-lindgren    | 2025-04-17                | 1 year      |
| _      | Anechoic        | EACT2 2.0 | 4005               | ETC Lindows     | 2025 05 20                | 0           |
| 4      | Chamber         | FACT3-2.0 | 1285               | ETS-Lindgren    | 2025-05-28                | 2 years     |
| F      | Spectrum        | EC)/40    | 101100             | Dobdo & Cobwerz | 2024-01-11                | 1 voor      |
| 5      | 5 Analyzer      | F3V40     | FSV40 101192 Rohde | Rohde & Schwarz | e & Scriwarz   2024-01-11 | 1 year      |
| 6      | Loop Antenna    | HLA6120   | 35779              | TESEQ           | 2025-05-12                | 3 years     |
| 7 Horr | Lloro Antonno   | QSH-SL-1  | 17010              |                 | 0000 00 04                | 0           |
|        | Horn Antenna    | 8-26-S-20 | 17013              | Q-par           | 2026-02-01                | 3 years     |
| 8      | Test Receiver   | ESCI      | 100702             | Rohde & Schwarz | 2024-01-11                | 1 year      |
| 9      | LISN            | ENV216    | 102067             | Rohde & Schwarz | 2024-10-07                | 1 year      |

### **Test software**

| No. | Equipment        | Manufacturer    | Version  |
|-----|------------------|-----------------|----------|
| 1   | TechMgr Software | CAICT           | 2.1.1    |
| 2   | EMC32            | Rohde & Schwarz | 10.50.40 |

EUT is engineering software provided by the customer to control the transmitting signal.

The EUT was programmed to be in continuously transmitting mode.

## **Anechoic chamber**

Fully anechoic chamber by ETS-Lindgren



# 7. <u>Laboratory Environment</u>

# Shielded room

| Temperature              | Min. = 15 °C, Max. = 35 °C                |
|--------------------------|---|
| Relative humidity        | Min. = 20 %, Max. = 75 %                  |
| Shielding effectiveness  | 0.014MHz-1MHz> 60 dB; 1MHz-18000MHz>90 dB |
| Electrical insulation    | > 2 MΩ                                    |
| Ground system resistance | < 4 Ω                                     |

#### **Anechoic chamber**

| Temperature                        | Min. = 15 °C, Max. = 35 °C                 |
|------------------------------------|--|
| Relative humidity                  | Min. = 20 %, Max. = 75 %                   |
| Shielding effectiveness            | 0.014MHz-1MHz> 60 dB; 1MHz-18000MHz>90 dB  |
| Electrical insulation              | > 2 MΩ                                     |
| Ground system resistance           | < 4 Ω                                      |
| Normalised site attenuation (NSA)  | < ±4 dB, 3 m distance, from 30 to 1000 MHz |
| Voltage Standing Wave Ratio (VSWR) | ≤ 6 dB, from 1 to 18 GHz, 3 m distance     |
| Uniformity of field strength       | Between 0 and 6 dB, from 80 to 6000 MHz    |



# 8. Measurement Uncertainty

| Test Name                                    | Uncertainty (k=2) |        |
|--|-------------------|--------|
| RF Output Power - Conducted                  | 1.32dB            |        |
| 2. Power Spectral Density - Conducted        | 1.32dB            | m/MHz  |
| 3. Occupied channel bandwidth - Conducted    | 4.56              | SkHz   |
|  | 30MHz≤f<1GHz      | 1.41dB |
| 4. Transmitter Courieus Emission, Conducted  | 1GHz≤f<7GHz       | 1.92dB |
| 4. Transmitter Spurious Emission - Conducted | 7GHz≤f<13GHz      | 2.31dB |
|  | 13GHz≤f≤26GHz     | 2.61dB |
|  | 9kHz≤f<30MHz      | 1.70dB |
| 5. Transporter Country Springer Dadieted     | 30MHz≤f<1GHz      | 4.80dB |
| 5. Transmitter Spurious Emission - Radiated  | 1GHz≤f<18GHz      | 4.62dB |
|  | 18GHz≤f≤40GHz     | 2.36dB |
| 6. AC Power line Conducted Emission          | 150kHz≤f≤30MHz    | 2.62dB |



# **ANNEX A: Detailed Test Results**

## A.0 Antenna requirement

#### **Measurement Limit:**

| Standard     | Requirement   |  |  |
|--------------|---|--|--|
|              | An intentional radiator shall be designed to ensure that no antenna other     |  |  |
|              | than that furnished by the responsible party shall be used with the device.   |  |  |
|              | The use of a permanently attached antenna or of an antenna that uses a        |  |  |
|              | unique coupling to the intentional radiator shall be considered sufficient to |  |  |
|              | comply with the provisions of this section. The manufacturer may design the   |  |  |
|              | unit so that a broken antenna can be replaced by the user, but the use of a   |  |  |
| FCC CRF Part | standard antenna jack or electrical connector is prohibited. This requirement |  |  |
| 15.203       | does not apply to carrier current devices or to devices operated under the    |  |  |
| 15.203       | provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this   |  |  |
|              | requirement does not apply to intentional radiators that must be              |  |  |
|              | professionally installed, such as perimeter protection systems and some       |  |  |
|              | field disturbance sensors, or to other intentional radiators which, in        |  |  |
|              | accordance with §15.31(d), must be measured at the installation site.         |  |  |
|              | However, the installer shall be responsible for ensuring that the proper      |  |  |
|              | antenna is employed so that the limits in this part are not exceeded.         |  |  |

Note: The Directional gains of antenna used for transmitting is 1.41 dBi. The RF transmitter uses an integrate antenna without connector.



