Test report issued under the responsibility of:
EMITECH MONTPELLIER laboratory
MRA US-EU Designation Number: FR0006
Canadian CAB Identifier: FR0003

RADIO TEST REPORT

FCC 47 CFR PART 15.247
RSS-247_Issue 2, February 2017

Company ..... :	**XPLORER**
Address..... :	40 chemin du Moulin 31320 MERVILLA FRANCE

Test item description. ..... :	**Wireless metal detection sensor**
Trade Mark. ..... :	FMF
Manufacturer..... :	XPLORER
Model/Type reference..... :	XPMF / FMF3428
FCC ID. ..... :	XFJMF
IC. ..... :	8392A-MF
Ratings..... :	3.45Vdc to 4.2Vdc

Testing Laboratory ..... :	**EMITECH MONTPELLIER laboratory**
Address..... :	145 rue de Massacan 34740 VENDARGUES FRANCE

Report Reference No..... :	**RR410-20-101751-13A**
Test procedure. ..... :	FCC IC Certification
Diffusion..... :	Mr LOUBET
Applicant's name. ..... :	XPLORER
Date of issue..... :	November 3, 2021
Total number of pages..... :	118
Revision. ..... :	0
Modified page(s). ..... :	Creation
Compiled by. ..... :	Alexis TOUZET
Approved by (+ signature). ..... :	Olivier HEYER (Laboratory Manager)

Duplication of this test report is only permitted for an integral photographic facsimile. It includes the number of pages referenced here above. This document is the result of testing a specimen or a sample of the product submitted. It does not imply an assessment of the conformity of the whole manufactured products of the tested sample.

REPORT INDEX:

REVISION HISTORY:

Revision	Date	Modified pages	Modifications
0	November 3, 2021	/	Creation

1. GENERAL INFORMATIONS

This document submits the results of Radio tests performed on the equipment **Wireless metal detection sensor Disk FMF 34x28cm** (denominated hereafter E.U.T.: equipment under test) according to document(s) listed in §2 of this test report.

TESTING PROCEDURE AND TESTING LOCATION:	
Testing Location ..... :	EMITECH MONTPELLIER laboratory
Address. ..... :	145 rue de Massacan 34740 VENDARGUES FRANCE
Test procedure. ..... :	FCC IC Certification
Tested by ..... :	Olivier AELBRECHT & Alexis TOUZET
Test supervisor ..... :	Olivier AELBRECHT
Date of receipt of test item ..... :	N/A
Date (s) of performance of tests ..... :	From February the 15th of 2021 to April the 30th of 2021

APPLICANT'S GENERAL INFORMATIONS:	
Company name ..... :	XPLORER
Company address. ..... :	40 chemin du Moulin 31320 MERVILLA FRANCE
Person(s) present during the tests. ..... :	No representative for company attended the tests.
Responsible. ..... :	Mr LOUBET

GENERAL REMARKS:

The information in italics is declared by the manufacturer and is under his responsibility
The test results presented in this report relate only to the object tested.
The results contained in this report reflect the results for this particular model and serial number. It is the responsibility of the manufacturer to ensure that all production models meet the intent of the requirements detailed within this report.

"(see Enclosure #)" refers to additional information appended to the report.
"(see appended table)" refers to a table appended to the report.
Throughout this report the decimal separator is point.

POSSIBLE TEST CASE VERDICTS:	
Test case does not apply to the test object.:	N/A
Test case not performed..... :	N/P
Test object does meet the requirement..... :	P (Pass)
Test object does not meet the requirement. ..... :	F (Fail)

DEFINITIONS AND ABBREVIATIONS:

E.U.T.	Equipment under test	AE	Ancillary equipment	Pk	Peak detector
RBW	Resolution bandwidth	VBW	Video bandwidth	QP	Quasi-peak detector
OATS	Open area test site	FAR	Full anechoic room	Av	Average detector
VP	Vertical Polarization	HP	Horizontal Polarization	RMS	Root Mean Square
RF	Radio frequency	NTR	Nothing to report	N/C	Not communicated

2. REFERENCE DOCUMENT(S)

NORMATIVE REFERENCES:

The following referenced documents are necessary for the application of the present test report.

FCC 47 CFR PART 15: 2017
Code of federal regulations – Title 47 telecommunication
Part 15- Radio frequency devices

FCC part 15.247
Operation within the bands 902–928 MHz, 2400–2483.5 MHz, and 5725–5850MHz. (frequency hopping and digitally modulated)

RSS-247_Issue 2, February 2017
Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence Exempt Local Area Network (LE-LAN) Devices

RSS/CNR-Gen, Issue 5, April 2018, Amd1: 2019, Amd2: 2021
Exigences générales et information relatives à la certification du matériel de radiocommunication

ANSI C 63.10:2013
American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

ANSI C 63.4:2014
American National Standard for Methods of measurement of Radio-Noise from low-voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

Although the product standard uses obsolete technical standards, the latest versions of standards achievable by the laboratory will be used for testing.

INFORMATIVE REFERENCES:

The following referenced documents are not necessary for the application of the present test report but they assist the user with regard to a particular subject area.

3. EQUIPMENT TECHNICAL DESCRIPTION

3.1. Test Conditions

Test item description. ..... :	Wireless metal detection sensor
Model/Type reference..... :	XPMF / FMF3428
Trade Mark. ..... :	FMF
FCC ID. ..... :	XFJMF
IC. ..... :	8392A-MF
Serial number (S/N). ..... :	51304A
Part number (P/N). ..... :	Not communicated
Software version. ..... :	*20210126*
Firmware version. ..... :	*Not communicated*
Type of sample. ..... :	Pre-serial
Function(s)..... :	Wireless object detection sensor
Manufacturer name. ..... :	XPLORER
Address. ..... :	8 rue du Développement - ZI de Vic 31320 CASTANET-TOLOSAN FRANCE

General product information:

N/A

3.2. EUT Marking plate

3.3. EUT General view

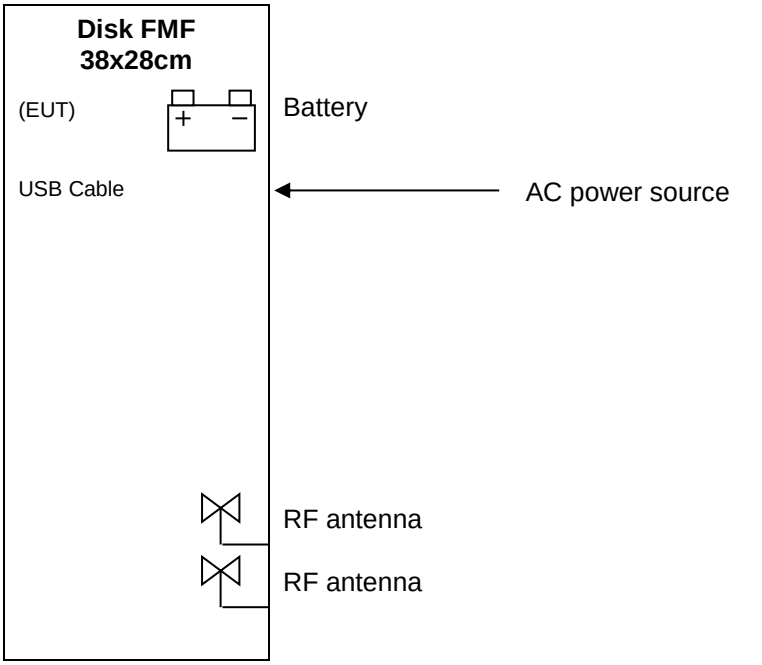
3.4. EUT Mechanical and Electrical Design

Power supply.	:	*3.7Vdc*
Power supply range.	:	*3.45Vdc to 4.2Vdc*
Power type.	:	*Battery powered*
Power (W).	:	*5*
Nominal current (A).	:	*1*
Dimensions (L x W x H) (m).	:	*0.34x0.28x0.04*
Weight (kg).	:	*0.501*
Temperature range (°C).	:	*-5°C to +40°C*
Ground bounding strap.	:	*No*

Comments:

N/A

3.5. EUT Input/Output ports



PORT	NAME	TYPE	LENGTH	CABLE TYPE	COMMENTS
0	Main frame	N/E	N/A	Plastic	
1	Battery	DC	N/A	N/A	
2	AC power source	AC/DC	1m	2P	
3	RF antenna	RF	N/A	N/A	2.4GHz
4	RF antenna	RF	N/A	N/A	Metal detector

AC/DC :	AC/DC Converter port	AC..... :	Alternative current port	DC..... :	Discontinuous current port
I/O .....:	Input or Output port	TP ..... :	Telecommunication port	RF ..... :	Radio frequency port
N/E .....:	Non Electrical port				

3.6. Supporting Equipment Used During Test

Sample subject to the tests was tested with following equipment.

PRODUCT TYPE	MANUFACTURER	MODEL	N°EMITECH / COMMENTS
Battery charger (AC/DC)	Sinohero Industrial Ltd.	SJ-0510-E	Used for conducted emission

BATTERY CHARGER (AC/DC) (AE)


3.7. EUT Radio Specifications

a) GENERAL INFORMATIONS	
According to manufacturer's declarations :	
EUT type..... :	*Transmitter*
Technology..... :	*SRD (Metal and object detection sensors)* *SRD 2.4GHz*
Environmental profile..... :	*Data transmissions*
Temperature range..... :	*-5°C to +40°C*
Antenna type ..... :	*Integral*
Antenna Gain..... :	*not communicated*
Comments: *N/A*	

b) TRANSMITTER PARAMETERS (TX)	
Frequency bands..... :	*1kHz to 148.5kHz* *2400 MHz to 2483.5MHz*
RF Power..... :	*Not communicated*
Number of channels / Separation..... :	*Multiple*
Modulation type ..... :	*GFSK*
Duty cycle ..... :	*Not communicated*
Tested frequency..... :	*4.1kHz low Channel* *45.19kHz High Channel* *2404MHz Low channel* *2440MHz Mid channel* *2476 High channel*

c) RECEIVER PARAMETERS (RX)	
Frequency bands..... :	*1kHz to 148.5kHz* *2400 MHz to 2483.5MHz*
Category/Class ..... :	*N/A* *Category 2*
Bandwidth..... :	*N/A* *2404MHz to 2476MHz*

4. OPINION(S) AND INTERPRETATION(S)

TEST(S) PERFORMED	DEVIATION(S) TO TEST METHOD(S)
FCC part 15.247 subclause d) and RSS-247	N/A
FCC part 15.247 and RSS-247	N/A
FCC part 15.109, 15.209, 15.205, 15.215, CNR-Gen	N/A
FCC part 15.109, 15.209, 15.205, 15.215, CNR-Gen	The EUT is encapuslated in a casing. We were not able to measure its voltage supply during radiated tests
FCC part 15.109, 15.209, 15.205, 15.215 RSS-247, CNR Gen	N/A
FCC part 15 Radio part 15.215 and RSS Gen	N/A
ANSI C63.4: 2014	N/A

Comments: N/A

5. RESULT SUMMARY

TEST DESIGNATION	SEVERITY	VERDICT	BASIC STANDARDS / COMMENTS
SUBPART A - GENERAL			
Labeling requirements		**PASS**	**15.19 / See certification documents**
Information to user		**PASS**	**15.21 / See certification documents**
Home-built devices		**N/A**	**15.23**
Kits		**N/A**	**15.25**
Special Accessories		**PASS**	**15.27 / See certification documents**
Inspection by the Commission		**N/A**	**15.29**
Measurement standards		**PASS**	**15.31**
Test procedure for CPU boards and computer power supplies		**N/A**	**15.32**
Frequency range of radiated measurements		**PASS**	**15.33**
Measurement detector functions and bandwidths		**PASS**	**15.35**
Transition provisions for compliance with the rules		**PASS**	**15.37 / See certification documents**
SUBPART B – UNINTENTIONAL RADIATORS			
Equipment authorization - Verification - Declaration of Conformity		 N/A N/A	**15.101**
CPU boards and power supplies used in personal computers		**N/A**	**15.102**
Exempted device		**N/A**	**15.103**
Information to the user		**PASS**	**15.105 / See certification documents**
Conducted limits	**Class B**	**PASS**	**15.107**
Radiated emission limits	**Class B**	**PASS**	**15.109**
Antenna power conduction limits for receivers		**N/A**	**15.111**
Power line carrier systems		**N/A**	**15.113**
TV interface devices, including cable system terminal devices		**N/A**	**15.115**
TV broadcast receivers		**N/A**	**15.117**
Cable ready consumer electronics equipment		**N/A**	**15.118**
Program blocking technology requirements for TV receivers		**N/A**	**15.120**
Scanning receivers and frequency converters used with scanning receivers		**N/A**	**15.121**
Labeling of digital cable ready products		**N/A**	**15.123**

TEST DESIGNATION	SEVERITY	VERDICT	BASIC STANDARDS / COMMENTS
SUBPART C –INTENTIONAL RADIATORS			
Equipment authorization requirement		**PASS**	**15.201 / Transmitter part is subject to Certification procedure**
Certified operating frequency range		**N/A**	**15.202**
Antenna requirement		**PASS**	**15.203 / Dedicated and glued antenna**
External radio frequency power amplifiers and antenna modifications		**N/A**	**15.204**
Restricted bands of operation		**PASS**	**15.204**
Conducted limits	**Class B**	**PASS**	**15.207**
Radiated emission limits; general requirements	**Class B**	**PASS**	**15.209**
Tunnel radio systems		**N/A**	**15.211**
Modular transmitters		**N/A**	**15.212**
Cable locating equipment		**N/A**	**15.213**
Cordless telephones		**N/A**	**15.214**
Additional provisions to the general radiated emission limits		**PASS**	**15.215**
Operation within the band 902-928MHz, 2400-2483.5MHz and 5725-5850MHz			**15.247**
- **Frequency hopping and digitally modulated**		**-**	**a)**
- Frequency hopping system		N/A	a) (1)
- Digital modulation system		PASS	a) (2)
- **Maximum peak conducted output power**		**-**	**b)**
- For hopping system in the 2400-2483.5 MHz and 5725-5850 MHz bands		N/A	b) (1)
- For hopping system in the 902-928MHz band		N/A	b) (2)
- For system using digital modulation in the 902-928 MHz, 2400-2483.5 MHz and 5725-5850 MHz bands		PASS	b) (3)
- **Operation with directional antenna gains > 6 dBi**		**N/A**	**c)**
- **Out-of-band emissions**		**PASS**	**d)**
- **Power spectral density conducted**		**PASS**	**e)**
- **Hybrid system**		**N/A**	**f)**
- **Frequency hopping additional requirements**		**N/A**	**g)**
- **Frequency hopping intelligence**		**N/A**	**h)**
- **RF exposure compliance**		**PASS**	**i)**

Sample subject to the test complies with the requirements of the reference document(s) listed in §2 of this test report and, where applicable, with deviation(s) specified in this document.

To declare, or not, the compliance with the specifications, it was not explicitly taken account of uncertainty associated with the results.

Opinion(s) and interpretation(s): N/A

TEST(S) PERFORMED	MODIFICATION(S)
FCC part 15.247 subclause d) and RSS-247	N/A
FCC part 15.247 and RSS-247	N/A
FCC part 15.109, 15.209, 15.205, 15.215, CNR-Gen	N/A
FCC part 15.109, 15.209, 15.205, 15.215 RSS-247, CNR Gen	N/A
FCC part 15 Radio part 15.215 and RSS Gen	N/A
ANSI C63.4: 2014	N/A

6. MEASUREMENT UNCERTAINTY

PARAMETER	MAXIMAL EMITECH UNCERTAINTY	MINIMAL STANDARD UNCERTAINTY
Radio frequency	± 1 x 10^{-7}	±1 x 10^{-7}
RF power, conducted		
RF power	± 0.8dB	± 1 dB
RF power (EN 300328 / EN 301893)	± 1.3dB	± 1.5 dB
Power spectral density	± 2.3dB	± 3 dB
Occuped bandwidth		
RF power	± 3.8 %	± 5 %
RF power (EN 300328 / EN 301893)	± 3.8 %	± 5 %
Maximum frequency deviation		
300 Hz < audio frequency < 6 kHz	± 1.2 %	± 5 %
6 kHz < audio frequency < 25 kHz	± 1.2 %	± 3 dB
Adjacent channel power	± 1.6 dB	± 3 dB
Sensibility of receiver (conducted)	± 2.0 dB	± 3 dB
Blocking	± 4.0 dB	± 4 dB
Transient		
Amplitude	± 8.5 %	± 20 %
At the frequency	± 166 Hz	± 250 Hz
Conducted emission (spurious)		
f ≤ 1 GHz	± 0.8 dB	± 3 dB
1 GHz - 12.75 GHz	± 1.6 dB	
Radiated emission (PAR / PIRE / RNE)		
f ≤ 62.5 MHz	± 5.1 dB	± 6 dB
62.5 MHz - 1 GHz	± 5.1 dB	± 6 dB
1 GHz - 18 GHz	± 5.2 dB	± 6 dB
18 GHz – 26 GHz	± 5.1 dB	± 6 dB
26 GHz – 40 GHz	± 5.4 dB	± 6 dB
180-1000 MHz / 1 – 12.75 GHz (EN 301 908-1)	± 3.0 / 2.9 dB	± 3 dB
RF power (EN 300328 / EN 301893)	± 5.3 dB	± 6 dB
PIRE and power spectral density with diode	± 5.2 dB	± 6 dB
Radiated emission (magnetic field)		
9kHz – 30MHz	± 3 dB	± 6 dB
RF level for a given BER	± 0.8 dB	± 1.5 dB
Supply voltages	± 3 %	± 3 %
Temperature	± 1 °C	± 1°C
Humidity	± 5 %	± 5 %
Time / Duty cycle	± 4.4 %	± 5 %
Adaptivity	± 2.9 dB	/
Conducted emission (FCC)		
(Artificial Mains Network) 150kHz – 30MHz	± 3.4 dB	± 3.4 dB
Radiated emission (electric field for FCC standard)		
9kHz – 30MHz	± 2.7 dB	/
30MHz – 1GHz	± 5.0 dB	/
1GHz – 18GHz	± 5.6 dB	/
18GHz – 26GHz	± 5.7 dB	/
26GHz – 40GHz	± 5.7 dB	/

For the calculation of expanded uncertainty, the confidence interval is 95 % (k=2).

7. RF EXPOSURE

Maximum EIRP = 0.251dBm (1.78 mW) at 2404MHz

In accordance with KDB 447498 D01 General RF Exposure Guidance v06:
PSD= EIRP/(4*π*R2)=0.73/(4*π*(20 cm)²)= 0.00015 mW/cm²
Limit= 1 mW/cm²

8. TEST CONDITIONS AND RESULTS

8.1. Conducted emission (measurement)

Reference standard:	FCC part 15.107, 15.207 and RSS-Gen
Test method:	ANSI C63.4: 2014
General test setup: EUT is set on an insulating support at 80cm from the ground reference plane. All power was connected to the system through Artificial Mains Network (AMN). The AMN is placed at 80cm from the boundary of the EUT and bonded to a ground reference plane. All tested telecommunications lines (if applicable) were connected to an Asymmetric Artificial Network (AAN) and conducted voltage measurements on telecommunications lines were made at the output of the AAN. Where an AAN was not appropriate or available, measurements were made using a Capacitive Voltage Probe and/or a Current probe. Additionnal ground terminals (if any) are connected to earth terminal of the AMN.	

TESTED CABLE	PARAMETER	SEVERITY	RESULT TAB.	VERDICT
120Vac/60Hz power supply / All channels	150kHz-30MHz	Class B	EMI5903	**PASS**
120Vac/60Hz power supply / Standby mode	150kHz-30MHz	Class B	EMI5898	**PASS**

LABORATORY PARAMETERS:	REQUIRED PRIOR TO THE TEST	DURING THE TEST
Ambient Temperature	15 to 35 °C	*See Graph(s)*
Relative Humidity	30 to 60 %	*See Graph(s)*
Atmospheric pressure	N/A	*See Graph(s)*
Test method deviation: N/A		
Supplementary information: N/A		

TEST EQUIPMENT USED					
CATEGORY	**BRAND**	**TYPE**	**IDENTIFIER**	**CAL. DATE**	**CAL. DUE**
AC power source	CHROMA	61603	12532	25/07/2019	25/09/2021
Cable	N	3m	16422	04/05/2019	04/07/2021
Cable	EMITECH	Current absorber sheath	9491	23/06/2020	23/08/2022
Cable	C&C	N-3m	14331	18/03/2021	18/05/2023
Ground plane	EMITECH	Test area	11569		
LISN	PMM	L2-16	1209	08/06/2020	08/08/2022
LISN	AFJ	LT32C\10	12007	11/01/2019	11/03/2021
Multimeter	FLUKE	8808A	12446	29/09/2020	29/11/2021
Receiver	Rohde & Schwarz	ESHS10	3371	27/04/2020	27/06/2021
Receiver	Rohde & Schwarz	FPL1003	16027	14/08/2020	14/10/2021
Software	Nexio		0000		
Surges Suppressor	Hewlett Packard	11947A	0238	20/12/2019	20/02/2023
Thermohygrometer	Testo	608-H1	7562	26/01/2019	26/09/2021
Thermohygrometer	Testo	608-H2	12268	07/05/2020	07/07/2022
Thermohygrometer	Bioblock Scientific	Météostar	0963	26/01/2019	26/09/2021
TV	DESIMET	TVC 2437B	0903		

BAT-EMC software version: V3.18.0.26 Blank cells = Permanent validity

TEST SETUP PHOTO(S) - 120VAC/60HZ POWER SUPPLY / LOW CHANNEL

CONDUCTED EMISSION (MEASUREMENT) - TABULATED RESULTS						
120VAC/60HZ POWER SUPPLY / ALL CHANNELS						EMI5903
Terminal	Test Frequency (MHz)	Gain/Loss Factor (dB)	Level Pk (dBµV)	Level Avg (dBµV)	Limit Avg (dBµV)	Margin Lvl Avg - Limit Avg (dB)
Neutral	0.464	10.4	36.63	25.82	46.61	-20.79
Neutral	0.491	10.4	39.21	30.07	46.15	-16.08
Neutral	0.499	10.4	41.47	32.73	46.01	-13.28
Neutral	0.507	10.4	42.41	33.8	46	-12.2
Neutral	0.514	10.4	42.09	33.06	46	-12.94
Neutral	0.520	10.4	41.06	31.7	46	-14.3
Neutral	0.525	10.4	39.64	30.07	46	-15.93
Neutral	0.533	10.4	37.56	27.16	46	-18.84
Neutral	1.344	10.46	31.49	21.18	46	-24.82
Neutral	1.348	10.46	32.22	21.59	46	-24.41
Neutral	1.810	10.48	30.31	21.29	46	-24.71
Neutral	1.832	10.48	34.59	23.69	46	-22.31
Neutral	1.844	10.48	35.82	24.29	46	-21.71
Neutral	1.853	10.48	36.24	24.35	46	-21.65
Neutral	1.869	10.48	36.14	24.24	46	-21.76
Neutral	1.880	10.48	35.53	24.3	46	-21.7
Neutral	1.888	10.48	35.35	24.52	46	-21.48
Neutral	1.913	10.48	35.77	25.91	46	-20.09
Neutral	1.932	10.48	35.19	27.1	46	-18.9
Neutral	1.941	10.48	35.52	27.45	46	-18.55
Neutral	1.953	10.48	36.71	27.45	46	-18.55
Neutral	1.965	10.48	37.44	26.93	46	-19.07
Phase	0.440	10.39	40.24	22.34	47.07	-24.73
Phase	0.473	10.4	39.19	21.47	46.47	-25
Phase	0.492	10.4	40.88	22.08	46.14	-24.06
Phase	0.496	10.4	42.94	24.97	46.06	-21.09
Phase	0.500	10.4	44.53	27	46.01	-19.01
Phase	0.509	10.4	46.27	28.9	46	-17.1
Phase	0.515	10.4	45.35	28.34	46	-17.66
Phase	0.520	10.4	44.65	27.08	46	-18.92
Phase	0.526	10.4	42.8	25.22	46	-20.78
Phase	0.535	10.4	39.54	21.76	46	-24.24
Phase	1.010	10.44	38.83	21.1	46	-24.9
Phase	3.891	10.53	39.94	21.33	46	-24.67
Phase	4.064	10.54	39.66	21.66	46	-24.34
Phase	4.237	10.54	39.23	21.96	46	-24.04
Phase	4.322	10.54	38.21	21.37	46	-24.63
Phase	4.326	10.54	38.53	22	46	-24
Phase	4.410	10.54	39.27	22.17	46	-23.83
Phase	4.497	10.54	39.41	22.71	46	-23.29
Phase	4.582	10.55	38.67	22.31	46	-23.69
Phase	4.671	10.55	40.22	23.24	46	-22.76
Phase	4.843	10.55	40.49	23.63	46	-22.37
Phase	23.265	10.57	43.31	28.51	50	-21.49
Phase	23.611	10.57	43.6	28.52	50	-21.48

CONDUCTED EMISSION (MEASUREMENT) - TABULATED RESULTS						
120VAC/60HZ POWER SUPPLY / ALL CHANNELS						EMI5903
Terminal	Test Frequency (MHz)	Gain/Loss Factor (dB)	Level Pk (dBµV)	Level Avg (dBµV)	Limit Avg (dBµV)	Margin Lvl Avg - Limit Avg (dB)
Phase	23.783	10.57	43.79	28.51	50	-21.49
Phase	23.869	10.57	43.84	28.38	50	-21.62
Phase	23.957	10.57	43.87	28.39	50	-21.61
Phase	24.043	10.57	44.05	28.42	50	-21.58
Phase	24.129	10.57	44.04	28.36	50	-21.64
Phase	24.215	10.57	43.9	28.04	50	-21.96
Phase	24.303	10.57	43.81	27.9	50	-22.1
Phase	24.389	10.57	43.74	27.91	50	-22.09
Phase	24.475	10.57	43.79	27.69	50	-22.31
Phase	24.561	10.57	46.75	27.5	50	-22.5
Phase	24.649	10.57	43.44	27.16	50	-22.84

Supplementary information:

Margin between peak measurements and quasi-peak limit is > 6dB, so no quasi-peak measurements were performed.

Spurious which has more than 25 dB of margin compared to the applicable limit is not necessarily reported.

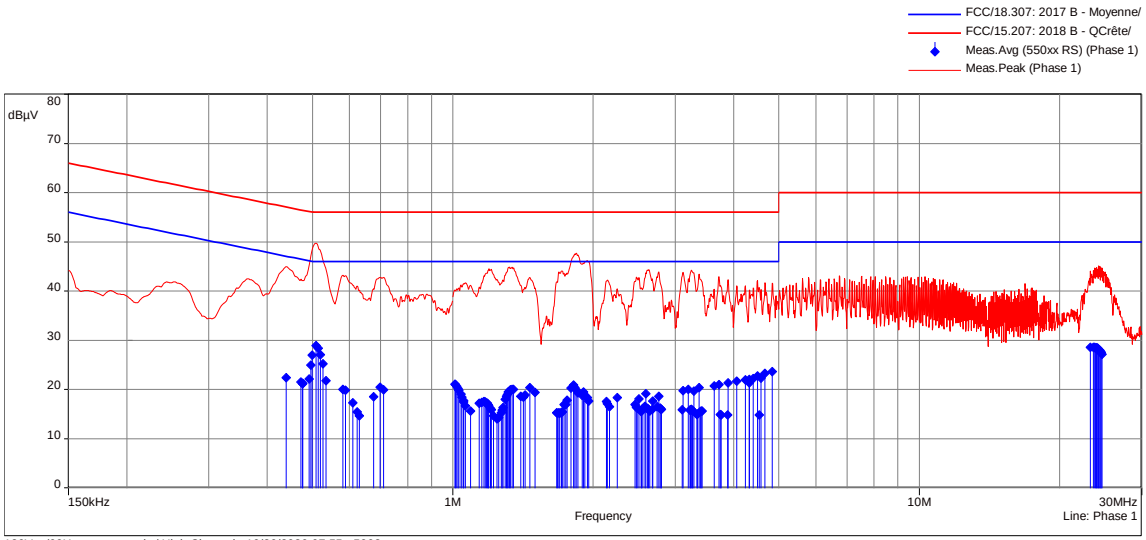
CONDUCTED EMISSION (MEASUREMENT) - TABULATED RESULTS						
120VAC/60HZ POWER SUPPLY / STANDBY MODE						EMI5898
Terminal	Test Frequency (MHz)	Gain/Loss Factor (dB)	Level Pk (dBµV)	Level Avg (dBµV)	Limit Avg (dBµV)	Margin Lvl Avg - Limit Avg (dB)
Neutral	0.507	10.4	46.07	36.98	46	-9.02
Neutral	0.510	10.4	46.13	36.93	46	-9.07
Neutral	0.514	10.4	45.67	36.48	46	-9.52
Neutral	1.338	10.46	39.49	28.1	46	-17.9
Neutral	1.351	10.46	39.49	27.7	46	-18.3
Neutral	1.804	10.48	41.35	31.68	46	-14.32
Neutral	1.817	10.48	41.77	31.99	46	-14.01
Neutral	1.833	10.48	42.23	32.13	46	-13.87
Neutral	1.840	10.48	42.45	32.13	46	-13.87
Neutral	1.849	10.48	42.22	32.18	46	-13.82
Neutral	1.872	10.48	41.21	32.04	46	-13.96
Neutral	1.935	10.48	41.37	31.65	46	-14.35
Neutral	1.955	10.48	41.75	30.87	46	-15.13
Neutral	1.977	10.48	39.98	29.13	46	-16.87
Phase	0.450	10.39	43.51	27.07	46.87	-19.8
Phase	0.464	10.4	43.62	27.08	46.62	-19.54
Phase	0.508	10.4	49.84	33.49	46	-12.51
Phase	0.516	10.4	49.09	32.81	46	-13.19
Phase	1.313	10.45	43.34	26.34	46	-19.66
Phase	1.327	10.45	44.3	26.3	46	-19.7
Phase	1.756	10.47	41.93	26.54	46	-19.46
Phase	1.766	10.47	43.06	26.89	46	-19.11
Phase	1.804	10.48	45.93	29.05	46	-16.95
Phase	1.807	10.48	46.31	29.11	46	-16.89
Phase	1.823	10.48	47.08	29.3	46	-16.7
Phase	1.828	10.48	46.98	29.24	46	-16.76
Phase	1.834	10.48	46.74	29.18	46	-16.82
Phase	1.844	10.48	46.51	28.98	46	-17.02
Phase	1.851	10.48	46.3	28.72	46	-17.28
Phase	1.857	10.48	46.1	28.57	46	-17.43
Phase	1.863	10.48	45.76	28.36	46	-17.64
Phase	1.869	10.48	45.46	28.14	46	-17.86
Phase	1.882	10.48	44.62	27.82	46	-18.18
Phase	1.896	10.48	44.13	27.74	46	-18.26
Phase	1.906	10.48	43.99	27.67	46	-18.33
Phase	1.908	10.48	44.41	27.67	46	-18.33
Phase	1.926	10.48	44.93	27.52	46	-18.48
Phase	1.934	10.48	45.01	27.26	46	-18.74
Phase	1.948	10.48	44.58	26.36	46	-19.64

Supplementary information:

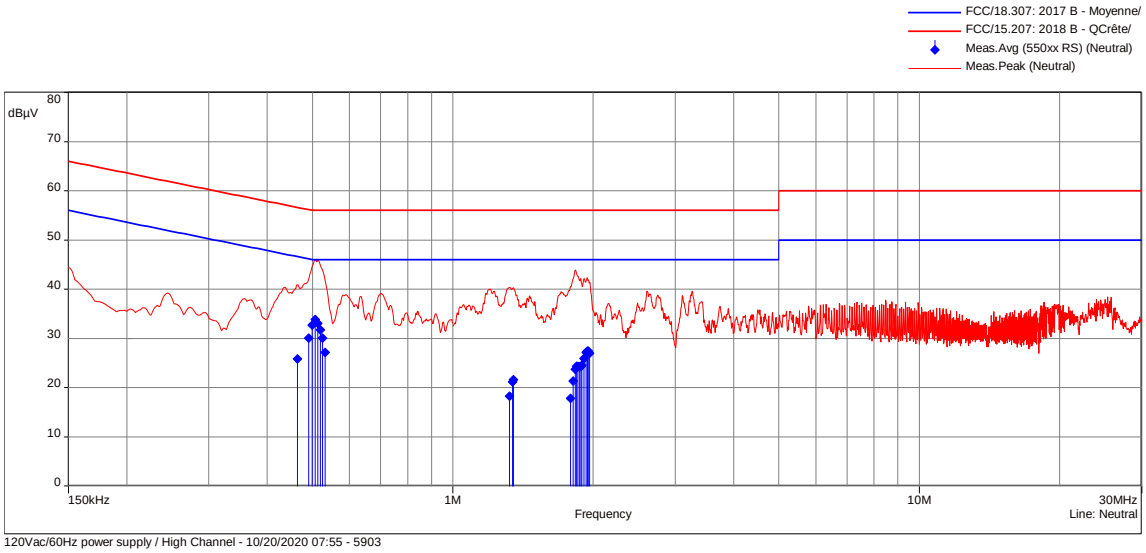
Margin between peak measurements and quasi-peak limit is > 6dB, so no quasi-peak measurements were performed.

Spurious which has more than 20 dB of margin compared to the applicable limit is not necessarily reported.

CONDUCTED EMISSION (MEASUREMENT) - GRAPH			
120VAC/60HZ POWER SUPPLY / ALL CHANNELS		**EMI5903**	
EUT mode:	Tx mode	**T (°C):**	20.5
Test Date:	19/10/2020	**H (%):**	35.3
Test Operator:	OAT	**P (hPa):**	1012



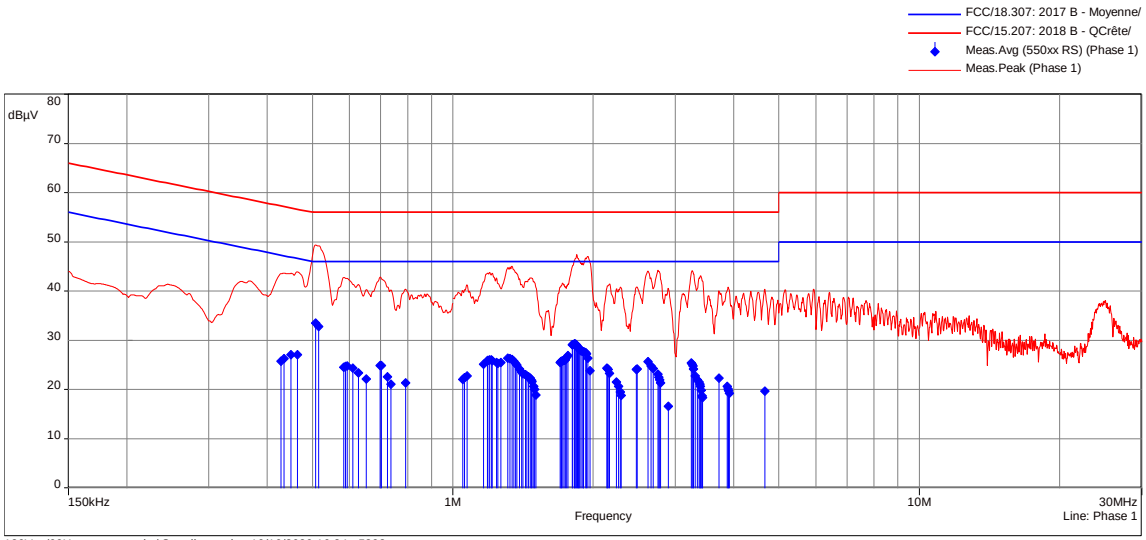
120Vac/60Hz power supply / High Channel - 10/20/2020 07:55 - 5903



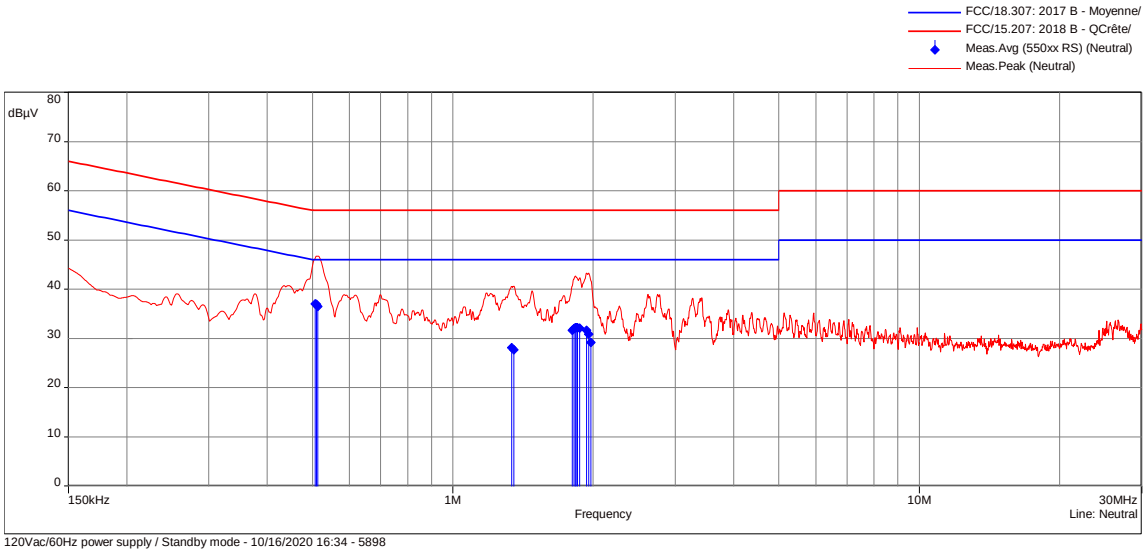
120Vac/60Hz power supply / High Channel - 10/20/2020 07:55 - 5903

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Neutral	150kHz-1MHz	10kHz	30kHz	Peak; AVG
Neutral	1MHz-10MHz	10kHz	30kHz	Peak; AVG
Neutral	10MHz-30MHz	10kHz	30kHz	Peak
Phase 1	150kHz-1MHz	10kHz	30kHz	Peak; AVG
Phase 1	1MHz-10MHz	10kHz	30kHz	Peak; AVG
Phase 1	10MHz-30MHz	10kHz	30kHz	Peak; AVG
Measure with:	A.M.N.			
Comments:	N/A			
EUT modification(s): N/A				

CONDUCTED EMISSION (MEASUREMENT) - GRAPH			
120VAC/60HZ POWER SUPPLY / STANDBY MODE		**EMI5898**	
EUT mode:	Standby mode	**T (°C):**	21.5
Test Date:	16/10/2020	**H (%):**	37.3
Test Operator:	OAT	**P (hPa):**	1009



120Vac/60Hz power supply / Standby mode - 10/16/2020 16:34 - 5898



120Vac/60Hz power supply / Standby mode - 10/16/2020 16:34 - 5898

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Neutral	150kHz-1MHz	10kHz	30kHz	Peak; AVG
Neutral	1MHz-10MHz	10kHz	30kHz	Peak; AVG
Neutral	10MHz-30MHz	10kHz	30kHz	Peak
Phase 1	150kHz-1MHz	10kHz	30kHz	Peak; AVG
Phase 1	1MHz-10MHz	10kHz	30kHz	Peak; AVG
Phase 1	10MHz-30MHz	10kHz	30kHz	Peak
Measure with:	A.M.N.			
Comments:	N/A			
EUT modification(s): N/A				

8.2. 6dB bandwidth

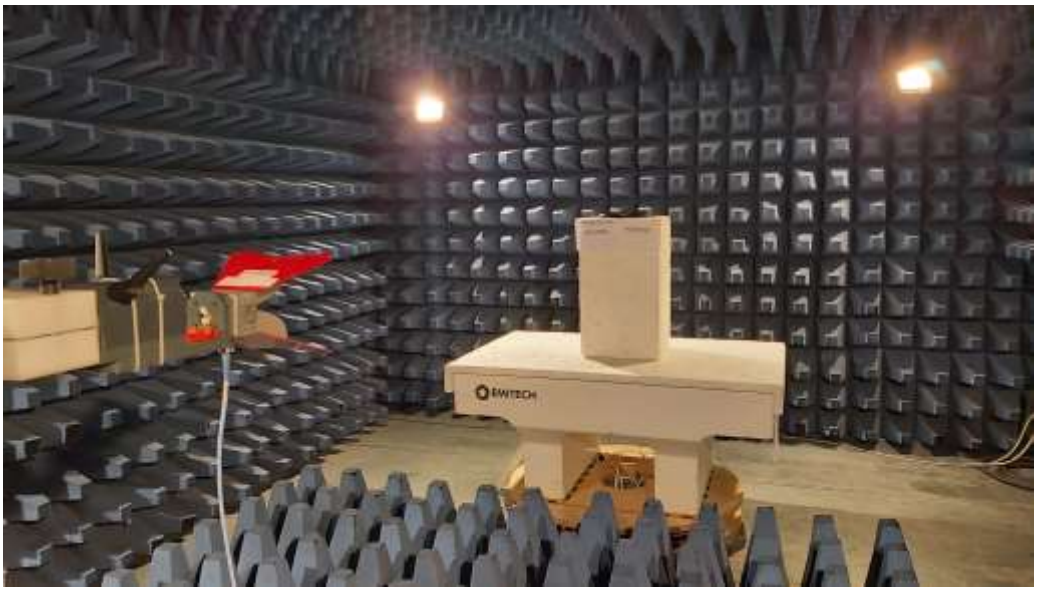
Reference standard:	FCC part 15 Radio part 15.247 and RSS-247
Test method:	FCC part 15.247 and RSS-247
Test description: a) (2): Systems using digital modulation techniques may operate in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz. EUT is connected to the measuring receiver via 50Ω attenuator(s). Tests are done in max-hold mode in order to capture all channels.	

