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

RADIO TEST REPORT

FCC part 15.247
RSS-247_Issue 2, February 2017
RSS-102, Issue 5, March 2015

Company .....:	**TE Connectivity sensors**
Address.....:	4 rue Gaye Marie 31027 Toulouse FRANCE

Test item description. .....:	**3 axes vibration sensor BLE**
Trade Mark. .....:	BLE Vibration sensor
Manufacturer.....:	TE Connectivity sensors
Model/Type reference.....:	8531
FCC ID.....:	2A7FN08531
IC. .....:	28633-08531
Ratings.....:	2.8Vdc-3.6Vdc

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

Report Reference No.....:	**RR-EVE-21A654-1A**
Test procedure. .....:	FCC IC Certification
Diffusion.....:	Bernard KAMEL
Applicant's name. .....:	TE Connectivity sensors
Date of issue.....:	August 3, 2022
Total number of pages.....:	69
Revision. .....:	0
Modified page(s).....:	Creation
Compiled by.....:	Nicolas SOULAY
Approved by (+ signature). .....:	David MONTAULON (Technical 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	August 3, 2022	/	Creation

1. GENERAL INFORMATIONS

This document submits the results of Radio tests performed on the equipment **3 axes vibration sensor BLE** (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 ..... :	Nicolas SOULAY
Test supervisor ..... :	Olivier AELBRECHT
Date of receipt of test item ..... :	N/A
Date (s) of performance of tests ..... :	Between may and june of 2021

APPLICANT'S GENERAL INFORMATIONS:	
Company name ..... :	TE Connectivity sensors
Company address. ..... :	4 rue Gaye Marie 31027 Toulouse FRANCE
Person(s) present during the tests. ..... :	No representative for company attended the tests.
Responsible. ..... :	Bernard KAMEL

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.	Equipement 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 part 15
Code of federal regulations. Title 47- Telecommunication Chapter 1- Federal Communication Commission. Part 15- Radio frequency devices Subpart B- Unintentional Radiators. Limits and methods of measurement of radio disturbance. Characteristic of information technology equipment.

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
General Requirements for Compliance of Radio Apparatus

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

KDB 447498 D04
Interim General RF Exposure Guidance v01

RSS-102, Issue 5, March 2015
Radio Frequency (RF) Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)

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

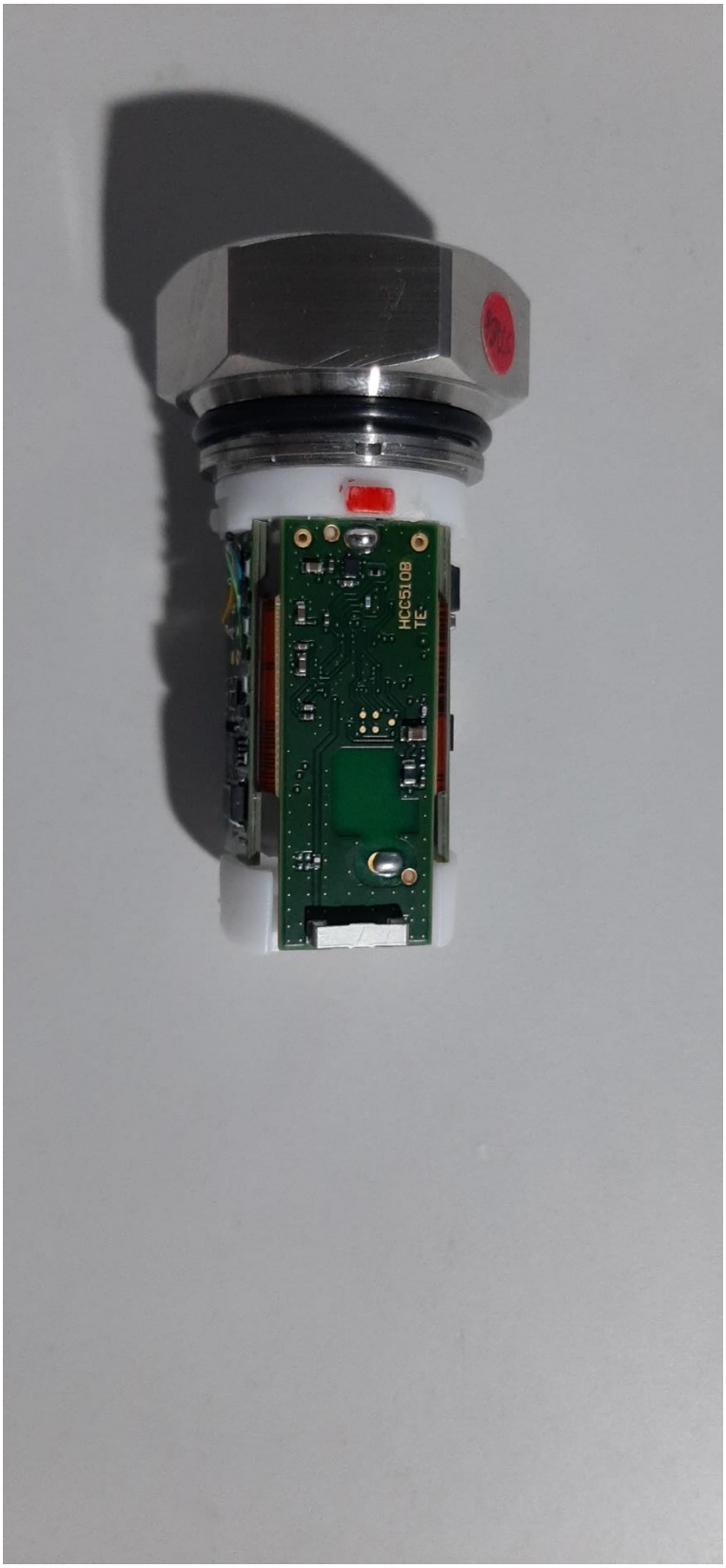
Test item description. ..... :	*3 axes vibration sensor BLE*
Model/Type reference..... :	*8531*
FCC ID..... :	*2A7FN08531*
IC. ..... :	*28633-08531*
Trade Mark. ..... :	*BLE Vibration sensor*
Serial number (S/N)..... :	*Not communicated*
Part number (P/N). ..... :	*Not communicated*
Software version..... :	*1.2.1*
Firmware version. ..... :	*1.2.1*
Type of sample..... :	*Prototype*
Function(s)..... :	*3 axes vibration sensor with BLE*
Manufacturer name. ..... :	*TE Connectivity sensors*
Address. ..... :	*4 rue Gaye Marie* *31027 Toulouse* *FRANCE*

General product information:

N/A

3.2. EUT General view

3.3. EUT Electronic board



3.3. EUT Electronic board

3.3. EUT Electronic board

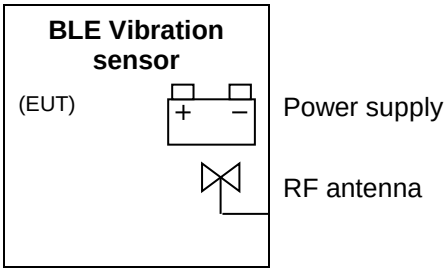
3.4. EUT Mechanical and Electrical Design

Power supply. ..... : *3.6Vdc*
Power supply range. ..... : *2.8Vdc-3.6Vdc*
Power type. ..... : *Battery powered*
Power (W). ..... : *N/C*
Nominal current (A). ..... : *N/C*
Dimensions (L x W x H) (m). ..... : *81 mm x 31.8 mm*
Weight (kg). ..... : *N/C*
Temperature range (°C). ..... : *-40°C to +80°C*
Ground bounding strap. ..... : *No*

Comments:

N/A

3.5. EUT Input/Output ports



PORT	NAME	TYPE	LENGHT	CABLE TYPE	COMMENTS
0	Main frame	N/E	N/A	Plastic	
1	Power supply	DC		2P	3.6V
2	RF antenna	RF	N/A	N/A	

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
Raspberry pi	Raspberry pi	N/C	Receive the EUT sensor data and display it on a screen

RASPBERRY PI (EA)


3.7. EUT Radio Specifications

a) GENERAL INFORMATIONS
According to manufacturer's declarations : EUT type..... : *Transmitter* Technology..... : *Bluetooth BLE* Environmental profile..... : *Data transmission* Temperature range..... : *-40°C to +80°C* Antenna type ..... : *Integral* Antenna Gain..... : *2.4 dBi* **Comments:**
b) TRANSMITTER PARAMETERS (TX)
Frequency bands..... : *2400MHz-2483.5MHz* RF Power..... : *N/C* Number of channels / Separation..... : *36* Modulation type ..... : *GFSK* Duty cycle ..... : *N/C* Tested frequency..... : *2402MHz, 2426MHz, 2480MHz*
c) RECEIVER PARAMETERS (RX)
Frequency bands..... : *2400MHz-2483.5MHz* Category/Class ..... : *Category 3* Bandwidth..... : *N/C*

4. 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			**15.101**
- Verification		N/A	
- Declaration of Conformity		N/A	
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 A**	**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**
SUBPART C –INTENTIONAL RADIATORS			

TEST DESIGNATION	SEVERITY	VERDICT	BASIC STANDARDS / COMMENTS
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 for tests done 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 into account of uncertainty associated with the results with the exception of emission tests based on CISPR standards.

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

5. RF EXPOSURE

Maximum EIRP with antenna = 0.03mW (eirp) at 2480.2MHz

In accordance with KDB 447498 D04 Interim General RF Exposure Guidance v01 §2.1.2:
EIRP is lower than 1mW. Then no RF exposure evaluation is necessary.

In accordance with RSS-102, Issue 5, Section 2.5.1., as EIRP is lower than 2 mW between 2 450 and 3 500 MHz, routine evaluation exemption of RF exposure for ISED can be considered.

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
Transitoire		
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 %

PARAMETER	MAXIMAL EMITECH UNCERTAINTY	MINIMAL STANDARD UNCERTAINTY
Time / Duty cycle	± 4.4 %	± 5 %
Adaptivity	± 2.9 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. TEST CONDITIONS AND RESULTS

7.1. 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 Measured with a proximity antenna. The measurements are carried out relative to the EIRP measurment. Tests are done in max-hold mode in order to capture all channels.	

TESTED PARAMETER	SEVERITY	VERDICT
6dB Bandwidth Low channel 2.8Vdc	>500kHz	**PASS**
6dB Bandwidth Low channel 3.6Vdc	>500kHz	**PASS**
6dB Bandwidth Mid channel 2.8Vdc	>500kHz	**PASS**
6dB Bandwidth Mid channel 3.6Vdc	>500kHz	**PASS**
6dB Bandwidth High channel 2.8Vdc	>500kHz	**PASS**
6dB Bandwidth High channel 3.6Vdc	>500kHz	**PASS**

LABORATORY PARAMETERS:	REQUIRED PRIOR TO THE TEST	DURING THE TEST
Ambient Temperature	15 to 35 °C	20.9 °C
Relative Humidity	20 to 75 %	36.8 %
Atmospheric pressure	N/A	1016 hPa
Test method deviation: N/A		
Supplementary information: N/A		

TEST EQUIPMENT USED					
CATEGORY	BRAND	TYPE	IDENTIFIER	CAL. DATE	CAL. DUE
Attenuator	Techniwave	TWSMA-10dB-18G-SMA	14672	28/12/2019	28/02/2023
Cable	MegaPhase	TM8S1S179	16653	30/10/2019	30/12/2021
Climatic enclosure	CLIMATS	EXCAL 7714-HA	14261	19/09/2019	19/11/2021
Multimeter	Keithley	2010	6094	30/05/2019	30/07/2021
Power supply	TTI	PL303QMD	8496		
Spectrum analyzer	Agilent Technologies	E4440A	5824	22/10/2020	22/12/2022
Thermohygrometer	Testo	608-H2	12268	07/05/2020	07/07/2022

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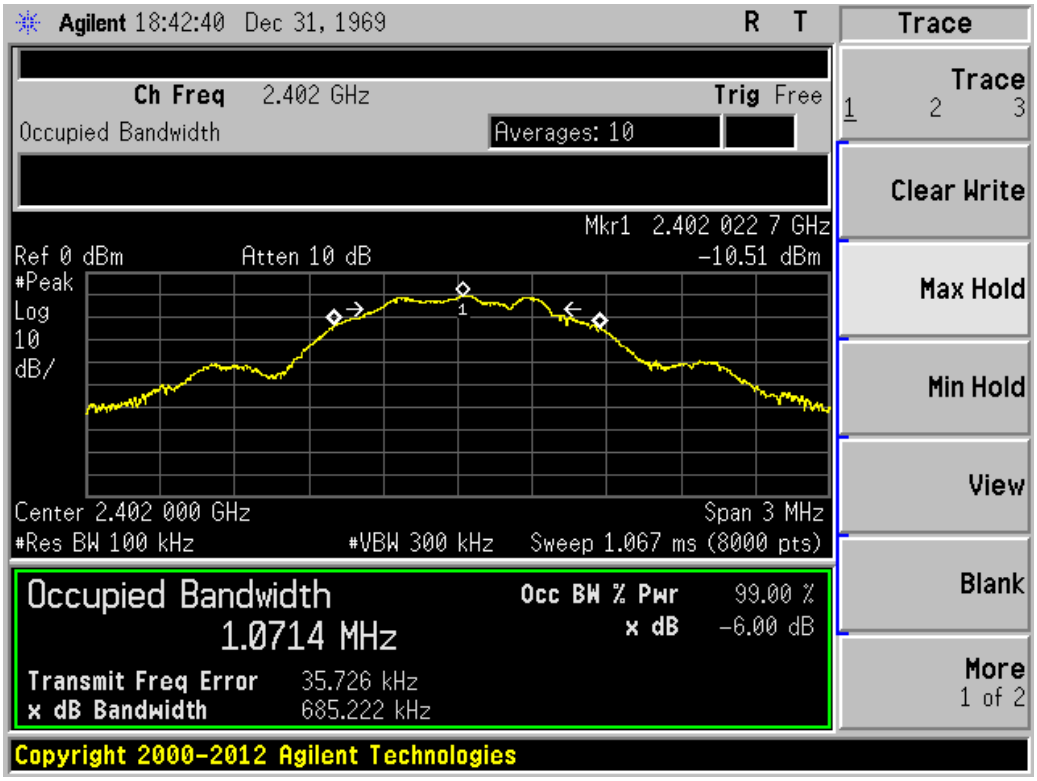
TEST SETUP PHOTO(S)

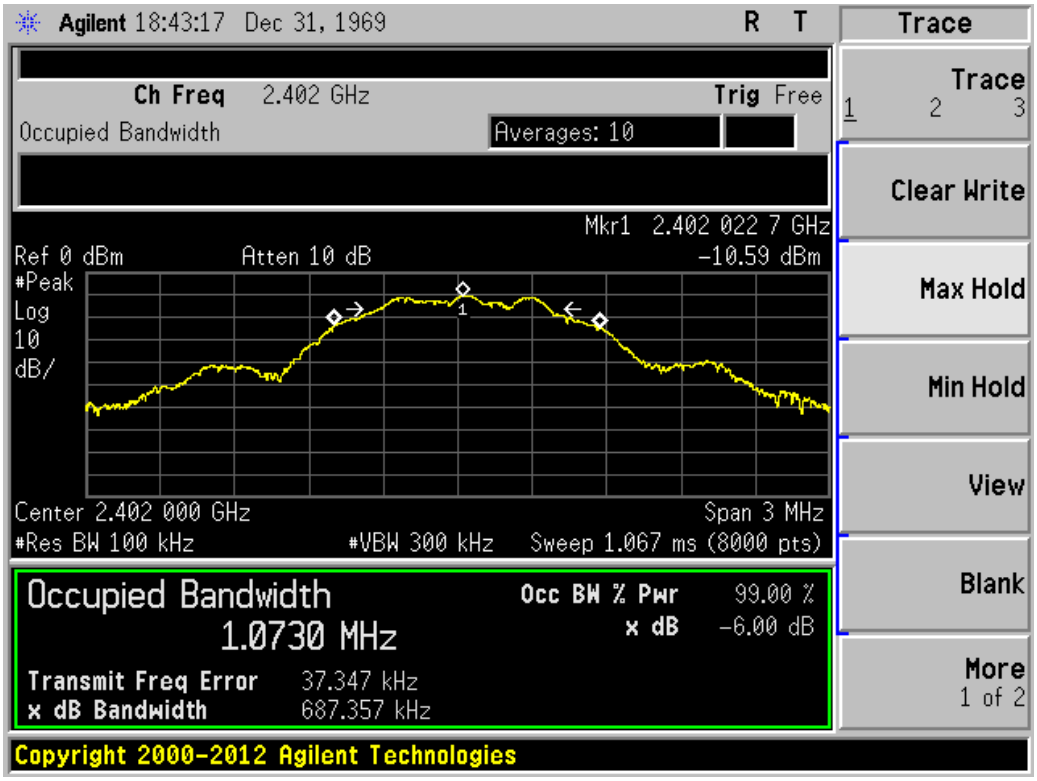

6DB BANDWITH - GRAPH	
LOW CHANNEL 2.8VDC	
EUT mode:	#1
Test Date:	19/05/2021
Test Operator:	NSO



EUT modification(s): N/A

6DB BANDWITH - TABULATED RESULTS			
LOW CHANNEL 2.8VDC			
Frequency	**RBW**	**6dB Bandwidth**	**Limit**
2402MHz	100kHz	685.222kHz	> 500kHz

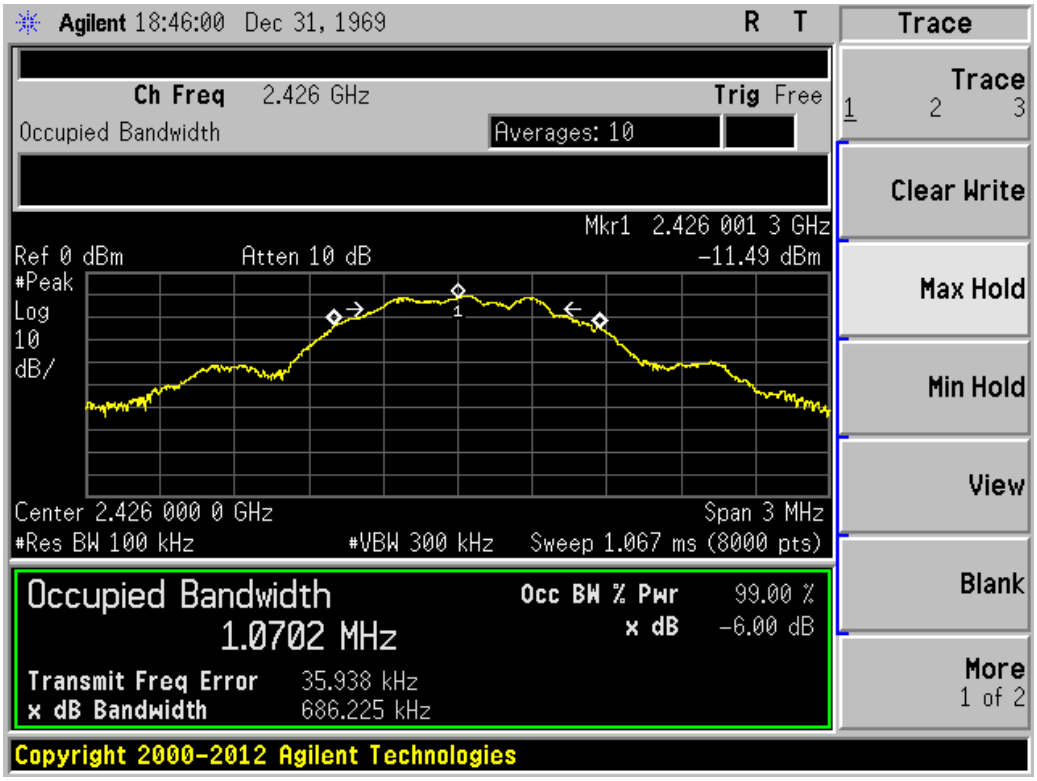
6dB Bandwith - Graph	
Low channel 3.6Vdc	
EUT mode:	#1
Test Date:	19/05/2021
Test Operator:	NSO



