

# TEST REPORT

**Application No.:** SUCR2609000878AU

**Applicant:** Hangzhou Jidian Electronic Technology Co., Ltd.

**Address of Applicant:** No. 108 Tengfei Road, Daicun Town, Xiaoshan District, Hangzhou, Zhejiang, 311200, China

**Manufacturer:** Hangzhou Jidian Electronic Technology Co., Ltd.

**Address of Manufacturer:** No. 108 Tengfei Road, Daicun Town, Xiaoshan District, Hangzhou, Zhejiang, 311200, China

**Factory:** Hangzhou Jidian Electronic Technology Co., Ltd.

**Address of Factory:** No. 108 Tengfei Road, Daicun Town, Xiaoshan District, Hangzhou, Zhejiang, 311200, China

**Equipment Under Test (EUT):**

**EUT Name:** CONTROLLER CORE SUPER COMPUTER

**Model No.:** CSC31 STD\_V

**Standard(s) :** EN 303 345-1 V1.1.1  
EN 303 345-3 V1.1.1  
EN 303 345-4 V1.1.1

**Date of Receipt:** 2026-09-08

**Date of Test:** 2026-09-08 to 2026-09-09

**Date of Issue:** 2026-09-09

|                     |              |
|---------------------|--------------|
| <b>Test Result:</b> | <b>Pass*</b> |
|---------------------|--------------|

\* In the configuration tested, the EUT complied with the standards specified above.

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| Revision Record |             |            |        |
|-----------------|-------------|------------|--------|
| Version         | Description | Date       | Remark |
| 00              | Original    | 2026-09-09 | /      |
|                 |             |            |        |
|                 |             |            |        |

|                          |  |                               |  |  |
|--------------------------|--|-------------------------------|--|--|
| Authorized for issue by: |  |                               |  |  |
| Prepared By              |  | Nature Shen                   |  |  |
|                          |  | Nature Shen / Project Manager |  |  |
| Approved By              |  | Cedar cheng                   |  |  |
|                          |  | Cedar Cheng/Reviewer          |  |  |

## 2 Test Summary

| Radio Spectrum Matter Part                               |                                                                   |                                        |                                                                        |        |
|----------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------|------------------------------------------------------------------------|--------|
| Item                                                     | Standard                                                          | Method                                 | Requirement                                                            | Result |
| Sensitivity                                              | EN 303 345-1 V1.1.1<br>EN 303 345-3 V1.1.1<br>EN 303 345-4 V1.1.1 | EN 303 345-1 V1.1.1<br>Clause 5.3.4    | EN 303 345-3 V1.1.1<br>Clause 4.2<br>EN 303 345-4 V1.1.1<br>Clause 4.2 | Pass   |
| Receiver adjacent<br>channel<br>selectivity and blocking |                                                                   | EN 303 345-1 V1.1.1<br>Clause 5.3.5    | EN 303 345-3 V1.1.1<br>Clause 4.3<br>EN 303 345-4 V1.1.1<br>Clause 4.3 | Pass   |
| Unwanted emissions in<br>the spurious domain             |                                                                   | EN 55032:<br>2015+A11:2020<br>+A1:2020 | EN 303 345-3 V1.1.1<br>Clause 4.4<br>EN 303 345-4 V1.1.1<br>Clause 4.4 | Pass   |
| Radiated Spurious<br>Emissions(30MHz-<br>1GHz)           |                                                                   | EN 55032:<br>2015+A11:2020<br>+A1:2020 | EN 303 345-3 V1.1.1<br>Clause 4.4<br>EN 303 345-4 V1.1.1<br>Clause 4.4 | Pass   |
| Radiated Spurious<br>Emissions(Above<br>1GHz)            |                                                                   | EN 55032:<br>2015+A11:2020<br>+A1:2020 | EN 303 345-3 V1.1.1<br>Clause 4.4<br>EN 303 345-4 V1.1.1<br>Clause 4.4 | Pass   |

Note: This report was an additional report copied from the report SUCR260900087701, this report is based on changes made to the CSC31 Pro, with the difference being that the slave board has been removed and only the motherboard is retained, This change does not affect FM/AM.



Report No.: SUCR260900087801

Page: 4 of 25

### 3 Contents

|                                                    | Page |
|----------------------------------------------------|------|
| 1 COVER PAGE .....                                 | 1    |
| 2 Test Summary .....                               | 3    |
| 3 Contents .....                                   | 4    |
| 4 General Information.....                         | 5    |
| 4.1 Details of E.U.T. ....                         | 5    |
| 4.2 Description of Support Units .....             | 5    |
| 4.3 Measurement Uncertainty .....                  | 5    |
| 4.4 Test Location.....                             | 6    |
| 4.5 Test Facility .....                            | 6    |
| 4.6 Deviation from Standards.....                  | 6    |
| 4.7 Abnormalities from Standard Conditions.....    | 6    |
| 5 Equipment List.....                              | 7    |
| 6 Radio Spectrum Matter Test Results .....         | 8    |
| 6.1 Sensitivity .....                              | 8    |
| 6.2 Adjacent channel selectivity and blocking..... | 11   |
| 6.3 Unwanted emissions in the spurious domain..... | 15   |
| 6.4 Radiated Spurious Emissions(30MHz-1GHz) .....  | 19   |
| 6.5 Radiated Spurious Emissions(Above 1GHz) .....  | 22   |
| 7 EUT Constructional Details (EUT Photos).....     | 25   |

## 4 General Information

### 4.1 Details of E.U.T.

|               |        |
|---------------|--------|
| Power supply: | DC 12V |
|---------------|--------|

|                 |                  |
|-----------------|------------------|
| Technology:     | FM               |
| Frequency band: | 87.5MHz-108MHz   |
| Antenna Type:   | External Antenna |

|                 |                  |
|-----------------|------------------|
| Technology:     | DAB              |
| Frequency band: | 174MHz-240MHz    |
| Antenna Type:   | External Antenna |

