



LCIE



Accreditation
N°1-7429
Scope available on
www.cofrac.fr

Template : February 2nd, 2026

TEST REPORT

N°: 30764414-823245-A (FILE#15991060)

Version: 02

Subject

Radio spectrum tests according to the standards:
FCC CFR 47 Part 15.247
ANSI C63.10-2020 + Cor. 1-2023 + C63.10a-2024 + Errata to C63.10a-2024
RSS-247 & RSS-Gen

Issued to

VEGA GRIESHABER KG
Am Hohenstein 113
D-77761 – SCHILTACH
GERMANY

Apparatus under test

Product VEGAMET-Air-841-842
Trade mark VEGAMET Air
Manufacturer Vega
Family range VEGAMET Air 841 / VEGAMET Air 842
Model under test VEGAMET Air 842
Serial number 84200010
FCCID O6QMETA84X
IC 3892A-META84X

Conclusion

See Test Program chapter

Test date June 01, 2026 to June 05, 2026 and July 29, 2026
Test location LCIE Grenoble
FCC Test site FR0008 - 918017 (MOI)
ISED Test site 6500A – FR0008 (MOI)
Sample receipt date March 10, 2026
Composition of document 77 pages
Document issued on August 03, 2026

Written by :

Marlon BOUBY
Tests operator

Approved by :

Majid MOURZAGH
Technical manager



Reproduction of this document is only authorized in its complete form. Any partial reproduction or any insertion of results in an accompanying text with a view to their distribution must receive prior and formal agreement from LCIE. This document results from tests carried out on a specimen, sample or test piece. It does not prejudice the conformity of all the products manufactured to the object tested. Unless otherwise indicated or rule specified by the test method, the decision of conformity does not take into account measurement uncertainty. It in no way prejudices a certification decision. The accreditation of the COFRAC Testing Section attests to the technical competence of the laboratories for the tests covered by the accreditation only. If certain tests mentioned in this report were carried out outside the framework of COFRAC accreditation, they are identified by the symbol

LCIE

Laboratoire Central des Industries Electriques
Une société Bureau Veritas

Z.I Centr'alp
170, Rue de Chatagnon
38430 MOIRANS
FRANCE

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



PUBLICATION HISTORY

Version	Date	Author	Modification
01	August 03, 2026	Marlon BOUBY	Creation of the document
02	August 03, 2026	Marlon BOUBY	Add new antenna see page 8 and § 9

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.



SUMMARY

1.	TEST PROGRAM	4
2.	EQUIPMENT UNDER TEST: CONFIGURATION (DECLARED BY PROVIDER)	5
3.	LABORATORY EQUIPMENT AND METHODOLOGY	10
4.	OCCUPIED BANDWIDTH.....	12
5.	6DB BANDWIDTH	16
6.	MAXIMUM CONDUCTED OUTPUT POWER	21
7.	POWER SPECTRAL DENSITY	26
8.	UNWANTED EMISSIONS IN NON-RESTRICTED FREQUENCY BANDS	31
9.	UNWANTED EMISSIONS IN RESTRICTED FREQUENCY BANDS	40
10.	UNCERTAINTIES CHART	76



1. TEST PROGRAM

References

- 47 CFR Part 15.247 (May 25, 2026) [🔗](#)
- RSS 247 Issue 4
- RSS Gen Issue 5
- KDB 558074 D01 DTS Meas Guidance v05r02 [🔗](#)
- KDB 662911 D01 Multiple Transmitter Output v02r01 [🔗](#)
- ANSI C63.10-2020 + Cor. 1-2023 + C63.10a-2024 + Errata to C63.10a-2024

Radio requirement:

Clause - Test Description		Test result - Comments
Occupied Bandwidth	<i>ISED</i>	PASS
6dB Bandwidth	<i>FCC & ISED</i>	PASS
Maximum Conducted Output Power	<i>FCC & ISED</i>	PASS
Power Spectral Density	<i>FCC & ISED</i>	PASS
Unwanted Emissions in Non-Restricted Frequency Bands	<i>FCC & ISED</i>	PASS
Unwanted Emissions in Restricted Frequency Bands	<i>FCC & ISED</i>	PASS
Receiver Radiated Emissions	<i>ISED</i>	PASS(2)
This table is a summary of test report, see conclusion of each clause of this test report for detail.		

(1) Limited program

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

PASS: EUT complies with standard's requirement

FAIL: EUT does not comply with standard's requirement

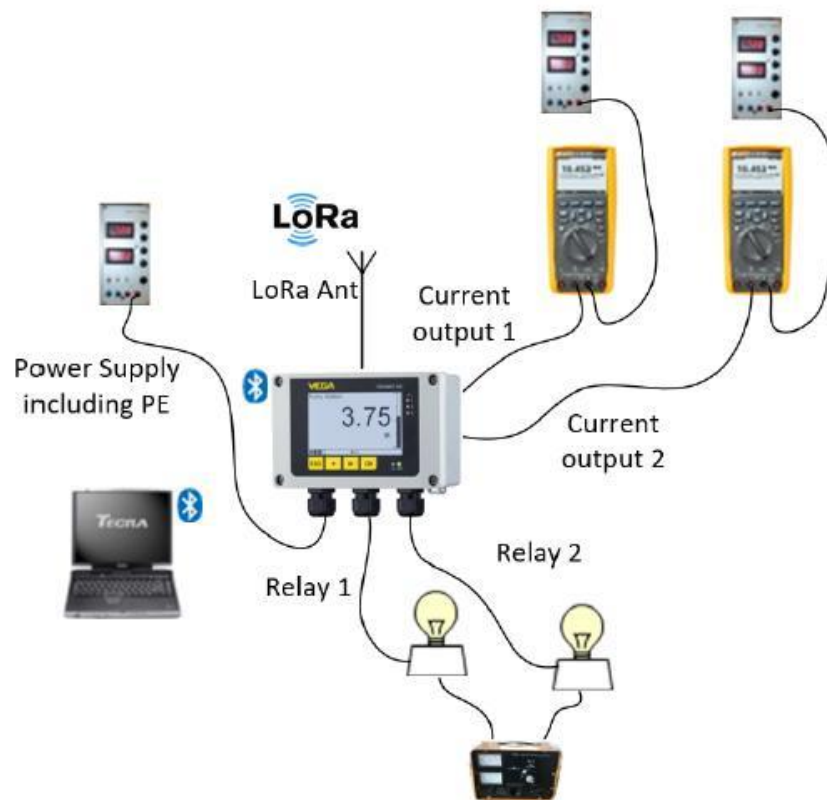
NA: Not Applicable

NP: Test Not Performed

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

2.1. INFORMATIONS

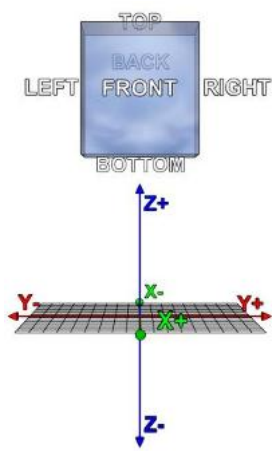
All tests are performed on the product VEGAMET Air 842 which is the full options product.



Family range : 841 / 842

2.2. HARDWARE IDENTIFICATION (EUT AND AUXILIARIES):

Equipment under test (EUT):

Model under test :	VEGAMET Air 842		
Serial Number:	84200010		
	  		
Dimensions:	16 cm x 10.5 cm x 7.5 cm (Length x Width x Height)		
Type :	DIN rail / Cabinet (considered like table-top)		

Power supply:

Name	Type	Rating	Reference / Sn	Comments
Supply1	AC	100-240 VAC 50-60	/	/
Supply2	DC	24VDC	/	/

NC: Not communicated by provider

Inputs/outputs - Cable:

Access	Type	Length used (m)	Declared <3m	Shielded	Comments
Supply1	2 wires: L+N	3	No	No	/
Relay_cable 1	2 wires	3	No	No	/
Relay_cable 2	2 wires	3	No	No	/
4-20mA_cable 1	2 wires	3	No	No	/
4-20mA_cable 1	2 wires	3	No	No	/
External antenna	Coaxial	3	No	Yes	Ref: Taoglas TI.96.A153

NC: Not communicated by provider

Auxiliary equipment used during test:

Type	Reference	Sn	Comments
None			

NC: Not communicated by provider



Equipment information (declaration of provider):

DTS:	LoraWAN
Chipset / RF Module	LR1302-SPI-US915
Frequency band:	[902-928] MHz
Spectrum Modulation:	Chirp Spread Spectrum
Number of Channel:	8
Spacing channel:	600kHz (500kHz BW)
Channel bandwidth:	500kHz
Antenna Type:	External with connector
Antenna connector:	Permanent external
Antenna requirements §15.203	The transmitter uses an external antenna with a connector which is classified as a unique connector
Transmit chains:	1
Receiver chains	1

CHANNEL PLAN – 500kHz channels uplink	
Channel	Frequency (MHz)
0 = Cmin	923.3
1	923.9
2 = Cmid	924.5
3	925.1
4	925.7
5	926.3
6	926.9
7 =Cmax	927.5



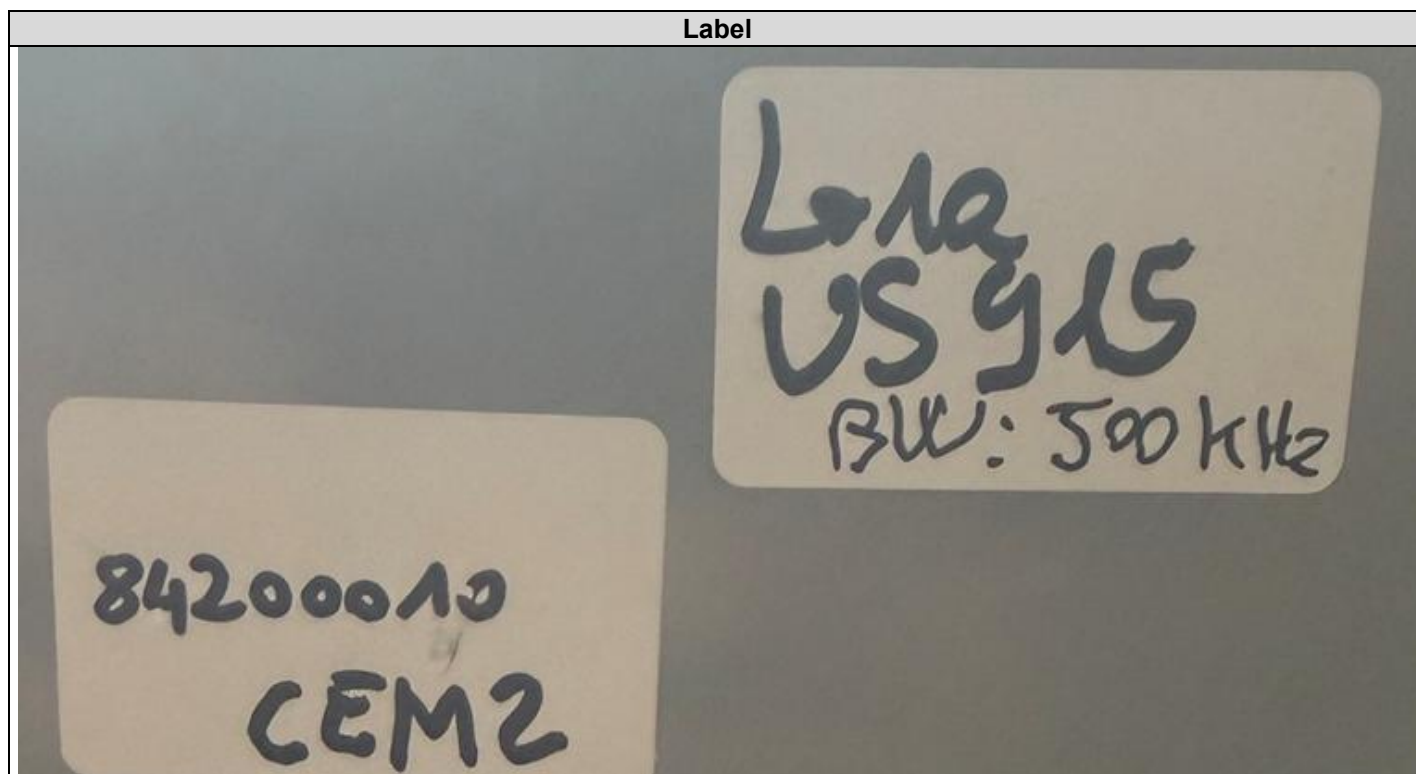
Antenna 1 Characteristic			
Antenna reference	Gain (dBi)	Frequency Band (MHz)	Impedance(Ω)
TAOGLAS : TI.96.A153	3.84	902-928 MHZ	50

Antenna 2 Characteristic			
Antenna reference	Gain (dBi)	Frequency Band (MHz)	Impedance(Ω)
2J2115B-B07H	2.9	902-928 MHZ	50

Hardware information			
Highest internal frequency (PLL, Quartz, Clock, Microprocessor...):		F _{Highest} :	1000 MHz
Firmware (if applicable):		V:	EMC_Tests_2026_CW08
Software (if applicable):		V:	N/A
Equipment intended:	Fixed		
Type of equipment:	Stand-alone		
Equipment sample:	Production model		
Duty cycle:	Continuous duty		
Operating temperature range:	T _{min} :	-40 °C	
	T _{nom} :	20°C	
	T _{max} :	+60 °C	
Operating voltage:	V _{min} (85% Vnom):	20VDC or 85VAC	
	V _{nom} :	24VDC or 230VAC	
	V _{max} (115% Vnom):	65VDC or 253VAC	

NC: Not communicated by provider

2.3. EQUIPMENT LABELLING



2.4. 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
6dB Bandwidth	Test mode 1
Maximum Conducted Output Power	Test mode 1
Power Spectral Density	Test mode 1
Conducted Spurious Emission at the Band Edge	Test mode 1
Unwanted Emissions in Non-Restricted Frequency Bands	Test mode 1
Unwanted Emissions in Restricted Frequency Bands	Test mode 1
Receiver Radiated Emissions	Test mode 2 (1)

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

2.5. EQUIPMENT MODIFICATIONS DURING THE TESTS

None



3. LABORATORY EQUIPMENT AND METHODOLOGY

3.1. CALIBRATION DATE

The calibration intervals are extended at +4 months. This extended interval is based on the fact that there is sufficient calibration data to statistically establish a trend or based on experience of use of the test equipment to assure good measurement results for a longer period. The symbol -/- replaces the date for equipment checking before test or that have none impact on the test or that have no calibration required by the standard.

3.2. FIELD STRENGTH CALCULATION

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation with a sample calculation is as follow:

$$FS = RA + AF + CF - AG$$

Where:

FS = Field Strength

RA = Receiver Amplitude

AF = Antenna Factor

CF = Cable Factor

AG = Amplifier Gain

Example:

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

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

The 32 dBμV/m value can be mathematically converted to its corresponding level in μV/m.

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

3.3. TEST DISTANCE EXTRAPOLATION – FCC

The field strength is extrapolated to the new measurement distance using formula from §6.4.4 de l'ANSI C63.10 and FCC Part15.31 (p), the choice of equation is made according to the distances of the limit and the measurement,

$$FS_{\text{limit}} = FS_{\text{max}} - 40 \log \left(\frac{d_{\text{near field}}}{d_{\text{measure}}} \right) - 20 \log \left(\frac{d_{\text{limit}}}{d_{\text{near field}}} \right) \quad (2)$$

$$FS_{\text{limit}} = FS_{\text{max}} - 20 \log \left(\frac{d_{\text{limit}}}{d_{\text{measure}}} \right) \quad (3)$$

$$FS_{\text{limit}} = FS_{\text{max}} - 40 \log \left(\frac{d_{\text{limit}}}{d_{\text{measure}}} \right) \quad (4)$$

where

FS_{limit}	is the calculation of field strength at the limit distance, expressed in dBμV/m
FS_{max}	is the measured field strength, expressed in dBμV/m
$d_{\text{near field}}$	is the $\lambda/2\pi$ distance
d_{measure}	is the distance of the measurement point from the EUT
d_{limit}	is the reference limit distance

3.4. TEST DISTANCE EXTRAPOLATION – ISED

The field strength is extrapolated to the new measurement distance using formula from §6.5-6.6 RSS-GEN:

Below 30MHz,

$$FS_{\text{limit}} = FS_{\text{max}} - 40 \log \left(\frac{d_{\text{limit}}}{d_{\text{measure}}} \right)$$

Above 30MHz,

$$FS_{\text{limit}} = FS_{\text{max}} - 20 \log \left(\frac{d_{\text{limit}}}{d_{\text{measure}}} \right)$$

Where:

FS_{limit} is the calculation of field strength at the limit distance, expressed in dBμV/m
 FS_{max} is the measured field strength, expressed in dBμV/m
 d_{measure} is the distance of the measurement point from the EUT
 d_{limit} is the reference limit distance

4. OCCUPIED BANDWIDTH

4.1. TEST CONDITIONS

Date of test : June 03, 2026
Test performed by : Majid MOURZAGH
Relative humidity (%) : 38
Ambient temperature (°C) : 25

4.2. TEST SETUP

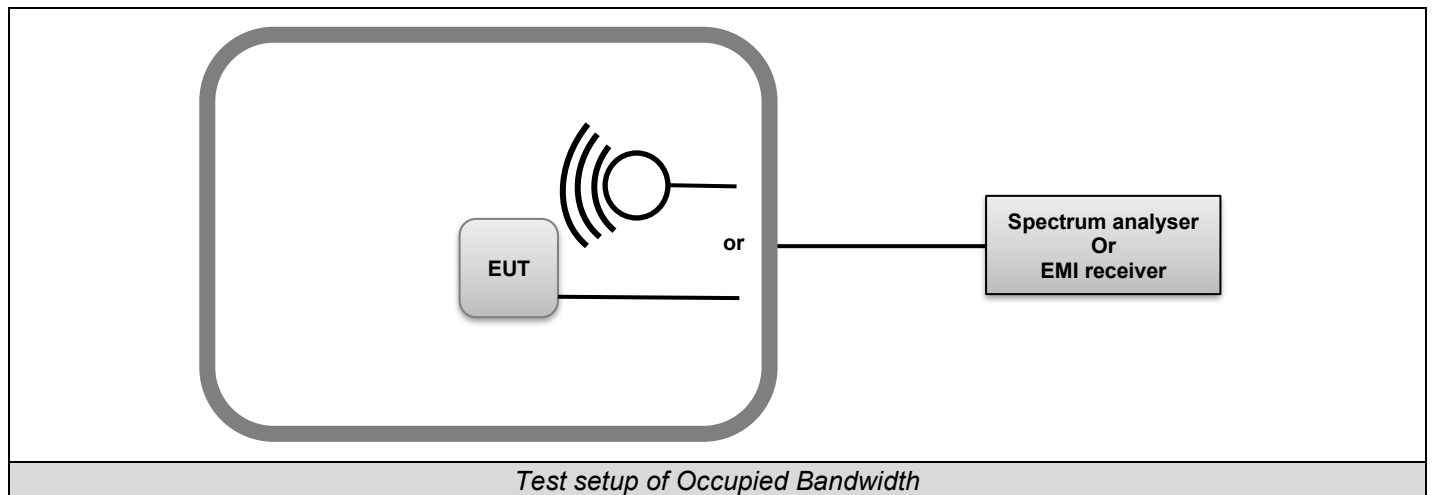
The Equipment Under Test is installed in an anechoic chamber.
Measurement is performed with a spectrum analyzer in conducted method.

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

Test Procedure:

ANSI C63.10 § 6.9.2 and RSS-Gen Issue 5 § 6.7

- RBW used in the range of 1% to 5% of the anticipated emission bandwidth
- Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
- Detector = Peak.
- Trace mode = Max Hold.
- Sweep = Auto couple.
- Allow the trace to stabilize.
- OBW 99% function of spectrum analyzer used



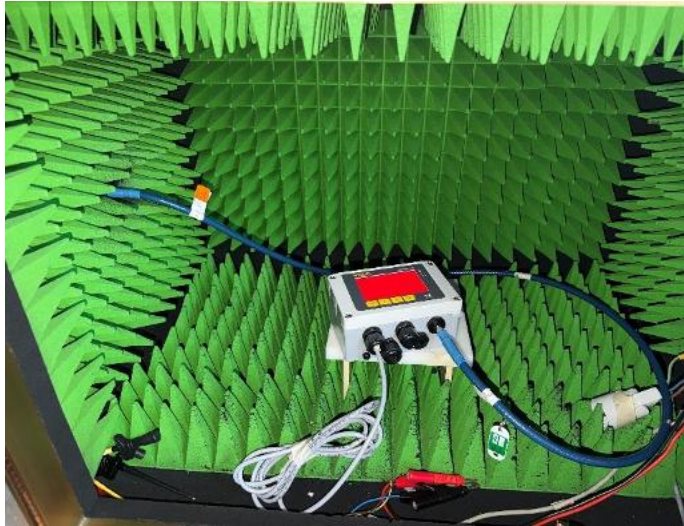


Photo of Occupied bandwidth

4.3. LIMIT

None

4.4. TEST EQUIPMENT LIST

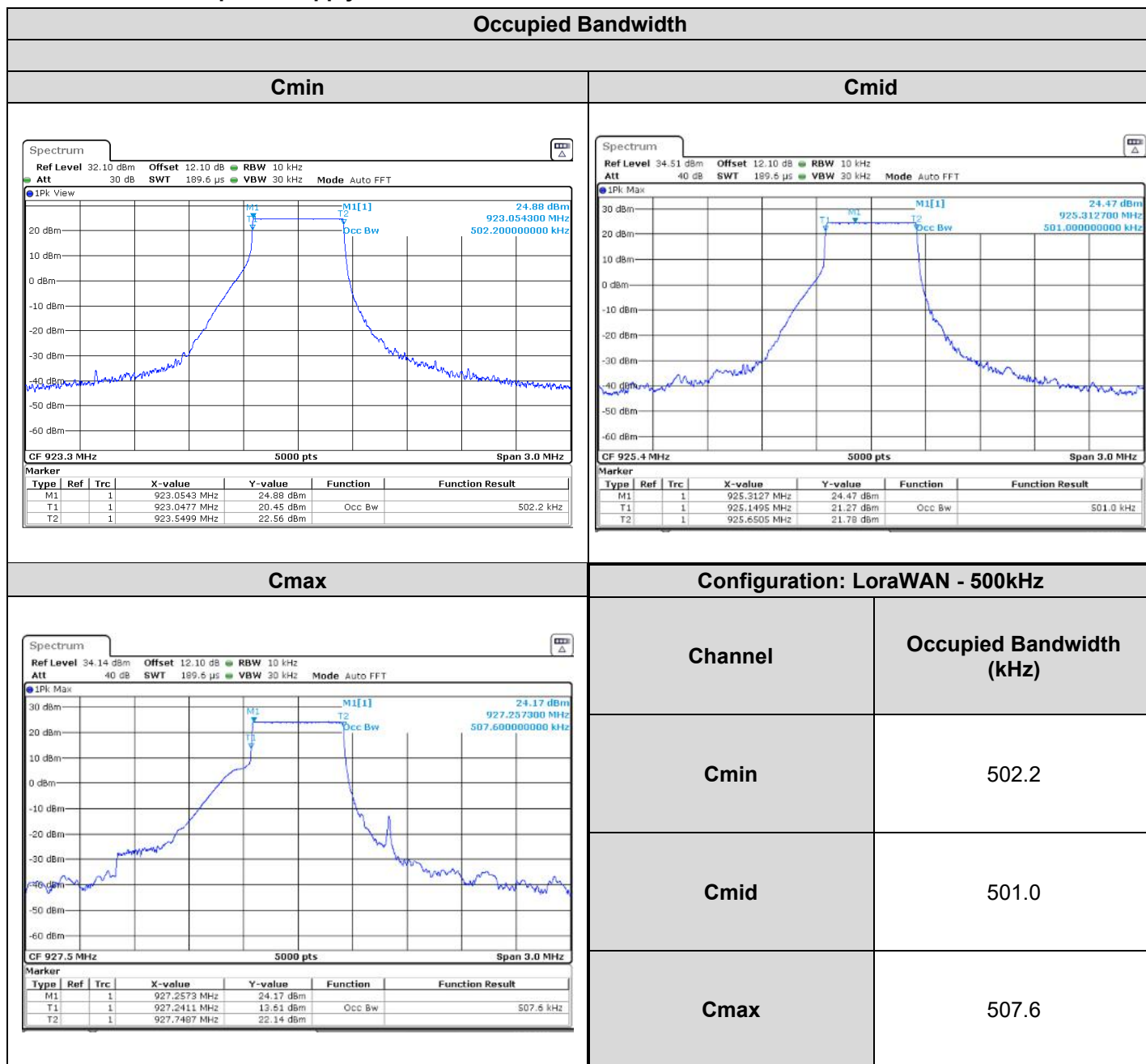
TEST EQUIPMENT USED						
Type	Manufacturer	Description	Model	Identifier	Cal_Date	Cal_Due
RECEIVER / ANALYSER	ROHDE & SCHWARZ	Spectrum analyzer	FSV 40	A4060059	04/2024	08/2026
CABLE	SUCOFLEX	SMA 1.5m	18GHz	A5329863	08/2025	08/2026
CABLE	HUBER-SUHNER	SMK 1.2m Emission Cable 0.5m (Ampl <->Chamber)	SUCOFLEX 102	A5330063	03/2026	03/2027
POWER SUPPLY	RS PRO	DC Power Supply	RS3005P	A7042314	-/-	-/-
ATTENUATOR	AEROFLEX	Attenuator 10dB	—	A7122268	08/2025	08/2027
ANECHOIC CHAMBER	SIEPEL	Full Anechoic Room	—	D3044024	-/-	-/-
SOFT	LCIE SUD EST	Mesure_DTS_FCC-ISED	v1.4	L2000060	NA	NA
CONTROL TOOLS	FLUKE	Multimeter	289	A1241119	05/2025	05/2027
FREQUENCY GENERATOR	ROHDE & SCHWARZ	Frequency Generator 100kHz-6GHz	SMJ100A	A5400043	09/2024	09/2026
THERMO HYGROMETER	TESTO	Thermo-hygrometer	608-H2	B4204121	05/2025	05/2027

4.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

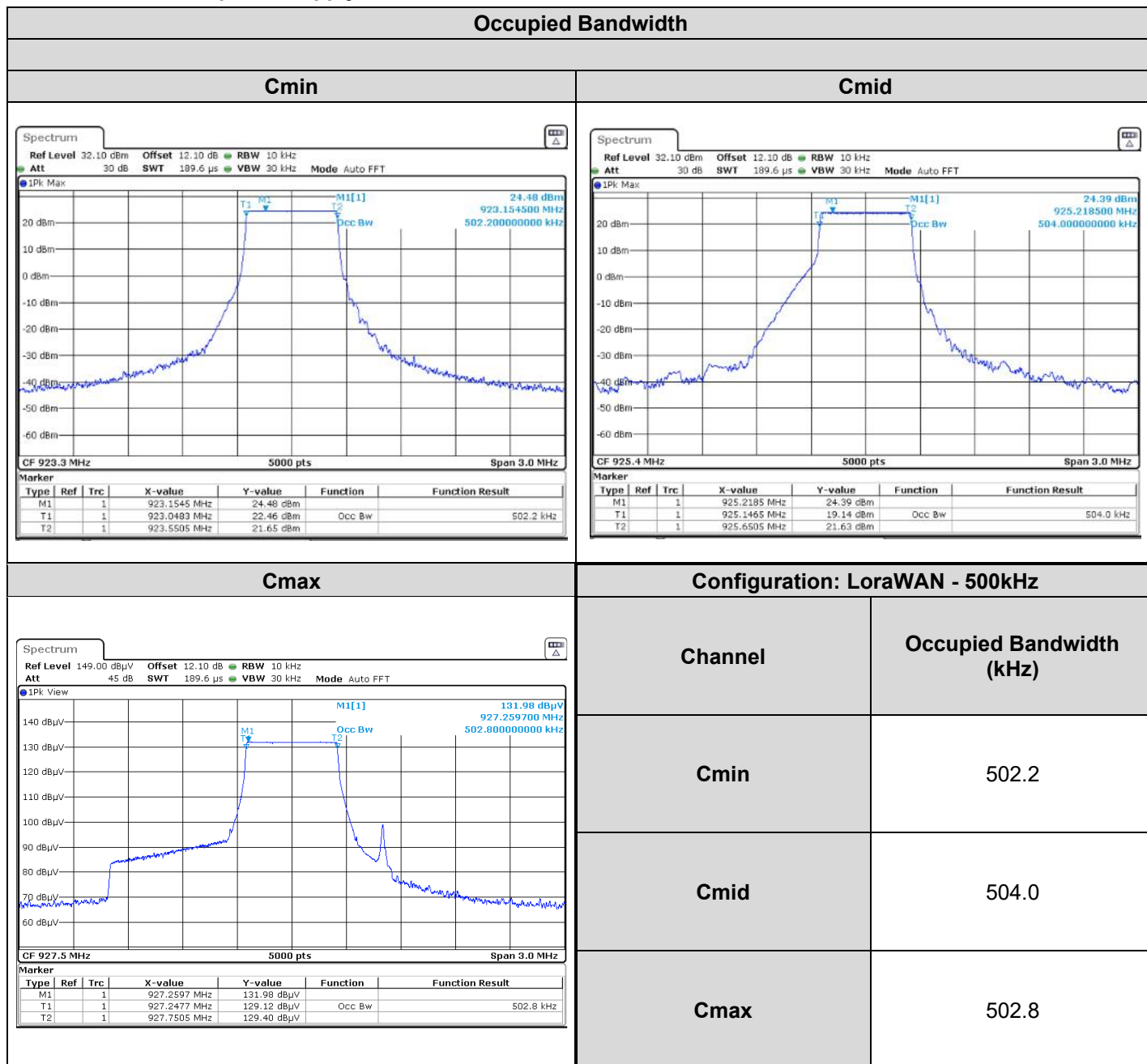
None

4.6. RESULTS

4.6.1. With DC power supply mode



4.6.2. With AC power supply mode



4.7. CONCLUSION

Occupied Channel Bandwidth measurement performed on the sample of the product **VEGAMET Air 842**, Sn: **84200010**, in configuration and description presented in this test report, show levels **compliant** to the **RSS-GEN** limits.