Configuration:	N/A
Comments:	N/A
EUT modification(s): N/A	

6dB Bandwith - Tabulated Results			
Low channel 3.6Vdc			
Frequency	**RBW**	**6dB Bandwidth**	**Limit**
2402MHz	100kHz	687.357kHz	> 500kHz

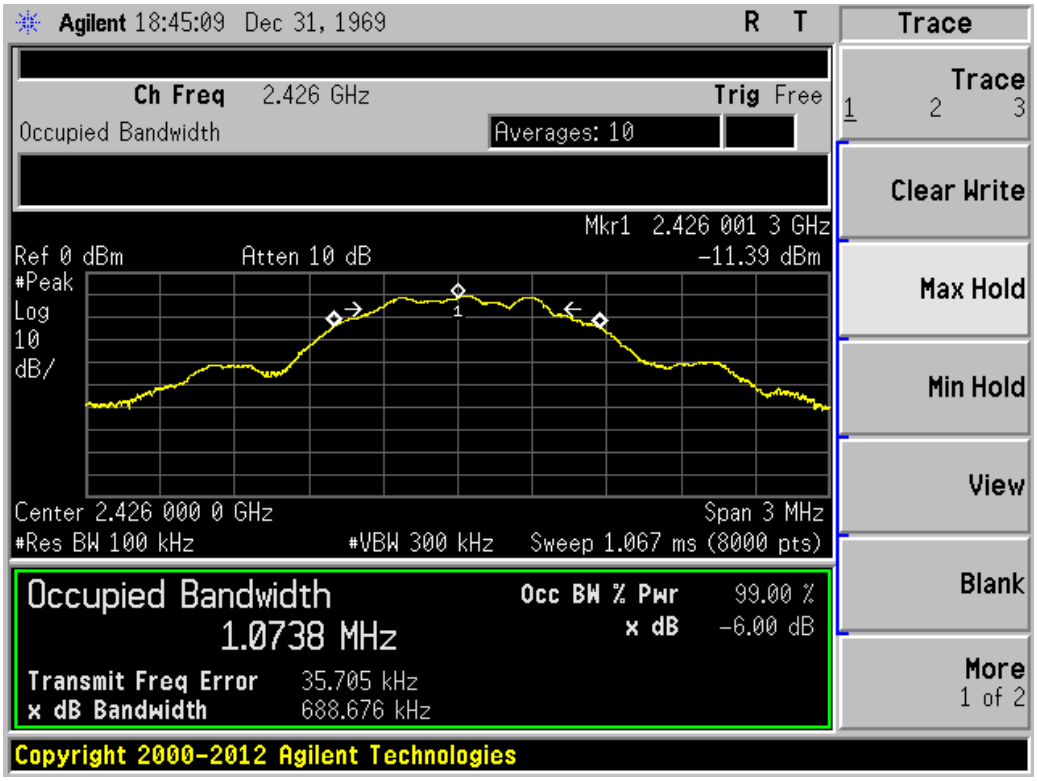
6dB Bandwith - Graph	
Mid channel 2.8Vdc	
EUT mode:	#1
Test Date:	19/05/2021
Test Operator:	NSO



Configuration:	N/A
Comments:	N/A
EUT modification(s): N/A	

6dB Bandwith - Tabulated Results			
Mid channel 2.8Vdc			
Frequency	**RBW**	**6dB Bandwidth**	**Limit**
2426MHz	100kHz	686.225kHz	> 500kHz

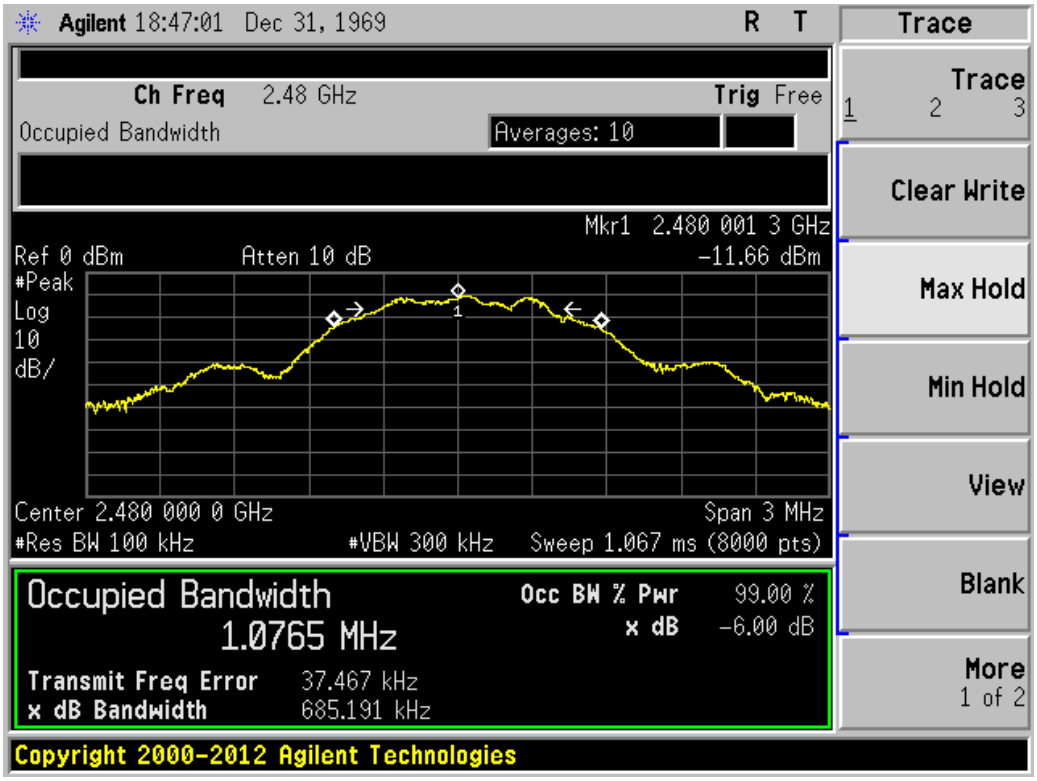
6dB Bandwith - Graph	
Mid channel 3.6Vdc	
EUT mode:	#1
Test Date:	19/05/2021
Test Operator:	NSO



Configuration:	N/A
Comments:	N/A
EUT modification(s): N/A	

6dB Bandwith - Tabulated Results			
Mid channel 3.6Vdc			
Frequency	**RBW**	**6dB Bandwidth**	**Limit**
2426MHz	100kHz	688.676kHz	> 500kHz

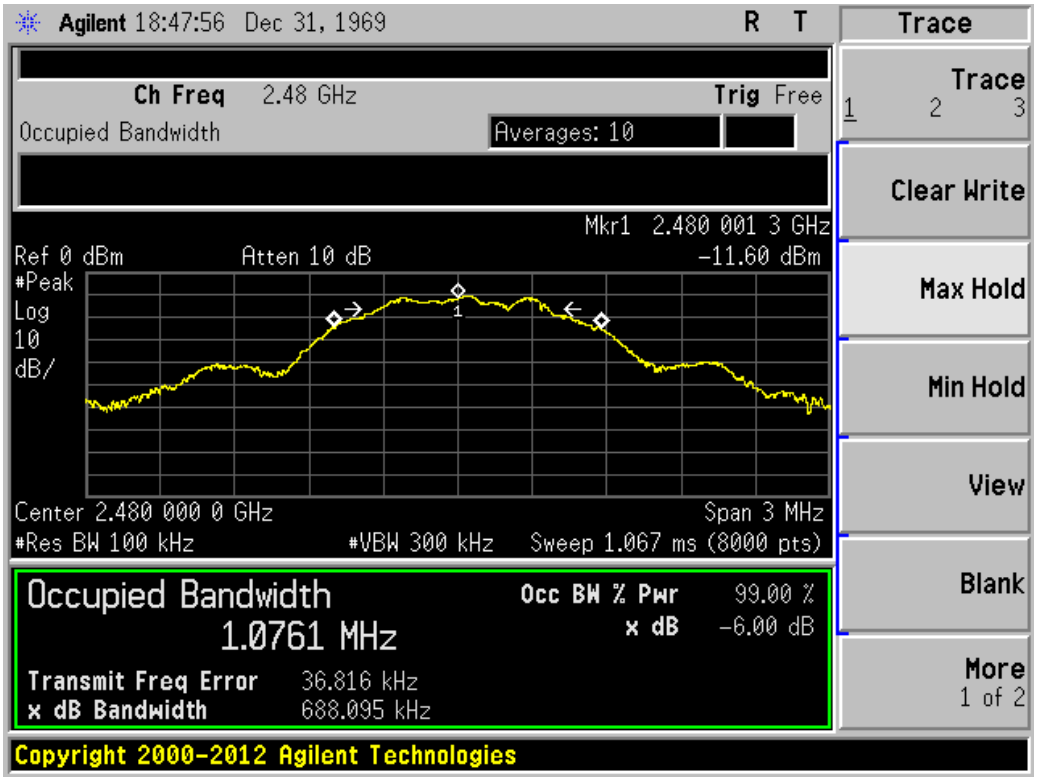
6dB Bandwith - Graph	
High channel 2.8Vdc	
EUT mode:	#1
Test Date:	19/05/2021
Test Operator:	NSO



Configuration:	N/A
Comments:	N/A
EUT modification(s): N/A	

6dB Bandwith - Tabulated Results			
High channel 2.8Vdc			
Frequency	**RBW**	**6dB Bandwidth**	**Limit**
2480MHz	100kHz	685.191kHz	> 500kHz

6dB Bandwith - Graph	
High channel 3.6Vdc	
EUT mode:	#1
Test Date:	19/05/2021
Test Operator:	NSO



Configuration:	N/A
Comments:	N/A
EUT modification(s): N/A	

6dB Bandwith - Tabulated Results			
High channel 3.6Vdc			
Frequency	**RBW**	**6dB Bandwidth**	**Limit**
2480MHz	100kHz	688.095kHz	> 500kHz

7.2. 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. EUT is Measured with a proximity antenna. The measurements are carried out relative to the EIRP measurment. .	

TESTED CHANNEL	SEVERITY	RESULT TAB.	VERDICT
Low channel / 25°C /3.6Vdc	>500kHz	EMI5074	**PASS**
Low channel / 25°C /2.8Vdc	>500kHz	EMI5075	**PASS**
Mid channel / 25°C /3.6Vdc	>500kHz	EMI5076	**PASS**
Mid channel / 25°C /2.8Vdc	>500kHz	EMI5077	**PASS**
High channel / 25°C /3.6Vdc	>500kHz	EMI5078	**PASS**
High channel / 25°C /2.8Vdc	>500kHz	EMI5079	**PASS**

LABORATORY PARAMETERS:	REQUIRED PRIOR TO THE TEST	DURING THE TEST
Ambient Temperature	15 to 35 °C	20.9 °C
Relative Humidity	20 to 75 %	36.8 %
Atmospheric pressure	N/A	1016 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	Techniwave	TWSMA-10dB-18G-SMA	14672	28/12/2019	28/02/2023
Cable	MegaPhase	TM8S1S179	16653	30/10/2019	30/12/2021
Climatic enclosure	CLIMATS	EXCAL 7714-HA	14261	19/09/2019	19/11/2021
Multimeter	Keithley	2010	6094	30/05/2019	30/07/2021
Power supply	TTI	PL303QMD	8496		
Spectrum analyzer	Agilent Technologies	E4440A	5824	22/10/2020	22/12/2022
Thermohygrometer	Testo	608-H2	12268	07/05/2020	07/07/2022

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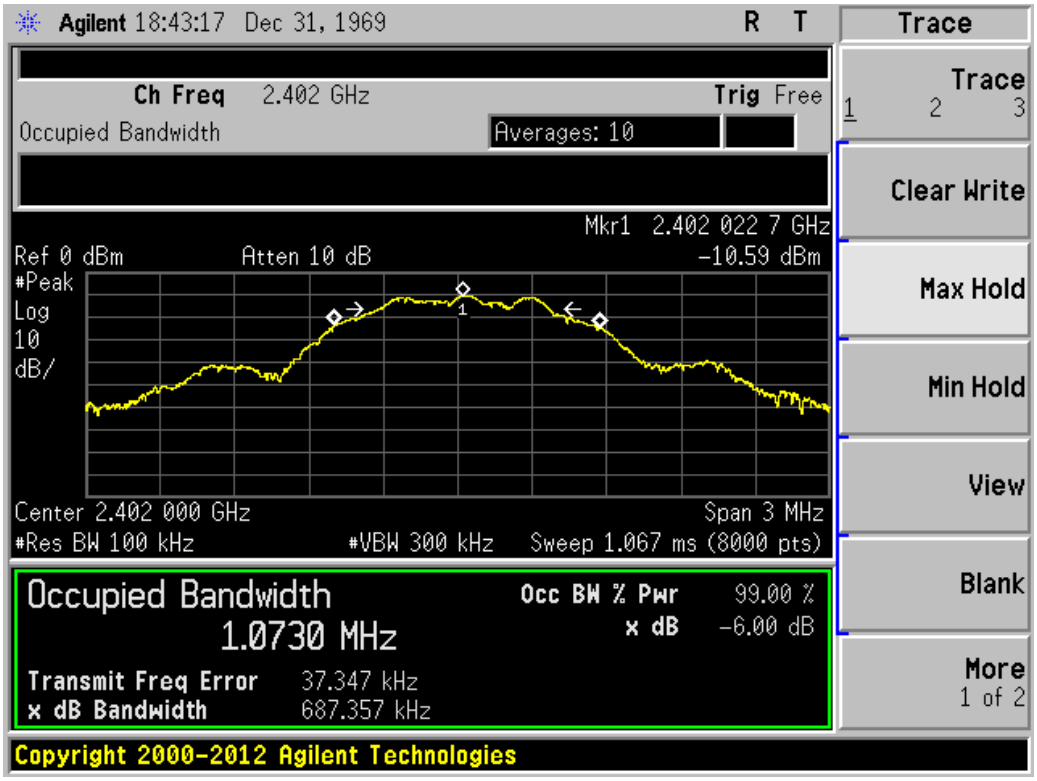
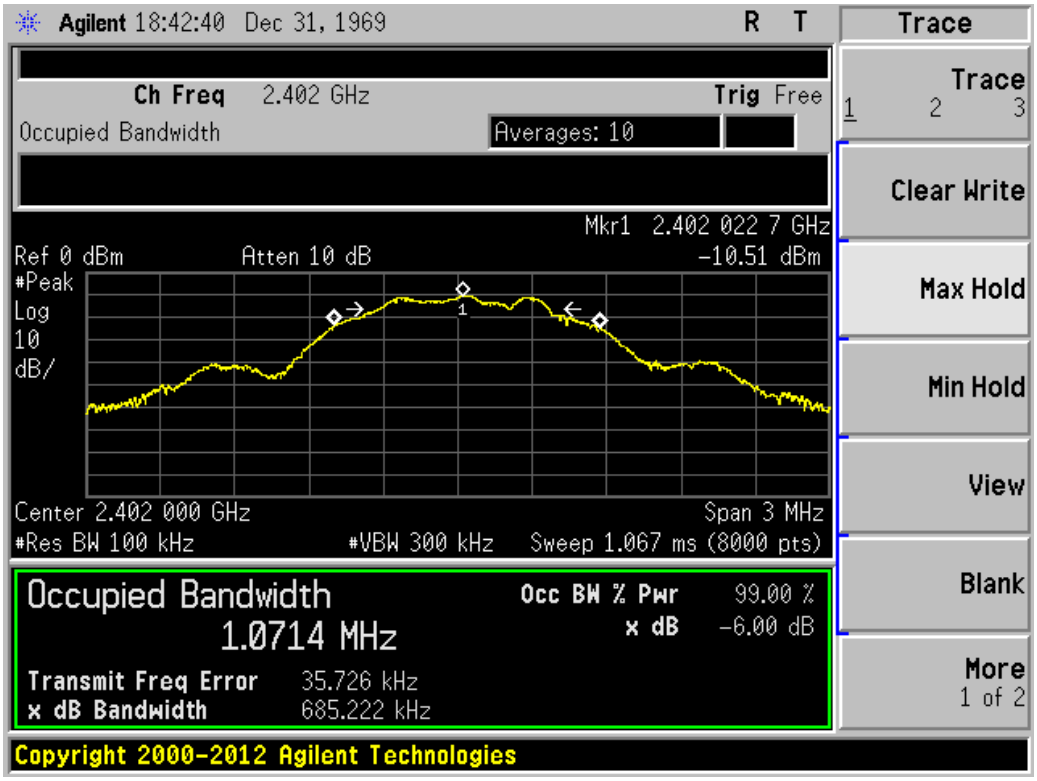
OCCUPIED BANDWIDTH - GRAPH		
LOW CHANNEL / 25°C /3.6VDC		EMI5074
EUT mode:	Continuous Tx	
Test Date:	19/05/2021 12:57:03	
Test Operator:	NSO	



EUT modification(s): N/A

OCCUPIED BANDWIDTH - TABULATED RESULTS			
LOW CHANNEL / 25°C /3.6VDC			EMI5074
U_{Start} (start of the test):	3.6Vdc	**U_{End} (end of the test):**	3.6Vdc
Voltage drop:	0%	**Limit:**	+/- 5%
Frequency	**RBW**	**OBW 99%**	**Limit**
2402MHz	100kHz	1.073MHz	> 500kHz

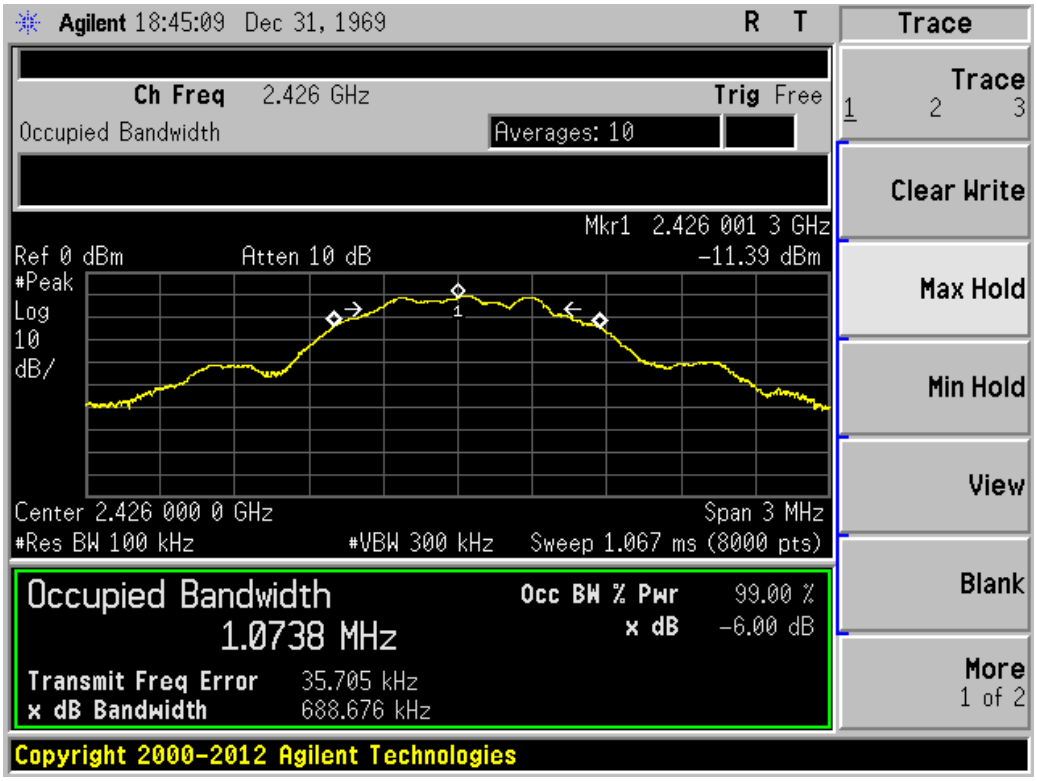
OCCUPIED BANDWIDTH - GRAPH		
LOW CHANNEL / 25°C /2.8VDC		EMI5075
EUT mode:	Continuous Tx	
Test Date:	19/05/2021 12:57:13	
Test Operator:	NSO	