TEST CASE AND CONDITIONS	SEVERITY	RESULT TAB.	VERDICT
Low Channel	>500kHz	EMI8061	**PASS**
Mid Channel	>500kHz	EMI8062	**PASS**
High Channel	>500kHz	EMI8063	**PASS**

LABORATORY PARAMETERS:	REQUIRED PRIOR TO THE TEST	DURING THE TEST
Ambient Temperature	15 to 35 °C	22.1 °C
Relative Humidity	20 to 75 %	47.3 %
Atmospheric pressure	N/A	999 hPa
Test method deviation: N/A		
Supplementary information:		

TEST EQUIPMENT USED					
CATEGORY	**BRAND**	**TYPE**	**IDENTIFIER**	**CAL. DATE**	**CAL. DUE**
Antenna	ETS-Lindgren	3117	5456	24/07/2019	24/09/2022
Cable	SUCOFLEX	N-3m	14379	25/06/2019	25/08/2021
Cable	SUCOFLEX	N-5,5m	14381	25/06/2019	25/08/2021
Cable	Huber + Suhner	SF102K	16041	28/02/2019	28/04/2021
Receiver	Rohde & Schwarz	FSW43	14830	29/07/2020	29/09/2021
Shielded enclosure	RAY PROOF	C.V2	1423	04/10/2019	04/12/2022
Software	Nexio		0000		
Thermohygrometer	Testo	608-H1	7562	25/01/2019	25/03/2021
Thermohygrometer	Bioblock Scientific	Météostar	0963	26/01/2019	26/09/2021

Blank cells = Permanent validity

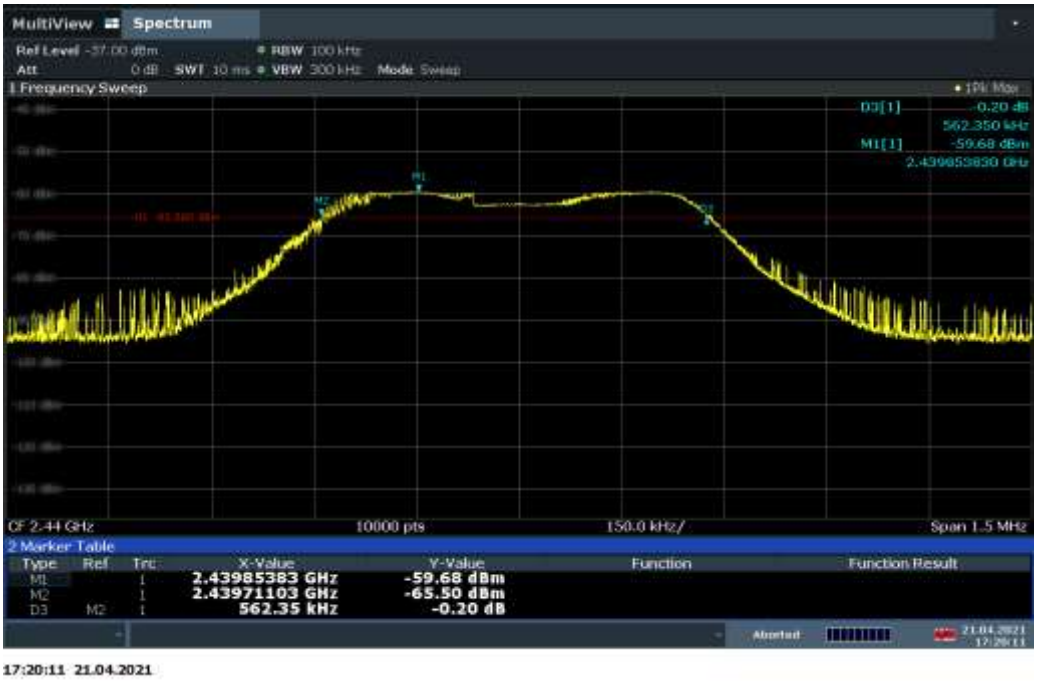
TEST SETUP PHOTO(S) – 6DB BANDWIDTH
   

6dB Bandwidth - Graph		
Low Channel		EMI8061
EUT mode:	#1	
Test Date:	21/04/2021	
Test Operator:	ATO	

EUT modification(s): N/A

6dB Bandwith - Tabulated Results			
Low channel			
Frequency	**RBW**	**6 dB Bandwith**	**Limit**
2404 MHz	100kHz	551.55 kHz	>500kHz

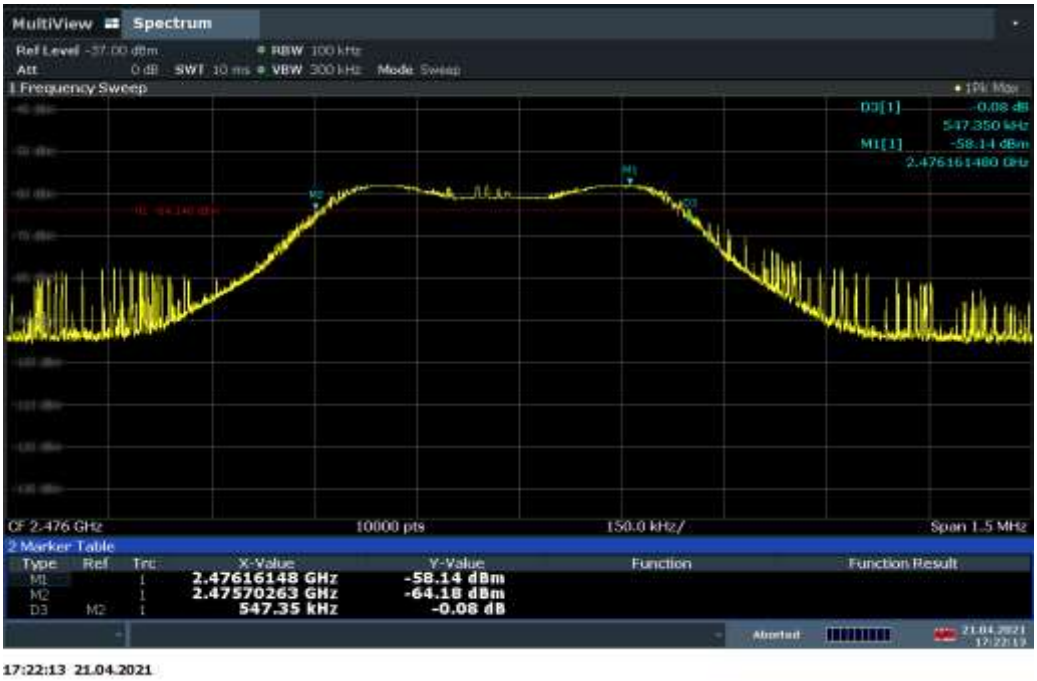
6dB Bandwidth - Graph		
Mid Channel		EMI8062
EUT mode:	#1	
Test Date:	21/04/2021	
Test Operator:	ATO	



EUT modification(s): N/A

6dB Bandwith - Tabulated Results			
Mid Channel			
Frequency	**RBW**	**6 dB Bandwith**	**Limit**
2440 MHz	100kHz	562.35 kHz	>500kHz

6dB Bandwidth - Graph		
High Channel		EMI8063
EUT mode:	#1	
Test Date:	21/04/2021	
Test Operator:	ATO	



EUT modification(s): N/A

6dB Bandwith - Tabulated Results			
High channel			
Frequency	**RBW**	**6 dB Bandwith**	**Limit**
2476 MHz	100kHz	547.35 kHz	>500kHz

8.3. Occupied bandwidth

Reference standard:	FCC part 15 Radio part 15.247 and RSS-247
Test method:	FCC part 15.247 and RSS-247
Test description: The occupied bandwidth (OBW) is the Frequency Range in which 99 % of the total mean power of a given emission falls. The residual part of the total power being denoted as β, which, in cases of symmetrical spectra, splits up into β/2 on each side of the spectrum. Unless otherwise specified, β/2 is taken as 0,5 %. The maximum occupied bandwidth includes all associated side bands above the appropriate emissions level and the frequency error or drift under extreme test conditions.	

TEST CASE AND CONDITIONS	SEVERITY	RESULT TAB.	VERDICT
Low Channel	>500kHz	EMI8064	**PASS**
Mid Channel	>500kHz	EMI8065	**PASS**
High Channel	>500kHz	EMI8066	**PASS**

LABORATORY PARAMETERS:	REQUIRED PRIOR TO THE TEST	DURING THE TEST
Ambient Temperature	15 to 35 °C	21.8 °C
Relative Humidity	20 to 75 %	42.1 %
Atmospheric pressure	N/A	1005 hPa
Test method deviation: N/A		
Supplementary information:		

TEST EQUIPMENT USED

CATEGORY	BRAND	TYPE	IDENTIFIER	CAL. DATE	CAL. DUE
Antenna	ETS-Lindgren	3117	5456	24/07/2019	24/09/2022
Cable	SUCOFLEX	N-3m	14379	25/06/2019	25/08/2021
Cable	SUCOFLEX	N-5,5m	14381	25/06/2019	25/08/2021
Cable	Huber + Suhner	SF102K	16041	28/02/2019	28/04/2021
Receiver	Rohde & Schwarz	FSW43	14830	29/07/2020	29/09/2021
Shielded enclosure	RAY PROOF	C.V2	1423	04/10/2019	04/12/2022
Software	Nexio		0000		
Thermohygrometer	Testo	608-H1	7562	25/01/2019	25/03/2021
Thermohygrometer	Bioblock Scientific	Météostar	0963	26/01/2019	26/09/2021

Blank cells = Permanent validity

TEST SETUP PHOTO(S) – OCCUPIED BANDWIDTH

OCCUPIED BANDWIDTH - GRAPH		
LOW CHANNEL		EMI8064
EUT mode:	#1	
Test Date:	30/04/2021	
Test Operator:	ATO	

EUT modification(s): N/A

OCCUPIED BANDWIDTH - TABULATED RESULTS			
LOW CHANNEL			
Frequency	**RBW**	**OBW 99%**	**Limit**
2404 MHz	100 kHz	641.47 kHz	> 500kHz

OCCUPIED BANDWIDTH - GRAPH		
MID CHANNEL		EMI8065
EUT mode:	#1	
Test Date:	30/04/2021	
Test Operator:	ATO	

EUT modification(s): N/A

OCCUPIED BANDWIDTH - TABULATED RESULTS			
MID CHANNEL			
Frequency	**RBW**	**OBW 99%**	**Limit**
2440 MHz	100 kHz	673.93 MHz	> 500kHz

OCCUPIED BANDWIDTH - GRAPH		
HIGH CHANNEL		EMI8066
EUT mode:	#1	
Test Date:	30/04/2021	
Test Operator:	ATO	

EUT modification(s): N/A

OCCUPIED BANDWIDTH - TABULATED RESULTS			
HIGH CHANNEL			
Frequency	**RBW**	**OBW 99%**	**Limit**
2476 MHz	100 kHz	690.55 kHz	> 500kHz

8.4. Maximum effective isotropic radiated power

Reference standard:	FCC part 15 Radio part 15.247 and RSS-247
Test method:	FCC part 15.247 and RSS-247
Test description: EUT is set on an insulating support at 150cm above the ground reference plane. Measurement are done on a normalized test site by the substitution method. The test antenna is oriented in the two polarizations (vertical and horizontal), and the product is rotated at 360° in the horizontal plane (See photo(s) for initial position of the EUT(0°)). If applicable the test antenna was raised and lowered through the specified range of height until a maximum signal level is detected. For portable equipements a research of maximum level is done on the 3 axes. Only the highest levels are recorded.	

TESTED CONFIGURATION	PARAMETER	SEVERITY	RESULT TAB.	VERDICT
EIRP / All Positions / Low channel	2.402GHz-2.406GHz	30dBm	EMI6699	**PASS**
EIRP / All Positions / Mid channel	2.438GHz-2.442GHz	30dBm	EMI6700	**PASS**
EIRP / All Positions / High channel	2.474GHz-2.478GHz	30dBm	EMI6701	**PASS**

LABORATORY PARAMETERS:	REQUIRED PRIOR TO THE TEST	DURING THE TEST
Ambient Temperature	15 to 35 °C	*See Graph(es)*
Relative Humidity	20 to 75 %	*See Graph(es)*
Atmospheric pressure	N/A	*See Graph(es)*
Test method deviation: N/A		
Supplementary information: N/A		

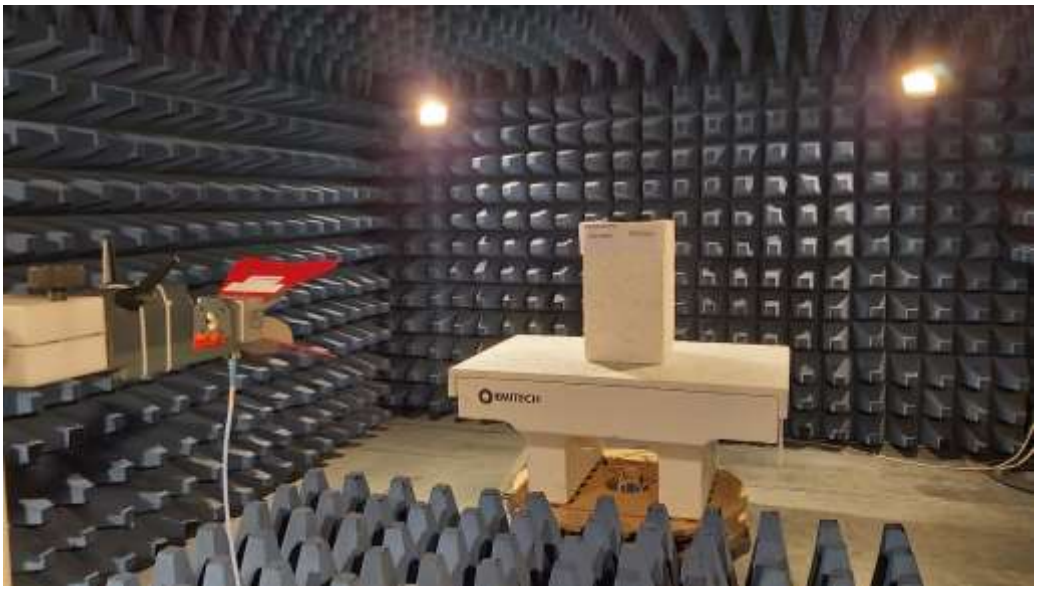
TEST EQUIPMENT USED					
CATEGORY	BRAND	TYPE	IDENTIFIER	CAL. DATE	CAL. DUE
Antenna	ETS-Lindgren	3117	5456	24/07/2019	24/09/2022
Attenuator	EMITECH	SUB.V2-H	14495	13/01/2021	13/03/2022
Attenuator	EMITECH	SUB.V2-V	14496	13/01/2021	13/03/2022
Cable	MegaPhase	N-3m	14852	30/10/2018	30/06/2021
Cable	SUCOFLEX	N-5,5m	14381	25/06/2019	25/08/2021
Cable	Huber + Suhner	SF102K	16041	28/02/2019	28/04/2021
Receiver	Rohde & Schwarz	FSW43	14830	29/07/2020	29/09/2021
Shielded enclosure	RAY PROOF	C.V2	1423	04/10/2019	04/12/2022
Software	Nexio		0000		
Thermohygrometer	Testo	608-H1	7562	25/01/2019	25/03/2021
Thermohygrometer	Bioblock Scientific	Météostar	0963	25/01/2019	25/03/2021

Blank cells = Permanent validity

TEST SETUP PHOTO(S) - POSITION 1


TEST SETUP PHOTO(S) - POSITION 2

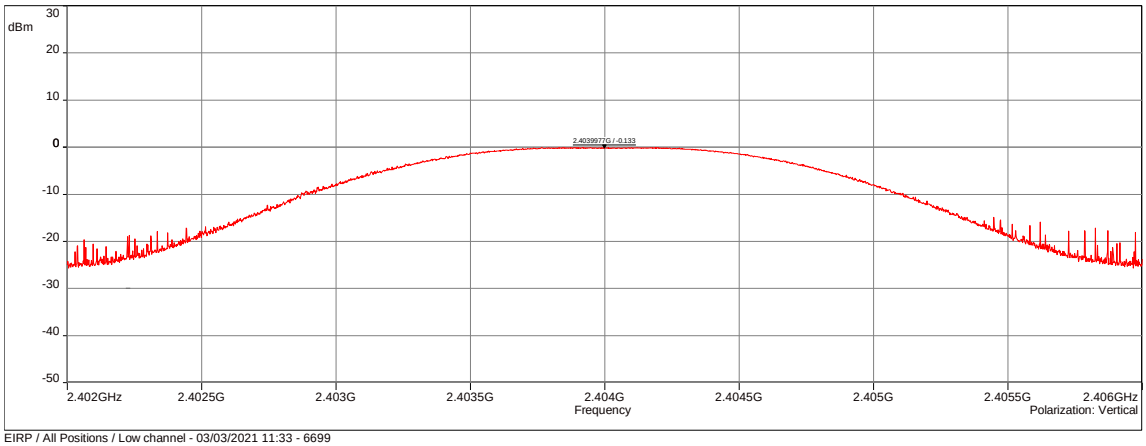

TEST SETUP PHOTO(S) - POSITION 3


TEST SETUP PHOTO(S) - EIRP


EFFECTIVE ISOTROPIC RADIATED POWER - GRAPH			
EIRP / ALL POSITIONS / LOW CHANNEL		EMI6699	
EUT mode:	Unmodulated	**T (°C):**	20.9
Test Date:	03/03/2021	**H (%):**	34.6
Test Operator:	ATO & OAT	**P (hPa):**	1023

Meas.Peak (Vertical)

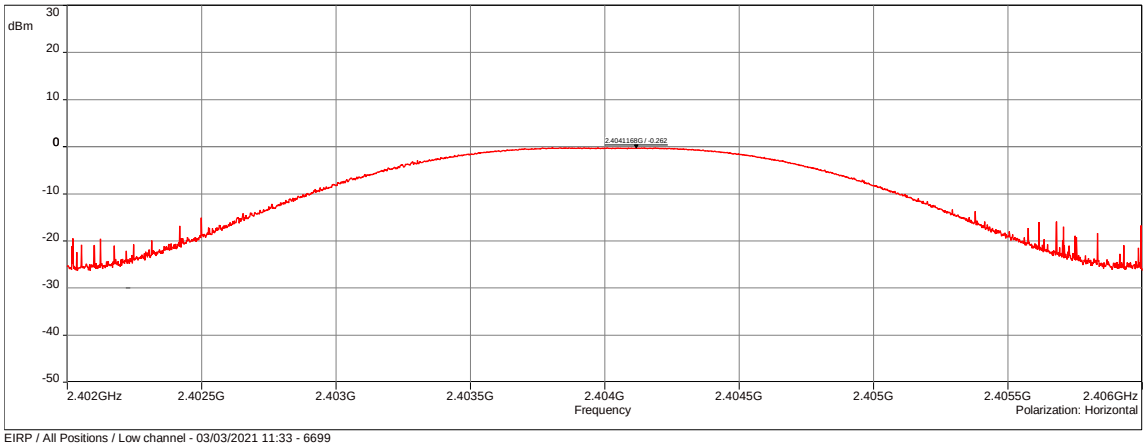
Sub-range 1
Frequencies: 2.402 GHz - 2.406 GHz (Analyser mode) 8000 Points
Settings: RBW: 1MHz, VBW: 3MHz, Auto, Attenuation: 10 dB, Sweep count 1, Preamp: Off, LN Preamp: Off, Preselector: Off
Polarization:Vertical
Distance: 3 m



EIRP / All Positions / Low channel - 03/03/2021 11:33 - 6699

Meas.Peak (Horizontal)

Sub-range 2
Frequencies: 2.402 GHz - 2.406 GHz (Analyser mode) 8000 Points
Settings: RBW: 1MHz, VBW: 3MHz, Auto, Attenuation: 10 dB, Sweep count 1, Preamp: Off, LN Preamp: Off, Preselector: Off
Polarization:Horizontal
Distance: 3 m



EIRP / All Positions / Low channel - 03/03/2021 11:33 - 6699

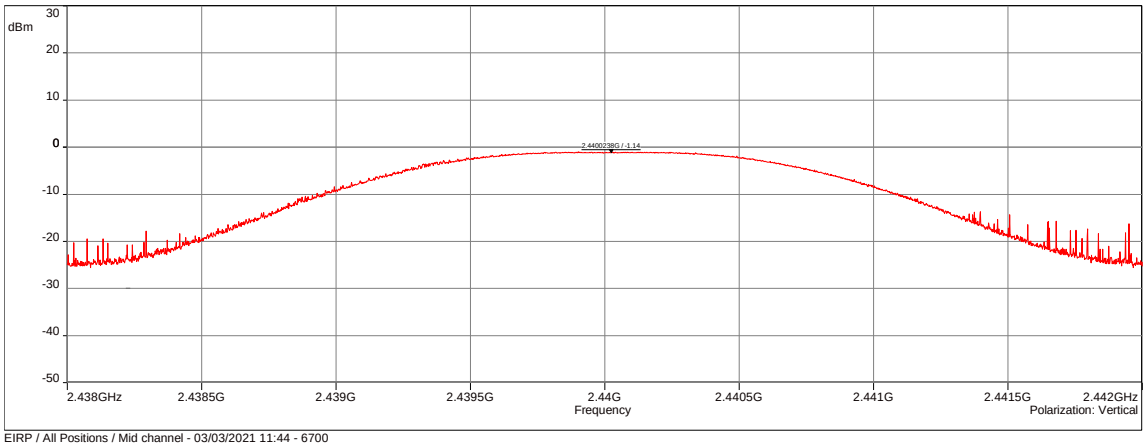
POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	2.402GHz-2.406GHz	1MHz	3MHz	Peak
Horizontal	2.402GHz-2.406GHz	1MHz	3MHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

EFFECTIVE ISOTROPIC RADIATED POWER - TABULATED RESULTS			
EIRP / ALL POSITIONS / LOW CHANNEL			EMI6699
Frequency (MHz)	**Polarization**	**Level (dBm)**	**Limit (dBm)**
2403.99	Vertical	-0.133	30
2404.11	Horizontal	-0.262	30

EFFECTIVE ISOTROPIC RADIATED POWER - GRAPH			
EIRP / ALL POSITIONS / MID CHANNEL		EMI6700	
EUT mode:	Unmodulated	**T (°C):**	20.9
Test Date:	03/03/2021	**H (%):**	34.6
Test Operator:	ATO & OAT	**P (hPa):**	1023

Meas.Peak (Vertical)

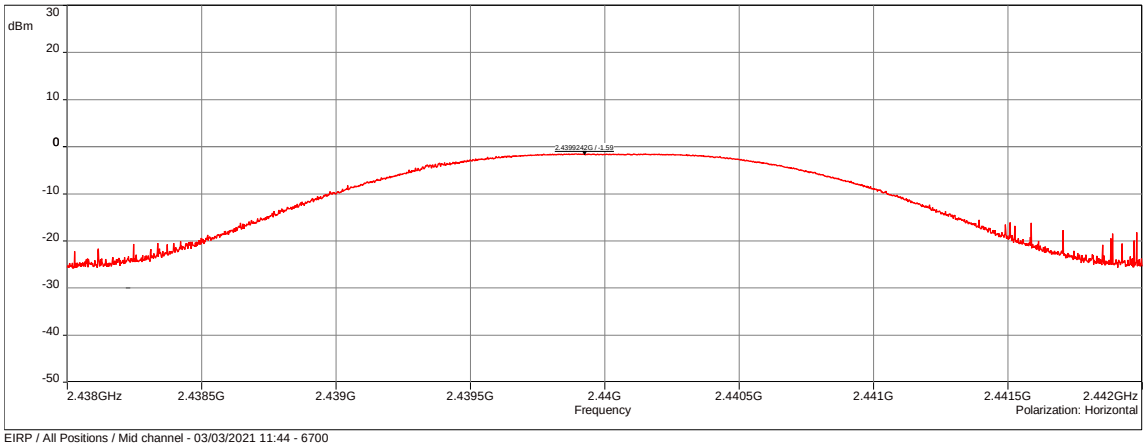
Sub-range 1
Frequencies: 2.438 GHz - 2.442 GHz (Analyser mode) 8000 Points
Settings: RBW: 1MHz, VBW: 3MHz, Auto, Attenuation: 10 dB, Sweep count 1, Preamp: Off, LN Preamp: Off, Preselector: Off
Polarization:Vertical
Distance: 3 m



EIRP / All Positions / Mid channel - 03/03/2021 11:44 - 6700

Meas.Peak (Horizontal)

Sub-range 2
Frequencies: 2.438 GHz - 2.442 GHz (Analyser mode) 8000 Points
Settings: RBW: 1MHz, VBW: 3MHz, Auto, Attenuation: 10 dB, Sweep count 1, Preamp: Off, LN Preamp: Off, Preselector: Off
Polarization:Horizontal
Distance: 3 m



EIRP / All Positions / Mid channel - 03/03/2021 11:44 - 6700

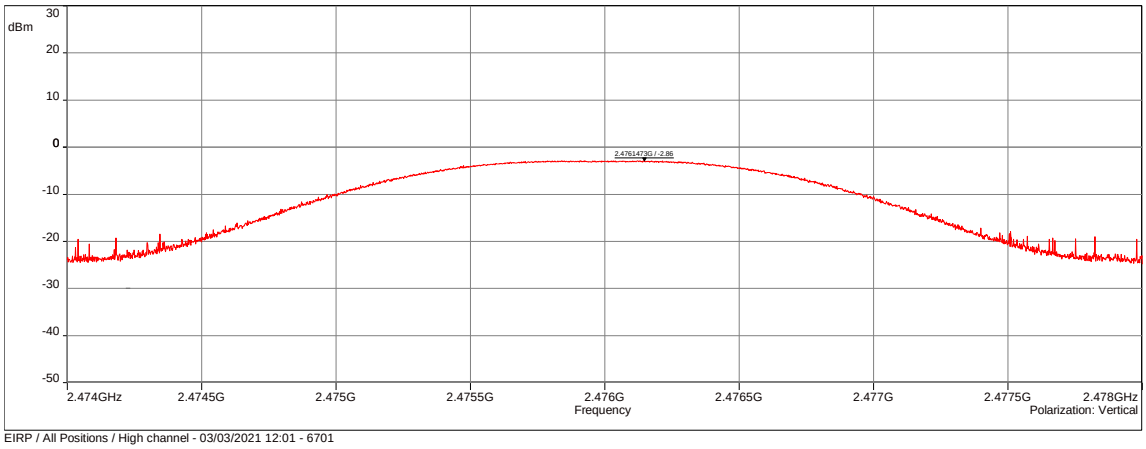
POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	2.438GHz-2.442GHz	1MHz	3MHz	Peak
Horizontal	2.438GHz-2.442GHz	1MHz	3MHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

EFFECTIVE ISOTROPIC RADIATED POWER - TABULATED RESULTS			
EIRP / ALL POSITIONS / MID CHANNEL			EMI6700
Frequency (MHz)	**Polarization**	**Level (dBm)**	**Limit (dBm)**
2440.00	Vertical	-1.14	30
2439.92	Horizontal	-1.59	30

EFFECTIVE ISOTROPIC RADIATED POWER - GRAPH			
EIRP / ALL POSITIONS / HIGH CHANNEL		EMI6701	
EUT mode:	Unmodulated	**T (°C):**	20.9
Test Date:	03/03/2021	**H (%):**	34.6
Test Operator:	ATO & OAT	**P (hPa):**	1023

Meas.Peak (Vertical)

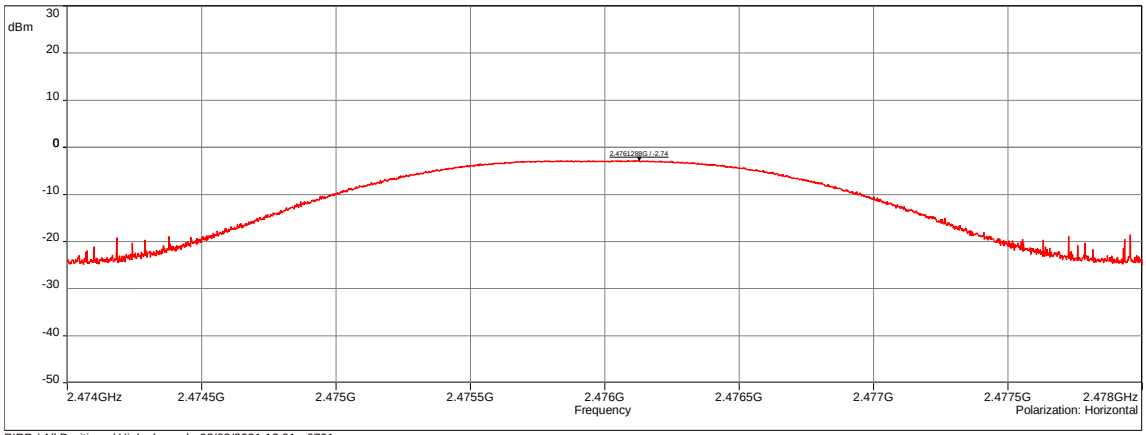
Sub-range 1
Frequencies: 2.474 GHz - 2.478 GHz (Analyser mode) 8000 Points
Settings: RBW: 1MHz, VBW: 3MHz, Auto, Attenuation: 10 dB, Sweep count 1, Preamp: Off, LN Preamp: Off, Preselector: Off
Polarization:Vertical
Distance: 3 m



EIRP / All Positions / High channel - 03/03/2021 12:01 - 6701

Meas.Peak (Horizontal)

Sub-range 2
Frequencies: 2.474 GHz - 2.478 GHz (Analyser mode) 8000 Points
Settings: RBW: 1MHz, VBW: 3MHz, Auto, Attenuation: 10 dB, Sweep count 1, Preamp: Off, LN Preamp: Off, Preselector: Off
Polarization:Horizontal
Distance: 3 m



EIRP / All Positions / High channel - 03/03/2021 12:01 - 6701

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	2.474GHz-2.478GHz	1MHz	3MHz	Peak
Horizontal	2.474GHz-2.478GHz	1MHz	3MHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

EFFECTIVE ISOTROPIC RADIATED POWER - TABULATED RESULTS			
EIRP / ALL POSITIONS / HIGH CHANNEL			EMI6701
Frequency (MHz)	**Polarization**	**Level (dBm)**	**Limit (dBm)**
2476.14	Vertical	-2.86	30
2476.12	Horizontal	-2.74	30

8.5. Band-edge compliance

Reference standard:	FCC part 15 Radio part 15.247 and RSS-247
Test method:	FCC part 15.247 subclause d) and RSS-247

Test description: d)

In any 100 kHz bandwidth outside the frequency band in which the intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

EUT is connected to the measuring receiver via 50Ω attenuator(s).Only the highest levels are recorded.

