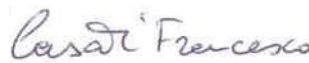


RF TEST REPORT

Test Report No:	25-4791490027-2-1-0-RAD-A
UL Project No:	4791490027
Date of issue:	2025-07-29
Total number of pages:	46
Applicant:	Bio-Si International S.r.l. Via Faentina 40 R 50133 Firenze (FI) – Italy
Contact's person:	Giacomo Biancalani (giacomo.biancalani@proeng.it)
Testing Laboratory:	UL International Italia S.r.l. Via delle Industrie, 6 20061 Carugate (MI) – Italy
Testing location:	UL International Italia S.r.l. Via delle Industrie, 6 20061 Carugate (MI) – Italy
Test specification:	
Regulations:	FCC/ISED
Standards:	FCC Part 15.207, 15.209 & 15.225 RSS-210 Issue 11:2024 RSS-Gen Issue 5:2021
Non-standard test method:	N/A
TRF No.:	TRF_Accredia_RAFI_rev 44
Test Report Form(s) Originator:	UL International Italia S.r.l.
Master TRF	2017-07
Tested by: (name, function, signature)	Borghesi Matteo Laboratory Technician 
Approved by: (name, function, signature)	Galbiati Andrea Giovanni Senior Engineering Associate 
Authorized by: (name, function, signature)	Casati Francesco Operations Leader 
General disclaimer: The test results presented in this test report relate only to the object tested, not selected by UL International Italia S.r.l.. All technical records will be maintained by the Laboratory for minimum 10 years. This report shall not be reproduced, except in full, without the written approval of the issuing Testing Laboratory. This document contains data (of information) using color and if printed, should be printed in color to retain legibility and the information represented by the color.	
Declination of responsibility: Data provided by the customer are clearly identified with (*). UL International Italia S.r.l. cannot be considered responsible for this information, for any other document sent by the Applicant/Manufacturer and for any difference between the software version present in the tested sample and that present in the object intended for final sale. In some cases, the software in the tested sample is in a version dedicated exclusively to the test, and therefore does not represent the software installed in the final version of the product.	

Test Item Description:	Medical device haemodynamic monitor
Trade Mark: (*)	Bio-Si International
Manufacturer: (*)	Bio-Si International S.r.l. Via di Barbacane 19, Florence, Italy
Model/Type reference: (*)	MostCare ^{Up} including Opthaem
FCC ID: (*)	2BOMM-00C01
Contains FCC ID: (*)	QOQWF111
Ratings: (*)	~100-240 VAC; 50/60 Hz; 60 VA
Testing:	
Type of equipment considered in the present document:	☐ Non-radio product ☒ Combined equipment (non-radio product with radio function) ☐ Radio product ☐ Ancillary equipment
Date of receipt of test item:	2025-01-28
UL Sample Tag No.:	7621150 (sample with original antenna) 7621152 (sample with dedicated load instead of original antenna)
Status of sample upon receipt:	☒ New and operational ☐ Reconditioned ☐ Damaged ☐ Unknown
Date(s) of performance of tests:	2025-07-16 to 2025-07-18
Name and address of factory(ies): (*)	Project Engineering S.r.l. Via Colle Ramole, 9 50023 Impruneta (FI) - Italy
General remarks: A cross ☒ in a rectangular shape means that this option is applied. ☒ Indicates that the listed condition, standard or equipment is applicable for this report. ☐ Indicates that the listed condition, standard or equipment is not applicable for this report. Throughout this report a ☐ comma / ☒ point is used as decimal separator. Where not otherwise specified or communicated in writing, statements of conformity (e.g. Pass/Fail) are established according to the following decision rule: <ul style="list-style-type: none"> considering that the applied test standards take measurement uncertainty into account, acceptance limit equals the tolerance limit (simple acceptance). This leads to a maximum 50% of false accept or false reject when the measured value equals the tolerance limit. See ILAC-G8:09/2019 for further details. 	
General product information: (*) MostcareUp is an Hemodynamic Monitor. It is able to follow in real time, from beat to beat, every minute haemodynamic variation of the patient. It is equipped with channels for acquiring the patient's vital parameters. It is equipped with Ethernet, USB, HDMI, a WIFI and RFID interface. It also has an analogue output and an analogue input for duplicating the signal acquired from the patient. Opthaem device is an accessory that give a not-invasive monitoring function to the medical product. This device is mounted on the back of MostcareUp and it is connected to MostcareUp with a 4 poles cable (2 poles for 5V power supply and 2 poles for RS485 communication).	

Document history

Test Report No.	Reason for change	Date of issue
25-4791490027-2-1-0-RAD-A	Original release	2025-07-29

NOTE: New test report issue cancels and replaces the previous one.

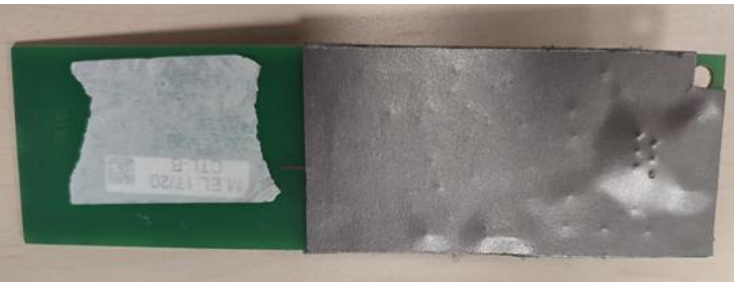
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1 Test Item Description

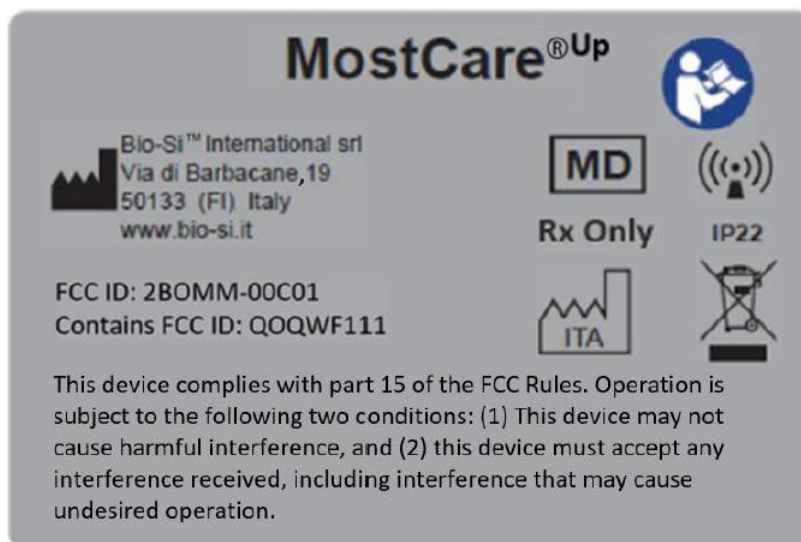
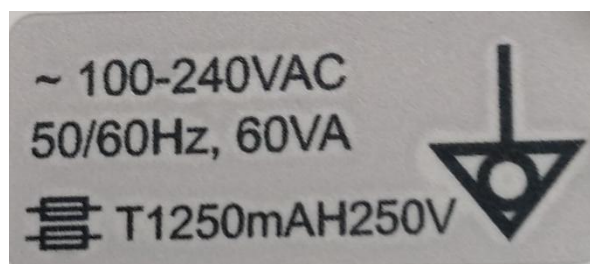
Serial number: (*)		No information available					
Date of production: (*)		No information available					
Ports: (*)							
Port name	Description	Max. length (m)	Attached during test	Shielded	Symmetric	Outdoor use	
AC Mains	2P+N+PE	2	☒	☐	☐	☐	
Wired network port	Ethernet	n.d.	☒	☐	☐	☐	
HDMI	For remote monitor	n.d.	☒	☒	☐	☐	
USB	USB	0	☒	☐	☐	☐	
ABP and CVP channels	patient parameter acquisition channel	n.d.	☒	☐	☐	☐	
Monitor In and Monitor Out	Analog input and output for duplicating signal	n.d.	☒	☐	☐	☒	
Supplementary information to the ports:		n.d. = not defined "Symmetric" and "Outdoor use" refer to signal/control port only					
Rated power supply: (*)		Voltage and frequency		Reference poles			
				N	L1	L2	L3
		☒	AC:100-240 V; 50/60 Hz	☒	☒	☐	☐
		☐	DC:				
		☒	Protective Earth (PE)				
Rated power: (*)		60 VA					
Environment of intended use: (*)		☐ Household / Residential					
		☐ Professional / Commercial / Light-industrial					
		☐ Industrial					
		☒ Professional healthcare facility (only for ME)					
		☐ Home healthcare (only for ME)					
		☐ Special (only for ME)					
		☐ Road and Street					
		☐ Automotive					
		☐ Railway					

Working frequencies: (*)	Radio Frequencies: <ul style="list-style-type: none"> 13.56 MHz (NFC) 12 MHz and 27.12 MHz (RFID board) Other frequencies: 24 MHz; 50 MHz; 20 MHz		
Other parameters: (*)	No information available		
Firmware/Software version: (*)	SW Version MostcareUp <ul style="list-style-type: none"> DSTMC1-MSC 5T.01 BSIPRM 7T.01 BSIUSG 11.T1 BSICTL 00.00 SW Version Opthaem <ul style="list-style-type: none"> BTLNIV01.02 BSINIV01.03 		
Hardware version: (*)	HW version MostcareUp=1 HW version Opthaem=1		
Dimensions in cm (W x H x D): (*)	31.9 x 32.27 x 14.12 (MostcareUp) 90 x 13.1 x 86 (Opthaem)		
Mounting position: (*)	☒	Table top equipment	
	☐	Wall/Ceiling mounted equipment	
	☐	Floor standing equipment	
	☐	Hand-held equipment	
	☐	Other:	
Modules/parts: (*)	Module/parts of test item	Type	Manufacturer
	---	---	---
Operating modes:			
No.	Description		
1	Continuos transmission on NFC technology @ 13.56 MHz (Modulated signal) Operation with NFC card put on NFC reader (worst case, highest power). Original antenna mounted		
2	Continuos transmission on NFC technology @ 13.56 MHz (Modulated signal) Operation with NFC card put on NFC reader (worst case, highest power). Dummy load mounted, instead of the original antenna		
Supplemental information to the operating mode:	Preliminary tests were carried out both with and without NFC tag. It was found that the configuration with NFC tag represents the worst-case and was recorded in the test report.		
Auxiliary equipment (AuxEq): <i>Peripheral equipment that is part of the system under test</i>	Description	Manufacturer	Type
	Accessory Opthaem	Bio-Si International srl	---
Associated equipment (AE): <i>Equipment that is not part of the system under test but needed to exercise and/or monitor the EUT</i>	Description	Manufacturer	Type
	---	---	---

Documents as provided by the applicant: (*)	Description	File name	Issue date
	Product info	UL CAR_EMC items for clients_V7_PE_2 0250212	---
Modifications to the test item during testing:	<p>Component Wurth 30405S applied definitely over CTLPRD board, as shown in the picture below, to have a compliant result in the radiated emission test.</p> 		

Copy of marking plate: (*)

Main EUT



Accessory equipment



1.1 Additional information of integrated radio device(s)

Producer :	BlueGiga Technologies Oy
Module name:	WF111-A
Description:	WF111 is a general use IEEE 802.11 (Wi-Fi) transceiver module meant to provide wireless connectivity for various microprocessor platforms. WF111 supports the IEEE 802.11b/g/n wireless networking standards with a single spatial stream and 20MHz or 22MHz bandwidth, allowing bitrates of up to 72.2Mbps. WF111 provides embedded system designers with easy add-on connectivity without requiring RF design skills.
Frequency range :	2400-2483.5 MHz
FCC ID :	QOQWF111
IC ID :	5123A-BGT111
Antenna Gain:	0.5 dBi

Producer :	Project Engineering S.r.l
Module name:	CTLPRD BOARD
Description:	CTL Smart Card RFID. Logic control is performed by a single-chip NXP microcontroller LPC1225FBD64. General features <ul style="list-style-type: none"> • NXP microcontroller LPC1225FBD64 • 1x RS485 serial interfaces not optocoupled. • 13.56MHz RFID pcb antenna • 4x M4 fastening holes • Nominal power supply 5Vdc
Frequency:	13.56 MHz
Antenna:	RFID pcb antenna

Note: the investigation is for NFC part only.

2 Verdict summary section

FCC Part 15 Subpart C (15.225) ISED RSS-210 Issue 11					
FCC clause	IC clause	Test Item	Accreditation	Verdict	Note
15.225(a)	RSS-210 B.6	Field strength of carrier signal	Accredia	P	
15.225(b) 15.225(c) 15.225(d) 15.209	RSS-210 B.6	Field strength of unwanted emissions	Accredia	P	
15.225(e)	RSS-210 B.6	Frequency tolerance of the carrier signal	Accredia	P	
15.207	RSS-Gen 8.8	AC power-line conducted emission	Accredia	P	
15.215	RSS-Gen 6.7	Occupied bandwidth	Accredia	P	
15.203	RSS-Gen 6.8	Antenna requirement	None	P	
Notes:					
1. The EUT utilizes an internal PCB antenna. The device is professionally installed.					