EUT modification(s): N/A

OCCUPIED BANDWIDTH - TABULATED RESULTS			
LOW CHANNEL / 25°C /2.8VDC			EMI5075
U_{Start} (start of the test):	2.8Vdc	**U_{End} (end of the test):**	2.8Vdc
Voltage drop:	0%	**Limit:**	+/- 5%
Frequency	**RBW**	**OBW 99%**	**Limit**
2402MHz	100KHz	1.0714MHz	> 500kHz

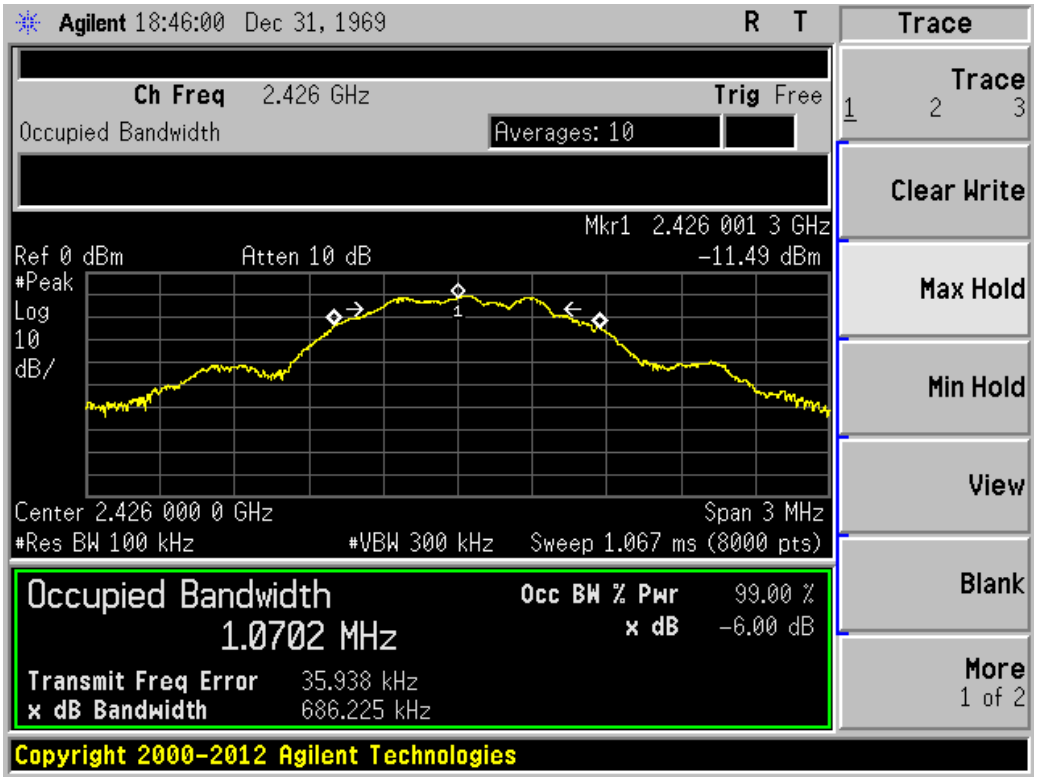
OCCUPIED BANDWIDTH - GRAPH		
MID CHANNEL / 25°C /3.6VDC		EMI5076
EUT mode:	Continuous Tx	
Test Date:	19/05/2021 12:57:53	
Test Operator:	NSO	



EUT modification(s): N/A

OCCUPIED BANDWIDTH - TABULATED RESULTS			
MID CHANNEL / 25°C /3.6VDC			EMI5076
U_{Start} (start of the test):	3.6Vdc	**U_{End} (end of the test):**	3.6Vdc
Voltage drop:	0%	**Limit:**	+/- 5%
Frequency	**RBW**	**OBW 99%**	**Limit**
2426MHz	100kHz	1.0738MHz	> 500kHz

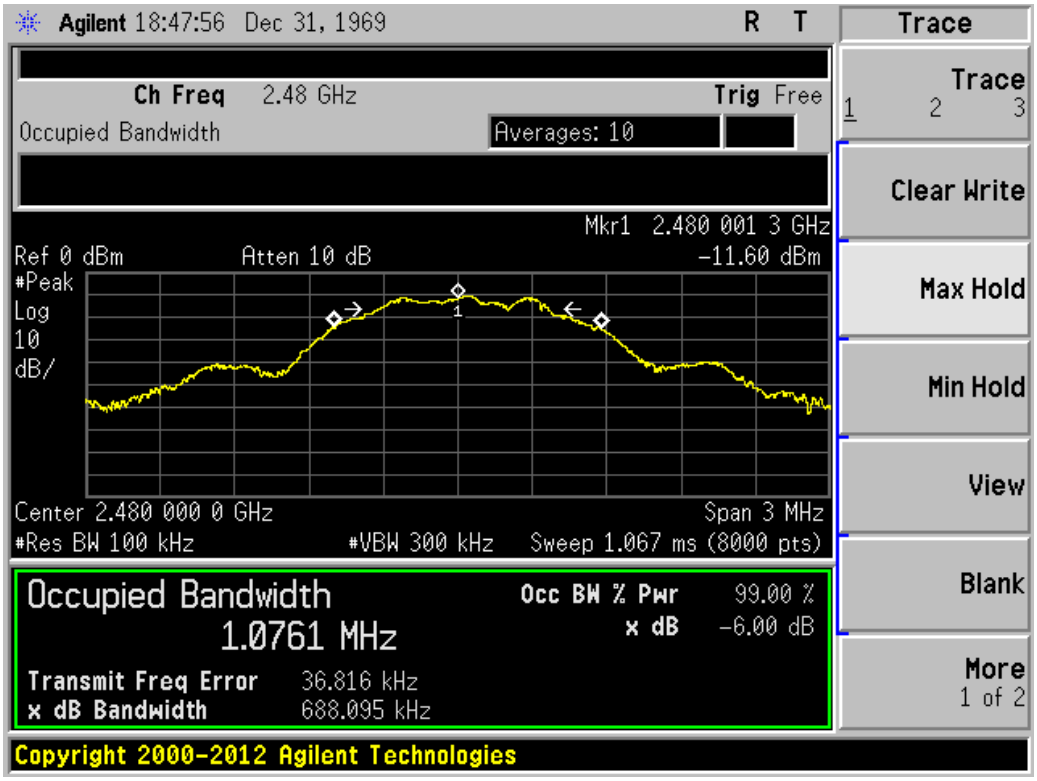
OCCUPIED BANDWIDTH - GRAPH		
MID CHANNEL / 25°C /2.8VDC		EMI5077
EUT mode:	Continuous Tx	
Test Date:	19/05/2021 12:57:59	
Test Operator:	NSO	



EUT modification(s): N/A

OCCUPIED BANDWIDTH - TABULATED RESULTS			
MID CHANNEL / 25°C /2.8VDC			EMI5077
U_{Start} (start of the test):	2.8Vdc	**U_{End} (end of the test):**	2.8Vdc
Voltage drop:	0%	**Limit:**	+/- 5%
Frequency	**RBW**	**OBW 99%**	**Limit**
2426MHz	100kHz	1.0702MHz	> 500kHz

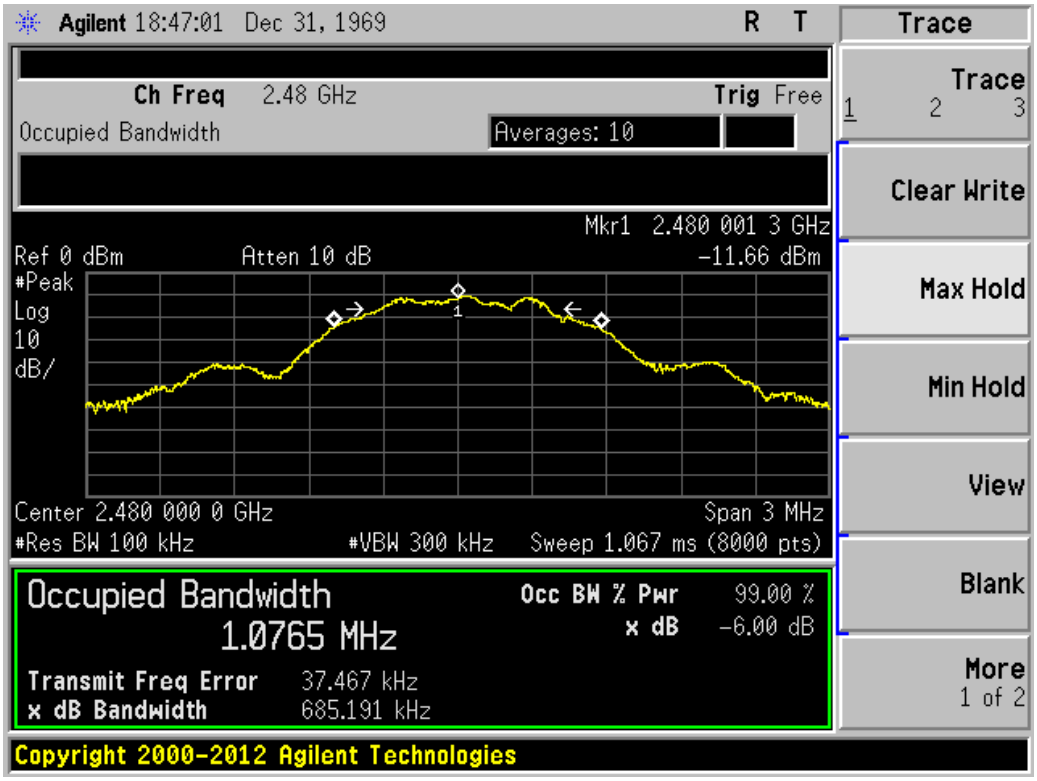
OCCUPIED BANDWIDTH - GRAPH		
HIGH CHANNEL / 25°C /3.6VDC		EMI5078
EUT mode:	Continuous Tx	
Test Date:	19/05/2021 12:58:06	
Test Operator:	NSO	



EUT modification(s): N/A

OCCUPIED BANDWIDTH - TABULATED RESULTS			
HIGH CHANNEL / 25°C /3.6VDC			EMI5078
U_{Start} (start of the test):	3.6Vdc	**U_{End} (end of the test):**	3.6Vdc
Voltage drop:	0%	**Limit:**	+/- 5%
Frequency	**RBW**	**OBW 99%**	**Limit**
2480MHz	100kHz	1.0761MHz	> 500kHz

OCCUPIED BANDWIDTH - GRAPH		
HIGH CHANNEL / 25°C /2.8VDC		EMI5079
EUT mode:	Continuous Tx	
Test Date:	19/05/2021 12:58:12	
Test Operator:	NSO	



EUT modification(s): N/A

OCCUPIED BANDWIDTH - TABULATED RESULTS			
HIGH CHANNEL / 25°C /2.8VDC			EMI5079
U_{Start} (start of the test):	2.8Vdc	**U_{End} (end of the test):**	2.8Vdc
Voltage drop:	0%	**Limit:**	+/- 5%
Frequency	**RBW**	**OBW 99%**	**Limit**
2480MHz	100kHz	1.0765 MHz	> 500kHz

7.3. Maximum peak radiated power of the intentional radiator

Reference standard:	FCC part 15 Radio part 15.247 and RSS-247
Test method:	FCC part 15.247 and RSS-247
General test setup: 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 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
EIRP pos 1	2.395GHz-2.485GHz	1 Watt	EMI5277	**PASS**
EIRP pos 2	2.395GHz-2.485GHz	1 Watt	EMI5278	**PASS**
EIRP pos 3	2.395GHz-2.485GHz	1 Watt	EMI5279	**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	8387	24/07/2019	24/09/2022
Attenuator	EMITECH	SUB.V1-H	14780	04/05/2020	04/07/2021
Attenuator	EMITECH	SUB.V1-V	14781	04/05/2020	04/07/2021
Cable	SUCOFLEX	N-3m	14378	25/06/2019	25/08/2021
Cable	SUCOFLEX	N-5,5m	14381	25/06/2019	25/08/2021
Cable	Huber + Suhner	SF102K	16042	24/03/2021	24/05/2023
Receiver	Rohde & Schwarz	FSW43	14830	29/07/2020	29/09/2021
Shielded enclosure	RAY PROOF	C.V1	1123	16/06/2018	16/08/2021
Software	Nexio	BAT EMC	0000		
Thermohygrometer	Testo	608-H1	7561	26/01/2019	26/09/2021
Thermohygrometer	Bioblock Scientific	Météostar	0963	26/01/2019	26/09/2021

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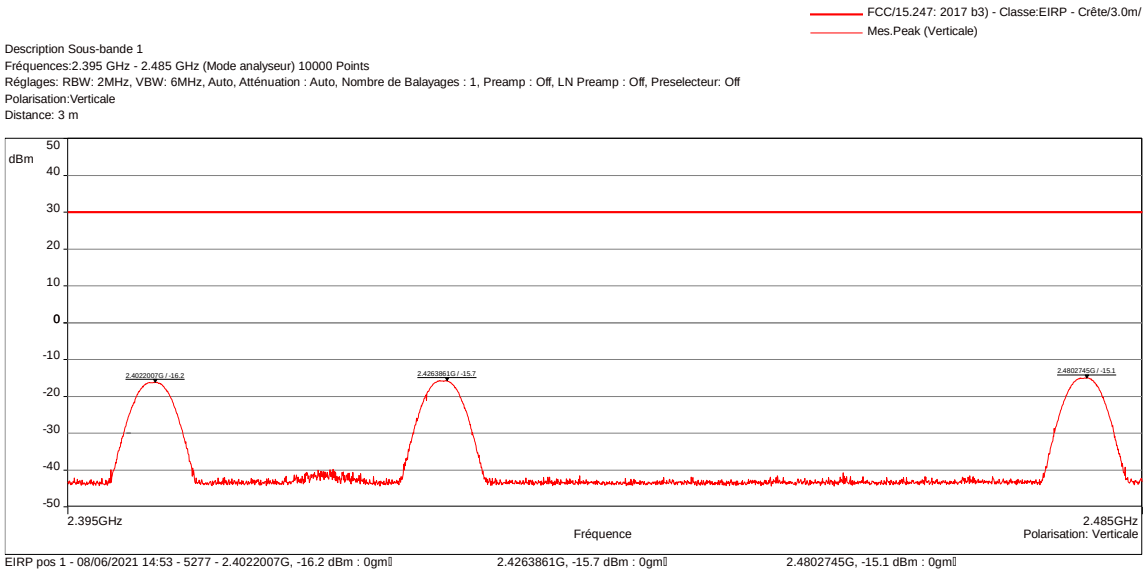
TEST SETUP PHOTO(S) – POSITION 1

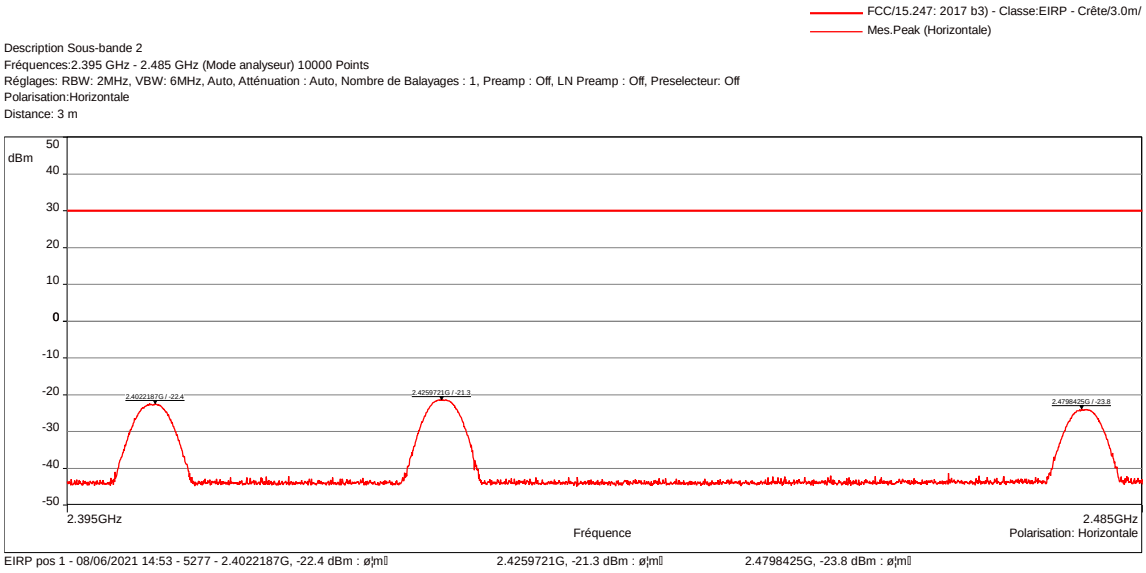
TEST SETUP PHOTO(S) – POSITION 2

TEST SETUP PHOTO(S) – POSITION 3

TEST SETUP PHOTO(S) – SETUP


EFFECTIVE ISOTROPIC RADIATED POWER - GRAPH			
EIRP POS 1		**EMI5277**	
EUT mode:	Continuous Tx Modulated	**T (°C):**	20.7
Test Date:	14/05/2021 16:25:55	**H (%):**	42.5
Test Operator:	NSO	**P (hPa):**	1011



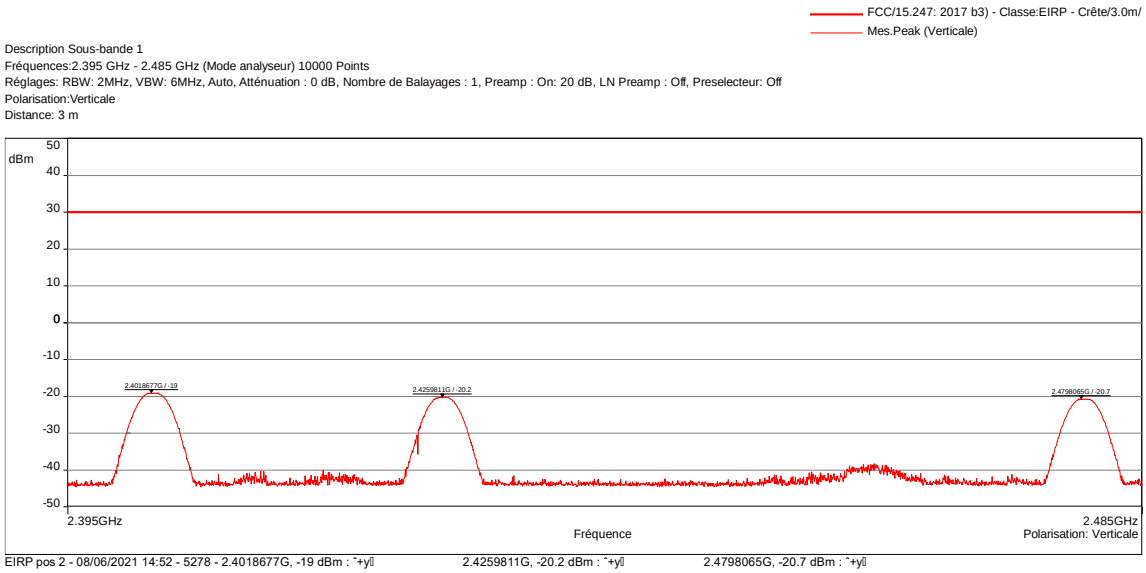


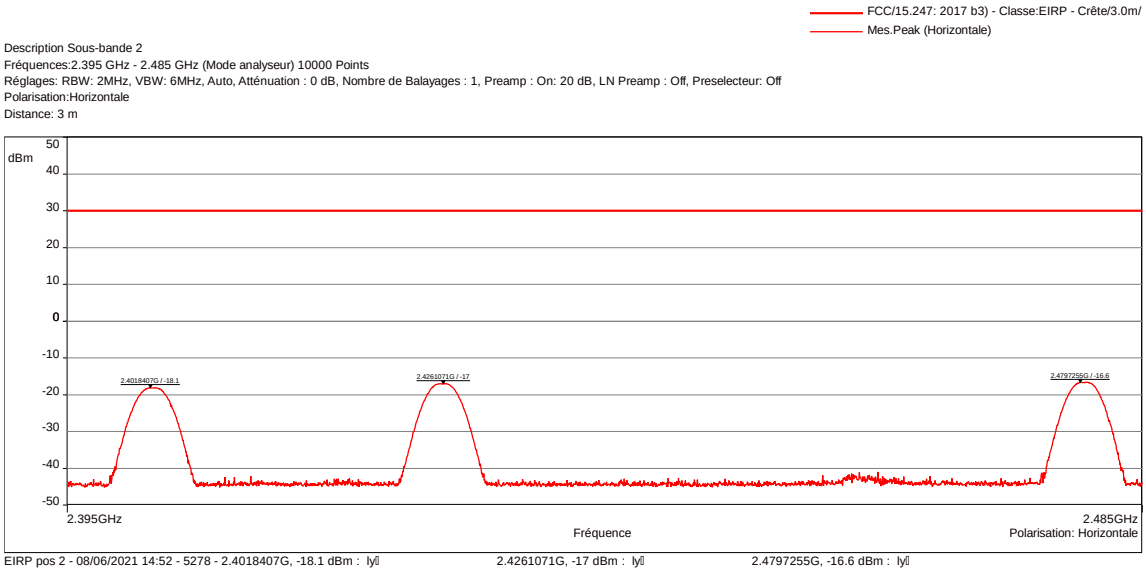
POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	2.395GHz-2.485GHz	2MHz	6MHz	Peak
Horizontal	2.395GHz-2.485GHz	2MHz	6MHz	Peak

