Accreditation
N°1-1633
Scope available on
www.cofrac.fr

Template : February 22th, 2023

# TEST REPORT

N°: **18390042-787450-A(FILE#5215959)** Version: **01**

**Subject** Electromagnetic compatibility tests according to the standards:
**FCC CFR 47 Part 15, Subpart B / C**
**ANSI C63.4 / ANSI C63.4a**
**ICES-003**

**Issued to**
INGENICO
9 avenue de la gare – Rovaltain TGV BP25156
VALENCE CEDEX 9
France 26958

**Apparatus under test**

| | |
|---|---|
| Product | **Payment terminal** |
| Trade mark | **INGENICO** |
| Manufacturer | **INGENICO** |
| Model under test | **Move/2600** |
| Serial number | **22196731715128602580 2819** |
| FCCID | **XKB-M2600CL4GW** |
| IC | **/** |

**Conclusion** See Test Program chapter

| | |
|---|---|
| Test date | March 13, 2023 to March 14, 2023 |
| Test location | LCIE Grenoble |
| FCC Test site | FR0008 - 197516 (MOI) |
| ISED Test site | / |
| Sample receipt date | March 13, 2023 |
| Composition of document | 37 pages |
| Document issued on | May 22, 2023 |

**Written by :**
Majid MOURZAGH
Tests operator

**Approved by :**
Anthony MERLIN
Technical manager

## PUBLICATION HISTORY

| Version | Date | Author | Modification |
|---|---|---|---|
| 01 | May 22, 2023 | Majid MOURZAGH | Creation of the document |

*Each new edition of this test report replaces and cancels the previous edition. The control of the old editions of report is under responsibility of client.*

## SUMMARY

# 1. TEST PROGRAM

**Standard:**

- ✓ **FCC Part 15, Subpart B (Digital Devices)**
- ✓ **ANSI C63.4 (2014) / ANSI C63.4a (2017)**
- ✓ **ICES-003 (2020)**

## *1.1. REQUIREMENTS FOR DISTURBANCE EMISSIONS – CLASS B*

| EMISSION TEST | LIMITS | | | RESULTS (Comments) |
|---|---|---|---|---|
| Limits for conducted disturbance 150kHz-30MHz **FCC §15.107 / ICES-003** | **Access: AC power** | | | **PASS** |
| | **Frequency** | **Quasi-peak** | **Average** | |
| | 150-500kHz | 66 to 56 dBµV | 56 to 46 dBµV | |
| | 0.5-5MHz | 56 dBµV | 46 dBµV | |
| | 5-30MHz | 60 dBµV | 50 dBµV | |
| Radiated emissions 30MHz-1GHz **FCC §15.109** | **Access: Enclosure port of ancillary equipment** | | | **PASS** |
| | **Frequency** | **Quasi-peak @3m** | | |
| | 30MHz-88MHz | 40.0 dBµV/m | | |
| | 88MHz-216MHz | 43.5 dBµV/m | | |
| | 216MHz-960MHz | 46.0 dBµV/m | | |
| | Above 960MHz | 54.0 dBµV/m | | |
| Radiated emissions 30MHz-1GHz **ICES-003** | **Access: Enclosure port of ancillary equipment** | | | **PASS** |
| | **Frequency** | **Quasi-peak @3m** | | |
| | 30MHz-88MHz | 40.0 dBµV/m | | |
| | 88MHz-216MHz | 43.5 dBµV/m | | |
| | 216MHz-230MHz | 46.0 dBµV/m | | |
| | 230MHz-960MHz | 47.0 dBµV/m | | |
| | Above 960MHz | 54.0 dBµV/m | | |
| Radiated emissions 1GHz-40GHz* **FCC §15.109 / ICES-003** | **Access: Enclosure port of ancillary equipment** | | | **PASS** |
| | **Frequency** | **Peak @3m** | **Average @3m** | |
| | 1- 6GHz | 74.0 dBµV/m | 54.0 dBµV/m | |

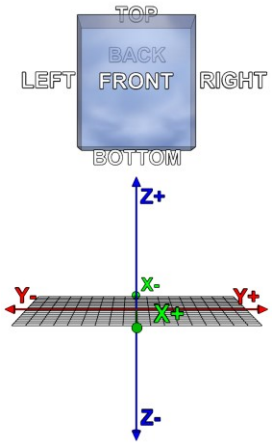
NA: Not Applicable / NP: Not Performed, not requested by the customer (It cannot be taken into account for the declaration of conformity)
[D]: Divergence, the last version is used to make it possible to test the product with the standard which describes the current state of the art and thus to answer as well as possible his environment of final use.
***§15.33:** The highest internal source of a testing device is defined like more the highest frequency generated or used in the testing device or on which the testing device works or agrees.
- If the highest frequency of the internal sources of the testing device is lower than 108 MHz, measurement must be only performed until 1GHz.
- If the highest frequency of the internal sources of the testing device ranges between 108 MHz and 500 MHz, measurement must be only performed until 2GHz.
- If the highest frequency of the internal sources of the testing device ranges between 500 MHz and 1 GHz, measurement must be only performed until 5GHz.
If the highest frequency of the internal sources of the testing device is above 1 GHz, measurement must be only performed until 5 times the highest frequency or 40 GHz, while taking smallest of both.
Special condition for intentional radiator:

- For a composite system comprised of a digital device using a clock frequency of 1 GHz as the highest frequency for the digital logic and an intentional radiator operating at 2.4 GHz, the composite is required to be investigated to the upper frequency of 24 GHz (in this case, 10 times the intentional radiator frequency is the higher frequency).

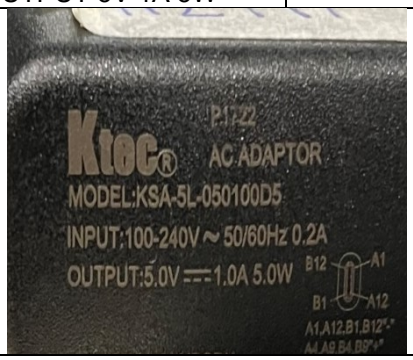
- For a composite system comprised of a digital device using a clock frequency of 2 GHz as the highest frequency for the digital logic and an intentional radiator operating at 913 MHz, the composite is required to be investigated to the upper frequency of 10 GHz (in this case, 5 times the unintentional radiator clock frequency is the higher frequency).

## *1.2. HARDWARE IDENTIFICATION (EUT AND AUXILIARIES)*

**Equipment under test (EUT):**

| | |
|---|---|
| **Model under test:** | **Move/2600** |
| **Serial Number:** | **22196731715128602580 2819** |
| |     |
| **Dimensions:** | 7.6cm x 5.6cm x 16.7cm (Length x Width x Height) |
| **Type:** | Table-Top |

**Power supply:**

| Name | Type | Rating | Reference / Sn | Comments |
|---|---|---|---|---|
| Supply1 | AC | 100-240VAC 0.2A 50-60Hz<br>OUTPUT 5V 1A 5W | PHIHONG AM05R-050CK | / |
| | |  | | |
| | | | | |
| Supply2 | AC | 100-240VAC 0.2A 50-60Hz<br>OUTPUT 5V 1A 5W | PHIHONG AM05x-050D | / |
| | |  | | |
| | | | | |
| Supply3 | AC | 100-240VAC 50/60Hz 0.2A<br>OUTPUT 5V 1A 5W | Ktec KSA-5L-050100D5 | / |
| | |  | | |
| | | | | |
| Supply4 | Battery | 3.6V 2.25Ah 8.1Wh | F12433224 | / |

*NC: Not communicated by provider*

**Inputs/outputs - Cable: Inputs/outputs - Cable:**

| Access | Type | Length used (m) | Declared <3m | Shielded | Comments |
|---|---|---|---|---|---|
| Supply1 | AC/DC adapter | 1.2 | Yes | No | / |
| Supply2 | AC/DC adapter | 1.2 | Yes | No | / |
| Supply3 | AC/DC adapter | 1.2 | Yes | No | / |

*NC: Not communicated by provider*

**Auxiliary equipment used during test:**

| Type | Reference | Sn | Comments |
|---|---|---|---|
| Laptop | DELL E4750 | / | / |
| WiFi Routers | ASUS RT-AC68U | / | / |
| Converter USB C – RJ45 | Startec | / | / |

*NC: Not communicated by provider*

## *1.3. EUT CONFIGURATION*

| Hardware information | | | |
|---|---|---|---|
| Highest internal frequency (PLL, Quartz, Clock, Microprocessor…): | **$F_{Highest}$:** | **6000MHz** | **MHz** |
| Firmware (if applicable): | **V. :** | 150031 | |
| Software (if applicable): | **V. :** | 031080 | |

*NC: Not communicated by provider*

| Running mode n°1 | |
|---|---|
| ***Auto EMC*** | ***ON*** |
| ***Block on fault*** | ***NO*** |
| ***Generate report*** | ***ON*** |
| ***Time between cycles*** | ***400ms*** |
| ***Backlight*** | ***ON*** |
| ***Buzzer*** | ***ON*** |
| ***Cam0*** | ***ON*** |
| ***Cless*** | ***ON*** |
| ***GPRS*** | ***ON*** |
| ***Printer*** | ***ON*** |
| ***Sam1*** | ***ON*** |
| ***Swipe*** | ***ON*** |
| ***WIFI*** | ***ON*** |

## *1.4. EQUIPMENT MODIFICATIONS DURING THE TESTS*

None

## 1.5. FIELD STRENGTH CALCULATION

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation with a sample calculation is as follow:

FS = RA + AF + CF – AG

*Where* *FS = Field Strength*
*RA = Receiver Amplitude*
*AF = Antenna Factor*
*CF = Cable Factor*
*AG = Amplifier Gain*

## 1.6. TEST DISTANCE EXTRAPOLATION – FCC/ISED

The field strength is extrapolated to the new measurement distance using formula from FCC Part15.31 (f) and §6.5-6.6 RSS-GEN:

Below 30MHz,

$$FS_{\text{limit}} = FS_{\max} - 40\log\left(\frac{d_{\text{limit}}}{d_{\text{measure}}}\right)$$

Above 30MHz,

$$FS_{\text{limit}} = FS_{\max} - 20\log\left(\frac{d_{\text{limit}}}{d_{\text{measure}}}\right)$$

*Where:*
*$FS_{limit}$ is the calculation of field strength at the limit distance, expressed in dBµV/m*
*$FS_{max}$ is the measured field strength, expressed in dBµV/m*
*$d_{measure}$ is the distance of the measurement point from the EUT*
*$d_{limit}$ is the reference limit distance*

## 1.7. CALIBRATION DATE

The calibration intervals are extended at 12+2 months. This extended interval is based on the fact that there is sufficient calibration data to statistically establish a trend or based on experience of use of the test equipment to assure good measurement results for a longer period

## 2. MEASUREMENT OF CONDUCTED EMISSION

### 2.1. TEST CONDITIONS

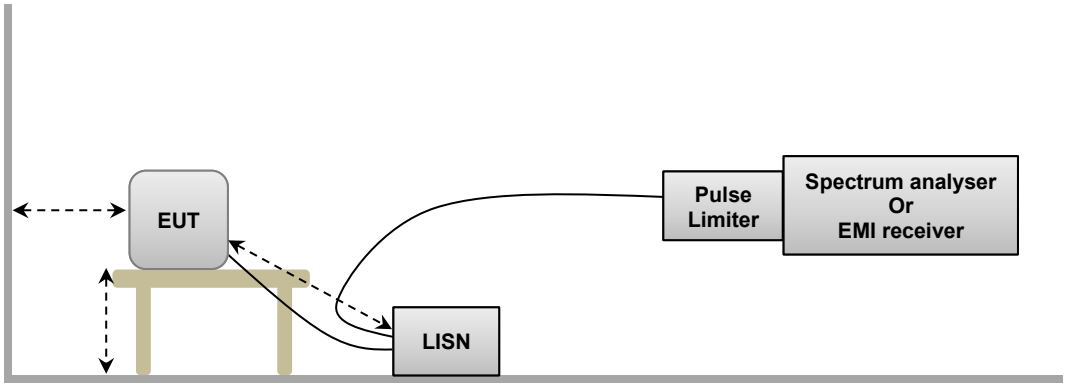
| | | |
|---|---|---|
| Date of test | : | March 15, 2023 |
| Test performed by | : | Majid MOURZAGH |
| Atmospheric pressure (hPa) | : | 998 |
| Relative humidity (%) | : | 39 |
| Ambient temperature (°C) | : | 21 |

### 2.2. TEST SETUP

Test procedure:
☑ ANSI C63.10 & FCC Part 15 subpart C

The EUT and auxiliaries are set 80cm above the ground on the non-conducting table (Table-top equipment) at 80cm from the LISN, the cable has been shorted to 1meter length. The distance between the EUT and the vertical ground plane is 40cm. Measurement is made with a receiver in peak mode. This was followed by a Quasi-Peak, i.e. CISPR measurement for any strong signal. If the average limit is met when using a Quasi-Peak detector, the EUT shall be deemed to meet both limits and measurement with the average detector is unnecessary. Interconnecting cables and equipment's were moved to position that maximized emission. The EUT is powered like specified in following table, through a LISN (measure); auxiliaries are powered by another LISN.

| Type | Measurement performed: | |
|---|---|---|
| ☑ AC / ☐ DC (Auxiliary used) | ☑ 120VAC/60Hz | ☑ 240VAC/50Hz |
| ☐ USB (Laptop auxiliary) | ☐ 120VAC/60Hz (Laptop auxiliary) | ☐ 240VAC/50Hz (Laptop auxiliary) |