Methods and Procedures
ANSI C63.4-2014 American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024 American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
FCC KDB 414788 D01 Radiated Test Site v01r01 TEST SITES FOR RADIATED EMISSION MEASUREMENTS
FCC KDB 174176 D01 Line Conducted FAQ v01r02 August 7, 2025 AC Power-Line Conducted Emissions Frequently Asked Questions

Possible test case verdicts: Test case not performed: N/P Test case does not apply to test object: N/A Test object does meet requirement: Pass (P) Test object does not meet requirement: Fail (F)

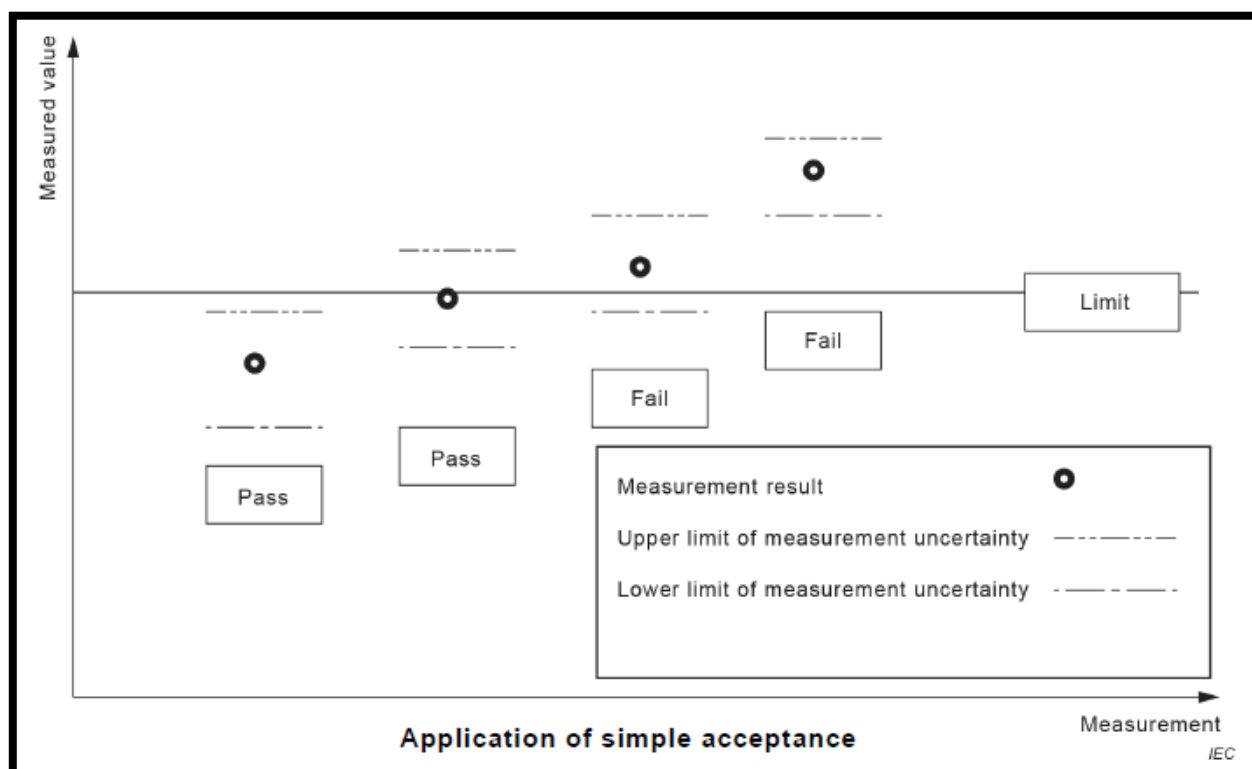
3 Test Conditions

3.1 Environment conditions

	All tests	Transmitter Frequency Stability
Temperature	+10 °C to +40 °C	-20 °C to +50 °C, step 10 °C
Power supply	V_{nom}	V_{nom} ; $V_{nom} - 15\%$; $V_{nom} + 15\%$

3.2 Conformity decision rule

Determining compliance shall be based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.



3.3 Formula used for RF emission quantities

AC power-line conducted emission

$$V \text{ (dB}\mu\text{V)} = V \text{ receiver (dB}\mu\text{V)} + \text{Correction (dB)}$$

where:

$$\text{Correction (dB)} = \text{VDF LISN (dB)} + \text{insertion loss coaxial cable (dB)}$$

Electric field (9kHz-30MHz)

$$E \text{ (dB}\mu\text{V/m)} = V \text{ receiver (dB}\mu\text{V)} + \text{correction (dB)}$$

where:

$$\text{Correction (dB)} = \text{Electric antenna factor (dB/m)} + \text{insertion loss coaxial cable (dB)} - \text{correction from OATS to SAC (dB)}$$

Electric field (30MHz-1GHz)

$$E \text{ (dB}\mu\text{V/m)} = V \text{ receiver (dB}\mu\text{V)} + \text{correction (dB)}$$

where:

$$\text{Correction (dB)} = \text{Electric antenna factor (dB/m)} + \text{insertion loss attenuator (dB)} + \text{insertion loss coaxial cable (dB)}$$

Margin

$$\text{Margin (dB)} = \text{Measure} - \text{Limit}$$

Conversion of the limits from magnetic field to electric field (valid in condition of far-field only)

$$E \text{ (dB}\mu\text{V/m)} = H \text{ (dB}\mu\text{A/m)} + 51.5 \text{ dB}$$

Linear to logarithmic conversion

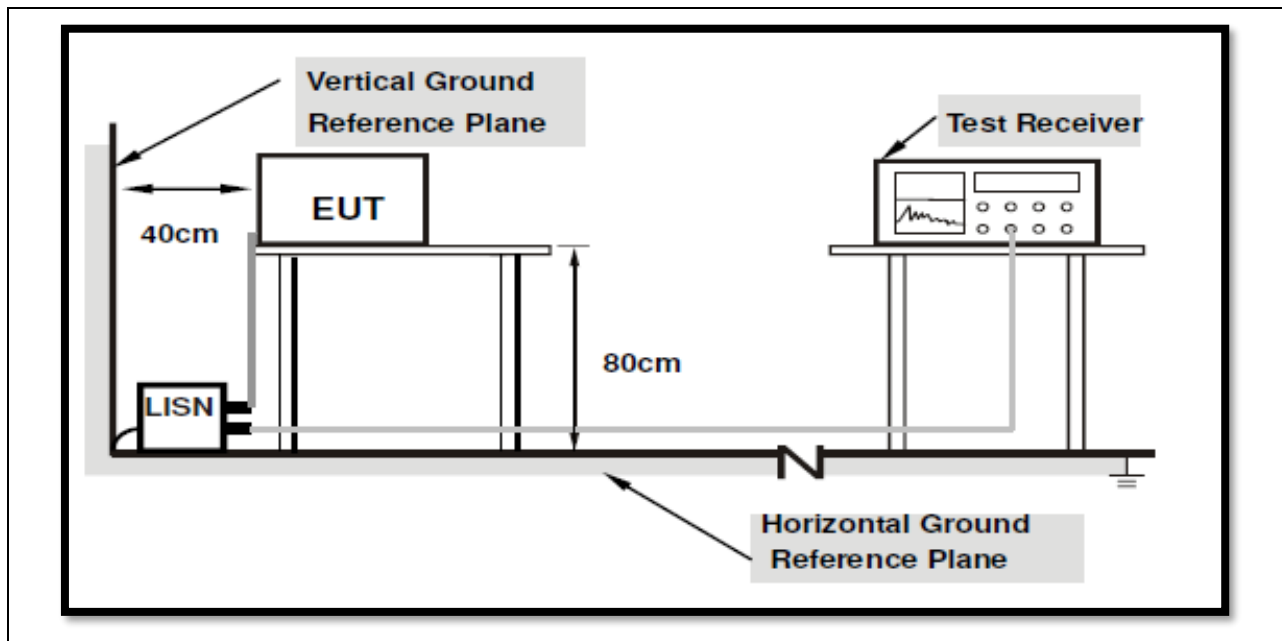
$$\text{Log} = 20 * \log(\text{Lin}) \text{ for voltage and current; } \text{Log} = 10 * \log(\text{Lin}) \text{ for power}$$

4 Emission

4.1 AC power-line conducted emission

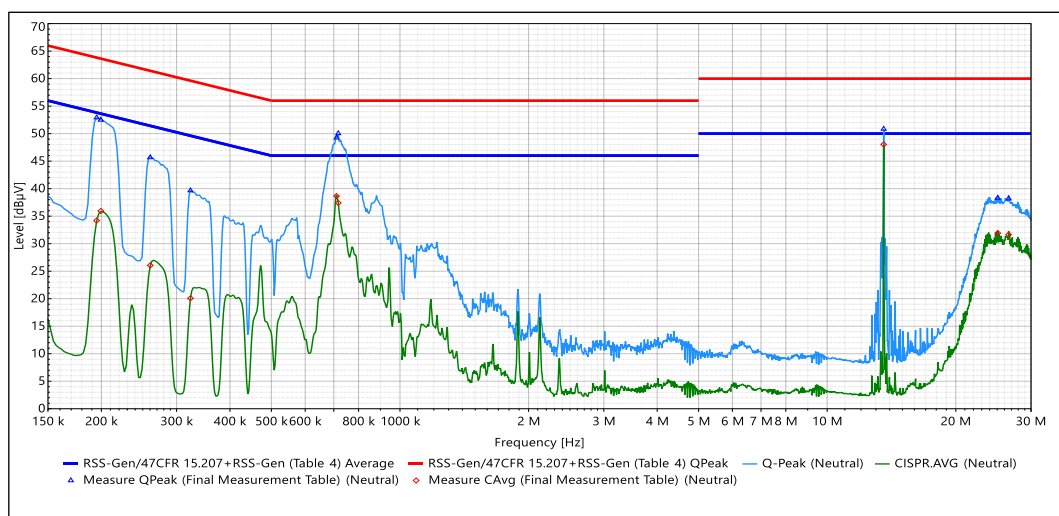
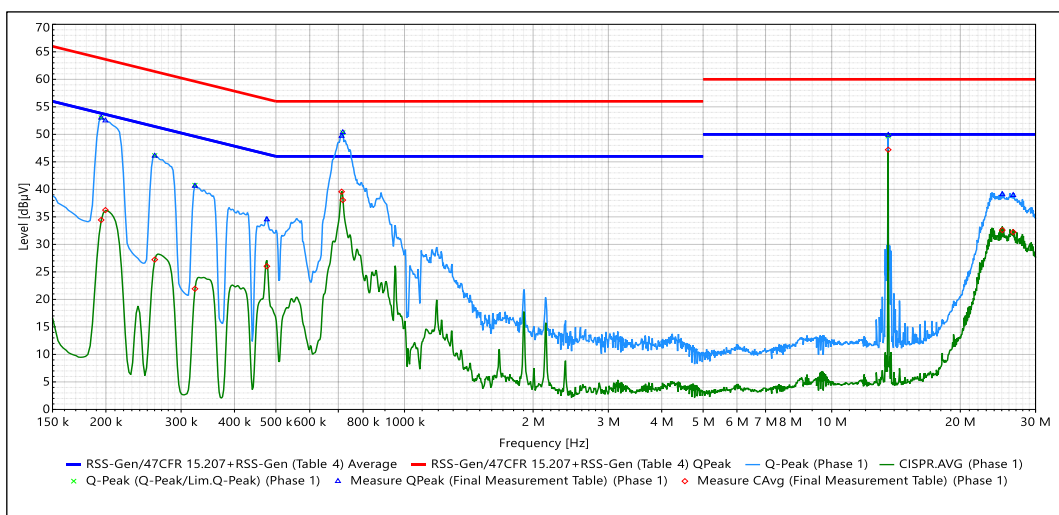
Tested by:	Matteo Borghesi	
Test date:	2025-07-16	
Test location (stand):	Area 11: SR2 (RF emission)	
Ambient temperature:	23 °C	
Relative humidity:	59 %	
Atmospheric pressure:	995 mbar	
FCC Reference:	Part 15.207	
ISED Canada Reference:	RSS-Gen 8.8	
Test Method Used	ANSI C63.10 Section 6.2 / FCC KDB 174176 and notes below	
Test set-up description:	☒	Table-top EUT placed on an insulating support raised 80 cm above the reference ground plane. Vertical plane located at 40 cm to the rear of the EUT.
	☐	Floor-standing EUT with its base in direct electrical contact with, or connected to, a grounded metal floor or grid, placed directly on the reference ground plane, making electric contact
	☐	Floor-standing EUT placed on an insulating support raised up to 12 mm above the reference ground plane
	☐	Floor-standing EUT for raised/false floor installation placed on an insulating support raised up to 34 cm above the reference ground plane
Supplementary test set-up description:	---	
Test method applied:	☒	Artificial mains network
	☐	Artificial mains network used as voltage probe
	☐	Voltage probe
	☐	Other:
Used mains voltage/frequency: (according to 174176 D01 Line Conducted FAQ v01r01)	120 V; 60 Hz 240 V; 60 Hz	
Deviation to the standard:	☒	None
	☐	
Supplementary information:	<p>Worst case protocol used: ISO 1443A – 106kbps (represent the protocol with the highest amplitude. Evaluation of the highest amplitude is performed by prescan measurements on all protocol implemented)</p> <p>Preliminary Measurements were performed at both 50 Hz and 60 Hz supply frequencies. There was no change to the observed emissions.</p>	

Block diagram



Results

Operating mode	1
Port / terminal	AC Mains / Neutral and Line
Used mains voltage/frequency ...	120 V; 60 Hz
Verdict.....	Pass
Instrument settings	Start Frequency: 150 kHz; Stop Frequency: 30 MHz; Step: 2.25 kHz; Sweep Time: 2 s/Step; RF Attenuation: Auto; 10 dB min attenuation: ON; RBW: 9 kHz; Preamplifier: OFF; Preselector: ON