5. 6dB BANDWIDTH

5.1. TEST CONDITIONS

Date of test : June 03, 2026
Test performed by : Majid MOURZAGH
Relative humidity (%) : 38
Ambient temperature (°C) : 25

5.2. TEST SETUP

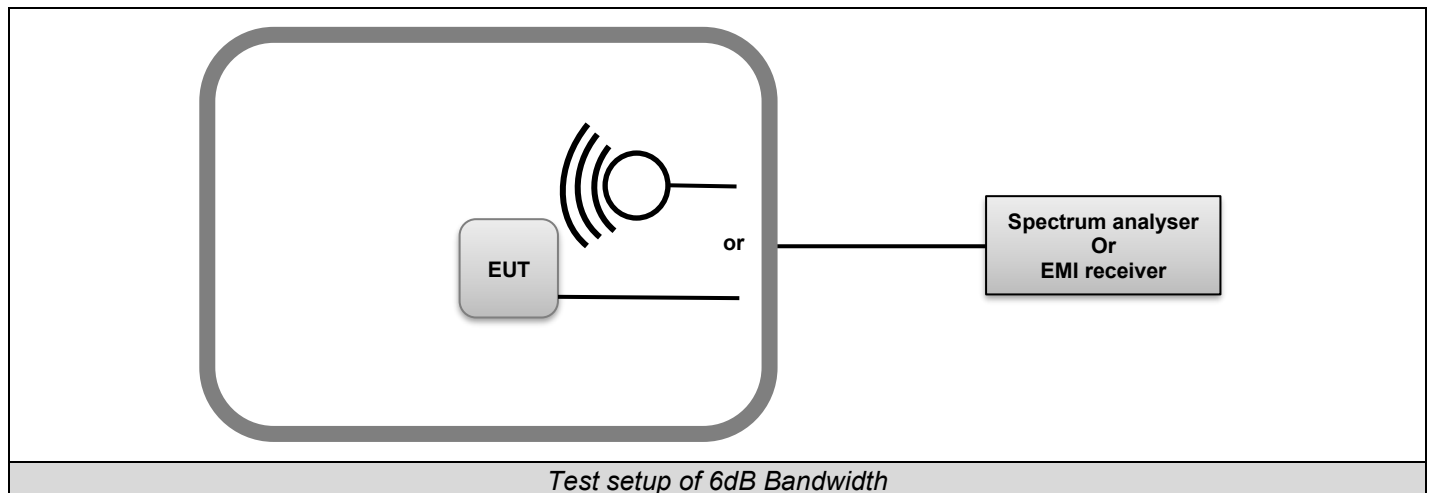
The Equipment Under Test is installed in an anechoic chamber.
Measurement is performed with a spectrum analyzer in conducted method.

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

Test Procedure:

KDB 558074 D01 DTS Meas Guidance v05r02 § 8.2

- Set resolution bandwidth (RBW) = 100kHz.
- Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
- Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- Allow the trace to stabilize.
- 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.



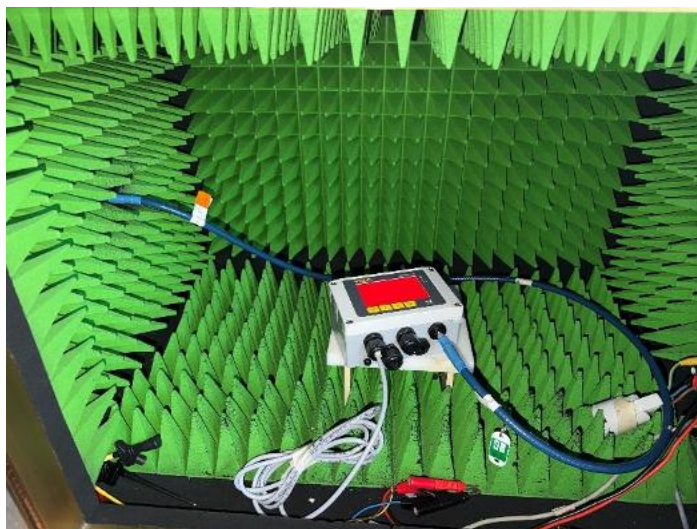


Photo of 6dB bandwidth

5.3. ***LIMIT***

Frequency range	6dB bandwidth
902-928MHz 2400MHz to 2483.5MHz 5725-5850 MHz	≥500kHz



5.4. TEST EQUIPMENT LIST

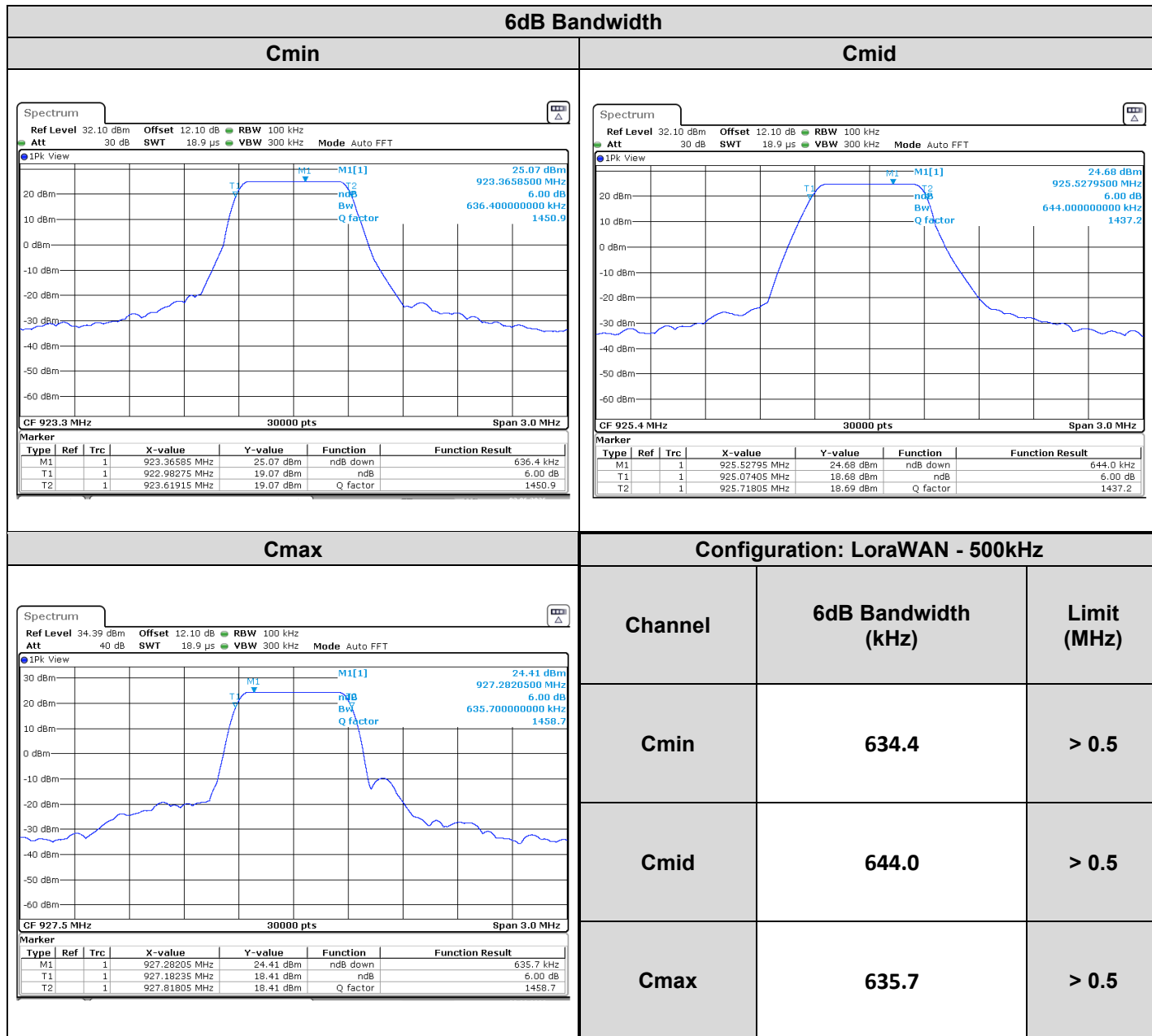
TEST EQUIPMENT USED						
Type	Manufacturer	Description	Model	Identifier	Cal_Date	Cal_Due
RECEIVER / ANALYSER	ROHDE & SCHWARZ	Spectrum analyzer	FSV 40	A4060059	04/2024	08/2026
CABLE	SUCOFLEX	SMA 1.5m	18GHz	A5329863	08/2025	08/2026
CABLE	HUBER-SUHNER	SMK 1.2m Emission Cable 0.5m (Ampl <->Chamber)	SUCOFLEX 102	A5330063	03/2026	03/2027
POWER SUPPLY	RS PRO	DC Power Supply	RS3005P	A7042314	-/-	-/-
ATTENUATOR	AEROFLEX	Attenuator 10dB	—	A7122268	08/2025	08/2027
ANECHOIC CHAMBER	SIEPEL	Full Anechoic Room	—	D3044024	-/-	-/-
SOFT	LCIE SUD EST	Mesure_DTS_FCC-ISED	v1.4	L2000060	NA	NA
CONTROL TOOLS	FLUKE	Multimeter	289	A1241119	05/2025	05/2027
FREQUENCY GENERATOR	ROHDE & SCHWARZ	Frequency Generator 100kHz-6GHz	SMJ100A	A5400043	09/2024	09/2026
THERMO HYGROMETER	TESTO	Thermo-hygrometer	608-H2	B4204121	05/2025	05/2027

5.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

None

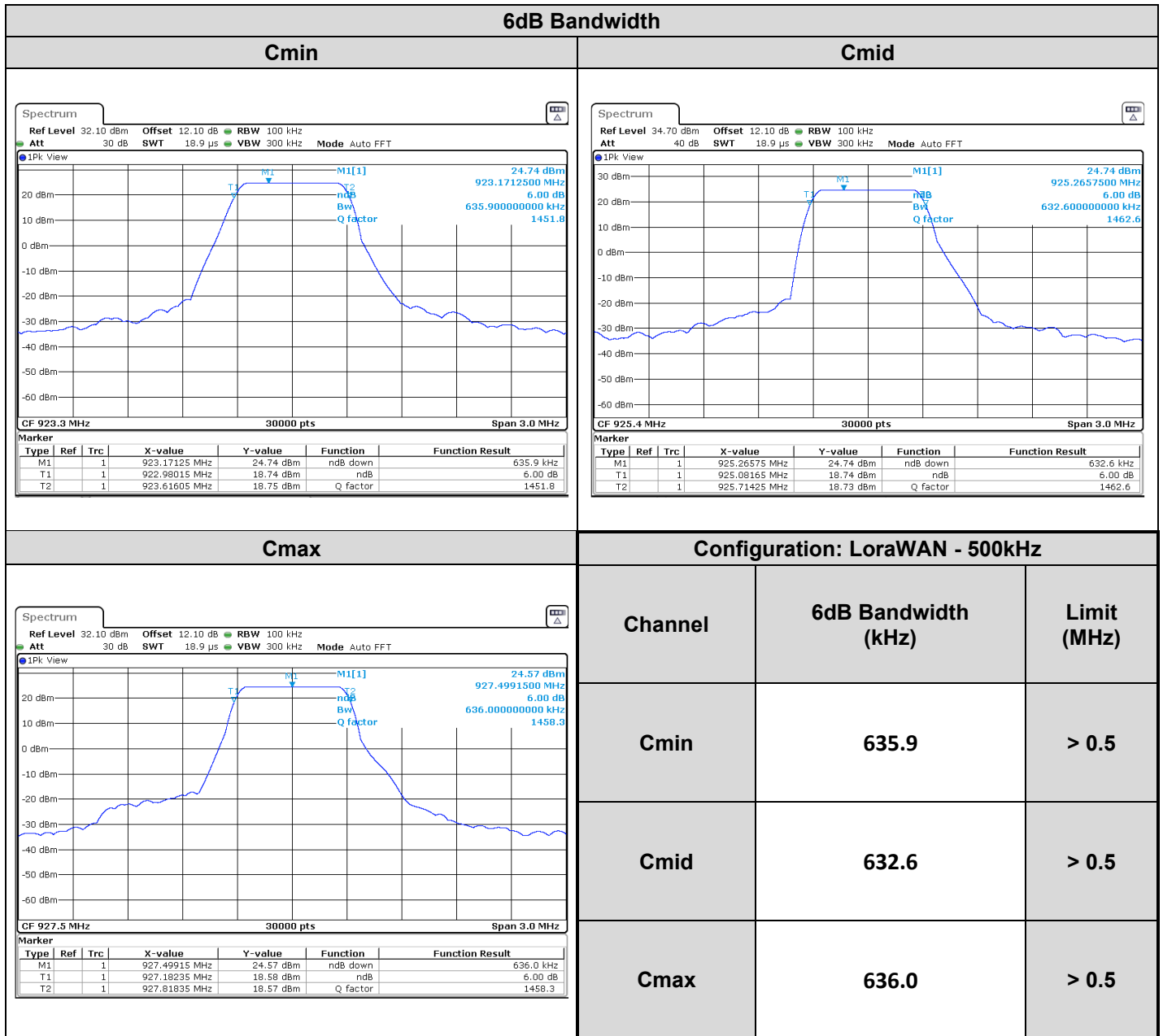
5.6. RESULTS

5.6.1. With DC power supply mode





5.6.2. With AC power supply mode



5.7. CONCLUSION

6dB Bandwidth measurement performed on the sample of the product **VEGAMET Air 842**, Sn: **84200010**, in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.247 & RSS 247** limits.



6. MAXIMUM CONDUCTED OUTPUT POWER

6.1. TEST CONDITIONS

Date of test : June 03, 2026
Test performed by : Majid MOURZAGH
Relative humidity (%) : 38
Ambient temperature (°C) : 25

6.2. TEST SETUP

The Equipment Under Test is installed in an anechoic chamber.
Measurement is performed with a spectrum analyzer in conducted method.

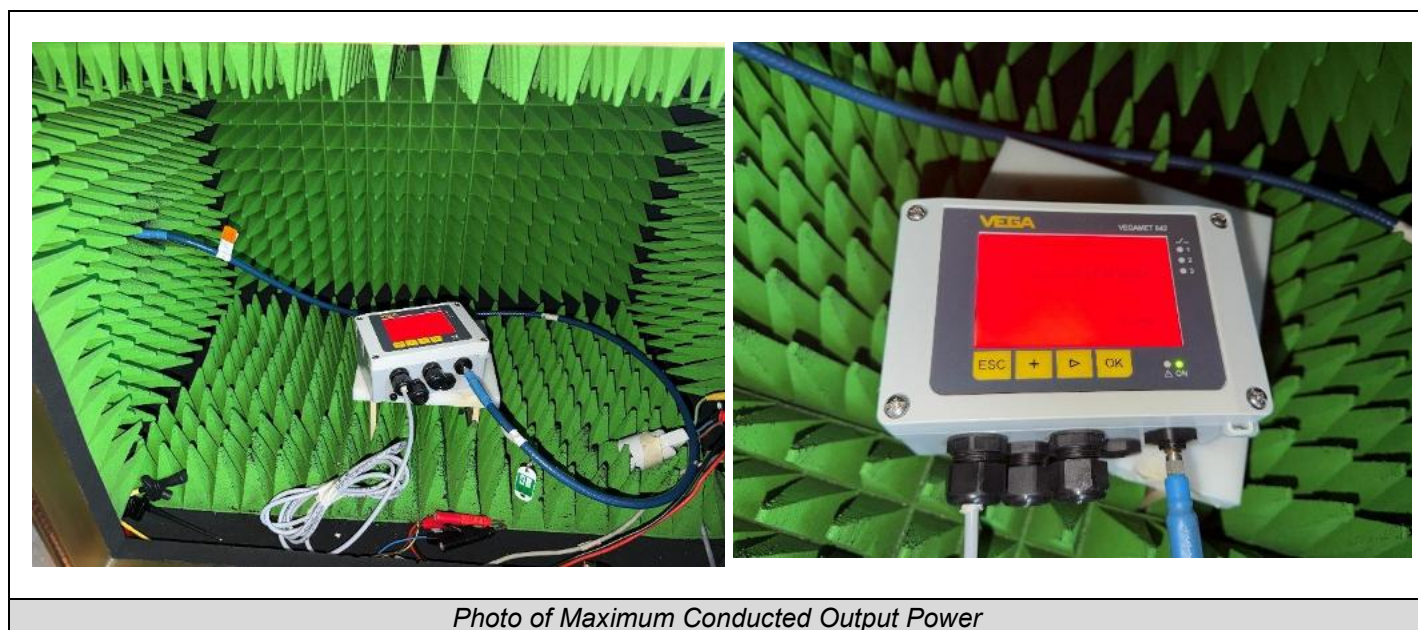
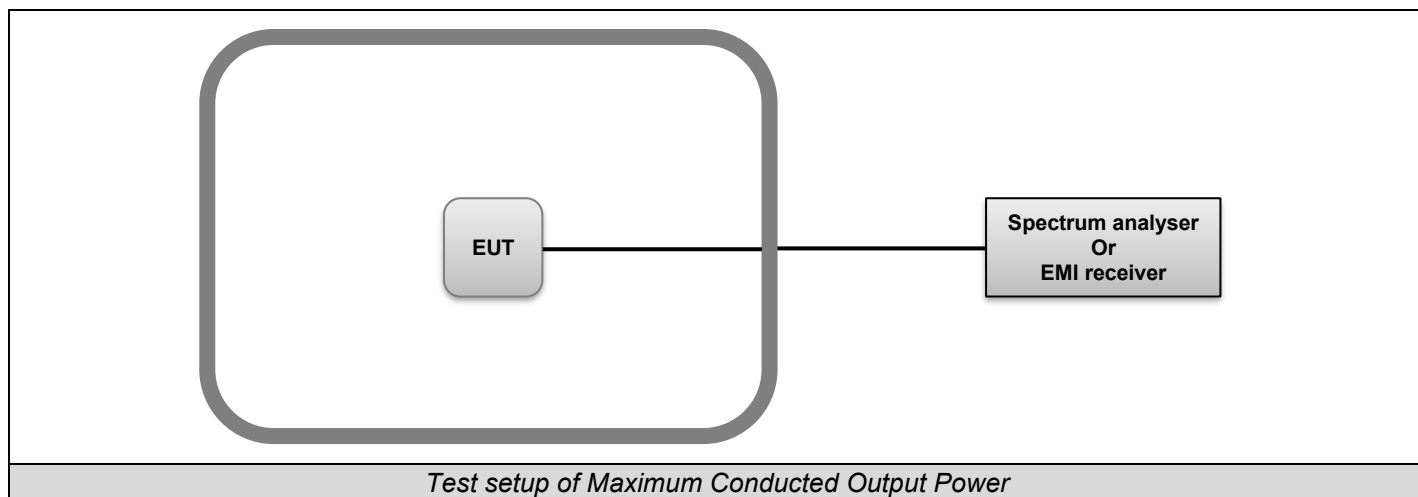
The EUT is turned ON, the center frequency of the spectrum analyzer is set to the fundamental frequency. The captured power is measured and recorded; the measurement is repeated until all frequencies required were complete.

Test Procedure used: KDB 558074 D01 DTS Meas Guidance v05r02 § 8.3.1.2

KDB 558074 D01 DTS Meas Guidance v05r02 § 8.3.1.2

This procedure may be used when the maximum available RBW of the measurement instrument is less than the DTS bandwidth.

- Set the RBW = 1 MHz.
- Set the VBW $\geq 3 \times$ RBW
- Set the span $\geq 1.5 \times$ DTS bandwidth.
- Detector = peak.
- Sweep time = auto couple.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the instrument's band/channel power measurement function with the band limits set equal to the DTS bandwidth edges





6.3. LIMIT

Frequency range	Maximum Conducted Output Power
902-928MHz 2400MHz to 2483.5MHz 5725-5850 MHz	≤30dBm*

*Remark: Limits are reduced by G-6dBi if Overall Antenna Gain above 6dBi

6.4. TEST EQUIPMENT LIST

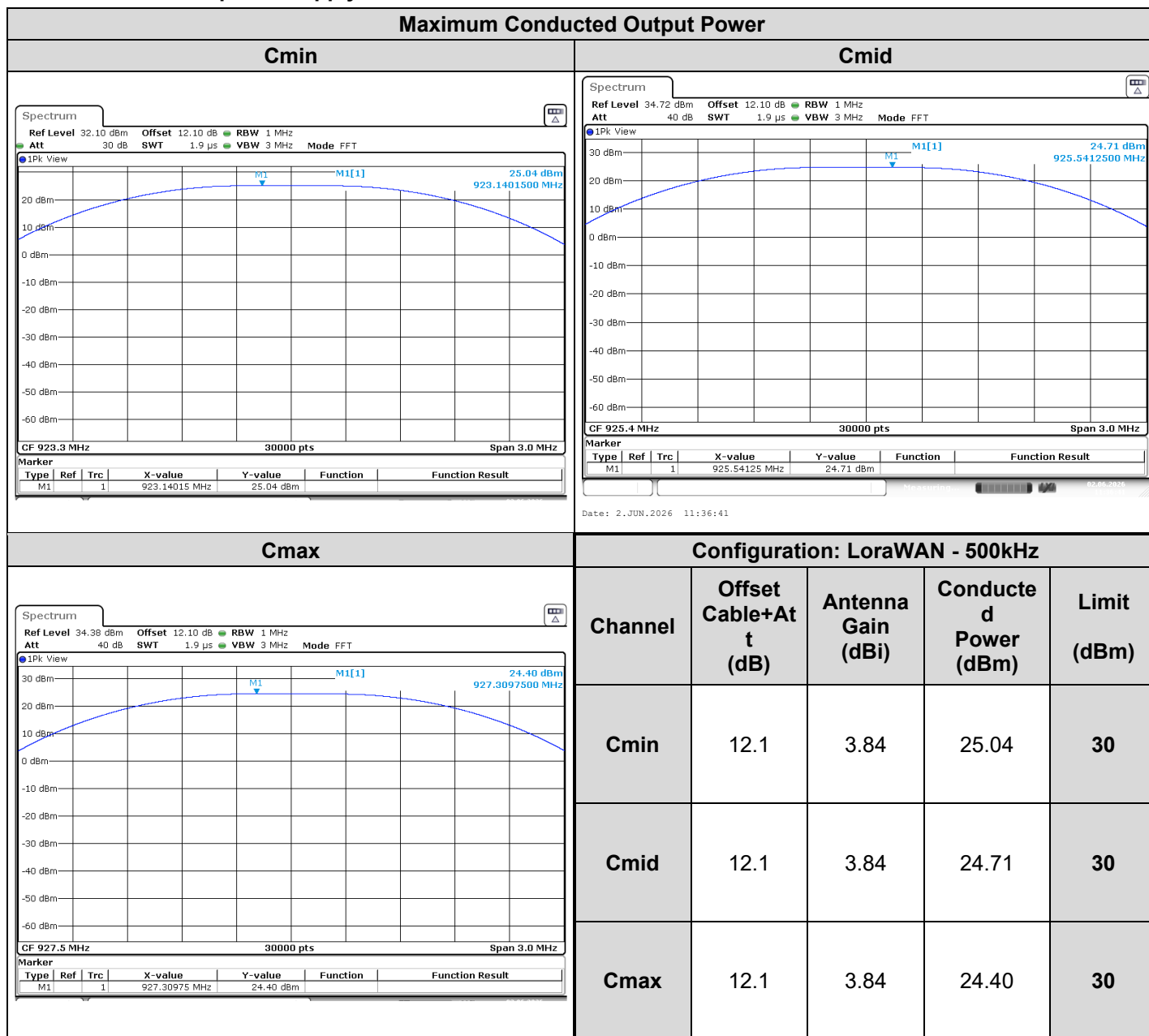
TEST EQUIPMENT USED						
Type	Manufacturer	Description	Model	Identifier	Cal_Date	Cal_Due
RECEIVER / ANALYSER	ROHDE & SCHWARZ	Spectrum analyzer	FSV 40	A4060059	04/2024	08/2026
CABLE	SUCOFLEX	SMA 1.5m	18GHz	A5329863	08/2025	08/2026
CABLE	HUBER-SUHNER	SMK 1.2m Emission Cable 0.5m (Ampl <->Chamber)	SUCOFLEX 102	A5330063	03/2026	03/2027
POWER SUPPLY	RS PRO	DC Power Supply	RS3005P	A7042314	-/-	-/-
ATTENUATOR	AEROFLEX	Attenuator 10dB	—	A7122268	08/2025	08/2027
ANECHOIC CHAMBER	SIEPEL	Full Anechoic Room	—	D3044024	-/-	-/-
SOFT	LCIE SUD EST	Mesure_DTS_FCC-ISED	v1.4	L2000060	NA	NA
CONTROL TOOLS	FLUKE	Multimeter	289	A1241119	05/2025	05/2027
FREQUENCY GENERATOR	ROHDE & SCHWARZ	Frequency Generator 100kHz-6GHz	SMJ100A	A5400043	09/2024	09/2026
THERMO HYGROMETER	TESTO	Thermo-hygrometer	608-H2	B4204121	05/2025	05/2027

6.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

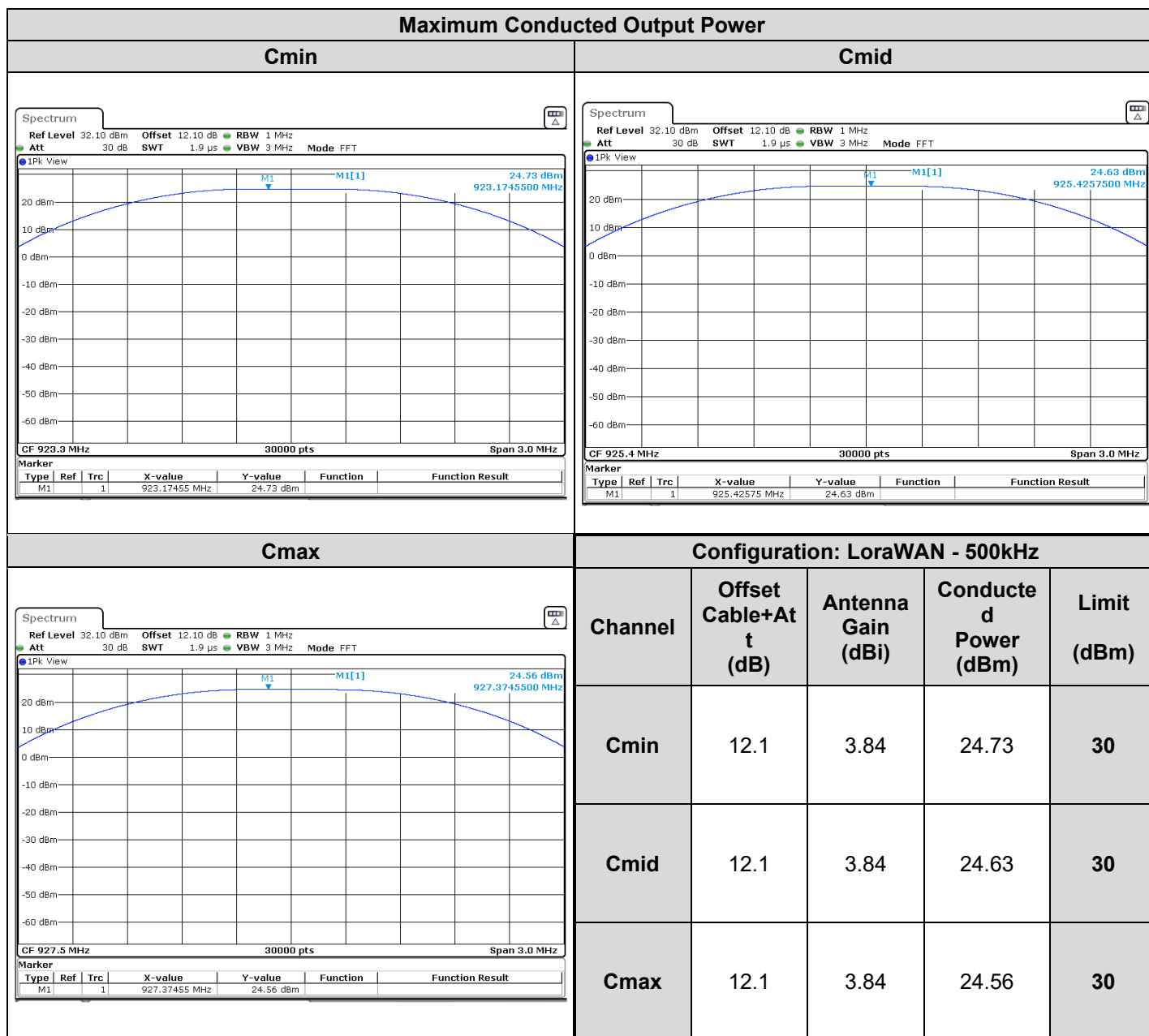
None

6.6. RESULTS

6.6.1. With DC power supply mode



6.6.2. With AC power supply mode



6.7. CONCLUSION

Maximum Output Conducted Power measurement performed on the sample of the product **VEGAMET Air 842**, Sn: **84200010**, in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.247 & RSS 247** limits.

