



LCIE

TEST REPORT

N°: 147927-701642-B(FILE#957861)

Version : 01

Subject Electromagnetic compatibility tests according to the standards:
FCC CFR 47 Part 15, Subpart B.
ANSI C63.4 (2014)

Issued to **SteadXP SAS**
8A chemin de la Cour
38660 - Saint Hilaire du Touvet
FRANCE

Apparatus under test

↪ Product Video Stabilizer
↪ Trade mark **SteadXP**
↪ Manufacturer **SteadXP SAS**
↪ Model under test **SteadXP@**
↪ Serial number **00100019**
↪ FCCID **2ALGS-A16V1**

Conclusion See Test Program chapter §1

Test date March 14 & 15, 2017

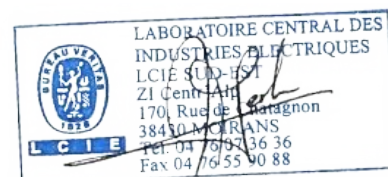
Test location MOIRANS

Composition of document 28 pages

Document issued on March 16, 2017

Written by :
Majid MOURZAGH
Tests operator

Approved by :
Anthony MERLIN
Technical manager



This document shall not be reproduced, except in full, without the written approval of the LCIE. This document contains results related only to the items tested. It does not imply the conformity of the whole production to the items tested. Unless otherwise specified, the decision of conformity takes into account the uncertainty of measurement. This document doesn't anticipate any certification decision.

LCIE

Laboratoire Central des Industries Electriques
Une société de Bureau Veritas

ZI Centr'alp
170 rue de Chatagnon
38430 Moirans FRANCE

Tél : +33 4 76 07 36 36
contact@lcie.fr
www.lcie.fr



PUBLICATION HISTORY

Version	Date	Author	Modification
01	March 16, 2017	Majid MOURZAGH	Creation of the document



SUMMARY

1.	TEST PROGRAM	4
2.	EQUIPMENT UNDER TEST: CONFIGURATION (DECLARED BY PROVIDER)	5
3.	MEASUREMENT OF CONDUCTED EMISSION	9
4.	MEASUREMENT OF RADIATED EMISSION (30MHZ-2GHZ)	13
5.	UNCERTAINTIES CHART	22
6.	ANNEX 1 (GRAPHS)	23



1. TEST PROGRAM

1.1. REQUIREMENTS FOR DISTURBANCE EMISSIONS

Standard:

- FCC Part 15, Subpart B (Digital Devices)
- ANSI C63.4 (2014)

EMISSION TEST	LIMITS			RESULTS (Comments)
Limits for conducted disturbance at mains ports 150kHz-30MHz	Frequency	Quasi-peak value	Average value	☒ PASS ☐ FAIL ☐ NA ☐ NP
	150-500kHz	66.0 dBµV to 56.0 dBµV	56.0 dBµV to 46.0 dBµV	
	0.5-5MHz	56.0 dBµV	46.0 dBµV	
	5-30MHz	60.0 dBµV	50.0 dBµV	
Radiated emissions 30MHz-1GHz	Frequency	Quasi-peak value @3m		☒ PASS ☐ FAIL ☐ NA ☐ NP
	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 1GHz-2GHz* Highest frequency : 120 MHz (Declaration of provider)	Frequency	Peak value @3m	Average value @3m	☒ PASS ☐ FAIL ☐ NA ☐ NP
	1-2GHz	74.0 dBµV/m	54.0 dBµV/m	

*§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.

2. EQUIPMENT UNDER TEST: CONFIGURATION (DECLARED BY PROVIDER)

2.1. HARDWARE IDENTIFICATION (EUT AND AUXILIARIES):

Equipment under test (EUT):

SteadXP@

Serial Number: 00100019



Equipment Under Test

Power supply:

During all the tests, EUT is supplied by V_{nom} : 3.8VDC

For measurement with different voltage, it will be presented in test method.

Name	Type	Rating	Reference / Sn	Comments
Supply1	☐ AC ☐ DC ☒ Battery	3.8Vdc 1160mAh	GoPro	Configuration n°1
Supply2	☒ AC ☐ DC ☐ Battery	100-240VAC	AC/DC Adapter DELL: Model DA130PE1-00	Configuration n°2



Inputs/outputs - Cable:

Configuration n°1

Access	Type	Length used (m)	Declared <3m	Shielded	Under test	Comments
None						

Configuration n°2

Access	Type	Length used (m)	Declared <3m	Shielded	Under test	Comments
Supply2	AC/DC Adapter Laptop	1	☒	☐	☒	Configuration n°2
Canon USB cable interface	USB2.0	1.25	☒	☒	☒	Configuration n°2 (Cable Canon model IFC-400PCU)

Auxiliary equipment used during test:

Configuration n°1

Type	FCC Id	Reference	Sn	Comments
GoPro Hero4 Black Edition	-	C312112	-	Configuration n°1
GoPro Li-ion Polymer Battery Pack 3.8V	-	AHDBT-401	-	Configuration n°1
SanDisk microSD 2GB	-	-	-	Configuration n°1

Configuration n°2

Type	FCC Id	Reference	Sn	Comments
Laptop DELL	-	Latitude E6430	C4QCMX1	Configuration n°2
AC/DC Adapter DELL:		Model DA130PE1-00		Configuration n°2 (Used only for Conducted Emission)
GoPro Hero4 Black Edition	-	C312112	-	Configuration n°2
GoPro Li-ion Polymer Battery Pack 3.8V	-	AHDBT-401	-	Configuration n°2
SanDisk microSD 2GB	-	-	-	Configuration n°2

2.2. EUT CONFIGURATION – RUNNING MODE

Software version of EUT: v0.9



Configuration n°1: SteadXP@ video recording mode, using GoPro Hero4

When The GoPro Hero4 black camera is recording , there is no cable connected on SteadXP@.

SteadXP@ is supplied by GoPro Hero4 black camera (3.8VDC)



Configuration n°2: SteadXP@ connected to Laptop USB port , data enable.

When SteadXP@ is transferring data to computer, the SteadXP@ is directly connected by USB cord on laptop (auxiliary).

SteadXP@ is supplied by GoPro Hero4 black camera (3.8VDC).



