CFR 47 Part 18 Industrial Scientific and Medical Equipment Subpart C Technical Standards, Part 18.305, Field Strength Limits and Part 18.307, Conducted limits Certification Report

for the

Sharp Corporation

Microwave Oven Drawer Wall Oven Combo with IoT
Model: SWB3085HS

FCC ID: APYDMR0182

Test Dates:
Issue Date: May 24, 2023

Total Number of Pages Contained Within this report: 34

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I certify that I am authorized to sign for the manufacturer and that all of the statements in this report and in the exhibits attached hereto are true and correct to the best of my knowledge and belief:

US Tech (Agent responsible for test):

By:
Name: Alan Ghasiani

Title: President – Consulting Engineer

Date: May 24, 2023

NVLAP LAB CODE 200162-0

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1. General Information

1.1 Purpose of the Report

This report is prepared as a means of conveying test results and information concerning the suitability of this exact product for public distribution according to the FCC Rules and Regulations Part 18.305 and 18.307 and FCC Methods of Measurements of Radio Noise Emissions from Industrial, Scientific, and Medical Equipment (FCC/OST MP-5:1986)

1.2 Product Description

The Equipment under Test (EUT) is the Sharp Corporation model SWB3085HS smart convection wall oven with microwave drawer oven. This is a combination unit that incorporates a convection oven on top of a microwave drawer unit. This combination unit also has wireless capabilities and contains a certified Wi-Fi radio module. The EUT is rated to be 950 Watts. The input power is rated at 208-240 VAC, 60Hz multi-phase.

The EUT was tested at 100% microwave power setting.

The FCC ID for the Wi-Fi module is FCC ID: 2BABF-S21.

1.3 Related Submittal(s)/Grant(s)

The EUT is subject to the following FCC authorizations:

a) Certification under FCC CFR 47:2007.
b) Verification under Part 18.305 and 18.307 Subpart C, Consumer.

A separate verification report will be provided for the Supplier Declaration of Conformity compliance.

1.4 Test Methodology

The EUT was configured as shown in the block diagram and photographs herein. The sample was tested per FCC measurement Procedure MP-5, “Methods of Measurement of Radio Noise Emissions from Industrial, Scientific and Medical Equipment” (1986) as well as per CFR 47 part 18. Conducted and radiated emissions data were taken with the Test Receiver or Spectrum Analyzer's resolution bandwidth adjusted to 9 kHz and 120 kHz, respectively. At frequencies above 1 GHz, the resolution bandwidth was increased to 1 MHz. The video bandwidth was three times more than resolution bandwidth on the spectrum analyzer. All measurements are peak unless stated otherwise. Interconnecting cables were manipulated as necessary to maximize emissions.

1.5 Test Facility

Testing was performed at US Tech's measurement facility at 3505 Francis Circle, Alpharetta, GA. This site has been fully described and registered with the FCC under site designation number US5301. Additionally this site has also been fully described and submitted to Industry Canada (IC), and has been approved under ISED site number 9900A-1.

US Tech currently is Accredited by the NIST NVLAP organization, Lab Code: 200162-0 and FCC Part 18 is in our Scope of Accreditation.

1.6 Test Equipment

The following table details the test equipment used in the evaluation of this product.

Table 1. Test Equipment

INSTRUMENT	MODEL NUMBER	MANUFACTURER	SERIAL NUMBER	CALIBRATION DUE DATE
SPECTRUM ANALYZER (radiated emissions)	U3772	ADVANTEST	1806001039	1/25/2025 2yr.
SPECTRUM ANALYZER (power line emissions)	DSA815	RIGOL	DSA8A18030 0138	1/06/2024 2yr.
BICONICAL ANTENNA	3110B	EMCO	9306-1708	8/17/2023 2yr.
HORN ANTENNA	SAS-571	A. H. SYSTEMS	605	4/28/2024 2yr.
LOG PERIODIC ANTENNA	3146	EMCO	9110-3236	12/13/2023 2yr.
PREAMP	8447D	HEWLETT-PACKARD	1937A02980	6/09/2023
PREAMP	8449B	HEWLETT PACKARD	3008A00914	3/03/2024
LISN (x3)	9247-50-TS-50-N	SOLAR ELECTRONICS	955824, 955825, 955826	4/28/24
Isotropic Field Probe	FP4036	Amplified Research	305667	6/03/2023
Digital Power Analyzer	2101	Valhalla	3/1/6350	9/30/2023
Waterproof Thermometer	TP301	Yacumama	X0021LIOY9	11/03/2023

Note: The calibration interval of the above test instruments is 12 months unless stated otherwise and all calibrations are traceable to NIST/USA.

1.7 Characterization of Sample Tested

The sample used for testing was received on March 30, 2023 in good condition.

1.8 EUT Exercise Software

No software was exercised while the EUT was being tested. The EUT was programmed to perform at 100% power level. The test was performed using 1000 ml of tap water in a 150 mm diameter cylindrical glass vessel placed in the center of the oven.

1.9 Special Accessories

There were not special accessories required for this product testing.

1.10 Test Rationale

The EUT, cable and wiring arrangement, and mode of operation that produced the emissions with the highest levels relative to the applicable limits was selected for final measurements.

The interconnect cable(s) and/or power cord(s) were moved into various positions of the most likely configurations to maximize the emissions. In this case the placement of the cables had negligible effects. The test configuration photographs represent the final configuration used for testing.

1.11 Tested System Details

Table 2. EUT and Peripherals

PERIPHERAL/ MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	FCC ID	CABLES P/D
Microwave Oven Drawer Wall Oven Combo with IOT (EUT)/ Sharp Corporation	SWB3085HS	Engineering Sample	APYDMR0182 Contains FCC ID: 2BABF-S21	P

U= unshielded S= shielded P= Power D= Data

Table 3. Detail of I/O Cables Attached to EUT

DESCRIPTION OF CABLE	DETAILS OF CABLE			CABLE LENGTH
Power Cable	Manufacturer and Part Number			1.5 m
	CND			
	Shield Type	Shield Termination	Type of Backshell	
	NA	NA	NA	

Shield Type
N/A = None
F = Foil
B = Braided
2B = Double Braided
CND = Could Not Determine
C = Conduit

Shield Termination
N/A = None
360 = 360°
P = Pigtail/Drain Wire
CND = Could Not Determine

Type of Backshell
N/A = Not Applicable
PS = Plastic Shielded
PU = Plastic Unshielded
MS = Metal Shielded
MU = Metal Unshielded

1.12 Configuration of Tested System

Figure 1. Block Diagram of Test Configuration

1.13 Equipment Modifications

No modifications were made to the EUT in order for it to meet the requirements.

1.14 Test Results

Line conducted emissions testing was conducted and compared to 18.307(b) limits. The worst case line conducted emission was 1.6 dB below the limit at 4.66 MHz on the Neutral line. All other conducted emissions were at least 3.1 dB below the limit.

Radiated emissions testing was conducted and compared to 18.305 (a) and (b) limits. The worst case radiated emission in the frequency range 30 MHz to 25 GHz was 2.7 dB below the limit at 12296 MHz; all other radiated emissions were at least 6.8 dB below the limit.

1.15 Measurement Uncertainty

.

Conducted Emissions:
Measurement Uncertainty (within a 95% confidence level) for this test was ±2.8 dB.

☐ - The data listed in this test report may exceed the test limit because it does not have enough margin (more than 2.8 dB) to meet the measurement uncertainty interval. The EUT conditionally passes this test.
☒ - The data listed in this test report has enough margin, more than 2.8, dB to meet the measurement uncertainty interval. The EUT unconditionally passes this test.

Radiated Emissions:
Measurement Distance of 10 m:
The measurement uncertainty (with a 95% confidence level) for this test using a Biconical Antenna is ±5.21 dB.
The measurement uncertainty (with a 95% confidence level) for this test using a Log Periodic Antenna is ±4.99 dB.
Measurement Distance of 3 m:
The measurement uncertainty (with a 95% confidence level) for this test using a double ridge horn antenna is ±5.08 dB.

☐ - The data listed in this test report may exceed the test limit because it does not have enough margins to meet the measurement uncertainty interval. The EUT conditionally passes this test.
☒ - The data listed in this test report has enough margins to meet the measurement uncertainty interval. The EUT unconditionally passes this test.

