

# RADIO PERFORMANCE TEST REPORT

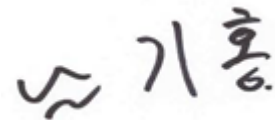
**Test Report No.** : OT-214-RWD-093  
**Reception No.** : 2104001963  
**Applicant** : Continental Automotive Systems Corporation  
**Address** : 45-29, Saeum-ro, Icheon-City, Gyeonggi-Do, Korea  
**Manufacturer** : Continental Automotive Systems Corporation  
**Address** : 45-29, Saeum-ro, Icheon-City, Gyeonggi-Do, Korea  
**Type of Equipment** : Smart Key Fob  
**FCC ID** : SY5KA4FGE09  
**Model No.** : SVI-KA4FGE09  
**Serial number** : N/A  
**Total page of Report** : 23 pages (including this page)  
**Date of Incoming** : March 29, 2021  
**Date of issuing** : April 28, 2021

## SUMMARY

The equipment complies with the regulation; **FCC PART 15 SUBPART C Section 15.209 and Section 15.231**

This test report only contains the result of a single test of the sample supplied for the examination.

It is not a generally valid assessment of the features of the respective products of the mass-production.



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**REVISION HISTORY**

| Issued Report No. | Issued Date    | Revisions     | Effect Section |
|-------------------|----------------|---------------|----------------|
| OT-214-RWD-093    | April 28, 2021 | Initial Issue | All            |

## 1. VERIFICATION OF COMPLIANCE

Applicant : Continental Automotive Systems Corporation  
 Address : 45-29, Saeum-ro, Icheon-City, Gyeonggi-Do, Korea  
 Contact Person : S. M. Jang / Representative  
 Telephone No. : 82-31-645-4864  
 FCC ID : SY5KA4FGE09  
 Model Name : SVI-KA4FGE09  
 Brand Name : N/A  
 Serial Number : N/A  
 Date : April 28, 2021

|                                                         |                                                           |
|---------------------------------------------------------|-----------------------------------------------------------|
| EQUIPMENT CLASS                                         | <b>DSC - Part 15, Security/Remote Control Transmitter</b> |
| E.U.T. DESCRIPTION                                      | Smart Key Fob                                             |
| THIS REPORT CONCERNS                                    | Original Grant                                            |
| MEASUREMENT PROCEDURES                                  | ANSI C63.10: 2013                                         |
| TYPE OF EQUIPMENT TESTED                                | Pre-Production                                            |
| KIND OF EQUIPMENT<br>AUTHORIZATION REQUESTED            | Certification                                             |
| EQUIPMENT WILL BE OPERATED<br>UNDER FCC RULES PART(S)   | FCC PART 15 SUBPART C Section 15.209 and Section 15.231   |
| MODIFICATIONS ON THE EQUIPMENT<br>TO ACHIEVE COMPLIANCE | None                                                      |
| FINAL TEST WAS CONDUCTED ON                             | 3 m, Semi Anechoic Chamber                                |

The above equipment was tested by ONETECH Corp. for compliance with the requirement set forth in the FCC Rules and Regulations. This said equipment in the configuration described in this report, shows the maximum emission levels emanating from equipment are within the compliance requirements.

## 2. TEST SUMMARY

### 2.1 Test items and results

| SECTION                | TEST ITEMS                                          | RESULTS              |
|------------------------|-----------------------------------------------------|----------------------|
| 15.231(c)              | Bandwidth Measurement                               | Met the Limit / PASS |
| 15.231(a)              | Transmission Time                                   | Met the Limit / PASS |
| 15.231(b)<br>15.209(a) | Field Strength of Fundamental and Spurious Emission | Met the Limit / PASS |
| 15.205                 | Restricted Band                                     | Met the Limit / PASS |
| 15.207                 | AC Conducted Emissions                              | N / A (See Note)     |

Note: This test is not applicable because the EUT uses battery and it's not to be connected to the public utility (AC) power line.

### 2.2 Additions, deviations, exclusions from standards

No additions, deviations or exclusions have been made from standard.

### 2.3 Related Submittal(s) / Grant(s)

Original submittal only

### 2.4 Purpose of the test

To determine whether the equipment under test fulfills the requirements of the regulation stated in section 2.1.

### 2.5 Test Methodology

Both conducted and radiated testing was performed according to the procedures in ANSI C63.10: 2013. Radiated testing was performed at a distance of 3 m from EUT to the antenna.

### 2.6 Test Facility

The Onetech Corp. has been designated to perform equipment testing in compliance with ISO/IEC 17025.