7. POWER SPECTRAL DENSITY

7.1. TEST CONDITIONS

Date of test : June 03, 2026
Test performed by : Majid MOURZAGH
Relative humidity (%) : 38
Ambient temperature (°C) : 25

7.2. TEST SETUP

The Equipment Under Test is installed in an anechoic chamber.
Measurement is performed with a spectrum analyzer in conducted method.

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

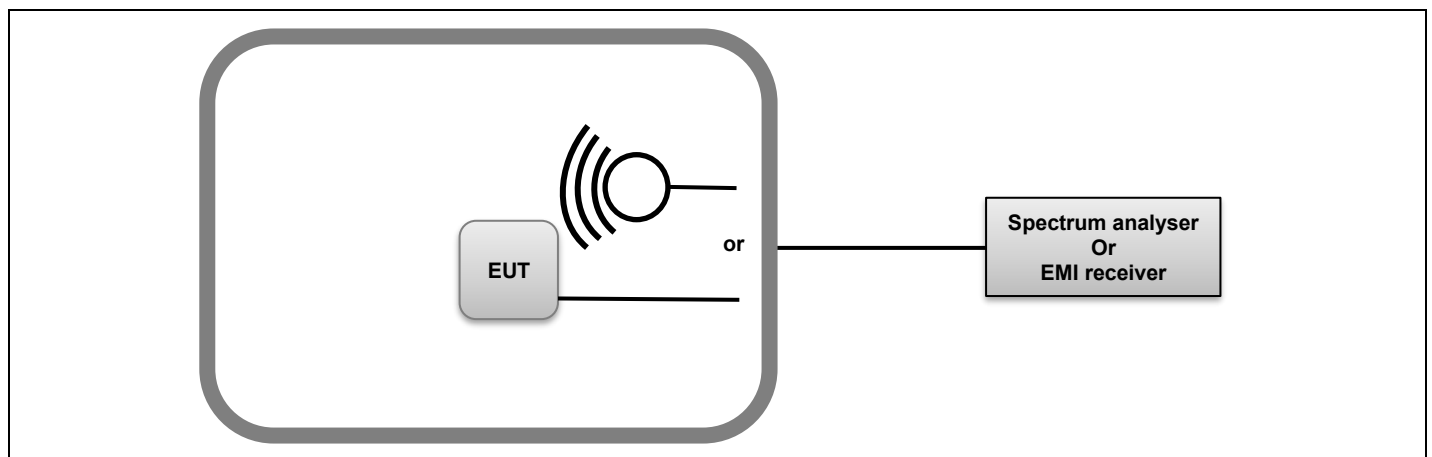
Test Procedure used: KDB 558074 D01 DTS Meas Guidance v05r02 § 8.4 (Method AVGPSD-1)

KDB 558074 D01 DTS Meas Guidance v05r02 § 8.4 (Method AVGPSD-1)

Subclause 11.10 of ANSI C63.10 is applicable

Method AVGPSD-1 uses trace averaging with EUT transmitting at full power throughout each sweep. The following procedure may be used when the maximum (average) conducted output power was used to determine compliance to the fundamental output power limit. This is the baseline method for determining the maximum (average) conducted PSD level. If the instrument has a power averaging (rms) detector, then it must be used; otherwise, use the sample detector. The EUT must be configured to transmit continuously ($D \geq 98\%$), or else sweep triggering/signal gating must be implemented to ensure that measurements are made only when the EUT is transmitting at its maximum power control level (no transmitter OFF time to be considered):

- o a) Set instrument center frequency to DTS channel center frequency.
- o b) Set span > 1.5 times the OBW.
- o c) Set RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- o d) Set VBW $\geq [3 \times \text{RBW}]$.
- o e) Detector = power averaging (rms) or sample detector (when rms not available).
- o f) Ensure that the number of measurement points in the sweep $\geq [2 \times \text{span} / \text{RBW}]$.
- o g) Sweep time = auto couple.
- o h) Employ trace averaging (rms) mode over a minimum of 100 traces.
- o i) Use the peak marker function to determine the maximum amplitude level.
- o j) If the measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat (note that this may require zooming in on the emission of interest and reducing the span to meet the minimum measurement point requirement as the RBW is reduced).



Test setup of Power Spectral Density

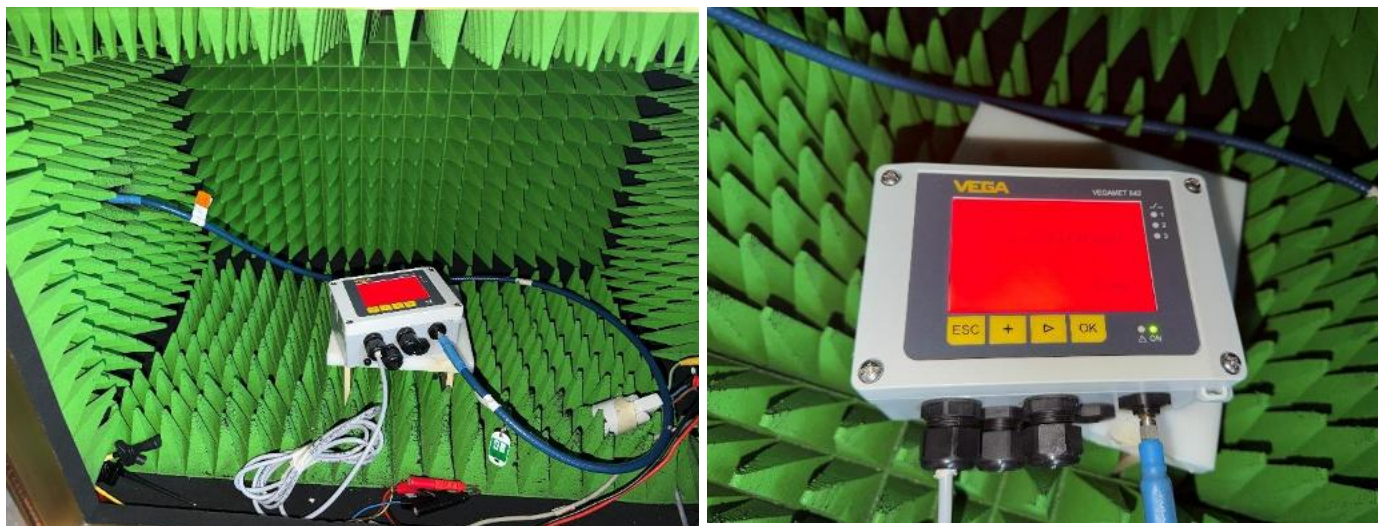


Photo of Power Spectral Density



7.3. LIMIT

Frequency range	Power Spectral Density
902-928MHz 2400MHz to 2483.5MHz 5725-5850 MHz	≤8dBm / 3kHz *

*Remark: Limits are reduced by G-6dBi if Overall Antenna Gain above 6dBi

7.4. TEST EQUIPMENT LIST

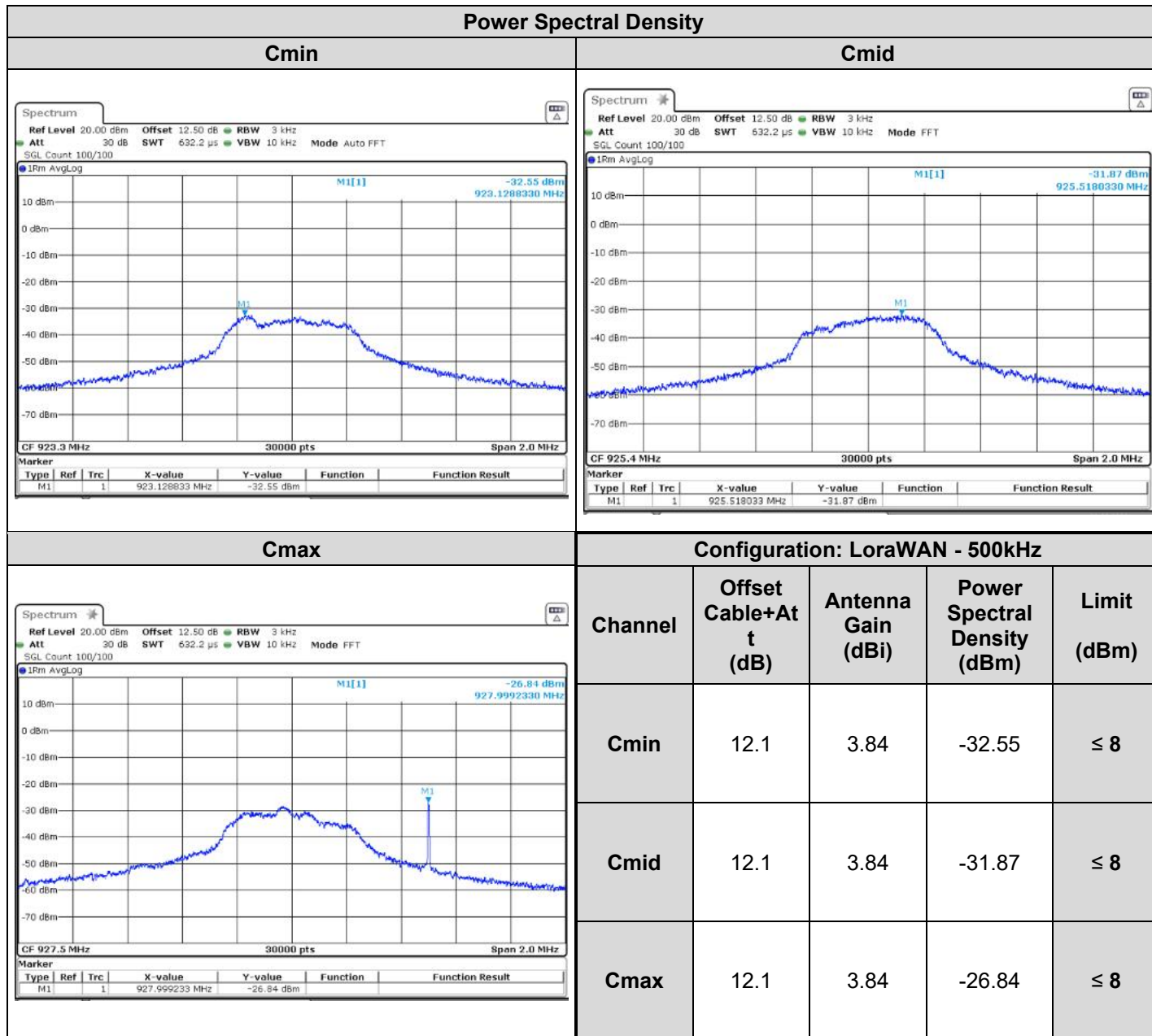
TEST EQUIPMENT USED						
Type	Manufacturer	Description	Model	Identifier	Cal_Date	Cal_Due
RECEIVER / ANALYSER	ROHDE & SCHWARZ	Spectrum analyzer	FSV 40	A4060059	04/2024	08/2026
CABLE	SUCOFLEX	SMA 1.5m	18GHz	A5329863	08/2025	08/2026
CABLE	HUBER-SUHNER	SMK 1.2m Emission Cable 0.5m (Ampl <->Chamber)	SUCOFLEX 102	A5330063	03/2026	03/2027
POWER SUPPLY	RS PRO	DC Power Supply	RS3005P	A7042314	-/-	-/-
ATTENUATOR	AEROFLEX	Attenuator 10dB	—	A7122268	08/2025	08/2027
ANECHOIC CHAMBER	SIEPEL	Full Anechoic Room	—	D3044024	-/-	-/-
SOFT	LCIE SUD EST	Mesure_DTS_FCC-ISED	v1.4	L2000060	NA	NA
CONTROL TOOLS	FLUKE	Multimeter	289	A1241119	05/2025	05/2027
FREQUENCY GENERATOR	ROHDE & SCHWARZ	Frequency Generator 100kHz-6GHz	SMJ100A	A5400043	09/2024	09/2026
THERMO HYGROMETER	TESTO	Thermo-hygrometer	608-H2	B4204121	05/2025	05/2027

7.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

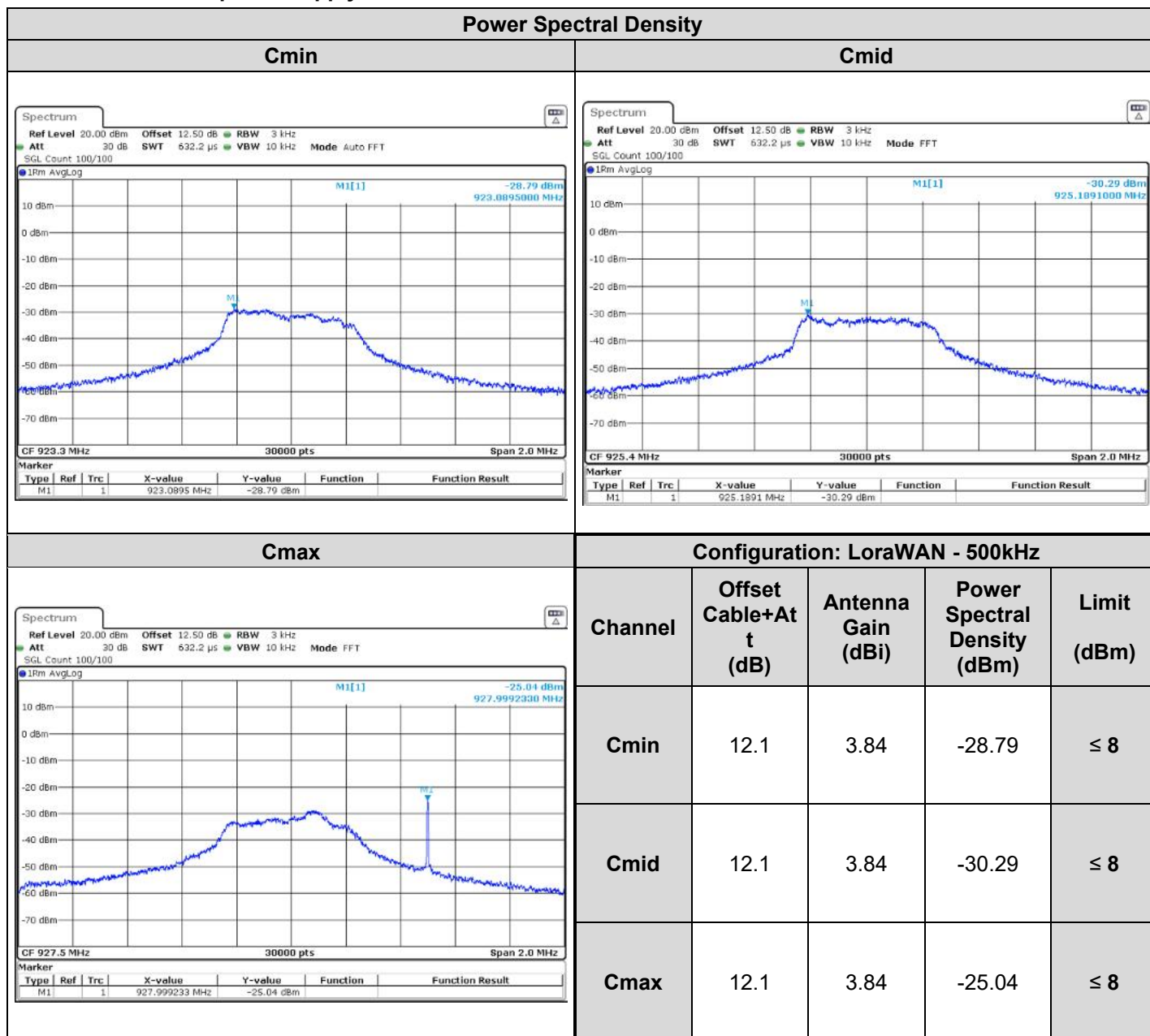
None

7.6. RESULTS

7.6.1. With DC power supply mode



7.6.2. With AC power supply mode



7.7. CONCLUSION

Power Spectral Density measurement performed on the sample of the product **VEGAMET Air 842**, Sn: **84200010**, in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.247 & RSS 247** limits.

8. UNWANTED EMISSIONS IN NON-RESTRICTED FREQUENCY BANDS

8.1. TEST CONDITIONS

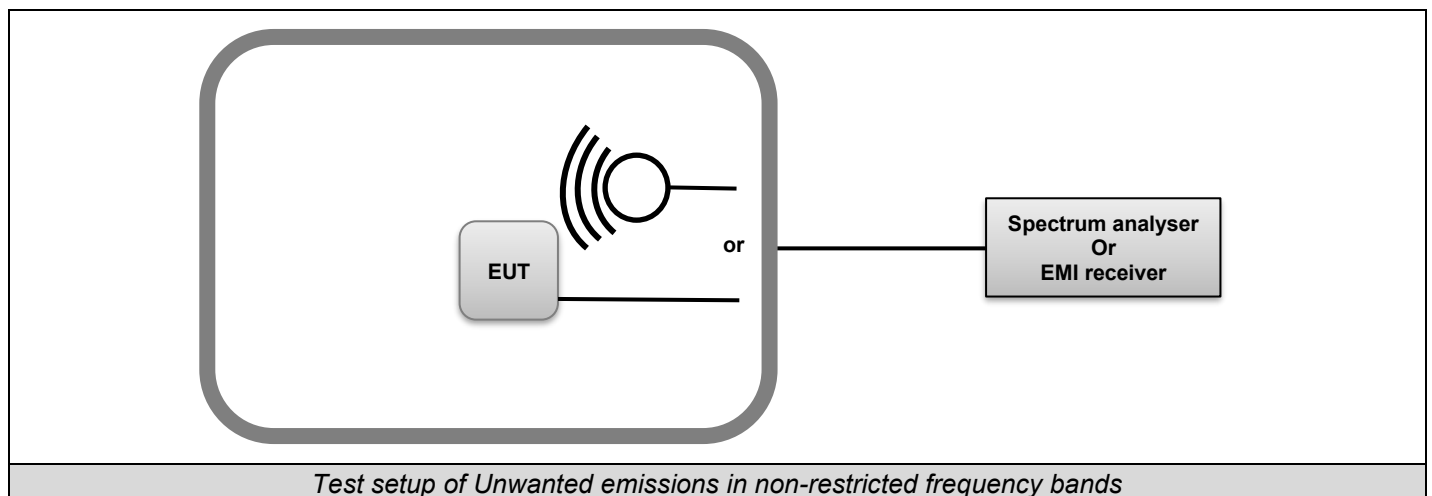
Date of test : June 03, 2026
Test performed by : Majid MOURZAGH
Relative humidity (%) : 38
Ambient temperature (°C) : 25

8.2. TEST SETUP

The Equipment Under Test is installed in an anechoic chamber.
Measurement is performed with a spectrum analyzer in conducted method.

The EUT is turned ON, the captured power is measured and recorded; the measurement is repeated until all frequencies required were complete.

Test Procedure:
KDB 558074 D01 DTS Meas Guidance v05r02 § 8.5



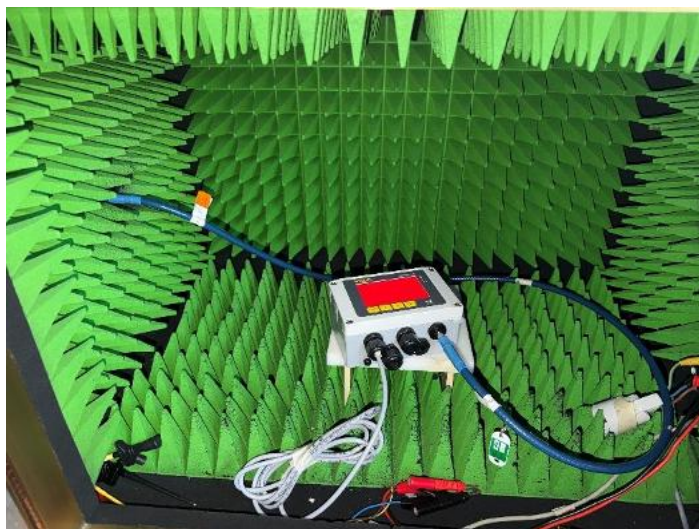


Photo of Unwanted emissions in non-restricted frequency bands



8.3. LIMIT

All Spurious Emissions must be at least 20dB below the Fundamental Radiator Level at the Band Edge of operating frequency band and in non-restricted bands.

8.4. TEST EQUIPMENT LIST

TEST EQUIPMENT USED						
Type	Manufacturer	Description	Model	Identifier	Cal_Date	Cal_Due
RECEIVER / ANALYSER	ROHDE & SCHWARZ	Spectrum analyzer	FSV 40	A4060059	04/2024	08/2026
CABLE	SUCOFLEX	SMA 1.5m	18GHz	A5329863	08/2025	08/2026
CABLE	HUBER-SUHNER	SMK 1.2m Emission Cable 0.5m (Ampl <->Chamber)	SUCOFLEX 102	A5330063	03/2026	03/2027
POWER SUPPLY	RS PRO	DC Power Supply	RS3005P	A7042314	-/-	-/-
ATTENUATOR	AEROFLEX	Attenuator 10dB	—	A7122268	08/2025	08/2027
ANECHOIC CHAMBER	SIEPEL	Full Anechoic Room	—	D3044024	-/-	-/-
SOFT	LCIE SUD EST	Mesure_DTS_FCC-ISED	v1.4	L2000060	NA	NA
CONTROL TOOLS	FLUKE	Multimeter	289	A1241119	05/2025	05/2027
FREQUENCY GENERATOR	ROHDE & SCHWARZ	Frequency Generator 100kHz-6GHz	SMJ100A	A5400043	09/2024	09/2026
THERMO HYGROMETER	TESTO	Thermo-hygrometer	608-H2	B4204121	05/2025	05/2027

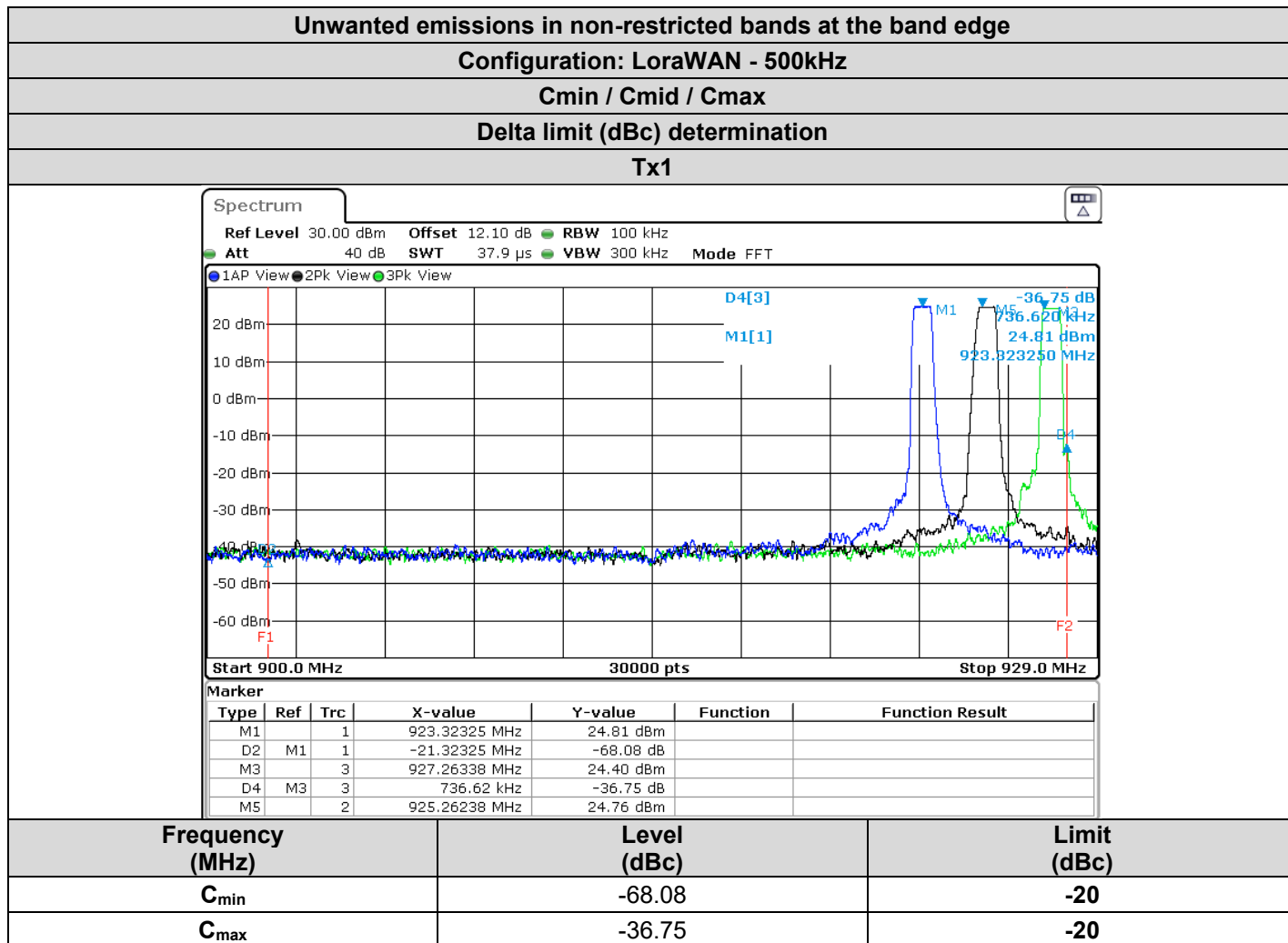
8.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

