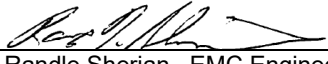




BUREAU
VERITAS

Test Report

Report No	DAN011322-2
Client Contact	Novanta Daniel Ratner
Address	125 Middlesex Turnpike Bedford, MA 01730
Phone	N/a
Items tested FCC ID IC PMN Model/HVIN Equipment Code Part Number	13.56 MHz RFID Module 2AAVI-M1MINI 11355A-M1MINI M1-Mini M1-Mini RFID ASSY-00038
FCC/IC Rule Parts	CFR Title 47 FCC Part 15.225, ISSED Canada RSS-210 Issue 10 Annex B.6
Test Dates	2/8/2022 to 2/14/2022
Results	As detailed within this report
Prepared by	 Randle Sherian- EMC Engineer
Authorized by	 Ryan M. Brown – Sr. Engineer
Issue Date	<u>5/1/2022</u>
FCC Site Number ISED CAB	US1028 US0106
Conditions of Issue	This Test Report is issued subject to the conditions stated in the 'Conditions of Testing' section on page 32 of this report.

Bureau Veritas is accredited by the American Association for Laboratory Accreditation for the specific scope of accreditation under Certificate Number 1627-01. This report may contain data which is not covered by the A2LA accreditation.



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page 1 of 23

Contents

Contents	2
Summary and Test Methodology	3
Product Tested - Configuration Documentation	6
Summary of Results	7
Modifications Required for Compliance.....	7
Test Results	8
<i>Fundamental and Emissions Mask</i>	8
99% Occupied Bandwidth.....	9
<i>Radiated Spurious Emissions</i>	10
<i>Temperature Stability</i>	13
<i>AC Line Conducted Emissions</i>	14
Measurement Uncertainty	21
Conditions of Testing.....	22

Form Final Report REV 12-07-15



Summary and Test Methodology

This test report supports an application for certification of a transmitter operating pursuant to: CFR Title 47 FCC Part 15.225, ISED Canada RSS-210 Issue 10 Annex B.6

The M1-Mini is a multi-protocol RFID read/write module for use with most industry standard 13.56 megahertz (MHz) RFID tags and smart labels.

All testing was performed in accordance with ANSI C63.10 2013. The EUT was evaluated in the x, y, and z plane with the loop antenna in Parallel, Perpendicular, and parallel to the ground positions to determine worst case for radiated emission. The worst case plane was y-plane and with the loop antenna in perpendicular position. The worst case results were recorded.

We found that the product met the above requirements with no modifications. Test sample was received in good condition.

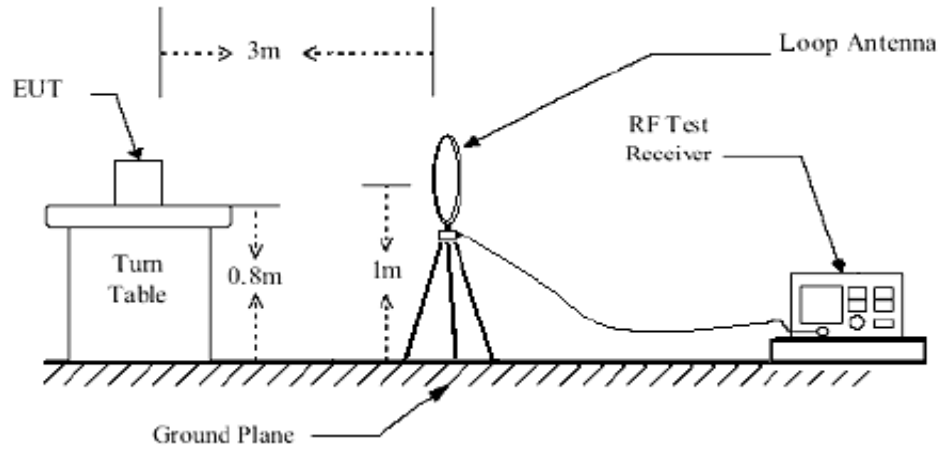
The environmental conditions during testing are documented on the associated data tables. Following bandwidths were used during emissions testing.

Frequency	RBW	VBW
9kHz-150kHz	200Hz	1kHz
150kHz-30MHz	9kHz	30kHz
30MHz-1GHz	120kHz	1MHz

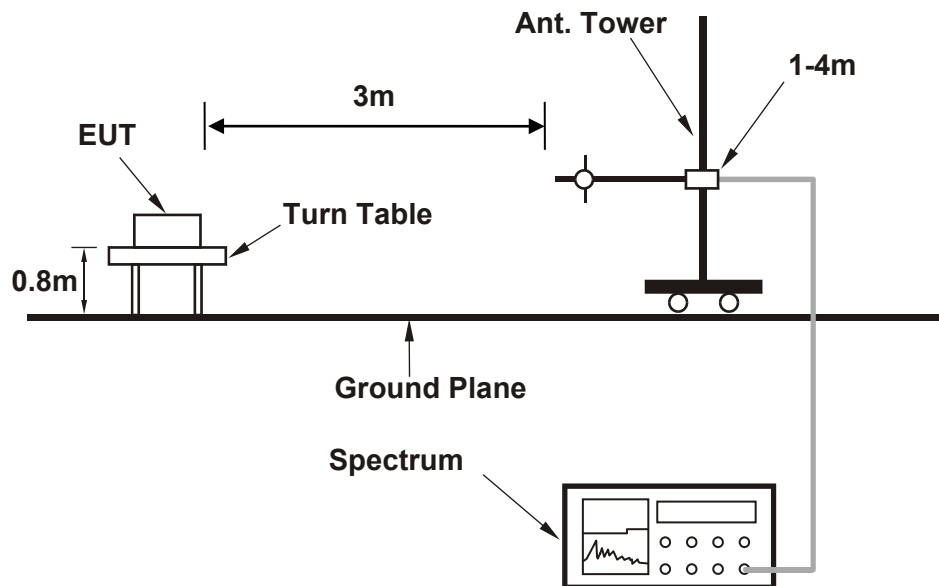
The limits in CFR 47, Part 15, Subpart C, paragraph 15.209 (a), are identical to those in RSS-GEN Section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377Ω .

Spurious Emissions was performed in a Semi-Aniconic Chamber EUT was rotated 360 degrees. For measurements at and above above 30MHz, the measurement antenna was raised and lowered from 1-4 Meters.

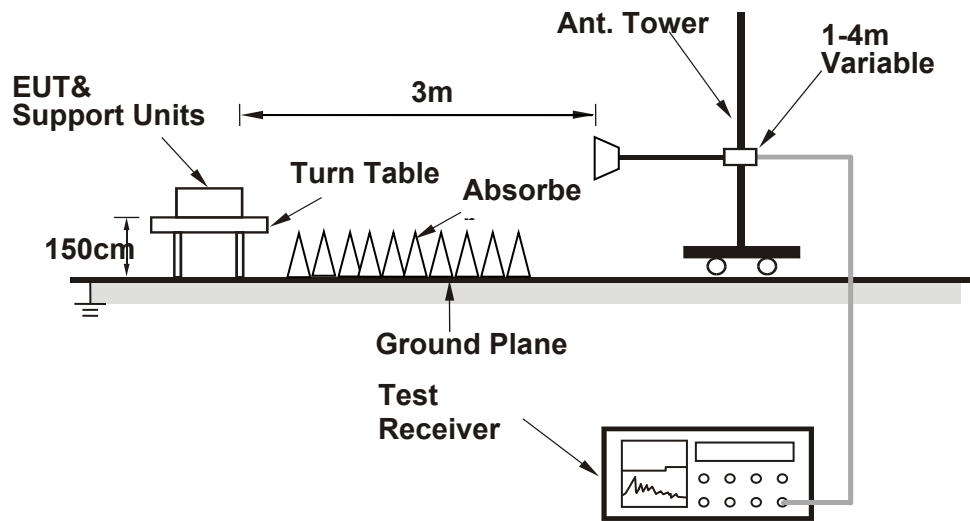
Below 30MHz test setup



Below 1GHz test setup



Above 1GHz test setup



Product Tested - Configuration Documentation

EUT Configuration	
Work Order:	DAN011322-2
Company:	Novanta
Company Address:	125 Middlesex Turnpike
	Bedford, MA 01730
Contact:	Dan Ratner
	SN
EUT:	Serial Number 1026 (Radiated and AC Mains Tx), Serial Number 1029 (AC Mains Transmitter Terminated in Load)
EUT Description:	RFID Module
EUT Max Frequency:	13.56 MHz
EUT Min Frequency:	13.56 MHz

	RFID
Operating Frequency	13.56 MHz
Modulation	BPSK

Summary of Results

The EUT complied with the following requirements:

RSS-GEN	RSS 210	Part 15	Results	Comments
		15.27	Pass	No special accessories are required for compliance.
3		15.31	Pass	The EUT was tested in accordance with the measurement standards in this section.
6.13		15.33	Pass	Frequency range was investigated according to this section, unless noted in specific rule section under which the equipment operates.
8.1		15.35	Pass	The EUT emissions were measured using the measurement detector and bandwidth specified in this section, unless noted in specific rule section under which the equipment operates.
8.3		15.203	Pass	EUT has an integral loop antenna
8.10		15.209	Pass	The fundamental is not in a Restricted band.
8.8		15.207	Pass	EUT meets the AC Line conducted emissions requirements of this section.
		15.225	Pass	The unit complies with the requirements of 15.225
	Annex B.6		Pass	The unit complies with the requirements of RSS-210 Annex B.6
6.7			Pass	Occupied Bandwidth measurements were made. No limits applicable.

