



### Engineering Test Report No. 2402725-01

Report Date	January 7, 2025	
Manufacturer Name	Elkay Manufacturing Company	
Manufacturer Address	2222 Camden Ct Oak Brook, IL 60523	
Test Item Name Model No.	ezH20 Floor-Standing Bottle Filling Station – DSSBF8SP	
Date Received	December 18, 2024	
Test Dates	December 18, 2024 – December 26, 2024	
Specifications	FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Section 15.225 Innovation, Science, and Economic Development Canada, RSS-210 Innovation, Science, and Economic Development Canada, RSS-GEN	
Test Facility	Elite Electronic Engineering, Inc. 1516 Centre Circle, Downers Grove, IL 60515	FCC Reg. Number: 269750 IC Reg. Number: 2987A CAB Identifier: US0107
Signature	<i>Nathaniel Bouchie</i>	
Tested by	Nathaniel Bouchie	
Signature	<i>Raymond J. Klouda</i>	
Approved by	Raymond J. Klouda, Registered Professional Engineer of Illinois – 44894	
PO Number	1075956	

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## 1. Report Revision History

Revision	Date	Description
–	10 JAN 2025	Initial Release of Engineering Test Report No. 2402725-01

## 2. Introduction

### 2.1. Scope of Tests

This document presents the results of a series of RF emissions tests that were performed on the Elkay Manufacturing Company ezH20 Floor-Standing Bottle Filling Station (hereinafter referred to as the Equipment Under Test (EUT)). The EUT was manufactured and submitted for testing by Elkay Manufacturing Company located in Oak Brook, IL.

### 2.2. Purpose

The test series was performed to determine if the EUT meets the RF emission requirements of the FCC "Code of Federal Regulations" Title 47, Chapter I, Subchapter A, §15.225.

The test series was also performed to determine if the EUT meets the RF emission requirements of the Industry Canada Radio Standards Specification RSS-Gen and Industry Canada Radio Standards Specification RSS-210 for Transmitters.

Testing was performed in accordance with ANSI C63.10-2013.

### 2.3. Identification of the EUT

The EUT was identified as follows:

EUT Identification	
Product Description	ezH20 Floor-Standing Bottle Filling Station
Model/Part No.	DSSBF8SP
Serial No.	Sample 1
Size of EUT	47.5 in x 21.5 in x 14.5 in
Device Type	Digitally Modulated Transmission Device
Band of Operation	13.553 – 13.567MHz
Antenna Type	Trace
20dB Bandwidth	5.59kHz
Occupied Bandwidth (99% CBW)	27.26kHz

The EUT listed above was used throughout the test series.

## 3. Power Input

The EUT obtained 115VAC 60Hz power via a 3 wire, unshielded power cord.

## 4. Grounding

The EUT was connected to ground through the third wire of its input power cord.

## 5. Support Equipment

No support equipment was used during the tests.

## 6. Interconnect Leads

No interconnect leads were used during the tests.

## 7. Modifications Made to the EUT

No modifications were made to the EUT during the testing.

## 8. Mode of Operation

The EMC tests were performed with the EUT operating in the test mode described below.

### 8.1. Tx @ 13.56MHz

This mode was achieved by applying power to the device, with the NFC radioactive and transmitting at 13.56MHz.

## 9. Test Specifications

The tests were performed to selected portions of, and in accordance with the FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Section 15.225 and Innovation, Science, and Economic Development Canada, RSS-210 test specifications.

- Federal Communications Commission "Code of Federal Regulations", Title 47, Chapter I, Subchapter A, Part 15, Subpart C, Section 225 – "Operation within the band 13.110-14.010 MHz"
- 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 C63.10-2013 – "American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices"
- Radio Standard Specification RSS-Gen Issue 5, February 2020, Amendment 2 – "General Requirements for Compliance of Radio Apparatus"
- Radio Standard Specification RSS-210 Issue 10, April 2020, Amendment 2 – "License-Exempt Radio Apparatus: Category I Equipment"

## 10. Test Plan

No test plan was provided. Instructions were provided by personnel from Elkay Manufacturing Company and used in conjunction with the FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Section 15.225, Innovation, Science, and Economic Development Canada, RSS-210, and ANSI C63.10-2013 specifications.

## 11. Deviation, Additions to, or Exclusions from Test Specifications

There were no deviations, additions to, or exclusions from the test specifications during this test series.

## 12. Laboratory Conditions

The ambient parameters of the laboratory during testing were as follows:

Ambient Parameters	Value
Temperature	21.3°C
Relative Humidity	33%
Atmospheric Pressure	1023mb

### 13. Summary

The following EMC tests were performed and the results are shown below:

Test Description	Requirements	Test Method	Results
Powerline Conducted Emissions (AC Mains)	FCC 15.207 RSS-GEN	ANSI C63.10:2013	Conforms
Frequency Stability	FCC 15.225(e) ISED RSS-210	ANSI C63.10:2013	Conforms
Occupied Bandwidth – 20dB	FCC 15.215(c)	ANSI C63.10:2013	Conforms
Occupied Bandwidth – 99%	ISED RSS-210	ANSI C63.10:2013	Conforms
Radiated Emissions	FCC 15.225(a)(d) ISED RSS-210	ANSI C63.10:2013	Conforms

### 14. Sample Calculations

For Powerline Conducted Emissions:

The resultant voltage level (VL) is a summation in decibels (dB) of the receiver meter reading (MTR) and the cable loss factor (CF).

$$\text{Formula 1: } VL \text{ (dB}\mu\text{V)} = \text{MTR (dB}\mu\text{V)} + \text{CF (dB)}.$$

For Radiated Emissions:

The resultant field strength (FS) is a summation in decibels (dB) of the receiver meter reading (MTR), the antenna correction factor (AF), and the cable loss factor (CF). If an external preamplifier is used, the total is reduced by its gain (-PA). If a distance correction (DC) is required, it is added to the total.

$$\text{Formula 1: } FS \text{ (dB}\mu\text{V/m)} = \text{MTR (dB}\mu\text{V)} + \text{AF (dB/m)} + \text{CF (dB)} + (-\text{PA (dB)}) + \text{DC (dB)}$$

To convert the Field Strength dB $\mu$ V/m term to  $\mu$ V/m, the dB $\mu$ V/m is first divided by 20. The Base 10 AntiLog is taken of this quotient. The result is the Field Strength value in  $\mu$ V/m terms.

$$\text{Formula 2: } FS \text{ (}\mu\text{V/m)} = \text{AntiLog} [(FS \text{ (dB}\mu\text{V/m)})/20]$$

### 15. Statement of Conformity

The Elkay Manufacturing Company ezH20 Floor-Standing Bottle Filling Station (Model No. DSSBF8SP, Serial No. Sample 1) did fully conform to the selected requirements of FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Section 15.225 and Innovation, Science, and Economic Development Canada, RSS-210.

### 16. Certification

Elite Electronic Engineering Incorporated certifies that the information contained in this report was obtained under conditions which meet or exceed those specified in the FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Section 15.225 and Innovation, Science, and Economic Development Canada, RSS-210 test specifications. The data presented in this test report pertains to the EUT on the test date specified. Any electrical or mechanical modifications made to the EUT subsequent to the specified test date will serve to invalidate the data and void this certification.



## 17. Photographs of EUT







## 18. Equipment List

Eq ID	Equipment Description	Manufacturer	Model No.	Serial No.	Frequency Range	Cal Date	Due Date
APW10	PREAMPLIFIER	PLANAR ELECTRONICS	PE2-35-120-5R0-10-12-SFF	PL11685/1241	1GHZ-20GHZ	3/20/2024	3/20/2025
CDY0	WORKSTATION	ELITE	WORKSTATION		WINDOWS 7	N/A	
CDZ3	LAB WORKSTATION	ELITE	LWS-10		WINDOWS 10	CNR	
ENVE33	TEMPERATURE/ALTITUDE CHAMBER	THERMOTRON	FA-64-CHM-705-705	16037	-73 TO 180 C/10K-79KFT	8/15/2024	8/15/2025
GRB0	1MHZ, LISN SIGNAL CHECKER	ELITE	LISNCHKR1M	1	1MHZ	10/2/2024	10/2/2026
NTA2	BILOG ANTENNA	TESEQ	6112D	28040	25-2000MHz	6/21/2024	6/21/2026
NWQ0	DOUBLE RIDGED WAVEGUIDE ANTENNA	ETS LINDGREN	3117	66657	1GHZ-18GHZ	6/24/2024	6/24/2026
PLF2	CISPR16 50UH LISN	ELITE	CISPR16/70A	002	150kHz-30MHz	3/26/2024	3/26/2025
PLF4	CISPR16 50UH LISN	ELITE	CISPR16/70A	003	150kHz-30MHz	3/26/2024	3/26/2025
R23P	ROOM 23			001	---	CNR	
R29F	3M ANECHOIC CHAMBER NSA	EMC TEST SYSTEMS	3M ANECHOIC		30MHZ-18GHZ	6/12/2023	6/12/2025
RBD0	EMI ANALYZER	ROHDE & SCHWARZ	ESU40	100010	20Hz-40GHz	8/1/2024	8/1/2025
RBG2	EMI ANALYZER	ROHDE & SCHWARZ	ESW44	101591	2HZ-44GHZ	6/16/2024	6/16/2025
RBG4	EMI ANALYZER	ROHDE & SCHWARZ	ESW44	103007	2HZ-44GHZ	3/16/2024	3/16/2025
SES0	24VDC POWER SUPPLY	P-TRANS	FS-32024-1M	001	18-27VDC	NOTE 1	
SPR1	AC/DC PROGRAMMABLE POWER SUPPLY	PREEN	AFV-P-1250B	F121090013	0-310VAC/0-420VDC	NOTE 1	
T1E12	10DB 25W ATTENUATOR	WEINSCHEL	46-10-43	CM5691	DC-18GHZ	12/19/2023	12/19/2025
VBR8	COMMERCIAL CONDUCTED EMISSIONS.EXE	ELITE				N/A	
VBV2	COMMERCIAL RADIATED EMISSIONS.EXE	ELITE		---	---	N/A	
XLT18	5W, 50Ω TERMINATION	JFW INDUSTRIES	50T-199 N M	---	DC-18 GHZ	12/20/2023	12/20/2025

