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ELECTROMAGNETIC EMISSION COMPLIANCE REPORT

of

HOMELINK SMART HOME CONNECTOR
MODEL: HLSHCA
FCC ID: JCQHLSHCA IC: 1907A-HLSHCA

1/26/2026

This report concerns (check one): Original grant ☒ Class II change ☐
Equipment type: Low Power Intentional Radiator

Test Specifications:

☐ FCC Part 15C Sec. 15.249

☐ Industry Canada RSS-210 (Issue 10, Dec 2019) & RSS-Gen (Issue 5, Apr 2018)

Deferred grant requested per 47 CF 0.457(d)(1)(ii)? yes ☐ no ☒

If yes, defer until: _____ (date)

Company agrees to notify the Commission by _____ (date)
of the intended date of announcement of the product so that the grant can be
issued on that date.

Report prepared for:

MARTEC ACCESS PRODUCTS INC.

Report prepared by:

Advanced Compliance Lab

Report number:

0048-261212-03-FCC-IC



The test result in this report IS supported and covered by the ANAB accreditation

Table of Contents

Report Cover Page.....	1
Table of Contents	2
Figures.....	3
1. GENERAL INFORMATION	4
1.1 Verification of Compliance	4
1.2 Equipment Modifications	5
1.3 Product Information	6
1.4 Test Methodology	6
1.5 Test Facility	6
1.6 Test Equipment	6
1.7 Statement for the Document Use	7
2. PRODUCT LABELING.....	8
3. SYSTEM TEST CONFIGURATION.....	9
3.1 Justification	9
3.2 Special Accessories.....	9
3.3 Configuration of Tested System	9
4. SYSTEM SCHEMATICS	13
5. RADIATED EMISSION DATA.....	14
5.1 Field Strength Calculation	14
5.2 Test Methods and Conditions	14
5.3 Test Data	14
6. EUT RECEIVING MODE VERIFICATION.....	21
7. CONDUCTED EMISSION DATA	22
7.1 Test Methods and Conditions	22
7.2 Test Data	22
8. PHOTOS OF TESTED EUT	24

Figures

Figure 2.1 FCC/IC ID Label8

Figure 2.2 Location of Label8

Figure 3.1 Radiated Test Setup.....11

Figure 3.2 Conducted Test Setup12

Figure 4.1 EUT Schematics13

Figure 7.1 Line Conducted Emission23

Figure 7.2 Neutral Conducted Emission23

Figure 8.X External & Internal Views24+

1. GENERAL INFORMATION

1.1 Verification of Compliance

EUT: HOMELINK SMART HOME CONNECTOR
Model: HLSHCA

Applicant: MARTEC ACCESS PRODUCTS INC.
60 Kingsbridge Road
Piscataway, NJ 08854

Manufacturer: MARTEC ACCESS PRODUCTS INC.

Test Type: FCC Part 15.249 & 15.209
IC RSS-210 (Issue 11) A2.9 & RSS-Gen (Issue 6)

Result: PASS

Tested by: ADVANCED COMPLIANCE LABORATORY

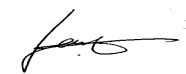
Test Complete Date: 1/26/2026

Report Number: 0048-261212-03-FCC-IC

The above equipment was tested by Compliance Laboratory, Advanced Technologies, Inc. for compliance with the requirement set forth in the FCC rules and regulations Part 15 subpart C & IC RSS-210/RSS-Gen. This said equipment in the configuration described in the report, shows the maximum emission levels emanating from equipment are within the compliance requirements.

The estimated uncertainty of the test result is given as following. The method of uncertainty calculation is provided in Advanced Compliance Lab. Doc. No. 0048-01-01.