Configuration:	N/A
Comments:	N/A
EUT modification(s): N/A	

	EFFECTIVE ISOTROPIC RADIATED POWER - TABULATED RESULTS			
U_{Start} (start of the test):	3.6Vdc	**U_{End} (end of the test):**		3.6Vdc
Voltage drop:	0%	**Limit:**		+/- 5%
EIRP POS 1				**EMI5277**
Frequency (MHz)	**Polarization**	**Radiated level (dBm)**	**Conducted level (dBm)**	**Limit (dBm)**
2402.20	Vertical	-16.2	-18.6	20
2426.38	Vertical	-15.7	-18.1	20
2480.27	Vertical	-15.1	-17.5	20
2402.21	Horizontal	-22.4	-24.8	20
2459.72	Horizontal	-21.3	-23.7	20
2479.84	Horizontal	-23.8	-26.2	20

EFFECTIVE ISOTROPIC RADIATED POWER - GRAPH			
EIRP POS 2		**EMI5278**	
EUT mode:	Continuous Tx Modulated	**T (°C):**	20.7
Test Date:	14/05/2021 16:28:05	**H (%):**	42.5
Test Operator:	NSO	**P (hPa):**	1011





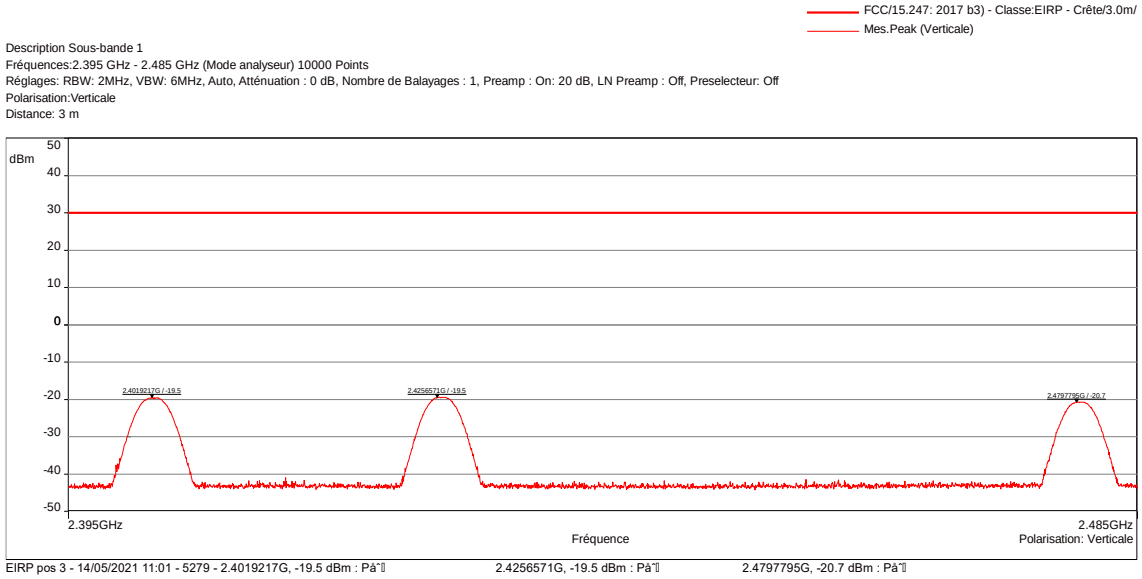
POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	2.395GHz-2.485GHz	2MHz	6MHz	Peak
Horizontal	2.395GHz-2.485GHz	2MHz	6MHz	Peak

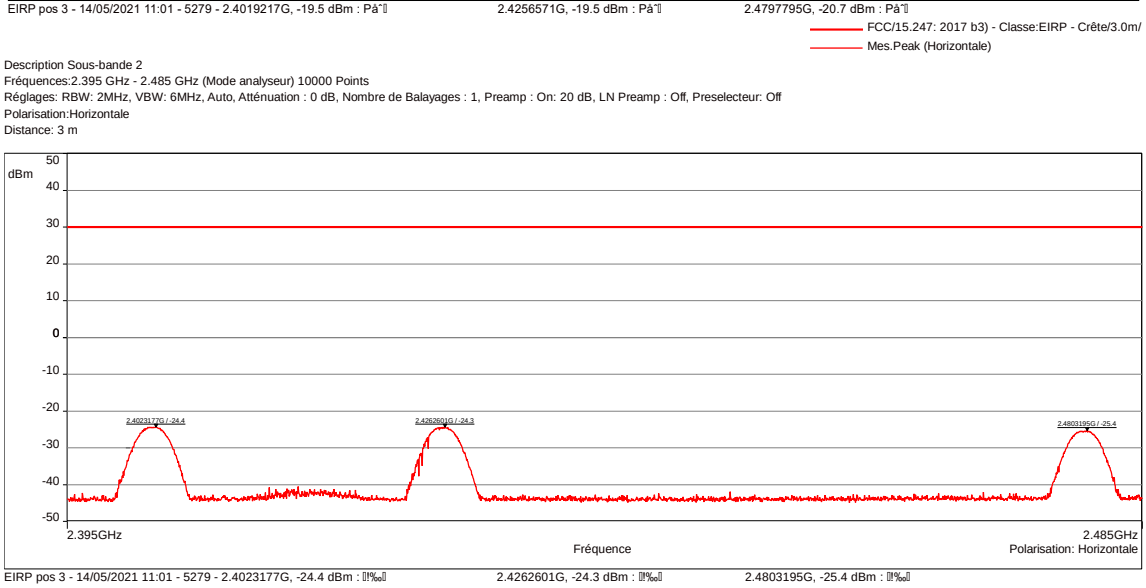
Configuration:	N/A
Comments:	N/A

EUT modification(s): N/A

	EFFECTIVE ISOTROPIC RADIATED POWER - TABULATED RESULTS			
U_{Start} (start of the test):	3.6Vdc	**U_{End} (end of the test):**		3.6Vdc
Voltage drop:	0%	**Limit:**		+/- 5%
EIRP POS 2				**EMI5278**
Frequency (MHz)	**Polarization**	**Radiated level (dBm)**	**Conducted level (dBm)**	**Limit (dBm)**
2401.86	Vertical	-19	-21.4	20
2425.98	Vertical	-20.2	-22.6	20
2479.80	Vertical	-20.7	-23.1	20
2401.84	Horizontal	-18.1	-20.5	20
2426.10	Horizontal	-17	-19.4	20
2479.72	Horizontal	-16.6	-19	20

EFFECTIVE ISOTROPIC RADIATED POWER - GRAPH			
EIRP POS 3		**EMI5279**	
EUT mode:	Continuous Tx Modulated	**T (°C):**	20.7
Test Date:	14/05/2021 11:01:56	**H (%):**	42.5
Test Operator:	NSO	**P (hPa):**	1011





POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	2.395GHz-2.485GHz	2MHz	6MHz	Peak
Horizontal	2.395GHz-2.485GHz	2MHz	6MHz	Peak

Configuration:	N/A
Comments:	N/A

EUT modification(s): N/A

	EFFECTIVE ISOTROPIC RADIATED POWER - TABULATED RESULTS			
U_{Start} (start of the test):	3.6Vdc	**U_{End} (end of the test):**		3.6Vdc
Voltage drop:	0%	**Limit:**		+/- 5%
EIRP POS 3				**EMI5279**
Frequency (MHz)	**Polarization**	**Radiated level (dBm)**	**Conducted level (dBm)**	**Limit (dBm)**
2401.92	Vertical	-19.5	-21.9	20
2425.65	Vertical	-19.5	-21.9	20
2479.77	Vertical	-20.7	-23.1	20
2402.31	Horizontal	-24.4	-26.8	20
2426.26	Horizontal	-24.3	-26.7	20
2480.31	Horizontal	-25.4	-27.8	20

7.4. 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

General test setup: 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 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 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
Band Edge all position	2.39GHz-2.494GHz	>20dBc	EMI5001	**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	8387	24/07/2019	24/09/2022
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	SUCOFLEX	N-3m	14378	25/06/2019	25/08/2021
Cable	SUCOFLEX	N-3m	14379	25/06/2019	25/08/2021
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	14/01/2021	14/03/2023
Cable	Huber + Suhner	SF102K	16042	24/03/2021	24/05/2023
Cable	MegaPhase	TM18-N1N1-118	12841	14/08/2020	14/10/2022
Preamplifier	Techniwave	APS16-0087	14040	02/12/2020	02/02/2022
Receiver	Rohde & Schwarz	ESW26	17791		
Receiver	Rohde & Schwarz	FSW43	14830	29/07/2020	29/09/2021
Shielded enclosure	RAY PROOF	C.V1	1123	16/06/2018	16/08/2021
Shielded enclosure	COMTEST	SAC 3m	14494	02/10/2019	02/12/2022

CATEGORY	BRAND	TYPE	IDENTIFIER	CAL. DATE	CAL. DUE
Software	Nexio		0000		
Thermohygrometer	Testo	608-H1	7561	26/01/2019	26/09/2021
Thermohygrometer	Testo	608-H2	12269	07/05/2020	07/07/2022

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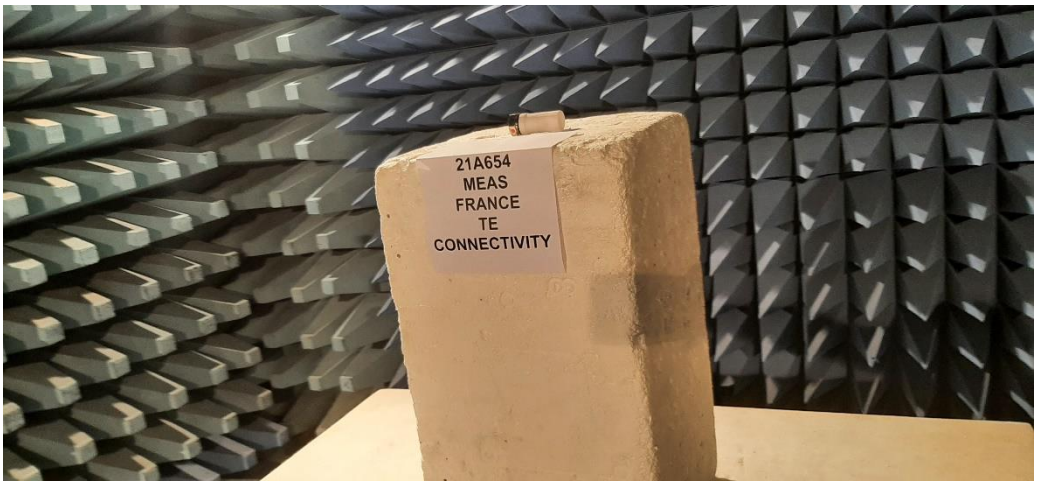
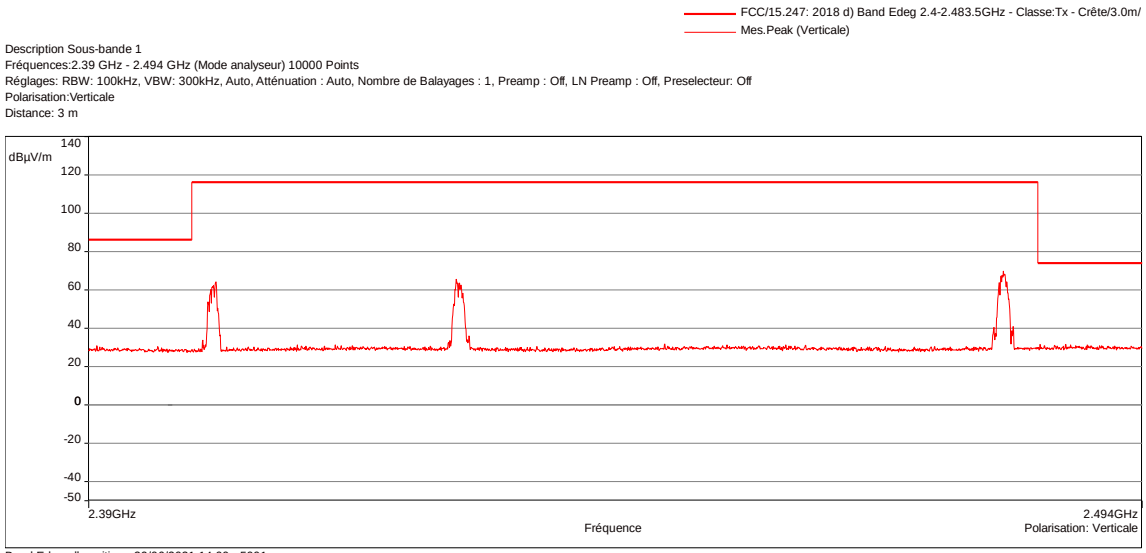
TEST SETUP PHOTO(S) – POSITION 1

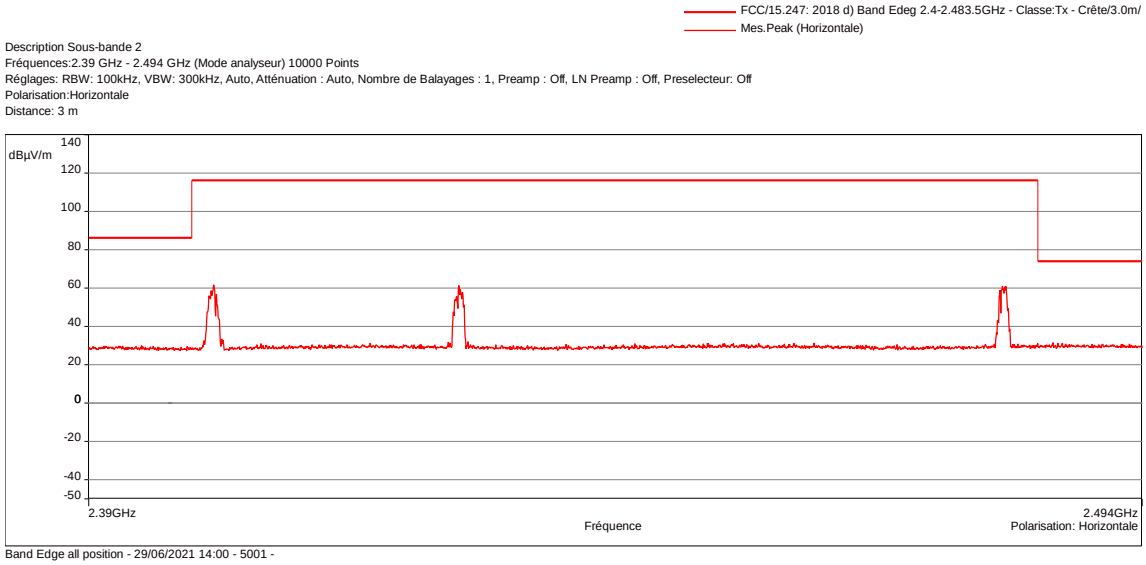
TEST SETUP PHOTO(S) – POSITION 2

TEST SETUP PHOTO(S) – POSITION 3


TEST SETUP PHOTO(S) – SETUP


BAND EDGE - GRAPH			
BAND EDGE ALL POSITION		**EMI5001**	
EUT mode:	Continuous Tx Modulated	**T (°C):**	20.7
Test Date:	14/05/2021 16:53:18	**H (%):**	42.5
Test Operator:	NSO	**P (hPa):**	1011





POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	2.39GHz-2.494GHz	100kHz	300kHz	Peak
Horizontal	2.39GHz-2.494GHz	100kHz	300kHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				

7.5. Power spectral density

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

General test setup: 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.

averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

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 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
PSD Low Channel pos 3	2.4008GHz-2.4033GHz	8dBm/3kHz	EMI4992	**PASS**
PSD mid Channel pos 3	2.4247GHz-2.4272GHz	8dBm/3kHz	EMI4993	**PASS**
PSD high Channel pos 3	2.4247GHz-2.4813GHz	8dBm/3kHz	EMI4994	**PASS**
PSD Low Channel pos 2	2.4008GHz-2.4033GHz	8dBm/3kHz	EMI4995	**PASS**
PSD mid Channel pos 2	2.4247GHz-2.4272GHz	8dBm/3kHz	EMI4996	**PASS**
PSD high Channel pos 2	2.4247GHz-2.4813GHz	8dBm/3kHz	EMI4997	**PASS**
PSD Low Channel pos 1	2.4008GHz-2.4033GHz	8dBm/3kHz	EMI4998	**PASS**
PSD mid Channel pos 1	2.4247GHz-2.4272GHz	8dBm/3kHz	EMI4999	**PASS**
PSD high Channel pos 1	2.4247GHz-2.4813GHz	8dBm/3kHz	EMI5000	**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	8387	24/07/2019	24/09/2022
Attenuator	EMITECH	SUB.V1-H	14780	04/05/2020	04/07/2021
Attenuator	EMITECH	SUB.V1-V	14781	04/05/2020	04/07/2021
Cable	SUCOFLEX	N-3m	14378	25/06/2019	25/08/2021
Cable	SUCOFLEX	N-5,5m	14381	25/06/2019	25/08/2021
Cable	Huber + Suhner	SF102K	16042	24/03/2021	24/05/2023
Receiver	Rohde & Schwarz	FSW43	14830	29/07/2020	29/09/2021
Shielded enclosure	RAY PROOF	C.V1	1123	16/06/2018	16/08/2021
Software	Nexio		0000		
Thermohygrometer	Testo	608-H1	7561	26/01/2019	26/09/2021
Thermohygrometer	Bioblock Scientific	Météostar	0963	26/01/2019	26/09/2021

