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TEST REPORT

N°: 794731-A3-R1-E **JDE : 130893**

Subject	**Electromagnetic compatibility and Radio spectrum Matters (ERM) tests according to standards: FCC CFR 47 Part 15, Subpart B et C**
Issued to	**INGENICO** Rovaltain TGV - Quartier de la Gare 26958 VALENCE Cedex 09- FRANCE
Apparatus under test	
Product	**Terminal de Paiement / *Payment terminal***
Trade mark	**INGENICO**
Manufacturer	**INGENICO**
Model under test	**MOVE** **BWN30010055A**
Serial number	**142807313051006901000366** **Base1**
FCCID	**XKB-MOV**
ICID	**2586D-MOV**
Test date	Du 6 au 9 Octobre 2014 / *From October 6th to 9th, 2014*
Test location	Moirans
Test performed by	J.PAUC
Composition of document	107 pages
Modification of the last version	None
Document issued on	December 5th, 2014

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SUMMARY

1. TEST PROGRAM

Standard:

- **FCC Part 15, Subpart B (Digital Devices)**
- **FCC Part 15, Subpart C**
- **ANSI C63.4 (2003)**
- **RSS-Gen Issue 3 – Dec 2010**
- **RSS-210 Issue 8 – Dec 2010**

EMISSION TEST	LIMITS			RESULTS (Comments)
Limits for conducted disturbance at mains ports 150kHz-30MHz *CFR 47 §15.207*	**Frequency**	**Quasi-peak value (dBµV)**	**Average value (dBµV)**	☑ **PASS** ☐ **FAIL** ☐ **NA** ☐ **NP**
	150-500kHz	66 to 56	56 to 46	
	0.5-5MHz	56	46	
	5-30MHz	60	50	
Radiated emissions 9kHz-30MHz *CFR 47 §15.209 (a)* *CFR 47 §15.225* *RSS-Gen §4.9*	**Measure at 300m** 9kHz-490kHz : 67.6dBµV/m /F(kHz) **Measure at 30m** 490kHz-1.705MHz : 87.6dBµV/m /F(kHz) 1.705MHz-30MHz : 29.5 dBµV/m			☑ **PASS** ☐ **FAIL** ☐ **NA** ☐ **NP**
Radiated emissions 30MHz-25GHz* *CFR 47 §15.209 (a)* *CFR 47 §15.225* *RSS-Gen §4.9* ***Highest frequency :*** ***(Declaration of provider)***	**Measure at 3m** 30MHz-88MHz : 40 dBµV/m 88MHz-216MHz : 43.5 dBµV/m 216MHz-960MHz : 46.0 dBµV/m Above 960MHz : 54.0 dBµV/m			☑ **PASS** ☐ **FAIL** ☐ **NA** ☐ **NP**
Fundamental field strength limit *CFR 47 §15.225* *RSS-210 §A2.6*	**Operation within the band 13.110-14.010 MHz**			☑ **PASS** ☐ **FAIL** ☐ **NA** ☐ **NP**
Fundamental frequency tolerance *CFR 47 §15.225* *RSS-210 §A2.6*	**Operation within the band 13.110-14.010 MHz**			☑ **PASS** ☐ **FAIL** ☐ **NA** ☐ **NP**
Band edge compliance *CFR 47 §15.225* *RSS-210 §A2.6*	**Operation within the band 13.110-14.010 MHz**			☑ **PASS** ☐ **FAIL** ☐ **NA** ☐ **NP**
Occupied bandwidth *RSS-Gen §4.6.1*	**No limit**			☑ **PASS** ☐ **FAIL** ☐ **NA** ☐ **NP**
Receiver Spurious Emission** *RSS-Gen §4.10*	**See RSS-Gen §4.10**			☐ **PASS** ☐ **FAIL** ☑ **NA** ☐ **NP**

***§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.

****Testing covered the receive mode, and receiver spurious emissions are considered to be the same as transmitter.

2. SYSTEM TEST CONFIGURATION

2.1. HARDWARE IDENTIFICATION (EUT AND AUXILIARIES):

Equipment under test (EUT):

MOVE **Serial Number: 14280731305100690100036 6**
BASE BWN30010055A **Serial Number: Base1**

Equipment Under Test

Power supply:

During all the tests, EUT is supplied by 240V/50Hz or 110V/60Hz
For measurement with different voltage, it will be presented in test method.

Name	Type	Rating	Reference / Sn	Comments
Supply1	☑ AC ☐ DC ☐ Battery	100-240V 50/60Hz | 5Vdc	PHIHONG PSM05E-050D-R sn: 002	/
Supply2	☑ AC ☐ DC ☐ Battery	100-240V 50/60Hz | 5Vdc	PHIHONG PSM08E-050D-R sn: 005	/
Supply3	☐ AC ☐ DC ☑ Battery	3.6V / 2900Mah	MUS3878 / 1NRC1865QPP	/

Inputs/outputs - Cable:

EUT						
Access	**Type**	**Length used (m)**	**Declared <3m**	**Shielded**	**Under test**	**Comments**
Supply port 1	DC power supply port	2m	☐	☐	☑	/
Access1	USB port (Micro A) (plugged with it's own USB cable) 	0.15m	☑	☐	☑	/

Base						
Access	**Type**	**Length used (m)**	**Declared <3m**	**Shielded**	**Under test**	**Comments**
Supply port 2	DC power supply port (Plugged from Power supply n°1 & 2)	2m	☐	☐	☑	/

Power supply n°1 (PHIHONG PSM05E-050D-R)						
Access	**Type**	**Length used (m)**	**Declared <3m**	**Shielded**	**Under test**	**Comments**
Mains1	Power supply main port	/	☐	☐	☑	/
Secondary1	DC secondary port	2m	☐	☐	☑	/

Power supply n°2 (PHIHONG PSM08E-050D-R)						
Access	**Type**	**Length used (m)**	**Declared <3m**	**Shielded**	**Under test**	**Comments**
Mains 2	Power supply main port	/	☐	☐	☑	/
Secondary2	DC secondary port	2m	☐	☐	☑	/

Equipment information:

Frequency band:	[13.553 – 13.567] MHz			
Sub-band REC7003:	Annex9 (f)			
RF mode:	☐Transmitter	☑Transceiver	☐Receiver	☐Standby
Receiver classification § 4.1.1	☐1	☑2	☐3	
Antenna type:	☐External:		☑Internal:	
Extreme temperature range:	☑Category I (General) -20°C to +55°C	☐Category II (Portable) -10°C to +55°C	☐Category III (Indoor) +5°C to +35°C	
Extreme test source voltage:	☐±15%:	☑other: V_{min}:3.5Vdc / V_{nom}:3.85Vdc / V_{max}: 4.2Vdc (Battery)		

2.2. EUT CONFIGURATION

Configuration ID	Description	
1		EUT is powered only by it's own Inner Battery Micro-A cable plugged on EUT
2		EUT is powered by Power supply n°1 Micro-A cable plugged on EUT
3		EUT is powered by Power supply n°1 Micro-A cable plugged on EUT
4		EUT is powered by Power supply n°1 through base BWN30010055A Micro-A cable plugged on EUT
5		EUT is powered by Power supply n°2 through base BWN30010055A Micro-A cable plugged on EUT

2.3. EQUIPMENT MODIFICATIONS

☑ None ☐ Modification:

2.1. EUT RUNNING MODE

Running mode n°1

A continuous reading of RFID contactless card is performed

Running mode n°2

Following test sequence are performed :

- *Printer test sequence*
- *MMC test sequence*
- *GSM test sequence*
- *USB test sequence*
- *SAM1 test sequence*
- *SAM2 test sequence*
- *CAM0 test sequence*

Running mode n°3 => Conducted emission test

A continuous reading of RFID contactless card is performed

And following test sequence are performed :

- *Printer test sequence*
- *MMC test sequence*
- *GSM test sequence*
- *USB test sequence*
- *SAM1 test sequence*
- *SAM2 test sequence*
- *CAM0 test sequence*

2.2. 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

Assume a receiver reading of 52.5dBµV is obtained. The antenna factor of 7.4 and a cable factor of 1.1 are added. The amplifier gain of 29dB is subtracted, giving a field strength of 32 dBµV/m.
FS = 52.5 + 7.4 + 1.1 – 29 = 32 dBµV/m
The 32 dBµV/m value can be mathematically converted to its corresponding level in µV/m.
Level in µV/m = Common Antilogarithm [(32dBµV/m)/20] = 39.8 µV/m.

3. CONDUCTED EMISSION DATA

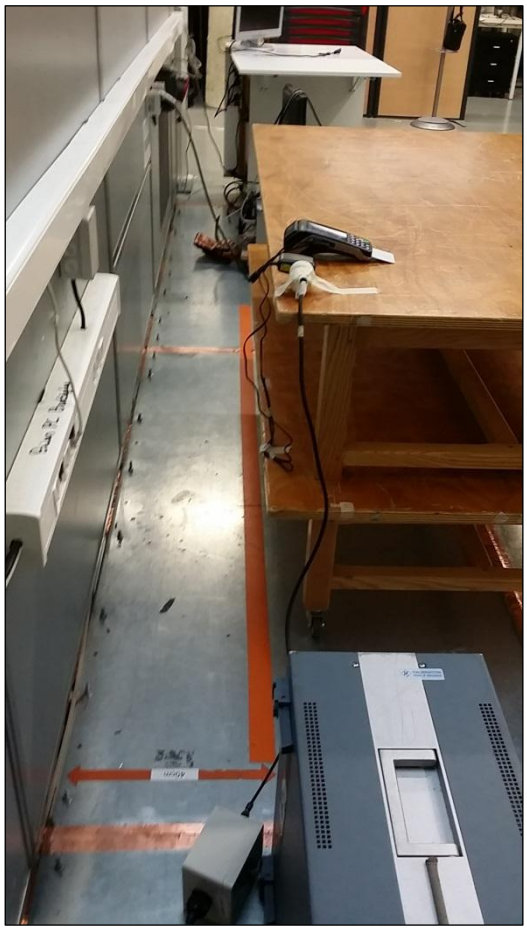
3.1. ENVIRONMENTAL CONDITIONS

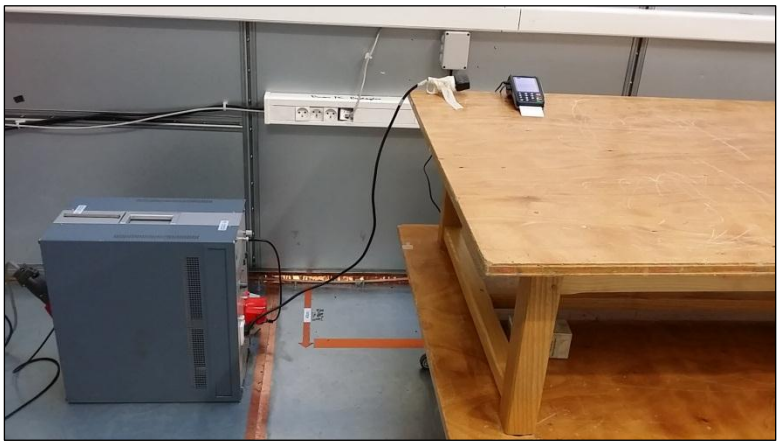
Date of test	:	October 16th , 2014	October 17th,2014
Test performed by	:	J.PAUC	J.PAUC
Atmospheric pressure (hPa)	:	990	995
Relative humidity (%)	:	50	50
Ambient temperature (°C)	:	22	22

3.2. TEST SETUP

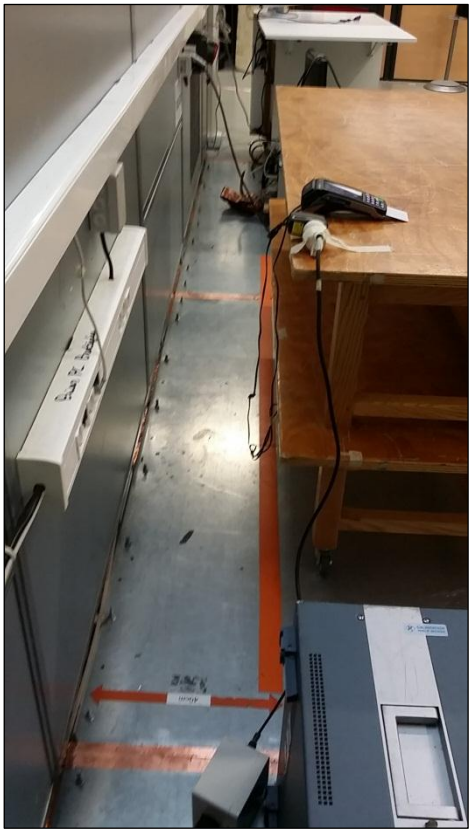
Mains terminals
The EUT and auxiliaries are set:
☑ 80cm above the ground on the non-conducting table (Table-top equipment)
☐ 10cm above the ground on isolating support (Floor standing equipment)
The distance between the EUT and the LISN is 80cm. The EUT is 40cm away for the vertical ground plane.

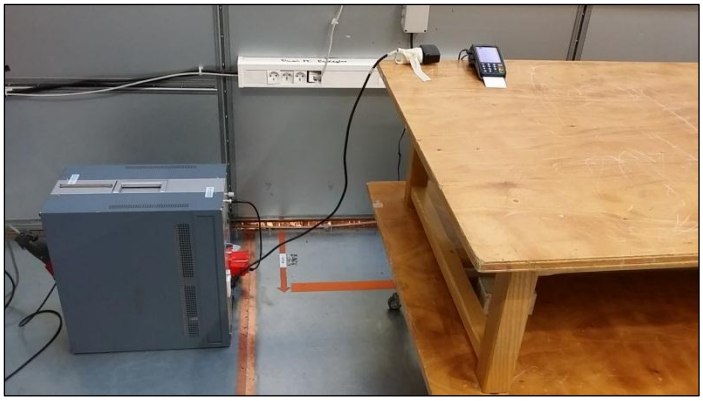
The EUT is powered by 110V/60Hz
The EUT is powered through a LISN (measure). Auxiliaries are powered by another LISN.



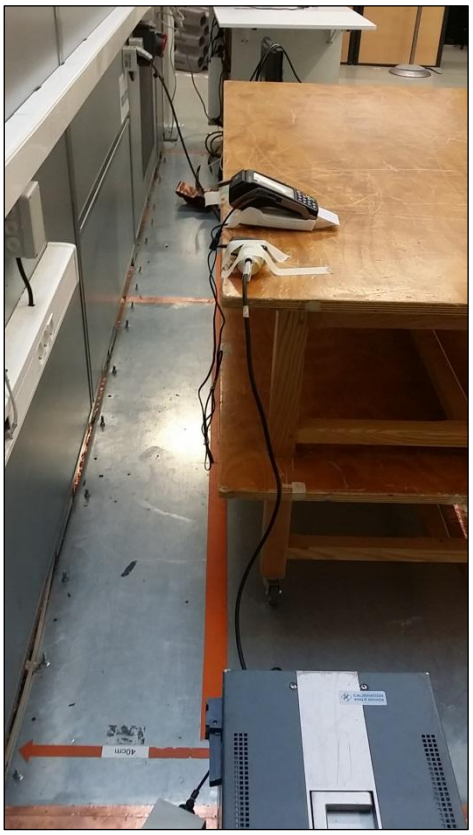


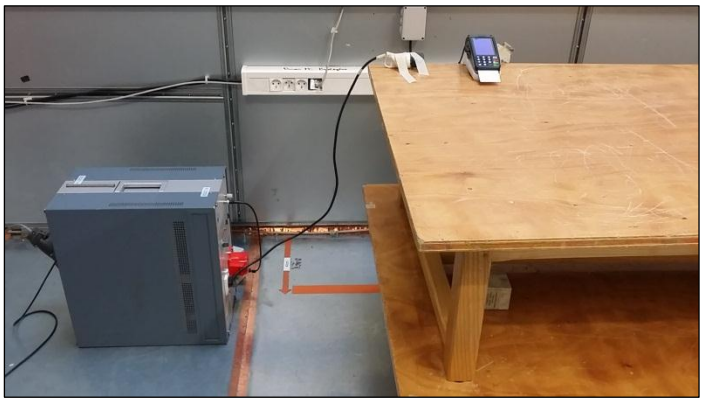
Configuration n°2 Test Setup



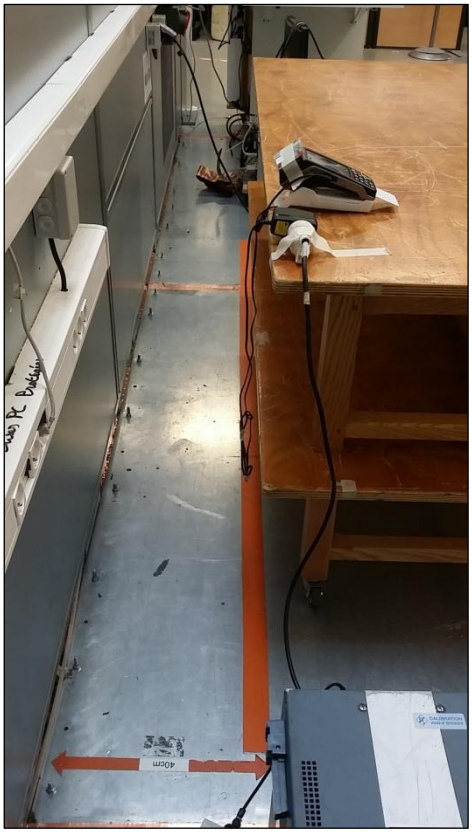


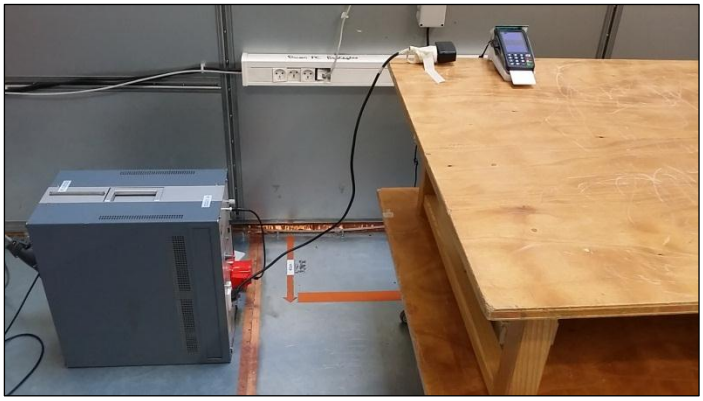
Configuration n°3 Test Setup





Configuration n°4 Test Setup





Configuration n°5 Test Setup

3.3. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal Date
Cable	-	-	A5329578	2015-05
Conducted emission comb generator	BARDET	-	A3169049	-
LISN tri-phase ESH2-Z5	RHODE & SCHWARZ	33852.19.53	C2320063	2014-10
Receiver 20Hz – 8GHz	ROHDE & SCHWARZ	ESU8	A2642019	2014-10
Thermo-hygrometer (PM2)	OREGON	BAR916HG-G	B4206011	2015-04
Transient limiter	RHODE & SCHWARZ	ESH3-Z2	A7122204	2014-10

3.4. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

☑ None ☐ Divergence:

3.5. TEST RESULTS

Mains terminals:

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

Graph identifier		Configuration	Line	Comments	
Emc#	1	2	Phase	Running mode n°3	See annex 1
Emc#	2	2	Phase	Running mode n°3 & Dummy Load	See annex 1
Emc#	3	2	Neutral	Running mode n°3	See annex 1
Emc#	4	2	Neutral	Running mode n°3 & Dummy Load	See annex 1
Emc#	5	3	Phase	Running mode n°3	See annex 1
Emc#	6	3	Phase	Running mode n°3 & Dummy Load	See annex 1
Emc#	7	3	Neutral	Running mode n°3	See annex 1
Emc#	8	3	Neutral	Running mode n°3 & Dummy Load	See annex 1
Emc#	9	4	Phase	Running mode n°3	See annex 1
Emc#	10	4	Phase	Running mode n°3 & Dummy Load	See annex 1
Emc#	11	4	Neutral	Running mode n°3	See annex 1
Emc#	12	4	Neutral	Running mode n°3 & Dummy Load	See annex 1
Emc#	13	5	Phase	Running mode n°3	See annex 1
Emc#	14	5	Phase	Running mode n°3 & Dummy Load	See annex 1
Emc#	15	5	Neutral	Running mode n°3	See annex 1
Emc#	16	5	Neutral	Running mode n°3 & Dummy Load	See annex 1

3.6. CONCLUSION

The sample of the equipment MOVE, Sn: 14280731305100690100036 6, tested in the configuration presented in this test report satisfies to requirements of class B limits of the standard FCC Part15B, for conducted emissions.

4. RADIATED EMISSION DATA (15.209)

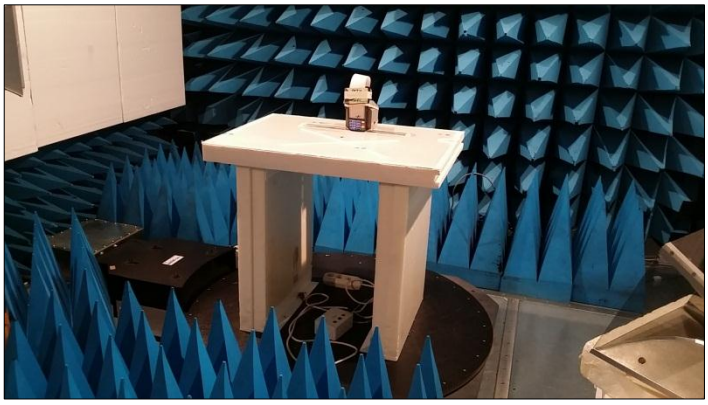
4.1. ENVIRONMENTAL CONDITIONS

Date of test	: :October 6th , 2014	October 7th , 2014	October 8th, 2014
Test performed by	: :J.PAUC	J.PAUC	J.PAUC
Atmospheric pressure (hPa)	: :1001	999	999
Relative humidity (%)	: :55	57	47
Ambient temperature (°C)	: :21	20	21

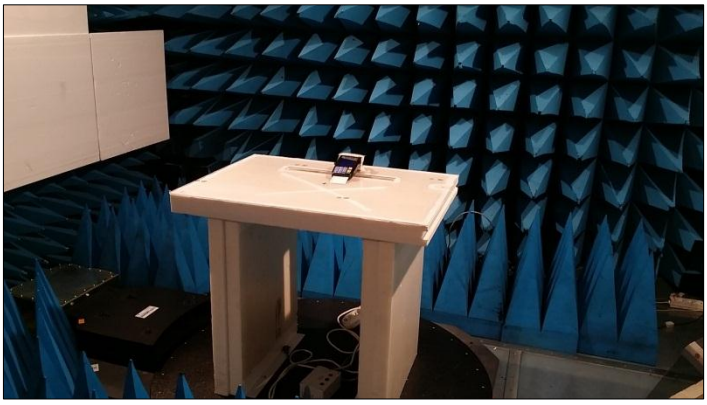
4.2. TEST SETUP

The installation of EUT is identical for pre-characterization measures in a 3 meters semi- anechoic chamber and for measures on the 10 meters Open site.
The EUT and auxiliaries are set:
☑ 80cm above the ground on the non-conducting table (Table-top equipment)
☐ 10cm above the ground on isolating support (Floor standing equipment)
The EUT is powered by V_{nom}.

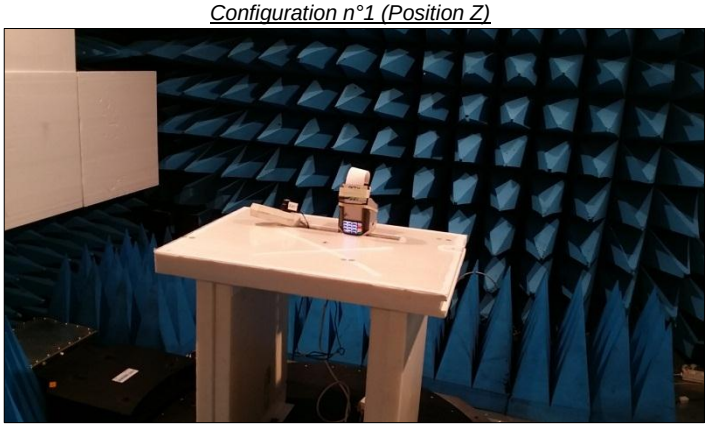
Test setup on OATS



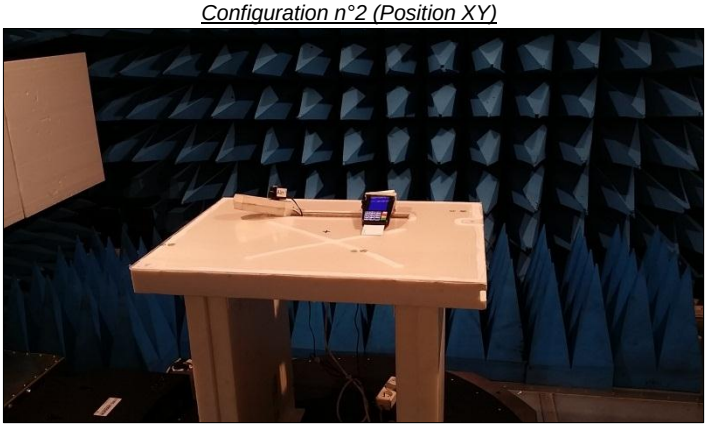
Configuration n°1 (Position Z)



Configuration n°2 (Position XY)



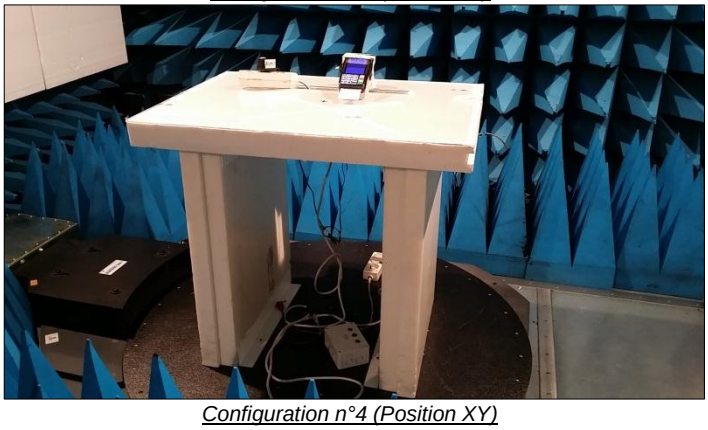
Configuration n°2 (Position Z)



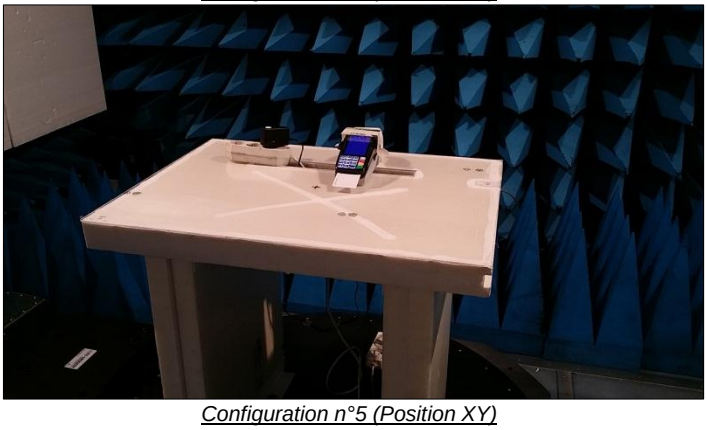
Configuration n°2 (Position XY)

Configuration n°3 (Position Z)

Configuration n°3 (Position XY)



Configuration n°4 (Position XY)



Configuration n°5 (Position XY)

Test setup in anechoic chamber

4.3. TEST METHOD

Pre-characterisation measurement: (9kHz – 6GHz)

A pre-scan of all the setup has been performed in a 3 meters semi-anechoic chamber for frequency from 30MHz to 6GHz. Test is performed in horizontal (H) and vertical (V) polarization, the loop antenna was rotated during the test for maximized the emission measurement. Continuous linear turntable azimuth search was performed with 360 degrees range. Measurement performed on all axis of EUT used in normal configuration.
The pre-characterization graphs are obtained in PEAK detection and PEAK/AVERAGE from 1GHz to 6GHz.

Characterization on 10 meters open site from 9kHz to 1GHz:

The product has been tested according to ANSI C63.4 (2003), FCC part 15 subpart C. Radiated Emissions were measured on an open area test site. A description of the facility is on file with the FCC. The product has been tested at a distance of **10 meters** from the antenna and compared to the FCC part 15 subpart C §15.225 limits in the frequency range 13.553MHz 13.567MHz. Measurement bandwidth was 9kHz below 30MHz and 120kHz from 30 MHz to 1GHz. Test is performed in horizontal (H) and vertical (V) polarization, the loop antenna was rotated during the test for maximized the emission measurement. The height antenna is varied from 1m to 4m. Continuous linear turntable azimuth search was performed with 360 degrees range. Measurement 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.
Frequency list has been created with anechoic chamber pre-scan results.

Characterization on 3 meters full anechoic chamber from 1GHz to 6GHz:

The product has been tested at a distance of **3 meters** from the antenna and compared to the FCC part 15 subpart B §15.109 limits and C §15.209 limits. Measurement bandwidth was 1MHz from 1GHz to 6GHz.
Test is performed in horizontal (H) and vertical (V) polarization. Continuous linear turntable azimuth search was performed with 360 degrees range. Measurement 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.The height antenna is
☑ On mast, varied from 1m to 4m
☐ Fixed and centered on the EUT

Frequency list has been created with anechoic chamber pre-scan results.

4.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	CAL DATE
Antenna Loop	ELECTRO-METRICS	EM-6879	C2040052	2015-10
Antenna Bi-log	CHASE	CBL6111A	C2040172	2015-04
Cable - Measure	-	-	A5329038	2015-08
Cable Measure	-	-	A5329206	2015-01
Semi-Anechoic chamber #3	SIEPEL	-	D3044017	2016-04
Radiated emission comb generator	BARDET	-	A3169050	-
HF Radiated emission comb generator	LCIE SUD EST	-	A3169088	-
Spectrum analyzer	ROHDE & SCHWARZ	FSL6	A2642049	2014-10
Thermo-hygrometer (C3)	OREGON	BAR206	B4204078	2015-01
Turntable chamber (Cage#3)	ETS Lingren	Model 2165	F2000371	-
Table	LCIE	-	F2000461	-
Turntable controller (Cage#3)	ETS Lingren	Model 2090	F2000444	-

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	CAL DATE
Antenna Bi-log	CHASE	CBL6111A	C2040051	2016-04
Antenna Loop	ELECTRO-METRICS	EM-6879	C2040052	2015-10
Cable	SUCOFLEX	106G	A5329061	2015-02
Cable (OATS)	-	-	A5329623	2015-10
HF Radiated emission comb generator	LCIE SUD EST	-	A3169088	-
OATS	-	-	F2000409	2015-09
Receiver 20Hz – 8GHz	ROHDE & SCHWARZ	ESU8	A2642019	2014-10
Thermo-hygrometer (PM2)	OREGON	BAR916HG-G	B4206011	2015-04
Antenna mast (OATS)	LCIE	-	F2000288	-
Turntable / Mast controller (OATS)	ETS Lindgren	Model 2066	F2000372	-
Antenna mast (OATS)	ETS Lindgren	2071-2	F2000392	-
Turntable (OATS)	ETS Lindgren	Model 2187	F2000403	-
Table	LCIE	-	F2000438	-

4.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

☑ None ☐ Divergence:

4.6. TEST RESULTS

4.6.1. Pre-characterization at 3 meters [9kHz-30MHz]

See graph for 9kHz-30MHz band:

Graph identifier	Configuration	Polarization	Mode	EUT position	Comments
Emr# 1a	1	0°	TX	Axis XY	See annex 1
Emr# 2a	1	90°	TX	Axis XY	See annex 1
Emr# 3a	1	0°	TX	Axis Z	See annex 1
Emr# 4a	1	90°	TX	Axis Z	See annex 1
Emr# 5a	2	0°	TX	Axis XY	See annex 1
Emr# 6a	2	90°	TX	Axis XY	See annex 1
Emr# 7a	2	0°	TX	Axis Z	See annex 1
Emr# 8a	2	90°	TX	Axis Z	See annex 1
Emr# 9a	3	0°	TX	Axis XY	See annex 1
Emr# 10a	3	90°	TX	Axis XY	See annex 1
Emr# 11a	3	0°	TX	Axis Z	See annex 1
Emr# 12a	3	90°	TX	Axis Z	See annex 1
Emr# 13a	4	0°	TX	Axis XY	See annex 1
Emr# 14a	4	90°	TX	Axis XY	See annex 1
Emr# 15a	5	0°	TX	Axis XY	See annex 1
Emr# 16a	5	90°	TX	Axis XY	See annex 1

4.6.2. Pre-characterization at 3 meters [30MHz-1GHz]

See graphs for 30MHz-1GHz:

Subpart C					
Graph identifier	**Configuration**	**Polarization**	**Mode**	**EUT position**	**Comments**
Emr# 1b	1	0°	TX	Axis XY	See annex 1
Emr# 2b	1	90°	TX	Axis XY	See annex 1
Emr# 3b	1	0°	TX	Axis Z	See annex 1
Emr# 4b	1	90°	TX	Axis Z	See annex 1
Emr# 5b	2	0°	TX	Axis XY	See annex 1
Emr# 6b	2	90°	TX	Axis XY	See annex 1
Emr# 7b	2	0°	TX	Axis Z	See annex 1
Emr# 8b	2	90°	TX	Axis Z	See annex 1
Emr# 9b	3	0°	TX	Axis XY	See annex 1
Emr# 10b	3	90°	TX	Axis XY	See annex 1
Emr# 11b	3	0°	TX	Axis Z	See annex 1
Emr# 12b	3	90°	TX	Axis Z	See annex 1
Emr# 13b	4	0°	TX	Axis XY	See annex 1
Emr# 14b	4	90°	TX	Axis XY	See annex 1
Emr# 15b	5	0°	TX	Axis XY	See annex 1
Emr# 16b	5	90°	TX	Axis XY	See annex 1

FCC Part 15 Subpart B					
Graph identifier	**Configuration**	**Polarization**	**Mode**	**EUT position**	**Comments**
Emr# 1b1	1	0°	TX	Axis XY	See annex 1
Emr# 2b1	1	90°	TX	Axis XY	See annex 1
Emr# 3b1	1	0°	TX	Axis Z	See annex 1
Emr# 4b1	1	90°	TX	Axis Z	See annex 1
Emr# 5b1	2	0°	TX	Axis XY	See annex 1
Emr# 6b1	2	90°	TX	Axis XY	See annex 1
Emr# 7b1	2	0°	TX	Axis Z	See annex 1
Emr# 8b1	2	90°	TX	Axis Z	See annex 1
Emr# 9b1	3	0°	TX	Axis XY	See annex 1
Emr# 10b1	3	90°	TX	Axis XY	See annex 1
Emr# 11b1	3	0°	TX	Axis Z	See annex 1
Emr# 12b1	3	90°	TX	Axis Z	See annex 1
Emr# 13b1	4	0°	TX	Axis XY	See annex 1
Emr# 14b1	4	90°	TX	Axis XY	See annex 1
Emr# 15b1	5	0°	TX	Axis XY	See annex 1
Emr# 16b1	5	90°	TX	Axis XY	See annex 1

4.6.3. Pre-characterization at 3 meters [1GHz-6GHz]

See graphs for 1GHz-6GHz:

Graph identifier	Configuration	Polarization	EUT position	Comments
Emr# 1c	1	Horizontal	Axis XY	See annex 1
Emr# 2c	1	Vertical	Axis XY	See annex 1
Emr# 3c	1	Horizontal	Axis Z	See annex 1
Emr# 4c	1	Vertical	Axis Z	See annex 1
Emr# 5c	2	Horizontal	Axis XY	See annex 1
Emr# 7c	2	Vertical	Axis XY	See annex 1
Emr# 8c	2	Horizontal	Axis Z	See annex 1
Emr# 9c	2	Vertical	Axis Z	See annex 1
Emr# 10c	3	Horizontal	Axis XY	See annex 1
Emr# 11c	3	Vertical	Axis XY	See annex 1
Emr# 12c	3	Horizontal	Axis Z	See annex 1
Emr# 14c	3	Vertical	Axis Z	See annex 1
Emr# 15c	4	Horizontal	Axis XY	See annex 1
Emr# 16c	5	Vertical	Axis XY	See annex 1

4.6.4. Characterization on 10 meters open site below 30 MHz

Worst case final data result:
Frequency list has been created with semi-anechoic chamber pre-scan results.
Measurements are performed using a QUASI-PEAK detection.

FCC Part 15 Subpart C									
No	**Frequency (MHz)**	**QPeak Limit (dBµV/m) @ 30m**	**Qpeak (dBµV/m) @ 30m**	**Margin (Mes-Lim) (dB)**	**Angle Table (deg)**	**Pol Ant.**	**Ht Ant. (cm)**	**Correc. Factor (dB)**	**Comments**
1	13.559	84.0	45.5	**-38.5**	240	0	100	35.1	/
2	27.119	29.5	13.5	**-16**	270	0	100	44.8	/

Note: Measure have been done at 10m distance and corrected according to requirements of 15.209.e) (M@30m = M@10m-19.1dB)

Limits Sub clause §15.225

Frequency (MHz)	Field strength (µV/m)	Measurement distance (m)
13.553-13.567	15 848 84 dBµV/m	30
13.410-13.553 13.567-13.710	334 50.5 dBµV/m	30
13.110-13.410 13.710-14.010	106 40.5 dBµV/m	30

See following chapter of this test report for band edge measurements.

4.6.5. Characterization on 10 meters open site from 30MHz to 1GHz

FCC Part 15 Subpart B									
No	**Frequency (MHz)**	**Limit QPeak (dBµV/m)**	**Measure QPeak (dBµV/m)**	**Margin QPeak (dB)**	**Angle Table (°)**	**Pol. Ant.**	**Ht. Ant. (cm)**	**FC (dB)**	**Remark**
4	46.586	40.0	36.4	**-3.6**	34	V	120	10.9	Config 2 Z
5	66.159	40.0	29.7	**-10.3**	46	V	110	7.8	Config 2 Z
6	118.485	43.5	34.6	**-8.9**	56	V	100	13.6	Config 2 Z
7	64.000	40.0	39.0	**-1.0**	200	V	250	7.7	Config 5 XY
8	61.994	40.0	31.7	**-8.3**	0	V	220	7.6	Config 5 XY
9	47.999	40.0	35.0	**-5.0**	46	V	300	10.3	Config 5 XY
10	960.001	54.0	45.1	**-8.9**	90	H	130	-3.6	Due to external disturbances Performed in Anechoic chamber (3m) « Config 3 Z »

Worst case final data result:
Frequency list has been created with semi-anechoic chamber pre-scan results.
Measurements are performed using a QUASI-PEAK detection.

FCC Part 15 Subpart C									
No	**Frequency (MHz)**	**Limit QPeak (dBµV/m)**	**Measure QPeak (10m) (dBµV/m)**	**Margin QPeak (dB)**	**Angle Table (°)**	**Pol. Ant.**	**Ht. Ant. (cm)**	**FC (dB)**	**Remark**
1	40.678	40.0	39.2	**-0.8**	229	V	100	13.9	Config 3 XY
2	54.238	40.0	34.1	**-5.9**	0	V	100	8.6	Config 3 XY
3	67.797	40.0	32.6	**-7.4**	30	V	100	7.8	Config 3 XY

Note: Measure have been done at 10m distance and corrected according to requirements of 15.209.e)
(M@3m = M@10m+10.5dB)

4.6.6. Characterization on 3meters anechoic chamber from 1GHz to 6GHz

Worst case final data result:
The frequency list is created from the results obtained during the pre-characterization in anechoic chamber.
Measurements are performed using a PEAK and AVERAGE detection.

FCC Part 15 Subpart B									
No	**Frequency (MHz)**	**Limit QPeak (dBµV/m)**	**Measure QPeak (10m) (dBµV/m)**	**Margin QPeak (dB)**	**Angle Table (°)**	**Pol. Ant.**	**Ht. Ant. (cm)**	**FC (dB)**	**Remark**
Non significants frequencies observed									

Note: Measures have been done at 3m distance.

4.7. CONCLUSION

The sample of the equipment MOVE, Sn: 14280731305100690100036 6, tested in the configuration presented in this test report satisfies to requirements of class B limits of the standard FCC Part15B and C, for radiated emissions.

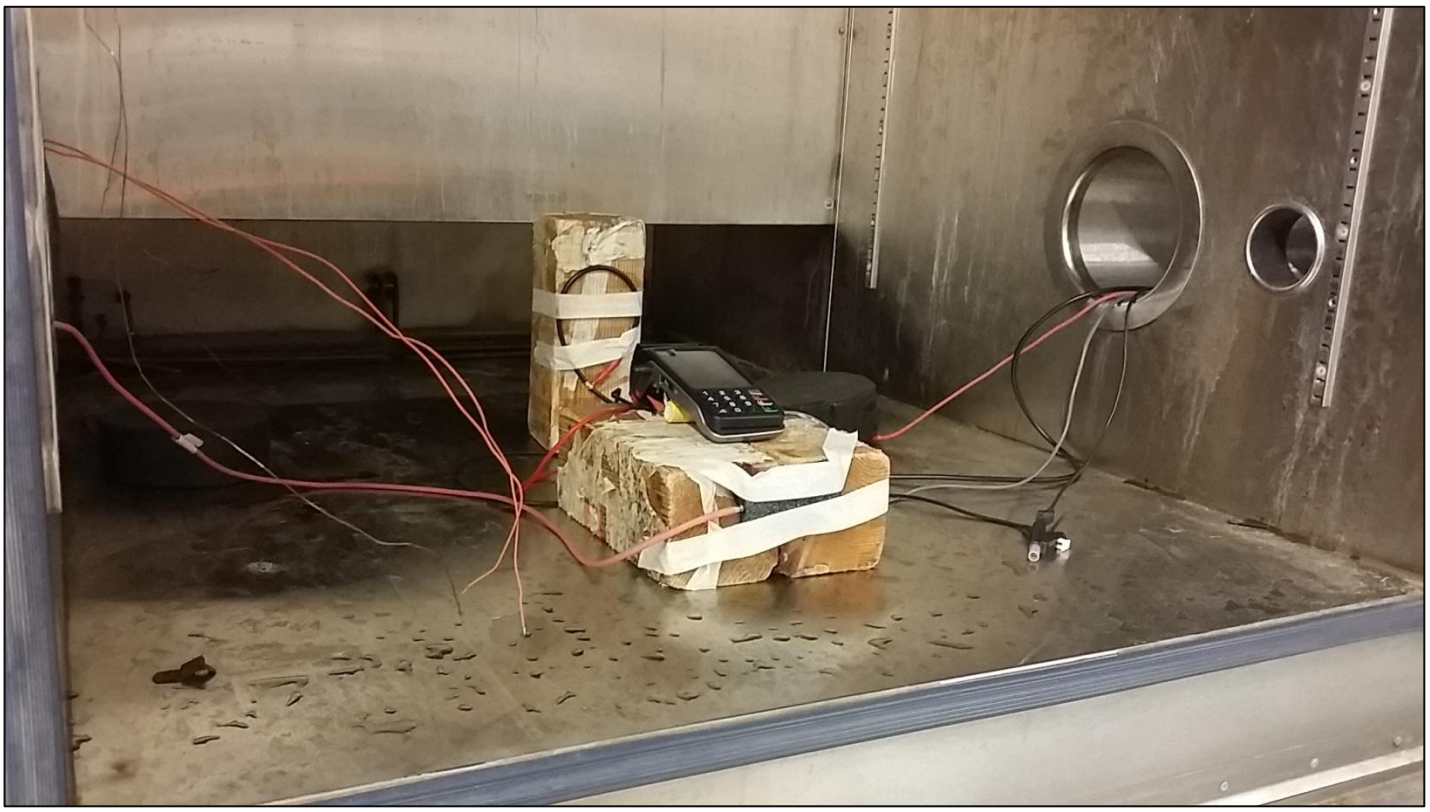
5. FUNDAMENTAL FREQUENCY TOLERANCE (15.225E)

5.1. ENVIRONMENTAL CONDITIONS

Date of test	:	October 8th , 2014
Test performed by	:	J.PAUC
Atmospheric pressure (hPa)	:	999
Relative humidity (%)	:	47
Ambient temperature (°C)	:	21

5.2. TEST SETUP

Frequency of carrier: 13.56 MHz
Upper limit: 13.561356 MHz
Lower limit: 13.558644 MHz
The equipment (RF box) is set in a climatic chamber. Measure is performed on one channel of RF module.



Test setup

5.3. TEST METHOD

The frequency tolerance of the carrier signal shall be maintained within ±0.01% of the operating frequency when the temperature is varied from -30°C to +50°C at the nominal power voltage and the primary power voltage is varied from 85% to 115% of the rated supply voltage at 20°C.

5.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	CAL DUE
Cable	UTIFLEX	-	A5329192	2015-11
Loop	LCIE	-	-	-
Data Logger	AGILENT	34970A	A6440083	-
Multimeter	FLUKE	87	A1240251	2015-03
Power supply DC	AFX	0	A7044292	-
Spectrum Analyzer 9kHz - 6GHz	ROHDE & SCHWARZ	FSL6	A2642049	2014-10
Thermo-hygrometer (PM2)	OREGON	BAR916HG-G	B4206011	2015-04
Climatic Chamber	CLIMATS	3776	D1022121	2014-12

5.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

☑ None ☐ Divergence:

5.6. TEST RESULTS

Temperature / **Voltage**	**-30°C**	**-20°C**	**20°C**	**+50°C**
Mains voltage: 3.85				
Frequency Drift (MHz)	- 0.000044	- 0.000076	**REF**	- 0.000076
Carrier level (dBc)	- 0.50	- 0.30	**REF**	- 1.00
Mains voltage: 3.5				
Frequency Drift (MHz)	- 0.000044	+ 0.000012	+ 0.000000	- 0.000068
Carrier level (dBc)	- 0.50	- 0.30	+ 0.00	- 0.80
Mains voltage: 4.2				
Frequency Drift (MHz)	- 0.000044	+ 0.000012	+ 0.000000	- 0.000076
Carrier level (dBc)	- 0.50	- 0.30	+ 0.01	- 1.00

Frequency drift measured is 76 Hz when the temperature is varied from -30°C to +50°C and voltage is varied.

5.1. CONCLUSION

The sample of the equipment MOVE, Sn: 142807313051006901000366, tested in the configuration presented in this test report satisfies to requirements of the standard FCC Part15C, for fundamental frequency tolerance.