*Test setup of AC Power Line Conducted Emissions*

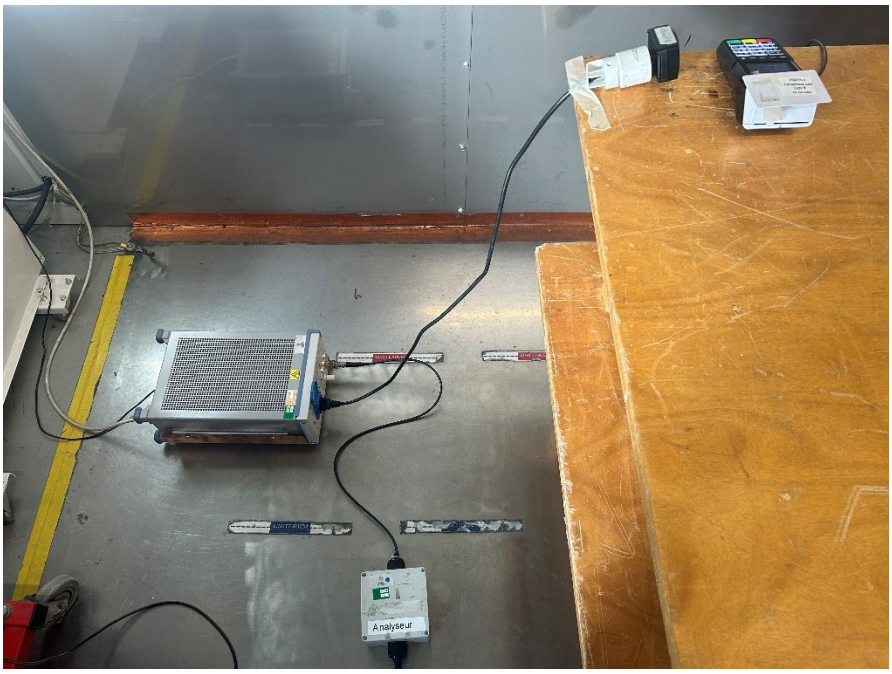




*Photo of AC Power Line Conducted Emissions*

## 2.3. TEST EQUIPMENT LIST

| TEST EQUIPMENT USED | | | | | |
|---|---|---|---|---|---|
| **Description** | **Manufacturer** | **Model** | **Identifier** | **Cal_Date** | **Cal_Due** |
| BAT EMC | NEXIO | v3.21.0.32 | L1000115 | | |
| Cable + self | _ | _ | A5329578 | 05/22 | 05/23 |
| EMC comb generator | LCIE SUD EST | _ | A3169098 | | |
| LISN | ROHDE & SCHWARZ | ENV216 | C2320291 | 08/22 | 08/23 |
| Receiver 20Hz – 8GHz | ROHDE & SCHWARZ | ESU8 | A2642019 | 03/23 | 03/25 |
| Thermo-hygrometer (PM1/2/3) | KIMO | HQ 210 | B4206022 | 01/21 | 05/23 |
| Transient limiter | ROHDE & SCHWARZ | ESH3-Z2 | A7122204 | 08/22 | 08/24 |

## 2.4. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

None

## 2.5. TEST RESULTS – RUNNING MODE N°1

***Mains terminals:***

***SUPPLY1***

Measurements are performed on the phase (L1) and neutral (N) of the power line.

**Results: (PEAK detection)**

| Graph identifier | | Line | Comments | |
|---|---|---|---|---|
| Emc# | 1 | Phase | 120VAC/60Hz | See below |
| Emc# | 2 | Neutral | 120VAC/60Hz | See below |
| Emc# | 7 | Phase | 240VAC/50Hz | See below |
| Emc# | 8 | Neutral | 240VAC/50Hz | See below |

***SUPPLY2***

Measurements are performed on the phase (L1) and neutral (N) of the power line.

**Results: (PEAK detection)**

| Graph identifier | | Line | Comments | |
|---|---|---|---|---|
| Emc# | 3 | Phase | 120VAC/60Hz | See below |
| Emc# | 4 | Neutral | 120VAC/60Hz | See below |
| Emc# | 9 | Phase | 240VAC/50Hz | See below |
| Emc# | 10 | Neutral | 240VAC/50Hz | See below |

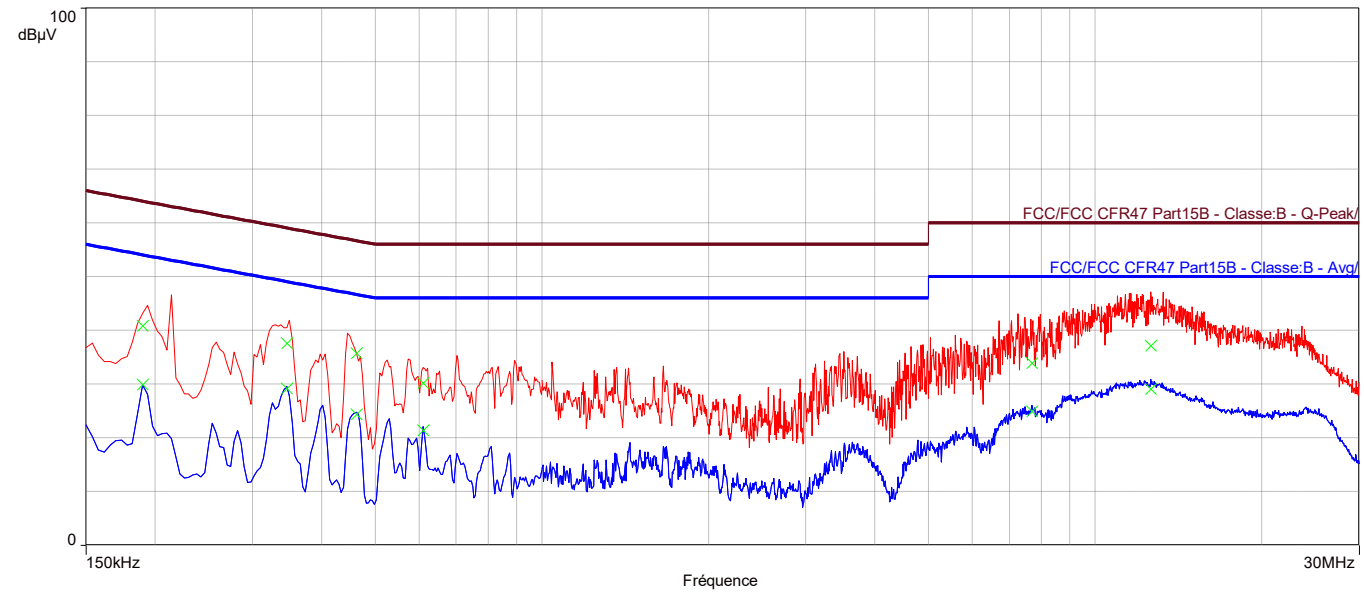
***SUPPLY3***

Measurements are performed on the phase (L1) and neutral (N) of the power line.

**Results: (PEAK detection)**

| Graph identifier | | Line | Comments | |
|---|---|---|---|---|
| Emc# | 5 | Phase | 120VAC/60Hz | See below |
| Emc# | 6 | Neutral | 120VAC/60Hz | See below |
| Emc# | 11 | Phase | 240VAC/50Hz | See below |
| Emc# | 12 | Neutral | 240VAC/50Hz | See below |

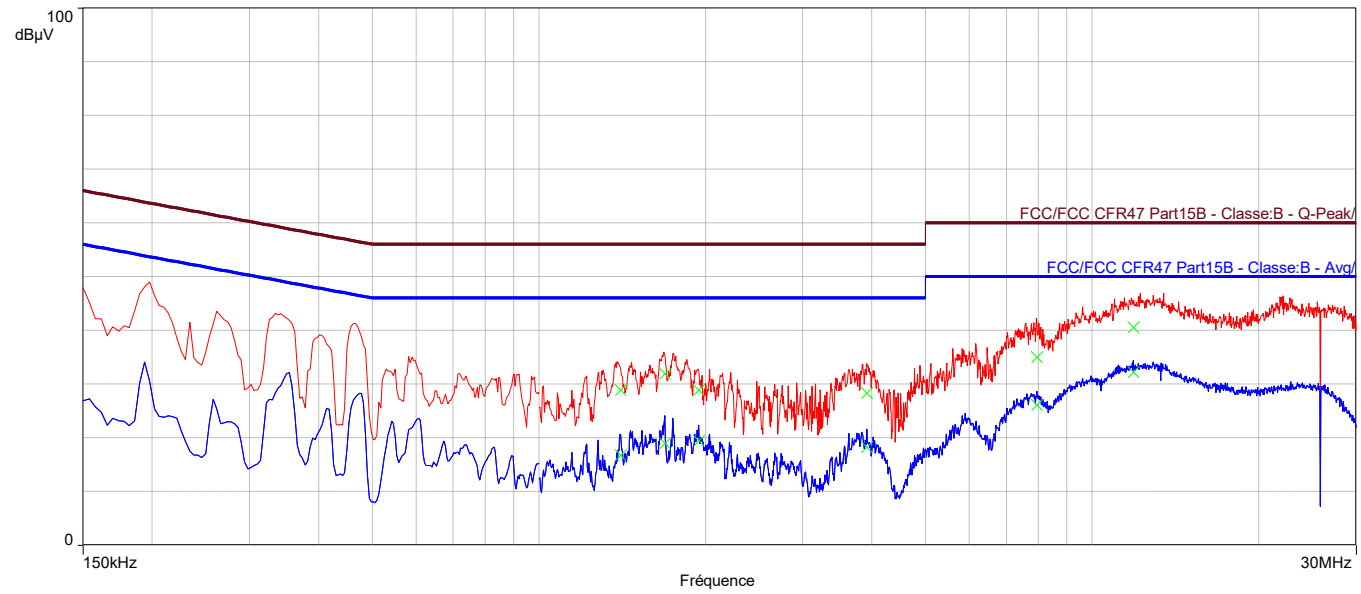
| CONDUCTED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emc#1 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15B | ESU8 - (RSIL) - P/N Supply 1 MOVE/2600 - Neutral 120VAC 60Hz | |
| **Class:** | B | | |
| **Frequency range: [150kHz - 30MHz]** | | | |
| **Voltage / Frequency:** | | **RBW:** 10kHz | **VBW:** 30kHz |
| **Line:** | | **Trace color & detector:** | PEAK AVG |




***Spurious emissions***

| Frequency (MHz) | QPeak (dBµV) | Lim.QPeak (dBµV) | QPeak-Lim.QPeak (dB) | CISPR.AVG (dBµV) | Lim.CISPR.AVG (dBµV) | CISPR.AVG-Lim.CISPR.AVG (dB) |
|---|---|---|---|---|---|---|
| 0.190 | 40.8 | 64.0 | -23.2 | 29.9 | 54.0 | -24.1 |
| 0.346 | 37.6 | 59.1 | -21.5 | 29.1 | 49.1 | -19.9 |
| 0.462 | 35.8 | 56.7 | -20.9 | 24.4 | 46.7 | -22.3 |
| 0.610 | 30.2 | 56.0 | -25.8 | 21.4 | 46.0 | -24.6 |
| 7.688 | 33.9 | 60.0 | -26.1 | 25.0 | 50.0 | -25.0 |
| 12.612 | 37.2 | 60.0 | -22.8 | 29.1 | 50.0 | -20.9 |

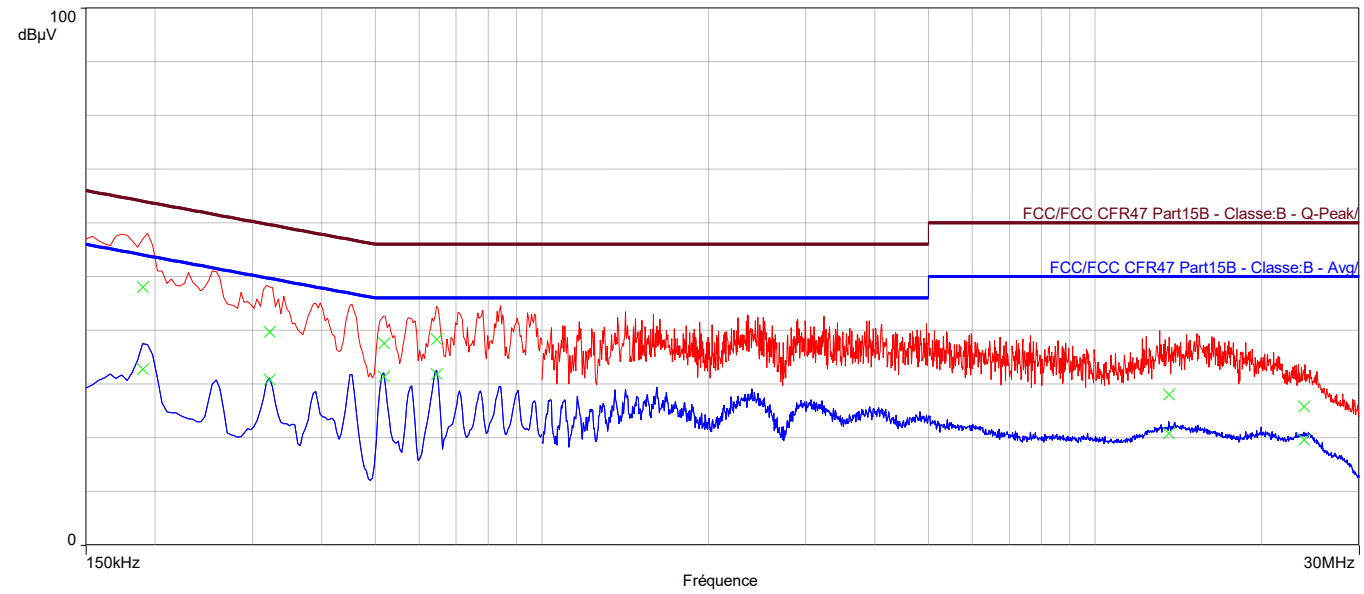
| CONDUCTED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emc#2 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15B | ESU8 - (RSIL) - P/N Supply 1 MOVE/2600 - Line 1 120VAC 60Hz | |
| **Class:** | B | | |
| **Frequency range: [150kHz - 30MHz]** | | | |
| **Voltage / Frequency:** | | **RBW:** 10kHz | **VBW:** 30kHz |
| **Line:** | | **Trace color & detector:** | PEAK AVG |




