TEST REPORT

Report Number: 106514122MPK-001
Project Numbers: G106514122
Report Issue Date: April 16, 2026
Report Revision Date: June 29, 2026
CAB Identifier: US0039

Testing performed on the
Rechargeable Electric Toothbrush Handle
Model Number: HX743A

to

FCC Part 15 Subpart C (15.225)
Industry Canada RSS-210 Issue 11

for

Philips Oral Healthcare LLC

Test Performed by:	Test Authorized by:
Intertek	Philips Oral Healthcare LLC
1365 Adams Court	22100 Bothell Everett Highway
Menlo Park, CA 94025 USA	Bothell, WA 98021 USA

Prepared by: **Date:** April 16, 2026
Arjun Mukherjea

Reviewed by: **Date:** April 16, 2026
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Report No. 106514122MPK-001	
Equipment Under Test:	Rechargeable Electric Toothbrush Handle
Model Number:	HX743A
Applicant:	Philips Oral Healthcare LLC
Contact:	Dylan Rabena
Address:	Philips Oral Healthcare LLC 22100 Bothell Everett Highway Bothell, WA 98021 USA
Country:	USA
Tel. Number:	(425) 908-2366
Email:	dylan.rabena@philips.com
Applicable Regulation:	FCC Part 15 Subpart C (15.225) Industry Canada RSS-210 Issue 11
Date of Test:	March 16 – 26, 2026

We attest to the accuracy of this report:

Arjun Mukherjea
EMC Engineer

Aaron Chang
EMC Team Leader

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1.0 Summary of Tests

TEST	REFERENCE FCC 15.225	REFERENCE RSS-210	RESULTS
Field Strength of Fundamental	15.225(a)	B.6	Complies
Radiated Emissions Outside the band	15.225(b), 15.225(c), 15.225(d), 15.209	B.6	Complies
Frequency Tolerance of the Carrier	15.225(e)	B.6	Complies
Line Conducted Emissions	15.207	RSS-GEN	Not Appicable[1]
Occupied Bandwidth	15.215	RSS-GEN	Complies
Antenna requirement	15.203	RSS-GEN	Complies[2]

[1] The EUT is battery powered.

[2] The EUT utilizes an internal Antenna.

EUT receive date: March 16, 2026

EUT receive condition: The pre-production version of the EUT was received in good condition with no apparent damage. As declared by the Applicant, it is identical to the production units.

Test start date: March 16, 2026

Test completion date: March 26, 2026

The test results in this report pertain only to the item tested.

2.0 General Description

2.1 Product Description

Philips Oral Healthcare LLC supplied the following description of the EUT:

The Cairo non connected toothbrush handle is a rechargeable electric toothbrush intended to improve oral hygiene by cleaning teeth, gums, and tongue.

Overview of the EUT

Applicant name & address	Philips Oral Healthcare LLC 22100 Bothell Everett Highway Bothell, WA 98021 USA
Contact info / Email	Dylan Rabena / dylan.rabena@philips.com
Model	HX743A
Operating Frequency	13.56 MHz
Number of Channels	1
Type of Modulation	OOK
Antenna Type	Internal Antenna

2.2 Related Submittal(s) Grants

None

2.3 Test Methodology

Both AC mains line-conducted and radiated emissions measurements were performed according to the procedures in ANSI C63.4: 2014. Radiated tests were performed at an antenna to EUT distance of 10 meters, unless stated otherwise in this test report. All other measurements were made in accordance with the procedures in part 2 of CFR 47 7, ANSI C63.10: 2020, ANSI C63.4-2014 & RSS-GEN Issue 5.

2.4 Test Facility

The radiated emission test site and conducted measurement facility used to collect the data is 10m semi-anechoic chamber located in Menlo Park, California. This test facility and site measurement data have been fully placed on file with the FCC and Industry Canada (Site # 2042L-1).

2.5 Measurement Uncertainty

Compliance with the limits was based on the results of the measurements and does not take into account the measurement uncertainty.

Estimated Measurement Uncertainty

Measurement	Expanded Uncertainty (k=2)		
	0.15 MHz – 1 GHz	1 GHz – 2.5 GHz	> 2.5 GHz
RF Power and Power Density – antenna conducted	-	0.7 dB	-
Unwanted emissions - antenna conducted	1.1 dB	1.3 dB	1.9 dB
Bandwidth – antenna conducted	-	30 Hz	-

Measurement	Expanded Uncertainty (k=2)		
	0.15 MHz – 30MHz	30 MHz – 1 GHz	1 GHz – 18 GHz
Radiated emissions	-	4.6	5.0 dB
AC mains conducted emissions	2.1 dB	-	-

3.0 System Test Configuration

3.1 Equipment Under Test (EUT) and Support Equipment

Equipment Under Test			
Description	**Manufacturer**	**Model**	**Serial Number**
Rechargeable Electric Toothbrush Handle	Philips Oral Healthcare LLC	HX743A	260219 1B

Support Equipment		
Description	**Manufacturer**	**Model**
Brush Head	Philips Oral Healthcare LLC	GC
Base Charger	Philips Oral Healthcare LLC	HX6110 ADB3

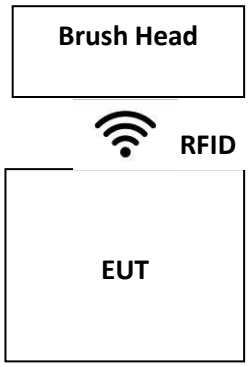
3.2 Variant Models

The following variant models were not tested as part of this evaluation but have been identified by the manufacturer as being electrically identical models, depopulated models, or with reasonable similarity to the model(s) tested. Intertek does not make any claims of compliance for samples or variants which were not tested.