2.3. EQUIPMENT MODIFICATIONS

☒ None ☐ Modification:

2.4. SPECIAL ACCESSORIES

None

2.5. 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

Assume a receiver reading of 52.5dB μ V is obtained. The antenna factor of 7.4 and a cable factor of 1.1 is added. The amplifier gain of 29dB is subtracted, giving field strength of 32 dB μ V/m.

$$FS = 52.5 + 7.4 + 1.1 - 29 = 32 \text{ dB}\mu\text{V/m}$$

The 32 dB μ V/m value can be mathematically converted to its corresponding level in μ V/m.

$$\text{Level in } \mu\text{V/m} = \text{Common Antilogarithm } [(32\text{dB}\mu\text{V/m})/20] = 39.8 \mu\text{V/m}.$$

2.6. 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

3. MEASUREMENT OF CONDUCTED EMISSION

3.1. ENVIRONMENTAL CONDITIONS

Date of test : March 14, 2017
Test performed by : Majid MOURZAGH
Atmospheric pressure (hPa) : 999
Relative humidity (%) : 30
Ambient temperature (°C) : 24

3.2. TEST SETUP

Mains terminals

The EUT and auxiliaries are set:

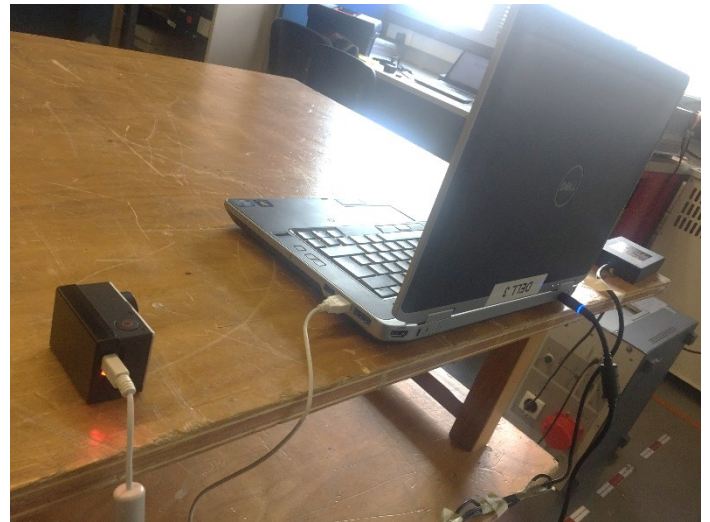
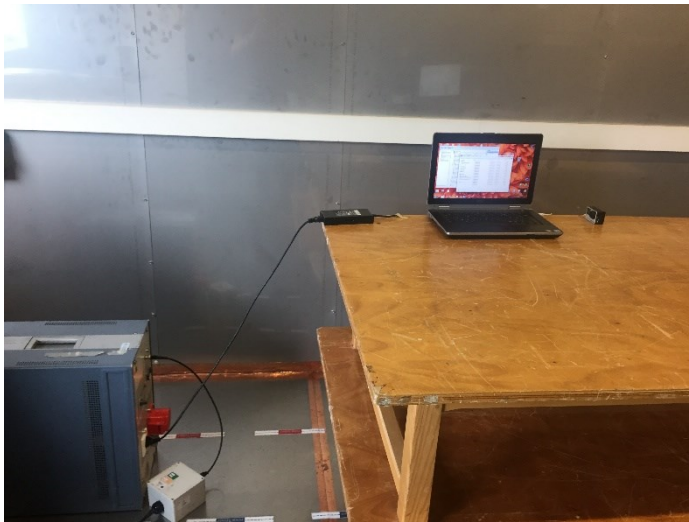
- ☒ 80cm above the ground on the non-conducting table (Table-top equipment)
- ☐ 10cm above the ground on isolating support (Floor standing equipment)

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 USB port.

AC/DA adapter is powered by 110VAC/60Hz.

The AC/DA adapter is powered through a LISN (measure).





Configuration n°2:
Test setup



3.3. TEST METHOD

The product has been tested according to ANSI C63.4 and FCC Part 15 subpart B. The product has been tested with 120V/60Hz power line voltage and compared to the FCC Part 15 subpart B. Measurement bandwidth was 9kHz from 150kHz to 30MHz. 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. The LISN (measure) is $50\Omega / 50\mu\text{H}$. The Peak data are shown on plots in annex 1. Quasi-Peak and Average measurements are detailed in a table with frequencies and levels measured. Interconnecting cables and equipment's were moved to position that maximized emission. A summary of the worst case emissions found in all test configurations and modes is shown on the following page.

Measurements are performed on the phase (L1) and neutral (N) of power line voltage. Graphs are obtained in PEAK detection. Measures are also performed in Quasi-Peak and Average for any strong signal.

3.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
Cable + self	-	-	A5329585	04/16	04/17
EMC comb generator	LCIE SUD EST	-	A3169098	-	-
LISN tri-phase ESH2-Z5	RHODE & SCHWARZ	33852.19.53	C2320062	04/16	04/17
Receiver 20Hz – 8GHz	ROHDE & SCHWARZ	ESU8	A2642019	08/16	08/17
BAT EMC	NEXIO	v3.9.0.10	L1000115	-	-
Thermo-hygrometer (PM2)	KIMO	HQ 210	B4206022	08/16	08/17
Transient limiter	RHODE & SCHWARZ	ESH3-Z2	A7122204	01/17	01/18

3.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

☒ None ☐ Divergence:



3.6. TEST RESULTS

Mains terminals:

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

Results: (PEAK detection)

Graph identifier	Line	Comments	
Emc# 1	Phase	Configuration n°2	See annex 1
Emc# 2	Neutral	Configuration n°2	See annex 1

3.7. CONCLUSION

The sample of the equipment **SteadXP@**, Sn: **00100019**, tested in the configuration presented in this test report **satisfies** to requirements of class B limits of the standard FCC Part15B and ICES-003, for conducted emissions.

