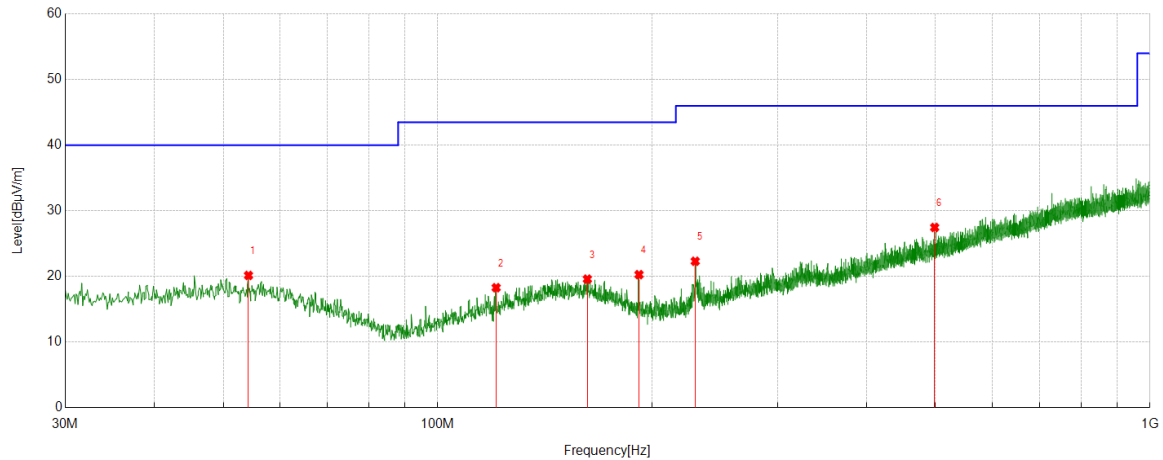


Part 4: 30MHz~1GHz

SPURIOUS EMISSIONS 30MHz ~ 1GHz (WORST-CASE CONFIGURATION)

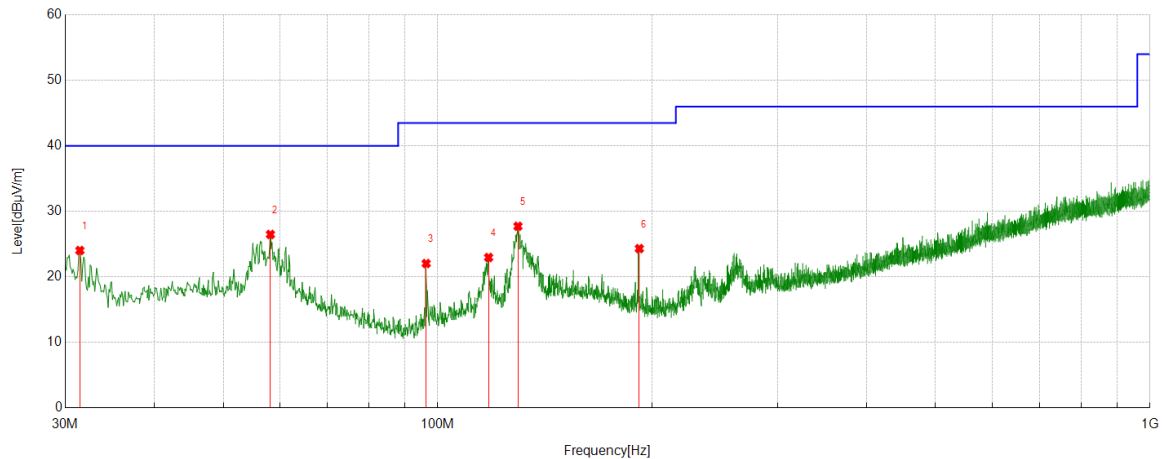
Test Mode	Channel	Polarization	Verdict
11B	MCH	Horizontal	PASS



No.	Frequency [MHz]	Reading Level [dBuV]	Correct Factor [dB/m]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
1	54.2524	-0.36	20.50	20.14	40.00	-19.86	Peak
2	120.8011	0.41	17.86	18.27	43.50	-25.23	Peak
3	162.2242	-0.78	20.36	19.58	43.50	-23.92	Peak
4	191.7152	2.74	17.52	20.26	43.50	-23.24	Peak
5	229.9370	4.66	17.64	22.30	46.00	-23.70	Peak
6	498.5569	1.55	25.91	27.46	46.00	-18.54	Peak

Note: 1. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
2. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.
3. Measurement = Reading Level + Correct Factor,
Correct Factor = Antenna Factor + Loss (Cable).