	Prob. Dist.	Uncertainty(dB)	Uncertainty(dB)	Uncertainty(dB)
		30-1000MHz	1-6.5GHz	Conducted
Combined Std. Uncertainty u_c	norm.	± 2.36	± 2.99	± 1.83



Wei Li
Lab Manager
Advanced Compliance Lab

Date 1/26/2026

1.2 Equipment Modifications

N/A

1.3 Product Information

System Configuration

ITEM	DESCRIPTION	FCC/IC ID	CABLE
Product	HOMELINK SMART HOME CONNECTOR HLSHCA ⁽¹⁾	JCQHLSHCA 1907A-HLSHCA	
Housing	PLASTICS		
Power Supply	120Vac/60Hz		
Operation Freq.	908.40MHz, 908.42MHz and 916MHz		

(1) EUT submitted for grant.

1.4 Test Methodology

Radiated tests were performed according to the procedures in ANSI C63.4-2014 at an antenna to EUT distance of 3 meters.

1.5 Test Facility

The open area test site and conducted measurement facility used to collect the radiated and conducted data are located at Hillsborough, New Jersey, USA. This site is accepted by FCC to perform measurements under Part 15 or 18 (Registration # 185968 & MRA#US3288) and also designated by IC as “ **site IC 3130A**”. ACL is recognized by ISED as a wireless testing laboratory (CAB ID: US0100) . The ANAB Lab code for accreditation is: AT-3288.

1.6 Test Equipment

Manufacture	Model	Serial No.	Description	Cal Due dd/mm/yy
Agilent	E4440A	US40420700	3Hz-26.5GHz Spec. Analyzer	17/06/26
R &S	ESPI	100018	9KHz-7GHz EMI Receiver	15/01/27
HP	HP8546A	3448A00290	9kHz to 6.5GHz EMI Receiver	25/09/26
EMCO	3104C	9307-4396	20-300MHz Biconical Antenna	12/11/26
EMCO	3146	9008-2860	200-1000MHz Log-Periodic Antenna	13/11/26
Electro-Meterics	ALR-25M/30	289	10KHz-30MHz Active Loop Antenna	28/05/26
EMCO	3115	4945	Double Ridge Guide Horn Antenna	28/11/26
R&S	SMH	8942280/010	Signal Generator	15/01/27

All Test Equipment Used are Calibrated Traceable to NIST Standards. Calibration interval: 2 year.

1.7 Statement for the Document Use

This report shall not be reproduced except in full, without the written approval of the laboratory. And this report must not be used by the client to claim product endorsement by ANAB or any agency of the U.S. & Canada Government.

2. PRODUCT LABELING

Martec Access Products Inc.
HomeLink Smart Home Connector
Model/Part: HLSHCA
FCC ID: JCQHLSHCA IC: 1907A-HLSHCA

This device complies with part 15 of the FCC Rules and IC RSS-210 & RSS-Gen Rules.. Operating is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Figure 2.1 FCC/IC ID Label
(Statement may be shown in the manual)

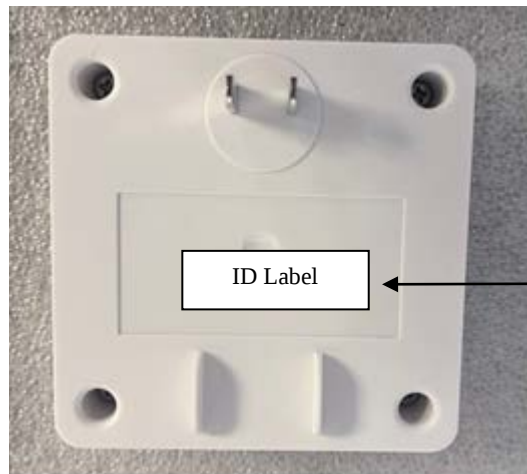


Figure 2.2 Location of the Label

3. SYSTEM TEST CONFIGURATION

3.1 Justification

The system was configured for testing in a typical fashion (as a customer would normally use it). Customized antenna on PCB was used.

Testing was performed as EUT was continuously operated at the following frequency channels: Low=908.40MHz, Middle= 908.42MHz, High=916MHz.

The EUT was powered by external AC source, 120V/60Hz.

3.2 Special Accessories

N/A

3.3 Configuration of Tested System

The following figure(s) illustrate this system, which is tested standing along.





Figure 3.1 Radiated Test Setup



Figure 3.2 Conducted Test Setup

4. SYSTEM SCHEMATICS

See Attachment.