***Spurious emissions***

| Frequency (MHz) | QPeak (dBµV) | Lim.QPeak (dBµV) | QPeak-Lim.QPeak (dB) | CISPR.AVG (dBµV) | Lim.CISPR.AVG (dBµV) | CISPR.AVG-Lim.CISPR.AVG (dB) |
|---|---|---|---|---|---|---|
| 1.404 | 28.9 | 56.0 | -27.1 | 16.8 | 46.0 | -29.2 |
| 1.688 | 31.9 | 56.0 | -24.1 | 19.0 | 46.0 | -27.0 |
| 1.944 | 28.9 | 56.0 | -27.1 | 19.5 | 46.0 | -26.5 |
| 3.916 | 28.3 | 56.0 | -27.7 | 18.2 | 46.0 | -27.8 |
| 7.940 | 35.0 | 60.0 | -25.0 | 26.1 | 50.0 | -23.9 |
| 11.872 | 40.6 | 60.0 | -19.4 | 32.3 | 50.0 | -17.7 |

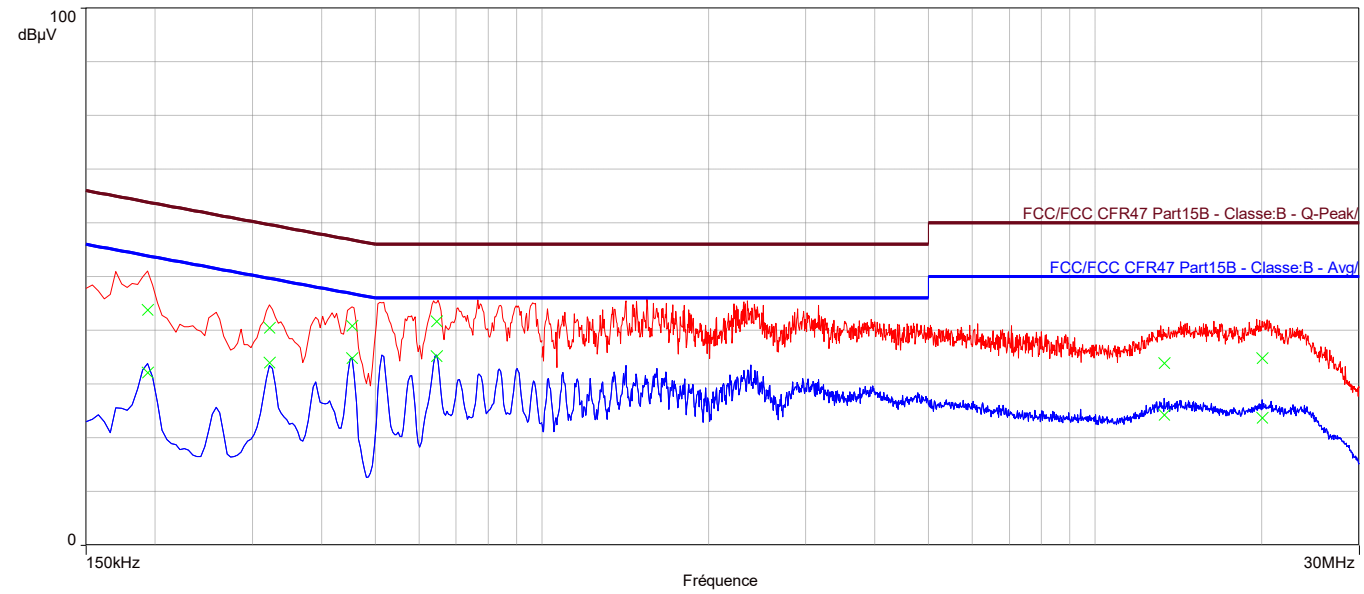
| CONDUCTED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emc#3 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15B | ESU8 - (RSIL) - P/N Supply 2 MOVE/2600 - Neutral 120VAC 60Hz | |
| **Class:** | B | | |
| **Frequency range: [150kHz - 30MHz]** | | | |
| **Voltage / Frequency:** | | **RBW:** 10kHz | **VBW:** 30kHz |
| **Line:** | | **Trace color & detector:** | PEAK AVG |




***Spurious emissions***

| Frequency (MHz) | QPeak (dBµV) | Lim.QPeak (dBµV) | QPeak-Lim.QPeak (dB) | CISPR.AVG (dBµV) | Lim.CISPR.AVG (dBµV) | CISPR.AVG-Lim.CISPR.AVG (dB) |
|---|---|---|---|---|---|---|
| 0.190 | 48.0 | 64.0 | -16.0 | 32.8 | 54.0 | -21.2 |
| 0.322 | 39.8 | 59.7 | -19.9 | 30.9 | 49.7 | -18.8 |
| 0.518 | 37.6 | 56.0 | -18.4 | 31.4 | 46.0 | -14.6 |
| 0.646 | 38.3 | 56.0 | -17.7 | 31.8 | 46.0 | -14.2 |
| 13.584 | 28.1 | 60.0 | -31.9 | 20.8 | 50.0 | -29.2 |
| 23.868 | 25.9 | 60.0 | -34.1 | 19.6 | 50.0 | -30.4 |

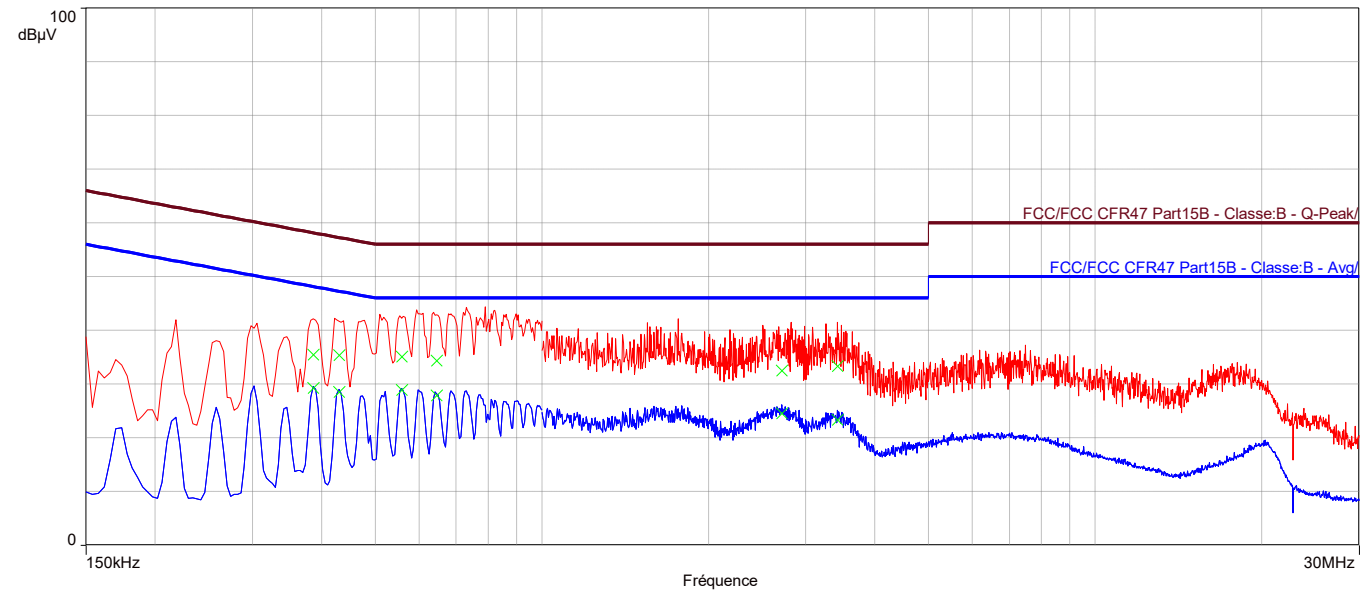
| CONDUCTED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emc#4 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15B | ESU8 - (RSIL) - P/N Supply 2 MOVE/2600 - Line 1 120VAC 60Hz | |
| **Class:** | B | | |
| **Frequency range: [150kHz - 30MHz]** | | | |
| **Voltage / Frequency:** | | **RBW:** 10kHz | **VBW:** 30kHz |
| **Line:** | | **Trace color & detector:** | PEAK AVG |




***Spurious emissions***

| Frequency (MHz) | QPeak (dBµV) | Lim.QPeak (dBµV) | QPeak-Lim.QPeak (dB) | CISPR.AVG (dBµV) | Lim.CISPR.AVG (dBµV) | CISPR.AVG-Lim.CISPR.AVG (dB) |
|---|---|---|---|---|---|---|
| 0.194 | 43.8 | 63.9 | -20.1 | 32.1 | 53.9 | -21.7 |
| 0.322 | 40.5 | 59.7 | -19.2 | 34.0 | 49.7 | -15.7 |
| 0.454 | 40.8 | 56.8 | -16.0 | 34.8 | 46.8 | -12.0 |
| 0.646 | 41.6 | 56.0 | -14.4 | 35.2 | 46.0 | -10.8 |
| 13.316 | 33.9 | 60.0 | -26.1 | 24.3 | 50.0 | -25.7 |
| 20.028 | 34.8 | 60.0 | -25.2 | 23.7 | 50.0 | -26.3 |

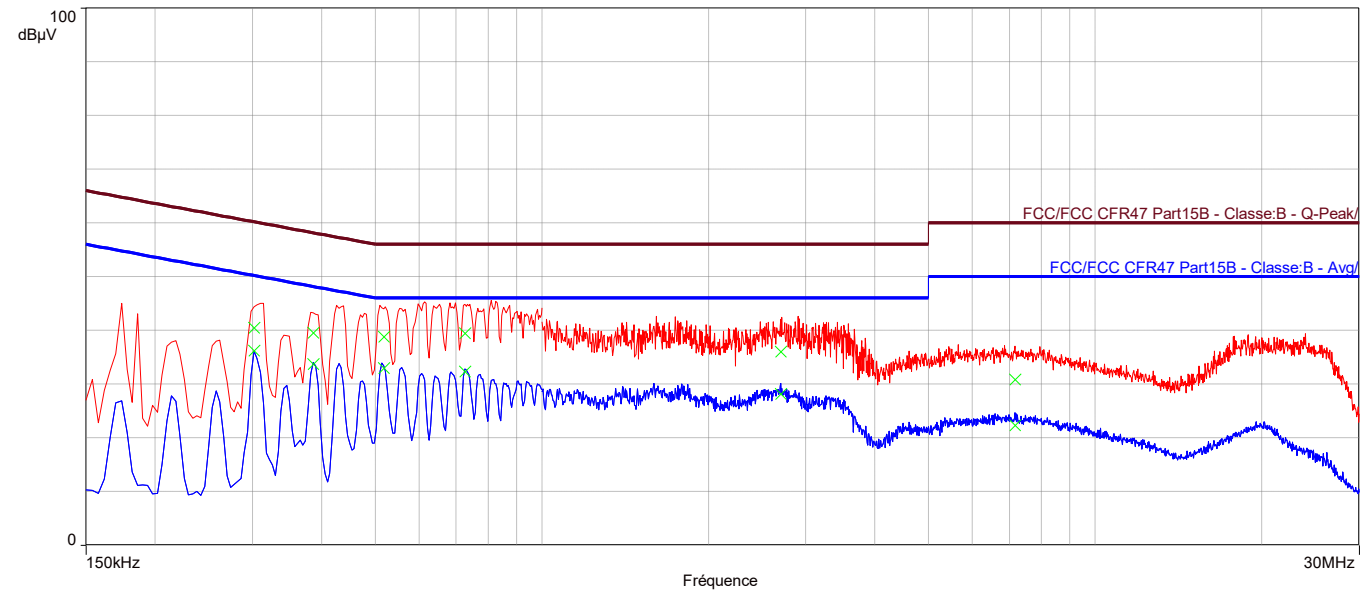
| CONDUCTED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emc#5 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15B | ESU8 - (RSIL) - P/N Supply 3 MOVE/2600 - Neutral 120VAC 60Hz | |
| **Class:** | B | | |
| **Frequency range: [150kHz - 30MHz]** | | | |
| **Voltage / Frequency:** | | **RBW:** 10kHz | **VBW:** 30kHz |
| **Line:** | | **Trace color & detector:** | PEAK AVG |




***Spurious emissions***

| Frequency (MHz) | QPeak (dBµV) | Lim.QPeak (dBµV) | QPeak-Lim.QPeak (dB) | CISPR.AVG (dBµV) | Lim.CISPR.AVG (dBµV) | CISPR.AVG-Lim.CISPR.AVG (dB) |
|---|---|---|---|---|---|---|
| 0.386 | 35.4 | 58.2 | -22.7 | 29.2 | 48.2 | -18.9 |
| 0.430 | 35.4 | 57.2 | -21.9 | 28.6 | 47.2 | -18.7 |
| 0.558 | 35.1 | 56.0 | -20.9 | 28.9 | 46.0 | -17.1 |
| 0.646 | 34.4 | 56.0 | -21.6 | 27.9 | 46.0 | -18.1 |
| 2.716 | 32.5 | 56.0 | -23.5 | 24.6 | 46.0 | -21.4 |
| 3.420 | 33.3 | 56.0 | -22.7 | 23.3 | 46.0 | -22.7 |