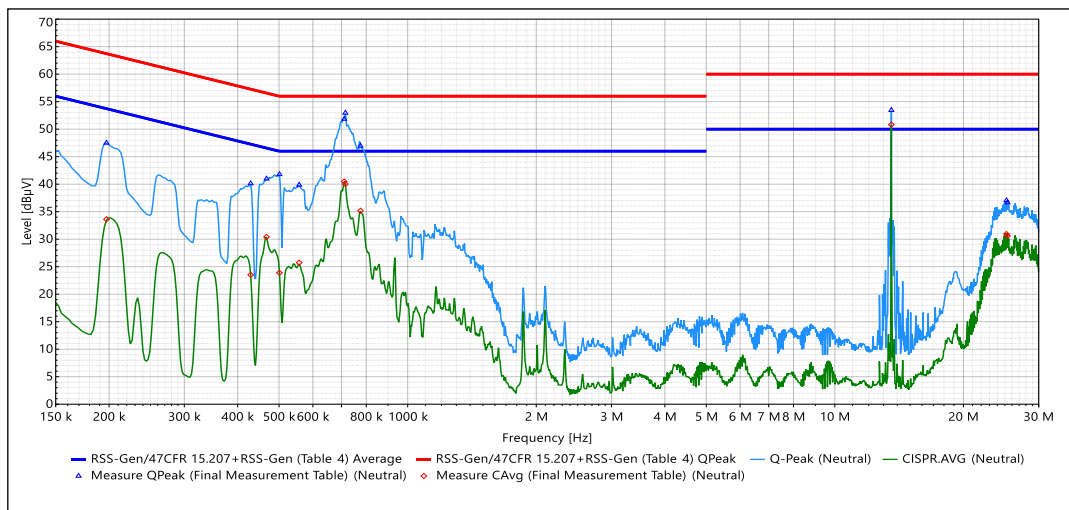
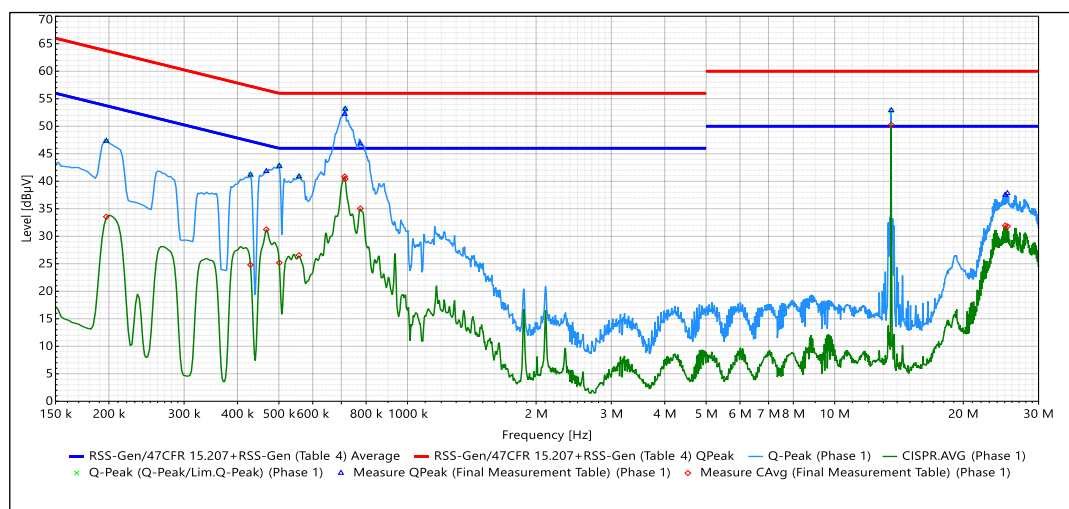


- ☐ The emissions are below the measurement system noise floor or 20 dB or more below the limit
- ☒ Final measurements for emissions that are above -20 dB from the applicable limits are shown below (at least 6 worst frequencies):

Final Measurement Table

Frequency	Measure QPeak (dBμV)	Limit QPeak (dBμV)	Margin QPeak (dB)	Measure CAvg (dBμV)	Limit Avg (dBμV)	Margin Avg (dB)	Terminal	RBW (Hz)	Meas.Time (s)	Comments	Correction (dB)
195 kHz	52.91	63.82	-10.91	34.21	53.82	-19.61	Neutral	9 kHz	5	Pass	10.21
199.5 kHz	52.5	63.63	-11.13	35.94	53.63	-17.69	Neutral	9 kHz	5	Pass	10.21
260.25 kHz	45.67	61.42	-15.75	26.06	51.42	-25.37	Neutral	9 kHz	5	Pass	10.21
323.25 kHz	39.67	59.62	-19.96	20.08	49.62	-29.54	Neutral	9 kHz	5	Pass	10.21
710.25 kHz	49.26	56	-6.74	38.65	46	-7.35	Neutral	9 kHz	5	Pass	10.22
717 kHz	50.04	56	-5.96	37.42	46	-8.58	Neutral	9 kHz	5	Pass	10.22
13.56 MHz	50.86	60	-9.14	48.04	50	-1.96	Neutral	9 kHz	5	Pass	10.62
25.073 MHz	38.31	60	-21.69	31.92	50	-18.08	Neutral	9 kHz	5	Pass	10.85
26.585 MHz	38.19	60	-21.81	31.65	50	-18.35	Neutral	9 kHz	5	Pass	10.87
195 kHz	53.01	63.82	-10.81	34.44	53.82	-19.38	Phase 1	9 kHz	5	Pass	10.21
199.5 kHz	52.5	63.63	-11.13	36.23	53.63	-17.4	Phase 1	9 kHz	5	Pass	10.21
260.25 kHz	46.09	61.42	-15.33	27.23	51.42	-24.19	Phase 1	9 kHz	5	Pass	10.21
323.25 kHz	40.62	59.62	-19	21.92	49.62	-27.7	Phase 1	9 kHz	5	Pass	10.21
476.25 kHz	34.52	56.4	-21.89	26.03	46.4	-20.38	Phase 1	9 kHz	5	Pass	10.22
712.5 kHz	49.7	56	-6.3	39.57	46	-6.43	Phase 1	9 kHz	5	Pass	10.22
717 kHz	50.37	56	-5.63	38.05	46	-7.95	Phase 1	9 kHz	5	Pass	10.22
13.56 MHz	49.88	60	-10.12	47.2	50	-2.8	Phase 1	9 kHz	5	Pass	10.62
25.078 MHz	39.09	60	-20.91	32.59	50	-17.41	Phase 1	9 kHz	5	Pass	10.85
26.59 MHz	38.95	60	-21.05	32.23	50	-17.77	Phase 1	9 kHz	5	Pass	10.87

Operating mode	1
Port / terminal	AC Mains / Neutral and Line
Used mains voltage/frequency ...	240 V; 60 Hz
Verdict	Pass
Instrument settings	Start Frequency: 150 kHz; Stop Frequency: 30 MHz; Step: 2.25 kHz; Sweep Time: 2 s/Step; RF Attenuation: Auto; 10 dB min attenuation: ON; RBW: 9 kHz; Preamplifier: OFF; Preselector: ON



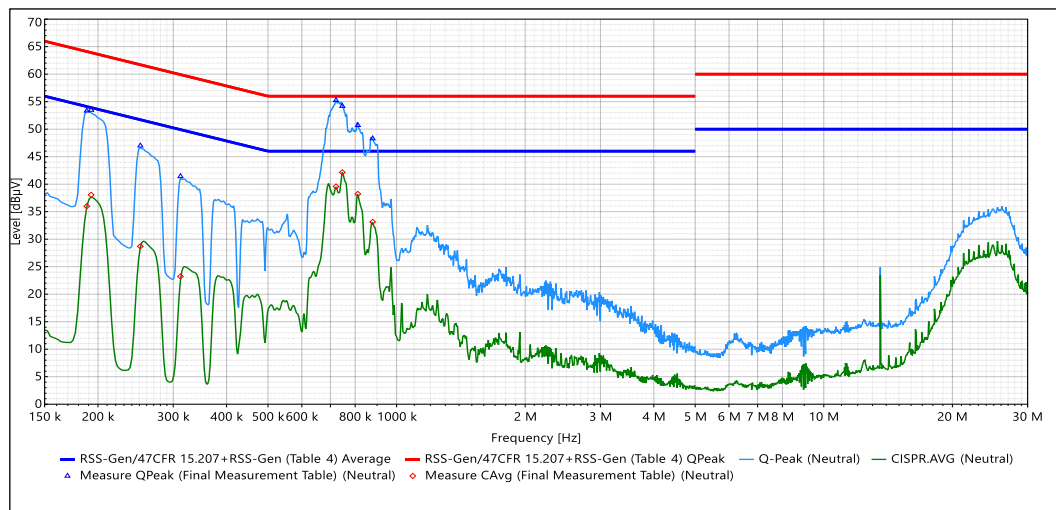
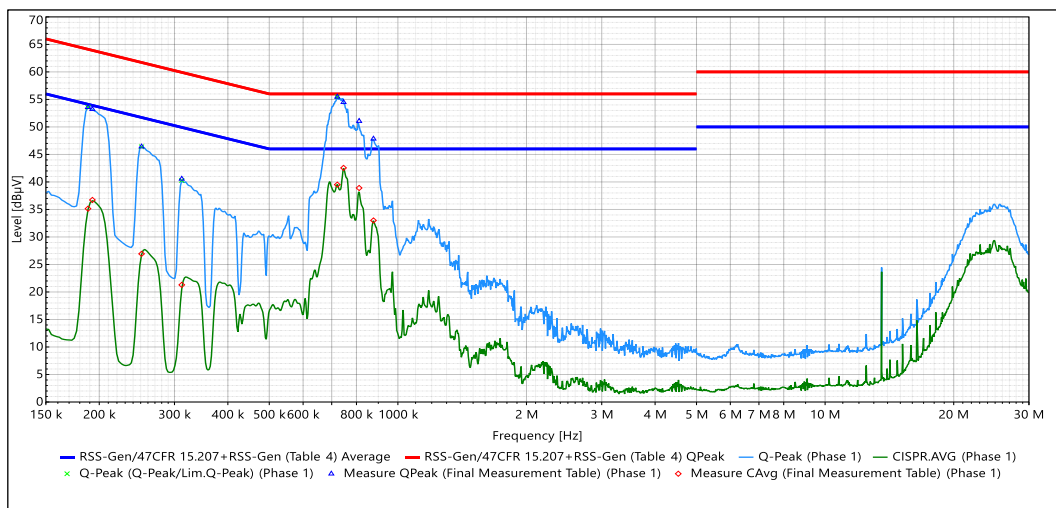
- ☐ The emissions are below the measurement system noise floor or 20 dB or more below the limit
- ☒ Final measurements for emissions that are above -20 dB from the applicable limits are shown below (at least 6 worst frequencies):

Final Measurement Table

Frequency	Measure QPeak (dBμV)	Limit QPeak (dBμV)	Margin QPeak (dB)	Measure CAvg (dBμV)	Limit Avg (dBμV)	Margin Avg (dB)	Terminal	RBW (Hz)	Meas.Time (s)	Comments	Correction (dB)
197.25 kHz	47.5	63.73	-16.22	33.62	53.73	-20.11	Neutral	9 kHz	5	Pass	10.21
429 kHz	40.13	57.27	-17.14	23.52	47.27	-23.75	Neutral	9 kHz	5	Pass	10.22
467.25 kHz	40.98	56.56	-15.58	30.41	46.56	-16.15	Neutral	9 kHz	5	Pass	10.22
501 kHz	41.79	56	-14.21	23.89	46	-22.11	Neutral	9 kHz	5	Pass	10.22
557.25 kHz	39.87	56	-16.13	25.73	46	-20.27	Neutral	9 kHz	5	Pass	10.22
710.25 kHz	51.85	56	-4.15	40.48	46	-5.52	Neutral	9 kHz	5	Pass	10.22
714.75 kHz	52.96	56	-3.04	40.03	46	-5.97	Neutral	9 kHz	5	Pass	10.22
775.5 kHz	46.96	56	-9.04	35.17	46	-10.83	Neutral	9 kHz	5	Pass	10.22
13.56 MHz	53.46	60	-6.54	50.83	50	0.83	Neutral	9 kHz	5	(^)	10.62
25.215 MHz	37.05	60	-22.95	30.94	50	-19.06	Neutral	9 kHz	5	Pass	10.85
25.366 MHz	36.65	60	-23.35	30.58	50	-19.42	Neutral	9 kHz	5	Pass	10.85
197.25 kHz	47.32	63.73	-16.41	33.53	53.73	-20.19	Phase 1	9 kHz	5	Pass	10.21
429 kHz	41.19	57.27	-16.09	24.8	47.27	-22.48	Phase 1	9 kHz	5	Pass	10.22
467.25 kHz	41.83	56.56	-14.74	31.22	46.56	-15.34	Phase 1	9 kHz	5	Pass	10.22
501 kHz	42.78	56	-13.22	25.18	46	-20.82	Phase 1	9 kHz	5	Pass	10.22
557.25 kHz	40.85	56	-15.15	26.56	46	-19.44	Phase 1	9 kHz	5	Pass	10.22
712.5 kHz	52.23	56	-3.77	40.86	46	-5.14	Phase 1	9 kHz	5	Pass	10.22
714.75 kHz	53.16	56	-2.84	40.42	46	-5.58	Phase 1	9 kHz	5	Pass	10.22
775.5 kHz	46.85	56	-9.15	35.04	46	-10.96	Phase 1	9 kHz	5	Pass	10.22
13.56 MHz	52.91	60	-7.09	50.26	50	0.26	Phase 1	9 kHz	5	(^)	10.62
25.064 MHz	37.5	60	-22.5	31.93	50	-18.07	Phase 1	9 kHz	5	Pass	10.85
25.366 MHz	37.83	60	-22.17	31.8	50	-18.2	Phase 1	9 kHz	5	Pass	10.85

(^) Inside the transmitter's fundamental emission band. This frequency is evaluated with operating mode No. 2

Operating mode	2
Port / terminal	AC Mains / Neutral and Line
Used mains voltage/frequency ...	120 V; 60 Hz
Verdict	Pass
Instrument settings	Start Frequency: 150 kHz; Stop Frequency: 30 MHz; Step: 2.25 kHz; Sweep Time: 2 s/Step; RF Attenuation: Auto; 10 dB min attenuation: ON; RBW: 9 kHz; Preamplifier: OFF; Preselector: ON