## A.1 Maximum Peak Output Power

### Method of Measurement: See ANSI C63.10-clause 11.9.1.3

The maximum peak conducted output power may be measured using a broadband peak RF power meter.

#### **Measurement Limit:**

| Standard                | Limit (dBm) | E.I.R.P Limit (dBm) |
|-------------------------|-------------|---------------------|
| FCC CRF Part 15.247 (b) | < 30        | < 36                |

#### **Measurement Results:**

| Mode  | Frequency (MHz) | Peak Conducted Output Power (dBm) | E.I.R.P (dBm) | Conclusion |
|-------|-----------------|-----------------------------------|---------------|------------|
|       | 2402 (CH0)      | 5.39                              | 6.80          | Р          |
| LE-1M | 2440 (CH19)     | 5.79                              | 7.20          | Р          |
|       | 2480 (CH39)     | 5.74                              | 7.15          | Р          |

Note: E.I.R.P value = Conducted values (with conducted samples) + Antenna Gain.

**Conclusion: Pass** 



# A.2 Peak Power Spectral Density

Method of Measurement: See ANSI C63.10-clause 11.10.2

#### **Measurement Limit:**

| Standard                | Limit         |
|-------------------------|---------------|
| FCC CRF Part 15.247 (e) | < 8 dBm/3 kHz |

#### **Measurement Results:**

| Mode  | Frequency (MHz) | Peak Power Spec | tral Density (dBm) | Conclusion |
|-------|-----------------|-----------------|--------------------|------------|
|       | 2402 (CH0)      | Fig.1           | -9.88              | Р          |
| LE-1M | 2440 (CH19)     | Fig.2           | -9.43              | Р          |
|       | 2480 (CH39)     | Fig.3           | -9.49              | Р          |

### See below for test graphs.

**Conclusion: PASS** 

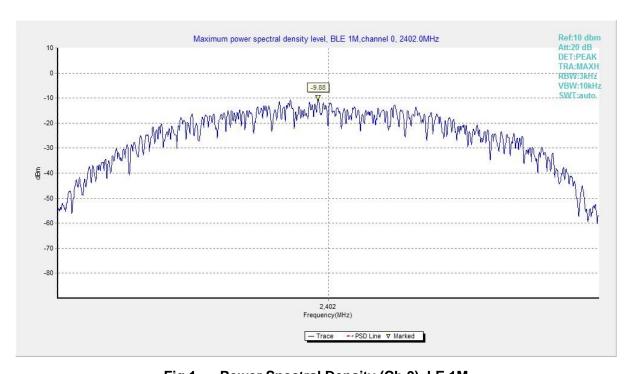


Fig.1 Power Spectral Density (Ch 0), LE 1M



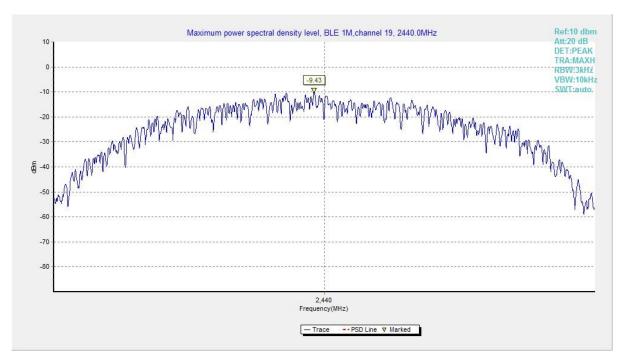


Fig.2 Power Spectral Density (Ch 19), LE 1M

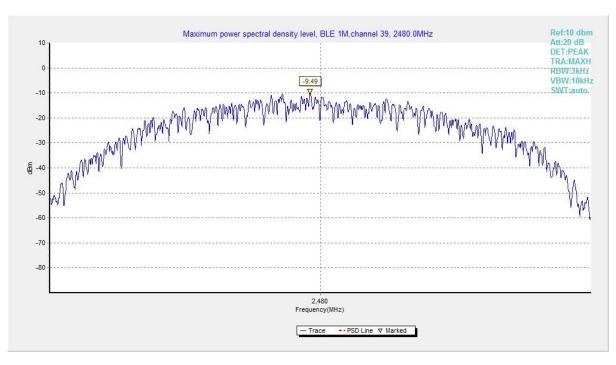


Fig.3 Power Spectral Density (Ch 39), LE 1M



#### A.3 6dB Bandwidth

### **Measurement Limit:**

| Standard                   | Limit (kHz) |
|----------------------------|-------------|
| FCC 47 CFR Part 15.247 (a) | ≥ 500       |

#### **Measurement Result:**

| Mode  | Frequency (MHz) | Test Res | ults (kHz) | Conclusion |
|-------|-----------------|----------|------------|------------|
|       | 2402 (CH0)      | Fig.4    | 663.00     | Р          |
| LE-1M | 2440 (CH19)     | Fig.5    | 662.50     | Р          |
|       | 2480 (CH39)     | Fig.6    | 661.50     | Р          |

See below for test graphs.