2. Emissions Data, Power Line and Radiated (47 CFR 18.301, 18.303, 18.305, 18.307)

2.1 Test Site Description, Power Line Emissions

The mains terminal interference measurement facility is a shielded room (Lectro Magnetics, Inc., Type LDC6-0812-8-2793) 4.0 m deep x 2.5 m wide x 2.5 m high. Power for the shielded room is filtered (Lectroline, EMX-1020-2, rated 125/250 V, 20 A, 50/60 Hz).

The artificial mains networks are Solar Electronics models 8028. A nonconductive table 1.5 m deep x 1.0 m wide x 0.8 m high is used for tabletop equipment. All grounded conducting surfaces including the case or cases of one or more artificial mains networks is at least 0.8 m from any surface of the EUT. The EUT is a wall mounted unit; therefore the unit was place on a nonconductive table 50cm away from all vertical coupling surfaces.

The load used for this measurement was 1000 ml of water located in the center of the oven.

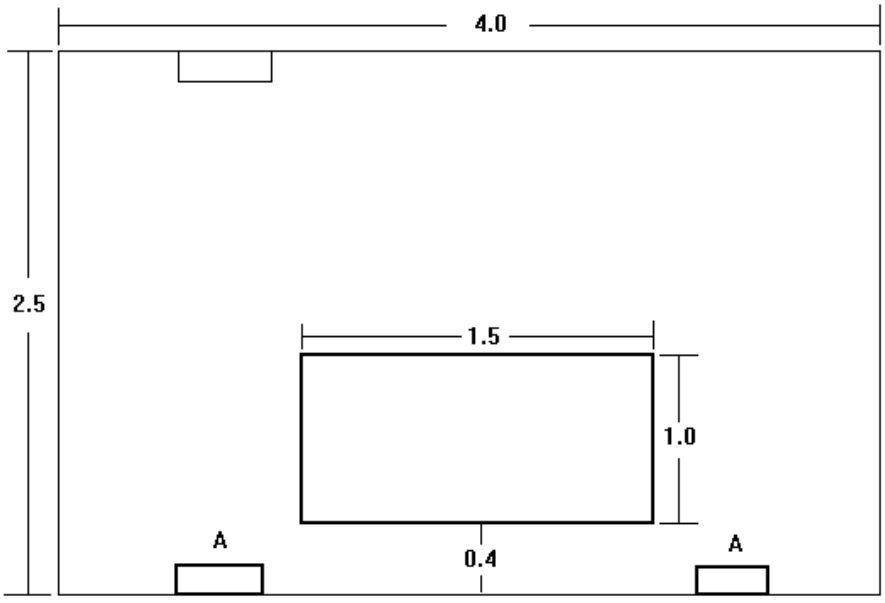


Figure 2. Power Line Emissions Disturbance Measurement Facility Diagram

2.2 Power Line Emissions Test Data

The EUT was operated in normal operating condition with the Wi-Fi radio exercising and 1000 mL water in the center of the microwave. The EUT was powered with 220VAC, 60 Hz mains supply.

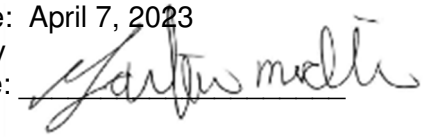
Table 4. Power Line Conducted Emissions

Conducted Emissions 220 VAC						
Frequency (MHz)	**Test Data (dBuV)**	**IL+CA-AMP (dB)**	**Results (dBuV)**	**Average Limits (dBuV)**	**Margin (dB)**	**Detector Used**
Line 1 (RED)						
0.3577	49.71	2.67	52.38	58.8	6.4*	**QP**
0.3577	29.89	2.67	32.56	48.8	16.2	**AVG**
0.6925	45.67	0.23	45.90	56.0	10.1*	**QP**
0.6925	41.41	0.23	41.64	46.0	4.4	**AVG**
4.6600	51.57	0.22	51.79	56.0	4.2*	**QP**
4.6600	44.22	0.22	44.44	46.0	1.6	**AVG**
5.0333	47.92	0.21	48.13	60.0	11.9*	**QP**
5.0333	40.73	0.21	40.94	50.0	9.1	**AVG**
11.5333	43.67	0.57	44.24	50.0	5.8	**PK**
29.7000	35.16	1.90	37.06	50.0	12.9	**PK**
Line 2 (BLK)						
0.1955	49.96	0.13	50.09	63.8	13.7*	**QP**
0.1955	27.11	0.13	27.24	53.8	26.6	**AVG**
0.5025	43.48	0.05	43.53	56.0	12.5*	**QP**
0.5025	22.67	0.05	22.72	46.0	23.3	**AVG**
4.3467	52.66	0.21	52.87	56.0	3.1*	**QP**
4.3467	40.59	0.21	40.80	46.0	5.2	**AVG**
5.0917	52.36	0.56	52.92	60.0	7.1*	**QP**
5.0917	38.84	0.56	39.40	50.0	10.6	**AVG**
11.5333	40.68	0.78	41.46	50.0	8.5	**PK**
28.3000	35.15	2.21	37.36	50.0	12.6	**PK**
Neutral (WHT)						
0.1529	50.77	1.49	52.26	65.8	13.6*	**QP**
0.1529	37.07	1.49	38.56	55.8	17.3	**AVG**
0.7450	30.89	0.35	31.24	46.0	14.8	**PK**
4.8467	52.04	0.46	52.50	56.0	3.5*	**QP**
4.8467	42.52	0.46	42.98	46.0	3.0	**AVG**
5.1000	51.41	0.46	51.87	60.0	8.1*	**QP**
5.1000	38.09	0.46	38.55	50.0	11.5	**AVG**
11.1667	46.08	0.55	46.63	60.0	13.4*	**QP**
11.1667	31.27	0.55	31.82	50.0	18.2	**AVG**
21.3167	27.76	0.39	28.15	50.0	21.9	**PK**

(*)= Quasi-Peak limit used.

Sample Calculation at 0.3577 MHz:

Magnitude of Measured Frequency	48.71 dBuV
+Correction Factors	2.67 dB
Corrected Result	52.38 dBuV

Test Date: April 7, 2023
Tested by
Signature:  Name: Gabriel Medina

2.3 Test Site Description, Radiated Emissions

The radiated emissions disturbance measurement facility consists of a 8.5 meter long by 5.5 meter wide and 5.6 meter high shielded semi anechoic EMC Chamber. The chamber is lined with ferrite core and RF absorbers. The quiet zone is 2.0 meter.

The test facility layout is shown in the figure below. A remotely controlled 2.0 m diameter flush-mounted turntable is provided for rotating (through at least 360 degrees) the EUT. A nonconductive table, 1.5 m long by 1.0 m wide by 0.8 m high is used in conjunction with the turntable for tabletop equipment. Electrical service for the EUT is provided through openings at the center of the turntable.

Provision for receiving antenna power and data wires is provided by junction boxes place at the parameter of the chamber. The receive antenna mast is remotely controlled and can be varied in height from 1 m to 4 m.

Power and data cables for the radiated disturbance measurement facility are run through PVC tubing under the raised floor or are laid directly upon the ground plane.

Radiated emissions were evaluated based on 47 CFR 18.309 and MP-5 (1986). During testing the EUT was tested up to the 10^{th} harmonic or the highest detectable emission.

The load used for frequency measurement was 1000 ml of water in the beaker located in the center of the oven. For radiation on second and third harmonic two loads, one of 700 ml and one of 300 ml of water was used. Each load was tested both with the beaker located in the center of the oven and with it in the right front corner.

Note: During spurious emissions testing both the microwave oven and Wi-Fi radio were on and transmitting as normally intended. The results above show no increase in spurious emissions due to intermodulation effects or other effects as a result of having both radios operating simultaneously. The results do not warrant additional testing beyond the above test.