HX710A N, HX710B N, HX710C N, HX710D N,
HX710E N, HX710F N, HX710G N, HX710H N,
HX710J N, HX711A N, HX711B N, HX711C N,
HX711D N, HX711E N, HX711F N, HX711G N,
HX711H N, HX711J N, HX712A N, HX712B N,
HX712C N, HX712D N, HX712E N, HX712F N,
HX712G N, HX712H N, HX712J N, HX713A N,
HX713B N, HX713C N, HX713D N, HX713E N,
HX713F N, HX713G N, HX713H N, HX713J N,
HX740A N, HX740B N, HX740C N, HX740D N,
HX740E N, HX740F N, HX740G N, HX740H N,
HX740J N, HX743A N, HX743B N, HX743C N,
HX743D N, HX743E N, HX743F N, HX743G N,
HX743H N, HX743J N

3.3 Block Diagram of Test Setup

The diagram shown below details the interconnection of the EUT and support equipment. For specific layout, refer to the test configuration photograph in the relevant section of this report.



3.4 Justification

For radiated emission measurements the EUT is placed on a non-conductive table. The EUT was configured to continuously transmit.

3.5 Software Exercise Program

The EUT exercise program used during testing was provided by Philips Oral Healthcare LLC

3.6 Mode of Operation during test

The EUT was constantly broadcasting a 13.56 MHz signal while reading an RFID.

3.7 Modifications required for Compliance

No modifications were made by the manufacturer to bring the EUT into compliance.

3.8 Additions, deviations and exclusions from standards

No additions, deviations or exclusion have been made from standard.

4.0 Measurement Results

4.1 Field Strength of Fundamental and Radiated Emissions Outside the band

4.1.1 Requirements

FCC Rules 15.225

a) The field strength of any emissions within the band 13.553-13.567 MHz shall not exceed 15,848 microvolts/meter (84 dBuV) at 30 meters.

b) 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.

c) 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.

d) 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.

§15.209 Radiated emission limits; general requirements.

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

4.1.2 Procedure

Radiated Measurements Below 30 MHz

During the test the EUT is rotated and the measuring antenna angles are varied during the search for maximum signal level.

Radiated emissions are taken at ten meters unless the signal level is too low for measurement at that distance. If necessary, a pre-amplifier is used and/or the test is conducted at a closer distance. Measurements for below 30 MHz were made at 10 meters. Data results below are corrected for distance back to 30 meters.

Radiated Measurements Above 30 MHz

During the test the EUT is rotated and the measuring antenna height and polarization are varied during the search for maximum signal level. The antenna height is varied from 1 to 4 meters.

Radiated emissions are taken at ten meters unless the signal level is too low for measurement at that distance. If necessary, a pre-amplifier is used and/or the test is conducted at a closer distance. Measurements for above 30 MHz were made at 10 meters.

Radiated emission measurements were performed from 9kHz to 18 GHz.
Analyzer resolution is:

200Hz or greater for 9kHz to 150kHz
9 kHz or greater for 150kHz to 30 MHz
120 kHz or greater for 30MHz to 1000 MHz
For those frequencies quasi-peak detector applies.
1 MHz for 1 GHz to 18GHz.

Data reported is in the worst-case configuration (the configuration which resulted in the highest emission levels). A sample calculation, configuration photographs and data tables of the emissions are included.

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 is as follows:

FS = RA + AF + CF – AG – DCF
Where FS = Field Strength in dB (μV/m)

RA = Receiver Amplitude (including preamplifier) in dB (μV)
CF = Cable Attenuation Factor in dB
AF = Antenna Factor in dB (1/m)
AG = Amplifier Gain in dB
DCF = Distance Correction Factor