Figure 4.1 System Schematics

5. RADIATED EMISSION DATA

5.1 Field Strength Calculation

The corrected field strength is automatically calculated by EMI Receiver using following:

$$FS = RA + AF + CF + AG$$

where FS: Corrected Field Strength in dB μ V/m

RA: Amplitude of EMI Receiver before correction in dB μ V

AF: Antenna Factor in dB/m

CF: Cable Attenuation Factor in dB

AG: Built-in Preamplifier Gain in dB (Stored in receiver as part of the calibration data)

5.2 Test Methods and Conditions

The initial step in collecting radiated data is a EMI Receiver scan of the measurement Range below 30MHz using peak detector and 9KHz IF bandwidth / 30KHz video bandwidth. For the Range 30MHz - 1GHz, 100KHz IF bandwidth / 100KHz video bandwidth are used. Both bandwidths are 1MHz for above 1GHz measurement. The frequency Range from 9KHz up to 10th harmonics were investigated.

5.3 Test Data

The following data lists the significant emission frequencies, polarity and position, peak reading of the EMI Receiver, the FCC/IC limit, and the difference between the peak reading and the limit. Explanation of the correction and calculation are given in section 5.1.

Test Personnel: 

Typed/Printed Name: David Tu

Date: 1/26/2026

Radiated Test Data (CH-908.40MHz/908.42MHz/916MHz) for above 1GHz Range

CH=908.40MHz

Frequency (MHz)	Polarity (V,H) Position (Z)	Antenna Height (m)	Azimuth (Degree)	Peak /QP Reading at 3m (2) (dBuV/m)	FCC/IC 3m Peak Limit (3) (dBuV/m)	Difference To Peak Limit (dBuV/m)	Average Reading with Correction (>1GHz) (dBuV/m)	FCC/IC 3m Average Limit (1) (dBuV/m)	Difference To AVG Limit (dBuV/m)
908.4	H	1.1	045	92.8	114	-21.2	90.6	94	-3.4
1816.8	H	1.1	045	37.5	74	-36.5	35.0	54	-19
2725.2	H	1.1	045	41.9	74	-32.1	39.4	54	-14.6
3633.6	H	1.0	045	44.6	74	-29.4	42.5	54	-11.5
4542.0	H	1.0	030	51.2	74	-22.8	48.8	54	-5.2
5450.4	H	1.0	030	55.1	74	-17.9	52.9	54	-1.1
6358.8	H	1.1	030	54.7	74	-18.3	52.2	54	-1.8
7267.2	H	1.1	030	51.0	74	-23	48.4	54	-5.6
8175.6	H	1.0	045	52.3	74	-21.7	50.3	54	-3.7
9084.0	H	1.1	045	50.0	74	-24	48.2	54	-5.8
908.4	V	1.1	000	93.9	114	-20.1	91.9	94	-2.1
1816.8	V	1.1	010	39.6	74	-34.4	37.3	54	-16.7
2725.2	V	1.1	000	46.4	74	-27.6	44.6	54	-9.4
3633.6	V	1.1	000	41.6	74	-32.4	39.1	54	-14.9
4542.0	V	1.1	000	42.5	74	-31.5	40.4	54	-13.6
5450.4	V	1.1	000	52.6	74	-21.4	49.9	54	-4.1
6358.8	V	1.1	010	54.3	74	-19.7	52.3	54	-1.7
7267.2	V	1.1	010	52.8	74	-21.2	50.6	54	-3.4
8175.6	V	1.1	010	51.4	74	-22.6	49.7	54	-4.3
9084.0	V	1.1	010	49.5	74	-24.5	47.0	54	-7

(1) The limit for emissions within the 902-928MHz band is 50mV(94dB) per FCC Part 15, Sec 15.249 & IC RSS-210. The limit for its harmonics is 500uV (54dB). Other spurious emissions shall be lower than either its fundamental by 50dB or the limit defined in Sec. 15.209, whichever is higher.

(2) If the peak reading is less than the FCC/IC quasi-peak or average limit, it'll be not necessary to show the measured/ calculated quasi-peak or average reading.