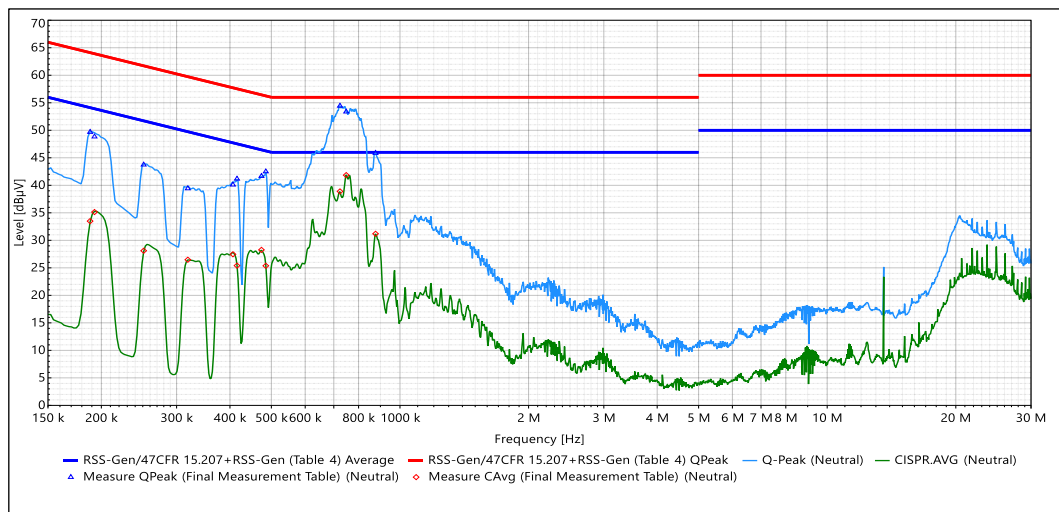
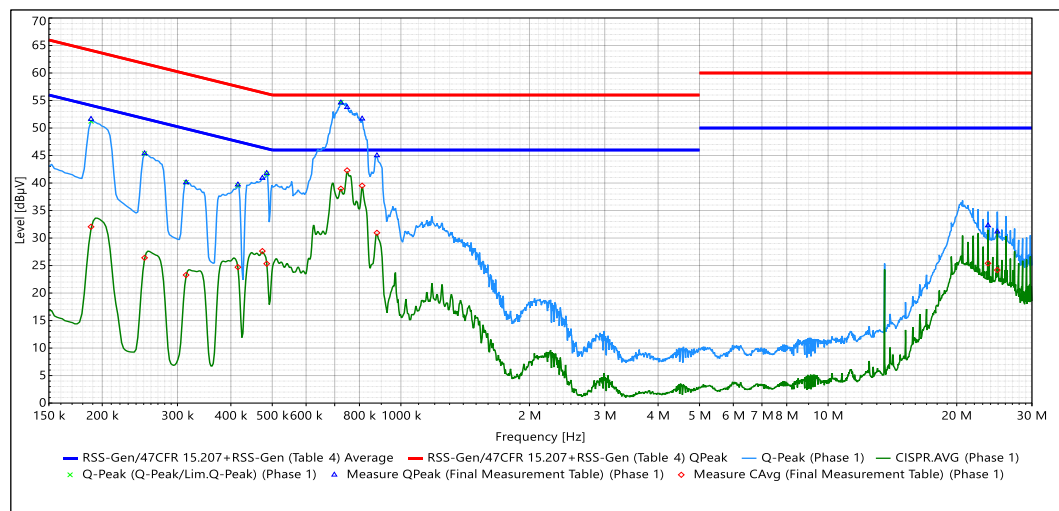


- ☐ The emissions are below the measurement system noise floor or 20 dB or more below the limit
- ☒ Final measurements for emissions that are above -20 dB from the applicable limits are shown below (at least 6 worst frequencies):

Final Measurement Table

Frequency	Measure QPeak (dBμV)	Limit QPeak (dBμV)	Margin QPeak (dB)	Measure CAvg (dBμV)	Limit Avg (dBμV)	Margin Avg (dB)	Terminal	RBW (Hz)	Meas.Time (s)	Comments	Correction (dB)
188.25 kHz	53.34	64.11	-10.77	36	54.11	-18.12	Neutral	9 kHz	5	Pass	10.21
192.75 kHz	53.48	63.92	-10.44	38.06	53.92	-15.85	Neutral	9 kHz	5	Pass	10.21
251.25 kHz	46.99	61.72	-14.72	28.7	51.72	-23.02	Neutral	9 kHz	5	Pass	10.21
312 kHz	41.43	59.92	-18.49	23.23	49.92	-26.69	Neutral	9 kHz	5	Pass	10.22
721.5 kHz	55.25	56	-0.75	39.57	46	-6.43	Neutral	9 kHz	5	Pass	10.22
746.25 kHz	54.21	56	-1.79	42.16	46	-3.84	Neutral	9 kHz	5	Pass	10.22
811.5 kHz	50.71	56	-5.29	38.22	46	-7.78	Neutral	9 kHz	5	Pass	10.22
879 kHz	48.3	56	-7.7	33.14	46	-12.86	Neutral	9 kHz	5	Pass	10.23
188.25 kHz	53.59	64.11	-10.52	35.14	54.11	-18.97	Phase 1	9 kHz	5	Pass	10.21
192.75 kHz	53.21	63.92	-10.7	36.73	53.92	-17.19	Phase 1	9 kHz	5	Pass	10.21
251.25 kHz	46.42	61.72	-15.3	26.93	51.72	-24.78	Phase 1	9 kHz	5	Pass	10.21
312 kHz	40.55	59.92	-19.36	21.29	49.92	-28.63	Phase 1	9 kHz	5	Pass	10.22
721.5 kHz	55.47	56	-0.53	39.5	46	-6.5	Phase 1	9 kHz	5	Pass	10.22
746.25 kHz	54.49	56	-1.51	42.55	46	-3.45	Phase 1	9 kHz	5	Pass	10.22
811.5 kHz	51.06	56	-4.94	38.9	46	-7.1	Phase 1	9 kHz	5	Pass	10.22
876.75 kHz	47.84	56	-8.16	33	46	-13	Phase 1	9 kHz	5	Pass	10.23

Operating mode	2
Port / terminal	AC Mains / Neutral and Line
Used mains voltage/frequency ...	240 V; 60 Hz
Verdict	Pass
Instrument settings	Start Frequency: 150 kHz; Stop Frequency: 30 MHz; Step: 2.25 kHz; Sweep Time: 2 s/Step; RF Attenuation: Auto; 10 dB min attenuation: ON; RBW: 9 kHz; Preamplifier: OFF; Preselector: ON



- ☐ The emissions are below the measurement system noise floor or 20 dB or more below the limit
- ☒ Final measurements for emissions that are above -20 dB from the applicable limits are shown below (at least 6 worst frequencies):

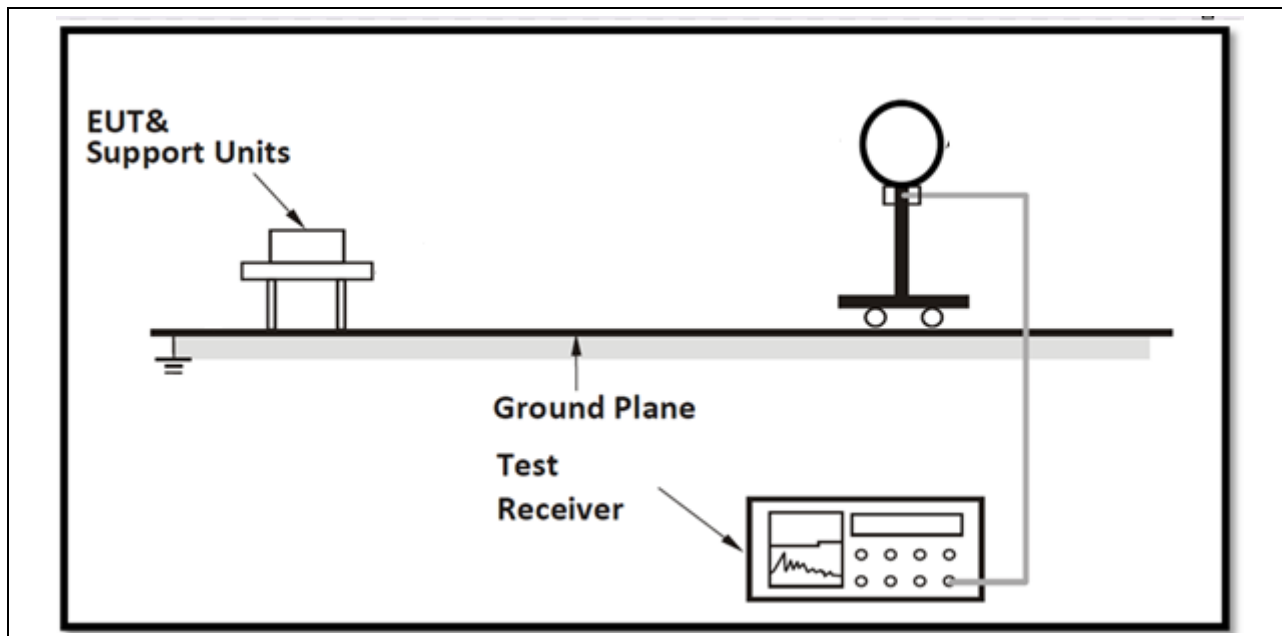
Final Measurement Table

Frequency	Measure QPeak (dBμV)	Limit QPeak (dBμV)	Margin QPeak (dB)	Measure CAvg (dBμV)	Limit Avg (dBμV)	Margin Avg (dB)	Terminal	RBW (Hz)	Meas.Time (s)	Comments	Correction (dB)
188.25 kHz	49.68	64.11	-14.43	33.49	54.11	-20.62	Neutral	9 kHz	5	Pass	10.21
192.75 kHz	48.84	63.92	-15.08	35.14	53.92	-18.78	Neutral	9 kHz	5	Pass	10.21
251.25 kHz	43.74	61.72	-17.98	28.11	51.72	-23.61	Neutral	9 kHz	5	Pass	10.21
318.75 kHz	39.42	59.74	-20.32	26.47	49.74	-23.27	Neutral	9 kHz	5	Pass	10.21
406.5 kHz	40.1	57.72	-17.62	27.47	47.72	-20.25	Neutral	9 kHz	5	Pass	10.22
415.5 kHz	41.17	57.54	-16.36	25.4	47.54	-22.13	Neutral	9 kHz	5	Pass	10.22
474 kHz	41.66	56.44	-14.78	28.26	46.44	-18.18	Neutral	9 kHz	5	Pass	10.22
485.25 kHz	42.5	56.25	-13.75	25.37	46.25	-20.88	Neutral	9 kHz	5	Pass	10.22
723.75 kHz	54.43	56	-1.57	38.9	46	-7.1	Neutral	9 kHz	5	Pass	10.22
748.5 kHz	53.38	56	-2.62	41.85	46	-4.15	Neutral	9 kHz	5	Pass	10.22
876.75 kHz	45.87	56	-10.13	31.19	46	-14.81	Neutral	9 kHz	5	Pass	10.23
188.25 kHz	51.63	64.11	-12.49	32.05	54.11	-22.06	Phase 1	9 kHz	5	Pass	10.21
251.25 kHz	45.38	61.72	-16.34	26.41	51.72	-25.3	Phase 1	9 kHz	5	Pass	10.21
314.25 kHz	40.11	59.86	-19.75	23.28	49.86	-26.57	Phase 1	9 kHz	5	Pass	10.21
415.5 kHz	39.7	57.54	-17.84	24.7	47.54	-22.83	Phase 1	9 kHz	5	Pass	10.22
474 kHz	40.91	56.44	-15.54	27.63	46.44	-18.81	Phase 1	9 kHz	5	Pass	10.22
485.25 kHz	41.79	56.25	-14.45	25.33	46.25	-20.91	Phase 1	9 kHz	5	Pass	10.22
723.75 kHz	54.62	56	-1.38	38.97	46	-7.03	Phase 1	9 kHz	5	Pass	10.22
748.5 kHz	53.77	56	-2.23	42.31	46	-3.69	Phase 1	9 kHz	5	Pass	10.22
811.5 kHz	51.68	56	-4.32	39.51	46	-6.49	Phase 1	9 kHz	5	Pass	10.22
879 kHz	45.01	56	-10.99	30.95	46	-15.05	Phase 1	9 kHz	5	Pass	10.23
23.676 MHz	32.27	60	-27.73	25.41	50	-24.59	Phase 1	9 kHz	5	Pass	10.84
24.891 MHz	31.16	60	-28.84	24.18	50	-25.82	Phase 1	9 kHz	5	Pass	10.85

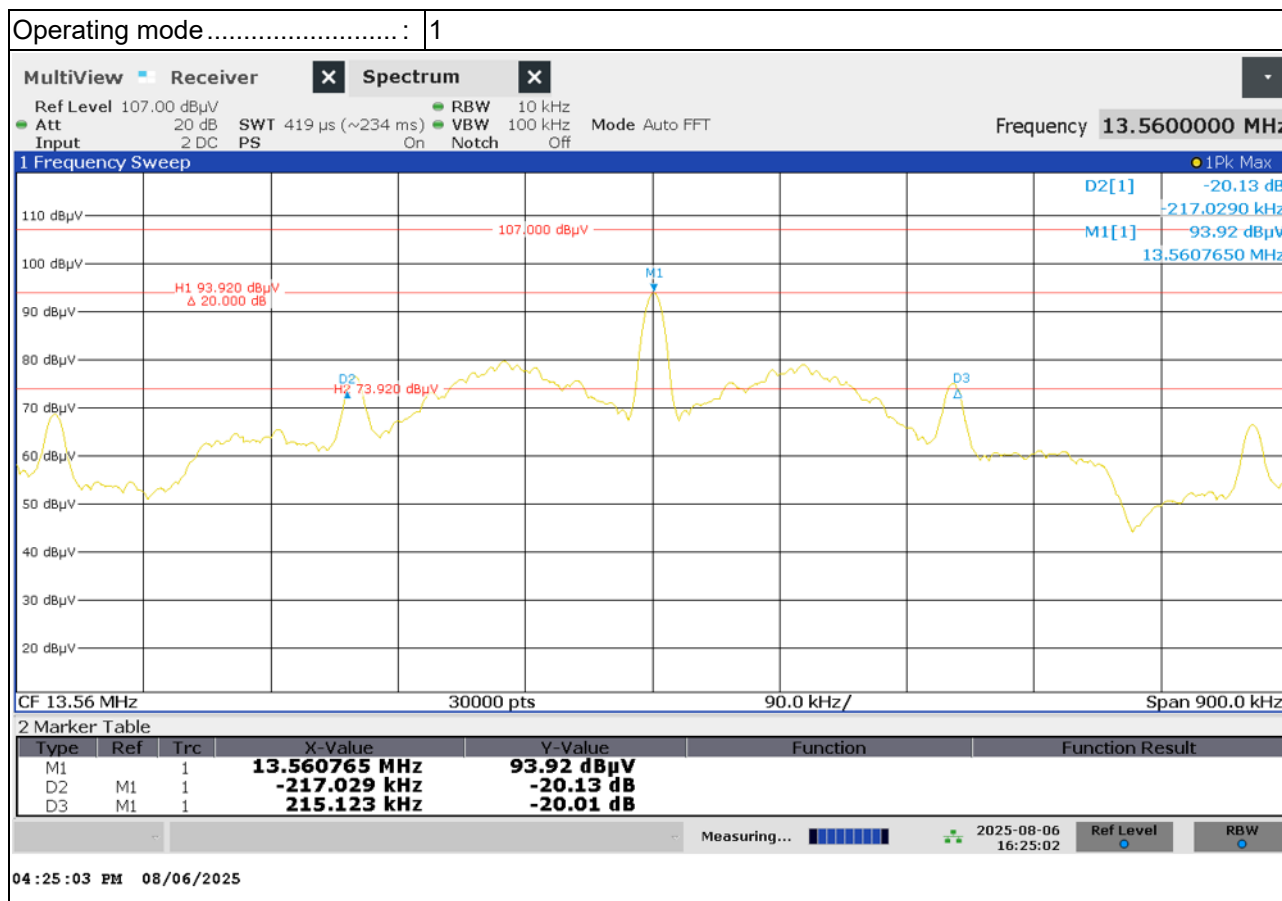
4.2 Occupied bandwidth

Tested by:	Matteo Borghesi	
Test date:	2025-07-17	
Test location (stand):	Area 8: SAC 3-1.2 (RF emission)	
Ambient temperature:	23 °C	
Relative humidity:	55 %	
Atmospheric pressure:	995 mbar	
FCC Reference:	Part 15.215	
ISED Canada Reference:	RSS-Gen 6.7	
Test Method Used	ANSI C63.10, §6.9.2 (-20 dB) ANSI C63.10, §6.9.3 (99 %)	
Setup used:	Measurements were made with the 60 cm loop antenna in close proximity of the EUT.	
Test set-up description:	---	
Antenna:	☐	External connector
	☒	Integrated into the equipment
Used mains voltage/frequency:	120 V; 60 Hz	
Deviation to the standard:	☒	None
	☐	
Supplementary information:	<p>Worst case protocol used: ISO 1443A – 106kbps (represent the protocol with the widest bandwidth. Evaluation of the widest bandwidth is performed by prescan measurements on all protocol implemented)</p> <p>Preliminary Measurements were performed at both 50 Hz and 60 Hz supply frequencies. There was no change to the observed emissions.</p>	