### 4.2 Description of Support Units

| Description | Manufacturer | Model No. | Serial No. |
|-------------|--------------|-----------|------------|
| Notebook    | Lenovo       | /         | /          |

### 4.3 Measurement Uncertainty

| No. | Item                                      | Measurement Uncertainty |
|-----|-------------------------------------------|-------------------------|
| 1   | Unwanted emissions in the spurious domain | $\pm 4.8\text{dB}$      |
| 2   | Sensitivity                               | $\pm 4.03\text{dB}$     |
| 3   | Adjacent Channel Selectivity And Blocking | $\pm 4.03\text{dB}$     |

Remark:

The  $U_{\text{lab}}$  (lab Uncertainty) is less than  $U_{\text{CISPR/ETSI}}$  (CISPR/ETSI Uncertainty), so the test results  
– compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;  
– non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

#### 4.4 Test Location

All tests were performed at:

SGS Tongfang Technical Services (Suzhou) Co., Ltd.

South of No. 6 Plant, No. 1, Runsheng Road, Suzhou Industrial Park, Suzhou Area, China (Jiangsu)  
Pilot Free Trade Zone

No tests were sub-contracted.

Note:

1. SGS is not responsible for wrong test results due to incorrect information (e.g., max. internal working frequency, antenna gain, cable loss, etc) is provided by the applicant. (If applicable).
2. SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (If applicable).
3. Sample source: sent by customer.

#### 4.5 Test Facility

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

- **A2LA (Certificate No. 6336.01)**

SGS Tongfang Technical Services (Suzhou) Co., Ltd. is accredited by the American Association for Laboratory Accreditation (A2LA).

- **FCC (Designation Number: CN1312)**

SGS Tongfang Technical Services (Suzhou) Co., Ltd. has been recognized as an accredited testing laboratory. Test Firm Registration Number: 717327

- **ISED (CAB Identifier: CN0120)**

SGS Tongfang Technical Services (Suzhou) Co., Ltd. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory.

Company Number: 27594

#### 4.6 Deviation from Standards

None

#### 4.7 Abnormalities from Standard Conditions

None

## 5 Equipment List

| Sensitivity & Adjacent Channel Selectivity and Blocking |                            |           |               |                        |                            |
|---------------------------------------------------------|----------------------------|-----------|---------------|------------------------|----------------------------|
| Test Equipment                                          | Manufacturer               | Model No. | Inventory No. | Cal. Date (yyyy/mm/dd) | Cal. Due date (yyyy/mm/dd) |
| Test receiver                                           | ROHDE&SCHWARZ              | ESR7      | SUWI-01-10-01 | 2026/01/14             | 2027/01/13                 |
| Receiving antenna                                       | SCHWRZBECK MESS-ELEKTRONIK | VULB 9163 | SUWI-01-11-01 | 2025/05/07             | 2027/05/06                 |
| Receiving antenna                                       | SCHWRZBECK MESS-ELEKTRONIK | VULB 9168 | SUWI-01-11-04 | 2025/11/29             | 2027/11/28                 |
| Vector Signal Generator                                 | ROHDE&SCHWARZ              | SWB1V100B | SUWI-01-07-02 | 2026/01/14             | 2027/01/13                 |
| Vector Signal Generator                                 | ROHDE&SCHWARZ              | SMB1V100B | SUWI-01-07-05 | 2026/01/15             | 2027/01/14                 |
| AUDIO ANALYZER                                          | ROHDE&SCHWARZ              | UPV       | SUWI-01-54-01 | 2025/11/21             | 2027/11/20                 |
| Temperature and humidity meter                          | MingGao                    | TH101B    | SUWI-01-01-05 | 2026/02/11             | 2027/02/10                 |

| Unwanted emissions in the spurious domain |                            |           |               |                        |                            |
|-------------------------------------------|----------------------------|-----------|---------------|------------------------|----------------------------|
| Test Equipment                            | Manufacturer               | Model No. | Inventory No. | Cal. Date (yyyy/mm/dd) | Cal. Due date (yyyy/mm/dd) |
| Semi-Anechoic Chamber                     | Brilliant-emc              | N/A       | SUWI-04-02-01 | 2026/06/09             | 2029/06/08                 |
| Test receiver                             | ROHDE&SCHWARZ              | ESR7      | SUWI-01-10-01 | 2026/01/14             | 2027/01/13                 |
| Receiving antenna                         | SCHWRZBECK MESS-ELEKTRONIK | VULB 9163 | SUWI-01-11-01 | 2025/05/07             | 2027/05/06                 |
| Amplifier                                 | Tonscend                   | TAP9K3G40 | SUWI-01-14-01 | 2026/01/14             | 2027/01/13                 |
| Temperature and humidity meter            | MingGao                    | TH101B    | SUWI-01-01-05 | 2026/02/11             | 2027/02/10                 |
| Spectrum Analyzere                        | Keysighte                  | N9020A    | SUWI-01-02-06 | 2025/11/20             | 2026/11/19                 |

## 6 Radio Spectrum Matter Test Results

### 6.1 Sensitivity

|                  |                                  |
|------------------|----------------------------------|
| Test Requirement | EN 303 345-3 V1.1.1 Clause 4.2   |
|                  | EN 303 345-4 V1.1.1 Clause 4.2   |
| Test Method:     | EN 303 345-1 V1.1.1 Clause 5.3.4 |

Limit:

For FM:

The audio impairment criteria relevant for these tests is that the audio SNR  $\geq$  40 dBQ ref  $\pm$ 60,8 kHz deviation, and that there shall be 10 seconds of audio with no subjective impairments.