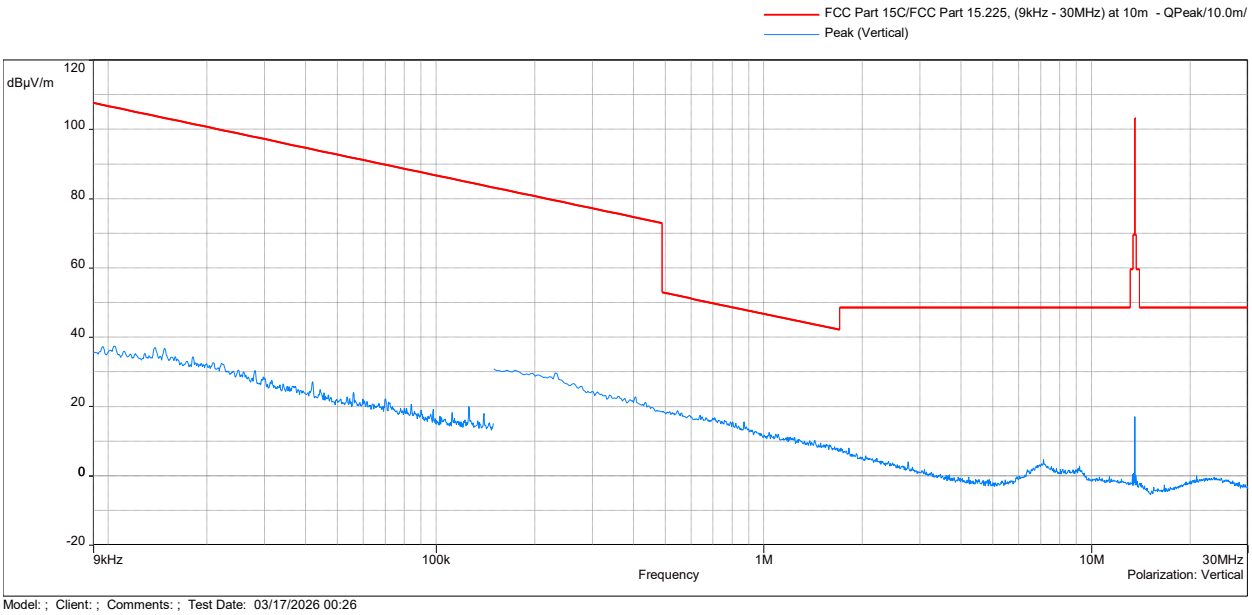
Note: FS was measured with loop antenna below 30MHz

4.1.3 Test Result

Note: Measurements were performed with different orientation of the EUT. The worse-case data was presented below:

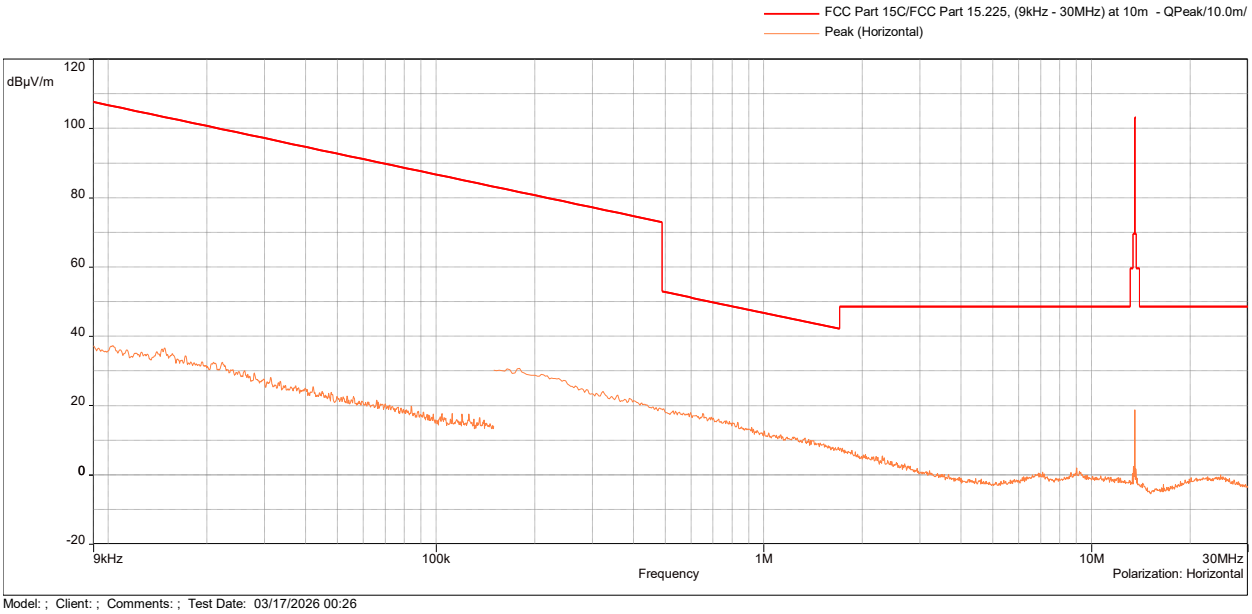
Radiated Spurious Emissions from 9kHz to 30MHz