Modifications Required for Compliance

No modifications were required to achieve compliance.

Test Results

Fundamental and Emissions Mask

- The field strength of any emissions within the band 13.553-13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.
- Within the bands 13.410-13.553 MHz and 13.567-13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.
- Within the bands 13.110-13.410 MHz and 13.710-14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.

Conversion formulas used:

$$3m \text{ Distance} = (dBuV/m@30m) + 40\log(30/3)$$

$$\text{Margin} = \text{Reading} - \text{Preamp} + \text{Antenna Factor} + \text{Cable Factor} - \text{Limit}$$

MEASUREMENTS / RESULTS

Radiated Emissions Table												
Date: 8-Feb-22			Company: Novanta				Work Order: Dano11322					
Engineer: Randle Sherian			EUT Desc:				EUT Operating Voltage/Frequency: 5VDC					
Temp: 21 deg. C			Humidity: 31% rh				Pressure: 1003mb					
Frequency Range: 10MHz to 1GHz							Measurement Distance: 3 m					
Notes:							EUT Max Freq: 13.56MHz					
Antenna Polarization	Frequency	Reading	Preamp Factor	Antenna Factor	Cable Factor	Adjusted Reading	FCC/ISED Limits			Limit	Margin	Result
							Limit	Margin	Result			
	(MHz)	(dBµV)	(dB)	(dB/m)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	(Pass/Fail)	(dBµA/m)	(dB)	(Pass/Fail)
Perpendicular y	13.56	54.7	32.0	38.9	0.3	61.9	124.0	-62.1	Pass	---	---	---
Perpendicular y	13.553	43.7	32.0	38.9	0.3	50.9	90.5	-39.6	Pass	---	---	---
Perpendicular y	13.567	39.3	32.0	38.9	0.3	46.5	90.5	-44.0	Pass	---	---	---
Perpendicular y	13.41	18.3	32.0	38.9	0.3	25.5	80.5	-55.0	Pass	---	---	---
Perpendicular v	13.71	18.0	32.0	38.9	0.3	25.2	80.5	-55.3	Pass	---	---	---

See Radiated Emissions Section for Pre-Scans

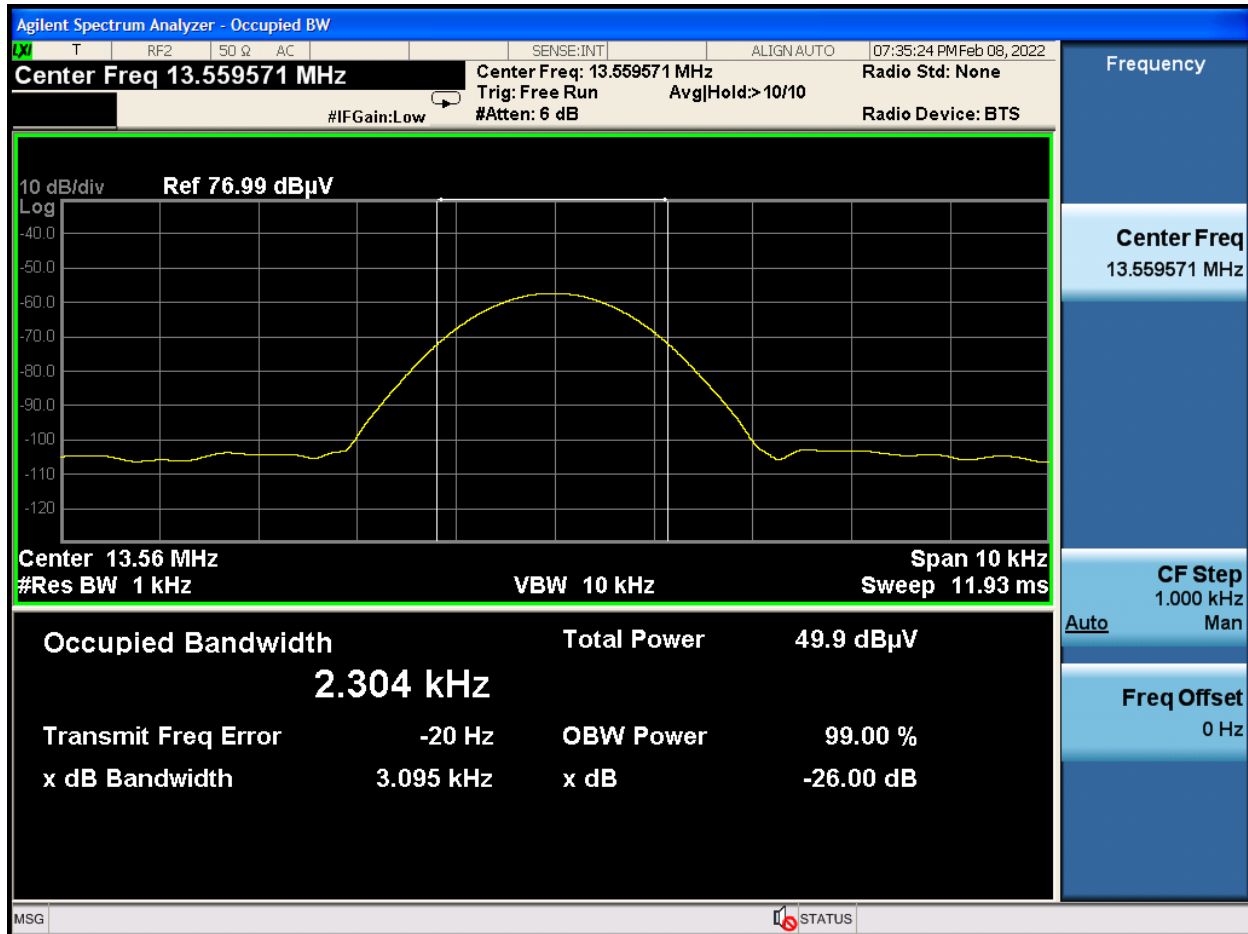
99% Occupied Bandwidth

REQUIREMENT

When an occupied bandwidth is not specified in the applicable RSS, the transmitted signal bandwidth to be reported is its 99% emission bandwidth, as calculated or measured.
[RSS-GEN 6.7] Measurement uses Peak Detector.

Results

99% Occupied bandwidth was measured to be 2.304kHz.



Note: The measured signal is CW. Therefore, adjusting the RBW per ANSI C63.10 would not be practical since the measured bandwidth will always follow the RBW and result will be approximately twice the RBW.

Radiated Spurious Emissions

The field strength of any emissions appearing outside of the 13.110-14.010 MHz band shall not exceed the general radiated emission limits in §15.209 and RSS-Gen.