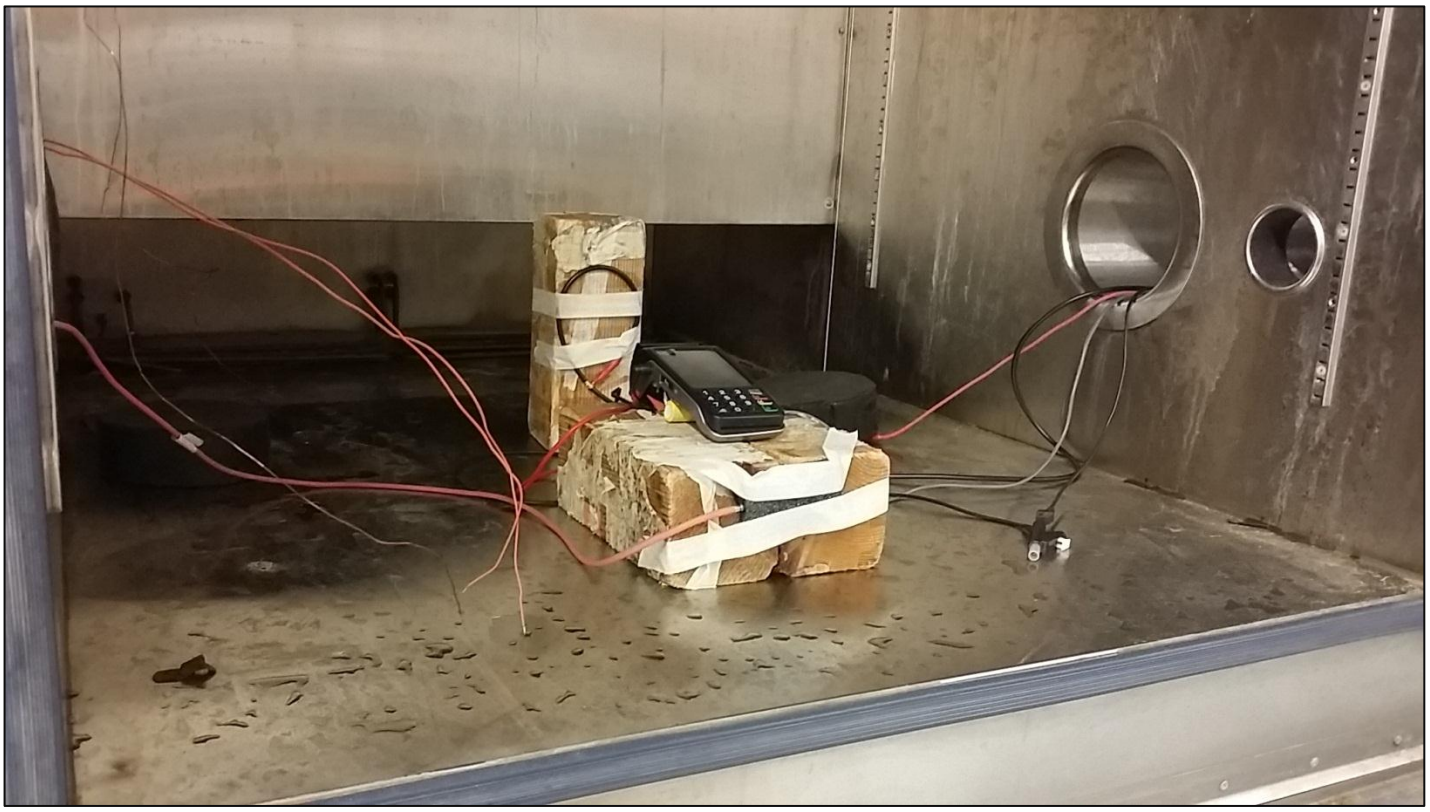
6. BAND-EDGE COMPLIANCE §15.209

6.1. ENVIRONMENTAL CONDITIONS

Date of test	:	October 15th , 2014
Test performed by	:	J.PAUC
Atmospheric pressure (hPa)	:	987
Relative humidity (%)	:	47
Ambient temperature (°C)	:	23.7

6.2. TEST SETUP

For measurement, the power level calibration of the spectrum analyzer is related to the field strength measured in chapter radiated emission data.



Test setup

6.3. TEST METHOD

Frequency band 13.110-14.010MHz
Following plots show radiated emission level in the frequency band 13.110-14.010MHz with a RBW of 9kHz and a quasi-peak detector. The graphs are obtained with a measuring receiver.

Frequency band 13.553-13.567MHz
Following plots show radiated emission level in the frequency band 13.55.-13.567MHz with a RBW of 1kHz. The graphs are obtained with a measuring receiver.

6.4. TEST EQUIPMENT LIST

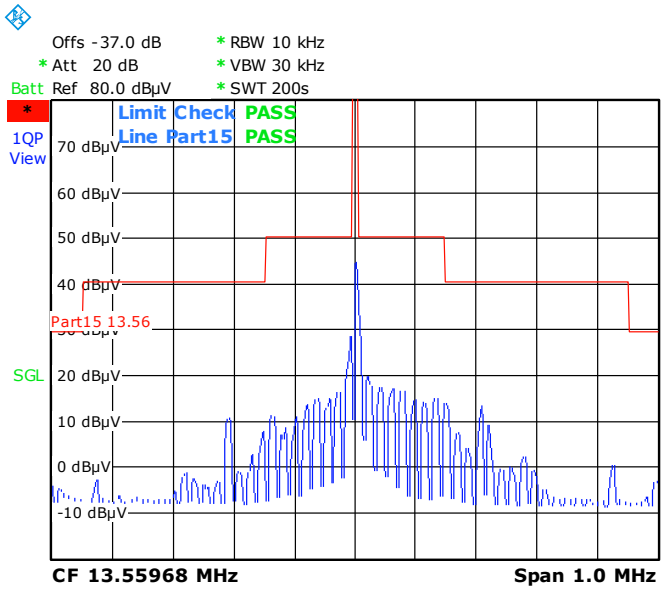
DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	CAL DUE
Cable	UTIFLEX	-	A5329192	2015-11
Loop	LCIE	-	-	-
Data Logger	AGILENT	34970A	A6440083	-
Multimeter	FLUKE	87	A1240251	2015-03
Power supply DC	AFX	0	A7044292	-
Spectrum Analyzer 9kHz - 6GHz	ROHDE & SCHWARZ	FSL6	A2642049	2014-10
Thermo-hygrometer (PM2)	OREGON	BAR916HG-G	B4206011	2015-04
Climatic Chamber	CLIMATS	3776	D1022121	2014-12

6.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

☑ None ☐ Divergence:

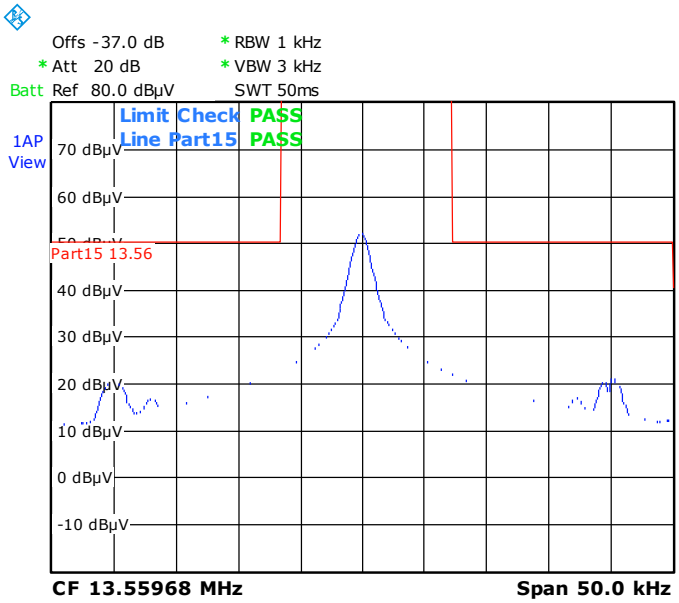
6.6. TEST RESULTS

Frequency band 13.110-14.010MHz



Date: 15.OCT.2014 08:24:43

Frequency band 13.553-13.567MHz



Date: 15.OCT.2014 08:17:21

6.7. CONCLUSION

The sample of the equipment MOVE, Sn: 1428073130510069010003 66, tested in the configuration presented in this test report satisfies to requirements of the standard FCC Part15C, for band-edge compliance.

7. OCCUPIED BANDWIDTH

7.1. ENVIRONMENTAL CONDITIONS

Date of test : October 15th , 2014
Test performed by : J.PAUC
Atmospheric pressure (hPa) : 987
Relative humidity (%) : 47
Ambient temperature (°C) : 23.7

7.1. SETUP

☐ ***Conducted measurement:***
The EUT is turned ON and connected to measurement instrument; the center frequency of the spectrum analyzer is set to the fundamental frequency. The captured power is measured and recorded; the measurement is repeated until all frequencies required were complete.
Offset: Attenuator+cable 10.3dB

☑ ***Radiated measurement:***
The EUT is turned ON and connected to measurement instrument; the center frequency of the spectrum analyzer is set to the fundamental frequency. The captured power is measured and recorded; the measurement is repeated until all frequencies required were complete.

Measurement Procedure:
1. RBW used should not be lower than 1% of the selected span
2. Set the video bandwidth (VBW) ≥ 3 x RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. OBW 99% function of spectrum analyzer used

7.2. TEST EQUIPMENT LIST

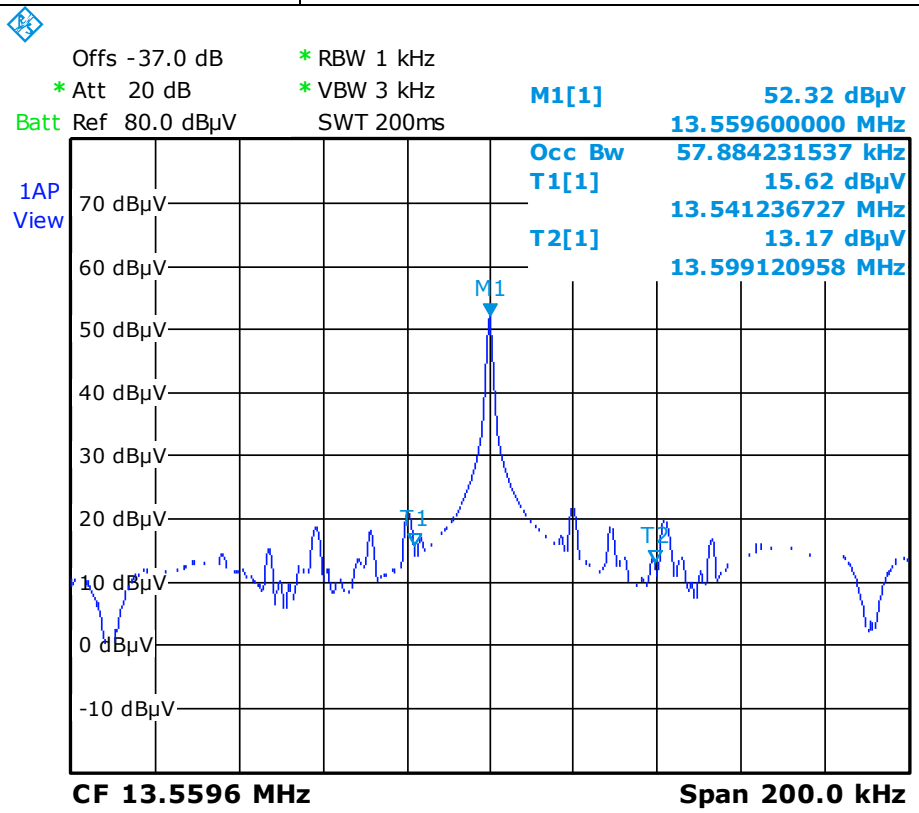
DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	CAL DUE
Cable	UTIFLEX	-	A5329192	2015-11
Loop	LCIE	-	-	-
Data Logger	AGILENT	34970A	A6440083	-
Multimeter	FLUKE	87	A1240251	2015-03
Power supply DC	AFX	0	A7044292	-
Spectrum Analyzer 9kHz - 6GHz	ROHDE & SCHWARZ	FSL6	A2642049	2014-10
Thermo-hygrometer (PM2)	OREGON	BAR916HG-G	B4206011	2015-04
Climatic Chamber	CLIMATS	3776	D1022121	2014-12

7.3. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

☑ None ☐ Divergence:

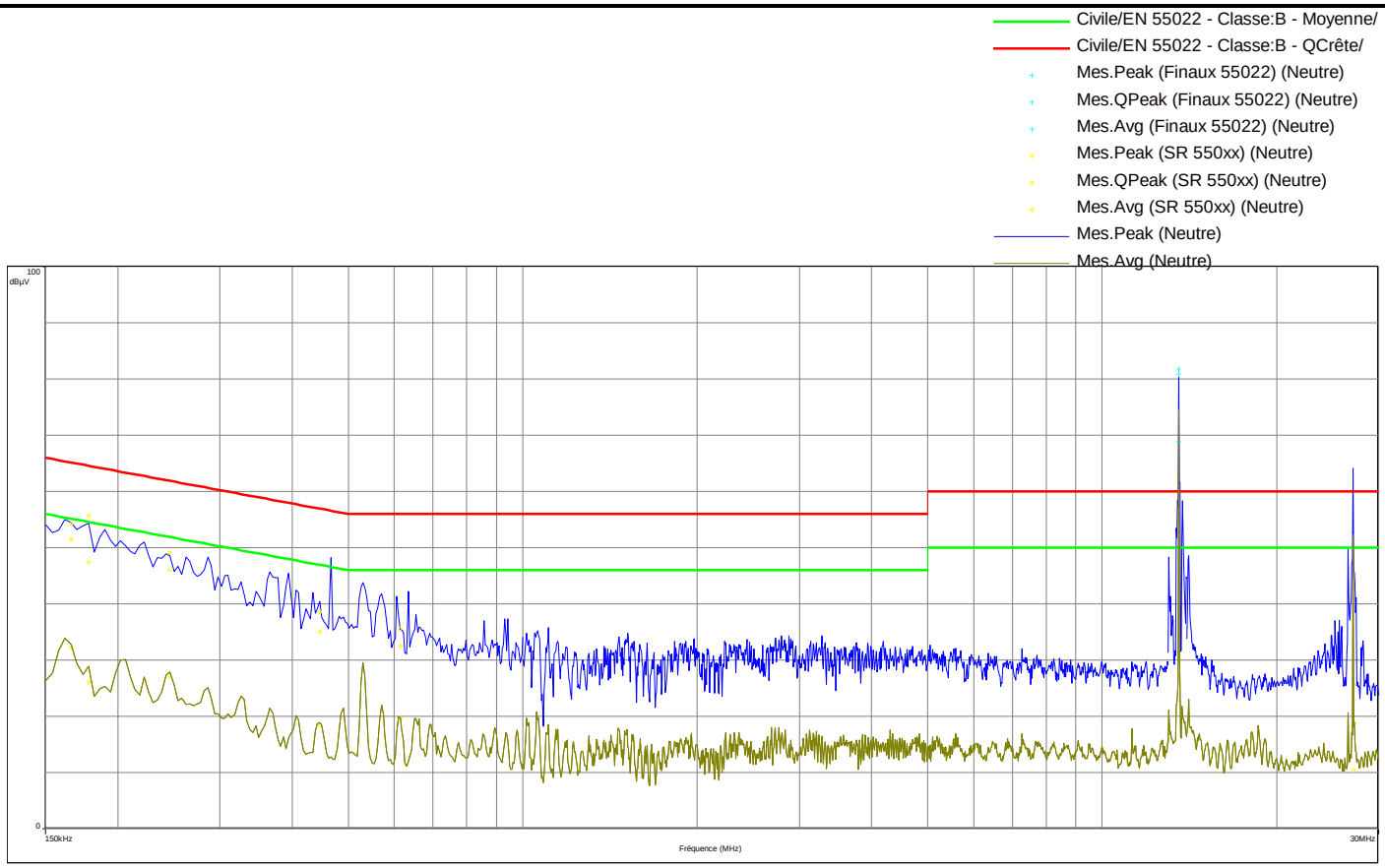
7.4. TEST SEQUENCE AND RESULTS

Frequency (MHz)	99% Occupied Bandwidth (kHz)
13.559600	**57.884**



8. ANNEX 1 (GRAPHS)

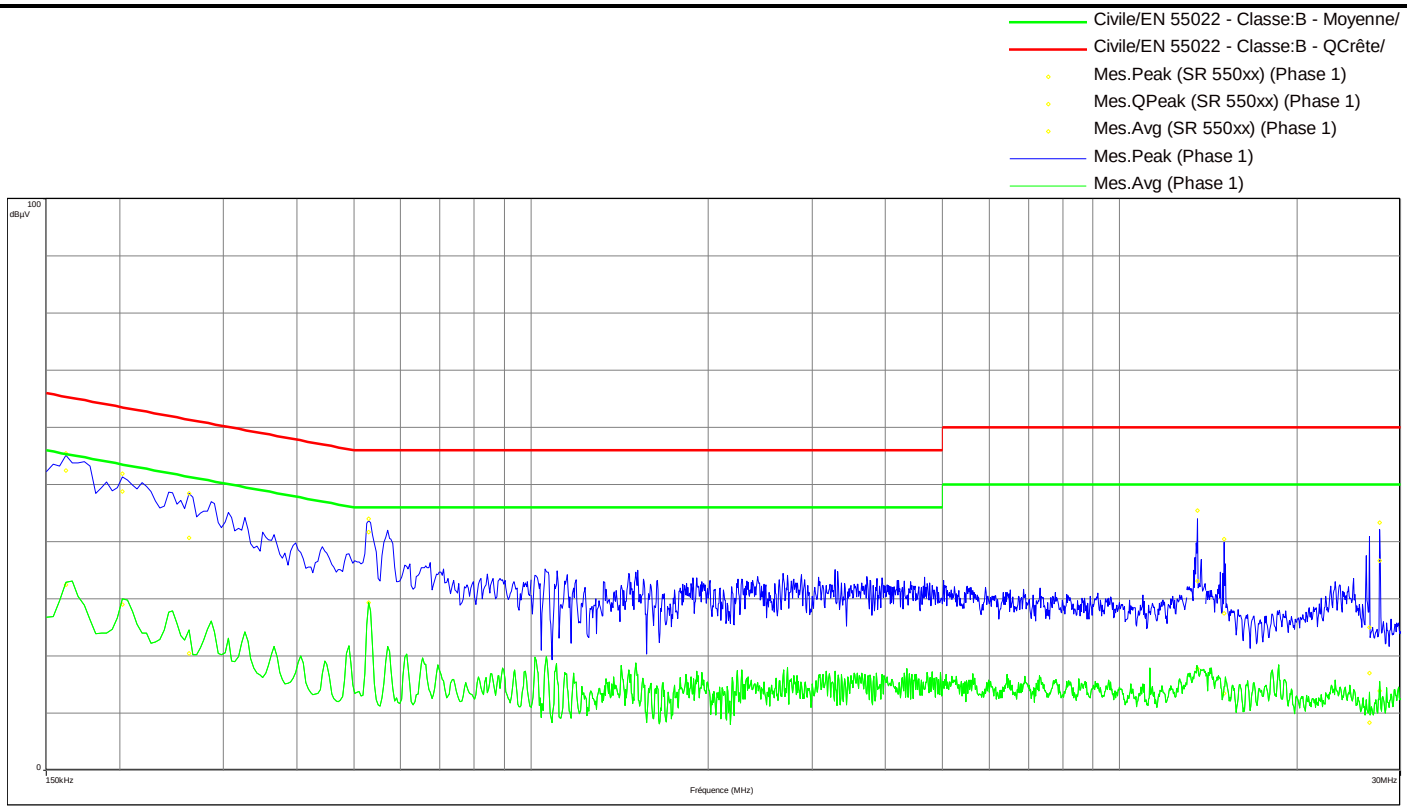
CONDUCTED EMISSIONS			
Graph name:	Emc#1	**Test configuration:**	
Limit:	EN 55022	P Cfg 2 - Alim 1 Direct (110V)	
Class:	B		
Frequency range: [150kHz - 30MHz]			
Voltage / Frequency:	110V/60Hz	**RBW :**	10kHz
Line:	Phase	**VBW :**	30kHz



Frequency (MHz)	Mes.Peak (dBµV)	Mes.QPeak (dBµV)	LimQP (dBµV)	Mes.QPeak-LimQP (dB)	Mes.Avg (dBµV)	LimAvg (dBµV)	Mes.Avg-LimAvg (dB)
0.165	54.24	51.4	65.36	-13.96	32.26	55.36	-23.1
0.177	55.63	47.39	62.74	-15.35	26.1	52.74	-26.64
0.246	49.17	45.97	60.64	-14.67	27.06	50.64	-23.58
0.446	38.52	35.11	56.58	-21.47	18.5	46.58	-28.08
0.614	35.58	32.48	56	-23.52	19.69	46	-26.31
13.56*	81.83	80.95	60	20.95	68.94	50	18.94
27.155	25.71	18.89	60	-41.11	10.5	50	-39.5

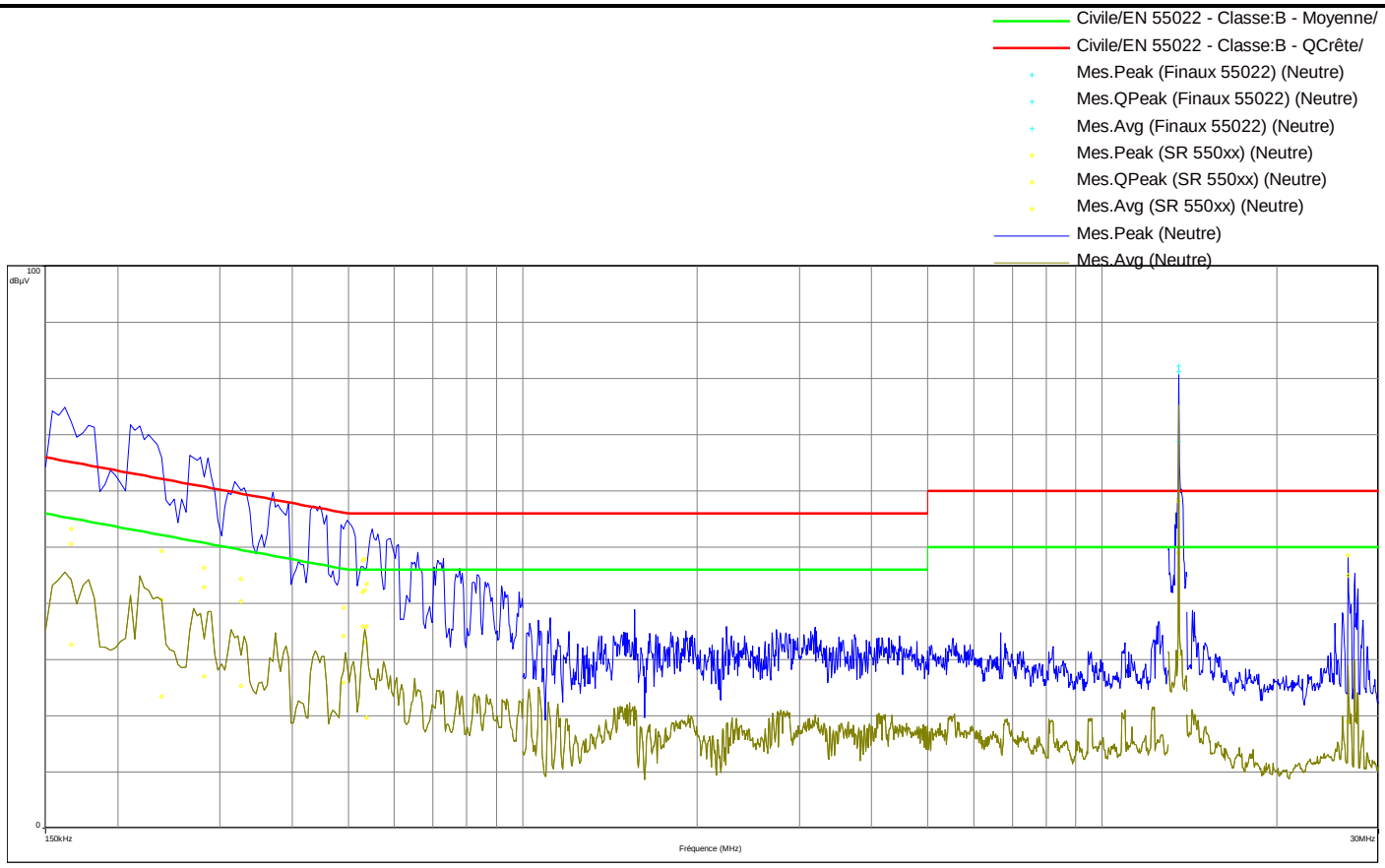
* : Carrier Frequency

CONDUCTED EMISSIONS			
Graph name:	Emc#2	**Test configuration:**	
Limit:	EN 55022	P Cfg 2 - Alim 1 Direct (110V) Dummy Load	
Class:	B		
Frequency range: [150kHz - 30MHz]			
Voltage / Frequency:	110V/60Hz	**RBW :**	10kHz
Line:	Phase	**VBW :**	30kHz



Frequency (MHz)	Mes.Peak (dBµV)	Mes.QPeak (dBµV)	LimQP (dBµV)	Mes.QPeak-LimQP (dB)	Mes.Avg (dBµV)	LimAvg (dBµV)	Mes.Avg-LimAvg (dB)
0.162	55.46	52.39	65.36	-12.97	32.47	55.36	-22.89
0.202	51.92	48.77	63.53	-14.76	28.96	53.53	-24.57
0.262	48.48	40.71	61.37	-20.65	20.46	51.37	-30.9
0.53	43.98	41.61	56	-14.39	29.36	46	-16.64
13.548*	45.41	33.15	60	-26.85	17.76	50	-32.24
15.048	40.44	27.5	60	-32.5	13.48	50	-36.52
26.548	25.02	17.02	60	-42.98	8.3	50	-41.7
27.648	43.32	36.71	60	-23.29	13.84	50	-36.16

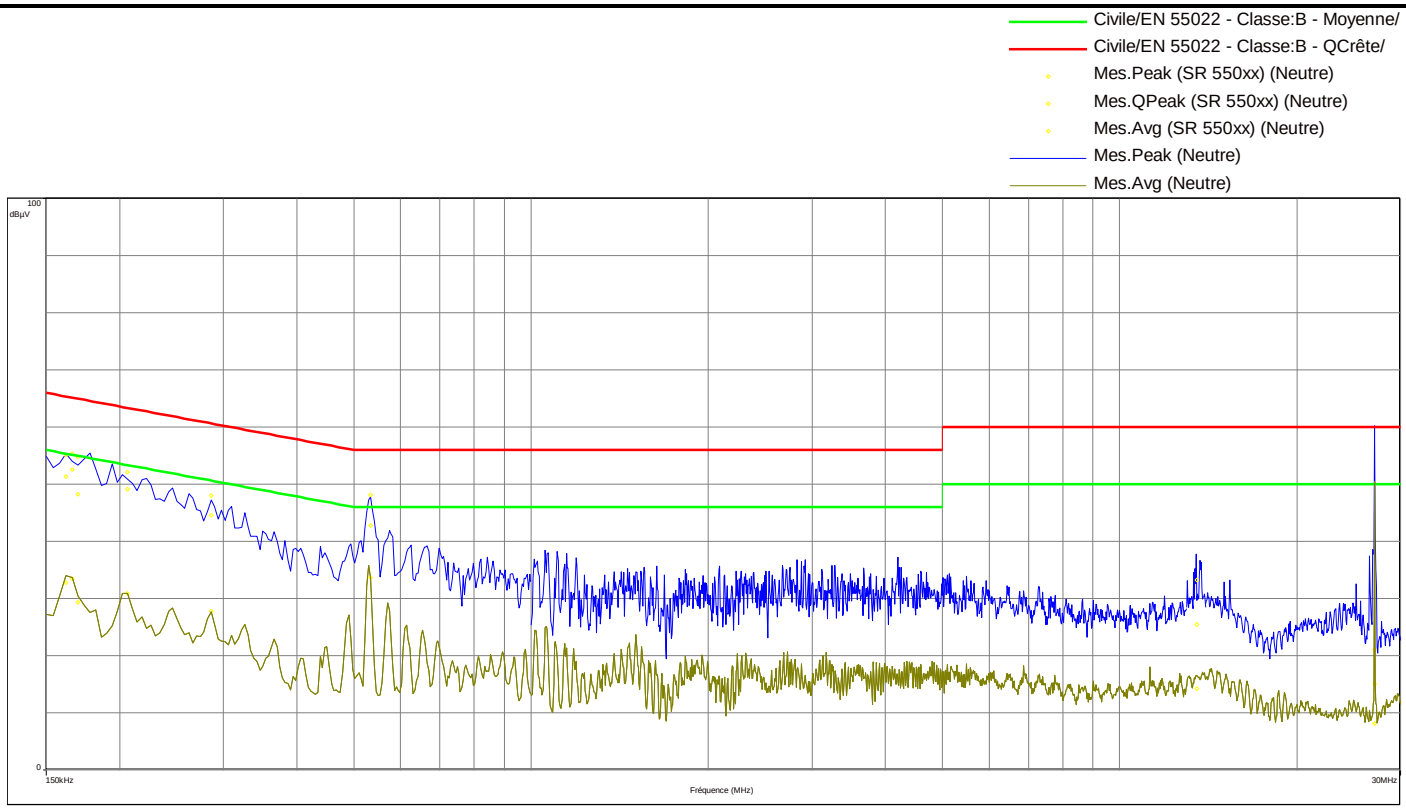
CONDUCTED EMISSIONS			
Graph name:	Emc#3	**Test configuration:**	
Limit:	EN 55022	N Cfg 2 - Alim 1 Direct (110V)	
Class:	B		
Frequency range: [150kHz - 30MHz]			
Voltage / Frequency:	110V/60Hz	**RBW :**	10kHz
Line:	Phase	**VBW :**	30kHz



Frequency (MHz)	Mes.Peak (dBµV)	Mes.QPeak (dBµV)	LimQP (dBµV)	Mes.QPeak-LimQP (dB)	Mes.Avg (dBµV)	LimAvg (dBµV)	Mes.Avg-LimAvg (dB)
0.165	53.27	50.58	63.21	-12.63	32.65	53.21	-20.55
0.236	49.32	40.65	61.24	-20.59	23.44	51.24	-27.8
0.283	46.31	42.93	59.76	-16.83	26.97	49.76	-22.79
0.325	44.34	40.35	58.5	-18.15	25.39	48.5	-23.11
0.491	39.22	34.25	56.95	-22.7	25.86	46.95	-21.09
0.53	47.7	41.97	56	-14.03	35.85	46	-10.15
0.533	47.9	42.33	56.03	-13.7	33.14	46.03	-12.89
0.54	43.5	35.86	56	-20.14	19.68	46	-26.32
13.56*	82.28	81.22	60	21.22	68.82	50	18.82
26.56	48.58	45.04	60	-14.96	18.96	50	-31.04

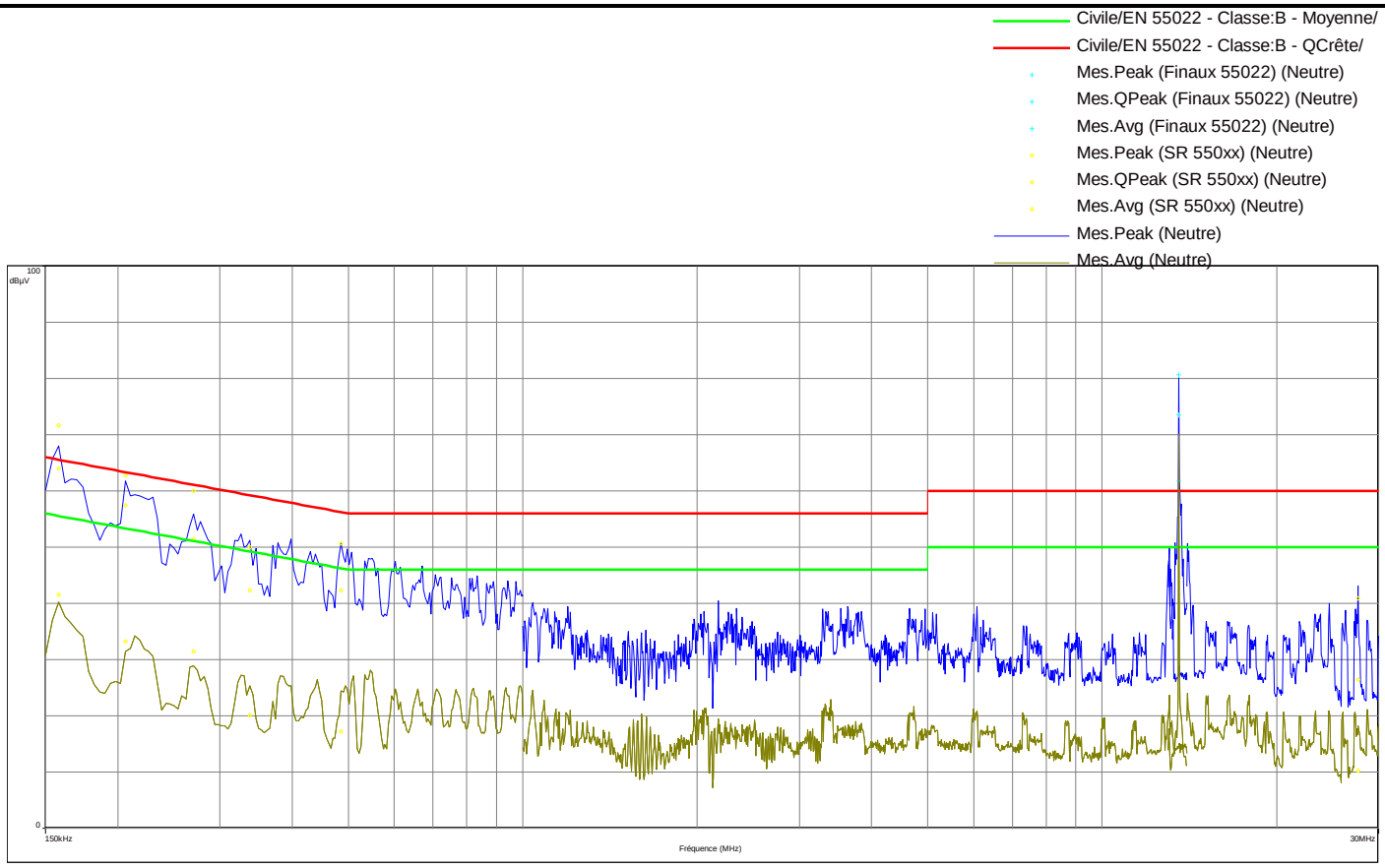
* : Carrier Frequency

CONDUCTED EMISSIONS			
Graph name:	Emc#4	**Test configuration:**	
Limit:	EN 55022	N Cfg 2 - Alim 1 Direct (110V) Dummy load	
Class:	B		
Frequency range: [150kHz - 30MHz]			
Voltage / Frequency:	110V/60Hz	**RBW :**	10kHz
Line:	Phase	**VBW :**	30kHz



Frequency (MHz)	Mes.Peak (dBµV)	Mes.QPeak (dBµV)	LimQP (dBµV)	Mes.QPeak-LimQP (dB)	Mes.Avg (dBµV)	LimAvg (dBµV)	Mes.Avg-LimAvg (dB)
0.16	55.06	51.39	66	-14.61	32.79	56	-23.21
0.165	55.3	52.54	63.86	-11.33	33.49	53.86	-20.38
0.17	54.78	48.21	64.58	-16.36	29.3	54.58	-25.28
0.206	52.08	49.15	61.89	-12.75	30.92	51.89	-20.98
0.286	48.06	44.56	59.55	-15	27.77	49.55	-21.78
0.534	48.13	42.74	56	-13.26	33.71	46	-12.29
13.519*	33.24	25.46	60	-34.54	14.23	50	-35.77
27.09	21.03	15.07	60	-44.93	8.06	50	-41.94

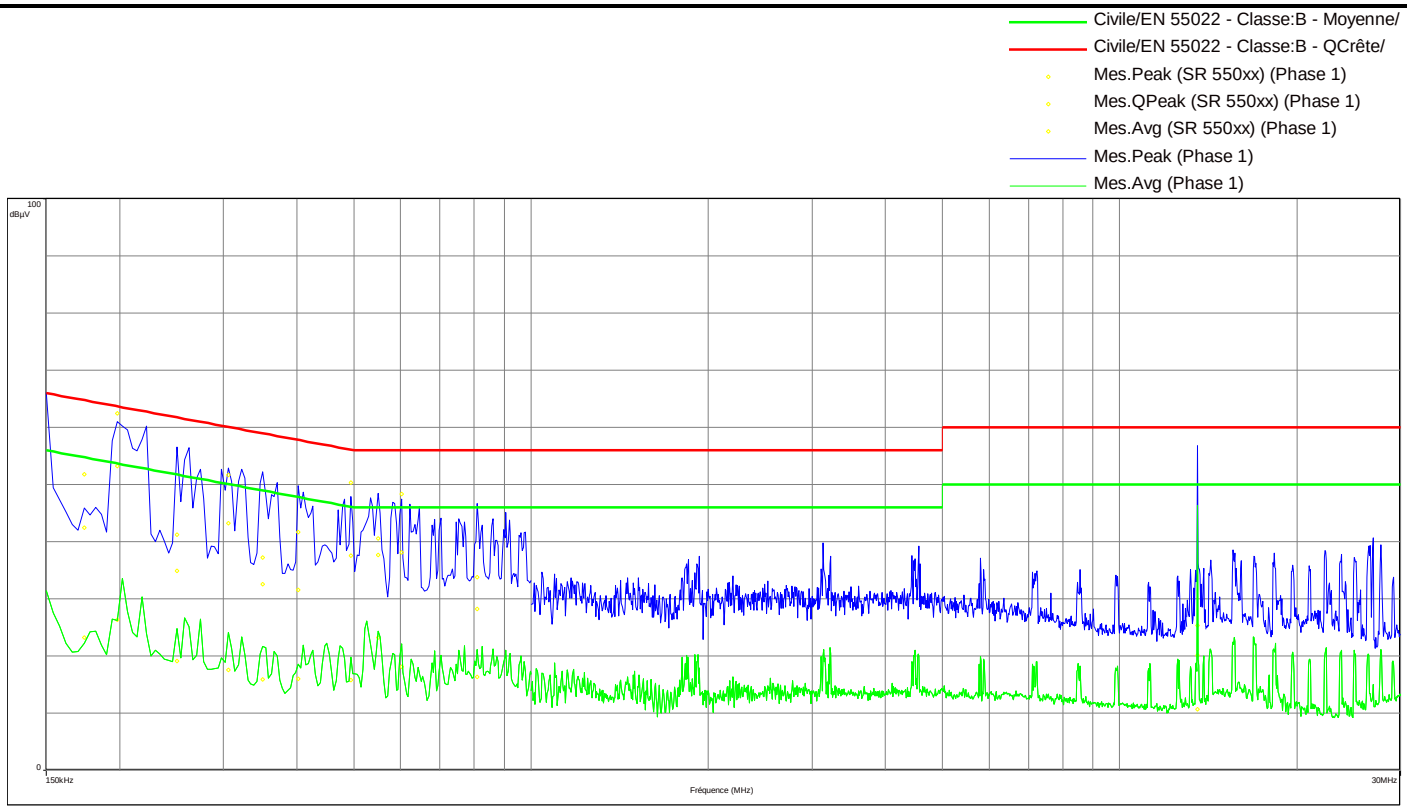
CONDUCTED EMISSIONS			
Graph name:	Emc#5	**Test configuration:**	
Limit:	EN 55022	P Cfg 3 - Alim 2 Direct (110V)	
Class:	B		
Frequency range: [150kHz - 30MHz]			
Voltage / Frequency:	110V/60Hz	**RBW :**	10kHz
Line:	Phase	**VBW :**	30kHz



Frequency (MHz)	Mes.Peak (dBµV)	Mes.QPeak (dBµV)	LimQP (dBµV)	Mes.QPeak-LimQP (dB)	Mes.Avg (dBµV)	LimAvg (dBµV)	Mes.Avg-LimAvg (dB)
0.158	71.69	63.96	65.57	-1.61	41.51	55.57	-14.06
0.206	62.8	57.43	63.37	-5.94	33.26	53.37	-20.1
0.27	60	51.46	61.12	-9.65	31.43	51.12	-19.69
0.338	49.97	42.32	59.25	-16.93	20.06	49.25	-29.19
0.486	50.62	42.32	56.24	-13.92	17.24	46.24	-29
13.56*	80.69	73.55	60	13.55	61.79	50	11.79
27.656	40.88	26.46	60	-33.54	10.23	50	-39.77

* : Carrier Frequency

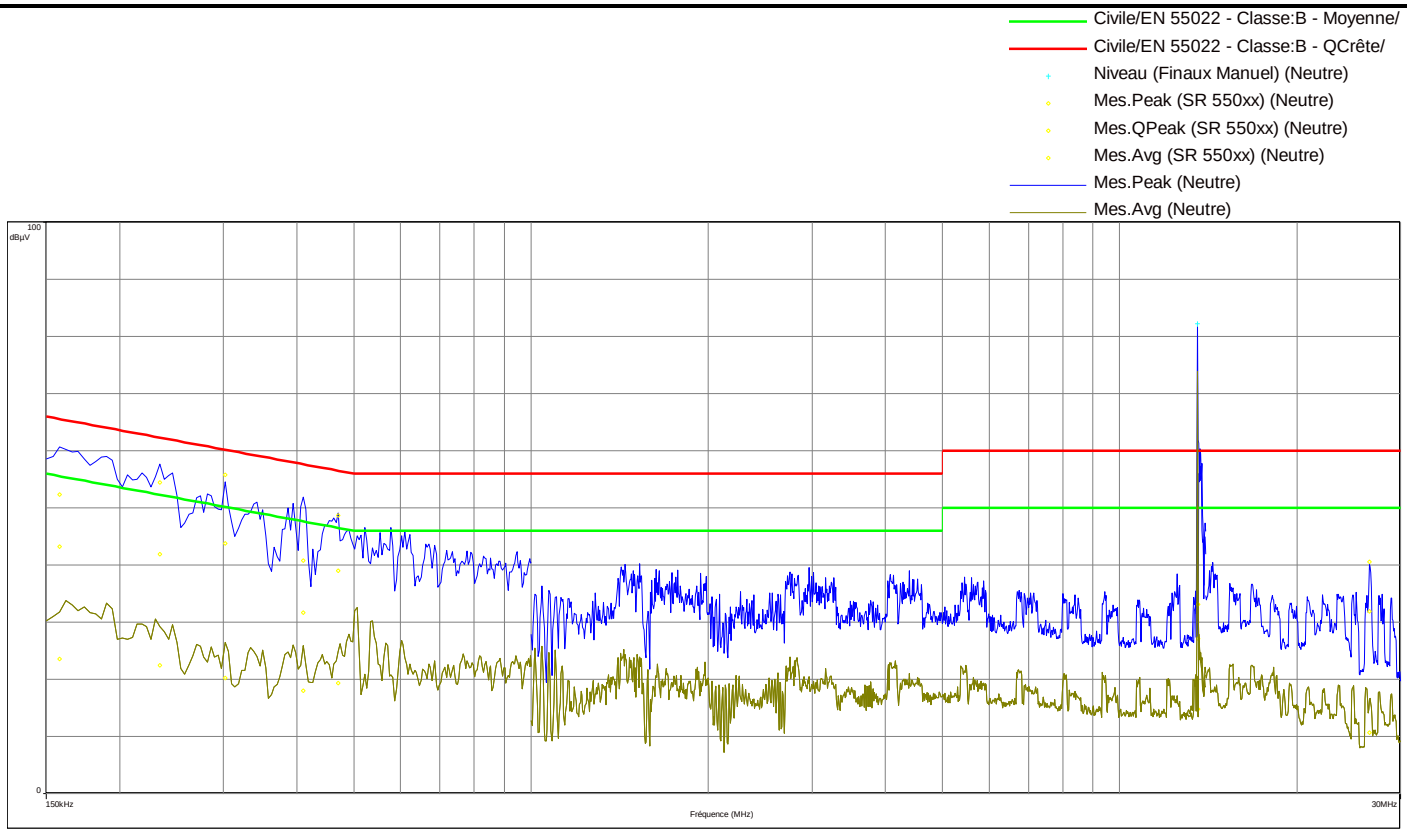
CONDUCTED EMISSIONS			
Graph name:	Emc#6	**Test configuration:**	
Limit:	EN 55022	P Cfg 3 - Alim 2 Direct (110V) Dummy Load	
Class:	B		
Frequency range: [150kHz - 30MHz]			
Voltage / Frequency:	110V/60Hz	**RBW :**	10kHz
Line:	Phase	**VBW :**	30kHz



Frequency (MHz)	Mes.Peak (dBµV)	Mes.QPeak (dBµV)	LimQP (dBµV)	Mes.QPeak-LimQP (dB)	Mes.Avg (dBµV)	LimAvg (dBµV)	Mes.Avg-LimAvg (dB)
0.174	51.81	42.45	64.77	-22.31	23.19	54.77	-31.58
0.198	62.43	53.27	63.69	-10.42	26.34	53.69	-27.35
0.25	41.23	34.88	61.76	-26.88	19.09	51.76	-32.66
0.306	51.7	43.18	60.08	-16.89	17.57	50.08	-32.51
0.35	37.24	32.58	58.96	-26.38	15.91	48.96	-33.06
0.402	41.69	31.53	57.81	-26.28	16.04	47.81	-31.77
0.494	50.29	37.59	56.1	-18.51	15.78	46.1	-30.32
0.55	40.53	37.67	56	-18.33	23.21	46	-22.79
0.602	48.34	38.09	56	-17.91	18.13	46	-27.87
0.81	33.79	28.26	56	-27.74	16.34	46	-29.66
13.56*	25.3	20.12	60	-39.88	10.63	50	-39.37

* : Carrier Frequency

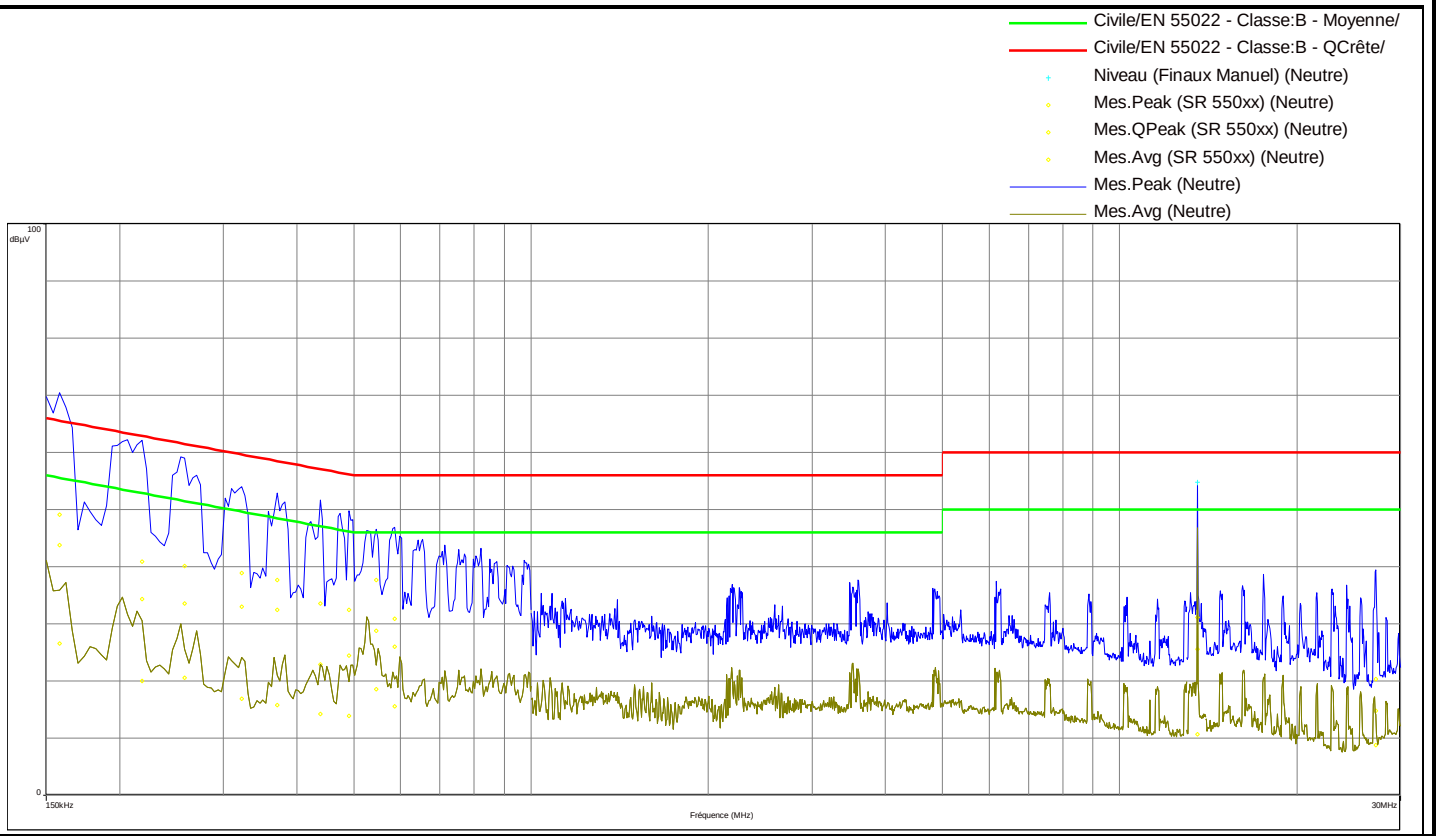
CONDUCTED EMISSIONS			
Graph name:	Emc#7	**Test configuration:**	
Limit:	EN 55022	N Cfg 3 - Alim 2 Direct (110V)	
Class:	B		
Frequency range: [150kHz - 30MHz]			
Voltage / Frequency:	110V/60Hz	**RBW :**	10kHz
Line:	Phase	**VBW :**	30kHz