Block diagram



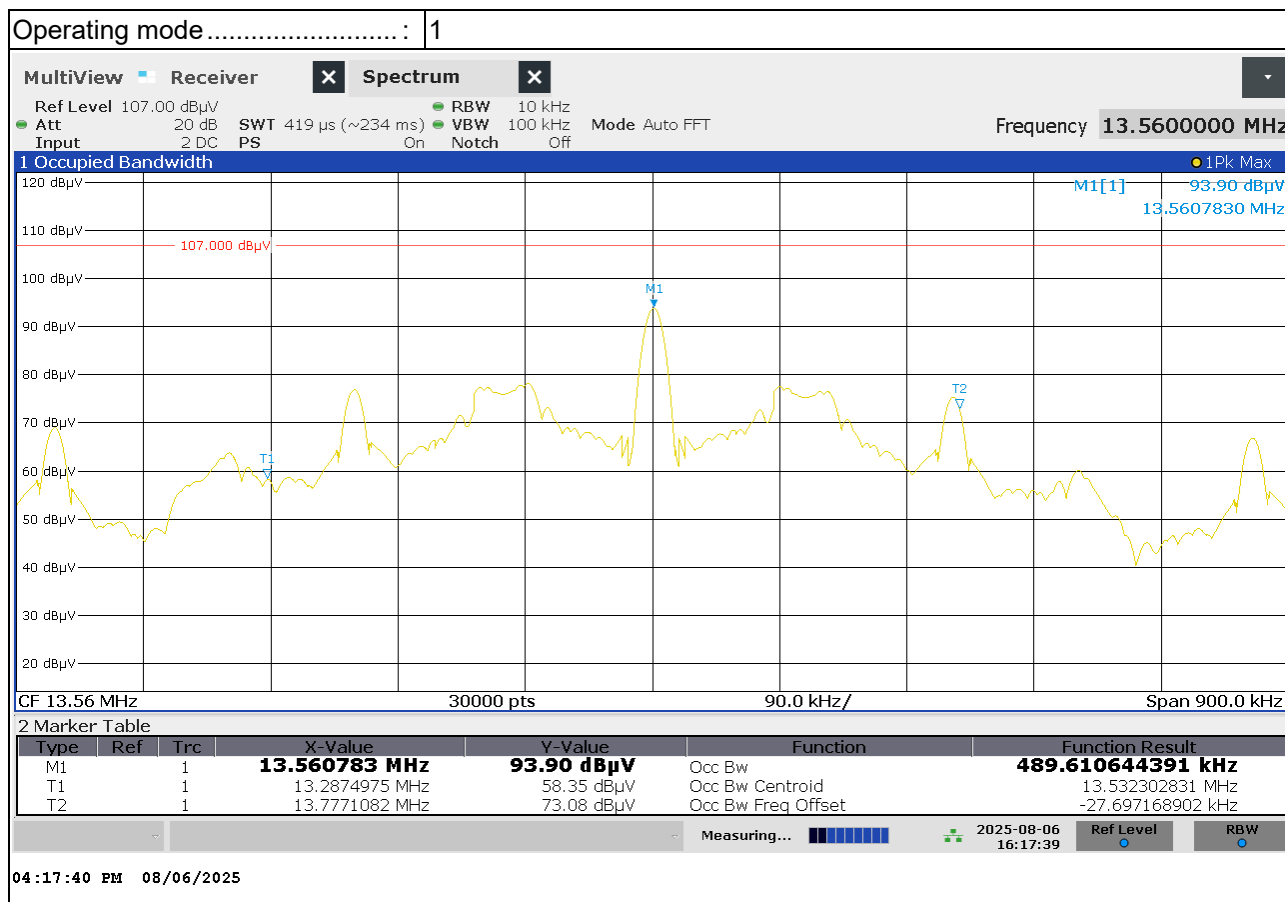
Results



Final measurements table:

f_L (MHz)	F_H (MHz)	20 dB Bandwidth (kHz)	Verdict
13.343736	13.775888	432.152	Pass (^)

(^) 20 dB bandwidth is contained in the designated frequency band 13.110-14.010 MHz.



Final measurements table:

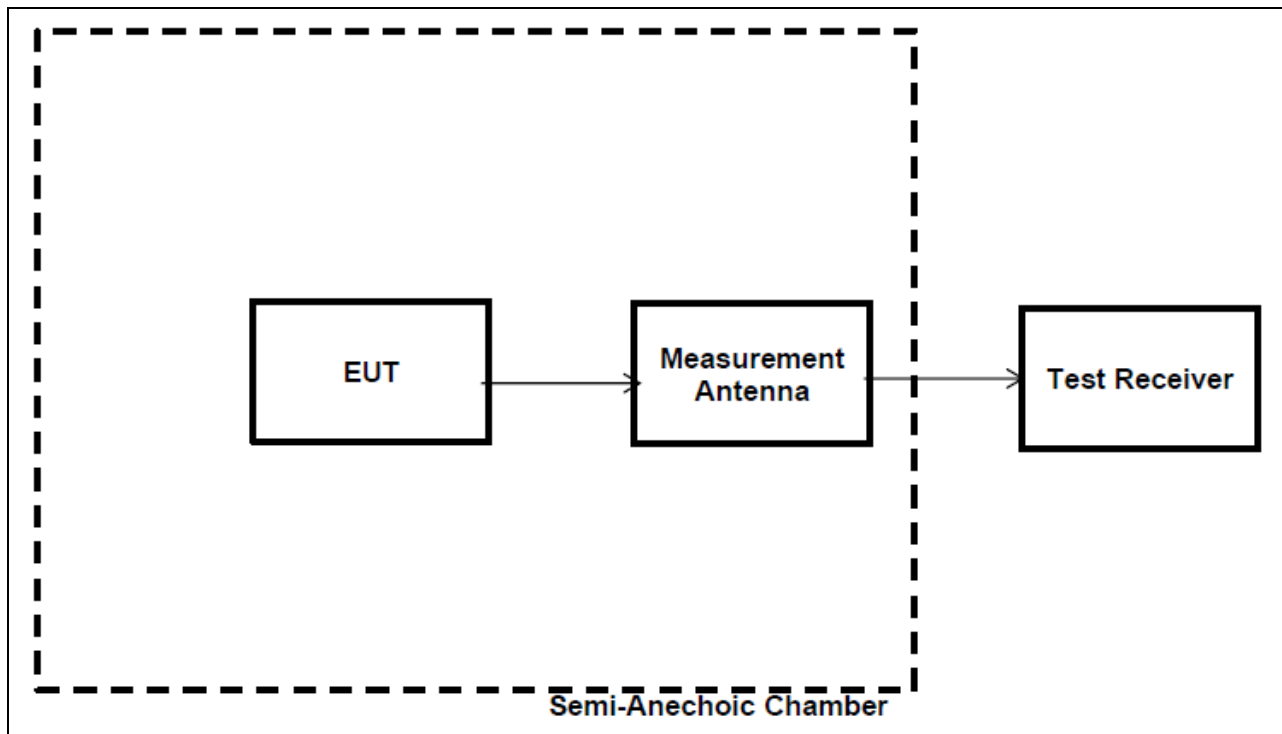
f_c (MHz)	f_L (MHz)	F_H (MHz)	99% Emission Bandwidth (kHz)	Verdict
13.560783	13.2874975	13.7771082	489.611	Pass (^)

(^) 99 % bandwidth is contained in the designated frequency band 13.110-14.010 MHz.

4.3 Field strength of carrier signal

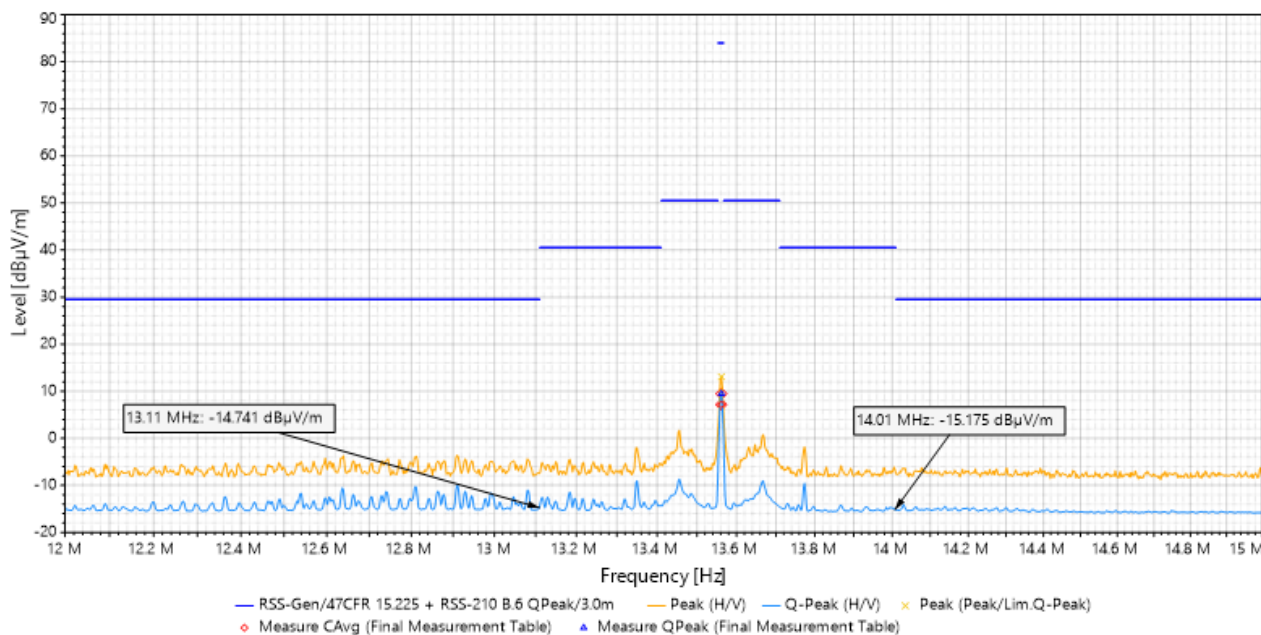
Tested by:	Matteo Borghesi	
Test date:	2025-07-17	
Test location (stand):	Area 8: SAC 3-1.2 (RF emission)	
Ambient temperature:	23 °C	
Relative humidity:	55 %	
Atmospheric pressure:	995 mbar	
FCC Reference:	Part 15.225(a)	
ISED Canada Reference:	RSS-210 B.6	
Test Method Used	ANSI C63.10, §6.4	
Setup used:	☒	OATS or SAC with measurement distance [m]: 3
	☐	FAR CISPR 16-2-3 with measurement distance [m]: 3
	☐	FAR IEC 61000-4-22 with measurement distance [m]: 3
	☐	TEM Waveguide according IEC 61000-4-20
	☐	FSOATS with measurement distance [m]: 3
	☐	Climatic chamber
Supplementary test set-up description:	---	
Used mains voltage/frequency:	120 V; 60 Hz	
Deviation to the standard:	☒	None
	☐	
Supplementary information:	<p>In accordance with FCC KDB 414788, an alternative test site may be used for the measurement below 30 MHz (the OATS / SAC comparison data is available upon request). Therefore the result from the semi-anechoic chamber tests is shown in this section of the test report. The limits are specified at a test distance of 30 m & 300 m.</p> <p>However, as specified by FCC Section 15.31(f)(2), measurements may be performed at a closer distance and the measured level corrected to the specified measurement distance by using the square of an inverse linear distance extrapolation factor.</p> <ul style="list-style-type: none"> · Therefore the measurement values are extrapolated to a measurement distance of 3 m where field strength of X dBμV/m was measured. · 9-490 kHz: from 300 m to 3 m subtracting 80 dB at 40 dB/decade. · 490-1705 kHz: from 30 m to 3 m subtracting 40 dB at 40 dB/decade. · 2 Worst case protocol used: <p>1) ISO 144438A 106kbps (represent the protocol with the highest amplitude. Evaluation of the highest amplitude is performed by prescan measurements on all protocol implemented)</p> <p>2) Worst case protocol used: ISO 144438A 106kbps (represent the protocol with the widest bandwidth. Evaluation of the widest bandwidth is performed by prescan measurements on all protocol implemented)</p>	