Test Mode	Channel	Polarization	Verdict
11B	MCH	Vertical	PASS



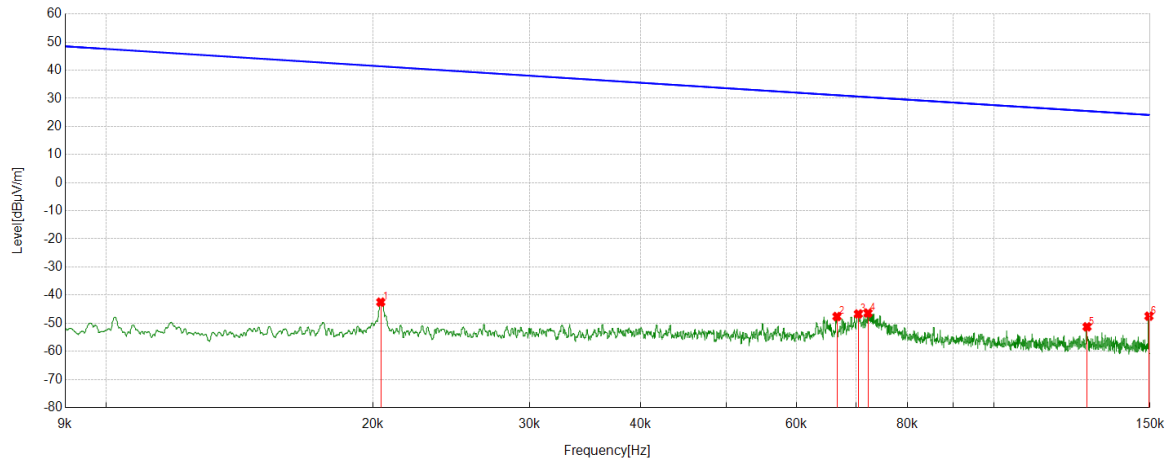
No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV]	[dB/m]	[dBuV/m]	[dBuV/m]	[dB]	
1	31.4551	5.35	18.67	24.02	40.00	-15.98	Peak
2	58.2298	6.34	20.13	26.47	40.00	-13.53	Peak
3	96.3546	6.91	15.12	22.03	43.50	-21.47	Peak
4	117.8908	5.56	17.39	22.95	43.50	-20.55	Peak
5	129.6290	8.82	18.90	27.72	43.50	-15.78	Peak
6	191.9092	6.81	17.50	24.31	43.50	-19.19	Peak

Note: 1. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
2. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.
3. Measurement = Reading Level + Correct Factor,
Correct Factor = Antenna Factor + Loss (Cable).

Part 5: 9kHz~30MHz

SPURIOUS EMISSIONS 9kHz ~ 30MHz (WORST CASE CONFIGURATION-FACE ON)