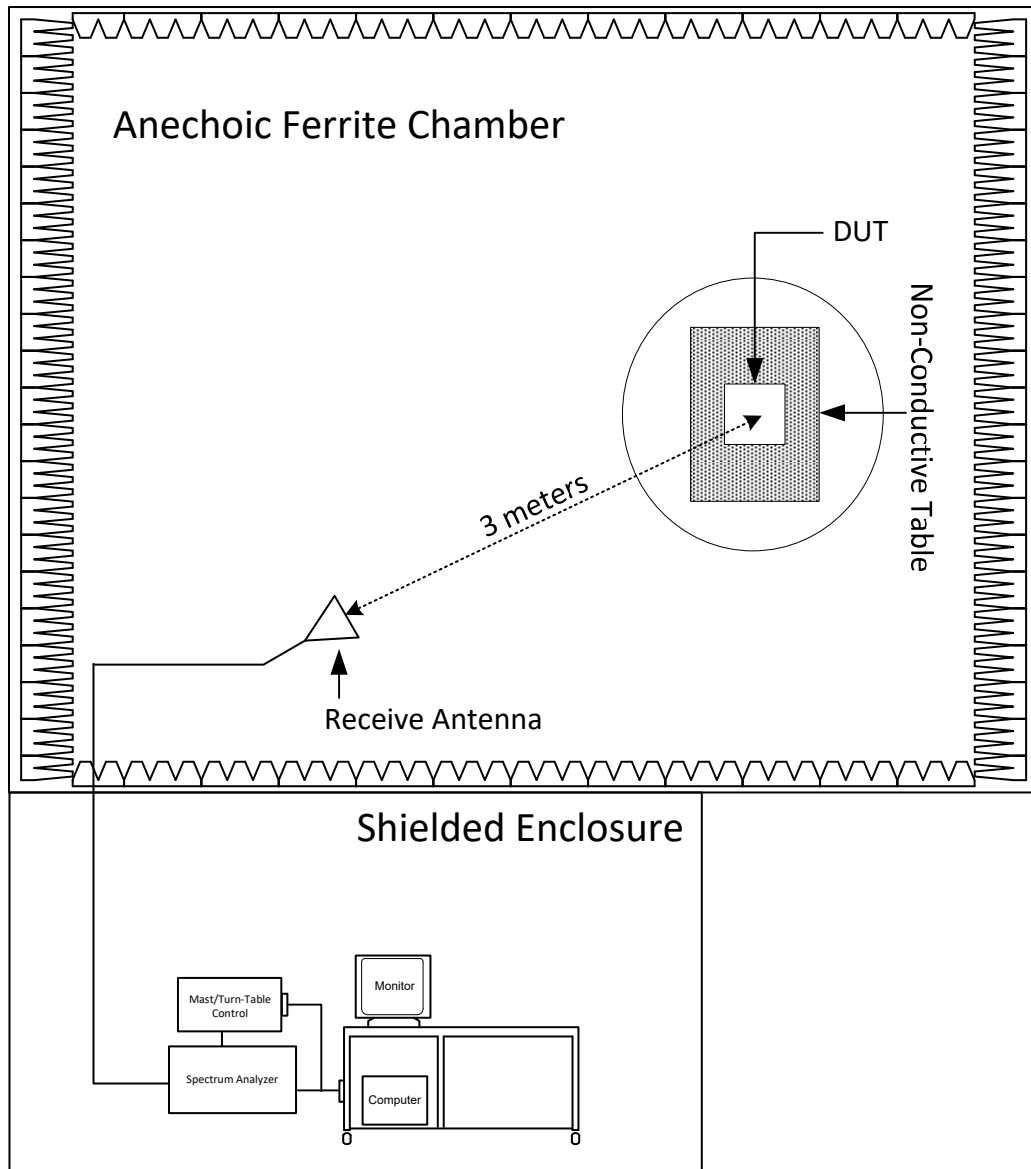
N/A: Not Applicable

I/O: Initial Only

CNR: Calibration Not Required

NOTE 1: For the purpose of this test, the equipment was calibrated over the specified frequency range, pulse rate, or modulation prior to the test or monitored by a calibrated instrument.

## 19. Block Diagram of Test Setup



Radiated Measurements Test Setup

## 20. Powerline Conducted Emissions (AC Mains)

Test Information	
Manufacturer	Elkay Manufacturing Company
Product	ezH20 Floor-Standing Bottle Filling Station
Model No.	DSSBF8SP
Serial No.	Sample 1
Mode	Tx @ 13.56MHz

Test Setup Details	
Setup Format	Floor Standing
Type of Test Site	Reverberation Chamber
Test Site Used	R23P
Notes	None

Measurement Uncertainty	
Measurement Type	Expanded Measurement Uncertainty
Conducted disturbance (mains port) (150 kHz – 30 MHz)	2.7

Requirement
All radio frequency voltages on the power lines for any frequency or frequencies of an intentional radiator shall not exceed the limits in the following table.

Conducted Emissions Limits		
Frequency of Emission (MHz)	Conducted Limits (dBμV)	
	Quasi-peak	Average
0.15 – 0.5	66 to 56*	56-46*
0.5 – 5	56	46
5 – 30	60	50

\* The lower limit shall apply at the transition frequencies.

**Procedure**

The interference on each power lead of the EUT was measured by connecting the measuring equipment to the appropriate meter terminal of the Line Impedance Stabilization Network (LISN). The meter terminal of the LISN not under test was terminated with 50Ω.

- 1) The EUT was operated in the Tx @ 13.56MHz mode.
- 2) Measurements were first made on the 120VAC high line.
- 3) The frequency range from 150kHz to 30MHz was broken up into smaller frequency sub-bands.
- 4) Conducted emissions measurements were taken on the first frequency sub-band using a peak detector.
- 5) The data thus obtained was then searched by the computer for the highest levels. Any emissions levels that were within 10dB of the average limit were then measured again using both a quasi-peak detector and an average detector. (If no peak readings were within 10dB of the average limit, quasi-peak and average readings were taken on the highest emissions levels measured during the peak detector scan.)
- 6) Steps (4) and (5) were repeated for the remainder of the frequency sub-bands until the entire frequency range from 150kHz to 30MHz was investigated. The peak trace was automatically plotted. The plot also shows quasi-peak and average readings that were taken on discrete frequencies. A table showing the quasi-peak and average readings was also generated. This tabular data compares the quasi-peak and average conducted emissions to the applicable conducted emissions limits. The resultant voltage level (VL) is a summation in decibels (dB) of the receiver meter reading (MTR) and the cable loss factor (CF).

$$\text{Formula 1: VL (dB}\mu\text{V)} = \text{MTR (dB}\mu\text{V)} + \text{CF (dB)}$$

- 7) Steps (3) through (6) were repeated on the 120VAC return line.



Test Setup for Powerline Conducted Emissions (AC Mains)



Test Setup for Powerline Conducted Emissions (AC Mains)



# FCC Part 15 Subpart B 2017-2022 Conducted Emissions Test

## Significant Emissions Data

VBR8 12/06/2024

Manufacturer : ELKAY  
Model : DSSBF8SP  
DUT Revision : 1.0  
Serial Number :  
DUT Mode : TX @ 13.56MHZ  
Line Tested : 120VAC 60HZ HIGH LINE  
Scan Step Time [ms] : 30  
Meas. Threshold [dB] : -10  
Notes :  
Test Engineer : T. Jozefczyk  
RBW : 9 kHz  
Limit : Class B  
Test Date : Dec 18, 2024 11:14:12 AM  
Data Filter : Up to 80 maximum levels detected with 6 dB level excursion threshold over 10 dB margin below limit

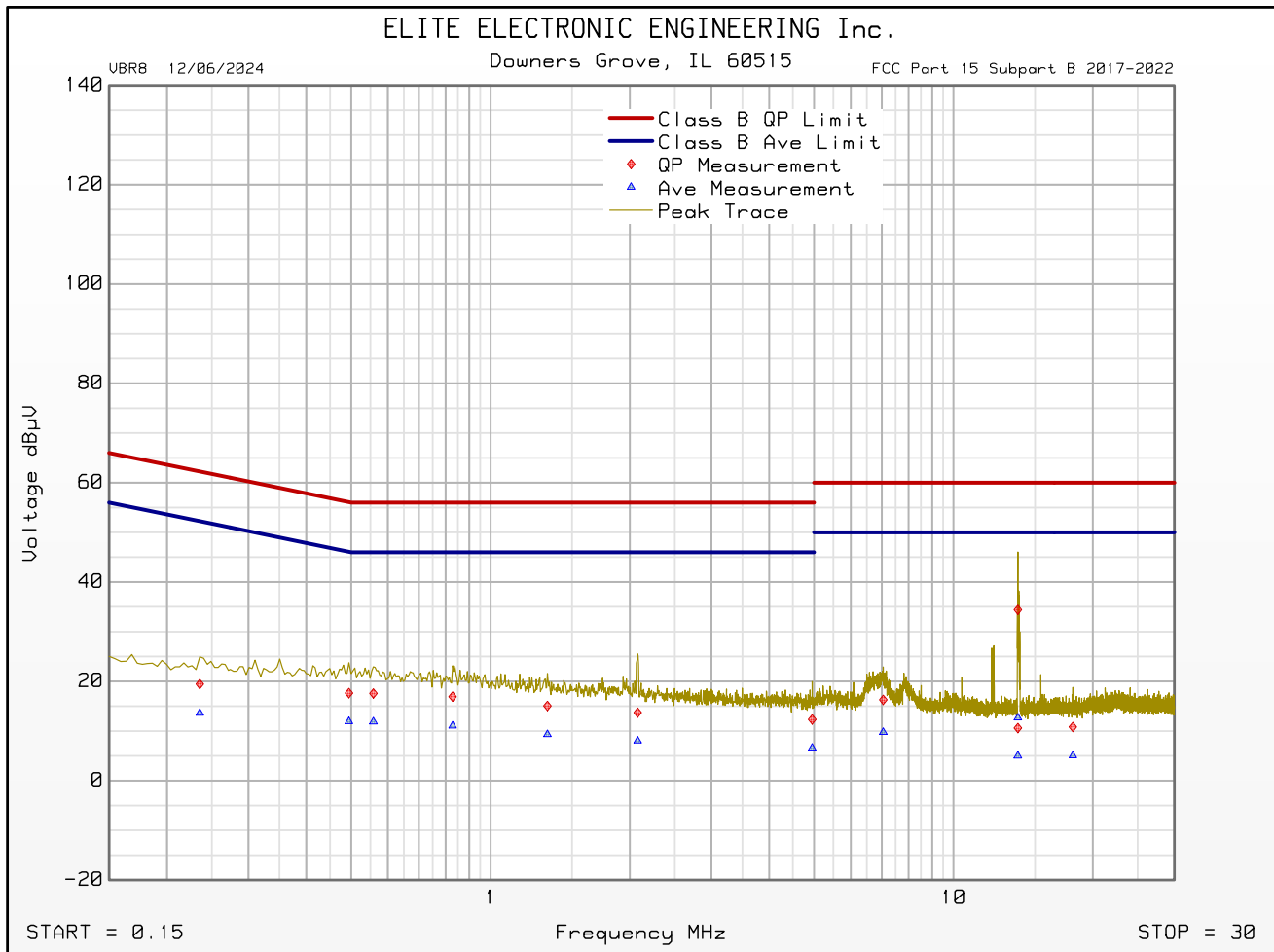
Freq MHz	Quasi-peak Level dBμV	Quasi-peak Limit dBμV	Excessive Quasi-peak Emissions	Average Level dBμV	Average Limit dBμV	Excessive Average Emissions
0.236	19.5	62.3		13.6	52.3	
0.495	17.6	56.1		11.9	46.1	
0.559	17.6	56.0		11.9	46.0	
0.828	16.9	56.0		11.0	46.0	
1.327	15.1	56.0		9.3	46.0	
2.079	13.7	56.0		8.0	46.0	
4.952	12.3	56.0		6.6	46.0	
7.052	16.3	60.0		9.8	50.0	
13.775	34.4	60.0		12.7	50.0	
18.103	10.8	60.0		5.1	50.0	