The Electromagnetic compatibility measurement facilities are located at 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea

-. Site Filing:

VCCI (Voluntary Control Council for Interference) – Registration No. R-20122/ C-14617/ G-10666/ T-11842

-. Lab Accreditation:

KOLAS (Korea Laboratory Accreditation Scheme) - Accreditation NO. KT085

ISED (Innovation, Science and Economic Development Canada) – Registration No. Site# 3736A-3

FCC (Federal Communications Commission) - Accreditation No. KR0013

RRA (Radio Research Agency) – Designation No. KR0013

### 3. GENERAL INFORMATION

#### 3.1 Product Description

The Continental Automotive Systems Corporation, Model: SVI-KA4FGE09 (referred to as the EUT in this report) is a Transmitter that it controls locking and unlocking the door of a vehicle. Product specification information described herein was obtained from product data sheet or user's manual.

|                                                |                                |
|------------------------------------------------|--------------------------------|
| CHASSIS TYPE                                   | Plastic                        |
| TX FREQUENCY                                   | 433.92 MHz                     |
| RX FREQUENCY                                   | 125 kHz                        |
| MODULATION                                     | FSK                            |
| LIST OF EACH OSC. OR CRY. FREQ.(FREQ.>= 1 MHz) | 27.6 MHz                       |
| DUTY CYCLE FACTOR                              | 9.79 dB (Duty Cycle : 32.40 %) |
| ANTENNA TYPE                                   | Built-in on the PCB in EUT     |
| ANTEENA GAIN                                   | -21.60 dBi                     |
| RATED SUPPLY VOLTAGE                           | DC 3 V from a battery          |

#### 3.2 Alternative type(s)/model(s); also covered by this test report.

-. None

#### 4. EUT MODIFICATIONS

-. None

#### 5. SYSTEM TEST CONFIGURATION

##### 5.1 Justification

This device was configured for testing in a typical way as a normal customer is supposed to be used. During the test, the following components were installed inside of the EUT.

| DEVICE TYPE | MANUFACTURER | MODEL/PART NUMBER | FCC ID |
|-------------|--------------|-------------------|--------|
| MAIN BOARD  | N/A          | N/A               | -      |

##### 5.2 Peripheral equipment

Defined as equipment needed for correct operation of the EUT, but not considered as tested:

| Model | Manufacturer | Description | Connected to |
|-------|--------------|-------------|--------------|
| -     | -            | -           | -            |
| -     | -            | -           | -            |

##### 5.3 Mode of operation during the test

Software was programmed into the EUT to maintain continuous transfer mode. The EUT was set at 433.92 MHz. To get a maximum radiated emission levels from the EUT, the EUT was moved throughout the XY, XZ, and YZ planes and the worst case is “XY” axis. So, the worst data was recorded in this test report.