Conversion Formulas

$$\text{dBuA} = \text{dBuV/m} - 51.5$$

FCC Calculations:

$$\text{Margin} = \text{Reading} - \text{Preamp} + \text{Antenna Factor} + \text{Cable Factor} - \text{Limit}$$

ISED Calculations

$$\text{Margin} = \text{Reading} - \text{Preamp} + \text{Antenna Factor} + \text{Cable Factor} - 51.5 - \text{Limit}$$

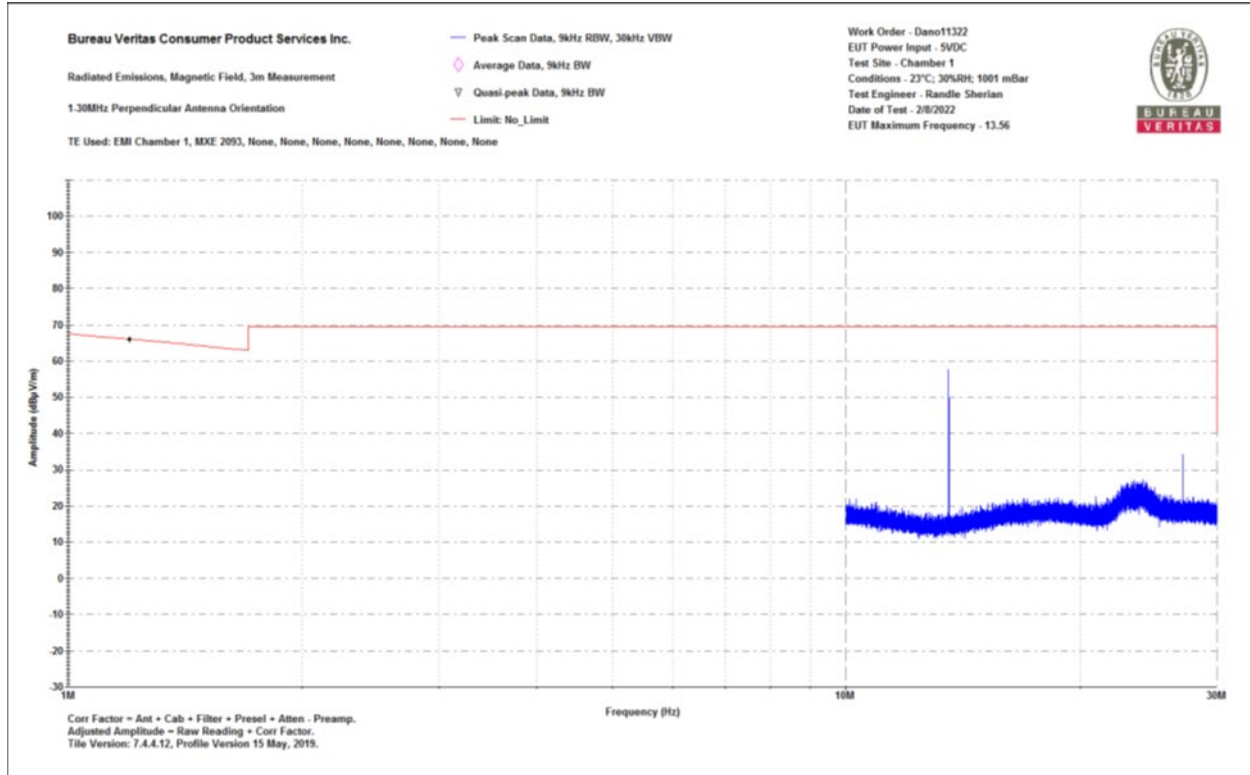
MEASUREMENTS / RESULTS

Radiated Emissions Table												
Date: 8-Feb-22			Company: Novanta				Work Order: Dano11322					
Engineer: Randle Sherian			EUT Desc:				EUT Operating Voltage/Frequency: 5VDC					
Temp: 21 deg. C			Humidity: 31% rh				Pressure: 1003mb					
Frequency Range: 10MHz to 1GHz							Measurement Distance: 3 m					
Notes:							EUT Max Freq: 13.56MHz					
Antenna Polarization	Frequency (MHz)	Reading (dBuV)	Preamp Factor (dB)	Antenna Factor (dB/m)	Cable Factor (dB)	Adjusted Reading (dBuV/m)	FCC/ISED Limits			ISED Limits		
							Limit (dBuV/m)	Margin (dB)	Result (Pass/Fail)	Limit (dBuA/m)	Margin (dB)	Result (Pass/Fail)
Perpendicular v	27.12	35.4	32.1	37.3	0.6	41.2	69.5	-28.3	Pass	18.1	-28.4	Pass

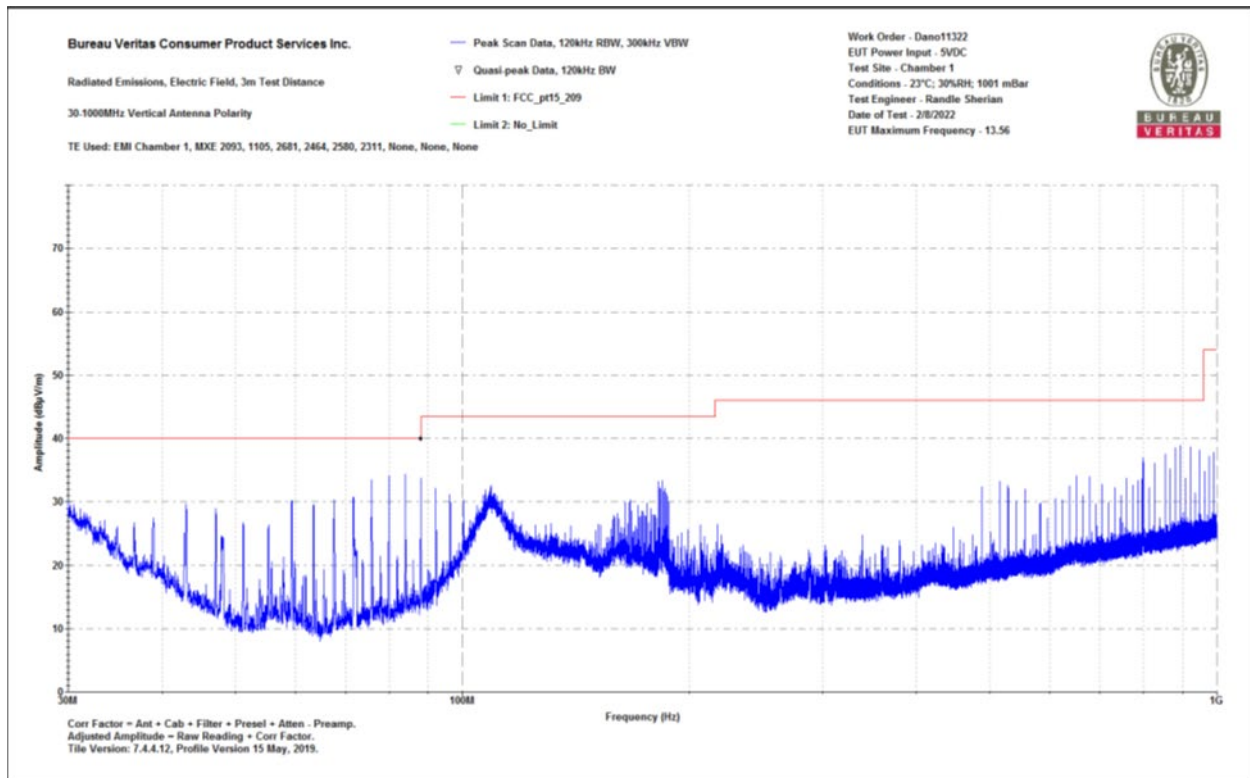
1 – 30 MHz Perpendicular

Radiated Emissions Table												
Date: 8-Feb-22			Company: Novanta				Work Order: Dano11322					
Engineer: Randle Sherian			EUT Desc:				EUT Operating Voltage/Frequency: 5VDC					
Temp: 21 deg. C			Humidity: 31% rh				Pressure: 1003mb					
Frequency Range: 30 MHz to 1GHz							Measurement Distance: 3 m					
Notes:							EUT Max Freq: 13.56MHz					
Antenna Polarization (H / V)	Frequency (MHz)	Reading (dBuV)	Preamp Factor (dB)	Antenna Factor (dB/m)	Cable Factor (dB)	Adjusted Reading (dBuV/m)	---			FCC/ISED Limits		
							Limit (dBuV/m)	Margin (dB)	Result (Pass/Fail)	Limit (dBuV/m)	Margin (dB)	Result (Pass/Fail)
V	79.83	53.6	32.0	12.3	1.1	35.0	---	---	---	40.0	-5.0	Pass
V	84	55.6	32.0	11.9	1.1	36.6	---	---	---	40.0	-3.4	Pass
V	894.87	39.6	30.1	26.8	5.1	41.4	---	---	---	46.0	-4.6	Pass
H	108.98	50.1	32.0	16.7	1.3	36.1	---	---	---	43.5	-7.4	Pass
H	827.1	40.5	30.5	26.2	5.1	41.3	---	---	---	46.0	-4.7	Pass
H	854.28	44.3	30.3	26.2	5.2	45.4	---	---	---	46.0	-0.6	Pass
H	881.34	42.4	30.1	26.6	5.1	44.0	---	---	---	46.0	-2.0	Pass