# FCC Part 15 Subpart B 2017-2022 Conducted Emissions Test

## Cumulative Data

VBR8 12/06/2024

Manufacturer : ELKAY  
Model : DSSBF8SP  
DUT Revision : 1.0  
Serial Number :  
DUT Mode : TX @ 13.56MHZ  
Line Tested : 120VAC 60HZ HIGH LINE  
Scan Step Time [ms] : 30  
Meas. Threshold [dB] : -10  
Notes :  
Test Engineer : T. Jozefczyk  
RBW : 9 kHz  
Limit : Class B  
Test Date : Dec 18, 2024 11:14:12 AM



Emissions Meet QP Limit  
Emissions Meet Ave Limit

## FCC Part 15 Subpart B 2017-2022 Conducted Emissions Test

### Significant Emissions Data

VBR8 12/06/2024

Manufacturer : ELKAY  
 Model : DSSBF8SP  
 DUT Revision : 1.0  
 Serial Number :  
 DUT Mode : TX @ 13.56MHZ  
 Line Tested : 120VAC 60HZ NEUTRAL LINE  
 Scan Step Time [ms] : 30  
 Meas. Threshold [dB] : -10  
 Notes :  
 Test Engineer : T. Jozefczyk  
 RBW : 9 kHz  
 Limit : Class B  
 Test Date : Dec 18, 2024 11:08:21 AM  
 Data Filter : Up to 80 maximum levels detected with 6 dB level excursion threshold over 10 dB margin below limit

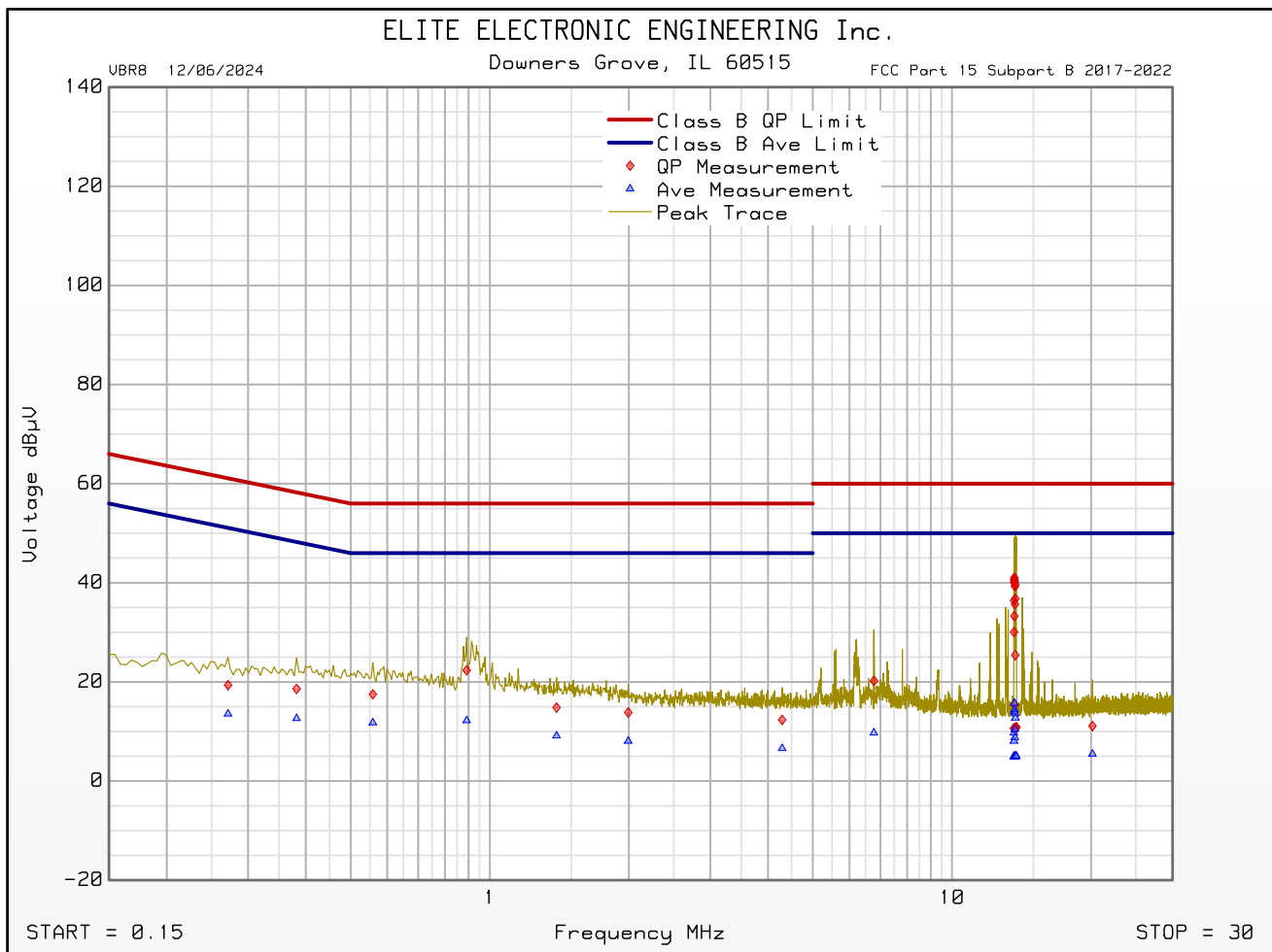
Freq MHz	Quasi-peak Level dBμV	Quasi-peak Limit dBμV	Excessive Quasi-peak Emissions	Average Level dBμV	Average Limit dBμV	Excessive Average Emissions
0.272	19.4	61.1		13.5	51.1	
0.382	18.6	58.2		12.7	48.2	
0.559	17.5	56.0		11.8	46.0	
0.891	22.4	56.0		12.2	46.0	
1.395	14.8	56.0		9.1	46.0	
1.994	13.8	56.0		8.1	46.0	
4.291	12.4	56.0		6.6	46.0	
6.778	20.2	60.0		9.7	50.0	
13.645	41.0	60.0		15.7	50.0	
20.133	11.1	60.0		5.5	50.0	

# FCC Part 15 Subpart B 2017-2022 Conducted Emissions Test

## Cumulative Data

VBR8 12/06/2024

Manufacturer : ELKAY  
Model : DSSBF8SP  
DUT Revision : 1.0  
Serial Number :  
DUT Mode : TX @ 13.56MHZ  
Line Tested : 120VAC 60HZ NEUTRAL LINE  
Scan Step Time [ms] : 30  
Meas. Threshold [dB] : -10  
Notes :  
Test Engineer : T. Jozefczyk  
RBW : 9 kHz  
Limit : Class B  
Test Date : Dec 18, 2024 11:08:21 AM



Emissions Meet QP Limit  
Emissions Meet Ave Limit

## 21. Frequency Stability

EUT Information	
Manufacturer	Elkay Manufacturing Company
Product	ezH20 Floor-Standing Bottle Filling Station
Model No.	DSSBF8SP
Serial No.	Sample 1
Mode	Tx @ 13.56MHz
Test Date	December 20, 2024

Test Site Information	
Type of Test Site	Temperature Chamber
Test Site Used	ENVE33
Type of Antennas Used	Loop (or equivalent)
Note	None

Requirements
Per §15.225(e), the frequency tolerance of the carrier signal shall be maintained within $\pm 0.01\%$ of the operating frequency over a temperature variation of $-20^{\circ}\text{C}$ to $+50^{\circ}\text{C}$ 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 $20^{\circ}\text{C}$ .
Per RSS-210 Annex B Section B.6.(b), the carrier frequency stability shall not exceed $\pm 100$ ppm.
Per RSS-GEN Section 6.11, the following conditions apply: <ul style="list-style-type: none"><li>a. at the temperatures of <math>-20^{\circ}\text{C}</math>, <math>+20^{\circ}\text{C}</math>, and <math>+50^{\circ}\text{C}</math>, and at the manufacturer's rated supply voltage</li><li>b. at the temperature of <math>+20^{\circ}\text{C}</math> and at <math>\pm 15\%</math> of the manufacturer's rated supply voltage</li></ul>