(3) For above 1GHz Range, peak reading shall meet the limit: average Limit+20dB.

CH=908.42MHz

Frequency (MHz)	Polarity (V,H) Position (Z)	Antenna Height (m)	Azimuth (Degree)	Peak /QP Reading at 3m (2) (dBuV/m)	FCC/IC 3m Peak Limit (3) (dBuV/m)	Difference To Peak Limit (dBuV/m)	Average Reading with Correction (>1GHz) (dBuV/m)	FCC/IC 3m Average Limit (1) (dBuV/m)	Difference To AVG Limit (dBuV/m)
908.42	H	1.1	045	92.9	114	-21.1	91.0	94	-3
1816.84	H	1.1	045	37.7	74	-36.3	35.1	54	-18.9
2725.26	H	1.1	045	42.1	74	-31.9	39.5	54	-14.5
3633.68	H	1.1	045	43.9	74	-30.1	41.8	54	-12.2
4542.1	H	1.1	030	51.4	74	-22.6	49.0	54	-5
5450.52	H	1.1	030	55.3	74	-18.7	53.2	54	-0.8
6358.94	H	1.1	030	55.1	74	-18.9	52.5	54	-1.5
7267.36	H	1.1	030	51.2	74	-22.8	48.6	54	-5.4
8175.78	H	1.1	045	52.1	74	-21.9	50.2	54	-3.8
9084.2	H	1.1	045	50.2	74	-23.8	48.4	54	-5.6
908.42	V	1.1	000	94.4	114	-19.6	92.5	94	-1.5
1816.84	V	1.1	010	40.2	74	-33.8	38.0	54	-16
2725.26	V	1.1	000	46.9	74	-27.1	45.1	54	-8.9
3633.68	V	1.1	000	44.1	74	-29.9	41.5	54	-12.5
4542.1	V	1.1	000	42.8	74	-31.2	40.7	54	-13.3
5450.52	V	1.1	000	52.8	74	-21.2	50.0	54	-4
6358.94	V	1.1	010	54.5	74	-19.5	52.6	54	-1.4
7267.36	V	1.1	010	53.2	74	-20.8	50.8	54	-3.2
8175.78	V	1.1	010	51.5	74	-22.5	49.9	54	-4.1
9084.2	V	1.1	010	49.8	74	-24.2	47.2	54	-6.8

(1) The limit for emissions within the 902-928MHz band is 50mV(94dB) per FCC Part 15, Sec 15.249 & IC RSS-210. The limit for its harmonics is 500uV (54dB). Other spurious emissions shall be lower than either its fundamental by 50dB or the limit defined in Sec. 15.209, whichever is higher.

(2) If the peak reading is less than the FCC/IC quasi-peak or average limit, it'll be not necessary to show the measured/ calculated quasi-peak or average reading.

(3) For above 1GHz Range, peak reading shall meet the limit: average Limit+20dB.

CH=916.00MHz

Frequency (MHz)	Polarity (V,H) Position (Z)	Antenna Height (m)	Azimuth (Degree)	Peak /QP Reading at 3m (2) (dBuV/m)	FCC/IC 3m Peak Limit (3) (dBuV/m)	Difference To Peak Limit (dBuV/m)	Average Reading with Correction (>1GHz) (dBuV/m)	FCC/IC 3m Average Limit (1) (dBuV/m)	Difference To AVG Limit (dBuV/m)
916	H	1.1	030	94.9	114	-19.1	92.4	94	-1.6
1832	H	1.1	030	38.5	74	-35.5	35.9	54	-18.1
2748	H	1.1	030	43.9	74	-30.1	41.5	54	-12.5
3664	H	1.1	045	46.5	74	-27.5	43.7	54	-10.3
4580	H	1.1	045	50.6	74	-23.4	48.0	54	-6
5496	H	1.0	045	55.5	74	-18.5	52.7	54	-1.3
6412	H	1.1	045	56.3	74	-17.7	53.5	54	-0.5
7328	H	1.1	030	52.1	74	-21.9	49.4	54	-4.6
8244	H	1.0	030	51.8	74	-22.2	49.1	54	-4.9
9160	H	1.1	030	49.7	74	-24.3	47	54	-7
916	V	1.1	010	96.1	114	-17.9	93.6	94	-0.4
1832	V	1.1	010	41.2	74	-32.8	38.7	54	-15.3
2748	V	1.1	000	44.6	74	-29.4	41.4	54	-12.6
3664	V	1.1	000	43.5	74	-30.5	41.3	54	-12.7
4580	V	1.1	000	48.7	74	-25.3	46.2	54	-7.8
5496	V	1.1	000	50.6	74	-23.4	47.9	54	-6.1
6412	V	1.1	000	56.1	74	-17.9	53.2	54	-0.8
7328	V	1.1	000	54.3	74	-19.7	51.7	54	-2.3
8244	V	1.1	000	51.5	74	-22.5	48.8	54	-5.2
9160	V	1.1	000	49.9	74	-24.1	47.2	54	-6.8