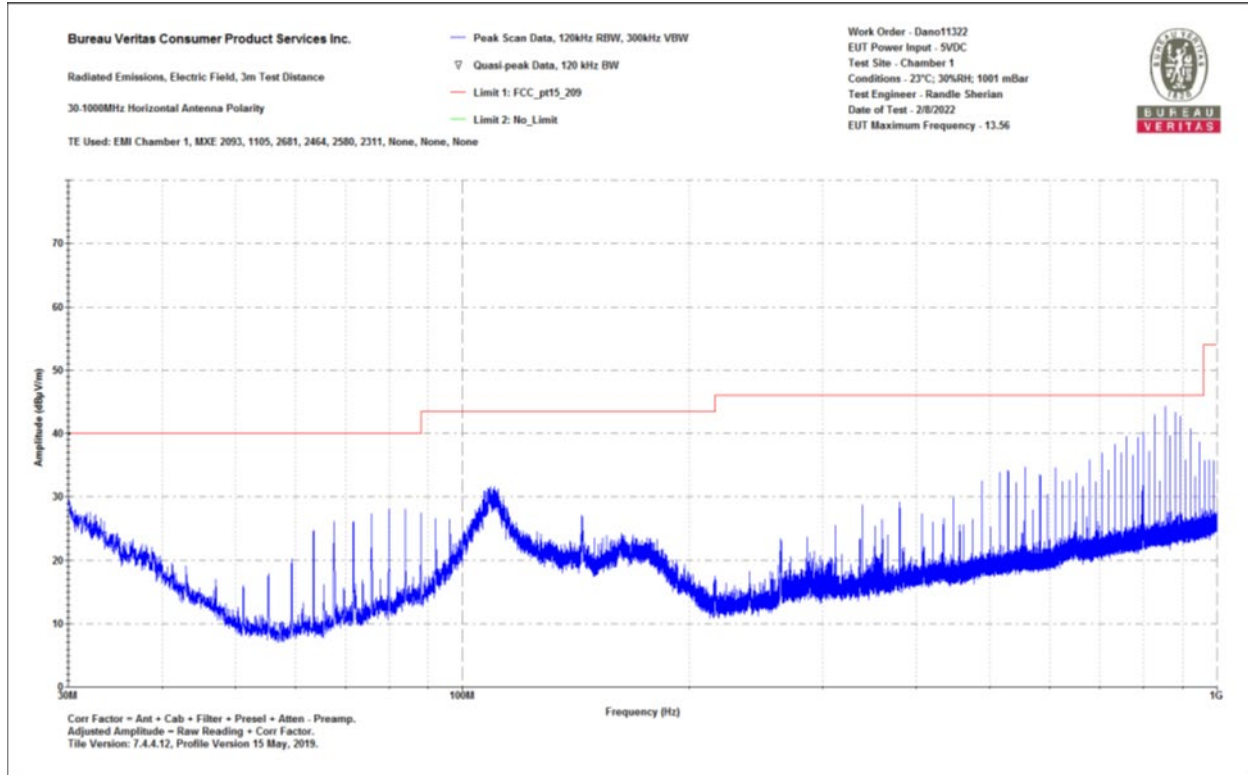
30MHz to 1GHz y-plane



10MHz to 30MHz



Vertical 30MHz to 1GHz



Horizontal 30MHz to 1GHz

Spectrum Analyzers / Receivers / Preselectors	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
2093 MXE EMI Receiver	20Hz-26.5GHz	N9038A	Agilent	MY51210181	2093	I	2/14/2022	1/14/2021
Radiated Emissions Sites	FCC Code	IC Code	VCCI Code	Range	Asset	Cat	Calibration Due	Calibrated on
EMI Chamber 1	719150	2762A-6	A-0015	30-1000MHz	1685	I	12/6/2022	12/6/2020
EMI Chamber 1	719150	2762A-6	A-0015	1-18GHz	1685	I	12/8/2022	12/8/2020
Preamps / Couplers Attenuators / Filters	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
2111 HF Preamp	0.5-18GHz	PAM-118A	COM-POWER	551063	2111	II	10/26/2022	10/26/2021
8447F Rental PA	9KHz-1.3GHz	84477F	HP	3113A05395		II	10/18/2022	10/18/2021
2130 BRP	9KHz-10GHz	BRM18770	Micro-Tronics	1	2130	II	1/21/2023	1/21/2022
Antennas	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Red-White Bilog	30-2000MHz	JB1	Sunol	A091604-1	1105	I	10/25/2023	11/25/2021
Blue Horn	1-18Ghz	3117	ETS	157647	1861	I	4/26/2023	4/26/2021
Small Loop	10kHz-30MHz	PLA-130/A	ARA	1024	755	I	8/25/2022	8/25/2020
Meteorological Meters/Chambers		MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Weather Clock (Pressure Only)		BA928	Oregon Scientific	C3166-1	831	I	11/23/2022	11/23/2020
Asset #2654		1235C97	Control Company	200477432	2654	I	8/13/2022	8/13/2020
Cables	Range		Mfr			Cat	Calibration Due	Calibrated on
Asset #2464	9KHz-18GHz		MegaPhase			II	11/9/2022	11/9/2021
Asset #2580	9KHz-18GHz		Pasternack			II	1/21/2023	1/21/2022
Asset #2681	9KHz-18GHz		Pasternack			II	1/21/2023	1/21/2022
Asset #2464	9KHz-18GHz		MegaPhase			II	11/9/2022	11/9/2021
Asset #2580	9KHz-18GHz		Pasternack			II	1/21/2023	1/21/2022
Asset #2681	9KHz-18GHz		Pasternack			II	1/21/2023	1/21/2022

Test Equipment Used for All Radiated, Freq. Stability, and OBW Measurements

Temperature Stability

Limit: The frequency tolerance of the carrier signal shall be maintained within $\pm 0.01\%$ of the operating frequency over a temperature variation of -20 degrees to $+ 50$ degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. [FCC 15.225]

Measurements were performed in accordance with ANSI C63.10:2013 section 6.8. Measurements were taken at startup, 2 minutes, 5, minutes, and 10 minutes after the EUT was energized. The worst-case measurements were documented.

MEASUREMENTS / RESULTS

13.56MHz * 0.01% = 1356Hz Allowable tolerance

Frequency Stability Under Extreme Conditions						
Date:	2/8/2022				Work Order:	DAN011322
	Engineer:	RTS				
Nominal Voltage:	5 VDC	Min Voltage:	4.25	Max Voltage:	5.75	
Temperature		Voltage	Frequency		Frequency Delta	
°C		V	(MHz)		(MHz)	
-20		5.00	13.559740		-0.000260	
-10		5.00	13.559740		-0.000260	
0		5.00	13.559740		-0.000260	
10		5.00	13.559674		-0.000326	
20		5.00	13.560000		-0.000383	
30		5.00	13.559544		-0.000456	
40		5.00	13.559465		-0.000535	
50		5.00	13.559399		-0.000601	
20		4.25	13.559566		-0.000434	
20		5.75	13.559595		-0.000434	

AC Line Conducted Emissions LIMITS

Frequency of emission (MHz)	Quasi-peak limit (dBμV)	Average limit (dBμV)
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

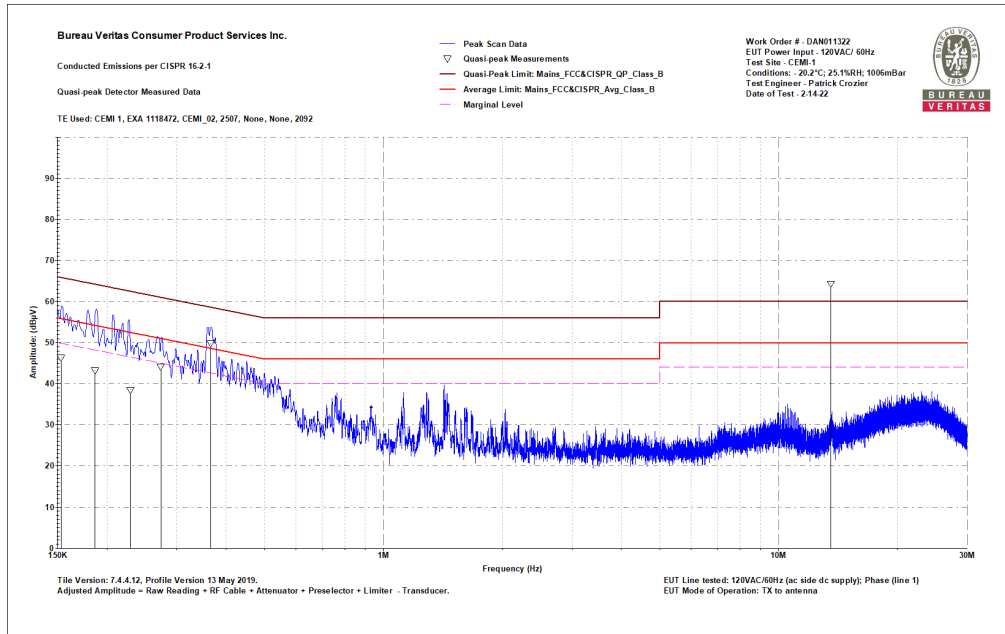
*Decreases with the logarithm of the frequency.