Procedure
<ol style="list-style-type: none"><li>1) The EUT was placed in a temperature chamber set to normal temperature (<math>21^{\circ}\text{C}</math>).</li><li>2) The temperature chamber was then set to <math>-20^{\circ}\text{C}</math> and once the temperature was stabilized, the EUT was allowed to soak for 30 minutes.</li><li>3) After soaking, the EUT was set in the Tx @ 13.56MHz mode and the frequency was noted at nominal voltage.</li><li>4) Steps (2) and (3) were repeated for every <math>+10^{\circ}\text{C}</math> increment until <math>+50^{\circ}\text{C}</math>.</li><li>5) Step (3) was repeated at <math>20^{\circ}\text{C}</math> for nominal, 85%, and 115% voltage.</li></ol>





Test Setup for Frequency Stability



Test Setup for Frequency Stability

Test Details	
Manufacturer	Elkay Manufacturing Company
EUT	ezH20 Floor-Standing Bottle Filling Station
Model No.	DSSBF8SP
Serial No.	Sample 1
Mode	Tx @ 13.56MHz
Frequency Tested	13.56MHz
Notes	Nominal Voltage: 120VAC 85% of Nominal Voltage: 102VAC 115% of Nominal Voltage: 138VAC

Temperature °C	Input Voltage	Nominal Frequency MHz	Measured Frequency MHz	Frequency Variation in %			Pass/Fail
				Lower Limit %	Measured Variation %	Upper Limit %	
-20	120	13.56	13.56	-0.01	0.00000	0.01	Pass
-10	120	13.56	13.5598	-0.01	-0.00147	0.01	Pass
0	120	13.56	13.5597	-0.01	-0.00221	0.01	Pass
+10	120	13.56	13.5598	-0.01	-0.00147	0.01	Pass
+20	120	13.56	13.5601	-0.01	0.00074	0.01	Pass
+20	102	13.56	13.56005	-0.01	0.00037	0.01	Pass
+20	138	13.56	13.5599	-0.01	-0.00074	0.01	Pass
+30	120	13.56	13.56015	-0.01	0.00111	0.01	Pass
+40	120	13.56	13.56015	-0.01	0.00111	0.01	Pass
+50	120	13.56	13.5602	-0.01	0.00147	0.01	Pass

## 22. Occupied Bandwidth – 20dB

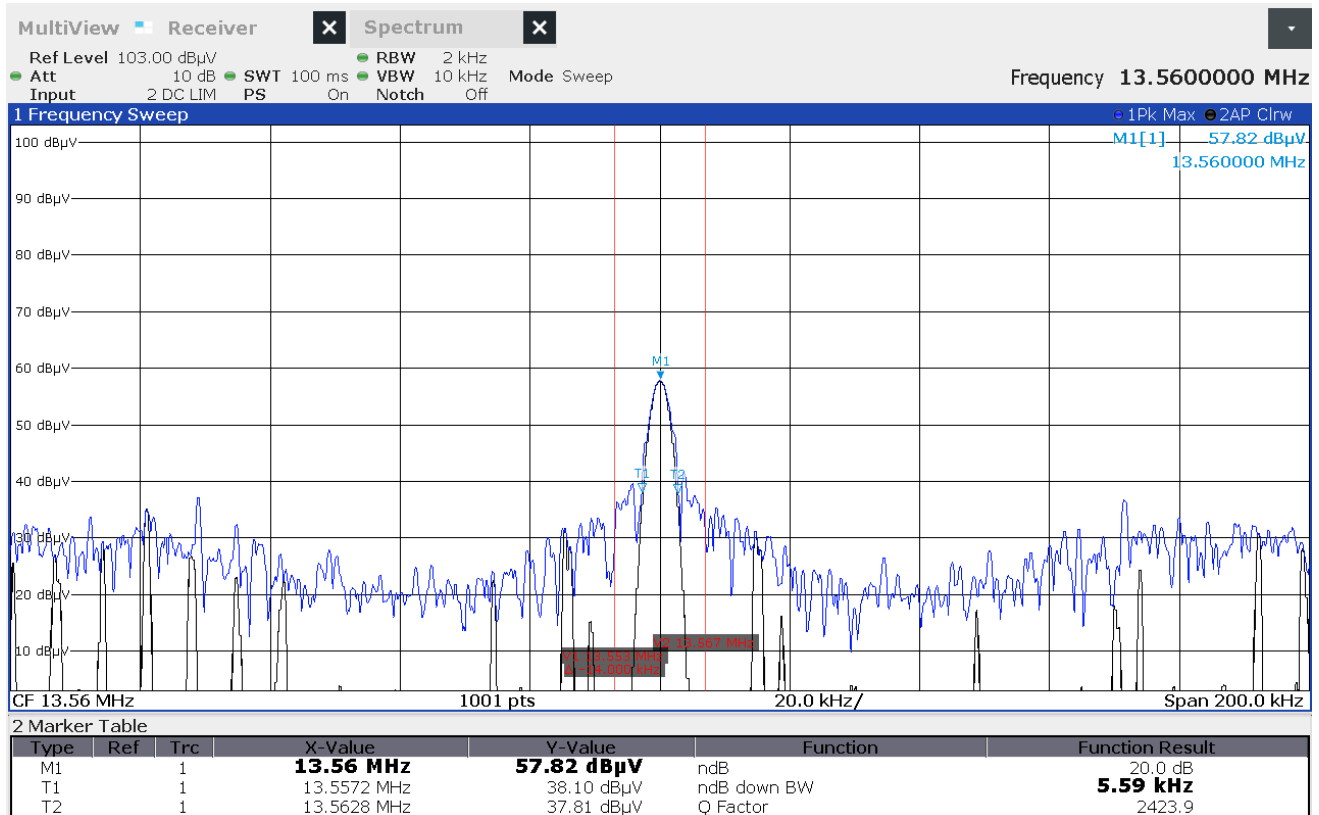
EUT Information	
Manufacturer	Elkay Manufacturing Company
Product	ezH20 Floor-Standing Bottle Filling Station
Model No.	DSSBF8SP
Serial No.	Sample 1
Mode	Tx @ 13.56MHz

Test Setup Details	
Setup Format	Floor Standing
Measurement Method	Radiated
Type of Test Site	Semi-Anechoic Chamber
Test Site Used	Room 29
Type of Antenna Used	Loop (or equivalent)

Requirement
<p><u>FCC 15.215(c):</u> Intentional radiators operating under the alternative provisions to the general emission limits must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.</p>

Procedure
<ol style="list-style-type: none"><li>1) The EUT was set to transmit continuously.</li><li>2) With an antenna positioned nearby, occupied bandwidth emissions were displayed on the receiver.</li><li>3) The resolution bandwidth was set to 2kHz and span was set to 200kHz.</li><li>4) A screen capture was taken of the frequency spectrum near the carrier using a screen dump function on the receiver.</li></ol>

Test Details	
Manufacturer	Elkay Manufacturing Company
EUT	ezH20 Floor-Standing Bottle Filling Station
Model No.	DSSBF8SP
Serial No.	Sample 1
Mode	Tx @ 13.56MHz
Frequency Tested	13.56MHz
Result	20dB BW = 5.59kHz
Notes	Lower Limit = 13.553MHz Upper Limit = 13.567MHz



## 23. Occupied Bandwidth – 99%

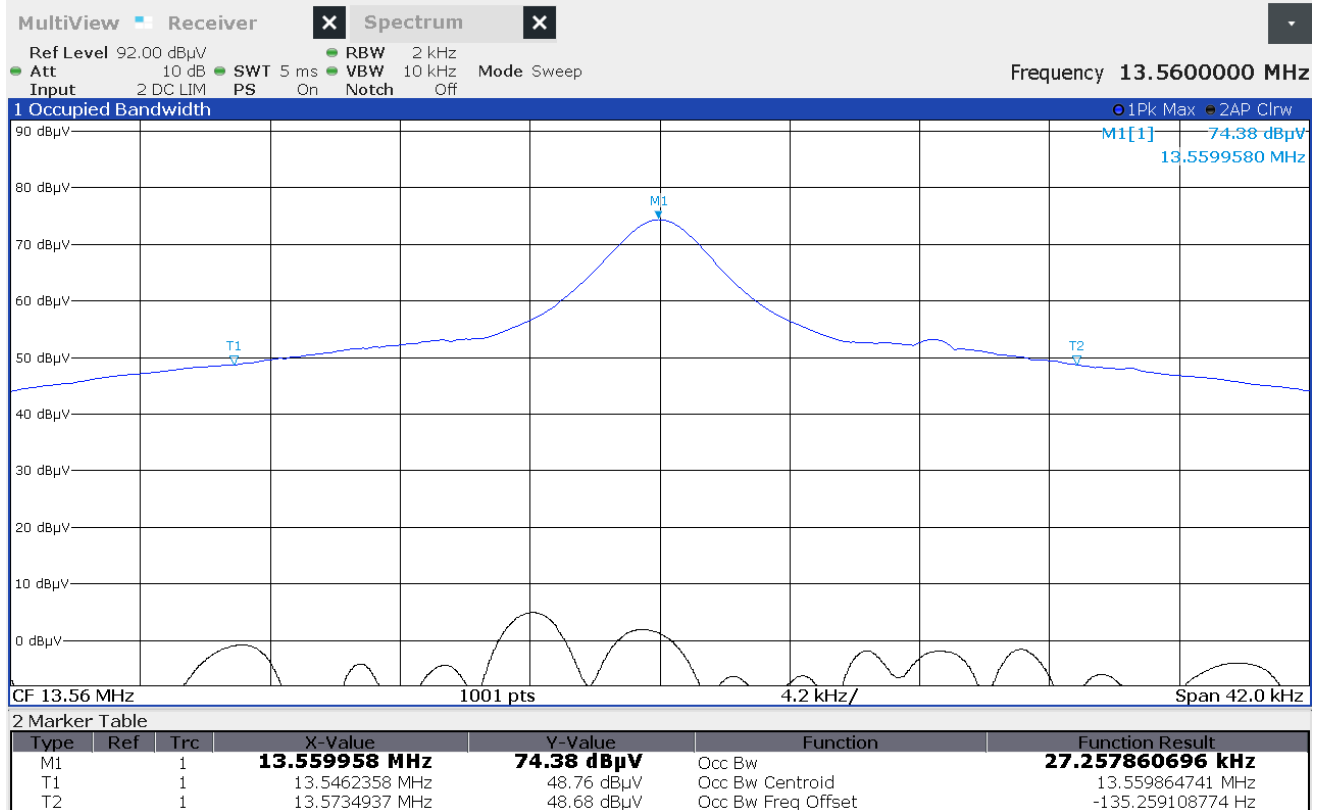
EUT Information	
Manufacturer	Elkay Manufacturing Company
Product	ezH20 Floor-Standing Bottle Filling Station
Model No.	DSSBF8SP
Serial No.	Sample 1
Mode	Tx @ 13.56MHz