Frequency (MHz)	Mes.Peak (dBµV)	Mes.QPeak (dBµV)	LimQP (dBµV)	Mes.QPeak-LimQP (dB)	Mes.Avg (dBµV)	LimAvg (dBµV)	Mes.Avg-LimAvg (dB)
0.158	52.38	43.21	65.57	-22.36	23.55	55.57	-32.01
0.234	54.48	41.9	62.31	-20.4	22.4	52.31	-29.91
0.302	55.77	43.73	60.19	-16.46	20.27	50.19	-29.92
0.41	40.82	31.72	57.65	-25.92	17.98	47.65	-29.67
0.47	48.65	39.04	56.51	-17.48	19.3	46.51	-27.21
13.57*	33.12	27.06	60	-32.94	14.78	50	-35.22
13.56	82.18						
26.572	40.59	31.86	60	-28.14	10.62	50	-39.38

* : Carrier Frequency

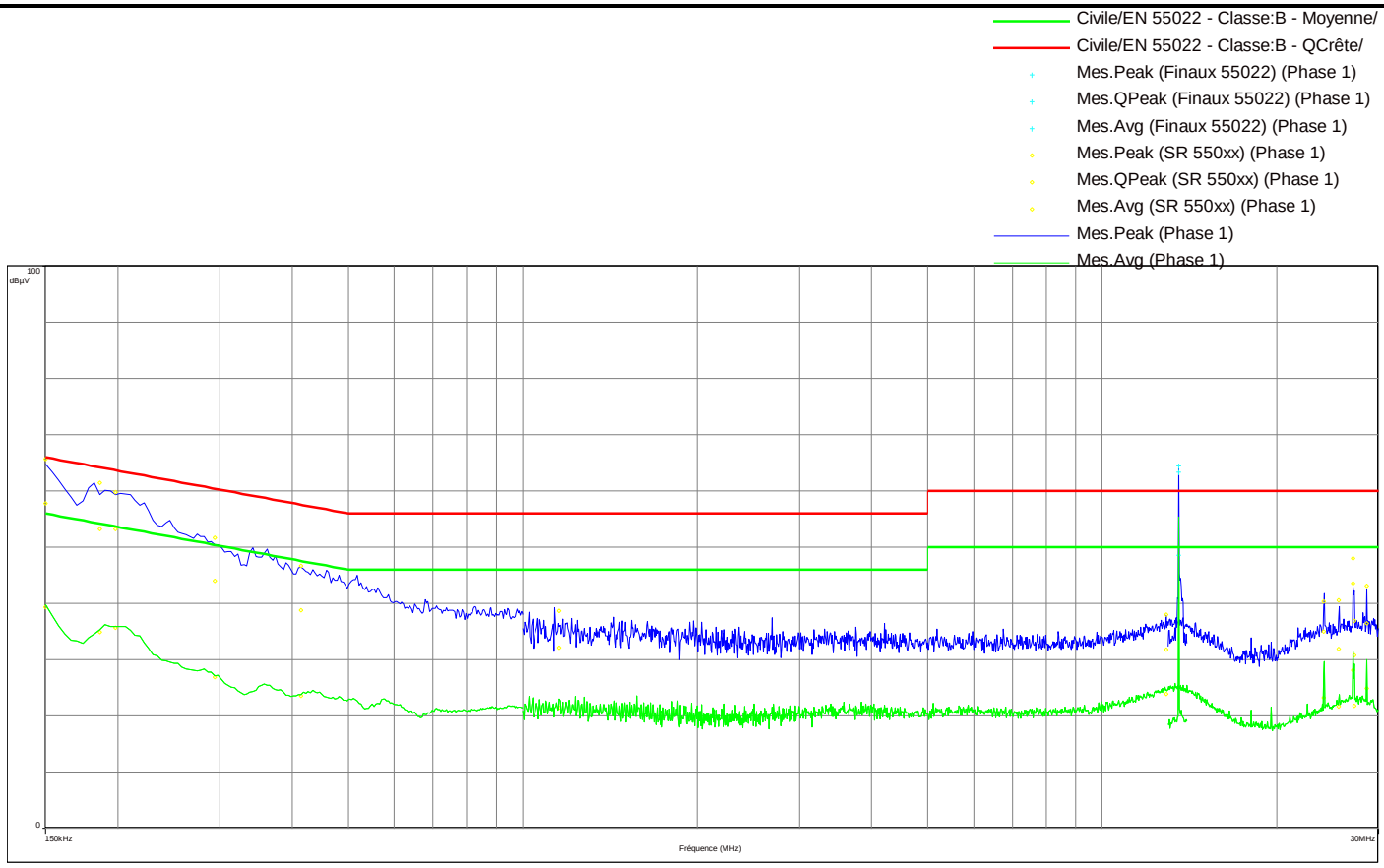
CONDUCTED EMISSIONS			
Graph name:	Emc#8	**Test configuration:**	
Limit:	EN 55022	N Cfg 3 - Alim 2 Direct (110V) Dummy load	
Class:	B		
Frequency range: [150kHz - 30MHz]			
Voltage / Frequency:	110V/60Hz	**RBW :**	10kHz
Line:	Phase	**VBW :**	30kHz



Frequency (MHz)	Mes.Peak (dBµV)	Mes.QPeak (dBµV)	LimQP (dBµV)	Mes.QPeak-LimQP (dB)	Mes.Avg (dBµV)	LimAvg (dBµV)	Mes.Avg-LimAvg (dB)
0.158	49.11	43.82	65.57	-21.75	26.5	55.57	-29.06
0.218	40.89	34.33	62.89	-28.56	20.04	52.89	-32.85
0.258	40.07	33.55	61.5	-27.95	20.51	51.5	-30.99
0.322	38.89	33	59.66	-26.66	16.88	49.66	-32.78
0.37	37.62	32.41	58.5	-26.09	15.77	48.5	-32.74
0.438	33.53	22.92	57.1	-34.18	14.18	47.1	-32.92
0.49	32.49	24.44	56.17	-31.73	13.87	46.17	-32.29
0.546	37.7	28.73	56	-27.27	18.53	46	-27.47
0.586	30.91	26.01	56	-29.99	15.61	46	-30.39
13.56*	25.53 (54.75)	31.12	60	-28.88	10.65	50	-39.35
27.204	20.34	14.75	60	-45.25	8.75	50	-41.25

* : Carrier Frequency

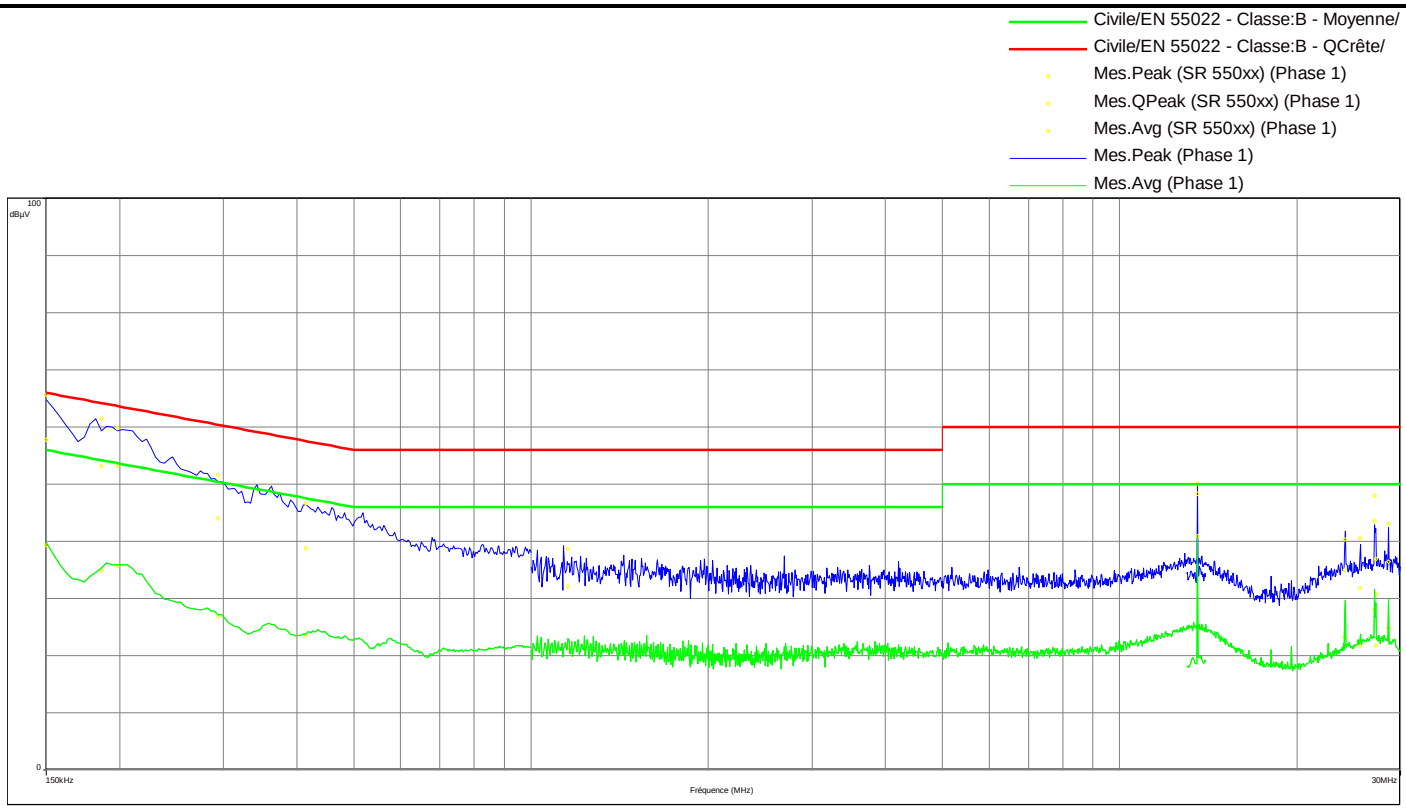
CONDUCTED EMISSIONS			
Graph name:	Emc#9	**Test configuration:**	
Limit:	EN 55022	P Cfg 4 - Alim 1 & base (110V)	
Class:	B		
Frequency range: [150kHz - 30MHz]			
Voltage / Frequency:	110V/60Hz	**RBW :**	10kHz
Line:	Phase	**VBW :**	30kHz



Frequency (MHz)	Mes.Peak (dBµV)	Mes.QPeak (dBµV)	LimQP (dBµV)	Mes.QPeak-LimQP (dB)	Mes.Avg (dBµV)	LimAvg (dBµV)	Mes.Avg-LimAvg (dB)
0.15	65.65	57.81	64.39	-6.58	39.36	54.39	-15.03
0.196	59.82	53.27	61.89	-8.62	35.64	51.89	-16.26
0.292	51.64	44.05	59.15	-15.1	26.89	49.15	-22.27
0.413	46.63	38.77	56.73	-17.96	23.57	46.73	-23.15
1.156	38.66	32.09	56	-23.91	21.49	46	-24.51
12.907	38.01	31.82	60	-28.18	23.94	50	-26.06
13.56*	64.39	63.32	60	3.32	48.57	50	-1.43
25.598	40.54	31.94	60	-28.06	21.7	50	-28.3
27.118	43.54	47.97	60	-12.03	28.15	50	-21.85
27.246	36.87	30.78	60	-29.22	21.79	50	-28.21
28.639	43.13	36.4	60	-23.6	24.85	50	-25.15

* : Carrier Frequency

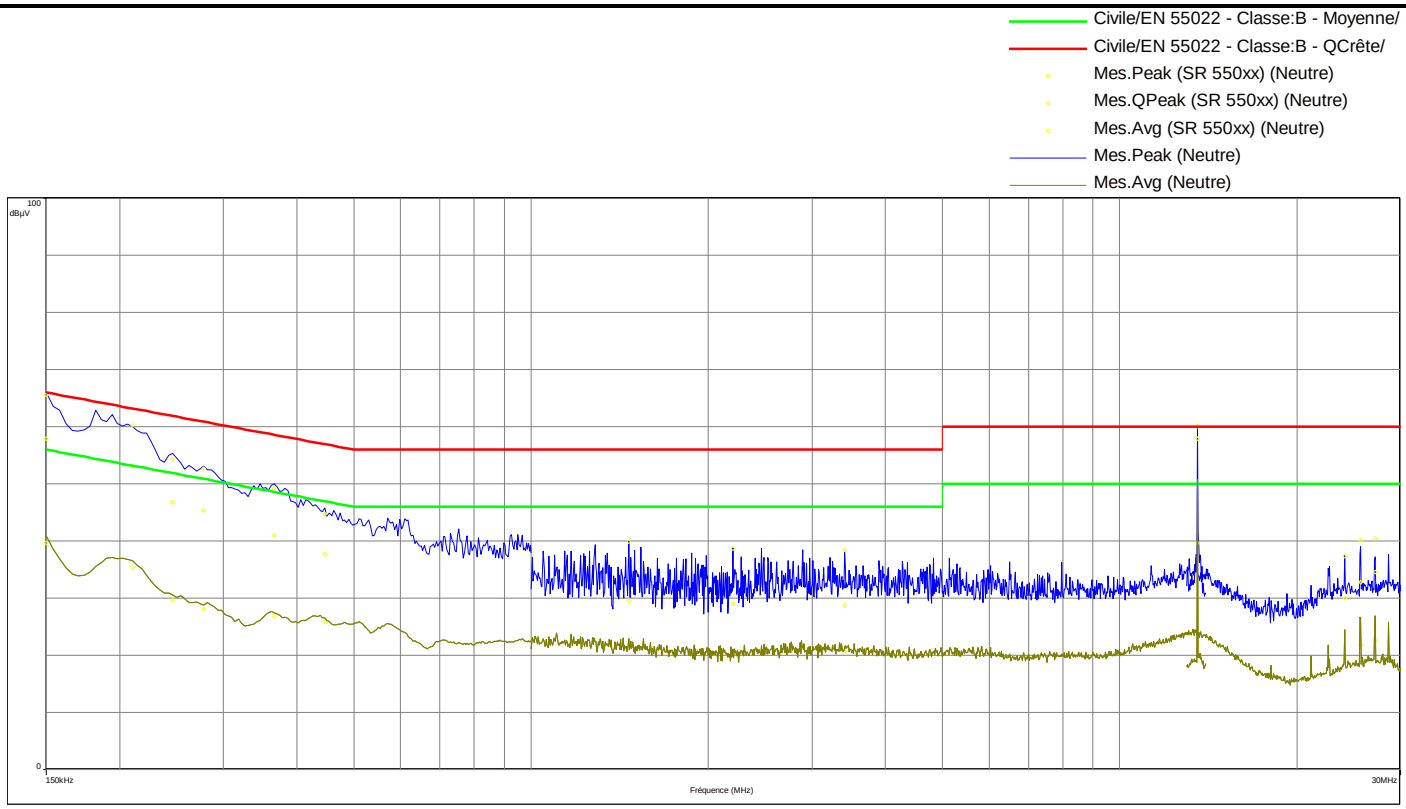
CONDUCTED EMISSIONS			
Graph name:	Emc#10	**Test configuration:**	
Limit:	EN 55022	P Cfg 4 - Alim 1 & base (110V) Dummy load	
Class:	B		
Frequency range: [150kHz - 30MHz]			
Voltage / Frequency:	110V/60Hz	**RBW :**	10kHz
Line:	Phase	**VBW :**	30kHz



Frequency (MHz)	Mes.Peak (dBµV)	Mes.QPeak (dBµV)	LimQP (dBµV)	Mes.QPeak-LimQP (dB)	Mes.Avg (dBµV)	LimAvg (dBµV)	Mes.Avg-LimAvg (dB)
0.15	65.65	57.81	64.39	-6.58	39.36	54.39	-15.03
0.185	61.42	53.2	63.21	-10.01	34.91	53.21	-18.3
0.196	59.82	53.27	61.89	-8.62	35.64	51.89	-16.26
0.292	51.64	44.05	59.15	-15.1	26.89	49.15	-22.27
0.413	46.63	38.77	56.73	-17.96	23.57	46.73	-23.15
1.156	38.66	32.09	56	-23.91	21.49	46	-24.51
24.109	40.33	35.03	60	-24.97	23.27	50	-26.73
25.598	40.54	31.94	60	-28.06	21.7	50	-28.3
27.118	43.54	47.97	60	-12.03	28.15	50	-21.85
27.246	36.87	30.78	60	-29.22	21.79	50	-28.21
28.639	43.13	36.4	60	-23.6	24.85	50	-25.15
13.56*	50.15	48.3	60	-11.7	40.9	50	-9.1

* : Carrier Frequency

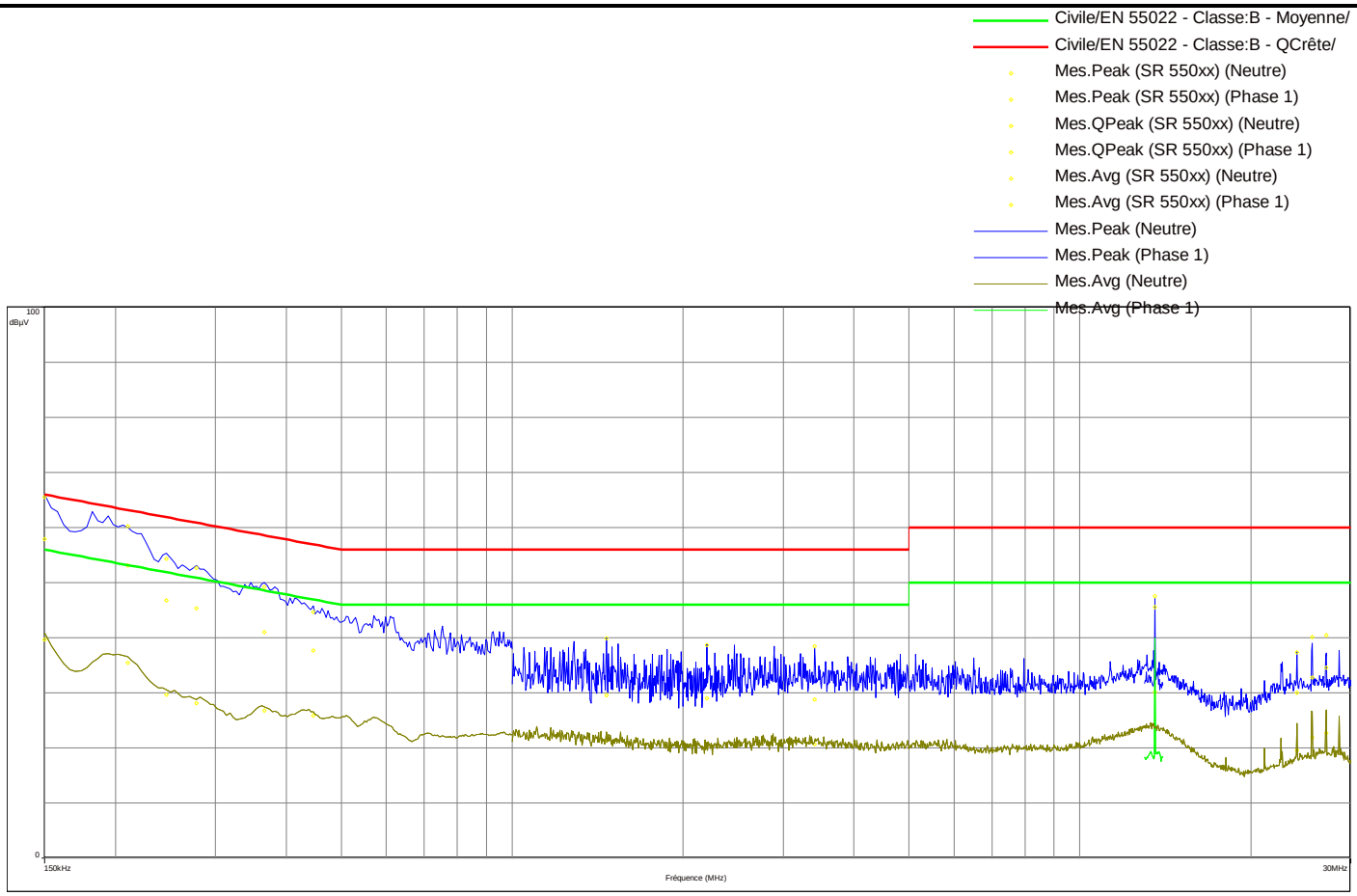
CONDUCTED EMISSIONS			
Graph name:	Emc#11	**Test configuration:**	
Limit:	EN 55022	N Cfg 4 - Alim 1 & base (110V)	
Class:	B		
Frequency range: [150kHz - 30MHz]			
Voltage / Frequency:	110V/60Hz	**RBW :**	10kHz
Line:	Phase	**VBW :**	30kHz



Frequency (MHz)	Mes.Peak (dBµV)	Mes.QPeak (dBµV)	LimQP (dBµV)	Mes.QPeak-LimQP (dB)	Mes.Avg (dBµV)	LimAvg (dBµV)	Mes.Avg-LimAvg (dB)
0.15	65.54	57.92	63.86	-5.94	39.63	53.86	-14.24
0.21	60.2	53.14	63.21	-10.07	35.42	53.21	-17.79
0.246	54.31	46.75	61.89	-15.14	29.64	51.89	-22.25
0.278	52.64	45.29	60.88	-15.59	28.11	50.88	-22.76
0.366	49.25	41.05	58.59	-17.54	26.82	48.59	-21.77
0.446	44.71	37.63	56.95	-19.32	25.94	46.95	-21.01
1.464	39.86	29.59	56	-26.41	21.37	46	-24.63
2.204	38.62	29.06	56	-26.94	20.44	46	-25.56
3.412	38.49	28.76	56	-27.24	20.67	46	-25.33
24.124	37.31	29.98	60	-30.02	19.58	50	-30.42
25.628	40.12	32.74	60	-27.26	21.88	50	-28.12
27.132	40.48	34.61	60	-25.39	22.68	50	-27.32
13.56*	60.08	57.87	60	-2.13	39.69	50	-10.31

* : Carrier Frequency

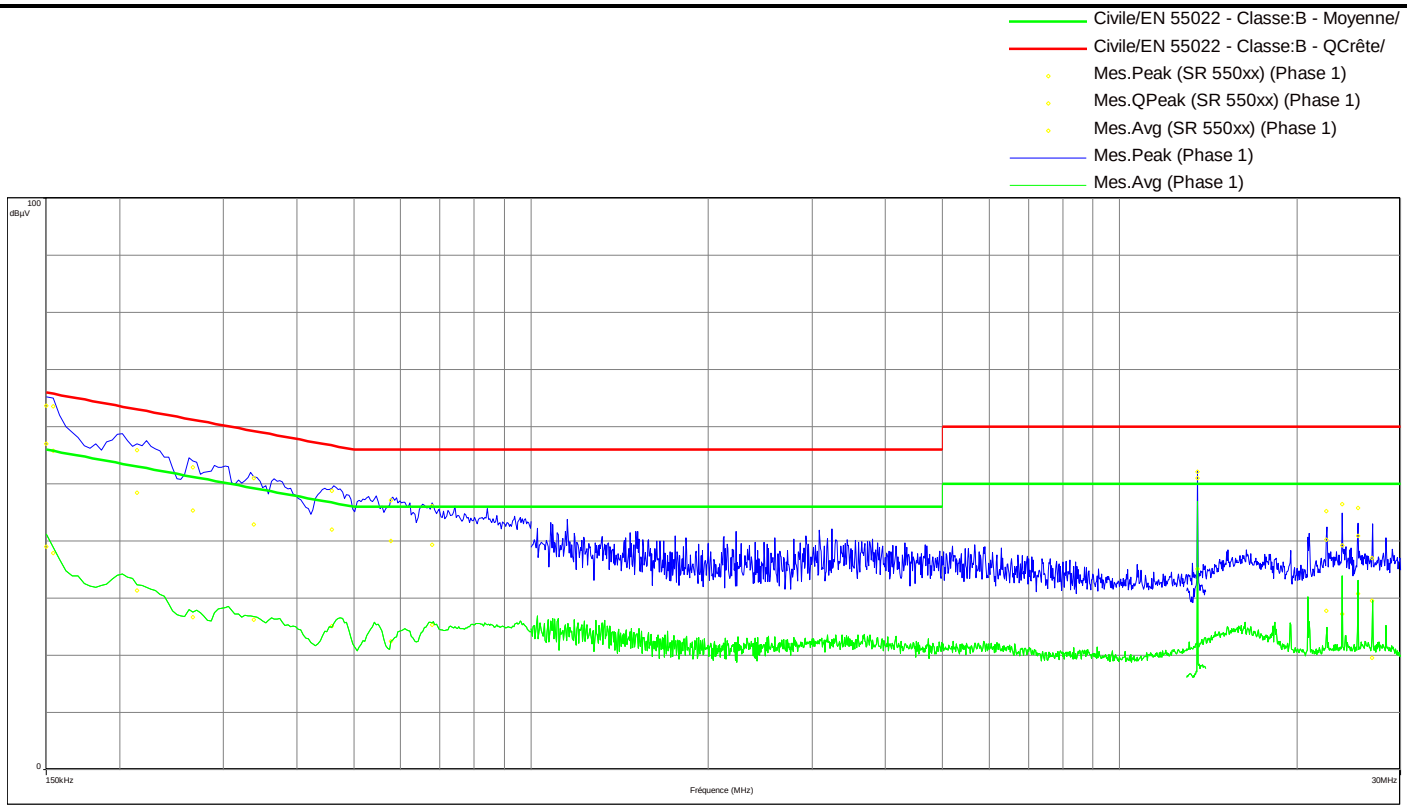
CONDUCTED EMISSIONS			
Graph name:	Emc#12	**Test configuration:**	
Limit:	EN 55022	N Cfg 4 - Alim 1 & base (110V) Dummy load	
Class:	B		
Frequency range: [150kHz - 30MHz]			
Voltage / Frequency:	110V/60Hz	**RBW :**	10kHz
Line:	Phase	**VBW :**	30kHz



Frequency (MHz)	Mes.Peak (dBµV)	Mes.QPeak (dBµV)	LimQP (dBµV)	Mes.QPeak-LimQP (dB)	Mes.Avg (dBµV)	LimAvg (dBµV)	Mes.Avg-LimAvg (dB)
0.15	65.54	57.92	63.86	-5.94	39.63	53.86	-14.24
0.21	60.2	53.14	63.21	-10.07	35.42	53.21	-17.79
0.246	54.31	46.75	61.89	-15.14	29.64	51.89	-22.25
0.278	52.64	45.29	60.88	-15.59	28.11	50.88	-22.76
0.366	49.25	41.05	58.59	-17.54	26.82	48.59	-21.77
0.446	44.71	37.63	56.95	-19.32	25.94	46.95	-21.01
1.464	39.86	29.59	56	-26.41	21.37	46	-24.63
2.204	38.62	29.06	56	-26.94	20.44	46	-25.56
3.412	38.49	28.76	56	-27.24	20.67	46	-25.33
24.124	37.31	29.98	60	-30.02	19.58	50	-30.42
25.628	40.12	32.74	60	-27.26	21.88	50	-28.12
27.132	40.48	34.61	60	-25.39	22.68	50	-27.32
13.56*	47.6	45.53	60	-14.47	30.12	50	-19.88

* : Carrier Frequency

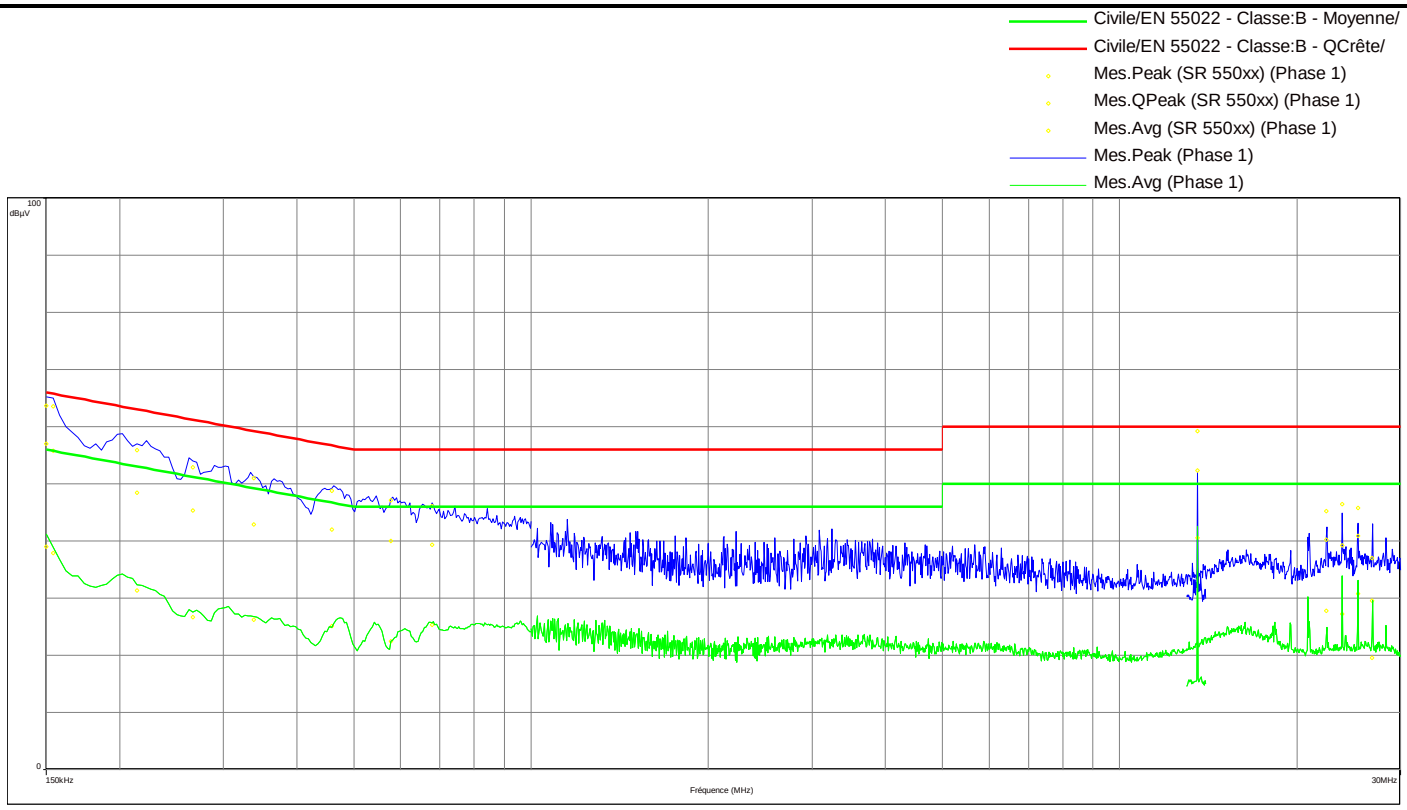
CONDUCTED EMISSIONS			
Graph name:	Emc#13	**Test configuration:**	
Limit:	EN 55022	P Cfg 5 - Alim 2 & base (110V)	
Class:	B		
Frequency range: [150kHz - 30MHz]			
Voltage / Frequency:	110V/60Hz	**RBW :**	10kHz
Line:	Phase	**VBW :**	30kHz



Frequency (MHz)	Mes.Peak (dBµV)	Mes.QPeak (dBµV)	LimQP (dBµV)	Mes.QPeak-LimQP (dB)	Mes.Avg (dBµV)	LimAvg (dBµV)	Mes.Avg-LimAvg (dB)
0.15	63.67	56.97	66	-9.03	39.02	56	-16.98
0.152	63.58	55.79	63.53	-7.73	37.87	53.53	-15.65
0.212	55.86	48.48	61.37	-12.89	31.37	51.37	-20
0.266	52.91	45.3	60.08	-14.78	26.71	50.08	-23.37
0.336	50.97	42.86	58.59	-15.73	26.2	48.59	-22.39
0.457	48.78	42.03	56.66	-14.63	25.09	46.66	-21.57
0.576	47.08	40.05	56	-15.95	22.43	46	-23.57
0.678	46.17	39.3	56	-16.7	25.38	46	-20.62
22.449	45.19	40.21	60	-19.79	27.8	50	-22.2
23.884	46.41	39.19	60	-20.81	27.18	50	-22.82
25.387	45.78	40.91	60	-19.09	30.82	50	-19.18
26.819	37.06	29.56	60	-30.44	19.53	50	-30.47
13.56*	52.13	51	60	-9	35.14	50	-14.86

* : Carrier Frequency

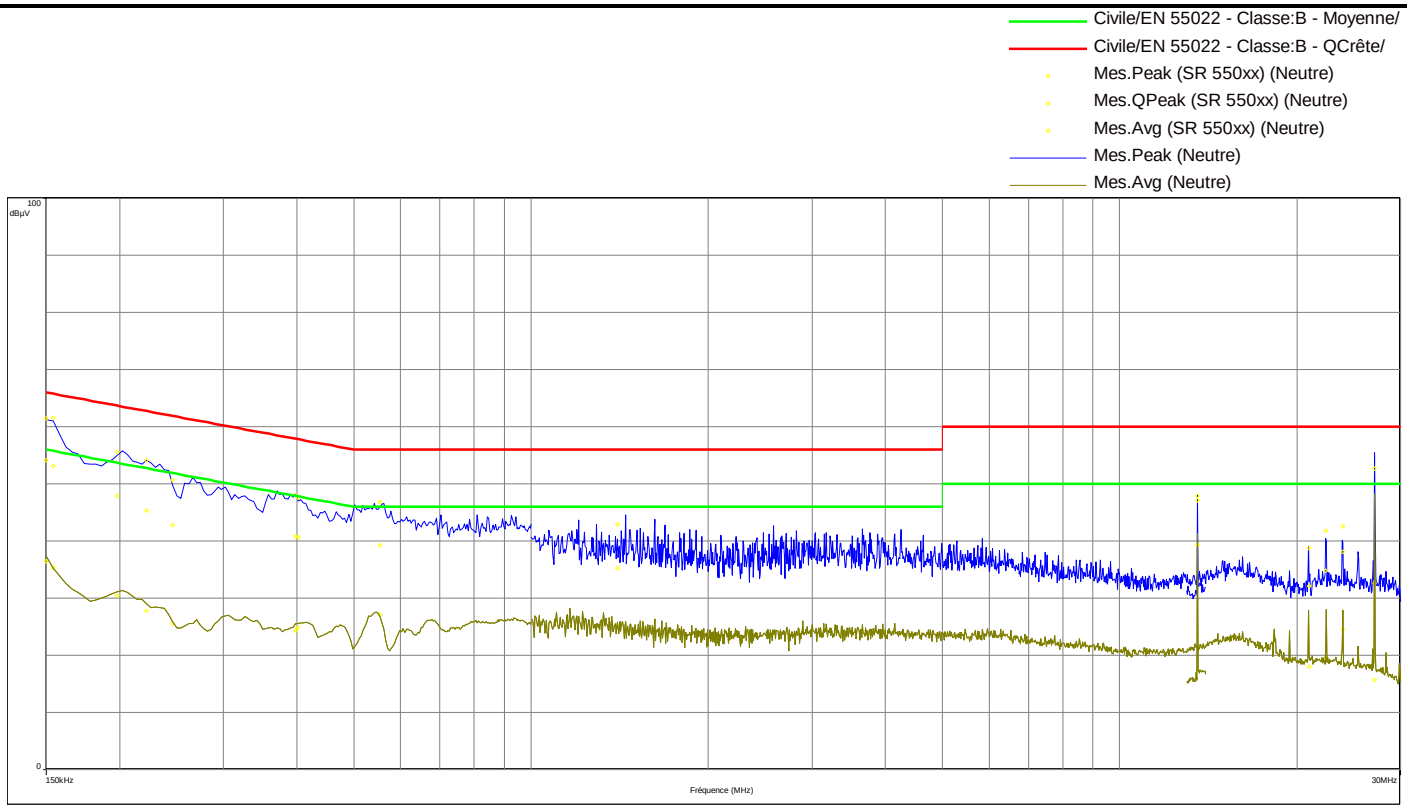
CONDUCTED EMISSIONS			
Graph name:	Emc#14	**Test configuration:**	
Limit:	EN 55022	P Cfg 5 - Alim 2 & base (110V) Dummy load	
Class:	B		
Frequency range: [150kHz - 30MHz]			
Voltage / Frequency:	110V/60Hz	**RBW :**	10kHz
Line:	Phase	**VBW :**	30kHz



Frequency (MHz)	Mes.Peak (dBµV)	Mes.QPeak (dBµV)	LimQP (dBµV)	Mes.QPeak-LimQP (dB)	Mes.Avg (dBµV)	LimAvg (dBµV)	Mes.Avg-LimAvg (dB)
0.15	63.67	56.97	66	-9.03	39.02	56	-16.98
0.152	63.58	55.79	63.53	-7.73	37.87	53.53	-15.65
0.212	55.86	48.48	61.37	-12.89	31.37	51.37	-20
0.266	52.91	45.3	60.08	-14.78	26.71	50.08	-23.37
0.336	50.97	42.86	58.59	-15.73	26.2	48.59	-22.39
0.457	48.78	42.03	56.66	-14.63	25.09	46.66	-21.57
0.576	47.08	40.05	56	-15.95	22.43	46	-23.57
0.678	46.17	39.3	56	-16.7	25.38	46	-20.62
22.449	45.19	40.21	60	-19.79	27.8	50	-22.2
23.884	46.41	39.19	60	-20.81	27.18	50	-22.82
25.387	45.78	40.91	60	-19.09	30.82	50	-19.18
26.819	37.06	29.56	60	-30.44	19.53	50	-30.47
13.56*	59.24	52.37	60	-7.63	40.59	50	-9.41

* : Carrier Frequency

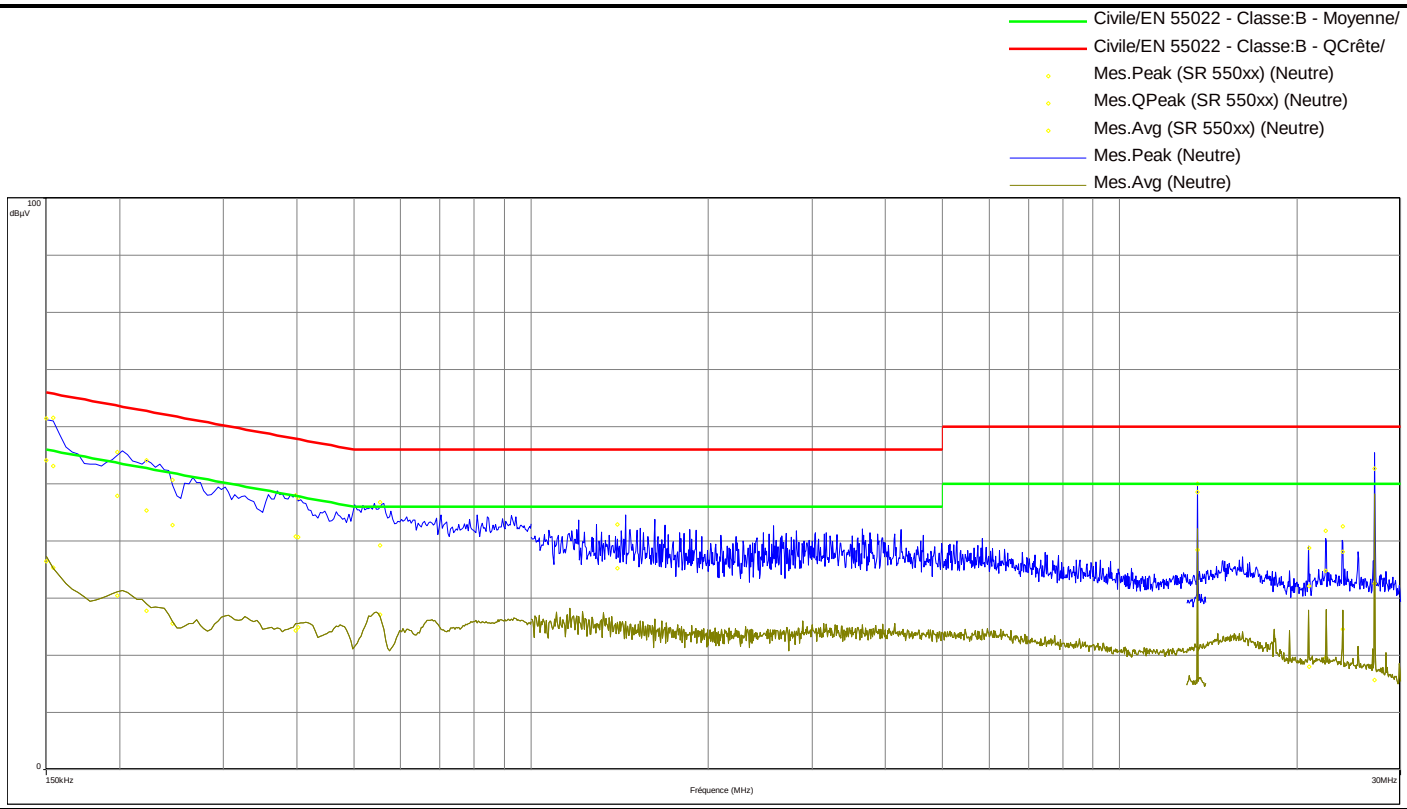
CONDUCTED EMISSIONS			
Graph name:	Emc#15	**Test configuration:**	
Limit:	EN 55022	N Cfg 5 - Alim 2 & base (110V)	
Class:	B		
Frequency range: [150kHz - 30MHz]			
Voltage / Frequency:	110V/60Hz	**RBW :**	10kHz
Line:	Phase	**VBW :**	30kHz



Frequency (MHz)	Mes.Peak (dBµV)	Mes.QPeak (dBµV)	LimQP (dBµV)	Mes.QPeak-LimQP (dB)	Mes.Avg (dBµV)	LimAvg (dBµV)	Mes.Avg-LimAvg (dB)
0.15	61.49	54.09	65.78	-11.69	36.5	55.78	-19.28
0.152	61.52	53.16	63.53	-10.36	35.39	53.53	-18.14
0.199	55.57	47.89	62.31	-14.41	30.46	52.31	-21.85
0.221	54.09	45.38	61.24	-15.86	27.74	51.24	-23.5
0.244	50.65	42.74	60.41	-17.67	25.52	50.41	-24.89
0.396	47.97	40.74	56.95	-16.21	24.35	46.95	-22.59
0.4	47.58	40.62	58.5	-17.88	24.95	48.5	-23.55
0.552	46.78	39.26	56	-16.74	27.14	46	-18.86
1.398	42.84	35.18	56	-20.82	25.07	46	-20.93
20.97	38.78	32.14	60	-27.86	18.01	50	-31.99
22.406	41.8	34.81	60	-25.19	19.53	50	-30.47
23.906	42.55	38.14	60	-21.86	24.59	50	-25.41
27.117	32.56	52.64	60	-7.36	15.66	50	-34.34
13.56*	47.94	47.16	60	-12.84	39.33	50	-10.67

* : Carrier Frequency

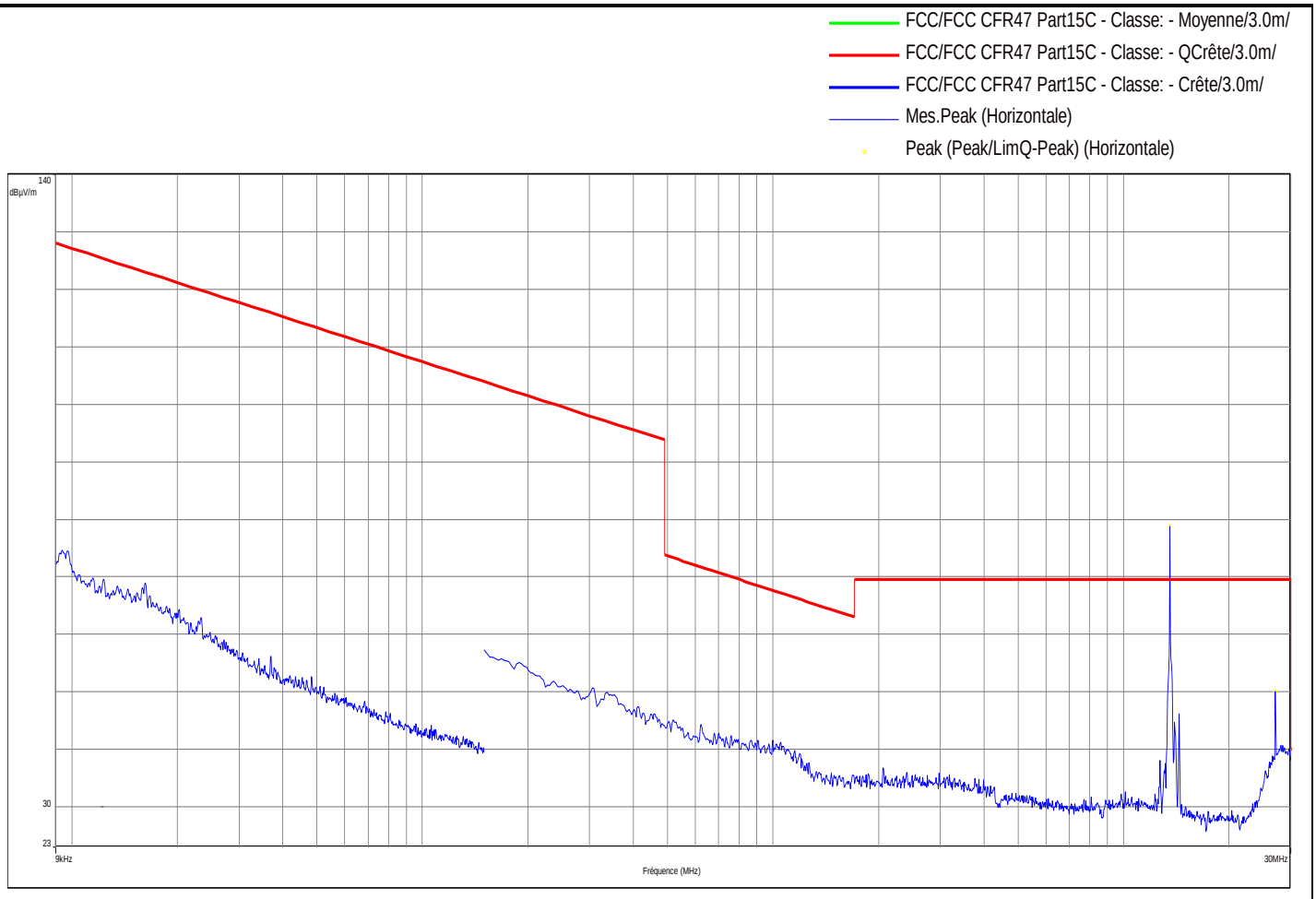
CONDUCTED EMISSIONS			
Graph name:	Emc#16	**Test configuration:**	
Limit:	EN 55022	N Cfg 5 - Alim 2 & base (110V) Dummy load	
Class:	B		
Frequency range: [150kHz - 30MHz]			
Voltage / Frequency:	110V/60Hz	**RBW :**	10kHz
Line:	Phase	**VBW :**	30kHz



Frequency (MHz)	Mes.Peak (dBµV)	Mes.QPeak (dBµV)	LimQP (dBµV)	Mes.QPeak-LimQP (dB)	Mes.Avg (dBµV)	LimAvg (dBµV)	Mes.Avg-LimAvg (dB)
0.15	61.49	54.09	65.78	-11.69	36.5	55.78	-19.28
0.152	61.52	53.16	63.53	-10.36	35.39	53.53	-18.14
0.199	55.57	47.89	62.31	-14.41	30.46	52.31	-21.85
0.221	54.09	45.38	61.24	-15.86	27.74	51.24	-23.5
0.244	50.65	42.74	60.41	-17.67	25.52	50.41	-24.89
0.396	47.97	40.74	56.95	-16.21	24.35	46.95	-22.59
0.4	47.58	40.62	58.5	-17.88	24.95	48.5	-23.55
0.552	46.78	39.26	56	-16.74	27.14	46	-18.86
1.398	42.84	35.18	56	-20.82	25.07	46	-20.93
13.56*	49.96	48.52	60	-11.48	38.44	50	-11.56
20.97	38.78	32.14	60	-27.86	18.01	50	-31.99
22.406	41.8	34.81	60	-25.19	19.53	50	-30.47
23.906	42.55	38.14	60	-21.86	24.59	50	-25.41
27.117	32.56	52.64	60	-7.36	15.66	50	-34.34