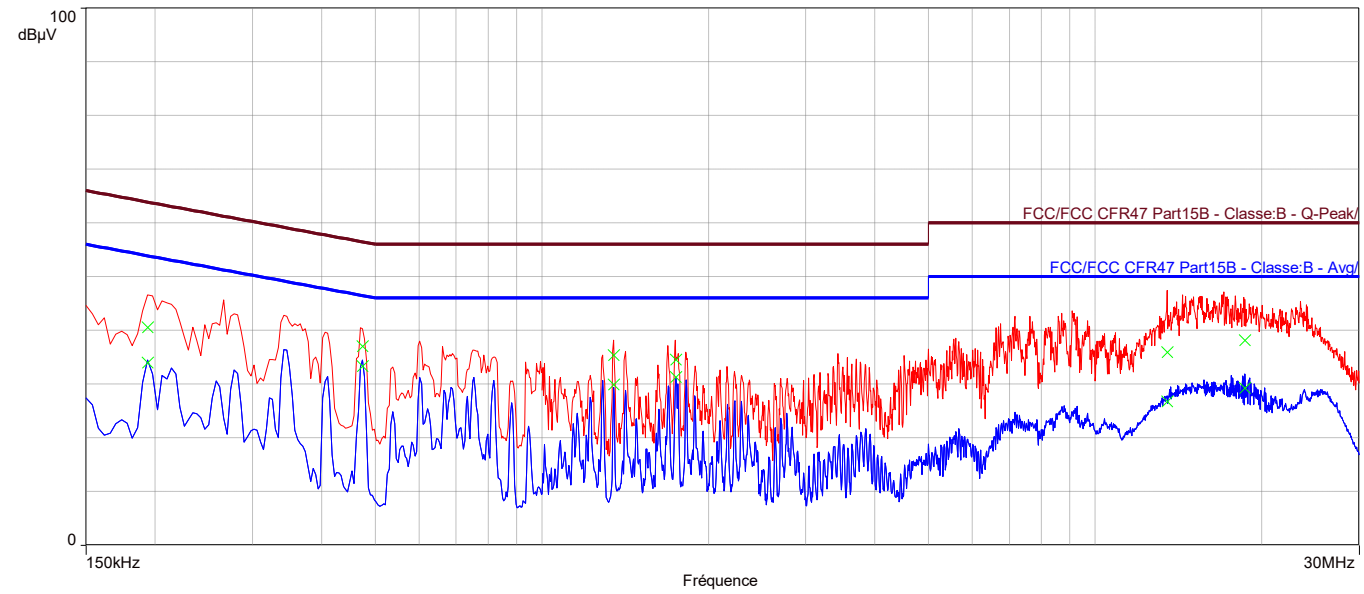
| CONDUCTED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emc#6 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15B | ESU8 - (RSIL) - P/N Supply 3 MOVE/2600 - Line 1 120VAC 60Hz | |
| **Class:** | B | | |
| **Frequency range: [150kHz - 30MHz]** | | | |
| **Voltage / Frequency:** | | **RBW:** 10kHz | **VBW:** 30kHz |
| **Line:** | | **Trace color & detector:** | PEAK AVG |




***Spurious emissions***

| Frequency (MHz) | QPeak (dBµV) | Lim.QPeak (dBµV) | QPeak-Lim.QPeak (dB) | CISPR.AVG (dBµV) | Lim.CISPR.AVG (dBµV) | CISPR.AVG-Lim.CISPR.AVG (dB) |
|---|---|---|---|---|---|---|
| 0.302 | 40.5 | 60.2 | -19.7 | 36.2 | 50.2 | -14.0 |
| 0.386 | 39.5 | 58.2 | -18.6 | 33.7 | 48.2 | -14.4 |
| 0.518 | 38.8 | 56.0 | -17.2 | 32.9 | 46.0 | -13.1 |
| 0.726 | 39.4 | 56.0 | -16.6 | 32.4 | 46.0 | -13.6 |
| 2.704 | 36.0 | 56.0 | -20.0 | 28.1 | 46.0 | -17.9 |
| 7.160 | 30.8 | 60.0 | -29.2 | 22.4 | 50.0 | -27.6 |

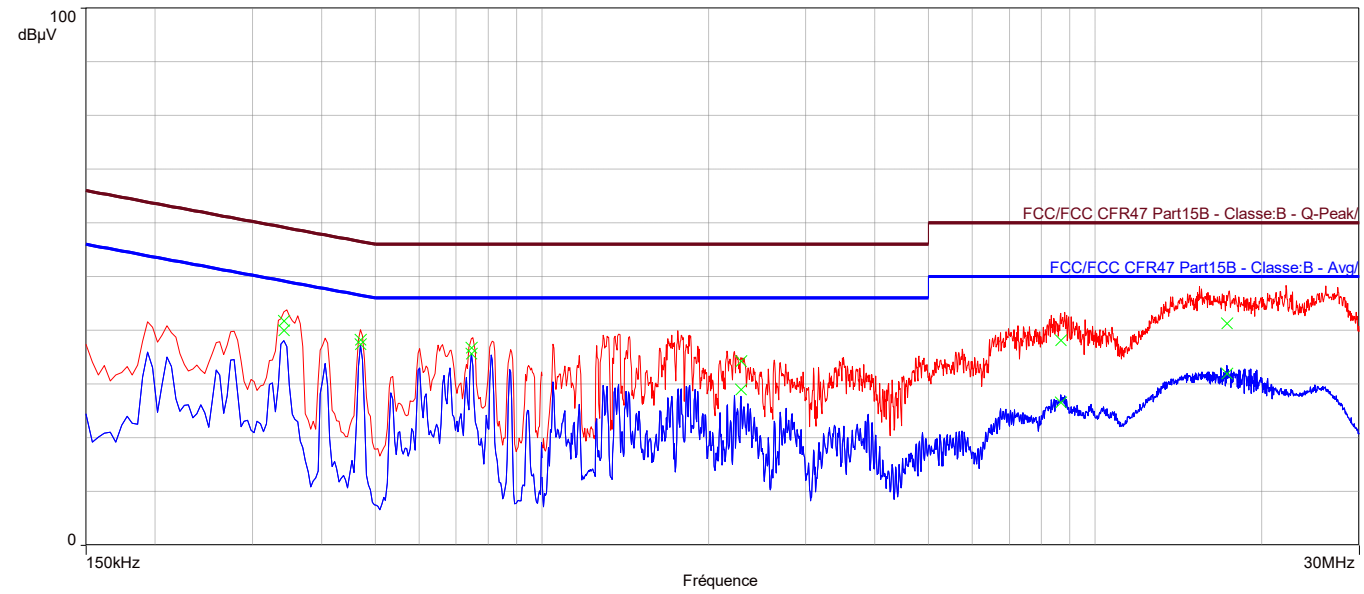
| CONDUCTED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emc#7 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15B | ESU8 - (RSIL) - P/N Supply 1 MOVE/2600 - Neutral 240VAC 50Hz | |
| **Class:** | B | | |
| **Frequency range: [150kHz - 30MHz]** | | | |
| **Voltage / Frequency:** | | **RBW:** 10kHz | **VBW:** 30kHz |
| **Line:** | | **Trace color & detector:** | PEAK AVG |




***Spurious emissions***

| Frequency (MHz) | QPeak (dBµV) | Lim.QPeak (dBµV) | QPeak-Lim.QPeak (dB) | CISPR.AVG (dBµV) | Lim.CISPR.AVG (dBµV) | CISPR.AVG-Lim.CISPR.AVG (dB) |
|---|---|---|---|---|---|---|
| 0.194 | 40.6 | 63.9 | -23.3 | 34.0 | 53.9 | -19.9 |
| 0.474 | 37.0 | 56.4 | -19.4 | 33.3 | 46.4 | -13.1 |
| 1.348 | 35.4 | 56.0 | -20.6 | 30.0 | 46.0 | -16.0 |
| 1.748 | 34.6 | 56.0 | -21.4 | 31.3 | 46.0 | -14.7 |
| 13.488 | 36.0 | 60.0 | -24.0 | 26.8 | 50.0 | -23.2 |
| 18.628 | 38.1 | 60.0 | -21.9 | 29.3 | 50.0 | -20.7 |

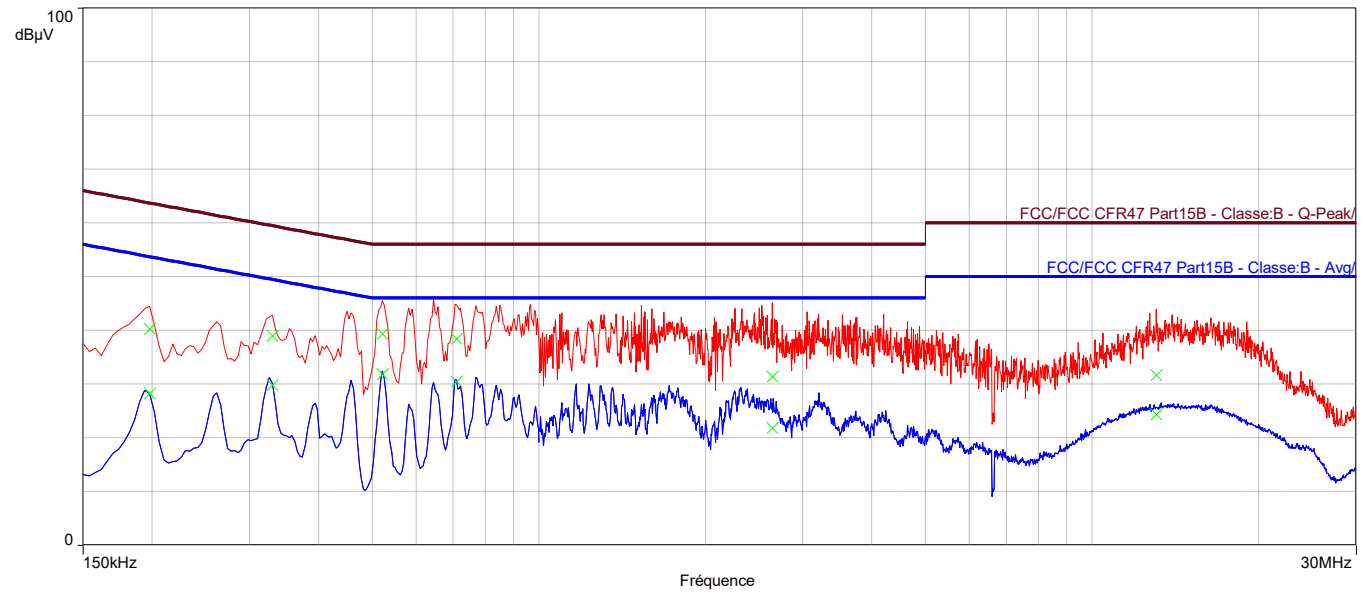
| CONDUCTED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emc#8 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15B | ESU8 - (RSIL) - P/N Supply 1 MOVE/2600 - Line 1 240VAC 50Hz | |
| **Class:** | B | | |
| **Frequency range: [150kHz - 30MHz]** | | | |
| **Voltage / Frequency:** | | **RBW:** 10kHz | **VBW:** 30kHz |
| **Line:** | | **Trace color & detector:** | PEAK AVG |




***Spurious emissions***

| Frequency (MHz) | QPeak (dBµV) | Lim.QPeak (dBµV) | QPeak-Lim.QPeak (dB) | CISPR.AVG (dBµV) | Lim.CISPR.AVG (dBµV) | CISPR.AVG-Lim.CISPR.AVG (dB) |
|---|---|---|---|---|---|---|
| 0.342 | 41.7 | 59.2 | -17.4 | 40.0 | 49.2 | -9.2 |
| 0.470 | 38.3 | 56.5 | -18.2 | 37.4 | 46.5 | -9.1 |
| 0.746 | 36.8 | 56.0 | -19.2 | 35.6 | 46.0 | -10.4 |
| 2.292 | 34.3 | 56.0 | -21.7 | 29.0 | 46.0 | -17.0 |
| 8.676 | 38.1 | 60.0 | -21.9 | 26.6 | 50.0 | -23.4 |
| 17.296 | 41.3 | 60.0 | -18.7 | 32.0 | 50.0 | -18.0 |