None

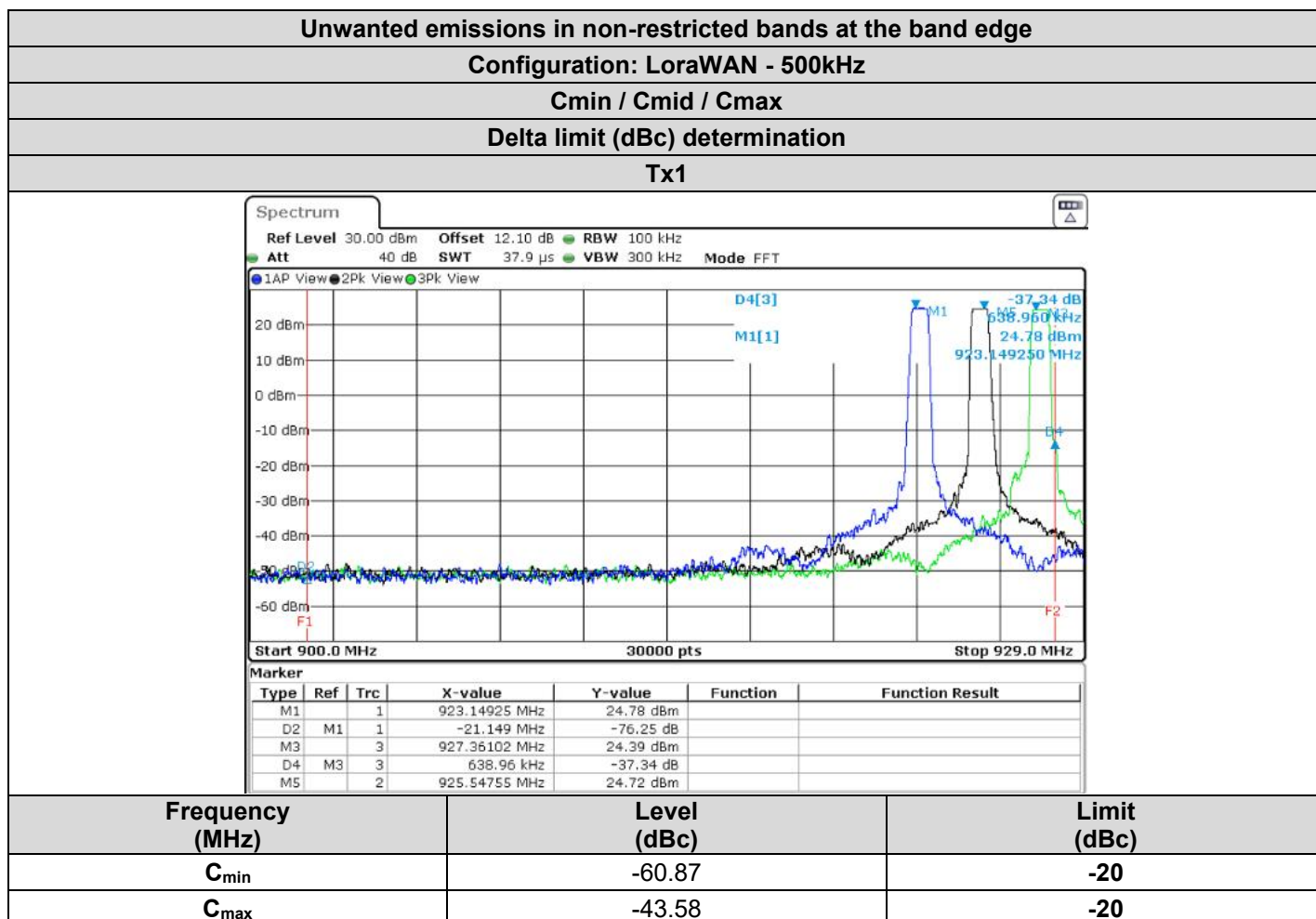
8.6. RESULTS

8.6.1. Operational frequency band

8.6.1.1. With DC power supply mode

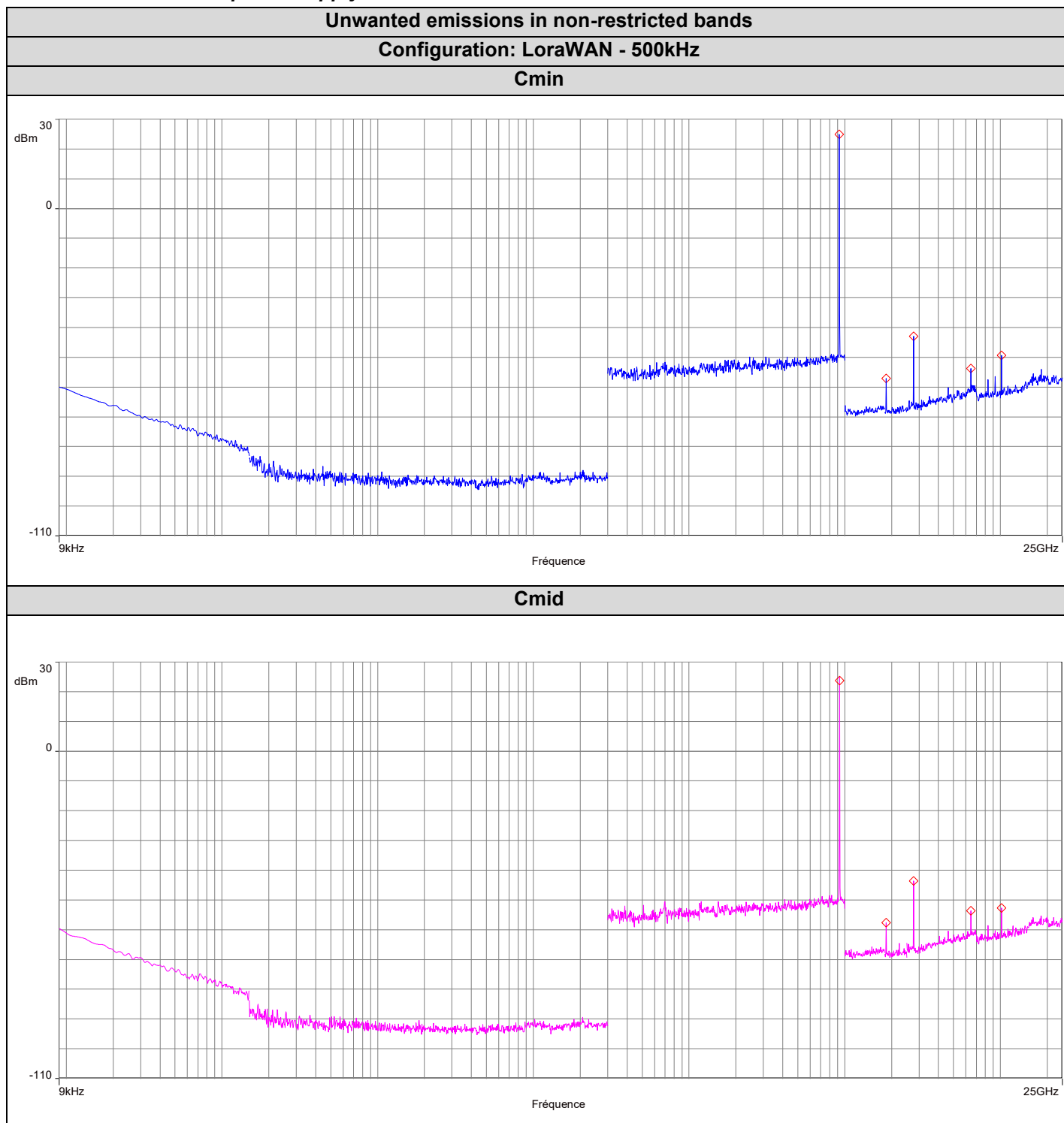


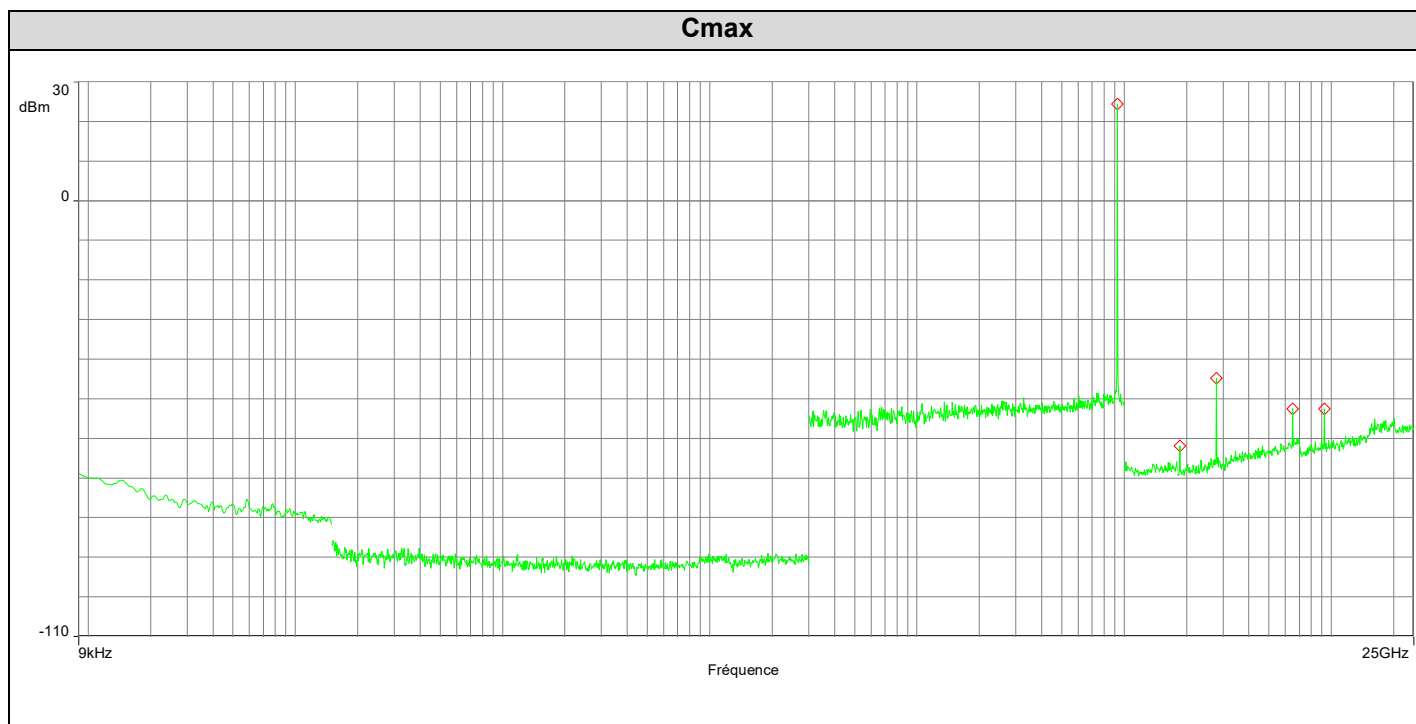
8.6.1.2. With AC power supply mode



8.6.2. Non restricted frequency bands

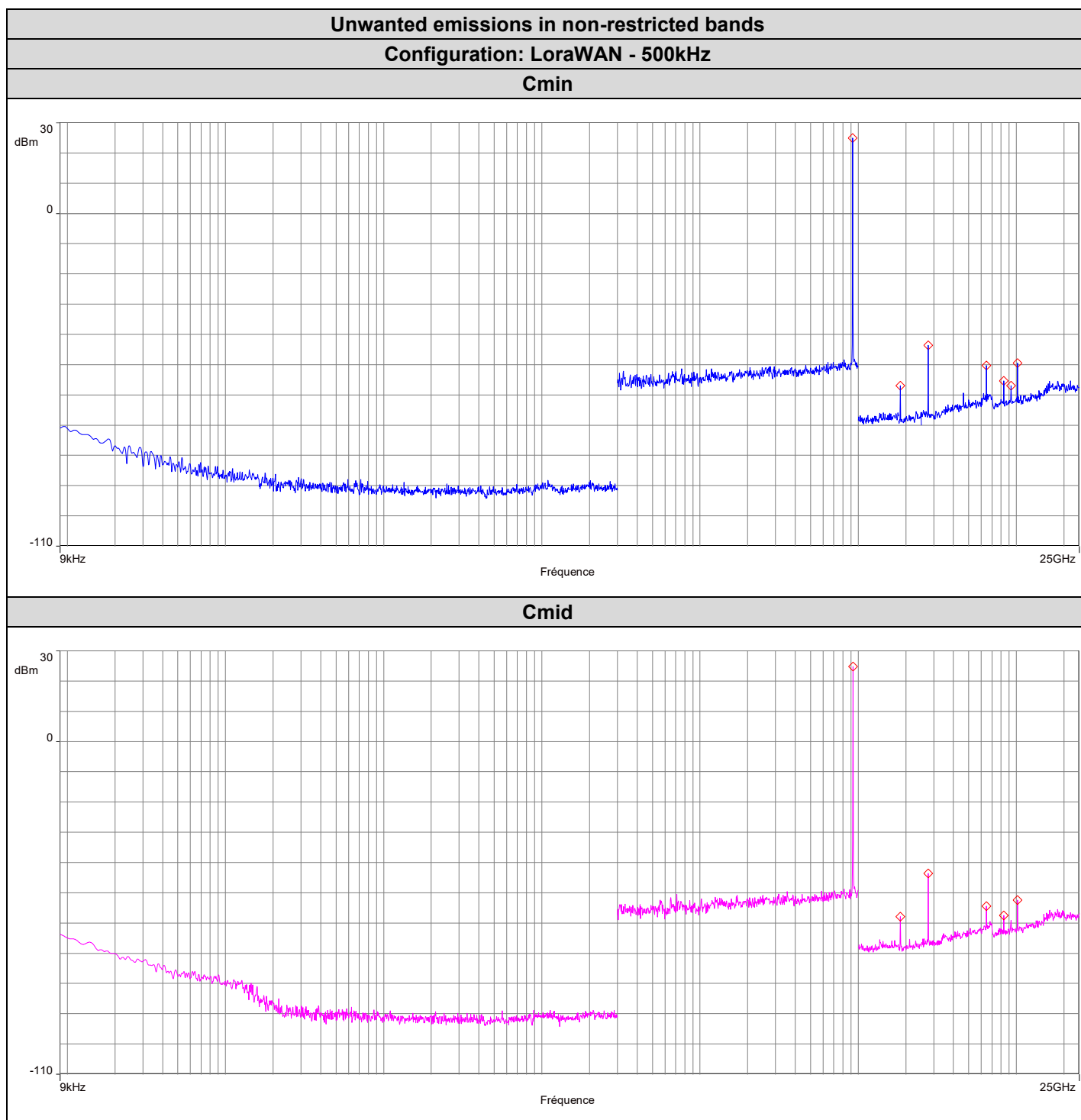
8.6.2.1. With DC power supply mode

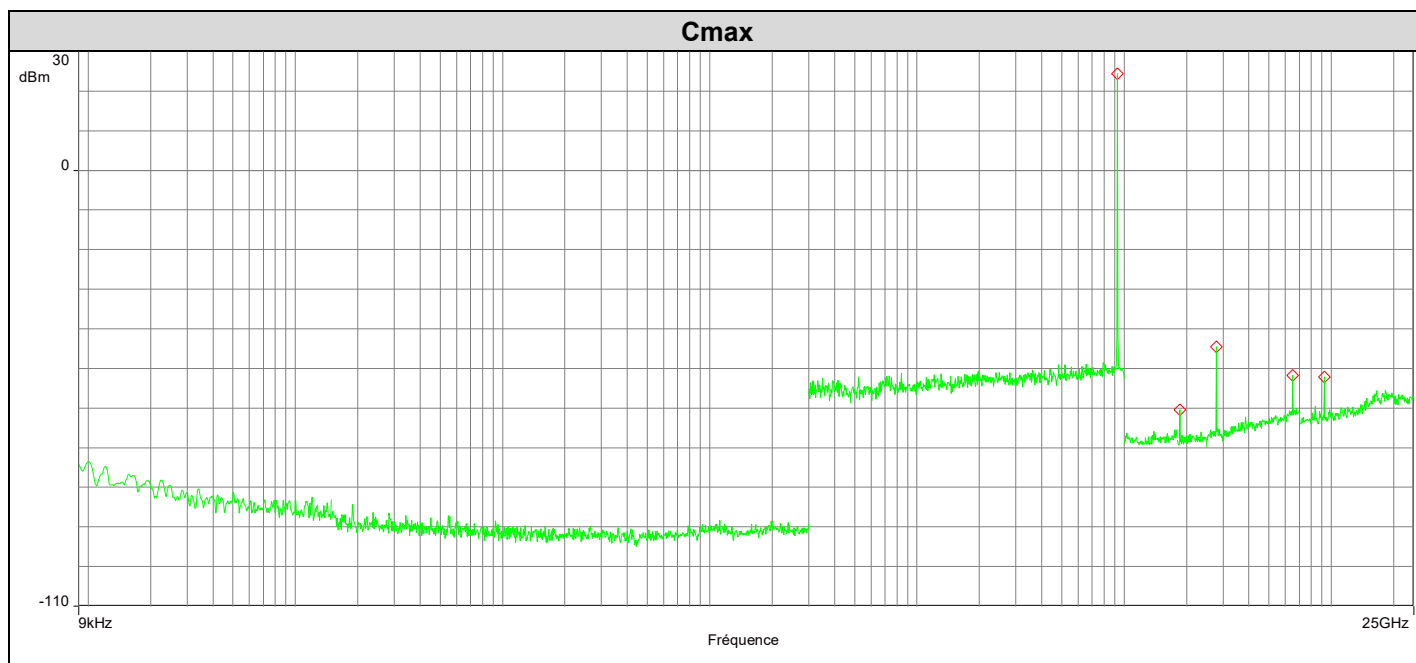




Frequency (MHz)	Level (dBm)	Level (dBc)	Limit (dBc)
923.3	24.94		
1846.22	-57.12	-82.06	-20
2770.5	-42.96	-67.9	-20
6464	-53.78	-78.72	-20
10153.5	-49.40	-74.34	-20
925.4	23.74		
1850.33	-57.59	-81.33	-20
2775.5	-43.54	-67.28	-20
6477	-53.66	-77.4	-20
10178	-52.68	-76.42	-20
927.5	24.45		
1855.2	-61.90	-86.35	-20
2782.75	-44.74	-69.19	-20
6491.75	-52.59	-77.04	-20
9276.75	-52.51	-76.96	-20

8.6.2.2. With AC power supply mode





Frequency (MHz)	Level (dBm)	Level (dBc)	Limit (dBc)
923.3	24.93		
1846.11	-56.94	-81.87	-20
2770.5	-43.55	-68.48	-20
6464.75	-50.28	-75.21	-20
8311.25	-55.29	-80.22	-20
9234	-57.00	-81.93	-20
10156	-49.49	-74.42	-20
925.4	23.84		
1851.1	-57.90	-81.74	-20
2776.2	-43.65	-67.49	-20
6478.5	-54.39	-78.23	-20
8330.75	-57.56	-81.4	-20
10181	-52.41	-76.25	-20
927.5	24.43		
1854.8	-60.48	-84.91	-20
2782.75	-44.57	-69	-20
6491.5	-51.74	-76.17	-20
9274.5	-52.17	-76.6	-20

8.7. CONCLUSION

Unwanted emissions in non-restricted bands and at the band edge measurement performed on the sample of the product **VEGAMET Air 842**, Sn: **84200010**, in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.247 & RSS 247** limits.



9. UNWANTED EMISSIONS IN RESTRICTED FREQUENCY BANDS

9.1. TEST CONDITIONS

Date of test	: June 01, 2026	June 02, 2026	July 29, 2026
Test performed by	: Majid MOURZAGH	Majid MOURZAGH	Marlon BOUBY
Relative humidity (%)	: 37	38	38
Ambient temperature (°C)	: 23	24	24

9.2. TEST SETUP

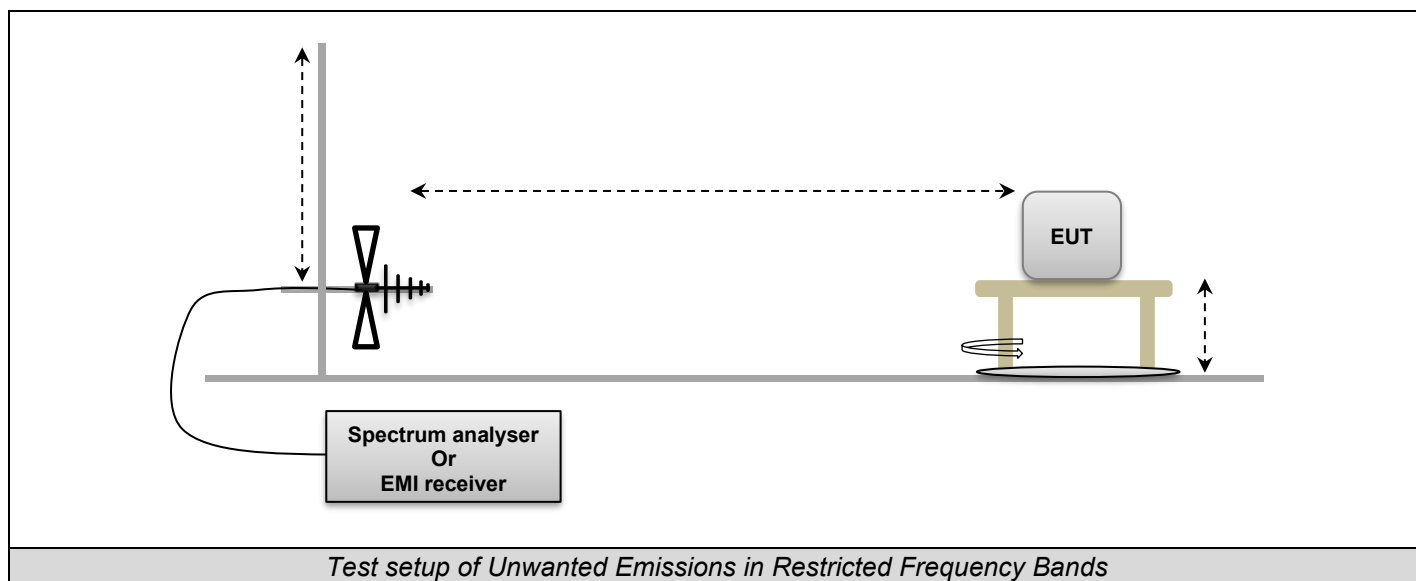
Test procedure:
ANSI C63.10 & FCC Part 15 subpart C

Following frequency ranges, test setup parameters are different and specified in this table:

Frequency range:	9kHz to 30MHz	
Test:	Pre-Characterization	Qualification
Antenna Polarization:	Parallel, Perpendicular and Ground parallel	
Antenna Height:	Centered on EUT (§6.6.5 ANSI C63-10)	1m
Antenna Type:	Loop	
RBW Filter:	200Hz below 150kHz / 9kHz above 150kHz	
Maximization:	Turntable rotation of 360 degrees range and all axis of EUT used in normal configuration	
EUT height:	1.5m	1.5m
Test site:	Full Anechoic Chamber	Open Aera Test Site
Distance EUT - Antenna:	3m	10m
Detector:	Peak	QPeak

Frequency range:	30MHz to 1GHz	
Test:	Pre-Characterization	Qualification
Antenna Polarization:	Horizontal and Vertical	
Antenna Height:	Centered on EUT (§6.6.5 ANSI C63-10)	Varied from 1m to 4m
Antenna Type:	Bi-Log	
RBW Filter:	120kHz	
Maximization:	Turntable rotation of 360 degrees range and all axis of EUT used in normal configuration	
EUT height:	1.5m	1.5m
Test site:	Full Anechoic Chamber	Open Aera Test Site
Distance EUT - Antenna:	3m	10m
Detector:	Peak	QPeak

Frequency range:	1GHz to 9.5GHz	
Test:	Pre-Characterization	Qualification
Antenna Polarization:	Horizontal and Vertical	
Antenna Height:	Centered on EUT (§6.6.5 ANSI C63-10)	Centered on EUT (§6.6.5 ANSI C63-10)
Antenna Type:	Horn	
RBW Filter:	1MHz	
Maximization:	Turntable rotation of 360 degrees range and all axis of EUT used in normal configuration	
EUT height:	1.5m	1.5m
Test site:	Full Anechoic Chamber	Full Anechoic Chamber
Distance EUT - Antenna:	3m	3m
Detector:	Peak	Peak & Average



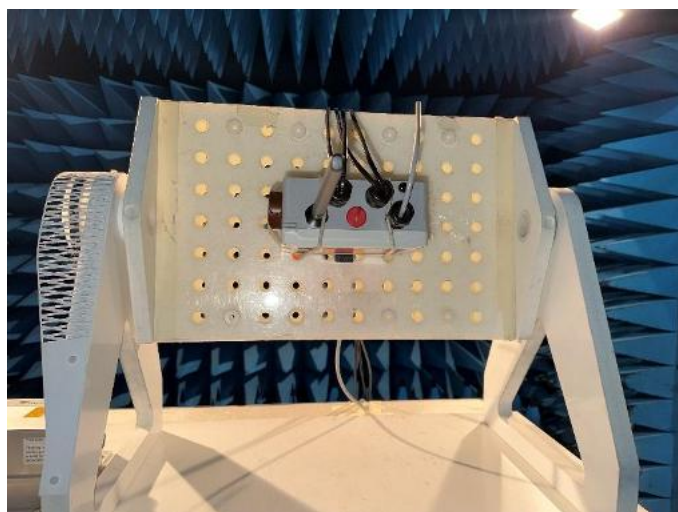
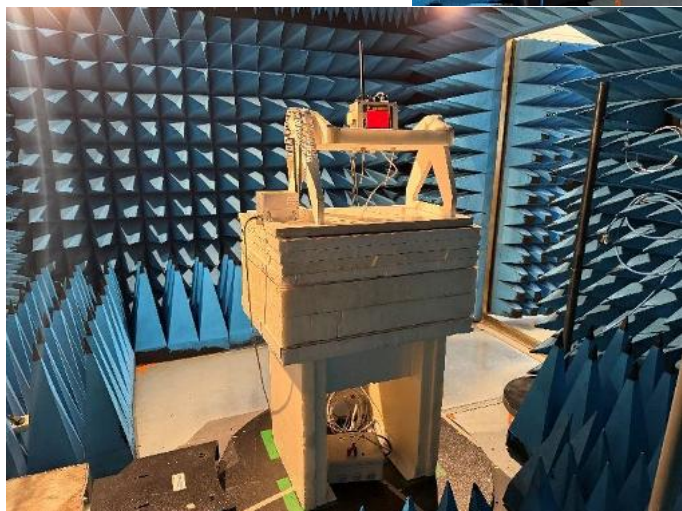


Photo of Unwanted Emissions in Restricted Frequency Bands



Photo on OATS



9.3. LIMIT

Measure at 300m		
Frequency range	Level	Detector
9kHz-490kHz	67.6dB μ V/m /F(kHz)	QPeak
Measure at 30m		
Frequency range	Level	Detector
490kHz-1.705MHz	87.6dB μ V/m /F(kHz)	QPeak
1.705MHz-30MHz	29.5dB μ V/m	QPeak
Measure at 10m		
Frequency range	Level	Detector
30MHz to 88MHz	29.5dB μ V/m	QPeak
88MHz to 216MHz	33dB μ V/m	QPeak
216MHz to 960MHz	35.5B μ V/m	QPeak
960MHz to 1000MHz	43.5dB μ V/m	QPeak
Above 1000MHz	63.5dB μ V/m	Peak
	43.5dB μ V/m	Average
Measure at 3m		
Frequency range	Level	Detector
30MHz to 88MHz	40dB μ V/m	QPeak
88MHz to 216MHz	43.5dB μ V/m	QPeak
216MHz to 960MHz	46B μ V/m	QPeak
960MHz to 1000MHz	54dB μ V/m	QPeak
Above 1000MHz	74dB μ V/m	Peak
	54dB μ V/m	Average



9.4. TEST EQUIPMENT LIST

TEST EQUIPMENT USED					
Description	Manufacturer	Model	Identifier	Cal_Date	Cal_Due
Multimeter - CEM	FLUKE	87	A1240251	10/23	10/25
Antenna Bi-log	CHASE	CBL6111A	C2040051	09/22	09/26
Antenna horn 18GHz	AINFO	LB	C2042055	11/24	11/27
BAT EMC	NEXIO	v3.21.0.32	L1000115	-/-	-/-
Cable 0.75m	-	18GHz	A5329900	08/24	08/25
CONTROLLER	INNCO	CO3000	D3044034	-/-	-/-
Filter Matrice	LCIE SUD EST	Combined filters	A7484078	08/25	08/27
HF Radiated emission comb generator	LCIE SUD EST	—	A3169088	-/-	-/-
Rehausse Table C3	LCIE	—	F2000507	-/-	-/-
Rehausse Table C3	LCIE	—	F2000511	-/-	-/-
Semi-Anechoic chamber #3 (BF)	SIEPEL	—	D3044017_BF	09/25	09/28
Semi-Anechoic chamber #3 (VSWR)	SIEPEL	—	D3044017_VSWR	08/25	08/28
Cable SMA 40cm	WITHWAVE	W101-SM1-0.4M	A5329979	03/2025	07/2026
CABLE	TELEDYNE	A90-010-6.50MTR	A5330010	08/2025	08/2028
SMA Cable 18GHz 0.6m	TELEDYNE	18GHz	A5330055	08/25	08/26
SMA Cable 18GHz 3.5m	TELEDYNE	18GHz	A5330058	08/25	08/26
SMK 6.50m	TELEDYNE	R82-0404-0.5M	A5330010	08/2025	08/2028
Spectrum analyzer	ROHDE & SCHWARZ	FSU 26	A4060058	09/23	09/25
Table C3	LCIE	—	F2000461	-/-	-/-
Thermo-hygrometer	TESTO	608-H1	B4204120	05/25	05/27
TILT	INNCO	TILT	D3044033	-/-	-/-
Turntable chamber (Cage#3)	ETS Lingren	Model 2165	F2000371	-/-	-/-
Turntable controller (Cage#3)	ETS Lingren	Model 2090	F2000444	-/-	-/-

9.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

None

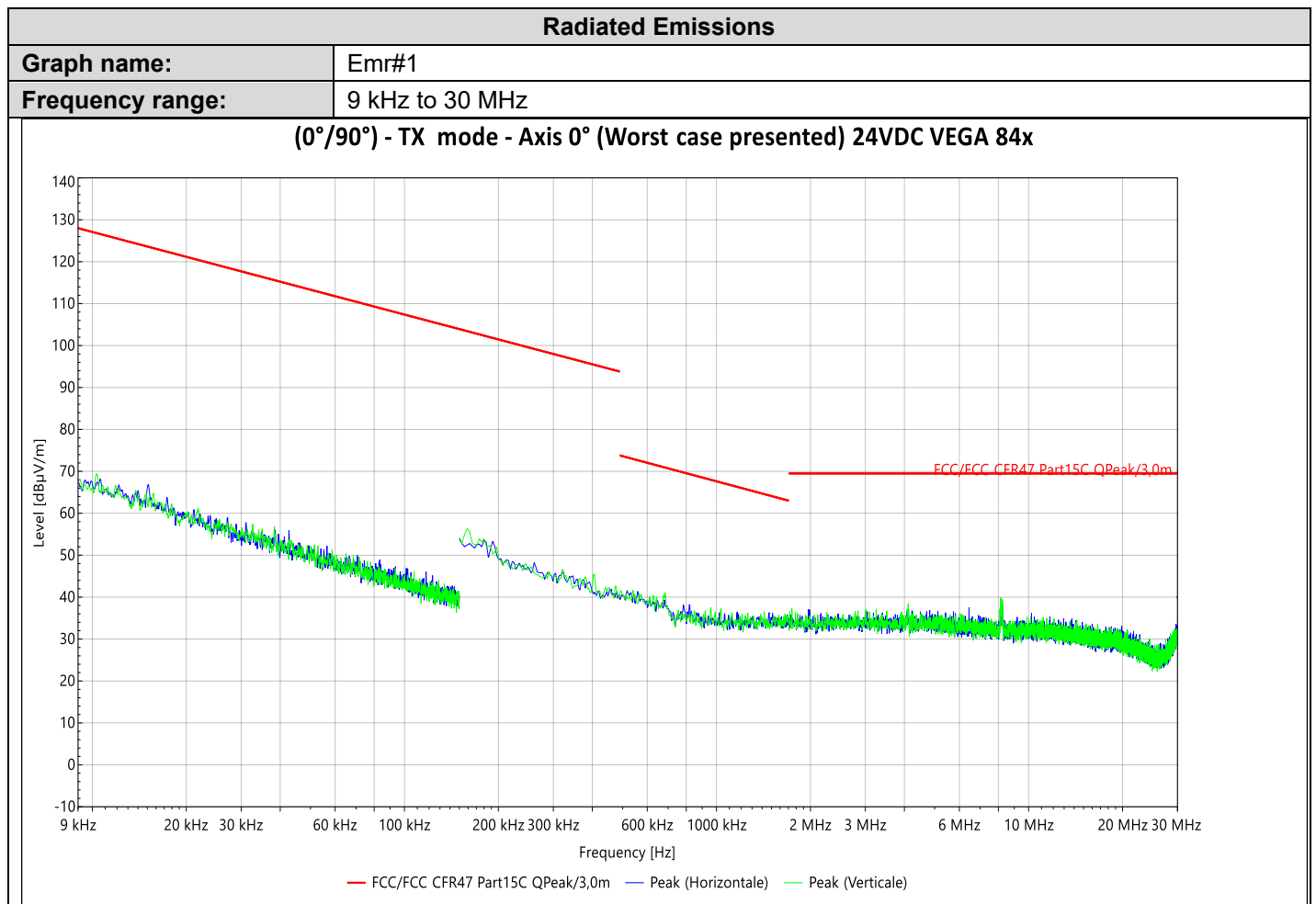
9.6. RESULTS

For all following measurements, worst case is presented with different configurations and modulations of EUT.