4. MEASUREMENT OF RADIATED EMISSION (30MHz-2GHz)

4.1. ENVIRONMENTAL CONDITIONS

Date of test	: March 14, 2017	March 15, 2017
Test performed by	: Majid MOURZAGH	Majid MOURZAGH
Atmospheric pressure (hPa)	: 999	1002
Relative humidity (%)	: 30	33
Ambient temperature (°C)	: 24	24

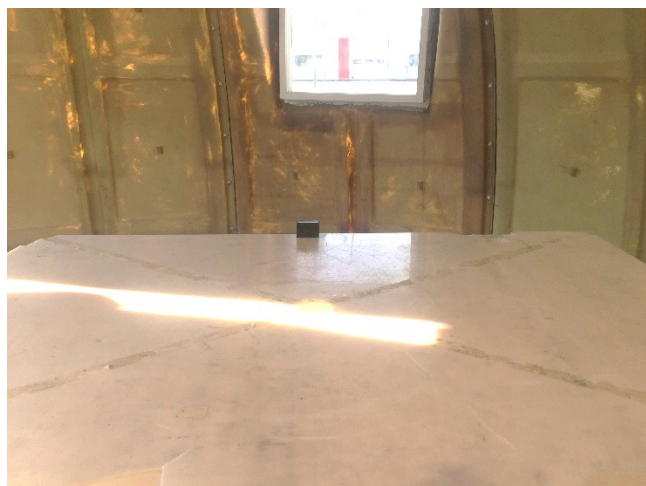
4.2. TEST SETUP

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.

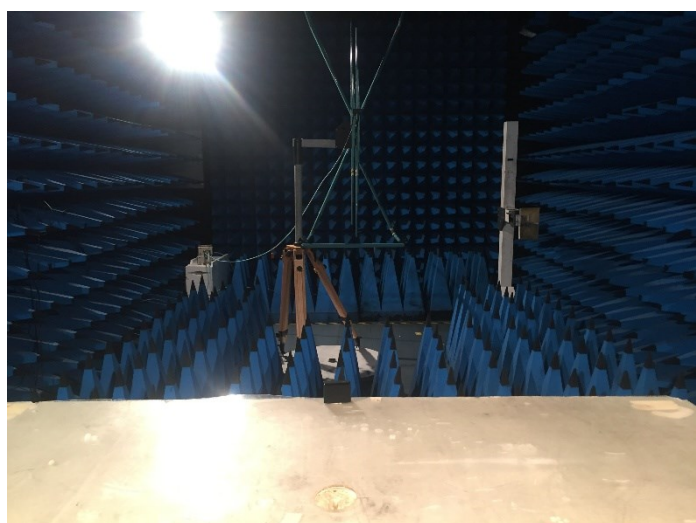
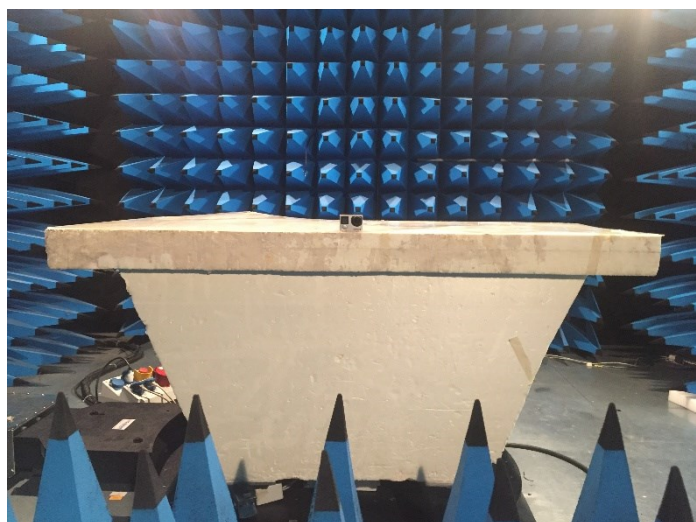
The EUT and auxiliaries are set:

- ☒ 80cm above the ground on the non-conducting table (Table-top equipment)
- ☐ 10cm above the ground on isolating support (Floor standing equipment)

Configuration n°1: The EUT is powered by battery 3.8VDC



Test setup on OATS



Test setup in anechoic chamber

Configuration n°2: The EUT is connected on USB laptop



Test setup on OATS



Test setup in anechoic chamber



4.3. TEST METHOD

The product has been tested according to ANSI C63.4, FCC part 15 subpart B.

Pre-characterisation measurement: (30MHz –2GHz)

A pre-scan of all the setup has been performed in a 3 meters semi-anechoic chamber for frequency from 30MHz to XGHz. Test is performed in horizontal (H) and vertical (V) polarization 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 XGHz.

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

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 B limits. Measurement bandwidth was 120kHz from 30 MHz to 1GHz. Test is performed in horizontal (H) and vertical (V) polarization, 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 2GHz:

The product has been tested at a distance of **3 meters** from the antenna and compared to the FCC part 15 subpart B limits. Measurement bandwidth was 1MHz from 1GHz to 2GHz.

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 (EUT smaller than the beamwidth of the measurement antenna)

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



4.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
Amplifier 0.1MHz – 6000 MHz	HEWLETT PACKARD	8447F	A7486006	03/16	03/17
Antenna horn 18GHz	EMCO	3115	C2042027	01/17	01/19
Emission Cable	MICRO-COAX	6GHz	A5329654	04/16	04/17
Emission Cable	MICRO-COAX	6GHz	A5329655	04/16	04/17
Emission Cable	MICRO-COAX	6GHz	A5329656	04/16	04/17
Semi-Anechoic chamber #2	SIEPEL	-	D3044015	03/16	03/17
Radiated emission comb generator	BARDET	-	A3169050	-	-
HF Radiated emission comb generator	LCIE SUD EST	-	A3169088	-	-
Spectrum Analyzer 9kHz - 6GHz	ROHDE & SCHWARZ	FSL6	A4060049	02/16	02/18
BAT EMC	NEXIO	v3.9.0.10	L1000115	-	-
Thermo-hygrometer (C2)	LACROSS Techn.	WS-2357	B4206015	10/16	10/17
Turntable controller (Cage#2)	ETS Lingren	Model 2066	F2000393	-	-
Turntable chamber (Cage#2)	ETS Lingren	Model 2165	F2000404	-	-
Table	LCIE	-	F2000438	-	-
Antenna Bi-log	CHASE	CBL6111A	C2040051	06/16	06/18
Cable	-	-	A5329069	12/16	12/17
Cable (OATS)	-	-	A5329623	01/16	01/17
Radiated emission comb generator	BARDET	-	A3169050	-	-
OATS	-	-	F2000409	08/16	08/17
Receiver 20-1000MHz	ROHDE & SCHWARZ	ESVS30	A2642006	05/15	05/17
Antenna mast (OATS)	ETS Lindgren	2071-2	F2000392	-	-
Turntable (OATS)	ETS Lindgren	Model 2187	F2000403	-	-
Table	LCIE	-	F2000445	-	-

4.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

☒ None ☐ Divergence:



4.6. TEST RESULTS

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

Configuration n°1:

See graphs:

Graph identifier	Polarization	EUT position	Comments
Emr# 1	Vertical	Axis XY	See annex 1
Emr# 1	Horizontal	Axis XY	See annex 1

Configuration n°2:

See graphs:

Graph identifier	Polarization	EUT position	Comments
Emr# 2	Vertical	Axis XY	See annex 1
Emr# 2	Horizontal	Axis XY	See annex 1

4.6.2. Pre-characterization at 3 meters [1GHz-2GHz]

Configuration n°1:

See graphs:

Graph identifier	Polarization	EUT position	Comments
Emr# 3	Vertical	Axis XY	See annex 1
Emr# 3	Horizontal	Axis XY	See annex 1

Configuration n°2:

See graphs:

Graph identifier	Polarization	EUT position	Comments
Emr# 4	Vertical	Axis XY	See annex 1
Emr# 4	Horizontal	Axis XY	See annex 1

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

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.