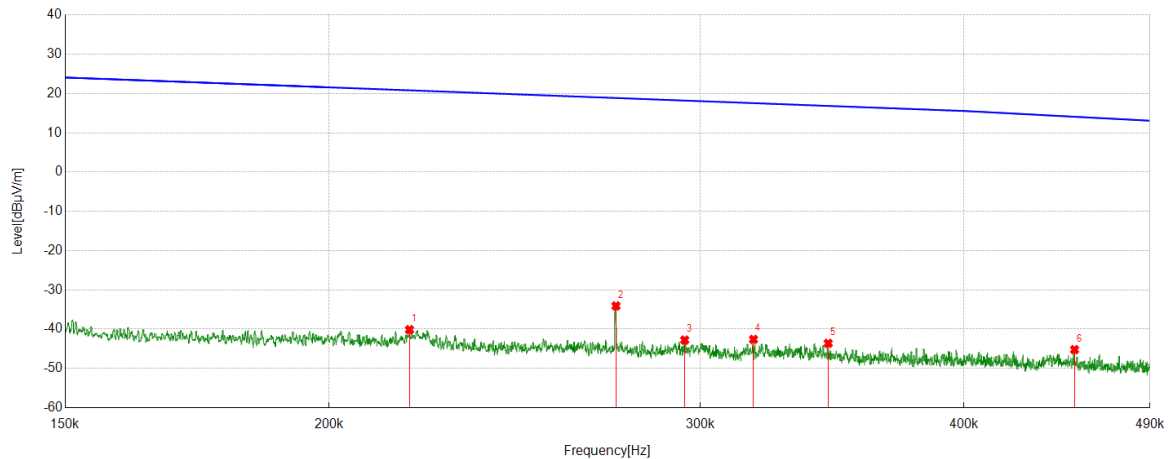
Test Mode	Channel	Frequency Range	Verdict
11B	MCH	9kHz~150kHz	PASS



No.	Frequency	Reading Level	Correct Factor	FCC Result	FCC Limit	ISED Result	ISED Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dBuA/m]	[dBuA/m]	[dB]	
1	0.0204	19.23	-61.74	-42.51	41.39	-94.01	-10.11	-83.90	Peak
2	0.0666	13.98	-61.61	-47.63	31.14	-99.13	-20.36	-78.77	Peak
3	0.0704	14.88	-61.61	-46.73	30.65	-98.23	-20.85	-77.38	Peak
4	0.0722	15.20	-61.61	-46.41	30.43	-97.91	-21.07	-76.84	Peak
5	0.1274	10.42	-61.72	-51.30	25.50	-102.80	-26.00	-76.80	Peak
6	0.1496	14.23	-61.73	-47.50	24.10	-99.00	-27.40	-71.60	Peak

- Note: 1. Measurement = Reading Level + Correct Factor,
Correct Factor = Antenna Factor + Loss (Cable) + Distance Factor.
2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
3. All 3 polarizations(Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.

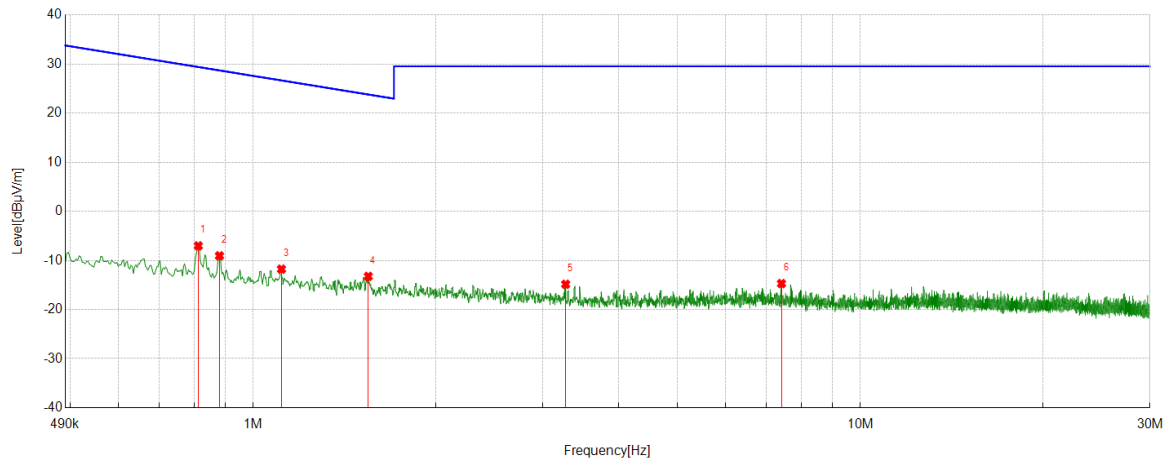
Test Mode	Channel	Frequency Range	Verdict
11B	MCH	150kHz~490kHz	PASS