TESTED CONFIGURATION	PARAMETER	SEVERITY	RESULT TAB.	VERDICT
All Positions / Low channel	2.38GHz-2.5GHz	>20dBc	EMI6730	**PASS**
All Positions / Mid channel	2.38GHz-2.5GHz	>20dBc	EMI6732	**PASS**
All Positions / High channel	2.38GHz-2.5GHz	>20dBc	EMI6734	**PASS**

LABORATORY PARAMETERS:	REQUIRED PRIOR TO THE TEST	DURING THE TEST
Ambient Temperature	15 to 35 °C	*See Graph(es)*
Relative Humidity	20 to 75 %	*See Graph(es)*
Atmospheric pressure	N/A	*See Graph(es)*

Test method deviation: N/A

Supplementary information: N/A

TEST EQUIPMENT USED

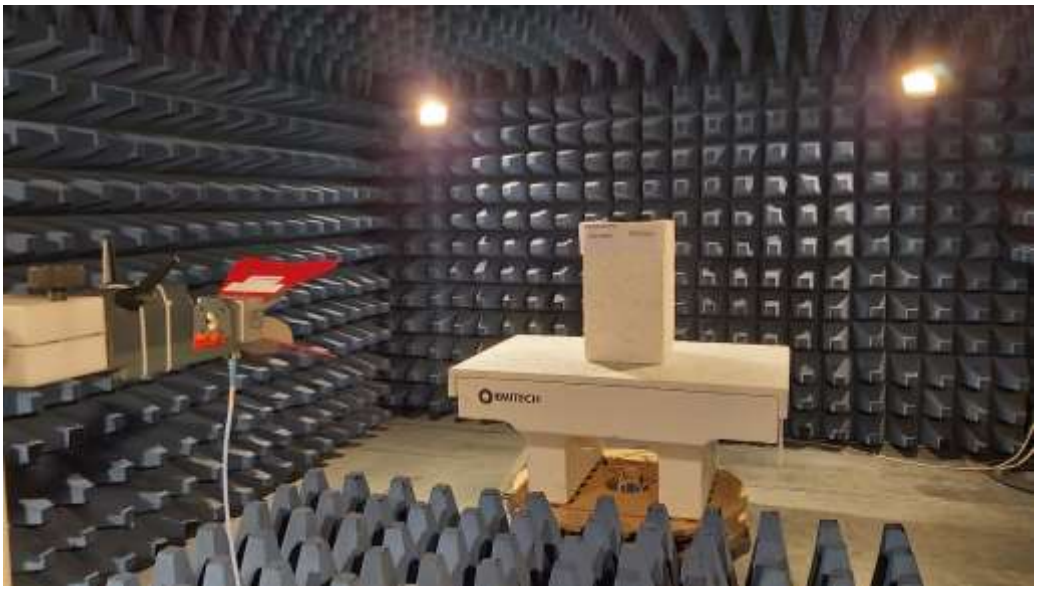
CATEGORY	BRAND	TYPE	IDENTIFIER	CAL. DATE	CAL. DUE
Antenna	ETS-Lindgren	3117	5456	24/07/2019	24/09/2022
Cable	SUCOFLEX	N-3m	14379	25/06/2019	25/08/2021
Cable	SUCOFLEX	N-5,5m	14381	25/06/2019	25/08/2021
Cable	Huber + Suhner	SF102K	16041	28/02/2019	28/04/2021
Receiver	Rohde & Schwarz	FSW43	14830	29/07/2020	29/09/2021
Shielded enclosure	RAY PROOF	C.V2	1423	04/10/2019	04/12/2022
Software	Nexio		0000		
Thermohygrometer	Testo	608-H1	7562	25/01/2019	25/03/2021
Thermohygrometer	Bioblock Scientific	Météostar	0963	25/01/2019	25/03/2021

BAT-EMC software version: V3.18.0.26 Blank cells = Permanent validity

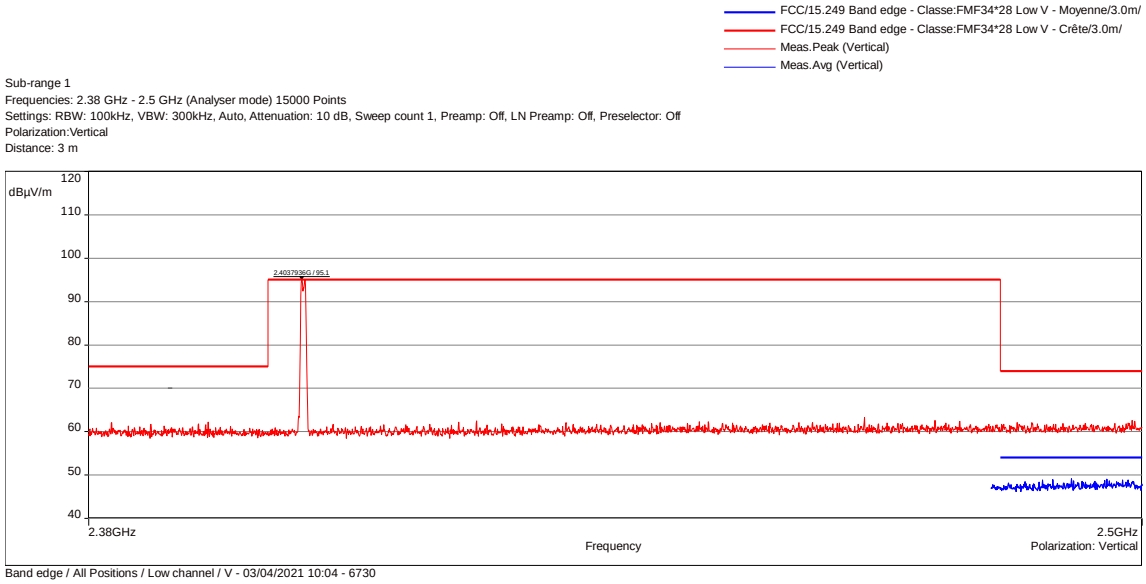
TEST SETUP PHOTO(S) - POSITION 1


TEST SETUP PHOTO(S) - POSITION 2

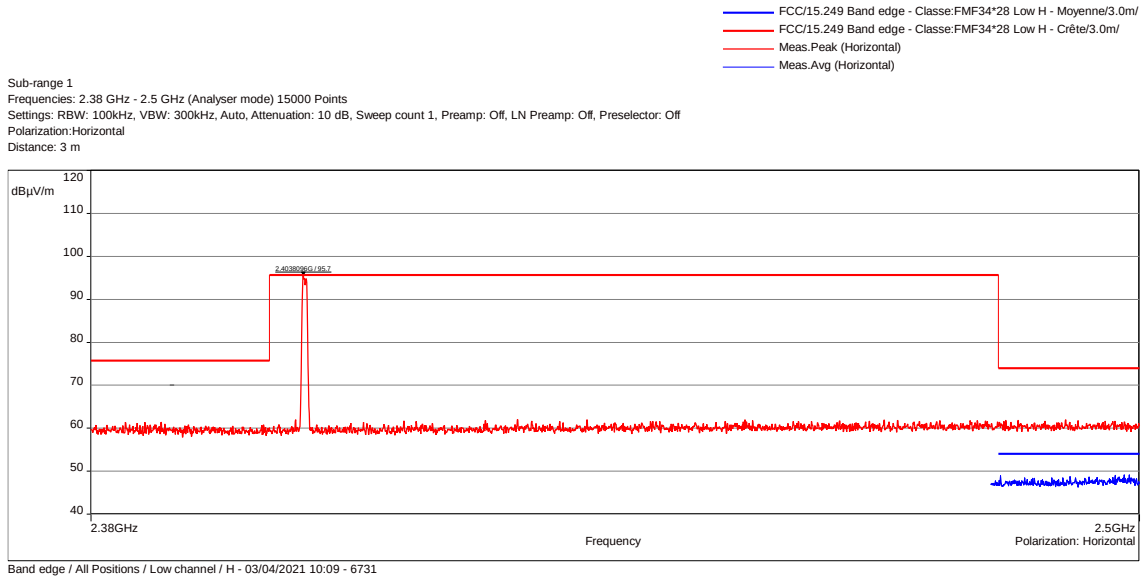

TEST SETUP PHOTO(S) - POSITION 3


TEST SETUP PHOTO(S) – BAND EDGE


BAND EDGE - GRAPH			
ALL POSITIONS / LOW CHANNEL		EMI6730	
EUT mode:	Modulated	**T (°C):**	20.0
Test Date:	03/03/2021	**H (%):**	39.5
Test Operator:	ATO & OAT	**P (hPa):**	1015



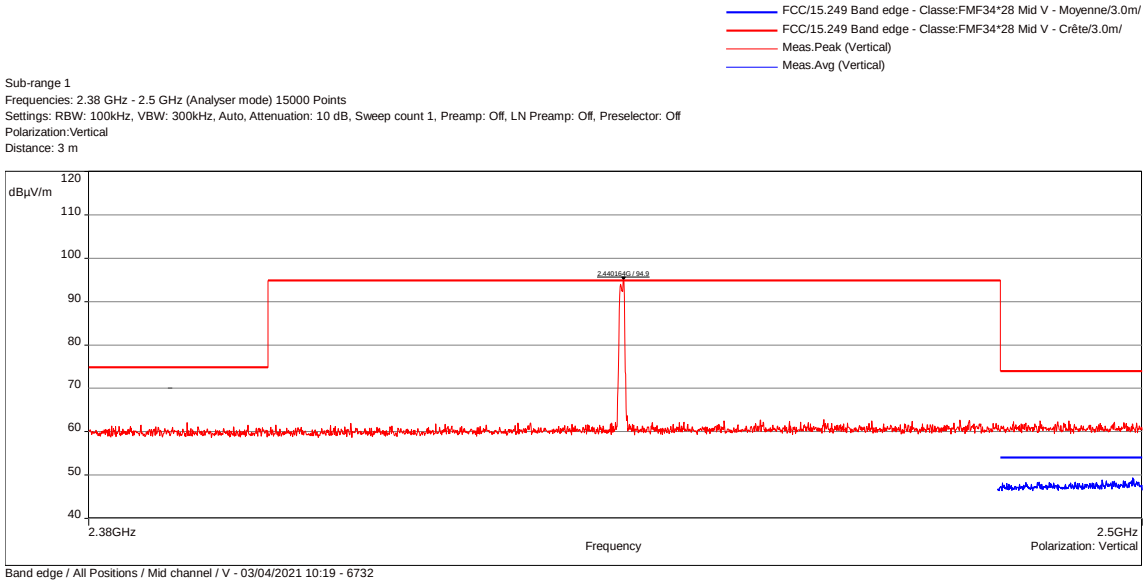
Band edge / All Positions / Low channel / V - 03/04/2021 10:04 - 6730



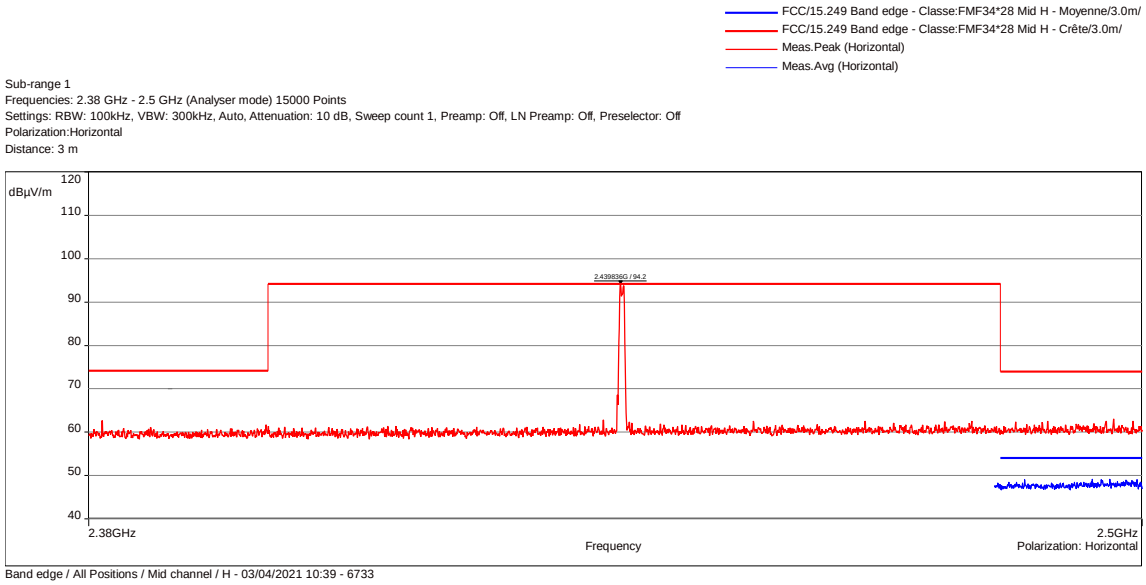
Band edge / All Positions / Low channel / H - 03/04/2021 10:09 - 6731

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	2.38GHz-2.5GHz	100kHz	300kHz	Peak
Horizontal	2.38GHz-2.5GHz	100kHz	300kHz	Peak
Vertical	2.48GHz-2.5GHz	100kHz	20kHz	Peak
Horizontal	2.48GHz-2.5GHz	100kHz	20kHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

BAND EDGE - GRAPH			
ALL POSITIONS / MID CHANNEL		EMI6732	
EUT mode:	Modulated	**T (°C):**	20.0
Test Date:	04/03/2021	**H (%):**	39.5
Test Operator:	ATO & OAT	**P (hPa):**	1015



Band edge / All Positions / Mid channel / V - 03/04/2021 10:19 - 6732



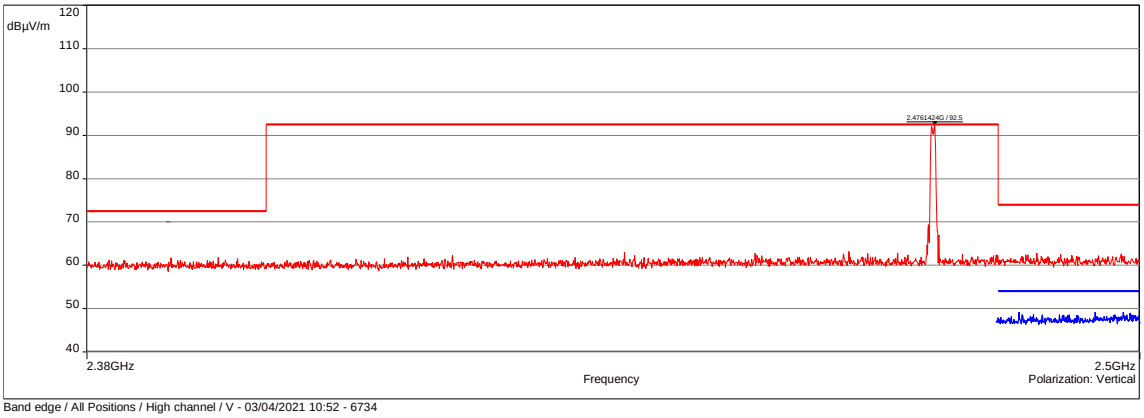
Band edge / All Positions / Mid channel / H - 03/04/2021 10:39 - 6733

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	2.38GHz-2.5GHz	100kHz	300kHz	Peak
Horizontal	2.38GHz-2.5GHz	100kHz	300kHz	Peak
Vertical	2.48GHz-2.5GHz	100kHz	20kHz	Peak
Horizontal	2.48GHz-2.5GHz	100kHz	20kHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

BAND EDGE - GRAPH			
ALL POSITIONS / HIGH CHANNEL		EMI6734	
EUT mode:	Modulated	**T (°C):**	20.0
Test Date:	04/03/2021	**H (%):**	39.5
Test Operator:	ATO & OAT	**P (hPa):**	1015

FCC/15.249 Band edge - Classe:FMF34*28 High V - Moyenne/3.0m/
FCC/15.249 Band edge - Classe:FMF34*28 High V - Crête/3.0m/
Meas.Peak (Vertical)
Meas.Avg (Vertical)

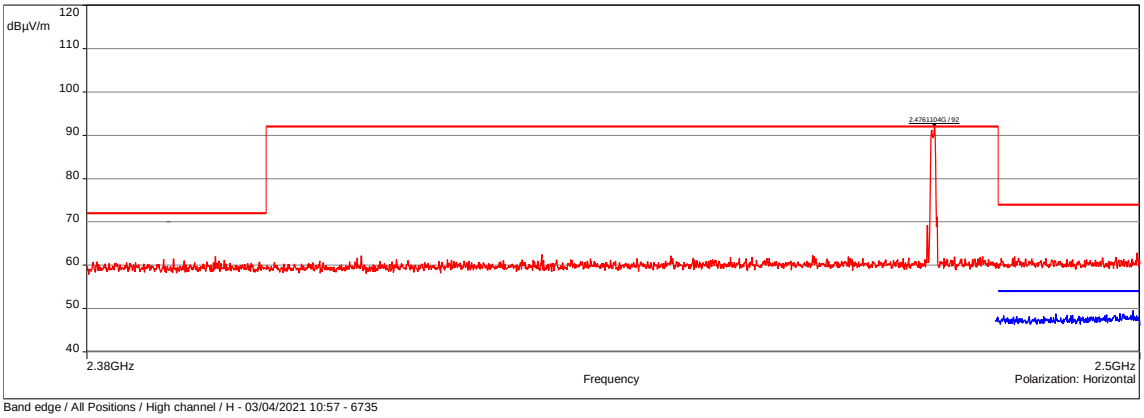
Sub-range 1
Frequencies: 2.38 GHz - 2.5 GHz (Analyser mode) 15000 Points
Settings: RBW: 100kHz, VBW: 300kHz, Auto, Attenuation: 10 dB, Sweep count 1, Preamp: Off, LN Preamp: Off, Preselector: Off
Polarization:Vertical
Distance: 3 m



Band edge / All Positions / High channel / V - 03/04/2021 10:52 - 6734

FCC/15.249 Band edge - Classe:FMF34*28 High H - Moyenne/3.0m/
FCC/15.249 Band edge - Classe:FMF34*28 High H - Crête/3.0m/
Meas.Peak (Horizontal)
Meas.Avg (Horizontal)

Sub-range 1
Frequencies: 2.38 GHz - 2.5 GHz (Analyser mode) 15000 Points
Settings: RBW: 100kHz, VBW: 300kHz, Auto, Attenuation: 10 dB, Sweep count 1, Preamp: Off, LN Preamp: Off, Preselector: Off
Polarization:Horizontal
Distance: 3 m



Band edge / All Positions / High channel / H - 03/04/2021 10:57 - 6735

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	2.38GHz-2.5GHz	100kHz	300kHz	Peak
Horizontal	2.38GHz-2.5GHz	100kHz	300kHz	Peak
Vertical	2.48GHz-2.5GHz	100kHz	20kHz	Peak
Horizontal	2.48GHz-2.5GHz	100kHz	20kHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

8.6. Power spectral density

Reference standard:	FCC part 15 Radio part 15.247 and RSS-247
Test method:	FCC part 15.247 and RSS-247

Test description: e)

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

EUT is connected to the measuring receiver via 50Ω attenuator(s).Only the highest levels are recorded.

TESTED CONFIGURATION	PARAMETER	SEVERITY	RESULT TAB.	VERDICT
All Positions / Low channel	2.4035GHz-2.4045GHz	8dBm/3kHz	EMI6711	**PASS**
All Positions / Mid channel	2.4395GHz-2.4405GHz	8dBm/3kHz	EMI6712	**PASS**
All Positions / High channel	2.4755GHz-2.4765GHz	8dBm/3kHz	EMI6713	**PASS**

LABORATORY PARAMETERS:	REQUIRED PRIOR TO THE TEST	DURING THE TEST
Ambient Temperature	15 to 35 °C	*See Graph(s)*
Relative Humidity	20 to 75 %	*See Graph(s)*
Atmospheric pressure	N/A	*See Graph(s)*

Test method deviation: N/A

Supplementary information: N/A

TEST EQUIPMENT USED

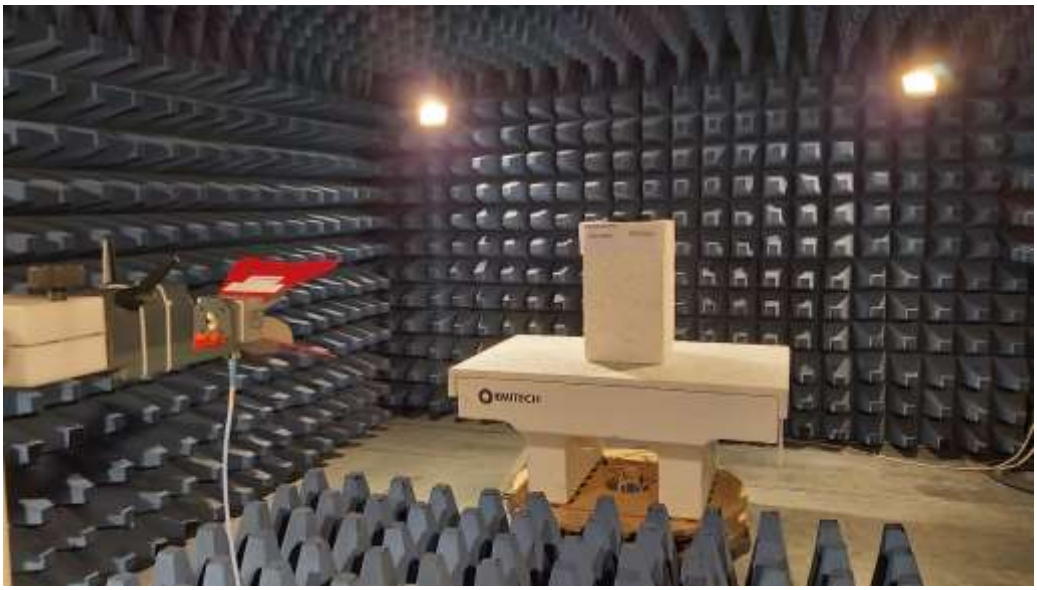
CATEGORY	BRAND	TYPE	IDENTIFIER	CAL. DATE	CAL. DUE
Antenna	ETS-Lindgren	3117	5456	24/07/2019	24/09/2022
Attenuator	EMITECH	SUB.V2-H	14495	13/01/2021	13/03/2022
Attenuator	EMITECH	SUB.V2-V	14496	13/01/2021	13/03/2022
Cable	SUCOFLEX	N-3m	14379	25/06/2019	25/08/2021
Cable	MegaPhase	N-3m	14852	30/10/2018	30/06/2021
Cable	SUCOFLEX	N-5,5m	14381	25/06/2019	25/08/2021
Cable	Huber + Suhner	SF102K	16041	28/02/2019	28/04/2021
Receiver	Rohde & Schwarz	FSW43	14830	29/07/2020	29/09/2021
Shielded enclosure	RAY PROOF	C.V2	1423	04/10/2019	04/12/2022
Software	Nexio		0000		
Thermohygrometer	Testo	608-H1	7562	25/01/2019	25/03/2021
Thermohygrometer	Bioblock Scientific	Météostar	0963	25/01/2019	25/03/2021

BAT-EMC software version: V3.18.0.26 Blank cells = Permanent validity

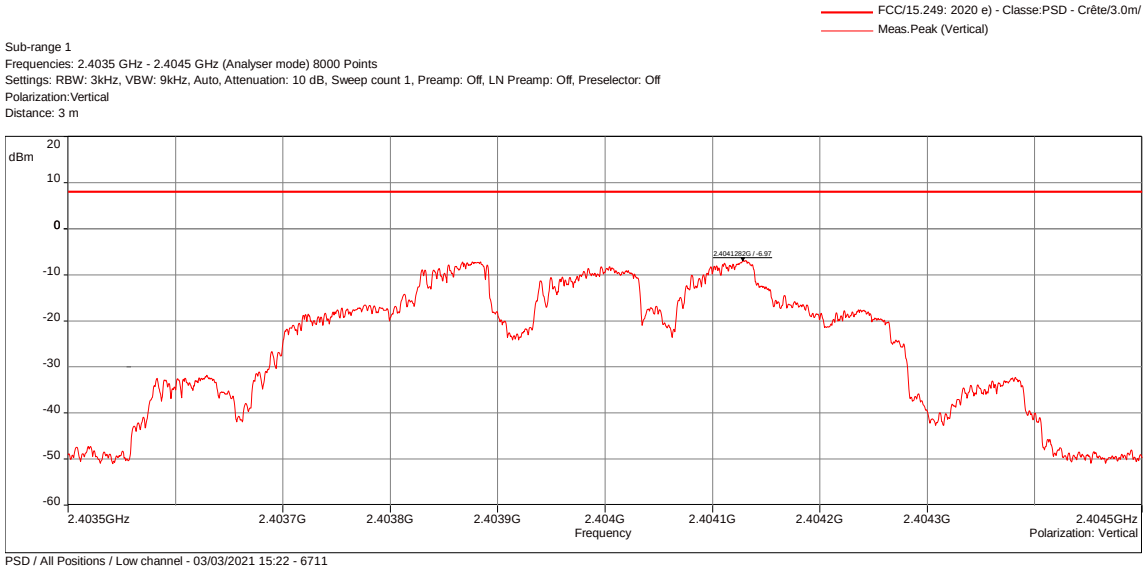
TEST SETUP PHOTO(S) - POSITION 1


TEST SETUP PHOTO(S) - POSITION 2

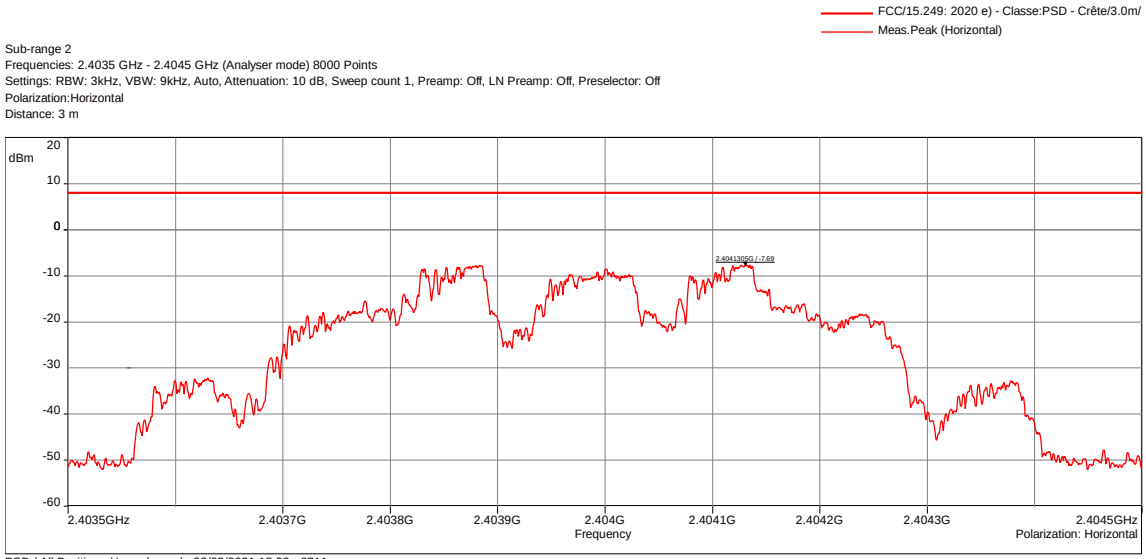

TEST SETUP PHOTO(S) - POSITION 3


TEST SETUP PHOTO(S) – PSD


POWER SPECTRAL DENSITY - GRAPH			
ALL POSITIONS / LOW CHANNEL		EMI6711	
EUT mode:	Modulated	**T (°C):**	20.7
Test Date:	03/03/2021	**H (%):**	36.2
Test Operator:	ATO & OAT	**P (hPa):**	1023



PSD / All Positions / Low channel - 03/03/2021 15:22 - 6711

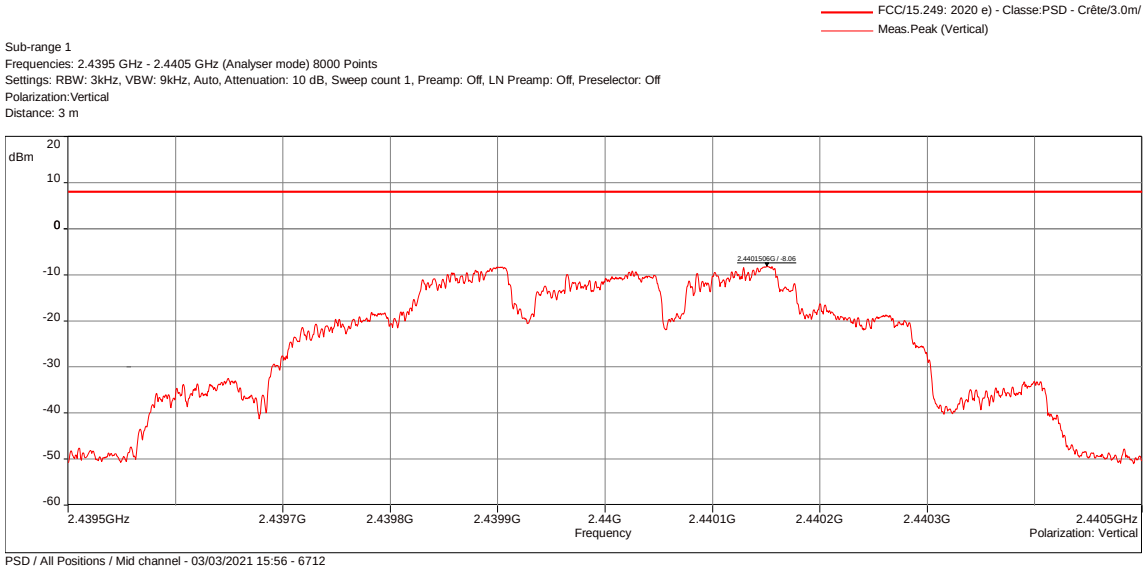


PSD / All Positions / Low channel - 03/03/2021 15:22 - 6711

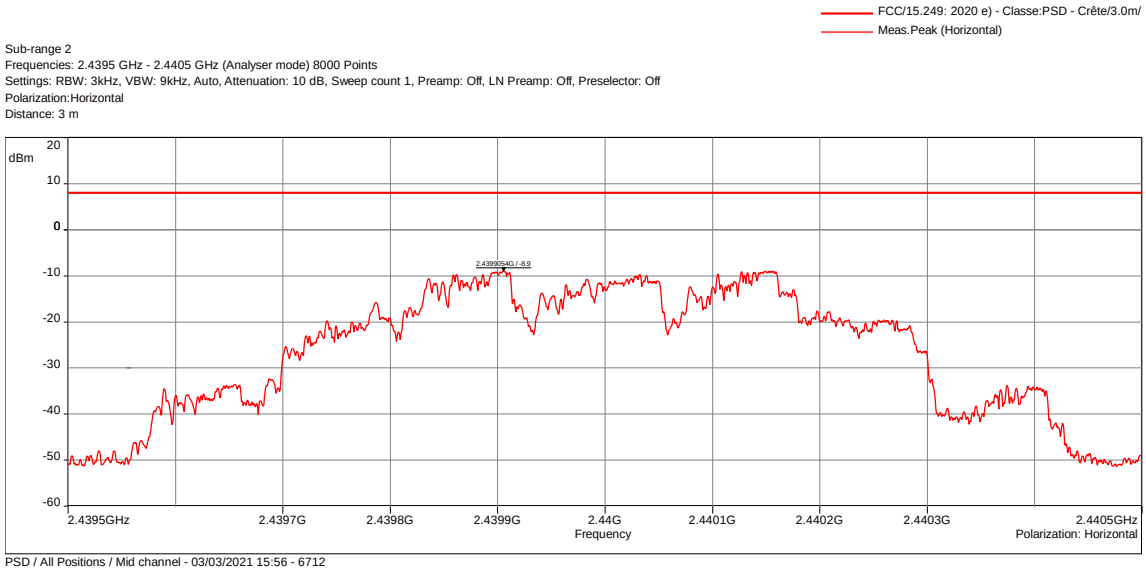
POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	2.4035GHz-2.4045GHz	3kHz	9kHz	Peak
Horizontal	2.4035GHz-2.4045GHz	3kHz	9kHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

POWER SPECTRAL DENSITY - TABULATED RESULTS			
ALL POSITIONS / LOW CHANNEL			EMI6703
Frequency (MHz)	**Polarization**	**Level (dBm)**	**Limit (dBm)**
2404.12	Vertical	-6.97	8
2404.13	Horizontal	-7.69	8

POWER SPECTRAL DENSITY - GRAPH			
PSD / ALL POSITIONS / MID CHANNEL		EMI6712	
EUT mode:	Modulated	**T (°C):**	20.7
Test Date:	03/03/2021	**H (%):**	36.2
Test Operator:	ATO & OAT	**P (hPa):**	1023



PSD / All Positions / Mid channel - 03/03/2021 15:56 - 6712

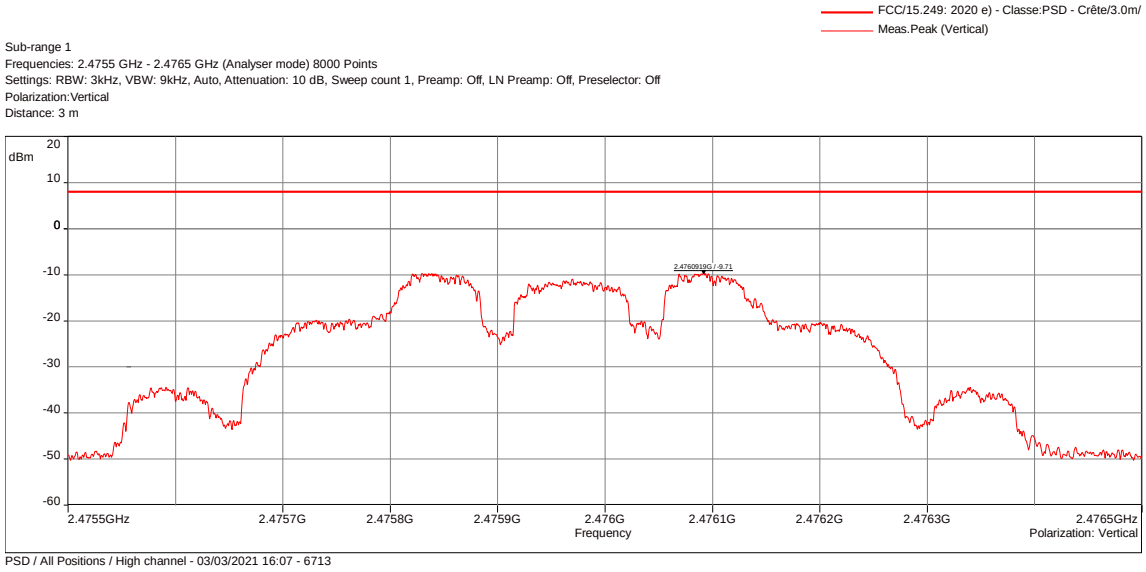


PSD / All Positions / Mid channel - 03/03/2021 15:56 - 6712

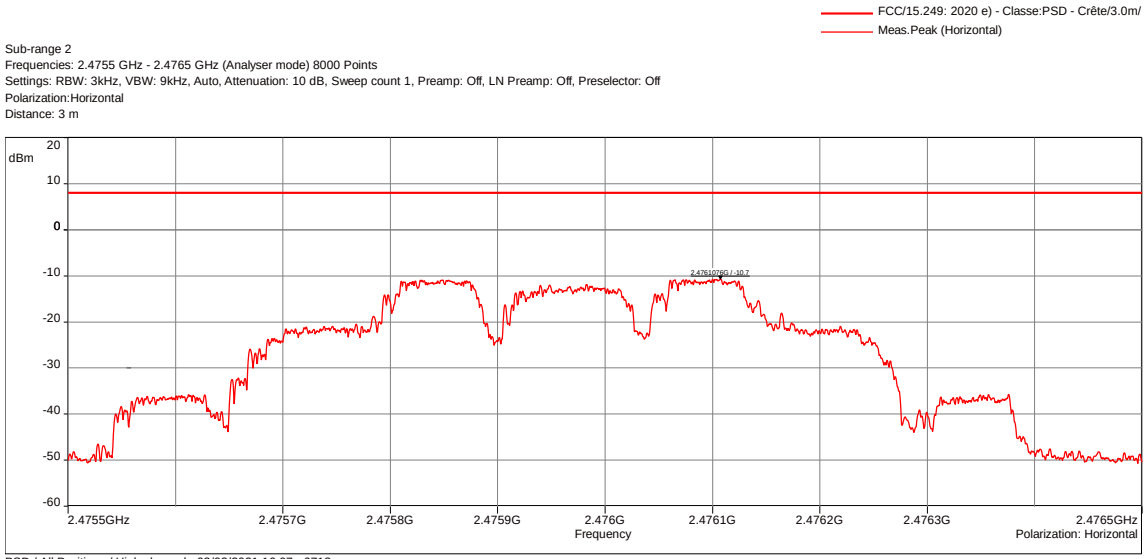
POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	2.4395GHz-2.4405GHz	3kHz	9kHz	Peak
Horizontal	2.4395GHz-2.4405GHz	3kHz	9kHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

POWER SPECTRAL DENSITY - TABULATED RESULTS			
PSD / ALL POSITIONS / MID CHANNEL			EMI6704
Frequency (MHz)	**Polarization**	**Level (dBm)**	**Limit (dBm)**
2440.15	Vertical	-9.22	8
2440.14	Horizontal	-8.42	8

POWER SPECTRAL DENSITY - GRAPH			
ALL POSITIONS / HIGH CHANNEL		EMI6713	
EUT mode:	Modulated	**T (°C):**	20.7
Test Date:	03/03/2021	**H (%):**	36.2
Test Operator:	ATO & OAT	**P (hPa):**	1023



PSD / All Positions / High channel - 03/03/2021 16:07 - 6713



PSD / All Positions / High channel - 03/03/2021 16:07 - 6713

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	2.4755GHz-2.4765GHz	3kHz	9kHz	Peak
Horizontal	2.4755GHz-2.4765GHz	3kHz	9kHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

POWER SPECTRAL DENSITY - TABULATED RESULTS			
ALL POSITIONS / HIGH CHANNEL			EMI6705
Frequency (MHz)	**Polarization**	**Level (dBm)**	**Limit (dBm)**
2476.09	Vertical	-9.71	8
2476.10	Horizontal	-10.7	8

8.7. Transmitter radiated spurious emissions at frequencies <30MHz

Reference standard:	FCC part 15 Radio part 15.247 and RSS-247
Test method:	FCC part 15.109, 15.209, 15.205, 15.215 RSS-247, CNR Gen

General test setup: Spurious domain emission limits are limits on emissions at frequencies other than those of the carrier and sidebands associated with normal test modulation**.**

EUT is set on an insulating support at 80cm above the ground reference plane.

Preliminary (peak) measurements were performed at an antenna to EUT separation distance of 3-meter in a anechoic chamber. The EUT was rotated 360°in order to maximize radiated levels. Test antenna was oriented in 3 axes (0°, 45° and 90°).

Final measurements (quasi-peak) were then performed in a 10-meter Open Area Test Site that complies to CISPR 16 in the same measurement conditions.

All frequencies were investigated, where applicable.

TESTED CONFIGURATION	PARAMETER	SEVERITY	RESULT TAB.	VERDICT
Tx Mode / Low channel / 0° - Position 1	9kHz-30MHz	15.209	EMI5210	**PASS**
Tx Mode / Low channel / 45° - Position 1	9kHz-30MHz	15.209	EMI5211	**PASS**
Tx Mode / Low channel / 90° - Position 1	9kHz-30MHz	15.209	EMI5212	**PASS**
Tx Mode / Low channel / 0° - Position 2	9kHz-30MHz	15.209	EMI5213	**PASS**
Tx Mode / Low channel / 45° - Position 2	9kHz-30MHz	15.209	EMI5214	**PASS**
Tx Mode / Low channel / 90° - Position 2	9kHz-30MHz	15.209	EMI5215	**PASS**
Tx Mode / Low channel / 0° - Position 3	9kHz-30MHz	15.209	EMI5216	**PASS**
Tx Mode / Low channel / 45° - Position 3	9kHz-30MHz	15.209	EMI5217	**PASS**
Tx Mode / Low channel / 90° - Position 3	9kHz-30MHz	15.209	EMI5218	**PASS**
Tx Mode / High channel / 0° - Position 1	9kHz-30MHz	15.209	EMI5219	**PASS**
Tx Mode / High channel / 45° - Position 1	9kHz-30MHz	15.209	EMI5220	**PASS**
Tx Mode / High channel / 90° - Position 1	9kHz-30MHz	15.209	EMI5221	**PASS**
Tx Mode / High channel / 0° - Position 2	9kHz-30MHz	15.209	EMI5222	**PASS**
Tx Mode / High channel / 45° - Position 2	9kHz-30MHz	15.209	EMI5223	**PASS**
Tx Mode / High channel / 90° - Position 2	9kHz-30MHz	15.209	EMI5224	**PASS**
Tx Mode / High channel / 0° - Position 3	9kHz-30MHz	15.209	EMI5225	**PASS**
Tx Mode / High channel / 45° - Position 3	9kHz-30MHz	15.209	EMI5226	**PASS**
Tx Mode / High channel / 90° - Position 3	9kHz-30MHz	15.209	EMI5227	**PASS**

LABORATORY PARAMETERS:	REQUIRED PRIOR TO THE TEST	DURING THE TEST
Ambient Temperature	15 to 35 °C	*See Graph(es)*
Relative Humidity	20 to 75 %	*See Graph(es)*
Atmospheric pressure	N/A	*See Graph(es)*

Test method deviation: N/A

Supplementary information:

From 9 kHz to 30MHz: limit indicated on the curves is calculated with 40 dB/decade extrapolation factor and 51.5 dB conversion factor.