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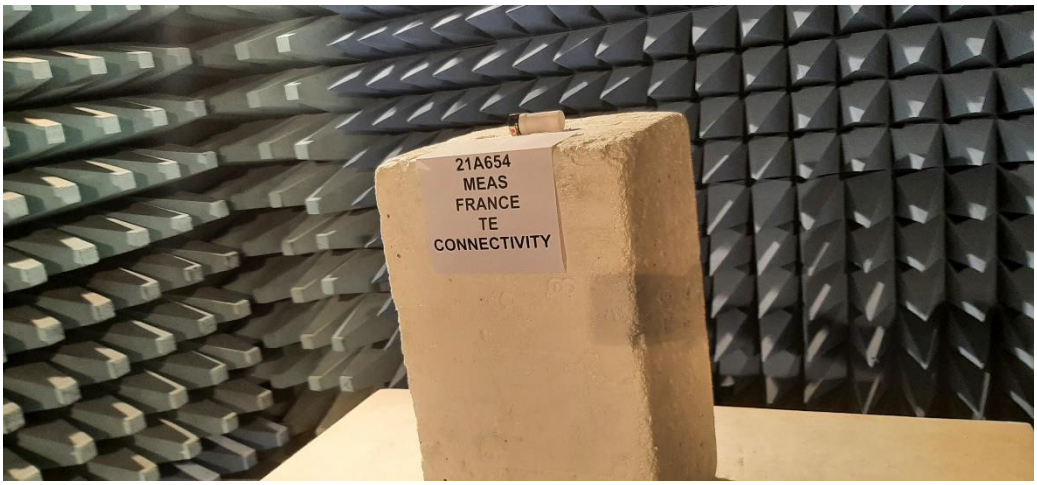
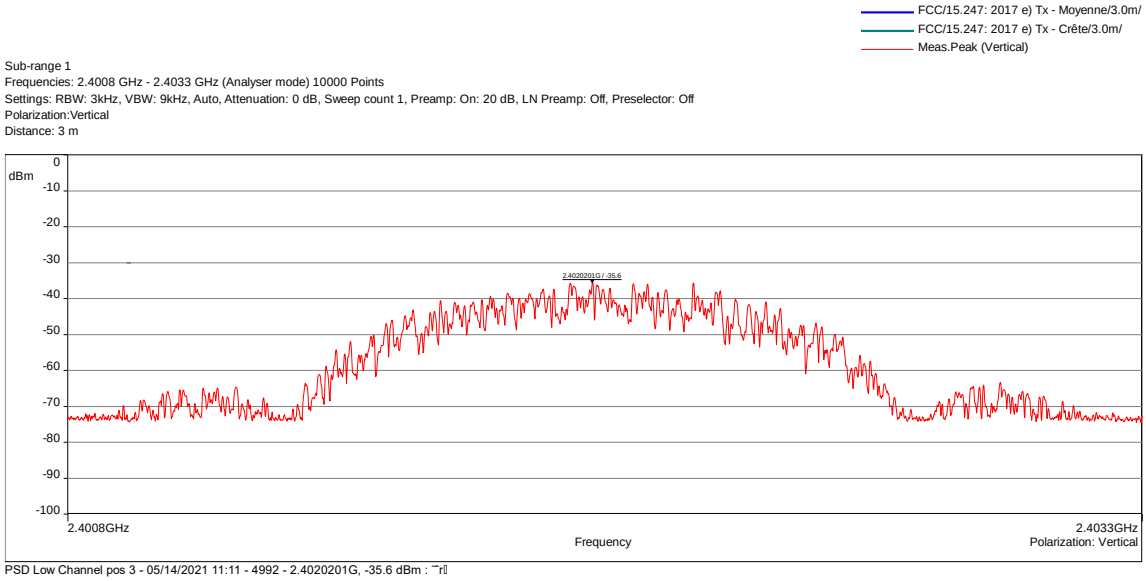
TEST SETUP PHOTO(S) – POSITION 1

TEST SETUP PHOTO(S) – POSITION 2

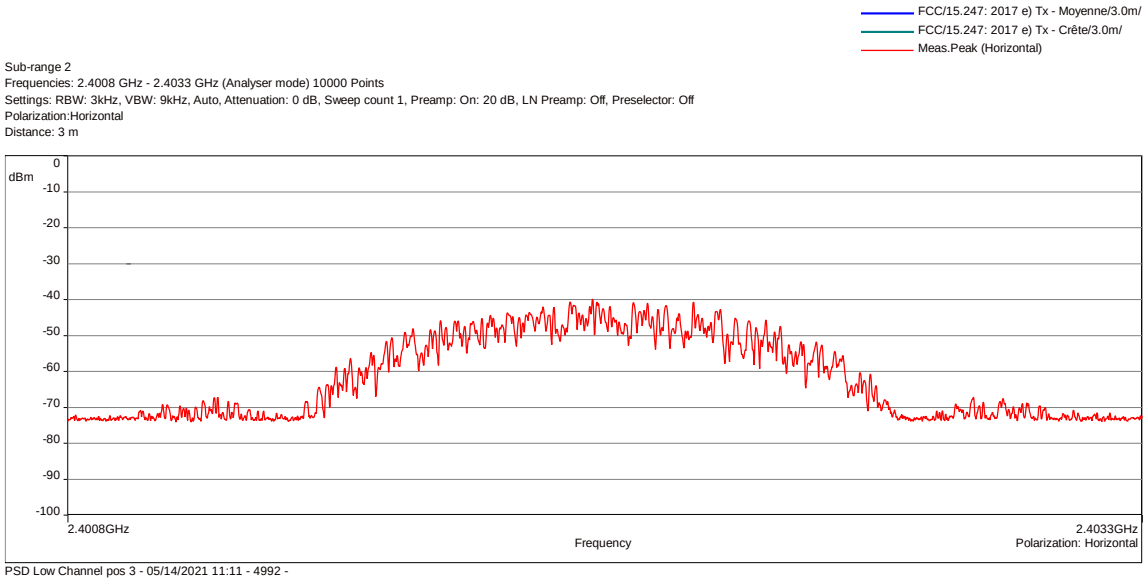
TEST SETUP PHOTO(S) – POSITION 3


TEST SETUP PHOTO(S) – SETUP


POWER SPECTRAL DENSITY - GRAPH			
PSD LOW CHANNEL POS 3		**EMI4992**	
EUT mode:	Continuous Tx Modulated	**T (°C):**	20.7
Test Date:	14/05/2021 11:11:40	**H (%):**	42.5
Test Operator:	NSO	**P (hPa):**	1011



PSD Low Channel pos 3 - 05/14/2021 11:11 - 4992 - 2.4020201G, -35.6 dBm : ¯rl



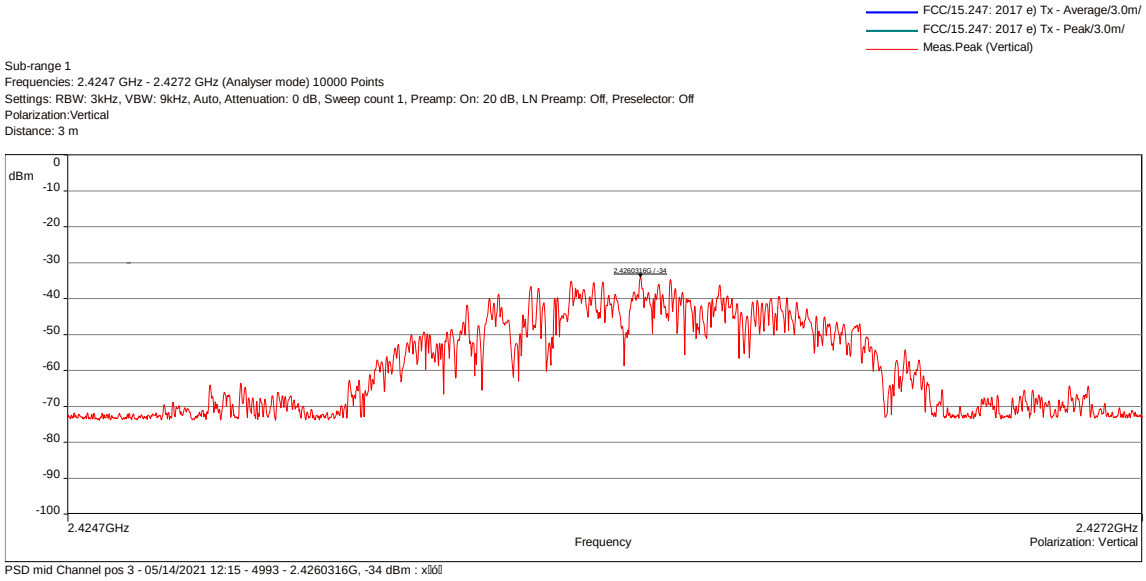
PSD Low Channel pos 3 - 05/14/2021 11:11 - 4992 -

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	2.4008GHz-2.4033GHz	3kHz	9kHz	Peak
Horizontal	2.4008GHz-2.4033GHz	3kHz	9kHz	Peak

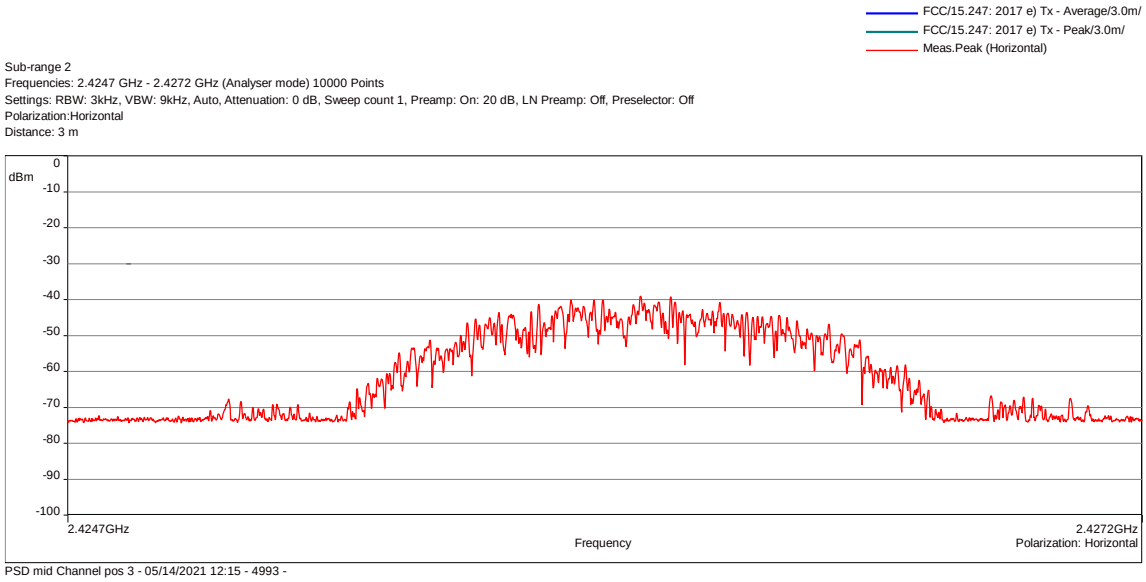
EUT modification(s): N/A

POWER SPECTRAL DENSITY - TABULATED RESULTS			
LOW CHANNEL POS 3			**EMI4992**
U_{Start} (start of the test):	3.6Vdc	**U_{End} (end of the test):**	3.6Vdc
Voltage drop:	0%	**Limit:**	+/- 5%
Frequency (MHz)	**Polarization**	**Level (dBm/3kHz)**	**Limit (dBm/3kHz)**
2402.0201	Vertical	-35.6	<8

POWER SPECTRAL DENSITY - GRAPH			
PSD MID CHANNEL POS 3		**EMI4993**	
EUT mode:	Continuous Tx Modulated	**T (°C):**	20.7
Test Date:	14/05/2021 12:15:48	**H (%):**	42.5
Test Operator:	NSO	**P (hPa):**	1011



PSD mid Channel pos 3 - 05/14/2021 12:15 - 4993 - 2.4260316G, -34 dBm : xlöö



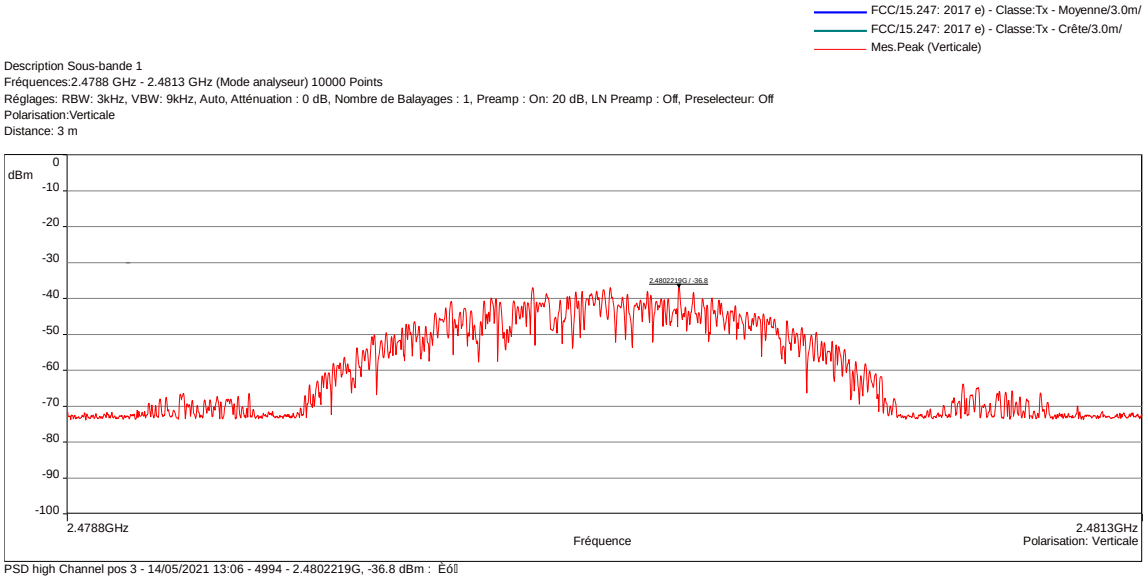
PSD mid Channel pos 3 - 05/14/2021 12:15 - 4993 -

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	2.4247GHz-2.4272GHz	3kHz	9kHz	Peak
Horizontal	2.4247GHz-2.4272GHz	3kHz	9kHz	Peak

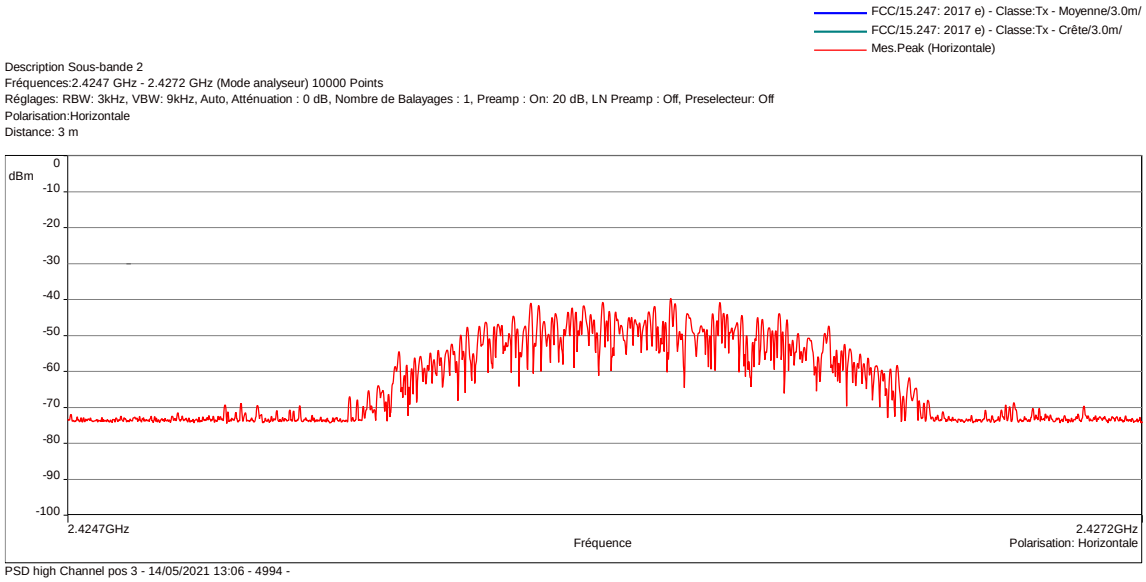
EUT modification(s): N/A

POWER SPECTRAL DENSITY - TABULATED RESULTS			
PSD MID CHANNEL POS 3			**EMI4993**
U_{Start} (start of the test):	3.6Vdc	**U_{End} (end of the test):**	3.6Vdc
Voltage drop:	0%	**Limit:**	+/- 5%
Frequency (MHz)	**Polarization**	**Level (dBm/3kHz)**	**Limit (dBm/3kHz)**
2426.0316	Vertical	-34	<8

POWER SPECTRAL DENSITY - GRAPH			
PSD HIGH CHANNEL POS 3		EMI4994	
EUT mode:	Continuous Tx Modulated	**T (°C):**	20.7
Test Date:	14/05/2021 13:06:39	**H (%):**	42.5
Test Operator:	NSO	**P (hPa):**	1011



PSD high Channel pos 3 - 14/05/2021 13:06 - 4994 - 2.4802219G, -36.8 dBm : Èó

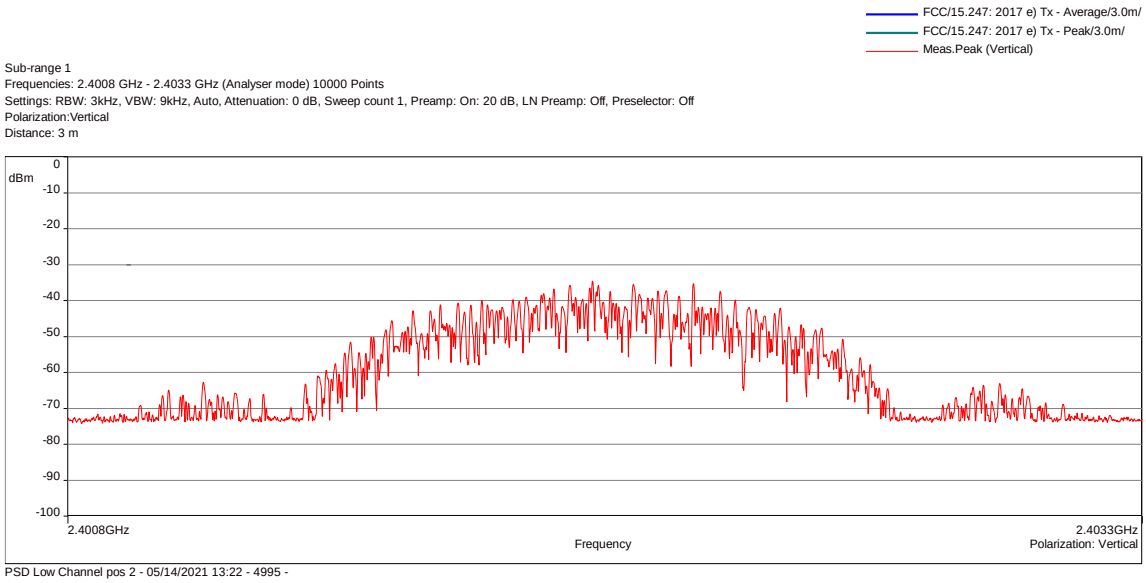


PSD high Channel pos 3 - 14/05/2021 13:06 - 4994 -

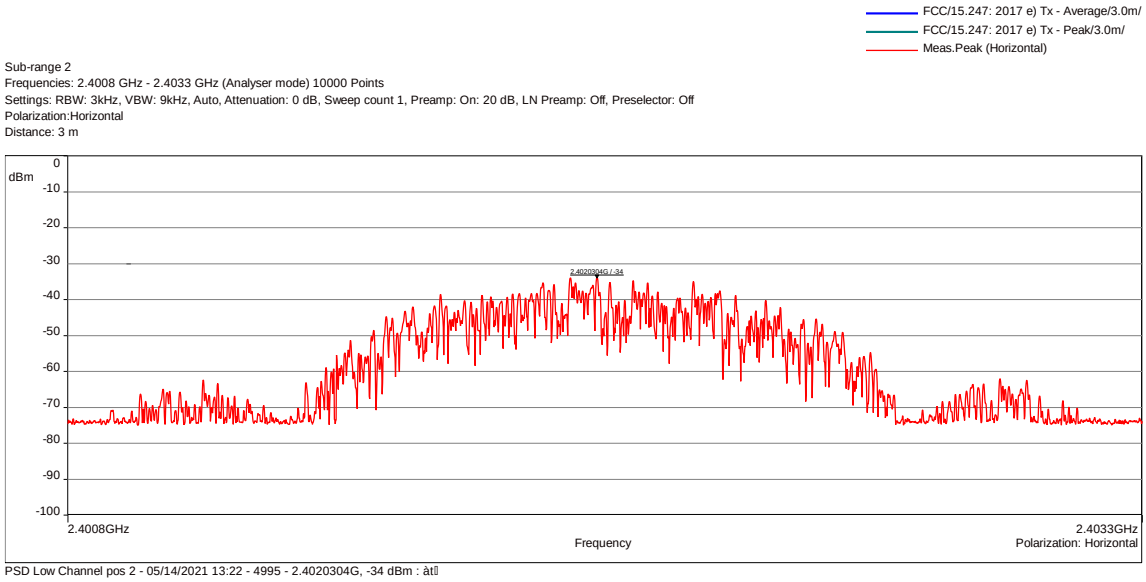
POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	2.4788GHz-2.4813GHz	3kHz	9kHz	Peak
Horizontal	2.4788GHz-2.4813GHz	3kHz	9kHz	Peak
EUT modification(s): N/A				