Receiving Antenna Vertical Coplanar Orientation



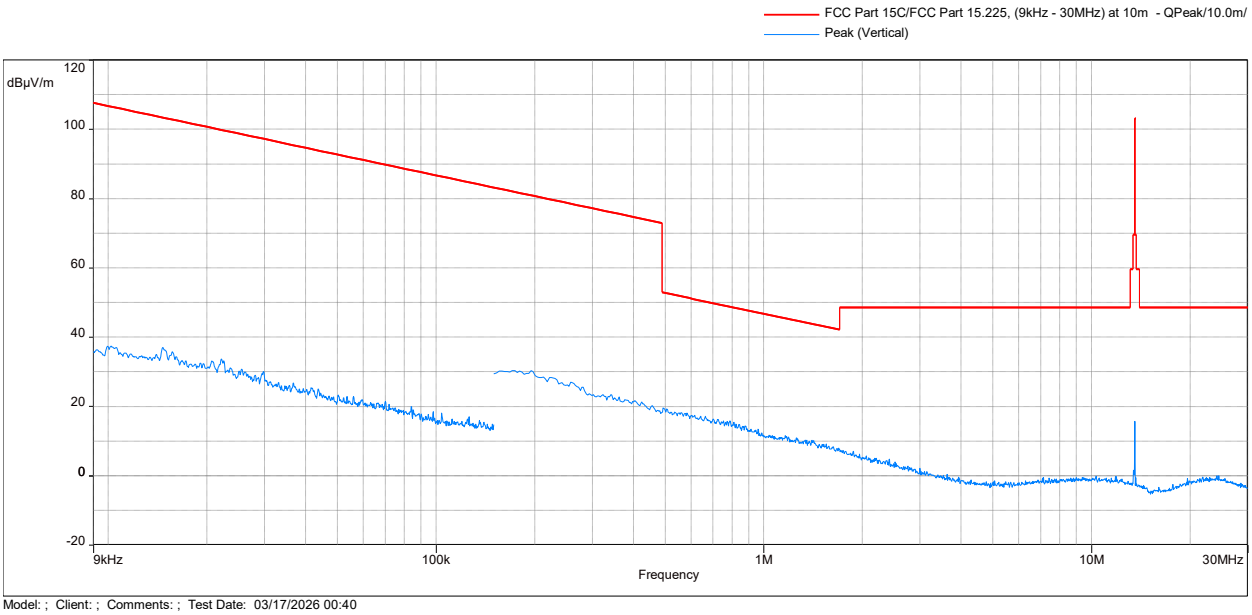
Model: ; Client: ; Comments: ; Test Date: 03/17/2026 00:26