**Table 1: FM configuration**

| Parameter                                                                                                                                                                                                                                                                | FM signals                    |                                                                                                           | AM signal  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------|------------|
|                                                                                                                                                                                                                                                                          | Wanted                        | Unwanted                                                                                                  | Blocking   |
| Audio modulation                                                                                                                                                                                                                                                         | 1 kHz tone                    | Weighted noise<br>Recommendation ITU-R<br>BS.559-2 [3], clause 1, band-<br>limited to 15 kHz (see note 1) | 1 kHz tone |
| Other modulation<br>parameters                                                                                                                                                                                                                                           | $\pm$ 60,8 kHz peak deviation | 15,9 kHz RMS deviation<br>(see note 2)                                                                    | 80 % depth |
| Pilot tone                                                                                                                                                                                                                                                               | None                          | None                                                                                                      |            |
| NOTE 1: The filter shall have a cut-off frequency of 15 kHz and a minimum roll-off of 60 dB/octave.                                                                                                                                                                      |                               |                                                                                                           |            |
| NOTE 2: This is equivalent to a quasi-peak deviation of 34,8 kHz and has pre-emphasis enabled. The quasi-peak level measurement is defined by Recommendation ITU-R BS.641 [i.5], clause 5; with pre-emphasis disabled the quasi-peak deviation is 32 kHz (14,5 kHz RMS). |                               |                                                                                                           |            |

**Table 2: FM sensitivity requirements**

| De-modulation                                                                               | Tuned<br>frequency<br>band | Wanted signal<br>centre<br>frequency<br>(MHz) | Required sensitivity limit |                            |
|---------------------------------------------------------------------------------------------|----------------------------|-----------------------------------------------|----------------------------|----------------------------|
|                                                                                             |                            |                                               | Conducted<br>(dBm)         | Radiated<br>(dB $\mu$ V/m) |
| FM                                                                                          | VHF band II                | 98                                            | -90                        | 50 (see note)              |
| NOTE: For products with an integral antenna, the requirement is relaxed to 67 dB $\mu$ V/m. |                            |                                               |                            |                            |

For DAB:

The audio impairment criterion relevant for these tests is clean audio: that is 10 seconds of audio without impairments.

**Table 1: DAB configuration**

| Parameter                   | DAB signals                                                                                |                                                 | AM signal Blocking |
|-----------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------|--------------------|
|                             | Wanted                                                                                     | Unwanted                                        |                    |
| Audio modulation            | Service label: "Sine+"<br>1 kHz tone at a level of -3 dBFS<br>mono, 128 kbit/s AAC, EEP-3A | Any DAB ensemble without the<br>"Sine+" service | 1 kHz tone         |
| Other modulation parameters | DAB signal to ETSI<br>EN 300 401 [2], clause 15                                            | DAB signal to ETSI<br>EN 300 401 [2], clause 15 | 80 % depth         |

NOTE: Level is defined in accordance with AES17 [i.5].

**Table 2: DAB sensitivity requirements**

| De-modulation | Tuned frequency band | Wanted signal centre frequency (MHz) | Required sensitivity limit |                                |
|---------------|----------------------|--------------------------------------|----------------------------|--------------------------------|
|               |                      |                                      | Conducted (dBm)            | Radiated (dB <sub>μ</sub> V/m) |
| DAB           | VHF band III         | 202,928                              | -94                        | 37 (see note)                  |

NOTE: For products with an integral antenna, the requirement is relaxed to 50 dB<sub>μ</sub>V/m.

### 6.1.1 E.U.T. Operation

Operating Environment:

Temperature: 24.3 °C

Humidity: 48.5 % RH

Atmospheric Pressure: 1010 mbar

### 6.1.2 Test Mode Description

| Pre-scan / Final test | Mode Code | Description |
|-----------------------|-----------|-------------|
| Final test            | 01        | FM mode     |
| Final test            | 02        | DAB mode    |

### 6.1.3 Measurement Procedure and Data

- 1) The 'unwanted' signal generator remains switched off for the duration of the test.
  - 2) The 'wanted' signal generator is set to the required modulation method and test configuration as specified in clause 4.2.3, and to the frequency specified in clause 4.2.4. The signal level is adjusted to provide the level, as measured at specified in clause 4.2.4 plus 30 dB.
  - 3) The receiver is tuned to the frequency of the 'wanted' signal generator. For a receiver without a digital frequency display, the receiver shall be tuned for optimum THD+N (ie. as it would be tuned by a user for best quality). The receiver's audio level shall be set so as to provide clean 1 kHz audio tone at the audio output (that is less than 10 % total harmonic distortion) but of sufficient level to drive the measurement device.
  - 4) The level of the 'wanted' signal generator is adjusted to provide the level, as measured at specified in clause 4.2.4.
  - 5) The audio output, measured using the measurement device, is recorded as the signal level, S.
  - 6) The modulating audio signal for the 'wanted' signal generator is removed. The audio output, measured using the measurement device, is recorded as the noise level, N.
  - 7) If the impairment criteria given in clause 4.2.4 are met then the receiver has passed the test.
- The above test procedure is just applicable for AM and FM, Steps 5 and 6 are not applicable for DAB and DRM receivers.

### Sensitivity

| Modulation | Frequency (MHz) | S(dBm) | N(dBm) | SNR( $\geq 40$ dBQ) | Result                          |
|------------|-----------------|--------|--------|---------------------|---------------------------------|
| FM         | 98              | -22.48 | -67.58 | 45.10               | Pass (Clean Audio) <sup>1</sup> |
| DAB        | 202,928         | /      | /      | Clean Audio         | Pass (Clean Audio) <sup>2</sup> |

Remark: 1: Clean audio is defined as 10 seconds of audio with no subjective impairments (e.g. clicks resulting from FM threshold effects).