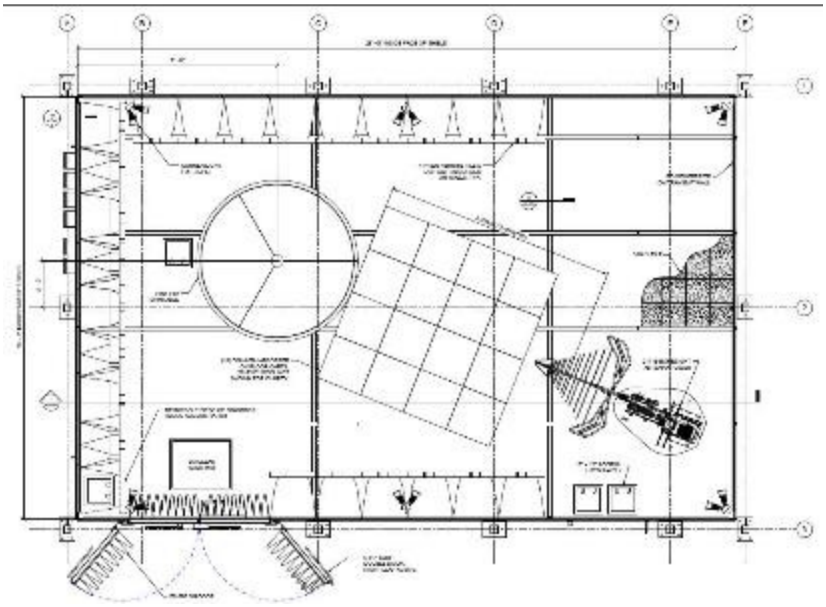


Figure 3. Radiated Emissions Disturbance Measurement Facility Diagram

2.4 Radiated Emissions Test Data

2.4.1 Part 18 ISM Test Limits and Calculations

Per 47 CFR 18.301 the ISM equipment may be operated on any frequency above 9 kHz except as indicated in 47 CFR 18.303. The field strength limit per 47 CFR 18.305 for ISM equipment operating on a frequency specified in 47 CFR 18.301 is permitted unlimited radiated energy in the band specified for that frequency. The field strength levels of emissions which lie outside the bands specified in 47 CFR 18.301 must not exceed the limits detailed in CFR 18.305, unless otherwise indicated.

Per the table in 18.301, the frequency 2450 MHz ±50MHz is allowed unlimited radiated energy. The EUT fundamental frequency is stated to be 2450 MHz.

The field strength levels of emissions which lie outside the bands specified in 18.301, unless otherwise indicated, shall not exceed the following:

Any type of equipment unless otherwise specified that operate above 500 watts: 25 uV/m X SQRT (power/500) at the distance of 300m.

Therefore, the limit converted to dBuV/m is: 20 log [(25) * √ (EUT power/500)]= dBuV/m + 20 log(300/test distance used) = XX.X dBuV/m

The measured EUT power P, is 950 Watts as rated and tested by the manufacturer. This value was used in the calculation of the limit for this test.

Limit at 10 meters is 20 log [(25) * √ (950/500)]= 30.74 + 20 log(300/10) = 60.28 dBuV/m.

Limit at 3 meters is 20 log [(25) * √ (950/500)]= 30.74 + 20 log(300/3) = 70.74 dBuV/m.

2.4.2 General Field Strength Calculation

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

FS = RA + CF – AG

where FS = Field Strength
RA = Receiver Amplitude (dBuV)
CF = Correction Factor (Antenna Factor & Cable Loss) (dB/m)
AG = Amplifier Gain

Assuming a receiver reading of 100 dBuV and a correction factor of 11.8 dB/m, the following calculation would apply:

FS (dBuV/m) = 100 dBuV + 11.8 dB/m = 111.8 dBuV/m

2.4.3 Radiated Emissions Test Results

Table 5. Radiated Emissions Data 30 MHz to 1 GHz

Frequency (MHz)	Test Data (dBuV)	AF+CA-AMP (dB/m)	Results (dBuV/m)	Average Limits (dBuV/m)	Application Test Distance/ Polarization	Margin (dB)	Detector Used
Measurements were made over the frequency range of 30 MHz – 1000 MHz All other emissions were more than 20 dB from the limit.							

Note 1: During spurious emissions testing both the microwave oven and Wi-Fi radios were on and transmitting as normally intended. The results above show no increase in spurious emissions due to intermodulation effects or other effects as a result of having both radios operating simultaneously. The results do not warrant additional testing beyond the above test for collocated radios.

Test Date: April 4, 2023

Tested by
Signature: Ian Charboneau Name: Ian Charboneau

Table 6. Radiated Emissions Data 1 GHz to 25 GHz

Frequency (MHz)	Test Data (dBuV)	AF+CA-AMP (dB/m)	Results (dBuV/m)	Average Limits (dBuV/m)	Application Test Distance/ Polarization	Margin (dB)	Detector Used
2070.00	44.2	-6.8	37.4	70.0	3.0m./HORZ	32.6	**AVG**
2223.52	41.9	-6.7	35.2	70.0	3.0m./HORZ	34.8	**AVG**
2304.00	48.6	-6.5	42.1	70.0	3.0m./HORZ	27.9	**AVG**
2378.00	49.4	-6.1	43.3	70.0	3.0m./HORZ	26.7	**AVG**
2531.57	52.5	-5.3	47.2	70.0	3.0m./HORZ	22.8	**AVG**
2708.07	48.9	-5.1	43.8	70.0	3.0m./HORZ	26.2	**AVG**
2087.00	48.45	-6.66	41.79	70.0	3.0m./VERT	28.2	**AVG**
2219.00	51.95	-6.59	45.36	70.0	3.0m./VERT	24.6	**AVG**
2316.00	49.08	-6.46	42.62	70.0	3.0m./VERT	27.4	**AVG**
2380.00	47.57	-6.07	41.50	70.0	3.0m./VERT	28.5	**AVG**
2544.00	51.65	-5.25	46.40	70.0	3.0m./VERT	23.6	**AVG**
2700.97	51.39	-5.15	46.24	70.0	3.0m./VERT	23.8	**AVG**
7398.00	47.29	6.46	53.75	70.0	1.0m./VERT	16.3	**AVG**
Measurements were made over the frequency range of 1 GHz to 25 GHz. All other emissions were more than 20 dB from the limit.							

(*)= Peak Limit applied.

Note 1: For measurements made at test distance of 1 meter an extrapolation factor of -9.5 dB was applied to correct the data for a 3 meter test distance. That the correction factor is include in the third column of the table above.
Note 2: During spurious emissions testing both the microwave oven and Wi-Fi radios were on and transmitting as normally intended. The results above show no increase in spurious emissions due to intermodulation effects or other effects as a result of having both radios operating simultaneously. The results do not warrant additional testing beyond the above test for collocated radios.