Receiving Antenna Vertical Coaxial Orientation

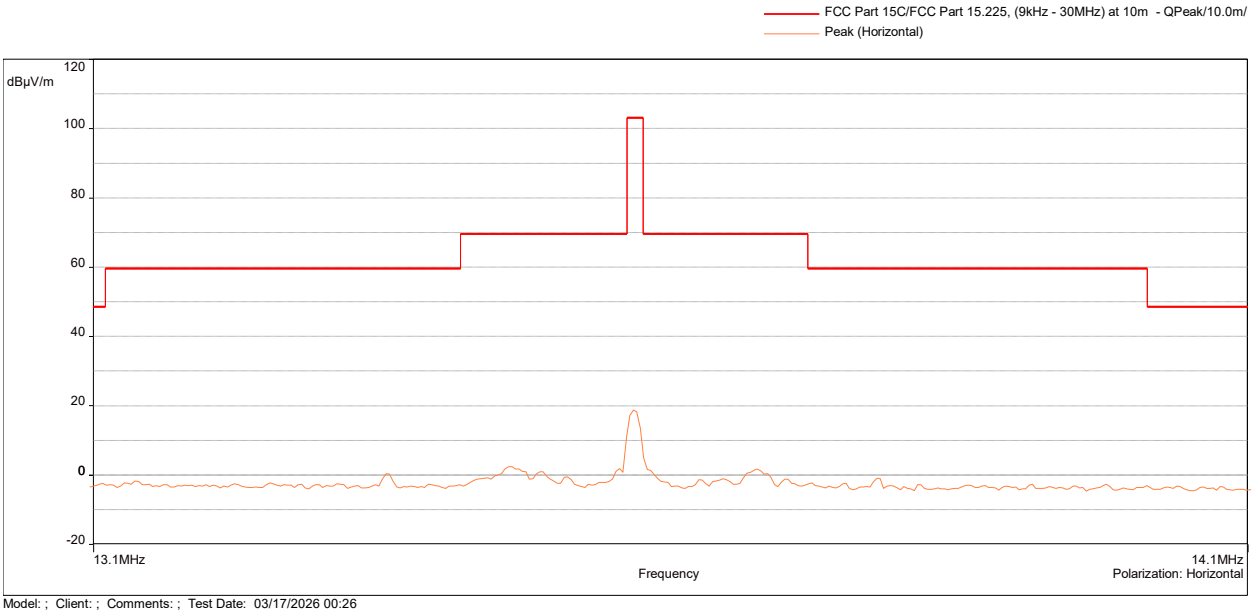


Model: ; Client: ; Comments: ; Test Date: 03/17/2026 00:26

Receiving Antenna Horizontal Coplanar Orientation



Test Result 15.225 (a)(b)(c) Radiated Spurious Emissions Mask

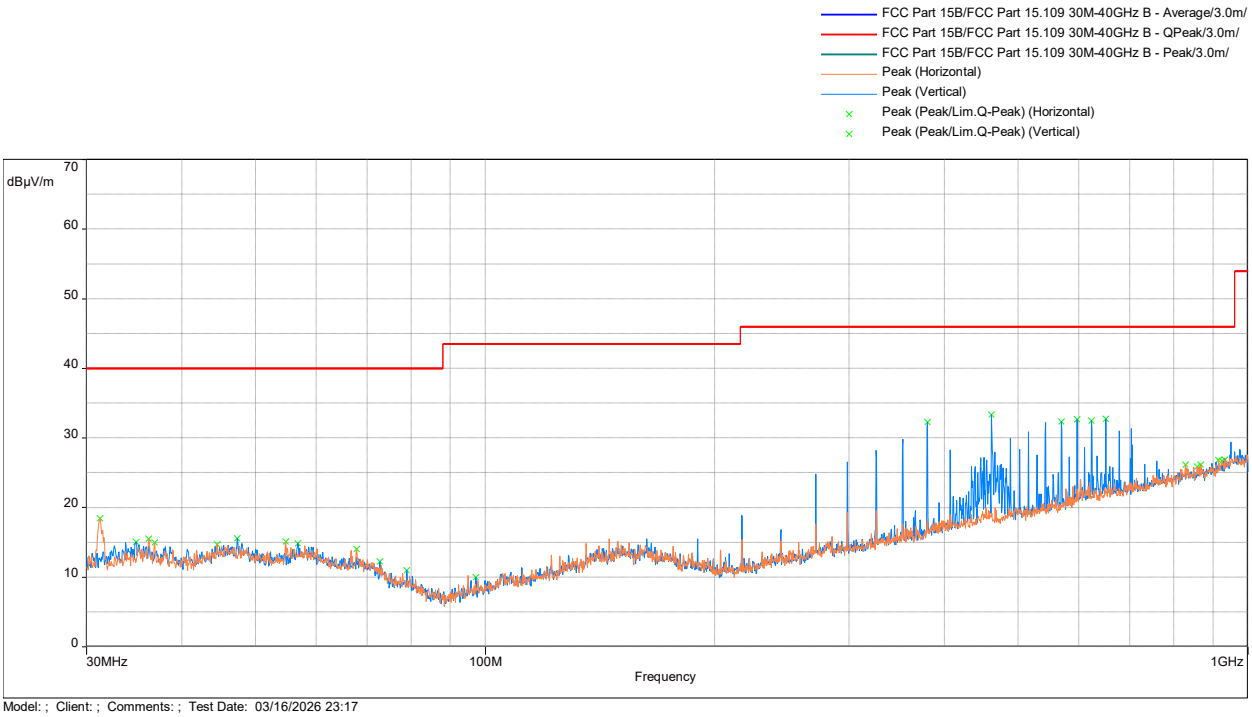


Frequency (MHz)	Peak FS@10m dB(uV/m)	Limit@10m dB(uV/m)	Margin dB	Polarization	Correction dB
13.55862	18.7	103.1	84.4	Coaxial	-18.4

Note: Correction = AF+CF–AG- distance correction factor
Distance correction factor=40*log10(limit distance/measured distance)

