



LCIE

902MHz-928MHz Template: Release July 3rd, 2019

TEST REPORT

N°: 163634-742939-A

Version : 01

Subject

Radio spectrum matters
tests according to standards:
47 CFR Part 15.247 & RSS-247 Issue 2 & RSS-Gen Issue 5 [5](#)

Issued to

IJINUS
25 ZA de Kervidanou 3
29300 - MELLAC
FRANCE

Apparatus under test

↪ Product Temperature logger with 2 external probes
↪ Trade mark IJINUS
↪ Manufacturer IJINUS
↪ Model under test LT2
↪ Serial number IJT 30 05 0000 0815
↪ FCC ID SE6E004
↪ IC 10983A-E004

Conclusion

See Test Program chapter

Test date

: October 9, 2019 to November 21, 2019

Test location

Fontenay Aux Roses

Test Site

6230B-1

Composition of document

41 pages

Document issued on

January 6, 2020

Written by :
Julien Palard
Tests operator



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PUBLICATION HISTORY

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

Version	Date	Author	Modification
01	06/01/2019	J. PALARD	Creation of the document

Date of receipt of test item 08/10/2019



SUMMARY

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1. TEST PROGRAM

References

- 47 CFR Part 15.247
- RSS 247 Issue 2
- RSS Gen Issue 5
- KDB 558074 D01 DTS Meas Guidance v05r02
- ANSI C63.10-2013

Radio requirement:

Clause (47CFR Part 15.247 & RSS-247 Issue 2 & RSS-Gen Issue 5) Test Description	Test result - Comments			
Occupied Bandwidth Pb	☒ PASS	☐ FAIL	☐ NA	☐ NP(1)
6dB Bandwidth Pb	☒ PASS	☐ FAIL	☐ NA()	☐ NP(1)
Duty Cycle Pb	☒ PASS	☐ FAIL	☐ NA	☐ NP(1)
Maximum Conducted Output Power Pb	☒ PASS	☐ FAIL	☐ NA	☐ NP(1)
Power Spectral Density Pb	☒ PASS	☐ FAIL	☐ NA	☐ NP(1)
Conducted Spurious Emission at the Band Edge Pb	☒ PASS	☐ FAIL	☐ NA()	☐ NP(1)
Unwanted Emissions into Non-Restricted Frequency Bands Pb	☒ PASS	☐ FAIL	☐ NA()	☐ NP(1)
AC Power Line Conducted Emission Pb	☐ PASS	☐ FAIL	☒ NA(2)	☐ NP(1)
Unwanted Emissions into Restricted Frequency Bands Pb	☒ PASS	☐ FAIL	☐ NA	☐ NP(1)
Receiver Radiated emissions Pb	☒ PASS	☐ FAIL	☐ NA	☐ NP(1)
This table is a summary of test report, see conclusion of each clause of this test report for detail.				

(1): Limited program

(2): EUT not directly or indirectly connected to the AC Power Public Network

PASS: EUT complies with standard's requirement

FAIL: EUT does not comply with standard's requirement

NA: Not Applicable

NP: Test Not Performed

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

2.1. HARDWARE IDENTIFICATION (EUT AND AUXILIARIES):

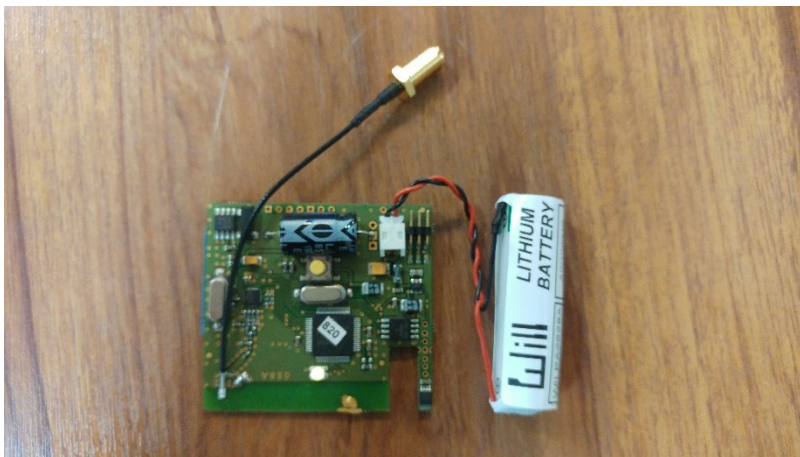
Equipment under test (EUT):

IJINUS LT2

Serial Number: IJT 30 05 0000 0815



Equipment Under Test



Equipment Under Test

Inputs/outputs - Cable:

Access	Type	Length used (m)	Declared <3m	Shielded	Under test	Comments
-	-	-	☐	☐	☐	-

Equipment information:

Type:			
Frequency band:	[902 – 928] MHz		
Number of Channel:	1		
Spacing channel:	-		
Channel bandwidth:	0,6 MHz		
Antenna Type:	☒ Integral	☐ External	☐ Dedicated
Antenna connector:	☐ Yes	☐ No	☒ Temporary for test
Transmit chains:	☒ 1	☐ 2	
Receiver chains:	☒ 1	☐ 2	
Type of equipment:	☒ Stand-alone	☐ Plug-in	☐ Combined
Ad-Hoc mode:	☐ Yes		☒ No
Duty cycle:	☒ Continuous duty	☐ Intermittent duty	☐ 100% duty
Equipment type:	☒ Production model		☐ Pre-production model
Operating temperature range:	Tmin:	☐ -20°C	☐ 0°C ☒ -35°C
	Tnom:	20°C	
	Tmax:	☐ 35°C	☐ 55°C ☒ 85°C
Type of power source:	☐ AC power supply	☐ DC power supply	☒ Battery
Operating voltage range:	Vnom:	☐ 120V/60Hz	☒ 3,6 Vdc

Antenna Characteristic			
Antenna assembly	Gain (dBi)	Frequency Band (MHz)	Impedance(Ω)
1	0	902-928	50

CHANNEL PLAN	
Channel	Frequency (MHz)
Cnom	915

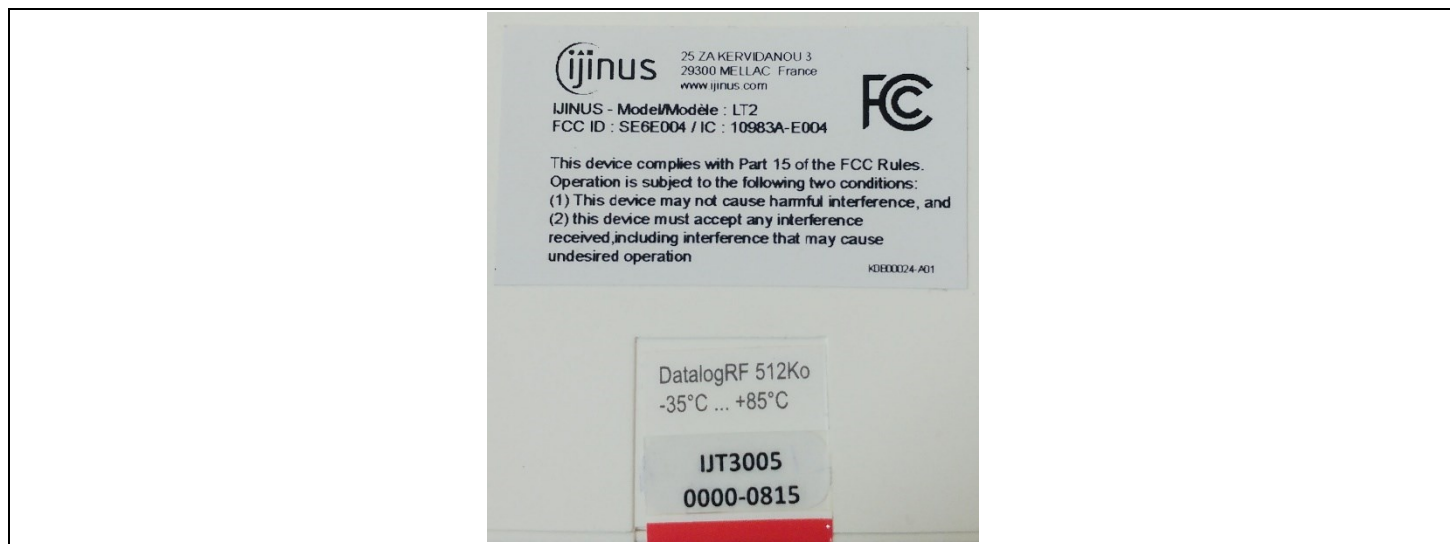
Modulation Type	Worst Case Modulation
GFSK	☒

2.2. RUNNING MODE

Test mode	Description of test mode
Test mode 1	Permanent emission with modulation on a fixed channel in the data rate that produced the highest power
Test mode 2	Permanent reception

Test	Running mode
Occupied Bandwidth	☒ Test mode 1 ☐ Alternative test mode()
6dB Bandwidth	☒ Test mode 1 ☐ Alternative test mode()
Duty Cycle	☒ Test mode 1 ☐ Alternative test mode()
Maximum Conducted Output Power	☒ Test mode 1 ☐ Alternative test mode()
Power Spectral Density	☒ Test mode 1 ☐ Alternative test mode()
Conducted Spurious Emission at the Band Edge	☒ Test mode 1 ☐ Alternative test mode()
Unwanted Emissions into Non-Restricted Frequency Bands	☒ Test mode 1 ☐ Alternative test mode()
AC Power Line Conducted Emission	☒ Test mode 1 ☐ Alternative test mode()
Unwanted Emissions into Restricted Frequency Bands	☒ Test mode 1 ☐ Alternative test mode()
Receiver Radiated emissions	☒ Test mode 2 ☐ Alternative test mode()

2.3. EQUIPMENT LABELLING



2.4. EQUIPMENT MODIFICATION

☒ None ☐ Modification:

3. OCCUPIED BANDWIDTH

3.1. TEST CONDITIONS

Test performed by : Julien Palard
Date of test : October 9, 2019
Ambient temperature : 23 °C
Relative humidity : 44 %

3.2. TEST SETUP

- The Equipment Under Test is installed:

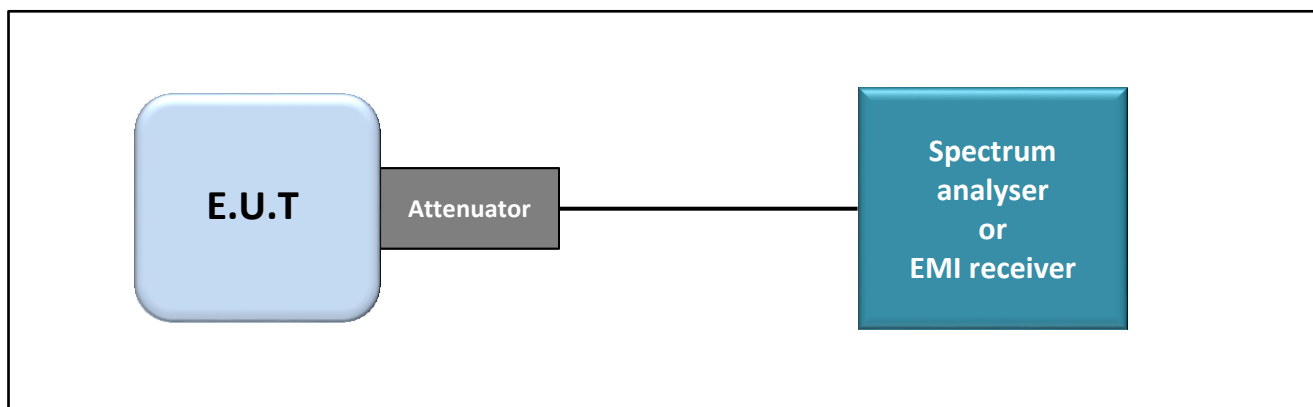
- ☒ On a table
- ☐ In an anechoic chamber

- Measurement is performed with a spectrum analyzer in:

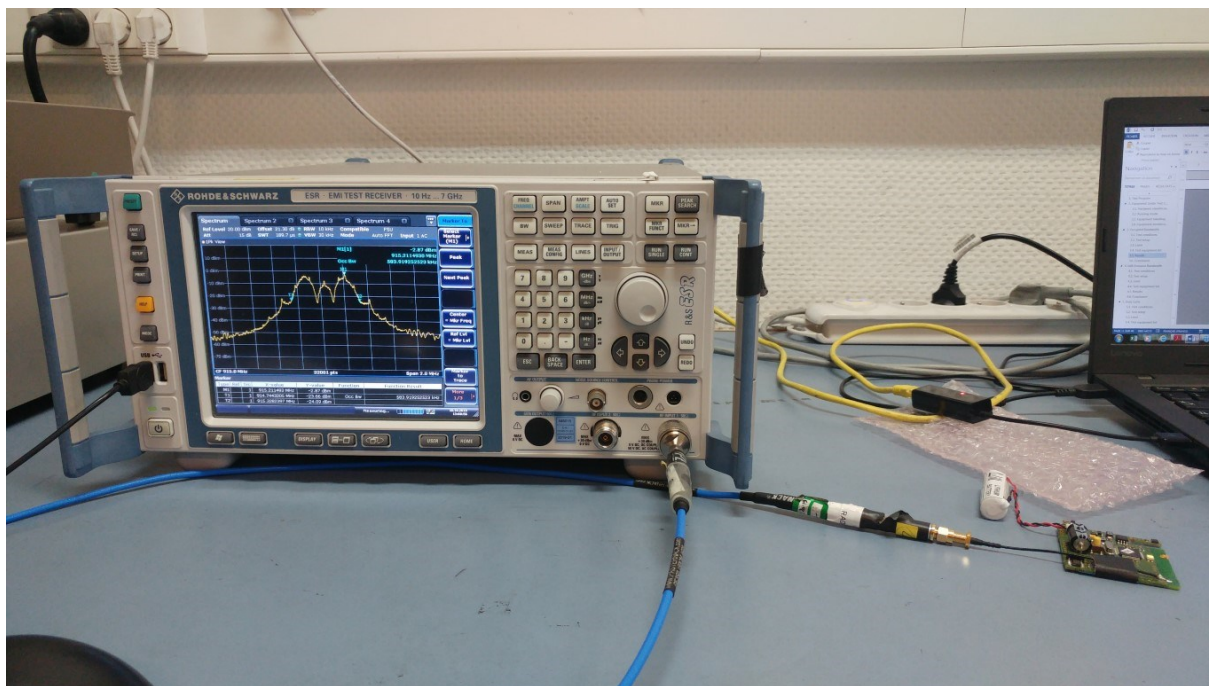
- ☒ Conducted Method
- ☐ Radiated Method