Test Date: April 14, 2023

Tested by
Signature: Ian Charbonneau Name: Ian Charbonneau

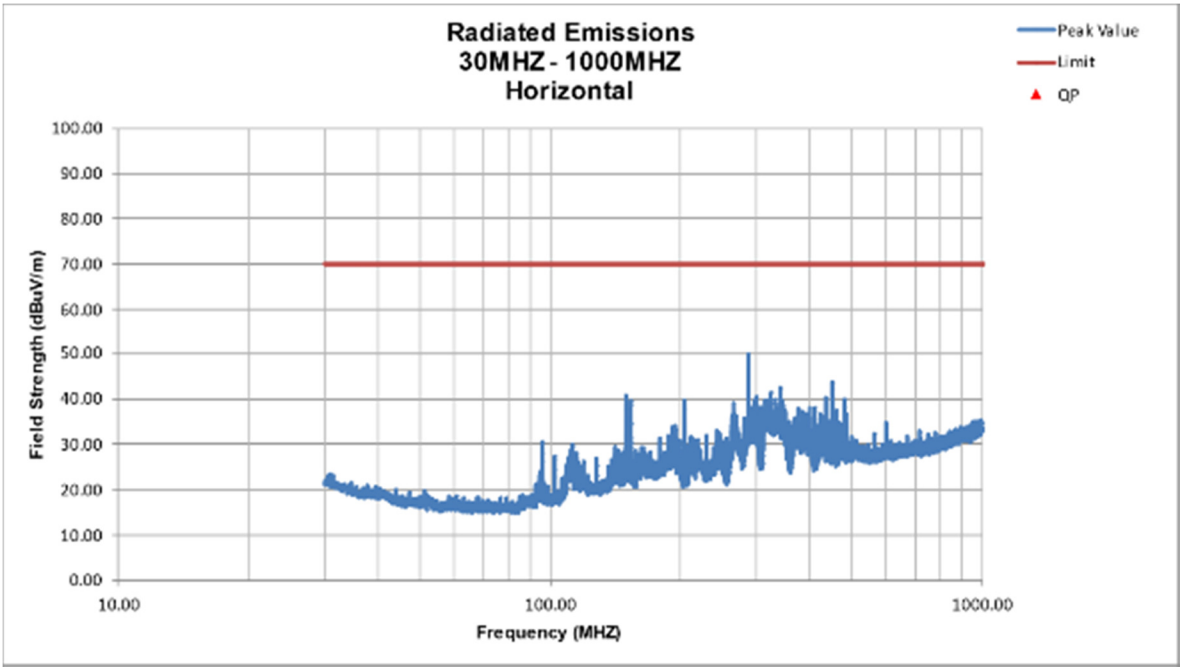


Figure 4. Radiated Emissions Below 30-1000 MHz Horizontal

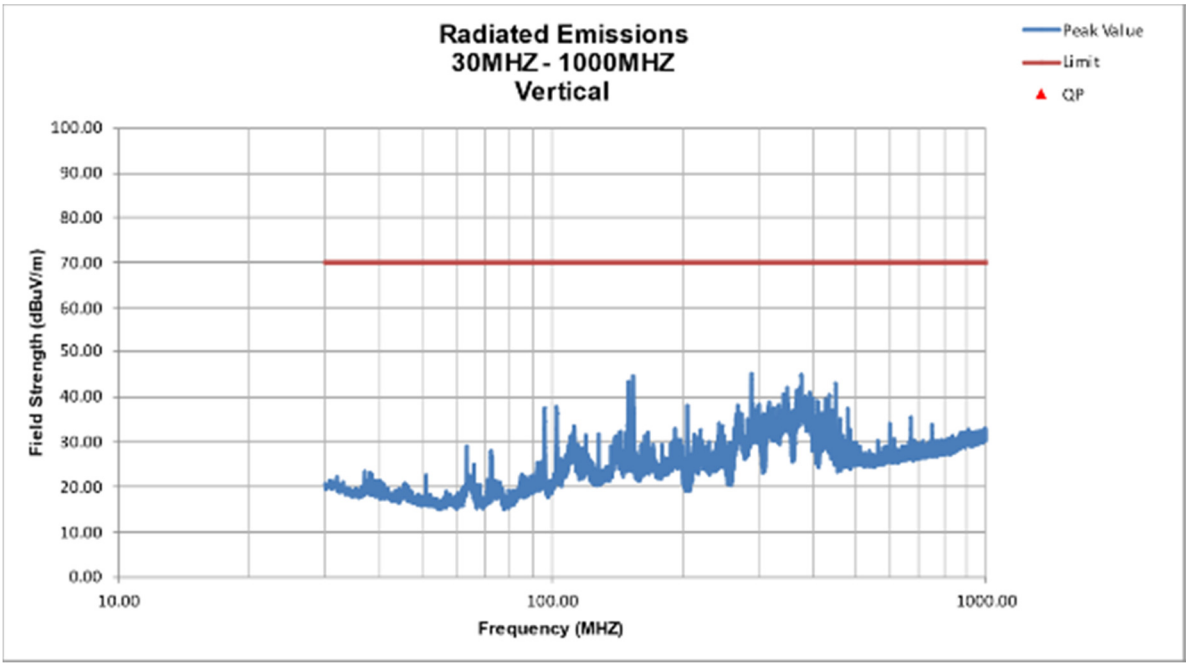


Figure 5. Radiated Emissions Below 30-1000 MHz Vertical

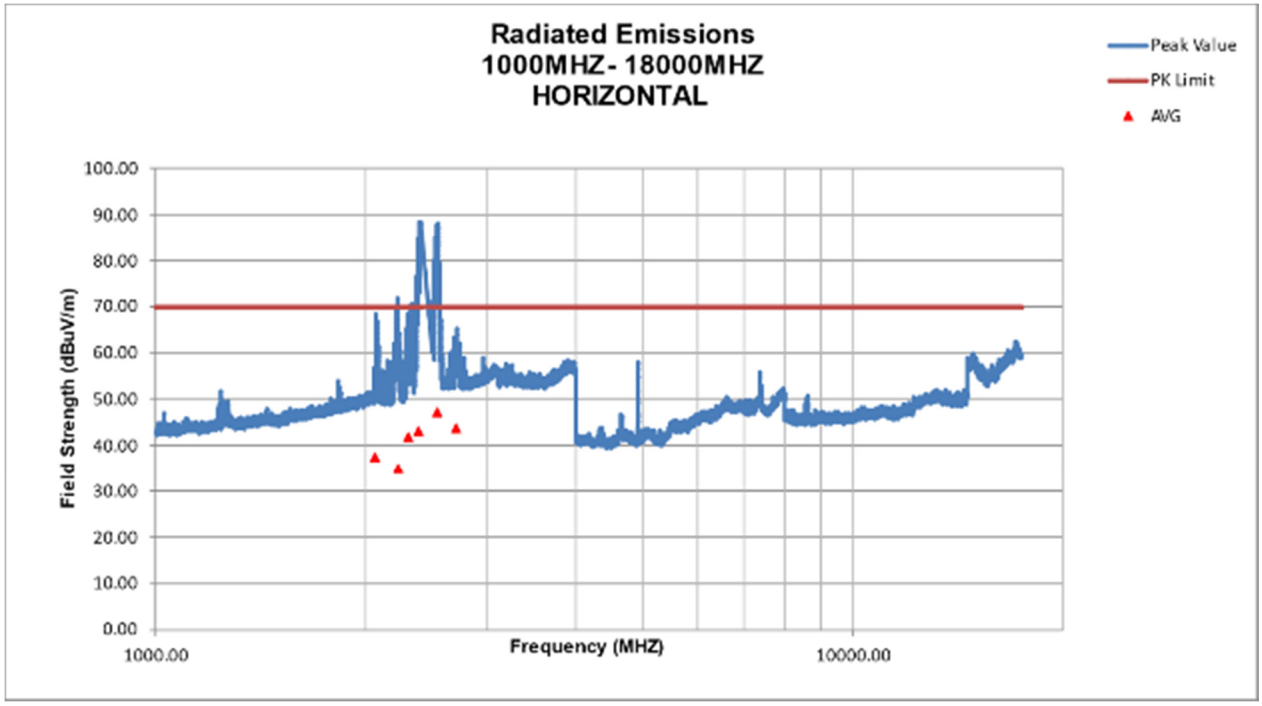


Figure 6.Radiated Emissions Above 1 GHz Horizontal

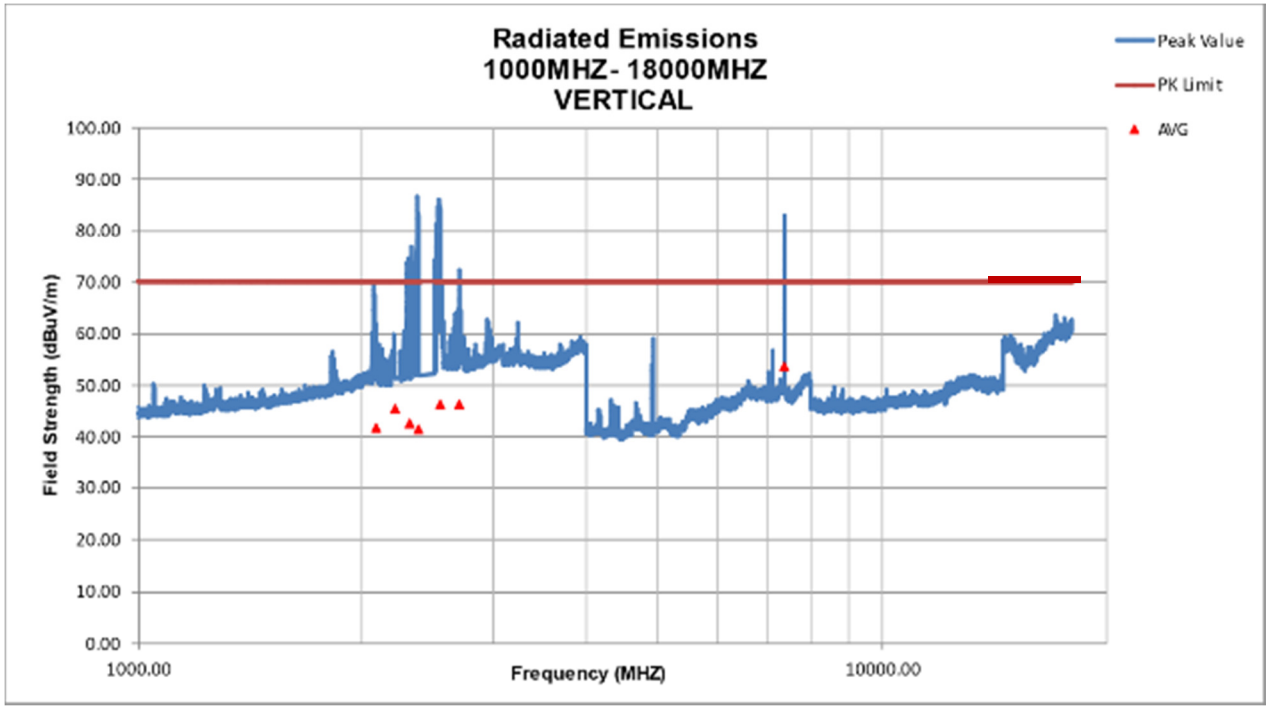


Figure 7.Radiated Emissions Above 1 GHz Horizontal

3. Emissions Test Configuration Photographs

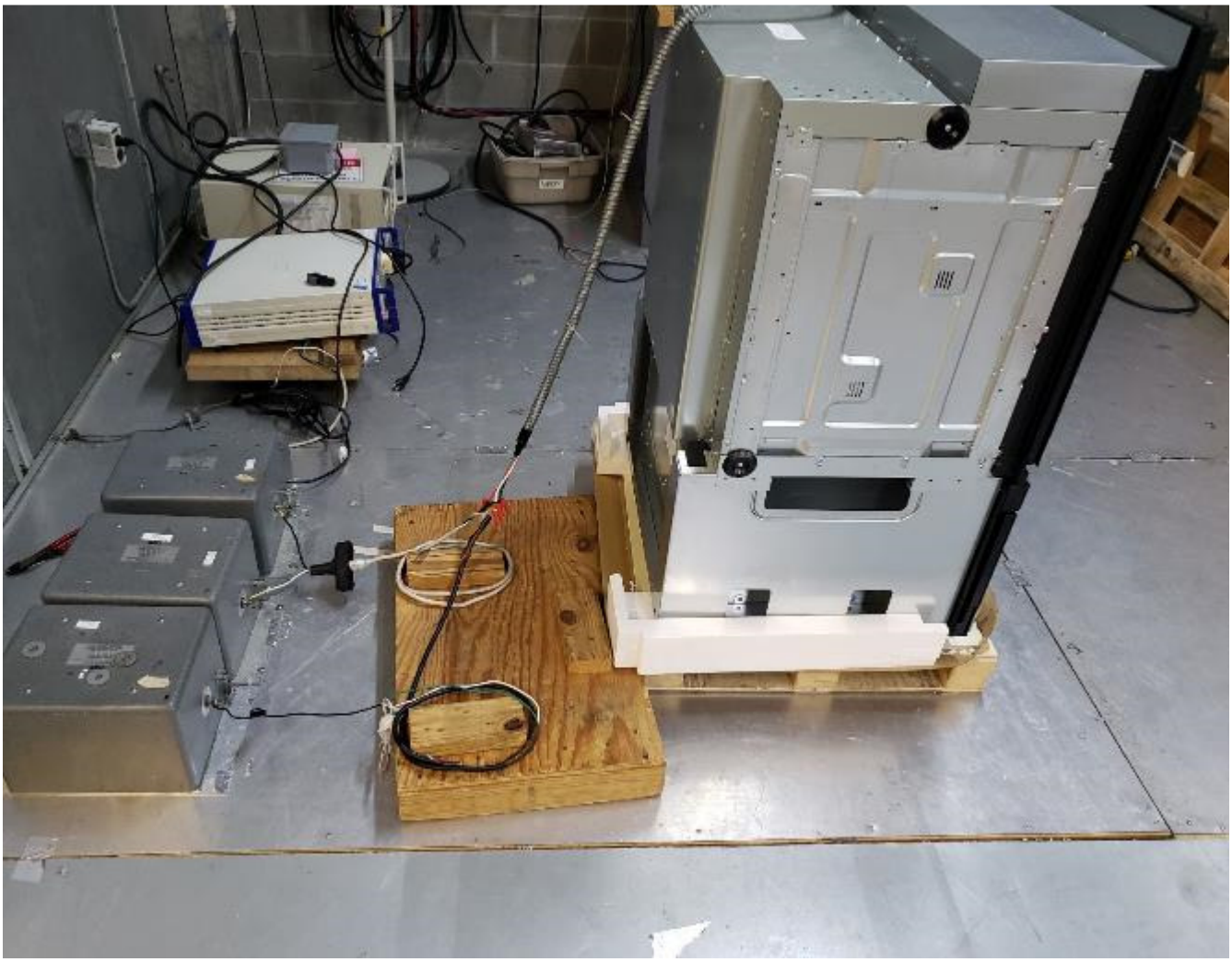


Figure 8. Photograph of Conducted Emissions Test Configuration

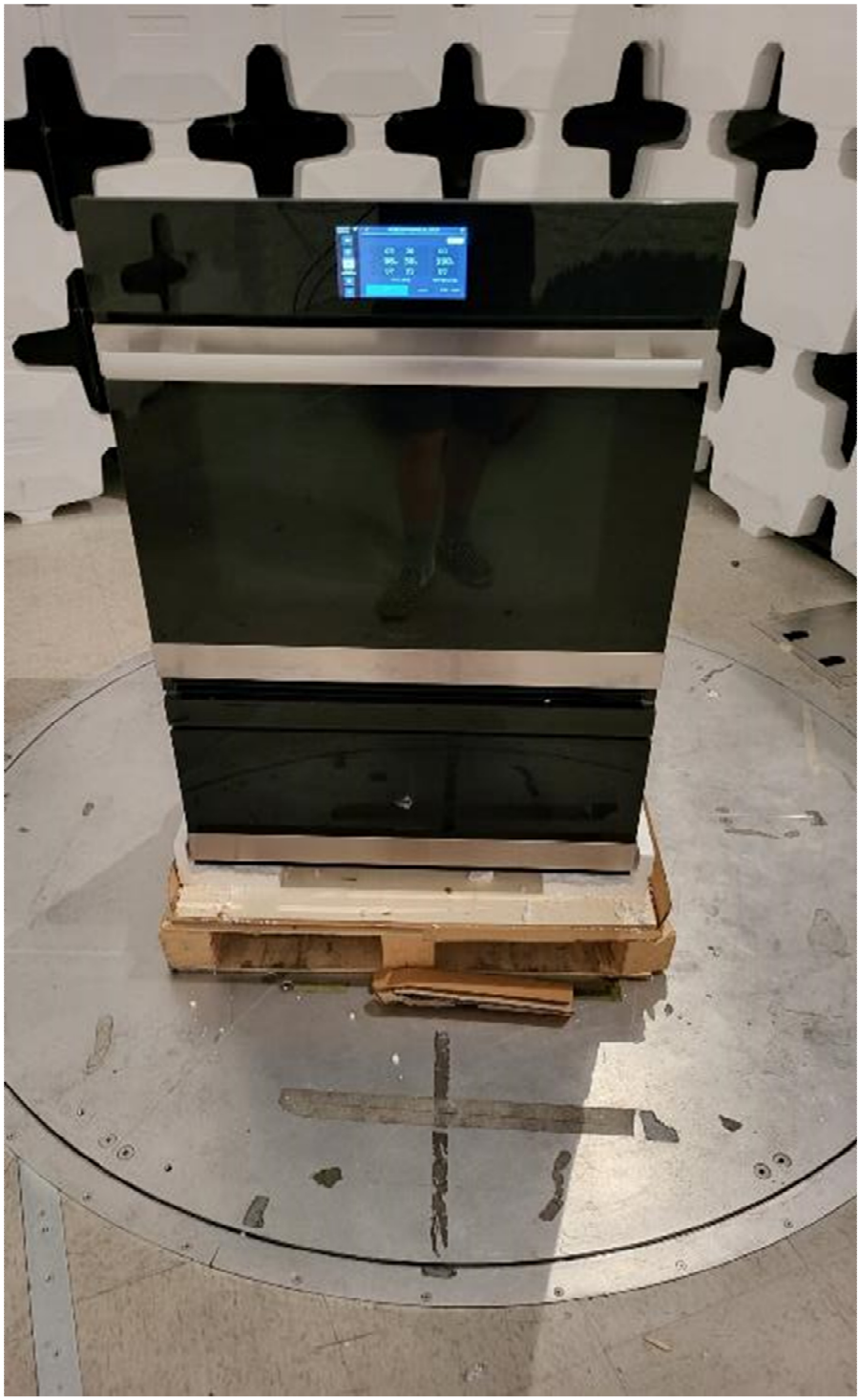


Figure 9. Photograph of Radiated Emissions Test Configuration, Close-Up

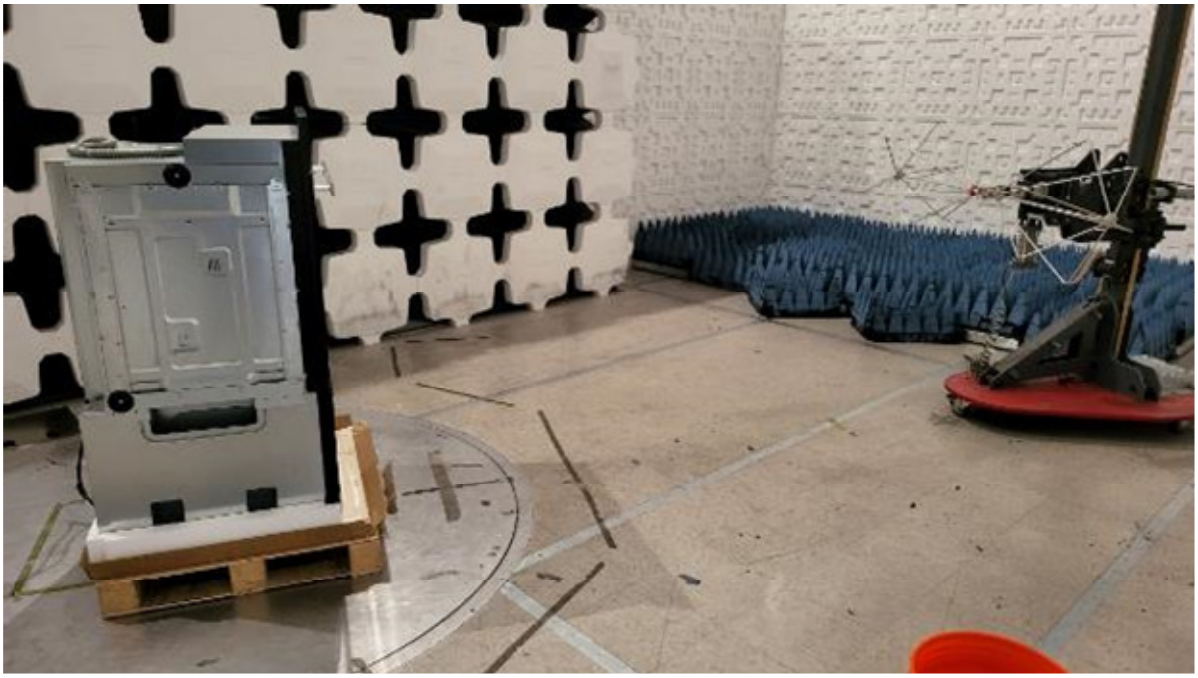