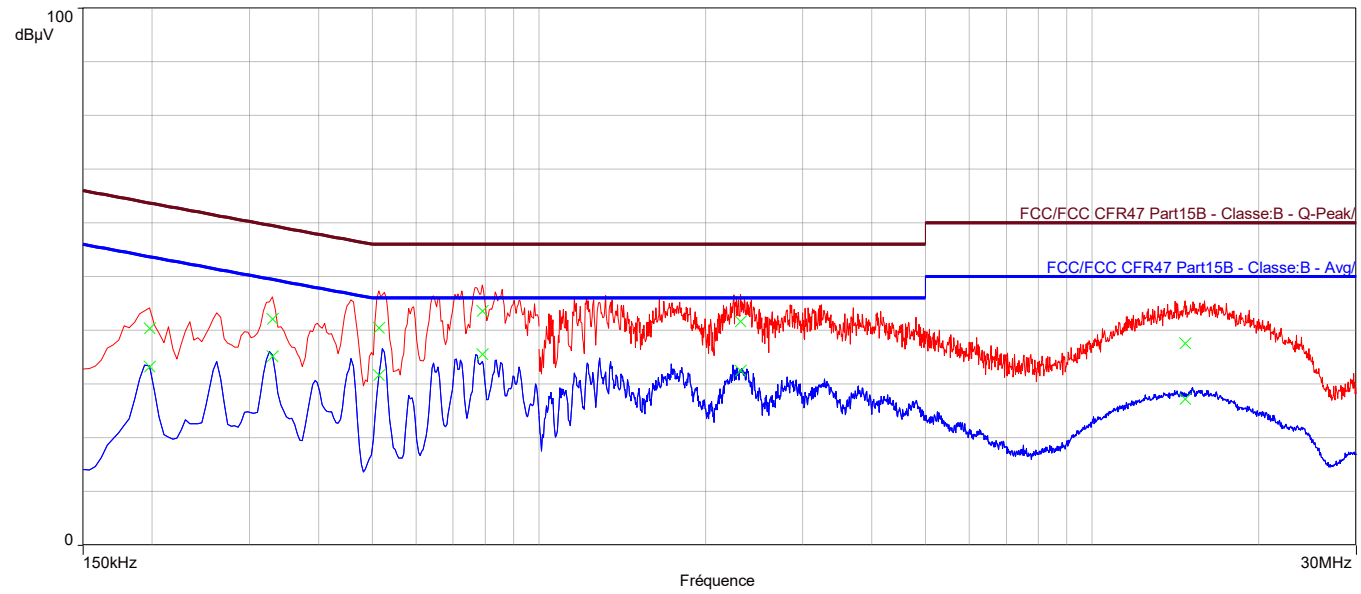
| CONDUCTED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emc#9 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15B | ESU8 - (RSIL) - P/N Supply 2 MOVE/2600 - Neutral 240VAC 50Hz | |
| **Class:** | B | | |
| **Frequency range: [150kHz - 30MHz]** | | | |
| **Voltage / Frequency:** | | **RBW:** 10kHz | **VBW:** 30kHz |
| **Line:** | | **Trace color & detector:** | PEAK AVG |




***Spurious emissions***

| Frequency (MHz) | QPeak (dBµV) | Lim.QPeak (dBµV) | QPeak-Lim.QPeak (dB) | CISPR.AVG (dBµV) | Lim.CISPR.AVG (dBµV) | CISPR.AVG-Lim.CISPR.AVG (dB) |
|---|---|---|---|---|---|---|
| 0.198 | 40.3 | 63.7 | -23.4 | 28.3 | 53.7 | -25.4 |
| 0.330 | 39.0 | 59.4 | -20.5 | 29.8 | 49.4 | -19.6 |
| 0.522 | 39.3 | 56.0 | -16.7 | 31.9 | 46.0 | -14.1 |
| 0.710 | 38.4 | 56.0 | -17.6 | 30.4 | 46.0 | -15.6 |
| 2.644 | 31.4 | 56.0 | -24.6 | 21.8 | 46.0 | -24.2 |
| 13.048 | 31.7 | 60.0 | -28.3 | 24.4 | 50.0 | -25.6 |

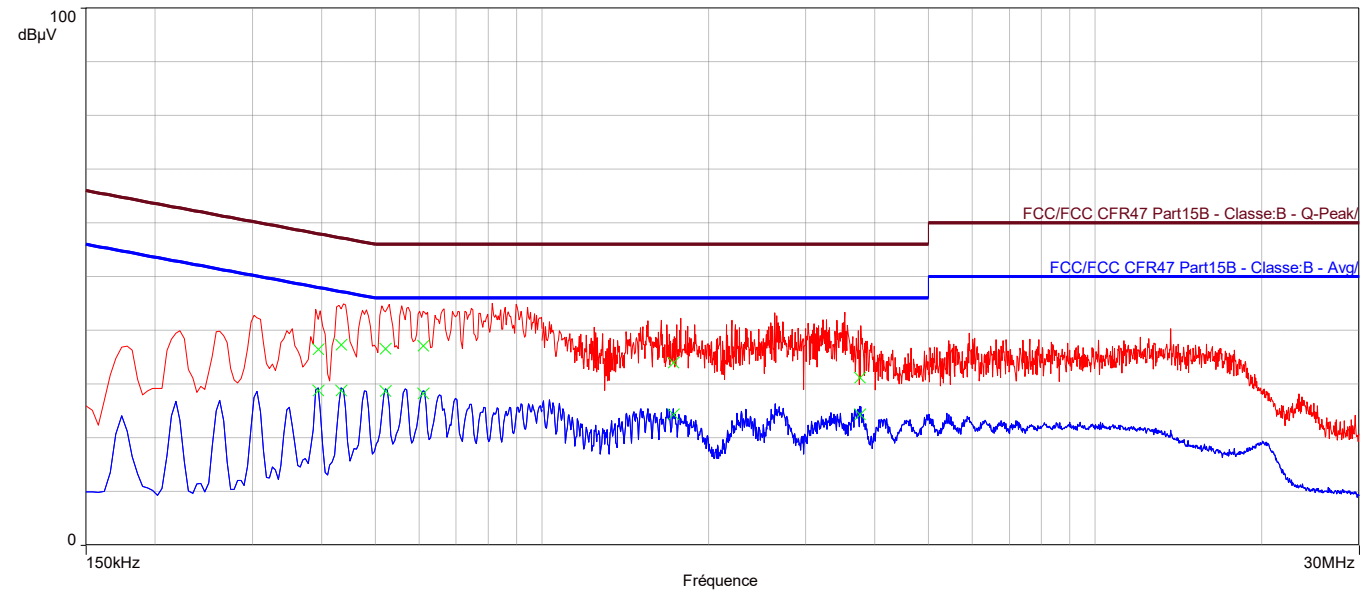
| CONDUCTED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emc#10 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15B | ESU8 - (RSIL) - P/N Supply 2 MOVE/2600 - Line 1 240VAC 50Hz | |
| **Class:** | B | | |
| **Frequency range: [150kHz - 30MHz]** | | | |
| **Voltage / Frequency:** | | **RBW:** 10kHz | **VBW:** 30kHz |
| **Line:** | | **Trace color & detector:** | PEAK AVG |




***Spurious emissions***

| Frequency (MHz) | QPeak (dBµV) | Lim.QPeak (dBµV) | QPeak-Lim.QPeak (dB) | CISPR.AVG (dBµV) | Lim.CISPR.AVG (dBµV) | CISPR.AVG-Lim.CISPR.AVG (dB) |
|---|---|---|---|---|---|---|
| 0.198 | 40.4 | 63.7 | -23.4 | 33.3 | 53.7 | -20.4 |
| 0.330 | 42.1 | 59.4 | -17.3 | 35.2 | 49.4 | -14.3 |
| 0.514 | 40.5 | 56.0 | -15.5 | 31.6 | 46.0 | -14.4 |
| 0.790 | 43.6 | 56.0 | -12.4 | 35.6 | 46.0 | -10.4 |
| 2.316 | 41.7 | 56.0 | -14.3 | 32.5 | 46.0 | -13.5 |
| 14.708 | 37.6 | 60.0 | -22.4 | 27.2 | 50.0 | -22.8 |

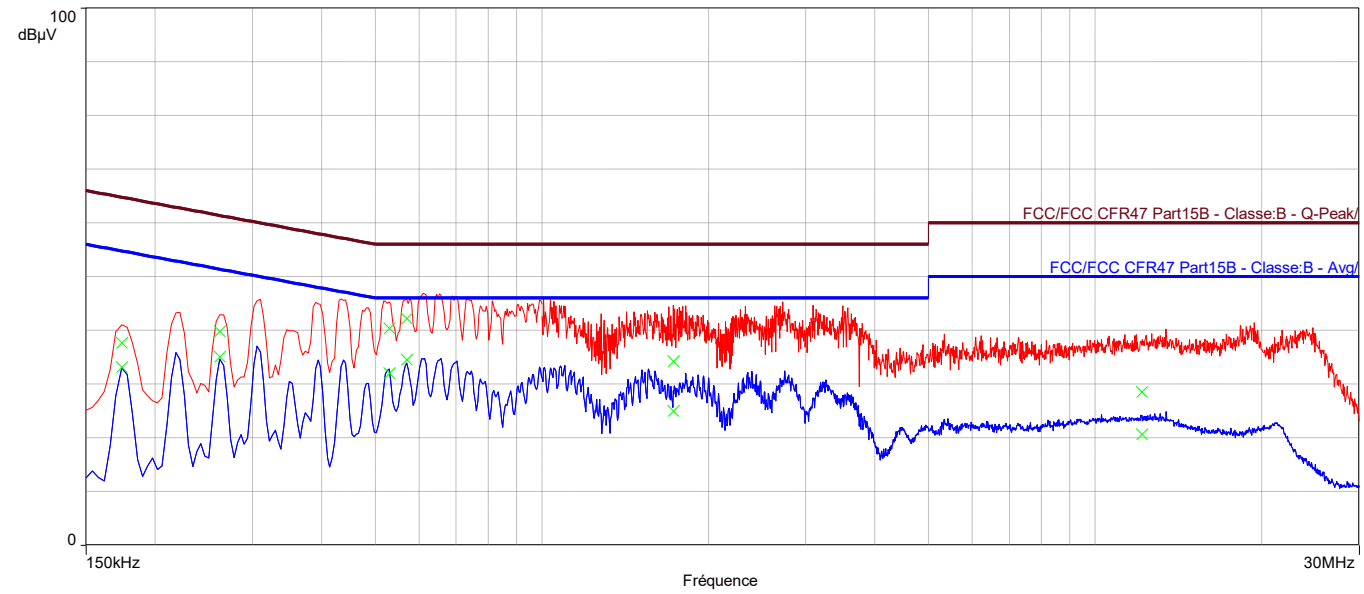
| CONDUCTED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emc#11 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15B | ESU8 - (RSIL) - P/N Supply 3 MOVE/2600 - Neutral 240VAC 50Hz | |
| **Class:** | B | | |
| **Frequency range: [150kHz - 30MHz]** | | | |
| **Voltage / Frequency:** | | **RBW:** 10kHz | **VBW:** 30kHz |
| **Line:** | | **Trace color & detector:** | PEAK AVG |




***Spurious emissions***

| Frequency (MHz) | QPeak (dBµV) | Lim.QPeak (dBµV) | QPeak-Lim.QPeak (dB) | CISPR.AVG (dBµV) | Lim.CISPR.AVG (dBµV) | CISPR.AVG-Lim.CISPR.AVG (dB) |
|---|---|---|---|---|---|---|
| 0.394 | 36.5 | 58.0 | -21.5 | 28.8 | 48.0 | -19.2 |
| 0.434 | 37.3 | 57.2 | -19.9 | 28.8 | 47.2 | -18.4 |
| 0.522 | 36.6 | 56.0 | -19.4 | 28.7 | 46.0 | -17.3 |
| 0.610 | 37.1 | 56.0 | -18.9 | 28.2 | 46.0 | -17.8 |
| 1.728 | 34.0 | 56.0 | -22.0 | 24.3 | 46.0 | -21.7 |
| 3.760 | 31.2 | 56.0 | -24.8 | 24.3 | 46.0 | -21.7 |

| CONDUCTED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emc#12 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15B | ESU8 - (RSIL) - P/N Supply 3 MOVE/2600 - Line 1 240VAC 50Hz | |
| **Class:** | B | | |
| **Frequency range: [150kHz - 30MHz]** | | | |
| **Voltage / Frequency:** | | **RBW:** 10kHz | **VBW:** 30kHz |
| **Line:** | | **Trace color & detector:** | PEAK AVG |




***Spurious emissions***

| Frequency (MHz) | QPeak (dBµV) | Lim.QPeak (dBµV) | QPeak-Lim.QPeak (dB) | CISPR.AVG (dBµV) | Lim.CISPR.AVG (dBµV) | CISPR.AVG-Lim.CISPR.AVG (dB) |
|---|---|---|---|---|---|---|
| 0.174 | 37.7 | 64.8 | -27.0 | 33.2 | 54.8 | -21.6 |
| 0.262 | 39.8 | 61.4 | -21.5 | 35.1 | 51.4 | -16.2 |
| 0.530 | 40.4 | 56.0 | -15.6 | 32.1 | 46.0 | -13.9 |
| 0.570 | 42.3 | 56.0 | -13.7 | 34.5 | 46.0 | -11.5 |
| 1.728 | 34.2 | 56.0 | -21.8 | 25.0 | 46.0 | -21.0 |
| 12.144 | 28.6 | 60.0 | -31.4 | 20.6 | 50.0 | -29.4 |

## *2.6. CONCLUSION*

The sample of the equipment **Move/2600**, Sn : **22196731715128602580 2819**, tested in the configuration presented in this test report **satisfies** to requirements of the product family standard applied (See §Test Program) for conducted emissions.