**Conclusion: PASS** 

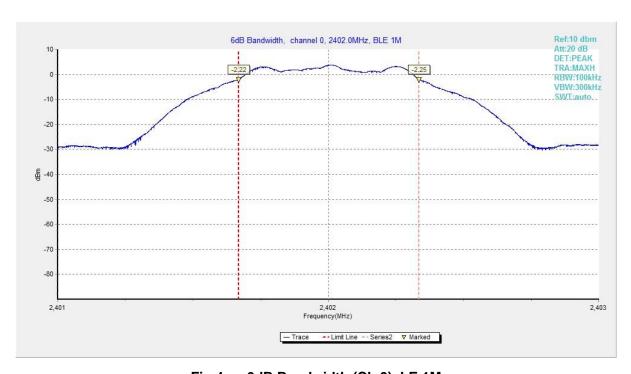


Fig.4 6dB Bandwidth (Ch 0), LE 1M



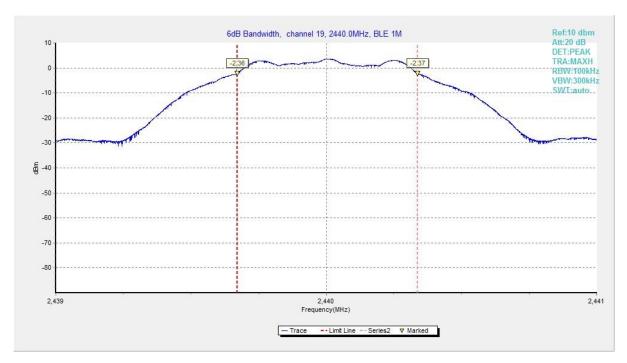


Fig.5 6dB Bandwidth (Ch 19), LE 1M

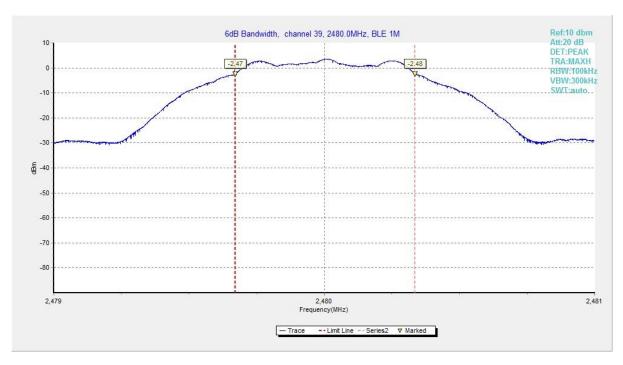


Fig.6 6dB Bandwidth (Ch 39), LE 1M



## A.4 Band Edges Compliance

### **Measurement Limit:**

| Standard                   | Limit (dB) |
|----------------------------|------------|
| FCC 47 CFR Part 15.247 (d) | > 20       |

#### **Measurement Result:**

| Mode    | Frequency (MHz) | Test Res | ults (dB) | Conclusion |
|---------|-----------------|----------|-----------|------------|
| LE-1M   | 2402 (CH0)      | Fig.10   | 53.09     | Р          |
| LE-TIVI | 2480 (CH39)     | Fig.11   | 59.80     | Р          |

See below for test graphs.