Configuration n°1:

Test Frequency (MHz)	Meter Reading dB(μV)	Detector (Pk/QP/Av)	Polarity (V/H)	Azimuth (Degrees)	Antenna Height (cm)	Transducer Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
287.960	12.4	QP	H	0	230	16.4	28.8	46.0	-17.2	Configuration n°1
359.960	10.8	QP	H	90	250	18.6	29.4	46.0	-16.6	Configuration n°1
768.000	7.3	QP	H	0	230	27.2	34.5	46.0	-11.5	Configuration n°1

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

Configuration n°2:

Test Frequency (MHz)	Meter Reading dB(μV)	Detector (Pk/QP/Av)	Polarity (V/H)	Azimuth (Degrees)	Antenna Height (cm)	Transducer Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
360.000	10.5	QP	V	0	120	18.6	29.1	46.0	-16.9	Configuration n°2
504.000	10.5	QP	H	320	270	22.5	33.0	46.0	-13.0	Configuration n°2
648.000	11.4	QP	H	0	260	25.4	36.8	46.0	-9.2	Configuration n°2
720.000	11.5	QP	V	90	115	26.5	38.0	46.0	-8.0	Configuration n°2
792.000	9.3	QP	H	45	250	27.6	36.9	46.0	-9.1	Configuration n°2

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



4.6.4. Characterization on 3meters anechoic chamber from 1GHz to 2GHz

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.

Configuration n°1:

No significant frequency observed during pre characterization

Configuration n°2:

No significant frequency observed during pre characterization

4.7. CONCLUSION

The sample of the equipment **SteadXP@**, Sn: **00100019**, tested in the configuration presented in this test report **satisfies** to requirements of class B limits of the standard FCC Part15B and ICES-003, for radiated emissions.