2: Clean audio is defined as 10 seconds of audio with no subjective impairments (e.g. muting, clicks, warbles or squeaks).

## 6.2 Adjacent channel selectivity and blocking

Test Requirement EN 303 345-3 V1.1.1 Clause 4.3  
EN 303 345-4 V1.1.1 Clause 4.3  
Test Method: EN 303 345-1 V1.1.1 Clause 5.3.5

Limit:

For FM:

The audio impairment criteria relevant for these tests is that the audio SNR  $\geq 40$  dBQ ref  $\pm 60,8$  kHz deviation, and that there shall be 10 seconds of audio with no subjective impairments.

**Table 3: Channel spacing for adjacent channel selectivity and blocking**

| Demodulation | Tuned frequency band | Unwanted frequency (N = 2, 3, 4) | Unwanted frequency (blocking) |
|--------------|----------------------|----------------------------------|-------------------------------|
| FM           | VHF band II          | $\pm N \times 100$ kHz           | $\pm 800$ kHz                 |

**Table 4: Adjacent channel selectivity and blocking requirements**

| De-modulation (see note 1)        | Tuned frequency band | C Wanted signal centre frequency (MHz) | C Wanted signal level |                         | Required I/C ratio (see notes 2 and 3) |            |            |               |
|-----------------------------------|----------------------|----------------------------------------|-----------------------|-------------------------|----------------------------------------|------------|------------|---------------|
|                                   |                      |                                        | Conducted (dBm)       | Radiated (dB $\mu$ V/m) | N = 2 (dB)                             | N = 3 (dB) | N = 4 (dB) | Blocking (dB) |
| FM (built-in or integral antenna) | VHF band II          | 98                                     | n/a                   | 56 (see note 4)         | -15                                    | -3         | 8          | 20            |
| FM (external antenna)             | VHF band II          | 98                                     | -84                   | n/a                     | 3                                      | 17         | 30         | 30            |

NOTE 1: The ACS and blocking requirements are currently separated into different limits for radiated and conducted testing methods. These limits are likely to be unified in a future revision of the present document. Users of the present document should consult frequently the latest list published in the Official Journal of the European Union.

NOTE 2: The frequency of the interferer shall be calculated using the channel spacing data in table 3 for each of the 6 defined adjacent channels  $N = \{-4, -3, -2, +2, +3, +4\}$  and the two blocking offsets. Each row of table 4 thus defines 8 individual tests.

NOTE 3: The minimum level of I for the relevant level of impairment is calculated by adding the I/C ratio to the wanted C level.

NOTE 4: The wanted signal level for receivers with integral antenna is 73 dB $\mu$ V/m.

For DAB:

The audio impairment criterion relevant for these tests is clean audio: that is 10 seconds of audio without impairments.

**Table 3: Channel spacing for adjacent channel selectivity and blocking**

| Demodulation | Tuned frequency band | Unwanted frequency (N = 1, 2, 3) | Unwanted frequency (blocking) |
|--------------|----------------------|----------------------------------|-------------------------------|
| DAB          | VHF band III         | $\pm N \times 1\,712\text{ kHz}$ | $\pm 12\text{ MHz}$           |

**Table 4: Adjacent channel selectivity and blocking requirements**

| De-modulation                                                                                                                                                                                                                                                         | Tuned frequency band | C<br>Wanted signal centre frequency (MHz) | C<br>Wanted signal level |                                | Required I/C ratio (see notes 1 and 2) |            |            |               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------------------------|--------------------------|--------------------------------|----------------------------------------|------------|------------|---------------|
|                                                                                                                                                                                                                                                                       |                      |                                           | Conducted (dBm)          | Radiated (dB <sub>μ</sub> V/m) | N = 1 (dB)                             | N = 2 (dB) | N = 3 (dB) | Blocking (dB) |
| DAB                                                                                                                                                                                                                                                                   | VHF band III         | 202,928                                   | -70                      | 61                             | 35                                     | 40         | 45         | 40            |
| NOTE 1: The frequency of the interferer shall be calculated using the channel spacing data in table 3 for each of the 6 defined adjacent channels $N = \{-3, -2, -1, +1, +2, +3\}$ and the two blocking offsets. Each row of table 4 thus defines 8 individual tests. |                      |                                           |                          |                                |                                        |            |            |               |
| NOTE 2: The minimum level of I for the relevant level of impairment is calculated by adding the I/C ratio to the wanted C level.                                                                                                                                      |                      |                                           |                          |                                |                                        |            |            |               |

### 6.2.1 E.U.T. Operation

Operating Environment:

Temperature: 24.3 °C Humidity: 48.5 % RH Atmospheric Pressure: 1010 mbar

### 6.2.2 Test Mode Description

| Pre-scan /<br>Final test | Mode<br>Code | Description |
|--------------------------|--------------|-------------|
| Final test               | 01           | FM mode     |
| Final test               | 02           | DAB mode    |

### 6.2.3 Measurement Procedure and Data

1) The 'wanted' signal generator is set to the required modulation method and test configuration as specified in clause 4.2.3, and to the frequency specified in clause 4.2.5. The signal level is adjusted to provide the level, as measured at specified in clause 4.2.5, with the 'unwanted' generator switched off.

2) The 'unwanted' signal generator is set to the required modulation method and test configuration as specified in clause 4.2.3, and to the frequency calculated from the wanted signal centre frequency and the required offset specified in clause 4.2.5. The signal level is adjusted to provide the level, as measured at specified in clause 4.2.5, with the 'wanted' generator switched off. For the blocking test only, the audio modulation of the 'unwanted' signal shall be removed whilst measuring the level

3) The 'wanted' signal generator is switched back on.