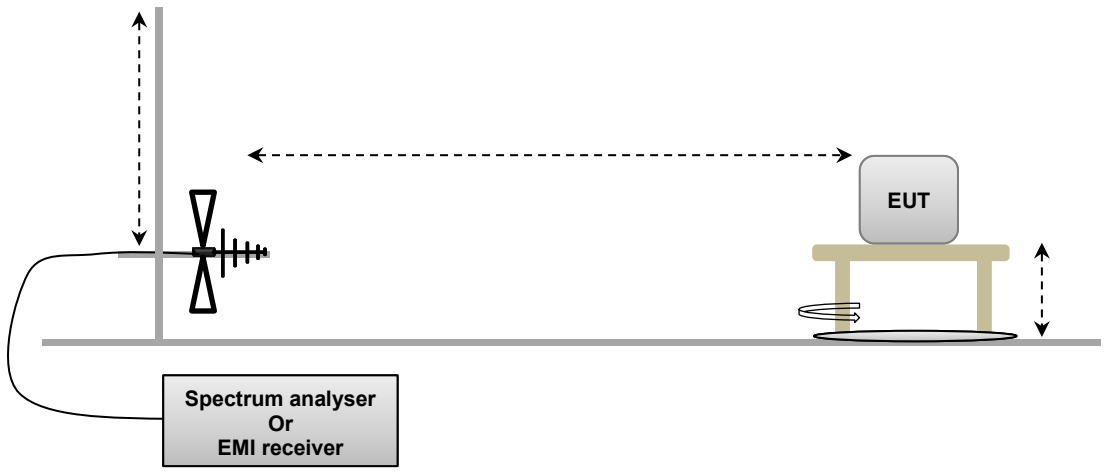
## 3. MEASUREMENT OF RADIATED EMISSION

### 3.1. TEST CONDITIONS

| | | |
|---|---|---|
| Date of test | : | March 16, 2023 |
| Test performed by | : | Majid MOURZAGH |
| Atmospheric pressure (hPa) | : | 999 |
| Relative humidity (%) | : | 40 |
| Ambient temperature (°C) | : | 22 |

### 3.2. TEST SETUP

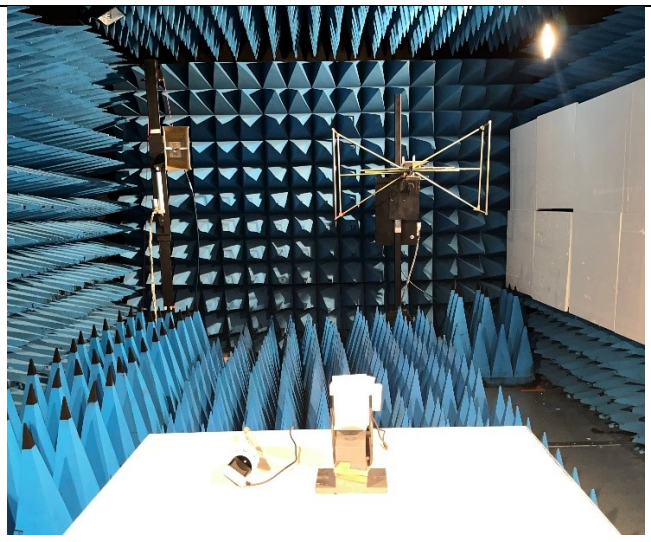
The EUT and auxiliaries are set 80cm above the ground on the non-conducting table (Table-top equipment).
The EUT is powered by $V_{nom}$.




*Test setup of Radiated Emission*

*Same setup is used in semi anechoic chamber during pre-characterization, with a distance of 3m between EUT and antenna.*

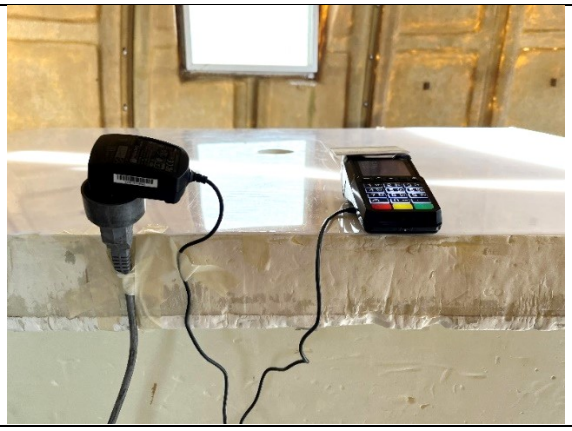
Axis XY on FAR < 1GHz



Axis Z on FAR < 1GHz

*Photo in anechoic chamber – Frequency <1GHz*

General Setup OATS



Axis XY

Axis Z

*Photo on OATS*

## *3.3. TEST METHOD*

### 3.3.1. 30MHz –1GHz

***Pre-qualification measurement***

A pre-scan of all the setup has been performed in a 3 meters semi-anechoic chamber. Test is performed with antenna centered on EUT in horizontal (H) and vertical (V) polarization, continuous linear turntable azimuth search was performed with 360 degrees range. Measurements are performed on all axis of EUT used in normal configuration. The pre-characterization graphs are obtained in PEAK detection.

***Qualification***

The installation of EUT is identical than for pre-qualification measurements on an Open Area Test Site with a 10 meters distance between EUT and antenna. In this case, it corrected according to requirements of 15.209.e), M@3m = M@10m+10.5dB. Test is performed in horizontal (H) and vertical (V) polarization and the height antenna is varied from 1m to 4m. Continuous linear turntable azimuth search was performed with 360 degrees range. Measurements are performed on all axis of EUT used in normal configuration. A summary of the worst case emissions found in all test configurations and modes is shown.

### 3.3.2. 1GHz – 40GHz:

***Pre-qualification measurement***

A pre-scan of all the setup has been performed in a 3 meters full anechoic chamber. Test is performed with antenna centered on EUT in horizontal (H) and vertical (V) polarization, continuous linear turntable azimuth search was performed with 360 degrees range. Measurements are performed on all axis of EUT used in normal configuration. The pre-characterization graphs are obtained in PEAK and AVERAGE detection.

***Qualification***

The installation of EUT is identical for pre-characterization measurements. Test is performed in horizontal (H) and vertical (V) polarization and the height antenna is fixed and centered on the EUT, EUT smaller than the beamwidth of the measurement antenna.

Minimal beamwidth of the measurement antenna used: ETS3115 / w@3m=2.1m<14GHz / w@3m=0.9m<18GHz

Continuous linear turntable azimuth search was performed with 360 degrees range. Measurements are performed on all axis of EUT used in normal configuration. A summary of the worst case emissions found in all test configurations and modes is shown.

## 3.4. TEST EQUIPMENT LIST

| TEST EQUIPMENT USED | | | | | |
|---|---|---|---|---|---|
| **Description** | **Manufacturer** | **Model** | **Identifier** | **Cal_Date** | **Cal_Due** |
| Amplifier 10MHz - 18GHz | LCIE SUD EST | _ | A7102082 | 05/22 | 05/24 |
| Antenna Bi-log | AH System | SAS-521-7 | C2040180 | 02/21 | 02/23 |
| Antenna horn 18GHz | EMCO | 3115 | C2042029 | 03/22 | 03/25 |
| Antenna loop | ELECTRO-METRICS | EM-6879 | C2040294 | 08/22 | 08/24 |
| BAT EMC | NEXIO | v3.21.0.32 | L1000115 | | |
| Cable 0.75m | - | 18GHz | A5329900 | 08/22 | 08/24 |
| Comb EMR HF | YORK | CGE01 | A3169114 | | |
| CONTROLLER | INNCO | CO3000 | D3044034 | | |
| Filtre 0.8GHz-18GHz | PASTERNACK | PE87FL1018 | A7484075 | 12/22 | 12/24 |
| Multimeter - CEM | FLUKE | 189 | A1240171 | 09/21 | 09/23 |
| Rehausse Table C3 | LCIE | _ | F2000511 | | |
| Rehausse Table C3 | LCIE | _ | F2000507 | | |
| Semi-Anechoic chamber #3 (BF) | SIEPEL | _ | D3044017_BF | 04/22 | 04/25 |
| Semi-Anechoic chamber #3 (VSWR) | SIEPEL | _ | D3044017_VSWR | 04/22 | 04/25 |
| SMA Cable 18GHz 0.5m | TELEDYNE | 18GHz | A5330059 | 02/23 | 02/24 |
| SMA Cable 18GHz 0.5m | TELEDYNE | 18GHz | A5330060 | 02/23 | 02/24 |
| SMA Cable 18GHz 0.6m | TELEDYNE | 18GHz | A5330055 | 02/23 | 02/24 |
| SMA Cable 18GHz 3.5m | TELEDYNE | 18GHz | A5330058 | 02/23 | 02/24 |
| SMA Cable 18GHz 6m | TELEDYNE | 18GHz | A5330057 | 02/23 | 02/24 |
| Spectrum analyzer | ROHDE & SCHWARZ | FSU 26 | A4060058 | 09/21 | 09/23 |
| Table C3 | LCIE | _ | F2000461 | | |
| Thermo-hygrometer (PM1/2/3) | KIMO | HQ 210 | B4206022 | 01/21 | 05/23 |
| TILT | INNCO | TILT | D3044033 | | |
| Turntable chamber (Cage#3) | ETS Lingren | Model 2165 | F2000371 | | |
| Turntable controller (Cage#3) | ETS Lingren | Model 2090 | F2000444 | | |
| Antenna Mat (OATS) | ETS Lingren | 2071-2 | F2000392 | | |
| Biconic Antenna | EATON | 94455-1 | C2040234 | 03/21 | 03/23 |
| Cable (OATS) | _ | 1GHz | A5329623 | 09/22 | 09/23 |
| Emission Cable | CABELTEL | 6GHz | A5329069 | 05/22 | 05/23 |
| Emission Cable | MICRO-COAX | 1GHz | A5329656 | 08/22 | 08/23 |
| Emission Cable | RADIALEX | | A5329061 | 08/22 | 08/23 |
| OATS | _ | _ | F2000409 | 07/22 | 07/23 |
| Table C1/OATS | LCIE | _ | F2000445 | | |
| Turntable (OATS) | ETS Lingren | Model 2187 | F2000403 | | |

## *3.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION*

None

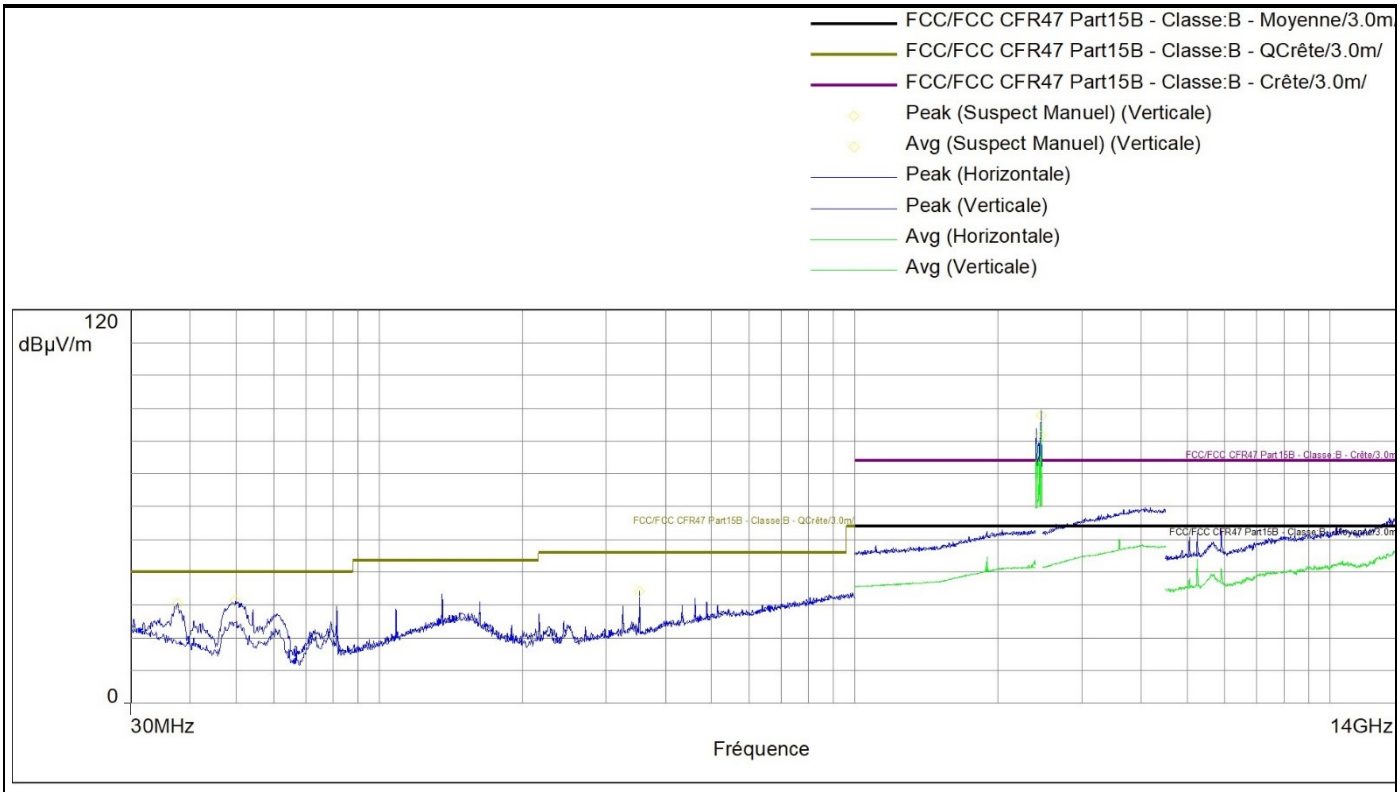
## *3.6. TEST RESULTS – RUNNING MODE N°1*

### 3.6.1. 30MHz –14GHz

***Pre-qualification measurement***

| Graph identifier | | Polarization | EUT position | Comments | |
|---|---|---|---|---|---|
| Emr# | 1 | Vertical / Horizontal | Axis XY/Z | Supply 1 | See below |
| Emr# | 2 | Vertical / Horizontal | Axis XY/Z | Supply 2 | See below |
| Emr# | 3 | Vertical / Horizontal | Axis XY/Z | Supply 3 | See below |

| RADIATED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emr#1 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15B | Part15B (H+V) -Supply1- TX mode - Automatic Axis | |
| **Class:** | B | | |
| **Frequency range: [30MHz - 14GHz]** | | | |
| **Antenna polarization:** | | **RBW :** | 100kHz to 1MHz |
| **Azimuth:** | 0° - 360° | **VBW :** | 300kHz to 3MHz |