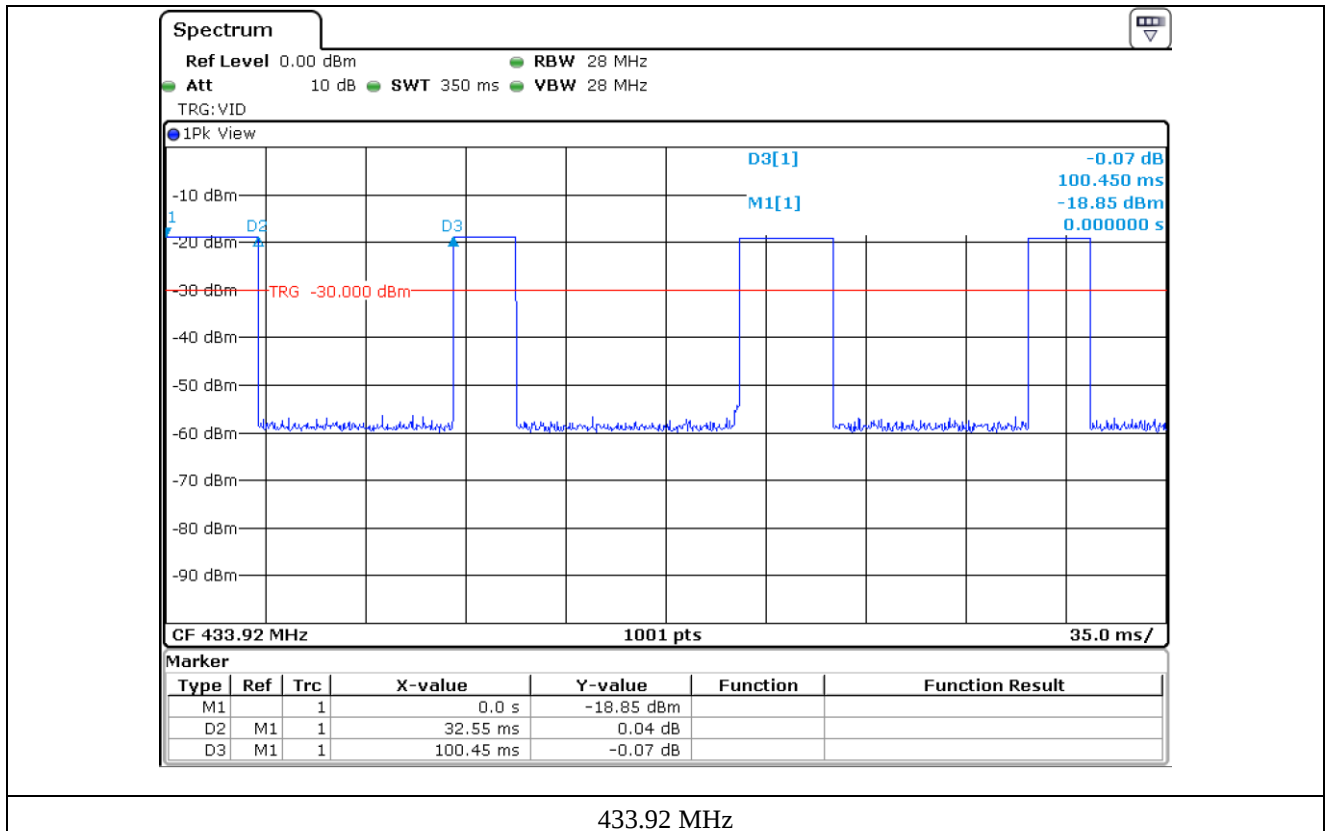
### -. Duty Cycle

| Mode       | Tx On Time<br>[ ms ] | Tx Off Time<br>[ ms ] | Duty Cycle<br>[ % ] | Duty Cycle Factor<br>[ dB ] |
|------------|----------------------|-----------------------|---------------------|-----------------------------|
| 433.92 MHz | 32.55                | 67.90                 | 32.40               | 9.79                        |

Note – Duty Cycle : (Tx On Time / (Tx On Time + Tx Off Time)) \* 100

Duty Cycle Factor :  $20 * \log(1 / (\text{Duty Cycle} / 100))$

### -. Test Plot



The average field strength may be found by measuring the peak pulse amplitude (in log equivalent units) and determining the duty cycle correction factor (in dB) associated with the pulse modulation as shown in Equation. (ANSI C63.10: 2013)

## 5.4 Configuration of Test System

**Radiated Emission Test:** Preliminary radiated emissions test were conducted using the procedure in ANSI C63.10: 2013 to determine the worse operating conditions. Final radiated emission tests were conducted at 3 meter open area test site.

The turntable was rotated through 360 degrees and the EUT was tested by positioned three orthogonal planes to obtain the highest reading on the field strength meter. Once maximum reading was determined, the search antenna was raised and lowered in both vertical and horizontal polarization.

## 5.5 Antenna Requirement

For intentional device, according to section 15.203, 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.

**Antenna Construction:**

The transmitter antenna of the EUT is PCB Antenna, so no consideration of replacement by the user.

## 6. PRELIMINARY TEST

### 6.1 AC Power line Conducted Emissions Tests

- It is not need to test this requirement, because the power of the EUT is supplied from a DC battery.

### 6.2 General Radiated Emissions Tests

During Preliminary Test, the following operating mode was investigated.

| Operation Mode    | The Worse operating condition (Please check one only) |
|-------------------|-------------------------------------------------------|
| Transmitting Mode | X                                                     |

## 7. Bandwidth Measurement

### 7.1 Operating environment

Temperature : 21 °C

Relative humidity : 52 % R.H.

### 7.2 Test set-up

The antenna output of the EUT was connected to the spectrum analyzer. The resolution bandwidth is set to 10 kHz, and peak detection was used. The bandwidth of fundamental frequency was measured and recorded.