Test Setup Details	
Setup Format	Floor Standing
Measurement Method	Radiated
Type of Test Site	Semi-Anechoic Chamber
Test Site Used	Room 29
Type of Antenna Used	Loop (or equivalent)

Procedure	
<p>The EUT was setup inside the chamber. The EUT was allowed to transmit continuously. The transmit channel was set separately to low, middle, and high channels. The resolution bandwidth (RBW) was set to 1% to 5% of the actual occupied / x dB bandwidth, the video bandwidth (VBW) was set 3 times greater than the RBW, and the span was set large enough to capture all products of the modulation process, including the emission skirts, around the carrier frequency.</p>	
<p>The 'Max-Hold' function was engaged. The analyzer was allowed to scan until the envelope of the transmitter bandwidth was defined. The analyzer's display was plotted using a 'screen dump' utility.</p>	



Test Details	
Manufacturer	Elkay Manufacturing Company
EUT	ezH20 Floor-Standing Bottle Filling Station
Model No.	DSSBF8SP
Serial No.	Sample 1
Mode	Tx @ 13.56MHz
Frequency Tested	13.56MHz
Result	99% OBW = 27.26kHz
Notes	None



## 24. Radiated Emissions

EUT Information	
Manufacturer	Elkay Manufacturing Company
Product	ezH20 Floor-Standing Bottle Filling Station
Model No.	DSSBF8SP
Serial No.	Sample 1
Mode	Tx @ 13.56MHz

Test Setup Details	
Setup Format	Floor Standing
Type of Test Site	Semi-Anechoic Chamber
Test Site Used	Room 29
Type of Antennas Used	Loop (or equivalent)
Notes	None

Measurement Uncertainty	
Measurement Type	Expanded Measurement Uncertainty
Radiated disturbance (electric field strength on an open area test site or alternative test site) (30 MHz – 1000 MHz)	4.3

Requirement
Per §15.225(b), the field strength of the EUT within the 13.553 – 13.567MHz bands shall not exceed 15,848 microvolts/meter at 30 meters.
Per RSS-210 B.6 (a), the field strength of the EUT within the band 13.553 – 13.567MHz shall not exceed 15.848mV/m (84 dBµV/m) at 30 meters.

#### Procedure

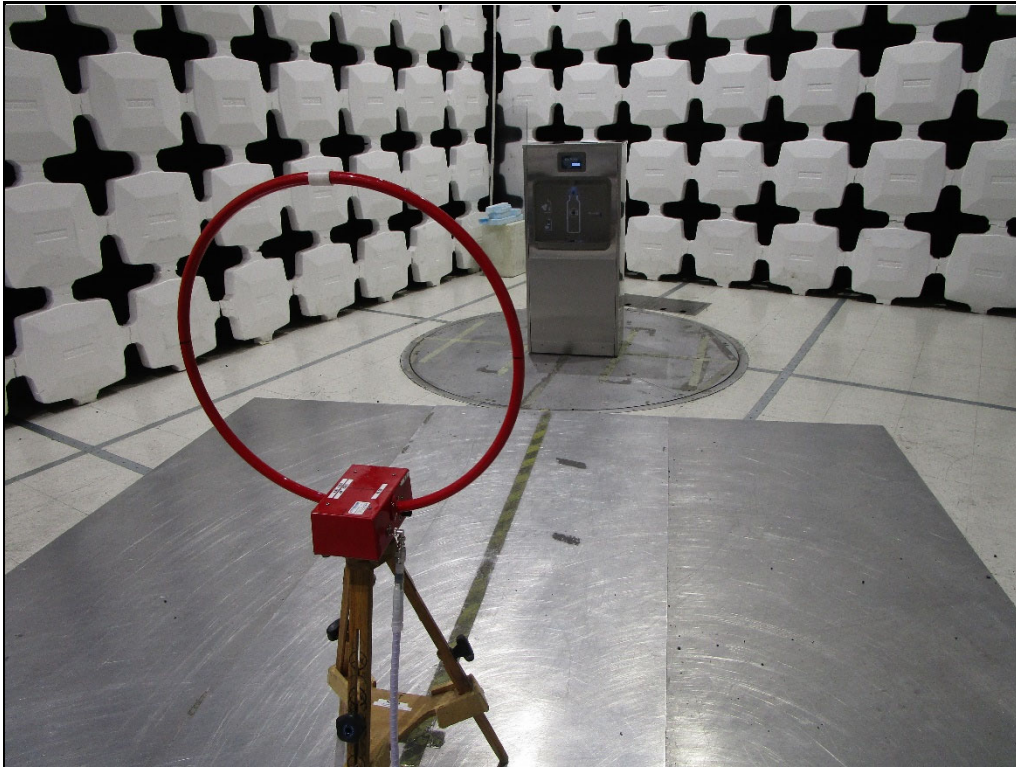
All tests were performed in a 32ft. x 20ft. x 18ft. hybrid ferrite-tile/anechoic absorber lined test chamber. The walls and ceiling of the shielded chamber are lined with ferrite tiles. Anechoic absorber material is installed over the ferrite tile. The floor of the chamber is used as the ground plane. The chamber complies with ANSI C63.4-2014 for site attenuation.

The shielded enclosure prevents emissions from other sources, such as radio and TV stations from interfering with the measurements. All powerlines and signal lines entering the enclosure pass through filters on the enclosure wall. The powerline filters prevent extraneous signals from entering the enclosure on these leads.

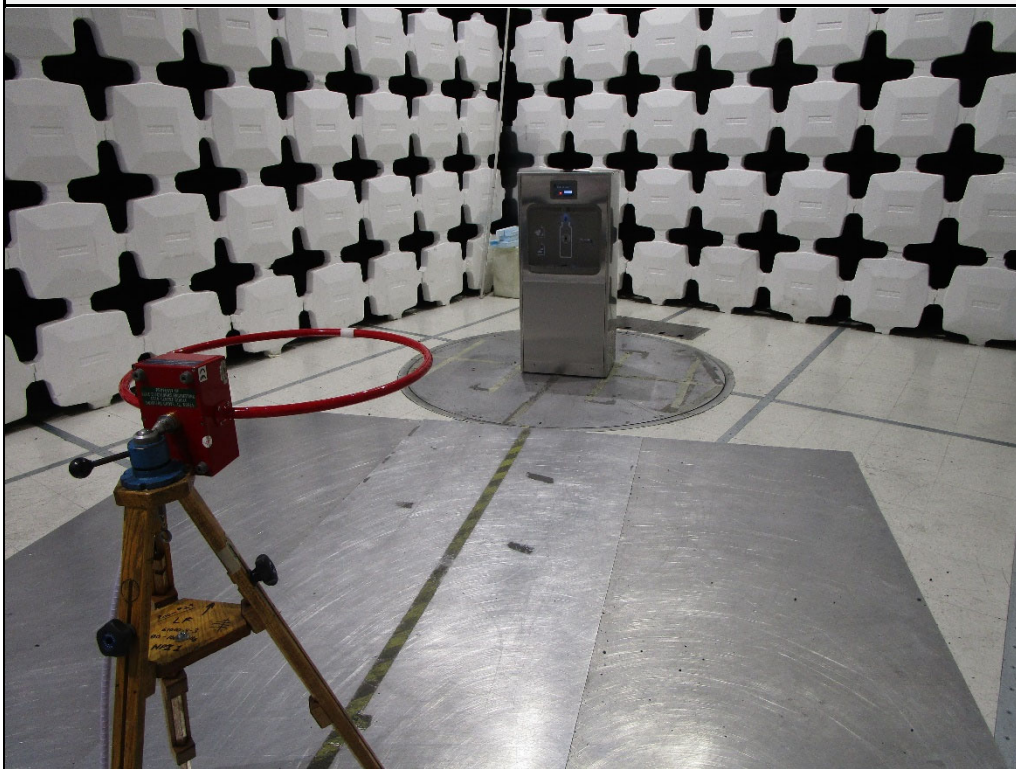
A preliminary radiated emissions test was performed to determine the emission characteristics of the EUT. For the preliminary test, a broadband measuring antenna was positioned at a 3 meter distance from the EUT. The entire frequency range from 9kHz to 1GHz was investigated using a peak detector function.

The final emission tests were then manually performed over the frequency range of 9kHz to 1GHz.

- 1) Between 9kHz and 30MHz, a loop antenna was used as the pick-up device. The EUT was centered on the turntable.
- 2) A peak detector with a resolution bandwidth of 10kHz was used on the spectrum analyzer.
- 3) To ensure that maximum or worst case, emission levels were measured, the following steps were taken:
  - i) The EUT was rotated so that all of its sides were exposed to the receiving antenna.
  - ii) Since the measuring antenna is linearly polarized, both horizontal and vertical field components were measured.
  - iii) The measuring antenna was raised and lowered for each antenna polarization to maximize the readings.
  - iv) In instances where it was necessary to use a shortened cable between the measuring antenna and the spectrum analyzer, the measuring antenna was not raised or lowered to ensure maximized readings. Instead, the EUT was rotated through all axis to ensure the maximum readings were recorded for the EUT.