4) The receiver is tuned to the frequency of the 'wanted' signal generator. For a receiver without a digital frequency display, the receiver shall be tuned for optimum THD+N (ie. as it would be tuned by a user for best

quality). The receiver's audio level shall be set so as to provide clean 1 kHz audio tone at the audio output (that is less than 10 % total harmonic distortion) but of sufficient level to drive the measurement device.

5) The audio output, measured using the measurement device, is recorded as the signal level.

6) The modulating audio signal for the 'wanted' signal generator is removed. The audio output, measured using the measurement device, is recorded as the noise level, N.

7) If the impairment criteria given in clause 4.2.5 are met then the receiver has passed the test.

The above test procedure is just applicable for AM and FM, Steps 5 and 6 are not applicable for DAB and DRM receivers.

FM mode:

| Unwanted Frequency(MHz)                      | S(dBm) | N(dBm) | SNR   | Limit               | Result                          |
|----------------------------------------------|--------|--------|-------|---------------------|---------------------------------|
| <b>Adjacent channel and selectivity test</b> |        |        |       |                     |                                 |
| 97.6                                         | -17.94 | -63.35 | 45.41 | $\geq 40\text{dBQ}$ | Pass (Clean Audio) <sup>1</sup> |
| 97.7                                         | -18.08 | -63.77 | 45.69 | $\geq 40\text{dBQ}$ | Pass (Clean Audio) <sup>1</sup> |
| 97.8                                         | -18.52 | -63.80 | 45.28 | $\geq 40\text{dBQ}$ | Pass (Clean Audio) <sup>1</sup> |
| 98.2                                         | -18.35 | -63.73 | 45.38 | $\geq 40\text{dBQ}$ | Pass (Clean Audio) <sup>1</sup> |
| 98.3                                         | -18.23 | -62.58 | 44.35 | $\geq 40\text{dBQ}$ | Pass (Clean Audio) <sup>1</sup> |
| 98.4                                         | -18.93 | -62.88 | 43.95 | $\geq 40\text{dBQ}$ | Pass (Clean Audio) <sup>1</sup> |
| <b>Blocking test</b>                         |        |        |       |                     |                                 |
| 97.2                                         | -23.93 | -68.97 | 45.04 | $\geq 40\text{dBQ}$ | Pass (Clean Audio) <sup>1</sup> |
| 98.8                                         | -23.53 | -68.41 | 44.88 | $\geq 40\text{dBQ}$ | Pass (Clean Audio) <sup>1</sup> |

DAB mode:

| Unwanted Frequency(MHz)                      | Limit       | Result                          |
|----------------------------------------------|-------------|---------------------------------|
| <b>Adjacent channel and selectivity test</b> |             |                                 |
| 197.792                                      | Clean Audio | Pass (Clean Audio) <sup>2</sup> |
| 199.504                                      | Clean Audio | Pass (Clean Audio) <sup>2</sup> |
| 201.216                                      | Clean Audio | Pass (Clean Audio) <sup>2</sup> |
| 204.640                                      | Clean Audio | Pass (Clean Audio) <sup>2</sup> |
| 206.352                                      | Clean Audio | Pass (Clean Audio) <sup>2</sup> |
| 208.064                                      | Clean Audio | Pass (Clean Audio) <sup>2</sup> |
| <b>Blocking test</b>                         |             |                                 |
| 190.928                                      | Clean Audio | Pass (Clean Audio) <sup>2</sup> |
| 214.928                                      | Clean Audio | Pass (Clean Audio) <sup>2</sup> |

Remark: 1: Clean audio is defined as 10 seconds of audio with no subjective impairments (e.g. clicks resulting from FM threshold effects).

2: Clean audio is defined as 10 seconds of audio with no subjective impairments (e.g. muting, clicks, warbles or squeaks).

### 6.3 Unwanted emissions in the spurious domain

Test Requirement: EN 303 345-3 V1.1.1 Clause 4.4

EN 303 345-4 V1.1.1 Clause 4.4

Test Method: EN 55032:2015+A1:2020

Limit:

The limits for conducted spurious domain emissions are specified in EN 55032 [4], tables A.13.