### 7.3 Test date

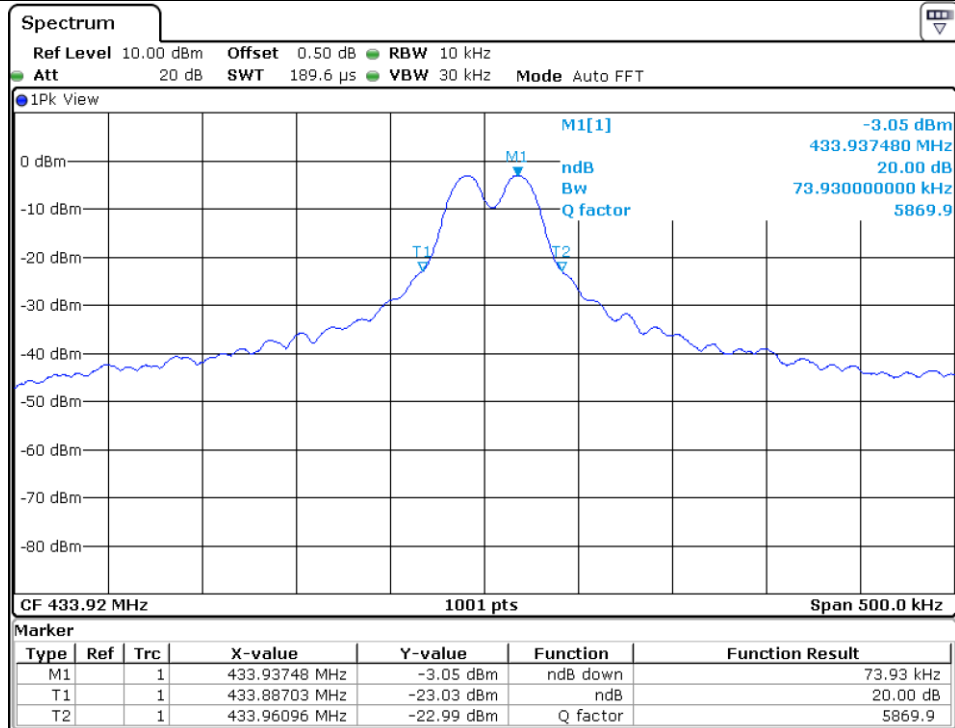
March 30, 2021 ~ April 08, 2021

### 7.4 Test data

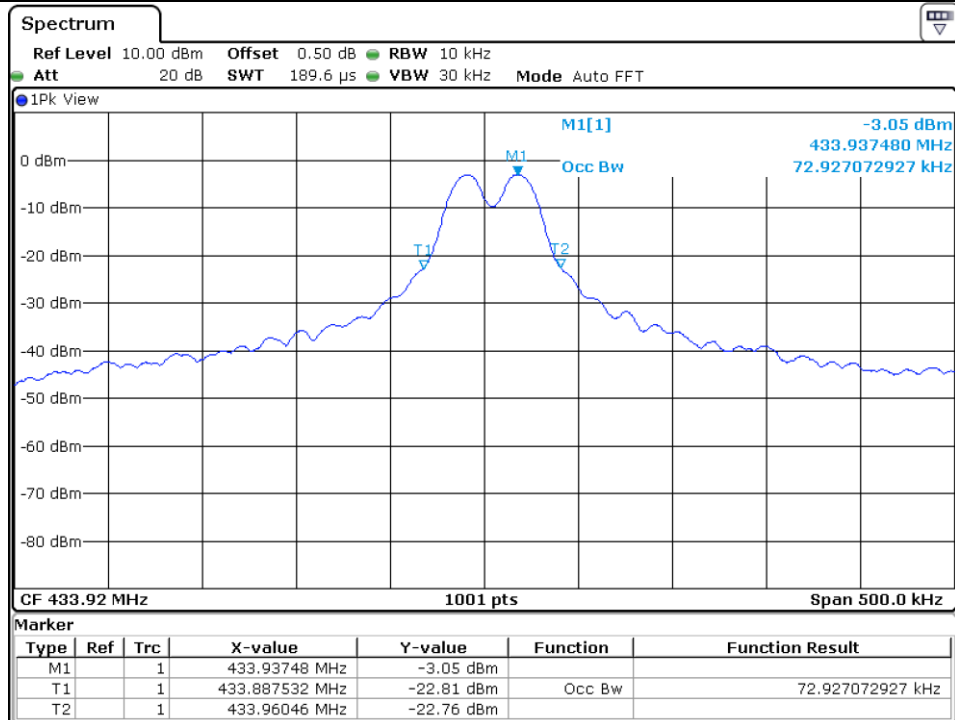
-. Test Result : Pass

| Frequency<br>(MHz) | 20 dB Bandwidth<br>(MHz) | 99 % Bandwidth<br>(MHz) | Limit<br>(MHz) |
|--------------------|--------------------------|-------------------------|----------------|
| 433.92             | 0.073 9                  | 0.072 9                 | 1.085          |

Remark: See next page for measurement data.



20 dB Bandwidth



99% Bandwidth

## 8. Transmission Time

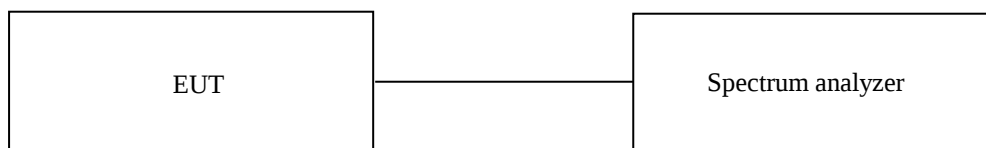
### 8.1 Operating environment

Temperature : 21 °C

Relative humidity : 52 % R.H.

### 8.2 Test set-up

The antenna output of the EUT was connected to the spectrum analyzer. The resolution bandwidth is set to 100 kHz, and peak detection was used. The bandwidth of fundamental frequency was measured and recorded.