[47 CFR 15.207(a)]

MEASUREMENTS / RESULTS

Measurements performed with antenna in place as well as antenna replaced with resistive load. Both sets of readings presented below:

Bureau Veritas Consumer Product Services Inc. Conducted Emissions per CISPR 16-2-1 Quasi-peak Detector Data Notes: EUT Line tested: 120VAC/60Hz (ac side dc supply); Phase (line 1) EUT Mode of Operation: TX to antenna				Work Order # - DAN011322 EUT Power Input - 120VAC/ 60Hz Test Site - CEMI-1 Conditions: - 20.2°C; 25.1%RH; 1006mBar Test Engineer - Patrick Crozier Date of Test - 2-14-22			
Frequency (MHz)	Raw QP Reading (dBμV)	Correction Factor (dB)	Adjusted QP Amplitude (dBμV)	QP Lim: Mains_FCC&CISPR_QP_Class_B (dBμV)	Margin to QP Limit (dB)	QP Limit Results (Pass/Fail)	Worst Margin (QP Limit) (dB)
0.153	26.132	20.2	46.4	65.8	-19.5	PASS	
0.186	22.973	20.2	43.2	64.2	-21	PASS	
0.229	18.314	20.2	38.5	62.5	-24	PASS	
0.274	23.985	20.2	44.2	61	-16.8	PASS	
0.365	29.66	20.2	49.8	58.6	-8.8	PASS	-8.8
13.559	43.871	20.4	64.3	60	4.3	n/a	

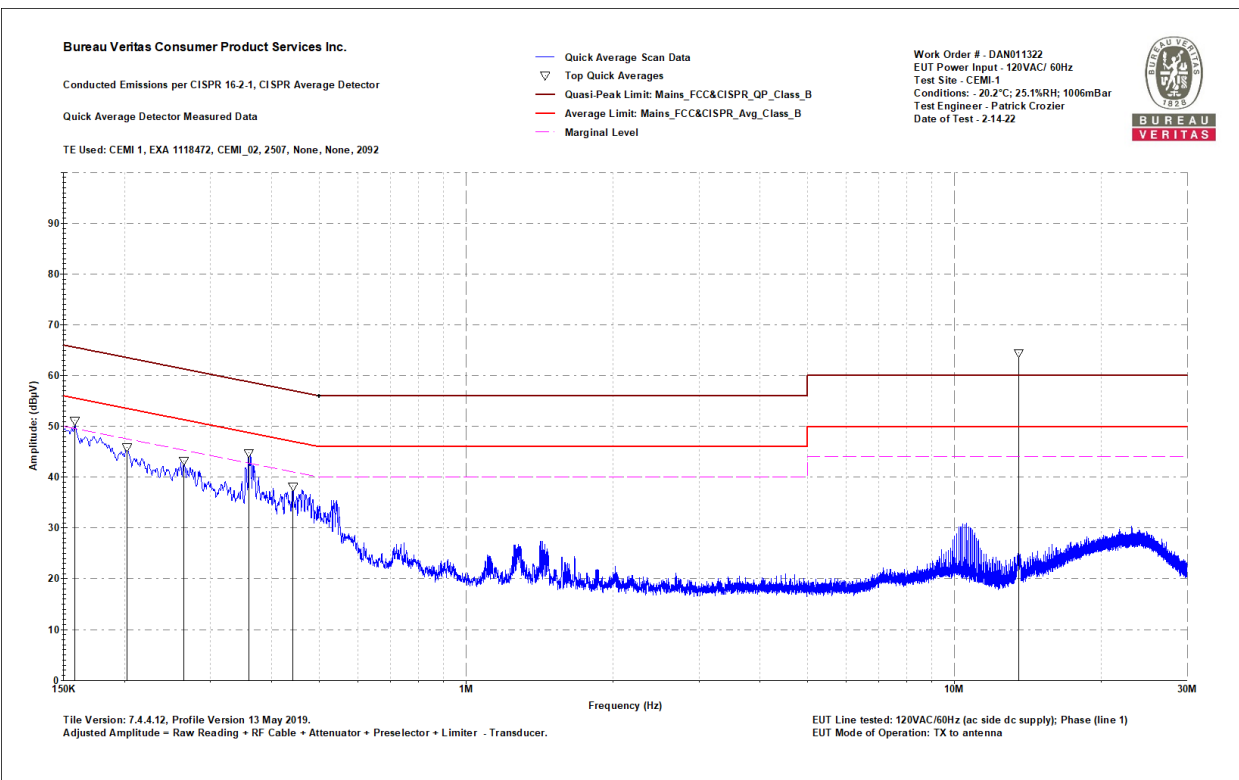


0.15 – 30 MHz QP Line Transmitter Connected to Antenna

Bureau Veritas Consumer Product Services Inc.
 Conducted Emissions per CISPR 16-2-1, CISPR Average Detector
 Quick Average Detector Data
 Notes:
 EUT Line tested: 120VAC/60Hz (ac side dc supply); Phase (line 1)
 EUT Mode of Operation: TX to antenna

Work Order # - DAN011322
 EUT Power Input - 120VAC/ 60Hz
 Test Site - CEMI-1
 Conditions: - 20.2°C; 25.1%RH; 1006mBar
 Test Engineer - Patrick Crozier
 Date of Test - 2-14-22

Frequency (MHz)	Raw Avg Reading (dBμV)	Correction Factor (dB)	Adjusted Avg Amplitude (dBμV)	Av Lim: Mains_FCC&CISPR_Avg_Class_B (dBμV)	Avg Margin (dB)	Avg Results (Pass/Fail)	Worst Avg Margin (dB)
0.158	30.9	20.2	51.1	55.6	-4.4	PASS	
0.202	25.7	20.2	45.8	53.5	-7.7	PASS	
0.264	23	20.2	43.2	51.3	-8.1	PASS	
0.359	24.6	20.2	44.8	48.8	-4	PASS	-4
0.442	18	20.2	38.2	47	-8.8	PASS	
13.559	44	20.4	64.4	50	14.4	n/a	



0.15 – 30 MHz AVG Line Transmitter Connected to Antenna

Bureau Veritas Consumer Product Services Inc.

Conducted Emissions per CISPR 16-2-1

Quasi-peak Detector Data

Notes:

EUT Line tested: 120VAC/60Hz (ac side dc supply); Neutral (line 0)