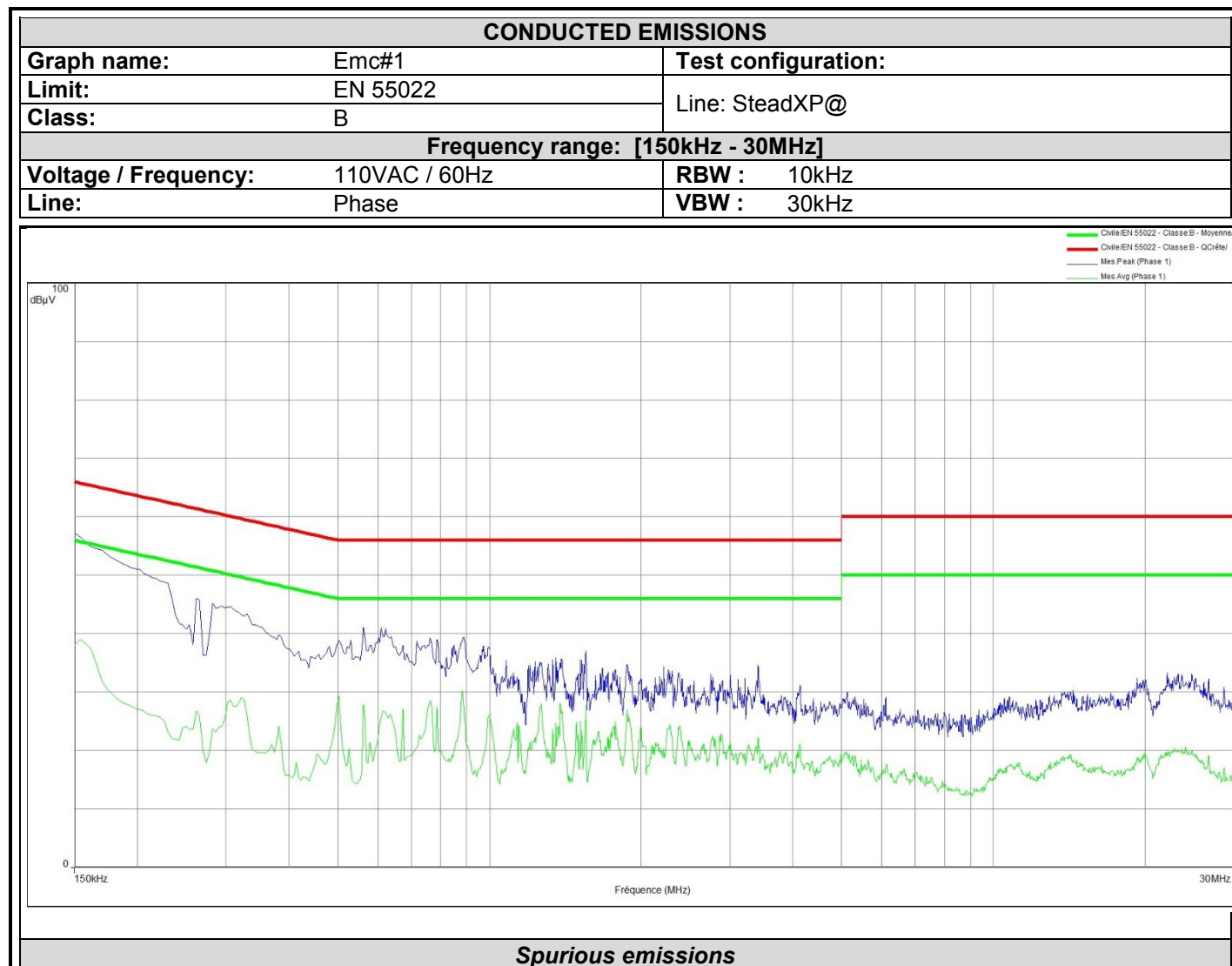
5. UNCERTAINTIES CHART

Type de mesure / Kind of measurement	Incertitude élargie laboratoire / Wide uncertainty laboratory (k=2) $\pm x$	Incertitude limite du CISPR / CISPR uncertainty limit $\pm y$
Mesure des perturbations conduites en tension sur le réseau d'énergie (monophasé /triphasé) 10kHz-150kHz <i>Measurement of conducted disturbances in voltage on the power port (single & three phases)10kHz-150kHz</i>	3.27dB	3.8dB
Mesure des perturbations conduites en tension sur le réseau d'énergie (monophasé /triphasé) 150kHz-30MHz <i>Measurement of conducted disturbances in voltage on the power port (single & three phases)150kHz-30MHz</i>	3.29dB	3.4dB
Mesure des perturbations conduites en tension sur le réseau de télécommunication <i>Measurement of conducted disturbances in voltage on the telecommunication port.</i>	3.26dB	5dB
Mesure des perturbations discontinues conduites en tension <i>Measurement of discontinuous conducted disturbances in voltage</i>	3.33dB	3.4dB
Mesure des perturbations conduites en courant <i>Measurement of conducted disturbances in current</i>	2.67dB	2.9dB
Mesure du champ électrique rayonné en cage de Faraday semi-anéchoïque de 30MHz à 1GHz <i>Measurement of radiated electric field in half-anechoic Faraday room From 30MHz to 1GHz</i>	5.06dB	5.3dB
Mesure du champ électrique rayonné en cage de Faraday semi-anéchoïque de 1GHz à 6GHz <i>Measurement of radiated electric field in half-anechoic Faraday room From 1GHz to 6GHz</i>	5.18dB	5.2dB
Mesure du champ électrique rayonné en cage de Faraday semi-anéchoïque de 6GHz à 18GHz <i>Measurement of radiated electric field in half-anechoic Faraday room From 6GHz to 18GHz</i>	5.21dB	5.5dB
Mesure du champ électrique rayonné sur le site en espace libre de Moirans 30MHz – 1GHz. <i>Measurement of radiated electric field on the Moirans open area test site 30MHz – 1GHz.</i>	5.2dB	6.3dB
Mesure du champ électrique rayonné IN SITU de 30 à 1000 MHz <i>IN SITU measurement of radiated electric field from 30 to 1000MHz</i>	A l'étude / Under consideration	5.2dB
Mesure de la puissance perturbatrice <i>Measurement of disturbance power</i>	3.32dB	4.5dB
Mesure des harmoniques de courant <i>Measurement of current harmonics</i>	11.11%	/
Mesure du flicker <i>Flicker measurement</i>	9.26%	/

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*

6. ANNEX 1 (GRAPHS)



Frequency (MHz)	Mes.Peak (dBμV)	Mes.QPeak (dBμV)	LimQP (dBμV)	Mes.QPeak-LimQP (dB)	Mes.Avg (dBμV)	LimAvg (dBμV)	Mes.Avg-LimAvg (dB)	Line
0.150	57.4	54.8	66.0	-11.2	37.3	56.0	-18.7	Phase 1
0.230	48.6	43.9	62.4	-18.6	23.2	52.4	-29.2	Phase 1
0.262	38.6	30.1	61.4	-31.2	25.0	51.4	-26.3	Phase 1
0.562	36.3	31.3	56.0	-24.7	15.6	46.0	-30.4	Phase 1
1.004	37.7	31.4	56.0	-24.6	25.2	46.0	-20.8	Phase 1
1.552	33.9	26.8	56.0	-29.2	15.8	46.0	-30.2	Phase 1
3.416	31.2	24.8	56.0	-31.2	18.3	46.0	-27.7	Phase 1
24.768	32.6	26.1	60.0	-33.9	18.1	50.0	-31.9	Phase 1