TEST EQUIPMENT USED					
CATEGORY	BRAND	TYPE	IDENTIFIER	CAL. DATE	CAL. DUE
Antenna	Rohde & Schwarz	HFH2-Z2	5825	24/04/2020	24/06/2022
Cable	MegaPhase	N-3m	14852	29/10/2018	29/12/2020
Cable	SUCOFLEX	N-6,5m	14380	25/07/2019	25/09/2021
Cable	MegaPhase	N-8m	15813	12/11/2018	12/01/2021
Receiver	Rohde & Schwarz	FPL1003	16027	14/08/2020	14/10/2021
Shielded enclosure	COMTEST	SAC 3m	14494	02/10/2019	02/12/2022
Software	Nexio		0000		
Thermohygrometer	Testo	608-H1	7561	25/01/2019	25/03/2021
Thermohygrometer	Bioblock Scientific	Météostar	0963	25/01/2019	25/03/2021

BAT-EMC software version: V3.18.0.26 Blank cells = Permanent validity

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES <30MHZ - TABULATED RESULTS				
TX MODE / LOW CHANNEL - ALL POSITIONS (OATS)				
Frequency (kHz)	**Preliminary measurement (Pk) (dBµA/m)**	**Final measurement (Avg) (dBµA/m)**	**Limit Avg (dBµA/m)**	**Margin (Avg-Limit)**
12.322	54.35	27.78	53.37	-25.59
20.533	45.52	19.24	48.94	-29.70
28.762	32.19	6.86	46.01	-39.15
45.201	31.93	5.83	42.09	-36.26
53.412	28.95	3.07	40.63	-37.56
78.063	22.47	-2.84	37.34	-40.18
86.291	20.51	-3.55	36.47	-40.02

Supplementary information:

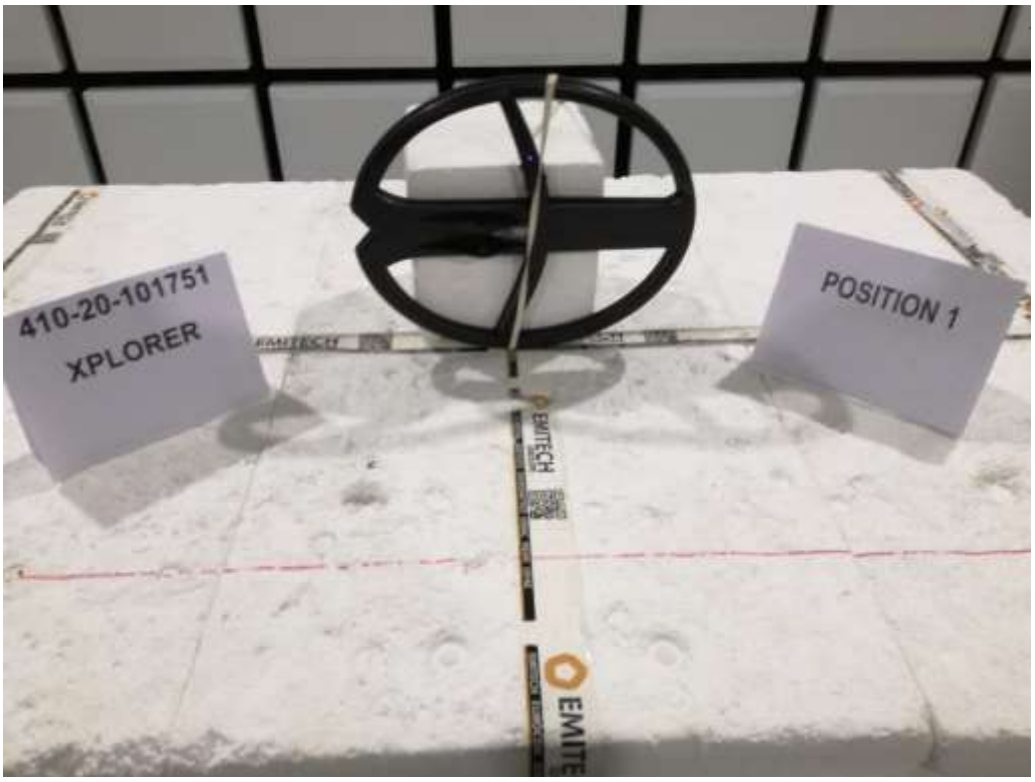
Spurious which has more than 40 dB of margin compared to the applicable limit is not necessarily reported.

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES <30MHZ - TABULATED RESULTS				
TX MODE / HIGH CHANNEL - ALL POSITIONS (OATS)				
Frequency (kHz)	**Preliminary measurement (Pk) (dBµA/m)**	**Final measurement (Avg) (dBµA/m)**	**Limit Avg (dBµA/m)**	**Marging (Avg-Limit)**
45.201	53.52	27.12	42.08	-14.96
135.592	34.54	8.21	32.54	-24.33
225.961	6.46	3.61	28.11	-24.50
316.347	25.84	2.31	25.19	-22.88
406.837	20.09	-2.56	23.00	-25.56

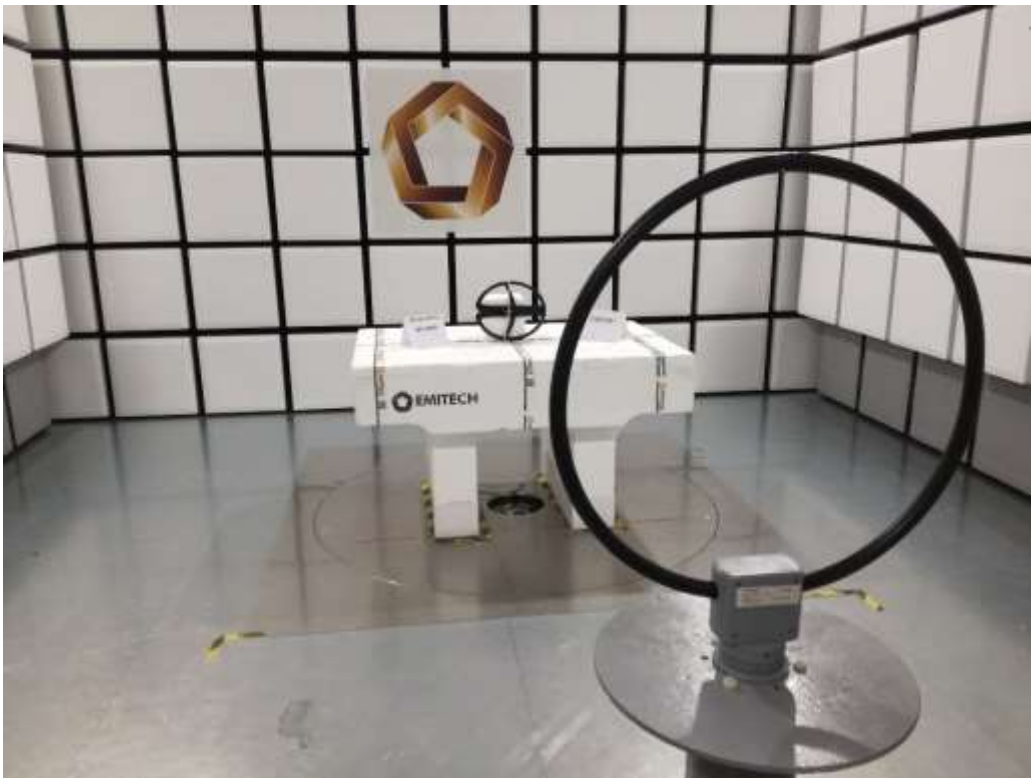
Supplementary information:

Spurious which has more than 30 dB of margin compared to the applicable limit is not necessarily reported.
The frequency 45.201 kHz is the utile signal.

TEST SETUP PHOTO(S) -EUT POSITIONS

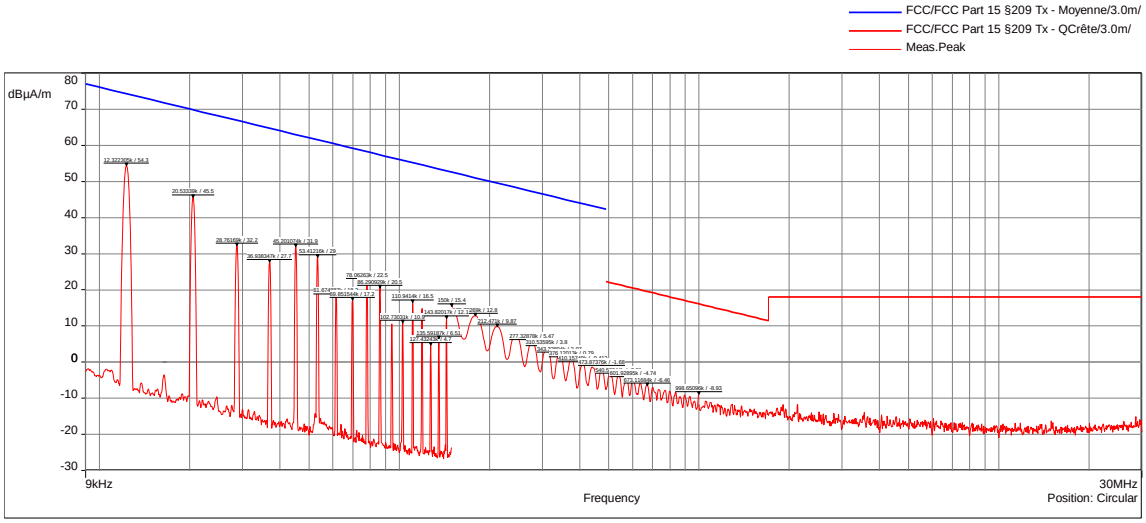


TEST SETUP PHOTO(S) -EUT POSITIONS


TEST SETUP PHOTO(S) – FOR PRELIMINARY MEASUREMENT


TEST SETUP PHOTO(S) - (OATS) - FOR FINAL MEASUREMENT

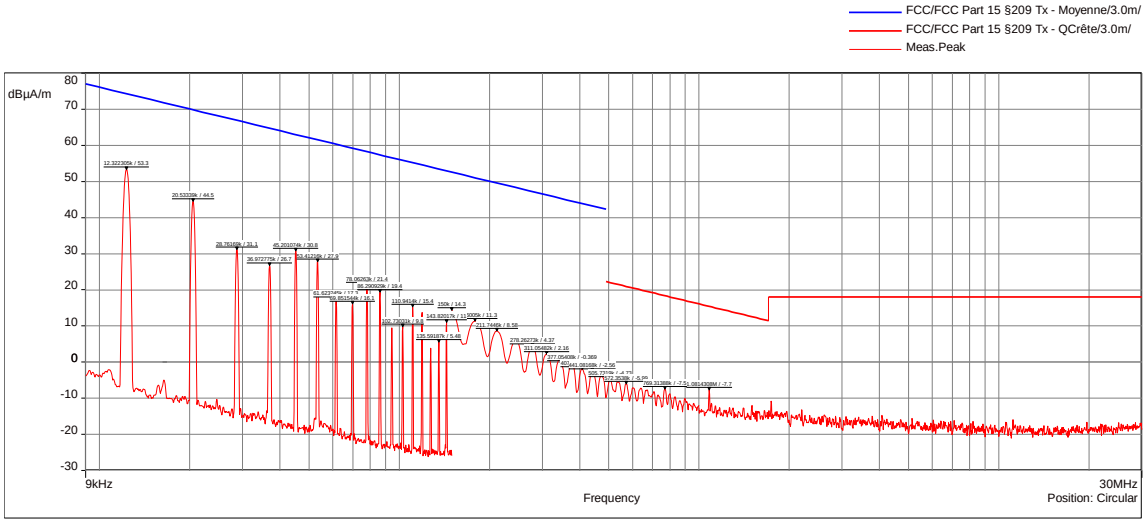

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES <30MHZ - GRAPH			
TX MODE / LOW CHANNEL/ 0° - POSITION 1		EMI5210	
EUT mode:	Tx mode	**T (°C):**	22.3
Test Date:	03/09/2020	**H (%):**	45.4
Test Operator:	OAT	**P (hPa):**	1011



POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Circular	9kHz-150kHz	300Hz	1kHz	Peak
Circular	150kHz-1MHz	10kHz	30kHz	Peak
Circular	1MHz-30MHz	10kHz	30kHz	Peak
Configuration:	N/A			
Comments:	Limit indicated on these plots are calculated with 40 dB/decade extrapolation factor and 51.5dB conversion factor.			

EUT modification(s): N/A

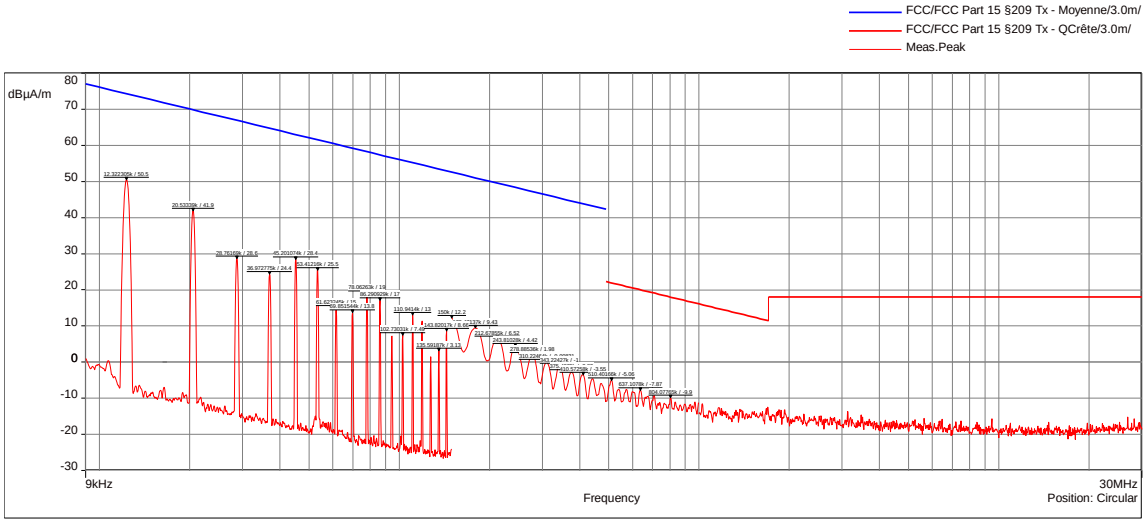
TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES <30MHZ - GRAPH			
TX MODE / LOW CHANNEL / 45° - POSITION 1		EMI5211	
EUT mode:	Tx mode	**T (°C):**	22.3
Test Date:	03/09/2020	**H (%):**	45.4
Test Operator:	OAT	**P (hPa):**	1011



POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Circular	9kHz-150kHz	300Hz	1kHz	Peak
Circular	150kHz-1MHz	10kHz	30kHz	Peak
Circular	1MHz-30MHz	10kHz	30kHz	Peak
Configuration:	N/A			
Comments:	Limit indicated on these plots are calculated with 40 dB/decade extrapolation factor and 51.5dB conversion factor.			

EUT modification(s): N/A

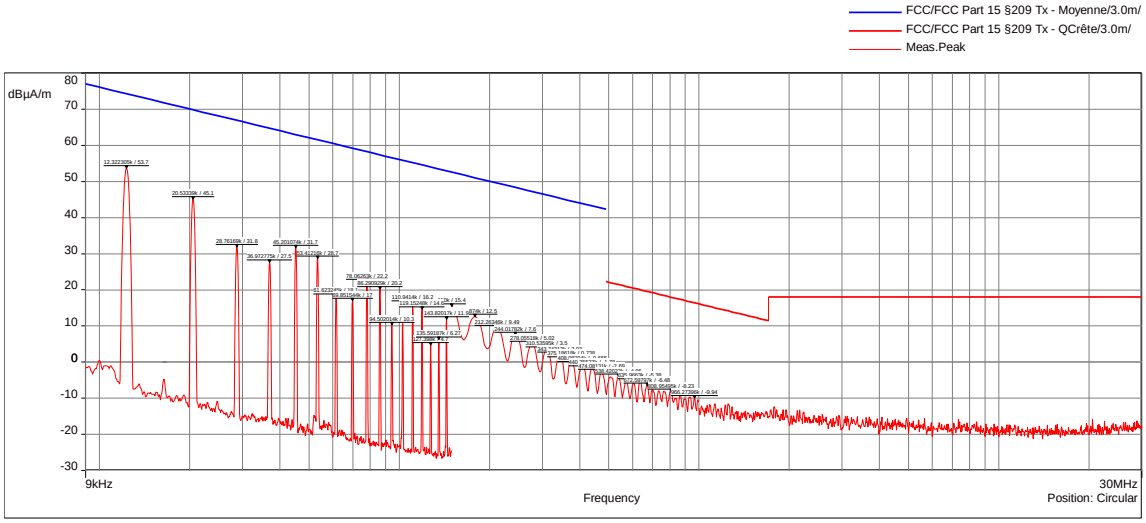
TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES <30MHZ - GRAPH			
TX MODE / LOW CHANNEL / 90° - POSITION 1		EMI5212	
EUT mode:	Tx mode	**T (°C):**	22.3
Test Date:	03/09/2020	**H (%):**	45.4
Test Operator:	OAT	**P (hPa):**	1011



POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Circular	9kHz-150kHz	300Hz	1kHz	Peak
Circular	150kHz-1MHz	10kHz	30kHz	Peak
Circular	1MHz-30MHz	10kHz	30kHz	Peak
Configuration:	N/A			
Comments:	Limit indicated on these plots are calculated with 40 dB/decade extrapolation factor and 51.5dB conversion factor.			

EUT modification(s): N/A

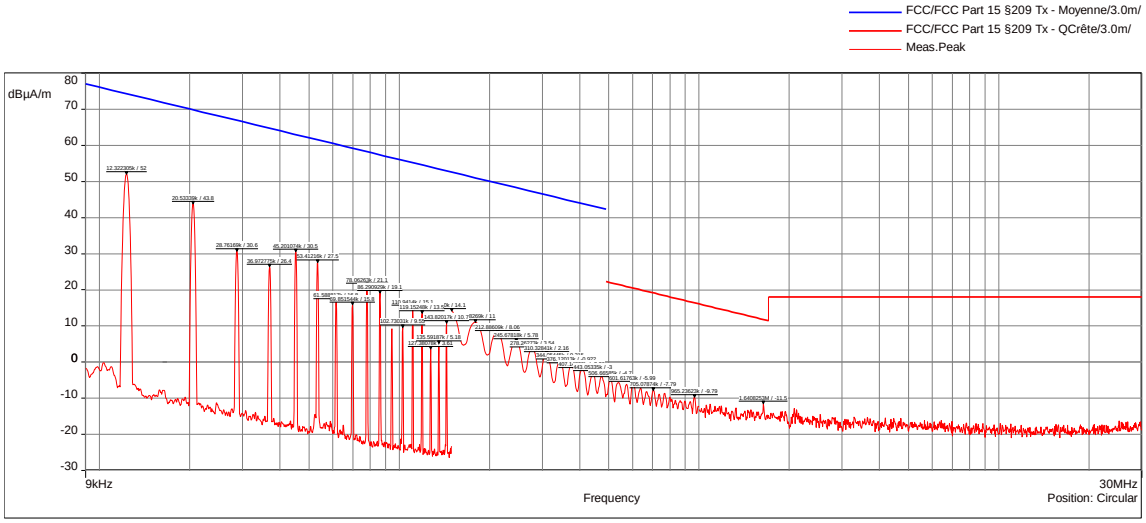
TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES <30MHZ - GRAPH			
TX MODE / LOW CHANNEL/ 0° - POSITION 2		EMI5213	
EUT mode:	Tx mode	**T (°C):**	22.3
Test Date:	03/09/2020	**H (%):**	45.4
Test Operator:	OAT	**P (hPa):**	1011



POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Circular	9kHz-150kHz	300Hz	1kHz	Peak
Circular	150kHz-1MHz	10kHz	30kHz	Peak
Circular	1MHz-30MHz	10kHz	30kHz	Peak
Configuration:	N/A			
Comments:	Limit indicated on these plots are calculated with 40 dB/decade extrapolation factor and 51.5dB conversion factor.			

EUT modification(s): N/A

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES <30MHZ - GRAPH			
TX MODE / LOW CHANNEL/ 45° - POSITION 2		EMI5214	
EUT mode:	Tx mode	**T (°C):**	22.3
Test Date:	03/09/2020	**H (%):**	45.4
Test Operator:	OAT	**P (hPa):**	1011

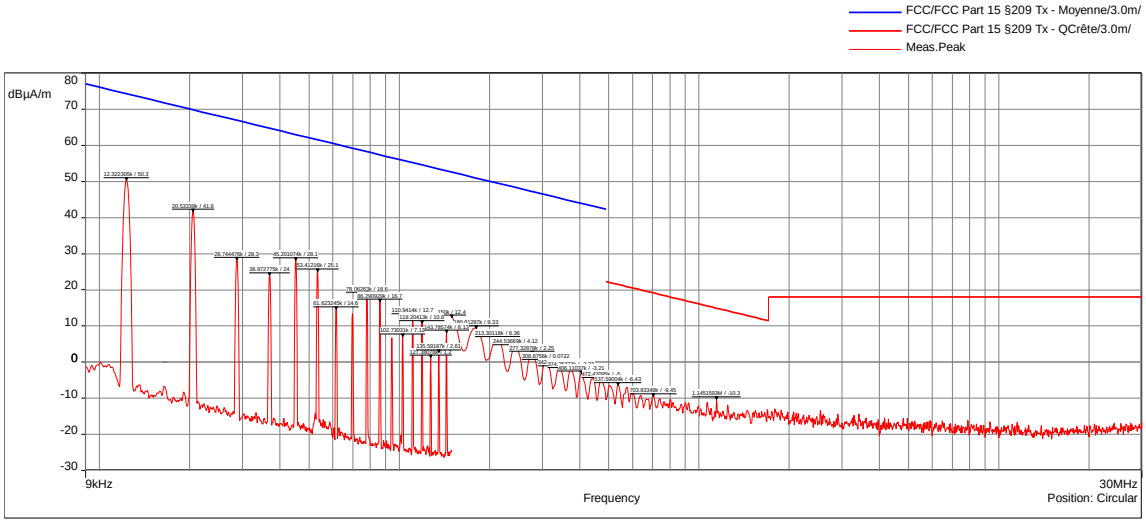


POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Circular	9kHz-150kHz	300Hz	1kHz	Peak
Circular	150kHz-1MHz	10kHz	30kHz	Peak
Circular	1MHz-30MHz	10kHz	30kHz	Peak

Configuration:	N/A
Comments:	Limit indicated on these plots are calculated with 40 dB/decade extrapolation factor and 51.5dB conversion factor.

EUT modification(s): N/A

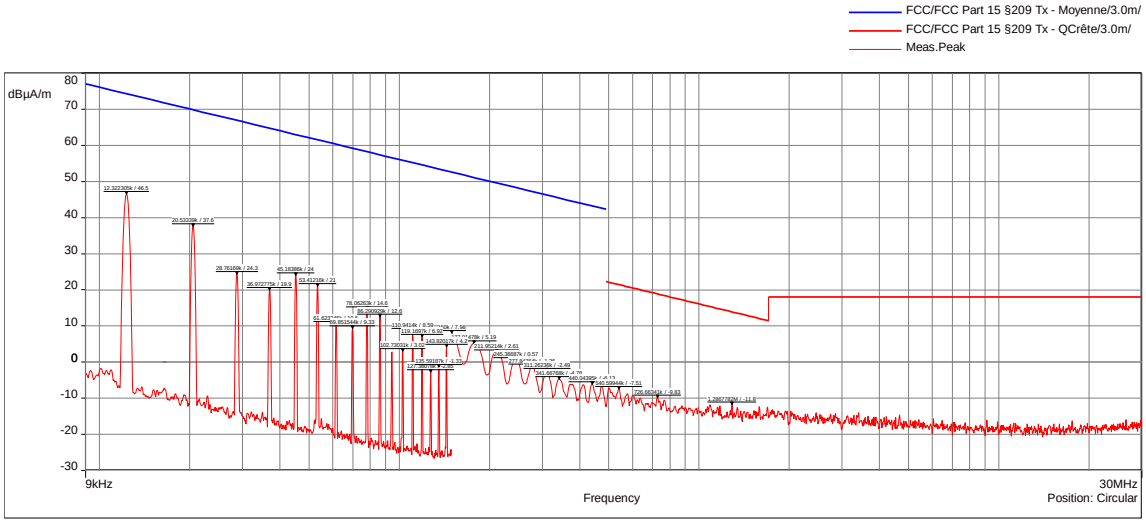
TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES <30MHZ - GRAPH			
TX MODE / LOW CHANNEL/ 90° - POSITION 2		EMI5215	
EUT mode:	Tx mode	**T (°C):**	22.3
Test Date:	03/09/2020	**H (%):**	45.4
Test Operator:	OAT	**P (hPa):**	1011



POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Circular	9kHz-150kHz	300Hz	1kHz	Peak
Circular	150kHz-1MHz	10kHz	30kHz	Peak
Circular	1MHz-30MHz	10kHz	30kHz	Peak
Configuration:	N/A			
Comments:	Limit indicated on these plots are calculated with 40 dB/decade extrapolation factor and 51.5dB conversion factor.			

EUT modification(s): N/A

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES <30MHZ - GRAPH			
TX MODE / LOW CHANNEL/ 0° - POSITION 3		EMI5216	
EUT mode:	Tx mode	**T (°C):**	22.3
Test Date:	03/09/2020	**H (%):**	45.4
Test Operator:	OAT	**P (hPa):**	1011

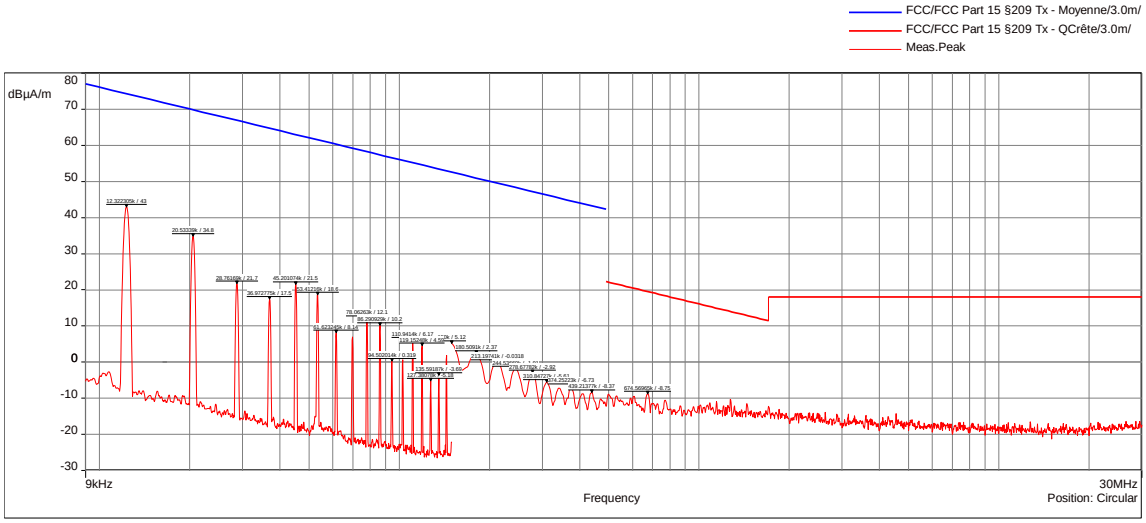


POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Circular	9kHz-150kHz	300Hz	1kHz	Peak
Circular	150kHz-1MHz	10kHz	30kHz	Peak
Circular	1MHz-30MHz	10kHz	30kHz	Peak

Configuration:	N/A
Comments:	Limit indicated on these plots are calculated with 40 dB/decade extrapolation factor and 51.5dB conversion factor.

EUT modification(s): N/A

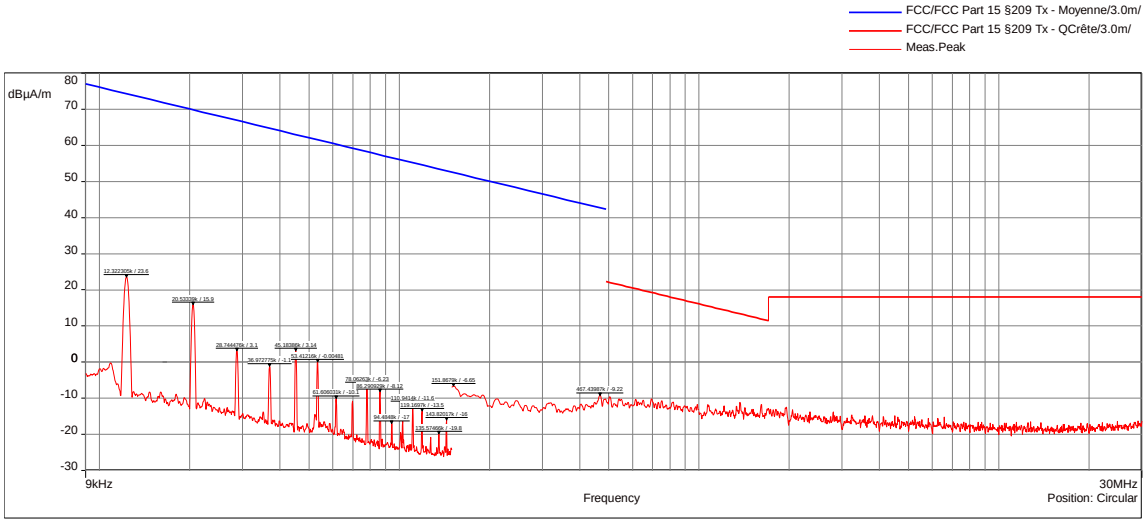
TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES <30MHZ - GRAPH			
TX MODE / LOW CHANNEL/ 45° - POSITION 3		EMI5217	
EUT mode:	Tx mode	**T (°C):**	22.3
Test Date:	03/09/2020	**H (%):**	45.4
Test Operator:	OAT	**P (hPa):**	1011



POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Circular	9kHz-150kHz	300Hz	1kHz	Peak
Circular	150kHz-1MHz	10kHz	30kHz	Peak
Circular	1MHz-30MHz	10kHz	30kHz	Peak
Configuration:	N/A			
Comments:	Limit indicated on these plots are calculated with 40 dB/decade extrapolation factor and 51.5dB conversion factor.			

EUT modification(s): N/A

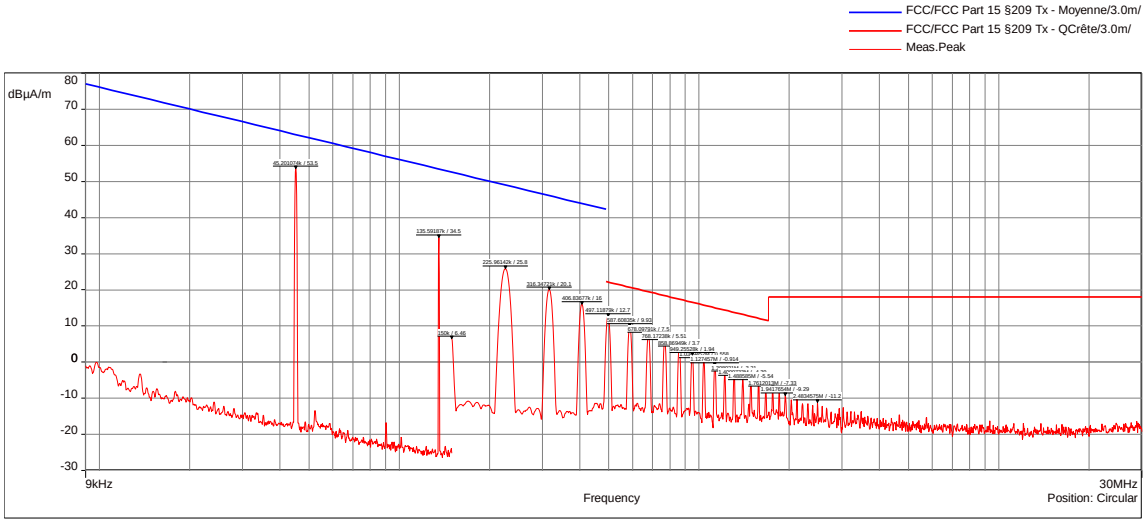
TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES <30MHZ - GRAPH			
TX MODE / LOW CHANNEL/ 90° - POSITION 3		EMI5218	
EUT mode:	Tx mode	**T (°C):**	22.3
Test Date:	03/09/2020	**H (%):**	45.4
Test Operator:	OAT	**P (hPa):**	1011



POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Circular	9kHz-150kHz	300Hz	1kHz	Peak
Circular	150kHz-1MHz	10kHz	30kHz	Peak
Circular	1MHz-30MHz	10kHz	30kHz	Peak
Configuration:	N/A			
Comments:	Limit indicated on these plots are calculated with 40 dB/decade extrapolation factor and 51.5dB conversion factor.			

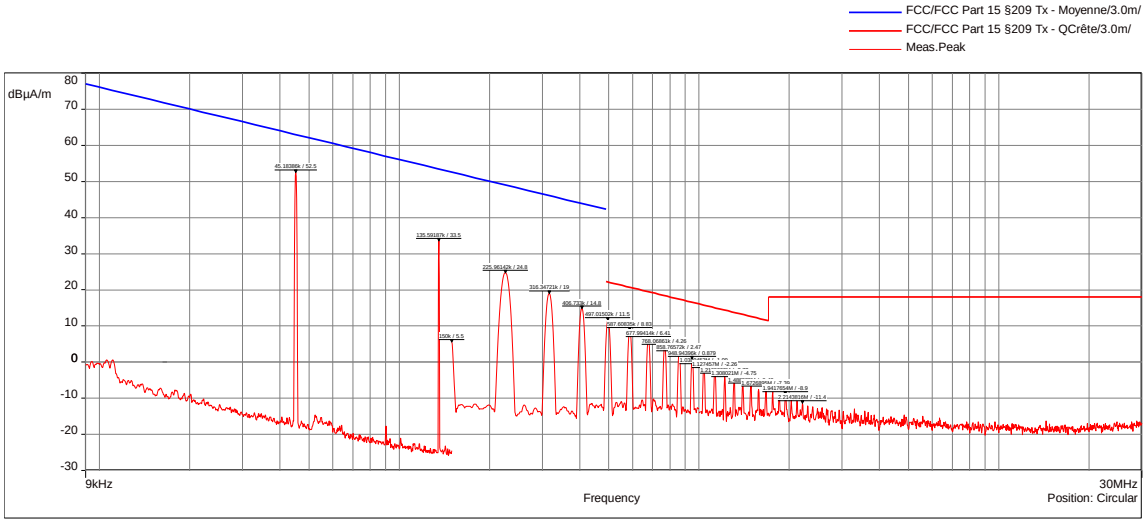
EUT modification(s): N/A

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES <30MHZ - GRAPH			
TX MODE / HIGH CHANNEL/ 0° - POSITION 1		EMI5219	
EUT mode:	Tx mode	**T (°C):**	22.3
Test Date:	03/09/2020	**H (%):**	45.4
Test Operator:	OAT	**P (hPa):**	1011



POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Circular	9kHz-150kHz	300Hz	1kHz	Peak
Circular	150kHz-1MHz	10kHz	30kHz	Peak
Circular	1MHz-30MHz	10kHz	30kHz	Peak
Configuration:	N/A			
Comments:	Limit indicated on these plots are calculated with 40 dB/decade extrapolation factor and 51.5dB conversion factor.			
EUT modification(s): N/A				

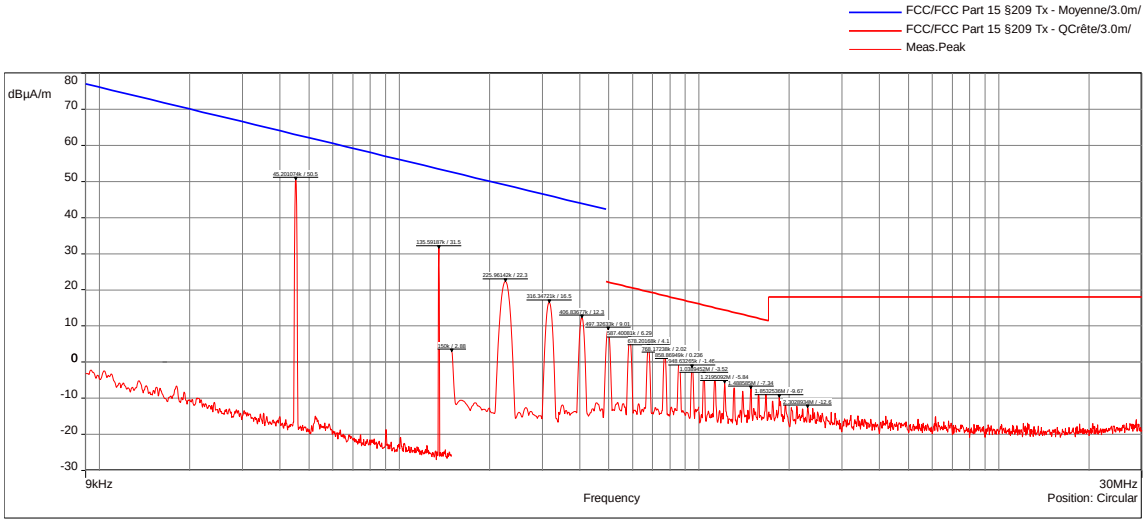
TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES <30MHZ - GRAPH			
TX MODE / HIGH CHANNEL/ 45° - POSITION 1		EMI5220	
EUT mode:	Tx mode	**T (°C):**	22.3
Test Date:	03/09/2020	**H (%):**	45.4
Test Operator:	OAT	**P (hPa):**	1011



POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Circular	9kHz-150kHz	300Hz	1kHz	Peak
Circular	150kHz-1MHz	10kHz	30kHz	Peak
Circular	1MHz-30MHz	10kHz	30kHz	Peak
Configuration:	N/A			
Comments:	Limit indicated on these plots are calculated with 40 dB/decade extrapolation factor and 51.5dB conversion factor.			