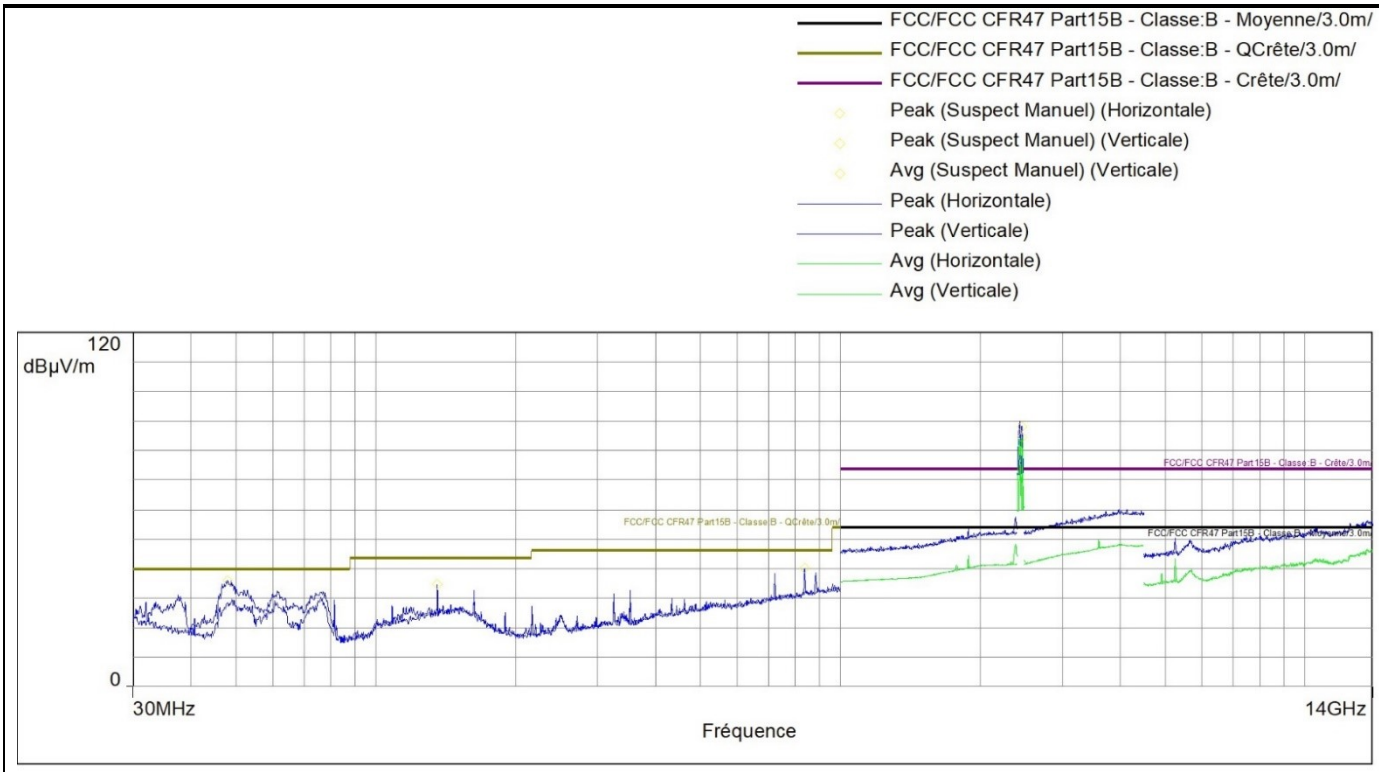



***Spurious emissions***

| Frequency (MHz) | Peak (dBµV/m) | Lim.Peak (dBµV/m) | Avg (dBµV/m) | Lim.Avg (dBµV/m) | Lim.Q-Peak (dBµV/m) | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|---|
| 2464.504* | 87.7 | 74.0 | 81.7 | 54.0 | / | Vertical | 35.4 |
| 37.712 | 30.4 | / | / | / | 40.0 | Vertical | 18.1 |
| 49.788 | 31.3 | / | / | / | 40.0 | Vertical | 12.4 |
| 352.574 | 34.3 | / | / | / | 46.0 | Vertical | 18.6 |

* :Carrier frequency

| RADIATED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emr#2 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15B | Part15B (H+V) -Supply2- TX mode - Automatic Axis | |
| **Class:** | B | | |
| **Frequency range: [30MHz - 14GHz]** | | | |
| **Antenna polarization:** | | **RBW :** | 100kHz to 1MHz |
| **Azimuth:** | 0° - 360° | **VBW :** | 300kHz to 3MHz |

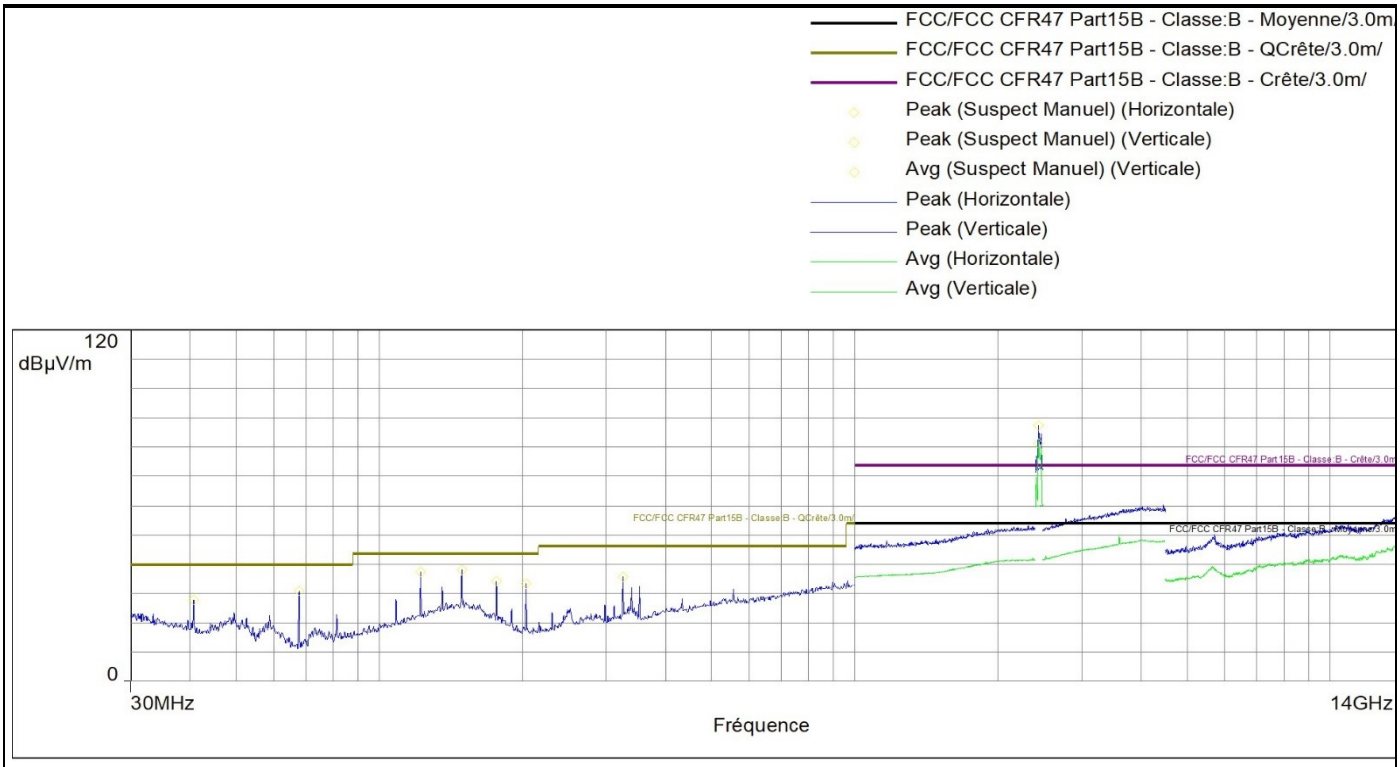



***Spurious emissions***

| Frequency (MHz) | Peak (dBµV/m) | Lim.Peak (dBµV/m) | Avg (dBµV/m) | Lim.Avg (dBµV/m) | Lim.Q-Peak (dBµV/m) | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|---|
| 135.584 | 34.8 | / | / | / | 43.5 | Horizontal | 22.6 |
| 837.331 | 40.3 | / | / | / | 46.0 | Horizontal | 28.0 |
| 12902.156 | 55.0 | 74.0 | 44.0 | 54.0 | / | Horizontal | -8.8 |
| 2463.126* | 88.1 | / | 84.6 | / | / | Vertical | 35.4 |
| 47.994 | 36.0 | / | / | / | 40.0 | Vertical | 13.1 |

* Carrier frequency wifi 2,4GHz

| RADIATED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emr#3 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15B | Part15B (H+V) -Supply 3- TX mode - Automatic Axis | |
| **Class:** | B | | |
| **Frequency range: [30MHz - 14GHz]** | | | |
| **Antenna polarization:** | | **RBW :** | 100kHz to 1MHz |
| **Azimuth:** | 0° - 360° | **VBW :** | 300kHz to 3MHz |




***Spurious emissions***

| Frequency (MHz) | Peak (dBµV/m) | Lim.Peak (dBµV/m) | Avg (dBµV/m) | Lim.Avg (dBµV/m) | Lim.Q-Peak (dBµV/m) | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|---|
| 40.670 | 27.7 | / | / | / | 40.0 | Horizontal | 16.6 |
| 67.782 | 30.9 | / | / | / | 40.0 | Horizontal | 10.6 |
| 122.004 | 37.3 | / | / | / | 43.5 | Horizontal | 20.8 |
| 149.164 | 37.9 | / | / | / | 43.5 | Horizontal | 23.9 |
| 176.276 | 34.3 | / | / | / | 43.5 | Horizontal | 18.0 |
| 203.388 | 33.3 | / | / | / | 43.5 | Horizontal | 14.7 |
| 325.414 | 35.6 | / | / | / | 46.0 | Horizontal | 18.7 |
| 2430.978* | 87.4 | / | 81.2 | / | / | Vertical | 35.4 |

* Carrier frequency wifi 2,4GHz

***Qualification***

The frequency list is created from the results obtained during the pre-qualification.
Measurements are performed using a QUASI-PEAK detection.

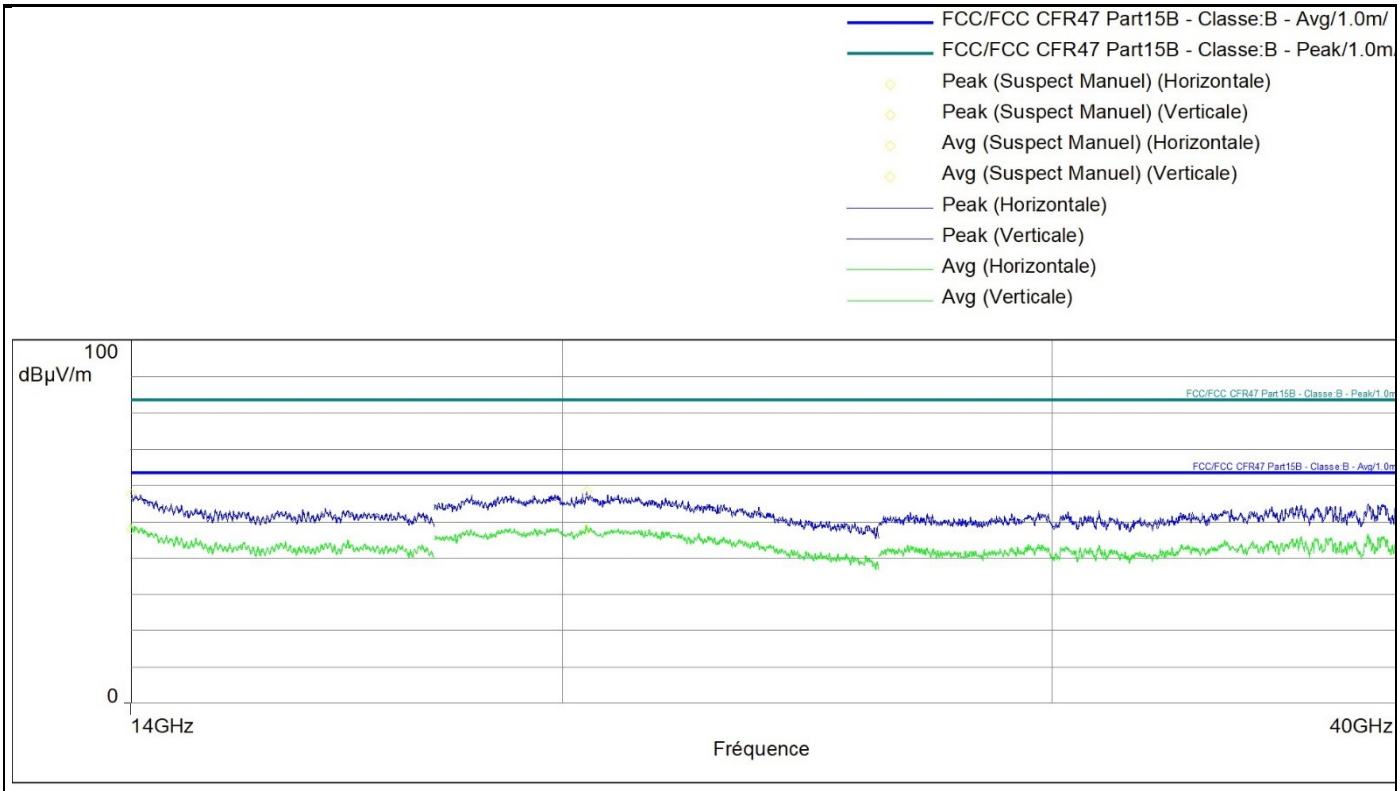
*No significant frequency observed*

### 3.6.2. 14GHz - 40GHz

***Pre-qualification measurement***

| Graph identifier | | Polarization | EUT position | Comments | |
|---|---|---|---|---|---|
| Emr# | 4 | Vertical / Horizontal | Axis XY/Z | Supply 1 | See below |
| Emr# | 5 | Vertical / Horizontal | Axis XY/Z | Supply 2 | See below |
| Emr# | 6 | Vertical / Horizontal | Axis XY/Z | Supply 3 | |