POWER SPECTRAL DENSITY - TABULATED RESULTS			
PSD HIGH CHANNEL POS 3			EMI4994
U_{Start} (start of the test):	3.6Vdc	**U_{End} (end of the test):**	3.6Vdc
Voltage drop:	0%	**Limit:**	+/- 5%
Frequency (MHz)	**Polarization**	**Level (dBm/3kHz)**	**Limit (dBm/3kHz)**
2480.2219	Vertical	-36.8	<8

POWER SPECTRAL DENSITY - GRAPH			
PSD LOW CHANNEL POS 2		**EMI4995**	
EUT mode:	Continuous Tx Modulated	**T (°C):**	20.7
Test Date:	14/05/2021 13:22:23	**H (%):**	42.5
Test Operator:	NSO	**P (hPa):**	1011



PSD Low Channel pos 2 - 05/14/2021 13:22 - 4995 -



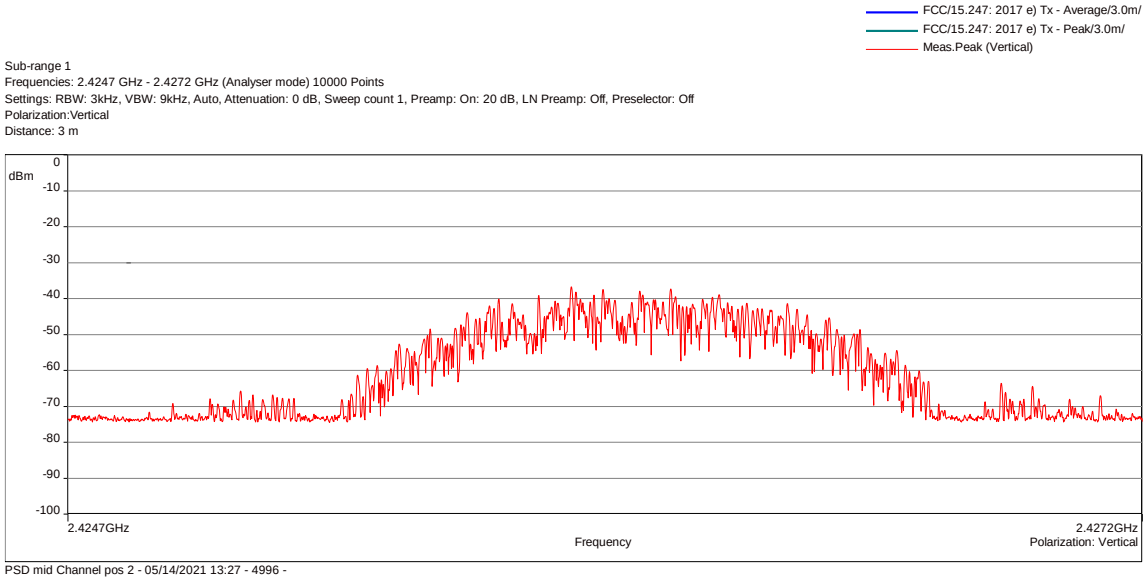
PSD Low Channel pos 2 - 05/14/2021 13:22 - 4995 - 2.4020304G, -34 dBm : àt

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	2.4008GHz-2.4033GHz	3kHz	9kHz	Peak
Horizontal	2.4008GHz-2.4033GHz	3kHz	9kHz	Peak

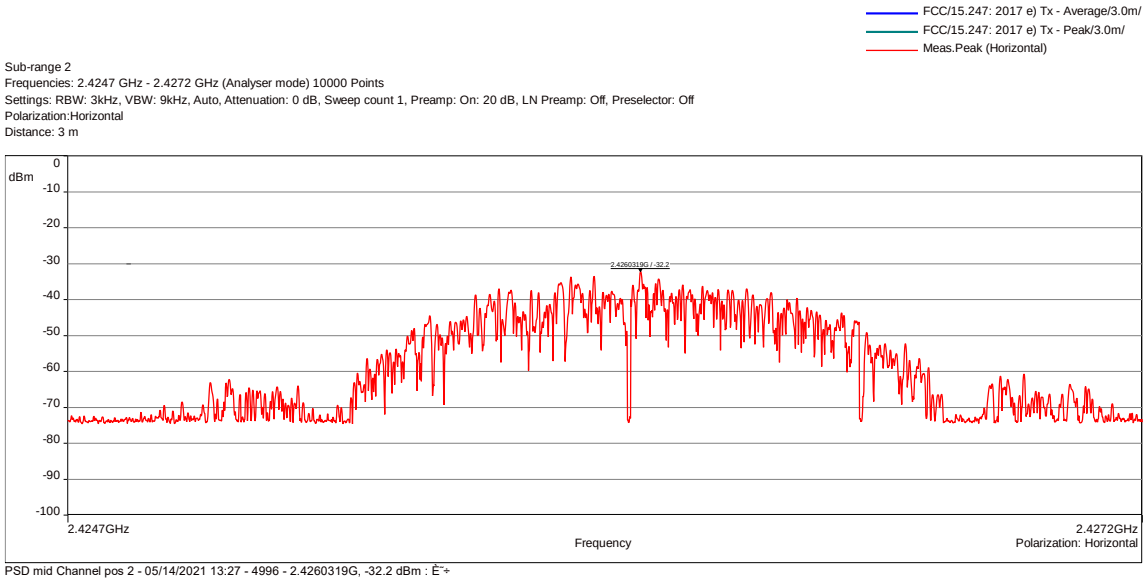
EUT modification(s): N/A

POWER SPECTRAL DENSITY - TABULATED RESULTS			
PSD LOW CHANNEL POS 2			**EMI4995**
U_{Start} (start of the test):	3.6Vdc	**U_{End} (end of the test):**	3.6Vdc
Voltage drop:	0%	**Limit:**	+/- 5%
Frequency (MHz)	**Polarization**	**Level (dBm/3kHz)**	**Limit (dBm/3kHz)**
2402.0304	Horizontal	-34	<8

POWER SPECTRAL DENSITY - GRAPH			
PSD MID CHANNEL POS 2		**EMI4996**	
EUT mode:	Continuous Tx Modulated	**T (°C):**	20.7
Test Date:	14/05/2021 13:27:14	**H (%):**	42.5
Test Operator:	NSO	**P (hPa):**	1011



PSD mid Channel pos 2 - 05/14/2021 13:27 - 4996 -



PSD mid Channel pos 2 - 05/14/2021 13:27 - 4996 - 2.4260319G, -32.2 dBm : È¯÷

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	2.4247GHz-2.4272GHz	3kHz	9kHz	Peak
Horizontal	2.4247GHz-2.4272GHz	3kHz	9kHz	Peak

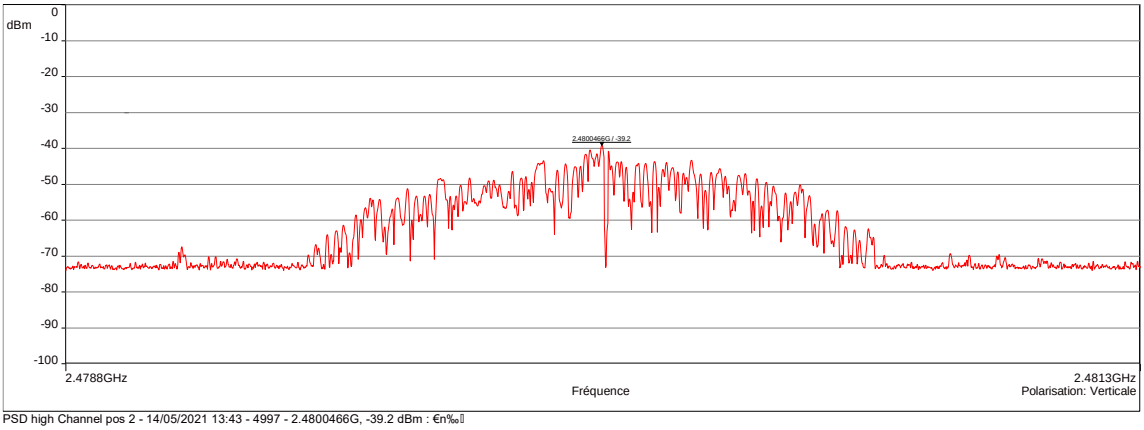
EUT modification(s): N/A

POWER SPECTRAL DENSITY - TABULATED RESULTS			
PSD MID CHANNEL POS 2			**EMI4996**
U_{Start} (start of the test):	3.6Vdc	**U_{End} (end of the test):**	3.6Vdc
Voltage drop:	0%	**Limit:**	+/- 5%
Frequency (MHz)	**Polarization**	**Level (dBm/3kHz)**	**Limit (dBm/3kHz)**
2426.0319	Horizontal	-32.2	<8

POWER SPECTRAL DENSITY - GRAPH			
PSD HIGH CHANNEL POS 2		**EMI4997**	
EUT mode:	Continuous Tx Modulated	**T (°C):**	20.7
Test Date:	14/05/2021 13:43:35	**H (%):**	42.5
Test Operator:	NSO	**P (hPa):**	1011

FCC/15.247: 2017 e) - Classe:Tx - Moyenne/3.0m/
FCC/15.247: 2017 e) - Classe:Tx - Crête/3.0m/
Mes.Peak (Verticale)

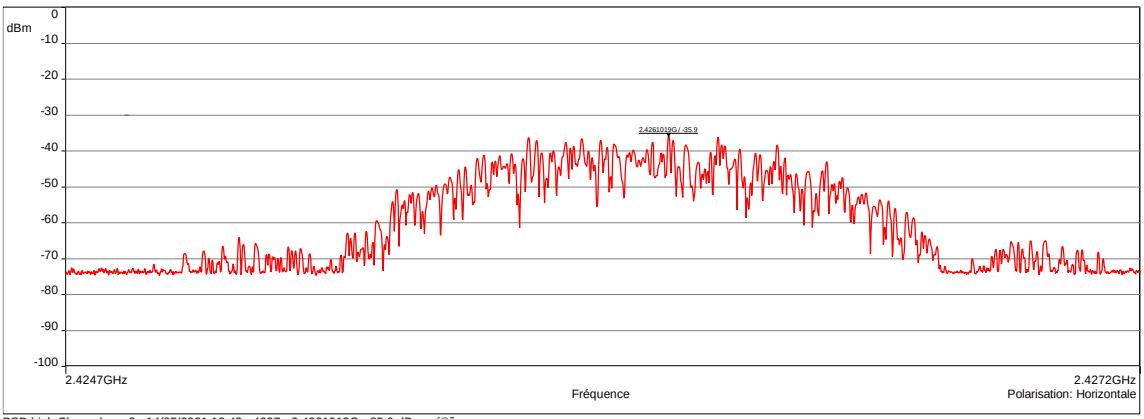
Description Sous-bande 1
Fréquences:2.4788 GHz - 2.4813 GHz (Mode analyseur) 10000 Points
Réglages: RBW: 3kHz, VBW: 9kHz, Auto, Atténuation : 0 dB, Nombre de Balayages : 1, Preamp : On: 20 dB, LN Preamp : Off, Preselecteur: Off
Polarisation:Verticale
Distance: 3 m



PSD high Channel pos 2 - 14/05/2021 13:43 - 4997 - 2.4800466G, -39.2 dBm : €n‰▯

FCC/15.247: 2017 e) - Classe:Tx - Moyenne/3.0m/
FCC/15.247: 2017 e) - Classe:Tx - Crête/3.0m/
Mes.Peak (Horizontale)

Description Sous-bande 2
Fréquences:2.4247 GHz - 2.4272 GHz (Mode analyseur) 10000 Points
Réglages: RBW: 3kHz, VBW: 9kHz, Auto, Atténuation : 0 dB, Nombre de Balayages : 1, Preamp : On: 20 dB, LN Preamp : Off, Preselecteur: Off
Polarisation:Horizontale
Distance: 3 m



PSD high Channel pos 2 - 14/05/2021 13:43 - 4997 - 2.4261019G, -35.9 dBm : ¸ï®▯

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	2.4788GHz-2.4813GHz	3kHz	9kHz	Peak
Horizontal	2.4788GHz-2.4813GHz	3kHz	9kHz	Peak

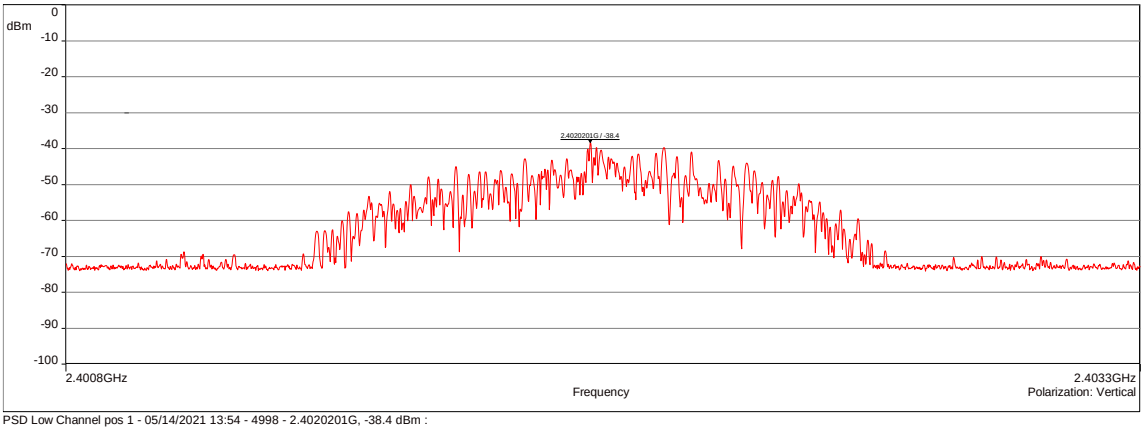
EUT modification(s): N/A

POWER SPECTRAL DENSITY - TABULATED RESULTS			
PSD HIGH CHANNEL POS 2			**EMI4997**
U_{Start} (start of the test):	3.6Vdc	**U_{End} (end of the test):**	3.6Vdc
Voltage drop:	0%	**Limit:**	+/- 5%
Frequency (MHz)	**Polarization**	**Level (dBm/3kHz)**	**Limit (dBm/3kHz)**
2480.2121	Horizontal	-35.9	<8

POWER SPECTRAL DENSITY - GRAPH			
PSD LOW CHANNEL POS 1		**EMI4998**	
EUT mode:	Continuous Tx Modulated	**T (°C):**	20.7
Test Date:	14/05/2021 13:54:54	**H (%):**	42.5
Test Operator:	NSO	**P (hPa):**	1011

FCC/15.247: 2017 e) Tx - Average/3.0m/
FCC/15.247: 2017 e) Tx - Peak/3.0m/
Meas.Peak (Vertical)

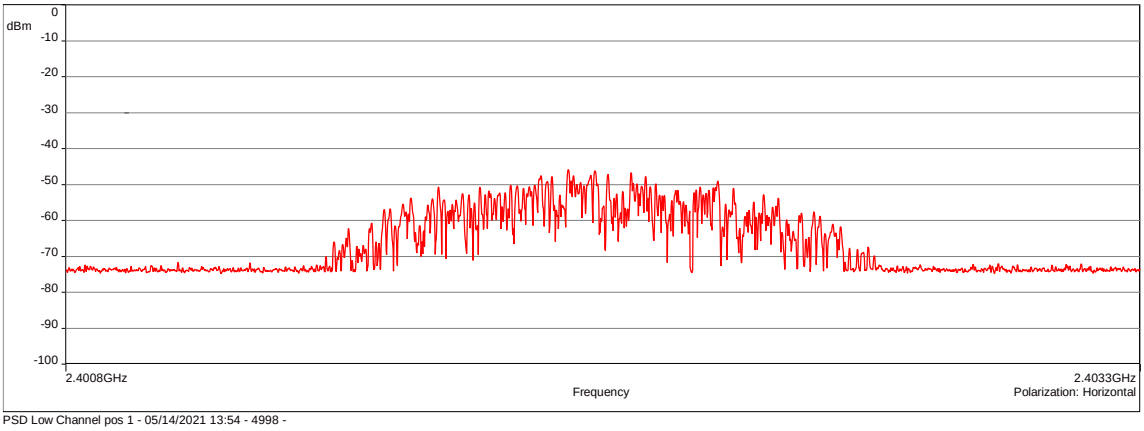
Sub-range 1
Frequencies: 2.4008 GHz - 2.4033 GHz (Analyser mode) 10000 Points
Settings: RBW: 3kHz, VBW: 9kHz, Auto, Attenuation: 0 dB, Sweep count 1, Preamp: On: 20 dB, LN Preamp: Off, Preselector: Off
Polarization:Vertical
Distance: 3 m



PSD Low Channel pos 1 - 05/14/2021 13:54 - 4998 - 2.4020201G, -38.4 dBm :

FCC/15.247: 2017 e) Tx - Average/3.0m/
FCC/15.247: 2017 e) Tx - Peak/3.0m/
Meas.Peak (Horizontal)

Sub-range 2
Frequencies: 2.4008 GHz - 2.4033 GHz (Analyser mode) 10000 Points
Settings: RBW: 3kHz, VBW: 9kHz, Auto, Attenuation: 0 dB, Sweep count 1, Preamp: On: 20 dB, LN Preamp: Off, Preselector: Off
Polarization:Horizontal
Distance: 3 m



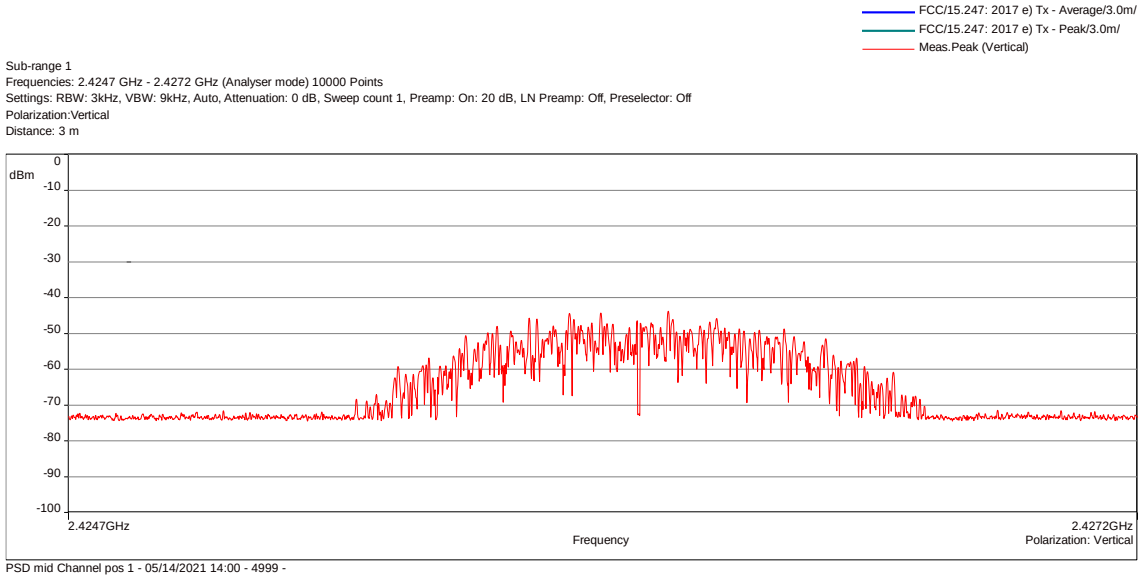
PSD Low Channel pos 1 - 05/14/2021 13:54 - 4998 -