Figure 10. Photograph of Radiated Emissions Test Configuration, 30 - 200 MHz

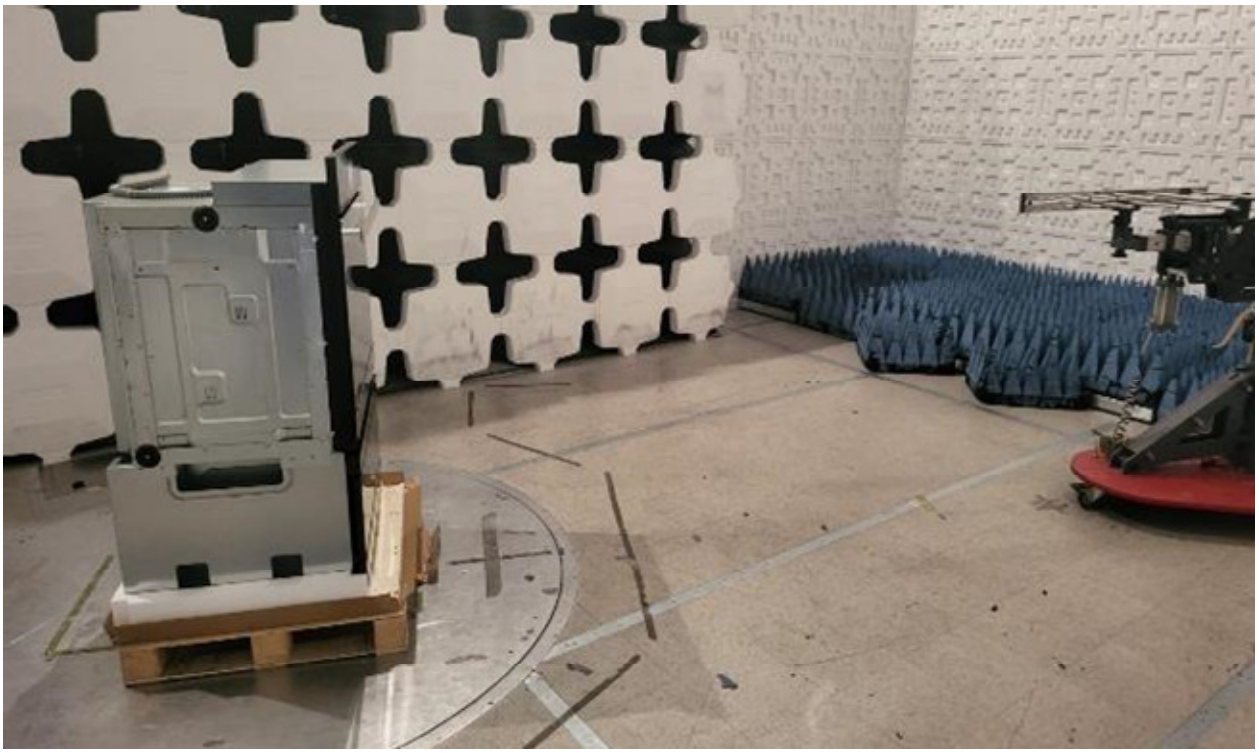


Figure 11. Photograph of Radiated Emissions Test Configuration, 200 - 1000 MH

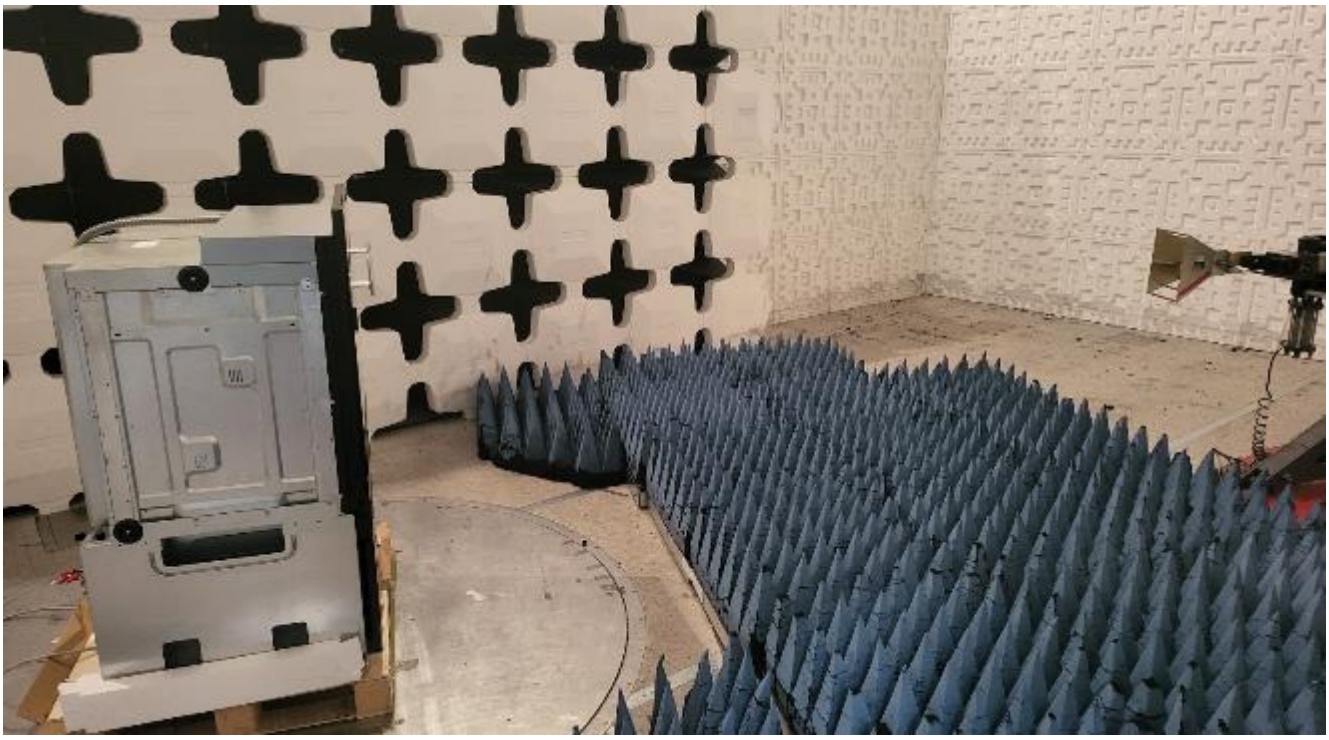


Figure 12. Photograph of Radiated Emissions Test Configuration, above 1000 MHz

4. Variation in Operating Frequency

Frequency variation testing was performed per MP-5 section 4.5. The EUT was set up inside the EMC Chamber, and a double ridge horn antenna and spectrum analyzer were used to measure the fundamental frequency of the EUT. The test results are presented below.

4.1 Variation in Operating Frequency Over Time

The operating frequency was measured using a spectrum analyzer. Starting with the EUT at room temperature, a 1000 mL water load was placed