**Conclusion: Pass** 



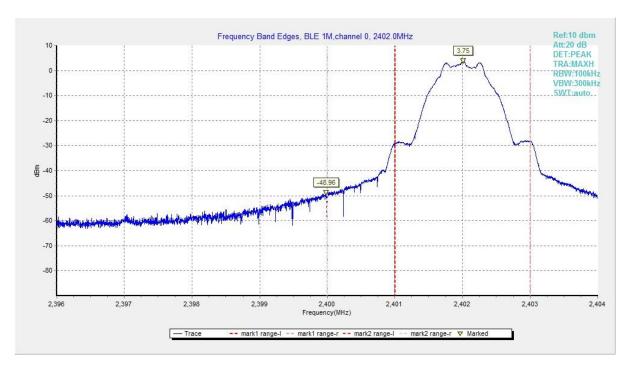


Fig.7 Band Edges (Ch 0), LE 1M

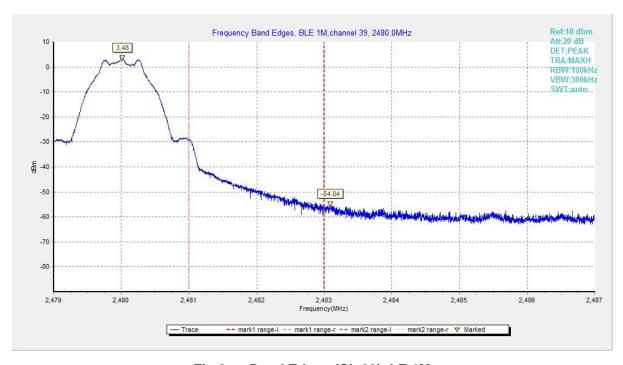


Fig.8 Band Edges (Ch 39), LE 1M



## A.5 Transmitter Spurious Emission - Conducted

#### **Measurement Limit:**

| Standard                   | Limit  |
|----------------------------|--|
| FCC 47 CFR Part 15.247 (d) | 20dB below peak output power in 100kHz bandwidth |

#### **Measurement Results:**

| MODE  | Channel      | Frequency Range | Test Results | Conclusion |
|-------|--------------|-----------------|--------------|------------|
|       |              | 1 GHz ~ 3 GHz   | Fig.12       | Р          |
|       | 0            | 3 GHz ~ 10 GHz  | Fig.13       | Р          |
|       | 10           | 1 GHz ~ 3 GHz   | Fig.14       | Р          |
| LE-1M | 39           | 3 GHz ~ 10 GHz  | Fig.15       | Р          |
|       |              | 1 GHz ~ 3 GHz   | Fig.16       | Р          |
|       |              | 3 GHz ~ 10 GHz  | Fig.17       | Р          |
|       |              | 30 MHz ~ 1 GHz  | Fig.18       | Р          |
|       | All channels | 10 GHz ~ 26 GHz | Fig.19       | Р          |

See below for test graphs.