- Test Procedure:

- ☐ RSS-Gen Issue 5 § 6.7
- ☒ ANSI C63.10 § 6.9.3



Test set up of Occupied Bandwidth



Photograph for Occupied bandwidth

3.3. LIMIT

None

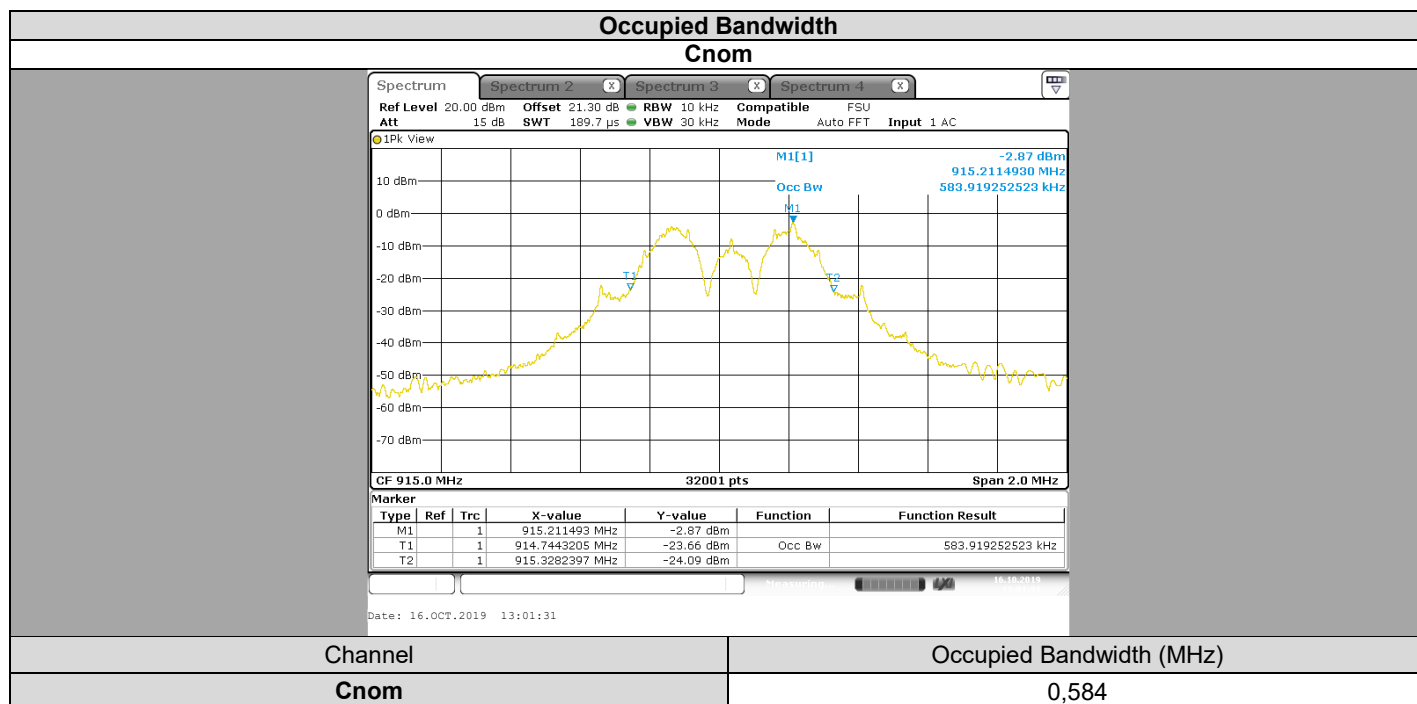
3.4. TEST EQUIPMENT LIST

Apparatus	Trade Mark	Type	Registration number	Cal_Date	Cal_Due
Cable + Attenuateur 20dB	PASTERNAK	PE350-150CM	A5329868	2018/12	2019/12
EMI receiver	ROHDE & SCHWARZ	ESR7	A2642023	2019/01	2021/01

Note: In our quality system, the test equipment calibration due is more & less 2 months



3.5. RESULTS



3.6. CONCLUSION

Occupied Channel Bandwidth measurement performed on the sample of the product **IJINUS LT2**, SN: **IJT 30 05 0000 0815**, in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.247 & RSS-GEN ISSUE 5** limits.

4. 6dB EMISSION BANDWIDTH

4.1. TEST CONDITIONS

Test performed by : Julien Palard
Date of test : October 9, 2019
Ambient temperature : 23 °C
Relative humidity : 44 %

4.2. TEST SETUP

- The Equipment Under Test is installed:

- ☒ On a table
☐ In an anechoic chamber

- Measurement is performed with a spectrum analyzer in:

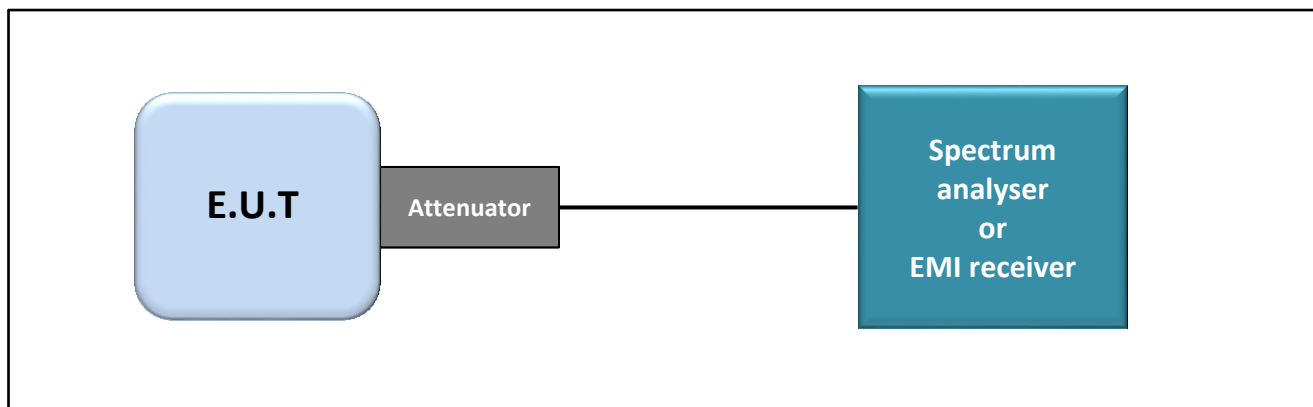
- ☒ Conducted Method
☐ Radiated Method

- Test Procedure:

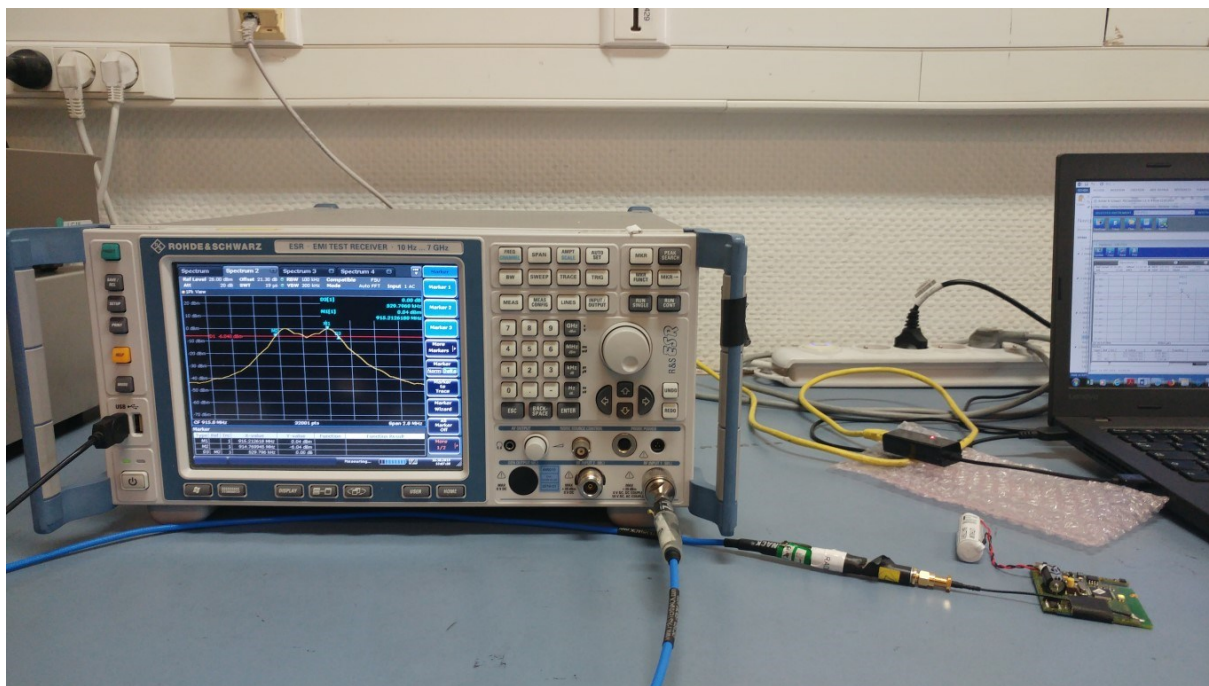
- ☒ ANSI C63.10 § 11.8.1
☐ ANSI C63.10 § 11.8.2

Measurement Procedure:

1. Set resolution bandwidth (RBW) = 100kHz.
2. Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission. Compare the resultant bandwidth with the RBW setting of the analyzer.



Test set up of 6dB Emission Bandwidth



Photograph for 6dB emission bandwidth

4.3. LIMIT

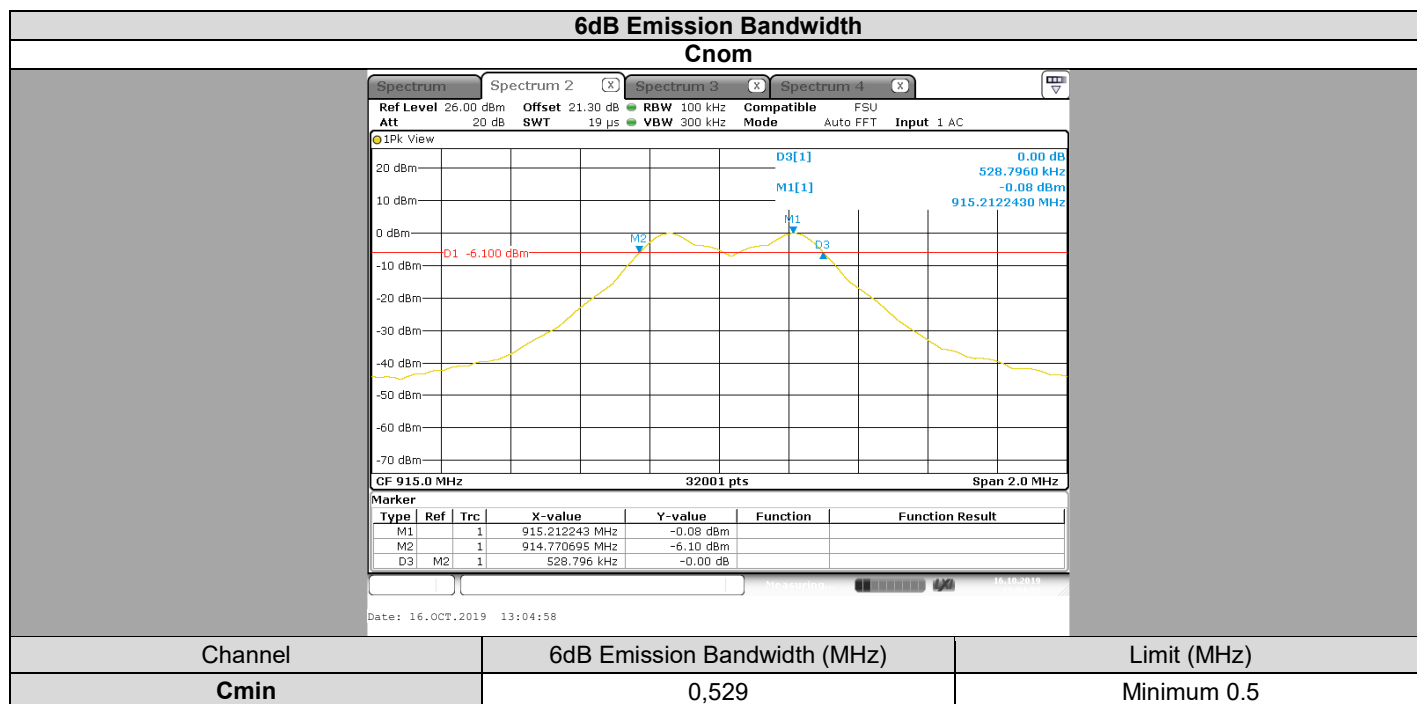
The 6dB bandwidth shall be at least 500kHz

4.4. TEST EQUIPMENT LIST

Apparatus	Trade Mark	Type	Registration number	Cal_Date	Cal_Due
Cable + Attenuateur 20dB	PASTERNAK	PE350-150CM	A5329868	2018/12	2019/12
EMI receiver	ROHDE & SCHWARZ	ESR7	A2642023	2019/01	2021/01

Note: In our quality system, the test equipment calibration due is more & less 2 months

4.5. RESULTS



4.6. CONCLUSION

6dB Emission Bandwidth measurement performed on the sample of the product **IJINUS LT2**, SN: **IJT 30 05 0000 0815**, in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.247 & RSS 247 ISSUE 2** limits.