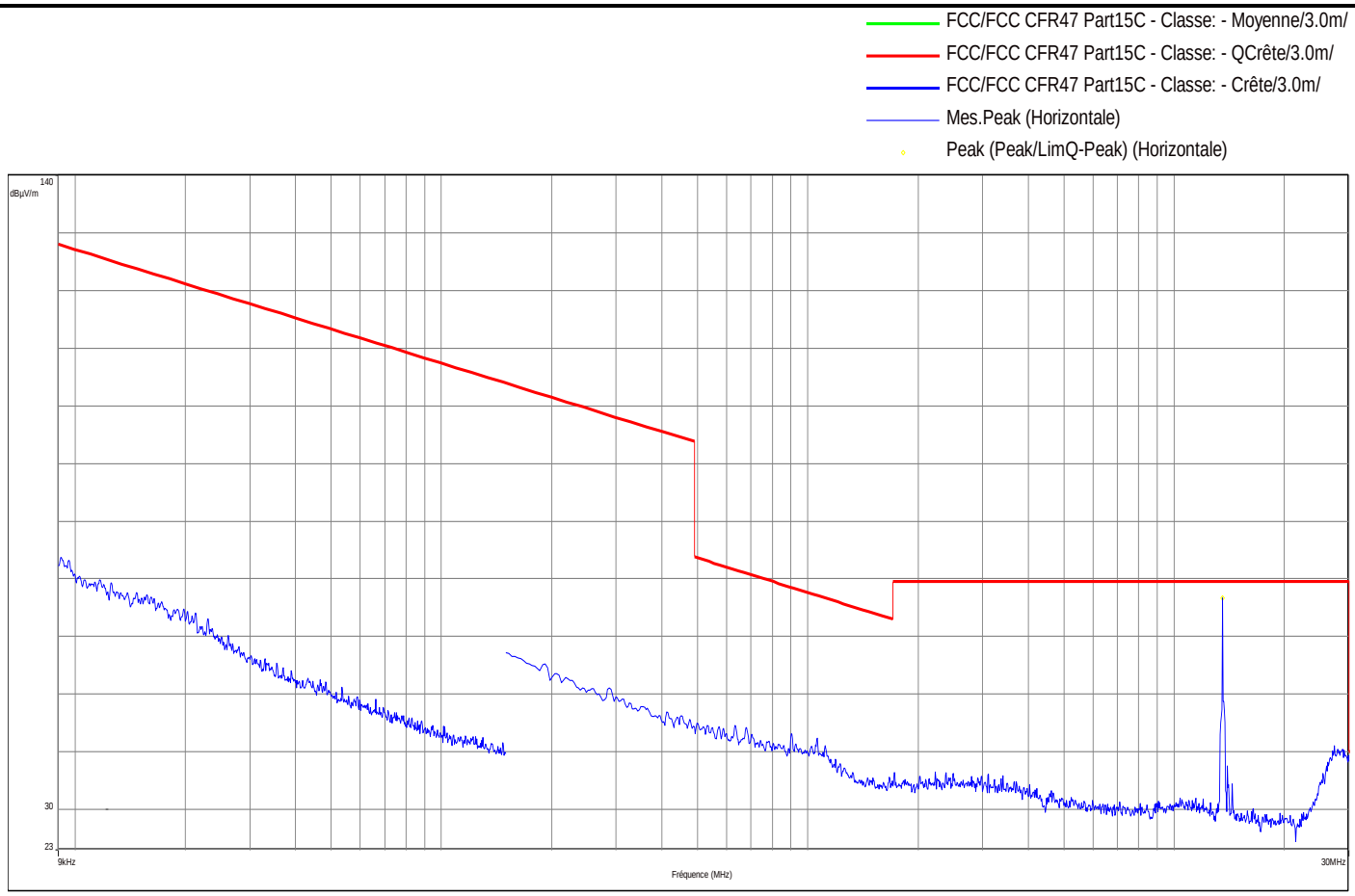
* : Carrier Frequency

RADIATED EMISSIONS			
Graph name:	Emr#1a	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr1a - Cfg1 FCC Part 15 Subpart C P0 Pos XY	
Class:			
Frequency range: [9kHz - 30MHz]			
Antenna polarization:	0	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



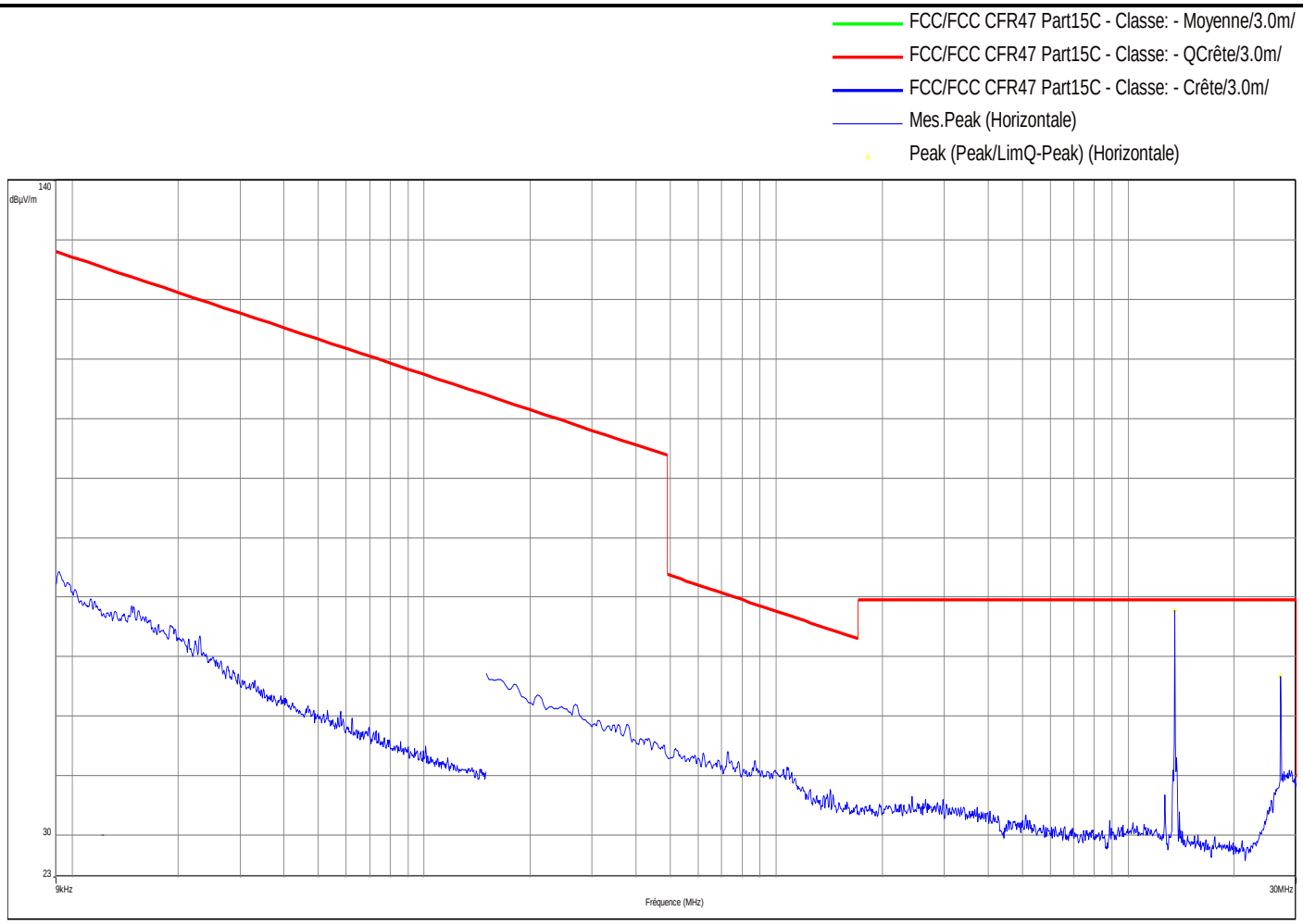
Frequency (MHz)	Peak Level (dBµV/m)
13.55862	78.74
27.119475	50.1

RADIATED EMISSIONS			
Graph name:	Emr#2a	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr2a - Cfg1 FCC Part 15 Subpart C P90 Pos XY	
Class:			
Frequency range: [9kHz - 30MHz]			
Antenna polarization:	90	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



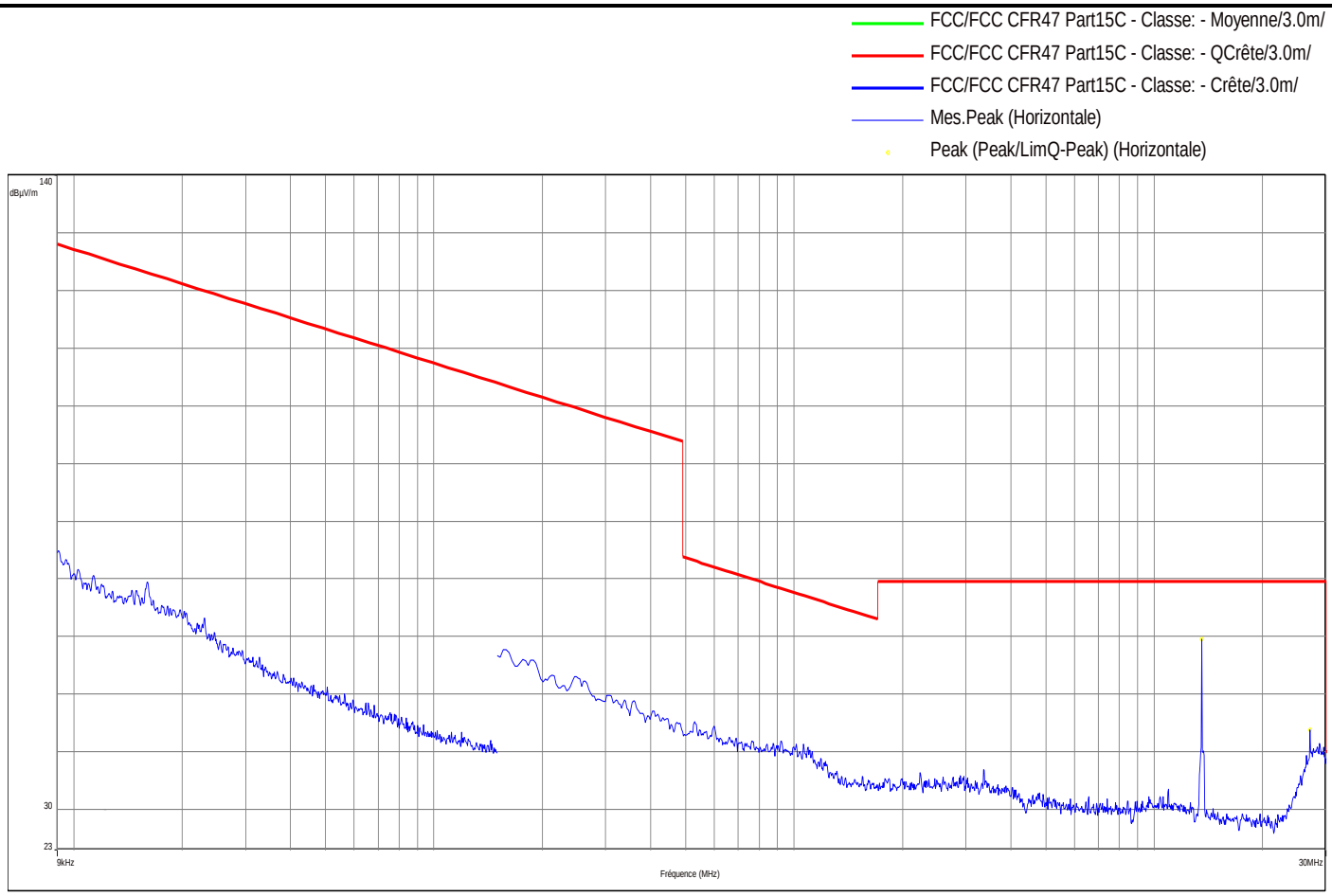
Frequency (MHz)	Peak Level (dBµV/m)
13.55862	66.67

RADIATED EMISSIONS			
Graph name:	Emr#3a	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr3a - Cfg1 FCC Part 15 Subpart C P0 Pos Z	
Class:			
Frequency range: [9kHz - 30MHz]			
Antenna polarization:	0	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



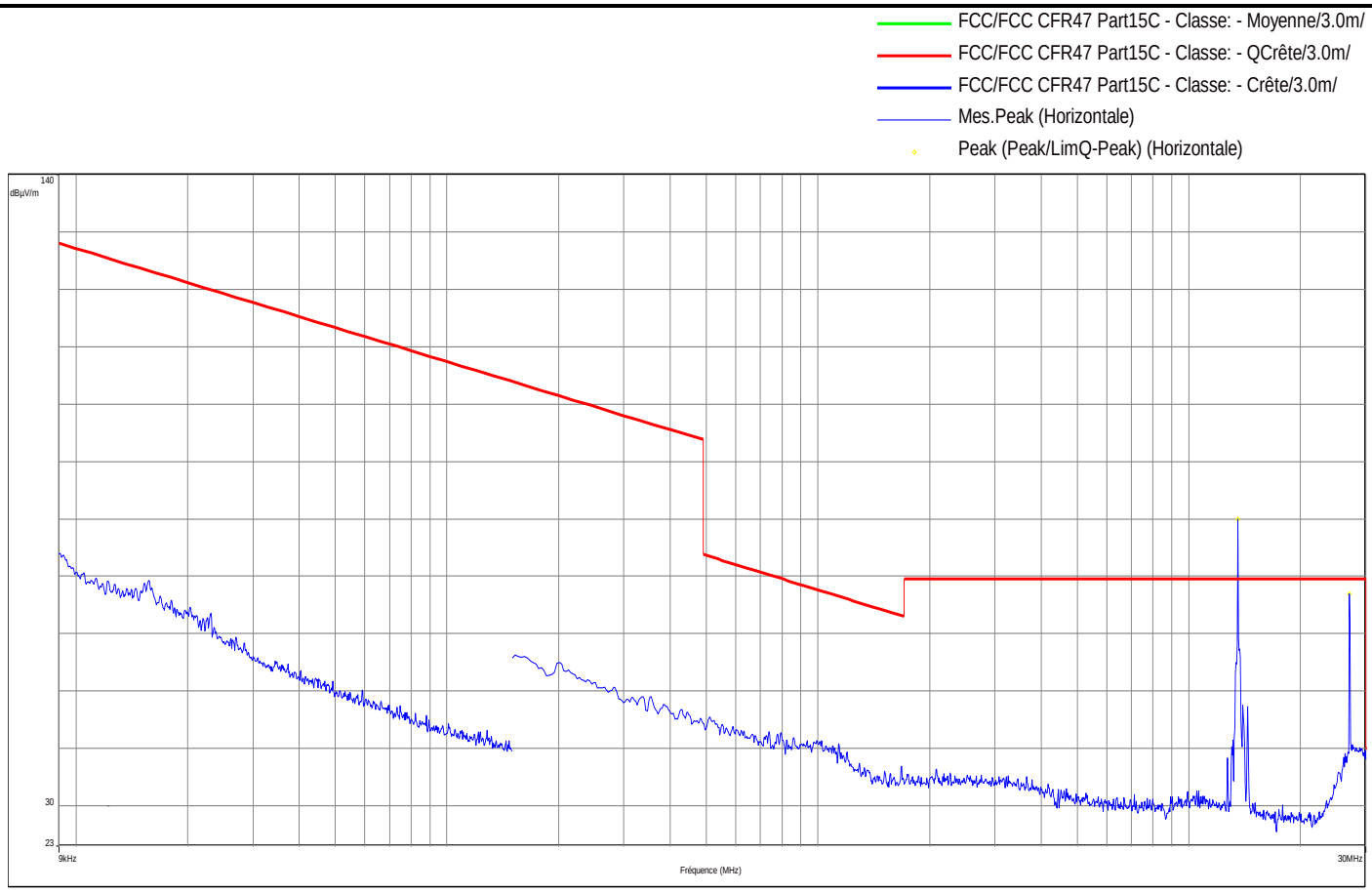
Frequency (MHz)	Peak Level (dBµV/m)
13.55862	67.67
27.119475	56.68

RADIATED EMISSIONS			
Graph name:	Emr#4a	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr4a - Cfg1 FCC Part 15 Subpart C P90 Pos Z	
Class:			
Frequency range: [9kHz - 30MHz]			
Antenna polarization:	90	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



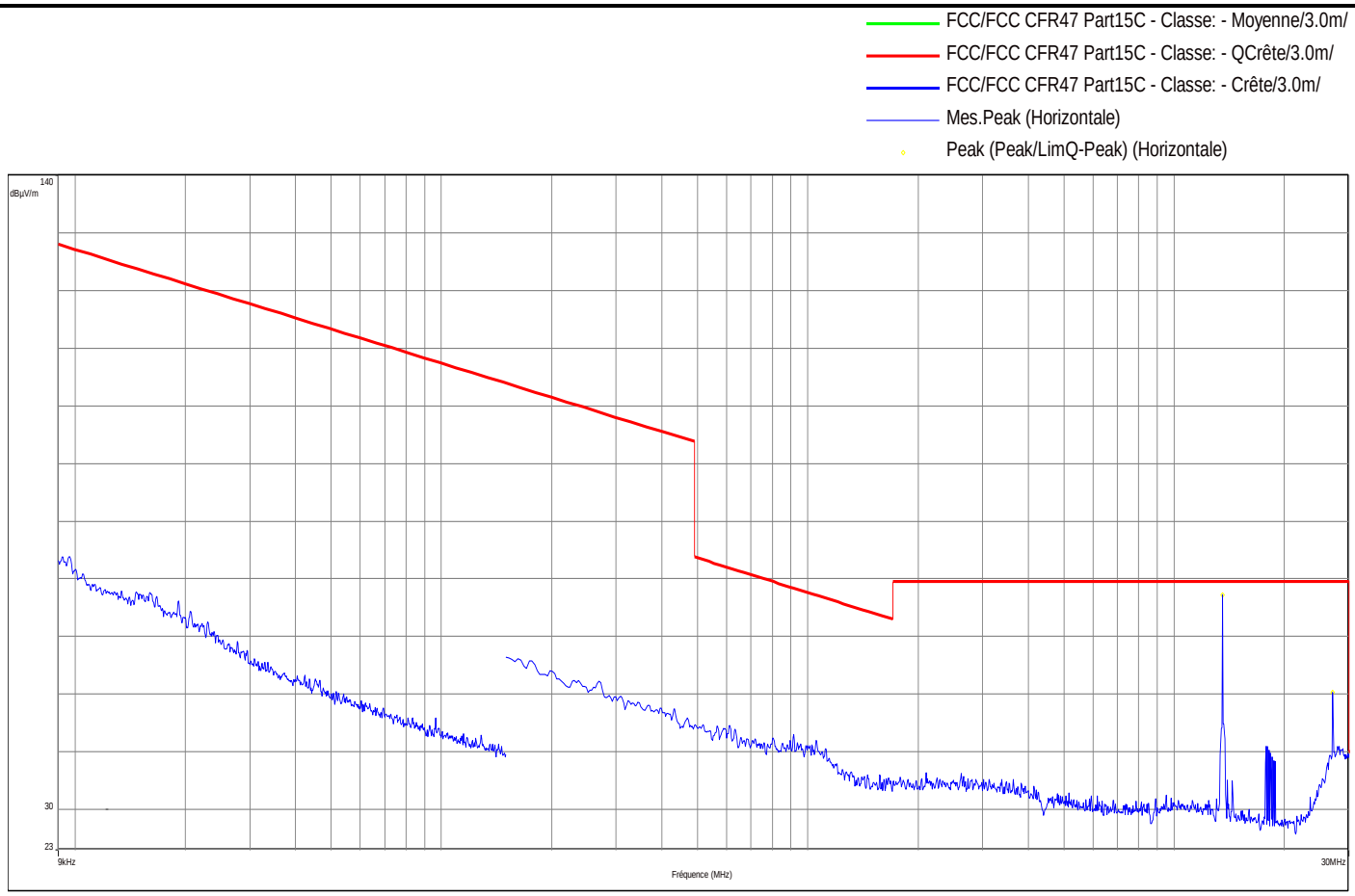
Frequency (MHz)	Peak Level (dBµV/m)
13.55862	59.52
27.119475	43.77

RADIATED EMISSIONS			
Graph name:	Emr#5a	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr5a - Cfg2 FCC Part 15 Subpart C P0 Pos XY	
Class:			
Frequency range: [9kHz - 30MHz]			
Antenna polarization:	0	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



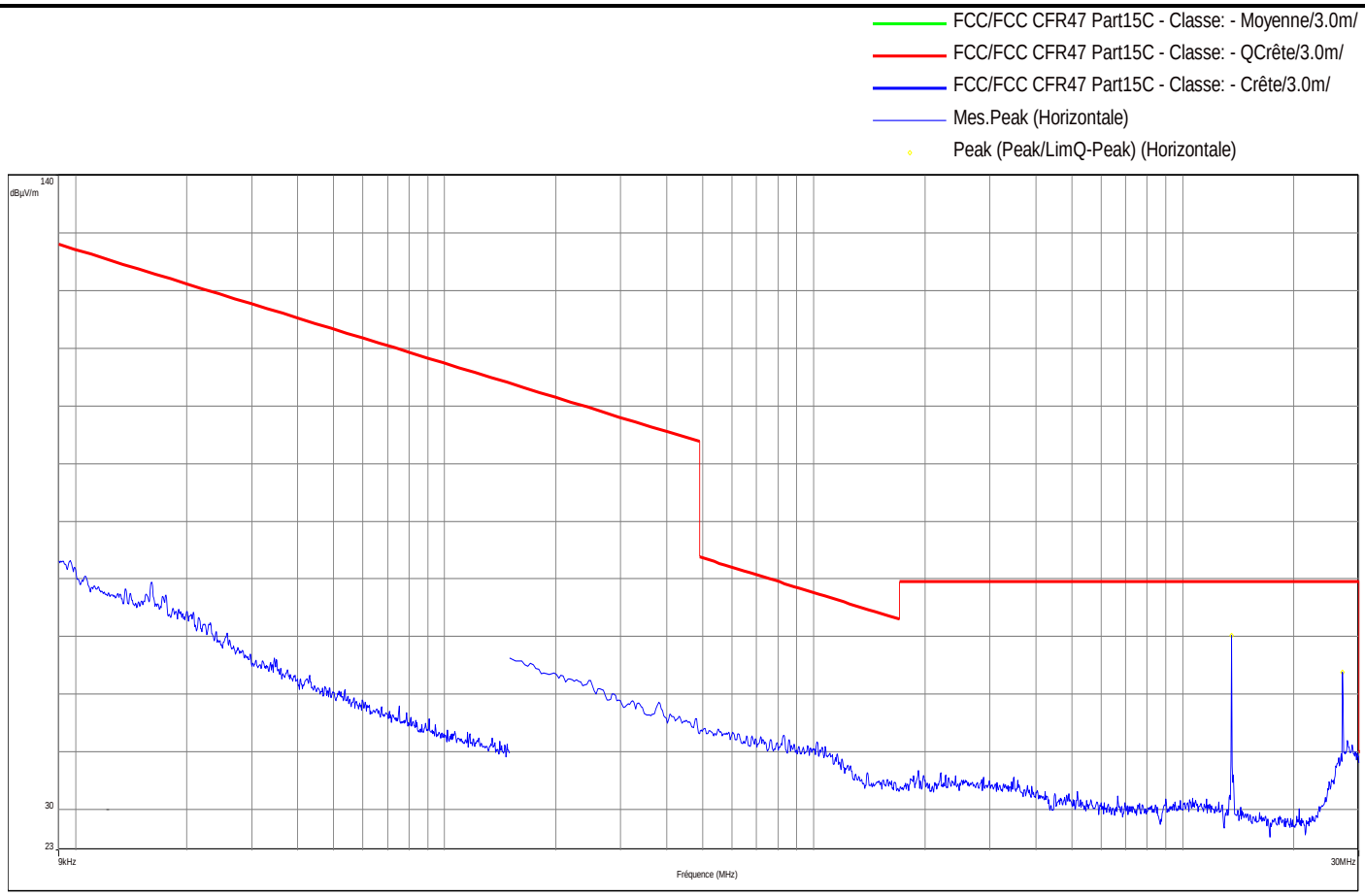
Frequency (MHz)	Peak Level (dBµV/m)
13.55862	79.98
27.119475	66.99

RADIATED EMISSIONS			
Graph name:	Emr#6a	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr6a - Cfg2 FCC Part 15 Subpart C P90 Pos XY	
Class:			
Frequency range: [9kHz - 30MHz]			
Antenna polarization:	90	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



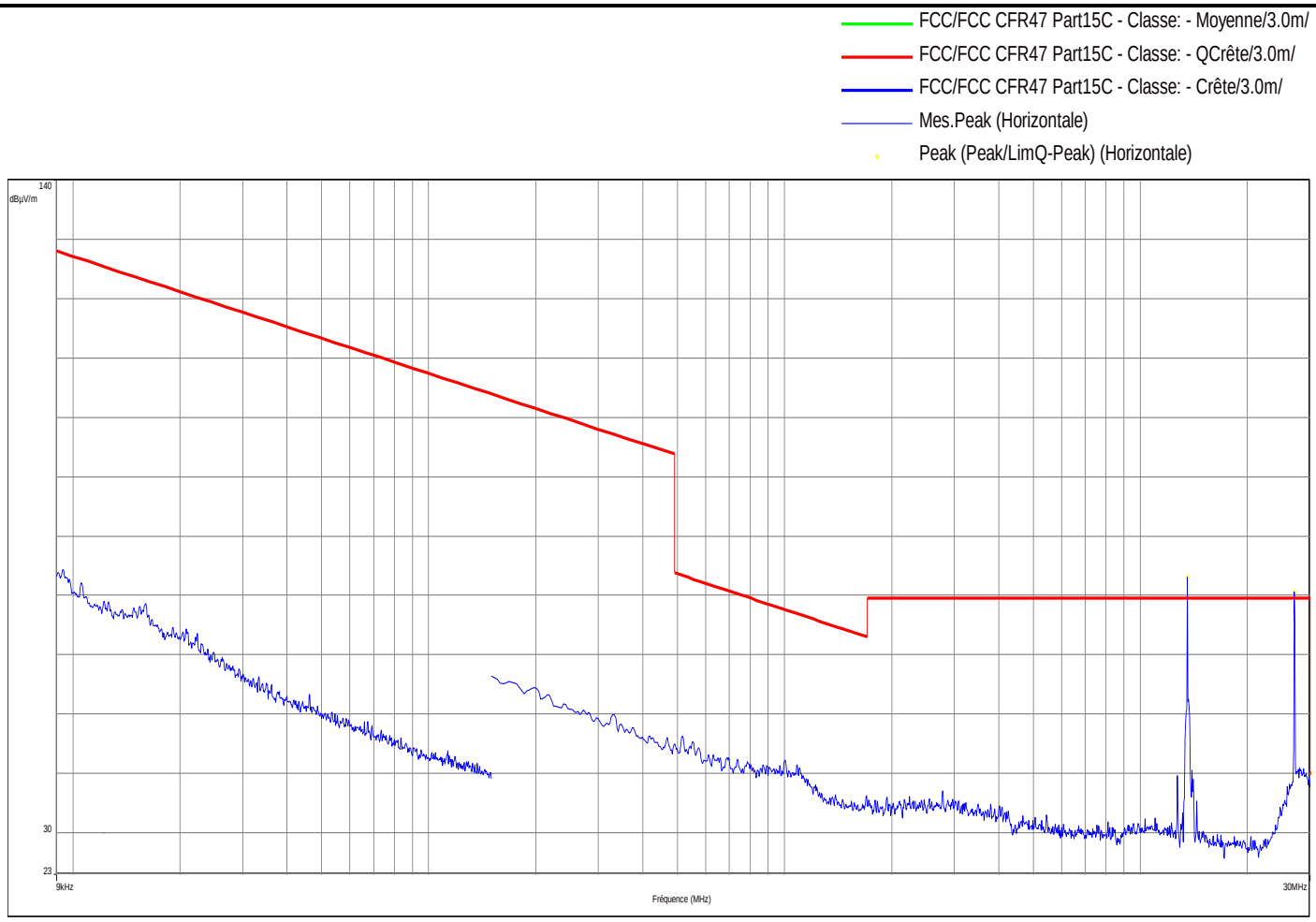
Frequency (MHz)	Peak Level (dBµV/m)
13.55862	67.19
27.119475	50.33

RADIATED EMISSIONS			
Graph name:	Emr#7a	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr7a - Cfg2 FCC Part 15 Subpart C P0 Pos Z	
Class:			
Frequency range: [9kHz - 30MHz]			
Antenna polarization:	0	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



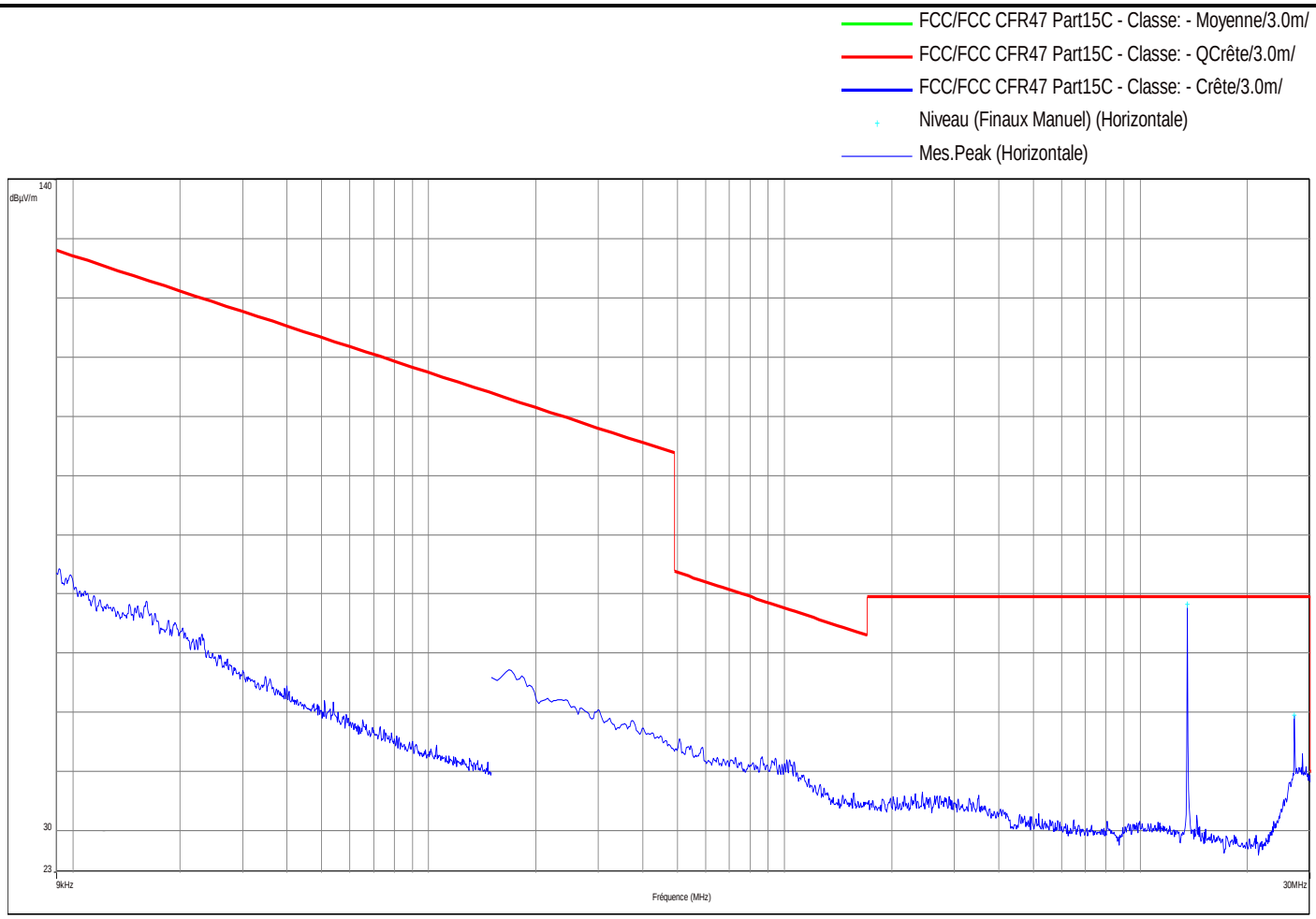
Frequency (MHz)	Peak Level (dBµV/m)
13.55862	60.17
27.119475	53.85

RADIATED EMISSIONS			
Graph name:	Emr#8a	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr8a - Cfg2 FCC Part 15 Subpart C P90 Pos Z	
Class:			
Frequency range: [9kHz - 30MHz]			
Antenna polarization:	90	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



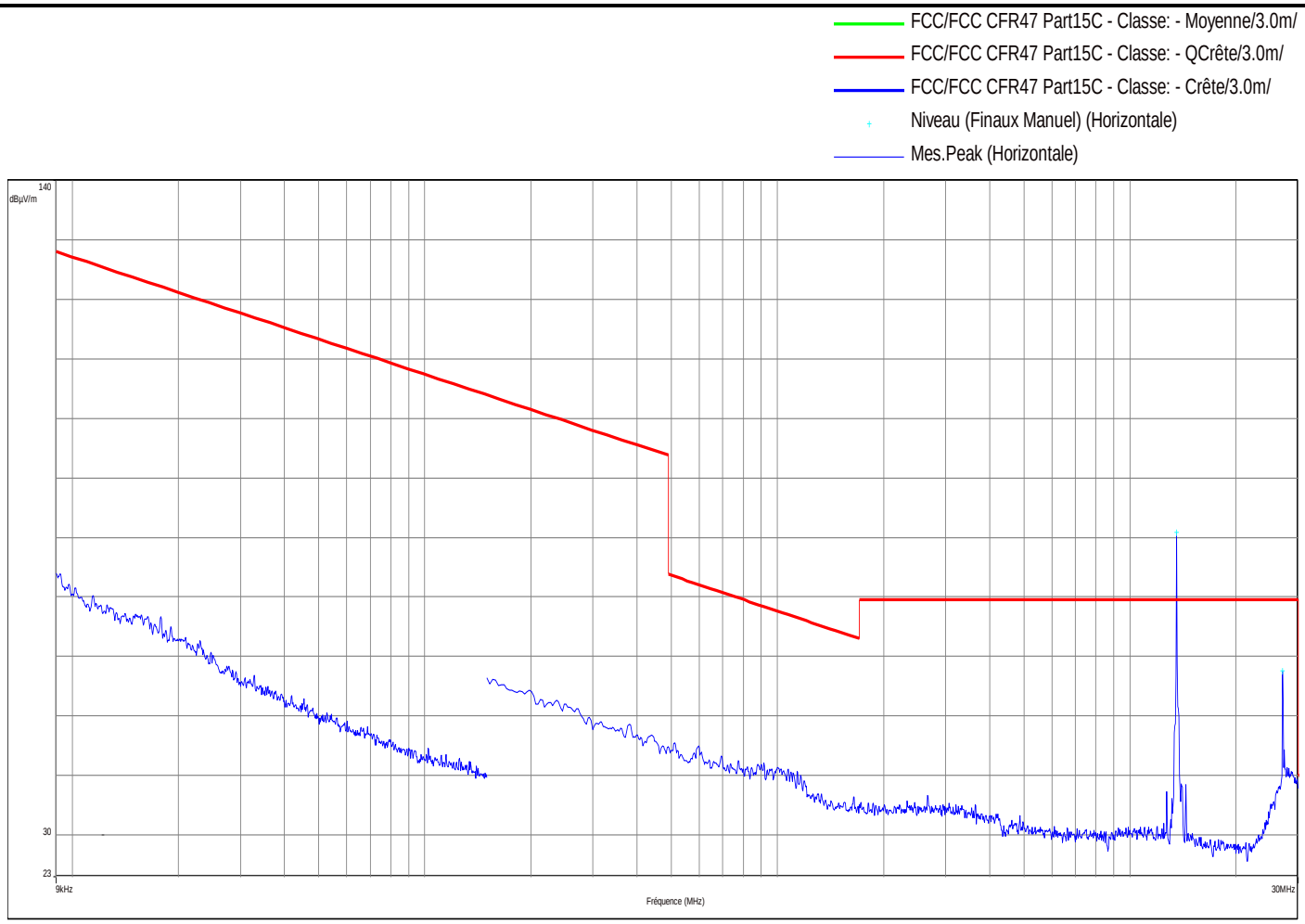
Frequency (MHz)	Peak Level (dBµV/m)
13.55862	73
27.119475	70.6

RADIATED EMISSIONS			
Graph name:	Emr#9a	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr9a - Cfg3 FCC Part 15 Subpart C P0 Pos XY	
Class:			
Frequency range: [9kHz - 30MHz]			
Antenna polarization:	0	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



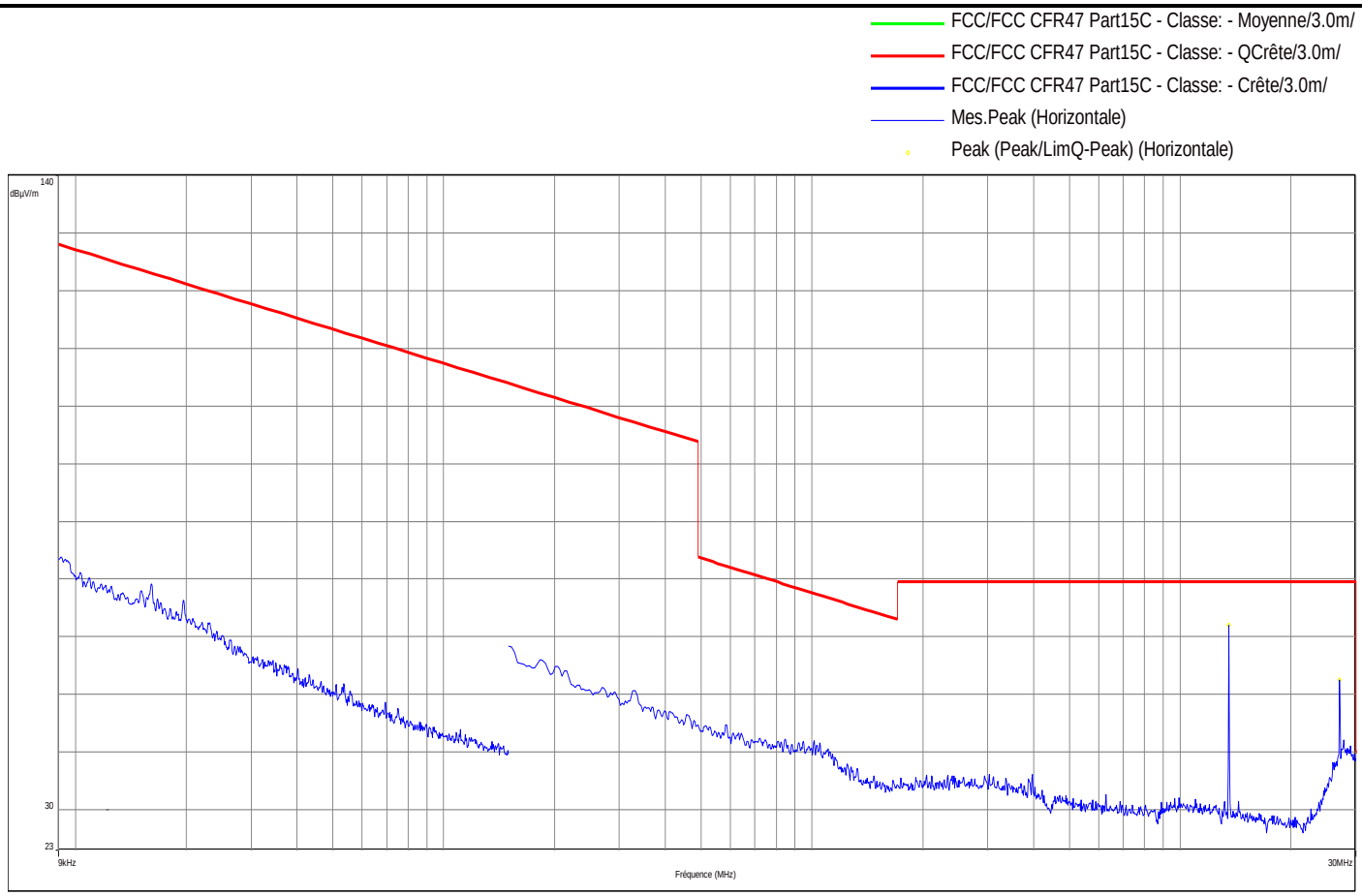
Frequency (MHz)	Peak Level (dBµV/m)
13.561605	68.24
27.119475	49.54

RADIATED EMISSIONS			
Graph name:	Emr#10a	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr10a - Cfg3 FCC Part 15 Subpart C P90 Pos XY	
Class:			
Frequency range: [9kHz - 30MHz]			
Antenna polarization:	90	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



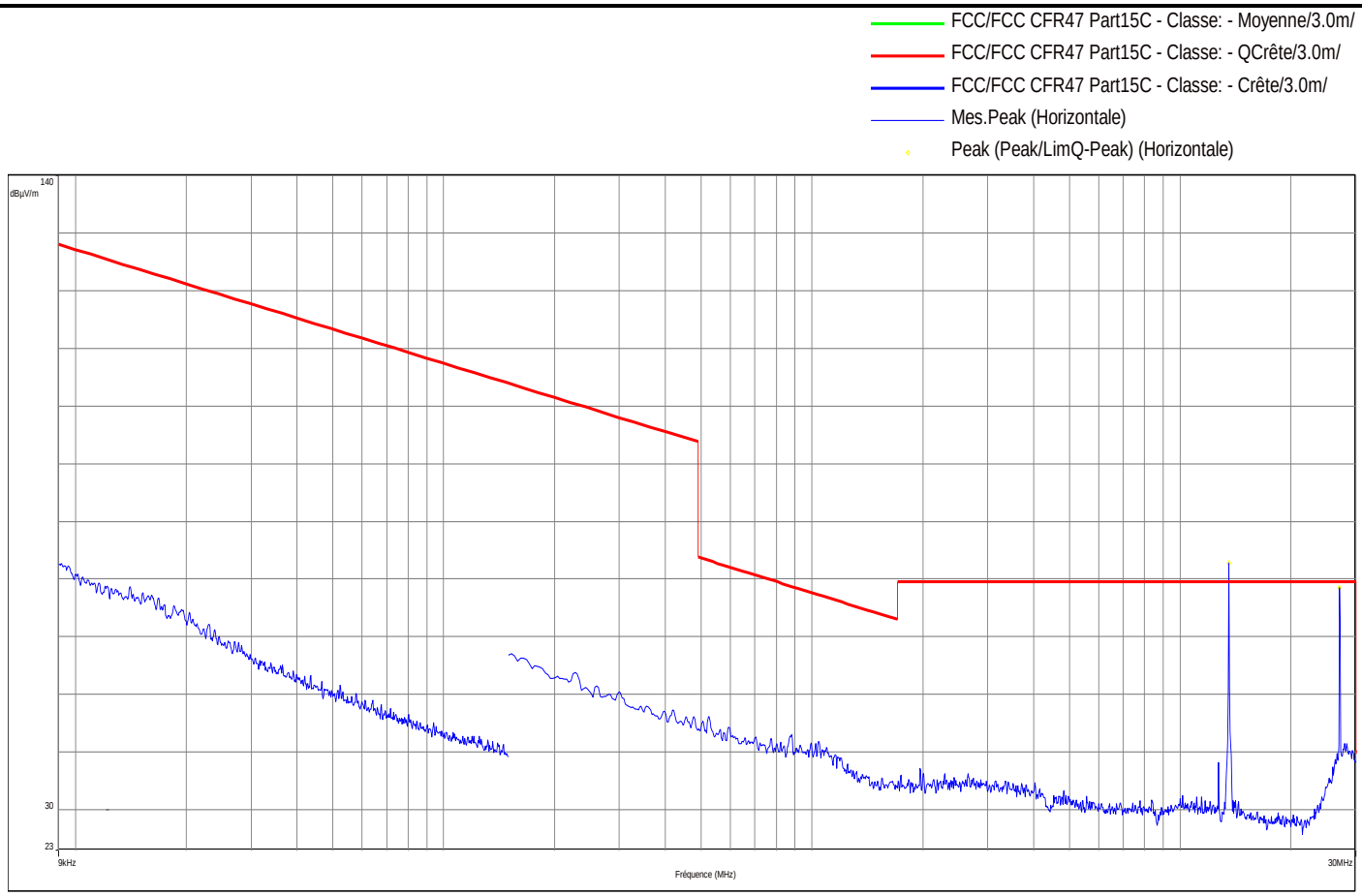
Frequency (MHz)	Peak Level (dBµV/m)
13.55862	80.91
27.119475	57.59

RADIATED EMISSIONS			
Graph name:	Emr#11a	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr11a - Cfg3 FCC Part 15 Subpart C P0 Pos Z	
Class:			
Frequency range: [9kHz - 30MHz]			
Antenna polarization:	0	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



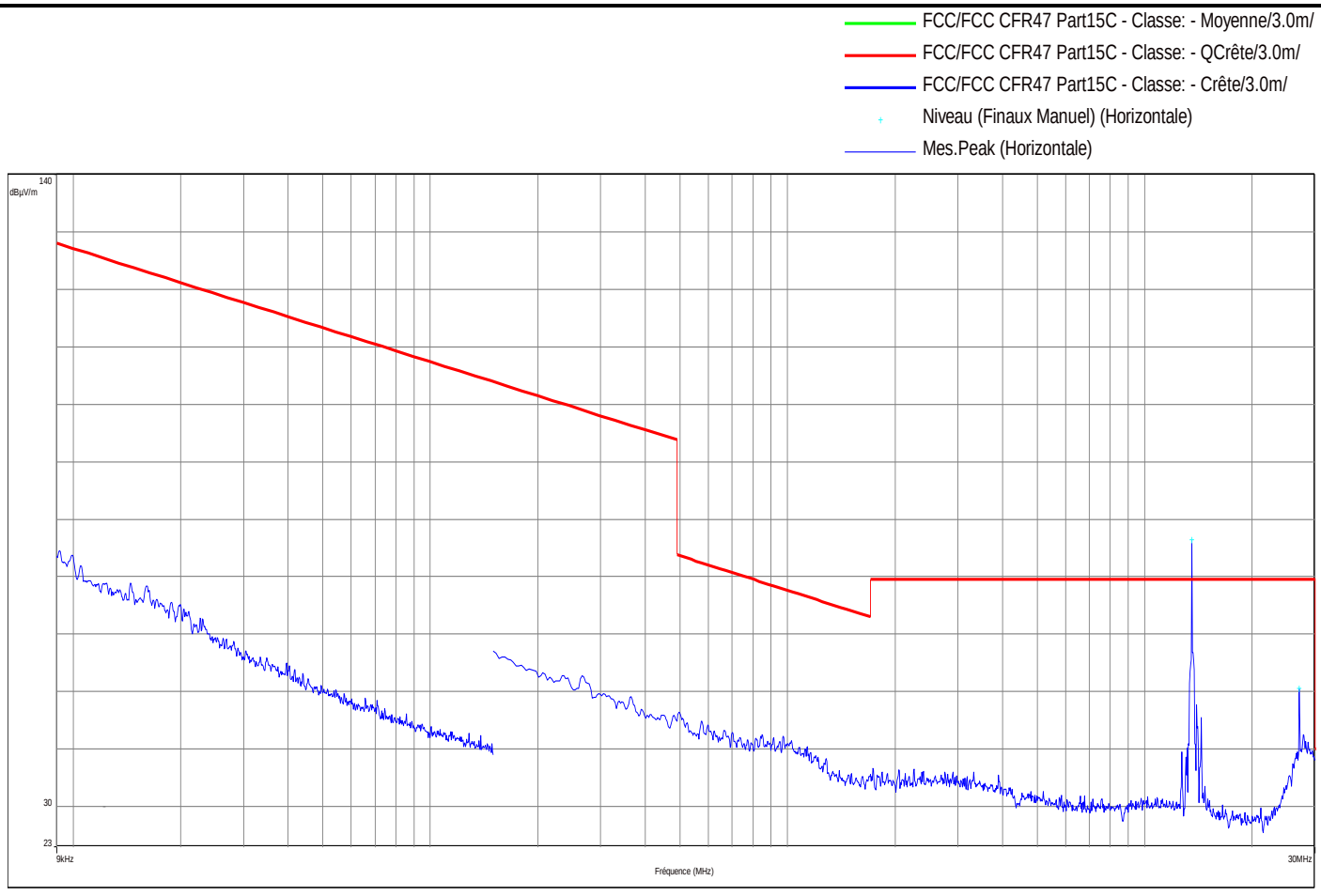
Frequency (MHz)	Peak Level (dBµV/m)
13.55862	62.04
27.119475	52.49