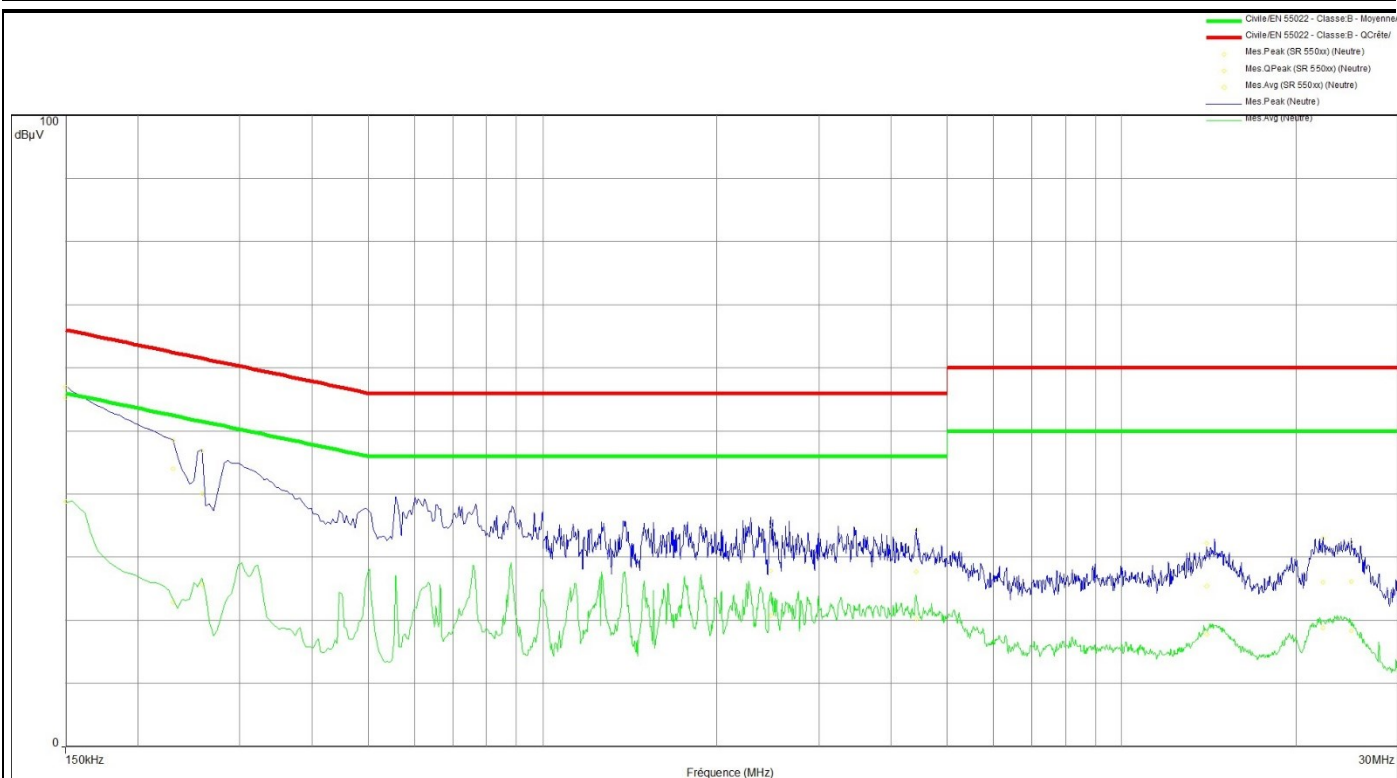
L C I E

CONDUCTED EMISSIONS

Graph name: Emc#2 Test configuration:
Limit: EN 55022 Neutral: SteadXP@
Class: B

Frequency range: [150kHz - 30MHz]

Voltage / Frequency: 110VAC / 60Hz RBW : 10kHz
Line: Neutral VBW : 30kHz



Spurious emissions

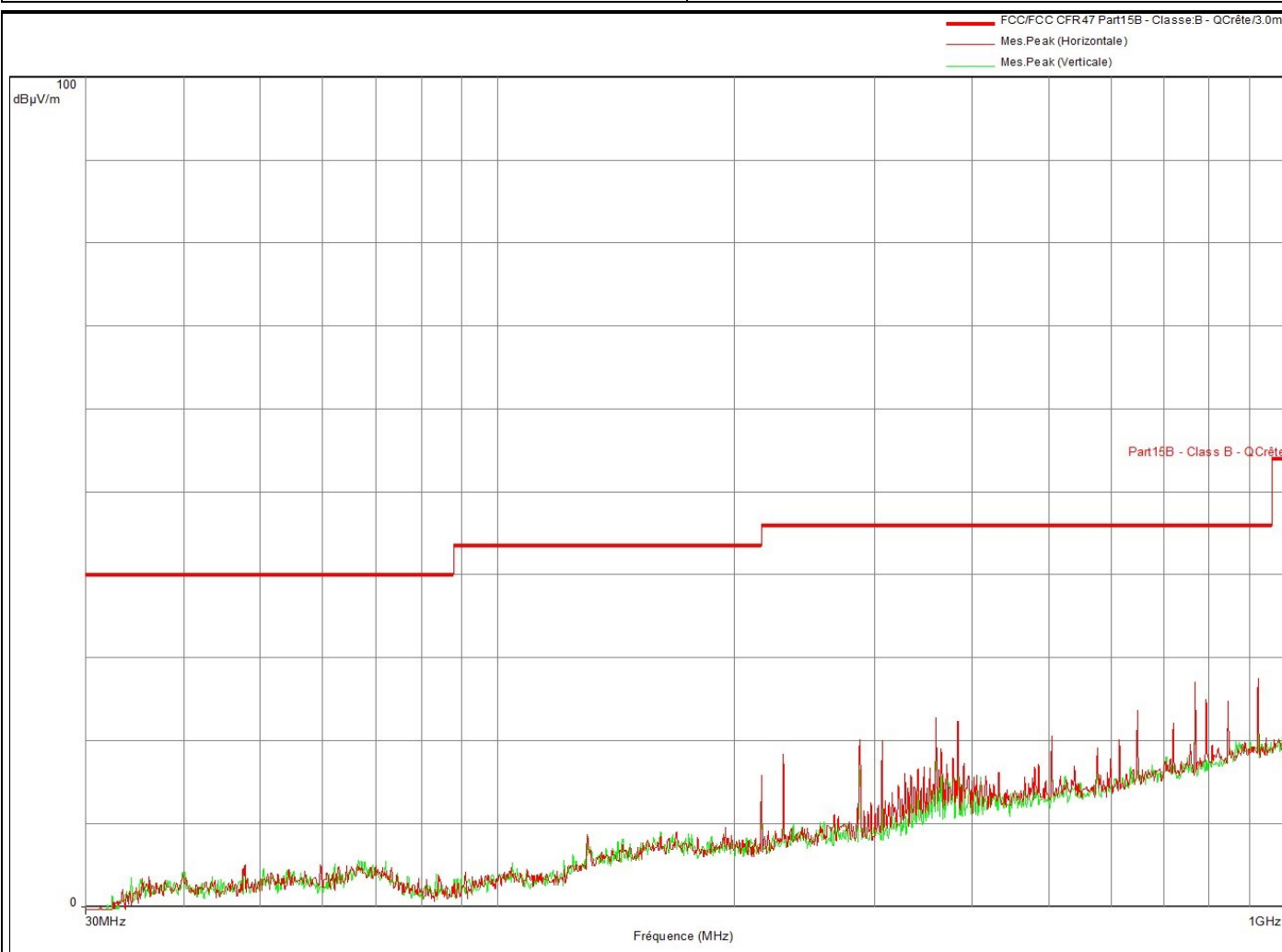
Frequency (MHz)	Mes.Peak (dBμV)	Mes.QPeak (dBμV)	LimQP (dBμV)	Mes.QPeak-LimQP (dB)	Mes.Avg (dBμV)	LimAvg (dBμV)	Mes.Avg-LimAvg (dB)	Line
0.150	57.0	55.3	66.0	-10.7	38.8	56.0	-17.2	Neutre
0.230	48.5	44.1	62.4	-18.4	22.8	52.4	-29.6	Neutre
0.258	46.8	40.1	61.5	-21.4	25.7	51.5	-25.8	Neutre
2.476	34.7	27.9	56.0	-28.1	20.8	46.0	-25.2	Neutre
4.420	34.4	27.8	56.0	-28.2	20.3	46.0	-25.7	Neutre
14.028	32.2	25.5	60.0	-34.5	17.9	50.0	-32.1	Neutre
22.264	33.0	26.0	60.0	-34.0	18.8	50.0	-31.2	Neutre
24.920	32.4	26.2	60.0	-33.8	18.4	50.0	-31.6	Neutre



L C I E

RADIATED EMISSIONS

Graph name:	Emr#1	Test configuration:	
Limit:	FCC CFR47 Part15B	(H+V) - SteadXP@ Configuration n°1	
Class:	B		
Frequency range: [30MHz - 1GHz]			
Antenna polarization:	Horizontal & Vertical	RBW :	100kHz
Azimuth:	0° - 360°	VBW :	300kHz