(1) The limit for emissions within the 902-928MHz band is 50mV(94dB) per FCC Part 15, Sec 15.249 & IC RSS-210. The limit for its harmonics is 500uV (54dB). Other spurious emissions shall be lower than either its fundamental by 50dB or the limit defined in Sec. 15.209, whichever is higher.

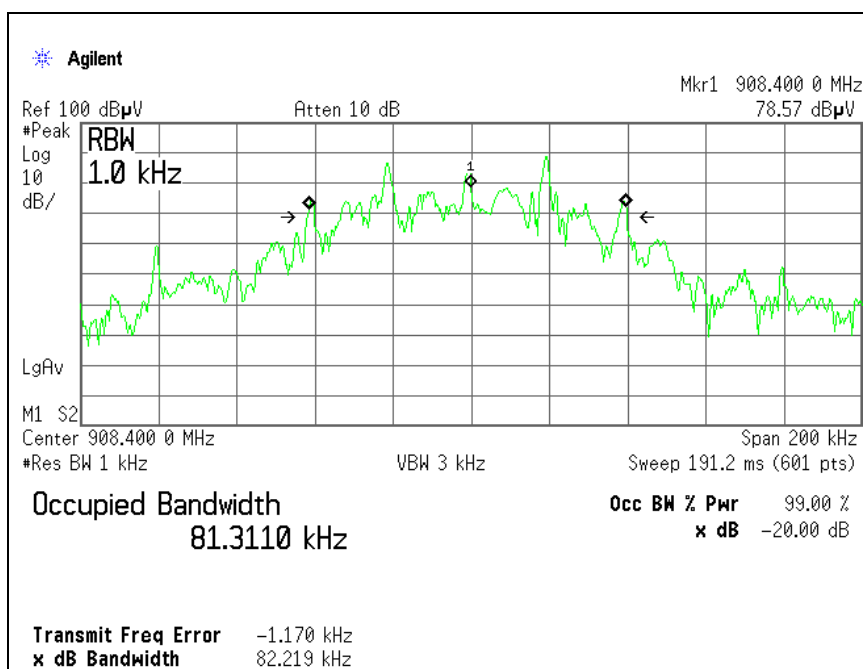
(2) If the peak reading is less than the FCC/IC quasi-peak or average limit, it'll be not necessary to show the measured/ calculated quasi-peak or average reading.

(3) For above 1GHz Range, peak reading shall meet the limit: average Limit+20dB.