Block diagram



Results

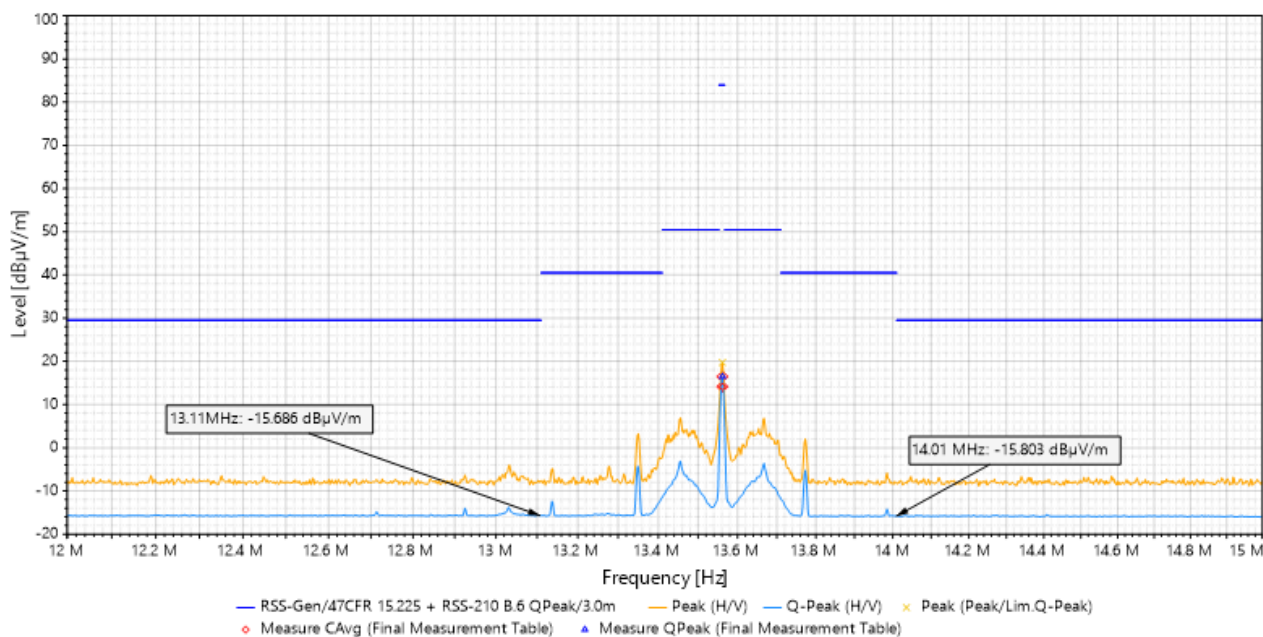
Operating mode	1
Axis	X
Verdict.....	Pass
Instrument settings	Start Frequency: 12 MHz; Stop Frequency: 15 MHz; Step: 2.25 kHz; Sweep Time: 1 s/Step; RF Attenuation: Auto; RBW: 9 kHz; VBW: Auto; Preamplifier: OFF; Preselector: ON



Final Measurement Table

Frequency	Measure CAvg (dBμV/m)	Measure QPeak (dBμV/m)	Limit QPeak (dBμV/m)	Margin QPeak	Angle (°)	RBW (Hz)	Meas.Time (s)	Comments	Correction (dB)
13.562 MHz	7.16	9.48	84	-74.52	239.9	9 kHz	5	Pass	-19.72

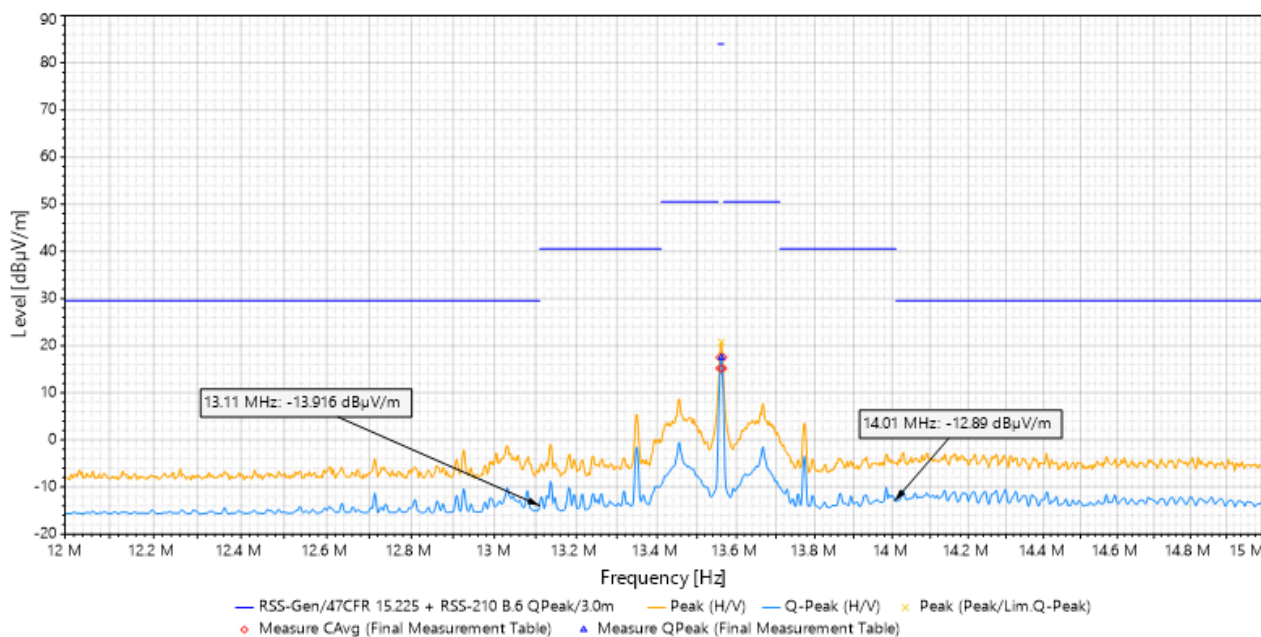
Operating mode	1
Axis	Y
Verdict.....	Pass
Instrument settings	Start Frequency: 12 MHz; Stop Frequency: 15 MHz; Step: 2.25 kHz; Sweep Time: 1 s/Step; RF Attenuation: Auto; RBW: 9 kHz; VBW: Auto; Preamplifier: OFF; Preselector: ON



Final Measurement Table

Frequency	Measure CAvg (dBμV/m)	Measure QPeak (dBμV/m)	Limit QPeak (dBμV/m)	Margin QPeak	Angle (°)	RBW (Hz)	Meas.Time (s)	Comments	Correction (dB)
13.562 MHz	14.15	16.48	84	-67.52	299.9	9 kHz	5	Pass	-19.72

Operating mode	1
Axis	Z
Verdict	Pass
Instrument settings	Start Frequency: 12 MHz; Stop Frequency: 15 MHz; Step: 2.25 kHz; Sweep Time: 1 s/Step; RF Attenuation: Auto; RBW: 9 kHz; VBW: Auto; Preamplifier: OFF; Preselector: ON



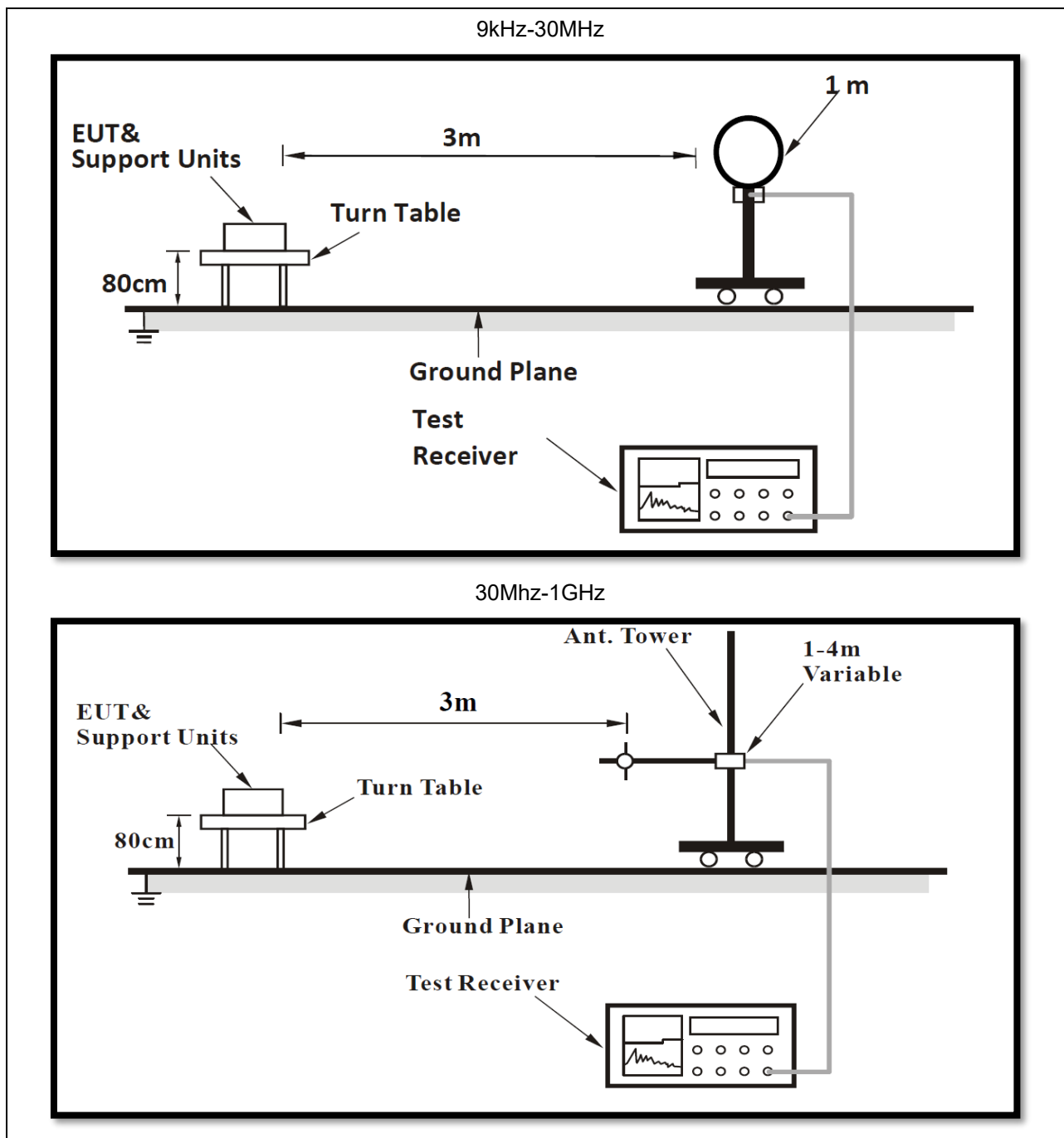
Final Measurement Table

Frequency	Measure CAvg (dBμV/m)	Measure QPeak (dBμV/m)	Limit QPeak (dBμV/m)	Margin QPeak	Angle (°)	RBW (Hz)	Meas.Time (s)	Comments	Correction (dB)
13.562 MHz	15.18	17.51	84	-66.49	329.9	9 kHz	5	Pass	-19.72

4.4 Transmitter Radiated Emissions

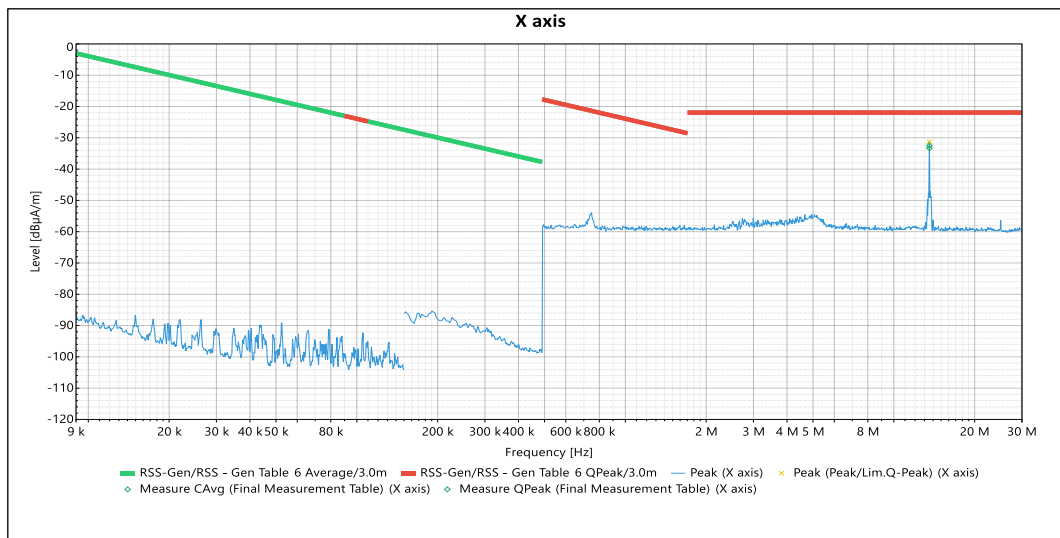
Tested by:	Matteo Borghesi	
Test date:	2025-07-16	
Test location (stand):	Area 8: SAC 3-1.2 (RF emission)	
Ambient temperature:	23 °C	
Relative humidity:	57 %	
Atmospheric pressure:	996 mbar	
FCC Reference:	Part 15.225(b)(c)(d), 15.209	
ISED Canada Reference:	RSS-210 B.6	
Test method:	ANSI C63.10, §6.3, 6.4, 6.5	
Setup used:	☒	OATS or SAC with measurement distance [m]: 3
	☐	FAR CISPR 16-2-3 with measurement distance [m]: 3
	☐	FAR IEC 61000-4-22 with measurement distance [m]: 3
	☐	TEM Waveguide according IEC 61000-4-20
	☐	FSOATS with measurement distance [m]: 3
	☐	Climatic chamber
Supplementary test set-up description:	---	
Used mains voltage/frequency:	120 V; 60 Hz	
Supplementary information:	<p><u>For 9kHz-30MHz frequency range only</u></p> <p>According to FCC KDB "414788 D01 Radiated Test Site v01r01", an alternative test site was used (semi-anechoic chamber at 3 m distance). Measurement was corrected by a correction factor calculated according to the internal procedure "TPMC40".</p> <p>Exclusion band applied: 13.110-14.010 MHz.</p>	

Block diagram



Results

Operating mode	1
Axis	X
Verdict.....	Pass
Instrument settings	Start Frequency: 9 kHz; Stop Frequency: 150 kHz; Step: 50 Hz; Sweep Time: 500 ms/Step; RF Attenuation: 0 dB; 10 dB min attenuation: ; RBW: 200 Hz; Preamp: OFF; Preselector: ON