Spurious emissions

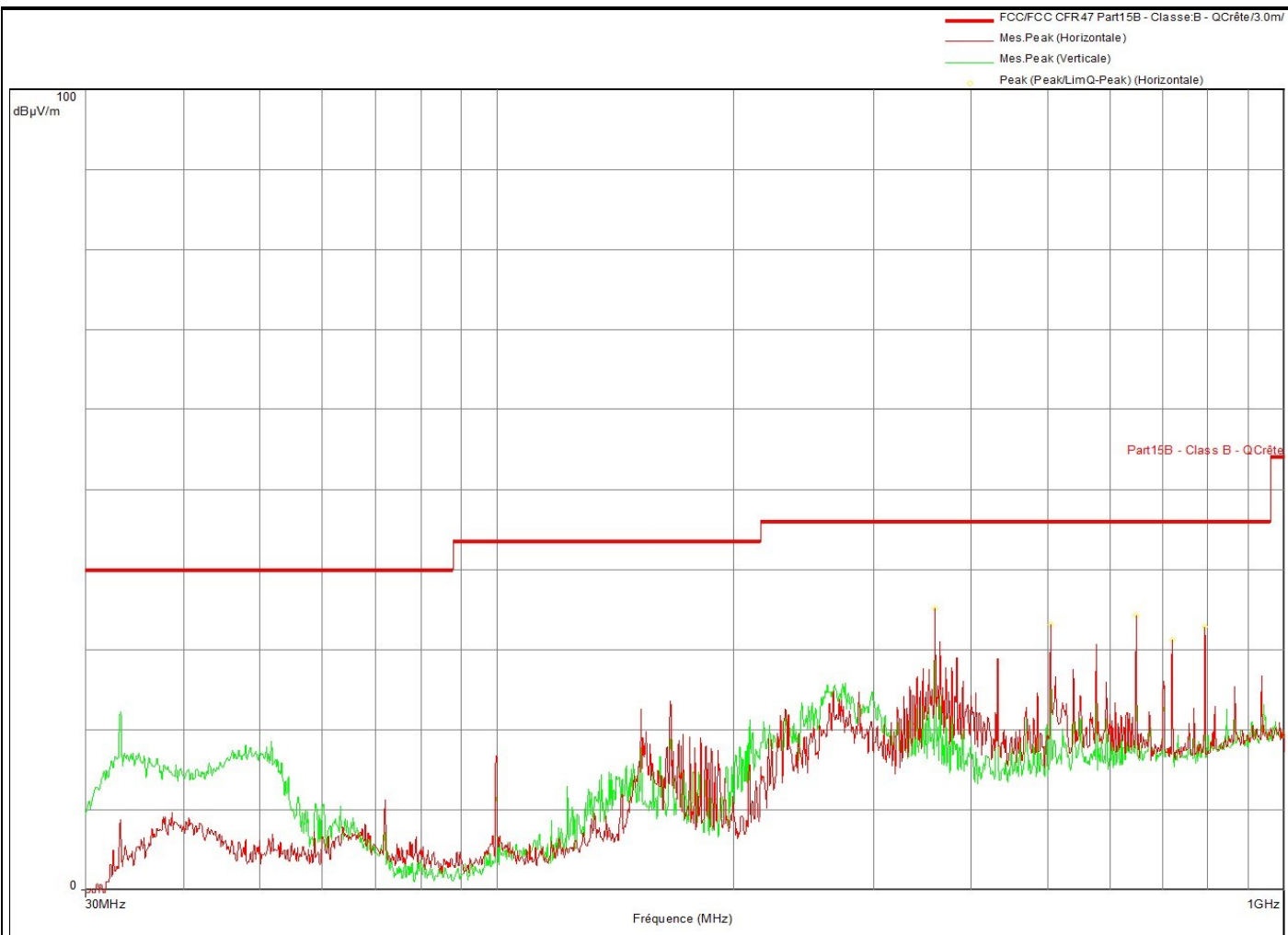
Frequency (MHz)	Peak Level (dB μ V/m)	Polarization
287.960	20.2	Horizontal
359.960	22.8	Horizontal
768.000	27.2	Horizontal



L C I E

RADIATED EMISSIONS

Graph name:	Emr#2	Test configuration:
Limit:	FCC CFR47 Part15B	(H+V) - SteadXP Configuration n°2
Class:	B	
Frequency range: [30MHz - 1GHz]		
Antenna polarization:	Horizontal & Vertical	RBW : 100kHz
Azimuth:	0° - 360°	VBW : 300kHz