### 8.3 Test date

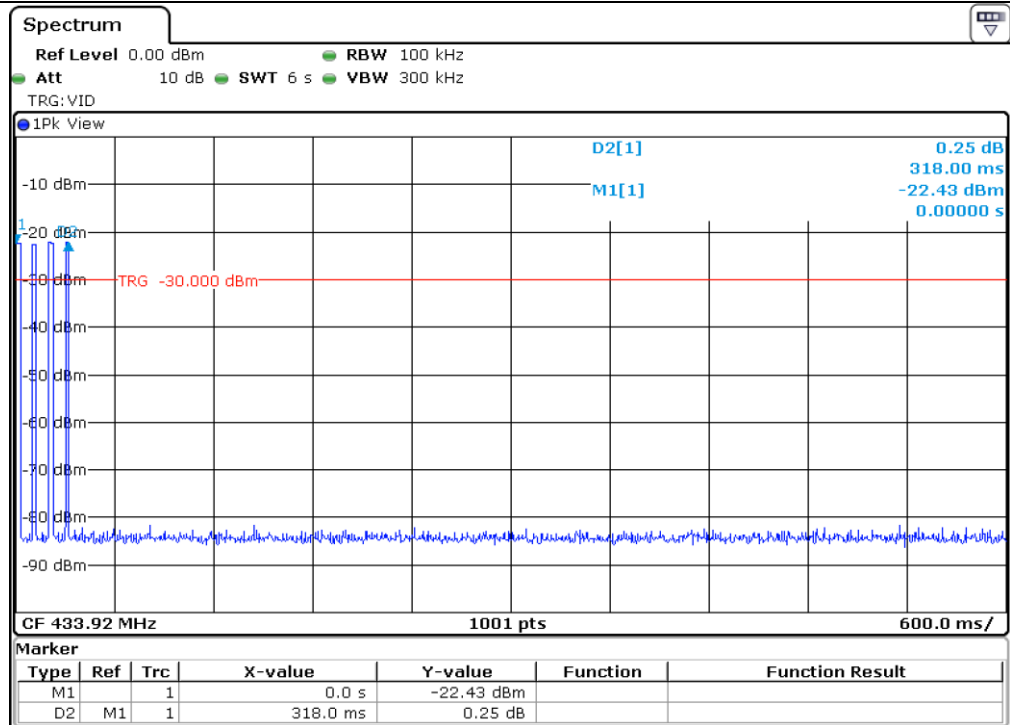
March 30, 2021 ~ April 08, 2021

## 8.4 Test data

-. Test Result : Pass

-. Test Applies : 15.231 (a) (1)

| Frequency (MHz) | Transmission Time (s) | Limit (s) | Result |
|-----------------|-----------------------|-----------|--------|
| 433.92          | 0.318                 | 5.000     | Pass   |



## 9. Radiated Emission Test

### 9.1 Regulation

According to §15.209(a), for an intentional device, the general requirement of field strength of radiated emissions from intentional radiators at a distance of 3 meters shall not exceed the following values:

| Frequency [MHz] | Field strength<br>[μ V/m] | Field strength<br>[dBμ V/m] | Measurement distance<br>[m] |
|-----------------|---------------------------|-----------------------------|-----------------------------|
| 0.009 ~ 0.490   | 2 400 / F (kHz)           | -                           | 300                         |
| 0.490 ~ 1.705   | 24 000 / F (kHz)          | -                           | 30                          |
| 1.705 ~ 30      | 30                        | 29.50                       | 30                          |
| 30 ~ 88         | *100                      | 40.00                       | 3                           |
| 88 ~ 216        | *150                      | 43.52                       | 3                           |
| 216 ~ 960       | *200                      | 46.02                       | 3                           |
| Above 960       | 500                       | 53.98                       | 3                           |

\*Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54 ~ 72 MHz, 76 ~ 88 MHz, 174 ~ 216 MHz or 470 ~ 806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

According to §15.231(b), for an intentional device, the general requirement of field strength of radiated emissions from intentional radiators at a distance of 3 meters shall not exceed the following values:

| Frequency [MHz] | Field strength of Fundamental<br>[μ V/m] | Field strength of Spurious Emissions<br>[μ V/m] |
|-----------------|------------------------------------------|-------------------------------------------------|
| 40.66 ~ 40.70   | 2 250                                    | 225                                             |
| 70 ~ 130        | 1 250                                    | 125                                             |
| 130 ~ 174       | 1 250 ~ 3 750 **                         | 125 ~ 375 **                                    |
| 174 ~ 260       | 3 750                                    | 375                                             |
| 260 ~ 470       | 3 750 ~ 12 500 **                        | 375 ~ 1 250 **                                  |
| Above 470       | 12 500                                   | 1 250                                           |

\*\* Linear interpolations

## 9.2 Test set-up

The radiated emissions measurements were on the 3 m semi anechoic chamber. The EUT and other support equipment were placed on a non-conductive turntable above the ground plane. The interconnecting cables from outside test site were inserted into ferrite clamps at the point where the cables reach the turntable.

The frequency spectrum from 30 kHz to 1 GHz was scanned and maximum emission levels at each frequency recorded. The system was rotated 360°, and the antenna was varied in the height between 1.0 m and 4.0 m in order to determine the maximum emission levels. This procedure was performed for horizontal and vertical polarization of the receiving antenna.

## 9.3 Test date

March 30, 2021 ~ April 08, 2021

## 9.4 Test data

### 9.4.1 Field Strength of Fundamental

The following table shows the highest levels of radiated emissions on both polarizations of horizontal and vertical.

Humidity Level : 52 % R.H.