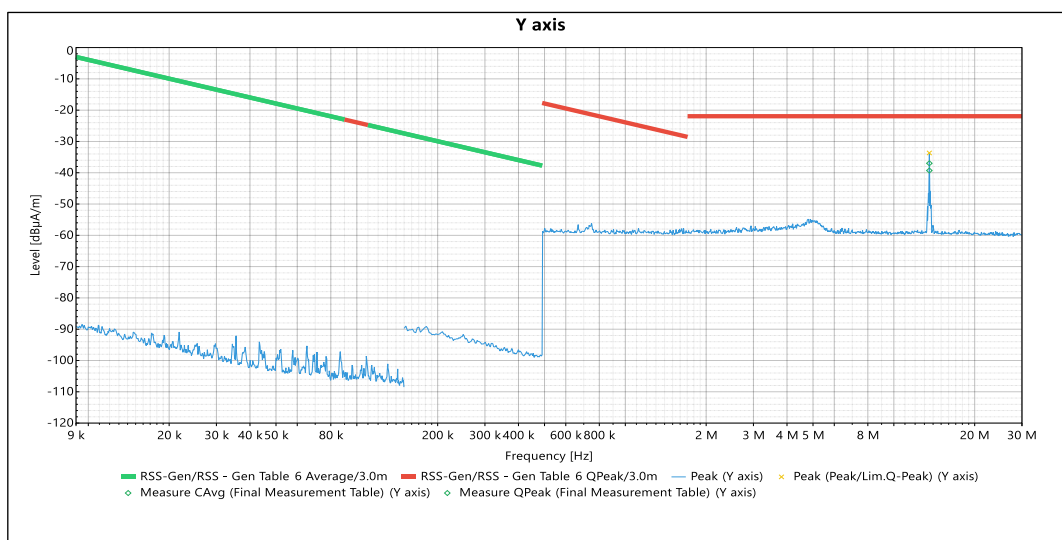


- ☐ The emissions are below the measurement system noise floor or 20 dB or more below the limit
- ☒ Final measurements for emissions that are above -20 dB from the applicable limits are shown below (at least 6 worst frequencies):

Final Measurement Table

Frequency	Measure CAvg (dBμA/m)	Limit Avg (dBμA/m)	Measure QPeak (dBμA/m)	Limit QPeak (dBμA/m)	Margin QPeak	Angle (°)	RBW (Hz)	Meas.Time (s)	Comments	Correction (dB)
13.56 MHz	-33.31	NaN	-32.5	-21.94	-10.56	29.9	9 kHz	5	Pass	-71.24

Operating mode	1
Axis	Y
Verdict.....	Pass
Instrument settings	Start Frequency: 9 kHz; Stop Frequency: 150 kHz; Step: 50 Hz; Sweep Time: 500 ms/Step; RF Attenuation: 0 dB; 10 dB min attenuation: ; RBW: 200 Hz; Preamplifier: OFF; Preselector: ON

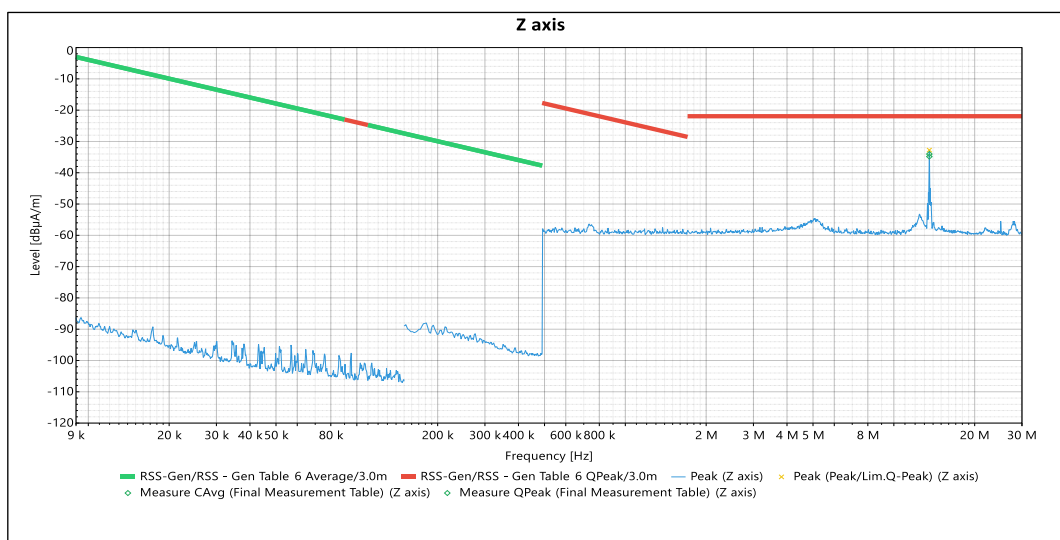


- ☐ The emissions are below the measurement system noise floor or 20 dB or more below the limit
- ☒ Final measurements for emissions that are above -20 dB from the applicable limits are shown below (at least 6 worst frequencies):

Final Measurement Table

Frequency	Measure CAvg (dBμA/m)	Limit Avg (dBμA/m)	Measure QPeak (dBμA/m)	Limit QPeak (dBμA/m)	Margin QPeak	Angle (°)	RBW (Hz)	Meas.Time (s)	Comments	Correction (dB)
13.56 MHz	-39.29	NaN	-36.98	-21.94	-15.04	269.9	9 kHz	5	Pass	-71.24

Operating mode	1
Axis	Z
Verdict.....	Pass
Instrument settings	Start Frequency: 9 kHz; Stop Frequency: 150 kHz; Step: 50 Hz; Sweep Time: 500 ms/Step; RF Attenuation: 0 dB; 10 dB min attenuation: ; RBW: 200 Hz; Preamplifier: OFF; Preselector: ON

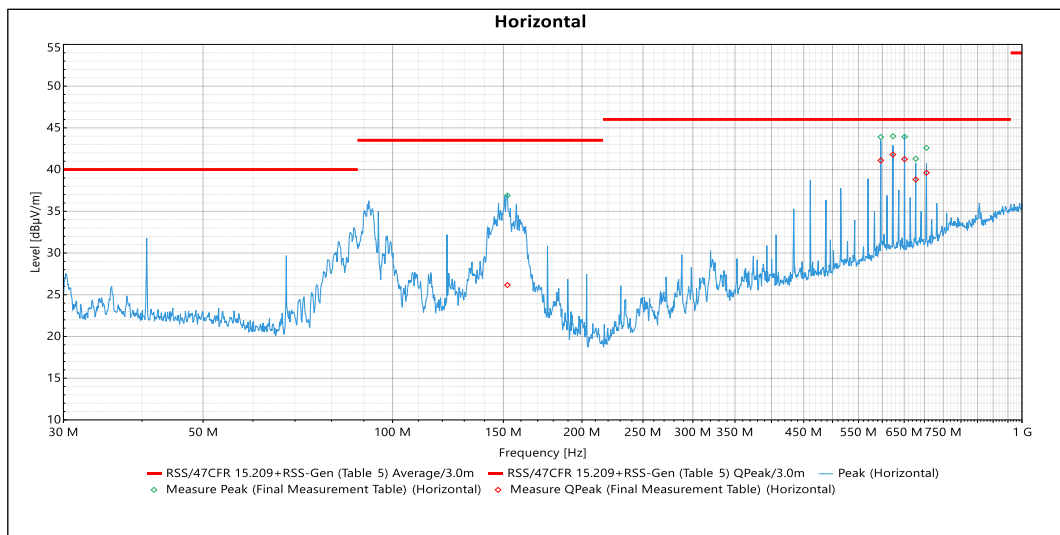
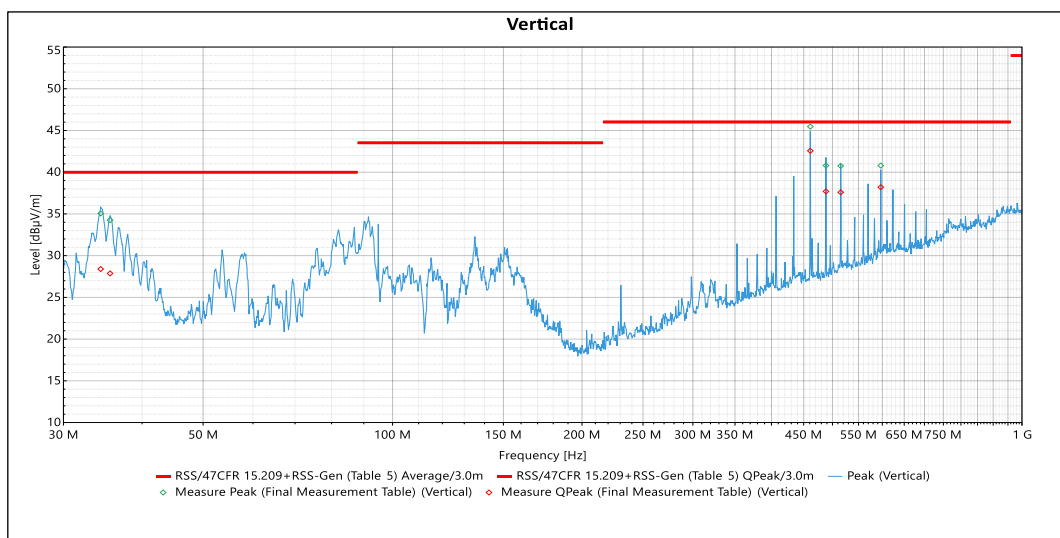


- ☐ The emissions are below the measurement system noise floor or 20 dB or more below the limit
- ☒ Final measurements for emissions that are above -20 dB from the applicable limits are shown below (at least 6 worst frequencies):

Final Measurement Table

Frequency	Measure CAvg (dBμA/m)	Limit Avg (dBμA/m)	Measure QPeak (dBμA/m)	Limit QPeak (dBμA/m)	Margin QPeak	Angle (°)	RBW (Hz)	Meas.Time (s)	Comments	Correction (dB)
13.56 MHz	-34.84	NaN	-34.03	-21.94	-12.09	0.1	9 kHz	5	Pass	-71.24

Operating mode	1
Verdict	Pass
Instrument settings	Start Frequency: 30 MHz; Stop Frequency: 1 GHz; Step: 30 kHz; Sweep Time: 20 ms/Step; RF Attenuation: Auto; RBW: 120 kHz; VBW: Auto; Preamplifier: ON; Preselector: ON



☐ The emissions are below the measurement system noise floor or 20 dB or more below the limit

☒ Final measurements for emissions that are above -20 dB from the applicable limits are shown below (at least 6 worst frequencies):

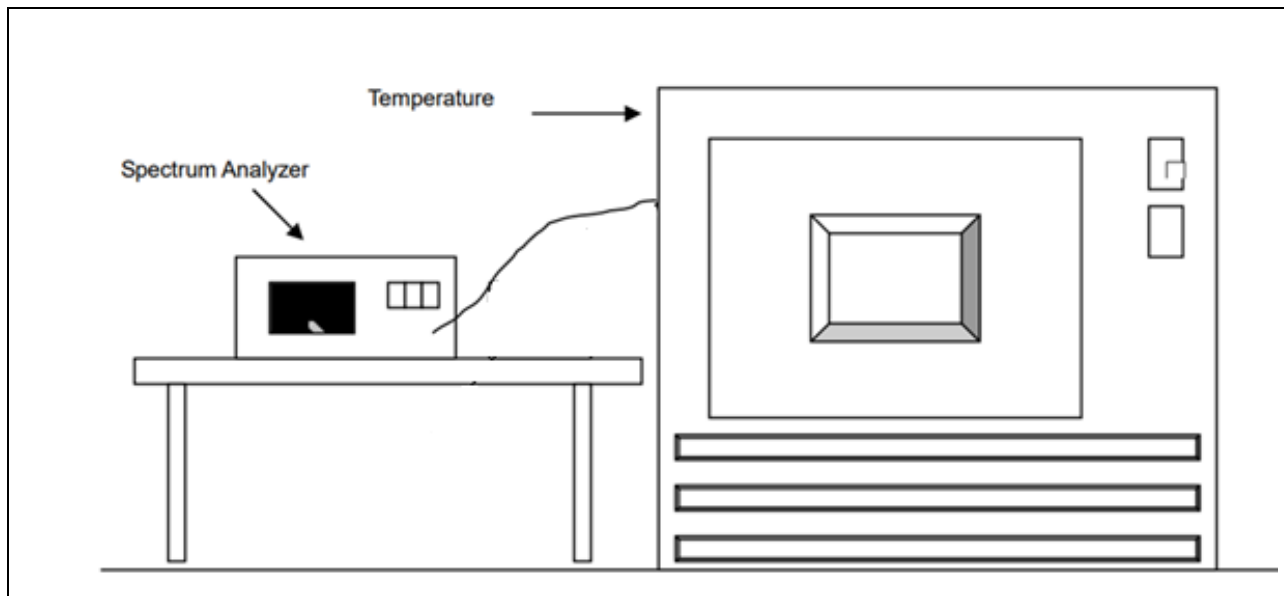
Final Measurement Table

Frequency	Measure Peak (dBμV/m)	Measure QPeak (dBμV/m)	Limit QPeak (dBμV/m)	Margin QPeak (dB)	Max height (m)	Max angle (°)	Polarization	RBW (kHz)	Meas.Time (s)	Comments	Correction (dB)
152.25 MHz	36.89	26.16	43.52	-17.36	2.16	195.4	Horizontal	120	5	Pass	20.15
596.64 MHz	43.9	41.1	46.02	-4.92	2.38	183.1	Horizontal	120	5	Pass	27.66
623.76 MHz	44	41.79	46.02	-4.23	1.97	176.5	Horizontal	120	5	Pass	28.14
650.88 MHz	43.94	41.25	46.02	-4.77	1.19	197	Horizontal	120	5	Pass	28.27
678 MHz	41.3	38.81	46.02	-7.21	1.01	236.5	Horizontal	120	5	Pass	28.57
705.12 MHz	42.6	39.62	46.02	-6.4	1.87	221.8	Horizontal	120	5	Pass	29.39
34.38 MHz	35.06	28.39	40	-11.61	1.01	135	Vertical	120	5	Pass	18.66
35.58 MHz	34.26	27.87	40	-12.13	1.07	79.3	Vertical	120	5	Pass	18.81
461.04 MHz	45.46	42.56	46.02	-3.46	1.06	290.2	Vertical	120	5	Pass	24.92
488.16 MHz	40.8	37.7	46.02	-8.32	1.39	294.7	Vertical	120	5	Pass	25.11
515.28 MHz	40.76	37.59	46.02	-8.43	1.22	290	Vertical	120	5	Pass	25.85
596.64 MHz	40.79	38.21	46.02	-7.81	1.01	269.9	Vertical	120	5	Pass	27.66