**Table A.13 – Requirements for conducted differential voltage emissions from Class B equipment**

| Applicable to                                                                                                                                                                                                                                                                          |                     |                             |                               |                                    |                                  |                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------------|-------------------------------|------------------------------------|----------------------------------|------------------|
| 1. TV broadcast receiver tuner ports (3.1.8) with an accessible connector                                                                                                                                                                                                              |                     |                             |                               |                                    |                                  |                  |
| 2. RF modulator output ports (3.1.29)                                                                                                                                                                                                                                                  |                     |                             |                               |                                    |                                  |                  |
| 3. FM broadcast receiver tuner ports (3.1.8) with an accessible connector                                                                                                                                                                                                              |                     |                             |                               |                                    |                                  |                  |
| Table clause                                                                                                                                                                                                                                                                           | Frequency range MHz | Detector type/<br>bandwidth | Class B limits<br>dB(μV) 75 Ω |                                    |                                  | Applicability    |
|                                                                                                                                                                                                                                                                                        |                     |                             | Other                         | Local<br>Oscillator<br>Fundamental | Local<br>Oscillator<br>Harmonics |                  |
| A13.1                                                                                                                                                                                                                                                                                  | 30 to 950           | For frequencies<br>≤1 GHz   | 46                            | 46                                 | 46                               | See <sup>a</sup> |
|                                                                                                                                                                                                                                                                                        | 950 to 2 150        |                             | 46                            | 54                                 | 54                               |                  |
| A13.2                                                                                                                                                                                                                                                                                  | 950 to 2 150        | Quasi Peak/<br>120 kHz      | 46                            | 54                                 | 54                               | See <sup>b</sup> |
| A13.3                                                                                                                                                                                                                                                                                  | 30 to 300           |                             | 46                            | 54                                 | 50                               | See <sup>c</sup> |
|                                                                                                                                                                                                                                                                                        | 300 to 1 000        |                             |                               |                                    | 52                               |                  |
| A13.4                                                                                                                                                                                                                                                                                  | 30 to 300           |                             | For frequencies<br>≥1 GHz     | 46                                 | 66                               | 59               |
|                                                                                                                                                                                                                                                                                        | 300 to 1 000        | 52                          |                               |                                    |                                  |                  |
| A13.5                                                                                                                                                                                                                                                                                  | 30 to 950           | Peak/<br>1 MHz              | 46                            | 76                                 | 46                               | See <sup>e</sup> |
|                                                                                                                                                                                                                                                                                        | 950 to 2 150        |                             |                               | n/a                                | 54                               |                  |
| <sup>a</sup> Television receivers (analogue or digital), video recorders and PC TV broadcast receiver tuner cards working in channels between 30 MHz and 1 GHz, and digital audio receivers.                                                                                           |                     |                             |                               |                                    |                                  |                  |
| <sup>b</sup> Tuner units (not the LNB) for satellite signal reception.                                                                                                                                                                                                                 |                     |                             |                               |                                    |                                  |                  |
| <sup>c</sup> Frequency modulation audio receivers and PC tuner cards.                                                                                                                                                                                                                  |                     |                             |                               |                                    |                                  |                  |
| <sup>d</sup> Frequency modulation car radios.                                                                                                                                                                                                                                          |                     |                             |                               |                                    |                                  |                  |
| <sup>e</sup> Applicable to EUTs with RF modulator output ports (for example DVD equipment, video recorders, camcorders and decoders etc.) designed to connect to TV broadcast receiver tuner ports. Limits specified for the LO are for the RF modulator carrier signal and harmonics. |                     |                             |                               |                                    |                                  |                  |
| The term 'other' refers to all emissions other than the fundamental and the harmonics of the LO.                                                                                                                                                                                       |                     |                             |                               |                                    |                                  |                  |
| The measurement shall cover the entire frequency range.                                                                                                                                                                                                                                |                     |                             |                               |                                    |                                  |                  |
| The EUT shall be tuned in accordance with Table B.3 and clause C.4.2.1.                                                                                                                                                                                                                |                     |                             |                               |                                    |                                  |                  |

#### 6.3.1 E.U.T. Operation

Operating Environment:

Temperature: 24.3 °C

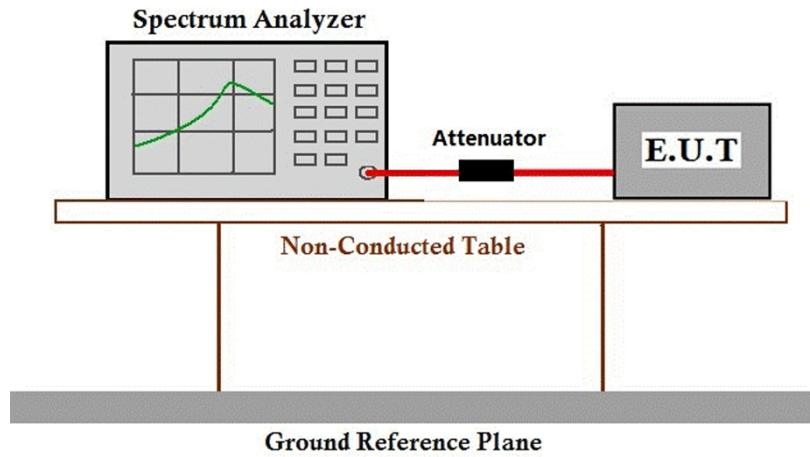
Humidity: 48.5 % RH

Atmospheric Pressure: 1010 mbar

#### 6.3.2 Test Mode Description

| Pre-scan / Final test | Mode Code | Description |
|-----------------------|-----------|-------------|
| Final test            | 01        | FM mode     |
| Final test            | 02        | DAB mode    |

### 6.3.3 Test Setup Diagram



### 6.3.4 Measurement Procedure and Data

Level=Read Level + Cable Loss



Report No.: SUCR260900087801

Page: 17 of 25

FM mode:  
30MHz-1GHz

| No. | Frequency | Reading | Cable    | Result | Limit  | Margin | Remark |
|-----|-----------|---------|----------|--------|--------|--------|--------|
|     | (MHz)     | (dBuV)  | Loos(dB) | (dBuV) | (dBuV) | (dB)   |        |
| 1   | 35.34     | 21.68   | 0.41     | 22.09  | 46.00  | -23.91 | QP     |
| 2   | 77.77     | 21.36   | 0.48     | 21.84  | 46.00  | -24.16 | QP     |
| 3   | 159.01    | 20.74   | 0.53     | 21.27  | 46.00  | -24.73 | QP     |
| 4   | 282.93    | 21.65   | 0.56     | 22.21  | 46.00  | -23.79 | QP     |
| 5   | 426.97    | 23.39   | 0.62     | 24.01  | 46.00  | -21.99 | QP     |
| 6   | 780.54    | 23.50   | 0.69     | 24.19  | 46.00  | -21.81 | QP     |