Temperature: 21 °C

Limits apply to : FCC CFG 47, PART 15, SUBPART C, SECTION 15.231(b)

Result : PASSED

EUT : Smart Key Fob

Operating Condition : TX mode

Distance : 3 m

| Frequency<br>(MHz) | Reading<br>(dBμV) | Detector<br>Mode | Ant. Pol.<br>(H/V) | Ant.<br>Factor | Cable<br>Loss | Amp<br>Gain | Duty<br>Factor | Total<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) |
|--------------------|-------------------|------------------|--------------------|----------------|---------------|-------------|----------------|-------------------|--------------------|----------------|
| 433.92             | 93.68             | Peak             | H                  | 21.50          | 2.50          | 32.20       | -              | 85.48             | 100.83             | 15.35          |
|                    | -                 | Average          | H                  |                |               |             | 9.79           | 75.69             | 80.83              | 5.14           |
|                    | 90.46             | Peak             | V                  |                |               |             | -              | 82.26             | 100.83             | 18.57          |
|                    | -                 | Average          | V                  |                |               |             | 9.79           | 72.47             | 80.83              | 8.36           |

Remark : “H”: Horizontal, “V”: Vertical

Total (dBμV/m) = Reading (dBμV) + Ant Factor (dB) + Cable Loss (dB) – Amp Gain (dB) – Duty Factor (dB)

Margin (dB) = Limits (dBμV/m) - Total (dBμV/m)

## 9.4.2 Spurious Emission & Restricted Band Test

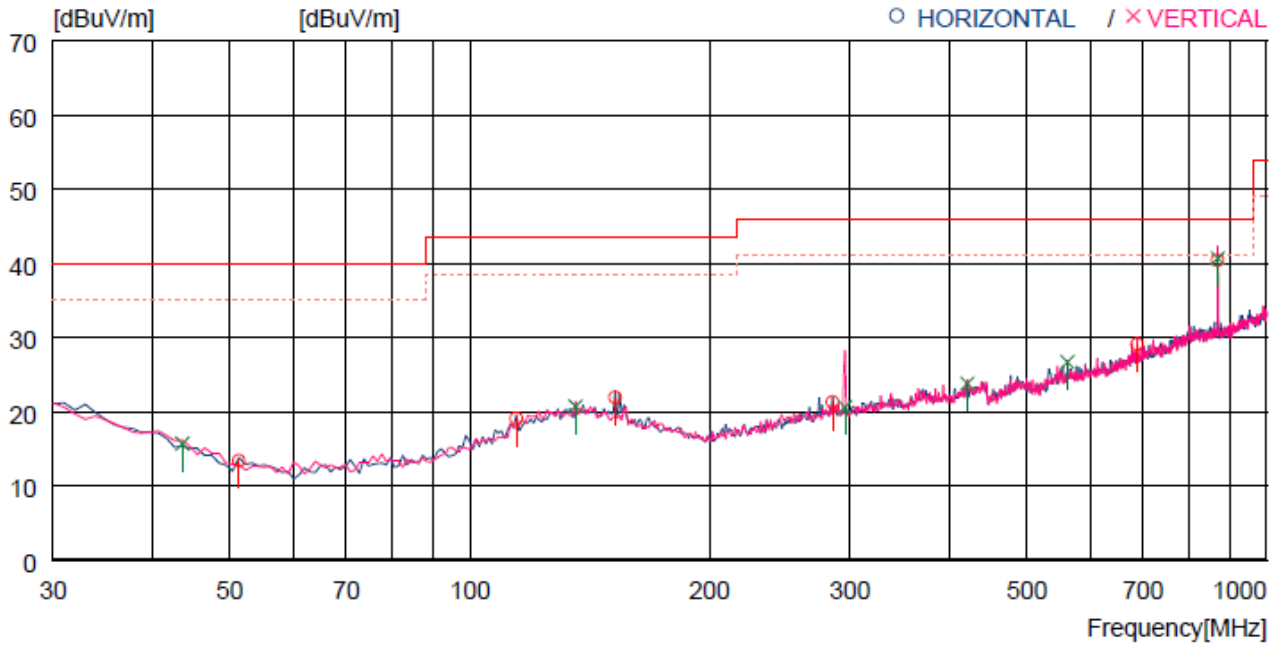
### 9.4.2.1 Test data for 9 kHz to 30 MHz

- Resolution bandwidth : 200 Hz (from 9 kHz to 0.15 MHz), 9 kHz (from 0.15 MHz to 30 MHz)
- Frequency range : 9 kHz ~ 30 MHz
- Measurement distance : 3 m

| Frequency<br>(MHz)                                 | Reading<br>(dB $\mu$ V) | Ant. Pol.<br>(H/V) | Ant.<br>Height (m) | Angle<br>(°) | Ant. Factor<br>(dB/m) | Cable<br>Loss | Emission<br>Level(dB $\mu$ V/m) | Limits<br>(dB $\mu$ V/m) | Margin<br>(dB) |
|----------------------------------------------------|-------------------------|--------------------|--------------------|--------------|-----------------------|---------------|---------------------------------|--------------------------|----------------|
| All emissions observed were 20 dB below the limit. |                         |                    |                    |              |                       |               |                                 |                          |                |