4.5 Trasmitter Frequency Stability

Tested by:	Matteo Borghesi
Test date:	2025-07-18
Test location (stand):	Laboratory
Ambient temperature:	See measurement table
Relative humidity:	59 %
Atmospheric pressure:	992 mbar
FCC Reference:	Part 15.225(e)
ISED Canada Reference:	RSS-210 B.6
Test method:	ANSI C63.10, §6.8.1, 6.8.2
Setup used:	☐ OATS or SAC with measurement distance [m]: 3
	☐ FAR CISPR 16-2-3 with measurement distance [m]: 3
	☐ FAR IEC 61000-4-22 with measurement distance [m]: 3
	☐ TEM Waveguide according IEC 61000-4-20
	☐ FSOATS with measurement distance [m]: 3
	☒ Climatic chamber
Supplementary test set-up description:	---
Used mains voltage/frequency:	120 V; 60 Hz (nominal power supply)
Supplementary information:	<p>The applicant's declared operating frequency 13.56 MHz was used as reference frequency</p> <p>The applicant's declared the nominal power supply of 120 V; 60 Hz</p>

Block diagram



Final measurements table:

Extreme Temperature (°C)	Time After EUT power up	Measured Frequency (MHz)	Frequency error		Frequency error limits		Verdict
			%	ppm	%	ppm	
50	At 0 minutes	13.56080256	-0.000059185841	-59.1858	±0.01	±100	Pass
	At 2 minutes	13.56080110	-0.000059078171	-59.0782	±0.01	±100	Pass
	At 5 minutes	13.56080276	-0.000059200590	-59.2006	±0.01	±100	Pass
	At 10 minutes	13.56080170	-0.000059122419	-59.1224	±0.01	±100	Pass
40	At 0 minutes	13.56079823	-0.000058866519	-58.8665	±0.01	±100	Pass
	At 2 minutes	13.56079970	-0.000058974926	-58.9749	±0.01	±100	Pass
	At 5 minutes	13.56079803	-0.000058851770	-58.8518	±0.01	±100	Pass
	At 10 minutes	13.56079683	-0.000058763274	-58.7633	±0.01	±100	Pass
30	At 0 minutes	13.56079743	-0.000058807522	-58.8075	±0.01	±100	Pass
	At 2 minutes	13.56079736	-0.000058802360	-58.8024	±0.01	±100	Pass
	At 5 minutes	13.56079930	-0.000058945428	-58.9454	±0.01	±100	Pass
	At 10 minutes	13.56799300	-0.000589454277	-589.454	±0.01	±100	Pass
20	At 0 minutes	13.56090363	-0.000066639381	-66.6394	±0.01	±100	Pass
	At 2 minutes	13.56080770	-0.000059564897	-59.5649	±0.01	±100	Pass
	At 5 minutes	13.56081136	-0.000059834808	-59.8348	±0.01	±100	Pass
	At 10 minutes	13.56081423	-0.000060046460	-60.0465	±0.01	±100	Pass
10	At 0 minutes	13.56082210	-0.000060626844	-60.6268	±0.01	±100	Pass
	At 2 minutes	13.56082510	-0.000060848083	-60.8481	±0.01	±100	Pass
	At 5 minutes	13.56082883	-0.000061123156	-61.1232	±0.01	±100	Pass
	At 10 minutes	13.56083030	-0.000061231563	-61.2316	±0.01	±100	Pass
0	At 0 minutes	13.56083723	-0.000061742625	-61.7426	±0.01	±100	Pass
	At 2 minutes	13.56083890	-0.000061865782	-61.8658	±0.01	±100	Pass
	At 5 minutes	13.56083830	-0.000061821534	-61.8215	±0.01	±100	Pass
	At 10 minutes	13.56083496	-0.000061575221	-61.5752	±0.01	±100	Pass
-10	At 0 minutes	13.56083516	-0.000061589971	-61.59	±0.01	±100	Pass
	At 2 minutes	13.56083483	-0.000061565634	-61.5656	±0.01	±100	Pass
	At 5 minutes	13.56083276	-0.000061412979	-61.413	±0.01	±100	Pass
	At 10 minutes	13.56083136	-0.000061309735	-61.3097	±0.01	±100	Pass
-20	At 0 minutes	13.56080970	-0.000059712389	-59.7124	±0.01	±100	Pass
	At 2 minutes	13.56080770	-0.000059564897	-59.5649	±0.01	±100	Pass
	At 5 minutes	13.56080296	-0.000059215339	-59.2153	±0.01	±100	Pass
	At 10 minutes	13.56080036	-0.000059023599	-59.0236	±0.01	±100	Pass

Extreme Voltage Conditions	Extreme Voltage (V)	Measured Frequency (MHz)	Frequency error		Frequency error limits		Results
			%	ppm	%	ppm	
V _{nom} - 15 %	102	13.56080736	-0.000059539823	-59.5398	±0.01	±100	Pass
V _{nom}	120	13.56080750	-0.000059550147	-59.5501	±0.01	±100	Pass
V _{nom} + 15 %	138	13.56080736	-0.000059539823	-59.5398	±0.01	±100	Pass

5 List of test equipment

Equipment	Type	Inventory Number	Manufacturer	Serial Number	Last Calibration Date	Calibration Due Date
Test Stand: AC conducted emission						
Line Impedance Stabilization Network 3PH32A	ENV432	154695	Rohde & Schwarz	101335	2025-01-09	2026-01-28
Shielded Room 2 RF Emission	SR2	210412	ETS-Lindgren	-	-	-
EMI TEST RECEIVER	ESR7	82570	Rohde & Schwarz (Koeln) GmbH & Co. KG	-	2025-05-06	2025-09-28
3m coaxial cable	3m N(m)-N(m) Highflexx 7	259764	Kabel Kusch	None	2025-03-24	2026-03-28
Software - EMC	BAT-EMC	156535	Nexio Technologies		-	-
Test Stand: radiated spurious emission 9 kHz – 30 MHz, Transmitter 20 dB Bandwidth, Transmitter 99% Emission Bandwidth, Transmitter Fundamental Field Strenght & Spectrum Mask						
12m N(m)-N(m) RF cable	Hyperflex 5 12m	248398	Kabel Kusch	None	2025-05-23	2026-05-28
Active Loop Antenna	HLA 6121	155933	Teseq, Inc	45746	2025-02-14	2027-02-28
Center, Modular RF Platform	7000-011	210859	ETS-Lindgren	00231682	-	-
DC Power Injector	PI 6121	155980	Teseq, Inc	-	-	-
Antenna Tripod	CTP 6099	155934	Teseq, Inc	-	-	-
EMI TEST RECEIVER	ESW26	207263	Rohde & Schwarz (Koeln) GmbH & Co. KG	101512	2025-05-09	2026-05-28
SEMI-ANECHOIC CHAMBER	FACT3-1.2 STD	210407	ETS-Lindgren	-	-	-
Software - EMC	BAT-EMC	156535	Nexio Technologies		-	-
Test Stand: radiated spurious emission 30 MHz – 1000 MHz						
Cable 2000mm - 18 GHz	SF126/11SMA/11N/2000	220503	Huber+Suhner	554756/126	2025-05-28	2026-05-28
Cable 8000mm - 18 GHz	SF126/11N/11N/8000	220502	Huber+Suhner	556226/126	2025-05-28	2026-05-28
6dB Attenuator	DGA 9552 N	210263	Schwarzbeck Mess-Elektronik OHG	CH9006	2024-09-05	2025-09-28
Trilog-Broadband Antenna	VULB 9168	210290	Schwarzbeck Mess-Elektronik OHG	12441244	2023-08-25	2025-08-28
SEMI-ANECHOIC CHAMBER	FACT3-1.2 STD	210407	ETS-Lindgren	-	-	-
NSA Normalized Site Attenuation	NSA FACT3-1.2 STD	210410	ETS-Lindgren	-	2025-04-28	2025-08-28
Tilting Antenna Mast Positioning Tower	2171B/2170B	135821	ETS-Lindgren (Cedar Park, Texas)	-	-	-
Center, Modular RF Platform	7000-011	210859	ETS-Lindgren	00231682	-	-
EMI TEST RECEIVER	ESW26	246431	Rohde & Schwarz (Koeln) GmbH & Co. KG	103182	2025-03-31	2026-01-28
Software - EMC	BAT-EMC	156535	Nexio Technologies		-	-

Test Stand: Transmitter Frequency Stability						
Climatic Chamber	SH-642	218136	Espec	93018522	2025-06-03	2026-06-28
SET OF FIELD SENSORS	HZ 11	37347	Rohde & Schwarz (Koeln) GmbH & Co. KG	816.2770.0	-	-
EMI TEST RECEIVER	ESW26	246431	Rohde & Schwarz (Koeln) GmbH & Co. KG	103182	2025-03-31	2026-01-28
RF CABLES	LMR-240	175758	TIMES MICROWAVE SYSTEMS	None	2025-02-14	2026-02-28
Test Stand: Auxiliary						
Mini Datalogger (FACT3)	174H	211147	Testo	83306371	2024-10-25	2025-10-28
Mini Datalogger (SR2)	174H	211146	Testo	83293175	2024-10-25	2025-10-28
TRUE-RMS DIGITAL MULTIMETER	289	223467	Fluke Corporation	59040084	2023-09-06	2025-09-28
Laser Measure	RSLDM-50H	224436	RS Pro	210743764	2023-11-10	2025-11-28
CLIMATIC CENTRAL UNIT (SRs side)	iBTHX-W	70614	Omega Engineering Inc.	1040496	2025-04-28	2026-04-28
Frequency Converter (60 Hz)	FWW-SFUP 40kVA	37730	GUSTAV KLEIN	-	-	-
Isolated voltage variac (60 Hz)	T40NC-6	80699	BELOTTI VARIATORI	-	-	-
CLIMATIC CENTRAL UNIT (SACs side)	iBTHX-W	70611	Omega Engineering Inc.	1040495	2025-04-28	2026-04-28

6 Measurement instrumentation uncertainties

The Uncertainty of Measurement (UoM) for each unit measured in this Test Report was estimated in accordance with the UL International Italia document No. 23-CL-G0025 and is retained on file. Details of the estimation of UoM may be made available upon request, in particular for quantities not listed.

Measurement	Range	Ulab	Unit
Frequency	9 kHz to 40 GHz	0.5	kHz
Time	0.7 μ s to 16000 s	3.00	%
Conducted power, by spectrum analyzer	9 kHz to 40 GHz	0.51	dB
Conducted power, by fast power meter	9 kHz to 8 GHz	0.49	dB
Temperature (ambient)	15 to 35 °C	0.72	°C
Temperature (climatic chamber)	-40 to 100 °C	1.63	°C
Humidity (ambient)	30 to 70 %	5.76	%RH
Humidity (climatic chamber)	30 to 95 %	3.95	%RH
Supply voltage (AC)	0 to 500 V	3.00	%
Supply voltage (DC)	0 to 15 V	0.28	%
Conducted disturbance at mains and other port power using V-AMN	9 kHz to 150 kHz	3.71	dB
Conducted disturbance at mains and other port power using V-AMN	150 kHz to 30 MHz	3.36	dB
Radiated disturbance (magnetic field using a loop antenna)	9 kHz to 30 MHz	3.16	dB
Radiated disturbance (electric field strength in SAC 3, hybrid antenna, Hor)	30 MHz to 1000 MHz	4.22	dB
Radiated disturbance (electric field strength in SAC 3, hybrid antenna, Ver)	30 MHz to 1000 MHz	5.64	dB
Radiated disturbance (electric field strength in SAC 5, hybrid antenna, Hor)	30 MHz to 1000 MHz	3.98	dB
Radiated disturbance (electric field strength in SAC 5, hybrid antenna, Ver)	30 MHz to 1000 MHz	5.66	dB
Radiated disturbance (electric field strength in FSOATS 3) (1)	1 GHz to 6 GHz	5.43	dB
Radiated disturbance (electric field strength in FSOATS 3) (2)	1 GHz to 6 GHz	4.29	dB
Radiated disturbance (electric field strength in FSOATS 3) (1)	6 GHz to 18 GHz	5.18	dB
Radiated disturbance (electric field strength in FSOATS 3) (2)	6 GHz to 18 GHz	4.22	dB
Radiated disturbance (electric field strength in FSOATS 5) (1)	1 GHz to 6 GHz	5.12	dB
Radiated disturbance (electric field strength in FSOATS 5) (2)	1 GHz to 6 GHz	4.13	dB
Radiated disturbance (electric field strength in FSOATS 5) (1)	6 GHz to 18 GHz	5.63	dB
Radiated disturbance (electric field strength in FSOATS 5) (2)	6 GHz to 18 GHz	4.54	dB
Radiated disturbance (electric field strength in FSOATS 3) (1)	18 GHz to 40 GHz	7.63	dB
Radiated disturbance (electric field strength in FSOATS 5) (1)	18 GHz to 40 GHz	7.63	dB
Radiated Spurious Emission (ERP/EIRP, Substitution Method)	25 MHz to 26 GHz	5.97	dB
Legend/Remarks: n.d.: not defined (1) Using external EMI preamplifier. (2) Not using external EMI preamplifier. Supplementary information: - The measurement uncertainty values are calculated and correspond to an expansion factor (coverage factor) $k = 2$ (which provide confidence level of 95.45 % in the case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian)). - Listed values are intended with prefix " $\pm$ ".			

< END OF TEST REPORT >

Attachment 1: Critical Component List (*)

(section excluded from ILAC regulations)

Not provided by the Applicant or Not Applicable.

< END OF ATTACHMENT 1 >



Attachment 2: Product Identity Declaration / Model Variants (*)

(section excluded from ILAC regulations)

Not provided by the Applicant or Not Applicable.

< END OF ATTACHMENT 2 >



Attachment 3: Opinions and Interpretations

(section excluded from ILAC regulations)

Not Applicable.

< END OF ATTACHMENT 3 >