No.	Frequency [MHz]	Reading Level [dBuV/m]	Correct Factor [dB]	FCC Result [dBuV/m]	FCC Limit [dBuV/m]	ISED Result [dBuA/m]	ISED Limit [dBuA/m]	Margin [dB]	Remark
1	0.2184	21.63	-61.78	-40.15	20.81	-91.65	-30.69	-60.96	Peak
2	0.2736	27.72	-61.81	-34.09	18.86	-85.59	-32.64	-52.95	Peak
3	0.2949	19.04	-61.82	-42.78	18.21	-94.28	-33.29	-60.99	Peak
4	0.3179	19.20	-61.82	-42.62	17.56	-94.12	-33.94	-60.18	Peak
5	0.3449	18.22	-61.83	-43.61	16.85	-95.11	-34.65	-60.46	Peak
6	0.4513	16.63	-61.86	-45.23	14.09	-96.73	-37.41	-59.32	Peak

- Note: 1. Measurement = Reading Level + Correct Factor,
Correct Factor = Antenna Factor + Loss (Cable) + Distance Factor.
2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
3. All 3 polarizations(Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.

Test Mode	Channel	Frequency Range	Verdict
11B	MCH	490kHz~30MHz	PASS



No.	Frequency	Reading Level	Correct Factor	FCC Result	FCC Limit	ISED Result	ISED Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dBuA/m]	[dBuA/m]	[dB]	
1	0.8117	14.84	-21.87	-7.03	29.41	-58.53	-22.09	-36.44	Peak
2	0.8796	12.81	-21.87	-9.06	28.72	-60.56	-22.78	-37.78	Peak
3	1.1127	10.08	-21.86	-11.78	26.68	-63.28	-24.82	-38.46	Peak
4	1.5466	8.59	-21.84	-13.25	23.81	-64.75	-27.69	-37.06	Peak
5	3.2701	6.92	-21.78	-14.86	29.54	-66.36	-21.96	-44.40	Peak
6	7.4137	7.02	-21.73	-14.71	29.54	-66.21	-21.96	-44.25	Peak

- Note: 1. Measurement = Reading Level + Correct Factor,
Correct Factor = Antenna Factor + Loss (Cable) + Distance Factor.
2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
3. All 3 polarizations(Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.

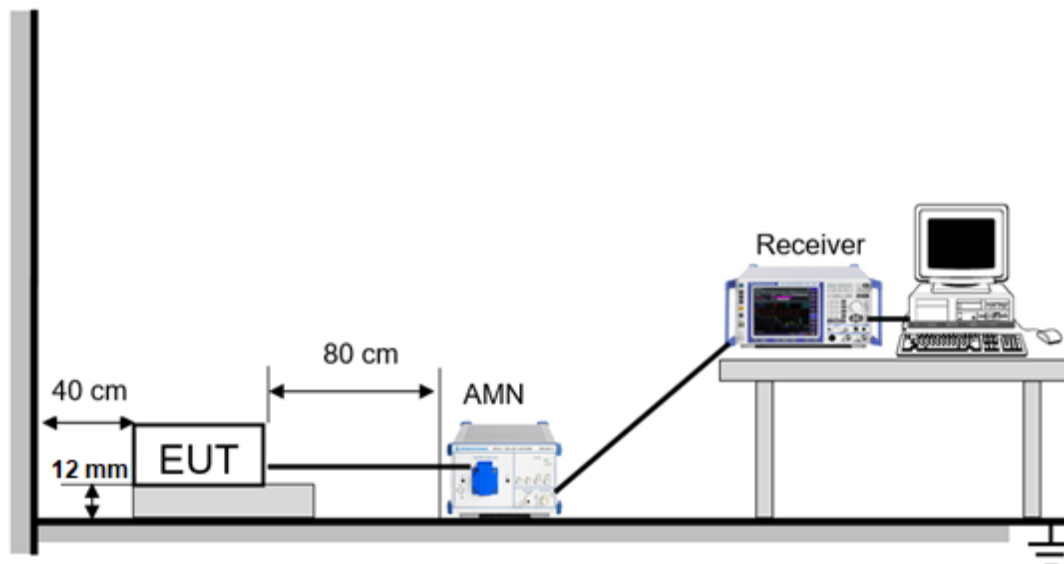
9. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