### 9.4.2.2 Test data for 30 MHz to 1 000 MHz

- . Resolution bandwidth : 120 kHz
- . Frequency range : 30 MHz ~ 1 000 MHz
- . Measurement distance : 3 m



| No.                    | FREQ    | READING | ANT  | LOSS | GAIN | RESULT   | LIMIT    | MARGIN | ANTENNA | TABLE |
|------------------------|---------|---------|------|------|------|----------|----------|--------|---------|-------|
|                        | [MHz]   | [dBuV]  | [dB] | [dB] | [dB] | [dBuV/m] | [dBuV/m] | [dB]   | [cm]    | [DEG] |
| ----- Horizontal ----- |         |         |      |      |      |          |          |        |         |       |
| 1                      | 51.340  | 31.7    | 13.0 | 0.8  | 32.1 | 13.4     | 40.0     | 26.6   | 300     | 298   |
| 2                      | 114.390 | 32.2    | 17.7 | 1.2  | 32.0 | 19.1     | 43.5     | 24.4   | 200     | 0     |
| 3                      | 152.220 | 34.0    | 18.5 | 1.4  | 32.0 | 21.9     | 43.5     | 21.6   | 100     | 359   |
| 4                      | 285.110 | 32.5    | 18.8 | 2.0  | 32.0 | 21.3     | 46.0     | 24.7   | 200     | 0     |
| 5                      | 687.655 | 32.6    | 25.4 | 3.4  | 32.3 | 29.1     | 46.0     | 16.9   | 300     | 265   |
| 6                      | 868.070 | 40.8    | 27.4 | 4.0  | 31.8 | 40.4     | 46.0     | 5.6    | 400     | 0     |
| ----- Vertical -----   |         |         |      |      |      |          |          |        |         |       |
| 7                      | 43.580  | 31.2    | 15.8 | 0.7  | 32.0 | 15.7     | 40.0     | 24.3   | 300     | 0     |
| 8                      | 135.730 | 32.1    | 19.3 | 1.3  | 32.0 | 20.7     | 43.5     | 22.8   | 100     | 146   |
| 9                      | 295.780 | 31.5    | 19.1 | 2.0  | 32.0 | 20.6     | 46.0     | 25.4   | 100     | 172   |
| 10                     | 420.911 | 32.2    | 21.2 | 2.5  | 32.1 | 23.8     | 46.0     | 22.2   | 200     | 359   |
| 11                     | 562.529 | 32.4    | 23.8 | 2.9  | 32.4 | 26.7     | 46.0     | 19.3   | 100     | 0     |
| 12                     | 868.070 | 41.1    | 27.4 | 4.0  | 31.8 | 40.7     | 46.0     | 5.3    | 100     | 0     |

### 9.4.2.3 Test data for above 1 GHz

- Resolution bandwidth : 1 MHz for Peak and Average Mode
- Video bandwidth : 1 MHz for Peak and Average Mode
- Frequency range : 1 GHz ~ 5 GHz
- Measurement distance : 3 m
- Operating mode : Transmitting mode

| Frequency (GHz)            | Reading (dBμV) | Detector Mode | Ant. Pol. (H/V) | Ant. Factor | Cable Loss | Amp Gain | Duty Factor | Total (dBμV/m) | Limits (dBμV/m) | Margin (dB) |
|----------------------------|----------------|---------------|-----------------|-------------|------------|----------|-------------|----------------|-----------------|-------------|
| 1 735.68 <sup>1)</sup>     | 56.08          | Peak          | H               | 26.10       | 7.10       | 46.00    | -           | 43.28          | 80.83           | 37.55       |
| 1 735.68 <sup>1)</sup>     | -              | Average       | H               |             |            |          | 9.79        | 33.49          | 60.83           | 27.34       |
| 1 735.68 <sup>1)</sup>     | 55.21          | Peak          | V               |             |            |          | -           | 42.41          | 80.83           | 38.42       |
| 1 735.68 <sup>1)</sup>     | -              | Average       | V               |             |            |          | 9.79        | 32.62          | 60.83           | 28.21       |
| 2 169.60 <sup>1)</sup>     | 57.04          | Peak          | H               | 28.20       | 7.80       | 46.10    | -           | 46.94          | 80.83           | 33.89       |
| 2 169.60 <sup>1)</sup>     | -              | Average       | H               |             |            |          | 9.79        | 37.15          | 60.83           | 23.68       |
| 2 169.60 <sup>1)</sup>     | 56.21          | Peak          | V               |             |            |          | -           | 46.11          | 80.83           | 34.72       |
| 2 169.60 <sup>1)</sup>     | -              | Average       | V               |             |            |          | 9.79        | 36.32          | 60.83           | 24.51       |
| 2 603.52 <sup>1)</sup>     | 55.19          | Peak          | H               | 29.50       | 8.50       | 46.15    | -           | 47.04          | 80.83           | 33.79       |
| 2 603.52 <sup>1)</sup>     | -              | Average       | H               |             |            |          | 9.79        | 37.25          | 60.83           | 23.58       |
| 2 603.52 <sup>1)</sup>     | 55.21          | Peak          | V               |             |            |          | -           | 47.06          | 80.83           | 33.77       |
| 2 603.52 <sup>1)</sup>     | -              | Average       | V               |             |            |          | 9.79        | 37.27          | 60.83           | 23.56       |
| 3 037.44 <sup>1)</sup>     | 55.65          | Peak          | H               | 29.90       | 9.10       | 46.06    | -           | 48.59          | 80.83           | 32.24       |
| 3 037.44 <sup>1)</sup>     | -              | Average       | H               |             |            |          | 9.79        | 38.80          | 60.83           | 22.03       |
| 3 037.44 <sup>1)</sup>     | 55.02          | Peak          | V               |             |            |          | -           | 47.96          | 80.83           | 32.87       |
| 3 037.44 <sup>1)</sup>     | -              | Average       | V               |             |            |          | 9.79        | 38.17          | 60.83           | 22.66       |
| 3 471.36 <sup>1)</sup>     | 55.58          | Peak          | H               | 30.40       | 9.70       | 45.68    | -           | 50.00          | 80.83           | 30.83       |
| 3 471.36 <sup>1)</sup>     | -              | Average       | H               |             |            |          | 9.79        | 40.21          | 60.83           | 20.62       |
| 3 471.36 <sup>1)</sup>     | 55.01          | Peak          | V               |             |            |          | -           | 49.43          | 80.83           | 31.40       |
| 3 471.36 <sup>1)</sup>     | -              | Average       | V               |             |            |          | 9.79        | 39.64          | 60.83           | 21.19       |
| 3 905.28 <sup>1), 2)</sup> | 58.76          | Peak          | H               | 31.50       | 10.70      | 45.73    | -           | 55.23          | 74.00           | 18.77       |
| 3 905.28 <sup>1), 2)</sup> | -              | Average       | H               |             |            |          | 9.79        | 45.44          | 54.00           | 8.56        |
| 3 905.28 <sup>1), 2)</sup> | 57.07          | Peak          | V               |             |            |          | -           | 53.54          | 74.00           | 20.46       |
| 3 905.28 <sup>1), 2)</sup> | -              | Average       | V               |             |            |          | 9.79        | 43.75          | 54.00           | 10.25       |