in the center of the oven and the oven was operated at maximum output power. The fundamental operating frequency was monitored over the length of time taken for the water level to reduce to 20 percent of the original level. In this case it took 52 mins for the water level to reach 20% or 200 ml.

During the test the fundamental frequency of the EUT must remain within the ISM frequency band of 2450 MHz ±50 MHz, 2400 MHz to 2500 MHz. The results of this test are presented below.

Table 7. Measured Frequency Variation

Low Frequency (MHz)	High Frequency (MHz)
2455	2473

Test Date: April 10, 2023

Tested by
Signature: Ian Charboneau Name: Ian Charboneau

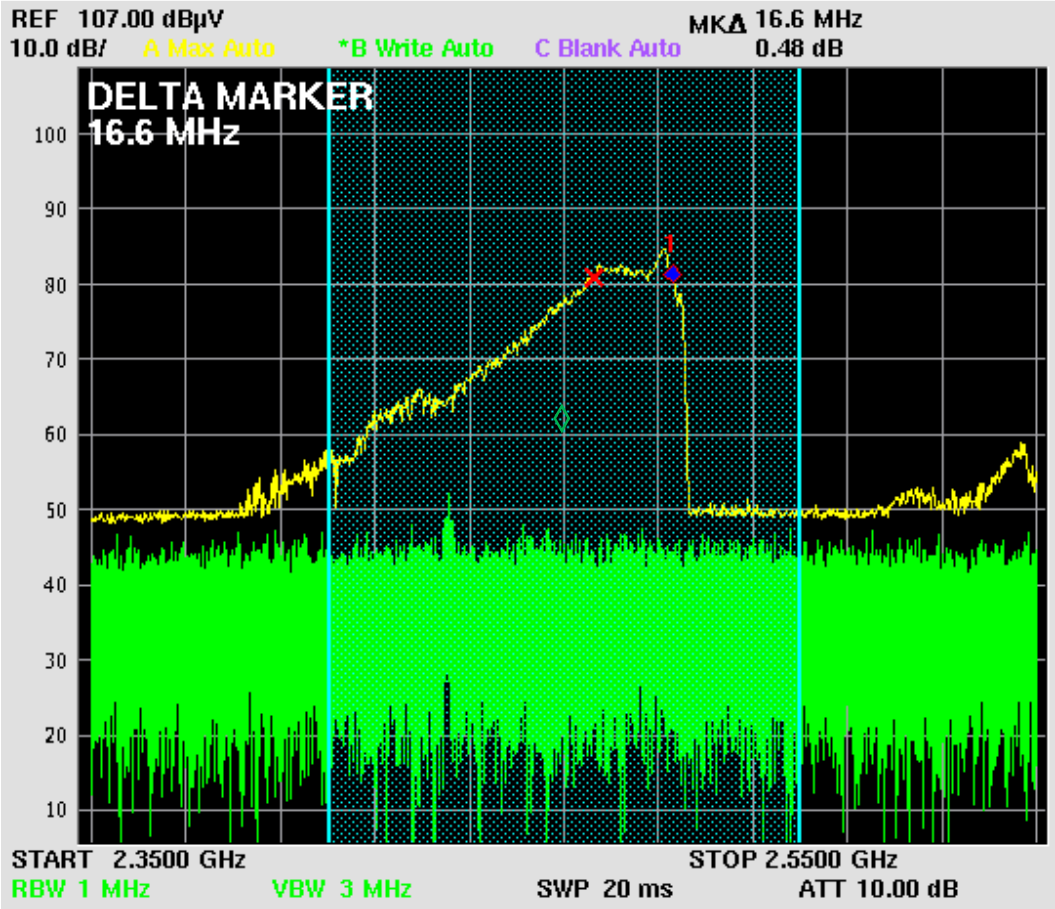


Figure 13. Frequency Variation at Nominal Voltage

4.2 Variation in Operating Frequency with Line Voltage

The EUT was operated/warmed up for at least 10 minutes of use with a 950 mL water load at room temperature at the beginning of the test. Then the operating frequency was monitored as the input voltage was varied between 80 and 125 percent of the nominal rating. At each varied voltage level, the EUT was allowed to operate for at least 5 minutes.

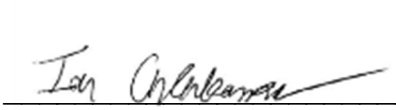
During the test, the fundamental frequency of the EUT must remain within the ISM frequency band of 2450 MHz ±50 MHz, or 2400 - 2500 MHz. The results of this test are presented below.

Line voltage varied from 96 VAC to 150 VAC.

Table 8. Measured Supply Voltage Variation

%	Supply Voltage (V) at 60 Hz	Measured Frequency (MHz)	
		Low Frequency	High Frequency
80%	96	2451	2472
125%	150	2448	2475