5. DUTY CYCLE

5.1. TEST CONDITIONS

Test performed by : Julien Palard
Date of test : October 9, 2019
Ambient temperature : 23 °C
Relative humidity : 44 %

5.2. TEST SETUP

- The Equipment Under Test is installed:

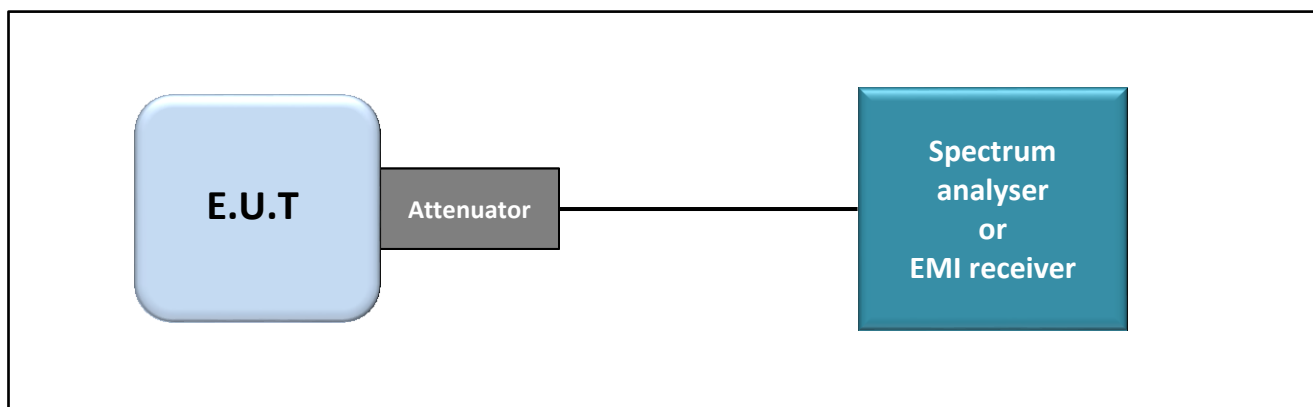
- ☒ On a table
- ☐ In an anechoic chamber

- Measurement is performed with a spectrum analyzer in:

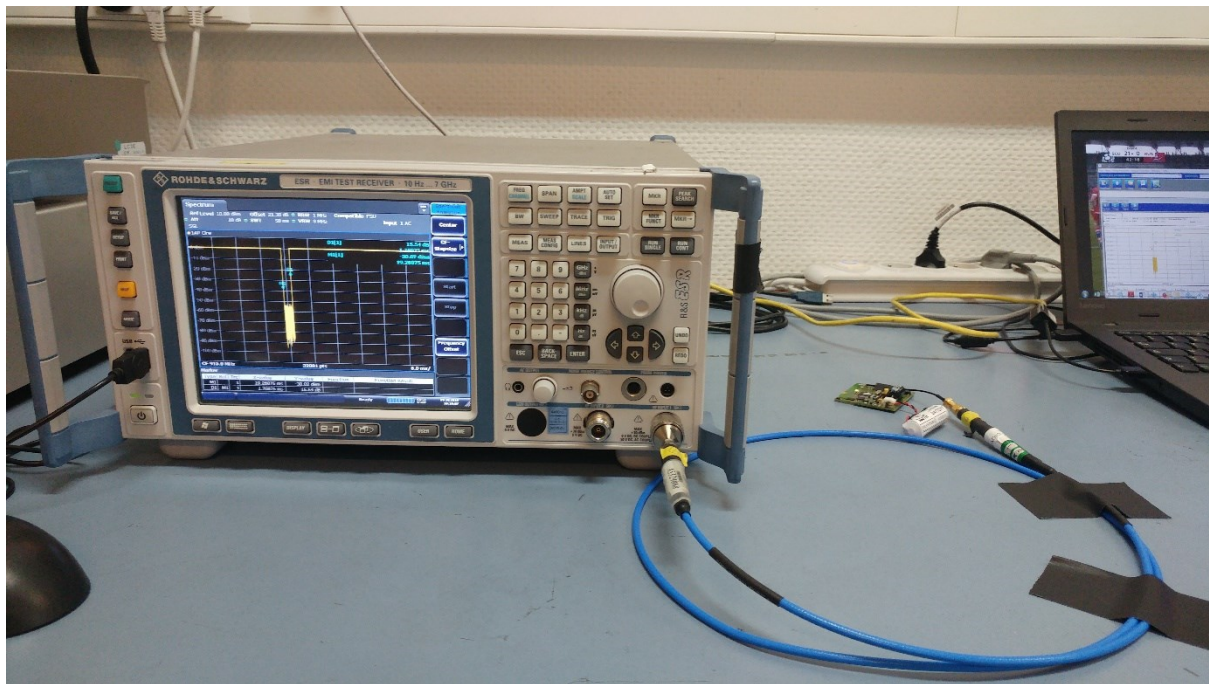
- ☒ Conducted Method
- ☐ Radiated Method

- Test Procedure:

- ☒ ANSI C63.10 § 11.6



Test set up of Duty Cycle



Photograph for Duty Cycle

5.3. LIMIT

None

5.4. TEST EQUIPMENT LIST

Apparatus	Trade Mark	Type	Registration number	Cal_Date	Cal_Due
Cable + Attenuateur 20dB	PASTERNAK	PE350-150CM	A5329868	2018/12	2019/12
EMI receiver	ROHDE & SCHWARZ	ESR7	A2642023	2019/01	2021/01

Note: In our quality system, the test equipment calibration due is more & less 2 months

5.5. RESULTS



5.6. CONCLUSION

Duty Cycle measurement performed on the sample of the product **IJINUS LT2**, SN: **IJT 30 05 0000 0815**, in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.247 & RSS 247 ISSUE 2** limits.

6. MAXIMUM CONDUCTED OUTPUT POWER

6.1. TEST CONDITIONS

Test performed by : Julien Palard
Date of test : October 9, 2019
Ambient temperature : 23 °C
Relative humidity : 44 %

6.2. TEST SETUP

- The Equipment Under Test is installed:

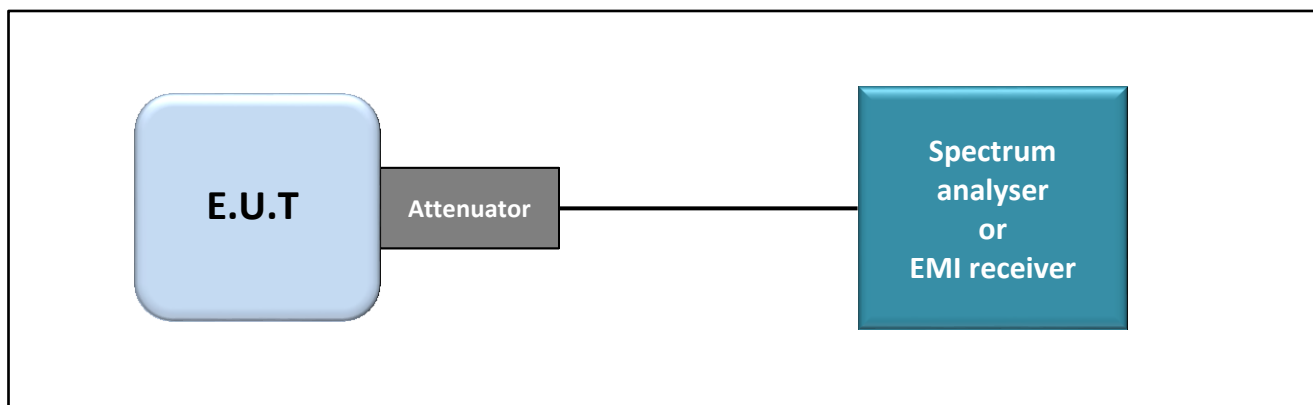
- ☒ On a table
- ☐ In an anechoic chamber

- Measurement is performed with a spectrum analyzer in:

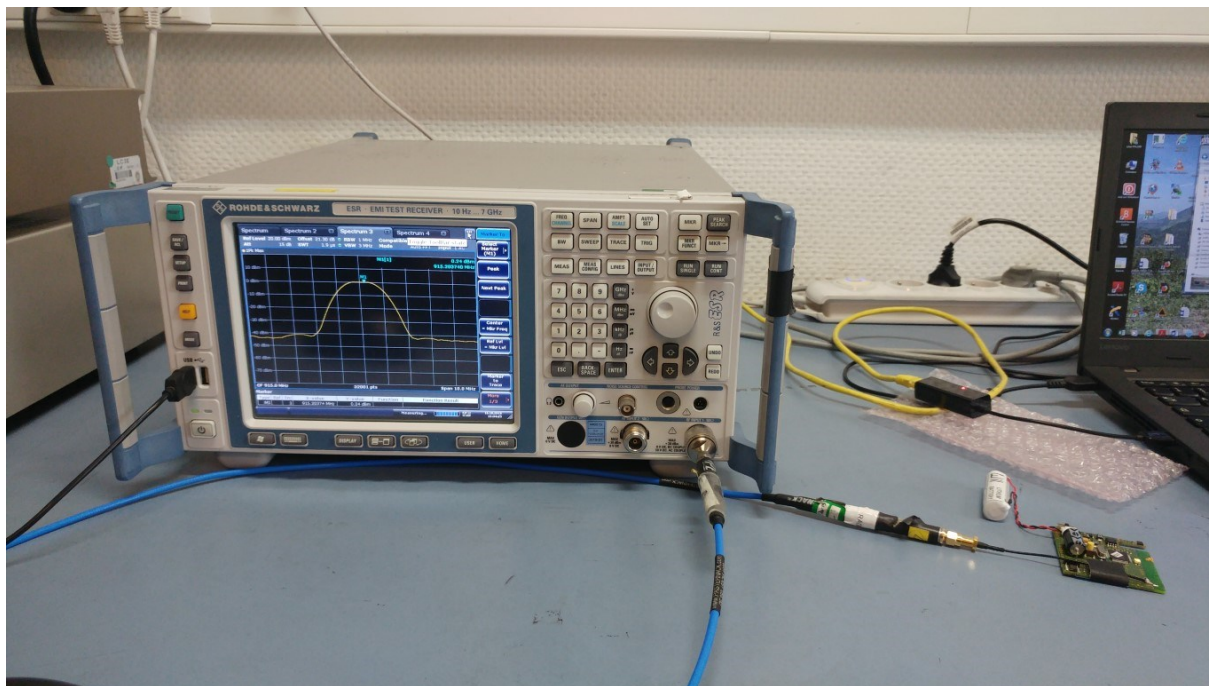
- ☒ Conducted Method
- ☐ Radiated Method

- Test Procedure:

- ☒ ANSI C63.10 § 11.9.1.1
- ☐ ANSI C63.10 § 11.9.1.2
- ☐ ANSI C63.10 § 11.9.2.2.2 (Method AVGSA-1)
- ☐ ANSI C63.10 § 11.9.2.2.4 (Method AVGSA-2)



Test set up of Maximum Conducted Output Power



Photograph for Maximum Conducted Output Power

6.3. LIMIT

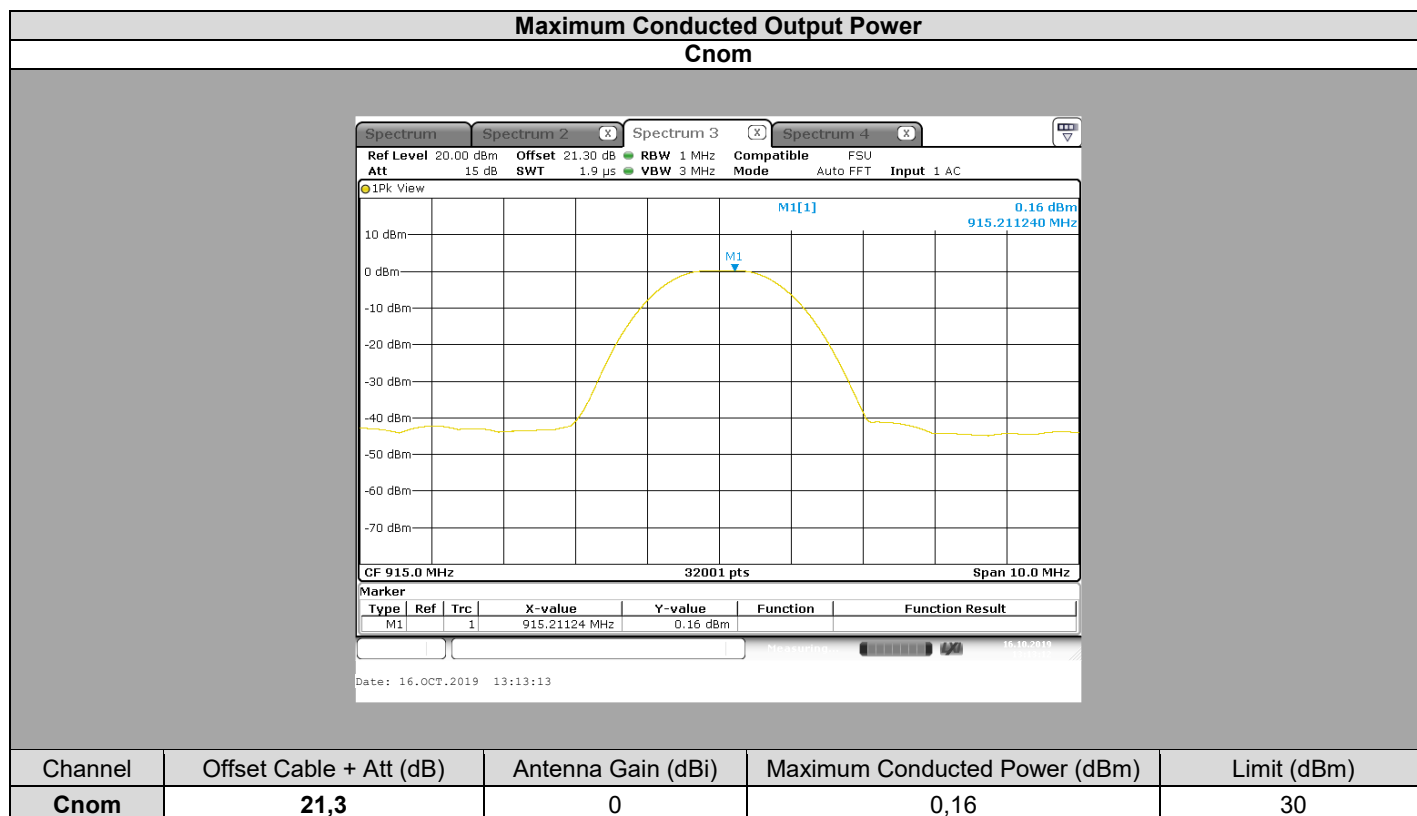
Maximum Conducted Output power:
 902-928MHz: Shall not exceed 30dBm
 Limits are reduced by G-6dBi if Overall Antenna Gain above 6dBi

6.4. TEST EQUIPMENT LIST

Apparatus	Trade Mark	Type	Registration number	Cal_Date	Cal_Due
Cable + Attenuateur 20dB	PASTERNAK	PE350-150CM	A5329868	2018/12	2019/12
EMI receiver	ROHDE & SCHWARZ	ESR7	A2642023	2019/01	2021/01

Note: In our quality system, the test equipment calibration due is more & less 2 months

6.5. RESULTS



6.6. CONCLUSION

Maximum Conducted Output Power measurement performed on the sample of the product **IJINUS LT2**, SN: **IJT 30 05 0000 0815**, in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.247 & RSS 247 ISSUE 2** limits.