| Frequency<br>(GHz)         | Reading<br>(dBμV) | Detector<br>Mode | Ant. Pol.<br>(H/V) | Ant.<br>Factor | Cable<br>Loss | Amp<br>Gain | Duty<br>Factor | Total<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) |
|----------------------------|-------------------|------------------|--------------------|----------------|---------------|-------------|----------------|-------------------|--------------------|----------------|
| 4 339.20 <sup>1), 2)</sup> | 56.97             | Peak             | H                  | 32.80          | 11.10         | 45.73       | -              | 55.14             | 74.00              | 18.86          |
| 4 339.20 <sup>1), 2)</sup> | -                 | Average          | H                  |                |               |             | 9.79           | 45.35             | 54.00              | 8.65           |
| 4 339.20 <sup>1), 2)</sup> | 55.88             | Peak             | V                  |                |               |             | -              | 54.05             | 74.00              | 19.95          |
| 4 339.20 <sup>1), 2)</sup> | -                 | Average          | V                  |                |               |             | 9.79           | 44.26             | 54.00              | 9.74           |

Remark : “H”: Horizontal, “V”: Vertical

<sup>1)</sup> : Harmonic

<sup>2)</sup> : Restricted band

Total (dBμV/m) = Reading (dBμV) + Ant Factor (dB) + Cable Loss (dB) – Amp Gain (dB) – Duty Factor (dB)

Margin (dB) = Limits (dBμV/m) - Total (dBμV/m)

## 10. LIST OF TEST EQUIPMENT

| Model Number | Manufacturer         | Description        | Serial Number         | Last Cal. (Interval) |
|--------------|----------------------|--------------------|-----------------------|----------------------|
| FSV40-N      | R/S                  | Spectrum analyzer  | 101457                | Apr. 16, 2021 (1Y)   |
| ESR7         | Rohde & Schwarz      | EMI Test Receiver  | 102190                | Oct. 14, 2020 (1Y)   |
| HLP-2008     | TDK                  | Hybrid Antenna     | 131316                | Feb. 27, 2020 (2Y)   |
| 310N         | Sonoma Instrument    | AMPLIFIER          | 392756                | Oct. 16, 2020 (1Y)   |
| GP-4303D     | LG Precision Co.,Ltd | DC POWER SUPPLY    | 5071069               | Jan. 06, 2021 (1Y)   |
| AH-118       | Com-Power            | Horn Antenna       | 10050061              | Oct. 15, 2020 (1Y)   |
| N/A          | PHELCOM.CO           | Band Reject Filter | N/A                   | Feb. 08, 2021 (1Y)   |
| PAM-118A     | Com-Power            | Pre-Amplifier      | 18040081              | Oct. 12, 2020 (1Y)   |
| CO3000       | Innco Systems GmbH   | Controller         | 1026/40960617/P       | N/A                  |
| DT2000-2t    | Innco Systems GmbH   | Turn Table         | N/A                   | N/A                  |
| MA-4640-XPET | Innco Systems GmbH   | Antenna Master     | MA4640/652/43100318/P | N/A                  |
| FMZB 1513    | Schwarzbeck          | Loop Antenna       | 1513-235              | Mar 24, 2020 (2Y)    |