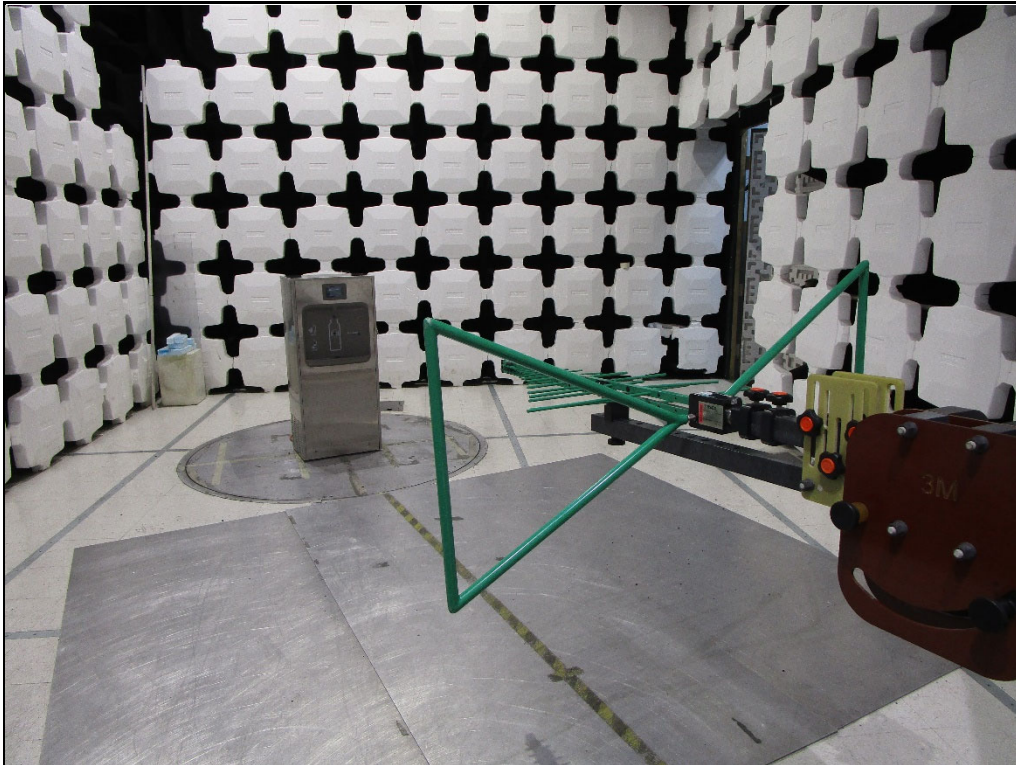


Test Setup for Spurious Radiated Emissions – Antenna Polarization Horizontal

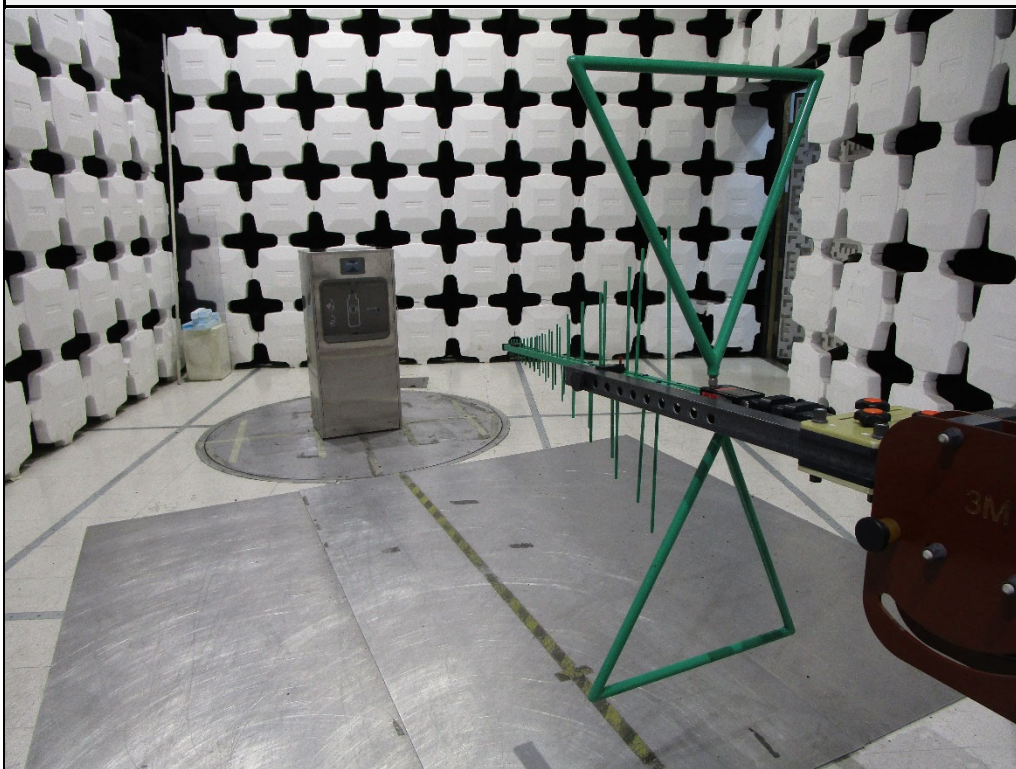


Test Setup for Spurious Radiated Emissions – Antenna Polarization Vertical





Test Setup for Spurious Radiated Emissions, 30-1000MHz – Antenna Polarization Horizontal



Test Setup for Spurious Radiated Emissions, 30-1000MHz – Antenna Polarization Vertical

Test Details	
Manufacturer	Elkay Manufacturing Company
EUT	ezH20 Floor-Standing Bottle Filling Station
Model No.	DSSBF8SP
Serial No.	Sample 1
Mode	Tx @ 13.56MHz
Frequency Tested	13.58MHz
Notes	Field Strength of the Fundamental Limit = 15848 $\mu$ V/m

Freq. (MHz)	Ant Pol	Meter Reading (dBuV)	Ambient	CBL Fac (dB)	Ant Fac (dB/m)	Dist. Corr. (dB)	Total (dBuV/m)	Total (uV/m)	Limit (uV/m)	Specified Test Distance (meters)	Margin (dB)
13.560	H	45.6		0.2	10.1	-40.0	15.9	6.2	15848.0	30.0	-68.1
13.560	V	29.8		0.2	10.1	-40.0	0.1	1.0	15848.0	30.0	-83.9
27.120	H	14.9	*	0.3	8.3	-40.0	-16.5	0.1	30.0	30.0	-46.1
27.120	V	15.3	*	0.3	8.3	-40.0	-16.1	0.2	30.0	30.0	-45.7
40.680	H	12.0	*	0.3	18.6	0.0	30.9	35.2	100.0	3.0	-9.1
40.680	V	12.2	*	0.3	18.6	0.0	31.0	35.6	100.0	3.0	-9.0
54.240	H	12.1	*	0.4	13.2	0.0	25.6	19.1	100.0	3.0	-14.4
54.240	V	12.4	*	0.4	13.2	0.0	26.0	19.9	100.0	3.0	-14.0
67.800	H	12.4	*	0.4	12.3	0.0	25.1	18.0	100.0	3.0	-14.9
67.800	V	12.8	*	0.4	12.3	0.0	25.5	18.8	100.0	3.0	-14.5
81.360	H	11.8	*	0.5	13.3	0.0	25.5	18.8	100.0	3.0	-14.5
81.360	V	11.7	*	0.5	13.3	0.0	25.4	18.7	100.0	3.0	-14.6
94.920	H	12.2	*	0.5	16.3	0.0	29.0	28.1	150.0	3.0	-14.6
94.920	V	11.6	*	0.5	16.3	0.0	28.4	26.4	150.0	3.0	-15.1
108.480	H	11.9	*	0.5	18.0	0.0	30.5	33.5	150.0	3.0	-13.0
108.480	V	12.5	*	0.5	18.0	0.0	31.1	35.8	150.0	3.0	-12.5
122.040	H	11.4	*	0.6	18.4	0.0	30.4	33.1	150.0	3.0	-13.1
122.040	V	11.3	*	0.6	18.4	0.0	30.3	32.6	150.0	3.0	-13.3
135.600	H	11.8	*	0.6	17.6	0.0	30.0	31.6	150.0	3.0	-13.5
135.600	V	11.2	*	0.6	17.6	0.0	29.4	29.5	150.0	3.0	-14.1



## 25. Scope of Accreditation

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

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Website: [www.elitetest.com](http://www.elitetest.com)

## ELECTRICAL

Valid To: June 30, 2025

Certificate Number: 1786.01

In recognition of the successful completion of the A2LA Accreditation Program evaluation process, accreditation is granted to this laboratory to perform the following automotive electromagnetic compatibility and other electrical tests:

**Test Technology:****Test Method(s)<sup>1</sup>:**

***Transient Immunity***  
*(Max Voltage 60V/Max current 100A)*

ISO 7637-2 (including emissions); ISO 7637-3;  
ISO 16750-2:2012, Sections 4.6.3 and 4.6.4;  
CS-11979, Section 6.4; CS.00054, Section 5.9;  
EMC-CS-2009.1 (CI220); FMC1278 (CI220, CI221, CI222);  
GMW 3097, Section 3.5; SAE J1113-11; SAE J1113-12;  
ECE Regulation 10.06 Annex 10

***Electrostatic Discharge (ESD)***  
*(Up to +/-25kV)*

ISO 10605 (2001, 2008);  
CS-11979 Section 7.0; CS.00054, Section 5.10;  
EMC-CS-2009.1 (CI 280); FMC1278 (CI280); SAE J1113-13;  
GMW 3097 Section 3.6

***Conducted Emissions***

CISPR 25 (2002, 2008), Sections 6.2 and 6.3;  
CISPR 25 (2016), Sections 6.3 and 6.4;  
CS-11979, Section 5.1; CS.00054, Sections 5.6.1 and 5.6.2;  
GMW 3097, Section 3.3.2;  
EMC-CS-2009.1 (CE 420); FMC1278 (CE420, CE421,  
CE 430, CE440)