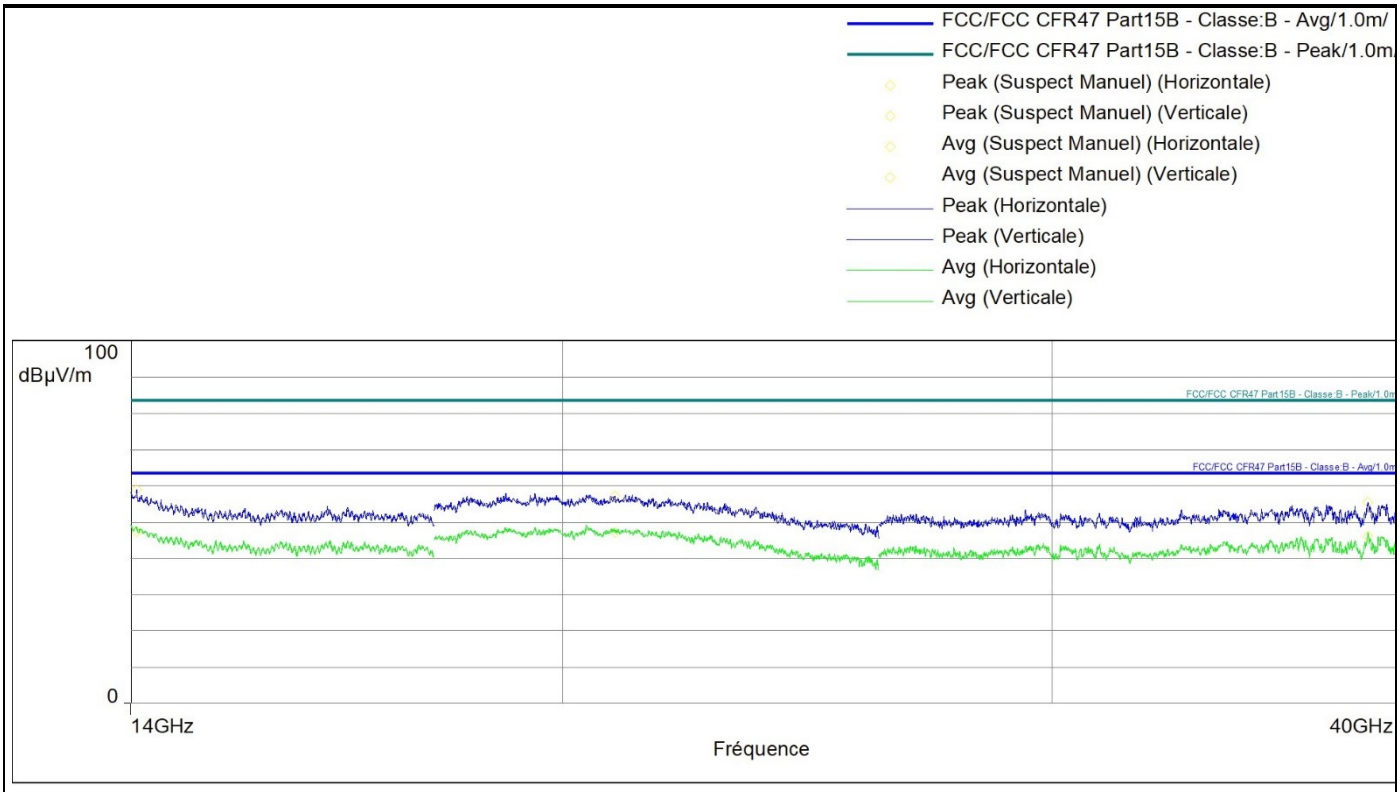
| RADIATED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emr#4 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15B | FCC Part 15B Supply1 (14GHz-40GHz) - TX mode - Axis 0° (Worst case presented) | |
| **Class:** | B | | |
| **Frequency range: [14GHz - 40GHz]** | | | |
| **Antenna polarization:** | | **RBW :** | 1MHz |
| **Azimuth:** | 0° - 360° | **VBW :** | 3MHz |




***Spurious emissions***

| Frequency (MHz) | Peak (dBµV/m) | Lim.Peak (dBµV/m) | Avg (dBµV/m) | Lim.Avg (dBµV/m) | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 20415.000 | 58.2 | 83.5 | 47.8 | 63.5 | Horizontal | 4.0 |
| 14009.500 | 57.6 | 83.5 | 47.9 | 63.5 | Vertical | 5.2 |

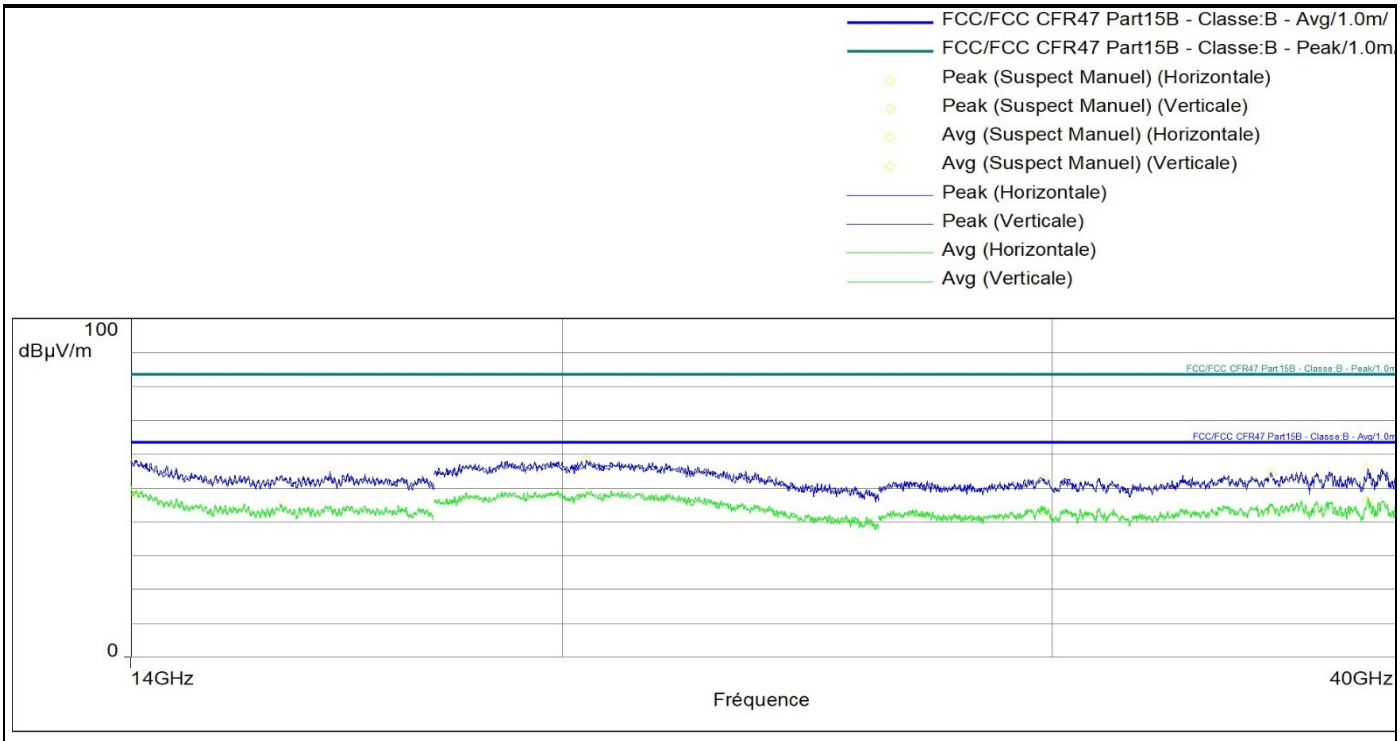
| RADIATED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emr#5 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15B | FCC Part 15B Supply2 (14GHz-40GHz) - TX mode - Axis 0° (Worst case presented) | |
| **Class:** | B | | |
| **Frequency range: [14GHz - 40GHz]** | | | |
| **Antenna polarization:** | | **RBW :** | 1MHz |
| **Azimuth:** | 0° - 360° | **VBW :** | 3MHz |




***Spurious emissions***

| Frequency (MHz) | Peak (dBµV/m) | Lim.Peak (dBµV/m) | Avg (dBµV/m) | Lim.Avg (dBµV/m) | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 20897.000 | 57.3 | 83.5 | 47.2 | 63.5 | Horizontal | 3.2 |
| 38971.000 | 55.4 | 83.5 | 46.1 | 63.5 | Horizontal | 12.3 |
| 14068.000 | 59.1 | 83.5 | 47.2 | 63.5 | Vertical | 4.8 |

| RADIATED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emr#6 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15B | FCC Part 15B Supply3 (14GHz-40GHz) - TX mode - Axis 0° (Worst case presented) | |
| **Class:** | B | | |
| **Frequency range: [14GHz - 40GHz]** | | | |
| **Antenna polarization:** | | **RBW :** | 1MHz |
| **Azimuth:** | 0° - 360° | **VBW :** | 3MHz |




***Spurious emissions***

| Frequency (MHz) | Peak (dBµV/m) | Lim.Peak (dBµV/m) | Avg (dBµV/m) | Lim.Avg (dBµV/m) | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 29785.250 | 52.7 | 83.5 | 42.9 | 63.5 | Horizontal | 9.0 |
| 35973.250 | 54.1 | 83.5 | 43.8 | 63.5 | Horizontal | 10.7 |
| 14051.000 | 58.3 | 83.5 | 48.1 | 63.5 | Vertical | 4.9 |
| 20409.000 | 58.2 | 83.5 | 48.4 | 63.5 | Vertical | 4.0 |
| 38971.000 | 55.9 | 83.5 | 46.3 | 63.5 | Vertical | 12.3 |

***Qualification***

The frequency list is created from the results obtained during the pre-qualification.
Measurements are performed using a PEAK and AVERAGE detection.

*No significant frequency observed*

## *3.7. CONCLUSION*

The sample of the equipment **Move/2600**, Sn : **221967317151286025802819**, tested in the configuration presented in this test report **satisfies** to requirements of the product family standard applied (See §Test Program) for radiated emissions.

## 4. UNCERTAINTIES CHART

| Type de mesure / Kind of measurement | Incertitude élargie laboratoire / Wide uncertainty laboratory (k=2) ±x | Incertitude limite du CISPR / CISPR uncertainty limit ±y |
|---|---|---|
| Mesure des perturbations conduites en tension sur le réseau d'énergie (monophasé /triphasé) 9kHz-150kHz<br>*Measurement of conducted disturbances in voltage on the power port ( single & three phases)9kHz-150kHz* | 3.7dB | 3.8dB |
| Mesure des perturbations conduites en tension sur le réseau d'énergie (monophasé /triphasé) 150kHz-30MHz<br>*Measurement of conducted disturbances in voltage on the power port ( single & three phases)150kHz-30MHz*<br>LISN 50Ω/50µH<br>Capacitive Voltage Probe | <br><br><br>3.3dB<br>3.7dB | <br><br><br>3.4dB<br>3.9dB |
| Mesure des perturbations conduites en courant<br>*Measurement of conducted disturbances in current* | 2.9dB | 2.9dB |
| Mesure du champ électrique rayonné en cage de Faraday semi-anéchoïque de 30MHz à 1GHz<br>*Measurement of radiated electric field in half-anechoic Faraday room From 30MHz to 1GHz* | 6.3dB | 6.3dB |
| Mesure du champ électrique rayonné en cage de Faraday anéchoïque de 1GHz à 6GHz<br>*Measurement of radiated electric field in full-anechoic Faraday room From 1GHz à 6GHz* | 5.2dB | 5.2dB |
| Mesure du champ électrique rayonné en cage de Faraday anéchoïque de 6GHz à 18GHz<br>*Measurement of radiated electric field in full-anechoic Faraday room From 6GHz to 18GHz* | 5.5dB | 5.5dB |
| Mesure du champ électrique rayonné sur le site en espace libre de Moirans 30MHz – 1GHz.<br>*Measurement of radiated electric field on the Moirans open area test site 30MHz – 1GHz.* | 6.3dB | 6.3dB |
| Mesure du champ électrique rayonné IN SITU de 30 à 1000 MHz<br>*IN SITU measurement of radiated electric field from 30 to 1000MHz* | A l'étude / Under consideration | 5.2dB |

Les valeurs d'incertitudes calculées du laboratoire étant inférieures aux valeurs d'incertitudes limites établies par le CISPR, la conformité de l'échantillon est établie directement par les niveaux limites applicables. Ce tableau regroupe l'ensemble des incertitudes maximales pour les essais réalisables dans le laboratoire, qu'ils aient été ou non réalisés dans le cadre du présent rapport */ The uncertainty values calculated by the laboratory are lower than limit uncertainty values defined by the CISPR. The conformity of the sample is directly established by the applicable limits values. This table includes all uncertainties maximum feasible for testing in the laboratory, whether or not made in this report*

Note - L'incertitude de mesure instrumentale est déterminée selon la CISPR 16-4-2. / *The instrumentation measurement uncertainty is determined according to CISPR16-4-2*