**Conclusion: Pass** 

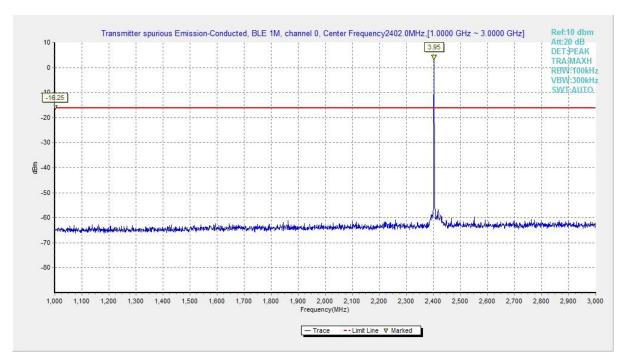


Fig.9 Conducted Spurious Emission (Ch0, 1 GHz-3 GHz), LE 1M



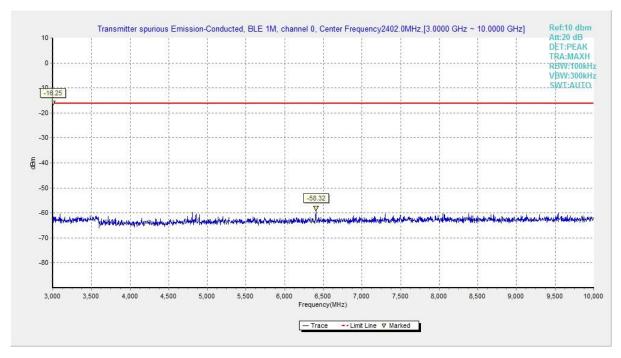


Fig.10 Conducted Spurious Emission (Ch0, 3 GHz-10 GHz), LE 1M

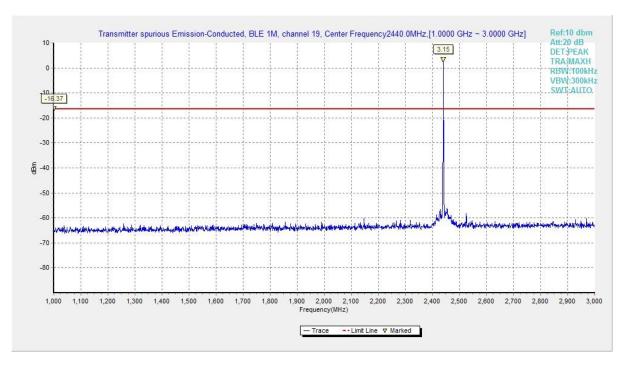


Fig.11 Conducted Spurious Emission (Ch19, 1 GHz-3 GHz), LE 1M



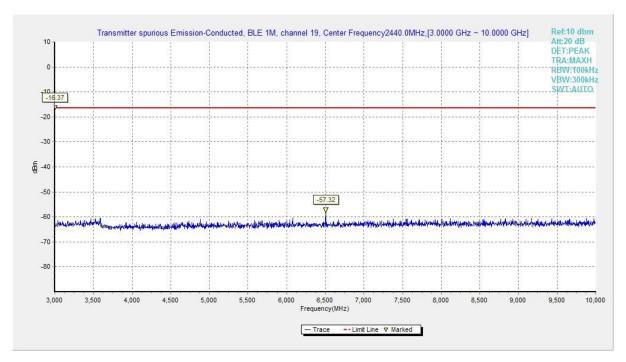


Fig.12 Conducted Spurious Emission (Ch19, 3 GHz-10 GHz), LE 1M

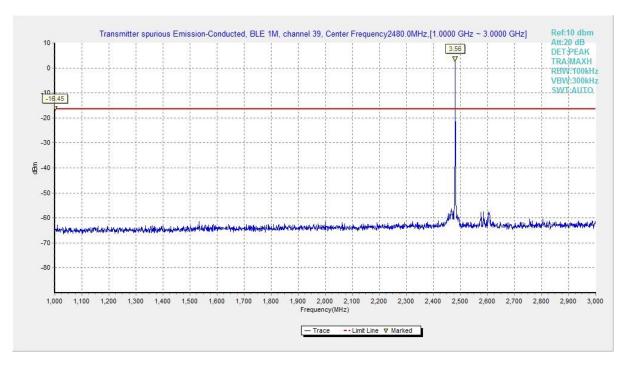


Fig.13 Conducted Spurious Emission (Ch39, 1 GHz-3 GHz), LE 1M



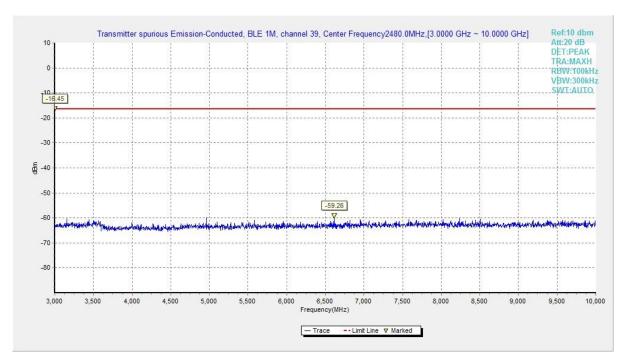


Fig.14 Conducted Spurious Emission (Ch39, 3 GHz-10 GHz), LE 1M

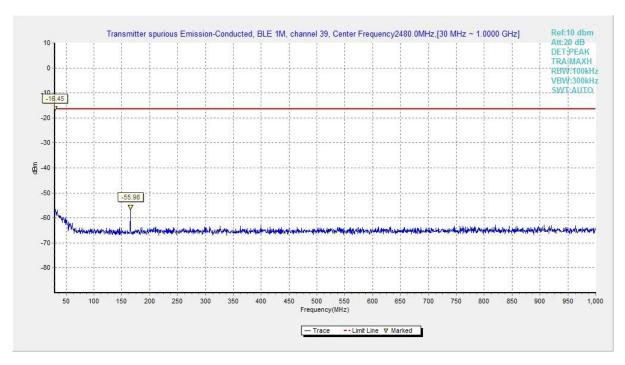


Fig.15 Conducted Spurious Emission (All channels, 30 MHz-1 GHz), LE 1M



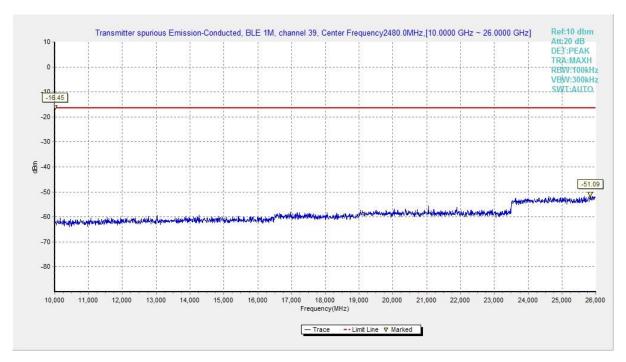


Fig.16 Conducted Spurious Emission (All channels, 10 GHz-26 GHz), LE 1M



## A.6 Transmitter Spurious Emission - Radiated

#### **Measurement Limit:**

| Standard                               | Limit                        |
|--|------------------------------|
| FCC 47 CFR Part 15.247, 15.205, 15.209 | 20dB below peak output power |

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

#### Limit in restricted band:

| Frequency of emission (MHz) | Field strength (μV/m) | Measurement distance (meters) |
|-----------------------------|-----------------------|-------------------------------|
| 0.009-0.490                 | 2400/F(kHz)           | 300                           |
| 0.490-1.705                 | 24000/F(kHz)          | 30                            |
| 1.705-30.0                  | 30                    | 30                            |
| 30-88                       | 100                   | 3                             |
| 88-216                      | 150                   | 3                             |
| 216-960                     | 200                   | 3                             |
| Above 960                   | 500                   | 3                             |

#### **Test Condition:**

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

| Frequency of emission (MHz) | RBW/VBW       | Sweep Time (s) |
|-----------------------------|---------------|----------------|
| 30-1000                     | 120kHz/300kHz | 5              |
| 1000-4000                   | 1MHz/3MHz     | 15             |
| 4000-18000                  | 1MHz/3MHz     | 40             |
| 18000-26500                 | 1MHz/3MHz     | 20             |

Note: According to the performance evaluation, the radiated emission margin of EUT is over 20dB in the band from 9kHz to 30MHz. Therefore, the measurement starts from 30MHz to tenth harmonic. The measurement results include the horizontal polarization and vertical polarization measurements.