9.6.1. 9kHz to 30MHz

Graphs – Pre characterization: (worst case presented)

Graph identifier	Polarization	Mode	Channel	EUT position	Comments
Emr# 1	0°/90°	TX	Cmin	Axis XY/Z	Antenna 1
Emr# 2	180°	TX	Cmin	Axis XY/Z	Antenna 1
Emr# 3	0°/90°	TX	Cmin	Axis XY/Z	Antenna 2
Emr# 4	180°	TX	Cmin	Axis XY/Z	Antenna 2



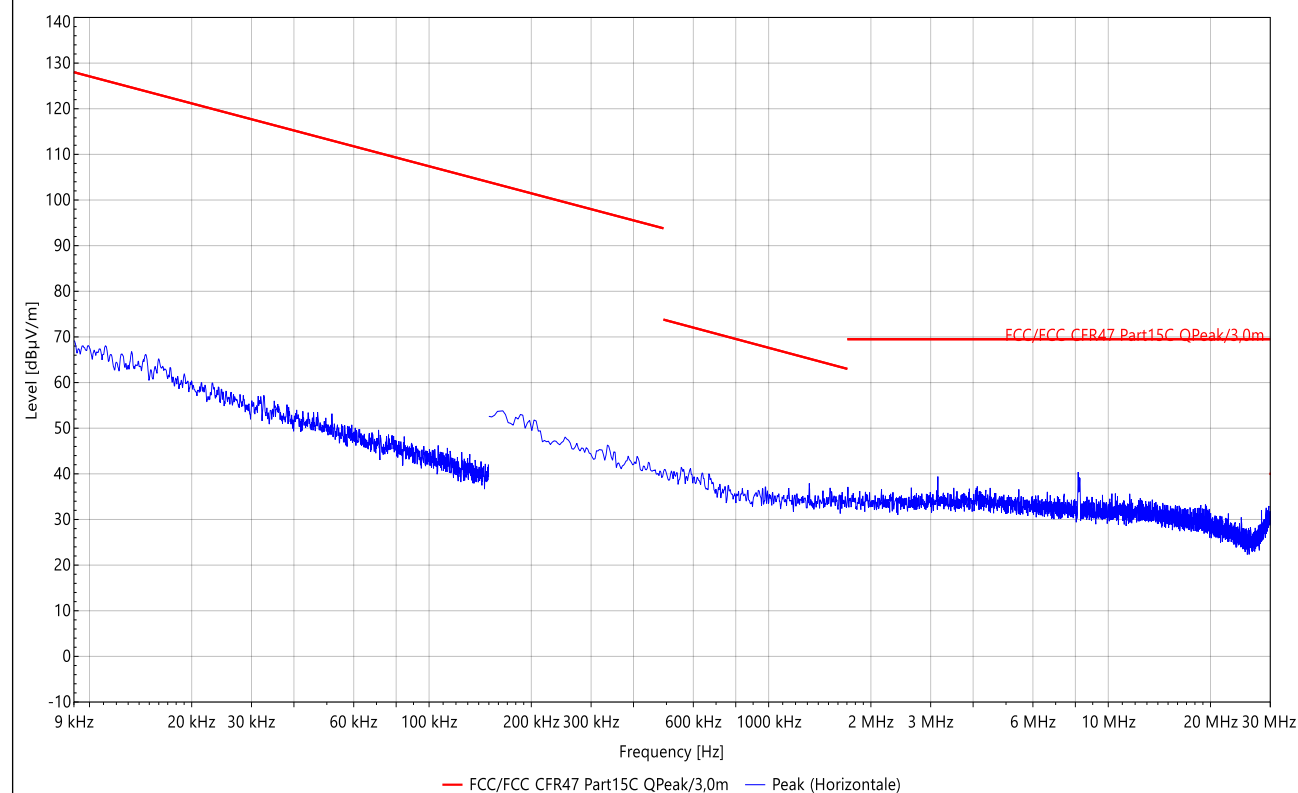
Pre-Characterization:

Frequency

Radiated Emissions

Graph name: Emr#2
Frequency range: 9 kHz to 30 MHz

(180°) - TX mode - Axis 0° (Worst case presented) 24VDC VEGA 84x



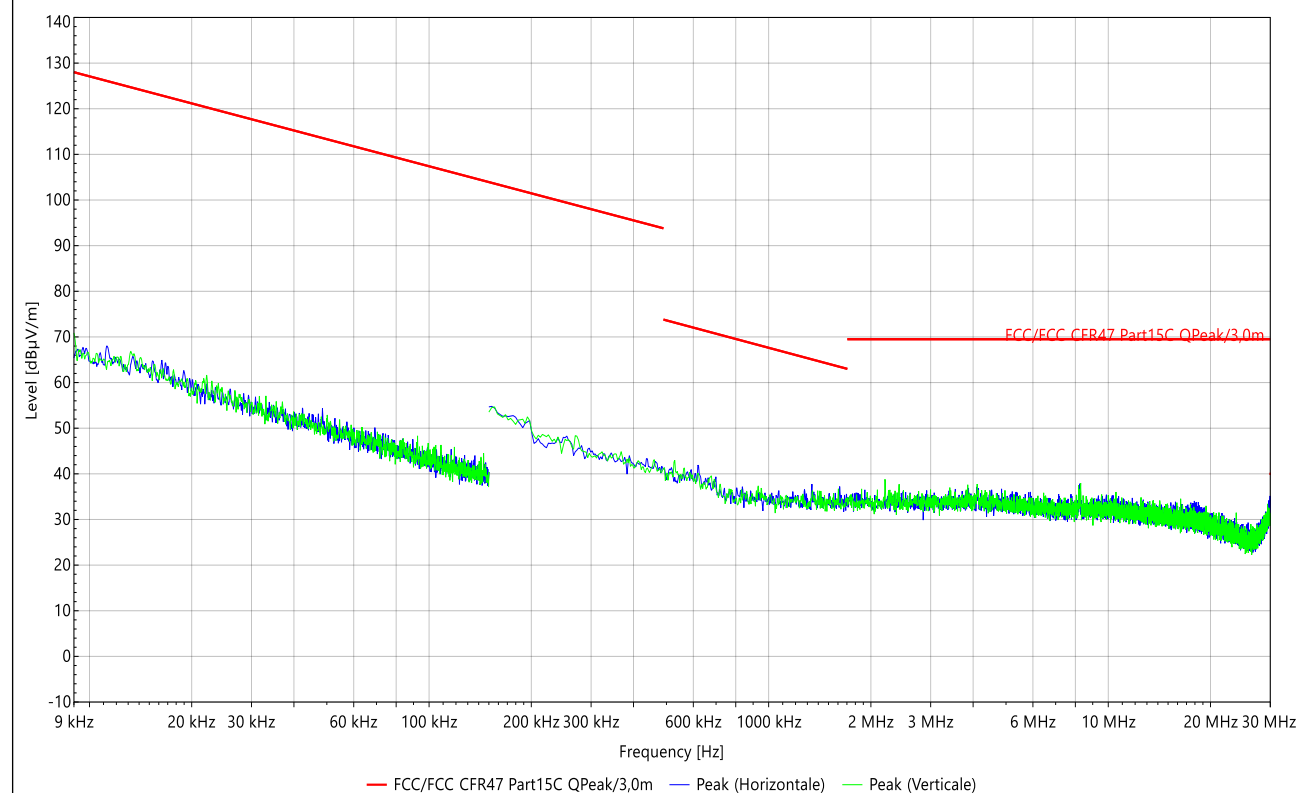
Pre-Characterization:

Frequency

Radiated Emissions

Graph name: Emr#3
Frequency range: 9 kHz to 30 MHz

(0°/90°) - TX mode - Axis 0° (Worst case presented) 24VDC VEGA 84x



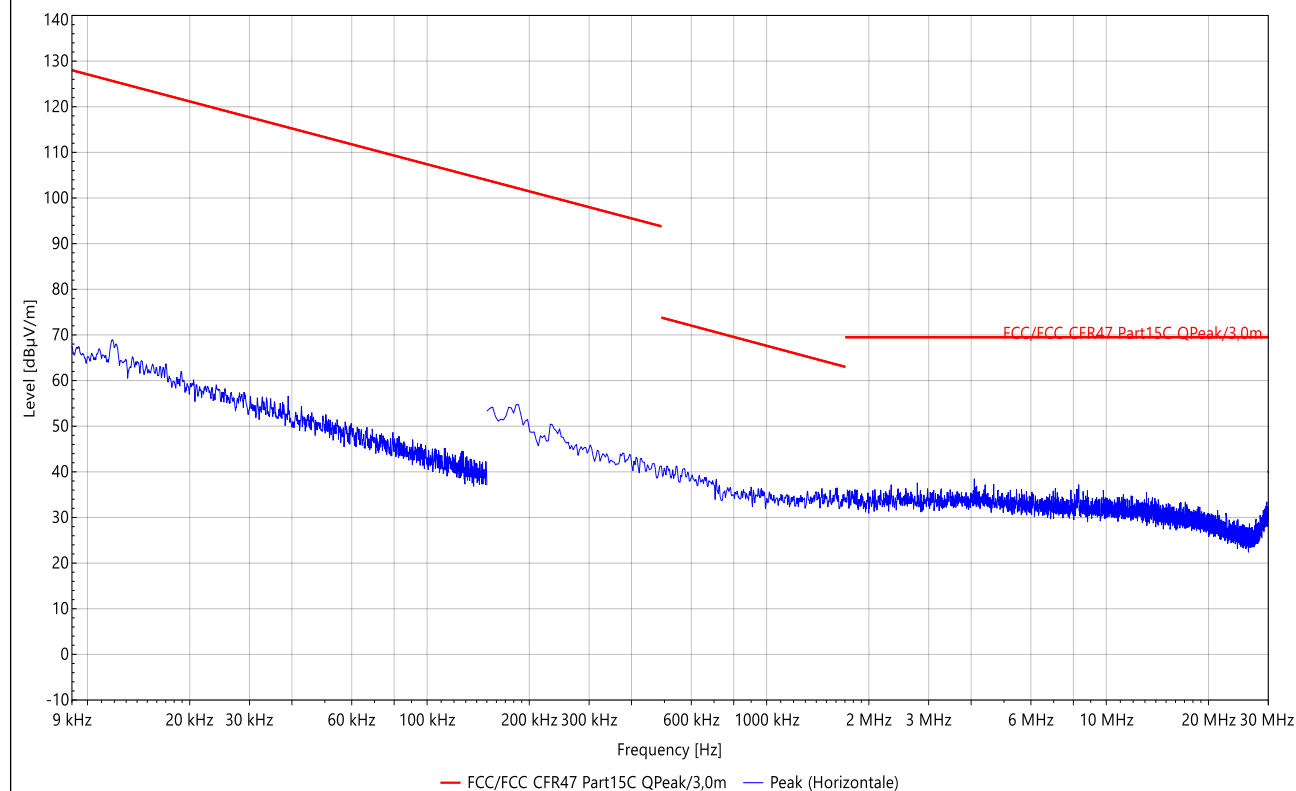
Pre-Characterization:

Frequency

Radiated Emissions

Graph name: Emr#4
Frequency range: 9 kHz to 30 MHz

(180°) - TX mode - Axis 0° (Worst case presented) 24VDC VEGA 84x



Pre-Characterization:

Frequency

Final measurement:

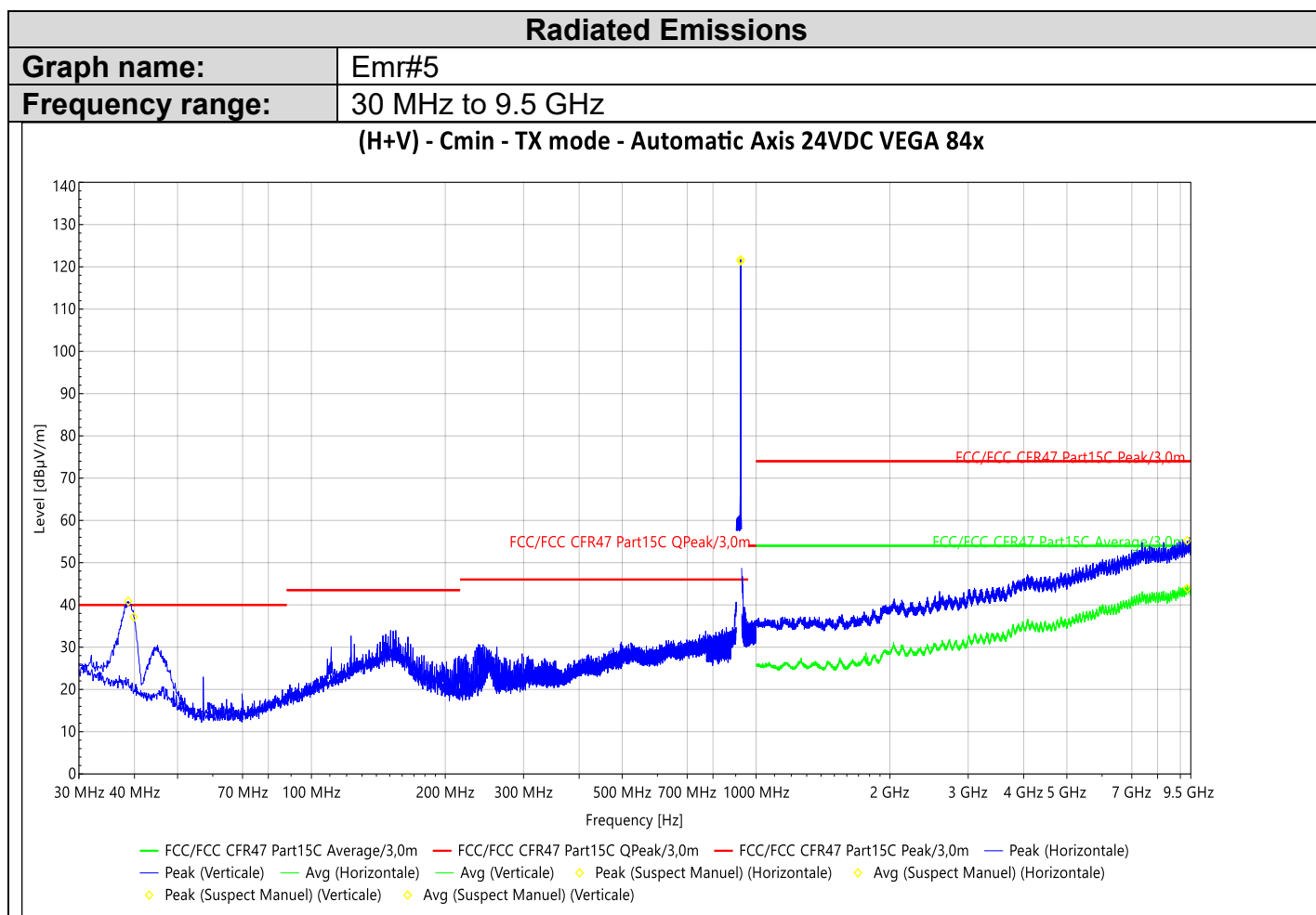
No significant frequency observed



9.6.2. 30MHz to 9.5GHz

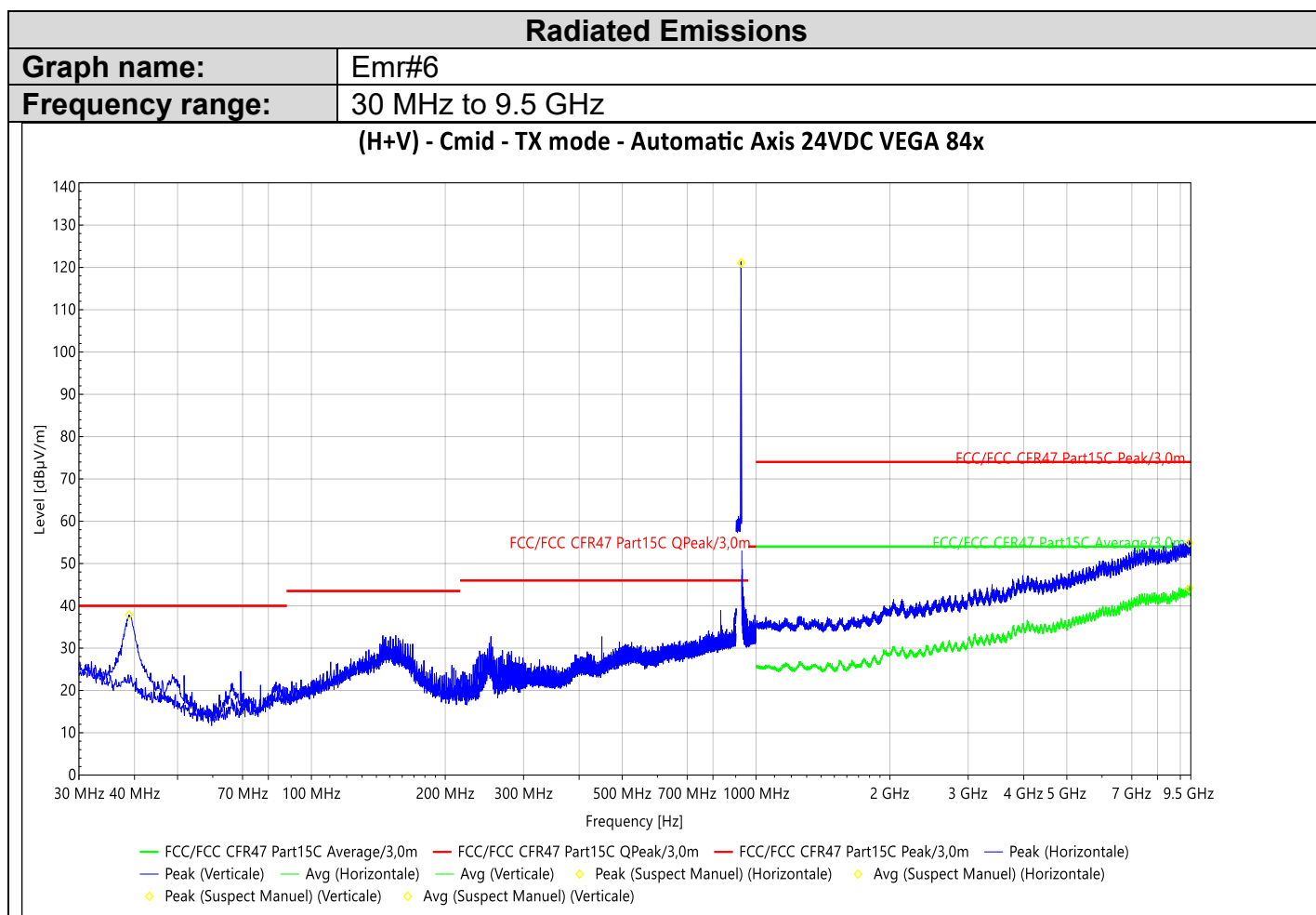
Graphs – Pre characterization:

Graph identifier		Polarization	Mode	Channel	EUT position	Comments
Emr#	5	H/V	TX	Cmin	Axis XY	24VDC / Antenna 1
Emr#	6	H/V	TX	Cmid	Axis XY	24VDC / Antenna 1
Emr#	7	H/V	TX	Cmax	Axis XY	24VDC / Antenna 1
Emr#	8	H/V	TX	Cmin	Axis XY	240VAC/ Antenna 1
Emr#	9	H/V	TX	Cmid	Axis XY	240VAC/ Antenna 1
Emr#	10	H/V	TX	Cmax	Axis XY	240VAC/ Antenna 1
Emr#	11	H/V	TX	Cmin	Axis XY	24VDC / Antenna 2
Emr#	12	H/V	TX	Cmid	Axis XY	24VDC / Antenna 2
Emr#	13	H/V	TX	Cmax	Axis XY	24VDC / Antenna 2
Emr#	14	H/V	TX	Cmin	Axis XY	240VAC/ Antenna 2
Emr#	15	H/V	TX	Cmid	Axis XY	240VAC/ Antenna 2
Emr#	16	H/V	TX	Cmax	Axis XY	240VAC/ Antenna 2



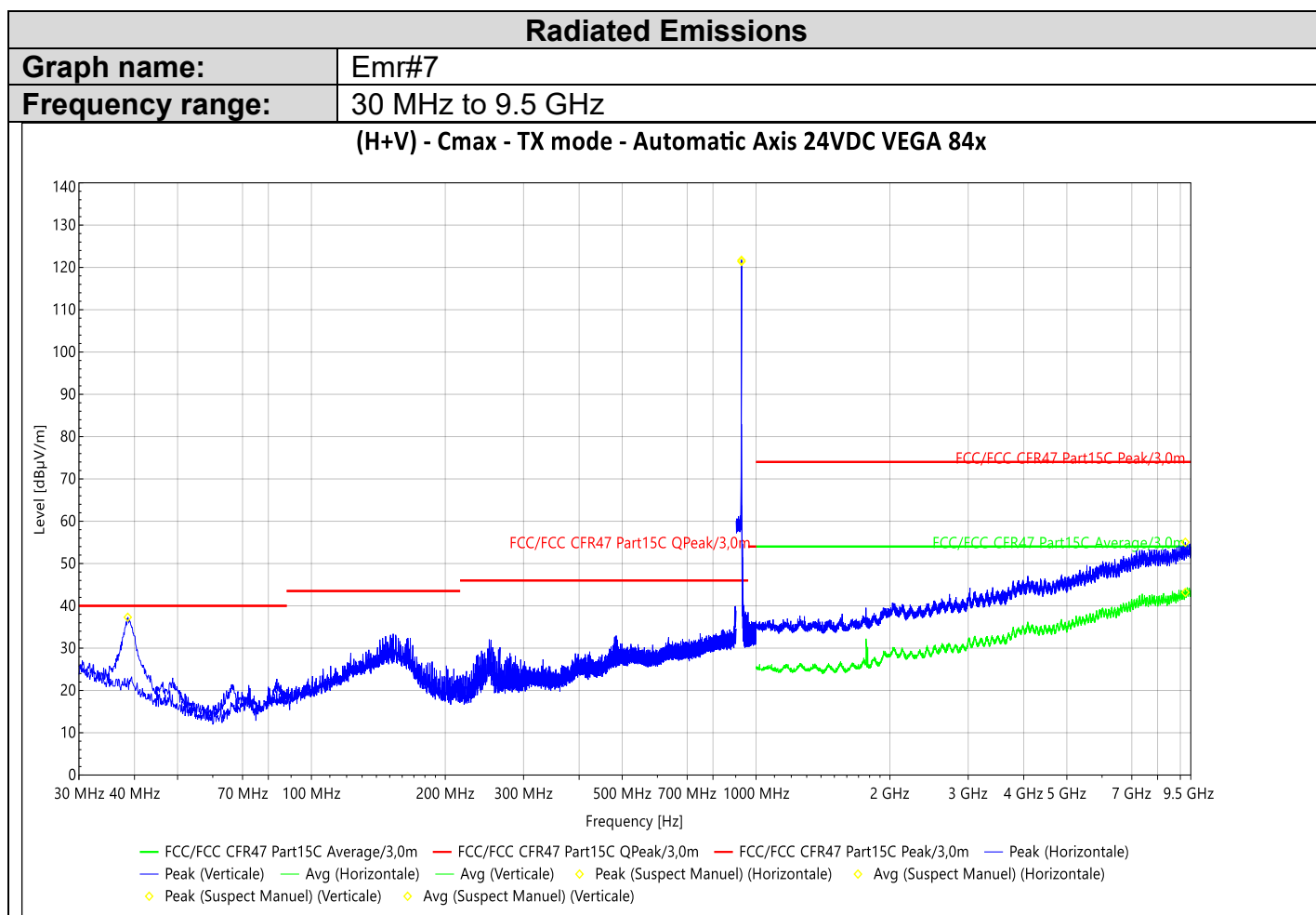
Pre-Characterization:

Frequency	PK Level (dBµV/m)	Lim.PK (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Lim.QP (dBµV/m)	Angle (°)	Polar.	Correct. (dB)
923.346 MHz	121.39	/	/	/	46.00	267	H	30.09
9.322 GHz	55.19	74.00	43.96	54.00	/	4	V	-5.19
923.372 MHz	121.69	/	/	/	46.00	332	V	30.09
38.720 MHz	40.88	/	/	/	40.00	11	V	19.60
39.854 MHz	37.15	/	/	/	40.00	0	V	18.86



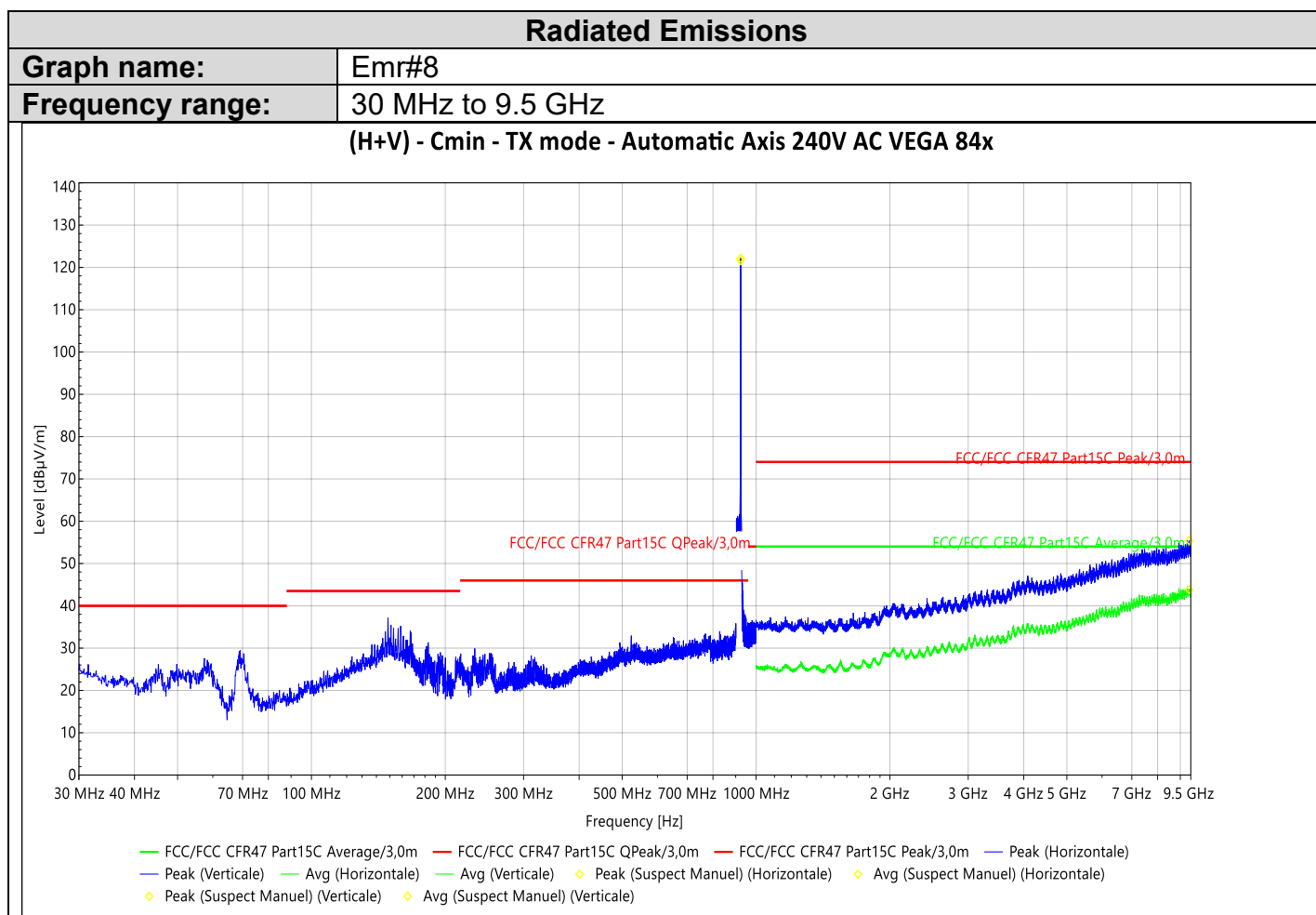
Pre-Characterization:

Frequency	PK Level (dBµV/m)	Lim.PK (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Lim.QP (dBµV/m)	Angle (°)	Polar.	Correct. (dB)
925.608 MHz	121.14	/	/	/	46.00	264	H	30.09
9.426 GHz	54.94	74.00	44.08	54.00	/	46	V	-4.95
925.452 MHz	121.06	/	/	/	46.00	330	V	30.09
38.894 MHz	37.89	/	/	/	40.00	236	V	19.48