(A2LA Cert. No. 1786.01) 08/15/2023



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**Test Technology:**
**Test Method(s)<sup>1</sup>:**

***Radiated Emissions Anechoic***  
(Up to 6GHz)

CISPR 25 (2002, 2008), Section 6.4;  
CISPR 25 (2016), Section 6.5;  
CS-11979, Section 5.3; CS.00054, Section 5.6.3;  
GMW 3097, Section 3.3.1;  
EMC-CS-2009.1 (RE 310); FMC1278 (RE310, RE320);

***Vehicle Radiated Emissions***

CISPR 12; CISPR 36; ICES-002;  
ECE Regulation 10.06 Annex 5

***Bulk Current Injection (BCI)***  
(1 to 400MHz 500mA)

ISO 11452-4; CS-11979, Section 6.1; CS.00054, Section 5.8.1;  
GMW 3097, Section 3.4.1; SAE J1113-4;  
EMC-CS-2009.1 (RI112); FMC1278 (RI112);  
ECE Regulation 10.06 Annex 9

***Radiated Immunity Anechoic***  
(Up to 6GHz and 200V/m)  
(Including Radar Pulse 600V/m)

ISO 11452-2;  
CS-11979, Section 6.2; CS.00054, Section 5.8.2;  
GMW 3097, Section 3.4.2;  
EMC-CS-2009.1 (RI114); FMC1278 (RI114); SAE J1113-21;  
ECE Regulation 10.06 Annex 9

***Radiated Immunity Magnetic Field***

ISO 11452-8; FMC 1278 (RI140)

***Radiated Immunity Reverb***  
(360MHz to 6GHz and 100V/m)

ISO/IEC 61000-4-21; GMW 3097, Section 3.4.3;  
EMC-CS-2009.1 (RI114); FMC1278 (RI114);  
ISO 11452-11

***Radiated Immunity***  
(Portable Transmitters)  
(Up to 6GHz and 20W)

ISO 11452-9;  
EMC-CS-2009.1 (RI115); FMC1278 (RI115);  
GMW 3097, Sec 3.4.4

***Vehicle Radiated Immunity (ALSE)***

ISO 11451-2; ECE Regulation 10.06 Annex 6

***Vehicle Product Specific EMC Standards***

EN 14982; EN ISO 13309; ISO 13766; EN 50498;  
EC Regulation No. 2015/208; EN 55012

***Electrical Loads***

ISO 16750-2

***Stripline***

ISO 11452-5

***Transverse Electromagnetic (TEM) Cell***

ISO 11452-3

**Test Technology:**
**Test Method(s)¹:**
**Emissions**

Radiated and Conducted  
(3m Semi-anechoic chamber,  
up to 40 GHz)

47 CFR, FCC Part 15 B (using ANSI C63.4:2014);  
47 CFR, FCC Part 18 (using FCC MP-5:1986);  
ICES-001; ICES-003; ICES-005;  
IEC/CISPR 11, Ed. 4.1 (2004-06); AS/NZS CISPR 11 (2004);  
IEC/CISPR 11 Ed 5 (2009-05) + A1 (2010);  
KN 11 (2008-5) with RRL Notice No. 2008-3 (May 20, 2008);  
CISPR 11; EN 55011; KS C 9811; CNS 13803 (1997, 2003);  
CISPR 14-1; EN 55014-1; AS/NZS CISPR 14.1;  
CISPR 16-2-1 (2008); CISPR 16-2-1; KS C 9814-1; KN 14-1;  
IEC/CISPR 22 (1997);  
EN 55022 (1998) + A1(2000);  
EN 55022 (1998) + A1(2000) + A2(2003); EN 55022 (2006);  
IEC/CISPR 22 (2008-09); AS/NZS CISPR 22 (2004);  
AS/NZS CISPR 22, 3rd Edition (2006); KN 22 (up to 6 GHz);  
CNS 13438 (up to 6 GHz); VCCI V-3 (up to 6 GHz);  
CISPR 32; EN 55032; KS C 9832; KN 32;  
ECE Regulation 10.06 Annex 7 (Broadband);  
ECE Regulation 10.06 Annex 8 (Narrowband);  
ECE Regulation 10.06 Annex 14 (Conducted)

## Cellular Radiated Spurious Emissions

ETSI TS 151 010-1 GSM; 3GPP TS 51.010-1, Sec 12;  
ETSI TS 134 124 UMTS; 3GPP TS 34.124;  
ETSI TS 136 124 LTE; E-UTRA; 3GPP TS 36.124

## Current Harmonics

IEC 61000-3-2; IEC 61000-3-12;  
EN 61000-3-2; KN 61000-3-2;  
KS C 9610-3-2; ECE Regulation 10.06 Annex 11

## Flicker and Fluctuations

IEC 61000-3-3; IEC 61000-3-11;  
EN 61000-3-3; KN 61000-3-3;  
KS C 9610-3-3; ECE Regulation 10.06 Annex 12

**Immunity**

## Electrostatic Discharge

IEC 61000-4-2, Ed. 1.2 (2001);  
IEC 61000-4-2 (1995) + A1(1998) + A2(2000);  
EN 61000-4-2 (1995); EN 61000-4-2 (2009-05);  
KN 61000-4-2 (2008-5);  
RRL Notice No. 2008-4 (May 20, 2008);  
IEC 61000-4-2; EN 61000-4-2; KN 61000-4-2;  
KS C 9610-4-2; IEEE C37.90.3 2001

## Radiated Immunity

IEC 61000-4-3 (1995) + A1(1998) + A2(2000);  
IEC 61000-4-3, Ed. 3.0 (2006-02);  
IEC 61000-4-3, Ed. 3.2 (2010);  
KN 61000-4-3 (2008-5);  
RRL Notice No. 2008-4 (May 20, 2008);  
IEC 61000-4-3; EN 61000-4-3; KN 61000-4-3;  
KS C 9610-4-3; IEEE C37.90.2 2004

Test Technology:
Test Method(s)<sup>1</sup>:
**Immunity (cont'd)**

Electrical Fast Transient/Burst

IEC 61000-4-4, Ed. 2.0 (2004-07);  
IEC 61000-4-4, Ed. 2.1 (2011);  
IEC 61000-4-4 (1995) + A1(2000) + A2(2001);  
KN 61000-4-4 (2008-5);  
RRL Notice No. 2008-5 (May 20, 2008);  
IEC 61000-4-4; EN 61000-4-4; KN 61000-4-4;  
KS C 9610-4-4; ECE Regulation 10.06 Annex 15

Surge

IEC 61000-4-5 (1995) + A1(2000);  
IEC 61000-4-5, Ed 1.1 (2005-11);  
EN 61000-4-5 (1995) + A1(2001);  
KN 61000-4-5 (2008-5);  
RRL Notice No. 2008-4 (May 20, 2008);  
IEC 61000-4-5; EN 61000-4-5; KN 61000-4-5;  
KS C 9610-4-5;  
IEEE C37.90.1 2012; IEEE STD C62.41.2 2002;  
ECE Regulation 10.06 Annex 16

Conducted Immunity

IEC 61000-4-6 (1996) + A1(2000);  
IEC 61000-4-6, Ed 2.0 (2006-05);  
IEC 61000-4-6 Ed. 3.0 (2008);  
KN 61000-4-6 (2008-5);  
RRL Notice No. 2008-4 (May 20, 2008);  
EN 61000-4-6 (1996) + A1(2001); IEC 61000-4-6;  
EN 61000-4-6; KN 61000-4-6; KS C 9610-4-6

Power Frequency Magnetic Field  
Immunity (*Down to 3 A/m*)

IEC 61000-4-8 (1993) + A1(2000); IEC 61000-4-8 (2009);  
EN 61000-4-8 (1994) + A1(2000);  
KN 61000-4-8 (2008-5);  
RRL Notice No. 2008-4 (May 20, 2008);  
IEC 61000-4-8; EN 61000-4-8; KN 61000-4-8; KS C 9610-4-8

Voltage Dips, Short Interrupts, and Line  
Voltage Variations

IEC 61000-4-11, Ed. 2 (2004-03);  
KN 61000-4-11 (2008-5);  
RRL Notice No. 2008-4 (May 20, 2008);  
IEC 61000-4-11; EN 61000-4-11; KN 61000-4-11;  
KS C 9610-4-11

Ring Wave

IEC 61000-4-12, Ed. 2 (2006-09);  
EN 61000-4-12:2006;  
IEC 61000-4-12; EN 61000-4-12; KN 61000-4-12;  
IEEE STD C62.41.2 2002

**Test Technology:**

Generic and Product Specific EMC Standards

**Test Method(s)<sup>1</sup>:**

IEC/EN 61000-6-1; AS/NZS 61000-6-1; KN 61000-6-1;  
KS C 9610-6-1; IEC/EN 61000-6-2; AS/NZS 61000-6-2;  
KN 61000-6-2; KS C 9610-6-2; IEC/EN 61000-6-3;  
AS/NZS 61000-6-3; KN 61000-6-3; KS C 9610-6-3;  
IEC/EN 61000-6-4; AS/NZS 61000-6-4; KN 61000-6-4;  
KS C 9610-6-4; EN 50130-4; EN 61326-1; EN 50121-3-2;  
EN 12895; EN 50270; EN 50491-1; EN 50491-2; EN 50491-3;  
EN 55015; EN 60730-1; EN 60945; IEC 60533;  
EN 61326-2-6; EN 61800-3; IEC/CISPR 14-2; EN 55014-2;  
AS/NZS CISPR 14-2; KN 14-2; KS C 9814-2;  
IEC/CISPR 24; AS/NZS CISPR 24; EN 55024; KN 24;  
IEC/CISPR 35; AS/NZS CISPR 35; EN 55035; KN 35;  
KS C 9835; IEC 60601-1-2; JIS T0601-1-2