#### **Measurement Results:**

| Mode   | Channel                | Frequency Range     | Test Results   | Conclusion |   |
|--------|------------------------|---------------------|----------------|------------|---|
|        | 0                      | 1 GHz ~ 18 GHz      | Fig.20         | Р          |   |
|        |                        | 9 kHz ~ 30 MHz      | Fig.21         | Р          |   |
|        | 10                     | 30 MHz ~ 1 GHz      | Fig.22         | Р          |   |
| 1 E 4M | 19                     | 19                  | 1 GHz ~ 18 GHz | Fig.23     | Р |
| LE-1M  |                        | 18 GHz ~ 26.5 GHz   | Fig.24         | Р          |   |
|        | 39                     | 1 GHz ~ 18 GHz      | Fig.25         | Р          |   |
|        | Restricted Band (CH0)  | 2.38 GHz ~ 2.45 GHz | Fig.26         | Р          |   |
|        | Restricted Band (CH39) | 2.45 GHz ~ 2.5 GHz  | Fig.27         | Р          |   |

See below for test graphs.

**Conclusion: Pass** 

## Worst Case Result LE-1M CH19 (1-18GHz)

| Frequency<br>(MHz) | MaxPeak<br>(dBµV/m) | Limit<br>(dBµV/m) | Margin (dB) | Pol | Corr. (dB) |
|--------------------|---------------------|-------------------|-------------|-----|------------|
| 3956.400000        | 45.06               | 74.00             | 28.94       | Н   | 2.2        |
| 5127.900000        | 46.24               | 74.00             | 27.76       | V   | 3.4        |
| 6711.428572        | 44.14               | 74.00             | 29.86       | Н   | 5.8        |
| 10525.285714       | 46.45               | 74.00             | 27.55       | Н   | 8.9        |
| 16839.000000       | 53.22               | 74.00             | 20.78       | Н   | 17.9       |
| 17946.857143       | 54.40               | 74.00             | 19.60       | Н   | 19.0       |

| Frequency<br>(MHz) | Average<br>(dBµV/m) | Limit<br>(dBµV/m) | Margin (dB) | Pol | Corr. (dB) |
|--------------------|---------------------|-------------------|-------------|-----|------------|
| 3956.400000        | 33.14               | 54.00             | 20.86       | Н   | 2.2        |
| 5127.900000        | 33.95               | 54.00             | 20.05       | V   | 3.4        |
| 6711.428572        | 31.96               | 54.00             | 22.04       | Н   | 5.8        |
| 10525.285714       | 34.43               | 54.00             | 19.57       | Н   | 8.9        |
| 16839.000000       | 41.38               | 54.00             | 12.62       | Н   | 17.9       |
| 17946.857143       | 42.01               | 54.00             | 11.99       | Н   | 19.0       |

#### Note:

A "reference path loss" is established and the  $A_{Rpl}$  is the attenuation of "reference path loss", and Antenna Factor, the gain of the preamplifier, the cable loss.  $P_{Mea}$  is the field strength recorded from the instrument.

The measurement results are obtained as described below:

Result =  $P_{Mea}$  + Cable Loss + Antenna Factor - Gain of the preamplifier



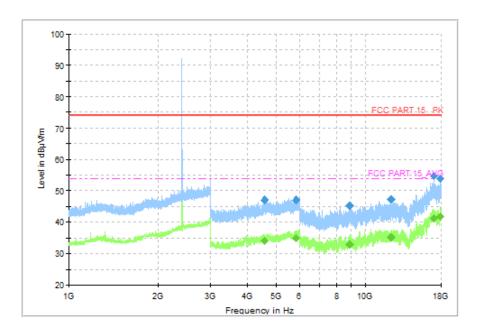


Fig.17 Radiated Spurious Emission (Ch0, 1 GHz - 18 GHz), 1M

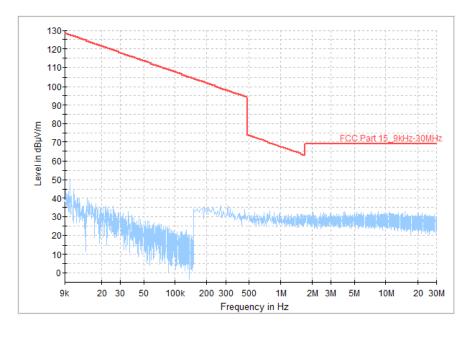


Fig.18 Radiated Spurious Emission (Ch19, 9 kHz - 30 MHz), 1M



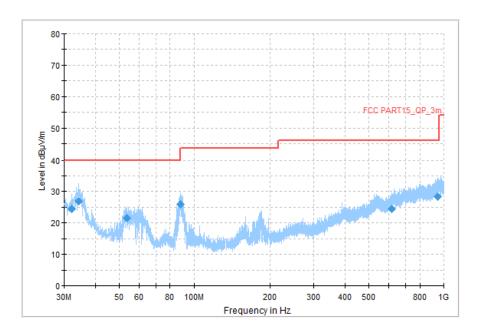


Fig.19 Radiated Spurious Emission (Ch19, 30 MHz - 1 GHz), 1M

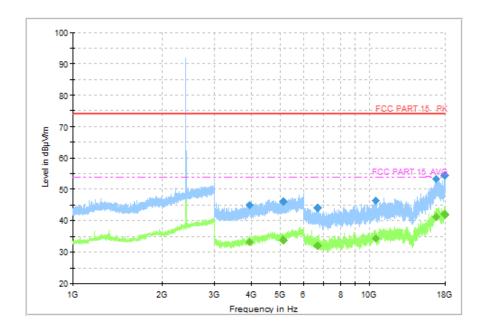


Fig.20 Radiated Spurious Emission (Ch19, 1 GHz - 18 GHz), 1M



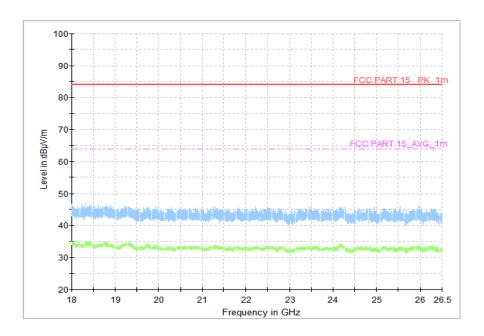


Fig.21 Radiated Spurious Emission (Ch19, 18 GHz - 26.5 GHz), 1M

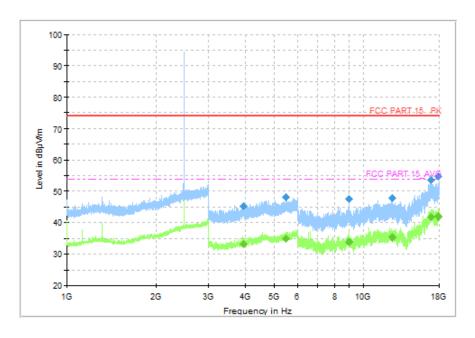


Fig.22 Radiated Spurious Emission (Ch39, 1 GHz - 18 GHz), 1M



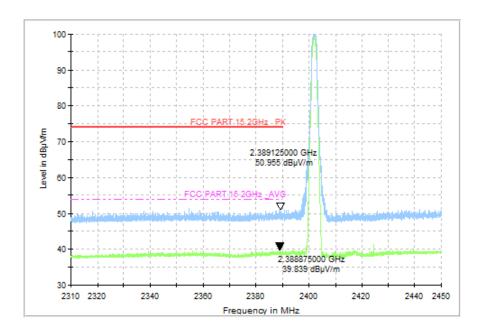


Fig.23 Radiated Band Edges (Ch0, 2380GHz - 2450GHz), 1M

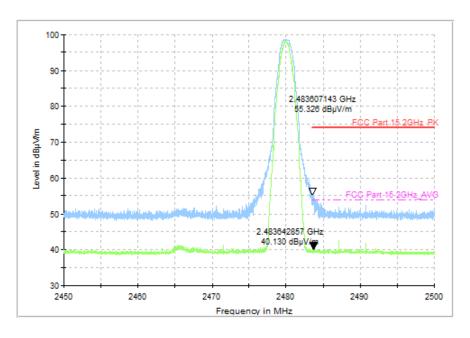


Fig.24 Radiated Band Edges (Ch39, 2450GHz - 2500GHz), 1M



#### A.7 AC Power line Conducted Emission

#### **Test Condition:**

| Voltage (V) | Frequency (Hz) |  |  |
|-------------|----------------|--|--|
| 120         | 60             |  |  |

## **Measurement Result and limit:**

#### LE-1M

BLE (Quasi-peak Limit) - AE2

| Frequency   | Quasi-peak   | Result (dBμV) |        | Conclusion |  |
|-------------|--------------|---------------|--------|------------|--|
| range (MHz) | Limit (dBμV) | Traffic       | ldle   | Conclusion |  |
| 0.15 to 0.5 | 66 to 56     |               |        |            |  |
| 0.5 to 5    | 56           | Fig.49        | Fig.50 | Р          |  |
| 5 to 30     | 60           |               |        |            |  |

Note: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

BLE (Average Limit) - AE2

| Frequency   | Average-peak | Result (dBμV) |        | Conclusion |  |
|-------------|--------------|---------------|--------|------------|--|
| range (MHz) | Limit (dBμV) | Traffic       | ldle   | Conclusion |  |
| 0.15 to 0.5 | 56 to 46     |               |        |            |  |
| 0.5 to 5    | 46           | Fig.49        | Fig.50 | Р          |  |
| 5 to 30     | 50           |               |        |            |  |

Note: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

Note: The measurement results include the L1 and N measurements.