RADIATED EMISSIONS			
Graph name:	Emr#12a	**Test configuration:**	
	FCC CFR47 Part15C	Emr12a - Cfg3 FCC Part 15 Subpart C P90 Pos Z	
Class:			
Frequency range: [9kHz - 30MHz]			
Antenna polarization:	90	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



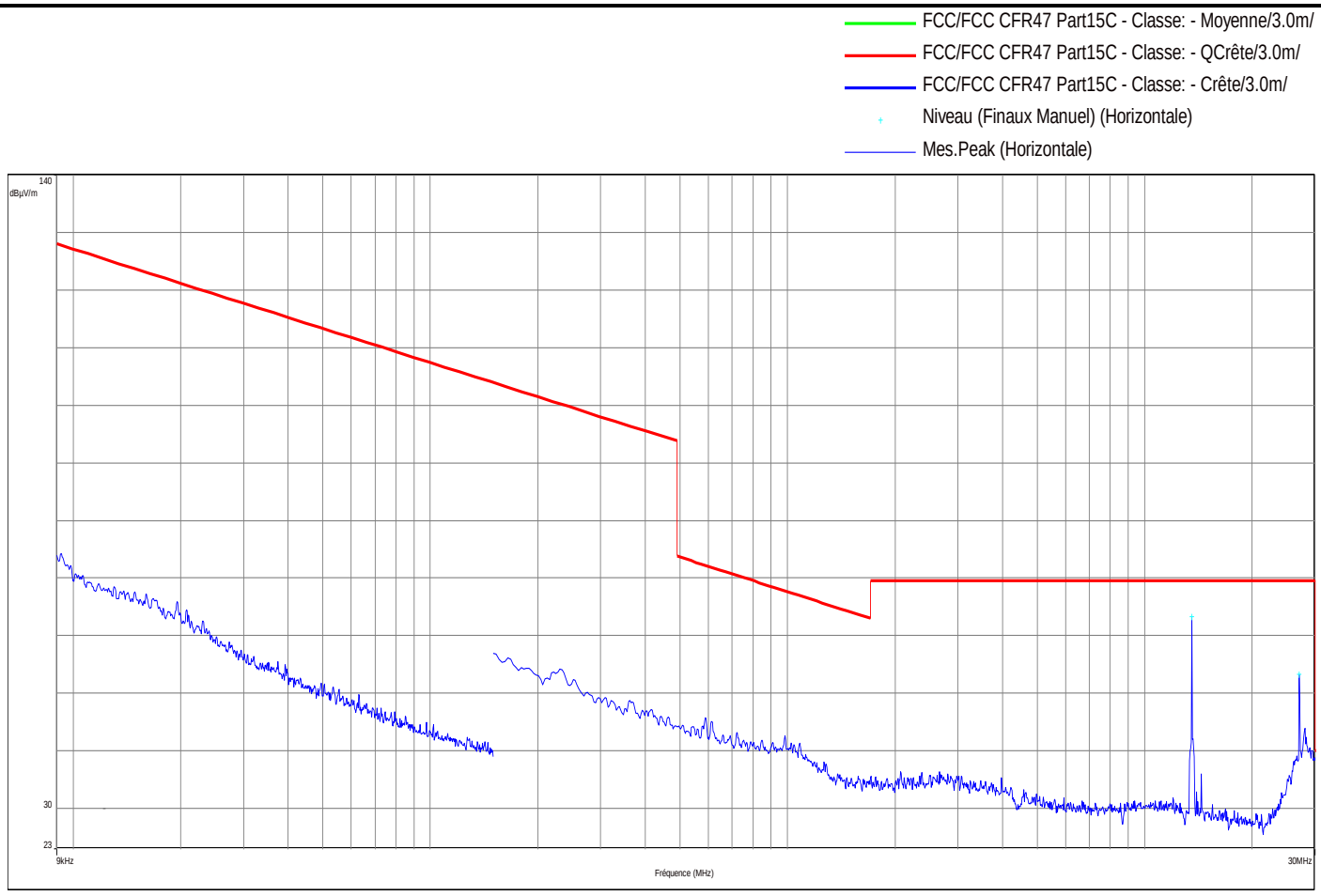
Frequency (MHz)	Peak Level (dBµV/m)
13.55862	72.79
27.119475	68.54

RADIATED EMISSIONS			
Graph name:	Emr#13a	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr13a - Cfg4 FCC Part 15 Subpart C P0 Pos XY	
Class:			
Frequency range: [9kHz - 30MHz]			
Antenna polarization:	0	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



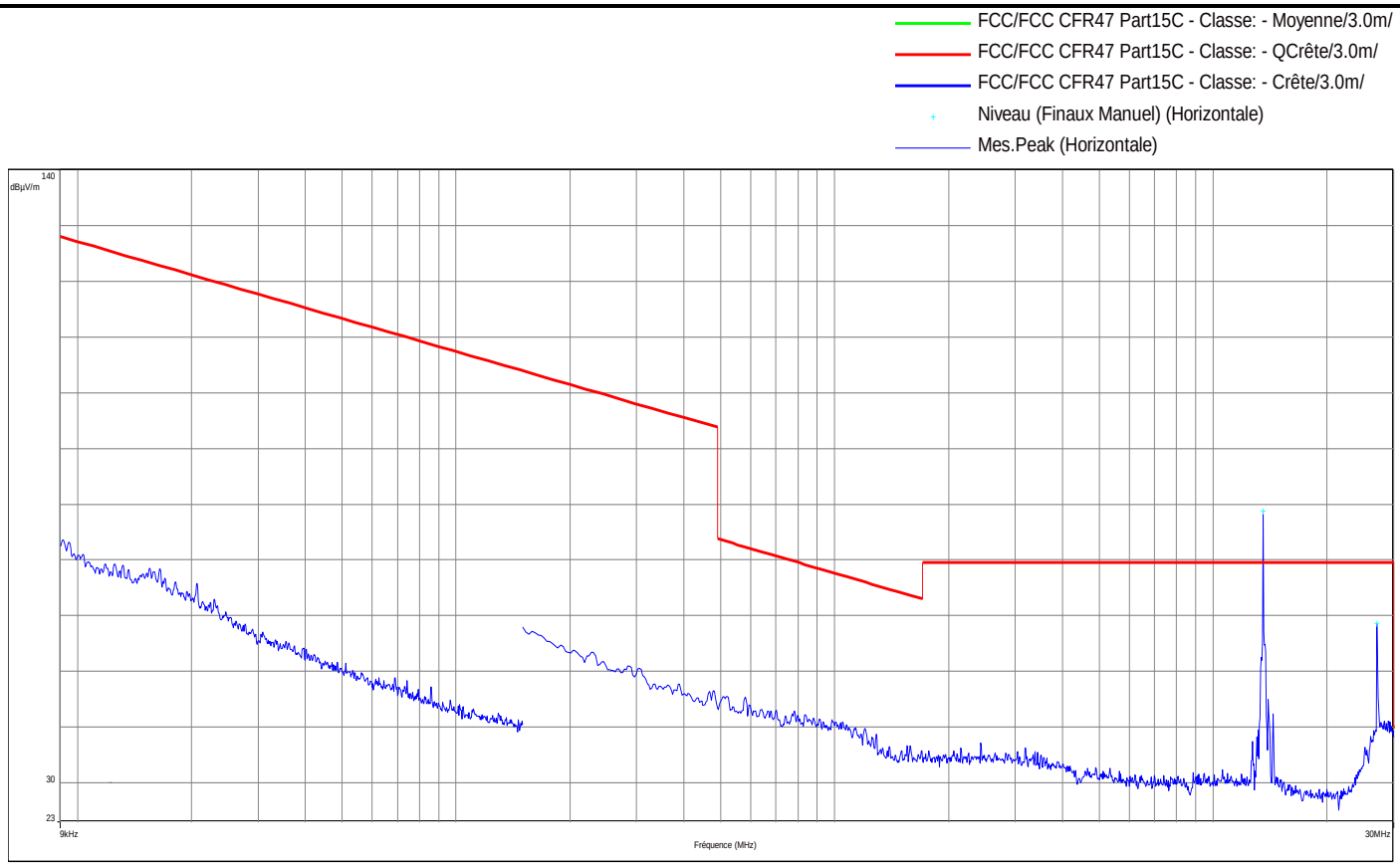
Frequency (MHz)	Peak Level (dBµV/m)
13.55862	76.42
27.119475	50.63

RADIATED EMISSIONS			
Graph name:	Emr#14a	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr14a - Cfg4 FCC Part 15 Subpart C P90 Pos XY	
Class:			
Frequency range: [9kHz - 30MHz]			
Antenna polarization:	90	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



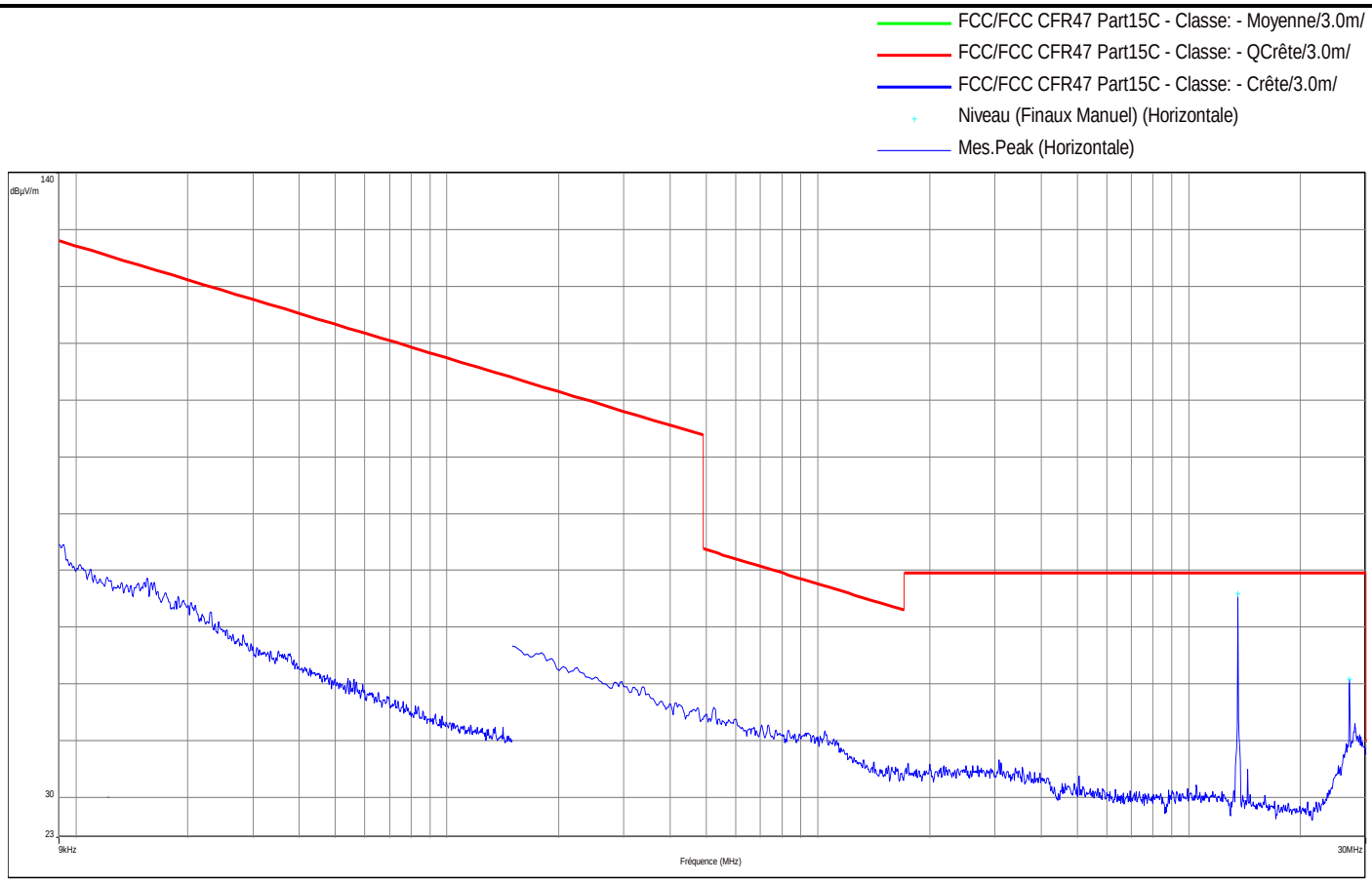
Frequency (MHz)	Peak Level (dBµV/m)
13.55862	63.34
27.119475	53.28

RADIATED EMISSIONS			
Graph name:	Emr#15a	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr15a - Cfg5 FCC Part 15 Subpart C P0 Pos XY	
Class:			
Frequency range: [9kHz - 30MHz]			
Antenna polarization:	0	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



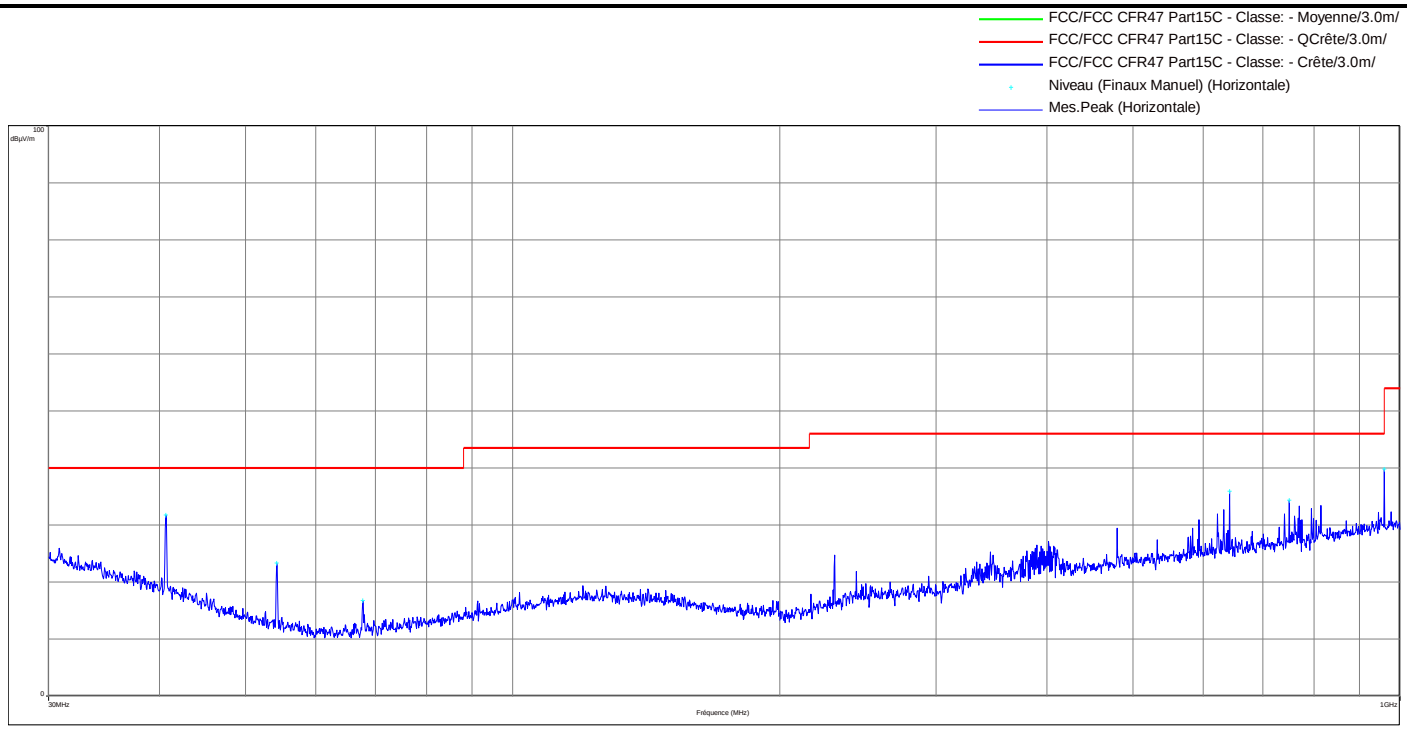
Frequency (MHz)	Peak Level (dBµV/m)
13.55862	78.72
27.119475	58.6

RADIATED EMISSIONS			
Graph name:	Emr#16a	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr16a - Cfg5 FCC Part 15 Subpart C P90 Pos XY	
Class:			
Frequency range: [9kHz - 30MHz]			
Antenna polarization:	90	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



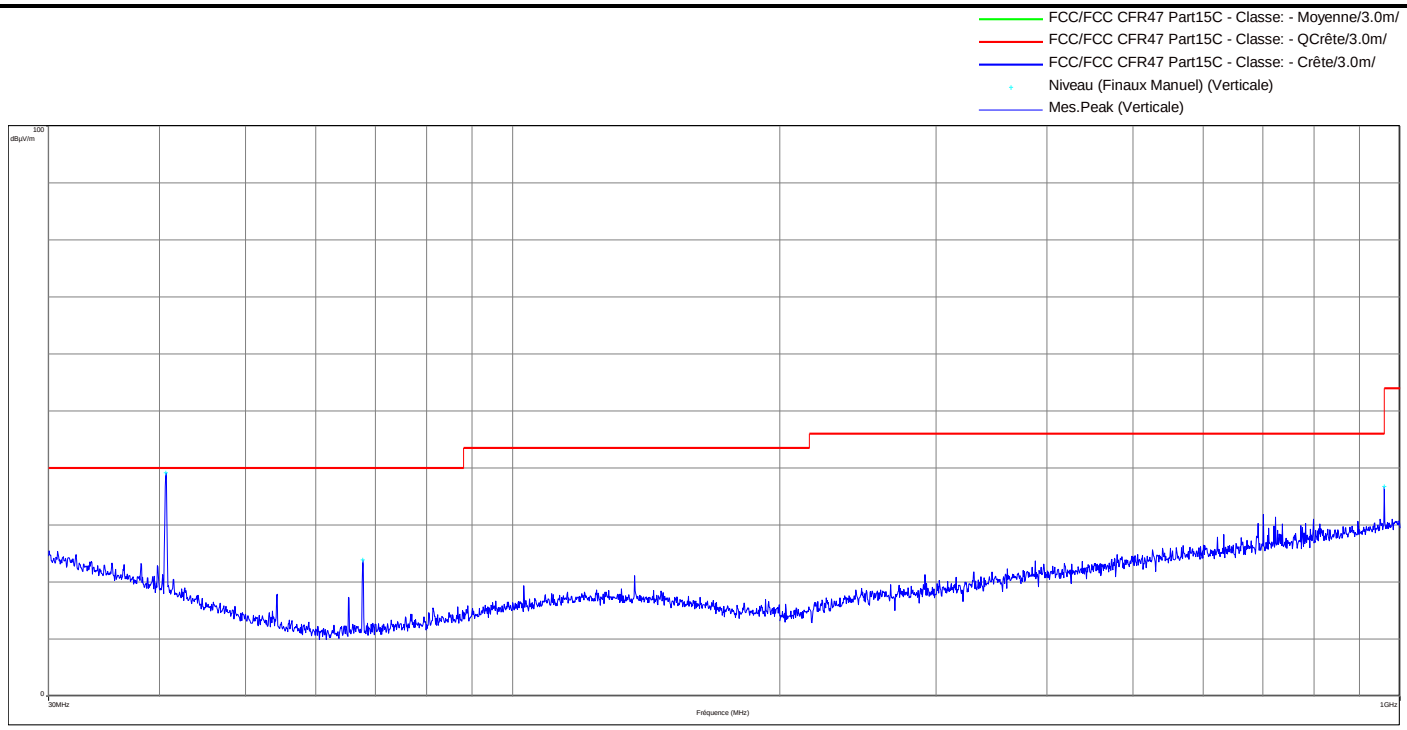
Frequency (MHz)	Peak Level (dBµV/m)
13.55862	65.94
27.119475	50.81

RADIATED EMISSIONS			
Graph name:	Emr#1b	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr1b - Cfg1 FCC Part 15 Subpart C PH Pos XY	
Class:			
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Horizontal	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



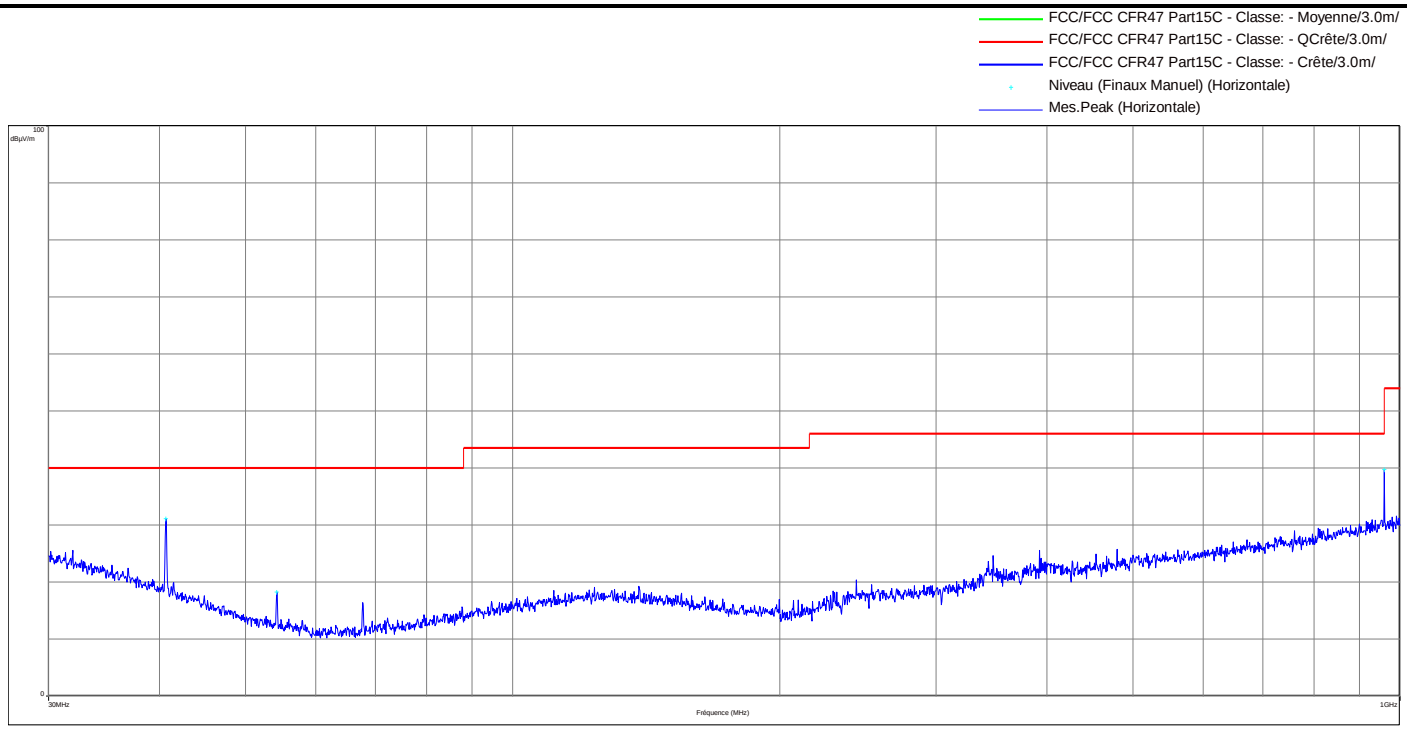
FREQUENCY(MHZ)	PEAK LEVEL (DBµV/M)
40.676	31.75
54.225	23.33
67.808	16.74
642.4	35.94
750.28	34.34
960	39.86

RADIATED EMISSIONS			
Graph name:	Emr#2b	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr2b - Cfg1 FCC Part 15 Subpart C PV Pos XY	
Class:			
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Vertical	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



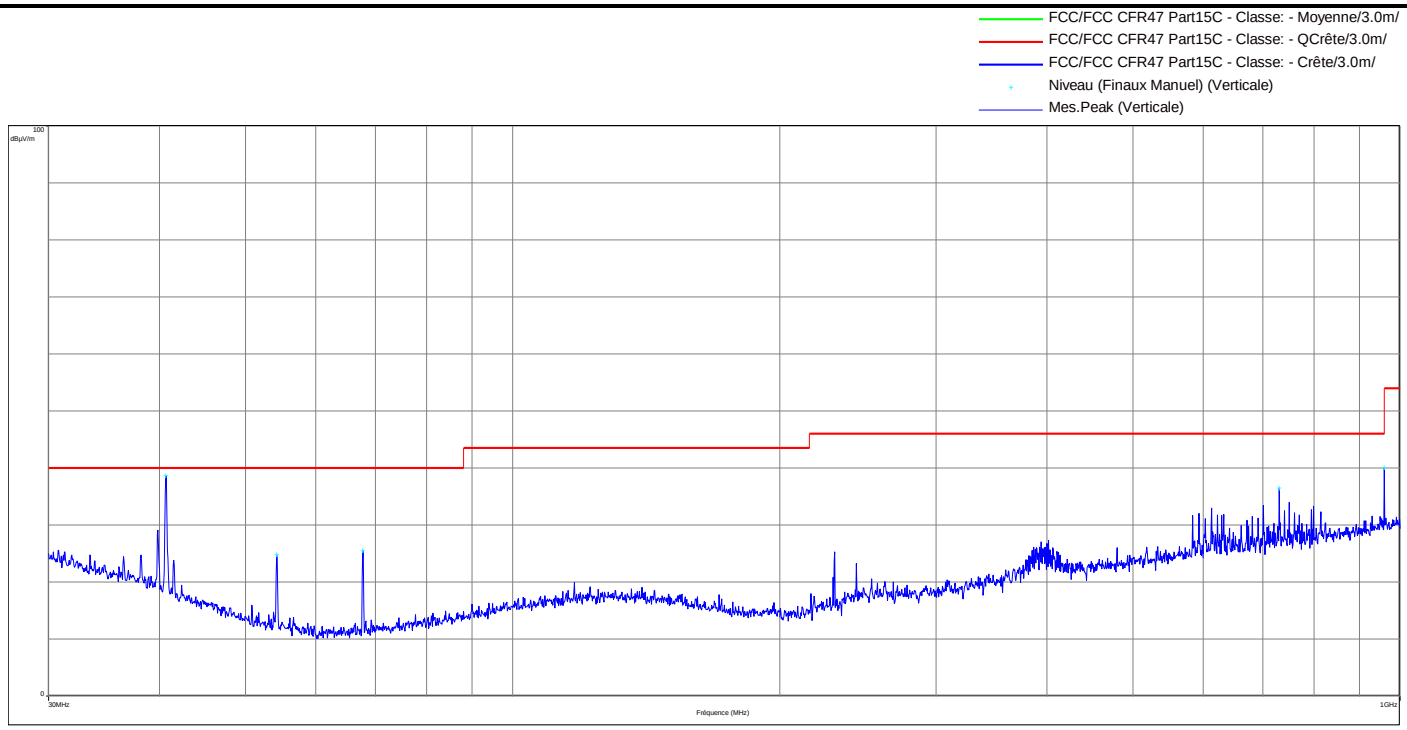
FREQUENCY(MHZ)	PEAK LEVEL(DBµV/M)
40.676	39.14
67.791	23.86
960.04	36.79

RADIATED EMISSIONS			
Graph name:	Emr#3b	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr3b - Cfg1 FCC Part 15 Subpart C PH Pos Z	
Class:			
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Horizontal	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



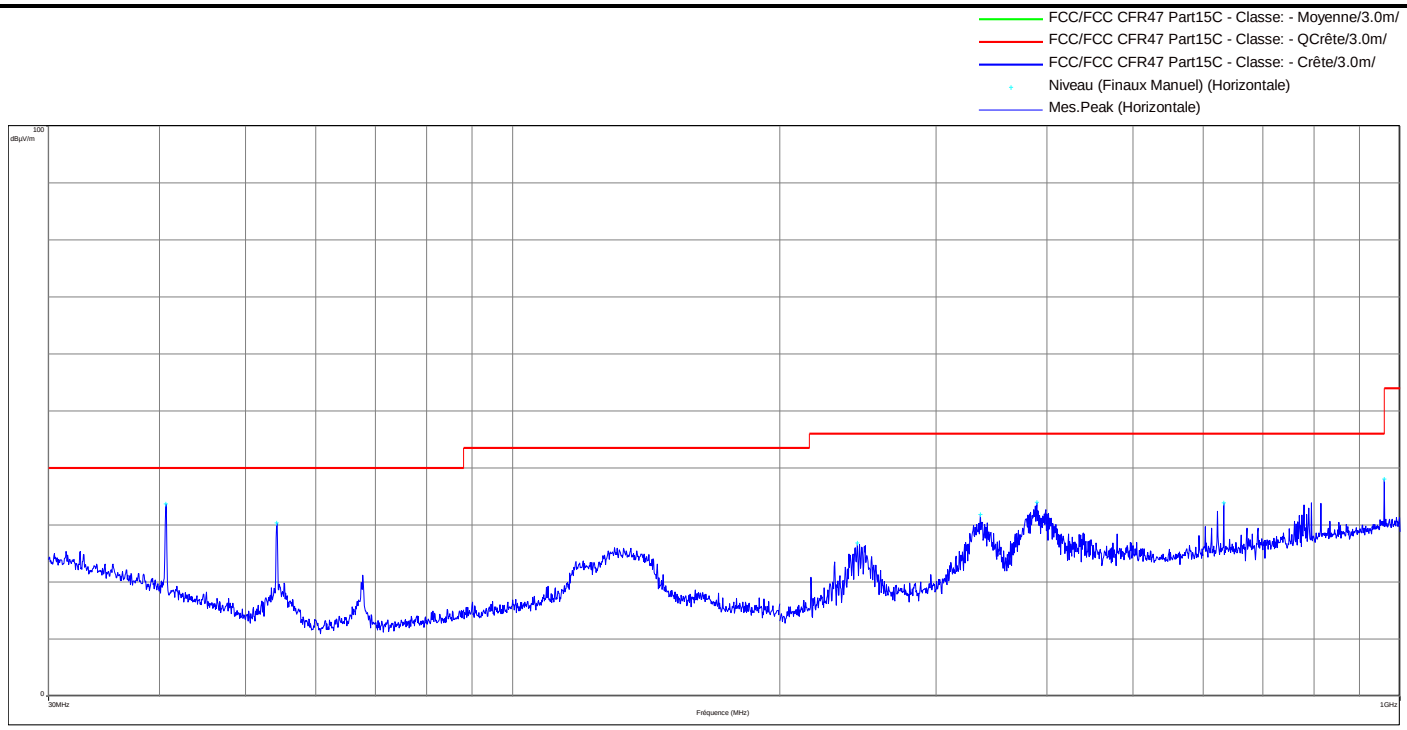
FREQUENCY(MHZ)	PEAK LEVEL (DBµV/M)
40.676	31.09
54.225	18.23
960	39.77

RADIATED EMISSIONS			
Graph name:	Emr#4b	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr4b - Cfg1 FCC Part 15 Subpart C PV Pos Z	
Class:			
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Vertical	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



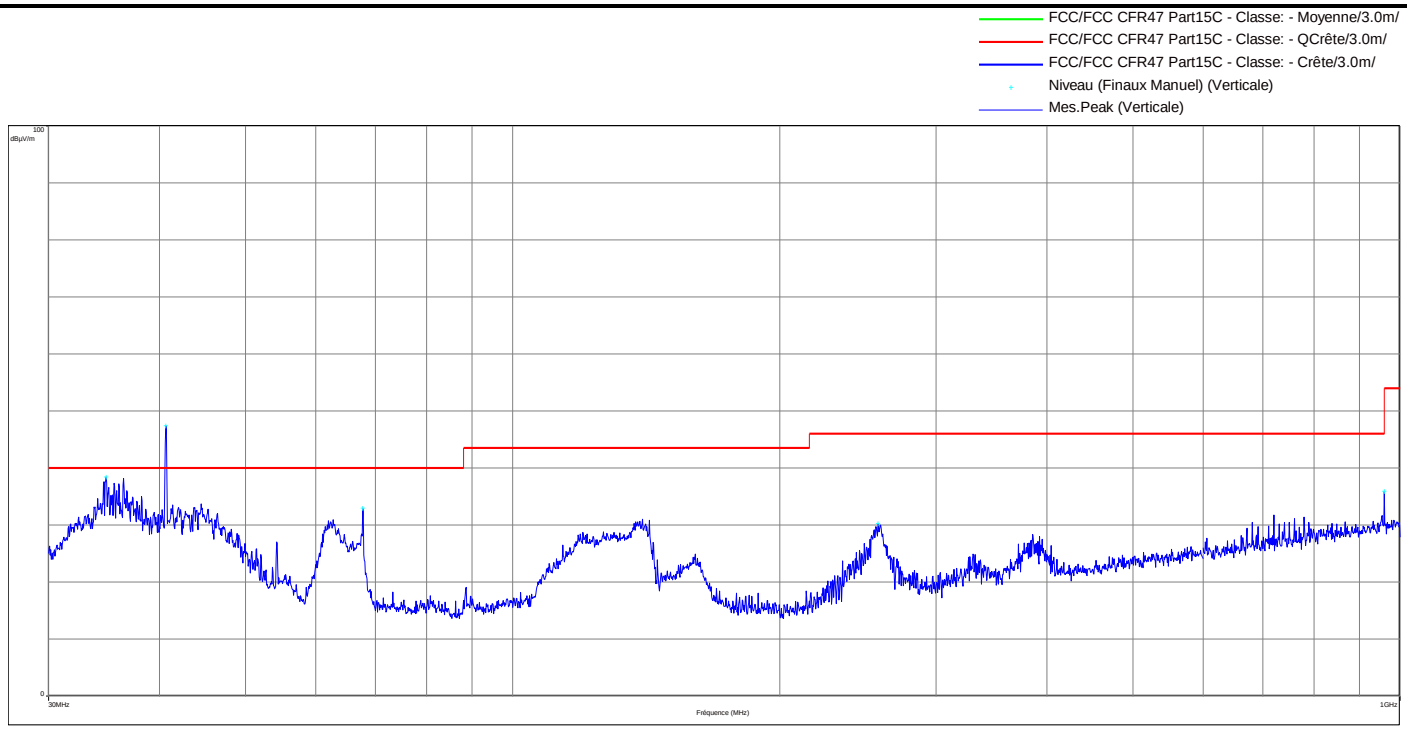
FREQUENCY(MHZ)	PEAK LEVEL(DBµV/M)
40.676	38.68
54.225	24.79
67.791	25.52
730.68	36.52
960	40.12

RADIATED EMISSIONS			
Graph name:	Emr#5b	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr5b - Cfg2 FCC Part 15 Subpart C PH Pos XY	
Class:			
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Horizontal	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



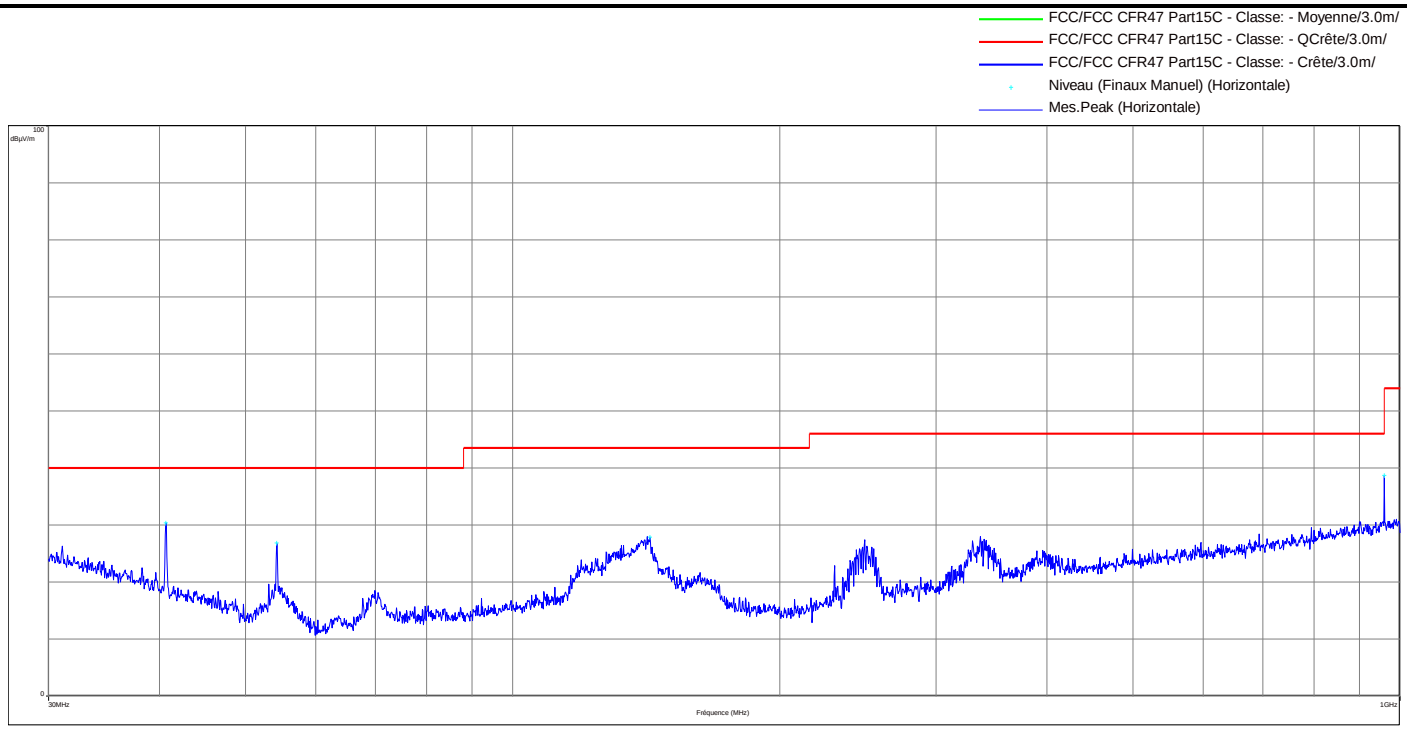
FREQUENCY(MHZ)	PEAK LEVEL(DBµV/M)
40.676	33.73
54.225	30.33
244.52	26.87
336.52	31.85
389.52	33.94
632.6	33.9
960	38.02

RADIATED EMISSIONS			
Graph name:	Emr#6b	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr6b - Cfg2 FCC Part 15 Subpart C PV Pos XY	
Class:			
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Vertical	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



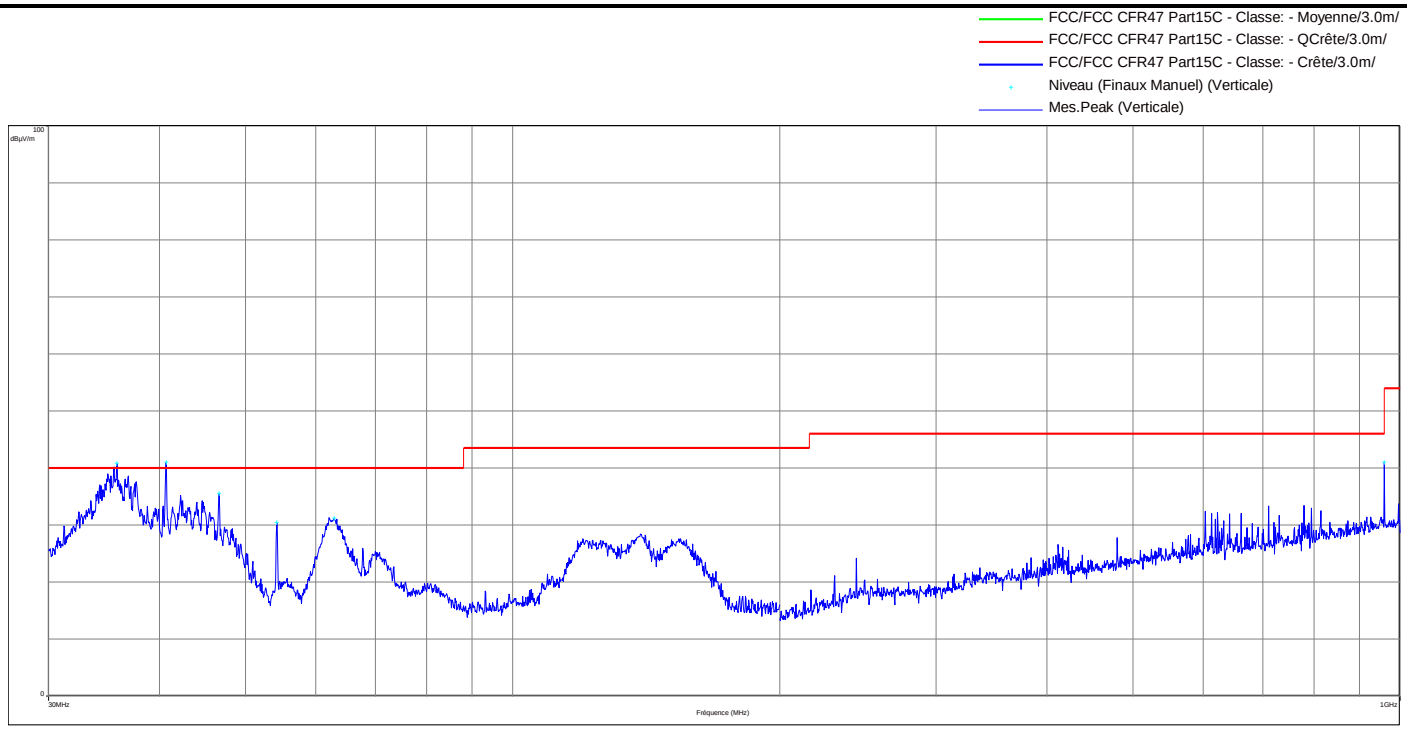
FREQUENCY(MHZ)	PEAK LEVEL(DBµV/M)
34.828	38.47
40.676	47.37
67.791	32.93
258.2	30.24
960	35.97

RADIATED EMISSIONS			
Graph name:	Emr#7b	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr7b - Cfg2 FCC Part 15 Subpart C PH Pos Z	
Class:			
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Horizontal	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



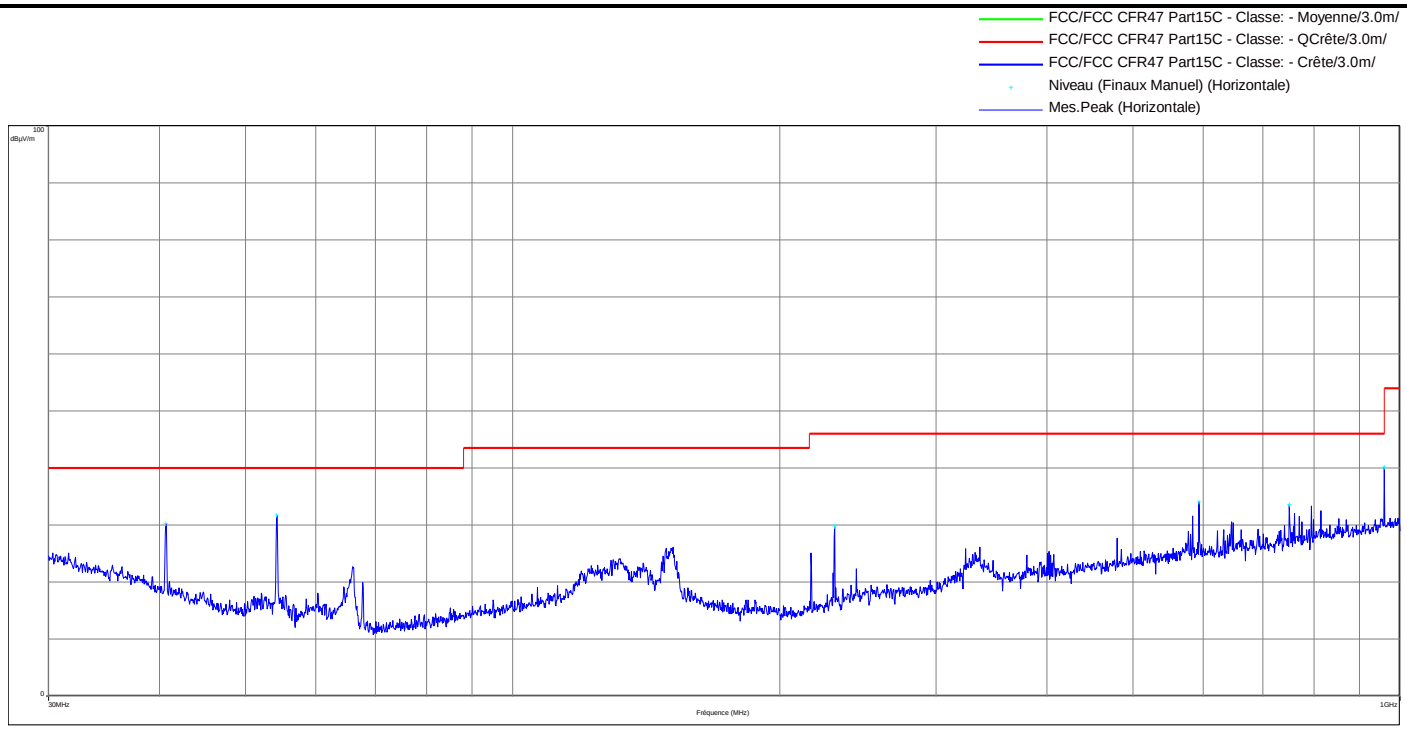
FREQUENCY(MHZ)	PEAK LEVEL(DBµV/M)
40.676	30.38
54.225	26.81
142.846	27.85
960	38.66

RADIATED EMISSIONS			
Graph name:	Emr#8b	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr8b - Cfg2 FCC Part 15 Subpart C PV Pos Z	
Class:			
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Vertical	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



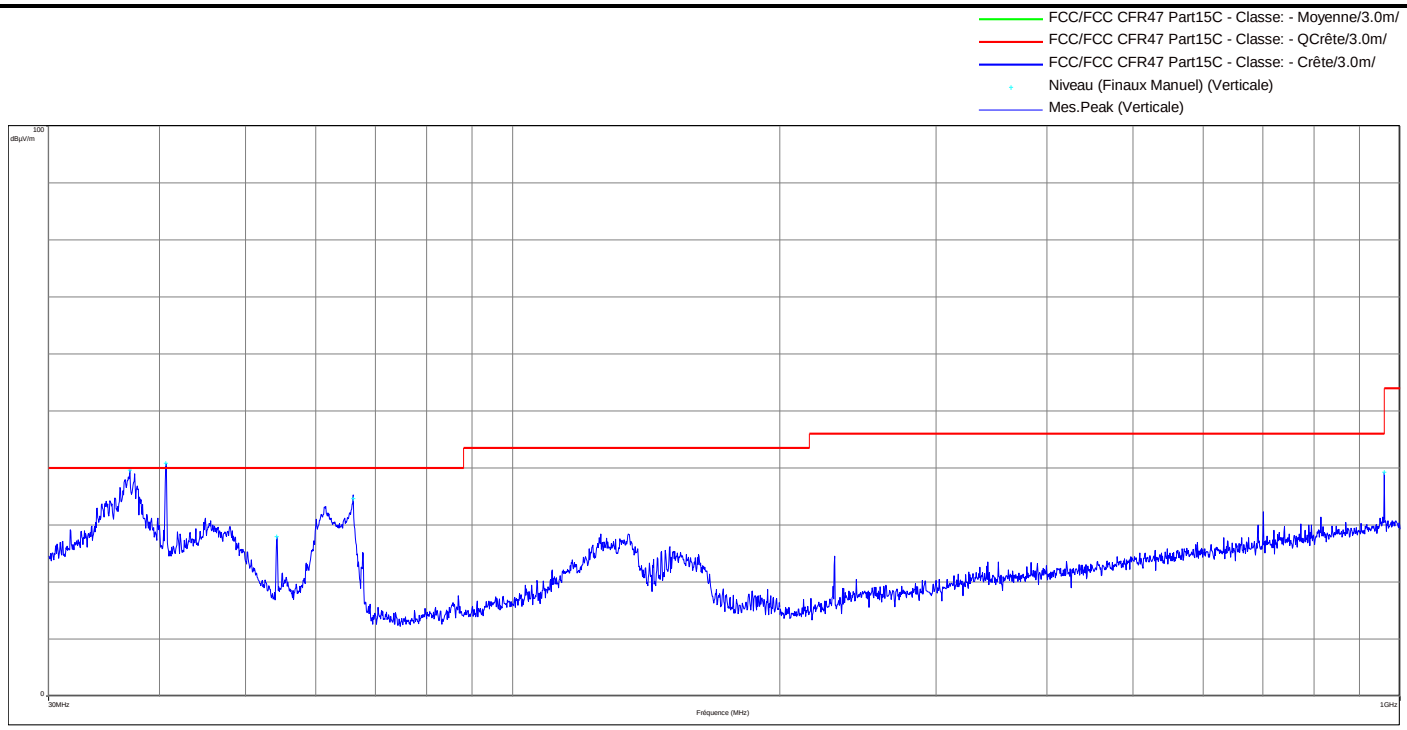
FREQUENCY(MHZ)	PEAK LEVEL(DBµV/M)
35.814	40.79
40.693	41
46.694	35.51
54.225	30.42
62.963	31.16
960.04	41.02