4.1.4 Test Result:

Radiated Spurious Emissions from 30 MHz to 1000 MHz

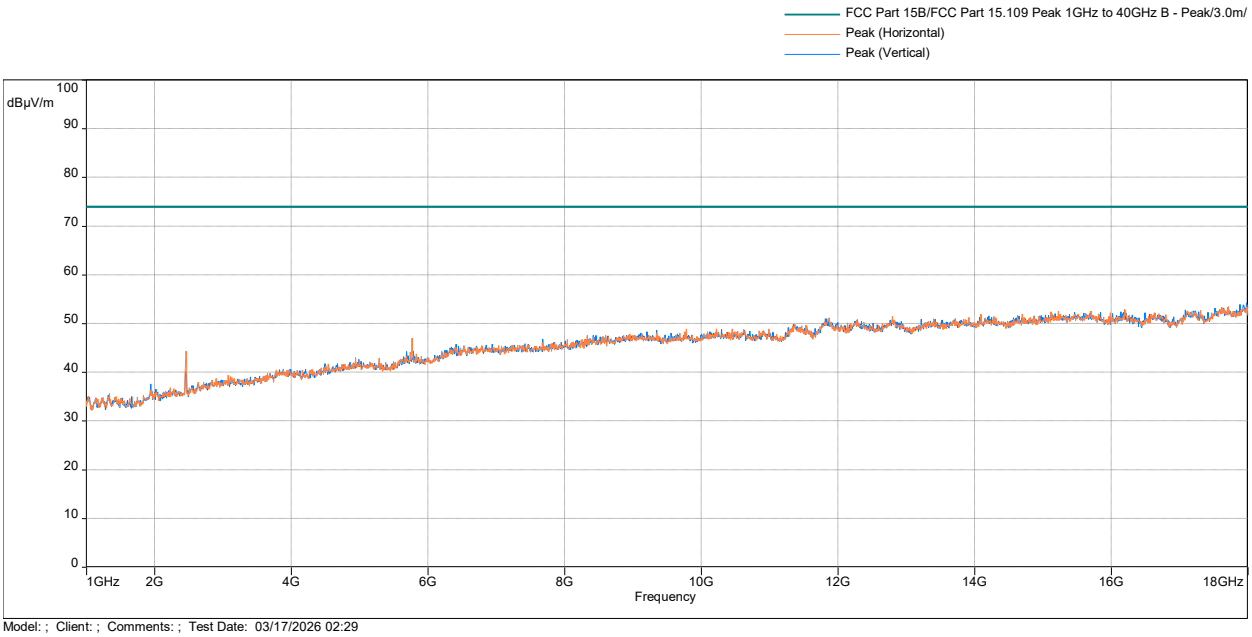


Model: ; Client: ; Comments: ; Test Date: 03/16/2026 23:17

Frequency (MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (m)	Angle (°)	Polarity	Correction (dB)
461.0033	33.36	46	-12.64	1	237.07	Vertical	-8.02
650.7677	32.72	46	-13.28	1	345.7	Vertical	-4.9
596.6417	32.66	46	-13.34	1	6.29	Vertical	-5.53
933.07	26.89	46	-19.11	1	282.42	Horizontal	-0.14
31.22867	18.44	40	-21.56	2	359.99	Horizontal	-14.01
47.29833	15.56	40	-24.44	1	317.71	Vertical	-12.81

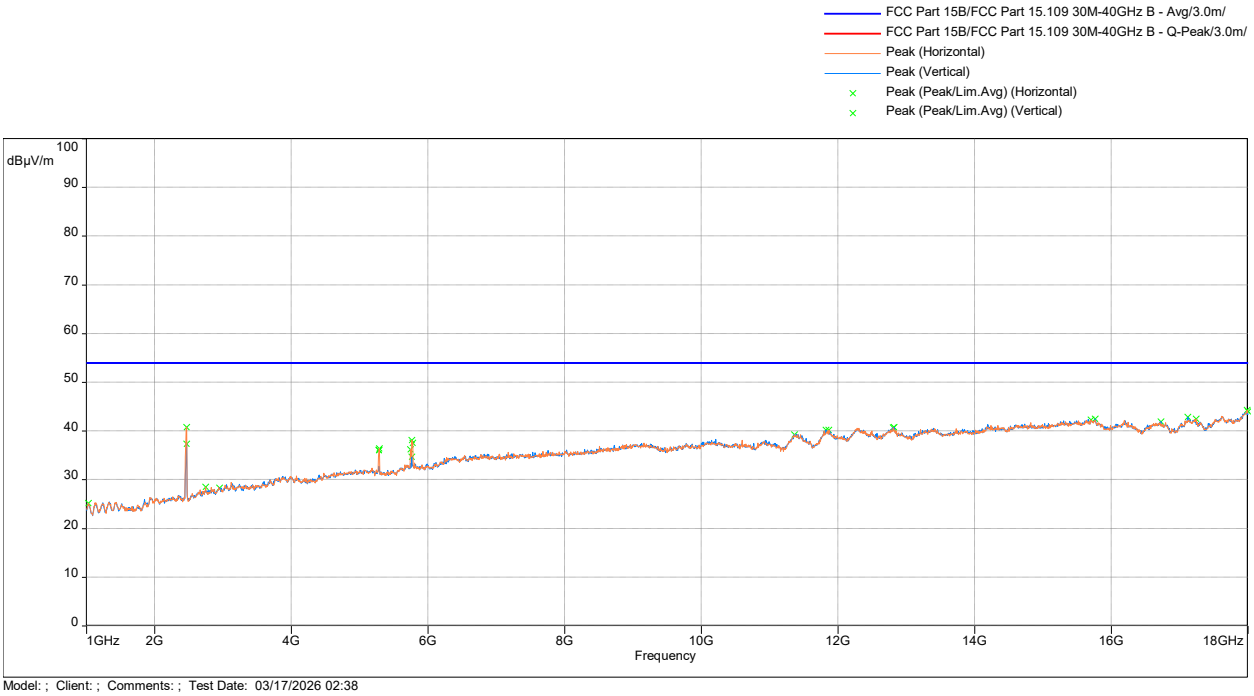
Note: Correction = AF + CF – Preamp

Radiated Spurious Emissions from 1 to 18 GHz, Peak Scan vs Peak Limits



Model: ; Client: ; Comments: ; Test Date: 03/17/2026 02:29

Radiated Spurious Emissions from 1 to 18 GHz, Average Scan vs Average Limits



Model: ; Client: ; Comments: ; Test Date: 03/17/2026 02:38

Freq (MHz)	Avg FS@10m dB(uV/m)	Avg. Limit@10m dB(uV/m)	Margin (dB)	Height (m)	Angle (°)	Polarity	Correction (dB)
17989.23	44.32	54	-9.68	1.75	356.51	Horizontal	5.4
17998.87	43.99	54	-10.01	1.75	359.93	Vertical	5.42
17121.67	42.92	54	-11.08	1.25	142.24	Vertical	4.66
15765.63	42.51	54	-11.49	1.75	310.71	Vertical	5.28
17242.93	42.5	54	-11.5	1.75	121.57	Horizontal	4.55
15699.33	42.35	54	-11.65	1.75	76.72	Horizontal	5.27

Result	**Complies** by 9.68 dB

4.2 Frequency Tolerance

4.2.1 Requirements

FCC 15.225 (e)

The frequency tolerance of the carrier signal shall be maintained within ±0.01% of the operating frequency over a temperature variation of 0 degrees to +0 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. For battery operated equipment, the equipment tests shall be performed using a new battery.