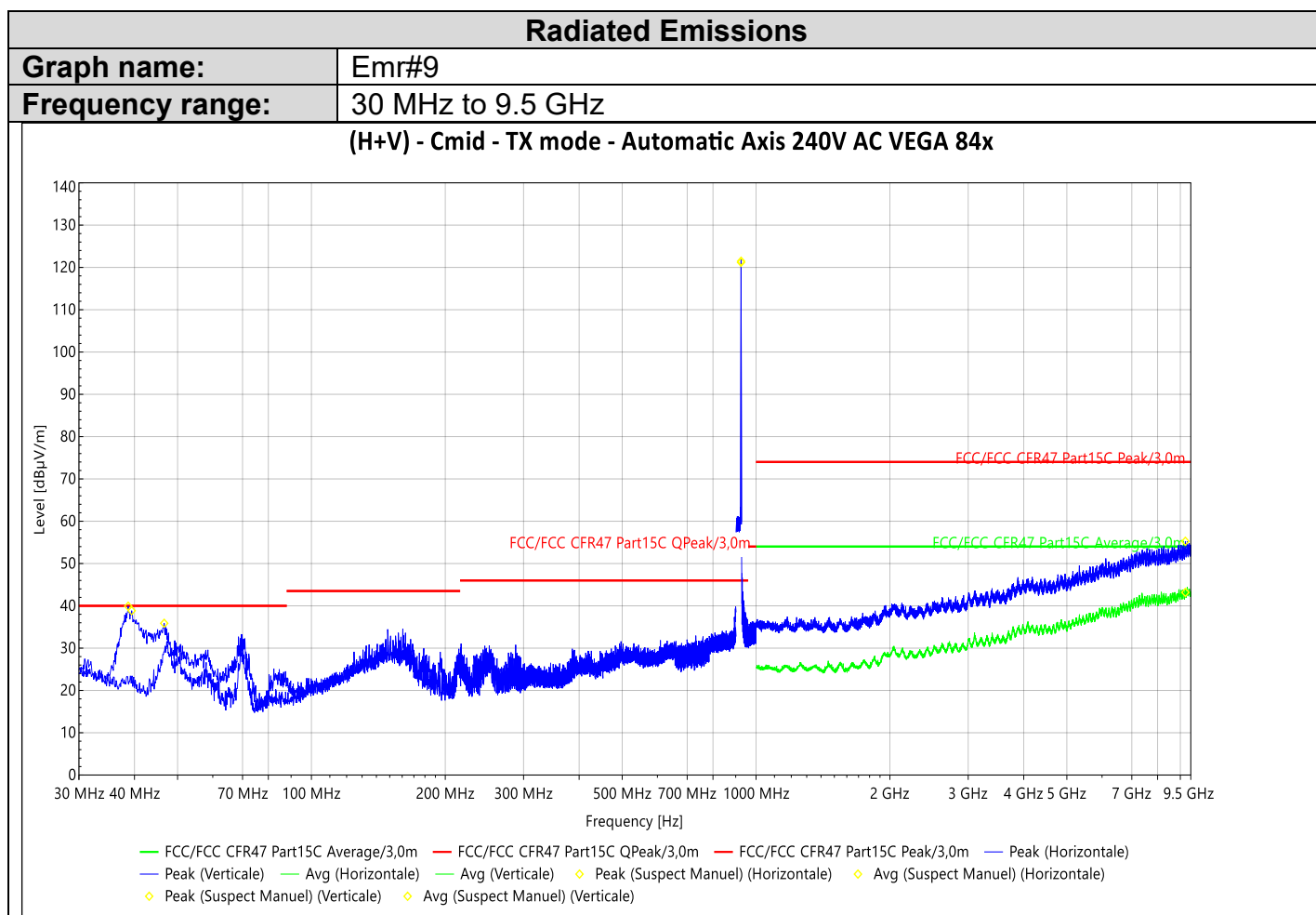
Pre-Characterization:

Frequency	PK Level (dBµV/m)	Lim.PK (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Lim.QP (dBµV/m)	Angle (°)	Polar.	Correct. (dB)
927.298 MHz	121.69	/	/	/	46.00	293	H	30.06
9.235 GHz	55.03	74.00	43.18	54.00	/	0	V	-5.27
927.480 MHz	121.40	/	/	/	46.00	350	V	30.06
38.633 MHz	37.30	/	/	/	40.00	204	V	19.65



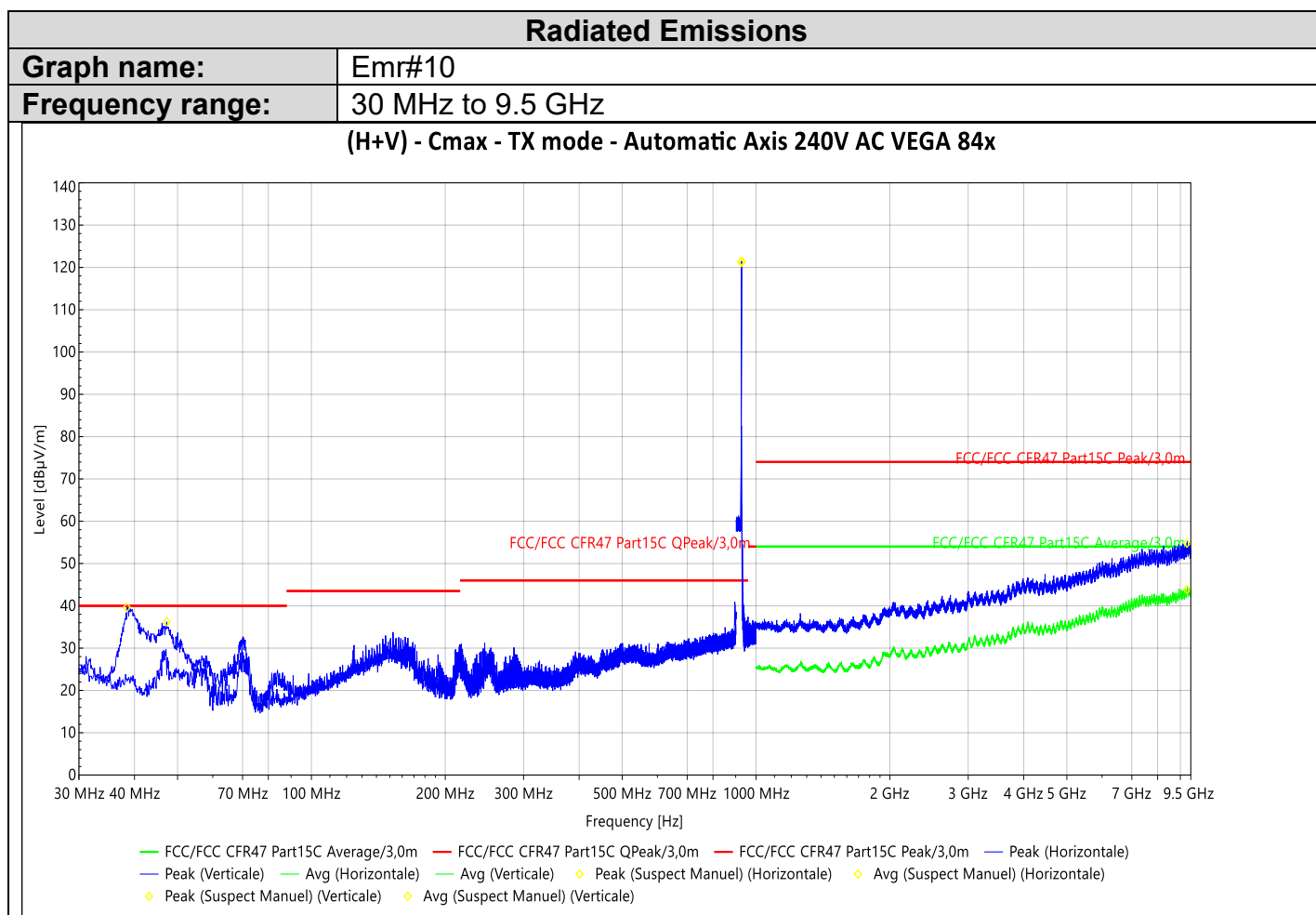
Pre-Characterization:

Frequency	PK Level (dBµV/m)	Lim.PK (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Lim.QP (dBµV/m)	Angle (°)	Polar.	Correct. (dB)
923.424 MHz	121.60	/	/	/	46.00	271	H	30.09
9.418 GHz	55.42	74.00	43.85	54.00	/	11	H	-4.97
923.424 MHz	122.17	/	/	/	46.00	343	V	30.09



Pre-Characterization:

Frequency	PK Level (dBµV/m)	Lim.PK (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Lim.QP (dBµV/m)	Angle (°)	Polar.	Correct. (dB)
925.166 MHz	121.20	/	/	/	46.00	283	H	30.09
9.236 GHz	55.26	74.00	43.17	54.00	/	52	V	-5.27
925.426 MHz	121.46	/	/	/	46.00	352	V	30.09
38.720 MHz	39.91	/	/	/	40.00	145	V	19.60
39.418 MHz	38.85	/	/	/	40.00	242	V	19.14
46.655 MHz	35.88	/	/	/	40.00	355	V	15.56



Pre-Characterization:

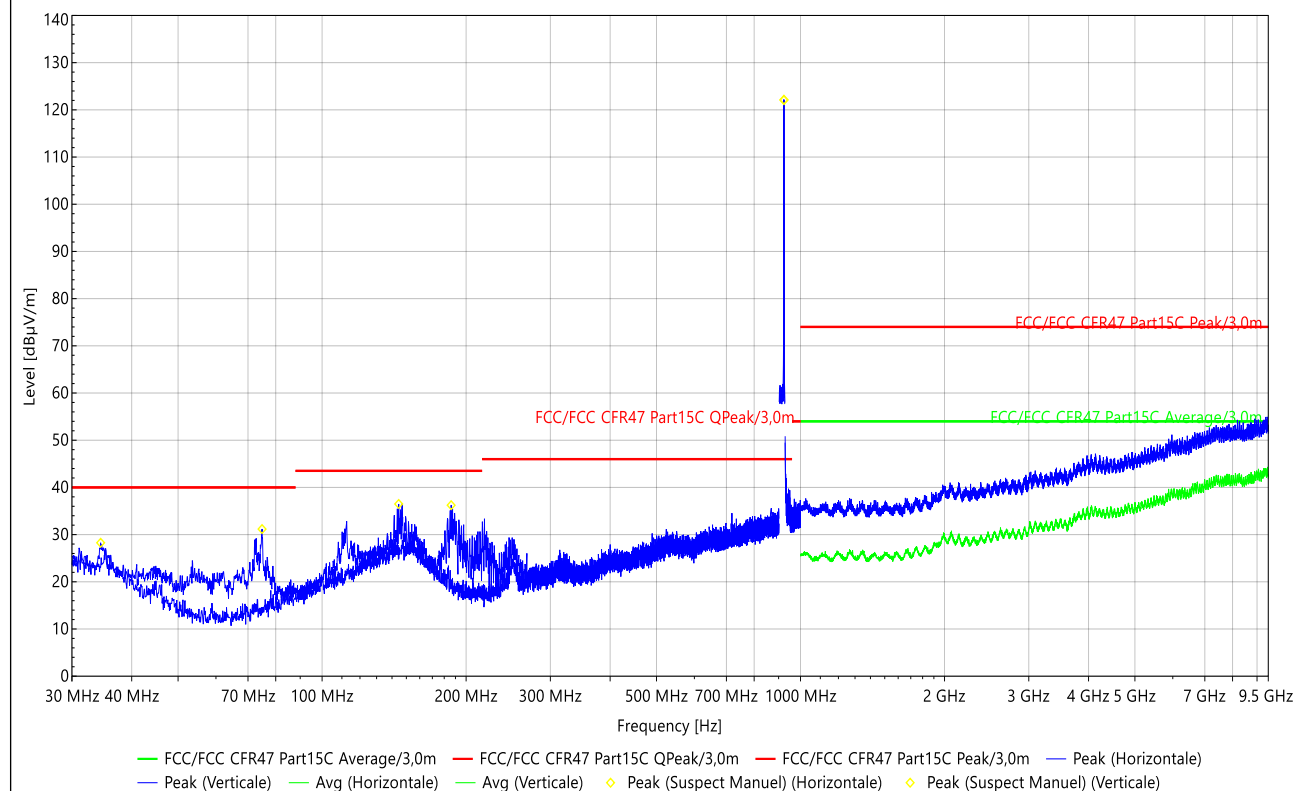
Frequency	PK Level (dBμV/m)	Lim.PK (dBμV/m)	Avg (dBμV/m)	Lim.Avg (dBμV/m)	Lim.QP (dBμV/m)	Angle (°)	Polar.	Correct. (dB)
927.402 MHz	121.51	/	/	/	46.00	271	H	30.06
9.313 GHz	54.82	74.00	43.86	54.00	/	0	H	-5.22
927.402 MHz	121.17	/	/	/	46.00	342	V	30.06
38.458 MHz	39.61	/	/	/	40.00	185	V	19.74
47.266 MHz	36.22	/	/	/	40.00	316	V	15.30



Radiated Emissions

Graph name: Emr#11
Frequency range: 30 MHz to 9.5 GHz

(H+V) - Cmin - TX mode - Automatic Axis 24VDC VEGA 84X



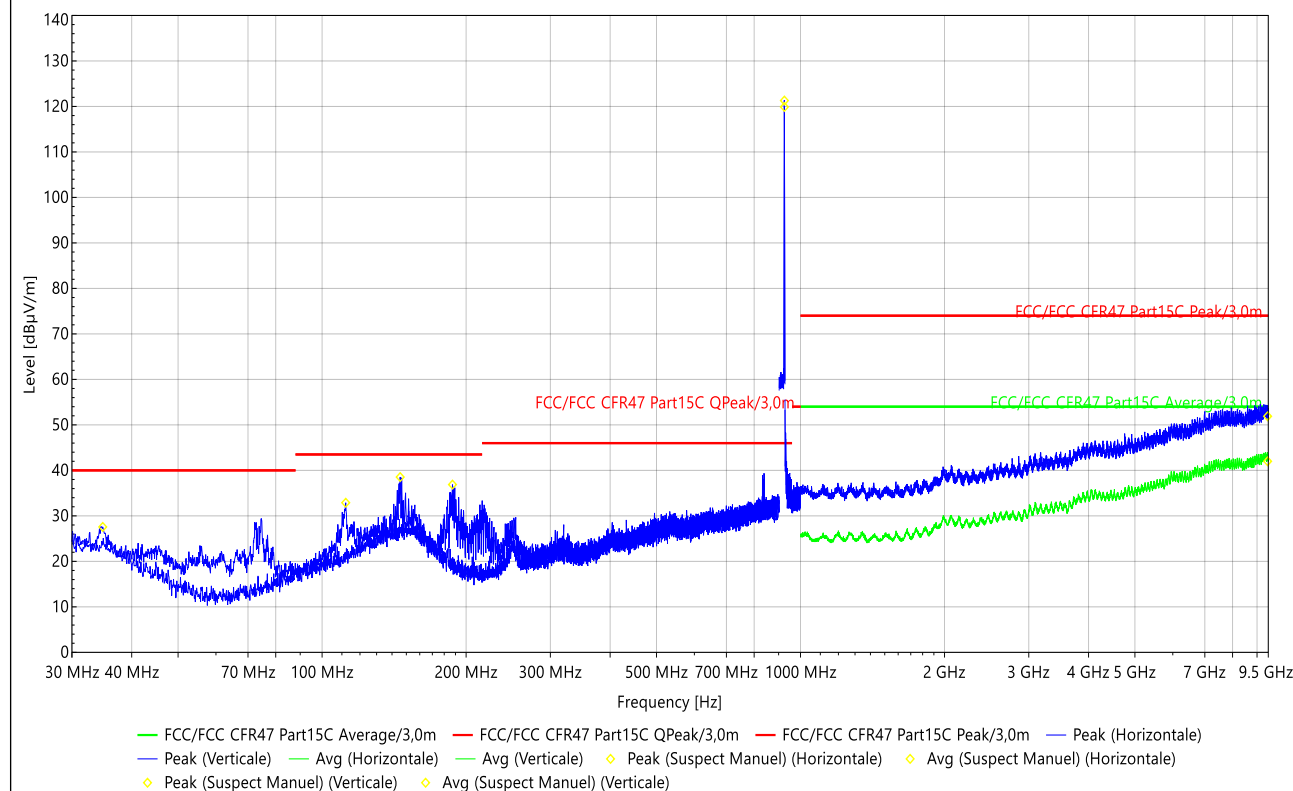
Pre-Characterization:

Frequency	PK Level (dBμV/m)	Lim.PK (dBμV/m)	Lim.Avg (dBμV/m)	Lim.QP (dBμV/m)	Angle (°)	Polar.	Correct. (dB)
74.908 MHz	31.17	/	/	40.00	184	H	13.93
144.581 MHz	36.49	/	/	43.50	184	H	25.67
186.088 MHz	36.23	/	/	43.50	33	H	18.34
923.320 MHz	122.15	/	/	46.00	109	H	30.36
923.242 MHz	122.06	/	/	46.00	9	V	30.36
34.447 MHz	28.27	/	/	40.00	53	V	21.87

Radiated Emissions

Graph name: Emr#12
Frequency range: 30 MHz to 9.5 GHz

(H+V) - Cmid - TX mode - Automatic Axis 24VDC VEGA 84X



Pre-Characterization:

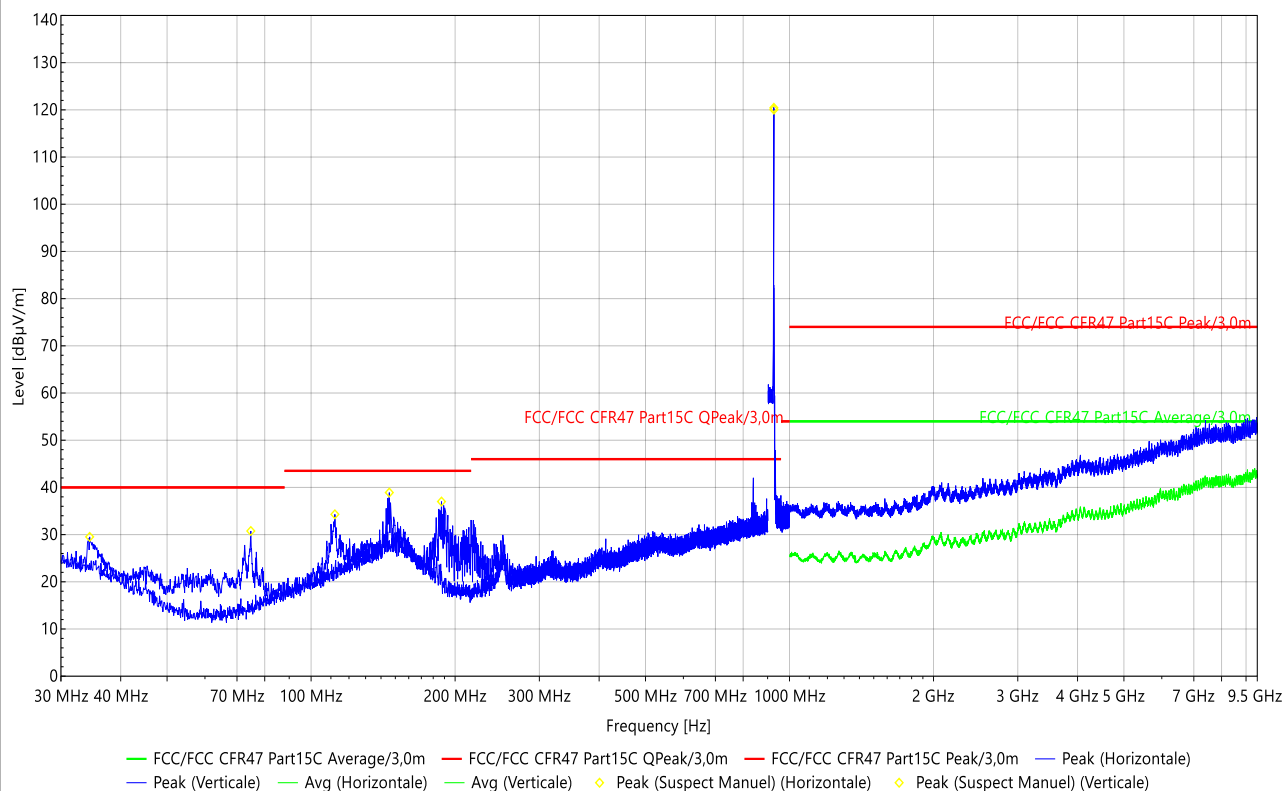
Frequency	PK Level (dBμV/m)	Lim.PK (dBμV/m)	Avg (dBμV/m)	Lim.Avg (dBμV/m)	Lim.QP (dBμV/m)	Angle (°)	Polar.	Correct. (dB)
112.055 MHz	32.89	/	/	/	43.50	28	H	20.97
145.627 MHz	37.53	/	/	/	43.50	195	H	25.74
187.309 MHz	36.88	/	/	/	43.50	59	H	18.16
925.348 MHz	119.89	/	/	/	46.00	143	H	30.36
9.500 GHz	51.89	74.00	42.00	54.00		55	H	-4.82
925.400 MHz	121.29	/	/	/	46.00	121	V	30.36
34.796 MHz	27.57	/	/	/	40.00	96	V	21.70



Radiated Emissions

Graph name: Emr#13
Frequency range: 30 MHz to 9.5 GHz

(H+V) - Cmax - TX mode - Automatic Axis 24VDC VEGA 84X



Pre-Characterization:

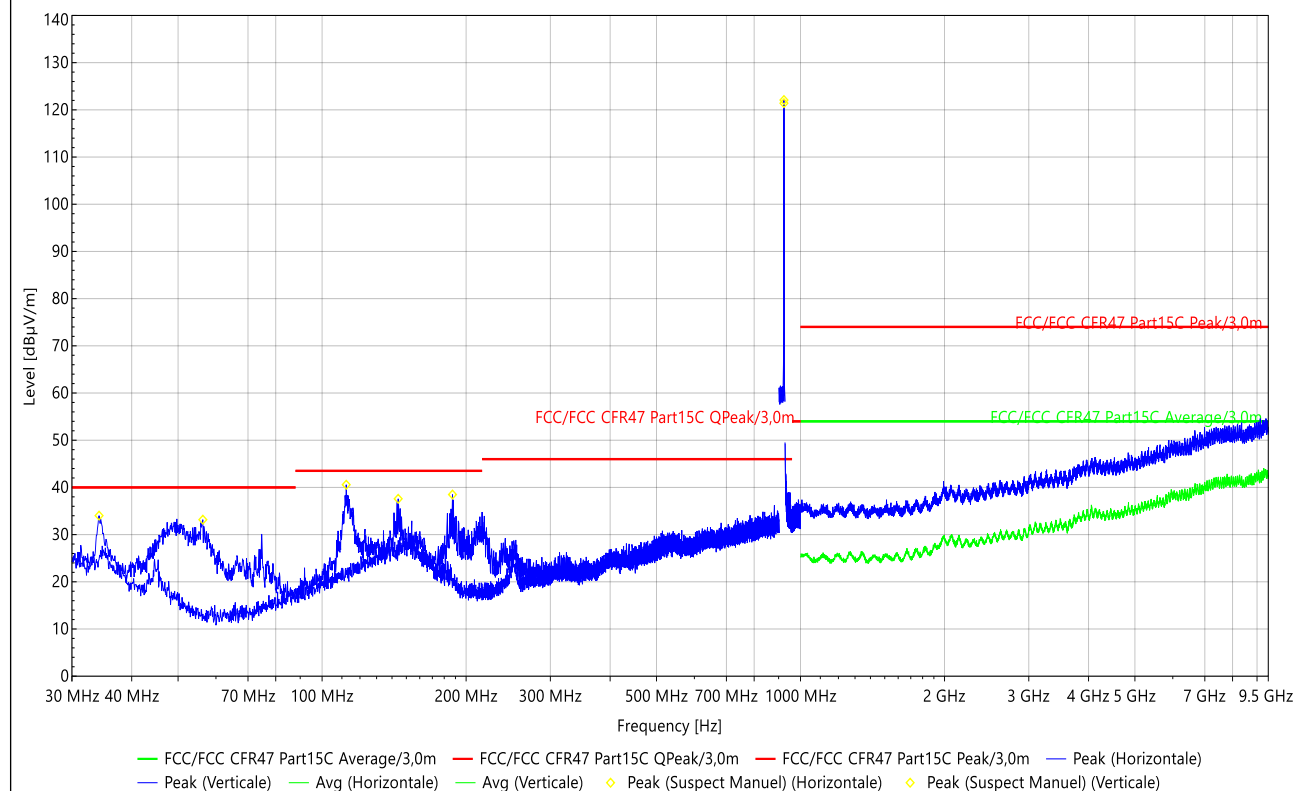
Frequency	PK Level (dBμV/m)	Lim.PK (dBμV/m)	Lim.Avg (dBμV/m)	Lim.QP (dBμV/m)	Angle (°)	Polar.	Correct. (dB)
74.821 MHz	30.76	/	/	40.00	149	H	13.92
112.142 MHz	34.30	/	/	43.50	62	H	20.98
145.714 MHz	38.91	/	/	43.50	208	H	25.74
187.309 MHz	37.00	/	/	43.50	26	H	18.16
927.454 MHz	120.05	/	/	46.00	105	H	30.32
927.506 MHz	120.43	/	/	46.00	121	V	30.32
34.447 MHz	29.52	/	/	40.00	250	V	21.87



Radiated Emissions

Graph name: Emr#14
Frequency range: 30 MHz to 9.5 GHz

(H+V) - Cmin - TX mode - Automatic Axis 240V AC VEGA 84X



Pre-Characterization:

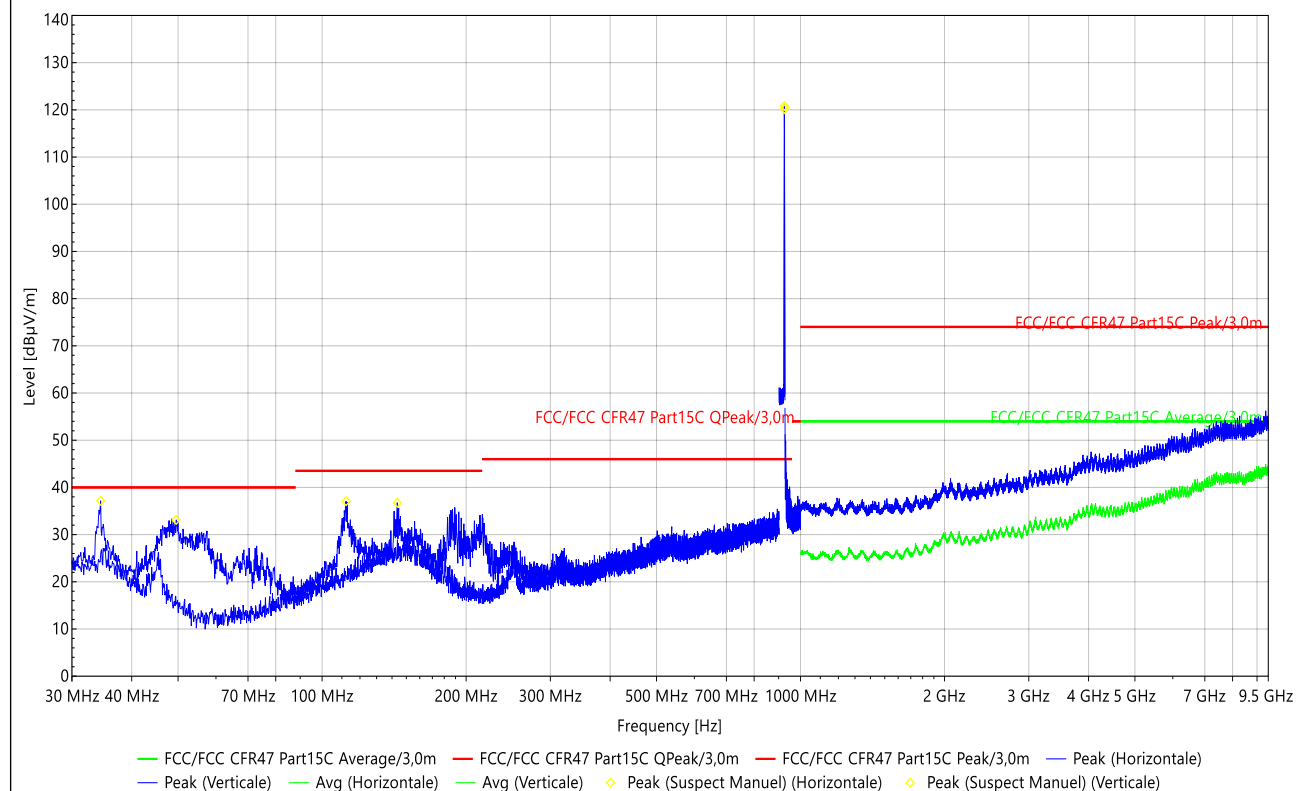
Frequency	PK Level (dBμV/m)	Lim.PK (dBμV/m)	Lim.Avg (dBμV/m)	Lim.QP (dBμV/m)	Angle (°)	Polar.	Correct. (dB)
56.334 MHz	33.16	/	/	40.00	63	H	12.59
112.317 MHz	40.57	/	/	43.50	114	H	21.00
144.232 MHz	37.59	/	/	43.50	177	H	25.61
187.309 MHz	38.49	/	/	43.50	40	H	18.16
923.242 MHz	121.41	/	/	46.00	107	H	30.36
923.320 MHz	122.08	/	/	46.00	11	V	30.36
34.186 MHz	34.02	/	/	40.00	20	V	22.00