DAB mode:  
30MHz-1GHz

| No. | Frequency | Reading | Cable    | Result | Limit  | Margin | Remark |
|-----|-----------|---------|----------|--------|--------|--------|--------|
|     | (MHz)     | (dBuV)  | Loos(dB) | (dBuV) | (dBuV) | (dB)   |        |
| 1   | 35.58     | 21.02   | 0.41     | 21.43  | 46.00  | -24.57 | QP     |
| 2   | 88.69     | 22.22   | 0.48     | 22.70  | 46.00  | -23.30 | QP     |
| 3   | 159.98    | 20.70   | 0.53     | 21.23  | 46.00  | -24.77 | QP     |
| 4   | 240.01    | 23.09   | 0.55     | 23.64  | 46.00  | -22.36 | QP     |
| 5   | 508.94    | 24.18   | 0.64     | 24.82  | 46.00  | -21.18 | QP     |
| 6   | 867.84    | 24.07   | 0.72     | 24.79  | 46.00  | -21.21 | QP     |



Report No.: SUCR260900087801

Page: 18 of 25

1GHz-2.15GHz

| No. | Frequency<br>(MHz) | Reading<br>(dBuV) | Cable<br>Loos(dB) | Result<br>(dBuV) | Limit<br>(dBuV) | Margin<br>(dB) | Remark |
|-----|--------------------|-------------------|-------------------|------------------|-----------------|----------------|--------|
| 1   | 2511.25            | 32.09             | 1.15              | 33.24            | 46.00           | -12.76         | peak   |
| 2   | 4520.00            | 32.77             | 1.48              | 34.25            | 46.00           | -11.75         | peak   |
| 3   | 5513.75            | 33.53             | 1.56              | 35.09            | 46.00           | -10.91         | peak   |

## 6.4 Radiated Spurious Emissions(30MHz-1GHz)

Test Requirement: EN 303 345-1 V1.1.1  
EN 303 345-3 V1.1.1  
EN 303 345-4 V1.1.1  
Test Method: EN 55032: 2015+A11:2020+A1:2020  
Measurement Distance: 3m

Limit:

| FREQUENCY (MHz)                                 | dB( $\mu$ V/m) At 10m                                          | dB( $\mu$ V/m) At 3m       |
|-------------------------------------------------|----------------------------------------------------------------|----------------------------|
| 30MHz-300MHz                                    | 50dB( $\mu$ V) Fundamental                                     | 60dB( $\mu$ V) Fundamental |
| 30MHz-300MHz                                    | 42dB( $\mu$ V) Harmonics                                       | 52dB( $\mu$ V) Harmonics   |
| 300MHz-1000MHz                                  | 50dB( $\mu$ V) Fundamental                                     | 60dB( $\mu$ V) Fundamental |
| 300MHz-1000MHz                                  | 46dB( $\mu$ V) Harmonics                                       | 56dB( $\mu$ V) Harmonics   |
| 30MHz-230MHz                                    | 30dB( $\mu$ V) Other                                           | 40dB( $\mu$ V) Other       |
| 230MHz-1000MHz                                  | 37dB( $\mu$ V) Other                                           | 47dB( $\mu$ V) Other       |
| Detector:                                       | Peak for pre-scan (120kHz resolution bandwidth) 30M to 1000MHz |                            |
| *Decreases with the logarithm of the frequency. |                                                                |                            |

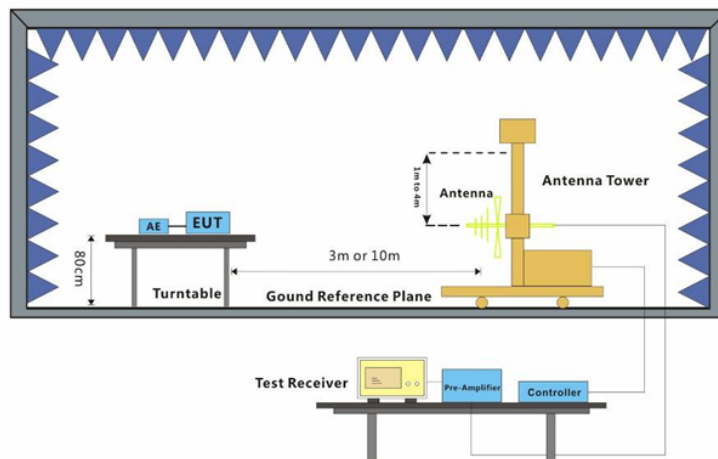
### 6.4.1 E.U.T. Operation

Operating Environment:  
Temperature: 24.5 °C Humidity: 48.2 % RH Atmospheric Pressure: 1010 mbar

### 6.4.2 Test Mode Description

| Pre-scan /<br>Final test | Mode Code | Description |
|--------------------------|-----------|-------------|
| Final test               | 01        | FM mode     |
| Pre-scan                 | 02        | DAB mode    |

### 6.4.3 Test Setup Diagram



### 6.4.4 Measurement Procedure and Data

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities.

Remark1:  $\text{Level} = \text{Read Level} + \text{Cable Loss} + \text{Antenna Factor} - \text{Preamplifier Factor}$

Remark2: All models have been tested, and the report only reflects the worst data.



Report No.: SUCR260900087801

Page: 21 of 25

Test Mode: 01; Horizontal

| Data List |                 |                |           |             |                |                |             |            |
|-----------|-----------------|----------------|-----------|-------------|----------------|----------------|-------------|------------|
| NO.       | Frequency [MHz] | Reading [dBμV] | AF [dB/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Polarity   |
| 1         | 33.1525         | 42.88          | 17.11     | -32.50      | 27.49          | 40.00          | 12.51       | Horizontal |
| 2         | 72.4375         | 48.65          | 7.79      | -32.06      | 24.38          | 40.00          | 15.62       | Horizontal |
| 3         | 156.3425        | 34.79          | 10.80     | -31.45      | 14.14          | 40.00          | 25.86       | Horizontal |
| 4         | 432.065         | 29.34          | 17.54     | -30.44      | 16.44          | 47.00          | 30.56       | Horizontal |
| 5         | 767.685         | 28.71          | 22.25     | -29.50      | 21.46          | 47.00          | 25.54       | Horizontal |
| 6         | 953.925         | 29.21          | 22.96     | -29.03      | 23.14          | 47.00          | 23.86       | Horizontal |