4.2.2 Procedure

The EUT was placed in the temperature chamber. The frequency counter was connected to the transmitter output. For each temperature, the carrier frequency was recorded.

4.2.3 Test Results

Nominal Frequency: 13560000 Hz

Voltage (AC)	Temperature (C)	Measured Frequency (Hz)	Deviation from Reference (Hz)	Deviation (%)
Battery	-20	13559223.451	776.549	0.0057268
Battery	-10	13559838.133	161.867	0.0011937
Battery	0	13559399.132	600.868	0.0044312
Battery	10	13559813.821	186.179	0.0013730
Battery	20	13559358.974	641.026	0.0047273
Battery	30	13559233.333	766.667	0.0056539
Battery	40	13559405.556	594.444	0.0043838
Battery	50	13559230.342	769.658	0.0056759

4.3 Occupied Bandwidth
FCC 15.215

4.3.1 Requirements

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§15.217 through 15.257, 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. The requirement to contain the designated bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage.

4.3.2 Procedure

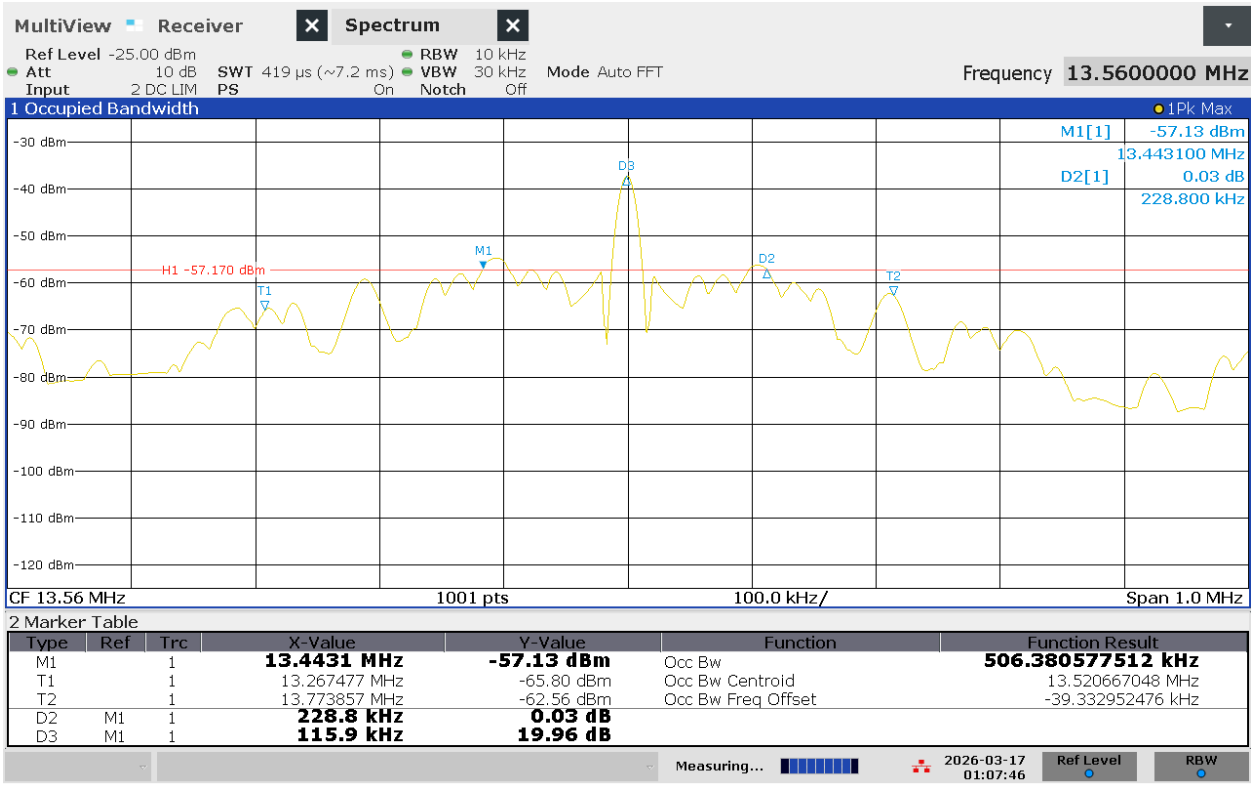
The EUT was setup to transmit in normal operating condition.