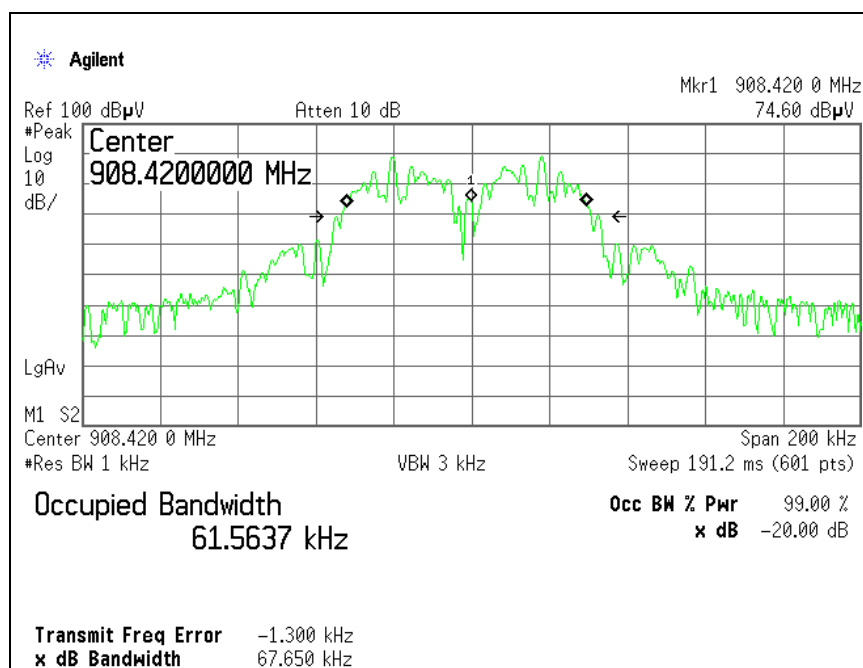
Other Spurious outside of the band 902-928MHz for under 1GHz range (worst case)

Test Freq <i>(MHz)</i>	Detector <i>(P/Q/A)</i>	Polarity <i>(H/V)</i>	Amplitude <i>(dBuV/m)</i>	15.209 Limit <i>(dBuV/m)</i>	Difference <i>(dB)</i>
41.9	P	H	30.0	40.0	-10.0
54.7	P	H	30.6	40.0	-9.4
65.3	P	H	30.4	40.0	-9.6
115.9	P	H	32.8	43.5	-10.7
197.5	P	H	35.6	43.5	-7.9
224	P	H	34.4	46.0	-11.6
340	P	H	32.0	46.0	-14.0
42.3	P	V	31.7	40.0	-8.3
64.4	P	V	33.5	40.0	-6.5
109.1	P	V	34.8	43.5	-8.7
152.8	P	V	41.3	43.5	-2.2
206	P	V	37.3	43.5	-6.2
338	P	V	33.5	46.0	-12.5
436	P	V	35.3	46.0	-10.7

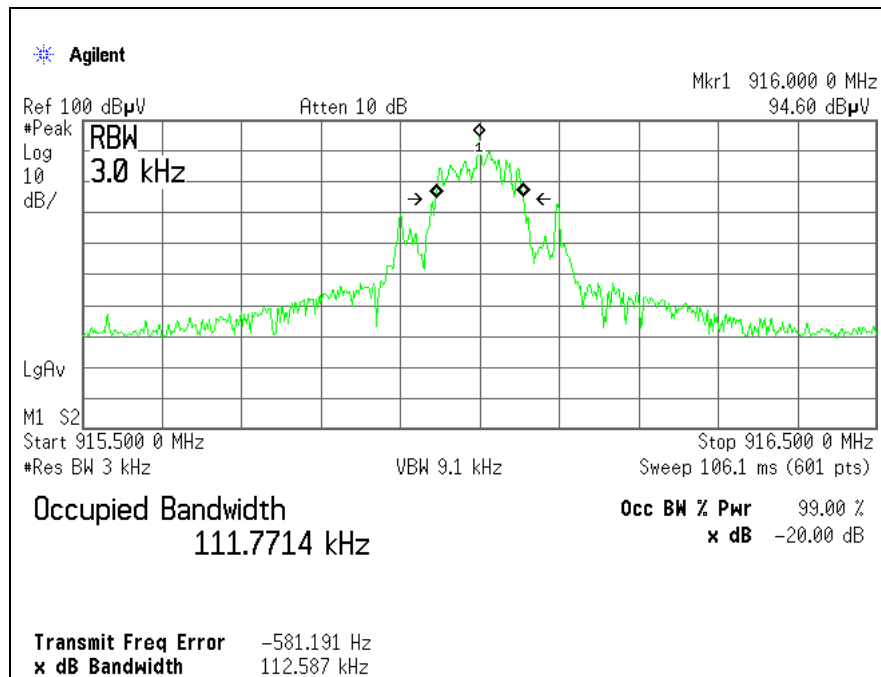
Comparing to the limit defined in FCC Sec. 15.209/IC RSS-Gen, emissions below the limit by 20dB were not recorded.