See below for test graphs.

**Conclusion: Pass** 



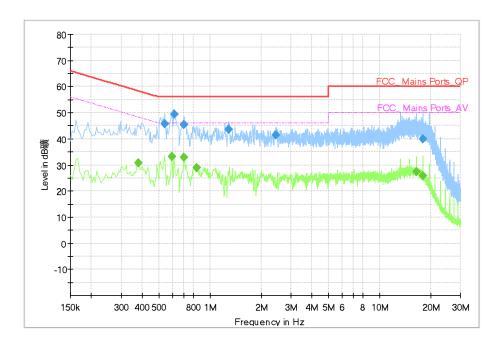


Fig.25 AC Power line Conducted Emission (Traffic, AE2, 120V), 1M

### Measurement Results: Quasi Peak

| Frequency | QuasiPeak | Limit  | Margin | Line | Filter | Corr (dP)  |
|-----------|-----------|--------|--------|------|--------|------------|
| (MHz)     | (dBµV)    | (dBµV) | (dB)   | Line | riitei | Corr. (dB) |
| 0.542000  | 45.89     | 56.00  | 10.11  | N    | ON     | 10         |
| 0.614000  | 49.50     | 56.00  | 6.50   | N    | ON     | 10         |
| 0.698000  | 45.54     | 56.00  | 10.46  | N    | ON     | 10         |
| 1.282000  | 43.61     | 56.00  | 12.39  | N    | ON     | 10         |
| 2.454000  | 41.40     | 56.00  | 14.60  | N    | ON     | 10         |
| 18.058000 | 39.86     | 60.00  | 20.14  | N    | ON     | 11         |

## **Measurement Results: Average**

| Frequency | Average | Limit  | Margin | Line | Filter | Corr (dP)  |
|-----------|---------|--------|--------|------|--------|------------|
| (MHz)     | (dBµV)  | (dBµV) | (dB)   | Line | riitei | Corr. (dB) |
| 0.378000  | 30.83   | 48.32  | 17.50  | N    | ON     | 10         |
| 0.598000  | 33.09   | 46.00  | 12.91  | N    | ON     | 10         |
| 0.702000  | 32.82   | 46.00  | 13.18  | N    | ON     | 10         |
| 0.838000  | 28.85   | 46.00  | 17.15  | N    | ON     | 10         |
| 16.486000 | 27.30   | 50.00  | 22.70  | N    | ON     | 11         |
| 18.058000 | 25.84   | 50.00  | 24.16  | N    | ON     | 11         |



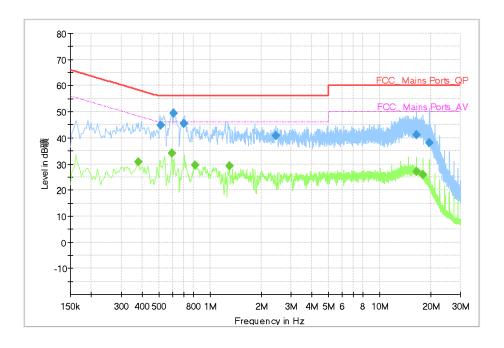


Fig.26 AC Power line Conducted Emission (Idle, AE2, 120V), 1M

### Measurement Results: Quasi Peak

| Frequency | QuasiPeak | Limit  | Margin | Line | Filter | Corr (dP)  |
|-----------|-----------|--------|--------|------|--------|------------|
| (MHz)     | (dBµV)    | (dBµV) | (dB)   | Line | Filler | Corr. (dB) |
| 0.510000  | 44.92     | 56.00  | 11.08  | N    | ON     | 10         |
| 0.610000  | 49.35     | 56.00  | 6.65   | N    | ON     | 10         |
| 0.698000  | 45.47     | 56.00  | 10.53  | N    | ON     | 10         |
| 2.450000  | 40.95     | 56.00  | 15.05  | N    | ON     | 10         |
| 16.434000 | 41.18     | 60.00  | 18.82  | N    | ON     | 11         |
| 19.562000 | 38.26     | 60.00  | 21.74  | N    | ON     | 11         |

## **Measurement Results: Average**

| Frequency | Average | Limit  | Margin | Line | Filter | Corr (dP)  |
|-----------|---------|--------|--------|------|--------|------------|
| (MHz)     | (dBµV)  | (dBµV) | (dB)   | Line | riitei | Corr. (dB) |
| 0.378000  | 30.81   | 48.32  | 17.51  | N    | ON     | 10         |
| 0.594000  | 34.03   | 46.00  | 11.97  | N    | ON     | 10         |
| 0.814000  | 29.68   | 46.00  | 16.32  | N    | ON     | 10         |
| 1.302000  | 29.23   | 46.00  | 16.77  | N    | ON     | 10         |
| 16.430000 | 27.02   | 50.00  | 22.98  | N    | ON     | 11         |
| 17.998000 | 25.77   | 50.00  | 24.23  | N    | ON     | 11         |

#### \*\*\*END OF REPORT\*\*\*