Measurements were made with the loop antenna in close proximity of the EUT. Following the procedures of ANSI C63.10: 2020, the 20dB bandwidth measurements were taken. The following plots show Occupied Bandwidth.

4.3.3 Test Results

Frequency (MHz)	-20 dB Channel Bandwidth (kHz)	99% Channel Bandwidth (kHz)
13.56	228.8	506.38

Channel Bandwidth Plot



4.4 AC Line Conducted Emission
FCC Rule 15.207, FCC 15.107

4.4.1 Requirement

Frequency Band MHz	Class B Limit dB(μV)		Class A Limit dB(μV)	
	Quasi-Peak	Average	Quasi-Peak	Average
0.15-0.50	66 to 56 *	56 to 46 *	79	66
0.50-5.00	56	46	73	60
5.00-30.00	60	50	73	60

*Note: *Decreases linearly with the logarithm of the frequency. At the transition frequency the lower limit applies.*

4.4.2 Procedure

Measurements are carried out using quasi-peak and average detector receivers in accordance with CISPR 16. An AMN is required to provide a defined impedance at high frequencies across the power feed at the point of measurement of terminal voltage and also to provide isolation of the circuit under test from the ambient noise on the power lines. An AMN as defined in CISPR 16 shall be used.

The EUT is located so that the distance between the boundary of the EUT and the closest surface of the AMN is 0.8m.

Where a flexible mains cord is provided by the manufacturer, this shall be 1m long or if in excess of 1m, the excess cable is folded back and forth as far as possible so as to form a bundle not exceeding 0.4m in length.

The EUT is arranged and connected with cables terminated in accordance with the product specification.

Conducted disturbance is measured between the phase lead and the reference ground, and between the neutral lead and the reference ground. Both measured values are reported.

The EUT, where intended for tabletop use, is placed on a table whose top is 0.8m above the ground plane. A vertical, metal reference plane is placed 0.4m from the EUT. The vertical metal reference-plane is at least 2m by 2m. The EUT shall be kept at least 0.8m from any other metal surface or other ground plane not being part of the EUT. The table is constructed of non-conductive materials. Its dimensions are 1m by 1.5m, but may be extended for larger EUT.

Floor standing EUT are placed on a horizontal metal ground plane and isolated from the ground plane by resting on an insulating material. The metal ground plane extends at least 0.5m beyond the boundaries of the EUT and has minimum dimensions of 2m by 2m.

EUT was placed in transmission mode then tested for conducted emissions per 15.207 to ensure the device complies with 15.207. After, the EUT RF was powered off and was measured to show compliance with the 15.107 limits.

4.4.3 Test Result

Not applicable. The EUT is battery powered.

5.0 List of test equipment

Measurement equipment used for emission compliance testing utilized the equipment on the following list:

Equipment	Manufacturer	Model/Type	Asset #	Cal Int	Cal Due
EMI Receiver	Rohde and Schwarz	ESW44	ITS 01659	12	10/24/2026
Spectrum Analyzer	Rohde and Schwarz	FSU26	ITS 00913	12	06/18/2026
Pre-Amplifier	Sonoma Instrument	310	ITS 00415	12	05/16/2026
Trilog Antenna	Schwarzbeck	VULB 9168	ITS 02097	12	09/17/2026
Passive Loop Antenna	ETS Lindgren	6512	ITS 01573	12	12/12/2026
1-18GHz Horn Antenna	RF Spin	DRH18-E	ITS 02114	12	10/09/2026
1-18GHz Preamplifier	EMC Instruments	EMC118A45SE	ITS 02113	12	10/14/2026
10kHz-1GHz RF Cable	Absolute EMC	EMC106-NM-NM-8000	ITS 02095	12	05/21/2026
10kHz-1GHz RF Cable	TRU Corporation	TRUCore 300	ITS 01464	12	09/15/2026
30-1000MHz RF Cable	Absolute EMC	50915-236	ITS 02109	12	08/18/2026
10kHz-1GHz RF Cable	TRU Corporation	TRUCore 300	ITS 01343	12	07/14/2026
1-40GHz SMA RF Cable	Absolute EMC	50586-39	ITS 02098	12	08/20/2026
40 GHz RF Cable	MegaPhase	50586-236	ITS 02193	12	08/20/2026
Humidity Temperature Test Chamber	ESPEC	BTX-475	ITS 01436	12	10/03/2026
Loop Sensor	Solar Electronics	7334-1	ITS 001608	12	12/12/2026
3M Chamber	AP Americas	3M Chamber	ITS 02160	#	#

Calibration not required

Software used for emission compliance testing utilized the following:

Name	Manufacturer	Version
BAT-EMC	Nexio	2024.0.19.1

6.0 Document History

Revision/ Job Number	Writer Initials	Reviewer Initials	Date	Change
0 / G106514122	AM	AC	April 16, 2026	Original document
1 / G106514122	AM	AC	June 29, 2026	Added CAB Identifier Corrected Variant Models

END OF TEST REPORT