Please refer to FCC §15.207 (a)

FREQUENCY (MHz)	Limit (dBuV)	
	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

TEST SETUP AND PROCEDURE



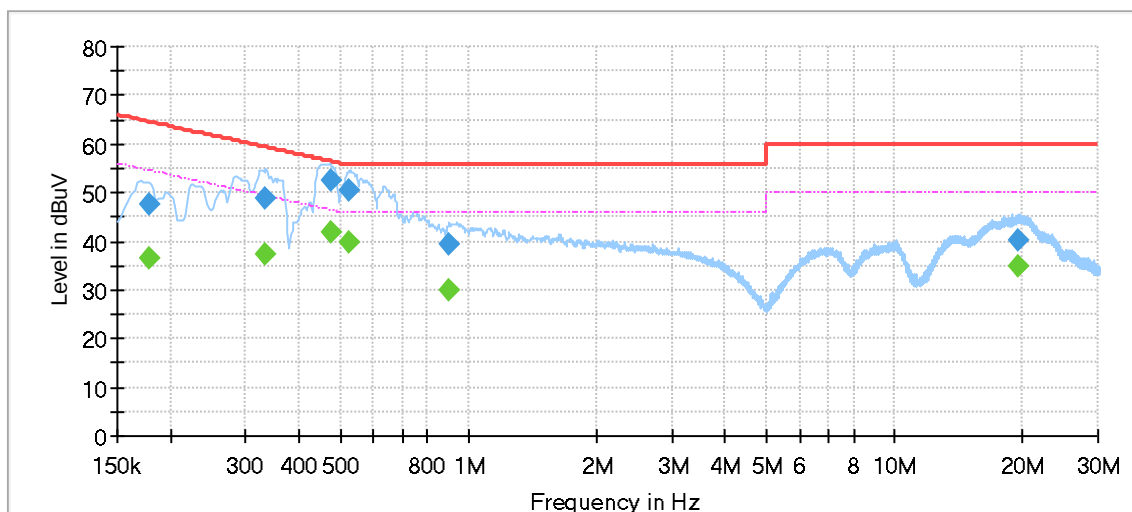
The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through an Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 6.2 of ANSI C63.10-2013. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9kHz.

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

TEST ENVIRONMENT

Temperature	22°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V

LINE L RESULTS (WORST-CASE CONFIGURATION)