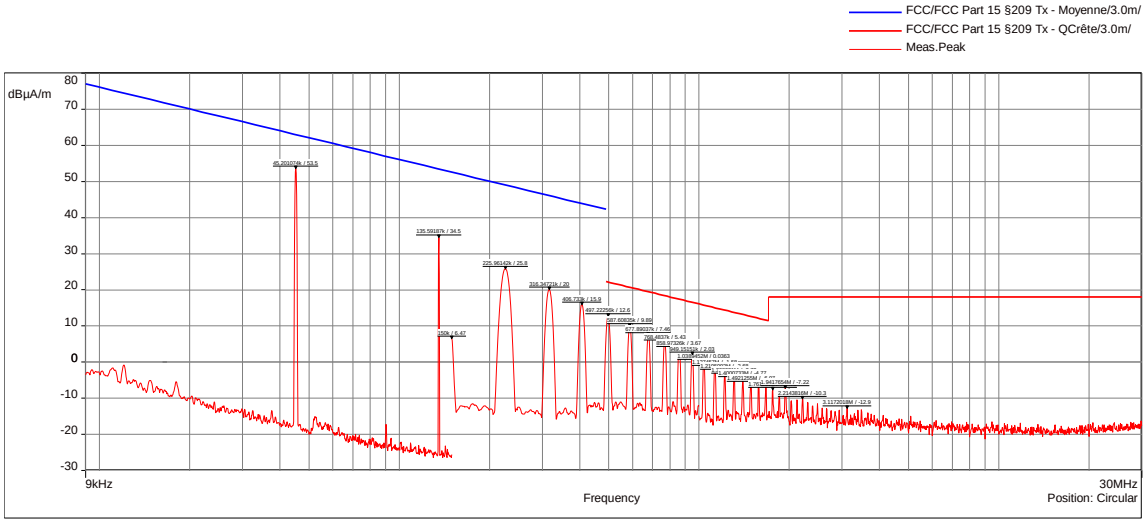
EUT modification(s): N/A

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES <30MHZ - GRAPH			
TX MODE / HIGH CHANNEL/ 90° - POSITION 1		EMI5221	
EUT mode:	Tx mode	**T (°C):**	22.3
Test Date:	03/09/2020	**H (%):**	45.4
Test Operator:	OAT	**P (hPa):**	1011



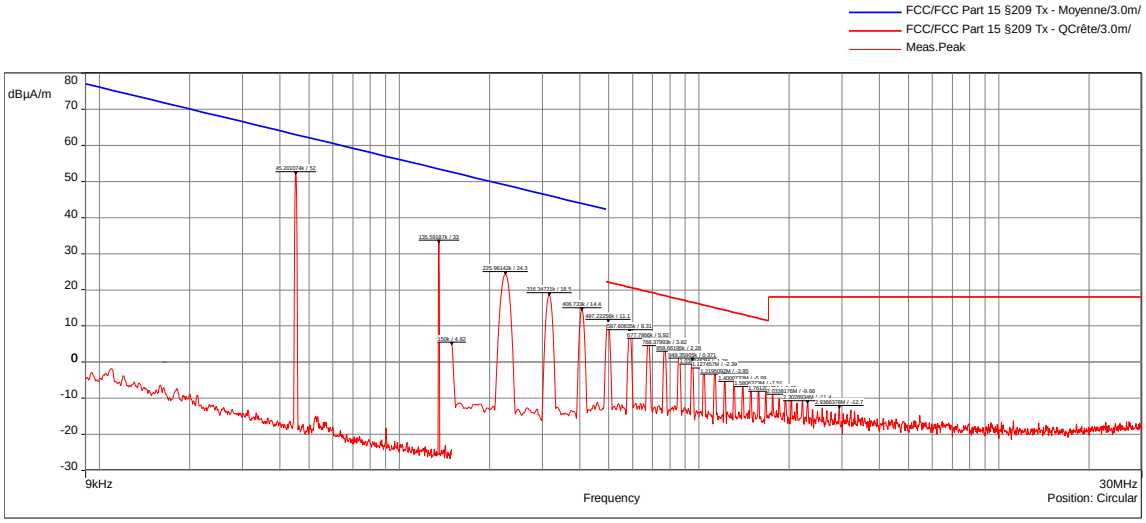
POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Circular	9kHz-150kHz	300Hz	1kHz	Peak
Circular	150kHz-1MHz	10kHz	30kHz	Peak
Circular	1MHz-30MHz	10kHz	30kHz	Peak
Configuration:	N/A			
Comments:	Limit indicated on these plots are calculated with 40 dB/decade extrapolation factor and 51.5dB conversion factor.			
EUT modification(s): N/A				

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES <30MHZ - GRAPH			
TX MODE / HIGH CHANNEL/ 0° - POSITION 2		EMI5222	
EUT mode:	Tx mode	**T (°C):**	22.3
Test Date:	03/09/2020	**H (%):**	45.4
Test Operator:	OAT	**P (hPa):**	1011



POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Circular	9kHz-150kHz	300Hz	1kHz	Peak
Circular	150kHz-1MHz	10kHz	30kHz	Peak
Circular	1MHz-30MHz	10kHz	30kHz	Peak
Configuration:	N/A			
Comments:	Limit indicated on these plots are calculated with 40 dB/decade extrapolation factor and 51.5dB conversion factor.			
EUT modification(s): N/A				

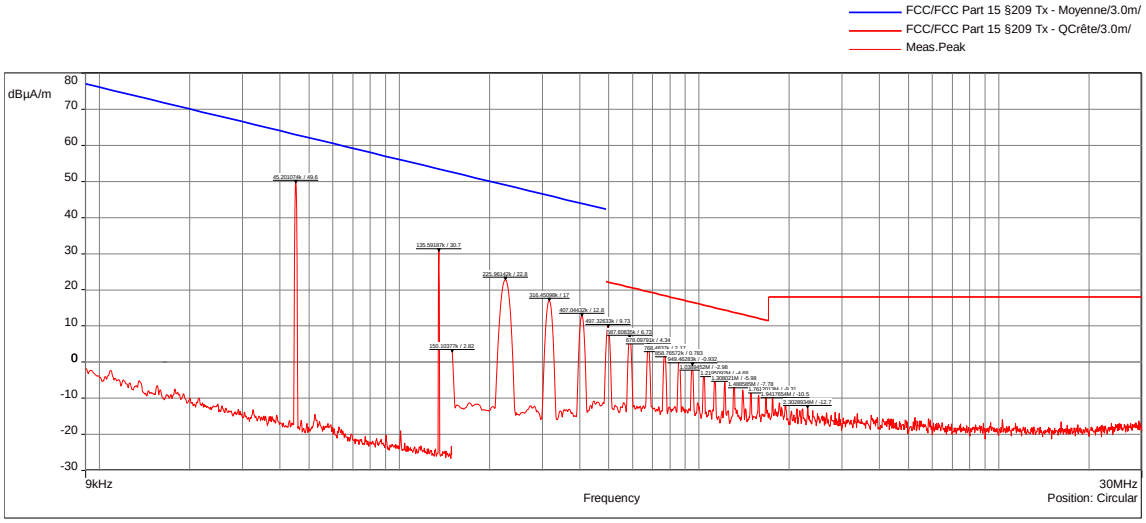
TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES <30MHZ - GRAPH			
TX MODE / HIGH CHANNEL/ 45° - POSITION 2		EMI5223	
EUT mode:	Tx mode	**T (°C):**	22.3
Test Date:	03/09/2020	**H (%):**	45.4
Test Operator:	OAT	**P (hPa):**	1011



POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Circular	9kHz-150kHz	300Hz	1kHz	Peak
Circular	150kHz-1MHz	10kHz	30kHz	Peak
Circular	1MHz-30MHz	10kHz	30kHz	Peak
Configuration:	N/A			
Comments:	Limit indicated on these plots are calculated with 40 dB/decade extrapolation factor and 51.5dB conversion factor.			

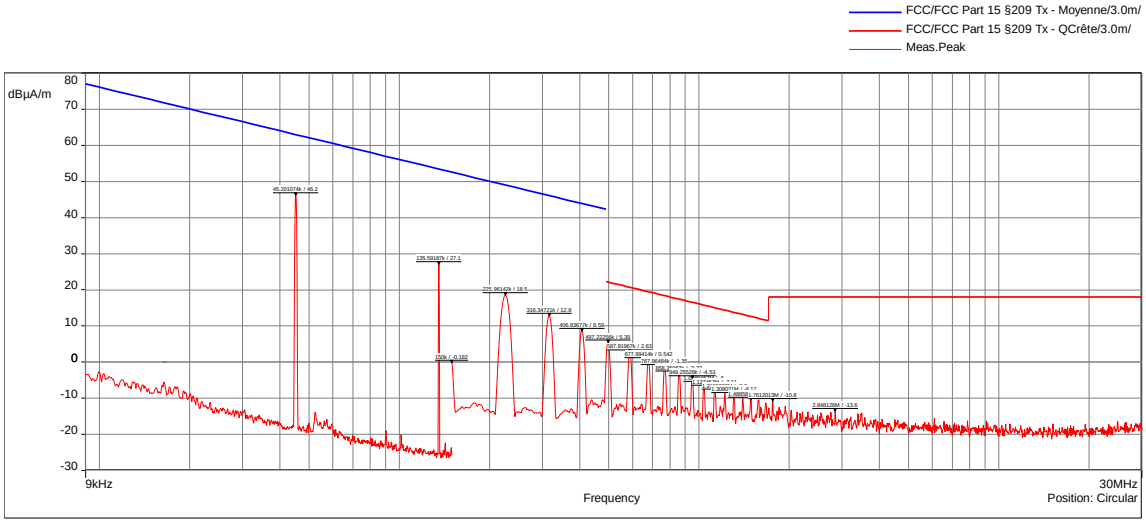
EUT modification(s): N/A

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES <30MHZ - GRAPH			
TX MODE / HIGH CHANNEL/ 90° - POSITION 2		EMI5224	
EUT mode:	Tx mode	**T (°C):**	22.3
Test Date:	03/09/2020	**H (%):**	45.4
Test Operator:	OAT	**P (hPa):**	1011



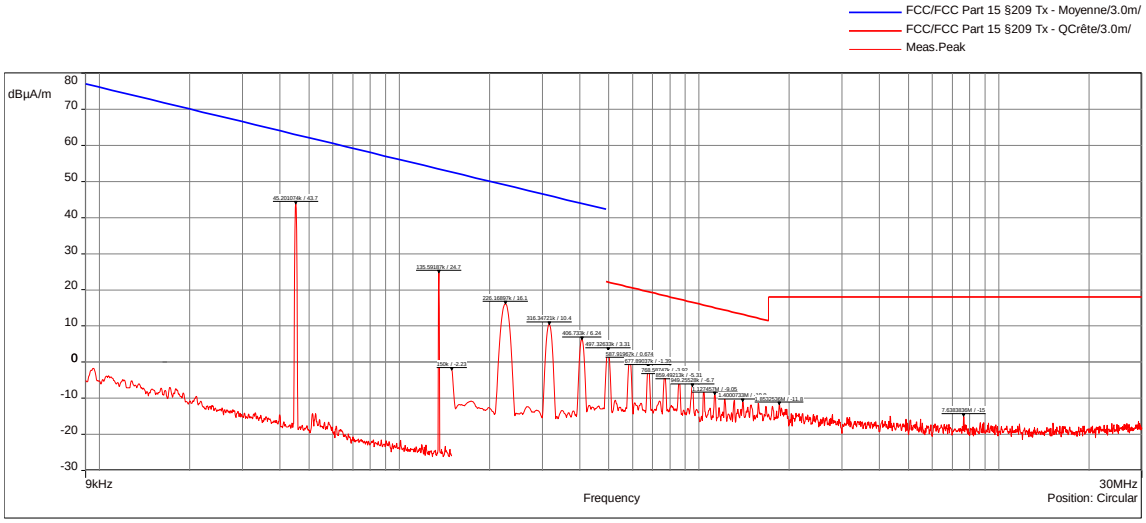
POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Circular	9kHz-150kHz	300Hz	1kHz	Peak
Circular	150kHz-1MHz	10kHz	30kHz	Peak
Circular	1MHz-30MHz	10kHz	30kHz	Peak
Configuration:	N/A			
Comments:	Limit indicated on these plots are calculated with 40 dB/decade extrapolation factor and 51.5dB conversion factor.			
EUT modification(s): N/A				

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES <30MHZ - GRAPH			
TX MODE / HIGH CHANNEL/ 0° - POSITION 3		EMI5225	
EUT mode:	Tx mode	**T (°C):**	22.3
Test Date:	03/09/2020	**H (%):**	45.4
Test Operator:	OAT	**P (hPa):**	1011



POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Circular	9kHz-150kHz	300Hz	1kHz	Peak
Circular	150kHz-1MHz	10kHz	30kHz	Peak
Circular	1MHz-30MHz	10kHz	30kHz	Peak
Configuration:	N/A			
Comments:	Limit indicated on these plots are calculated with 40 dB/decade extrapolation factor and 51.5dB conversion factor.			
EUT modification(s): N/A				

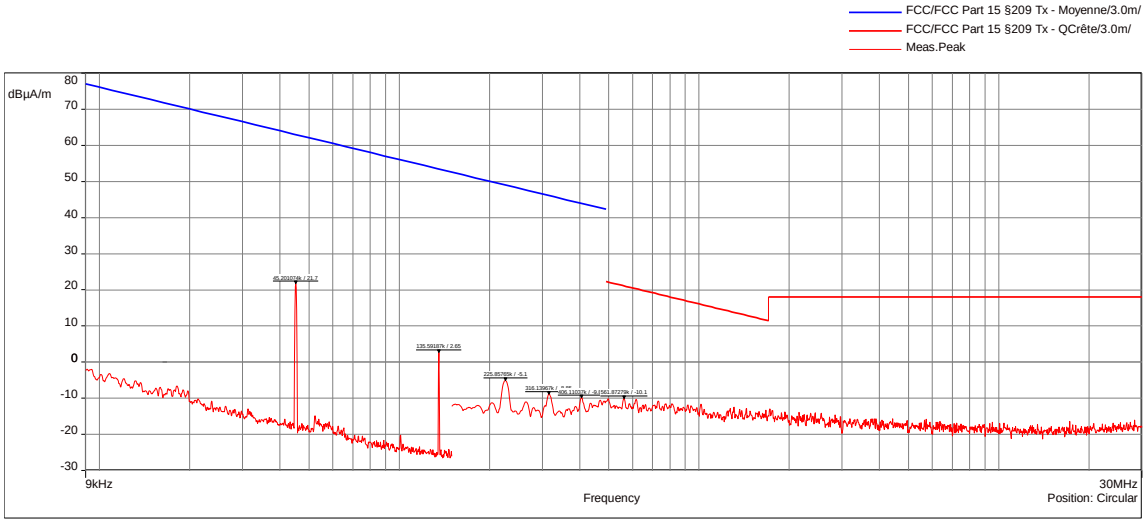
TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES <30MHZ - GRAPH			
TX MODE / HIGH CHANNEL/ 45° - POSITION 3		EMI5226	
EUT mode:	Tx mode	**T (°C):**	22.3
Test Date:	09/09/2020	**H (%):**	45.4
Test Operator:	OAT	**P (hPa):**	1011



POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Circular	9kHz-150kHz	300Hz	1kHz	Peak
Circular	150kHz-1MHz	10kHz	30kHz	Peak
Circular	1MHz-30MHz	10kHz	30kHz	Peak
Configuration:	N/A			
Comments:	Limit indicated on these plots are calculated with 40 dB/decade extrapolation factor and 51.5dB conversion factor.			

EUT modification(s): N/A

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES <30MHZ - GRAPH			
TX MODE / HIGH CHANNEL/ 90° - POSITION 3		EMI5227	
EUT mode:	Tx mode	**T (°C):**	22.3
Test Date:	03/09/2020	**H (%):**	45.4
Test Operator:	OAT	**P (hPa):**	1011



POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Circular	9kHz-150kHz	300Hz	1kHz	Peak
Circular	150kHz-1MHz	10kHz	30kHz	Peak
Circular	1MHz-30MHz	10kHz	30kHz	Peak
Configuration:	N/A			
Comments:	Limit indicated on these plots are calculated with 40 dB/decade extrapolation factor and 51.5dB conversion factor.			

EUT modification(s): N/A

8.8. Transmitter radiated spurious emissions at frequencies >30MHz

Reference standard:	FCC part 15 Radio part 15.209 & CNR-Gen
Test method:	FCC part 15.109, 15.209, 15.205, 15.215, CNR-Gen

General test setup: EUT is set on an insulating support at 80cm above the ground reference plane.

Preliminary (peak) measurements were performed at an antenna to EUT separation distance of 3-meter. The EUT was rotated 360° about its azimuth with the receive antenna located at various heights in horizontal and vertical polarities.

Final measurements (quasi-peak or average) were then performed in a semi-anechoic chamber or Open Area Test Site that complies to CISPR 16. The EUT was rotated 360° about its azimuth and adjusting the receive antenna height from 1 to 4 m.

All frequencies were investigated, where applicable.

For portable equipements a research of maximum level is done on the 3 axes. Only the highest levels are recorded.

TESTED CONFIGURATION	PARAMETER	SEVERITY	RESULT TAB.	VERDICT
Tx mode / All Channels- All Positions	30MHz-1GHz	15.209	EMI5199	**PASS**
Charging + Tx mode / All Positions / All channels	30MHz-1GHz	15.209	EMI6985	**PASS**
Tx mode / All Positions / Low channel / 1GHz to 18GHz	1GHz-18GHz	15.209	EMI6757	**PASS**
Tx mode / All Positions / Mid channel / 1GHz to 18GHz	1GHz-18GHz	15.209	EMI6758	**PASS**
Tx mode / All Positions / High channel / 1GHz to 18GHz	1GHz-18GHz	15.209	EMI6759	**PASS**
Charging + Tx mode / All Positions / Low channel / 1GHz to 18GHz	1GHz-18GHz	15.209	EMI7044	**PASS**
Charging + Tx mode / All Positions / Mid channel / 1GHz to 18GHz	1GHz-18GHz	15.209	EMI7045	**PASS**
Charging + Tx mode / All Positions / High channel / 1GHz to 18GHz	1GHz-18GHz	15.209	EMI7046	**PASS**
Tx mode / All Positions / Low channel / 18GHz to 26.5GHz	18GHz-26.5GHz	15.209	EMI6782	**PASS**
Tx mode / All Positions / Mid channel / 18GHz to 26.5GHz	18GHz-26.5GHz	15.209	EMI6783	**PASS**
Tx mode / All Positions / High channel / 18GHz to 26.5GHz	18GHz-26.5GHz	15.209	EMI6784	**PASS**
Charging + Tx mode / All Positions / Low channel / 18GHz to 26.5GHz	18GHz-26.5GHz	15.209	EMI7277	**PASS**
Charging + Tx mode / All Positions / Mid channel / 18GHz to 26.5GHz	18GHz-26.5GHz	15.209	EMI7278	**PASS**
Charging + Tx mode / All Positions / High channel / 18GHz to 26.5GHz	18GHz-26.5GHz	15.209	EMI7279	**PASS**

LABORATORY PARAMETERS:	REQUIRED PRIOR TO THE TEST	DURING THE TEST
Ambient Temperature	15 to 35 °C	*See Graph(s)*
Relative Humidity	20 to 75 %	*See Graph(s)*
Atmospheric pressure	N/A	*See Graph(s)*
Test method deviation: N/A		
Supplementary information: N/A		

TEST EQUIPMENT USED					
CATEGORY	BRAND	TYPE	IDENTIFIER	CAL. DATE	CAL. DUE
Antenna	ETS-Lindgren	3117	5456	24/07/2019	24/09/2022
Antenna	ETS lindgren	3160-09	14690	26/09/2017	26/05/2021
Antenna	Electro Metrics	BIA-30HF	0824	13/06/2018	13/08/2021
Antenna	Rohde & Schwarz	HL223	3126	13/06/2018	13/08/2021
Cable	MegaPhase	F135N1N28	16664	25/10/2019	25/12/2021
Cable	MegaPhase	F135N1N28	16666	25/10/2019	25/12/2021
Cable	JYE BAO	K30K30-5003-40G1	14887	25/06/2019	25/08/2021
Cable	Huber + Suhner	K-5m	14460	25/06/2019	25/08/2021
Cable	C&C	N-1.5m	10554	20/12/2019	20/02/2022
Cable	/	N-1m	3625	27/01/2021	27/03/2023
Cable	/	N-1m	3626	27/01/2021	27/03/2023
Cable	SUCOFLEX	N-3m	14379	25/06/2019	25/08/2021
Cable	MegaPhase	N-3m	14852	29/10/2018	29/12/2020
Cable	MegaPhase	N-3m	14852	30/10/2018	30/06/2021
Cable	SUCOFLEX	N-5,5m	14381	25/06/2019	25/08/2021
Cable	SUCOFLEX	N-6,5m	14380	25/07/2019	25/09/2021
Cable	MegaPhase	N-8m	15813	12/11/2018	12/01/2021
Cable	MegaPhase	N-8m	15813	14/01/2021	14/03/2023
Cable	Huber + Suhner	SF102K	16041	28/02/2019	28/04/2021
Cable	MegaPhase	TM18-N1N1-118	12841	14/08/2020	14/10/2022
Cable	MegaPhase	TM18-N1N1-118	12842	02/12/2020	02/02/2023
Filter	Micro-Tronics	HPM 15162	10273	12/01/2019	12/03/2022
Filter	Micro-Tronics	HPM18865	12843	09/06/2018	09/08/2021
Filter	Wainwright Instruments	WRCGV 2402/2480-2380/2500-40/10EE-200W	9771	08/01/2019	08/03/2022
Preamplifier	Techniwave	APS16-0087	14040	02/12/2020	02/02/2022
Preamplifier	Wright Technologie	ASL40-B3015	14851	12/08/2020	12/10/2021
Preamplifier	IMPULSE	CA118-546ACN	9169	13/01/2021	13/03/2022
Preamplifier	Mini-circuit	ZFL-1000LN	1321	25/06/2019	25/02/2021
Receiver	Agilent Technologies	E4440A	5824	22/10/2020	22/12/2022
Receiver	Rohde & Schwarz	ESI	9704	03/03/2020	03/05/2021
Receiver	Rohde & Schwarz	FPL1003	16027	14/08/2020	14/10/2021
Receiver	Rohde & Schwarz	FSW43	14830	29/07/2020	29/09/2021
Shielded enclosure	RAY PROOF	C.V2	1423	04/10/2019	04/12/2022
Shielded enclosure	COMTEST	SAC 3m	14494	02/10/2019	02/12/2022
Software	Nexio		0000		
Thermohygrometer	Testo	608-H1	7562	25/01/2019	25/03/2021
Thermohygrometer	Testo	608-H2	12269	07/05/2020	07/07/2022
Thermohygrometer	Bioblock Scientific	Météostar	0963	25/01/2019	25/03/2021

BAT-EMC software version: V3.18.0.26 Blank cells = Permanent validity

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES >30MHZ- TABULATED RESULTS					
CHARGING + TX MODE / ALL POSITIONS / ALL CHANNELS				EMI6985	
Frequency MHz	**Polarization**	**Level peak dBµV/m**	**Level Qpeak dBµV/m**	**Limit dBµV/m**	**Margin dB**
30.02	Verticale	30.35	22.83	40	-17.17
30.22	Verticale	30.68	23.92	40	-16.08
30.41	Verticale	32.3	24.82	40	-15.18
30.58	Verticale	33.6	25.86	40	-14.14
30.75	Verticale	34.93	26.79	40	-13.21
30.85	Verticale	34.97	27.41	40	-12.59
31.56	Verticale	40.68	31.48	40	-8.52
31.80	Verticale	41.73	32.74	40	-7.26
32.16	Verticale	43.15	33.91	40	-6.09
32.38	Verticale	42.85	34.27	40	-5.73
32.53	Verticale	42.24	33.72	40	-6.28
32.64	Verticale	42.13	33.87	40	-6.13
32.89	Verticale	41.2	32.79	40	-7.21
32.98	Verticale	41.08	32.87	40	-7.13
33.06	Verticale	41.24	32.93	40	-7.07
33.21	Verticale	40.3	32.4	40	-7.6
33.54	Verticale	40.5	32.75	40	-7.25
33.66	Verticale	40.75	33.51	40	-6.49
33.91	Verticale	41.48	33.4	40	-6.6
34.23	Verticale	41.42	33.94	40	-6.06
34.57	Verticale	42.24	34.98	40	-5.02
34.66	Verticale	42.09	35.73	40	-4.27
34.95	Verticale	41.82	36.04	40	-3.96
35.15	Verticale	42.28	37.01	40	-2.99
35.56	Verticale	41.46	36.59	40	-3.41
35.93	Verticale	41.11	35.92	40	-4.08
36.39	Verticale	40.38	34.35	40	-5.65
36.77	Verticale	36.72	30.1	40	-9.9
37.36	Verticale	32.98	26.37	40	-13.63
37.48	Verticale	33.07	26.5	40	-13.5
37.68	Verticale	32.45	25.54	40	-14.46
38.06	Verticale	31.27	23.31	40	-16.69
38.19	Verticale	29.51	23.05	40	-16.95
38.40	Verticale	31.28	23.86	40	-16.14
38.48	Verticale	31.03	23.93	40	-16.07
38.70	Verticale	32.9	24.77	40	-15.23
38.82	Verticale	31.52	24.43	40	-15.57
38.89	Verticale	31.63	24.47	40	-15.53
39.11	Verticale	31.6	24.45	40	-15.55
39.23	Verticale	31.11	24.73	40	-15.27
39.62	Verticale	33.46	25.85	40	-14.15
39.74	Verticale	32.88	25.91	40	-14.09
39.89	Verticale	34.14	26.32	40	-13.68
40.07	Verticale	34.19	27.11	40	-12.89
40.30	Verticale	36.58	29.28	40	-10.72

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES >30MHZ- TABULATED RESULTS					
CHARGING + TX MODE / ALL POSITIONS / ALL CHANNELS				EMI6985	
40.52	Verticale	37.77	30.94	40	-9.06
40.88	Verticale	40.18	34.05	40	-5.95
41.27	Verticale	42.32	37.19	40	-2.81
41.41	Verticale	43	37.84	40	-2.16
41.65	Verticale	44.43	38.96	40	-1.04
41.73	Verticale	44.48	39.02	40	-0.98
42.12	Verticale	43.77	38.31	40	-1.69
42.28	Verticale	43.24	37.73	40	-2.27
42.39	Verticale	42.43	37.05	40	-2.95
42.79	Verticale	39.5	34.23	40	-5.77
43.04	Verticale	38.39	33.39	40	-6.61
43.69	Verticale	36.65	31.26	40	-8.74
43.79	Verticale	36.45	30.95	40	-9.05
44.16	Verticale	37.44	30.87	40	-9.13
44.26	Verticale	36.63	30.74	40	-9.26
44.60	Verticale	36.59	30.14	40	-9.86
45.42	Verticale	34.02	27.34	40	-12.66
45.73	Verticale	32.37	25.72	40	-14.28
46.02	Verticale	31.64	25	40	-15
46.13	Verticale	31.43	24.8	40	-15.2
46.27	Verticale	31.78	24.95	40	-15.05
46.51	Verticale	31.67	24.77	40	-15.23
46.63	Verticale	31.6	24.66	40	-15.34
46.93	Verticale	31.02	24.09	40	-15.91
61.57	Verticale	32.62	27.08	40	-12.92
61.66	Verticale	32.83	27.14	40	-12.86
61.93	Verticale	33.14	27.32	40	-12.68
62.08	Verticale	33.07	27.39	40	-12.61
62.34	Verticale	33.31	27.49	40	-12.51
62.44	Verticale	32.94	27.48	40	-12.52
62.54	Verticale	32.95	27.53	40	-12.47
62.68	Verticale	33.02	27.58	40	-12.42
62.75	Verticale	33.5	27.67	40	-12.33
62.86	Verticale	33.59	27.74	40	-12.26
62.98	Verticale	33.44	27.93	40	-12.07
63.15	Verticale	33.93	28.13	40	-11.87
63.41	Verticale	33.86	28.48	40	-11.52
63.56	Verticale	33.87	28.66	40	-11.34
63.75	Verticale	34.18	28.96	40	-11.04
63.87	Verticale	34.28	29.05	40	-10.95
63.99	Verticale	35.31	29.23	40	-10.77
64.28	Verticale	34.6	29.38	40	-10.62
64.53	Verticale	34.45	29.47	40	-10.53
64.60	Verticale	34.23	29.44	40	-10.56
64.68	Verticale	34.65	29.42	40	-10.58
64.90	Verticale	33.98	29.28	40	-10.72
65.28	Verticale	33.82	29.08	40	-10.92
65.69	Verticale	33.61	29.03	40	-10.97
65.86	Verticale	33.22	29.02	40	-10.98

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES >30MHZ- TABULATED RESULTS					
CHARGING + TX MODE / ALL POSITIONS / ALL CHANNELS				EMI6985	
66.20	Verticale	33.43	29.06	40	-10.94
66.28	Verticale	33.08	29.11	40	-10.89
66.40	Verticale	33.61	29.12	40	-10.88
66.69	Verticale	33.55	29.29	40	-10.71
66.88	Verticale	33.47	29.36	40	-10.64
67.08	Verticale	33.4	29.45	40	-10.55
67.34	Verticale	33.66	29.6	40	-10.4
67.51	Verticale	33.89	29.69	40	-10.31
67.56	Verticale	33.97	29.74	40	-10.26
67.71	Verticale	33.44	29.77	40	-10.23
67.76	Verticale	33.73	29.76	40	-10.24
150.95	Horizontale	32.06	23.76	43.5	-19.74
151.80	Horizontale	33.73	25.1	43.5	-18.4
152.02	Horizontale	34.76	25.48	43.5	-18.02
152.24	Horizontale	34.19	25.92	43.5	-17.58
152.50	Horizontale	34.59	26.51	43.5	-16.99
152.60	Horizontale	35.59	26.67	43.5	-16.83
152.65	Horizontale	34.7	26.68	43.5	-16.82
152.75	Horizontale	35.24	26.95	43.5	-16.55
152.79	Horizontale	34.44	26.92	43.5	-16.58
152.89	Horizontale	35.53	27.18	43.5	-16.32
152.97	Horizontale	35.07	27.3	43.5	-16.2
153.08	Horizontale	35.73	27.41	43.5	-16.09
153.19	Horizontale	35.49	27.67	43.5	-15.83
153.23	Horizontale	35.99	27.77	43.5	-15.73
153.33	Horizontale	35.74	27.98	43.5	-15.52
153.43	Horizontale	36.94	28.09	43.5	-15.41
153.45	Horizontale	35.43	28.13	43.5	-15.37
153.57	Horizontale	37.37	28.24	43.5	-15.26
153.59	Horizontale	36.41	28.34	43.5	-15.16
153.72	Horizontale	37.12	28.54	43.5	-14.96
153.89	Horizontale	36.85	28.68	43.5	-14.82
153.91	Horizontale	36.98	28.74	43.5	-14.76
154.04	Horizontale	36.79	28.94	43.5	-14.56
154.11	Horizontale	36.84	28.95	43.5	-14.55
154.13	Horizontale	37.47	29.07	43.5	-14.43
154.21	Horizontale	36.97	29.02	43.5	-14.48
154.28	Horizontale	37.65	29.26	43.5	-14.24
154.37	Horizontale	37.21	29.33	43.5	-14.17
154.45	Horizontale	37.6	29.53	43.5	-13.97
154.49	Horizontale	37.8	29.51	43.5	-13.99
154.64	Horizontale	37.7	29.72	43.5	-13.78
154.76	Horizontale	37.98	29.82	43.5	-13.68
154.78	Horizontale	38.02	29.82	43.5	-13.68
154.98	Horizontale	38.59	30.14	43.5	-13.36
155.06	Horizontale	38.54	30.24	43.5	-13.26
155.18	Horizontale	39.22	30.31	43.5	-13.19
155.32	Horizontale	38.68	30.41	43.5	-13.09
155.44	Horizontale	38.51	30.53	43.5	-12.97

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES >30MHZ- TABULATED RESULTS					
CHARGING + TX MODE / ALL POSITIONS / ALL CHANNELS				EMI6985	
155.57	Horizontale	39.14	30.82	43.5	-12.68
155.85	Horizontale	38.93	30.91	43.5	-12.59
155.95	Horizontale	38.97	30.88	43.5	-12.62
156.19	Horizontale	38.99	31.11	43.5	-12.39
156.39	Horizontale	38.65	30.96	43.5	-12.54
156.58	Horizontale	38.98	31.02	43.5	-12.48
156.88	Horizontale	39.71	31.08	43.5	-12.42
156.97	Horizontale	38.68	31.01	43.5	-12.49
157.07	Horizontale	38.7	31.03	43.5	-12.47
157.16	Horizontale	38.61	30.86	43.5	-12.64
157.24	Horizontale	38.33	30.86	43.5	-12.64
157.43	Horizontale	38.16	30.88	43.5	-12.62
157.48	Horizontale	38.39	30.9	43.5	-12.6
157.65	Horizontale	38.4	30.82	43.5	-12.68
157.73	Horizontale	37.97	30.87	43.5	-12.63
157.84	Horizontale	37.56	30.77	43.5	-12.73
157.92	Horizontale	37.93	30.77	43.5	-12.73
158.09	Horizontale	37.63	30.81	43.5	-12.69
158.19	Horizontale	37.65	30.83	43.5	-12.67
158.28	Horizontale	37.68	30.87	43.5	-12.63
158.40	Horizontale	37.5	30.82	43.5	-12.68
158.58	Horizontale	37.67	30.96	43.5	-12.54
158.80	Horizontale	38.03	31.11	43.5	-12.39
158.97	Horizontale	37.37	31.22	43.5	-12.28
159.30	Horizontale	37.68	31.41	43.5	-12.09
159.60	Horizontale	37.52	31.77	43.5	-11.73
159.71	Horizontale	37.46	31.83	43.5	-11.67
159.96	Horizontale	37.5	32.07	43.5	-11.43
160.20	Horizontale	37.54	32.32	43.5	-11.18
160.42	Horizontale	37.29	32.46	43.5	-11.04
160.78	Horizontale	37.81	32.71	43.5	-10.79
161.00	Horizontale	37.84	32.78	43.5	-10.72

Spurious which has more than 20 dB of margin compared to the applicable limit is not necessarily reported

TEST SETUP PHOTO(S) – TX MODE / POSITION 1


TEST SETUP PHOTO(S) – TX MODE – POSITION 2


TEST SETUP PHOTO(S) – TX MODE – POSITION 3

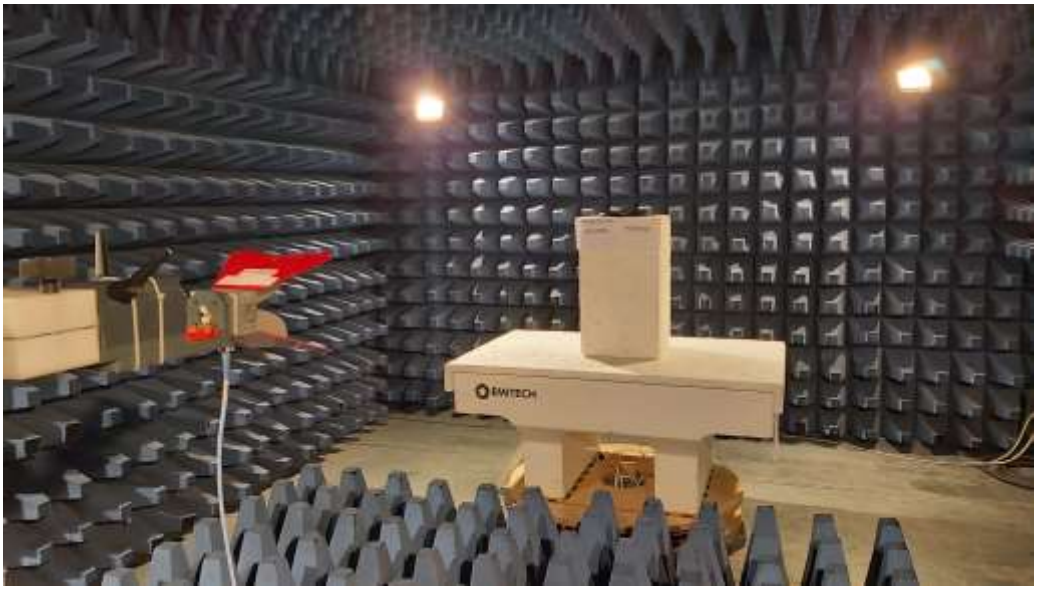

TEST SETUP PHOTO(S) – CHARGING + TX MODE – POSITION 1


TEST SETUP PHOTO(S) - CHARGING + TX MODE – POSITION 2


TEST SETUP PHOTO(S) - CHARGING + TX MODE – POSITION 3

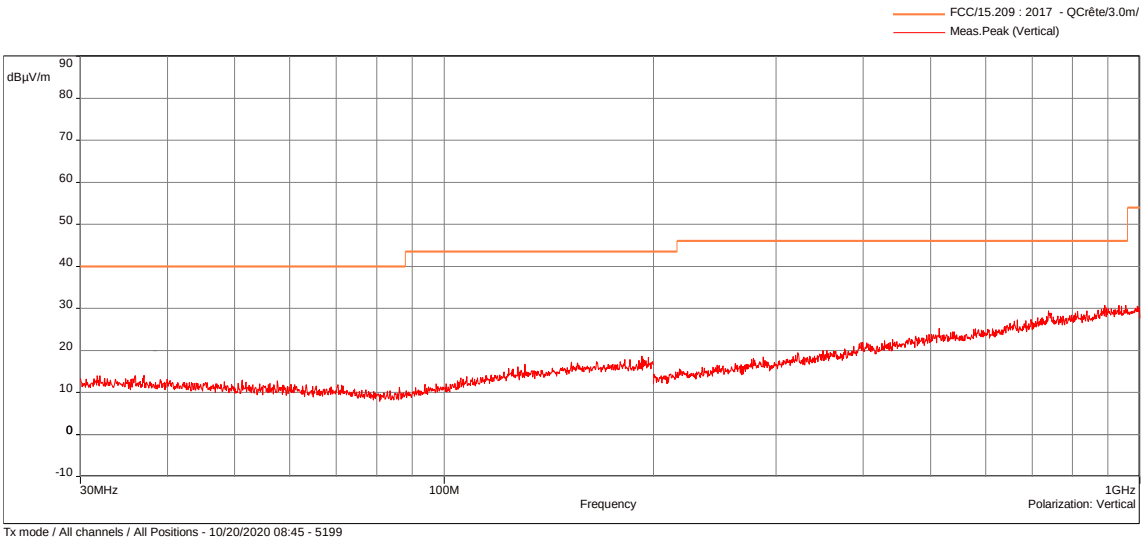

TEST SETUP PHOTO(S) – TX MODE – 30MHZ TO 200MHZ


TEST SETUP PHOTO(S) – TX MODE – 200MHZ TO 1GHZ

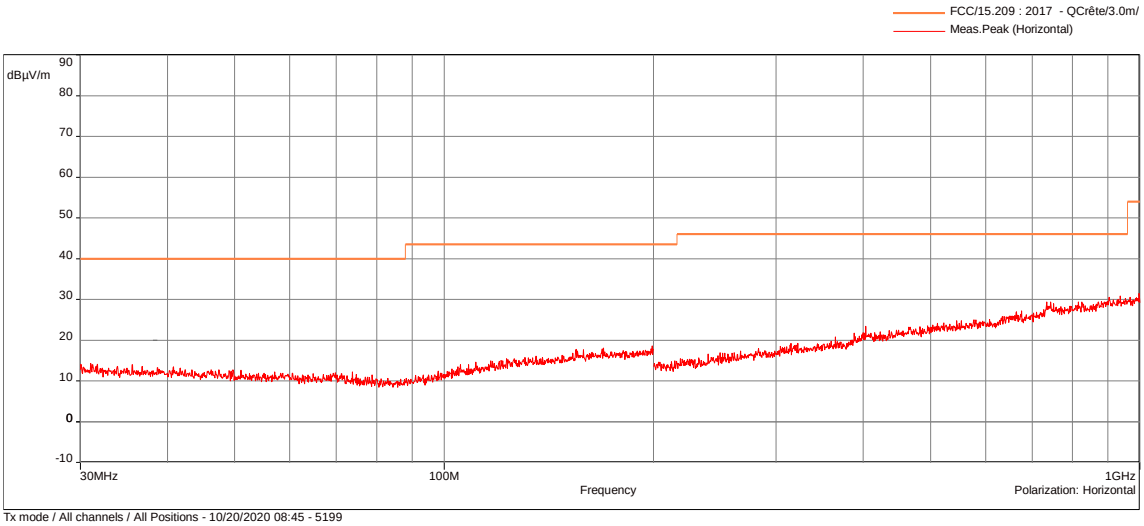

TEST SETUP PHOTO(S) – TX MODE – 1GHZ TO 18GHZ


TEST SETUP PHOTO(S) - TX MODE / 18GHZ TO 26.5GHZ


TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES >30MHZ - GRAPH			
TX MODE / ALL CHANNELS / ALL POSITIONS		EMI5199	
EUT mode:	Modulated	**T (°C):**	23.5
Test Date:	03/09/2020	**H (%):**	52.6
Test Operator:	OAT	**P (hPa):**	1015