7. POWER SPECTRAL DENSITY

7.1. TEST CONDITIONS

Test performed by : Julien Palard
Date of test : October 9, 2019
Ambient temperature : 23 °C
Relative humidity : 44 %

7.2. TEST SETUP

- The Equipment Under Test is installed:

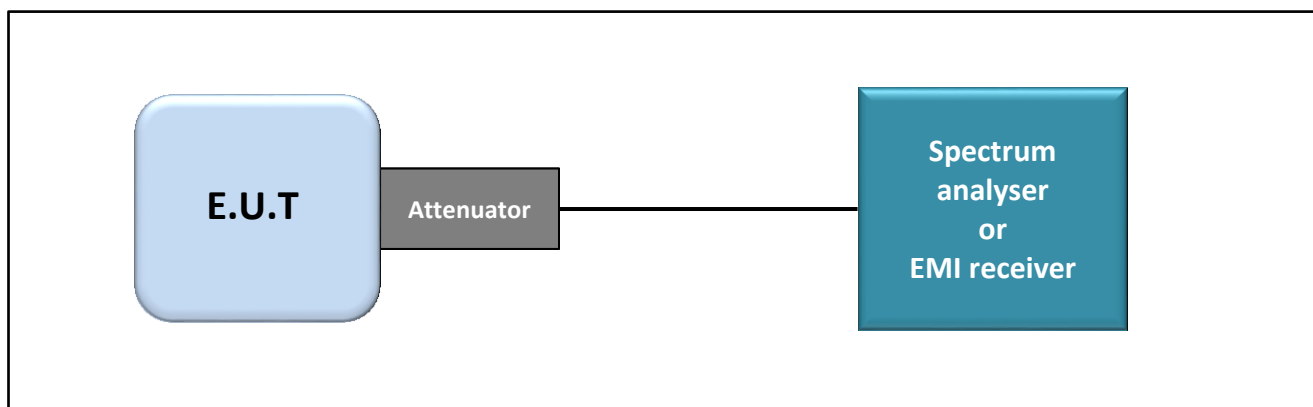
- ☒ On a table
- ☐ In an anechoic chamber

- Measurement is performed with a spectrum analyzer in:

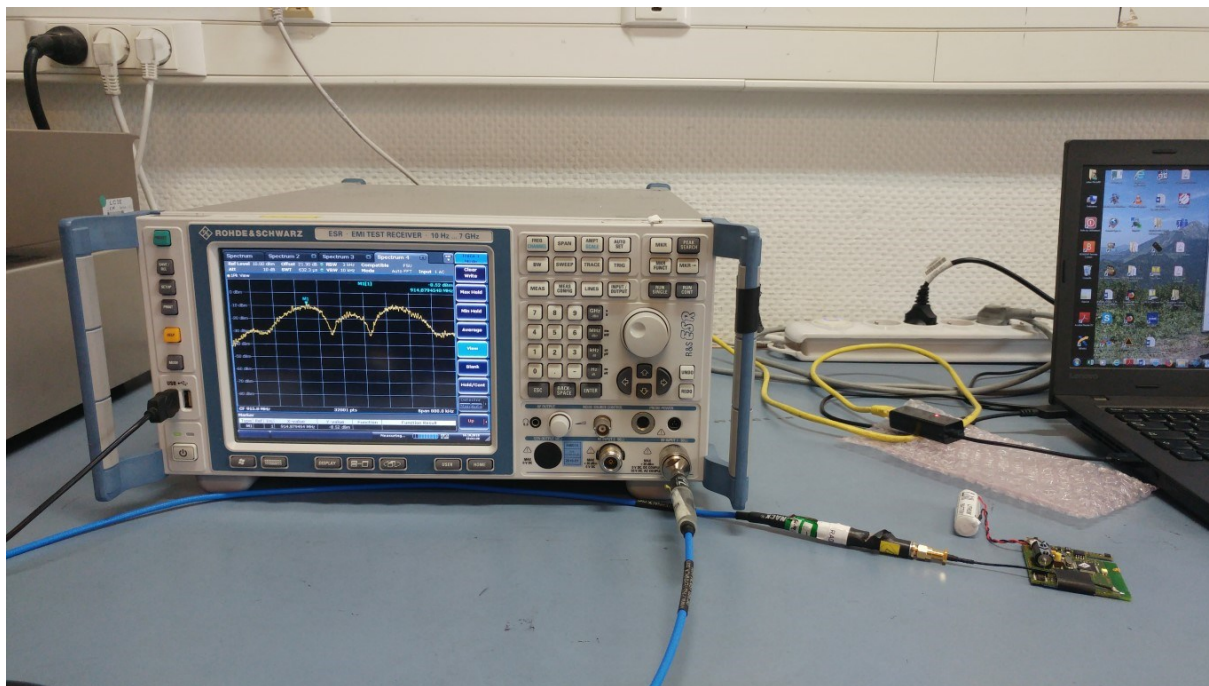
- ☒ Conducted Method
- ☐ Radiated Method

- Test Procedure:

- ☒ ANSI C63.10 § 11.10.2 (Method PKPSD)
- ☐ ANSI C63.10 § 11.10.3 (Method AVGPSD-1)



Test set up of Power Spectral Density



Photograph for Power Spectral Density

7.3. LIMIT

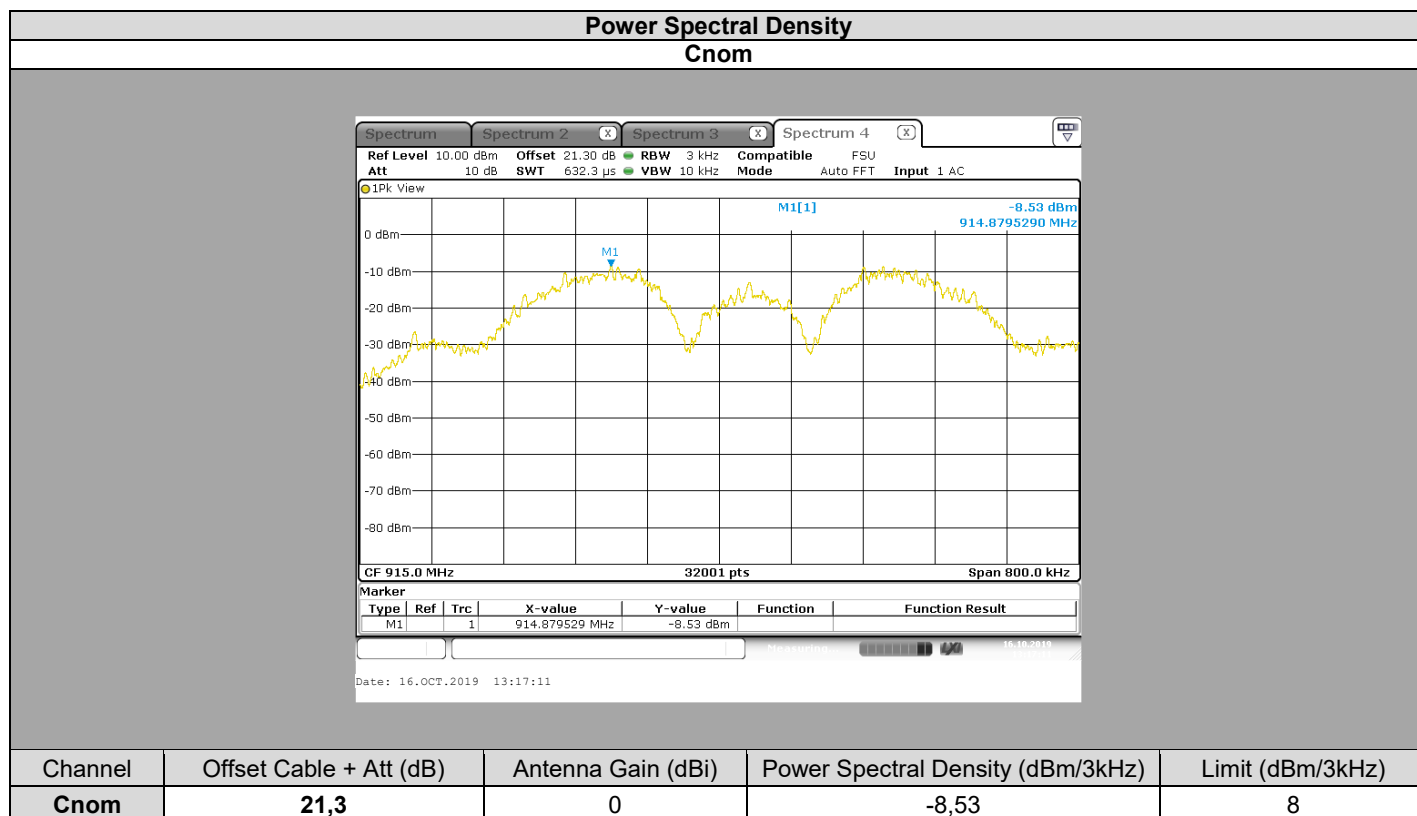
Power Spectral Density:
 902-928MHz: Shall not exceed 8dBm/3kHz
 Limits are reduced by G-6dBi if Overall Antenna Gain above 6dBi

7.4. TEST EQUIPMENT LIST

Apparatus	Trade Mark	Type	Registration number	Cal_Date	Cal_Due
Cable + Attenuateur 20dB	PASTERNAK	PE350-150CM	A5329868	2018/12	2019/12
EMI receiver	ROHDE & SCHWARZ	ESR7	A2642023	2019/01	2021/01

Note: In our quality system, the test equipment calibration due is more & less 2 months

7.5. RESULTS



7.6. CONCLUSION

Power Spectral Density measurement performed on the sample of the product **IJINUS LT2**, SN: **IJT 30 05 0000 0815**, in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.247 & RSS 247 ISSUE 2** limits.

8. UNWANTED EMISSIONS INTO NON-RESTRICTED FREQUENCY BANDS AT THE BAND EDGE

8.1. TEST CONDITIONS

Test performed by : Julien Palard
Date of test : October 9, 2019
Ambient temperature : 23 °C
Relative humidity : 44 %

8.2. TEST SETUP

- The Equipment Under Test is installed:

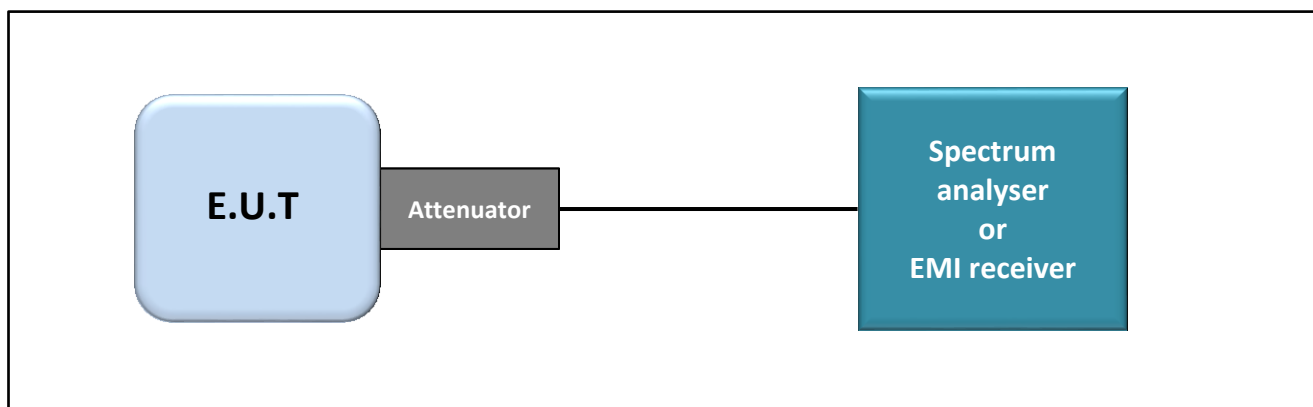
- ☒ On a table
- ☐ In an anechoic chamber

- Measurement is performed with a spectrum analyzer in:

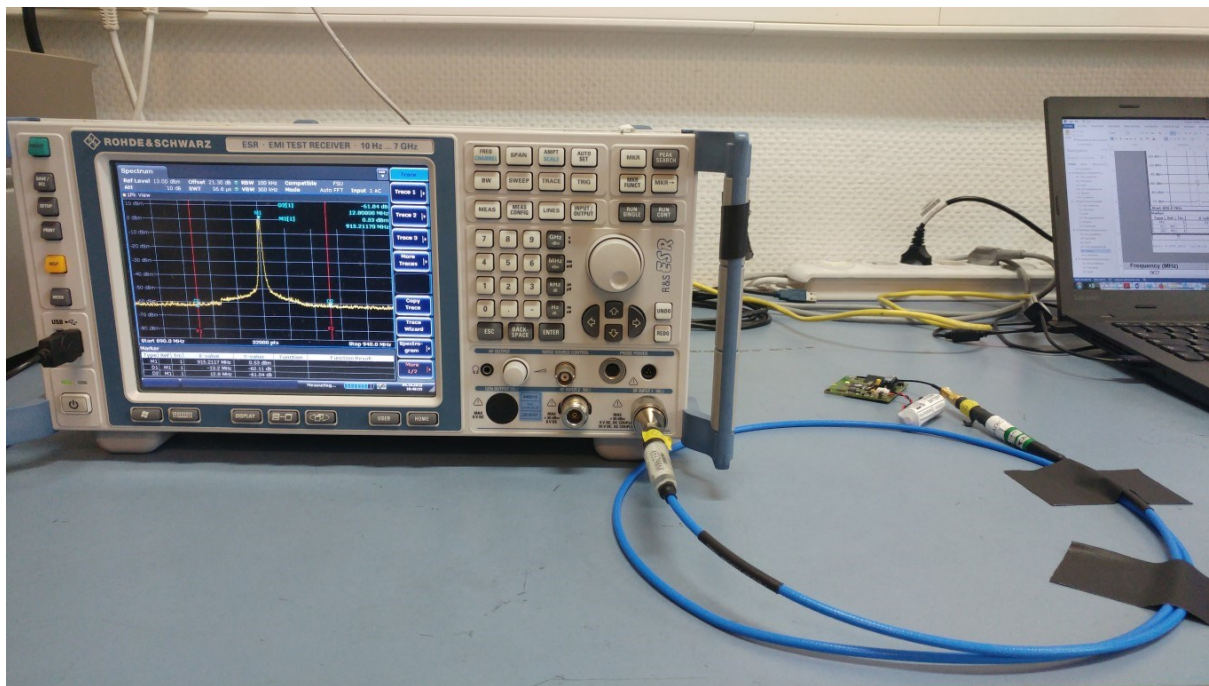
- ☒ Conducted Method
- ☐ Radiated Method