Test Mode: 01; Vertical

| Data List |                 |                |           |             |                |                |             |          |
|-----------|-----------------|----------------|-----------|-------------|----------------|----------------|-------------|----------|
| NO.       | Frequency [MHz] | Reading [dBμV] | AF [dB/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Polarity |
| 1         | 31.6975         | 41.46          | 17.99     | -32.52      | 26.93          | 40.00          | 13.07       | Vertical |
| 2         | 73.165          | 48.87          | 7.93      | -32.05      | 24.75          | 40.00          | 15.25       | Vertical |
| 3         | 109.7825        | 37.28          | 12.78     | -31.78      | 18.28          | 40.00          | 21.72       | Vertical |
| 4         | 406.1175        | 33.18          | 16.84     | -30.56      | 19.46          | 47.00          | 27.54       | Vertical |
| 5         | 721.125         | 33.40          | 21.86     | -29.70      | 25.56          | 47.00          | 21.44       | Vertical |
| 6         | 906.88          | 29.85          | 23.25     | -29.08      | 24.02          | 47.00          | 22.98       | Vertical |

## 6.5 Radiated Spurious Emissions(Above 1GHz)

Test Requirement: EN 303 345-1 V1.1.1

EN 303 345-3 V1.1.1

EN 303 345-4 V1.1.1

Test Method: EN 55032: 2015+A11:2020+A1:2020

Measurement Distance: 3m

Limit:

| Frequency range(MHz)                                                        | Radiated emissions limit(dBμV/m) |         |
|-----------------------------------------------------------------------------|----------------------------------|---------|
|                                                                             | Peak                             | Average |
| 1000-6000                                                                   | 74                               | 54      |
| Detector: Peak for pre-scan (1000kHz resolution bandwidth) 1000M to 6000MHz |                                  |         |

### 6.5.1 E.U.T. Operation

Operating Environment:

Temperature: 24.5 °C

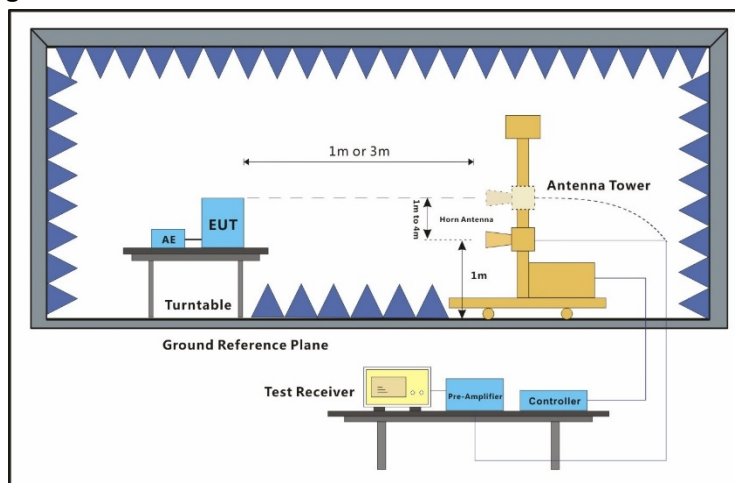
Humidity: 48.2 % RH

Atmospheric Pressure: 1010 mbar

### 6.5.2 Test Mode Description

| Pre-scan / Final test | Mode Code | Description |
|-----------------------|-----------|-------------|
| Final test            | 01        | FM mode     |
| Pre-scan              | 02        | DAB mode    |

### 6.5.3 Test Setup Diagram





Report No.: SUCR260900087801

Page: 23 of 25

#### 6.5.4 Measurement Procedure and Data

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Average measurements were conducted based on the peak sweep graph. The EUT was measured by Horn antenna with 2 orthogonal polarities.

Remark1:  $\text{Level} = \text{Read Level} + \text{Cable Loss} + \text{Antenna Factor} - \text{Preamplifier Factor}$

Remark2: All models have been tested, and the report only reflects the worst data.



Report No.: SUCR260900087801

Page: 24 of 25

Test Mode: 01; Horizontal

| Data List |                 |                |           |             |                |                |             |            |
|-----------|-----------------|----------------|-----------|-------------|----------------|----------------|-------------|------------|
| NO.       | Frequency [MHz] | Reading [dBμV] | AF [dB/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Polarity   |
| 1         | 3247.5          | 62.07          | 28.10     | -52.76      | 37.41          | 74.00          | 36.59       | Horizontal |
| 2         | 4808.75         | 59.18          | 31.48     | -48.97      | 41.69          | 74.00          | 32.31       | Horizontal |
| 3         | 5953.75         | 58.36          | 32.92     | -47.89      | 43.39          | 74.00          | 30.61       | Horizontal |

Test Mode: 01; Vertical

| Data List |                 |                |           |             |                |                |             |          |
|-----------|-----------------|----------------|-----------|-------------|----------------|----------------|-------------|----------|
| NO.       | Frequency [MHz] | Reading [dBμV] | AF [dB/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Polarity |
| 1         | 2520            | 62.54          | 26.80     | -53.23      | 36.11          | 74.00          | 37.89       | Vertical |
| 2         | 3555            | 60.91          | 28.67     | -51.83      | 37.75          | 74.00          | 36.25       | Vertical |
| 3         | 5996.25         | 57.91          | 33.09     | -48.09      | 42.91          | 74.00          | 31.09       | Vertical |



Report No.: SUCR260900087801

Page: 25 of 25

## 7 EUT Constructional Details (EUT Photos)

Refer to Appendix\_Photographs of EUT Constructional Details for KSCR2605001226AU

- End of the Report -