RADIATED EMISSIONS			
Graph name:	Emr9b	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr9b - Cfg3 FCC Part 15 Subpart C PH Pos XY	
Class:			
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Horizontal	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



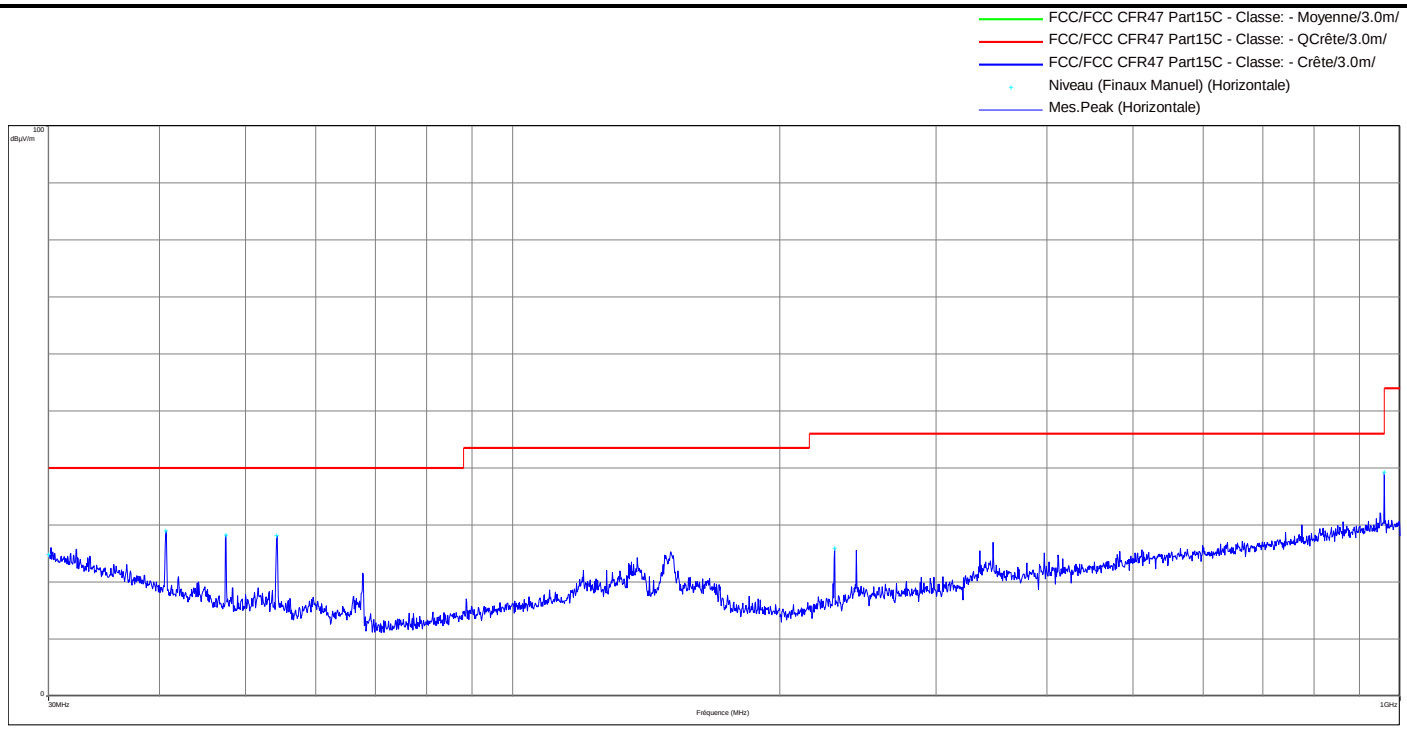
FREQUENCY(MHZ)	PEAK LEVEL(DBµV/M)
40.676	30.31
54.225	31.77
230.48	29.85
593.4	34.04
750.28	33.63
960	40.21

RADIATED EMISSIONS			
Graph name:	Emr#10b	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr10b - Cfg3 FCC Part 15 Subpart C PV Pos XY	
Class:			
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Vertical	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



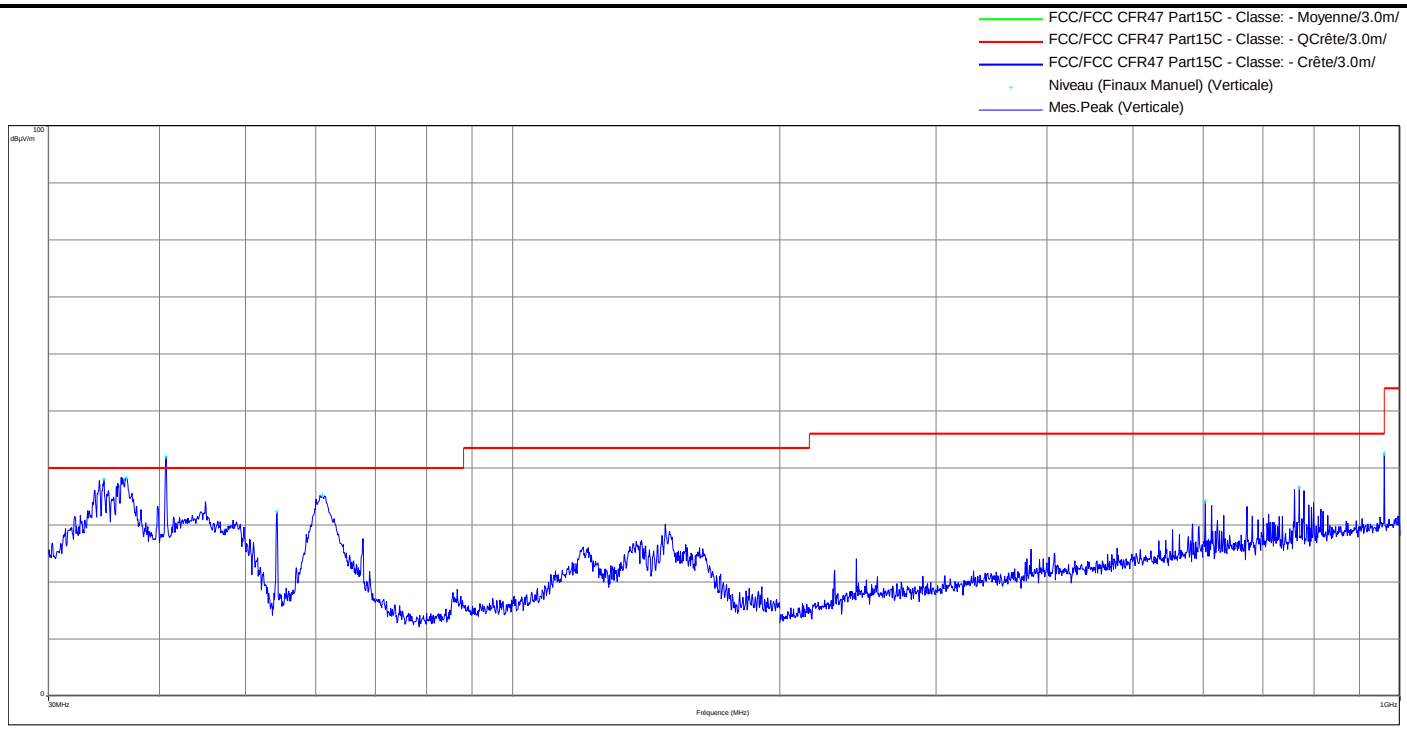
FREQUENCY(MHZ)	PEAK LEVEL(DBµV/M)
37.021	39.64
40.676	40.8
54.225	27.97
66.142	34.59
960	39.28

RADIATED EMISSIONS			
Graph name:	Emr11b	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr11b - Cfg3 FCC Part 15 Subpart C PH Pos Z	
Class:			
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Horizontal	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



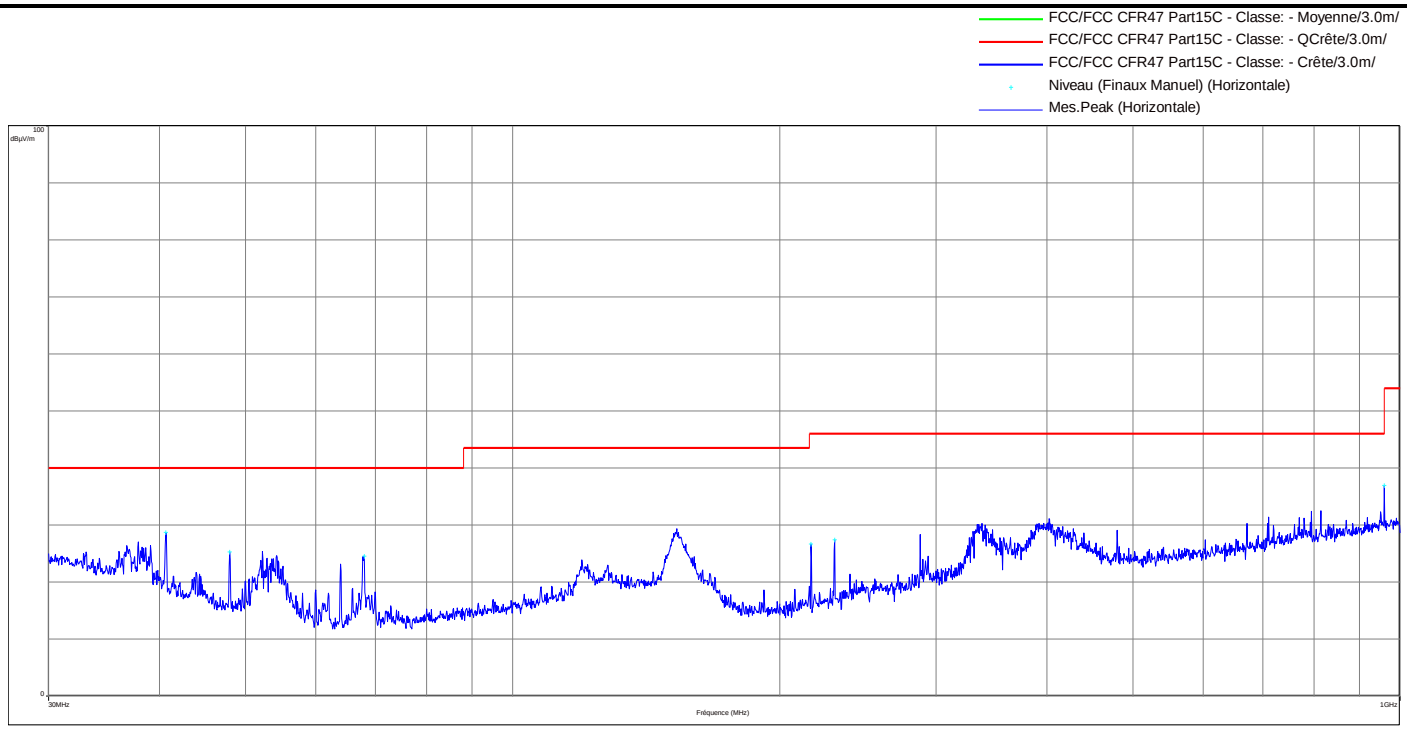
FREQUENCY(MHZ)	PEAK LEVEL(DBµV/M)
30	24.82
40.676	28.97
47.51	28.2
54.242	28.13
230.48	25.9
960	39.3

RADIATED EMISSIONS			
Graph name:	Emr#12b	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr12b - Cfg3 FCC Part 15 Subpart C PV Pos Z	
Class:			
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Vertical	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



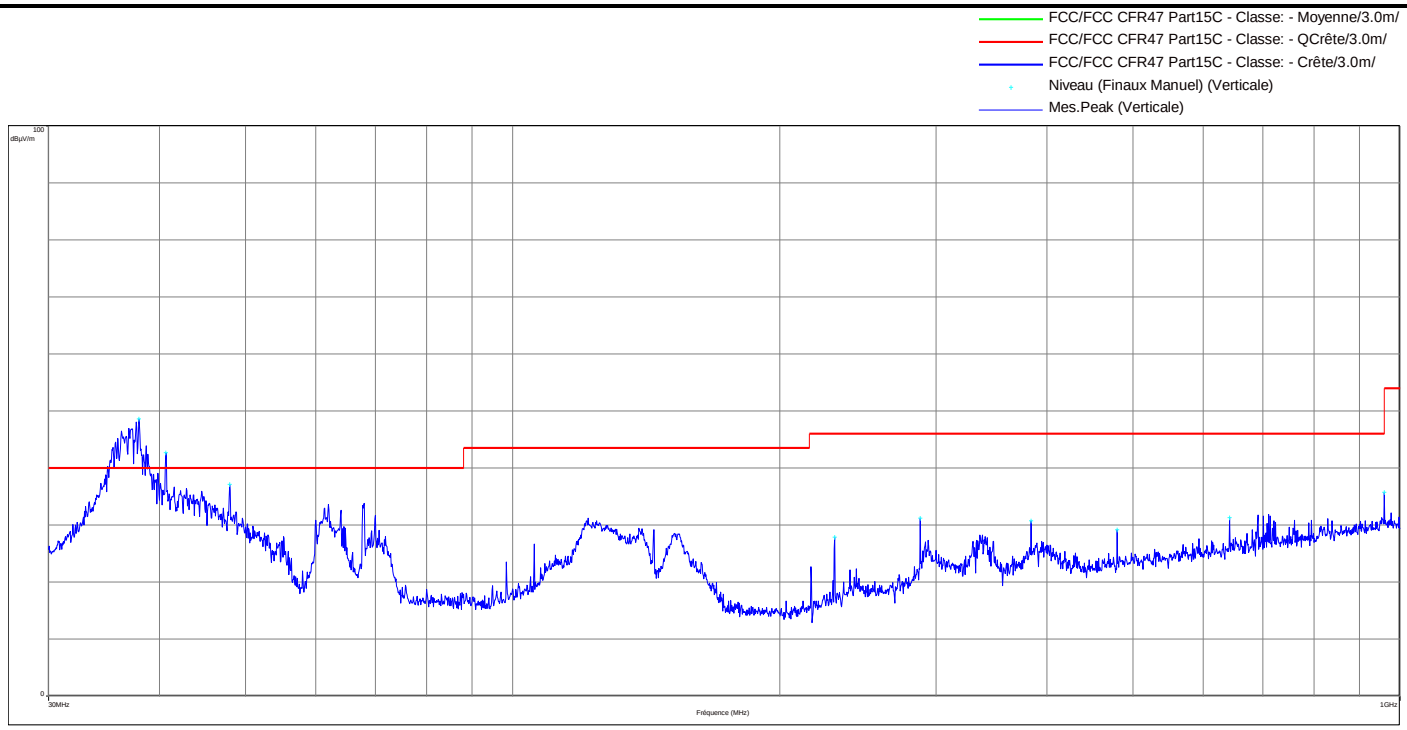
FREQUENCY(MHZ)	PEAK LEVEL(DBµV/M)
34.624	38.02
36.766	38.21
40.676	42.04
54.225	32.43
61.093	35.25
603.16	34.23
769.92	36.71
960	42.59

RADIATED EMISSIONS			
Graph name:	Emr#13b	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr13b - Cfg4 FCC Part 15 Subpart C PH Pos XY	
Class:			
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Horizontal	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



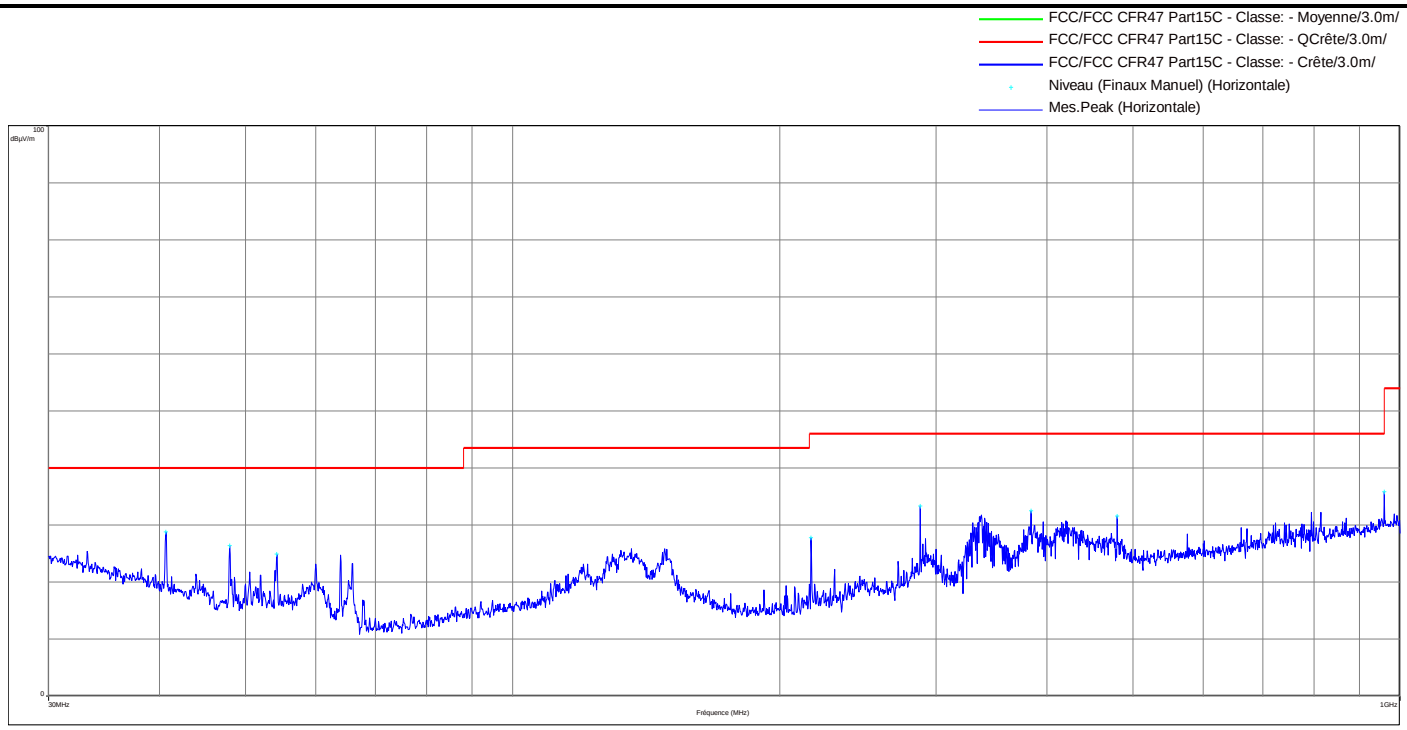
FREQUENCY(MHZ)	PEAK LEVEL(DBµV/M)
40.676	28.67
47.986	25.25
68.012	24.58
216.92	26.66
230.48	27.45
960.04	36.92

RADIATED EMISSIONS			
Graph name:	Emr#14b	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr14b - Cfg4 FCC Part 15 Subpart C PV Pos XY	
Class:			
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Vertical	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



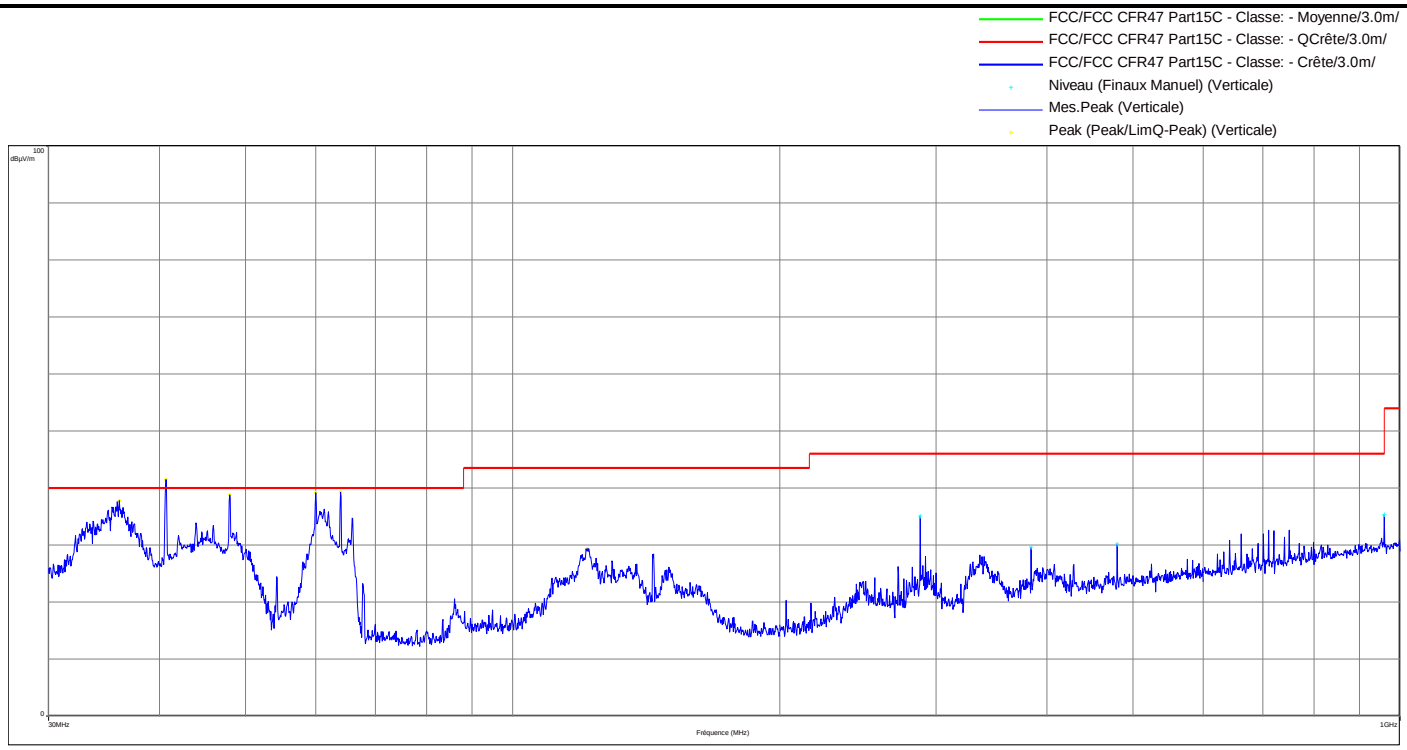
FREQUENCY(MHZ)	PEAK LEVEL(DBµV/M)
37.939	48.61
40.676	42.68
48.003	37.11
230.48	27.88
288	31.18
384	30.7
480	29.12
642.36	31.29
960	35.76

RADIATED EMISSIONS			
Graph name:	Emr#15b	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr15b - Cfg5 FCC Part 15 Subpart C PH Pos XY	
Class:			
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Horizontal	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



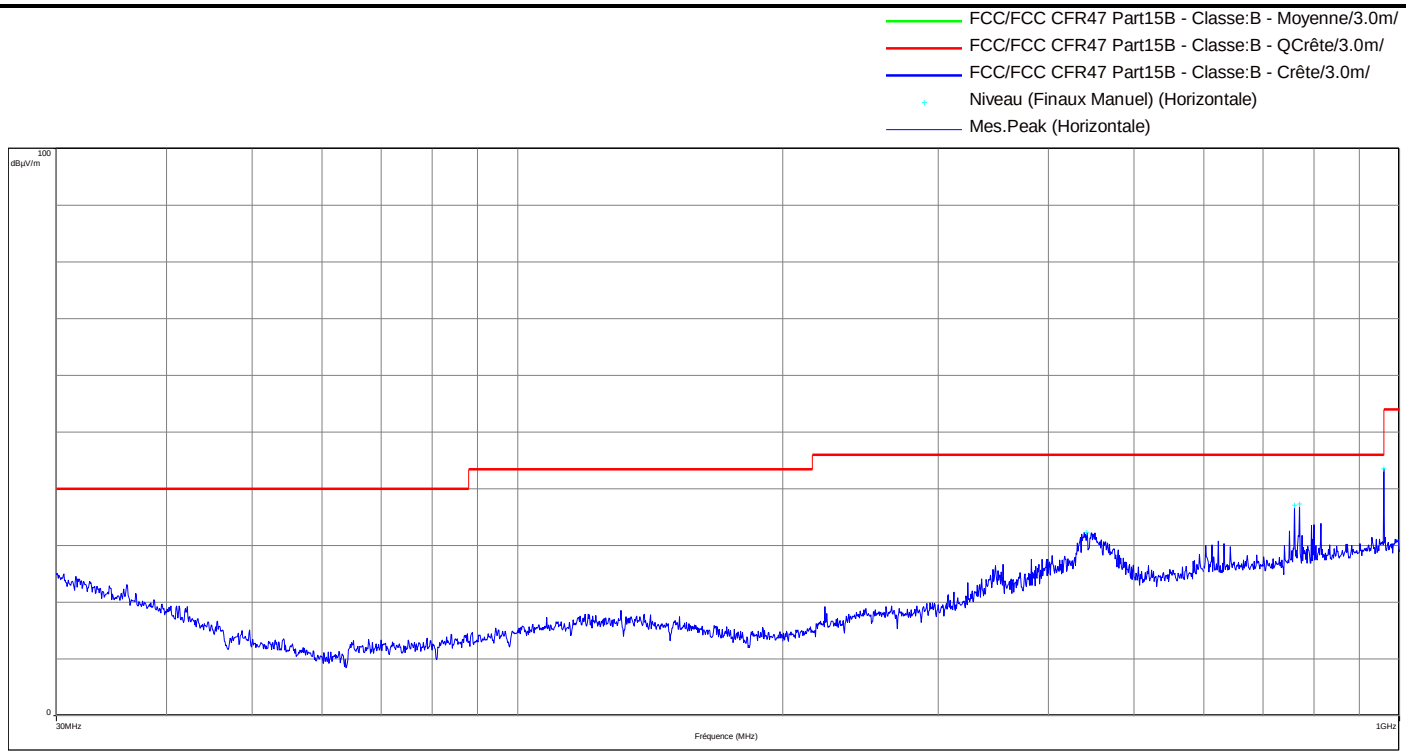
FREQUENCY(MHZ)	PEAK LEVEL(DBµV/M)
40.676	28.82
48.003	26.37
54.225	24.91
216.92	27.74
288	33.31
384	32.47
480	31.6
960	35.81

RADIATED EMISSIONS			
Graph name:	Emr#16b	**Test configuration:**	
Limit:	FCC CFR47 Part15C	Emr16b - Cfg5 FCC Part 15 Subpart C PV Pos XY	
Class:			
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Vertical	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



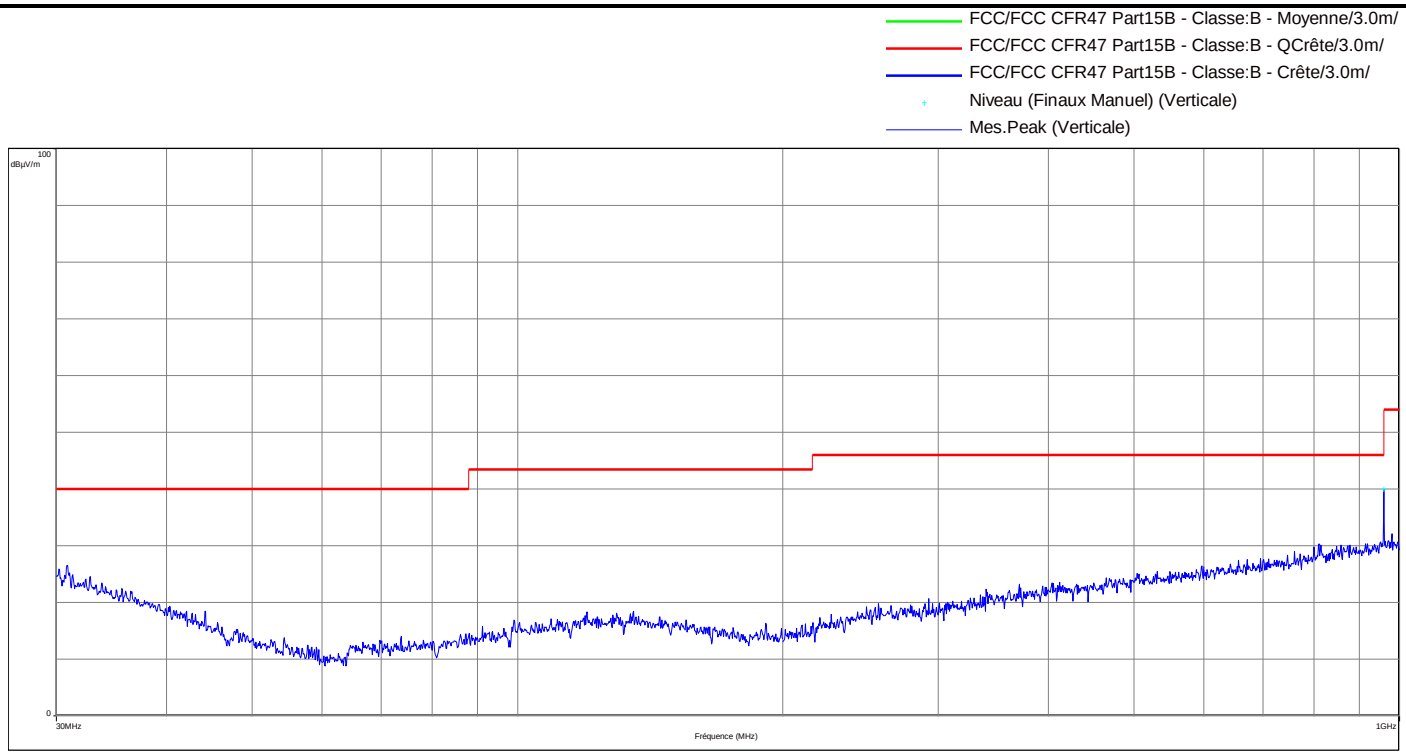
FREQUENCY (MHZ)	PEAK LEVEL (DBµV/M)
36.052	37.75
40.676	41.47
48.003	38.82
60.005	39.21
64	39.25
121.477	29.39
288	35.09
384	29.66
480	30.14
960	35.34

RADIATED EMISSIONS			
Graph name:	Emr#1b1	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr1b1 - Cfg1 FCC Part 15 Subpart B PH Pos XY	
Class:	B		
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Horizontal	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



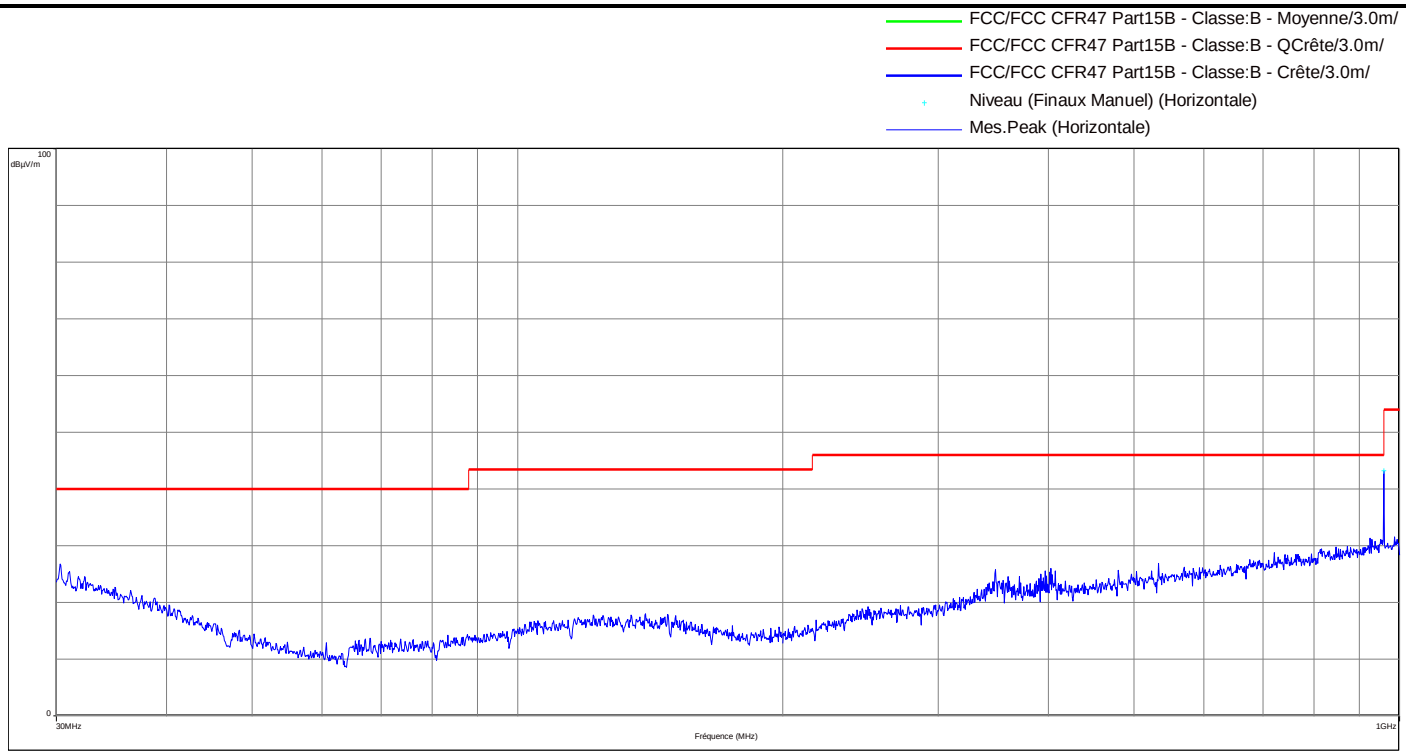
Frequency (MHz)	Peak Level (dBµV/m)
441.72	32.36
760.08	37.09
769.92	37.35
960.04	43.55

RADIATED EMISSIONS			
Graph name:	Emr#2b1	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr2b1 - Cfg1 FCC Part 15 Subpart B PV Pos XY	
Class:	B		
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Vertical	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



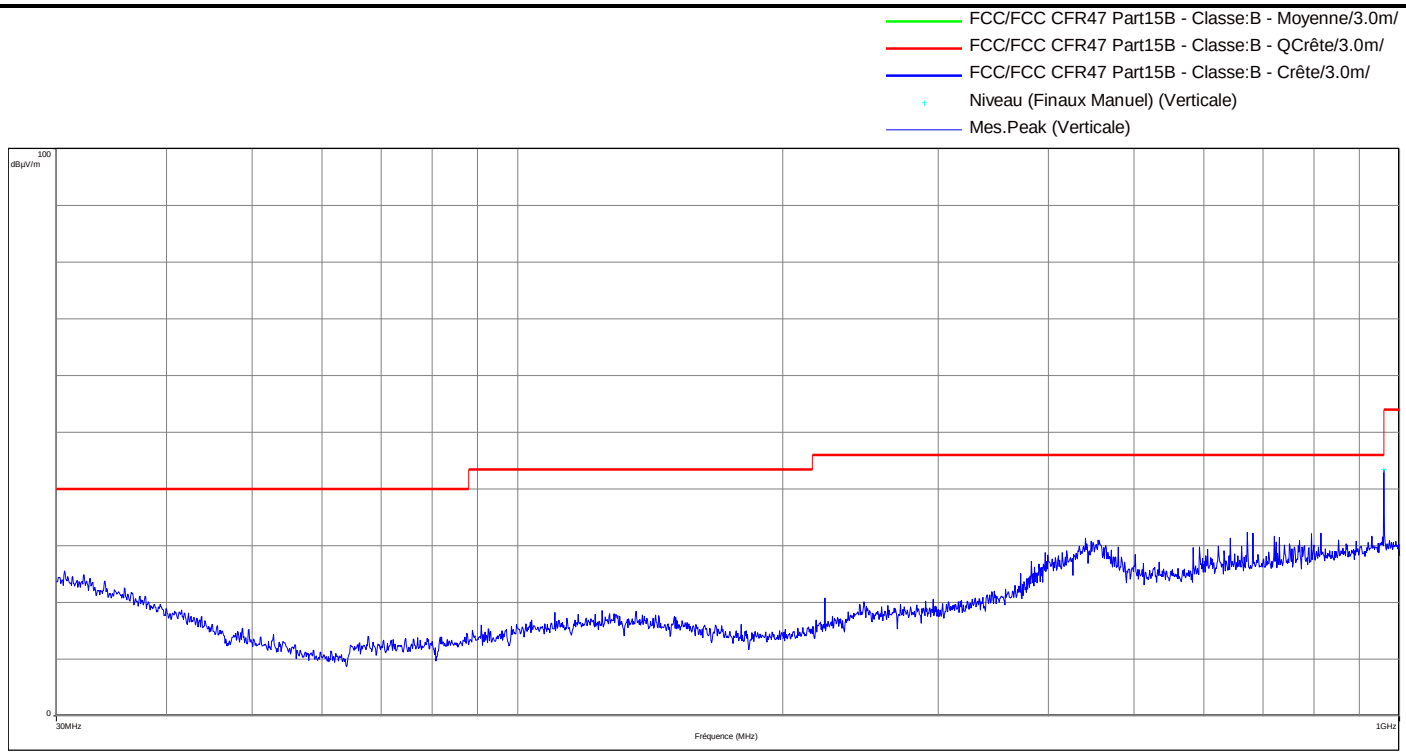
Frequency (MHz)	Peak Level (dBµV/m)
960.04	40.05

RADIATED EMISSIONS			
Graph name:	Emr#3b1	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr3b1 - Cfg1 FCC Part 15 Subpart B PH Pos Z	
Class:	B		
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Horizontal	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



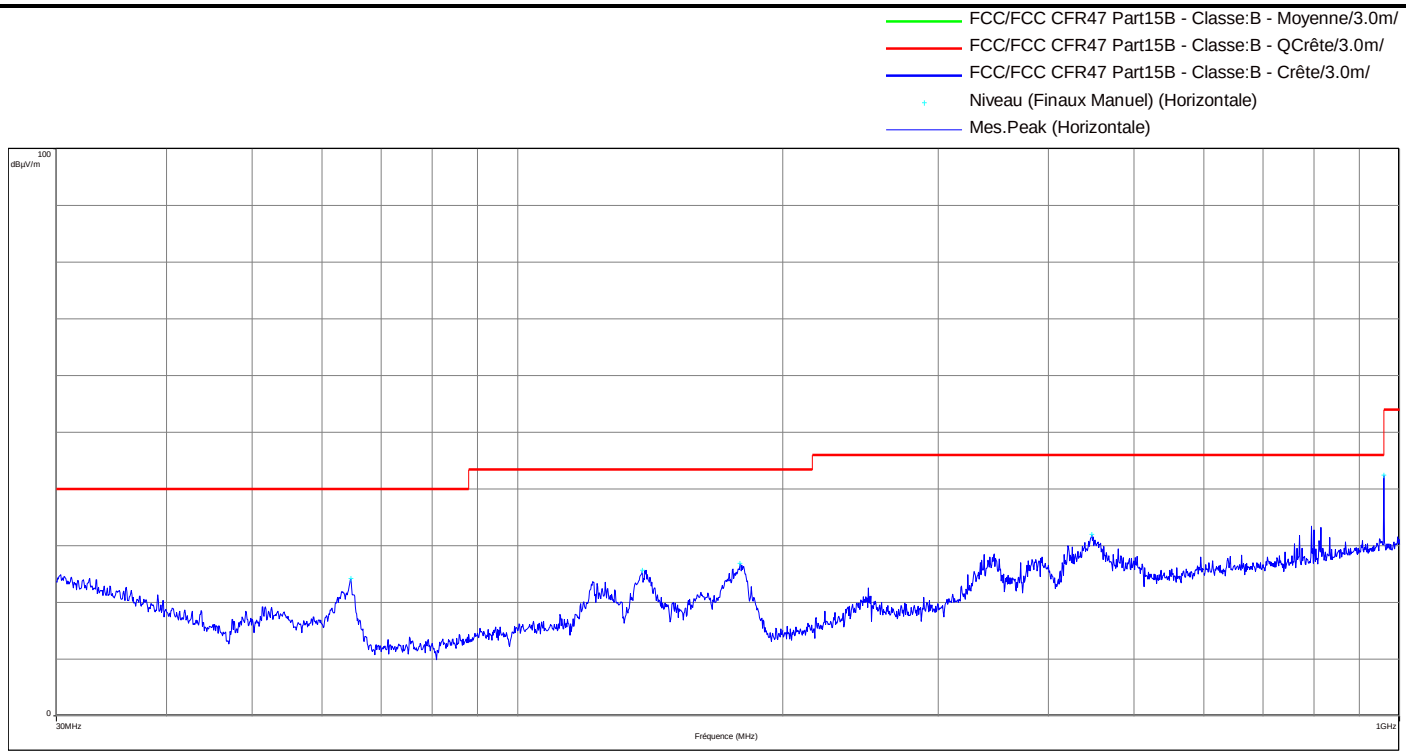
Frequency (MHz)	Peak Level (dBµV/m)
960	43.22

RADIATED EMISSIONS			
Graph name:	Emr#4b1	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr4b1 - Cfg1 FCC Part 15 Subpart B PV Pos Z	
Class:	B		
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Vertical	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



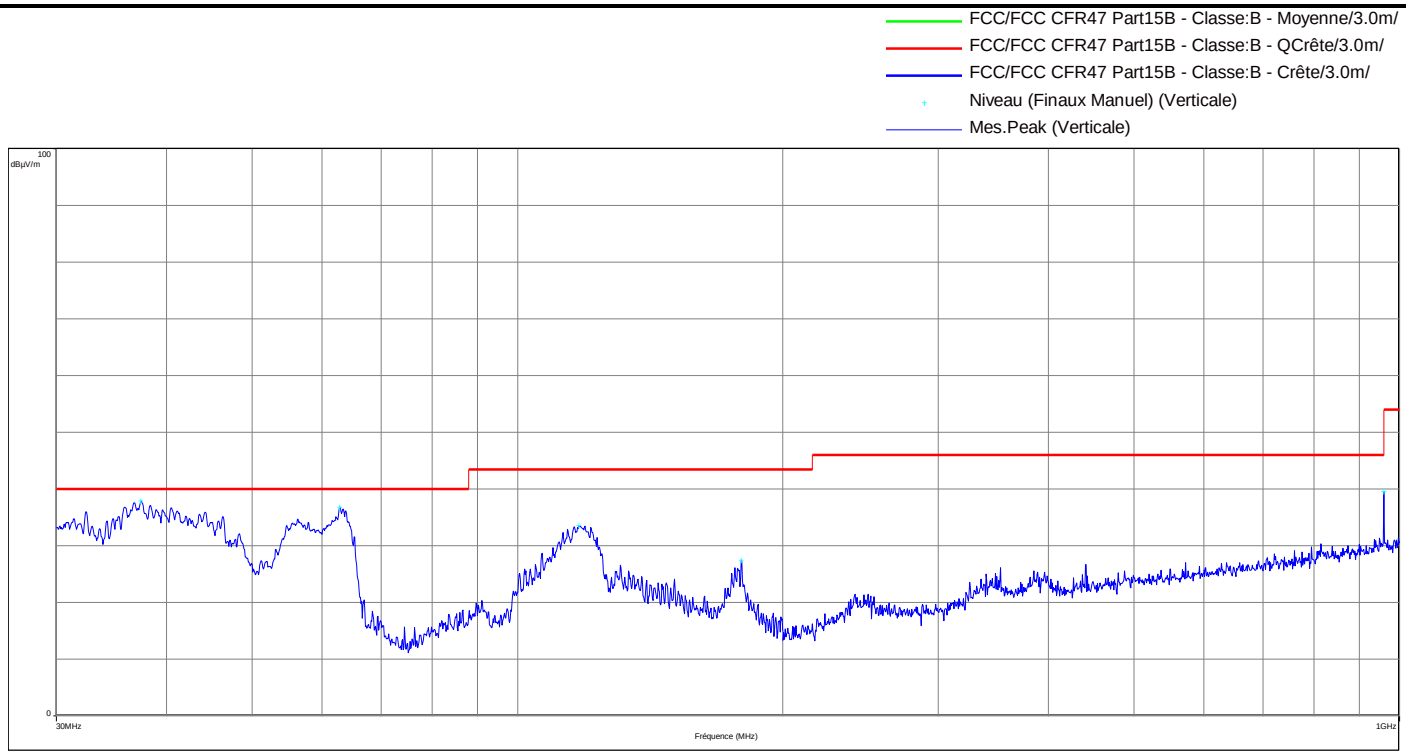
Frequency (MHz)	Peak Level (dBµV/m)
960	43.4

RADIATED EMISSIONS			
Graph name:	Emr#5b1	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr5b1 - Cfg2 FCC Part 15 Subpart B PH Pos XY	
Class:	B		
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Horizontal	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



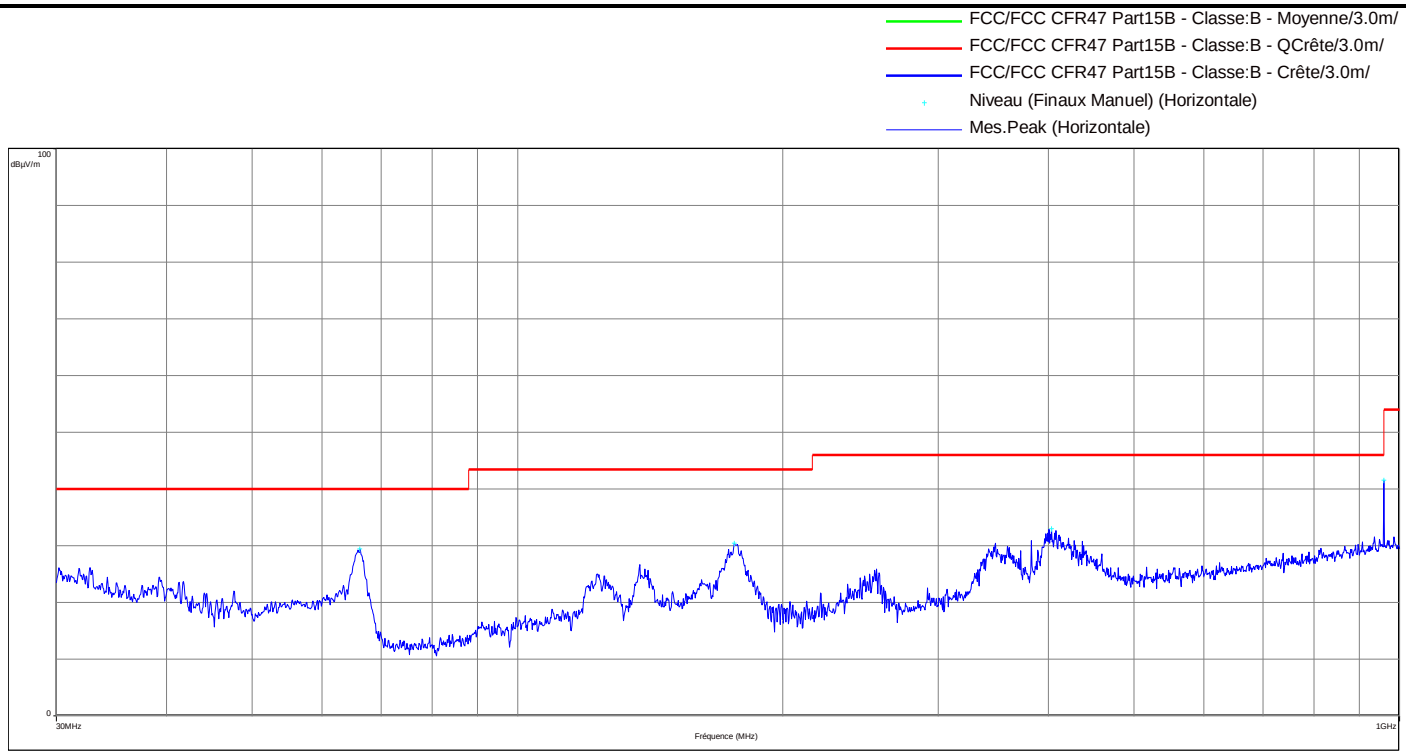
Frequency (MHz)	Peak Level (dBµV/m)
64.714	24.19
138.477	25.62
178.767	26.92
447.4	32.01
960.04	42.44