- Test Procedure:

- ☒ ANSI C63.10 § 11.11



Test set up of Unwanted Emissions into Non-Restricted Frequency Bands at the Band Edge



Photograph for Unwanted Emission into non-restricted frequency bands at the band edge

8.3. LIMIT

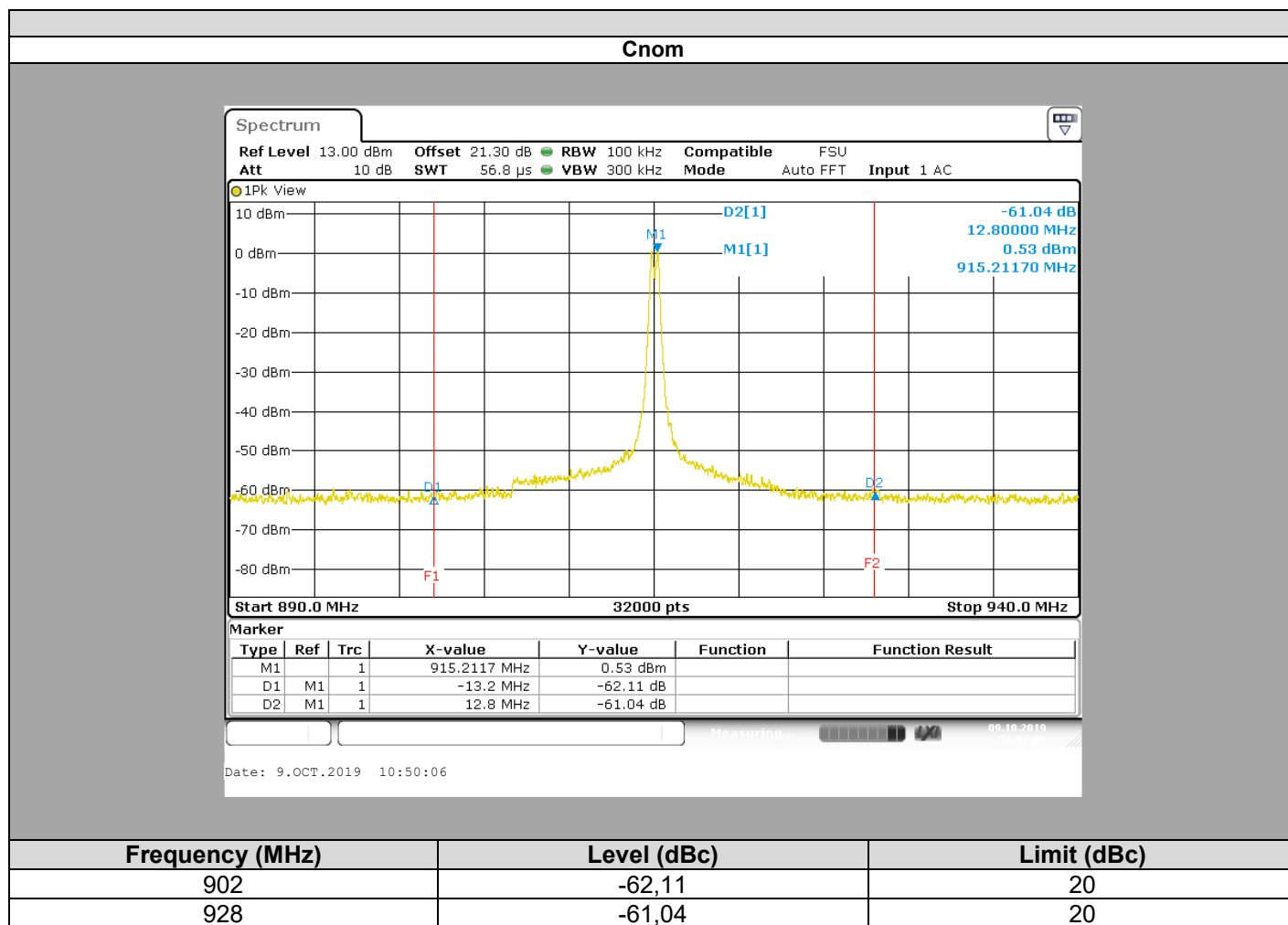
All Spurious Emissions must be at least 20dB (Maximum Conducted Power) below the Fundamental Radiator Level at the Band Edge “902MHz & 928MHz”

8.4. TEST EQUIPMENT LIST

Apparatus	Trade Mark	Type	Registration number	Cal_Date	Cal_Due
Cable + Attenuateur 20dB	PASTERNAK	PE350-150CM	A5329868	2018/12	2019/12
EMI receiver	ROHDE & SCHWARZ	ESR7	A2642023	2019/01	2021/01

Note: In our quality system, the test equipment calibration due is more & less 2 months.

8.5. RESULTS



8.6. CONCLUSION

Unwanted Emission into non-restricted frequency bands at the band edge measurement performed on the sample of the product **IJINUS LT2**, SN: **IJT 30 05 0000 0815**, in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.247 & RSS 247 ISSUE 2** limits.

9. UNWANTED EMISSIONS INTO NON-RESTRICTED FREQUENCY BANDS

9.1. TEST CONDITIONS

Test performed by : Julien Palard
Date of test : October 9, 2019
Ambient temperature : 23 °C
Relative humidity : 44 %

9.2. TEST SETUP

- The Equipment Under Test is installed:

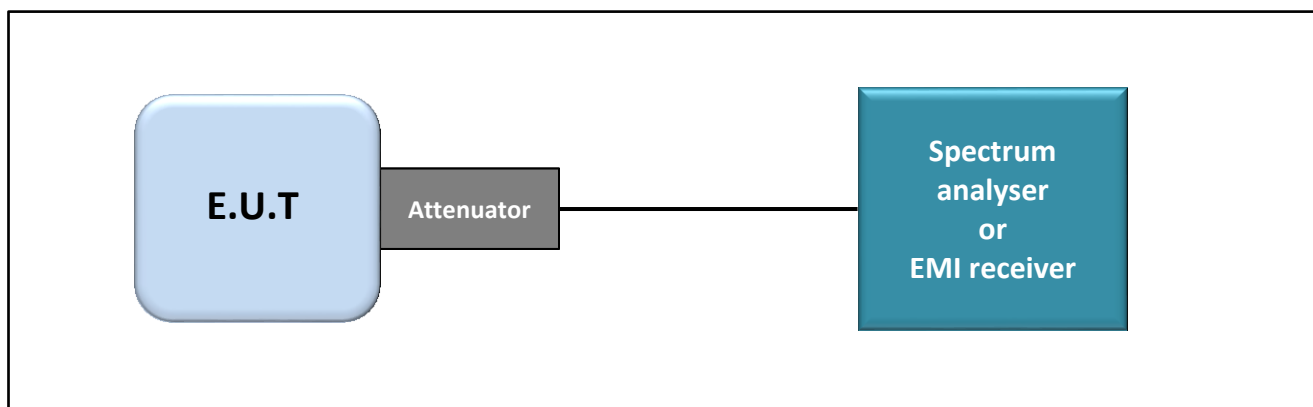
- ☒ On a table
- ☐ In an anechoic chamber

- Measurement is performed with a spectrum analyzer in:

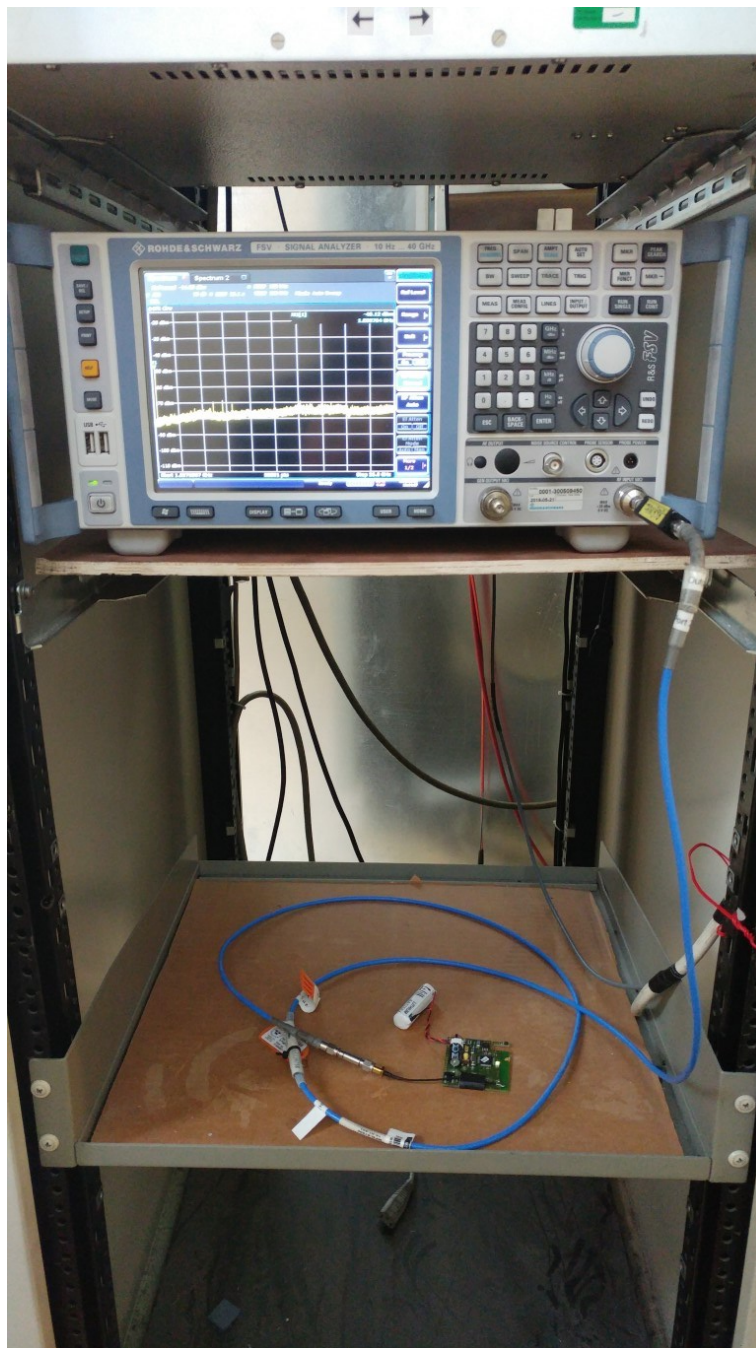
- ☒ Conducted Method
- ☐ Radiated Method

- Test Procedure:

- ☒ ANSI C63.10 § 11.11



Test set up of Unwanted Emissions into Non-Restricted Frequency Bands



Photograph for Unwanted Emission into non-restricted frequency bands



9.3. LIMIT

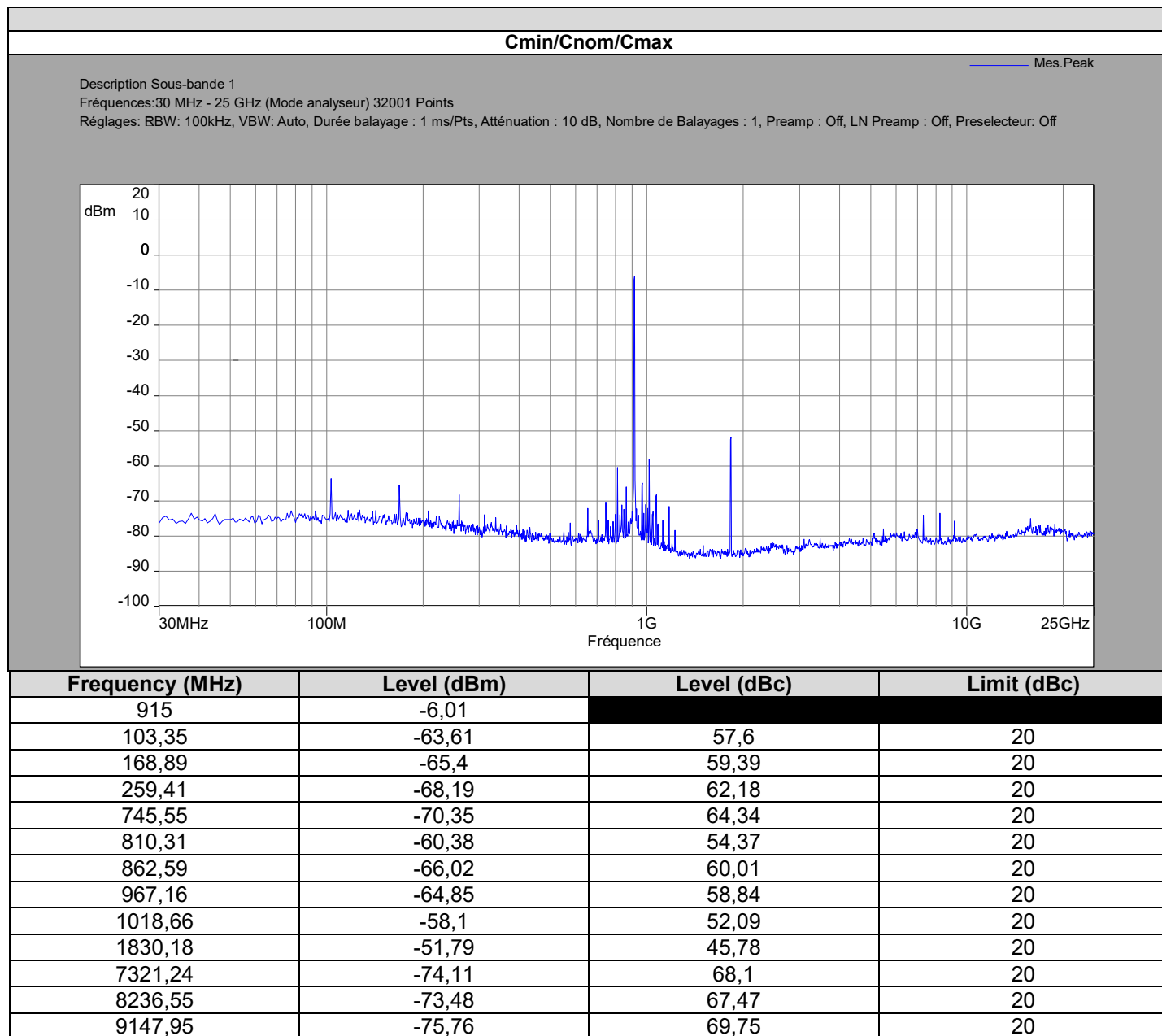
All Spurious Emissions must be at least 20dB (Maximum Conducted Power) below the Fundamental Radiator Level