EUT Mode of Operation: TX to antenna

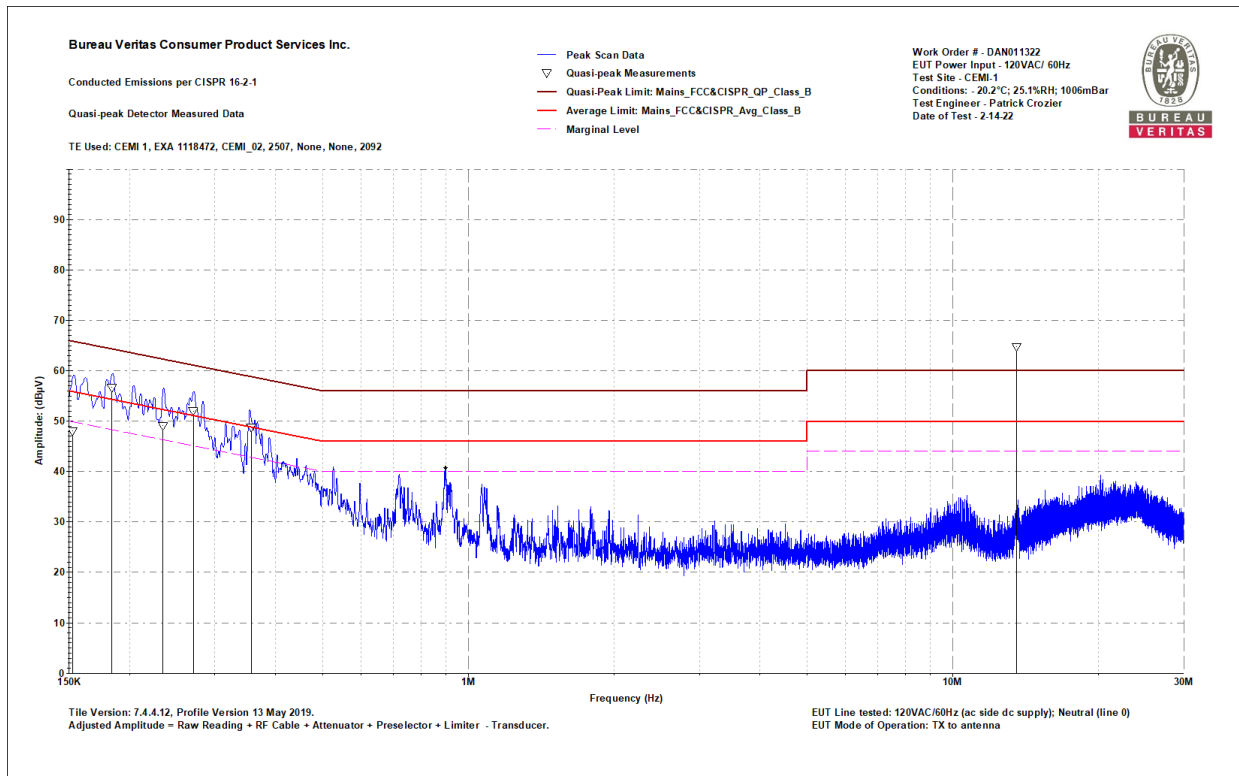
Work Order # - DAN011322

EUT Power Input - 120VAC/ 60Hz

Test Site - CEMI-1

Conditions: - 20.2°C; 25.1%RH; 1006mBar

Frequency (MHz)	Raw QP Reading (dBμV)	Correction Factor (dB)	Adjusted QP Amplitude (dBμV)	QP Lim: Mains_FCC&CISPR_QP_Class_B (dBμV)	Margin to QP Limit (dB)	QP Limit Results (Pass/Fail)	Worst Margin (QP Limit) (dB)
0.153	27.853	20.2	48.1	65.9	-17.8	PASS	
0.184	36.478	20.2	56.7	64.3	-7.6	PASS	-7.6
0.234	28.922	20.2	49.1	62.3	-13.2	PASS	
0.271	31.769	20.2	51.9	61.1	-9.1	PASS	
0.357	28.557	20.2	48.7	58.8	-10.1	PASS	
13.559	44.394	20.4	64.8	60	4.8	n/a	

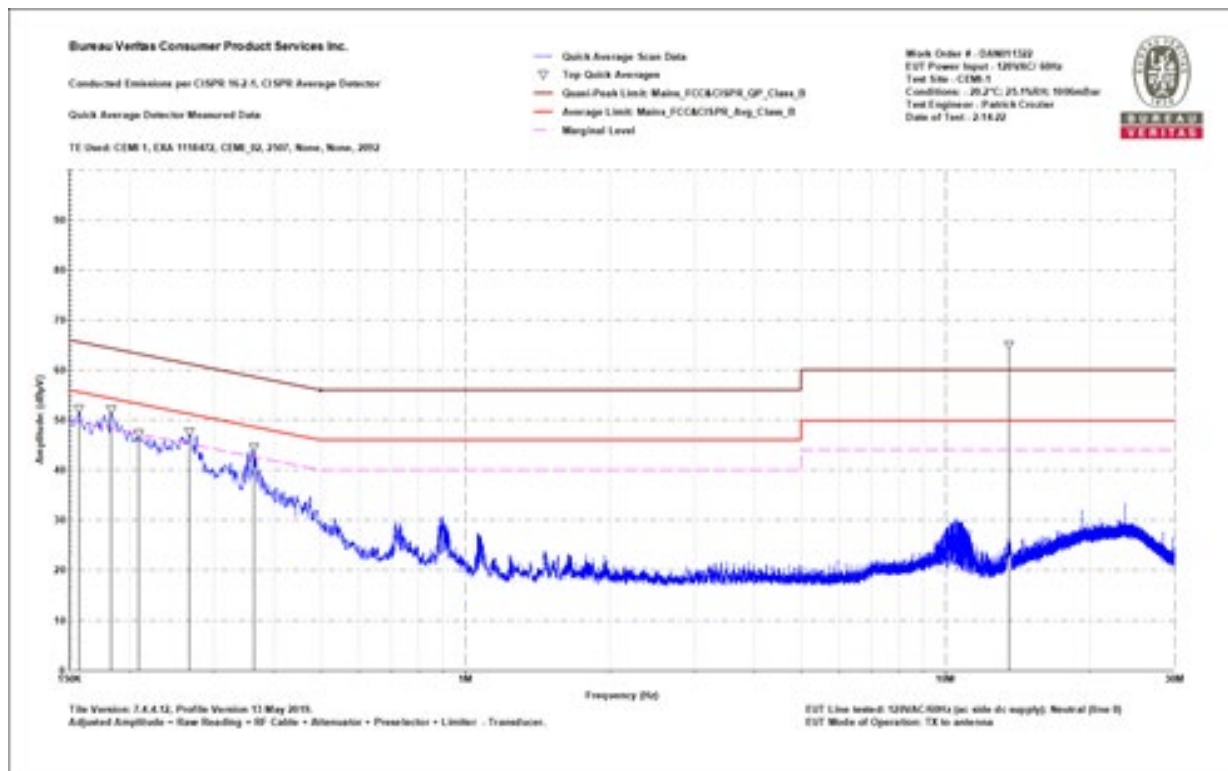


0.15 – 30 MHz QP Neutral Transmitter Connected to Antenna

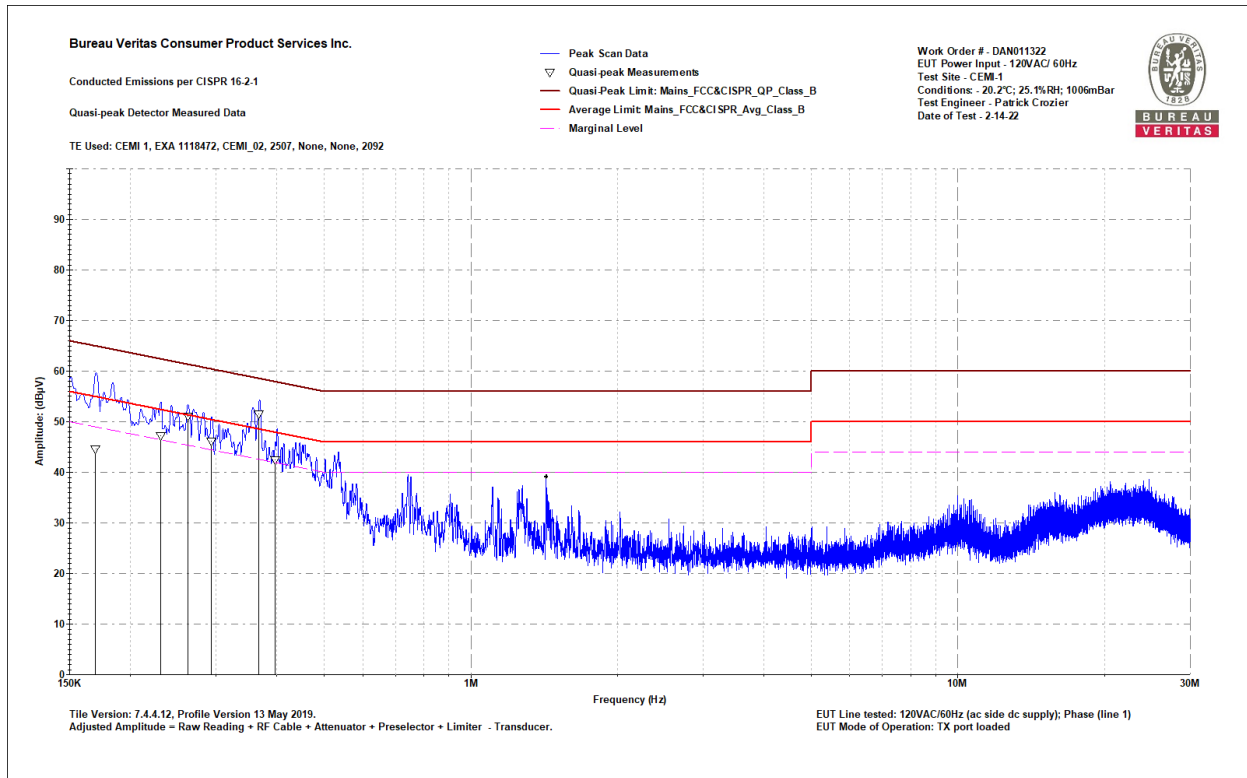
Bureau Veritas Consumer Product Services Inc.
 Conducted Emissions per CISPR 16-2-1, CISPR Average Detector
 Quick Average Detector Data
 Notes:
 EUT Line tested: 120VAC/60Hz (ac side dc supply); Neutral (line 0)
 EUT Mode of Operation: TX to antenna