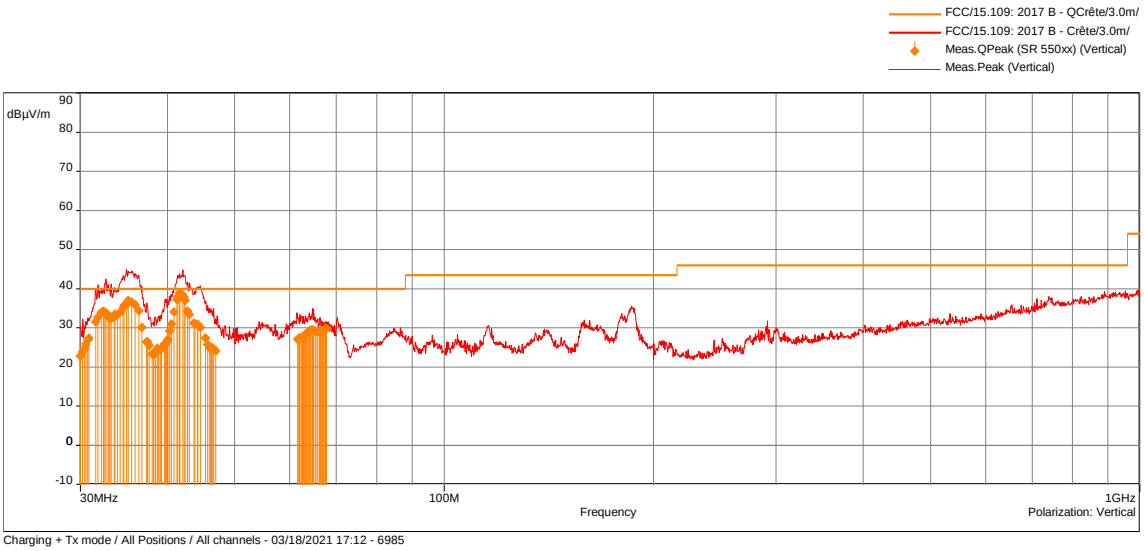
Tx mode / All channels / All Positions - 10/20/2020 08:45 - 5199



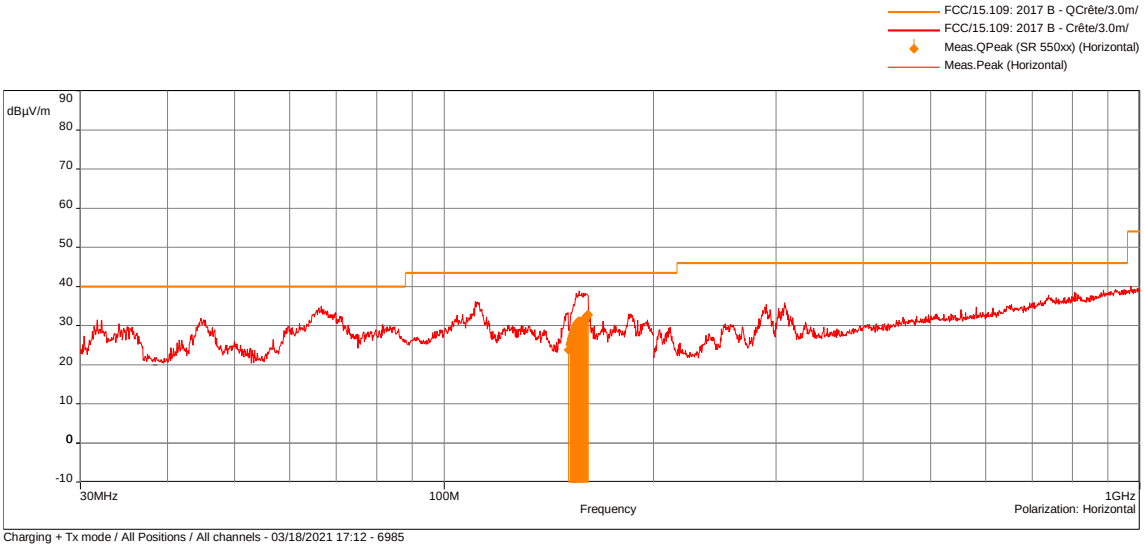
Tx mode / All channels / All Positions - 10/20/2020 08:45 - 5199

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	30MHz-200MHz	100kHz	300kHz	Peak
Horizontal	30MHz-200MHz	100kHz	300kHz	Peak
Vertical	200MHz-1GHz	100kHz	300kHz	Peak
Horizontal	200MHz-1GHz	100kHz	300kHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES >30MHZ - GRAPH			
CHARGING + TX MODE / ALL POSITIONS / ALL CHANNELS		EMI6985	
EUT mode:	Modulated	**T (°C):**	20.5
Test Date:	18/03/2021	**H (%):**	21.1
Test Operator:	OAT	**P (hPa):**	1011



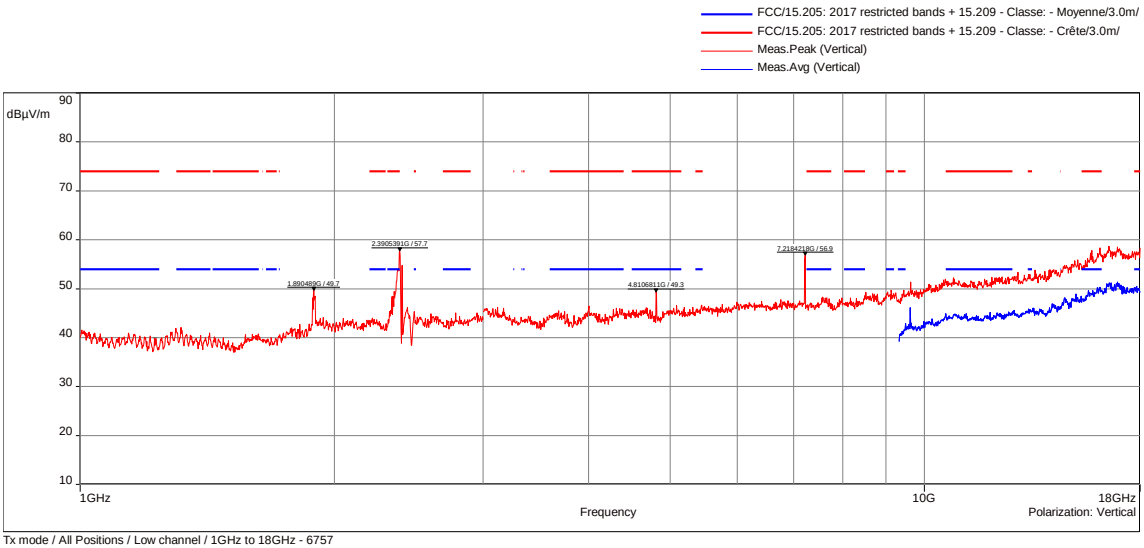
Charging + Tx mode / All Positions / All channels - 03/18/2021 17:12 - 6985



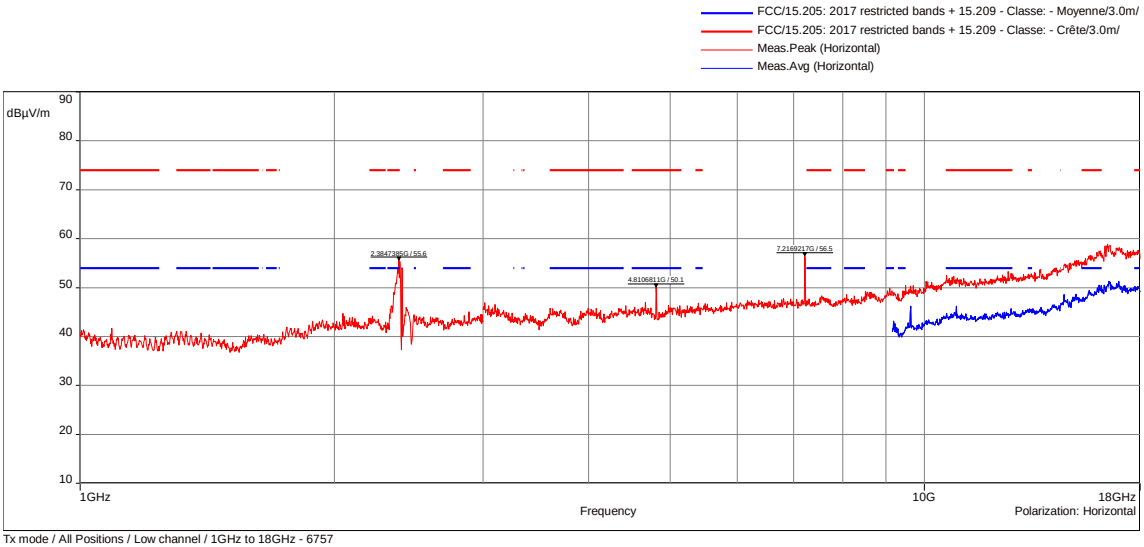
Charging + Tx mode / All Positions / All channels - 03/18/2021 17:12 - 6985

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	30MHz-200MHz	100kHz	300kHz	Peak
Horizontal	30MHz-200MHz	100kHz	300kHz	Peak
Vertical	200MHz-1GHz	100kHz	300kHz	Peak
Horizontal	200MHz-1GHz	100kHz	300kHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES >30MHZ - GRAPH			
TX MODE / ALL POSITIONS / LOW CHANNEL / 1GHZ TO 18GHZ		EMI6757	
EUT mode:	Modulated	**T (°C):**	22.1
Test Date:	05/03/2021	**H (%):**	39.6
Test Operator:	ATO & OAT	**P (hPa):**	1015



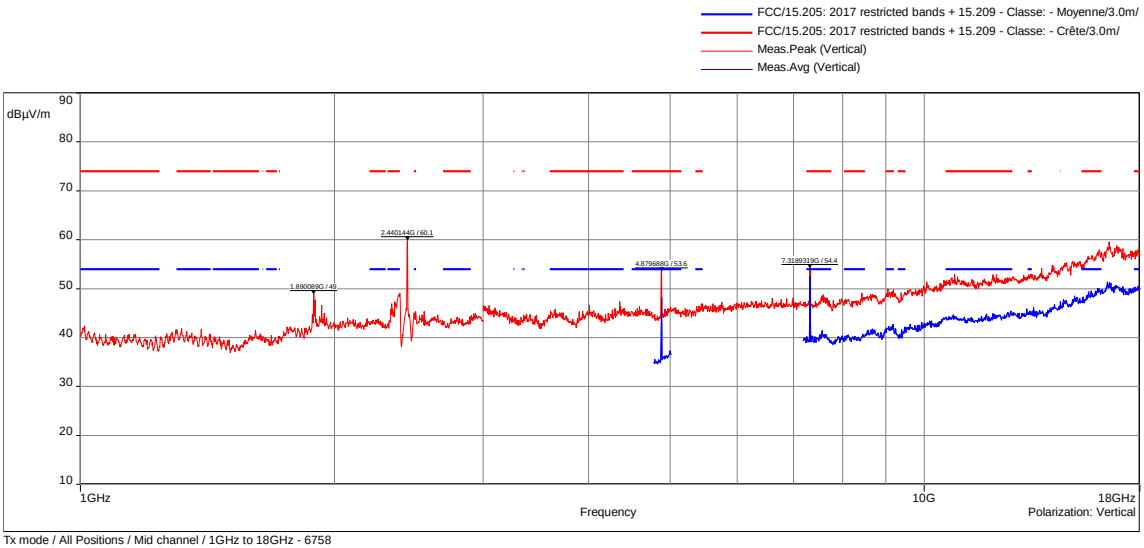
Tx mode / All Positions / Low channel / 1GHz to 18GHz - 6757



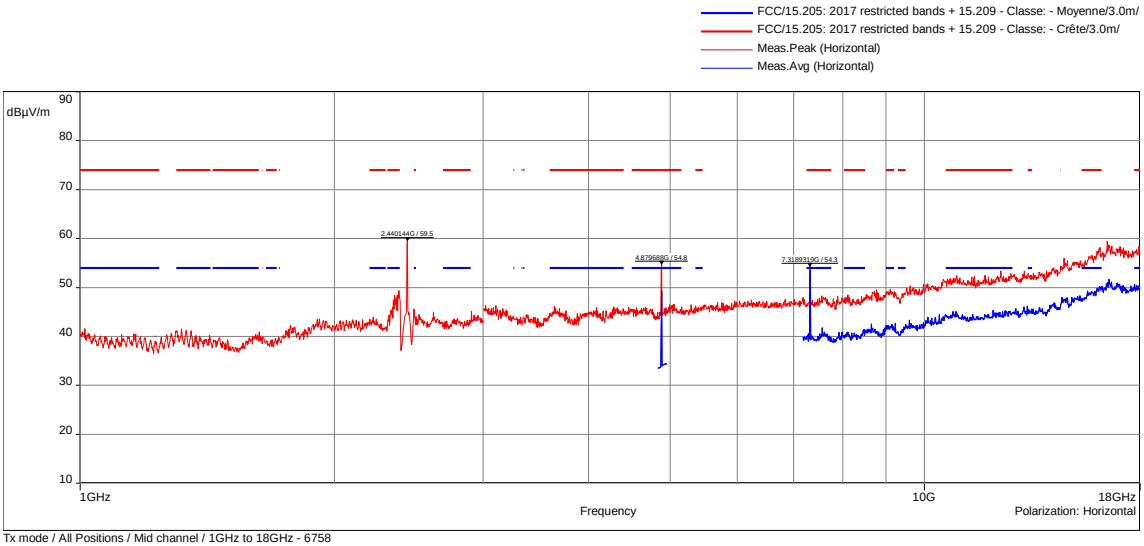
Tx mode / All Positions / Low channel / 1GHz to 18GHz - 6757

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	1GHz-3GHz	1MHz	3MHz	Peak
Horizontal	1GHz-3GHz	1MHz	3MHz	Peak
Vertical	3GHz-18GHz	1MHz	3MHz	Peak
Horizontal	3GHz-18GHz	1MHz	3MHz	Peak
Vertical	7GHz-7.4GHz	1MHz	50kHz	Peak
Vertical	9GHz-18GHz	1MHz	50kHz	Peak
Horizontal	9GHz-18GHz	1MHz	50kHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES >30MHZ - GRAPH			
TX MODE / ALL POSITIONS / MID CHANNEL / 1GHZ TO 18GHZ		EMI6758	
EUT mode:	Modulated	**T (°C):**	22.1
Test Date:	04/03/2021	**H (%):**	39.6
Test Operator:	ATO & OAT	**P (hPa):**	1015



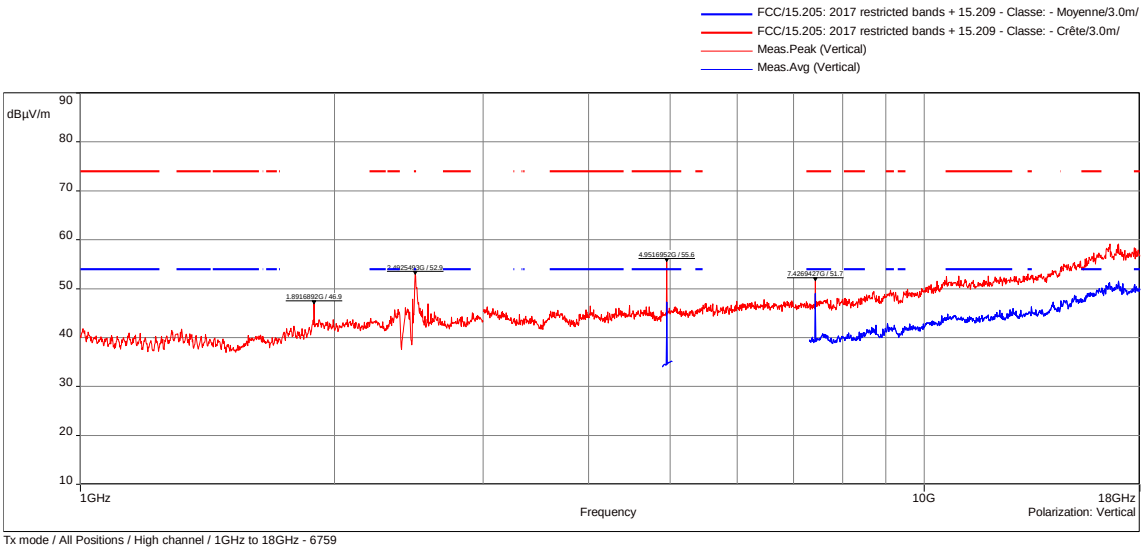
Tx mode / All Positions / Mid channel / 1GHz to 18GHz - 6758



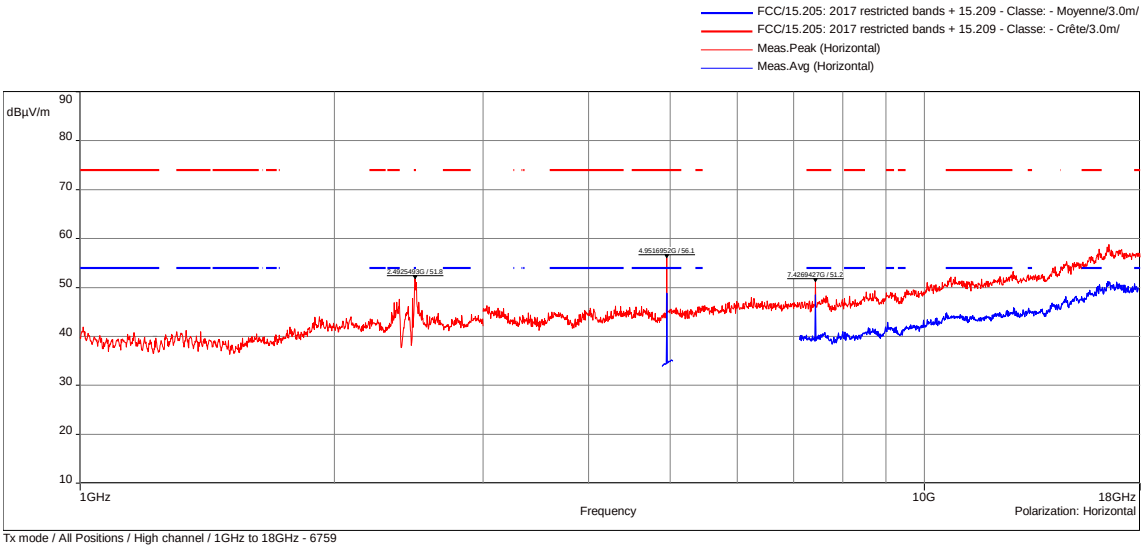
Tx mode / All Positions / Mid channel / 1GHz to 18GHz - 6758

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	1GHz-3GHz	1MHz	3MHz	Peak
Horizontal	1GHz-3GHz	1MHz	3MHz	Peak
Vertical	3GHz-18GHz	1MHz	3MHz	Peak
Horizontal	3GHz-18GHz	1MHz	3MHz	Peak
Vertical	7.7GHz-7.9GHz	1MHz	50kHz	Peak
Horizontal	7.7GHz-7.9GHz	1MHz	50kHz	Peak
Vertical	7GHz-18GHz	1MHz	50kHz	Peak
Horizontal	7GHz-18GHz	1MHz	50kHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES >30MHZ - GRAPH			
TX MODE / ALL POSITIONS / HIGH CHANNEL / 1GHZ TO 18GHZ		EMI6759	
EUT mode:	Modulated	**T (°C):**	22.1
Test Date:	04/03/2021	**H (%):**	39.6
Test Operator:	ATO & OAT	**P (hPa):**	1015



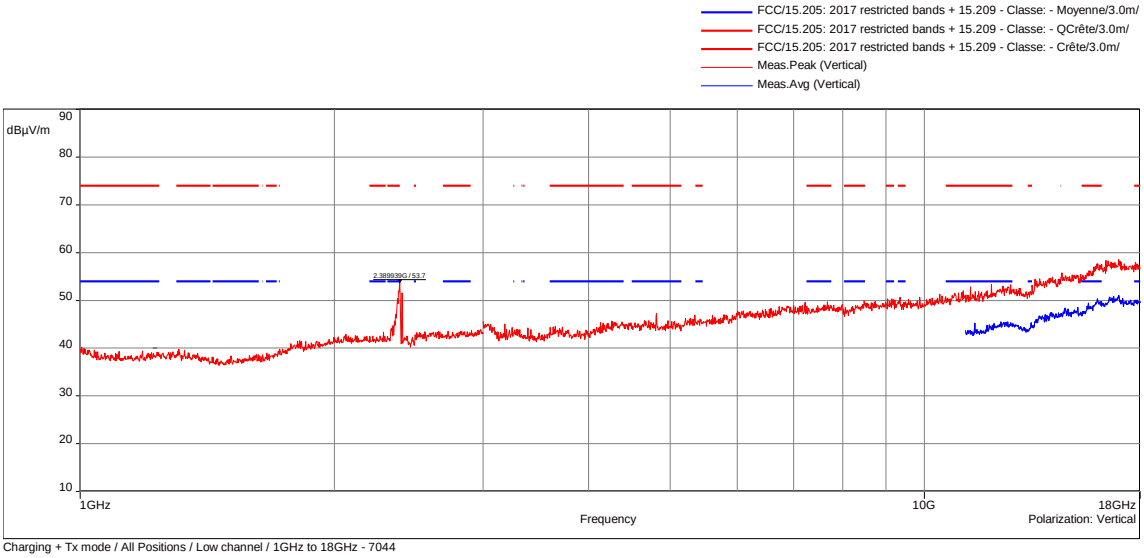
Tx mode / All Positions / High channel / 1GHz to 18GHz - 6759



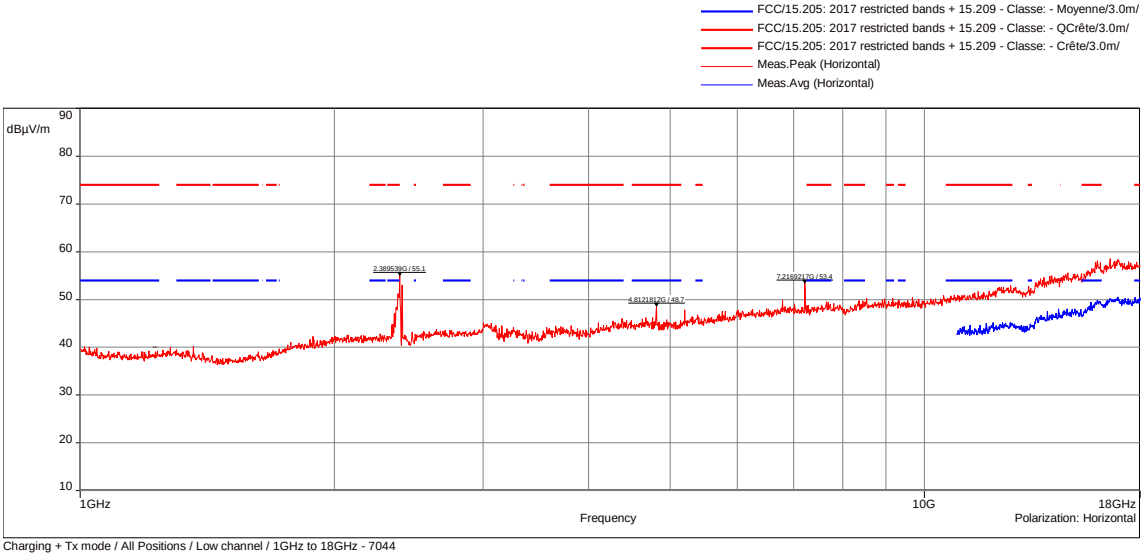
Tx mode / All Positions / High channel / 1GHz to 18GHz - 6759

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	1GHz-3GHz	1MHz	3MHz	Peak
Horizontal	1GHz-3GHz	1MHz	3MHz	Peak
Vertical	3GHz-18GHz	1MHz	3MHz	Peak
Horizontal	3GHz-18GHz	1MHz	3MHz	Peak
Vertical	4.8GHz-5.1GHz	1MHz	50kHz	Peak
Vertical	9GHz-18GHz	1MHz	50kHz	Peak
Horizontal	9GHz-18GHz	1MHz	50kHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES >30MHZ - GRAPH			
CHARGING + TX MODE / ALL POSITIONS / LOW CHANNEL / 1GHZ TO 18GHZ		EMI7044	
EUT mode:	Modulated	**T (°C):**	23.4
Test Date:	23/03/2021	**H (%):**	22.4
Test Operator:	ATO & OAT	**P (hPa):**	1012



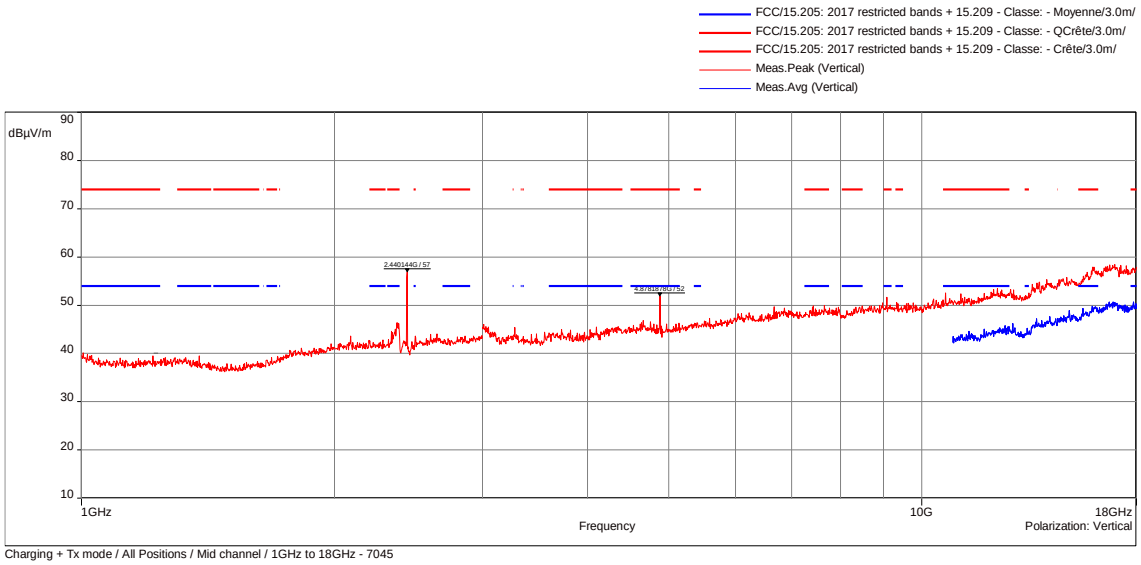
Charging + Tx mode / All Positions / Low channel / 1GHz to 18GHz - 7044



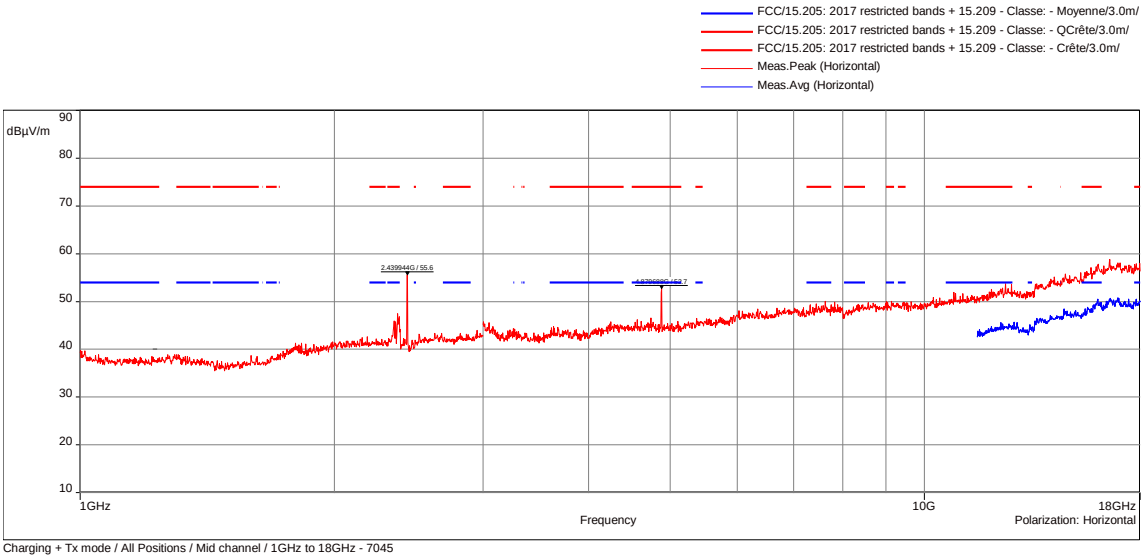
Charging + Tx mode / All Positions / Low channel / 1GHz to 18GHz - 7044

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	1GHz-3GHz	1MHz	3MHz	Peak
Horizontal	1GHz-3GHz	1MHz	3MHz	Peak
Vertical	3GHz-18GHz	1MHz	3MHz	Peak
Horizontal	3GHz-18GHz	1MHz	3MHz	Peak
Vertical	10GHz-18GHz	1MHz	50kHz	Peak
Horizontal	10GHz-18GHz	1MHz	50kHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES >30MHZ - GRAPH			
CHARGING + TX MODE / ALL POSITIONS / MID CHANNEL / 1GHZ TO 18GHZ		EMI7045	
EUT mode:	Modulated	**T (°C):**	23.4
Test Date:	23/03/2021	**H (%):**	22.4
Test Operator:	ATO & OAT	**P (hPa):**	1012



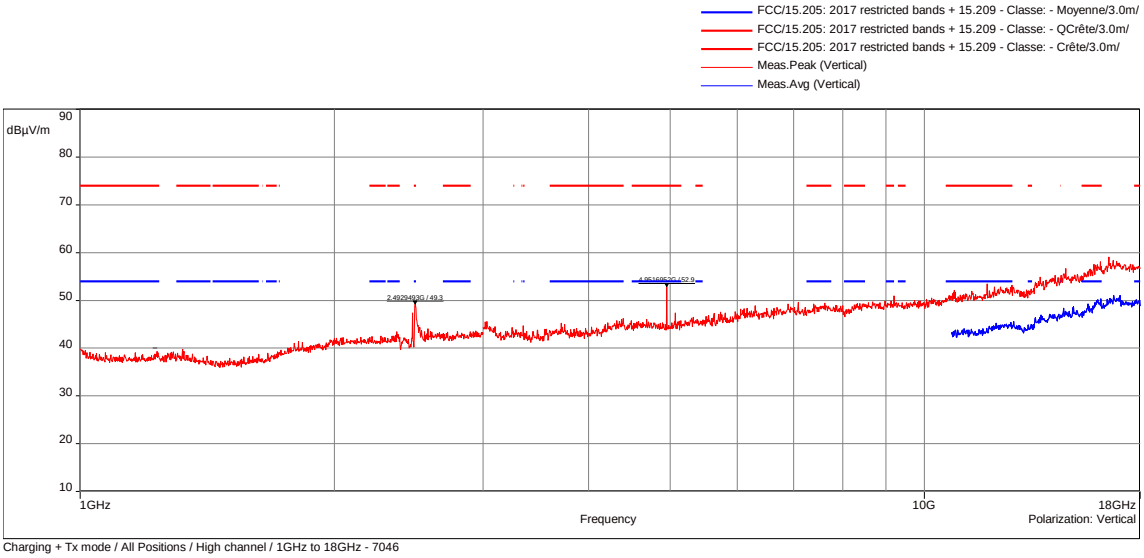
Charging + Tx mode / All Positions / Mid channel / 1GHz to 18GHz - 7045



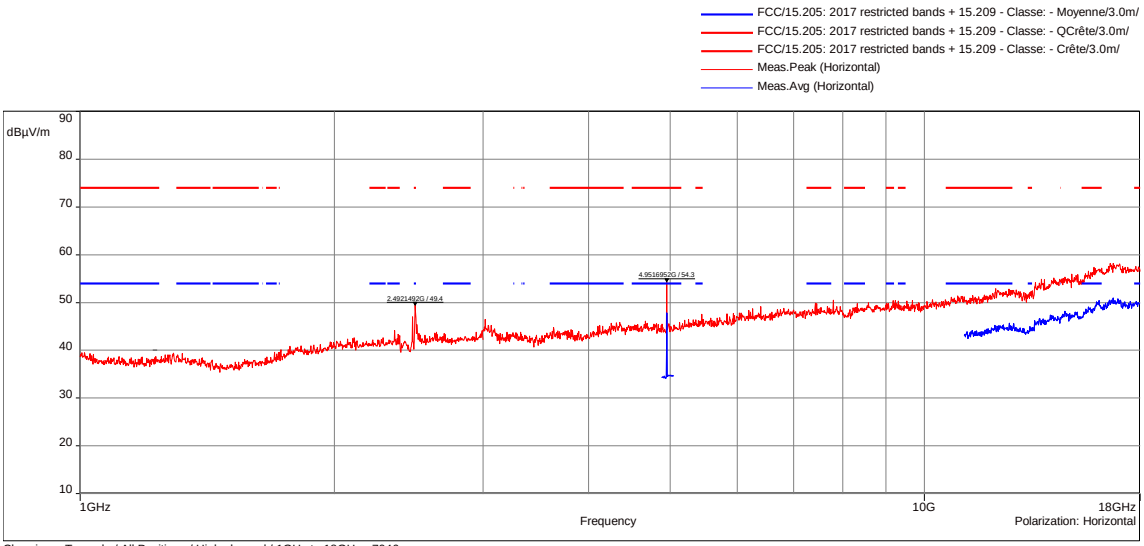
Charging + Tx mode / All Positions / Mid channel / 1GHz to 18GHz - 7045

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	1GHz-3GHz	1MHz	3MHz	Peak
Horizontal	1GHz-3GHz	1MHz	3MHz	Peak
Vertical	3GHz-18GHz	1MHz	3MHz	Peak
Horizontal	3GHz-18GHz	1MHz	3MHz	Peak
Vertical	10GHz-18GHz	1MHz	50MHz	Peak
Horizontal	10GHz-18GHz	1MHz	50MHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES >30MHZ - GRAPH			
CHARGING + TX MODE / ALL POSITIONS / HIGH CHANNEL / 1GHZ TO 18GHZ		EMI7046	
EUT mode:	Modulated	**T (°C):**	23.4
Test Date:	23/03/2021	**H (%):**	22.4
Test Operator:	ATO & OAT	**P (hPa):**	1012



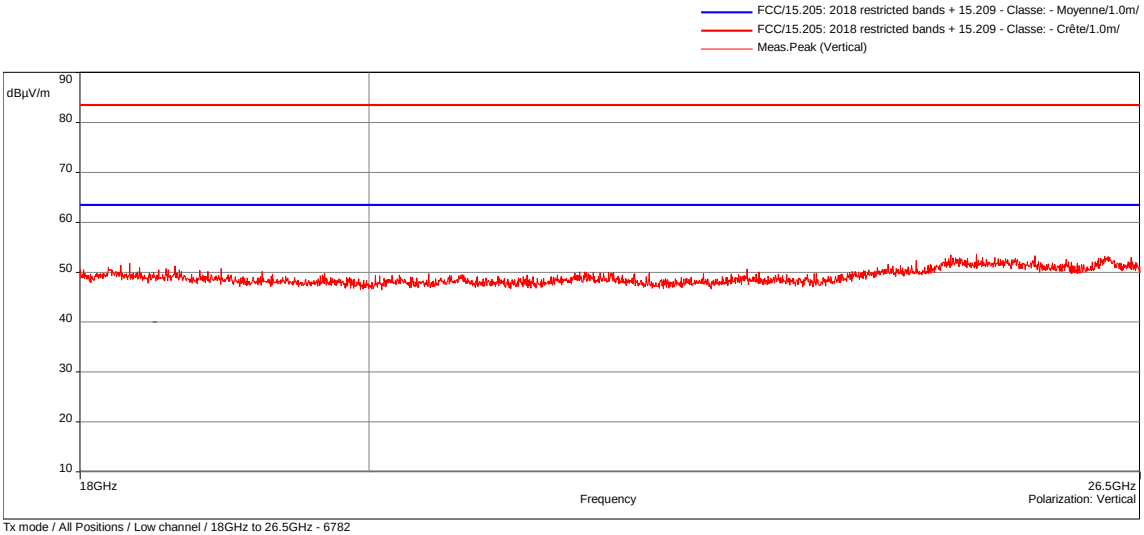
Charging + Tx mode / All Positions / High channel / 1GHz to 18GHz - 7046