9.4. TEST EQUIPMENT LIST

Apparatus	Trade Mark	Type	Registration number	Cal_Date	Cal_Due
Cable Conducted S36 chamber	TELEDYNE	084-0555-2MTR	A5329758	2019/02	2020/02
Attenuator 3dB Cable Spurious Conducted	-	WA54-3-12	A7122223	2019/02	2020/02
High Pass Filter 868MHz	WAINWRIGHT	WHKX12-935	A7484069	2017/10	2019/10
EMI receiver	ROHDE & SCHWARZ	FSV40GHz	A4060061	2019/05	2021/05

Note: In our quality system, the test equipment calibration due is more & less 2 months

9.5. RESULTS



9.6. CONCLUSION

Unwanted Emission into non-restricted frequency bands measurement performed on the sample of the product **IJINUS LT2**, SN: **IJT 30 05 0000 0815**, in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.247 & RSS 247 ISSUE 2** limits.

10. UNWANTED EMISSIONS IN RESTRICTED FREQUENCY BANDS

10.1. TEST CONDITIONS

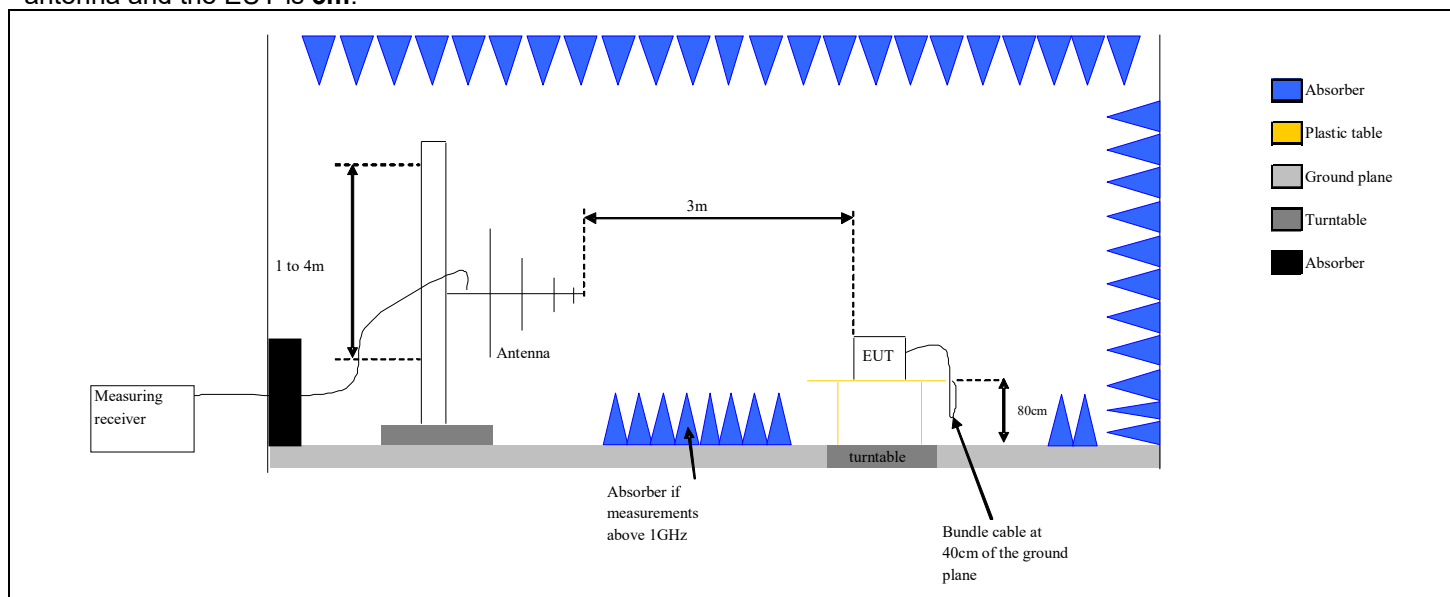
Test performed by : Steve BOGLER
 Date of test : October 25, 2019 to October 25, 2019
 Ambient temperature : 18 °C
 Relative humidity : 38 %

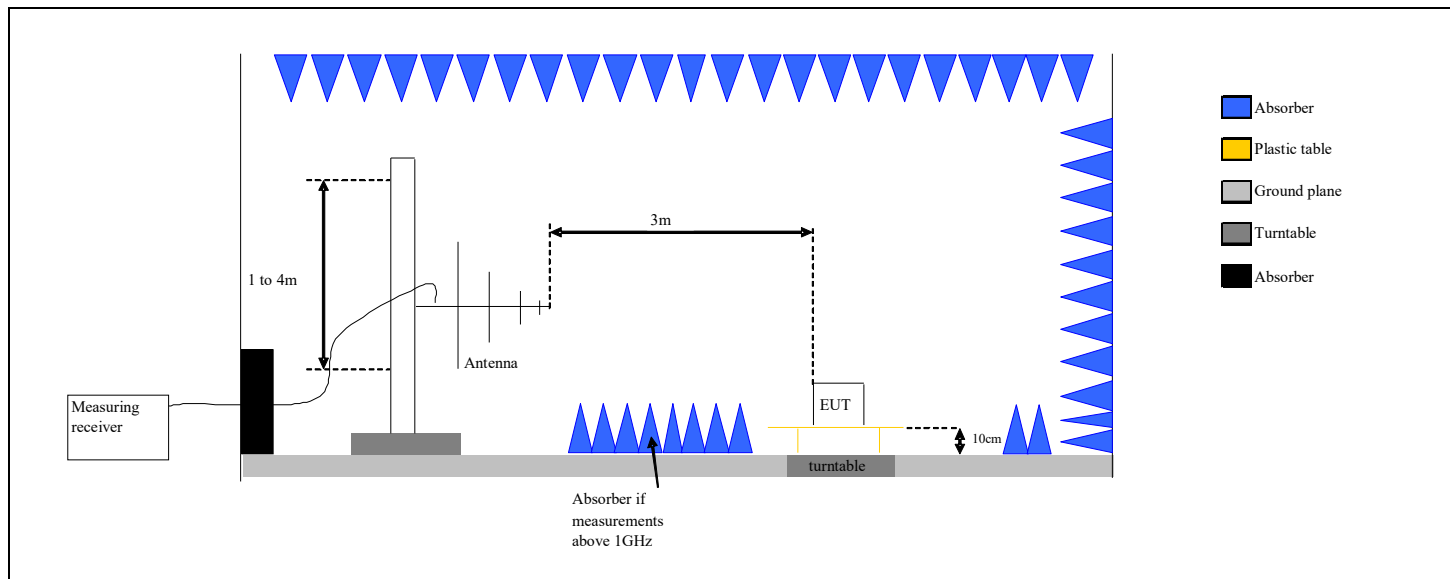
10.2. TEST SETUP

The product has been tested according to ANSI C63.10 (2013).

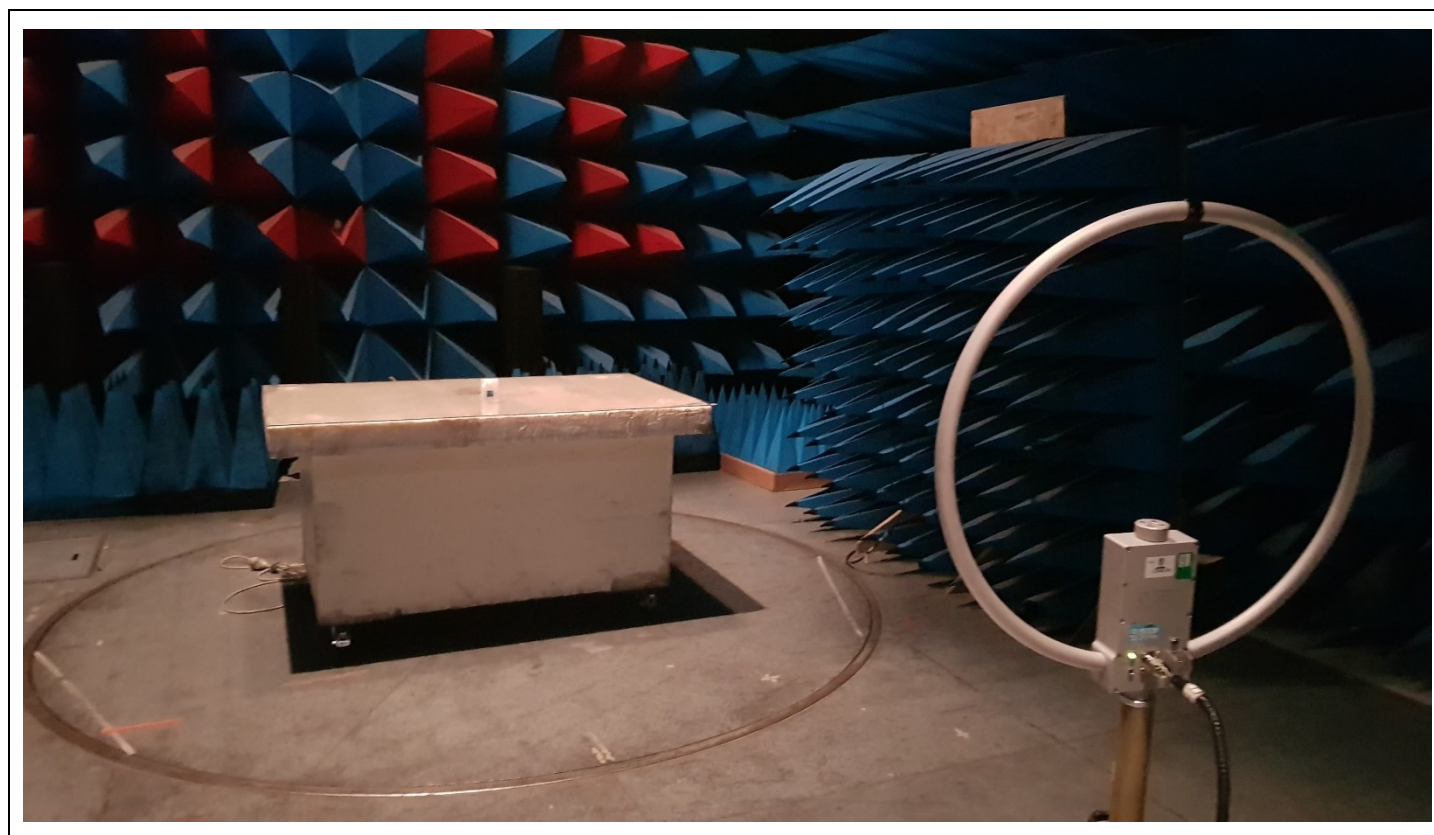
Test is performed in parallel, perpendicular and ground parallel axis with a loop antenna below 30MHz. Measurement bandwidth was 200Hz below 150kHz and 9kHz between 150kHz & 30MHz. The level has been maximised by the turntable rotation of 360 degrees range on the 3 axis of EUT. Antenna height was 1m. The EUT is placed **in a semi-anechoic chamber**. Distance between measuring antenna and the EUT is **3m**.

Test is performed in horizontal (H) and vertical (V) polarization with **bilog** between 30MHz & 1GHz and with a horn antenna above 1GHz. Measurement bandwidth was 120kHz below 1GHz and 1MHz above 1GHz. The level has been maximised by the turntable rotation of 360 degrees range on the 3 axis of EUT. Antenna height search was performed from 1 to 4m. The EUT is place at 1.5m high above 1GHz and at 0.8m high under 1GHz. The EUT is placed **in a semi-anechoic chamber** above 1GHz and **in a semi-anechoic chamber** from 30MHz to 1GHz. Distance between measuring antenna and the EUT is **3m**.