Work Order # - DAN011322
 EUT Power Input - 120VAC/ 60Hz
 Test Site - CEMI-1
 Conditions: - 20.2°C; 25.1%RH; 1006mBar
 Test Engineer - Patrick Crozier
 Date of Test - 2-14-22

Frequency (MHz)	Raw Avg Reading (dBμV)	Correction Factor (dB)	Adjusted Avg Amplitude (dBμV)	Av Lim: Mains_FCC&CISPR_Avg_Class_B (dBμV)	Avg Margin (dB)	Avg Results (Pass/Fail)	Worst Avg Margin (dB)
0.157	32.1	20.2	52.3	55.6	-3.3	PASS	
0.183	31.9	20.2	52.1	54.4	-2.3	PASS	-2.3
0.209	27.3	20.2	47.4	53.2	-5.8	PASS	
0.266	27.6	20.2	47.7	51.2	-3.5	PASS	
0.363	24.4	20.2	44.6	48.6	-4.1	PASS	
13.559	44.7	20.4	65.1	50	15.1	n/a	

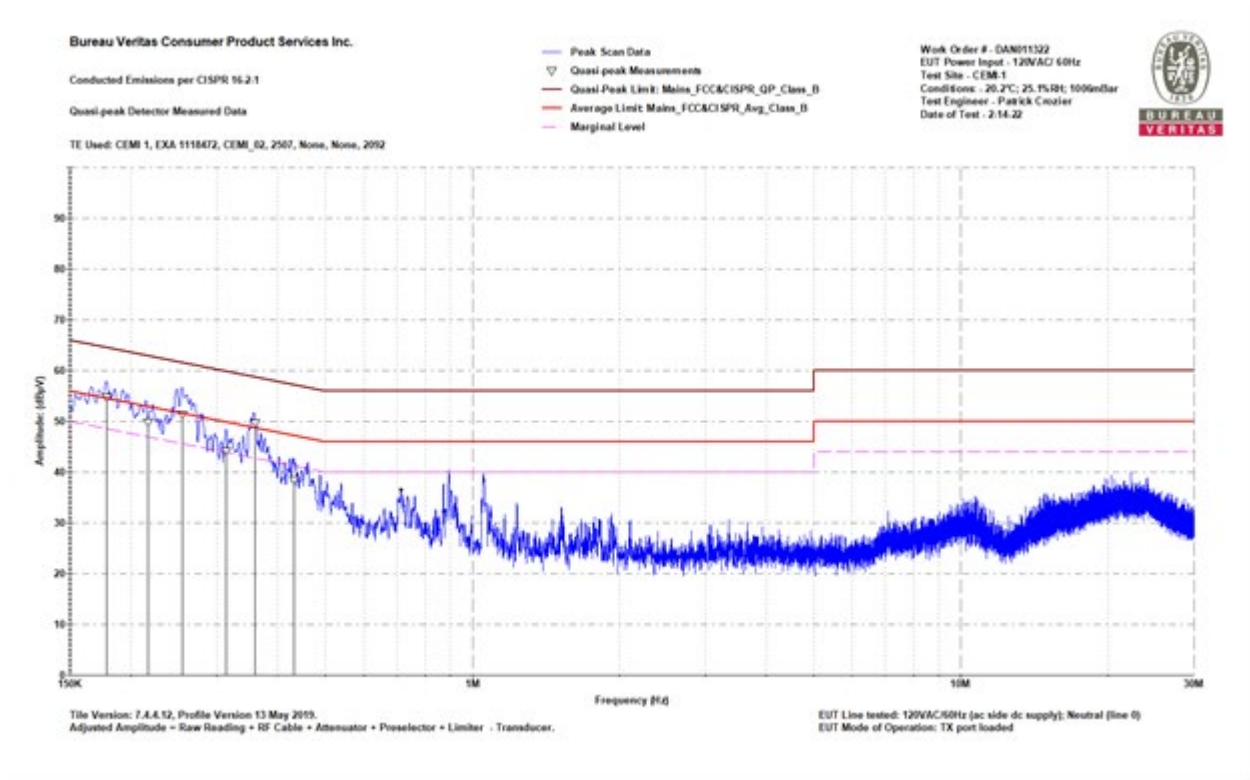


0.15 – 30 MHz AVG Neutral Transmitter Connected to Antenna



0.15 – 30 MHz Line QP Transmitter Terminated

Note: Final measurement at 13.56MHz was not measured since it was greater than 20dB from the limit.



0.15 – 30 MHz Neutral QP Transmitter Terminated

Note: Final measurement at 13.56MHz was not measured since it was greater than 20dB from the limit.

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	AT	N9010A-526;N	MY51170076	8/5/2021	8/5/2022
Artificial Mains Network	Com-Power	ENV216	201092	12/15/2021	12/15/2022
Artificial Mains Network	Com-Power	ESH3-Z5	201093	12/15/2021	12/15/2022
Cable	C-S	N/a	CEMI-15	2/21/2021	2/21/2022
Attenuator	Narda	766-20	8710	12/12/2021	12/12/2022

Test Equipment Used

Measurement Uncertainty

The listed uncertainties are the worst case uncertainty for the entire range of measurement. Please note that the uncertainty values are provided for informational purposes only and are not used in determining the PASS/FAIL results.

Measurement	Expanded Uncertainty k=2	Maximum allowable uncertainty
Radiated Emissions (30-1000MHz)		
NIST	5.6dB	N/A
CISPR	4.6dB	5.2dB (Ucisprr)
Radiated Emissions (1-26.5GHz)	4.6dB	N/A
Radiated Emissions (above 26.5GHz)	4.9dB	N/A
Magnetic Radiated Emissions	5.6dB	N/A
Conducted Emissions		
NIST	3.9dB	N/A
CISPR	3.6dB	3.6dB (Ucisprr)
Telco Conducted Emissions (Current)	2.9dB	N/A
Telco Conducted Emissions (Voltage)	4.4dB	N/A
Electrostatic Discharge	11.5%	N/A
Radiated RF Immunity (Uniform Field)	1.6dB	N/A
Electrical Fast Transients	23.1%	N/A
Surge	23.1%	N/A
Conducted RF Immunity	3dB	N/A
Magnetic Immunity	12.8%	N/A
Dips and Interrupts	2.3V	N/A
Harmonics	3.5%	N/A
Flicker	3.5%	N/A
Radio frequency (@ 2.4GHz)	3.23×10^{-8}	1×10^{-7}
RF power, conducted	0.40dB	0.75dB
Maximum frequency deviation:		
• Within 300Hz and 6kHz of audio frequency / Within 6kHz and 25kHz of audio frequency	3.4% 0.3dB	5% 3dB
Adjacent channel power	1.9dB	3dB
Conducted spurious emission of transmitter, valid up to 12.75GHz	2.39dB	3dB
Conducted emission of receivers	1.3dB	3dB
Radiated emission of transmitter, valid up to 26.5GHz	3.9dB	6dB
Radiated emission of transmitter, valid up to 80GHz	3.3dB	6dB
Radiated emission of receiver, valid up to 26.5GHz	3.9dB	6dB
Radiated emission of receiver, valid up to 80GHz	3.3dB	6dB
Humidity	2.37%	5%
Temperature	0.7°C	1.0°C
Time	4.1%	10%
RF Power Density, Conducted	0.4dB	3dB
DC and low frequency voltages	1.3%	3%
Voltage (AC, <10kHz)	1.3%	2%
Voltage (DC)	0.62%	1%
The above reflects a 95% confidence level		

Conditions of Testing

[Bureau Veritas Consumer Products Services, Inc., a Massachusetts corporation], and/or its affiliates (collectively, the "Company") will conduct, at the request of the Submitter ("Client"), the tests specified on the submitted Test Request Form or equivalent in accordance with, and subject to, the following terms and conditions (collectively, "Conditions"):