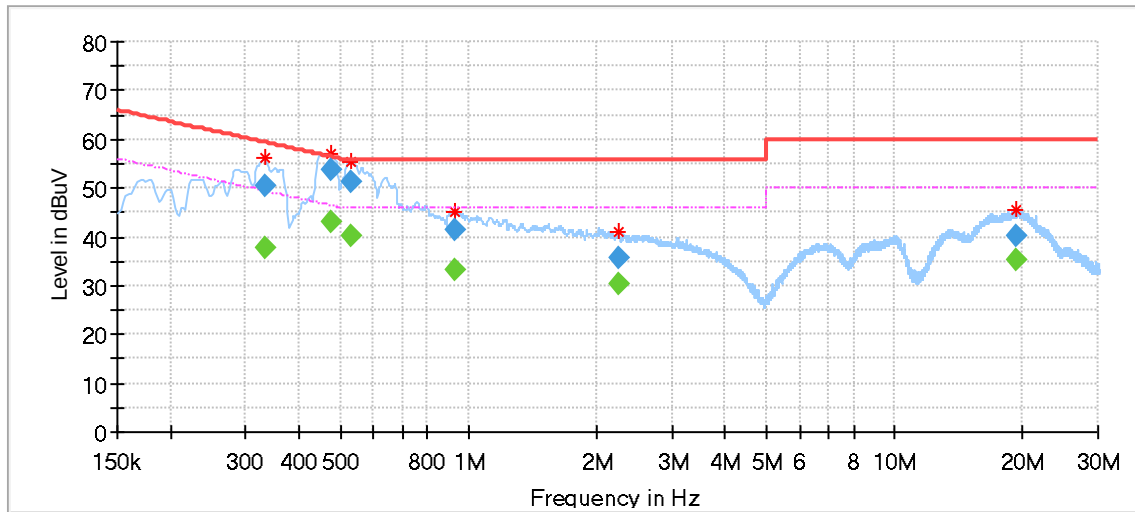


Final_Result

Frequency [MHz]	QuasiPeak [dBμV]	Average [dBμV]	Limit [dBμV]	Margin [dB]	Meas. Time [ms]	Bandwidth [kHz]	Line	Filter	Corr. [dB]
0.177363	---	36.72	54.61	17.89	5000.0	9.000	L1	OFF	9.6
0.177363	47.46	---	64.61	17.14	5000.0	9.000	L1	OFF	9.6
0.334075	---	37.20	49.35	12.15	5000.0	9.000	L1	OFF	9.6
0.334075	48.88	---	59.35	10.47	5000.0	9.000	L1	OFF	9.6
0.473375	---	41.87	46.45	4.59	5000.0	9.000	L1	OFF	9.6
0.473375	52.65	---	56.45	3.81	5000.0	9.000	L1	OFF	9.6
0.525613	---	39.86	46.00	6.14	5000.0	9.000	L1	OFF	9.6
0.525613	50.57	---	56.00	5.43	5000.0	9.000	L1	OFF	9.6
0.901225	---	30.04	46.00	15.96	5000.0	9.000	L1	OFF	9.6
0.901225	39.31	---	56.00	16.69	5000.0	9.000	L1	OFF	9.6
19.587325	---	34.84	50.00	15.16	5000.0	9.000	L1	OFF	9.9
19.587325	40.09	---	60.00	19.91	5000.0	9.000	L1	OFF	9.9

- Note: 1. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
3. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.
4. The extension cord/outlet strip was calibrated with the LISN as required by ANSI C63.10:2013 Clause 6.2.2.
5. Pre-testing all test modes and channels, and find the MCH of 11B which is the worst case, so only the worst case is included in this test report.

LINE N RESULTS (WORST-CASE CONFIGURATION)



Final Result

Frequency [MHz]	QuasiPeak [dBμV]	Average [dBμV]	Limit [dBμV]	Margin [dB]	Meas. Time [ms]	Bandwidth [kHz]	Line	Filter	Corr. [dB]
0.331588	---	37.80	49.41	11.61	5000.0	9.000	N	OFF	9.6
0.331588	50.47	---	59.41	8.94	5000.0	9.000	N	OFF	9.6
0.473375	---	42.93	46.45	3.52	5000.0	9.000	N	OFF	9.6
0.473375	53.71	---	56.45	2.75	5000.0	9.000	N	OFF	9.6
0.528100	---	40.39	46.00	5.61	5000.0	9.000	N	OFF	9.6
0.528100	51.29	---	56.00	4.71	5000.0	9.000	N	OFF	9.6
0.926100	---	33.23	46.00	12.77	5000.0	9.000	N	OFF	9.6
0.926100	41.24	---	56.00	14.76	5000.0	9.000	N	OFF	9.6
2.246963	---	30.29	46.00	15.71	5000.0	9.000	N	OFF	9.6
2.246963	35.85	---	56.00	20.15	5000.0	9.000	N	OFF	9.6
19.353500	---	35.09	50.00	14.91	5000.0	9.000	N	OFF	9.9
19.353500	40.34	---	60.00	19.66	5000.0	9.000	N	OFF	9.9

- Note: 1. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
3. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.
4. The extension cord/outlet strip was calibrated with the LISN as required by ANSI C63.10:2013 Clause 6.2.2.
5. Pre-testing all test modes and channels, and find the MCH of 11B which is the worst case, so only the worst case is included in this test report.

10. ANTENNA REQUIREMENTS

APPLICABLE REQUIREMENTS

Please refer to FCC §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Please refer to FCC §15.247(b)(4)

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

ANTENNA GAIN

The antenna gain of EUT is less than 6 dBi

END OF REPORT