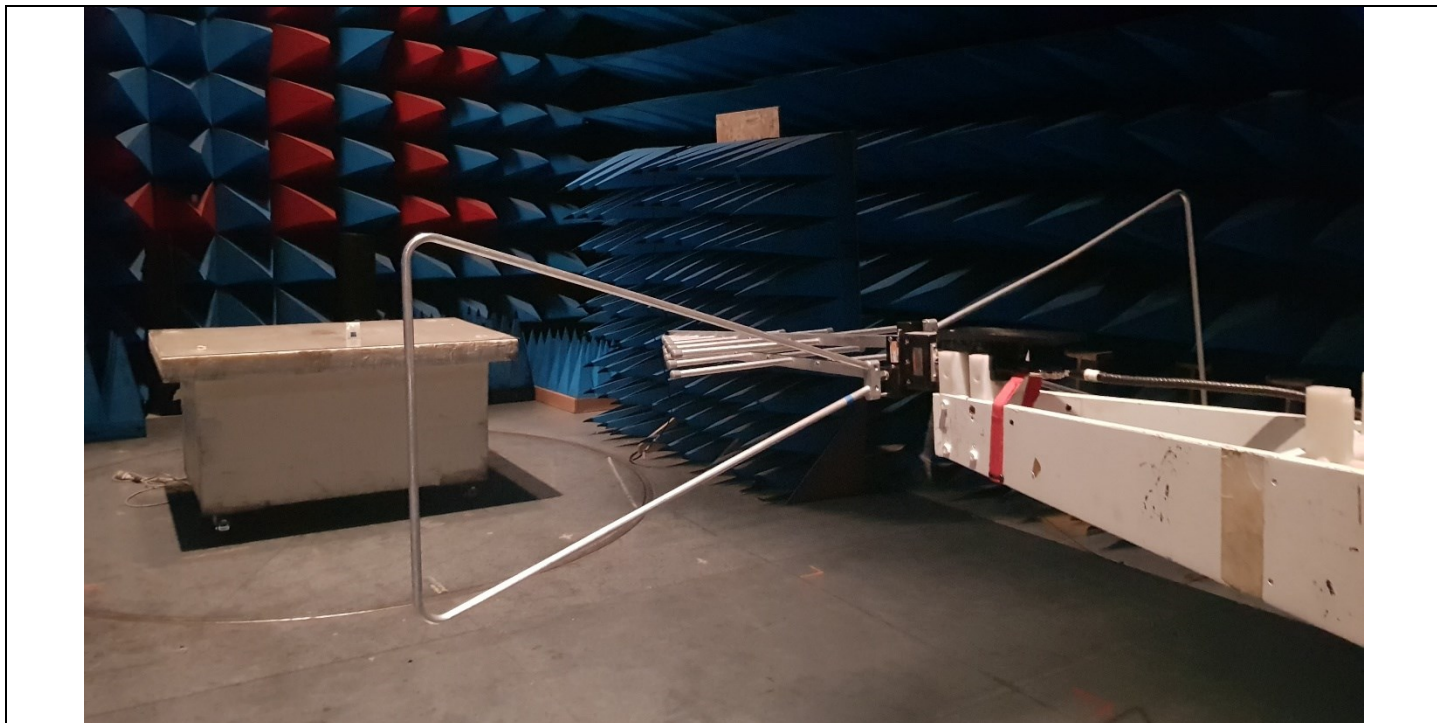




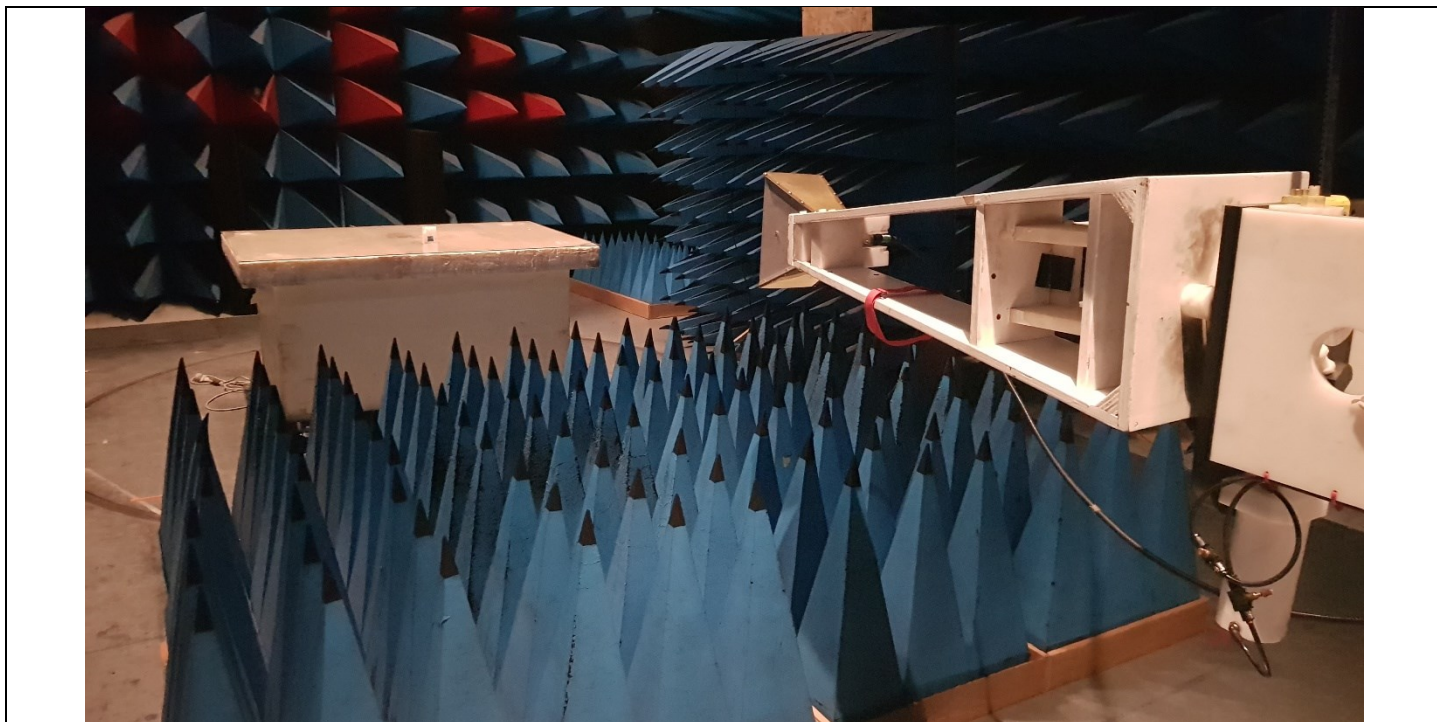
Test set up of Unwanted Emissions in Restricted Frequency Bands in semi anechoic chamber



Photograph for Unwanted Emission in restricted frequency bands



Photograph for Unwanted Emission in restricted frequency bands



Photograph for Unwanted Emission in restricted frequency bands

10.3. LIMIT

Limit at 3m:

9kHz to 0,490MHz: 2400/F(kHz)μV/m (300m) or 20log(2400/F(kHz))dBμV/m (3m) QPeak
 0,490MHz to 1.705MHz: 240000/F(kHz)μV/m (30m) or 20log(240000/F(kHz))dBμV/m (3m) QPeak
 1.705MHz to 30MHz: 30μV/m (30m) or dBμV/m (3m) QPeak
 30MHz to 88MHz: 40dBμV/m QPeak
 88MHz to 216MHz: 43,5dBμV/m QPeak
 216MHz to 960MHz: 46dBμV/m QPeak
 960MHz to 1000MHz: 54dBμV/m QPeak
 Above 1000MHz: 74dBμV/m Peak
 54dBμV/m Average

Limit at 10m:

30MHz to 88MHz: 29.5dBμV/m QPeak
 88MHz to 216MHz: 33dBμV/m QPeak
 216MHz to 960MHz: 35.5dBμV/m QPeak
 960MHz to 1000MHz: 43.5dBμV/m QPeak
 Above 1000MHz: 63.5BμV/m Peak
 43.5BμV/m Average

10.4. TEST EQUIPMENT LIST

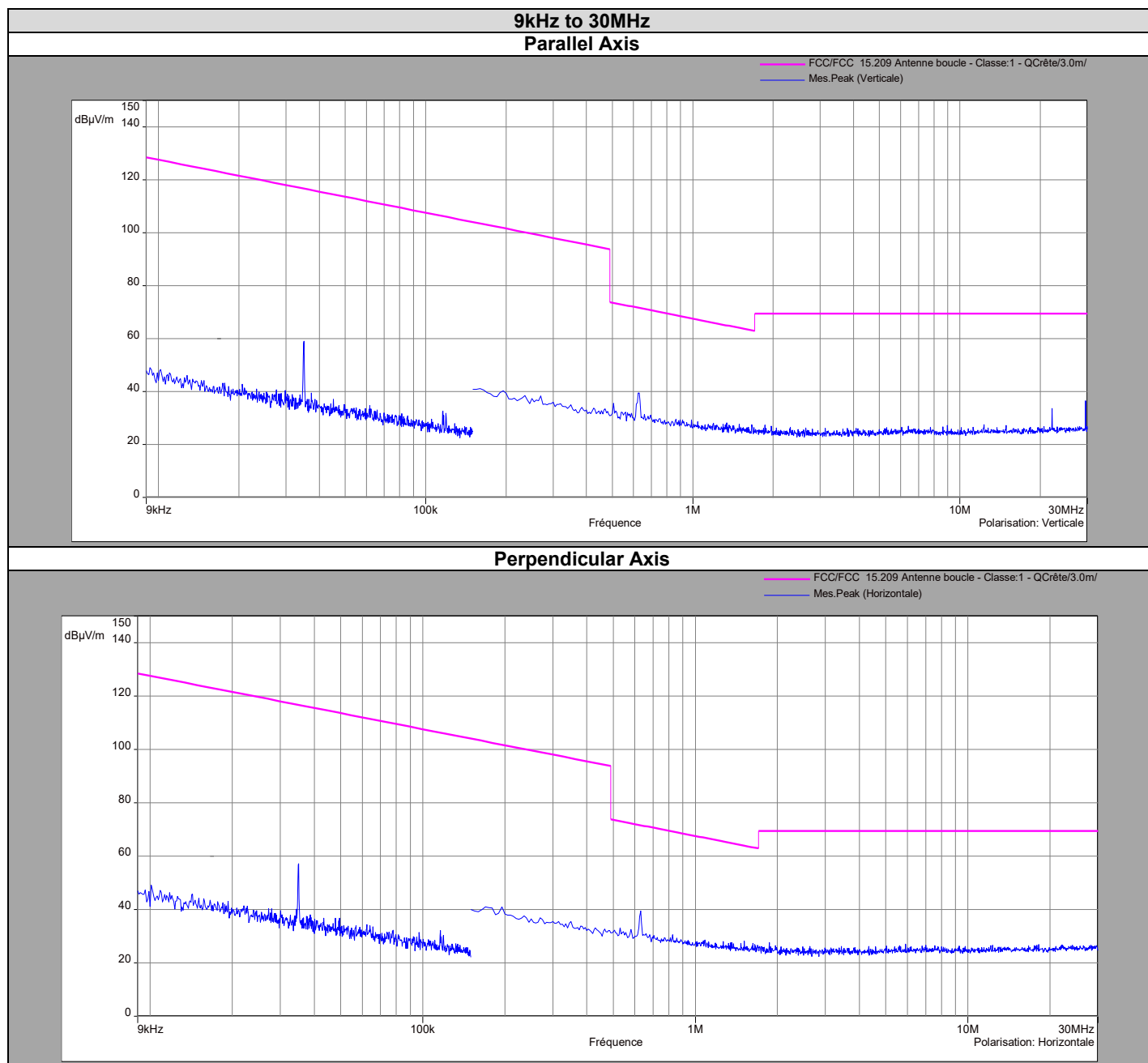
Description	Constructor	Model	N°	Cal. Date	Cal. Due
Cable	-	-	A5329412	2018/10	2019/10
Loop antenna	SCHWARZBECK	FMZB1513	C2040209	2018/03	2020/03
Preamplifier	LCIE	-	A7086012	2019/04	2020/04
Bilog antenna	SCHWARZBECK	VULB9160	C2040150	2019/06	2020/06
Horn antenna	EMCO	3115	C2042018	2019/06	2020/06
EMI Receiver	ROHDE & SCHWARZ	ESU26	A2642018	2019/01	2021/01
Cable	-	-	A5329414	2019/02	2020/02
SEMI ANECHOIC CHAMBER	SIEPEL	VSWR	D3044008	2018/09	2021/09
Cable	-	-	A5329364	2018/11	2019/11

Note: In our quality system, the test equipment calibration due is more & less 2 months

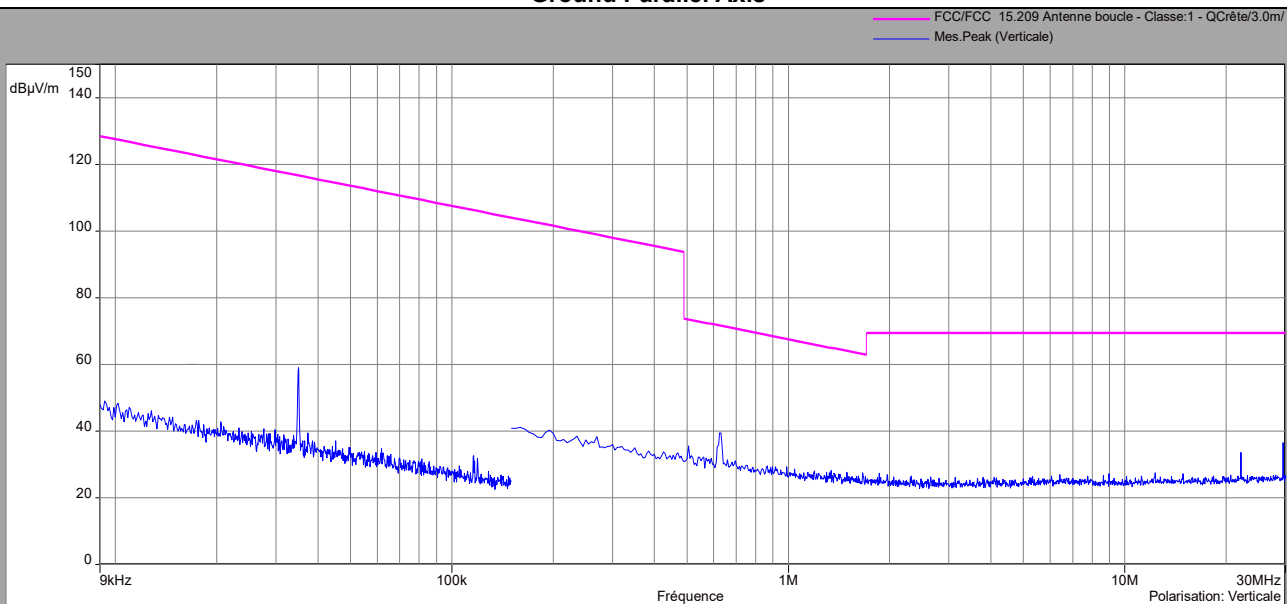
10.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

☒ None
 ☐ Divergence:

10.6. RESULTS



Ground Parallel Axis



Below 1GHz
Channel
Vertical Polarization

Description Sous-bande 2

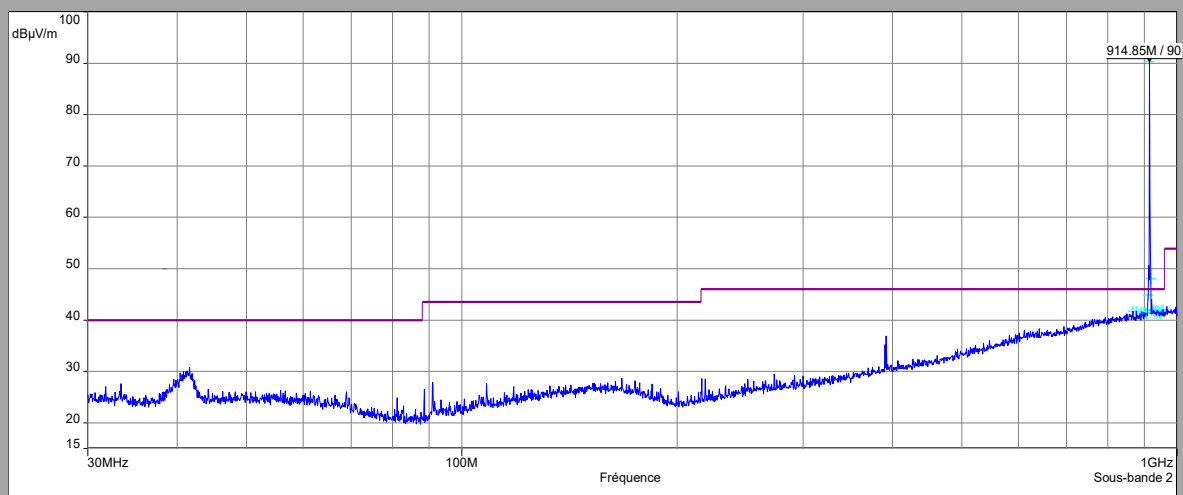
Fréquences: 30 MHz - 1 GHz (Mode: Lin, Pas: 50 kHz)

Réglages: RBW: 120kHz, VBW: Auto, Durée balayage: 30 ms/Pts, Atténuation: Auto, Nombre de Balayages: 1, Preamp: On: 10 dB, LN Preamp: Off, Preselecteur: On

Polarisation: Verticale

Distance: 3 m

FCC/FCC 15.109 - Classe: - Moyenne/3.0m/
 FCC/FCC 15.109 - Classe: - QCrête/3.0m/
 FCC/FCC 15.109 - Classe: - Crête/3.0m/
 Mes.Peak (Verticale)
 + Peak (Peak /Lim. QPeak) (Verticale)



Horizontal polarization

Description Sous-bande 1

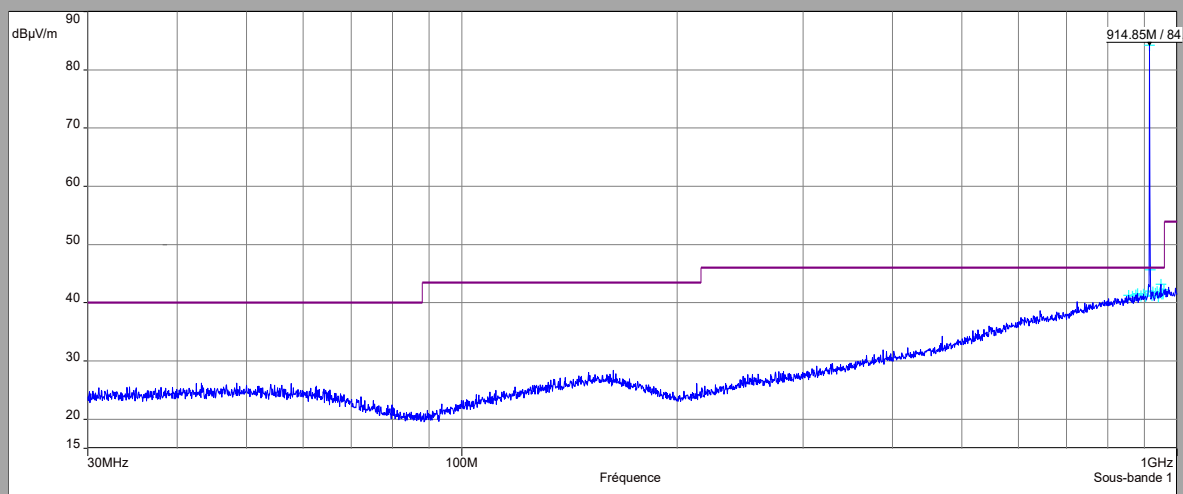
Fréquences: 30 MHz - 1 GHz (Mode: Lin, Pas: 50 kHz)

Réglages: RBW: 120kHz, VBW: Auto, Durée balayage: 30 ms/Pts, Atténuation: Auto, Nombre de Balayages: 1, Preamp: On: 10 dB, LN Preamp: Off, Preselecteur: On

Polarisation: Horizontale

Distance: 3 m

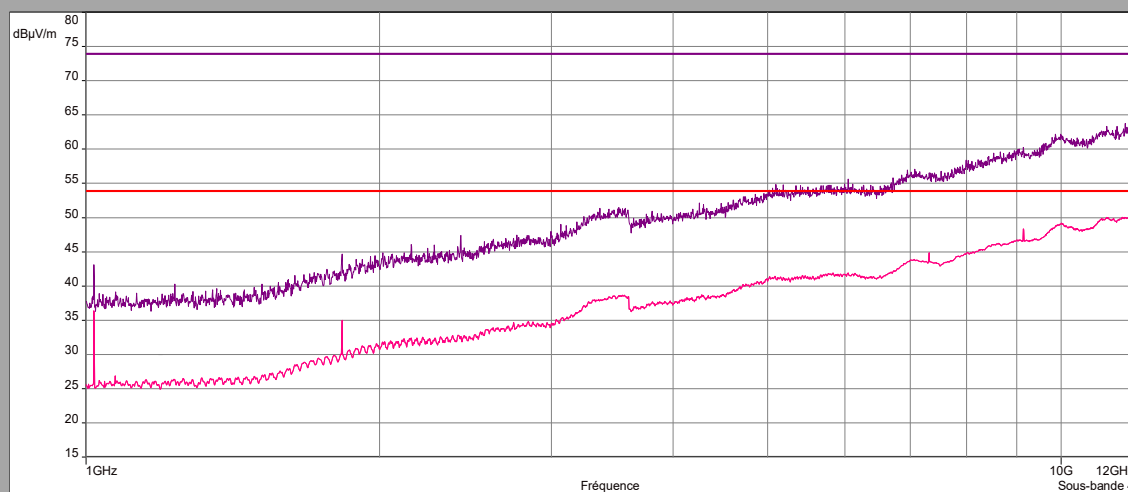
FCC/FCC 15.109 - Classe: - Moyenne/3.0m/
 FCC/FCC 15.109 - Classe: - QCrête/3.0m/
 FCC/FCC 15.109 - Classe: - Crête/3.0m/
 Mes.Peak (Horizontale)
 + Peak (Peak /Lim. QPeak) (Horizontale)



Above 1GHz
Cmin/Cnom/Cmax
Vertical Polarization

Description Sous-bande 4
 Fréquences: 1 GHz - 12 GHz (Mode: Lin, Pas: 500 kHz)
 Réglages: RBW: 1MHz, VBW: Auto, Durée balayage: 20 ms/Pts, Atténuation: 0 dB, Nombre de Balayages: 1, Preamp: Off, LN Preamp: Off, Preselecteur: Off
 Polarisation: Verticale
 Distance: 3 m

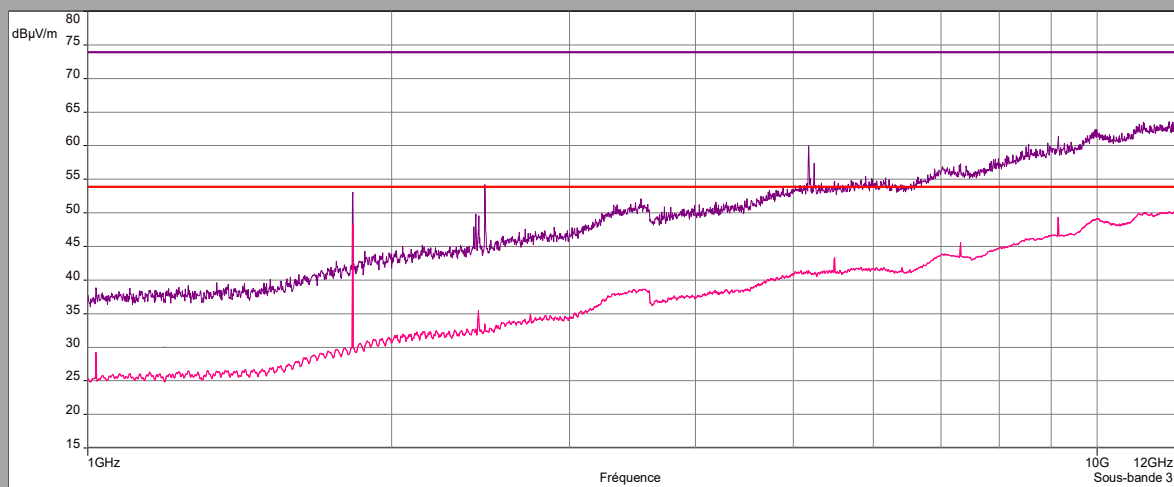
FCC/FCC 15.109 - Classe: - Moyenne/3.0m/
 FCC/FCC 15.109 - Classe: - QCrête/3.0m/
 FCC/FCC 15.109 - Classe: - Crête/3.0m/
 Mes Peak (Verticale)
 Mes Avg (Verticale)



Horizontal polarization

Description Sous-bande 3
 Fréquences: 1 GHz - 12 GHz (Mode: Lin, Pas: 500 kHz)
 Réglages: RBW: 1MHz, VBW: Auto, Durée balayage: 20 ms/Pts, Atténuation: 0 dB, Nombre de Balayages: 1, Preamp: Off, LN Preamp: Off, Preselecteur: Off
 Polarisation: Horizontale
 Distance: 3 m

FCC/FCC 15.109 - Classe: - Moyenne/3.0m/
 FCC/FCC 15.109 - Classe: - QCrête/3.0m/
 FCC/FCC 15.109 - Classe: - Crête/3.0m/
 Mes Peak (Horizontale)
 Mes Avg (Horizontale)



9kHz to 30MHz				
Polarization	Frequency (MHz)	Peak Level (dBμV/m)	QPeak Level (dBμV/m)	Limit (dBμV/m)
all emissions were greater than 20 dB below the limit				

Below 1GHz					
Polarization	Frequency (MHz)	Peak Level (dBμV/m)	QPeak Level (dBμV/m)	Limit (dBμV/m)	Margin (dBμV/m)
H	949.7	43.2	-	46	2.8
V	41.6	30.73	-	40	9.27
V	81.25	24.91	-	40	15.09
V	88.6	26.51	-	43.5	16.99
V	91.05	27.82	-	43.5	15.68
V	391.9	36.91	-	46	9.09

Above 1GHz								
Cmin/Cnom/Cmax								
Polarization	Frequency (MHz)	Average Level (dBμV/m)	Average Level + Duty Cycle Factor (dBμV/m)	Average Limit (dBμV/m)	Average Margin Level (dBμV/m)	Peak Level (dBμV/m)	Peak Limit (dBμV/m)	Peak Margin Level (dBμV/m)
H	1830	48,36	48,3756	54	5,6244	53,05	74	20,95
H	2437	35,42	35,4356	54	18,5644	54,18	74	19,82
H	5491	43.35	43,3656	54	10,6344	59,93	74	14,07
H	9148	49,29	49,3056	54	4,6944	61,44	74	12,56
V	1019	36,35	36,3656	54	17,6344	43,1	74	30,9
V	1830	34,9	34,9156	54	19,0844	44,67	74	29,33

10.7. CONCLUSION

Unwanted Emission in restricted frequency bands measurement performed on the sample of the product **IJINUS** LT2, SN: **IJT 30 05 0000 0815**, in configuration and description presented in this test report, show levels **compliant** to the 47 CFR PART 15.247 & RSS 247 ISSUE 2 limits.

11. UNCERTAINTIES CHART

47 CFR Part 15.209 & 15.207 Kind of test	Wide uncertainty laboratory (k=2) $\pm x(\text{dB}) / (\text{Hz}) / \text{ms}$	Uncertainty limit
Measurement of conducted disturbances in voltage on the AC power port (9 kHz – 150 kHz)	2,67	3.8
Measurement of conducted disturbances in voltage on the AC power port (150 kHz – 30 MHz)	2,67	3.4
Measurement of conducted disturbances in voltage on the telecommunication port. (AAN)	3,67	5.0
Measurement of conducted disturbances in current (current clamp)	2,73	2.9
Measurement of disturbance power	2,67	4.5
Measurement of radiated magnetic field from 10kHz to 30MHz in SAC V01	4,48	/
Measurement of radiated magnetic field from 10kHz to 30MHz in SAC C01	4,48	/
Measurement of radiated electric field from 30 to 1000MHz in horizontal position on the OATS (Ecuelles)	4,88	6.3
Measurement of radiated electric field from 1 to 18GHz on the Ecuelles site	5.16	/
Measurement of radiated electric field from 30 to 1000MHz in vertical position on the OATS (Ecuelles)	4,99	6.3
Measurement of radiated electric field from 30 to 1000MHz in horizontal position in SAC C01	5,08	6.3
Measurement of radiated electric field from 30 to 1000MHz in vertical position in SAC C01	5,16	6.3
Measurement of radiated electric field from 30 to 1000MHz in horizontal position in SAC V01	5,08	6.3
Measurement of radiated electric field from 30 to 1000MHz in vertical position in SAC V01	5,15	6.3
Measurement of radiated electric field from 1 to 6 GHz C01	5,1	5.2
Measurement of radiated electric field from 1 to 6 GHz V01	4,85	5.2
Measurement of radiated magnetic field from 10kHz to 30MHz on the OATS (Ecuelles)	4,48	/

The uncertainty values calculated by the laboratory are lower than limit uncertainty values defined by the CISPR. The conformity of the sample is directly established by the applicable limits values. This table includes all uncertainties maximum feasible for testing in the laboratory, whether or not made in this report