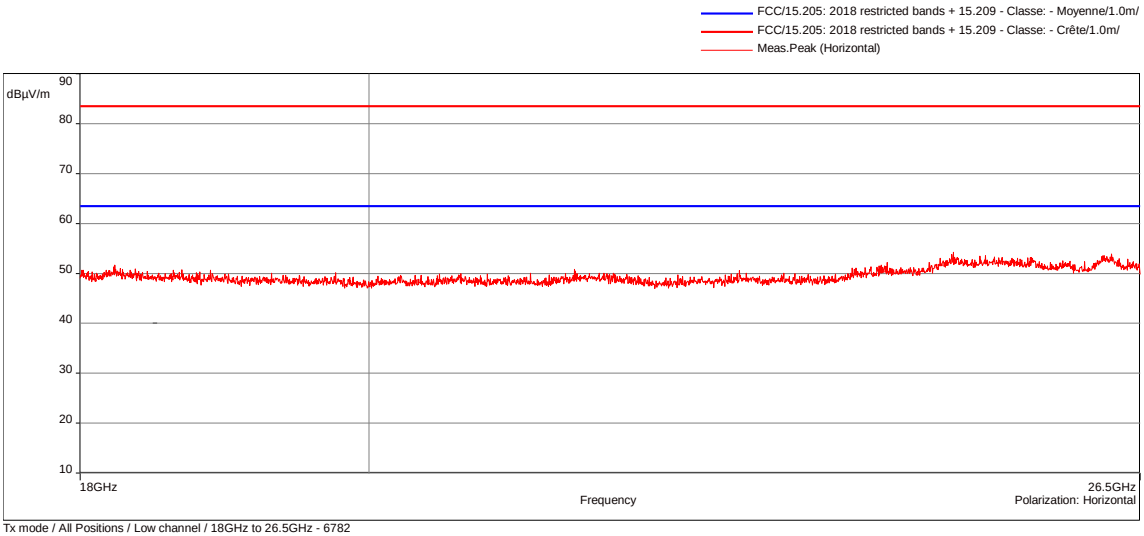
Charging + Tx mode / All Positions / High channel / 1GHz to 18GHz - 7046

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	1GHz-3GHz	1MHz	3MHz	Peak
Horizontal	1GHz-3GHz	1MHz	3MHz	Peak
Vertical	3GHz-18GHz	1MHz	3MHz	Peak
Horizontal	3GHz-18GHz	1MHz	3MHz	Peak
Vertical	10GHz-18GHz	1MHz	50kHz	Peak
Horizontal	4.8GHz-5.2GHz	1MHz	50kHz	Peak
Horizontal	10GHz-18GHz	1MHz	50kHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES >30MHZ - GRAPH			
TX MODE / ALL POSITIONS / LOW CHANNEL / 18GHZ TO 26.5GHZ		EMI6782	
EUT mode:	Modulated	**T (°C):**	23.8
Test Date:	05/03/2021	**H (%):**	35.7
Test Operator:	ATO & OAT	**P (hPa):**	1009



Tx mode / All Positions / Low channel / 18GHz to 26.5GHz - 6782

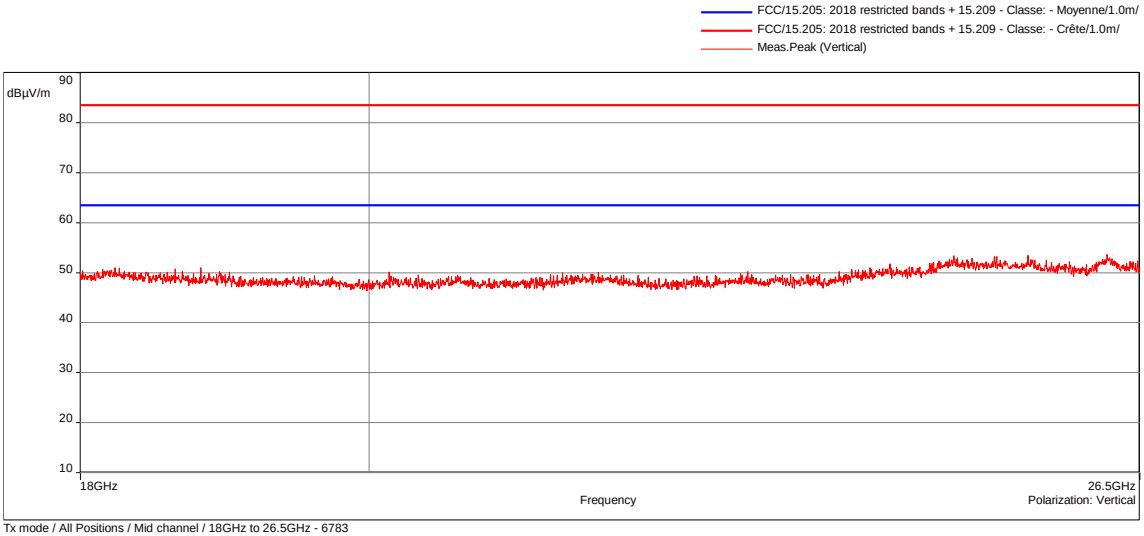


Tx mode / All Positions / Low channel / 18GHz to 26.5GHz - 6782

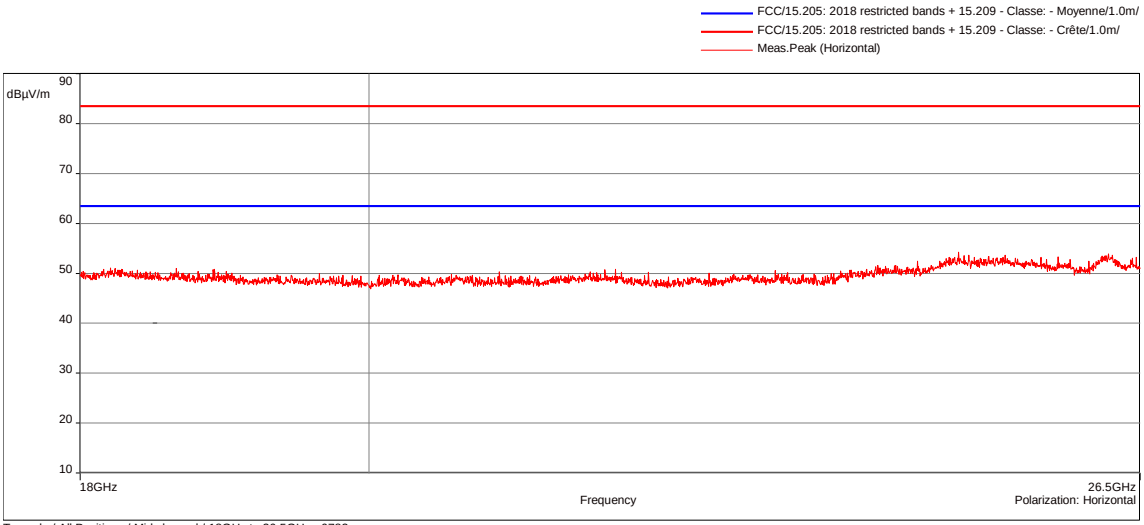
POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	18GHz-26.5GHz	1MHz	3MHz	Peak
Horizontal	18GHz-26.5GHz	1MHz	3MHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

No spurious emissions were detected.

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES >30MHZ - GRAPH			
TX MODE / ALL POSITIONS / MID CHANNEL / 18GHZ TO 26.5GHZ		EMI6783	
EUT mode:	Modulated	**T (°C):**	23.8
Test Date:	05/03/2021	**H (%):**	35.7
Test Operator:	ATO & OAT	**P (hPa):**	1009



Tx mode / All Positions / Mid channel / 18GHz to 26.5GHz - 6783

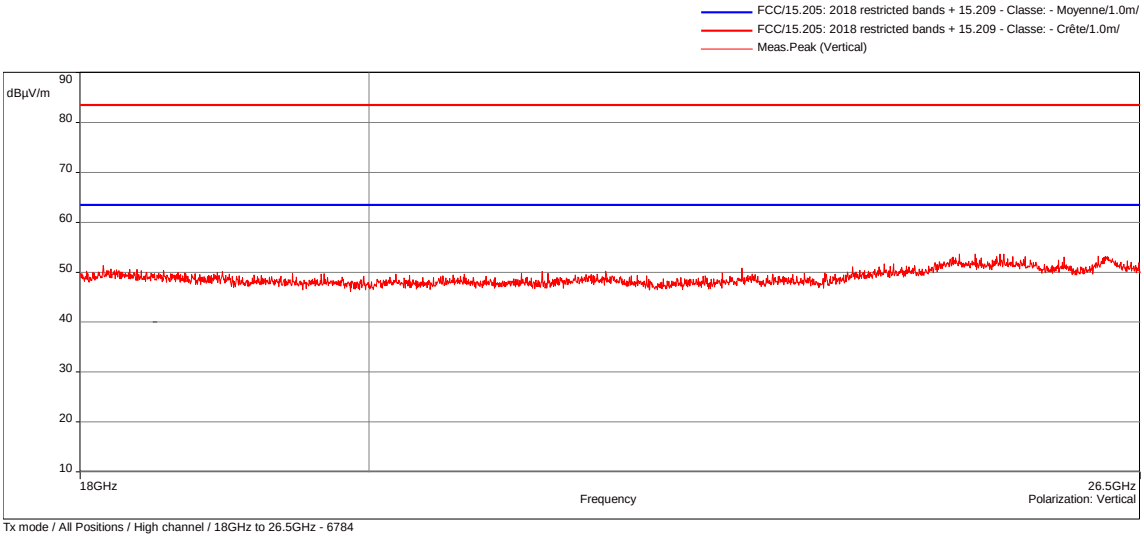


Tx mode / All Positions / Mid channel / 18GHz to 26.5GHz - 6783

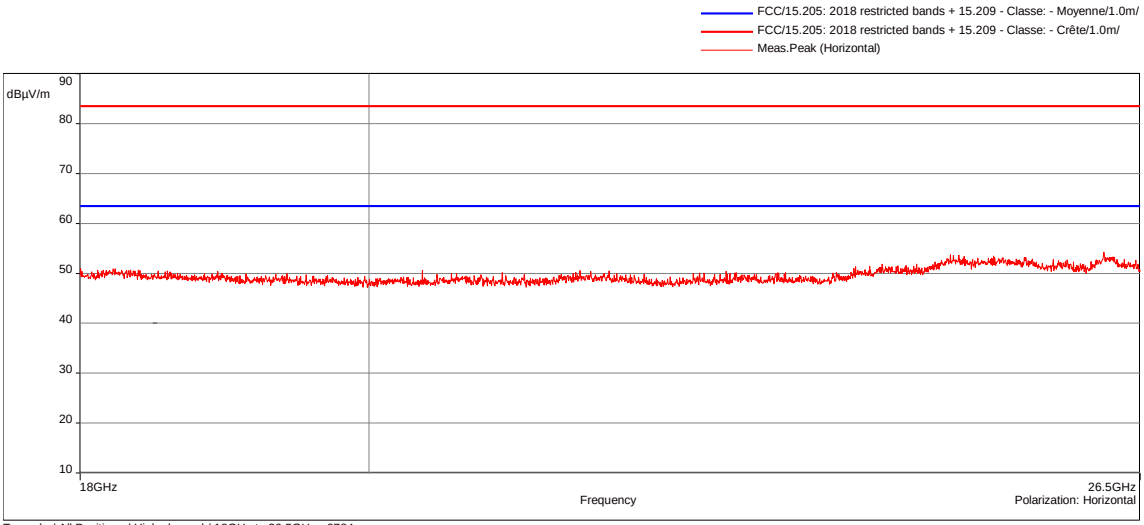
POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	18GHz-26.5GHz	1MHz	3MHz	Peak
Horizontal	18GHz-26.5GHz	1MHz	3MHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

No spurious emissions were detected.

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES >30MHZ - GRAPH			
TX MODE / ALL POSITIONS / HIGH CHANNEL / 18GHZ TO 26.5GHZ		EMI6784	
EUT mode:	Modulated	**T (°C):**	23.8
Test Date:	05/03/2021	**H (%):**	35.7
Test Operator:	ATO & OAT	**P (hPa):**	1009



Tx mode / All Positions / High channel / 18GHz to 26.5GHz - 6784

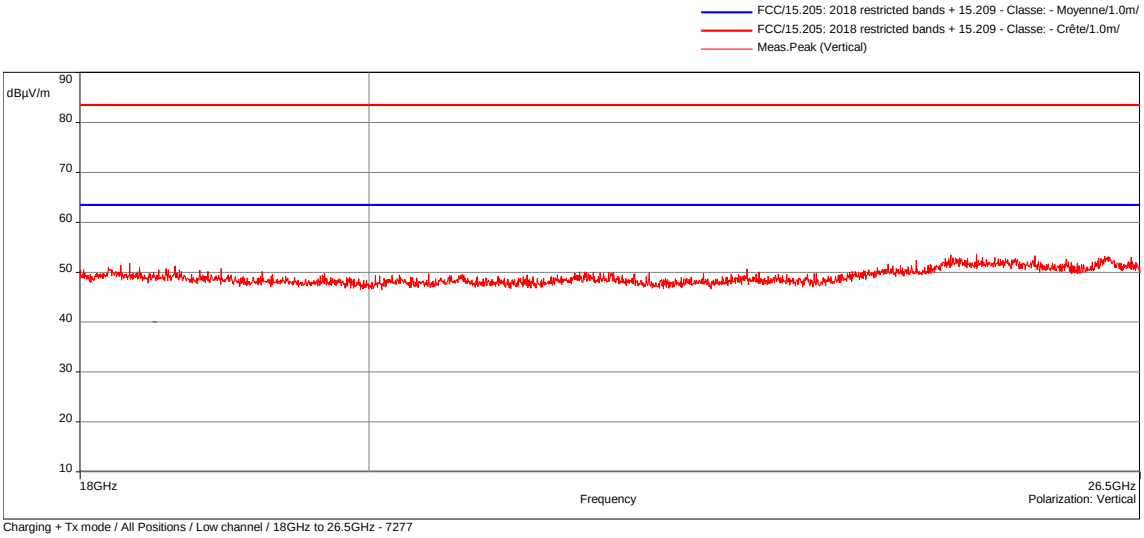


Tx mode / All Positions / High channel / 18GHz to 26.5GHz - 6784

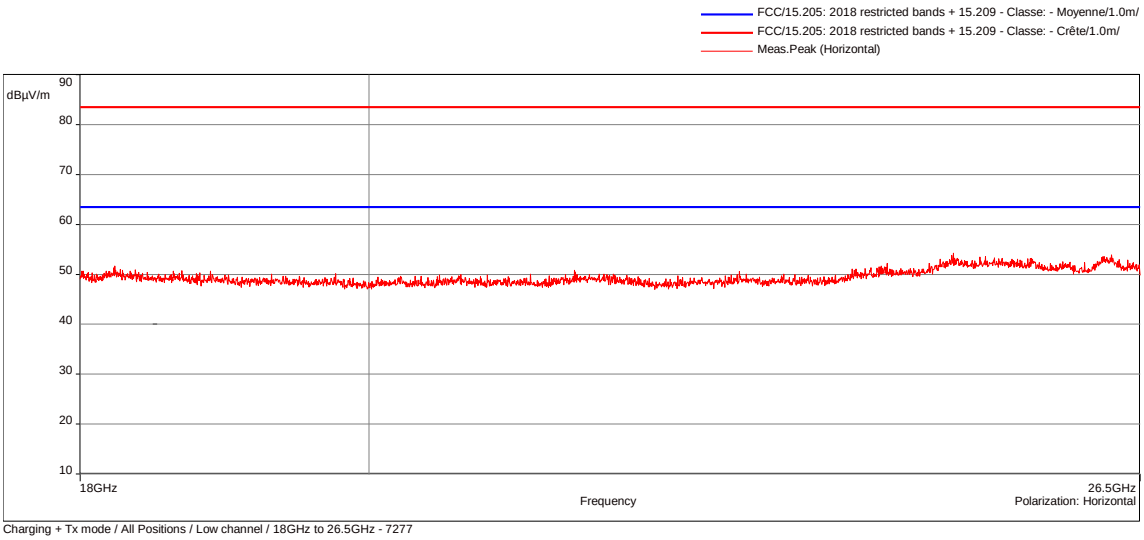
POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	18GHz-26.5GHz	1MHz	3MHz	Peak
Horizontal	18GHz-26.5GHz	1MHz	3MHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

No spurious emissions were detected.

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES >30MHZ - GRAPH			
CHARGING + TX MODE / ALL POSITIONS / LOW CHANNEL / 18GHZ TO 26.5GHZ		EMI7277	
EUT mode:	Modulated	**T (°C):**	23.8
Test Date:	05/03/2021	**H (%):**	35.7
Test Operator:	ATO & OAT	**P (hPa):**	1009



Charging + Tx mode / All Positions / Low channel / 18GHz to 26.5GHz - 7277

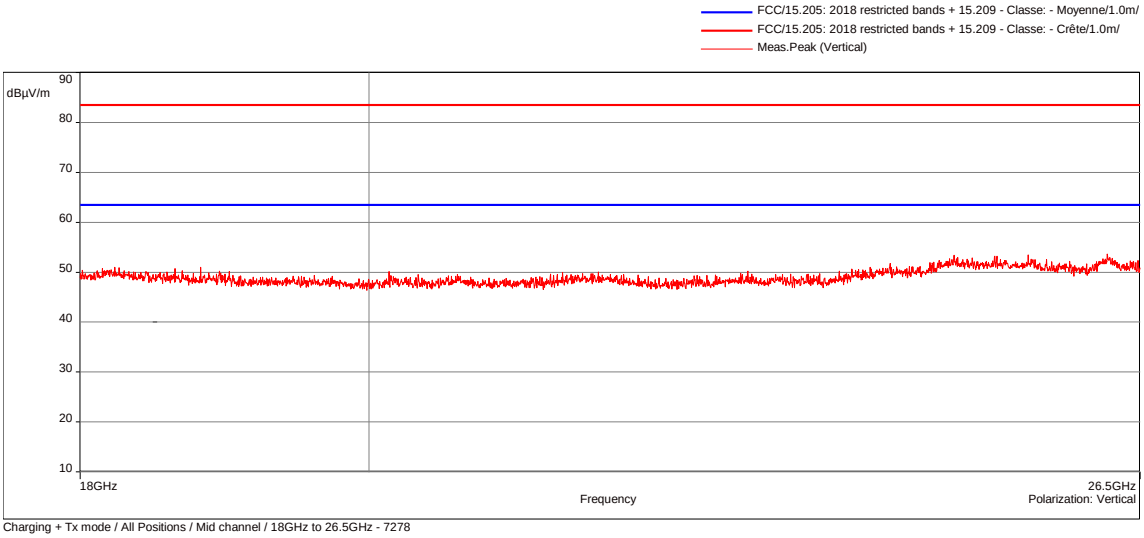


Charging + Tx mode / All Positions / Low channel / 18GHz to 26.5GHz - 7277

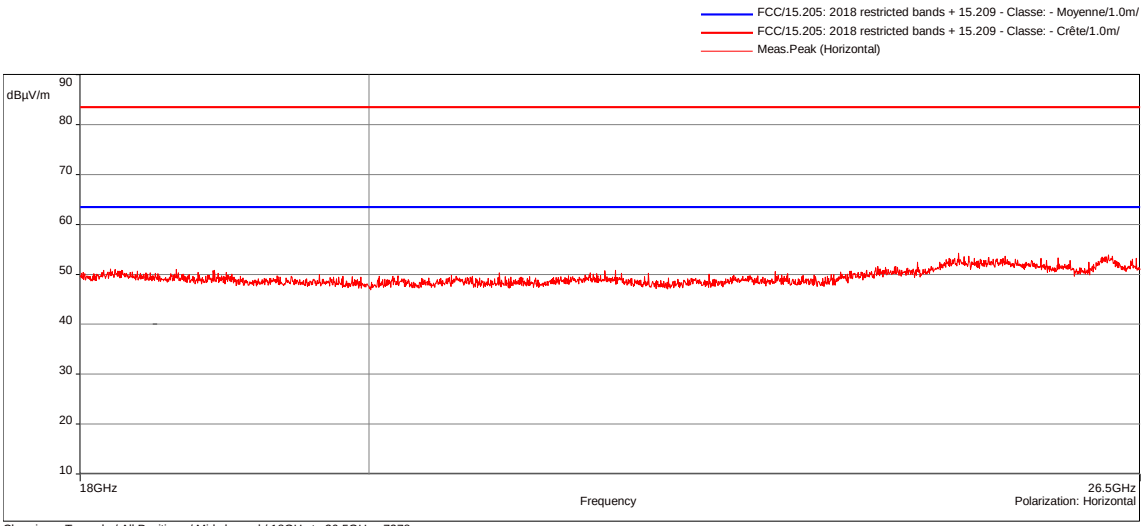
POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	18GHz-26.5GHz	1MHz	3MHz	Peak
Horizontal	18GHz-26.5GHz	1MHz	3MHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

No spurious emissions were detected.

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES >30MHZ - GRAPH			
CHARGING + TX MODE / ALL POSITIONS / MID CHANNEL / 18GHZ TO 26.5GHZ		EMI7278	
EUT mode:	Modulated	**T (°C):**	23.8
Test Date:	05/03/2021	**H (%):**	35.7
Test Operator:	ATO & OAT	**P (hPa):**	1009



Charging + Tx mode / All Positions / Mid channel / 18GHz to 26.5GHz - 7278

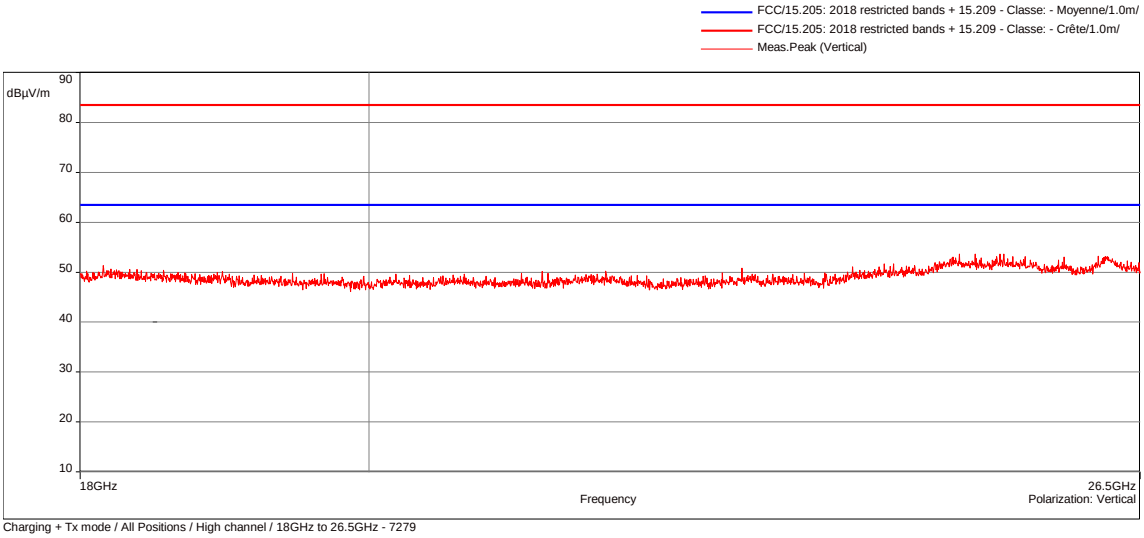


Charging + Tx mode / All Positions / Mid channel / 18GHz to 26.5GHz - 7278

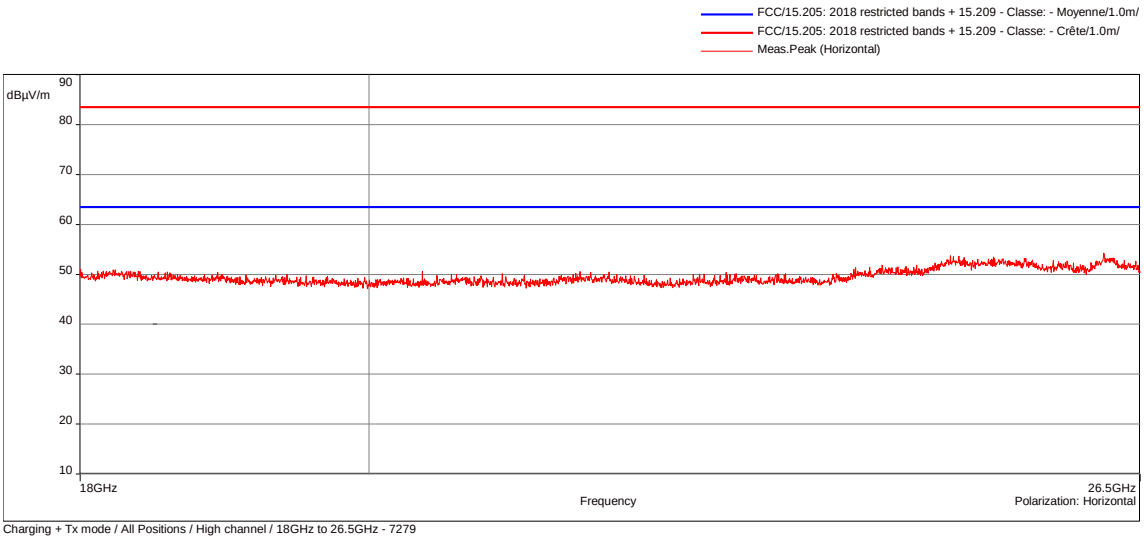
POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	18GHz-26.5GHz	1MHz	3MHz	Peak
Horizontal	18GHz-26.5GHz	1MHz	3MHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

No spurious emissions were detected.

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES >30MHZ - GRAPH			
CHARGING + TX MODE / ALL POSITIONS / HIGH CHANNEL / 18GHZ TO 26.5GHZ		EMI7279	
EUT mode:	Modulated	**T (°C):**	23.8
Test Date:	05/03/2021	**H (%):**	35.7
Test Operator:	ATO & OAT	**P (hPa):**	1009



Charging + Tx mode / All Positions / High channel / 18GHz to 26.5GHz - 7279



Charging + Tx mode / All Positions / High channel / 18GHz to 26.5GHz - 7279

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	18GHz-26.5GHz	1MHz	3MHz	Peak
Horizontal	18GHz-26.5GHz	1MHz	3MHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

No spurious emissions were detected.

8.9. Radiated spurious emissions (receiver)

Reference standard:	FCC part 15 Radio part 15.209 & CNR-Gen
Test method:	FCC part 15.109, 15.209, 15.205, 15.215, CNR-Gen

General test setup: EUT is set on an insulating support at 80cm above the ground reference plane.

Measurement are done on a normalized test site by the substitution method.

The test antenna is oriented in the two polarizations (vertical and horizontal), and the product is rotated at 360° in the horizontal plane (See photo(s) for initial position of the EUT(0°)). If applicable the test antenna was raised and lowered through the specified range of height until a maximum signal level is detected.

For portable equipments a research of maximum level is done on the 3 axes. Only the highest levels are recorded.

TESTED CONFIGURATION	PARAMETER	SEVERITY	RESULT TAB.	VERDICT
Rx mode / All Positions / All channels/ For freq <1GHz	30MHz-1GHz	15.209	EMI6982	**PASS**
Charging + Rx mode / All Positions / All channels	30MHz-1GHz	15.209	EMI6980	**PASS**
Rx mode / All Positions / All channels / 1GHz to 18GHz	1GHz-18GHz	15.209	EMI7025	**PASS**
Charging + Rx mode / All Positions / All channels / 1GHz to 18GHz	1GHz-18GHz	15.209	EMI7030	**PASS**
Rx mode / All Positions / All channels / 18GHz to 26.5GHz	18GHz-26.5GHz	15.209	EMI7304	**PASS**
Charging + Rx mode / All Positions / All channels / 18GHz to 26.5GHz	18GHz-26.5GHz	15.209	EMI7308	**PASS**

LABORATORY PARAMETERS:	REQUIRED PRIOR TO THE TEST	DURING THE TEST
Ambient Temperature	15 to 35 °C	*See Graph(s)*
Relative Humidity	20 to 75 %	*See Graph(s)*
Atmospheric pressure	N/A	*See Graph(s)*
Test method deviation: N/A		
Supplementary information: N/A		

TEST EQUIPMENT USED					
CATEGORY	BRAND	TYPE	IDENTIFIER	CAL. DATE	CAL. DUE
Antenna	ETS-Lindgren	3117	5456	24/07/2019	24/09/2022
Antenna	ETS lindgren	3160-09	14690	26/09/2017	26/11/2021
Antenna	Electro Metrics	BIA-30HF	0824	13/06/2018	13/08/2021
Antenna	Rohde & Schwarz	HL223	3126	13/06/2018	13/08/2021
Cable	MegaPhase	F135N1N28	16664	25/10/2019	25/12/2021
Cable	MegaPhase	F135N1N28	16666	25/10/2019	25/12/2021
Cable	JYE BAO	K30K30-5003-40G1	14887	25/06/2019	25/08/2021
Cable	Huber + Suhner	K-5m	14460	25/06/2019	25/08/2021
Cable	/	N-1m	3625	27/01/2021	27/03/2023
Cable	SUCOFLEX	N-5,5m	14381	25/06/2019	25/08/2021
Cable	SUCOFLEX	N-6,5m	14380	25/07/2019	25/09/2021
Cable	MegaPhase	N-8m	15813	14/01/2021	14/03/2023
Cable	Huber + Suhner	SF102K	16041	28/02/2019	28/04/2021
Cable	Huber + Suhner	SF102K	16042	24/03/2021	24/05/2023
Cable	MegaPhase	TM18-N1N1-118	12841	14/08/2020	14/10/2022
Cable	MegaPhase	TM18-N1N1-118	12842	02/12/2020	02/02/2023
Preamplifier	Wright Technologie	ASL40-B3015	14851	12/08/2020	12/10/2021
Preamplifier	IMPULSE	CA118-546ACN	9169	13/01/2021	13/03/2022
Receiver	Agilent Technologies	E4440A	5824	22/10/2020	22/12/2022
Receiver	Rohde & Schwarz	ESI	9704	03/03/2020	03/05/2021
Receiver	Rohde & Schwarz	FSW43	14830	29/07/2020	29/09/2021
Shielded enclosure	RAY PROOF	C.V2	1423	04/10/2019	04/12/2022
Shielded enclosure	COMTEST	SAC 3m	14494	02/10/2019	02/12/2022
Software	Nexio		0000		
Thermohygrometer	Testo	608-H1	7562	25/01/2019	25/03/2021
Thermohygrometer	Testo	608-H2	12268	07/05/2020	07/07/2022
Thermohygrometer	Testo	608-H2	12269	07/05/2020	07/07/2022
Thermohygrometer	Bioblock Scientific	Météostar	0963	25/01/2019	25/03/2021
Thermohygrometer	Bioblock Scientific	Météostar	0963	26/01/2019	26/09/2021

BAT-EMC software version: V3.18.0.26 Blank cells = Permanent validity

RADIATED SPURIOUS EMISSIONS (RECEIVER)- TABULATED RESULTS					
CHARGING + TX MODE / ALL POSITIONS / ALL CHANNELS				EMI6980	
Frequency MHz	Polarization	Level peak dBµV/m	Level Qpeak dBµV/m	Limit dBµV/m	Margin dB
30.07	Verticale	38.42	30.81	40	-9.19
30.19	Verticale	39.49	31.82	40	-8.18
30.46	Verticale	40.57	32.56	40	-7.44
30.71	Verticale	40.19	31.39	40	-8.61
30.77	Verticale	39.86	31.33	40	-8.67
31.14	Verticale	37.1	30.82	40	-9.18
31.28	Verticale	37.15	31.35	40	-8.65
31.34	Verticale	37.24	31.42	40	-8.58
31.50	Verticale	37.21	31.14	40	-8.86
31.60	Verticale	38.05	31.94	40	-8.06
31.70	Verticale	37.17	31.39	40	-8.61
31.87	Verticale	38.4	32.15	40	-7.85
32.01	Verticale	38.41	32.47	40	-7.53
32.24	Verticale	39.28	33.04	40	-6.96
32.64	Verticale	40.17	33.88	40	-6.12
32.94	Verticale	39.9	33.97	40	-6.03
33.03	Verticale	40.79	34.2	40	-5.8
33.26	Verticale	40.96	34.74	40	-5.26
33.35	Verticale	40.91	34.85	40	-5.15
33.45	Verticale	40.72	34.33	40	-5.67
33.55	Verticale	39.95	35.05	40	-4.95
33.76	Verticale	41.48	35.06	40	-4.94
34.03	Verticale	42.01	36.34	40	-3.66
34.15	Verticale	41.37	35.79	40	-4.21
34.51	Verticale	42.09	36.74	40	-3.26
34.83	Verticale	42.83	37.81	40	-2.19
35.10	Verticale	42.74	38.36	40	-1.64
35.32	Verticale	42.66	38.41	40	-1.59
35.66	Verticale	41.87	37.6	40	-2.4
35.83	Verticale	41.4	37.43	40	-2.57
36.05	Verticale	41.33	36.54	40	-3.46
36.29	Verticale	40.69	35.74	40	-4.26
36.49	Verticale	39.14	34.4	40	-5.6
37.23	Verticale	34.06	28.13	40	-11.87
37.55	Verticale	33.9	27.92	40	-12.08
37.79	Verticale	33.17	26.48	40	-13.52
37.96	Verticale	32.12	25.55	40	-14.45
38.30	Verticale	32.15	25.63	40	-14.37
38.59	Verticale	32.29	26.05	40	-13.95
38.70	Verticale	32.3	26.07	40	-13.93
38.82	Verticale	31.79	25.59	40	-14.41
38.93	Verticale	32.2	25.75	40	-14.25
38.99	Verticale	32.75	26.11	40	-13.89
39.20	Verticale	33.73	26.3	40	-13.7
39.44	Verticale	33.16	27.41	40	-12.59

RADIATED SPURIOUS EMISSIONS (RECEIVER)- TABULATED RESULTS					
CHARGING + TX MODE / ALL POSITIONS / ALL CHANNELS				EMI6980	
39.84	Verticale	35.56	29.62	40	-10.38
40.42	Verticale	39.83	34.91	40	-5.09
40.75	Verticale	41.11	36.55	40	-3.45
40.92	Verticale	42.12	37.04	40	-2.96
41.07	Verticale	41.94	37.6	40	-2.4
41.15	Verticale	42.3	37.75	40	-2.25
41.22	Verticale	42.36	37.84	40	-2.16
41.39	Verticale	42.42	37.52	40	-2.48
41.58	Verticale	42.04	37.36	40	-2.64
41.92	Verticale	40.85	36.18	40	-3.82
42.16	Verticale	39.82	34.83	40	-5.17
42.24	Verticale	39.4	34.59	40	-5.41
42.50	Verticale	38.11	33.24	40	-6.76
42.60	Verticale	37.76	32.79	40	-7.21
42.77	Verticale	36.79	31.78	40	-8.22
42.97	Verticale	35.83	31.39	40	-8.61
43.18	Verticale	35.92	31.13	40	-8.87
43.41	Verticale	34.77	29.82	40	-10.18
43.53	Verticale	33.59	28.92	40	-11.08
43.62	Verticale	33.41	28.75	40	-11.25
43.79	Verticale	33.32	28.4	40	-11.6
44.08	Verticale	33.5	28.35	40	-11.65
44.21	Verticale	33.14	27.81	40	-12.19
44.30	Verticale	32.9	27.83	40	-12.17
44.50	Verticale	32.45	27.23	40	-12.77
44.93	Verticale	31.24	25.66	40	-14.34
45.05	Verticale	31.02	25.28	40	-14.72
45.13	Verticale	30.34	25.06	40	-14.94
45.30	Verticale	30.25	24.35	40	-15.65
45.69	Verticale	30.78	23.52	40	-16.48