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	2.4008GHz-2.4033GHz	3kHz	9kHz	Peak
Horizontal	2.4008GHz-2.4033GHz	3kHz	9kHz	Peak

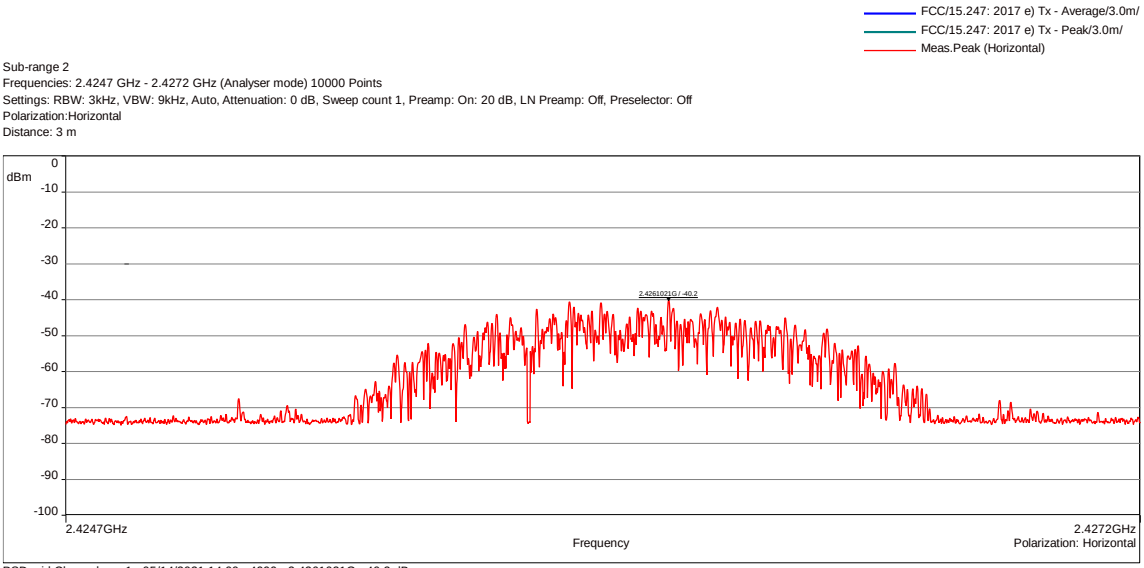
EUT modification(s): N/A

POWER SPECTRAL DENSITY - TABULATED RESULTS			
PSD LOW CHANNEL POS 1			**EMI4998**
U_{Start} (start of the test):	3.6Vdc	**U_{End} (end of the test):**	3.6Vdc
Voltage drop:	0%	**Limit:**	+/- 5%
Frequency (MHz)	**Polarization**	**Level (dBm/3kHz)**	**Limit (dBm/3kHz)**
2402.0201	Vertical	-38.4	<8

POWER SPECTRAL DENSITY - GRAPH			
PSD MID CHANNEL POS 1		**EMI4999**	
EUT mode:	Continuous Tx Modulated	**T (°C):**	20.7
Test Date:	14/05/2021 14:00:14	**H (%):**	42.5
Test Operator:	NSO	**P (hPa):**	1011



PSD mid Channel pos 1 - 05/14/2021 14:00 - 4999 -



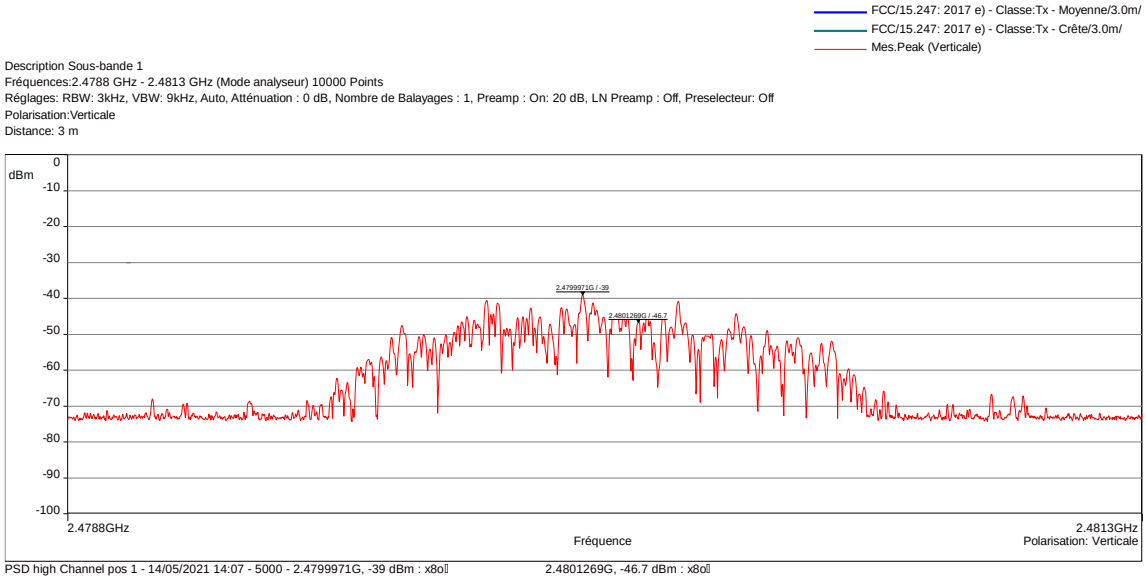
PSD mid Channel pos 1 - 05/14/2021 14:00 - 4999 - 2.4261021G, -40.2 dBm :

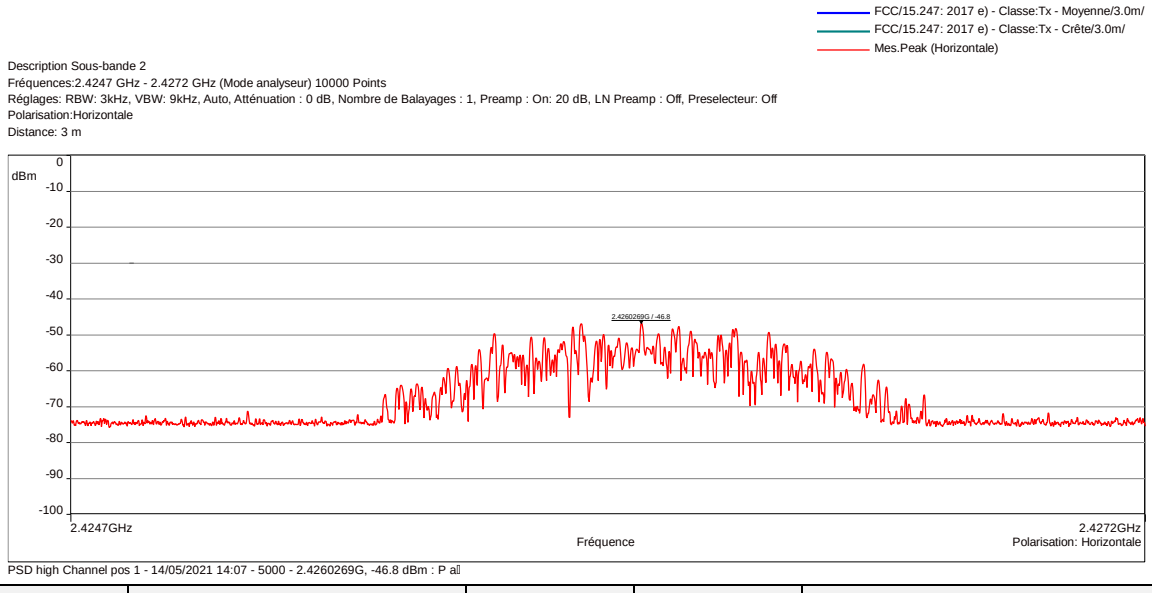
POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	2.4247GHz-2.4272GHz	3kHz	9kHz	Peak
Horizontal	2.4247GHz-2.4272GHz	3kHz	9kHz	Peak

EUT modification(s): N/A

POWER SPECTRAL DENSITY - TABULATED RESULTS			
PSD MID CHANNEL POS 1			**EMI4999**
U_{Start} (start of the test):	3.6Vdc	**U_{End} (end of the test):**	3.6Vdc
Voltage drop:	0%	**Limit:**	+/- 5%
Frequency (MHz)	**Polarization**	**Level (dBm/3kHz)**	**Limit (dBm/3kHz)**
2426.1021	Horizontal	-40.2	<8

POWER SPECTRAL DENSITY - GRAPH			
PSD HIGH CHANNEL POS 1		**EMI5000**	
EUT mode:	Continuous Tx Modulated	**T (°C):**	20.7
Test Date:	14/05/2021 14:07:02	**H (%):**	42.5
Test Operator:	NSO	**P (hPa):**	1011





POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	2.4788GHz-2.4813GHz	3kHz	9kHz	Peak
Horizontal	2.4788GHz-2.4813GHz	3kHz	9kHz	Peak
EUT modification(s): N/A				

POWER SPECTRAL DENSITY - TABULATED RESULTS			
PSD HIGH CHANNEL POS 1			**EMI5000**
U_{Start} (start of the test):	3.6Vdc	**U_{End} (end of the test):**	3.6Vdc
Voltage drop:	0%	**Limit:**	+/- 5%
Frequency (MHz)	**Polarization**	**Level (dBm/3kHz)**	**Limit (dBm/3kHz)**
2479.9971	Vertical	-39	<8

7.6. Frequency drift

Reference standard:	FCC part 15 Radio part 15.247 and RSS-247
Test method:	FCC part 15.247 and RSS-247
Test description: Frequency drift is the difference between the measured unmodulated carrier frequency under extreme conditions and the nominal Centre Frequency as stated by the manufacturer. EUT is set inside the climatic enclosure and is Measured with a proximity antenna. The measurements are carried out relative to the EIRP measurment. RBW=300Hz	

TEST CASE	EUT MODE	SEVERITY	RESULT TAB.	VERDICT
Low channel / 25°C/ 3.6Vdc	Continuous Tx	-	EMI5056	**PASS**
Low channel / 25°C/ 2.8Vdc	Continuous Tx	-	EMI5057	**PASS**
Mid channel / 25°C/ 3.6Vdc	Continuous Tx	-	EMI5058	**PASS**
Mid channel / 25°C/ 2.8Vdc	Continuous Tx	-	EMI5059	**PASS**
High channel / 25°C/ 3.6Vdc	Continuous Tx	-	EMI5060	**PASS**
High channel / 25°C/ 2.8Vdc	Continuous Tx	-	EMI5061	**PASS**
Low channel / -40°C/ 3.6Vdc	Continuous Tx	-	EMI5062	**PASS**
Low channel / -40°C/ 2.8Vdc	Continuous Tx	-	EMI5063	**PASS**
Mid channel / -40°C/ 3.6Vdc	Continuous Tx	-	EMI5064	**PASS**
Mid channel / -40°C/ 2.8Vdc	Continuous Tx	-	EMI5065	**PASS**
High channel / -40°C/ 3.6Vdc	Continuous Tx	-	EMI5066	**PASS**
High channel / -40°C/ 2.8Vdc	Continuous Tx	-	EMI5067	**PASS**
Low channel / +80°C/ 3.6Vdc	Continuous Tx	-	EMI5068	**PASS**
Low channel / +80°C/ 2.8Vdc	Continuous Tx	-	EMI5069	**PASS**
Mid channel / +80°C/ 3.6Vdc	Continuous Tx	-	EMI5070	**PASS**
Mid channel / +80°C/ 2.8Vdc	Continuous Tx	-	EMI5071	**PASS**
High channel / +80°C/ 3.6Vdc	Continuous Tx	-	EMI5072	**PASS**
High channel / +80°C/ 2.8Vdc	Continuous Tx	-	EMI5073	**PASS**

LABORATORY PARAMETERS:	REQUIRED PRIOR TO THE TEST	DURING THE TEST
Ambient Temperature	15 to 35 °C	20 °C
Relative Humidity	20 to 75 %	42.5 %
Atmospheric pressure	N/A	1011 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	Techniwave	TWSMA-10dB-18G-SMA	14672	28/12/2019	28/02/2023
Cable	MegaPhase	TM8S1S179	16653	30/10/2019	30/12/2021
Climatic enclosure	CLIMATS	EXCAL 7714-HA	14261	19/09/2019	19/11/2021
Multimeter	Keithley	2010	6094	30/05/2019	30/07/2021
Power supply	TTI	PL303QMD	8496		
Spectrum analyzer	Agilent Technologies	E4440A	5824	22/10/2020	22/12/2022

CATEGORY	BRAND	TYPE	IDENTIFIER	CAL. DATE	CAL. DUE
Thermohygrometer	Testo	608-H2	12268	07/05/2020	07/07/2022
Thermohygrometer	Testo	608-H2	12269	07/05/2020	07/07/2022
Thermometer contactless	GHM Greisinger	GMH 3710	12968	19/05/2021	19/07/2022

Blank cells = Permanent validity

TEST SETUP PHOTO(S)

FREQUENCY ERROR - TABULATED RESULTS

TEST CASE	FREQUENCY	FREQUENCY ERROR	LIMIT	RESULT TAB.
Low channel / 25°C/ 3.6Vdc	2401.783000 MHz	16000 Hz	2400MHz-2483.5MHz	EMI5056
Low channel / 25°C/ 2.8Vdc	2401.783000 MHz	16000 Hz	2400MHz-2483.5MHz	EMI5057
Mid channel / 25°C/ 3.6Vdc	2425.800000 MHz	33000 Hz	2400MHz-2483.5MHz	EMI5058
Mid channel / 25°C/ 2.8Vdc	2425.783000 MHz	16000 Hz	2400MHz-2483.5MHz	EMI5059
High channel / 25°C/ 3.6Vdc	2479.767000 MHz	-16000 Hz	2400MHz-2483.5MHz	EMI5060
High channel / 25°C/ 2.8Vdc	2479.800000 MHz	17000 Hz	2400MHz-2483.5MHz	EMI5061
Low channel / -40°C/ 3.6Vdc	2401.783000 MHz	16000 Hz	2400MHz-2483.5MHz	EMI5062
Low channel / -40°C/ 2.8Vdc	2401.783000 MHz	16000 Hz	2400MHz-2483.5MHz	EMI5063
Mid channel / -40°C/ 3.6Vdc	2425.800000 MHz	33000 Hz	2400MHz-2483.5MHz	EMI5064
Mid channel / -40°C/ 2.8Vdc	2425.783000 MHz	16000 Hz	2400MHz-2483.5MHz	EMI5065
High channel / -40°C/ 3.6Vdc	2479.767000 MHz	-16000 Hz	2400MHz-2483.5MHz	EMI5066
High channel / -40°C/ 2.8Vdc	2479.800000 MHz	17000 Hz	2400MHz-2483.5MHz	EMI5067
Low channel / +80°C/ 3.6Vdc	2401.783000 MHz	16000 Hz	2400MHz-2483.5MHz	EMI5068
Low channel / +80°C/ 2.8Vdc	2401.783000 MHz	16000 Hz	2400MHz-2483.5MHz	EMI5069
Mid channel / +80°C/ 3.6Vdc	2425.800000 MHz	33000 Hz	2400MHz-2483.5MHz	EMI5070
Mid channel / +80°C/ 2.8Vdc	2425.783000 MHz	16000 Hz	2400MHz-2483.5MHz	EMI5071
High channel / +80°C/ 3.6Vdc	2479.767000 MHz	-16000 Hz	2400MHz-2483.5MHz	EMI5072
High channel / +80°C/ 2.8Vdc	2479.800000 MHz	17000 Hz	2400MHz-2483.5MHz	EMI5073

EUT MODIFICATIONS	OPERATOR	TEST DATE	RESULT TAB.
N/A	NSO	19/05/2021	All

7.7. Radiated spurious emissions

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

Test description: For f <30MHz, 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 semi-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.

For f > 30MHz, EUT is set on an insulating support at 80cm above the ground reference plane (150cm for f >1GHz).

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
0° - All positions	9kHz-30MHz	15.209	EMI5002	**PASS**
45° - All positions	9kHz-30MHz	15.209	EMI5003	**PASS**
90° - All positions	9kHz-30MHz	15.209	EMI5004	**PASS**
Tx mode / All Frequencies / All Positions	30MHz-1GHz	15.209	EMI4990	**PASS**
Tx mode / All Frequencies / All Positions	1GHz-18GHz	15.209	EMI4991	**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: 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.

From 30MHz to 1GHz Quasi peak limit provided is the limit given in §15.209.

Above 1GHz average limit in restricted bands §15.205 is 54dBµV/m. Otherwise, the limit is 20dB under carrier emission level at 3m without averaging.

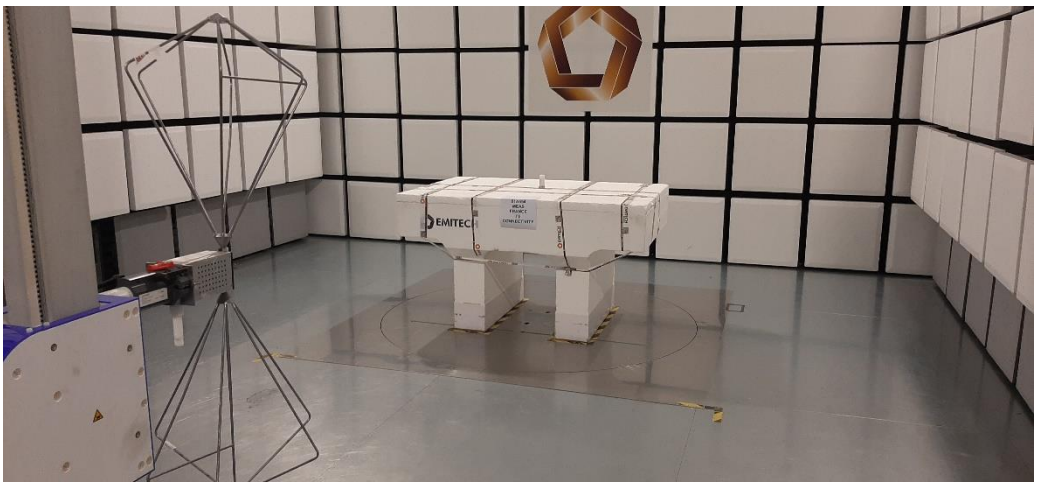
TEST EQUIPMENT USED					
CATEGORY	**BRAND**	**TYPE**	**IDENTIFIER**	**CAL. DATE**	**CAL. DUE**
Antenna	ETS-Lindgren	3117	8387	24/07/2019	24/09/2022
Antenna	Electro Metrics	BIA-30HF	0824	13/06/2018	13/08/2021
Antenna	Rohde & Schwarz	HFH2-Z2	5825	24/04/2020	24/06/2022
Antenna	Rohde & Schwarz	HL223	3126	13/06/2018	13/08/2021
Cable	MegaPhase	F135N1N28	16664	25/10/2019	25/12/2021

CATEGORY	BRAND	TYPE	IDENTIFIER	CAL. DATE	CAL. DUE
Cable	MegaPhase	F135N1N28	16666	25/10/2019	25/12/2021
Cable	SUCOFLEX	N-3m	14378	25/06/2019	25/08/2021
Cable	SUCOFLEX	N-3m	14379	25/06/2019	25/08/2021
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	14/01/2021	14/03/2023
Cable	Huber + Suhner	SF102K	16042	24/03/2021	24/05/2023
Cable	MegaPhase	TM18-N1N1-118	12841	14/08/2020	14/10/2022
Preamplifier	Techniwave	APS16-0087	14040	02/12/2020	02/02/2022
Receiver	Rohde & Schwarz	ESW26	17791		
Receiver	Rohde & Schwarz	FSW43	14830	29/07/2020	29/09/2021
Shielded enclosure	RAY PROOF	C.V1	1123	16/06/2018	16/08/2021
Shielded enclosure	COMTEST	SAC 3m	14494	02/10/2019	02/12/2022
Software	Nexio		0000		
Thermohygrometer	Testo	608-H1	7561	26/01/2019	26/09/2021
Thermohygrometer	Testo	608-H2	12269	07/05/2020	07/07/2022