99% & 20dB Bandwidth for 908.40 MHz Plot



99% & 20dB Bandwidth for 908.42 MHz Plot



99% & 20dB Bandwidth for 916.00 MHz Plot

6. EUT RECEIVING MODE VERIFICATION

Radiated Test Data for Receiving/Standby Mode

Test Freq (MHz)	Detector (P/Q/A)	Polarity (H/V)	Amplitude (dBuV/m)	15.209 Limit (dBuV/m)	Difference (dB)
54.8	P	H	31.5	40.0	-8.5
197.0	P	H	35.1	43.5	-8.4
225	P	H	34.6	46.0	-11.4
340	P	H	33.3	46.0	-12.7
65.3	P	V	34.6	40.0	-5.4
152.5	P	V	41.0	43.5	-2.5
205.8	P	V	38.0	43.5	-5.5
336	P	V	33.2	46.0	-12.8
433.8	P	V	35.2	46.0	-10.8

- (1) Receiving mode spurious emissions shall be lower than the limit defined in FCC Sec. 15.209 & IC RSS-GEN.
(2) If the peak reading is less than the FCC/IC quasi-peak or average limit, it'll be not necessary to show the measured/ calculated quasi-peak or average reading.

7. CONDUCTED EMISSION DATA

7.1 Test Methods and Conditions

The EUT was under normal operational mode during the conducted emission test. EMI Receiver was scanned from 150KHz to 30MHz with maximum hold mode for maximum emission. Recorded data was sent to the plotter to generate output in linear format. At the input of the spectrum analyzer, a HP transient limiter is inserted for protective purpose. This limiter has a 10 dB attenuation in the range of 150KHz to 30MHz. That factor was automatically compensated by the receiver, so the readings are the corrected readings. The reference of the plot is the FCC Part 15/ICES-003 Class B limit in Figure 5.1 through Figure 5.2.

Conducted Emission Technical Requirements				
Frequency Range	Class A		Class B	
	Quasi-Peak dBuV	Average dBuV	Quasi-Peak dBuV	Average dBuV
150kHz –0.5MHz	79 (8912uV)	66 (1995uV)	66-56	56-46
0.5MHz-30MHz	73 (4467uV)	60 (1000uV)	---	---
0.5MHz- 5MHz	---	---	56	46
5MHz-30MHz	---	---	60	50

Emissions that have peak values close to the specification limit (if any) are also measured in the quasi-peak or average mode to determine compliance.

7.2 Test Data

Figure 5.1 through Figure 5.4 show the neutral and line conducted emissions for the defined operation modes.

The following conducted test data shows the worst case emissions are still below FCC Part 15/ICES-003 Class B limits.

Test Personnel:

Tester Signature: David Tu

Date: 1/26/2026

Typed/Printed Name: David Tu

120 V / 60 Hz

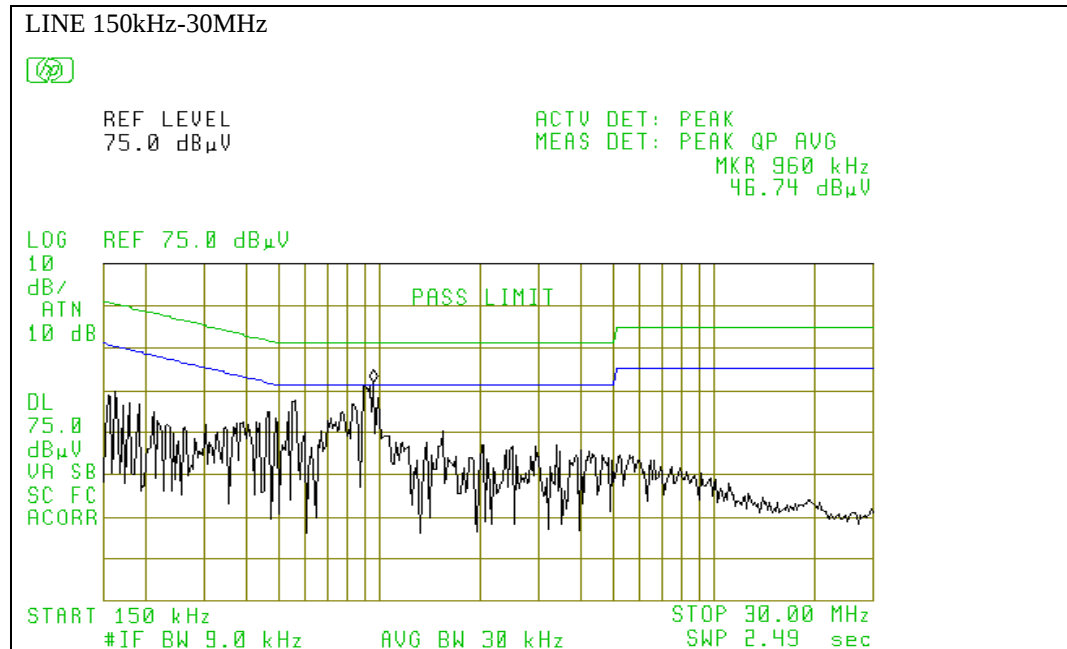


Figure 7.1 Line Conducted Emission

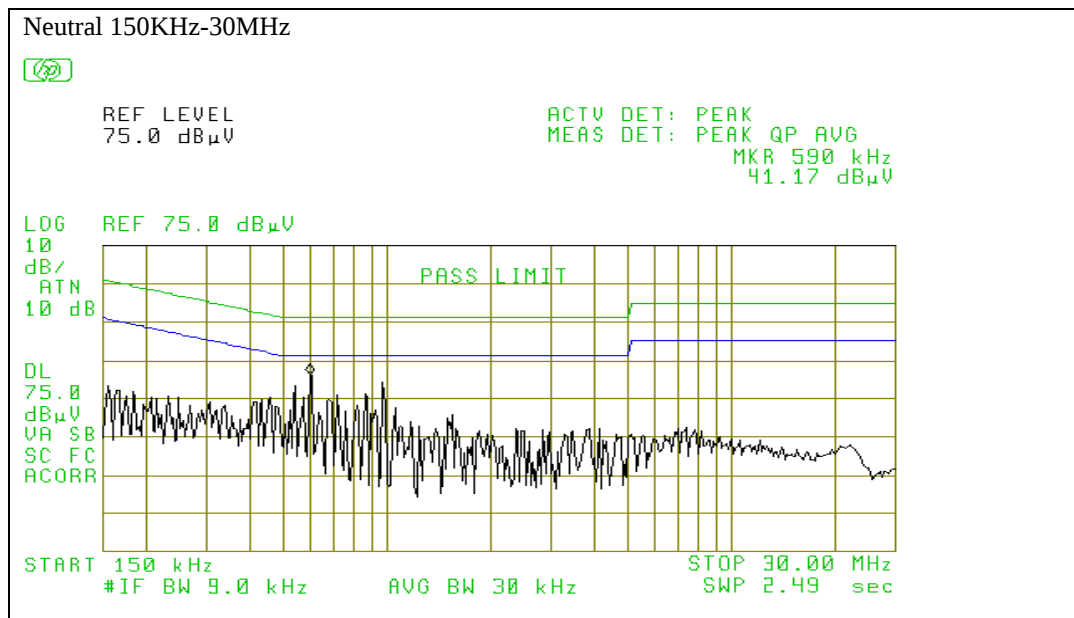


Figure 7.2 Neutral Conducted Emission

* The peak readings are below Class B QP limit & Average limit except the point of 960KHz, at which the average reading is as low as 18.83dBuV (well below the Class B Average Limit).