Test Date: April 10, 2023

Tested by
Signature:  Name: Ian Charboneau

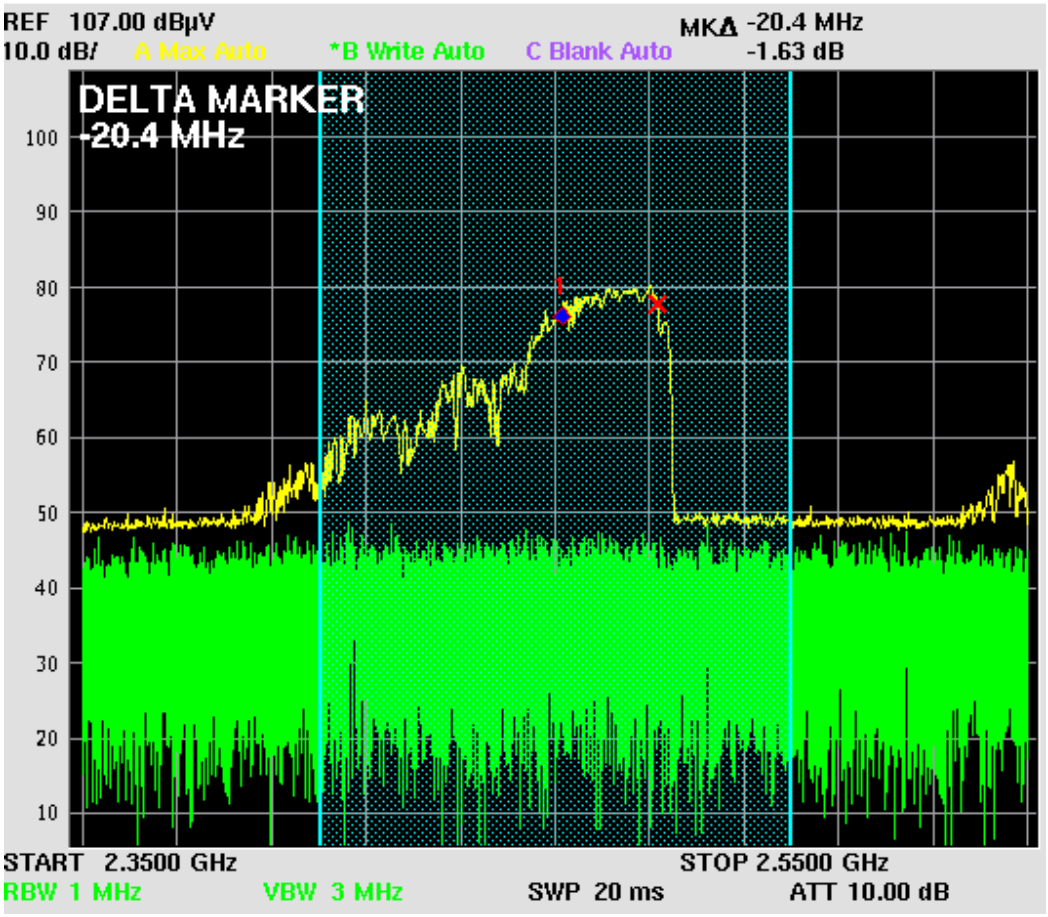


Figure 14. Frequency Variation at Low Voltage

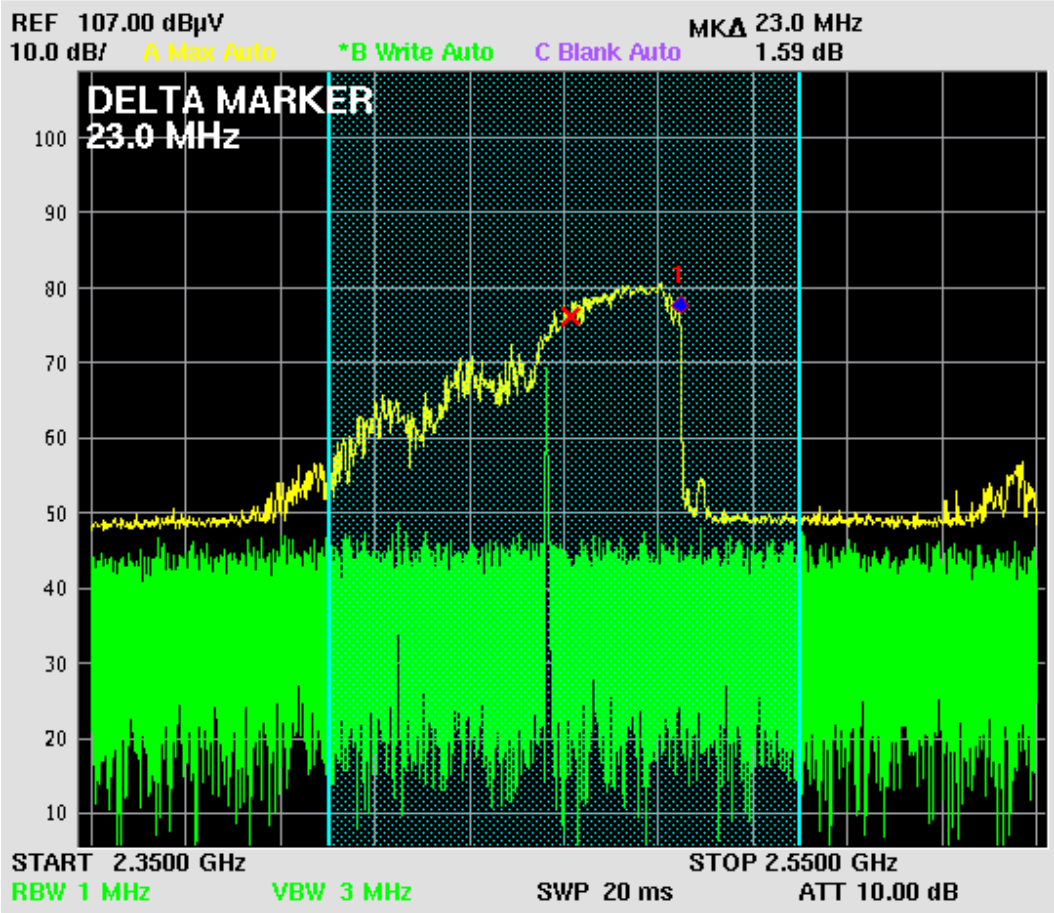


Figure 15. Frequency Variation at High Voltage

5. Microwave Output Power Measurement, MP-5

The Caloric Method was used to determine maximum output power. The initial temperature of a 1000 ml water load was measured for ovens rated at 1000 watts or less power output. For ovens more than 1000 watts output rating, additional beakers by fraction thereof are used if necessary.

The water load was placed in the center of the oven. The oven was operated at maximum output power for 120 seconds, then the temperature of the water was re-measured.

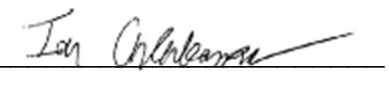
Three trials were performed and then the results calculated using the following formula: Output Power= ((4.2 Joules/Cal)*(Volumn in ml)*(Temp Rise))/ (Time in seconds)

Table 9. Output Power Results

Start Temperature (°C)	Final Temperature (°C)	Temperature Rise	Elapsed Time (seconds)	Water Volume (ml)	RF Power (Watts)
17.6	35.6	18.0	120	1000	663.0
17.6	37.8	20.2	120	1000	707.0
17.0	38.3	21.3	120	1000	745.0

Average from the three trials: 704.98 Watts

Test Date: April 10, 2023

Tested by
Signature:  Name: Ian Charbonneau

6. Input Power

Input power and current was measured using a power analyzer. A 1000 mL water load was placed in the center of the oven and the oven was operated at maximum output power. A 1000mL water load was chosen for its compatibility with the procedure commonly used by manufacturers to determine their input ratings.

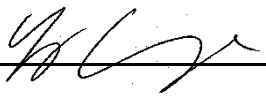
Table 10. Input Power

Input Voltage (VAC/Hz)	Input Current (Amps)	Measured Input Power (Watts)	Rated Input Power (Watts)
114.51VAC/60Hz	12.95	1483	1700

Note: Measurement of microwave power with convection oven circuit disconnected from mains power.

Based on the measured input power, the EUT was found to be operating within the intended specifications.

Test Date: April 25, 2023

Tested By
Signature:  Name: George Yang

7. Radiation Hazard Measurement

Radiation leakage was measured in the as-received condition with the oven door closed using a microwave leakage meter. A 1000 mL water load was placed in the center of the oven and the oven was operated at maximum output power.

There was no microwave leakage exceeding a power level of 0.1mW/cm2 observed at any point 5 cm or more from the external surface of the oven.

A maximum of 1.0 mW/cm2 is allowed in accordance with the applicable Federal Standards. Hence, microwave leakage in the as-received condition with the oven door closed was below the maximum allowed.

Figure 16. Radiation Leakage Setup

Limit: 1.0 mW/cm^2
Signal Strength (V/m) = 3.8 V/m

Power Flux Density (PFD) = V/m^2/377 = W/m^2
= 8.14^2/377 = 0.0271 W/m^2
= (0.027 W/m^2) (1m^2/W) (0.1 mW/cm^2)
= 0.0027mW/cm^2
which is << less than S = 1.0 mW/cm^2

Test Date: April 10, 2023

Tested By
Signature: Ian Charboneau Name: Ian Charboneau

8. Test Results

The EUT unconditionally passed the Technical Requirements of CFR 47 Part 18 Industrial Scientific and Medical Equipment, Subpart C Technical Standards, Part 18.305, Field Strength Limits and Part 18.307, Conducted limits and meets the criteria.

END TEST REPORT