1. All orders for tests are subject to acceptance by the Company, and no order will constitute a binding commitment of the Company unless and until such order is accepted by it, as evidenced by the issuance of a written report ("Test Report") by the Company. The Test Report is issued solely by the Company, is intended for the exclusive use of Client and shall not be published, used for advertising purposes, copied or replicated for distribution to any other person or entity or otherwise publicly disclosed without the prior written consent of the Company. By submitting a request for services to the Company, Client consents to the disclosure to accreditation bodies of those records of Client relevant to the accreditation body's assessment of the Company's competence and compliance with relevant accreditation criteria. The Company shall not be liable for any loss or damage whatsoever resulting from the failure of the Company to provide its services within any time period for completion estimated by the Company. If Client anticipates using the Test Report in any legal proceeding, arbitration, dispute resolution forum or other proceeding, it shall so notify the Company prior to submitting the Test Report in such proceeding. The Company has no obligation to provide a fact or expert witness at such proceeding unless the Company agrees in advance to do so for a separate and additional fee.
2. The Test Report will set forth the findings of the Company solely with respect to the test samples identified therein. Unless specifically and expressly indicated in the Test Report, the results set forth in such Test Report are not intended to be indicative or representative of the quality or characteristics of the lot from which a test sample is taken, and Client shall not rely upon the Test Report as being so indicative or representative of the lot or of the tested product in general. The Test Report will reflect the findings of the Company at the time of testing only, and the Company shall have no obligation to update the Test Report after its issuance. The Test Report will set forth the results of the tests performed by the Company based upon the written information provided to the Company. The Test Report will be based solely on the samples and written information submitted to the Company by Client, and the Company shall not be obligated to conduct any independent investigation or inquiry with respect thereto.
3. The Company may, in its sole discretion, destroy samples which have been furnished to the Company for testing and which have not been destroyed in the course of testing. The Company may delegate the performance of all or a portion of the services contemplated hereunder to an affiliate, agent or subcontractor of the Company, and Client consents to such delegation.
4. These Conditions and the Test Report represent the entire understanding of the parties hereto with respect to the subject matter hereof and of the Test Report, and no modification, variance or extrapolation with respect thereto shall be permitted without the prior written consent of the Company.
5. The names, service marks, trademarks and copyrights of the Company and its affiliates, including the names "BUREAU VERITAS," "BUREAU VERITAS CONSUMER PRODUCTS SERVICES," "BVCPSP," "MTL," "ACTS," "MTL-ACTS" and CURTIS-STRAUS (collectively, the "Marks") are and shall remain the sole property of the Company or its affiliates and shall not be used by Client except solely to the extent that Client obtains the prior written approval of the Company and then only in the manner prescribed by the Company. Client shall not contest the validity of the Marks or take any action that might impair the value or goodwill associated with the Marks or the image or reputation of the Company or its affiliates.
6. Payment in full shall be due 30 days after the date of invoice. Interest shall be due on overdue amounts from the due date until paid at an interest rate of 1.5% per month or, if less, the maximum rate permitted by law. The Company reserves the right, at any time and from time to time, to revoke any credit extended to Client. Client shall reimburse the Company for any costs it incurs in collecting past due amounts, including court costs and fees and expenses of attorneys and collection agencies. The Test Report may not be used or relied upon by Client if and for so long as Client fails to pay when due any invoice issued by the Company or any affiliate of it to Client or any affiliate or subsidiary of Client together with interest and penalties, if any, accrued thereon.
7. The Company disclaims any and all responsibility or liability arising out of or in connection with e-mail transmissions of such information.
8. Client understands and agrees that the Company is neither an insurer nor a guarantor, that the Company does not take the place of Client or any designer, manufacturer, agent, buyer, distributor or transportation or shipping company, and that the Company disclaims all liability in such capacities. Client further understands that if it seeks assurance against loss or damage, it should obtain appropriate insurance.
9. Client agrees that the Company, by providing the services, does not take the place of Client nor any third party, nor does the Company release them from any of their obligations, nor does the Company otherwise assume, abridge, abrogate or undertake to discharge any duty of any third party to Client or any duty of Client or any third party to any other third party, and Client will not release any third party from its obligations and duties with respect to the tested goods.
10. Client shall, on a timely basis, (a) provide adequate instructions to the Company in order to enable the Company to perform properly its services, (b) provide, or cause Client's suppliers and contractors to provide, the Company with all documents necessary to enable the Company to perform its services, (c) furnish the Company with all relevant information regarding Client's intended use and purposes of the tested goods, (d) advise the Company of essential dates and deadlines relevant to the tested goods and (e) fully exercise all rights and remedies available to Client against third parties in respect of the tested goods.
11. The Company shall undertake due care and ordinary skill in the performance of its services to Client, and the Company shall accept responsibility only where such skill has not been exercised and, even in such event, only to the extent of the limitation of liability set forth herein.
12. If Client desires to assert a claim arising from or relating to (i) the performance, purported performance or non-performance of any services by the Company or (ii) the sale, resale, manufacture, distribution or use of any tested goods, it must submit that claim to the Company in a writing that sets forth with particularity the basis for such claim within 60 days from discovery of the potential claim and not more than six months after the date of issuance of the Test Report to Client. Client waives any and all such claims including, without limitation, claims that the Test Report is inaccurate, incomplete or misleading or that additional or different testing is required, unless and then only to the extent that Client submits a written claim to the Company within both such time periods.
13. CLIENT SHALL, EXCEPT TO THE EXTENT OF COMPANY'S LIABILITY TO CLIENT HEREUNDER (WHICH IN NO EVENT SHALL EXCEED THE LIMITATION OF LIABILITY HEREIN), HOLD HARMLESS AND INDEMNIFY THE COMPANY, ITS AFFILIATES AND THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, AGENTS AND SUBCONTRACTORS AGAINST ALL ACTUAL OR ALLEGED THIRD PARTY CLAIMS FOR LOSS, DAMAGE OR EXPENSE OF WHATSOEVER NATURE AND HOWSOEVER ARISING FROM OR RELATING TO (i) THE PERFORMANCE, PURPORTED PERFORMANCE OR NON-PERFORMANCE OF ANY SERVICES BY THE COMPANY OR (ii) THE SALE, RESALE, MANUFACTURE, DISTRIBUTION OR USE OF ANY TESTED GOODS.
14. EXCEPT AS MAY OTHERWISE BE EXPRESSLY AGREED TO IN WRITING BY THE COMPANY AND NOTWITHSTANDING ANY PROVISION TO THE CONTRARY CONTAINED HEREIN OR IN ANY TEST REPORT, NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, IS MADE.



15. (A) IN NO EVENT WHATSOEVER SHALL THE COMPANY BE LIABLE FOR ANY CONSEQUENTIAL, SPECIAL, INCIDENTAL, EXEMPLARY OR PUNITIVE DAMAGES IN CONNECTION WITH, RELATING TO OR ARISING OUT OF THE TEST REPORT OR THE SERVICES PROVIDED BY THE COMPANY HEREUNDER, INCLUDING WITHOUT LIMITATION LOSS OF OR DAMAGE TO PROPERTY; LOSS OF INCOME, PROFIT OR USE; OR ANY CLAIMS OR DEMANDS MADE AGAINST CLIENT OR ANY OTHER PERSON BY ANY THIRD PARTY IN CONNECTION WITH, RELATING TO OR ARISING OUT OF THE SERVICES PROVIDED BY THE COMPANY HEREUNDER.

(B) NOTWITHSTANDING ANY PROVISION TO THE CONTRARY CONTAINED HEREIN, AND IN RECOGNITION OF THE RELATIVE RISKS AND BENEFITS TO CLIENT AND THE COMPANY ASSOCIATED WITH THE TESTING SERVICES CONTEMPLATED HEREBY, THE RISKS HAVE BEEN ALLOCATED SUCH THAT UNDER NO CIRCUMSTANCES WHATSOEVER SHALL THE LIABILITY OF THE COMPANY TO CLIENT OR ANY THIRD PARTY IN RESPECT OF ANY CLAIM FOR LOSS, DAMAGE OR EXPENSE, OF WHATSOEVER NATURE OR MAGNITUDE, AND HOWSOEVER ARISING, EXCEED AN AMOUNT EQUAL TO FIVE (5) TIMES THE AMOUNT OF THE FEES PAID TO THE COMPANY FOR THE SPECIFIC SERVICES WHICH GAVE RISE TO SUCH CLAIM OR U.S.\$10,000, WHICHEVER IS THE LESSER AMOUNT.

16. The Company shall not be liable for any loss or damage resulting from any delay or failure in performance of its obligations hereunder resulting directly or indirectly from any event of force majeure or any event outside the control of the Company. If any such event occurs, the Company may immediately cancel or suspend its performance hereunder without incurring any liability whatsoever to Client.

17. Company's services, including these Conditions, shall be governed by, and construed in accordance with, the local laws of the country where the Company performs the tests or, in the case of tests performed in the United States of America, the laws of Massachusetts without regard to conflicts of laws principles. If any aspect(s) of these Conditions is found to be illegal or unenforceable, the validity, legality and enforceability of all remaining aspects of these Conditions shall not in any way be affected or impaired thereby. Any proceeding related to the subject matter hereof shall be brought, if at all, in the courts of the country where the Company performs the tests or, in the case of tests performed in the United States of America, in the courts of Massachusetts. Client waives the right to interpose any counterclaim or setoffs of any nature in any litigation arising hereunder.

The complete list of the Approved Subcontractors Curtis-Straus may use to delegate the performance of work can be provided upon request.
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