***TxRx EMC Requirements***

EN 301 489-1; EN 301 489-3; EN 301 489-9;  
EN 301 489-17; EN 301 489-19; EN 301 489-20

***European Radio Test Standards***

ETSI EN 300 086-1; ETSI EN 300 086-2;  
ETSI EN 300 113-1; ETSI EN 300 113-2;  
ETSI EN 300 220-1; ETSI EN 300 220-2;  
ETSI EN 300 220-3-1; ETSI EN 300 220-3-2;  
ETSI EN 300 330-1; ETSI EN 300 330-2;  
ETSI EN 300 440-1; ETSI EN 300 440-2;  
ETSI EN 300 422-1; ETSI EN 300 422-2;  
ETSI EN 300 328; ETSI EN 301 893;  
ETSI EN 301 511; ETSI EN 301 908-1;  
ETSI EN 908-2; ETSI EN 908-13;  
ETSI EN 303 413; ETSI EN 302 502;  
EN 303 340; EN 303 345-2; EN 303 345-3; EN 303 345-4

***Canadian Radio Tests***

RSS-102 measurement (RF Exposure Evaluation);  
RSS-102 measurement (Nerve Stimulation);  
SPR-002; RSS-111; RSS-112; RSS-117; RSS-119; RSS-123;  
RSS-125; RSS-127; RSS-130; RSS-131; RSS-132; RSS-133;  
RSS-134; RSS-135; RSS-137; RSS-139; RSS-140; RSS-141;  
RSS-142; RSS-170; RSS-181; RSS-182; RSS-191; RSS-192;  
RSS-194; RSS-195; RSS-196; RSS-197; RSS-199; RSS-210;  
RSS-211; RSS-213; RSS-215; RSS-216; RSS-220; RSS-222;  
RSS-236; RSS-238; RSS-243; RSS-244; RSS-247; RSS-248;  
RSS-251; RSS-252; RSS-287; RSS-288; RSS-310; RSS-GEN

***Mexico Radio Tests***

IFT-008-2015; NOM-208-SCFI-2016

***Japan Radio Tests***

Radio Law No. 131, Ordinance of MPT No. 37, 1981,  
MIC Notification No. 88:2004, Table No. 22-11;  
ARIB STD-T66, Regulation 18

***Taiwan Radio Tests***

LP-0002 (July 15, 2020)



**Test Technology:**
**Test Method(s)<sup>1</sup>:**

*Australia/New Zealand Radio Tests*

AS/NZS 4268; Radiocommunications (Short Range Devices) Standard (2014)

*Hong Kong Radio Tests*

HKCA 1039 Issue 6;  
HKCA 1042;  
HKCA 1033 Issue 7;  
HKCA 1061;  
HKCA 1008;  
HKCA 1043;  
HKCA 1057;  
HKCA 1073

*Korean Radio Test Standards*

KN 301 489-1; KN 301 489-3; KN 301 489-9;  
KN 301 489-17; KN 301 489-52; KS X 3124; KS X 3125;  
KS X 3130; KS X 3126; KS X 3129

*Vietnam Radio Test Standards*

QCVN 47:2015/BTTTT; QCVN 54:2020/BTTTT;  
QCVN 55:2011/BTTTT; QCVN 65:2013/BTTTT;  
QCVN 73:2013/BTTTT; QCVN 74:2020/BTTTT;  
QCVN 112:2017/BTTTT; QCVN 117:2020/BTTTT

*Vietnam EMC Test Standards*

QCVN 18:2014/BTTTT; QCVN 86:2019/BTTTT;  
QCVN 96:2015/BTTTT; QCVN 118:2018/BTTTT

*Unlicensed Radio Frequency Devices  
(3 Meter Semi-Anechoic Room)*

47 CFR FCC Part 15C, 15D, 15E, 15F, 15G, 15H  
(using ANSI C63.10:2013, ANSI C63.17:2013 and  
FCC KDB 905462 D02 (v02))

*Licensed Radio Service Equipment*

47 CFR FCC Parts 20, 22, 24, 25, 27, 30, 73, 74, 80, 87,  
90, 95, 96, 97, 101 (using ANSI/TIA-603-E,  
TIA-102.CAAA-E, ANSI C63.26:2015)

*OIA (Over the Air) Performance*

GSM, GPRS, EGPRS  
UMTS (W-CDMA)  
LTE including CAT M1  
A-GPS for UMTS/GSM  
LTS A-GPS, A-GLONASS,  
SIB8/SIB16  
Large Device/Laptop/Tablet Testing  
Integrated Device Testing  
WiFi 802.11 a/b/g/n/a

CTIA Test Plan for Wireless Device Over-the-Air  
Performance (Method for Measurement for Radiated Power  
and Receiver Performance) V3.8.2;  
CTIA Test Plan for RF Performance Evaluation of WiFi  
Mobile Converged Devices V2.1.0



**Test Technology:**
**Test Method(s)<sup>1</sup>:**
**Electrical Measurements and Simulation**
**AC Voltage / Current**

(1mV to 5kV) 60 Hz  
(0.1V to 250V) up to 500 MHz  
(1μA to 150A) 60 Hz

FAA AC 150/5345-10H;  
FAA AC 150/5345-43J;  
FAA AC 150/5345-44K;  
FAA AC 150/5345-46E;  
FAA AC 150/5345-47C;  
FAA EB 67D

**DC Voltage / Current**

(1mV to 15 kV) / (1μA to 10A)

**Power Factor / Efficiency / Crest Factor**

(Power to 30kW)

**Resistance**

(1mΩ to 4000MΩ)

**Surge**

(Up to 10 kV / 5 kA) (Combination  
Wave and Ring Wave)

**On the following products and materials:**

Telecommunications Terminal Equipment (TTE), Radio Equipment, Network Equipment, Information Technology Equipment (ITE), Automotive Electronic Equipment, Automotive Hybrid Electronic Devices, Maritime Navigation and Radio Communication Equipment and Systems, Vehicles, Boats and Internal Combustion Engine Driven Devices, Automotive, Aviation, and General Lighting Products, Medical Electrical Equipment, Motors, Industrial, Scientific and Medical (ISM) Radio-Frequency Equipment, Household Appliances, Electric Tools, Low-voltage Switchgear and Control gear, Programmable Controllers, Electrical Equipment for Measurement, Control and Laboratory Use, Base Materials, Power and Data Transmission Cables and Connectors

<sup>1</sup> When the date, edition, version, etc. is not identified in the scope of accreditation, laboratories may use the version that immediately precedes the current version for a period of one year from the date of publication of the standard measurement method, per part C., Section 1 of A2LA R101 - General Requirements - Accreditation of ISO-IEC 17025 Laboratories.

Testing Activities Performed in Support of FCC Certification in Accordance with 47 Code of Federal Regulations and FCC KDB 974614, Appendix A, Table A.1<sup>2</sup>

Rule Subpart/Technology	Test Method	Maximum Frequency (MHz)
<b><u>Unintentional Radiators</u></b>		
Part 15B	ANSI C63.4:2014	40000
<b><u>Industrial, Scientific, and Medical Equipment</u></b>		
Part 18	FCC MP-5 (February 1986)	40000
<b><u>Intentional Radiators</u></b>		
Part 15C	ANSI C63.10:2013	40000

Testing Activities Performed in Support of FCC Certification in Accordance with 47 Code of Federal Regulations and FCC KDB 974614, Appendix A, Table A.1<sup>2</sup>

Rule Subpart/Technology	Test Method	Maximum Frequency (MHz)
<u>Unlicensed Personal Communication Systems Devices</u> Part 15D	ANSI C63.17:2013	40000
<u>U-NII without DFS Intentional Radiators</u> Part 15E	ANSI C63.10:2013	40000
<u>U-NII with DFS Intentional Radiators</u> Part 15E	FCC KDB 905462 D02 (v02)	40000
<u>UWB Intentional Radiators</u> Part 15F	ANSI C63.10:2013	40000
<u>BPL Intentional Radiators</u> Part 15G	ANSI C63.10:2013	40000
<u>White Space Device Intentional Radiators</u> Part 15H	ANSI C63.10:2013	40000
<u>Commercial Mobile Services (FCC Licensed Radio Service Equipment)</u> Parts 22 (cellular), 24, 25 (below 3 GHz), and 27	ANSI/TIA-603-E; TIA-102.CAAA-E; ANSI C63.26:2015	40000
<u>General Mobile Radio Services (FCC Licensed Radio Service Equipment)</u> Parts 22 (non-cellular), 90 (below 3 GHz), 95, 97, and 101 (below 3 GHz)	ANSI/TIA-603-E; TIA-102.CAAA-E; ANSI C63.26:2015	40000
<u>Citizens Broadband Radio Services (FCC Licensed Radio Service Equipment)</u> Part 96	ANSI/TIA-603-E; TIA-102.CAAA-E; ANSI C63.26:2015	40000
<u>Maritime and Aviation Radio Services</u> Parts 80 and 87	ANSI/TIA-603-E; ANSI C63.26:2015	40000
<u>Microwave and Millimeter Bands Radio Services</u> Parts 25, 30, 74, 90 (above 3 GHz), 97 (above 3 GHz), and 101	ANSI/TIA-603-E; TIA-102.CAAA-E; ANSI C63.26:2015	40000

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Testing Activities Performed in Support of FCC Certification in Accordance with 47 Code of Federal Regulations and FCC KDB 974614, Appendix A, Table A.1<sup>2</sup>

Rule Subpart/Technology	Test Method	Maximum Frequency (MHz)
<u>Broadcast Radio Services</u> Parts 73 and 74 (below 3 GHz)	ANSI/TIA-603-E; TIA-102.CAAA-E; ANSI C63.26:2015	40000
<u>Signal Boosters</u> Part 20 (Wideband Consumer Signal Boosters, Provider-specific signal boosters, and Industrial Signal Boosters) Section 90.219	ANSI C63.26:2015	40000

<sup>2</sup> Accreditation does not imply acceptance to the FCC equipment authorization program. Please see the FCC website (<https://apps.fcc.gov/oetcf/eas/>) for a listing of FCC approved laboratories.



## Accredited Laboratory

A2LA has accredited

### ELITE ELECTRONIC ENGINEERING INC.

Downers Grove, IL

for technical competence in the field of

### Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 15<sup>th</sup> day of August 2023.

A blue ink signature of Trace McInturff.

Mr. Trace McInturff, Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 1786.01  
Valid to June 30, 2025

*For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.*