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

TEST SETUP PHOTOS – 9KHZ - 30MHZ

TEST SETUP PHOTOS – 30MHZ - 200MHZ



TEST SETUP PHOTOS – 200MHZ – 1GHZ

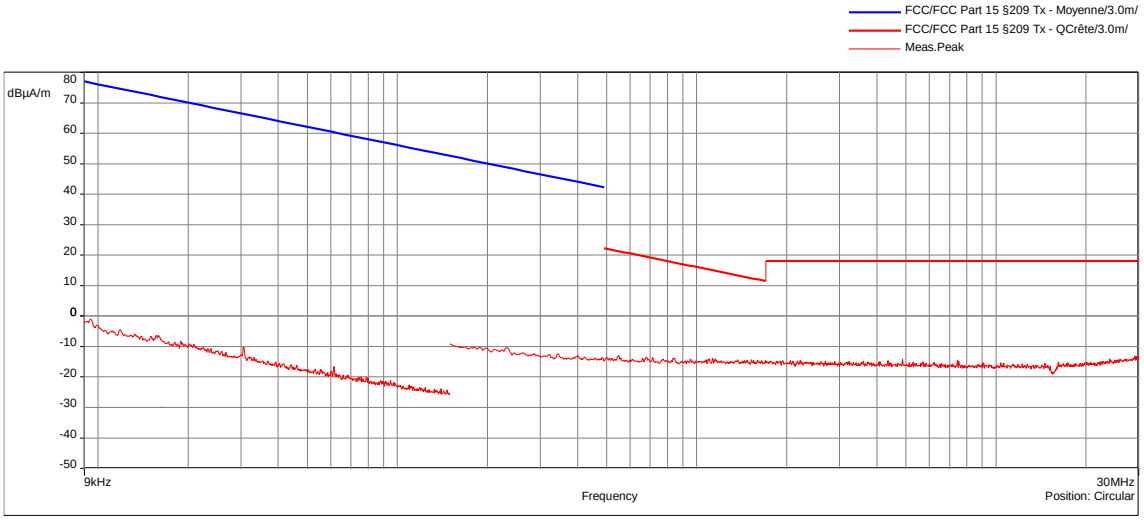

TEST SETUP PHOTOS >1GHZ


TEST SETUP PHOTOS - POSITION 1
   

TEST SETUP PHOTOS - POSITION 2

TEST SETUP PHOTOS - POSITION 3
   

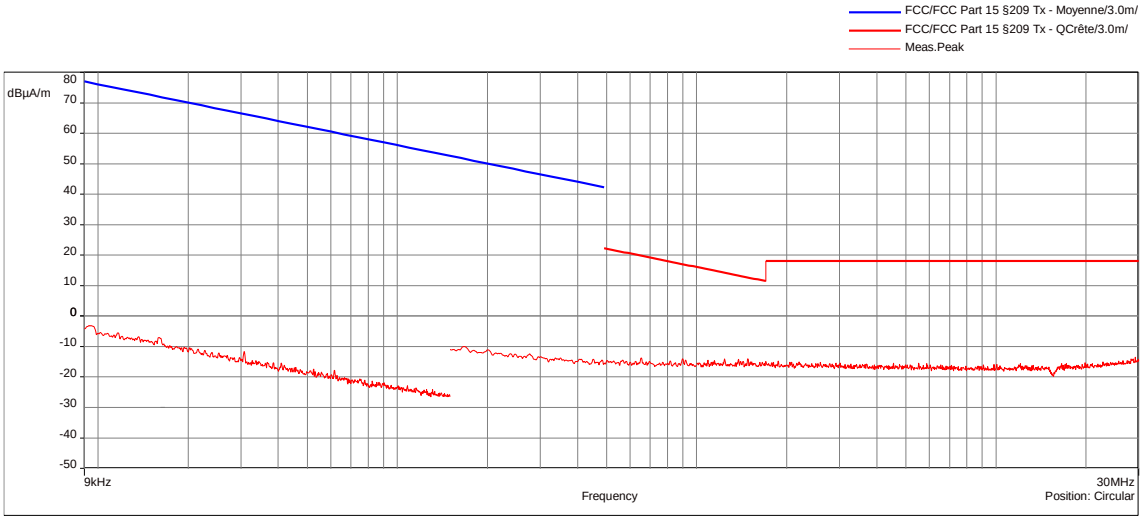
TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES <30MHZ - GRAPH			
0° - ALL POSITIONS		EMI5002	
EUT mode:	Continuous Tx Modulated	**T (°C):**	20.9
Test Date:	13/05/2021 13:36:48	**H (%):**	39.9
Test Operator:	NSO	**P (hPa):**	1012



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

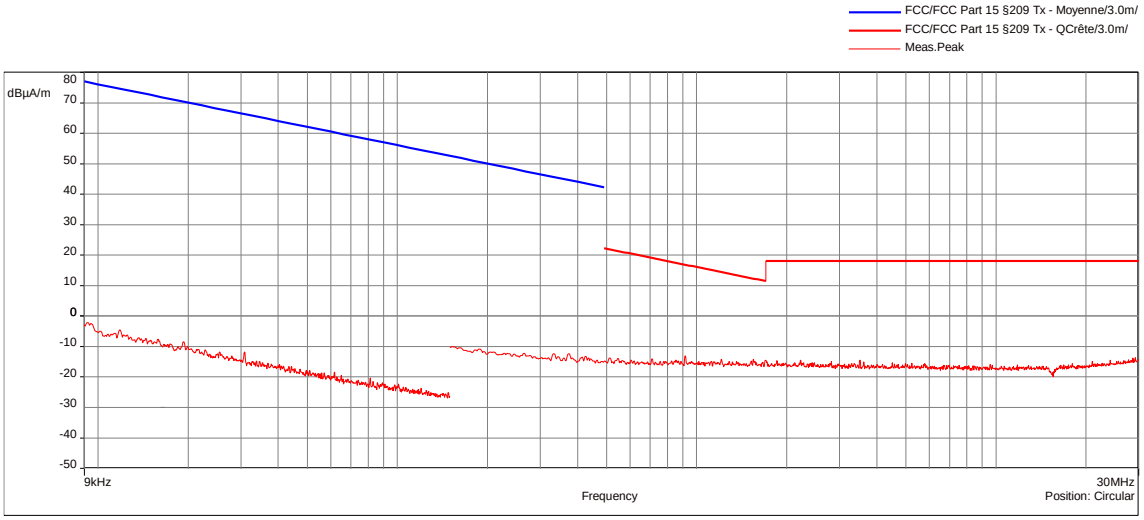
TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES <30MHZ - GRAPH			
45° - ALL POSITIONS		EMI5003	
EUT mode:	Continuous Tx Modulated	**T (°C):**	20.9
Test Date:	13/05/2021 15:50:07	**H (%):**	39.9
Test Operator:	NSO	**P (hPa):**	1012



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

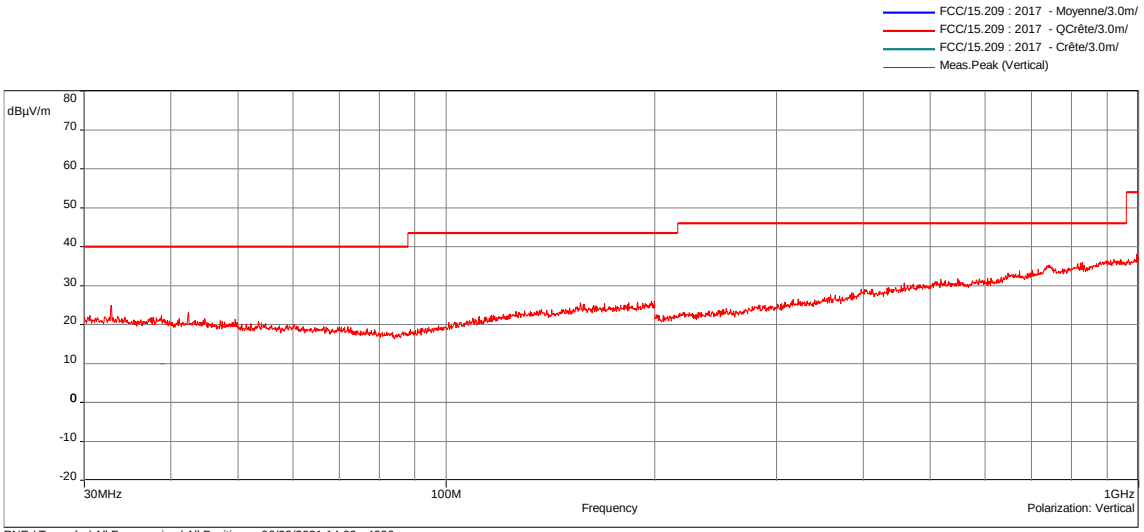
TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES <30MHZ - GRAPH			
90° - ALL POSITIONS		EMI5004	
EUT mode:	Continuous Tx Modulated	**T (°C):**	20.9
Test Date:	13/05/2021 15:53:31	**H (%):**	39.9
Test Operator:	NSO	**P (hPa):**	1012



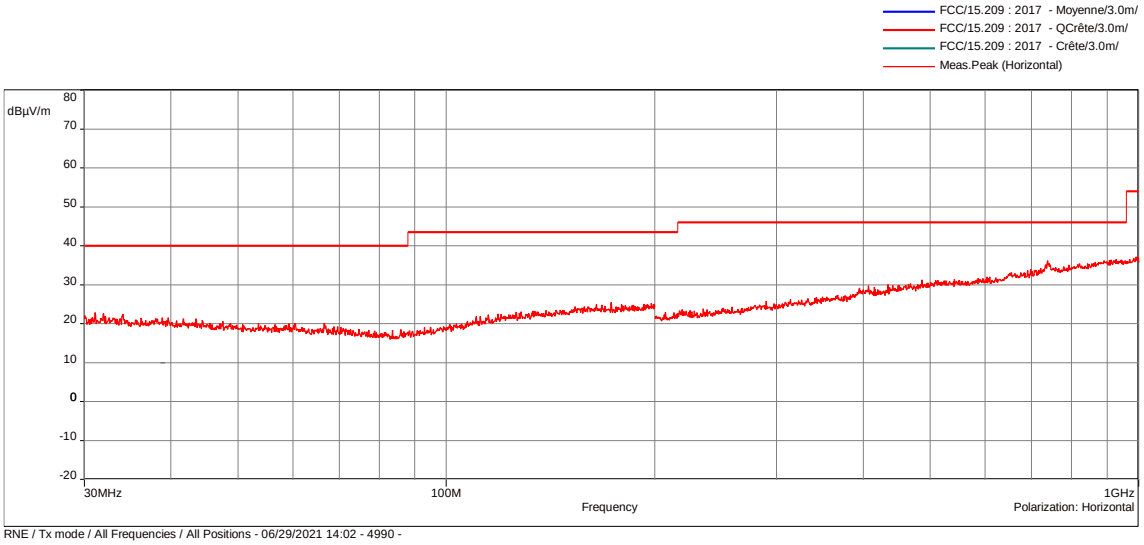
POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Circular	9kHz-150kHz	300Hz	1kHz	Peak
Circular	150kHz-1MHz	10kHz	30kHz	Peak
Circular	1MHz-30MHz	10kHz	30kHz	Peak
Configuration:	N/A			
Comments:	Limit indicated on these plots are calculated with 40 dB/decade extrapolation factor and 51.5dB conversion factor.			

EUT modification(s): N/A

RADIATED SPURIOUS EMISSIONS - GRAPH			
TX MODE / ALL FREQUENCIES / ALL POSITIONS		EMI4990	
EUT mode:	Continuous Tx Modulated	**T (°C):**	21.1
Test Date:	14/05/2021 15:14:16	**H (%):**	37.5
Test Operator:	NSO	**P (hPa):**	1012



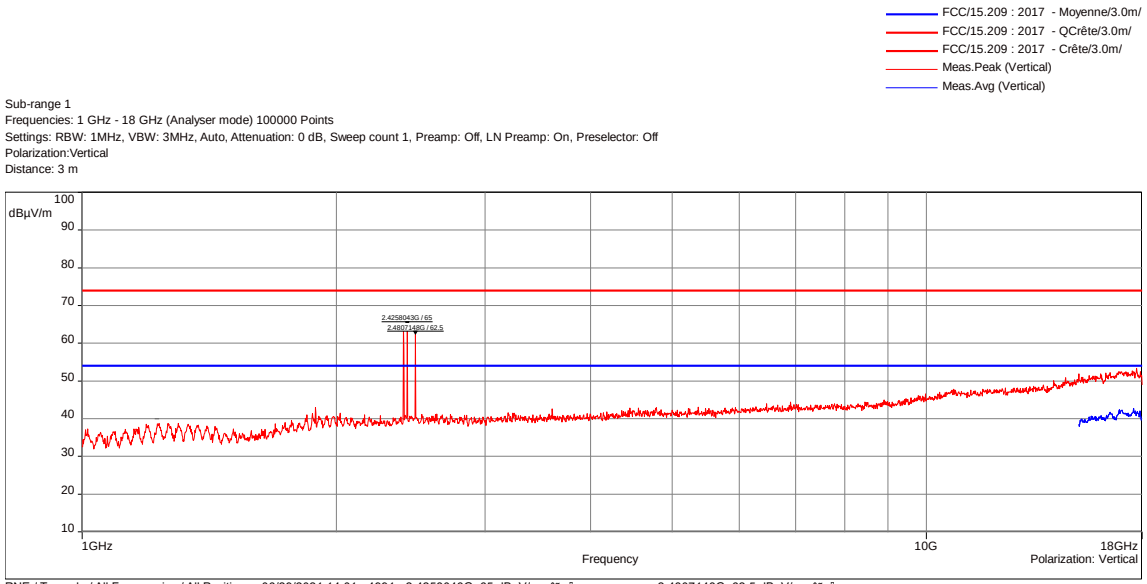
RNE / Tx mode / All Frequencies / All Positions - 06/29/2021 14:02 - 4990 -



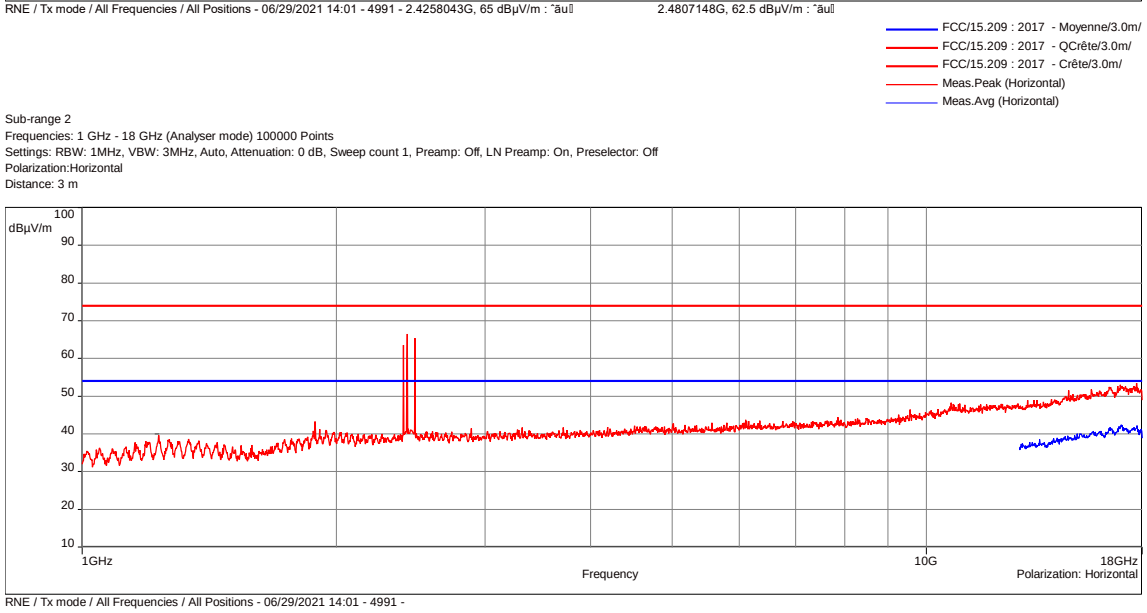
RNE / Tx mode / All Frequencies / All Positions - 06/29/2021 14:02 - 4990 -

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 - GRAPH			
TX MODE / ALL FREQUENCIES / ALL POSITIONS		EMI4991	
EUT mode:	Continuous Tx Modulated	**T (°C):**	21.1
Test Date:	14/05/2021 16:24:14	**H (%):**	37.5
Test Operator:	NSO	**P (hPa):**	1012



RNE / Tx mode / All Frequencies / All Positions - 06/29/2021 14:01 - 4991 - 2.4258043G, 65 dBµV/m : ˜âu▯ 2.4807148G, 62.5 dBµV/m : ˜âu▯



RNE / Tx mode / All Frequencies / All Positions - 06/29/2021 14:01 - 4991 -

POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	1GHz-18GHz	1MHz	3MHz	Mes.Peak; Mes.Avg;
Horizontal	1GHz-18GHz	1MHz	3MHz	Mes.Peak; Mes.Avg;
Configuration:	N/A			
Comments:	2.4GHz: Util Frequency			
EUT modification(s): N/A				

TRANSMITTER RADIATED SPURIOUS EMISSIONS AT FREQUENCIES - TABULATED RESULTS			
RNE / TX MODE / ALL FREQUENCIES / ALL POSITIONS			EMI4991
U_{Start} (start of the test):	3.6Vdc	**U_{End} (end of the test):**	3.6Vdc
Voltage drop:	0%	**Limit:**	+/- 5%
Frequency	**Polarization**	**Level**	**Limit**
30.63 kHz	0°	-10.18 dBµA/m (Peak)	66.38 dBµA/m (QPeak)
4.86 MHz	0°	-14.18 dBµA/m (Peak)	18.04 dBµA/m (QPeak)
30.80 kHz	45°	-11.71 dBµA/m (Peak)	66.33 dBµA/m (QPeak)
1.23 MHz	45°	-13.99 dBµA/m (Peak)	14.25 dBµA/m (QPeak)
153.06 kHz	90°	-10.048 dBµA/m (Peak)	52.40 dBµA/m (QPeak)
915.84 kHz	90°	-13.06 dBµA/m (Peak)	16.86 dBµA/m (QPeak)
32.78 MHz	Vertical	24.97 dBµV/m (Peak)	40 dBµV/m (QPeak)
197.81 MHz	Vertical	26.01 dBµV/m (Peak)	43.5 dBµV/m (QPeak)
825.07 MHz	Vertical	35.89 dBµV/m (Peak)	46 dBµV/m (QPeak)
34.12 MHz	Horizontal	22.44 dBµV/m (Peak)	40 dBµV/m (QPeak)
172.98 MHz	Horizontal	25.45 dBµV/m (Peak)	43.5 dBµV/m (QPeak)
738.56 MHz	Horizontal	36.23 dBµV/m (Peak)	46 dBµV/m (QPeak)
1889.78 MHz	Vertical	42.99 dBµV/m (Peak)	74 dBµV/m (Peak)
3604.25 MHz	Vertical	42.66 dBµV/m (Peak)	74 dBµV/m (Peak)
17.59 GHz	Vertical	42.75 dBµV/m (Average)	54 dBµV/m (Average)
1886.72 MHz	Horizontal	43.29 dBµV/m (Peak)	74 dBµV/m (Peak)
6108.04 MHz	Horizontal	43.74 dBµV/m (Peak)	74 dBµV/m (Peak)
17.00 GHz	Horizontal	42.33 dBµV/m (Average)	54 dBµV/m (Average)

End of test report