Radiated Emissions

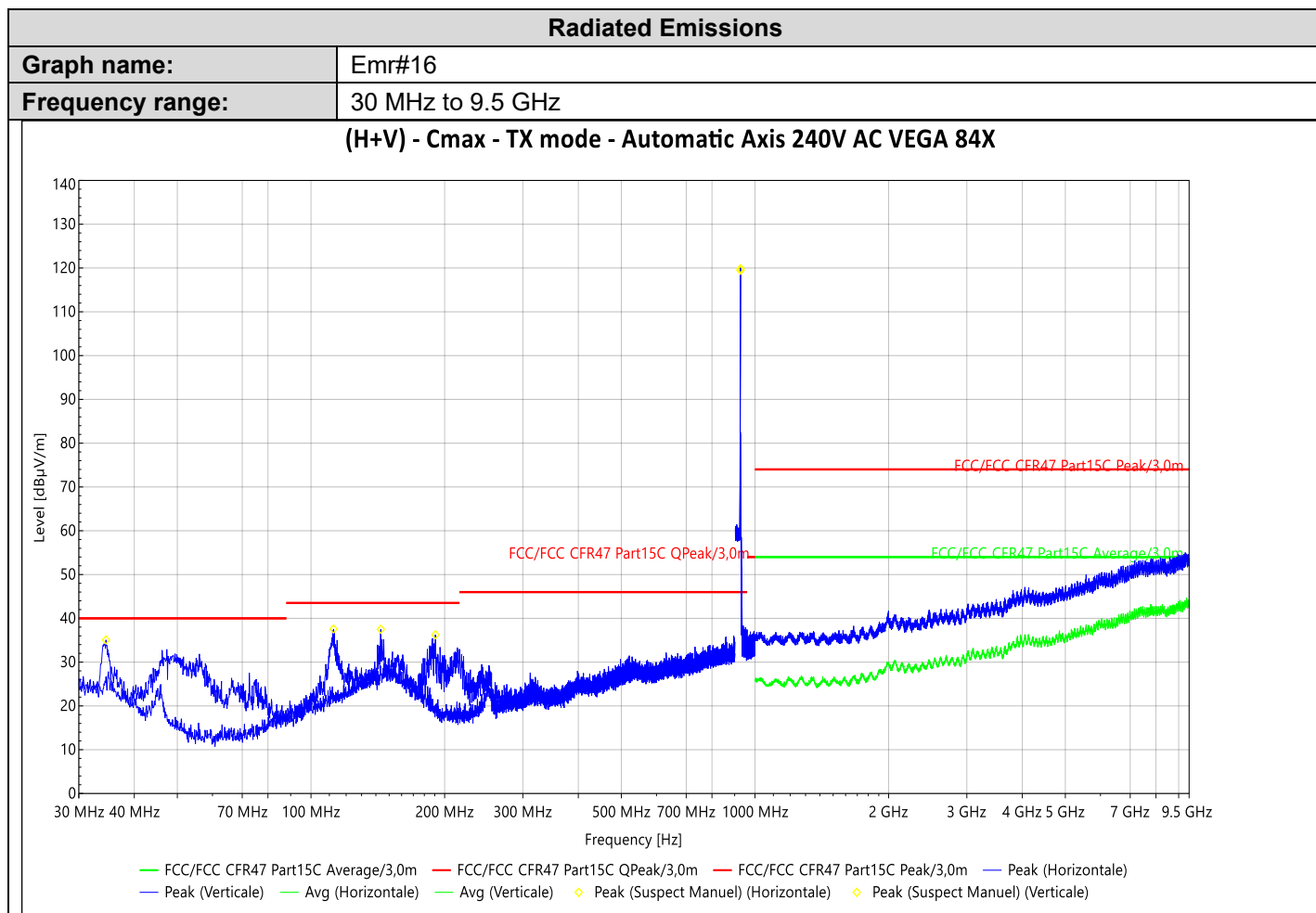
Graph name: Emr#15
Frequency range: 30 MHz to 9.5 GHz

(H+V) - Cmid - TX mode - Automatic Axis 240V AC VEGA 84X



Pre-Characterization:

Frequency	PK Level (dBμV/m)	Lim.PK (dBμV/m)	Lim.Avg (dBμV/m)	Lim.QP (dBμV/m)	Angle (°)	Polar.	Correct. (dB)
49.533 MHz	33.11	/	/	40.00	164	H	14.37
112.230 MHz	37.08	/	/	43.50	96	H	20.99
143.622 MHz	36.76	/	/	43.50	151	H	25.57
925.426 MHz	120.15	/	/	46.00	112	H	30.36
925.374 MHz	120.82	/	/	46.00	0	V	30.36
34.447 MHz	37.16	/	/	40.00	279	V	21.87



Pre-Characterization:

Frequency	PK Level (dBµV/m)	Lim.PK (dBµV/m)	Lim.Avg (dBµV/m)	Lim.QP (dBµV/m)	Angle (°)	Polar.	Correct. (dB)
112.404 MHz	37.56	/	/	43.50	85	H	21.01
143.622 MHz	37.50	/	/	43.50	144	H	25.57
190.622 MHz	36.25	/	/	43.50	12	H	17.78
927.584 MHz	119.83	/	/	46.00	107	H	30.32
927.558 MHz	119.48	/	/	46.00	0	V	30.32
34.534 MHz	35.07	/	/	40.00	293	V	21.83

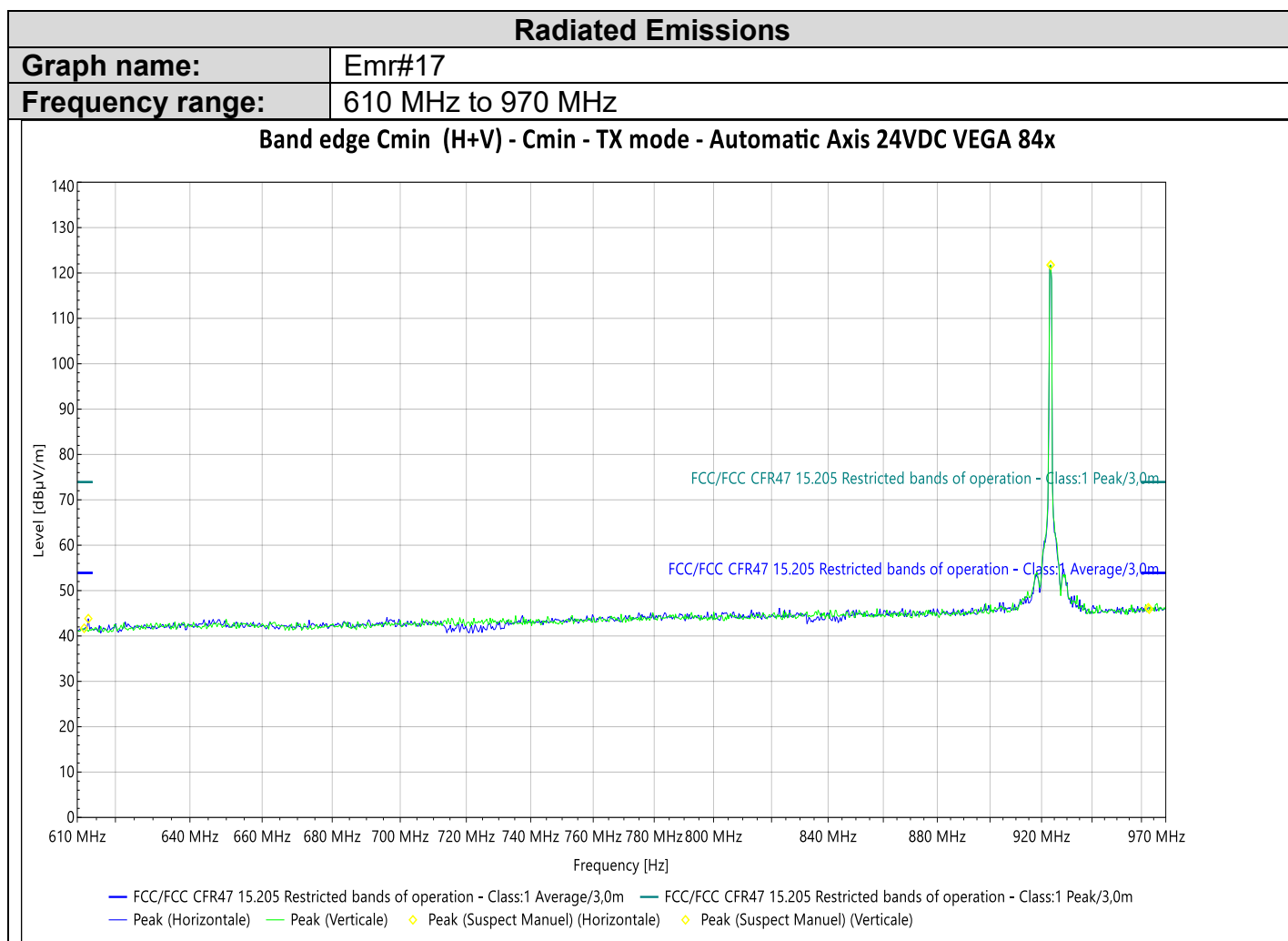


Final measurement: (worst case presented)

Test Frequency (MHz)	Meter Reading dB(μV)	Detector (Pk/QP/Av)	Polarity (V/H)	Azimuth (Degrees)	Antenna Height (cm)	Transducer Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
37.60	19.4	QP	V	30	160	14.7	34.1	40.0	-5.9
38.44	19.3	QP	V	30	155	14.7	34.0	40.0	-6.0
38.90	20.3	QP	V	0	155	14.6	34.9	40.0	-5.1
40.68	18.6	QP	V	30	180	14.5	33.1	40.0	-6.9
44.55	15.4	QP	V	0	180	13.9	29.3	40.0	-10.7
45.40	19.7	QP	V	180	170	13.8	33.5	40.0	-6.5
46.30	19.3	QP	V	170	145	13.6	32.9	40.0	-7.1
47.34	20.2	QP	V	180	160	13.4	33.6	40.0	-6.4
60.75	20.5	QP	V	90	150	9.6	30.1	40.0	-9.9

9.6.3. At the band edge

Graph identifier	Polarization	Mode	Channel	EUT position	Comments
Emr# 17	H/V	TX	Cmin	Axis XY	24VDC / Antenna 1
Emr# 18	H/V	TX	Cmid	Axis XY	24VDC / Antenna 1
Emr# 19	H/V	TX	Cmax	Axis XY	24VDC / Antenna 1
Emr# 20	H/V	TX	Cmin	Axis XY	240VAC/ Antenna 1
Emr# 21	H/V	TX	Cmid	Axis XY	240VAC/ Antenna 1
Emr# 22	H/V	TX	Cmax	Axis XY	240VAC/ Antenna 1
Emr# 23	H/V	TX	Cmin	Axis XY	24VDC / Antenna 2
Emr# 24	H/V	TX	Cmid	Axis XY	24VDC / Antenna 2
Emr# 25	H/V	TX	Cmax	Axis XY	24VDC / Antenna 2
Emr# 26	H/V	TX	Cmin	Axis XY	240VAC/ Antenna 2
Emr# 27	H/V	TX	Cmid	Axis XY	240VAC/ Antenna 2
Emr# 28	H/V	TX	Cmax	Axis XY	240VAC/ Antenna 2



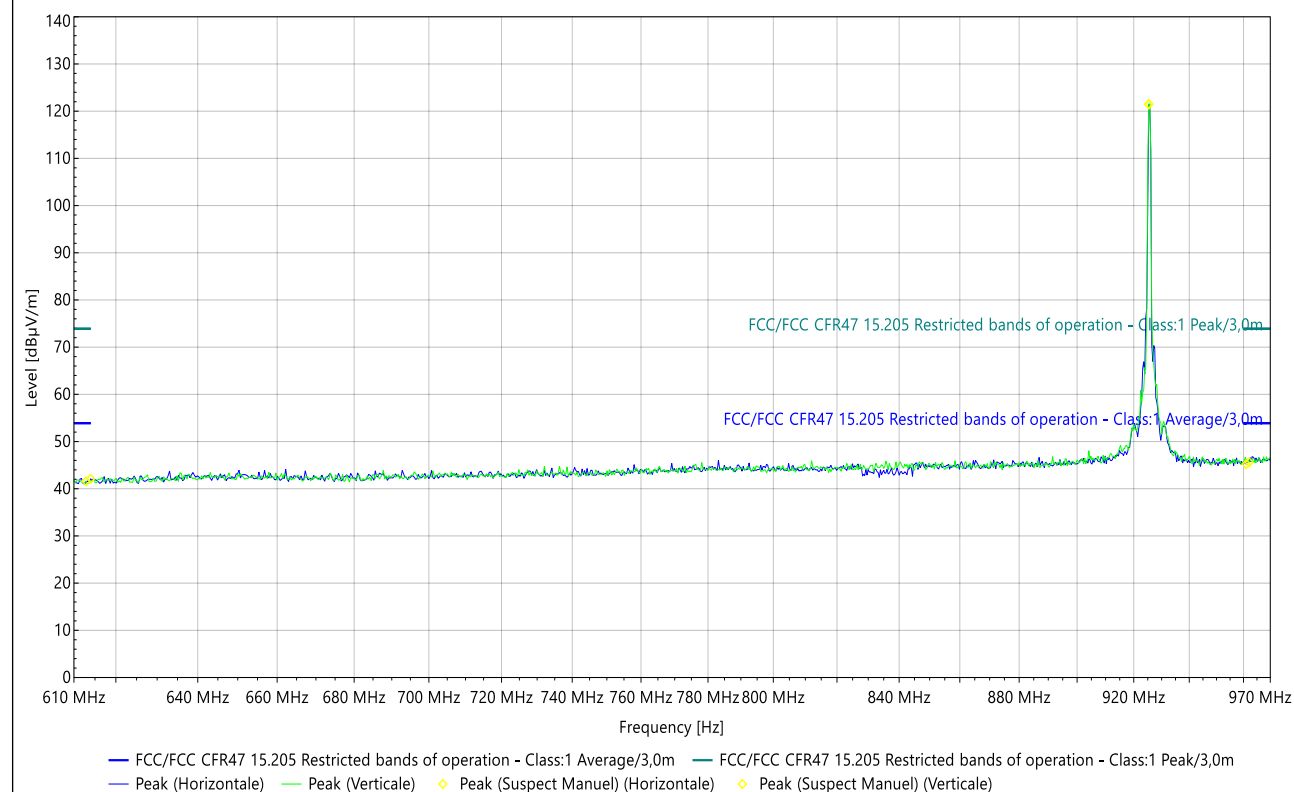
Pre-Characterization:

Frequency	PK Level (dBμV/m)	Lim.PK (dBμV/m)	Angle (°)	Polar.	Correct. (dB)
612.880 MHz	43.82	73.90	344	H	26.34
923.560 MHz	121.79	/	272	H	30.09
962.800 MHz	46.21	73.90	264	H	30.78
611.800 MHz	41.69	73.90	216	V	26.33
923.560 MHz	121.74	/	347	V	30.09
963.160 MHz	45.90	73.90	172	V	30.80

Radiated Emissions

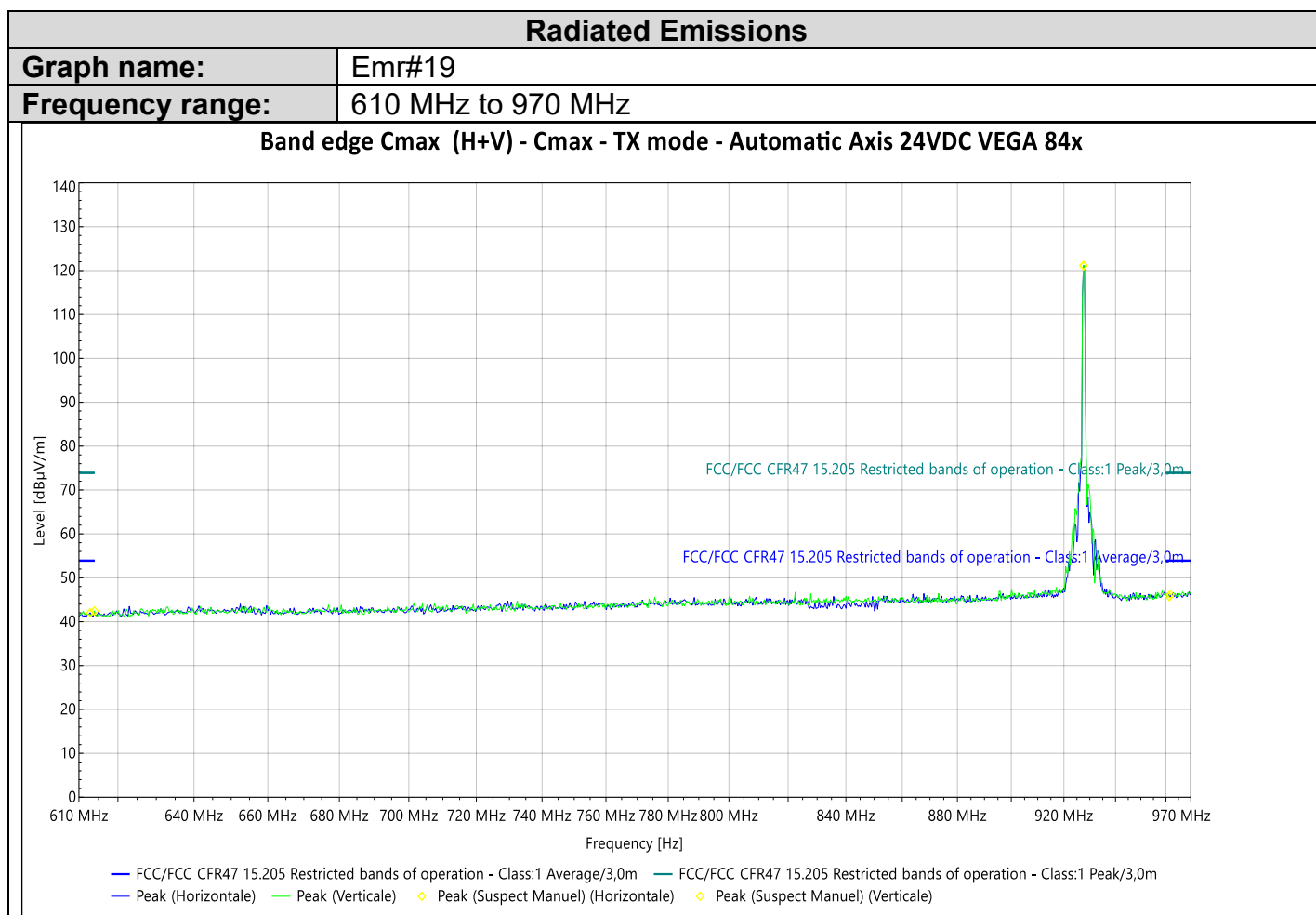
Graph name: Emr#18
Frequency range: 610 MHz to 970 MHz

Band edge Cmid (H+V) - Cmid - TX mode - Automatic Axis 24VDC VEGA 84x



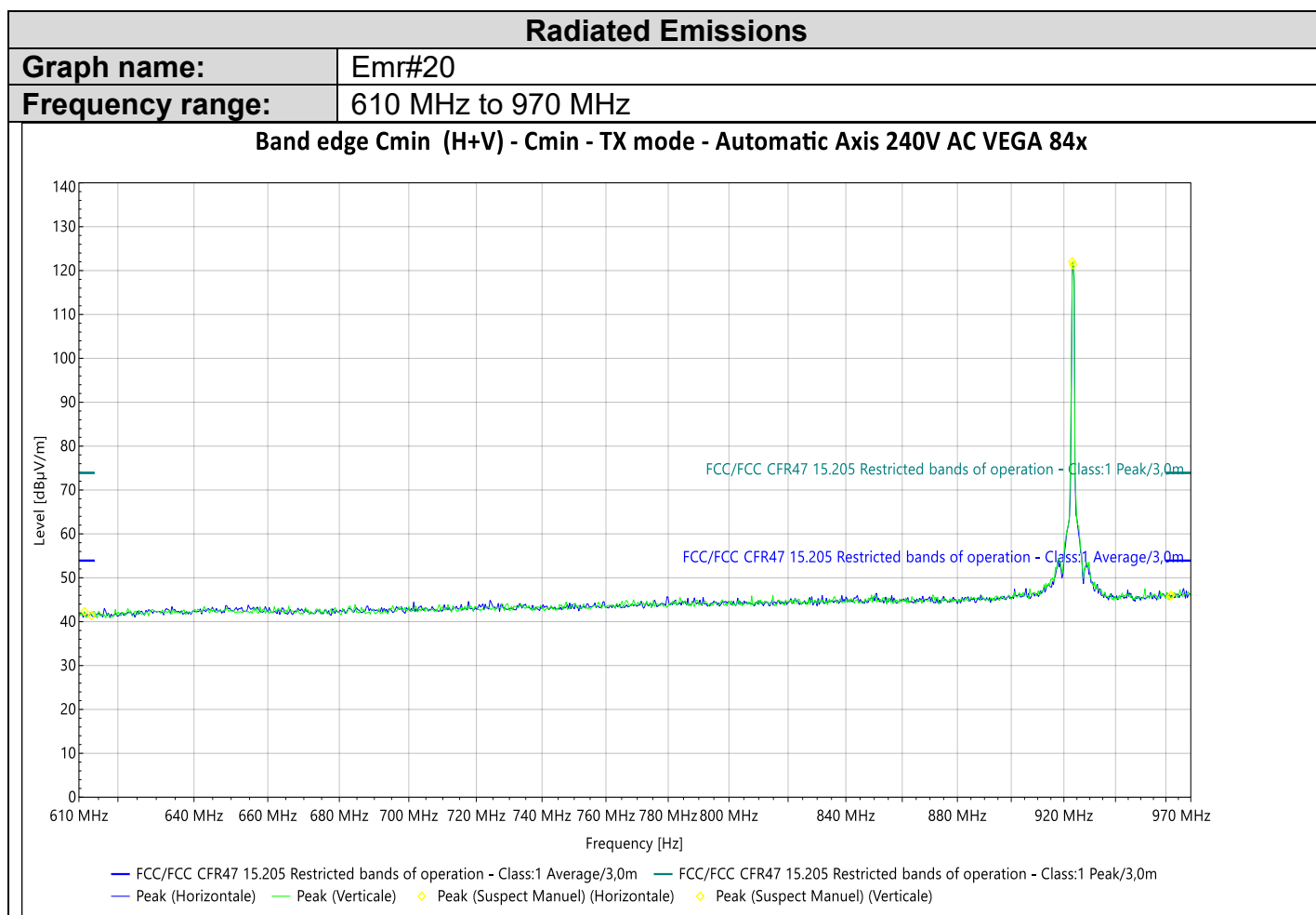
Pre-Characterization:

Frequency	PK Level (dBμV/m)	Lim.PK (dBμV/m)	Angle (°)	Polar.	Correct. (dB)
613.960 MHz	42.12	73.90	246	H	26.36
925.360 MHz	121.40	/	273	H	30.09
961.000 MHz	45.19	73.90	193	H	30.70
612.880 MHz	41.58	73.90	157	V	26.34
925.360 MHz	121.55	/	342	V	30.09
962.080 MHz	45.62	73.90	312	V	30.75



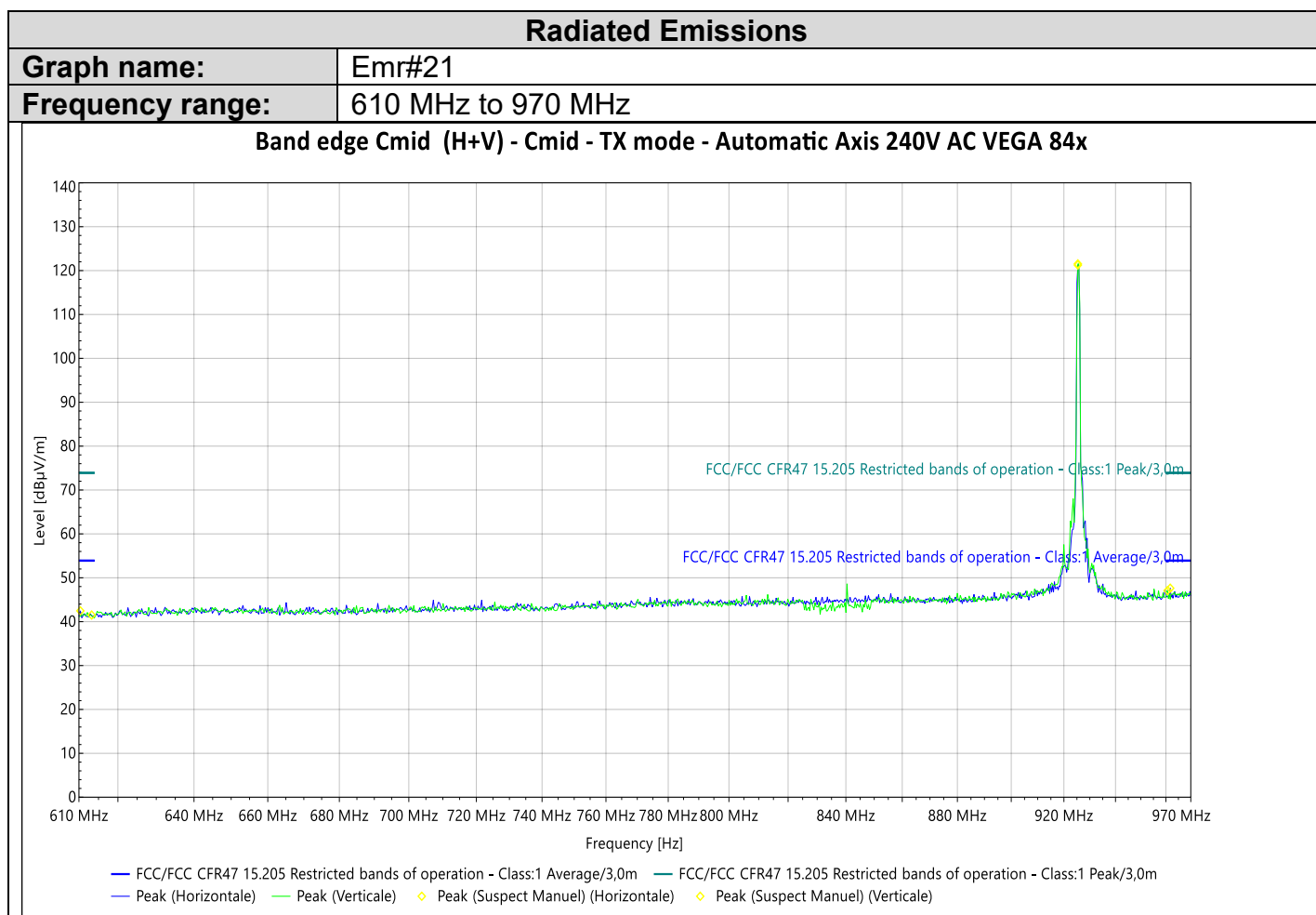
Pre-Characterization:

Frequency	PK Level (dBµV/m)	Lim.PK (dBµV/m)	Angle (°)	Polar.	Correct. (dB)
612.880 MHz	42.01	73.90	27	H	26.34
927.520 MHz	121.07	/	272	H	30.05
961.360 MHz	45.69	73.90	0	H	30.71
613.960 MHz	42.45	73.90	139	V	26.36
927.520 MHz	121.19	/	337	V	30.05
961.720 MHz	46.19	73.90	70	V	30.73



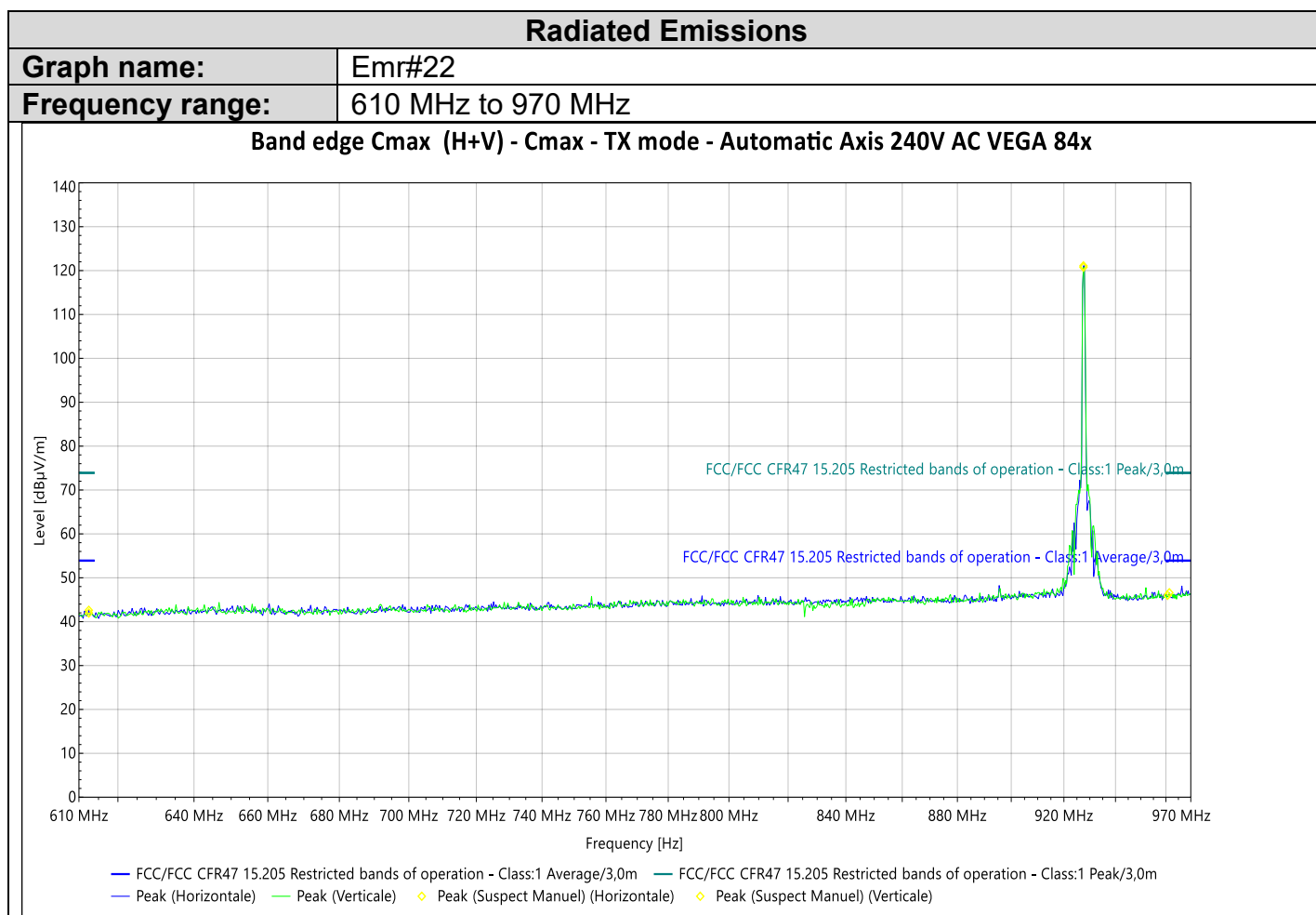
Pre-Characterization:

Frequency	PK Level (dBµV/m)	Lim.PK (dBµV/m)	Angle (°)	Polar.	Correct. (dB)
613.240 MHz	41.42	73.90	237	H	26.35
923.560 MHz	121.29	/	271	H	30.09
962.080 MHz	46.02	73.90	246	H	30.75
611.440 MHz	42.32	73.90	244	V	26.32
923.200 MHz	122.01	/	343	V	30.09
961.720 MHz	45.83	73.90	15	V	30.73



Pre-Characterization:

Frequency	PK Level (dBμV/m)	Lim.PK (dBμV/m)	Angle (°)	Polar.	Correct. (dB)
610.360 MHz	42.47	73.90	128	H	26.30
925.360 MHz	121.25	/	275	H	30.09
961.720 MHz	47.64	73.90	213	H	30.73
613.240 MHz	41.51	73.90	331	V	26.35
925.360 MHz	121.53	/	341	V	30.09
960.640 MHz	47.08	73.90	52	V	30.68



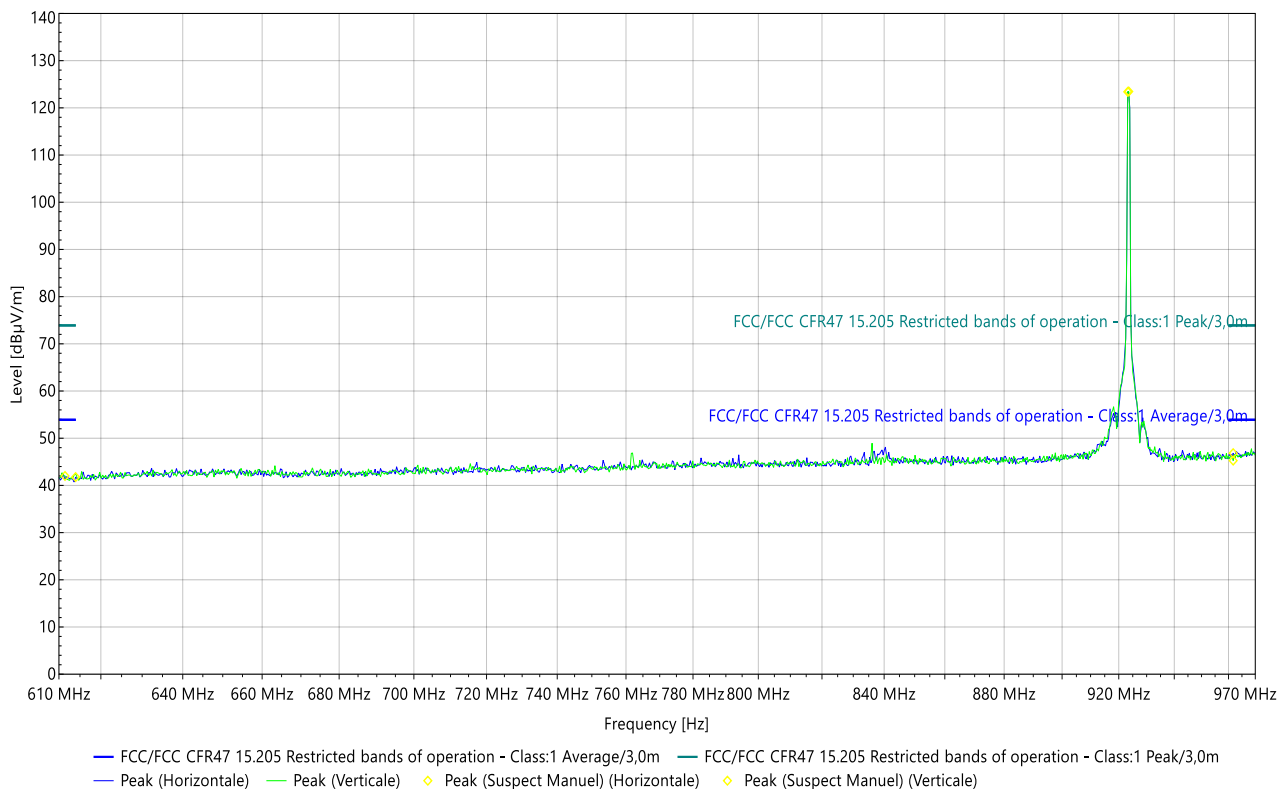
Pre-Characterization:

Frequency	PK Level (dBµV/m)	Lim.PK (dBµV/m)	Angle (°)	Polar.	Correct. (dB)
612.520 MHz	42.59	73.90	165	H	26.34
927.520 MHz	121.08	/	274	H	30.05
960.640 MHz	45.99	73.90	254	H	30.68
612.520 MHz	41.96	73.90	222	V	26.34
927.520 MHz	120.76	/	338	V	30.05
961.360 MHz	46.59	73.90	18	V	30.71

Radiated Emissions

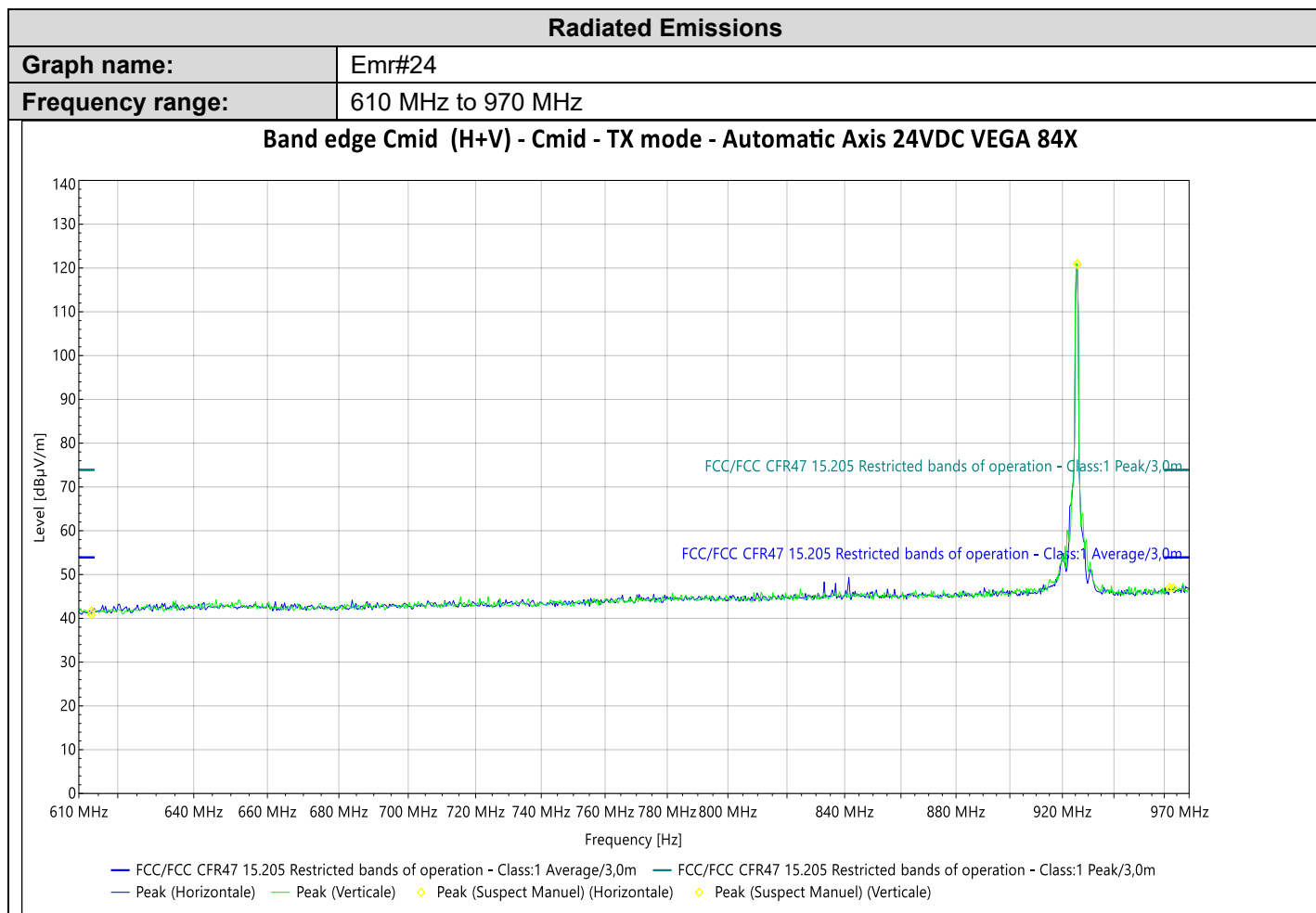
Graph name: Emr#23
Frequency range: 610 MHz to 970 MHz

Band edge Cmin (H+V) - Cmin - TX mode - Automatic Axis 24VDC VEGA 84X



Pre-Characterization:

Frequency	PK Level (dBμV/m)	Lim.PK (dBμV/m)	Lim.Avg (dBμV/m)	Angle (°)	Polar.	Correct. (dB)
613.960 MHz	41.76	73.90	53.90	280	H	26.50
923.200 MHz	123.40	/	/	106	H	30.36
961.720 MHz	46.83	73.90	53.90	0	H	31.01
611.440 MHz	42.00	73.90	53.90	178	V	26.45
923.560 MHz	123.47	/	/	93	V	30.36
961.720 MHz	45.25	73.90	53.90	277	V	31.01



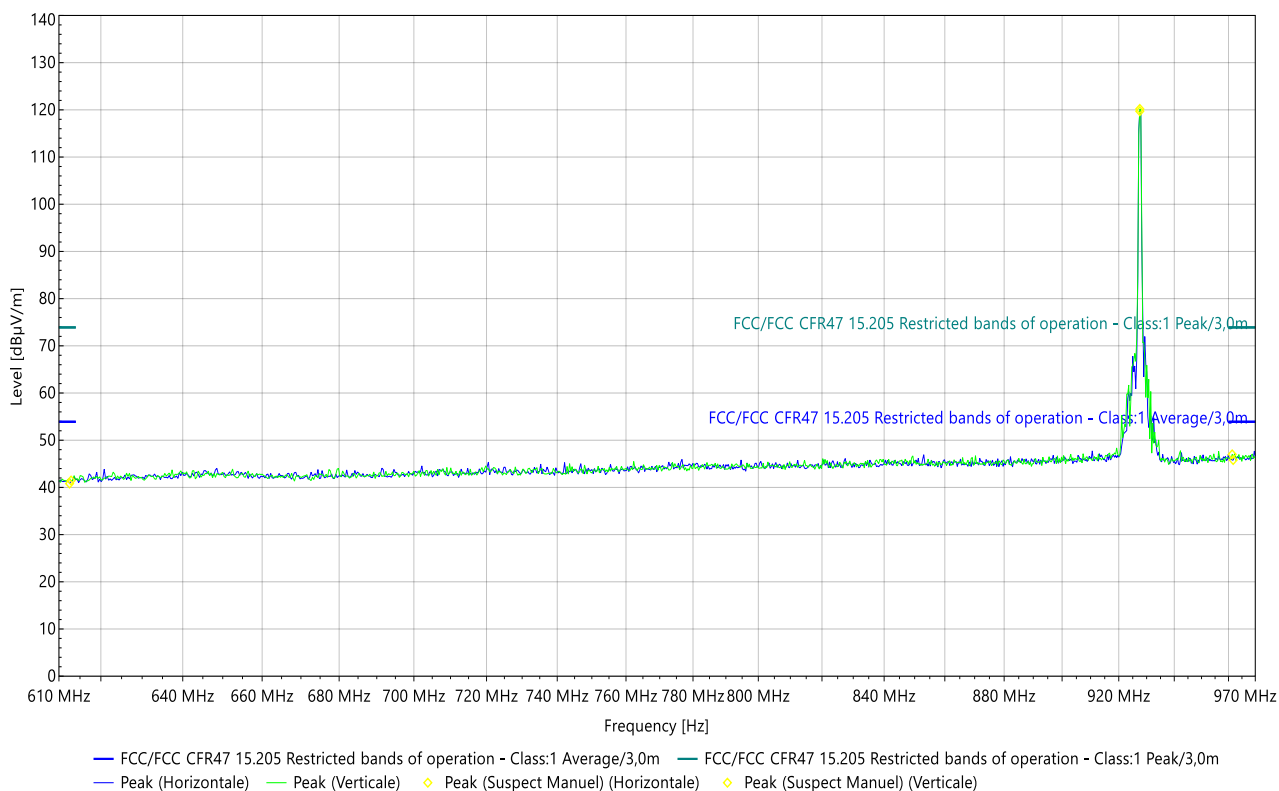
Pre-Characterization:

Frequency	PK Level (dBµV/m)	Lim.PK (dBµV/m)	Lim.Avg (dBµV/m)	Angle (°)	Polar.	Correct. (dB)
613.240 MHz	40.88	73.90	53.90	339	H	26.48
925.720 MHz	120.81	/	/	106	H	30.36
962.080 MHz	47.02	73.90	53.90	67	H	31.02
613.240 MHz	41.68	73.90	53.90	135	V	26.48
925.720 MHz	121.03	/	/	120	V	30.36
963.520 MHz	46.99	73.90	53.90	302	V	31.10

Radiated Emissions

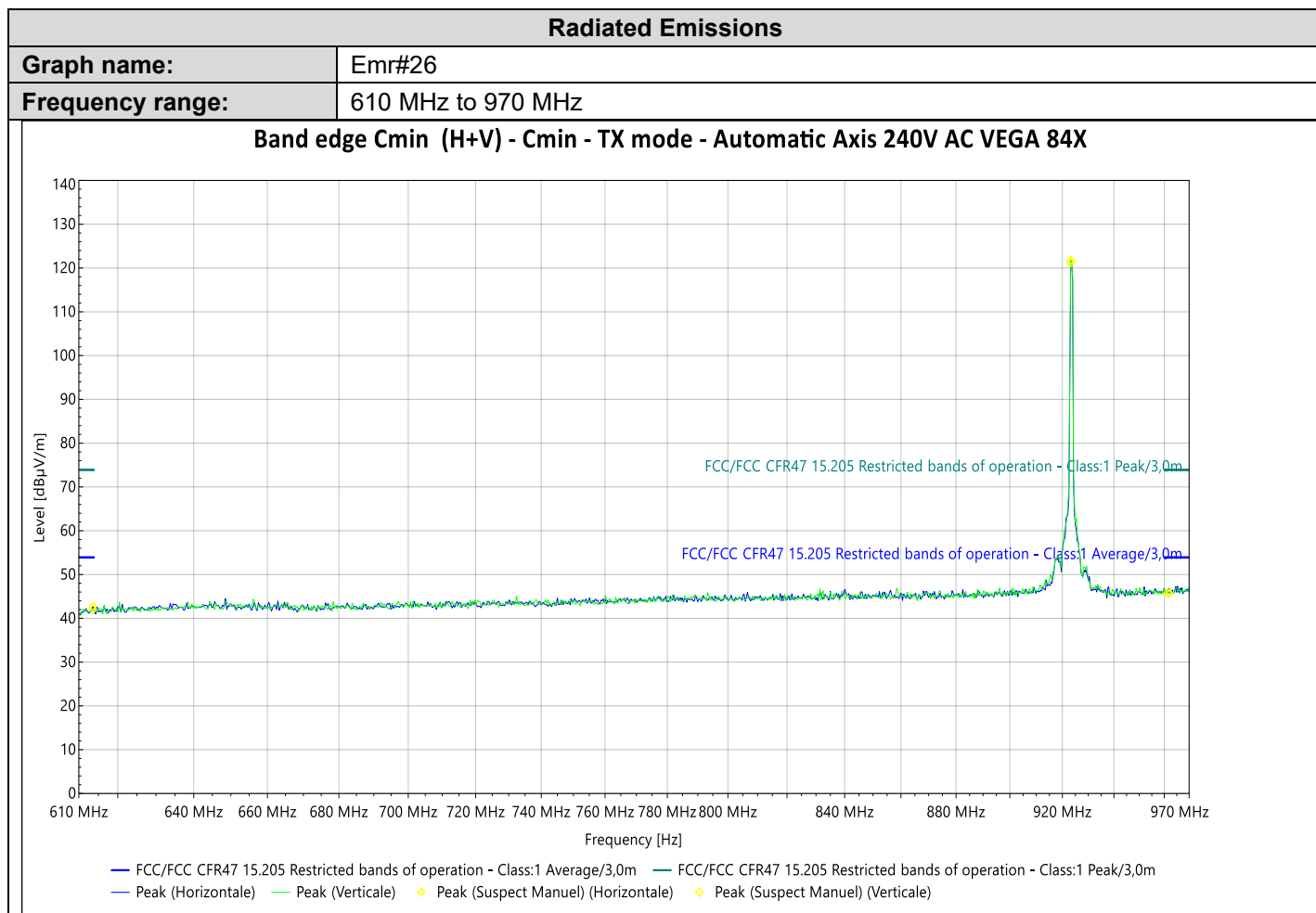
Graph name: Emr#25
Frequency range: 610 MHz to 970 MHz

Band edge Cmax (H+V) - Cmax - TX mode - Automatic Axis 24VDC VEGA 84X



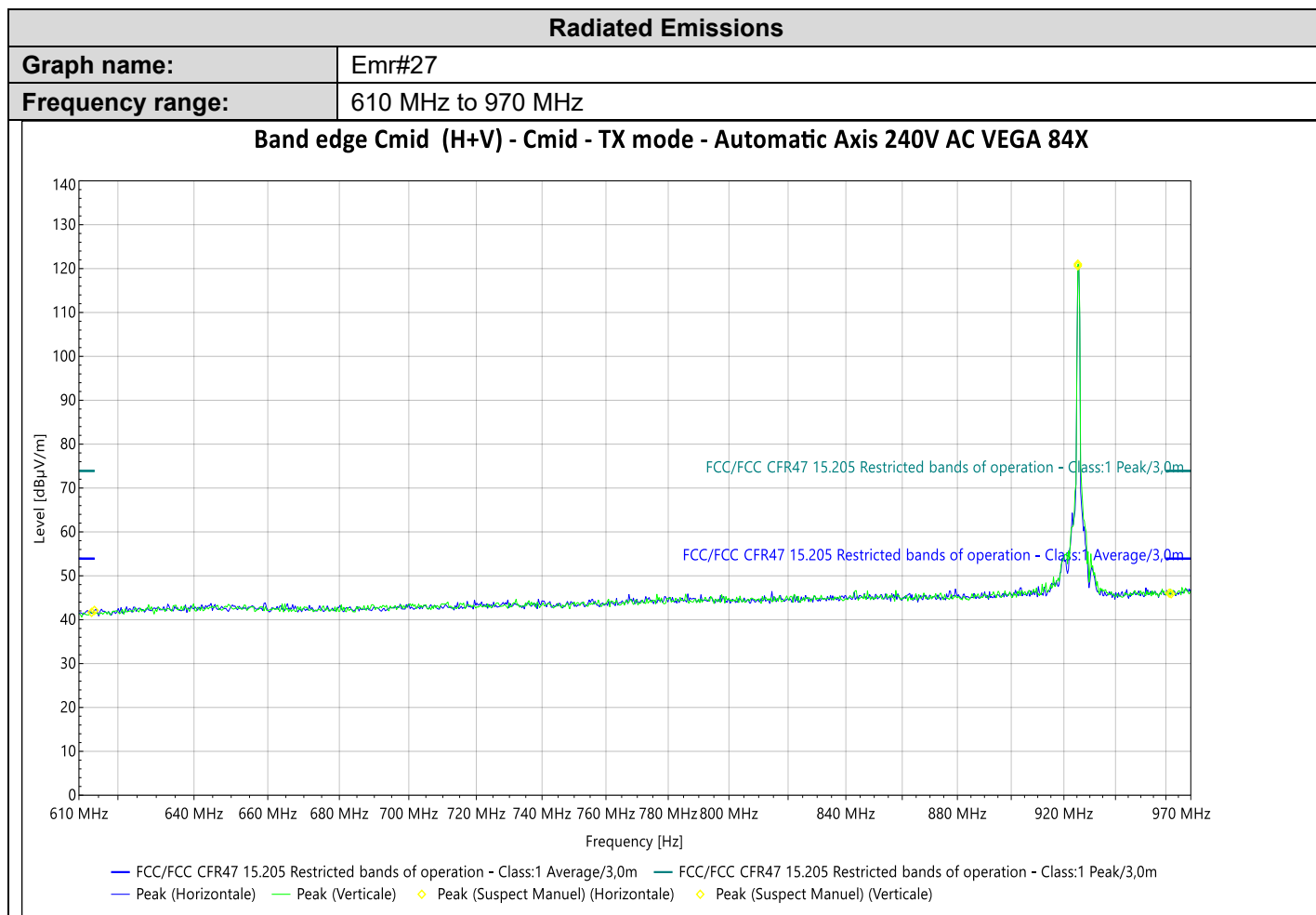
Pre-Characterization:

Frequency	PK Level (dBμV/m)	Lim.PK (dBμV/m)	Lim.Avg (dBμV/m)	Angle (°)	Polar.	Correct. (dB)
612.520 MHz	40.81	73.90	53.90	274	H	26.47
927.520 MHz	119.72	/	/	107	H	30.32
961.720 MHz	45.80	73.90	53.90	321	H	31.01
612.880 MHz	41.46	73.90	53.90	129	V	26.48
927.520 MHz	120.20	/	/	120	V	30.32
961.360 MHz	47.00	73.90	53.90	160	V	30.99



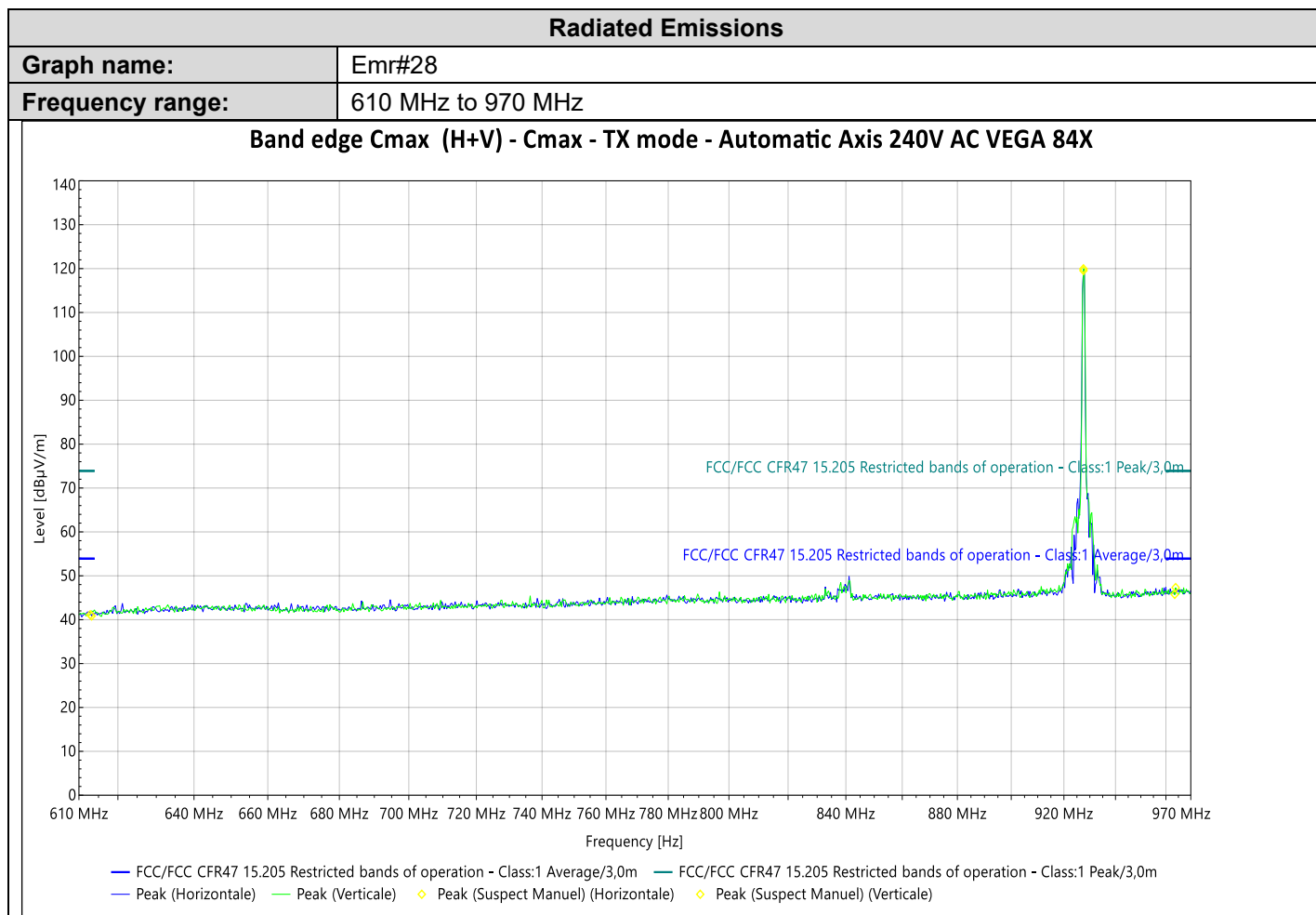
Pre-Characterization:

Frequency	PK Level (dBµV/m)	Lim.PK (dBµV/m)	Lim.Avg (dBµV/m)	Angle (°)	Polar.	Correct. (dB)
613.600 MHz	42.75	73.90	53.90	316	H	26.49
923.200 MHz	121.26	/	/	110	H	30.36
962.080 MHz	45.71	73.90	53.90	121	H	31.02
613.600 MHz	42.09	73.90	53.90	73	V	26.49
923.200 MHz	121.80	/	/	6	V	30.36
961.360 MHz	45.74	73.90	53.90	246	V	30.99



Pre-Characterization:

Frequency	PK Level (dBµV/m)	Lim.PK (dBµV/m)	Lim.Avg (dBµV/m)	Angle (°)	Polar.	Correct. (dB)
613.960 MHz	42.12	73.90	53.90	287	H	26.50
925.360 MHz	120.62	/	/	109	H	30.36
961.360 MHz	46.03	73.90	53.90	46	H	30.99
613.240 MHz	41.66	73.90	53.90	262	V	26.48
925.360 MHz	121.02	/	/	121	V	30.36
962.080 MHz	45.90	73.90	53.90	302	V	31.02



Pre-Characterization:

Frequency	PK Level (dBµV/m)	Lim.PK (dBµV/m)	Lim.Avg (dBµV/m)	Angle (°)	Polar.	Correct. (dB)
613.240 MHz	40.85	73.90	53.90	120	H	26.48
927.520 MHz	119.55	/	/	105	H	30.32
963.520 MHz	45.76	73.90	53.90	96	H	31.10
612.880 MHz	41.12	73.90	53.90	275	V	26.48
927.520 MHz	119.96	/	/	120	V	30.32
963.880 MHz	47.32	73.90	53.90	174	V	31.12

9.7. CONCLUSION

Unwanted emissions in non-restricted bands measurement performed on the sample of the product **VEGAMET Air 842**, Sn: **84200010**, in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.247 & RSS 247** limits.

10. UNCERTAINTIES CHART

Kind of test	Wide uncertainty laboratory ($k=1.96$) $\pm x (y)$
Occupied Bandwidth	1.35 %
Humidity	4.84 %
Power Spectral Density, Conducted	1.95 dB
Radio frequency until 30MHz	0.09 ppm
Radio frequency from 30MHz	0.31 ppm
RF power, conducted	1.49 dB
RF power, radiated (Full Anechoic Chamber)	4.84 dB
RF power, radiated (Semi Anechoic Chamber)	5.65 dB
RF power, radiated (Open Area Test Site)	5.27 dB
Spurious emission, conducted	2.47 dB
Spurious emission radiated (Full Anechoic Chamber)	4.84 dB
Spurious emission radiated (Semi Anechoic Chamber)	5.65 dB
Spurious emission radiated (Open Area Test Site)	5.27 dB
Generated signal levels, conducted	2.94 dB
Generated signal levels, radiated	Not used in laboratory
Adaptivity & Dynamic Frequency Selection	3.59 dB, 2.77 %, 2.53 %
Receiver blocking or desensitization	3.59 dB
RF level uncertainty for a given BER	1.49 dB
Temperature	0.75 °C
Time	4.08 %
Voltage	0.91 %
Conducted disturbances in voltage on the power port - 9kHz - 150kHz	3.64 dB
Conducted disturbances in voltage on the power port - 150kHz - 30MHz	3.21 dB
Radiated disturbances OATS & SAC @3m - 9kHz - 30MHz, Loop antenna	4.90 dB
Radiated disturbances OATS & SAC @3m - 30MHz - 200MHz, Biconical antenna	5.74 dB
Radiated disturbances OATS & SAC @3m - 30MHz - 1GHz, Hybrid antenna	5.65 dB
Radiated disturbances OATS @10m - 9kHz - 30MHz, Loop antenna	4.90 dB
Radiated disturbances OATS @10m - 30MHz - 200MHz, Biconical antenna	5.72 dB
Radiated disturbances OATS @10m - 30MHz - 1GHz, Hybrid antenna	5.91 dB
Radiated disturbances FAC @3m - 1GHz - 6GHz, Horn or hybrid antenna	5.02 dB
Radiated disturbances FAC @3m - 6GHz - 18GHz, Horn antenna	5.41 dB
Radiated disturbances FAC @3m - 18GHz - 40GHz, Horn antenna	7.81 dB

Ce tableau regroupe l'ensemble des incertitudes maximales pour les essais réalisables dans le laboratoire, qu'ils aient été ou non réalisés dans le cadre du présent rapport. / This table includes all uncertainties maximum feasible for testing in the laboratory, whether or not made in this report.

Note - L'incertitude de mesure instrumentale est déterminée selon la CISPR 16-4-2, les ETSI TR 100 028 et les ETSI TR 102 273. / The instrumentation measurement uncertainty is determined according to CISPR16-4-2, ETSI TR 100 028 and ETSI TR 102 273.



----- END OF REPORT -----