RADIATED EMISSIONS			
Graph name:	Emr#6b1	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr6b1 - Cfg2 FCC Part 15 Subpart B PV Pos XY	
Class:	B		
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Vertical	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



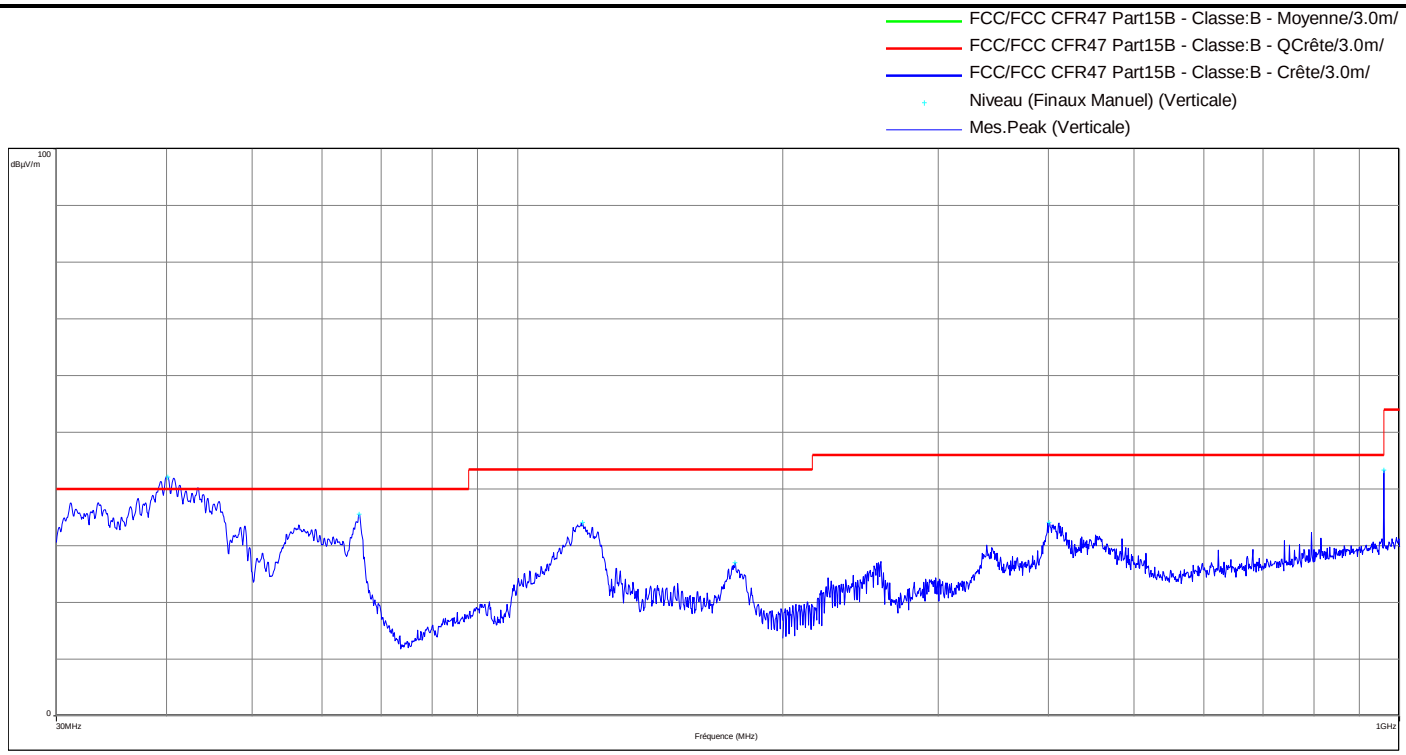
Frequency (MHz)	Peak Level (dBµV/m)
37.412	37.83
62.895	36.75
117.346	33.56
179.413	27.46
960	39.53

RADIATED EMISSIONS			
Graph name:	Emr#7b1	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr7b1 - Cfg2 FCC Part 15 Subpart B PH Pos Z	
Class:	B		
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Horizontal	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



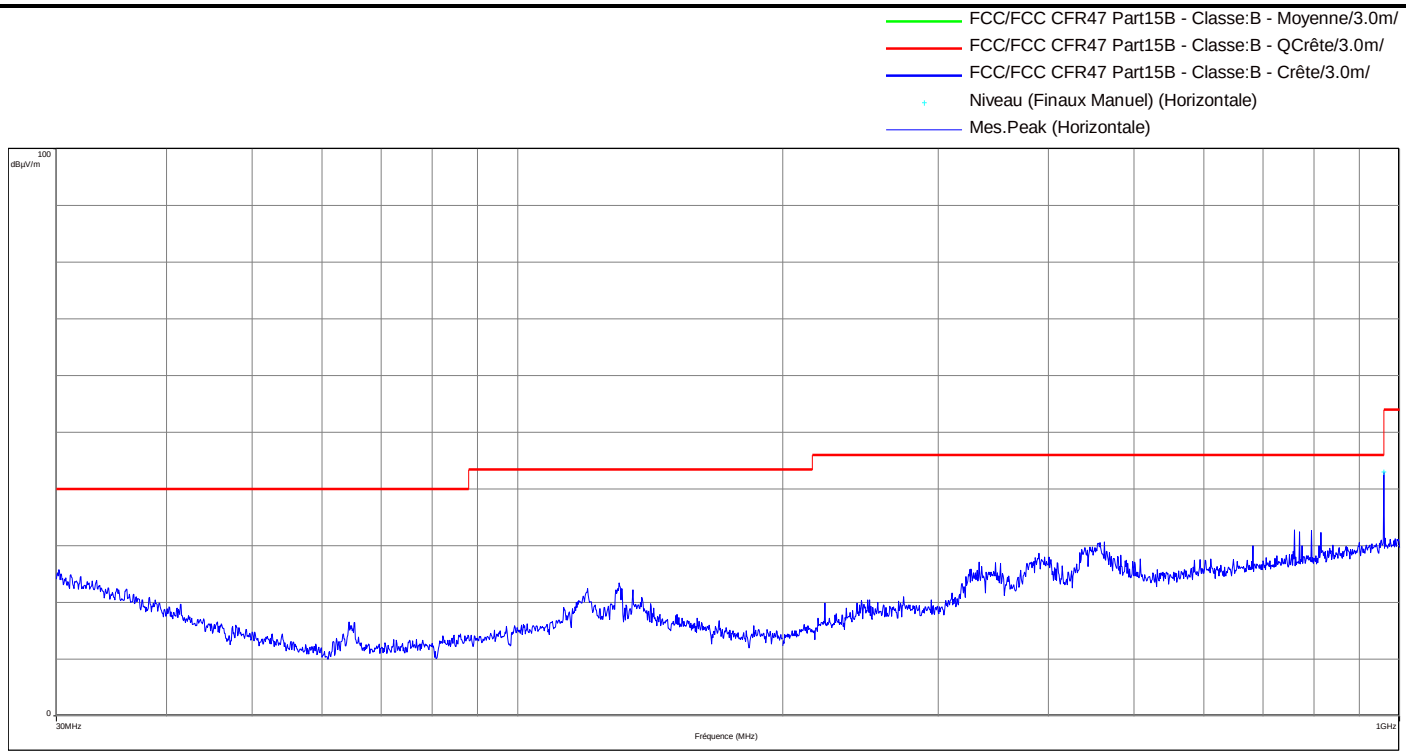
Frequency (MHz)	Peak Level (dBµV/m)
66.261	29.46
176.064	30.46
403.32	32.99
960	41.53

RADIATED EMISSIONS			
Graph name:	Emr#8b1	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr8b1 - Cfg2 FCC Part 15 Subpart B PV Pos Z	
Class:	B		
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Vertical	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



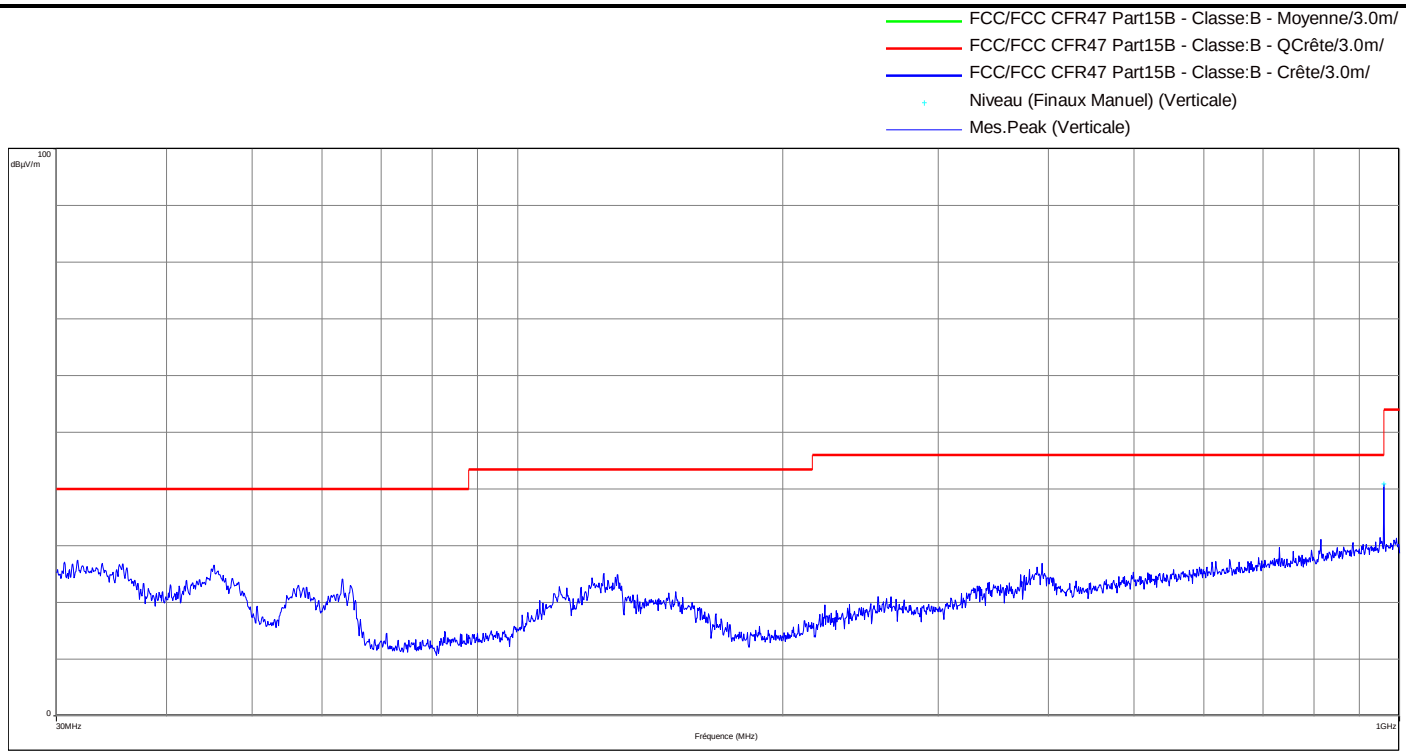
Frequency (MHz)	Peak Level (dBµV/m)
40.098	42.16
66.159	35.56
118.485	34.11
176.489	26.95
400.76	34.11
960	43.29

RADIATED EMISSIONS			
Graph name:	Emr#9b1	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr9b1 - Cfg3 FCC Part 15 Subpart B PH Pos XY	
Class:	B		
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Horizontal	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



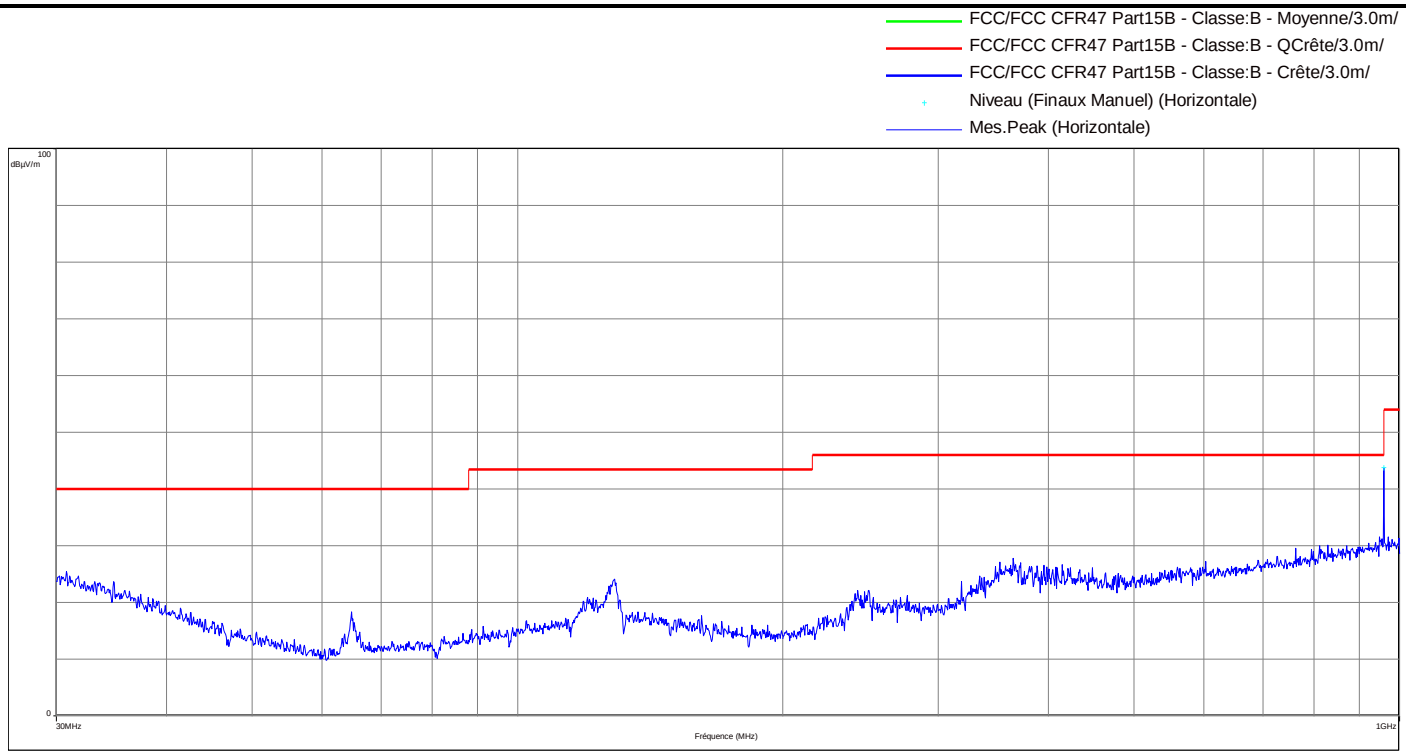
Frequency (MHz)	Peak Level (dBµV/m)
960.04	43.04

RADIATED EMISSIONS			
Graph name:	Emr#10b1	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr10b1 - Cfg3 FCC Part 15 Subpart B PV Pos XY	
Class:	B		
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Vertical	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



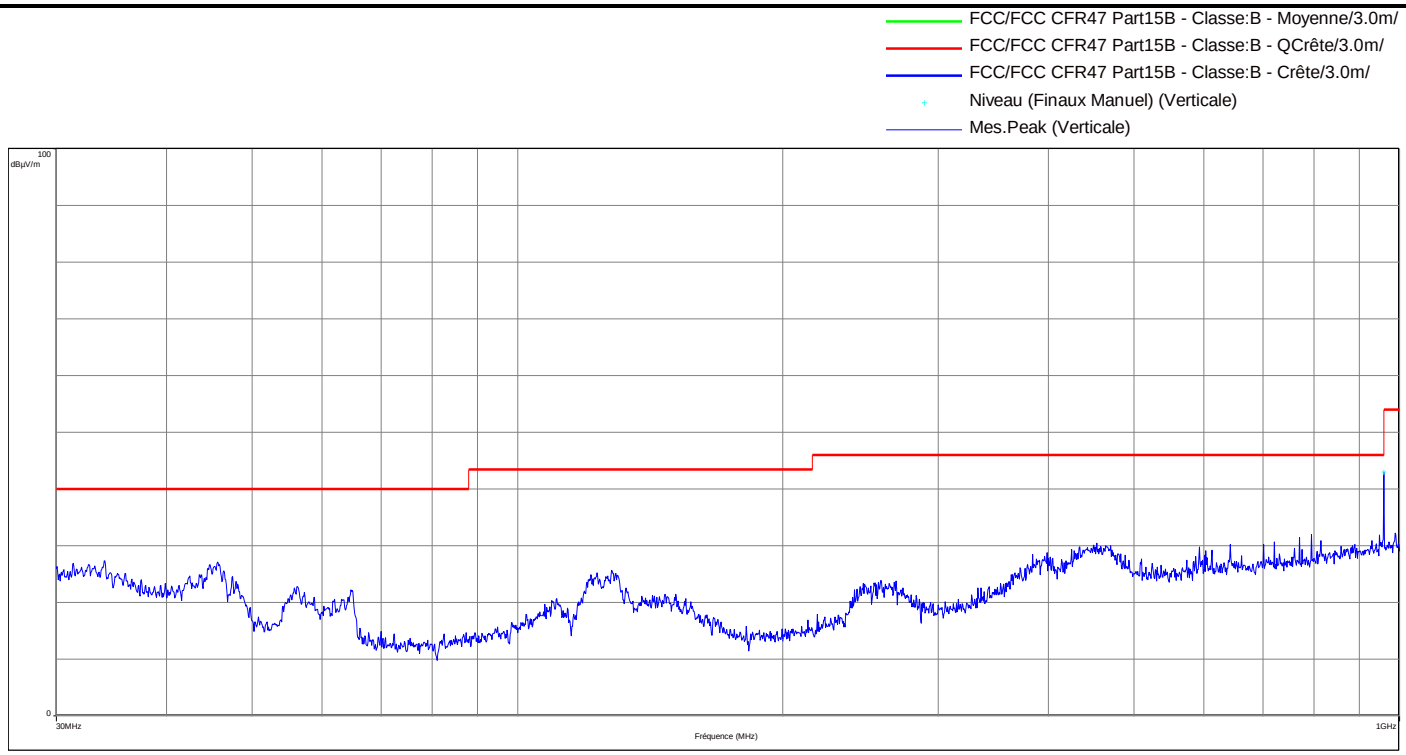
Frequency (MHz)	Peak Level (dBµV/m)
960	40.84

RADIATED EMISSIONS			
Graph name:	Emr#11b1	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr11b1 - Cfg3 FCC Part 15 Subpart B PH Pos Z	
Class:	B		
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Horizontal	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



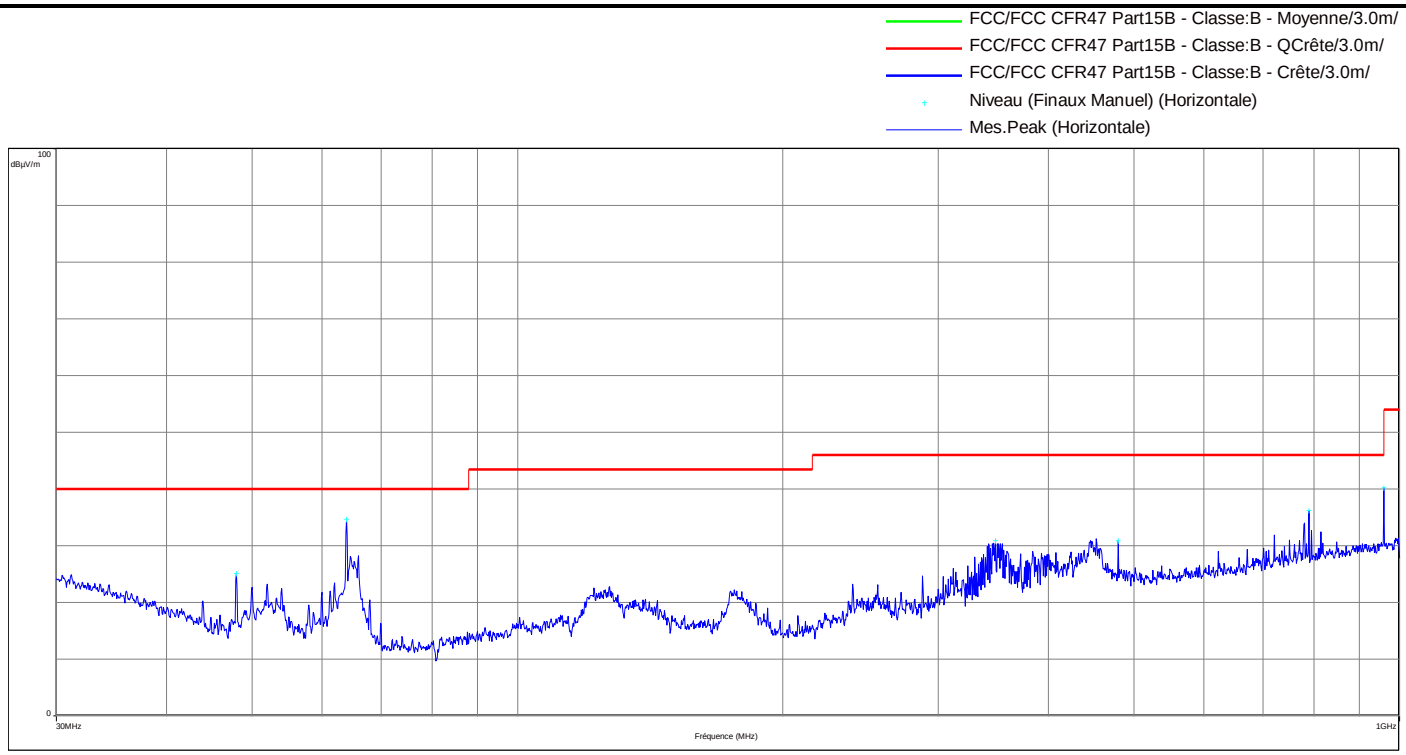
Frequency (MHz)	Peak Level (dBµV/m)
960	43.82

RADIATED EMISSIONS			
Graph name:	Emr#12b1	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr12b1 - Cfg3 FCC Part 15 Subpart B PV Pos Z	
Class:	B		
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Vertical	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



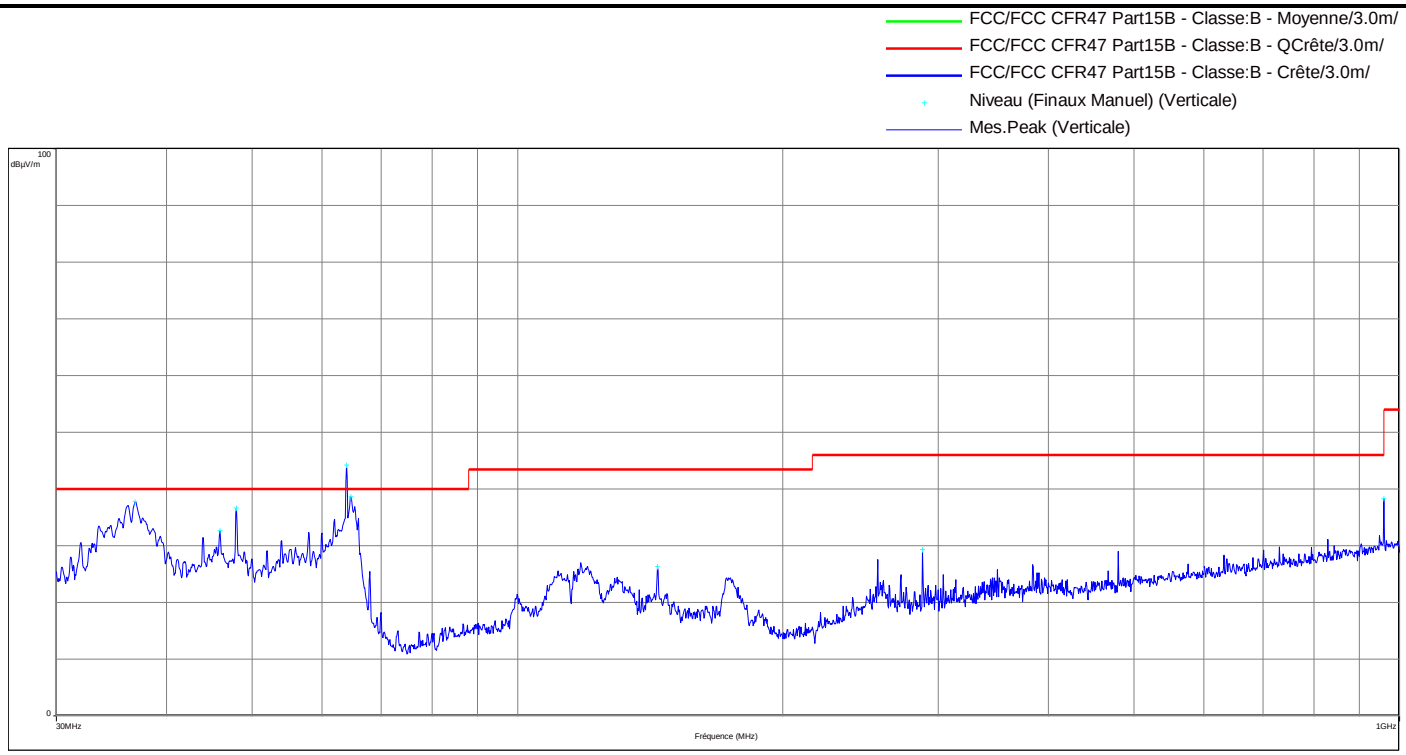
Frequency (MHz)	Peak Level (dBµV/m)
960	43.04

RADIATED EMISSIONS			
Graph name:	Emr#13b1	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr13b1 - Cfg4 FCC Part 15 Subpart B PH Pos XY	
Class:	B		
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Horizontal	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



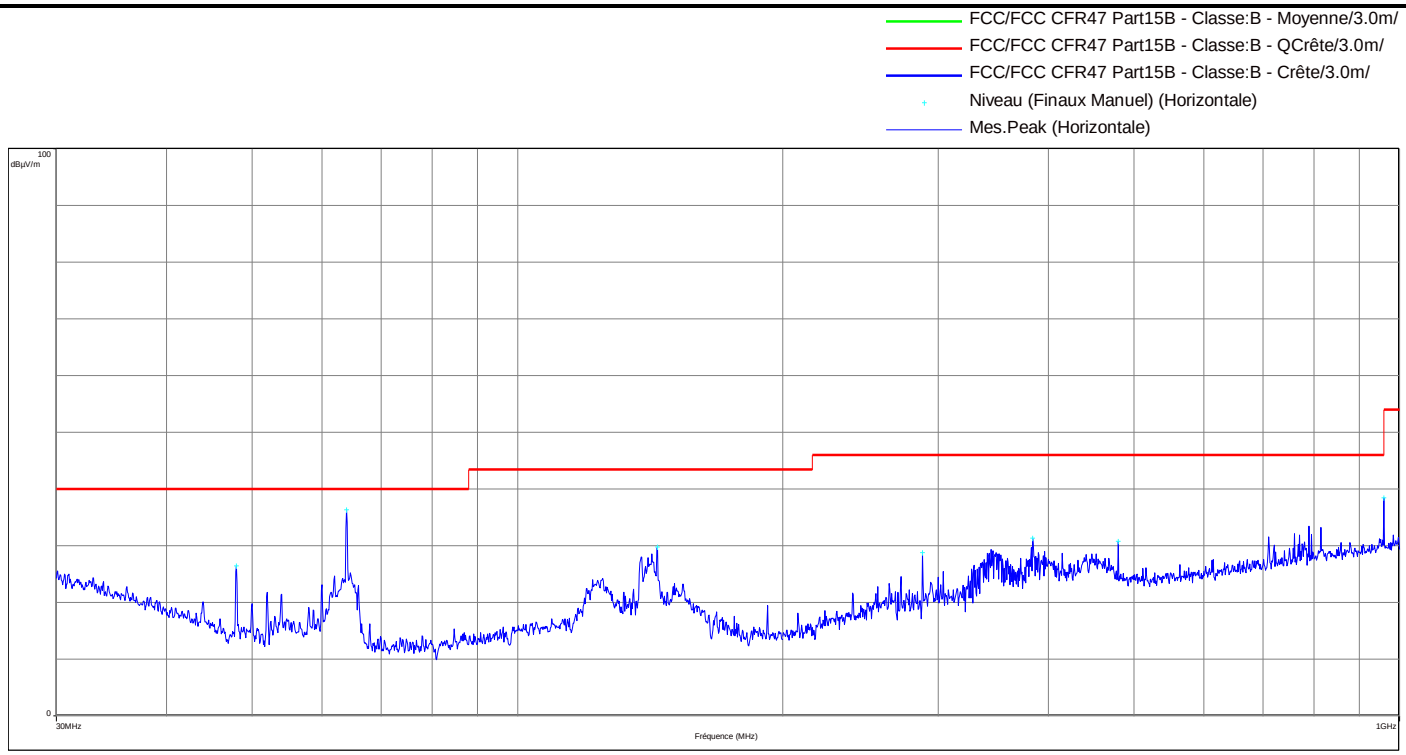
Frequency (MHz)	Peak Level (dBµV/m)
48.003	25.1
63.983	34.65
348.36	30.9
480	30.88
789.52	36.24
960	40.19

RADIATED EMISSIONS			
Graph name:	Emr#14b1	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr14b1 - Cfg4 FCC Part 15 Subpart B PV Pos XY	
Class:	B		
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Vertical	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



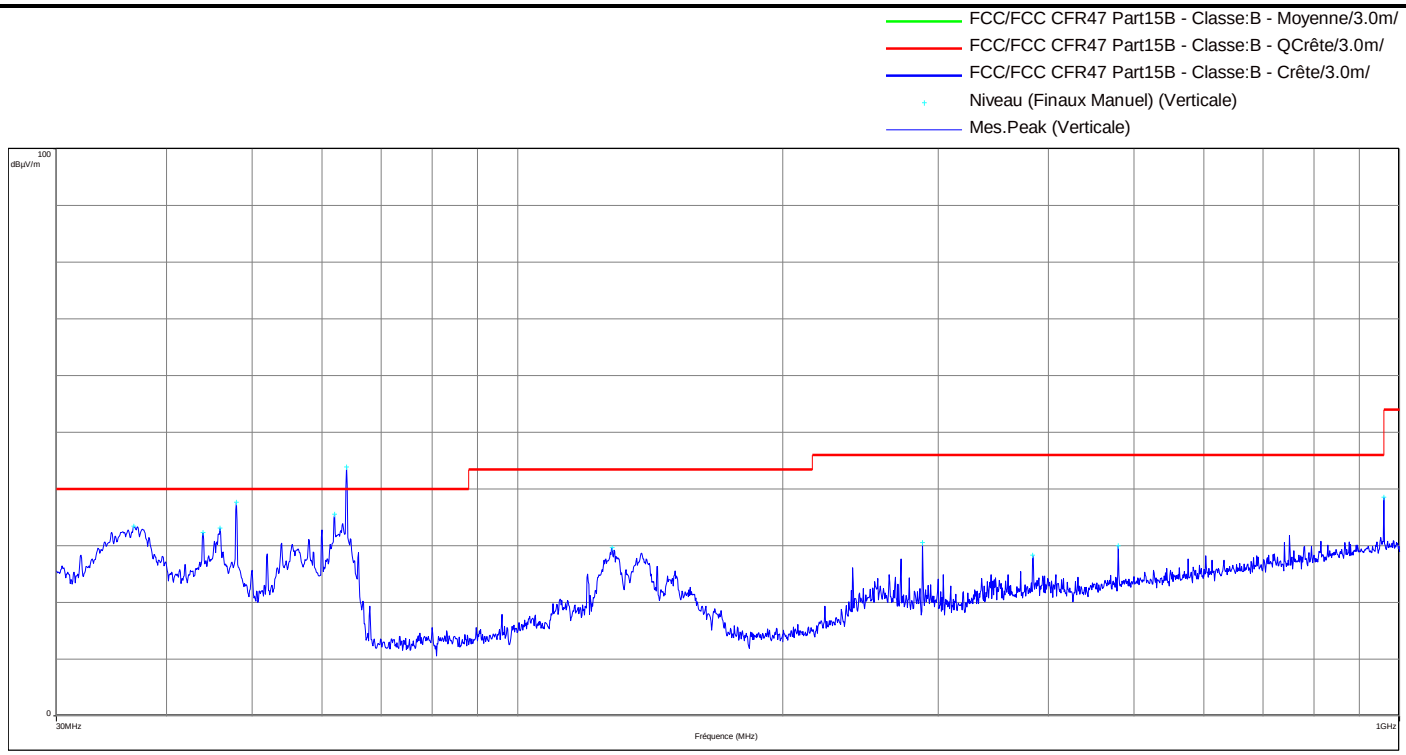
Frequency (MHz)	Peak Level (dBµV/m)
36.868	37.73
45.98	32.66
47.986	36.72
64	44.18
64.714	38.67
144.172	26.36
288	29.33
960.04	38.32

RADIATED EMISSIONS			
Graph name:	Emr#15b1	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr15b1 - Cfg5 FCC Part 15 Subpart B PH Pos XY	
Class:	B		
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Horizontal	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



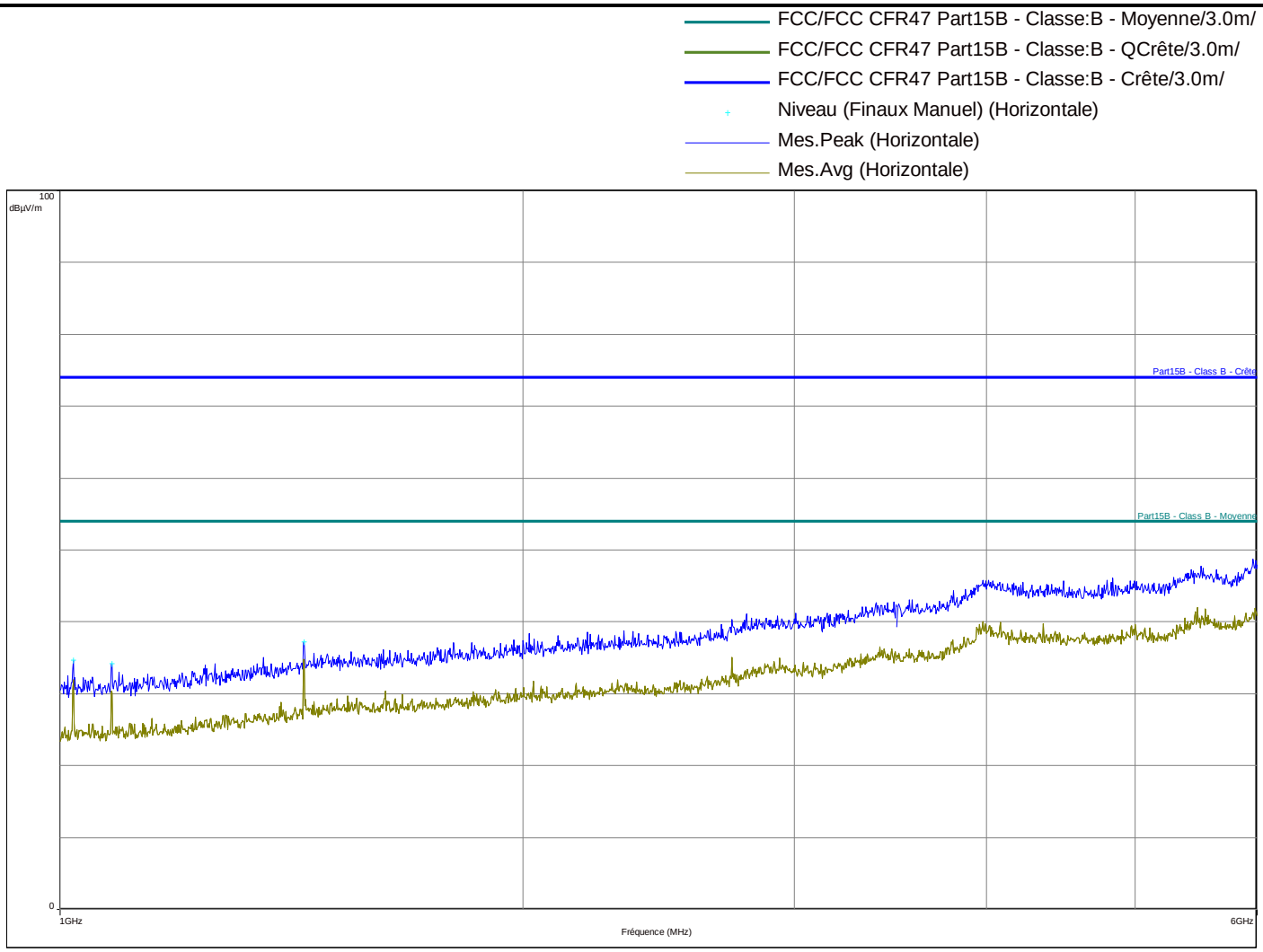
Frequency (MHz)	Peak Level (dBµV/m)
47.986	26.47
64	36.33
144.019	29.77
288	28.79
383.96	31.36
480	30.82
960	38.45

RADIATED EMISSIONS			
Graph name:	Emr#16b1	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr16b1 - Cfg5 FCC Part 15 Subpart B PV Pos XY	
Class:	B		
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Vertical	**RBW :**	100kHz
Azimuth:	0° - 360°	**VBW :**	300kHz



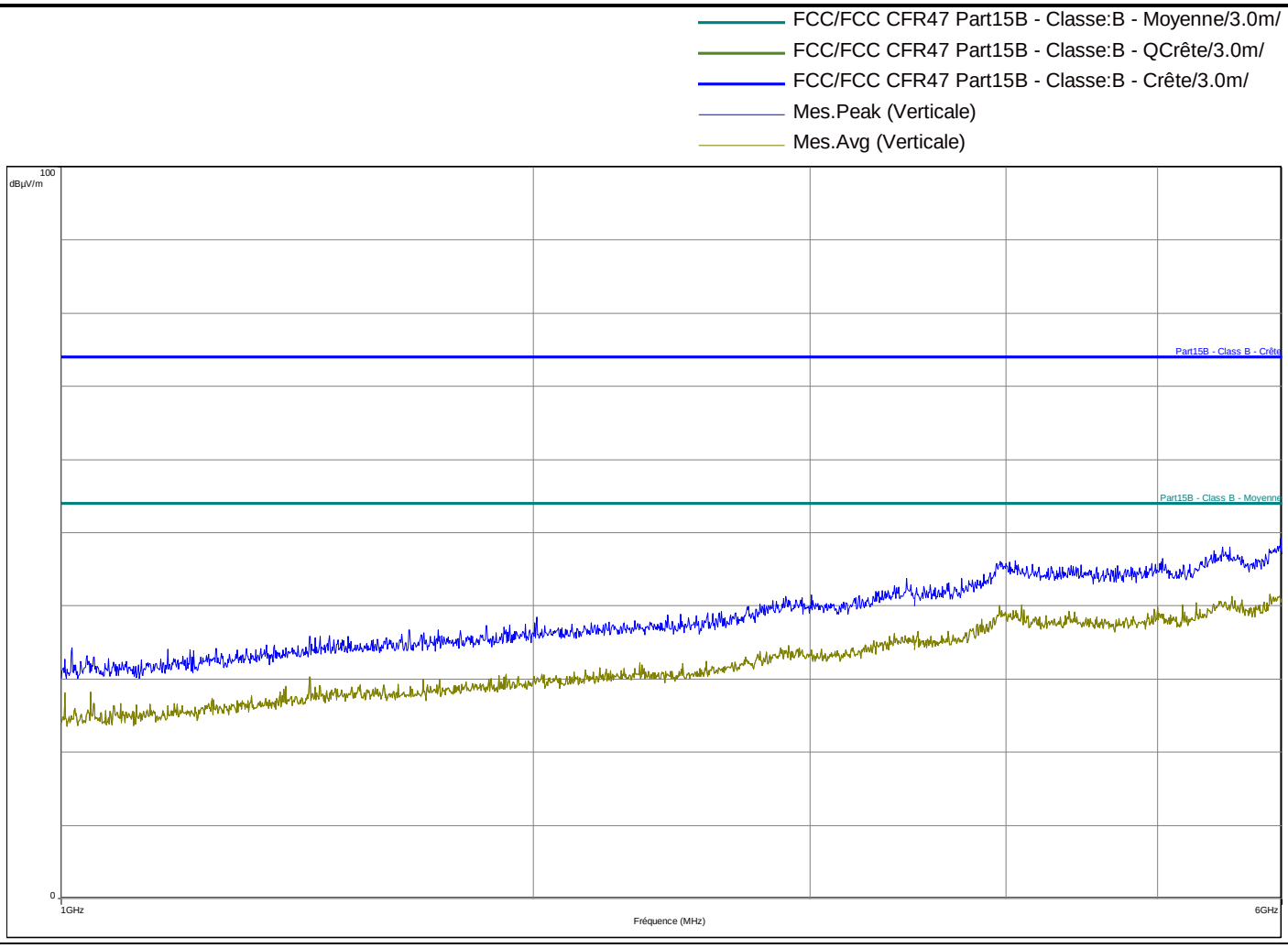
Frequency (MHz)	Peak Level (dBµV/m)
36.715	33.44
43.991	32.28
45.997	33.14
47.986	37.61
61.994	35.57
64	43.88
127.971	29.67
288	30.59
384	28.37
480	30.03
960.04	38.53

RADIATED EMISSIONS			
Graph name:	Emr#1c	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr1c - Cfg1 FCC Part 15 Subpart B PH Pos XY	
Class:	B		
Frequency range: [1GHz - 6GHz]			
Antenna polarization:	Horizontal	**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz

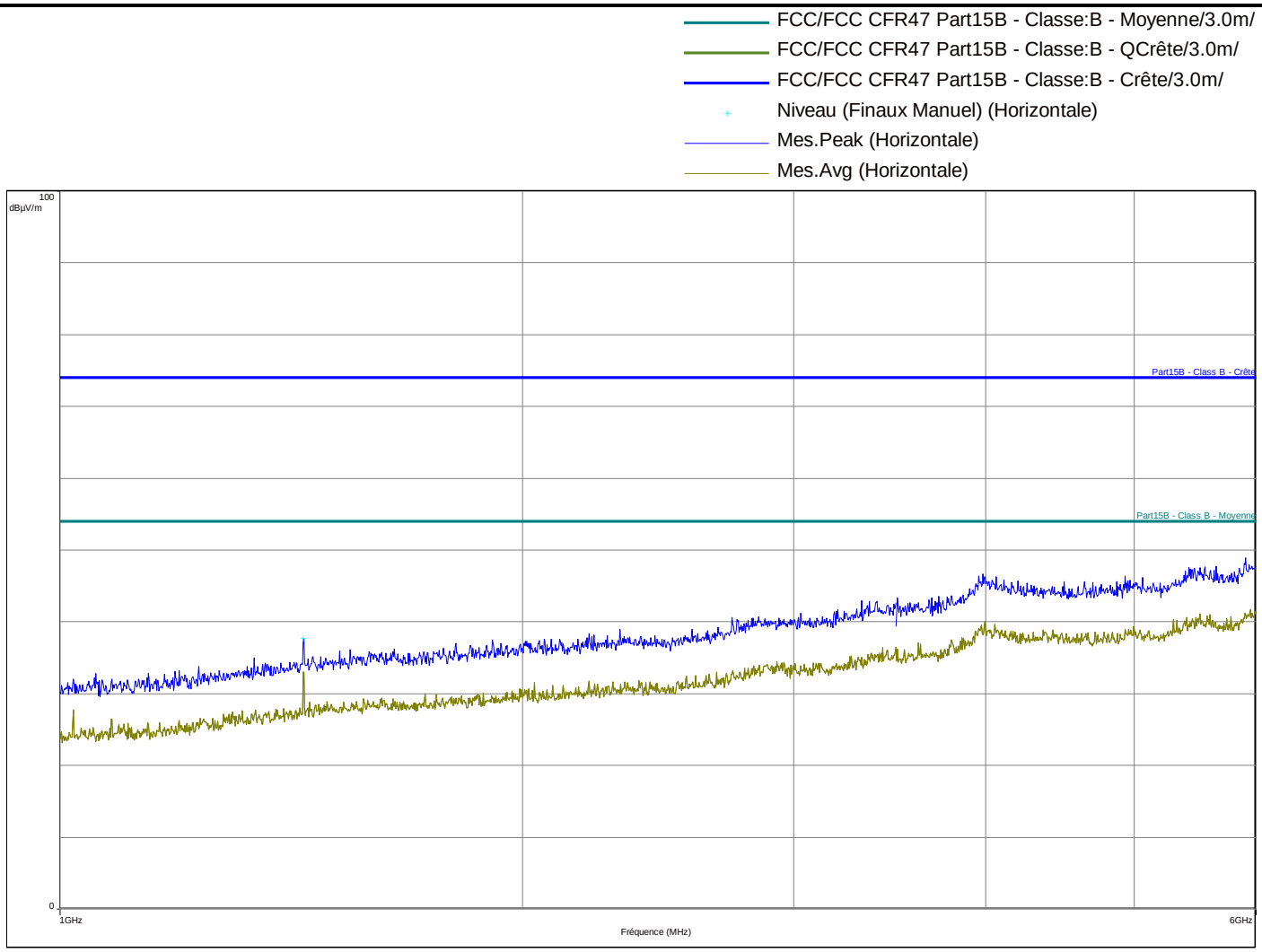


Frequency (MHz)	Peak Level (dBµV/m)
1020.25	34.64
1080.25	34.18
1440.25	37.23

RADIATED EMISSIONS			
Graph name:	Emr#2c	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr2c - Cfg1 FCC Part 15 Subpart B PV Pos XY	
Class:	B		
Frequency range: [1GHz - 6GHz]			
Antenna polarization:	Vertical	**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz

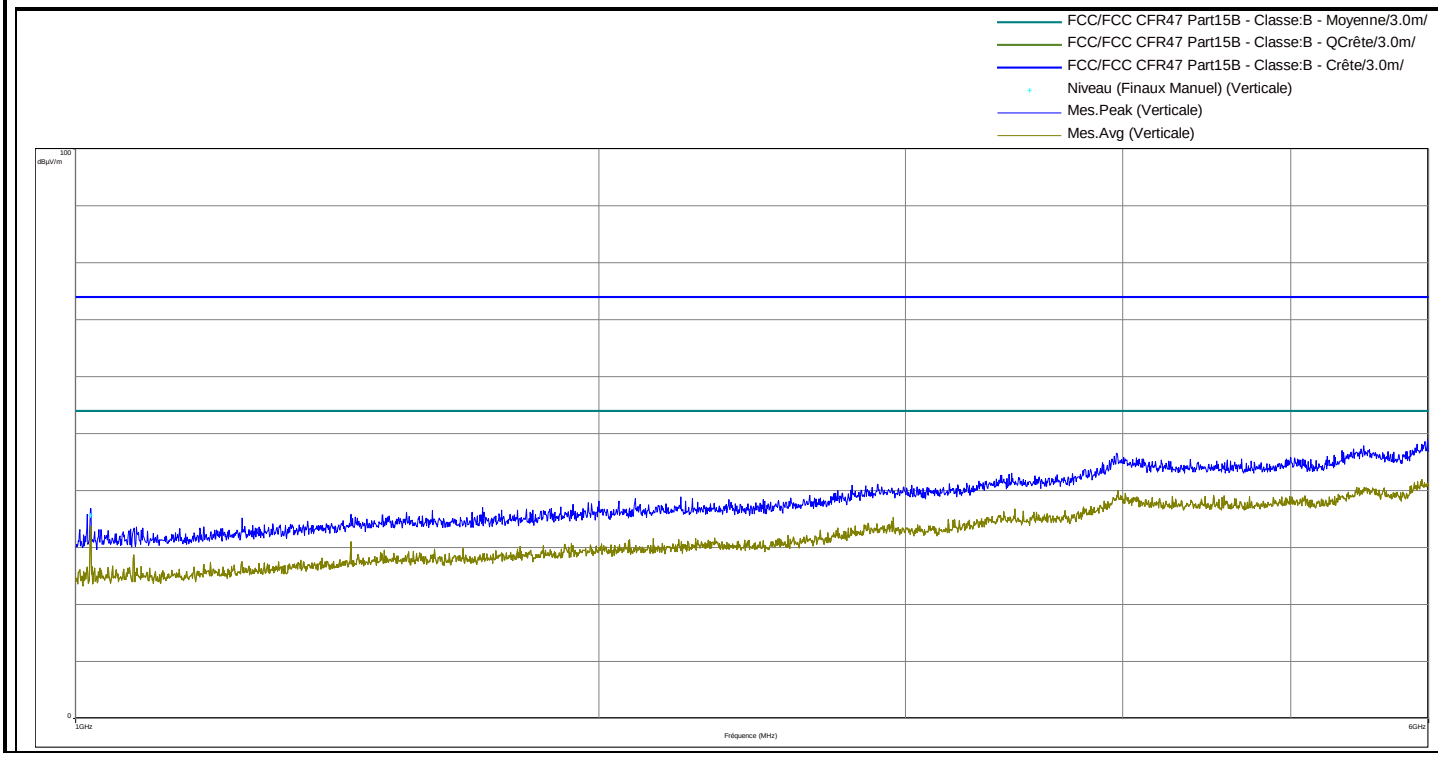


RADIATED EMISSIONS			
Graph name:	Emr#3c	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr3c - Cfg1 FCC Part 15 Subpart B PH Pos Z	
Class:	B		
Frequency range: [1GHz - 6GHz]			
Antenna polarization:	Horizontal	**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz



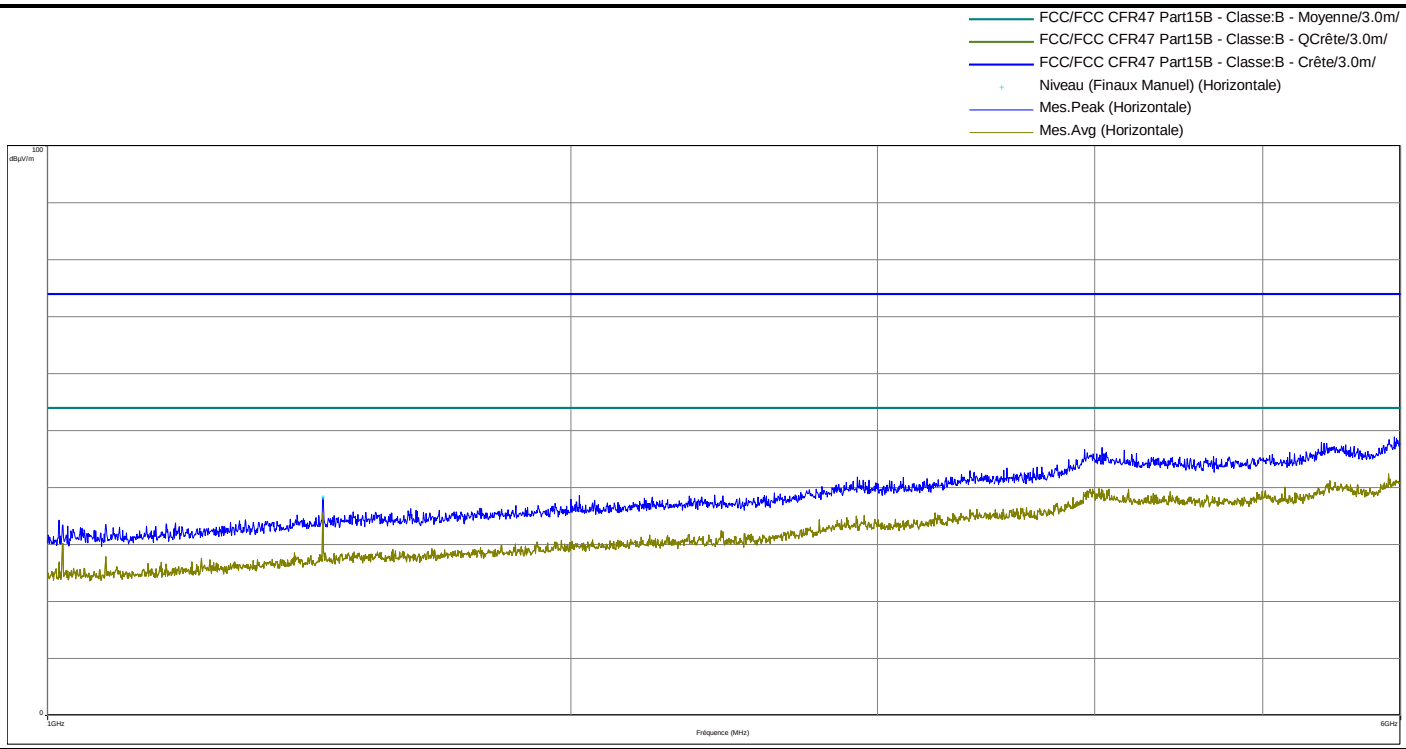
Frequency (MHz)	Peak Level (dBµV/m)
1440	37.66

RADIATED EMISSIONS			
Graph name:	Emr#4c	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr4c - Cfg1 FCC Part 15 Subpart B PV Pos Z	
Class:	B		
Frequency range: [1GHz - 6GHz]			
Antenna polarization:	Vertical	**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz

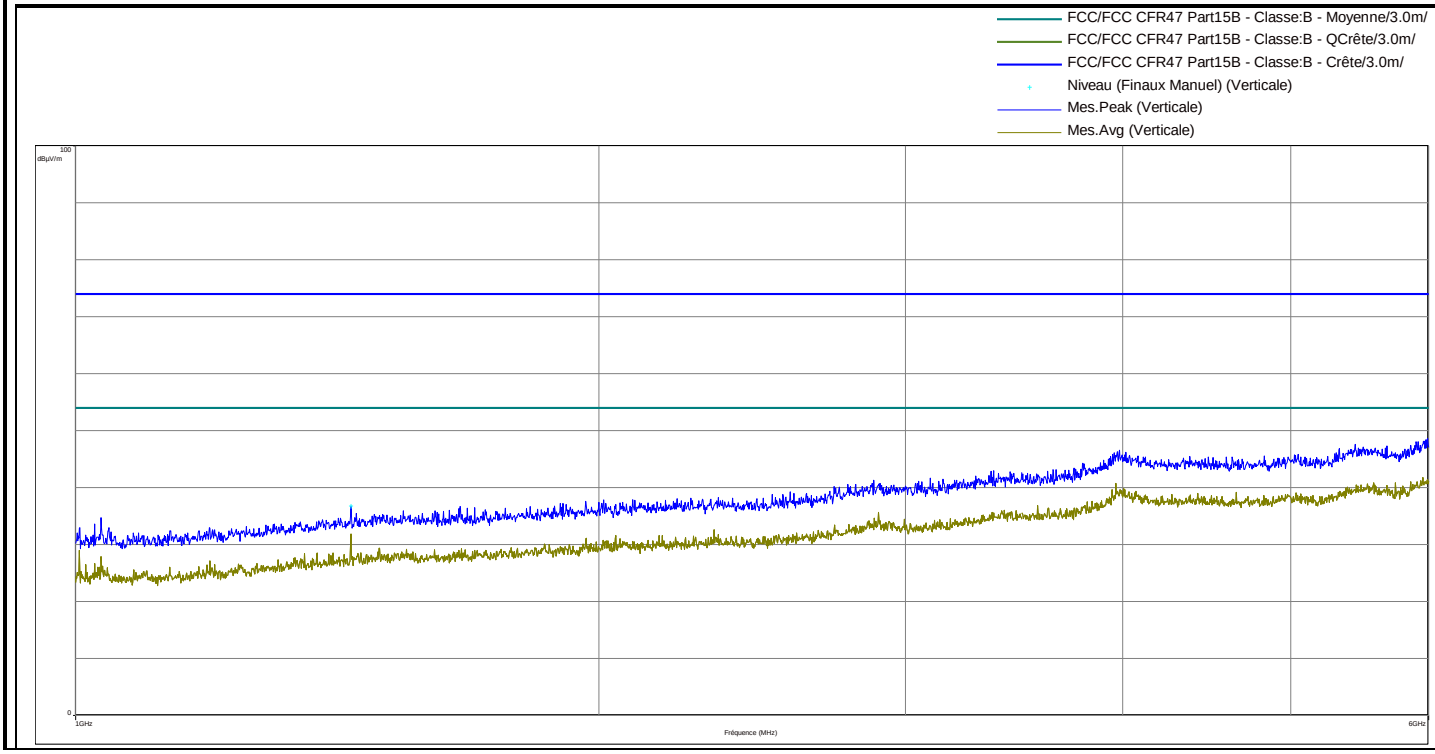


Frequency (MHz)	Peak Level (dBµV/m)
1019.5	35.69

RADIATED EMISSIONS			
Graph name:	Emr#5c	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr5c - Cfg2 FCC Part 15 Subpart B PH Pos XY	
Class:	B		
Frequency range: [1GHz - 6GHz]			
Antenna polarization:	Horizontal	**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz

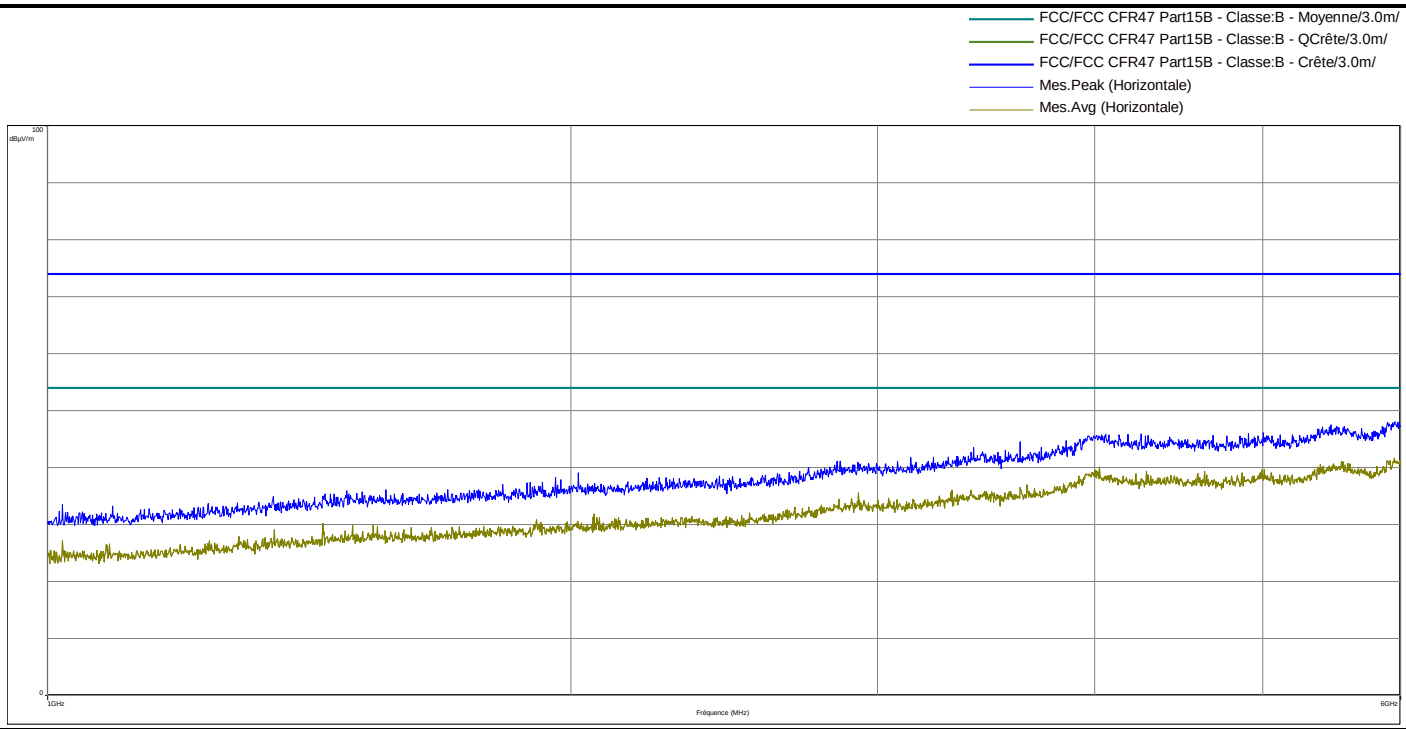


RADIATED EMISSIONS			
Graph name:	Emr#6c	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr6c - Cfg2 FCC Part 15 Subpart B PV Pos XY	
Class:	B		
Frequency range: [1GHz - 6GHz]			
Antenna polarization:	Vertical	**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz

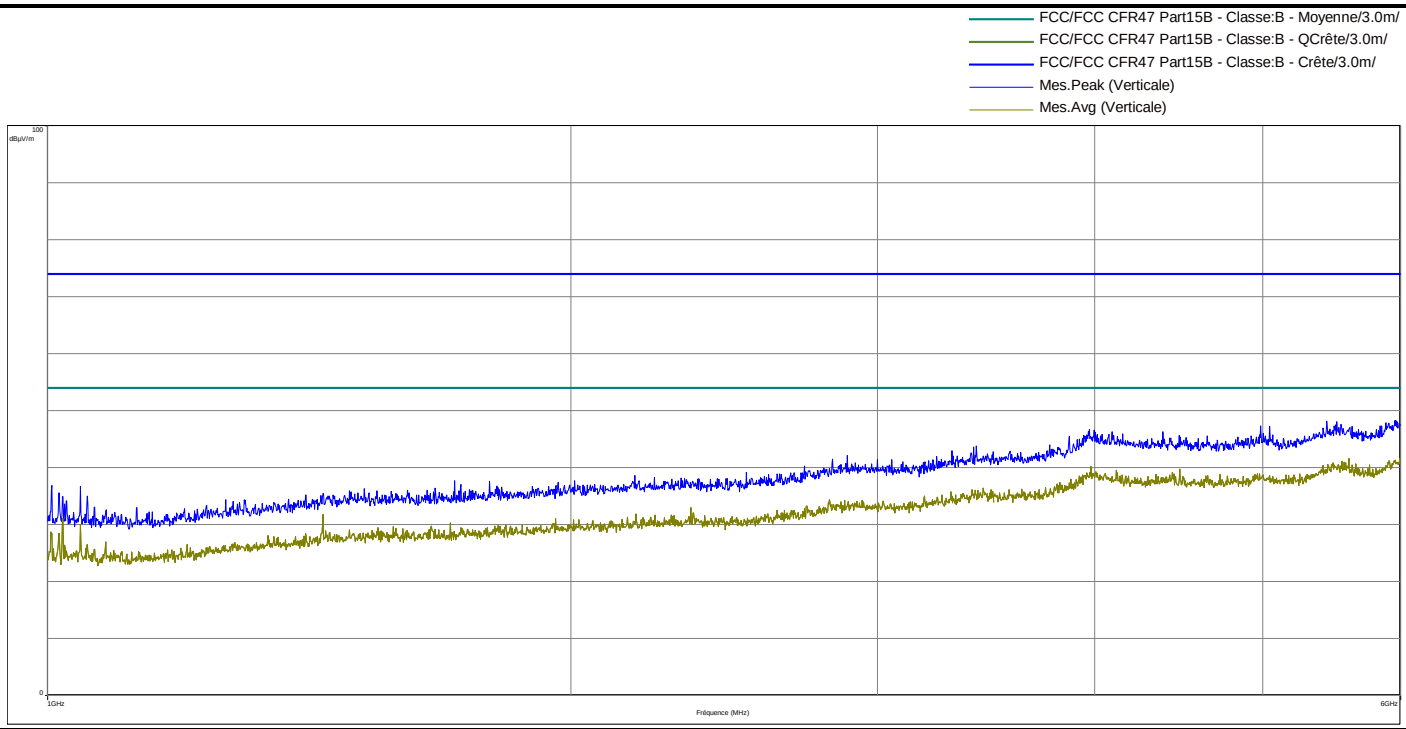


Frequency (MHz)	Peak Level (dBµV/m)
1440.5	36.77

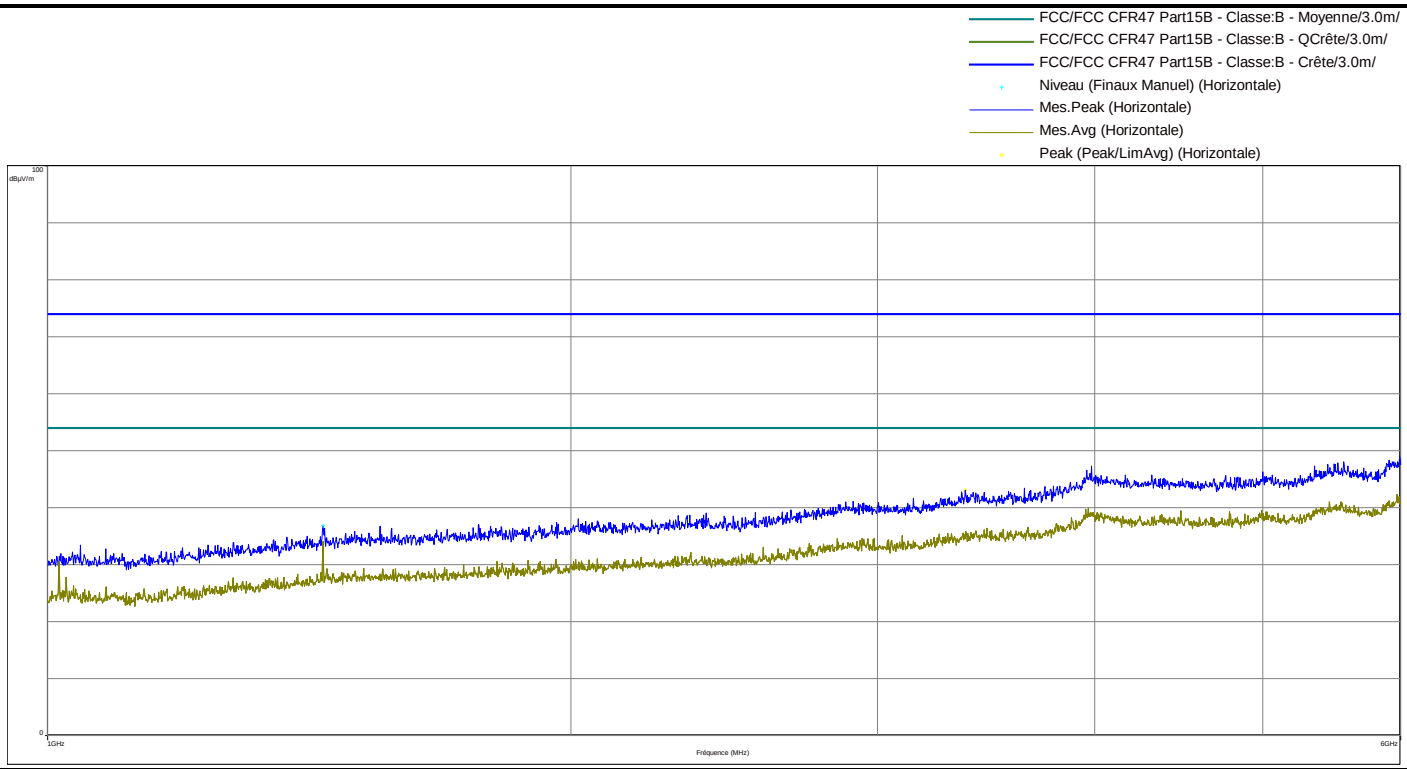
RADIATED EMISSIONS			
Graph name:	Emr#7c	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr7c - Cfg2 FCC Part 15 Subpart B PH Pos Z	
Class:	B		
Frequency range: [1GHz - 6GHz]			
Antenna polarization:	Horizontal	**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz



RADIATED EMISSIONS			
Graph name:	Emr#8c	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr8c - Cfg2 FCC Part 15 Subpart B PV Pos Z	
Class:	B		
Frequency range: [1GHz - 6GHz]			
Antenna polarization:	Vertical	**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz

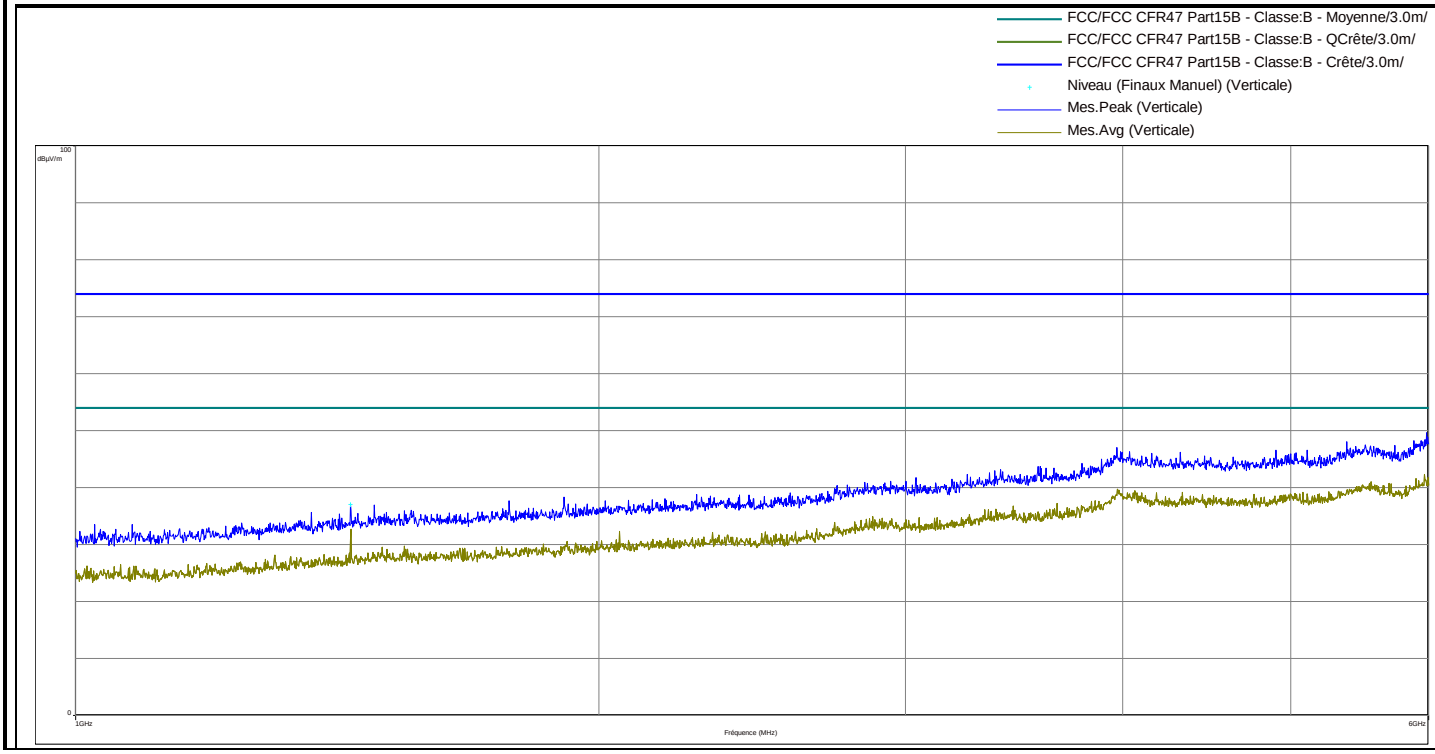


RADIATED EMISSIONS			
Graph name:	Emr#9b	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr9c - Cfg3 FCC Part 15 Subpart B PH Pos XY	
Class:	B		
Frequency range: [1GHz - 6GHz]			
Antenna polarization:	Horizontal	**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz



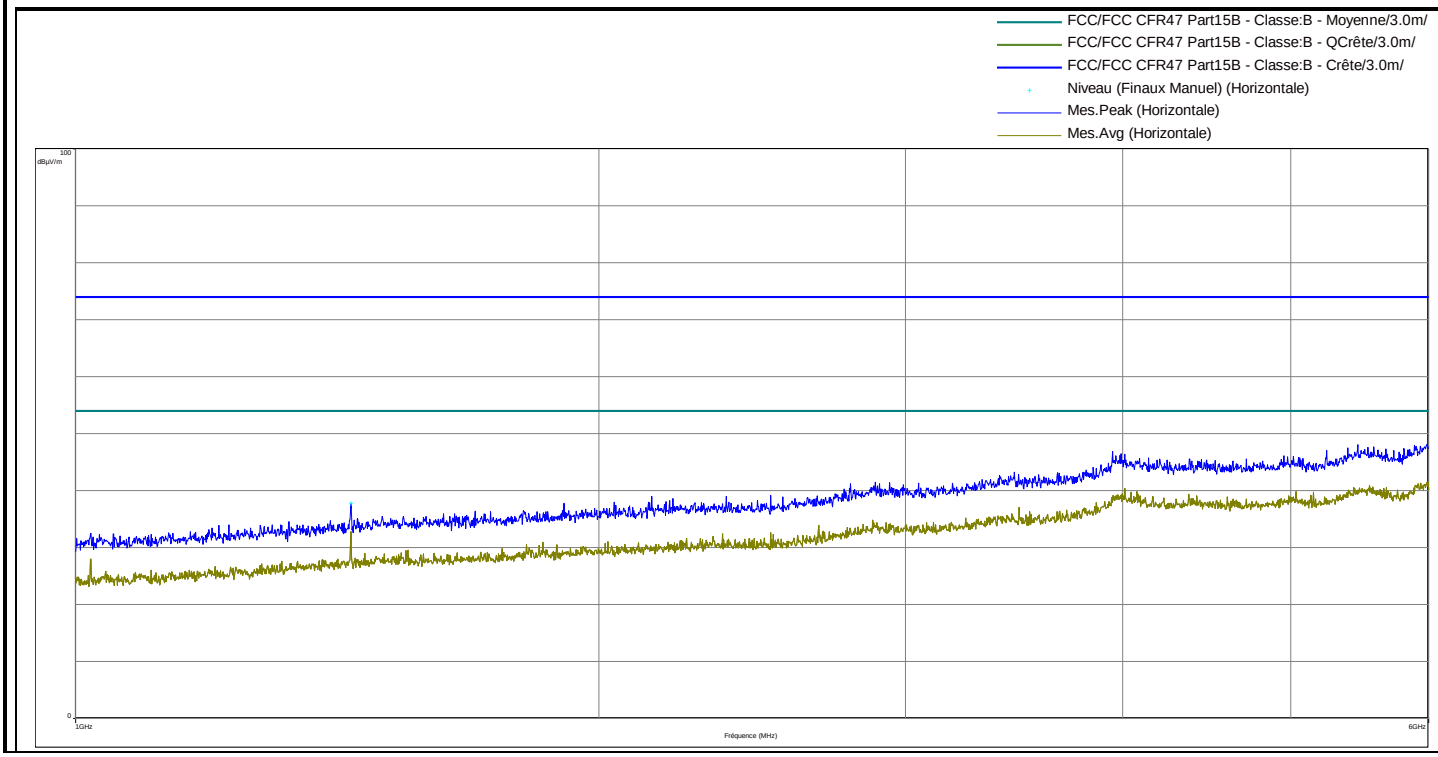
Frequency (MHz)	Peak (dBµV/m)
1440.25	36.87
3369.5	43.07
5992.75	48.99

RADIATED EMISSIONS			
Graph name:	Emr#10c	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr10c - Cfg3 FCC Part 15 Subpart B PV Pos XY	
Class:	B		
Frequency range: [1GHz - 6GHz]			
Antenna polarization:	Vertical	**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz



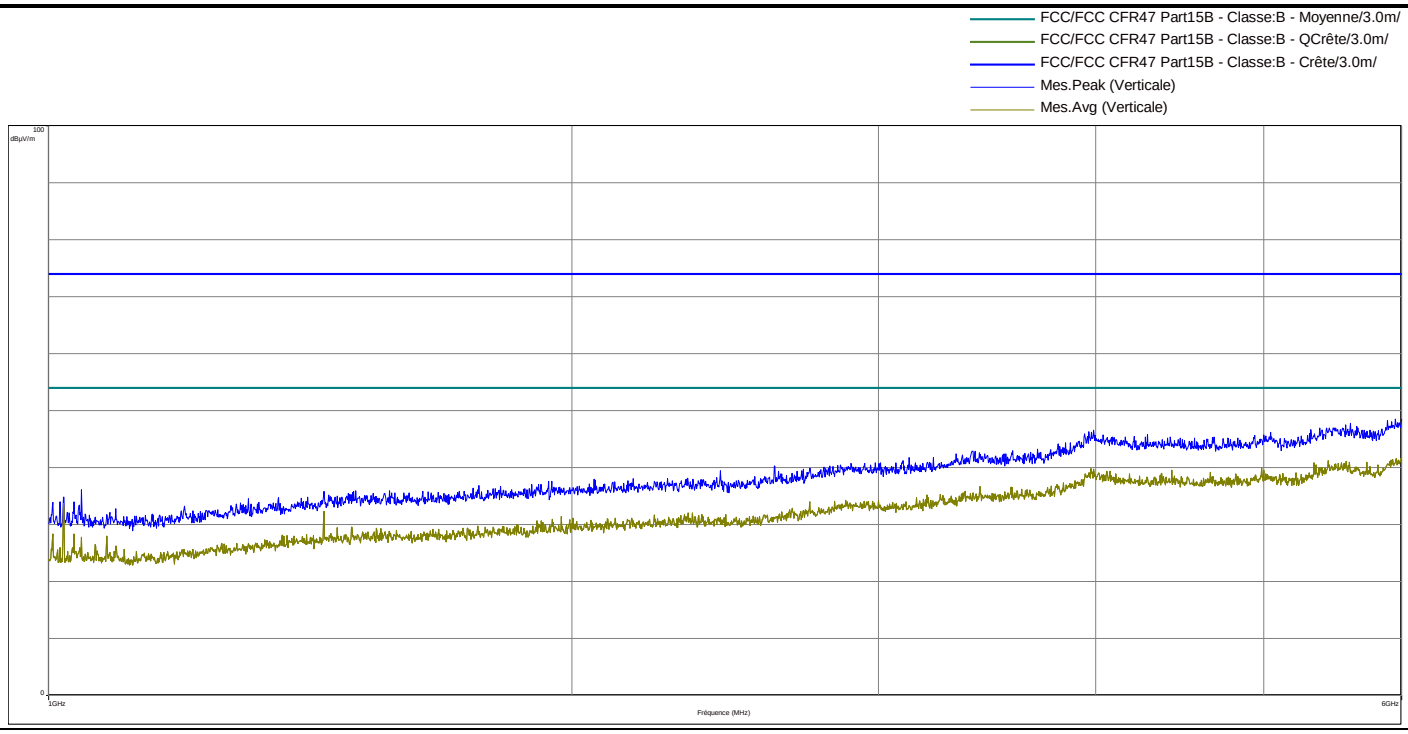
Frequency (MHz)	Peak Level (dBµV/m)
1439.5	37.06

RADIATED EMISSIONS			
Graph name:	Emr#9b	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr11c - Cfg3 FCC Part 15 Subpart B PH Pos Z	
Class:	B		
Frequency range: [1GHz - 6GHz]			
Antenna polarization:	Horizontal	**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz

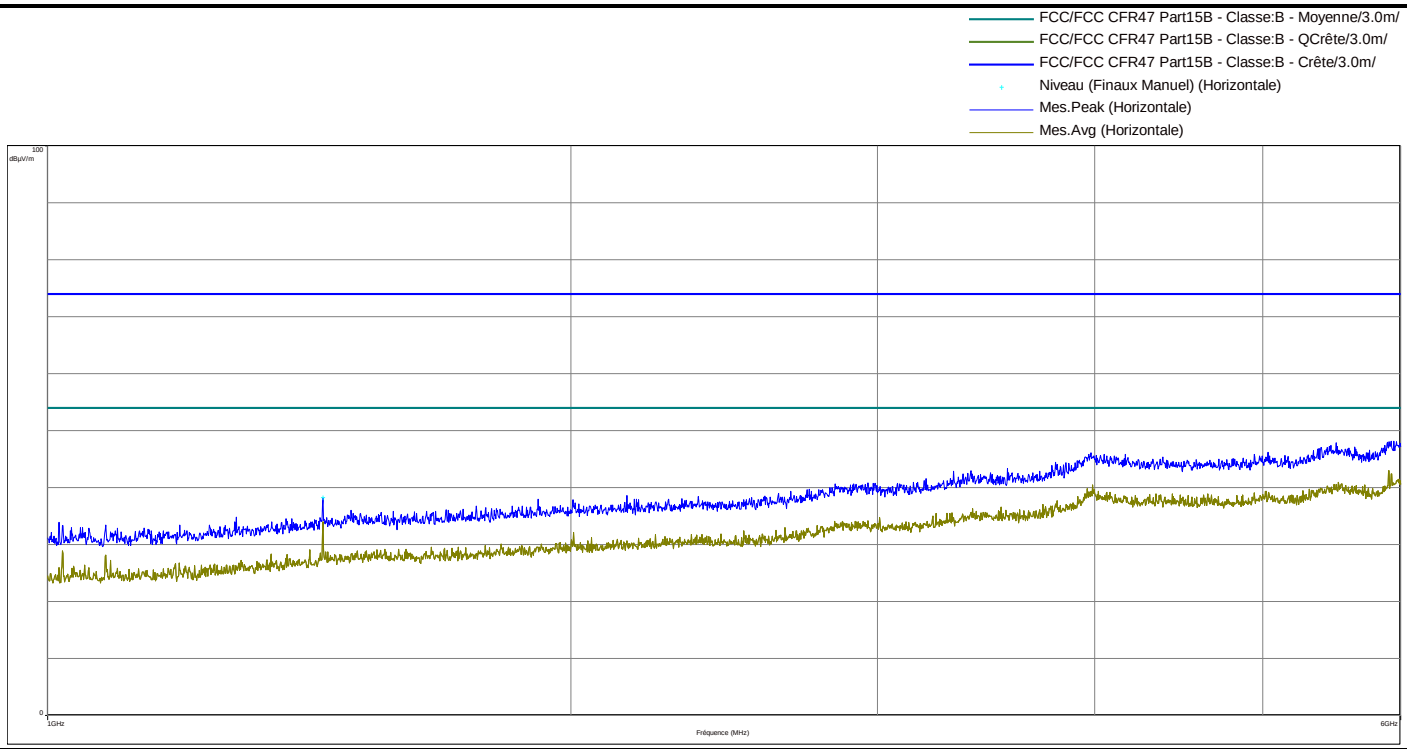


Frequency (MHz)	Peak Level (dBµV/m)
1440.25	37.74

RADIATED EMISSIONS			
Graph name:	Emr#12c	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr12c - Cfg3 FCC Part 15 Subpart B PV Pos Z	
Class:	B		
Frequency range: [1GHz - 6GHz]			
Antenna polarization:	Vertical	**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz

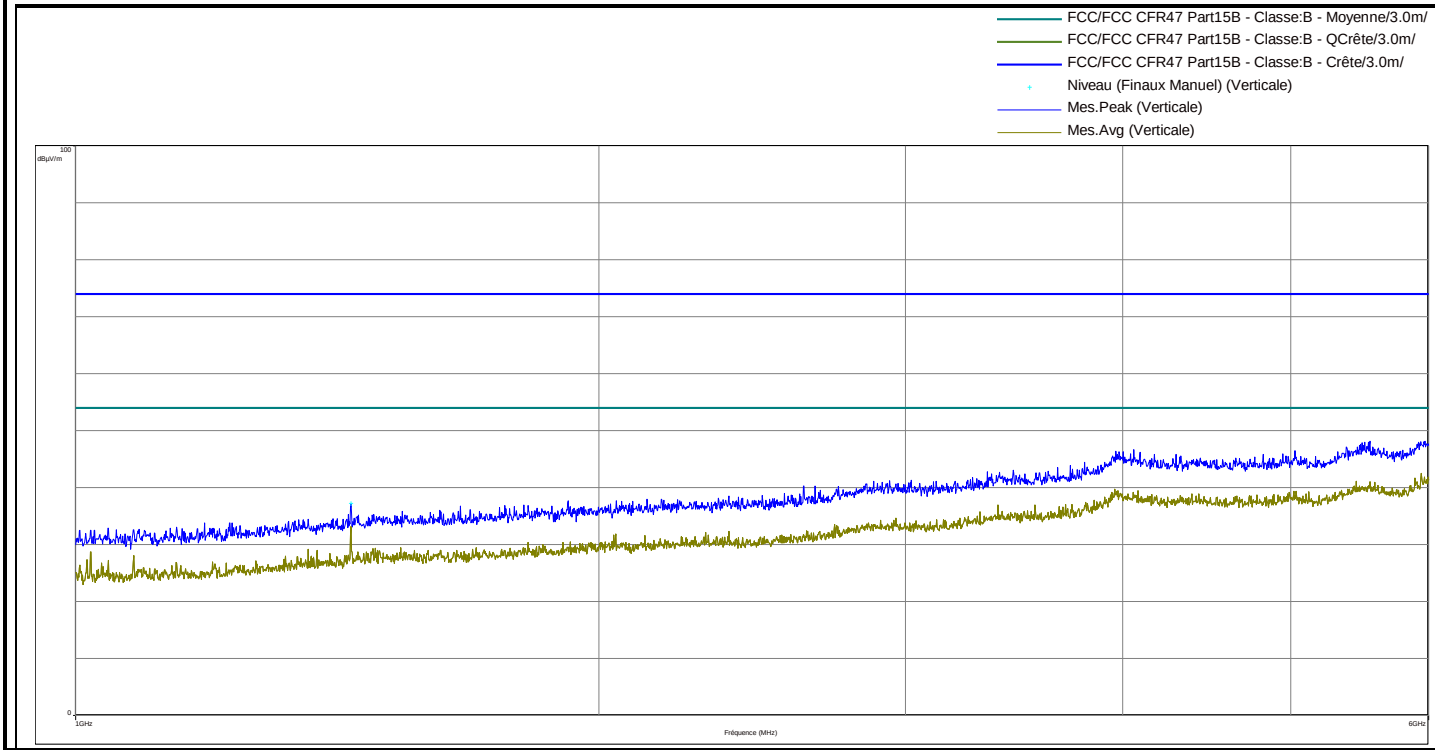


RADIATED EMISSIONS			
Graph name:	Emr#13c	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr13c - Cfg4 FCC Part 15 Subpart B PH Pos XY	
Class:	B		
Frequency range: [1GHz - 6GHz]			
Antenna polarization:	Horizontal	**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz



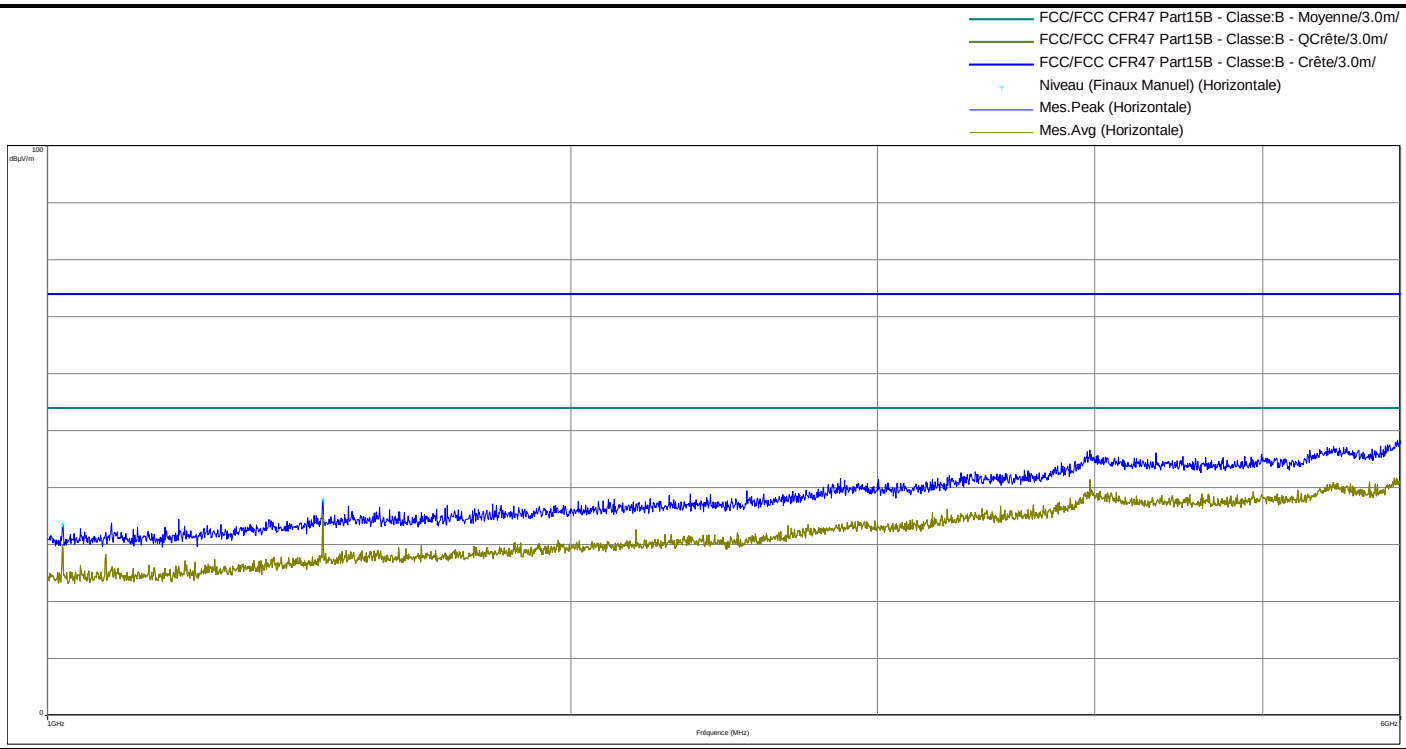
Frequency (MHz)	Peak Level (dBµV/m)
1439.75	38.25

RADIATED EMISSIONS			
Graph name:	Emr#14c	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr14c - Cfg4 FCC Part 15 Subpart B PV Pos XY	
Class:	B		
Frequency range: [1GHz - 6GHz]			
Antenna polarization:	Vertical	**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz



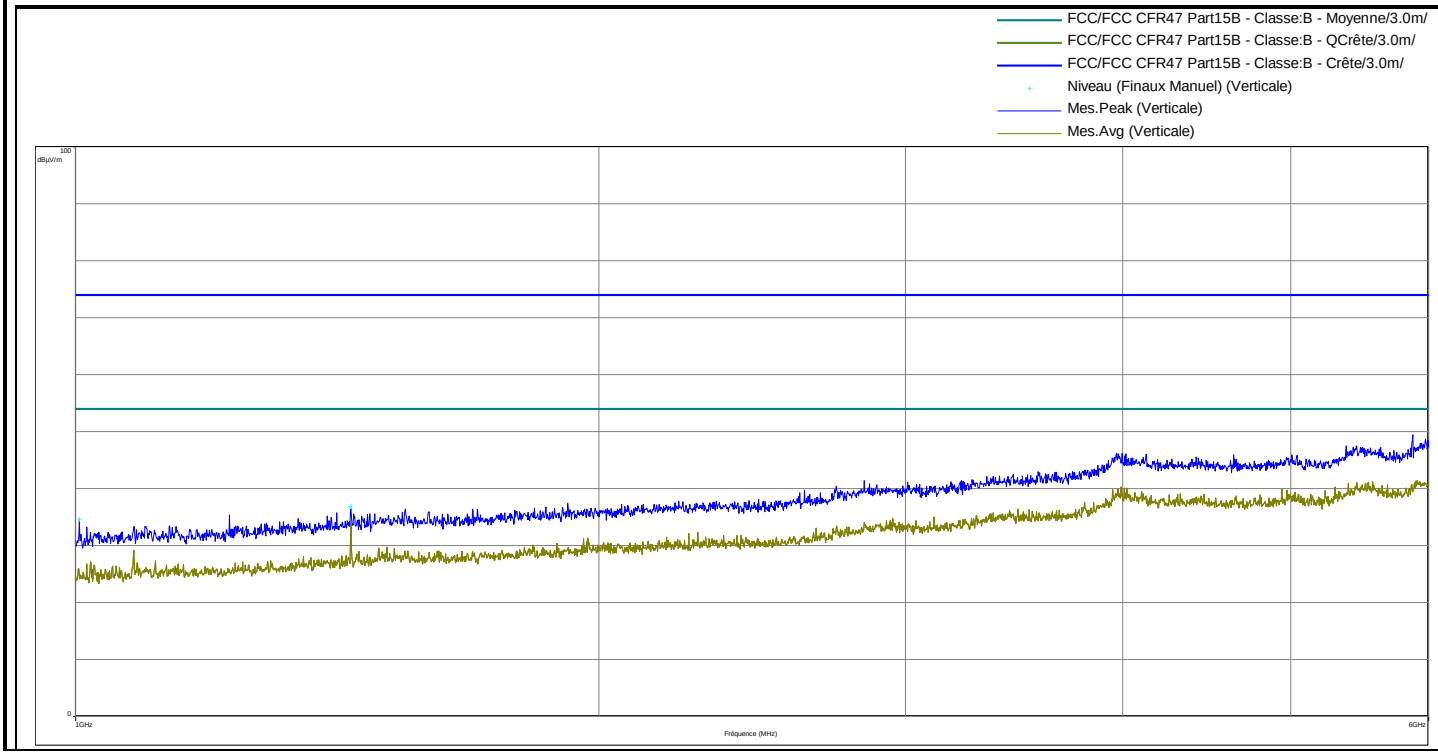
Frequency (MHz)	Peak Level (dBµV/m)
1440.5	37.2

RADIATED EMISSIONS			
Graph name:	Emr#15c	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr15c - Cfg5 FCC Part 15 Subpart B PH Pos XY	
Class:	B		
Frequency range: [1GHz - 6GHz]			
Antenna polarization:	Horizontal	**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz



Frequency (MHz)	Peak Level (dBµV/m)
1020	33.52
1440.25	37.83

RADIATED EMISSIONS			
Graph name:	Emr#16c	**Test configuration:**	
Limit:	FCC CFR47 Part15B	Emr16c - Cfg5 FCC Part 15 Subpart B PV Pos XY	
Class:	B		
Frequency range: [1GHz - 6GHz]			
Antenna polarization:	Vertical	**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz



Frequency (MHz)	Peak Level (dBµV/m)
1005.25	34.66
1439.5	36.82

9. 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 *Measurement of conducted disturbances in voltage on the power port*	3.57 dB	3.6 dB
Mesure des perturbations conduites en tension sur le réseau de télécommunication *Measurement of conducted disturbances in voltage on the telecommunication port.*	3.28 dB	A l'étude / Under consid.
Mesure des perturbations discontinues conduites en tension *Measurement of discontinuous conducted disturbances in voltage*	3.47 dB	3.6 dB
Mesure des perturbations conduites en courant *Measurement of conducted disturbances in current*	2.90 dB	A l'étude / Under consid.
Mesure du champ électrique rayonné sur le site en espace libre de Moirans *Measurement of radiated electric field on the Moirans open area test site*	5.07 dB	5.2 dB

Les valeurs d'incertitudes calculées du laboratoire étant inférieures aux valeurs d'incertitudes limites établies par la norme, la conformité de l'échantillon est établie directement par les niveaux limites applicables. / *The uncertainty values calculated by the laboratory are lower than limit uncertainty values defined by the standard. The conformity of the sample is directly established by the applicable limits values.*