TEST SETUP PHOTO(S) – RX MODE / POSITION 1


TEST SETUP PHOTO(S) – RX MODE – POSITION 2

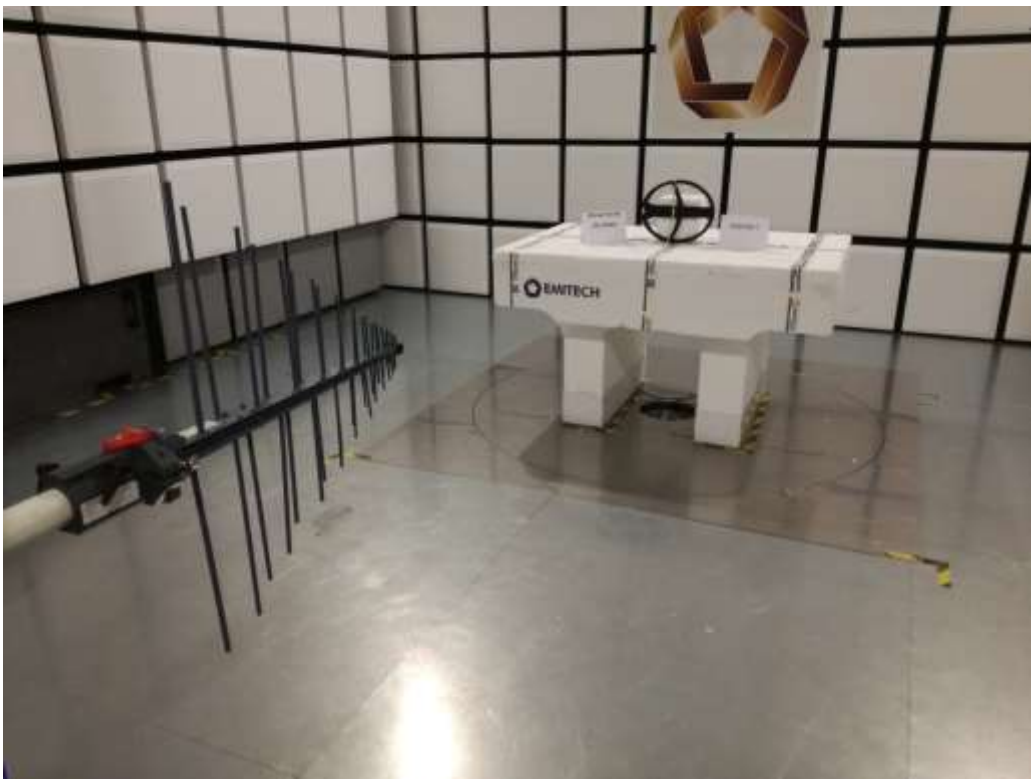

TEST SETUP PHOTO(S) – RX MODE – POSITION 3


TEST SETUP PHOTO(S) – CHARGING + RX MODE – POSITION 1


TEST SETUP PHOTO(S) - CHARGING + RX MODE – POSITION 2


TEST SETUP PHOTO(S) - CHARGING + RX MODE – POSITION 3

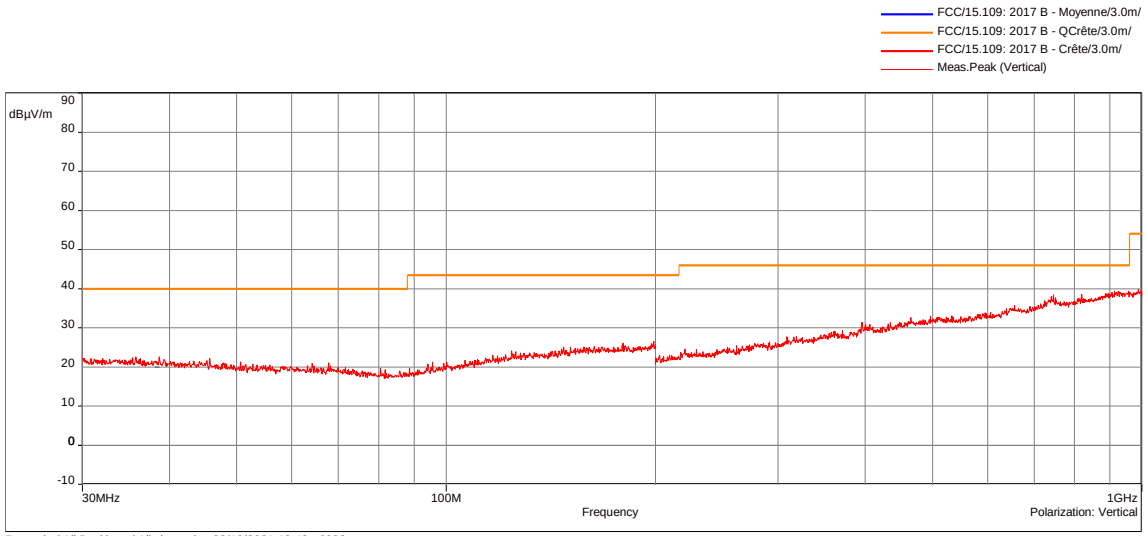

TEST SETUP PHOTO(S) – RX MODE – 30MHZ TO 200MHZ


TEST SETUP PHOTO(S) – RX MODE – 200MHZ TO 1GHZ


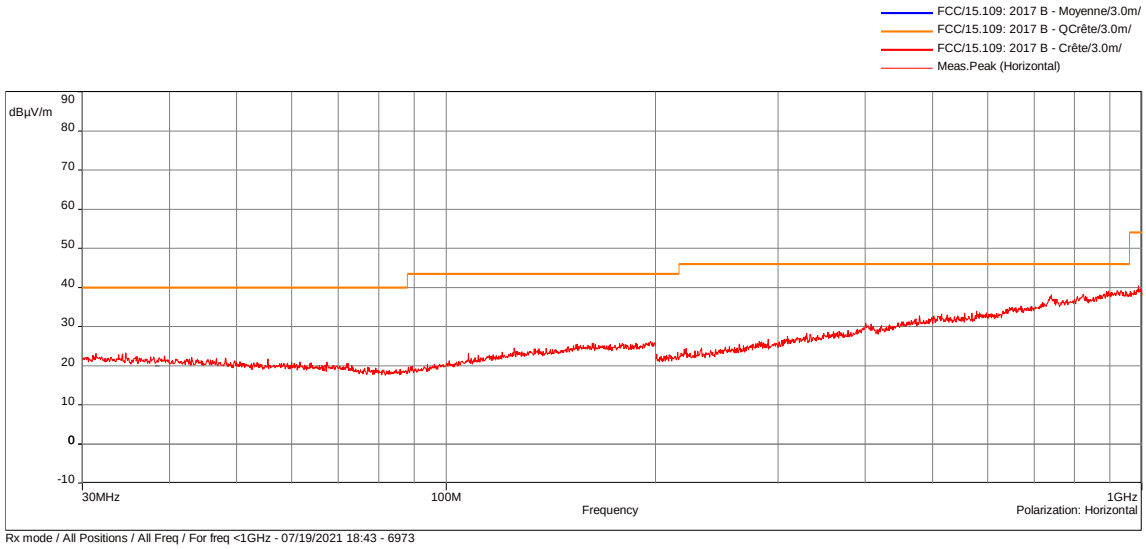
TEST SETUP PHOTO(S) – RX MODE – 1GHZ TO 18GHZ


TEST SETUP PHOTO(S) - RX MODE / 18GHZ TO 26.5GHZ


RADIATED SPURIOUS EMISSIONS (RECEIVER) - GRAPH			
RX MODE / ALL POSITIONS / ALL CHANNELS / FOR FREQ <1GHZ		EMI6982	
EUT mode:	Rx mode	**T (°C):**	21.2
Test Date:	18/03/2021	**H (%):**	23.2
Test Operator:	ATO & OAT	**P (hPa):**	1011



Rx mode / All Positions / All channels - 03/18/2021 13:42 - 6982

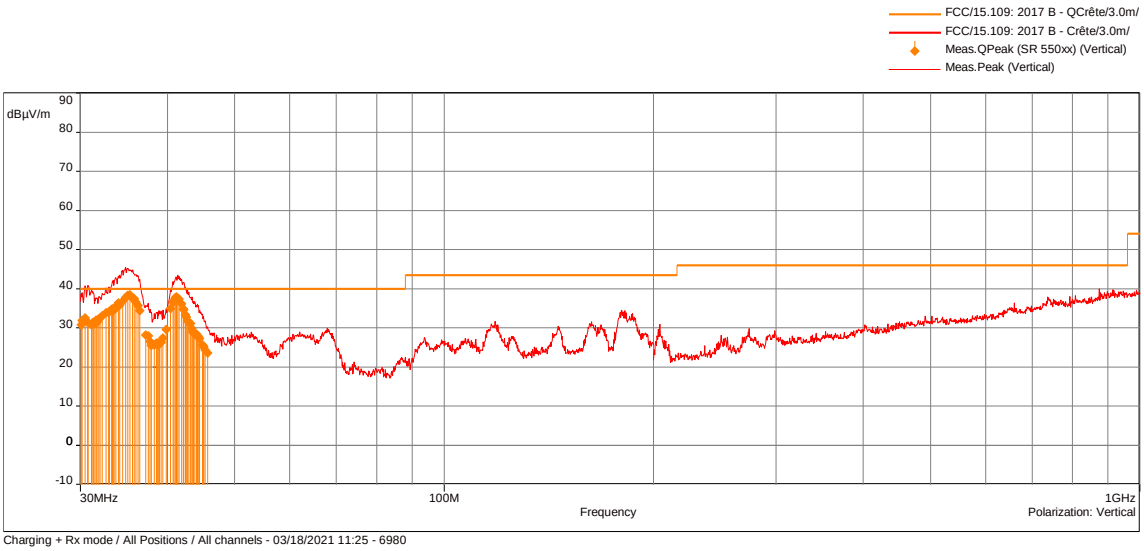


Rx mode / All Positions / All Freq / For freq <1GHz - 07/19/2021 18:43 - 6973

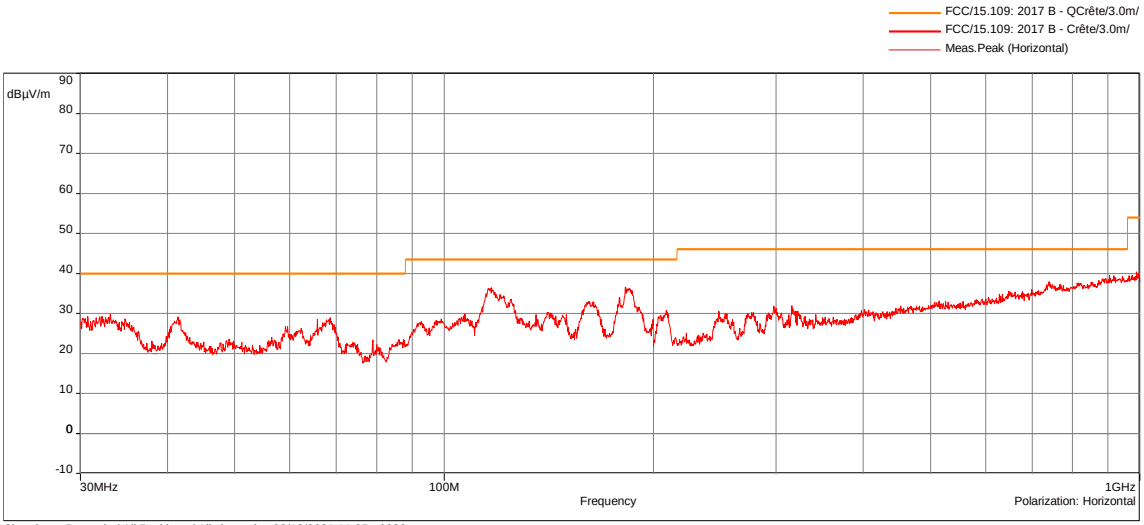
POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	30MHz-200MHz	100kHz	300kHz	Peak
Horizontal	30MHz-200MHz	100kHz	300kHz	Peak
Vertical	200MHz-1GHz	100kHz	300kHz	Peak
Horizontal	200MHz-1GHz	100kHz	300kHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

No spurious emissions were detected.

RADIATED SPURIOUS EMISSIONS (RECEIVER) - GRAPH			
CHARGING + RX MODE / ALL POSITIONS / ALL CHANNELS		EMI6980	
EUT mode:	Rx mode	**T (°C):**	21.2
Test Date:	18/03/2021	**H (%):**	23.2
Test Operator:	ATO & OAT	**P (hPa):**	1011



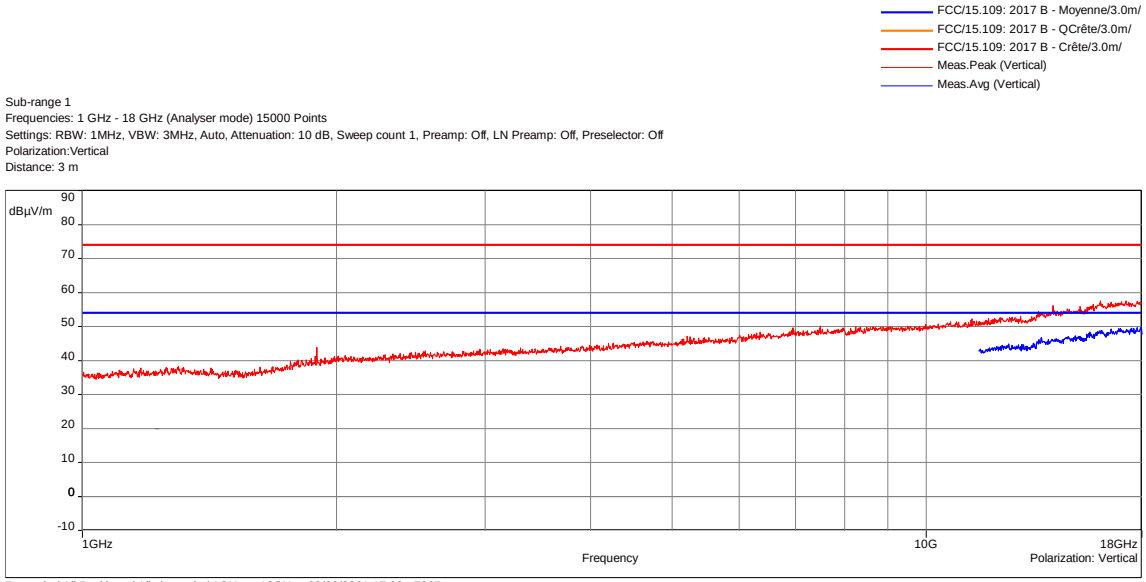
Charging + Rx mode / All Positions / All channels - 03/18/2021 11:25 - 6980



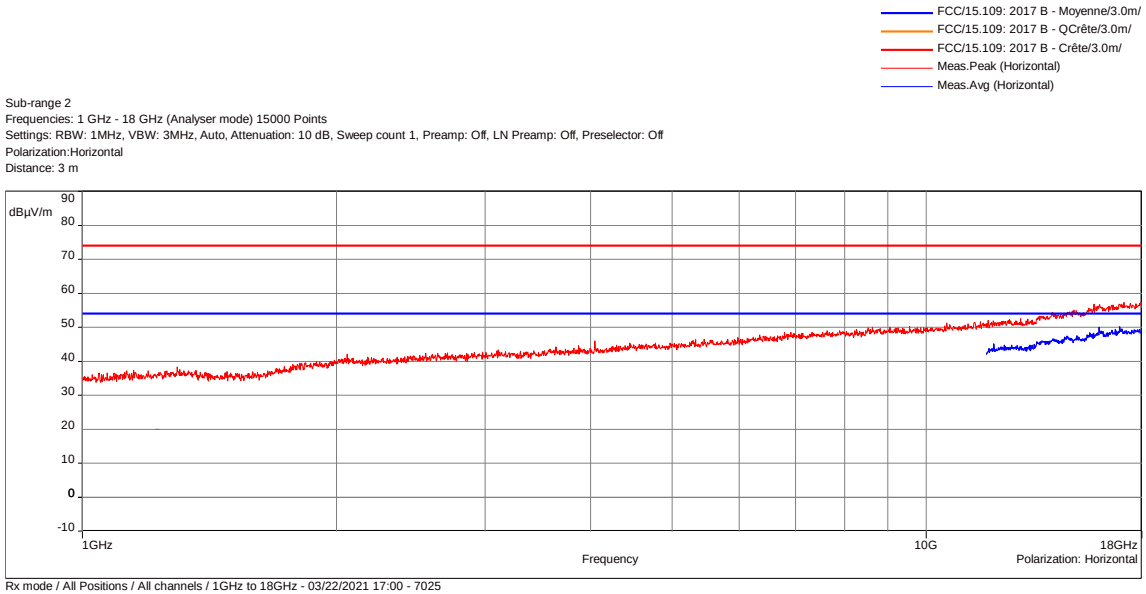
Charging + Rx mode / All Positions / All channels - 03/18/2021 11:25 - 6980

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	30MHz-200MHz	100kHz	300kHz	Peak
Horizontal	30MHz-200MHz	100kHz	300kHz	Peak
Vertical	200MHz-1GHz	100kHz	300kHz	Peak
Horizontal	200MHz-1GHz	100kHz	300kHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

RADIATED SPURIOUS EMISSIONS (RECEIVER) - GRAPH			
RX MODE / ALL POSITIONS / ALL CHANNELS / 1GHZ TO 18GHZ		EMI7025	
EUT mode:	Rx mode	**T (°C):**	24.2
Test Date:	22/03/2021	**H (%):**	20.0
Test Operator:	ATO & OAT	**P (hPa):**	1006



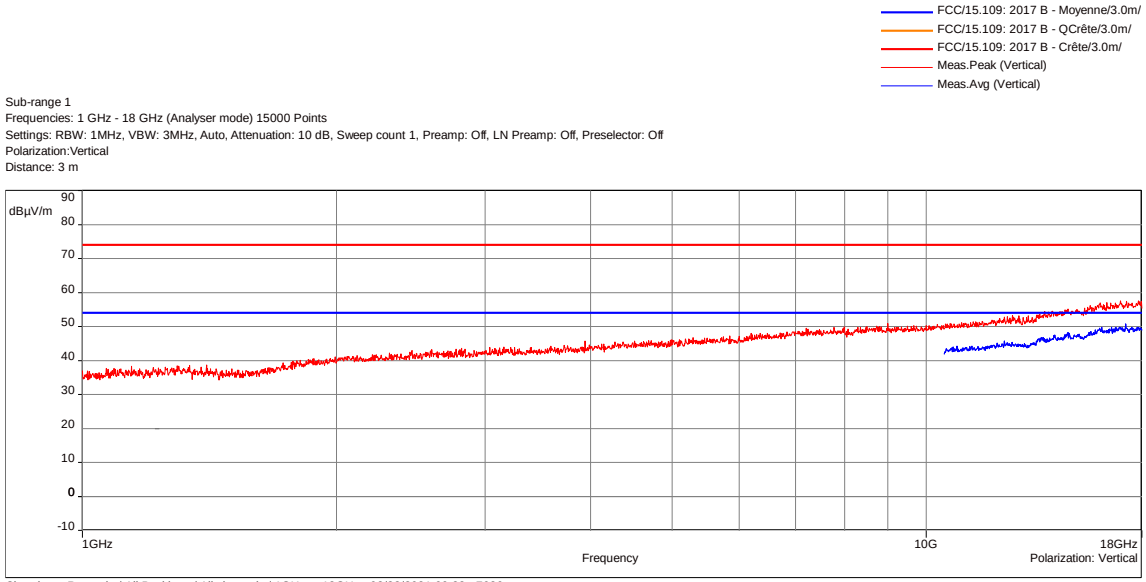
Rx mode / All Positions / All channels / 1GHz to 18GHz - 03/22/2021 17:00 - 7025



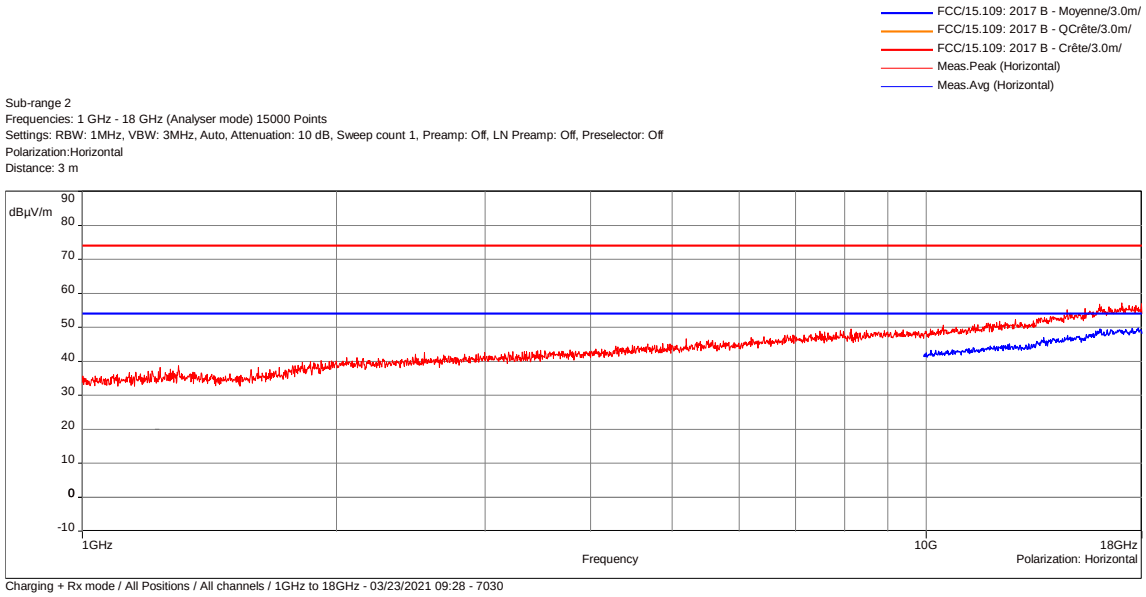
Rx mode / All Positions / All channels / 1GHz to 18GHz - 03/22/2021 17:00 - 7025

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	1GHz-18GHz	1MHz	3MHz	Peak
Horizontal	1GHz-18GHz	1MHz	3MHz	Peak
Vertical	10GHz-18GHz	1MHz	3MHz	Peak
Horizontal	10GHz-18GHz	1MHz	3MHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

RADIATED SPURIOUS EMISSIONS (RECEIVER) - GRAPH			
CHARGING + RX MODE / ALL POSITIONS / ALL CHANNELS / 1GHZ TO 18GHZ		EMI7030	
EUT mode:	Rx mode	**T (°C):**	20.0
Test Date:	23/03/2021	**H (%):**	23.5
Test Operator:	ATO & OAT	**P (hPa):**	1012



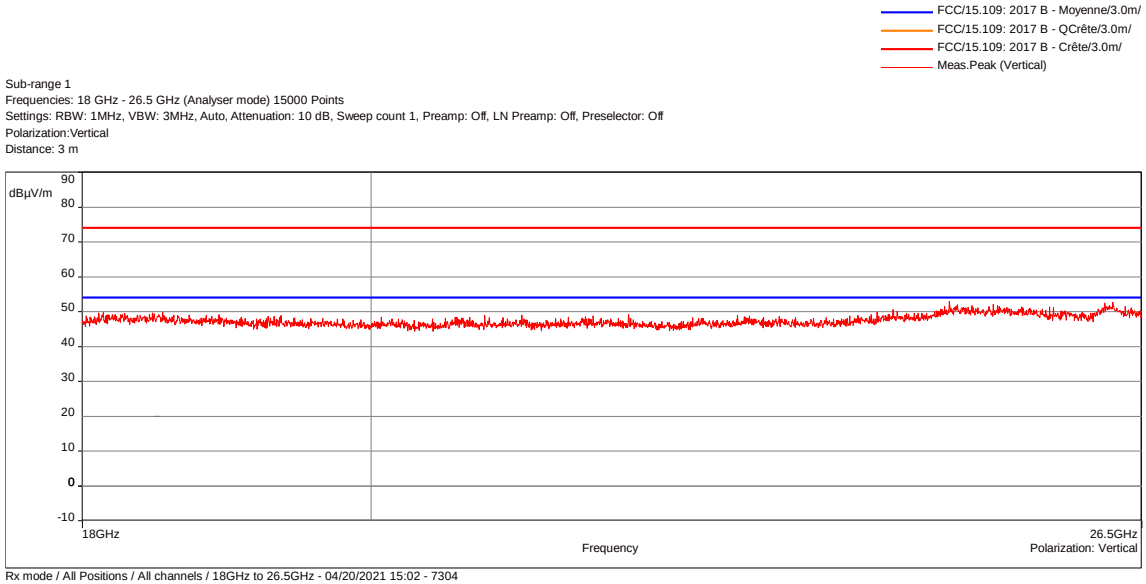
Charging + Rx mode / All Positions / All channels / 1GHz to 18GHz - 03/23/2021 09:28 - 7030

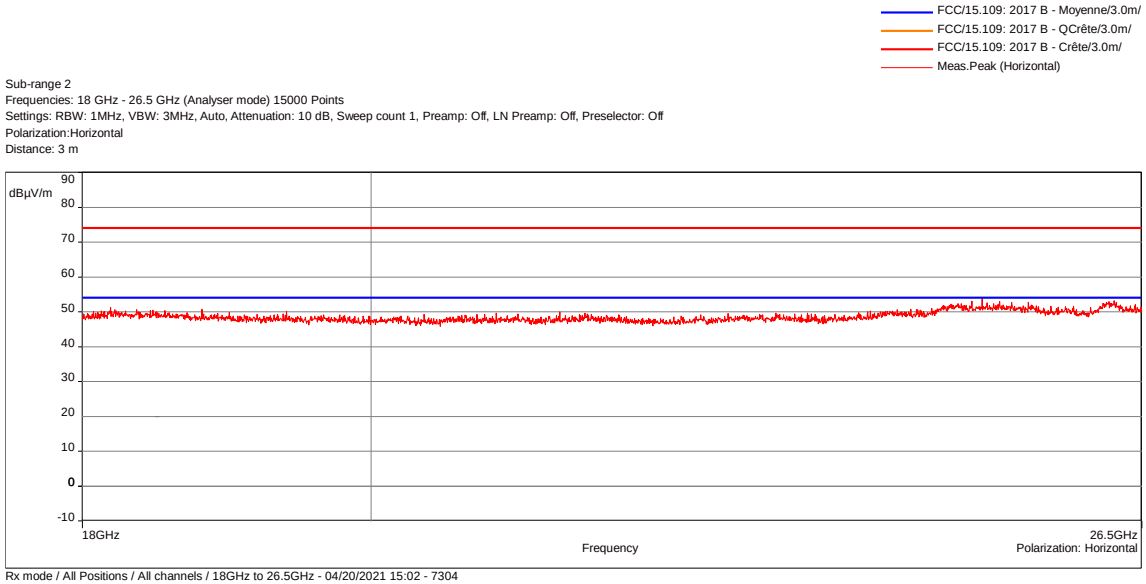


Charging + Rx mode / All Positions / All channels / 1GHz to 18GHz - 03/23/2021 09:28 - 7030

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	1GHz-18GHz	1MHz	3MHz	Peak
Horizontal	1GHz-18GHz	1MHz	3MHz	Peak
Vertical	10GHz-18GHz	1MHz	50kHz	Peak
Horizontal	10GHz-18GHz	1MHz	50kHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

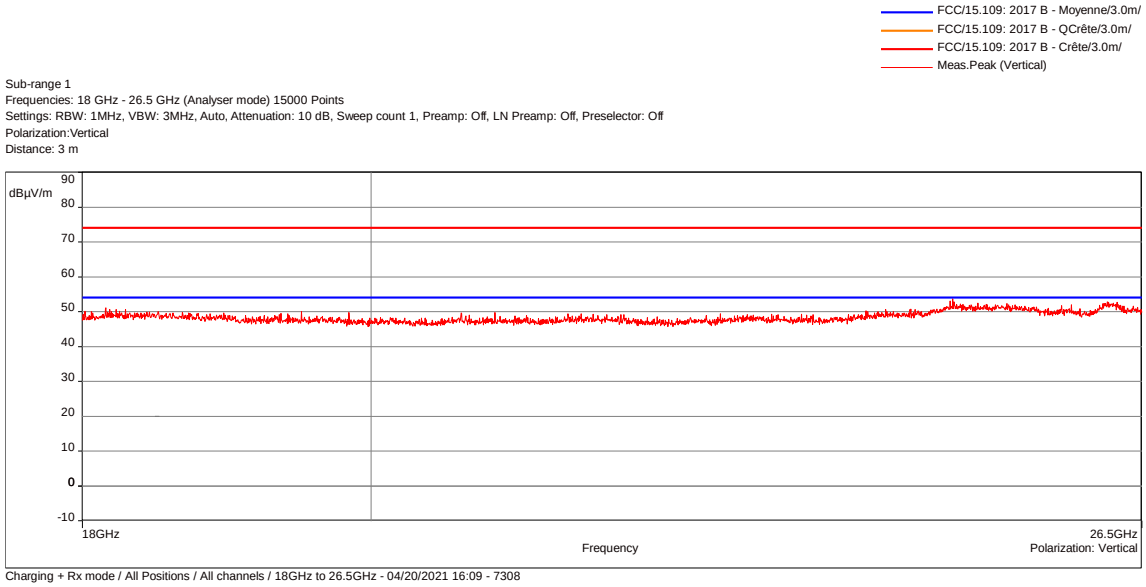
RADIATED SPURIOUS EMISSIONS (RECEIVER) - GRAPH			
RX MODE / ALL POSITIONS / ALL CHANNELS / 18GHZ TO 26.5GHZ		EMI7304	
EUT mode:	Rx mode	**T (°C):**	21.8
Test Date:	20/04/2021	**H (%):**	31.3
Test Operator:	ATO & OAT	**P (hPa):**	1012



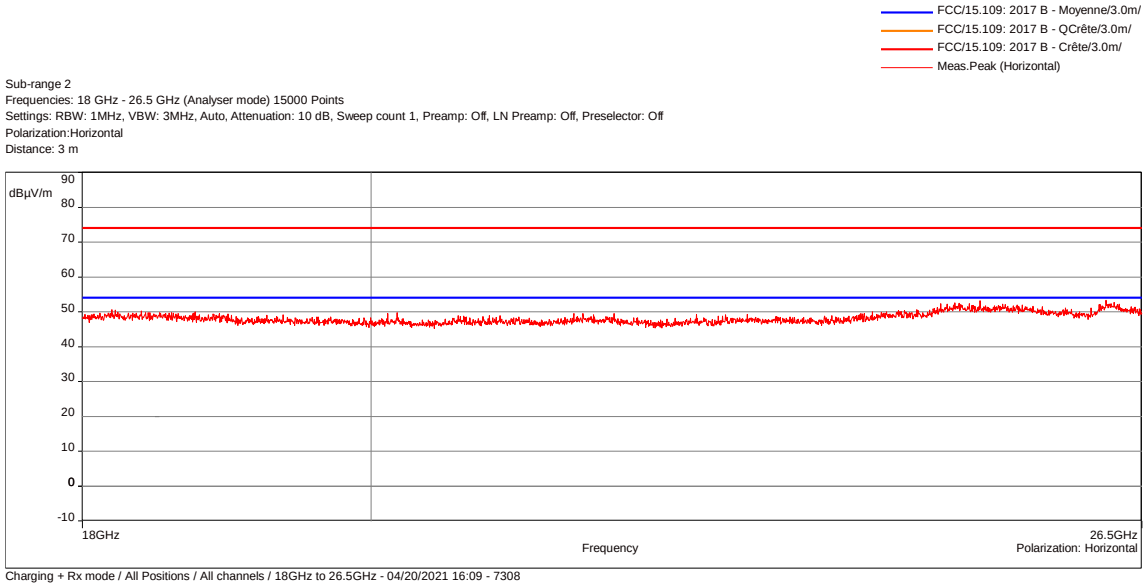


POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	18GHz-26.5GHz	1MHz	3MHz	Peak
Horizontal	18GHz-26.5GHz	1MHz	3MHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

RADIATED SPURIOUS EMISSIONS (RECEIVER) - GRAPH			
CHARGING + RX MODE / ALL POSITIONS / ALL CHANNELS / 18GHZ TO 26.5GHZ		EMI7308	
EUT mode:	Rx mode	**T (°C):**	21.8
Test Date:	20/04/2021	**H (%):**	31.3
Test Operator:	ATO & OAT	**P (hPa):**	1012



Charging + Rx mode / All Positions / All channels / 18GHz to 26.5GHz - 04/20/2021 16:09 - 7308



Charging + Rx mode / All Positions / All channels / 18GHz to 26.5GHz - 04/20/2021 16:09 - 7308

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	18GHz-26.5GHz	1MHz	3MHz	Peak
Horizontal	18GHz-26.5GHz	1MHz	3MHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

8.10. Frequency error

Reference standard:	FCC part 15 Radio part 15.215 and RSS Gen
Test method:	FCC part 15 Radio part 15.215 and RSS Gen
Test description: Frequency error is the difference between the measured unmodulated carrier frequency under extreme conditions and the nominal Centre Frequency as stated by the manufacturer. This measurement procedure only applies if the EUT can generate an unmodulated carrier. EUT is set inside the climatic enclosure. It is connected to the measuring receiver via 50Ω attenuator(s). RBW=200Hz	

TEST CASE	EUT MODE	SEVERITY	RESULT TAB.	VERDICT
Low channel / 25°C/ 3.7Vdc	Continuous Tx	0.001 %	EMI6803	**PASS**
Low channel / 25°C/ 4.2Vdc	Continuous Tx	0.001 %	EMI6804	**PASS**
Low channel / 25°C/ 3.45Vdc	Continuous Tx	0.001 %	EMI6805	**PASS**
Mid channel / 25°C/ 3.7Vdc	Continuous Tx	0.001 %	EMI6806	**PASS**
Mid channel / 25°C/ 4.2Vdc	Continuous Tx	0.001 %	EMI6807	**PASS**
Mid channel / 25°C/ 3.45Vdc	Continuous Tx	0.001 %	EMI6808	**PASS**
High channel / 25°C/ 3.7Vdc	Continuous Tx	0.001 %	EMI6809	**PASS**
High channel / 25°C/ 4.2Vdc	Continuous Tx	0.001 %	EMI6810	**PASS**
High channel / 25°C/ 3.45Vdc	Continuous Tx	0.001 %	EMI6811	**PASS**
Low channel / -5°C/ 3.7Vdc	Continuous Tx	0.001 %	EMI6860	**PASS**
Low channel / -5°C/ 4.2Vdc	Continuous Tx	0.001 %	EMI6861	**PASS**
Low channel / -5°C/ 3.45Vdc	Continuous Tx	0.001 %	EMI6862	**PASS**
Mid channel / -5°C/ 3.7Vdc	Continuous Tx	0.001 %	EMI6863	**PASS**
Mid channel / -5°C/ 4.2Vdc	Continuous Tx	0.001 %	EMI6864	**PASS**
Mid channel / -5°C/ 3.45Vdc	Continuous Tx	0.001 %	EMI6865	**PASS**
High channel / -5°C/ 3.7Vdc	Continuous Tx	0.001 %	EMI6866	**PASS**
High channel / -5°C/ 4.2Vdc	Continuous Tx	0.001 %	EMI6867	**PASS**
High channel / -5°C/ 3.45Vdc	Continuous Tx	0.001 %	EMI6868	**PASS**
Low channel / 40°C/ 3.7Vdc	Continuous Tx	0.001 %	EMI6941	**PASS**
Low channel / 40°C/ 4.2Vdc	Continuous Tx	0.001 %	EMI6942	**PASS**
Low channel / 40°C/ 3.45Vdc	Continuous Tx	0.001 %	EMI6943	**PASS**
Mid channel / 40°C/ 3.7Vdc	Continuous Tx	0.001 %	EMI6944	**PASS**
Mid channel / 40°C/ 4.2Vdc	Continuous Tx	0.001 %	EMI6945	**PASS**
Mid channel / 40°C/ 3.45Vdc	Continuous Tx	0.001 %	EMI6946	**PASS**
High channel / 40°C/ 3.7Vdc	Continuous Tx	0.001 %	EMI6947	**PASS**
High channel / 40°C/ 4.2Vdc	Continuous Tx	0.001 %	EMI6948	**PASS**
High channel / 40°C/ 3.45Vdc	Continuous Tx	0.001 %	EMI6949	**PASS**

LABORATORY PARAMETERS:	REQUIRED PRIOR TO THE TEST	DURING THE TEST
Ambient Temperature	15 to 35 °C	22.1 °C
Relative Humidity	20 to 75 %	47.3 %
Atmospheric pressure	N/A	999 hPa
Test method deviation: N/A		
Supplementary information: EUT power supply is replaced by a stabilized power supply.		

TEST EQUIPMENT USED					
CATEGORY	**BRAND**	**TYPE**	**IDENTIFIER**	**CAL. DATE**	**CAL. DUE**
Attenuator	Radiall	R412710124	17328	22/06/2020	22/08/2023
Attenuator	Radiall	R412710124	17329	22/06/2020	22/08/2023
Cable	N	3m	16417	04/05/2019	04/07/2021
Cable	Huber + Suhner	SF102K	16041	28/02/2019	28/04/2021
Cable	Radiall	SMA-0,5m	14890	17/06/2020	17/08/2022
Climatic enclosure	CLIMATS	EXCAL 7714-HA	14261	19/09/2019	19/11/2020
Multimeter	FLUKE	8808A	12446	29/09/2020	29/11/2021
Power supply	TTI	PL303QMD	8496		
Receiver	Rohde & Schwarz	FPL1003	16027	14/08/2020	14/10/2021
Thermo-Hygro-Baromètre	LUFFT	OPUS 20	14563	11/12/2019	11/02/2021
Thermohygrometer	Testo	608-H2	12268	07/05/2020	07/07/2022
Thermohygrometer	Bioblock Scientific	Météostar	0963	25/01/2019	25/03/2021
Wattmeter	Rohde & Schwarz	HMC 8015	17005	05/03/2020	05/05/2021

Blank cells = Permanent validity

TEST SETUP PHOTO(S) – FREQUENCY ERROR

FREQUENCY ERROR - TABULATED RESULTS				
TEST CASE	FREQUENCY	FREQUENCY ERROR	LIMIT	RESULT TAB.
Low channel / 25°C/ 3.7Vdc	2.403952478 GHz	0 %	0.001 %	EMI6803
Low channel / 25°C/ 4.2Vdc	2.403952539 GHz	0.0000025 %	0.001 %	EMI6804
Low channel / 25°C/ 3.45Vdc	2.403952478 GHz	0.0000000 %	0.001 %	EMI6805
Mid channel / 25°C/ 3.7Vdc	2.439952174 GHz	0 %	0.001 %	EMI6806
Mid channel / 25°C/ 4.2Vdc	2.439951920 GHz	0.0000104 %	0.001 %	EMI6807
Mid channel / 25°C/ 3.45Vdc	2.439951822 GHz	0.0000144 %	0.001 %	EMI6808
High channel / 25°C/ 3.7Vdc	2.475950968 GHz	0 %	0.001 %	EMI6809
High channel / 25°C/ 4.2Vdc	2.475951120 GHz	0.0000061 %	0.001 %	EMI6810
High channel / 25°C/ 3.45Vdc	2.475951205 GHz	0.0000096 %	0.001 %	EMI6811
Low channel / -5°C/ 3.7Vdc	2.403955990 GHz	0.0001461 %	0.001 %	EMI6860
Low channel / -5°C/ 4.2Vdc	2.403955959 GHz	0.0001448 %	0.001 %	EMI6861
Low channel / -5°C/ 3.45Vdc	2.403955975 GHz	0.0001455 %	0.001 %	EMI6862
Mid channel / -5°C/ 3.7Vdc	2.439955214 GHz	0.0001246 %	0.001 %	EMI6863
Mid channel / -5°C/ 4.2Vdc	2.439955161 GHz	0.0001224 %	0.001 %	EMI6864
Mid channel / -5°C/ 3.45Vdc	2.439955185 GHz	0.0001234 %	0.001 %	EMI6865
High channel / -5°C/ 3.7Vdc	2.475954297 GHz	0.0001345 %	0.001 %	EMI6866
High channel / -5°C/ 4.2Vdc	2.475954276 GHz	0.0001336 %	0.001 %	EMI6867
High channel / -5°C/ 3.45Vdc	2.475954309 GHz	0.0001349 %	0.001 %	EMI6868
Low channel / 40°C/ 3.7Vdc	2.403945600 GHz	0.0002861 %	0.001 %	EMI6941
Low channel / 40°C/ 4.2Vdc	2.403945607 GHz	0.0002858 %	0.001 %	EMI6942
Low channel / 40°C/ 3.45Vdc	2.403945577 GHz	0.0002871 %	0.001 %	EMI6943
Mid channel / 40°C/ 3.7Vdc	2.439944777 GHz	0.0003032 %	0.001 %	EMI6944
Mid channel / 40°C/ 4.2Vdc	2.439944779 GHz	0.0003031 %	0.001 %	EMI6945
Mid channel / 40°C/ 3.45Vdc	2.439944740 GHz	0.0003047 %	0.001 %	EMI6946
High channel / 40°C/ 3.7Vdc	2.475943954 GHz	0.0002833 %	0.001 %	EMI6947
High channel / 40°C/ 4.2Vdc	2.475943962 GHz	0.0002830 %	0.001 %	EMI6948
High channel / 40°C/ 3.45Vdc	2.475943905 GHz	0.0002853 %	0.001 %	EMI6949

End of test report