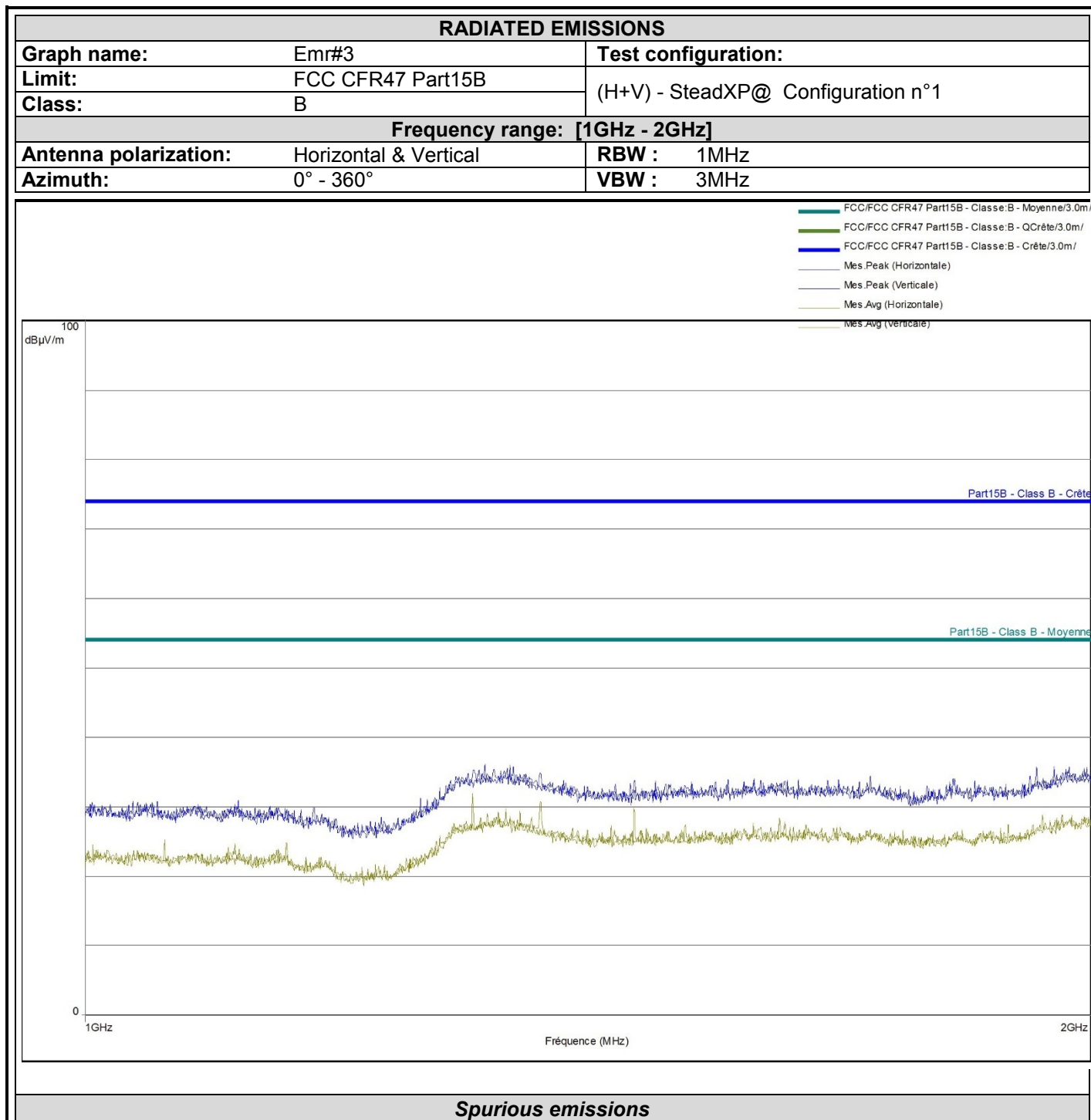


Spurious emissions

Frequency (MHz)	Peak (dB μ V/m)	Polarization
360.000	35.2	Horizontal
504.000	33.2	Horizontal
648.000	34.2	Horizontal
720.000	31.2	Horizontal
792.000	32.8	Horizontal



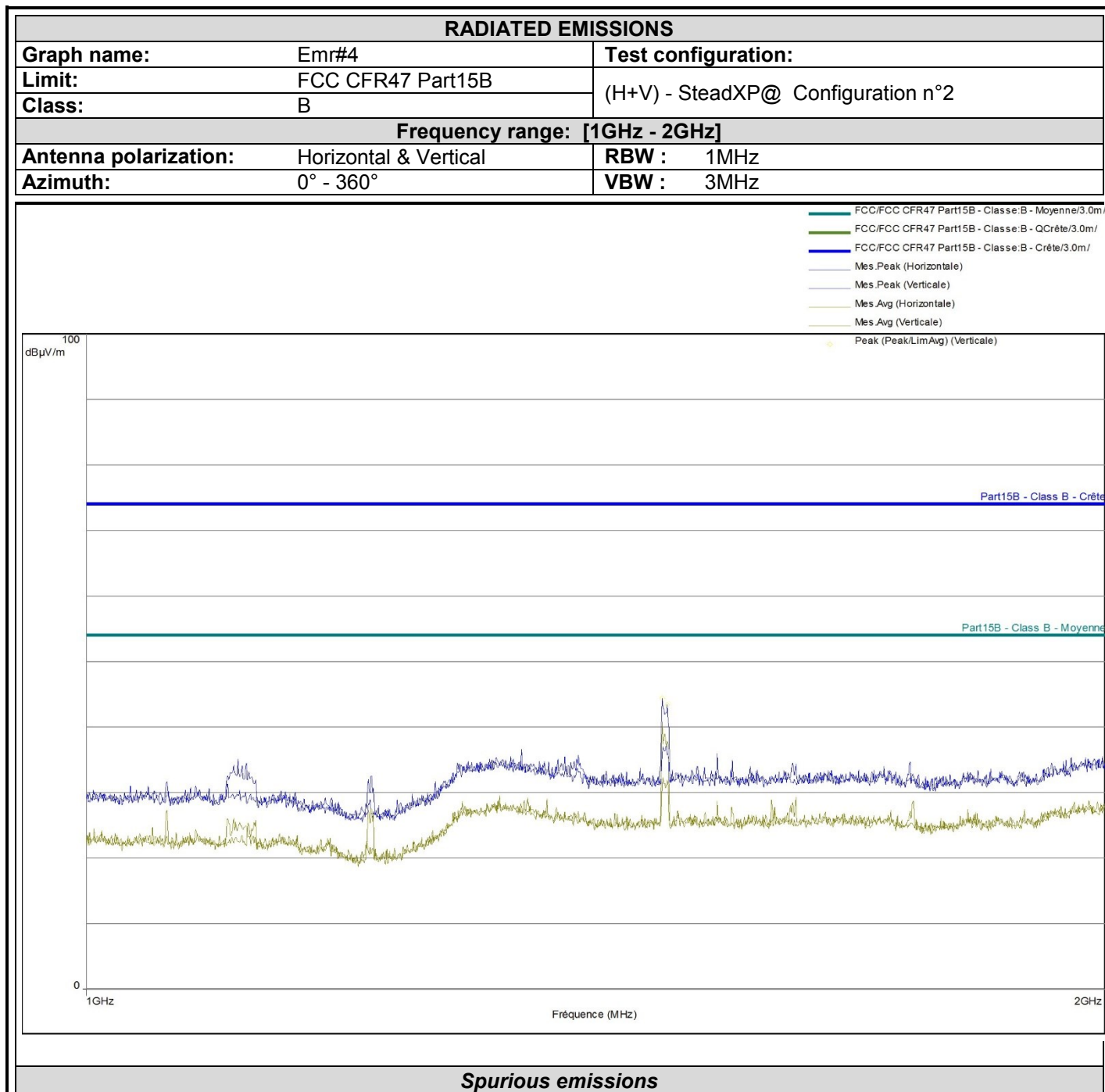
L C I E



No significative frequency observed



L C I E



Frequency (MHz)	Peak (dBμV/m)	Polarization
1479.200	44.4	Vertical
1484.100	43.3	Vertical