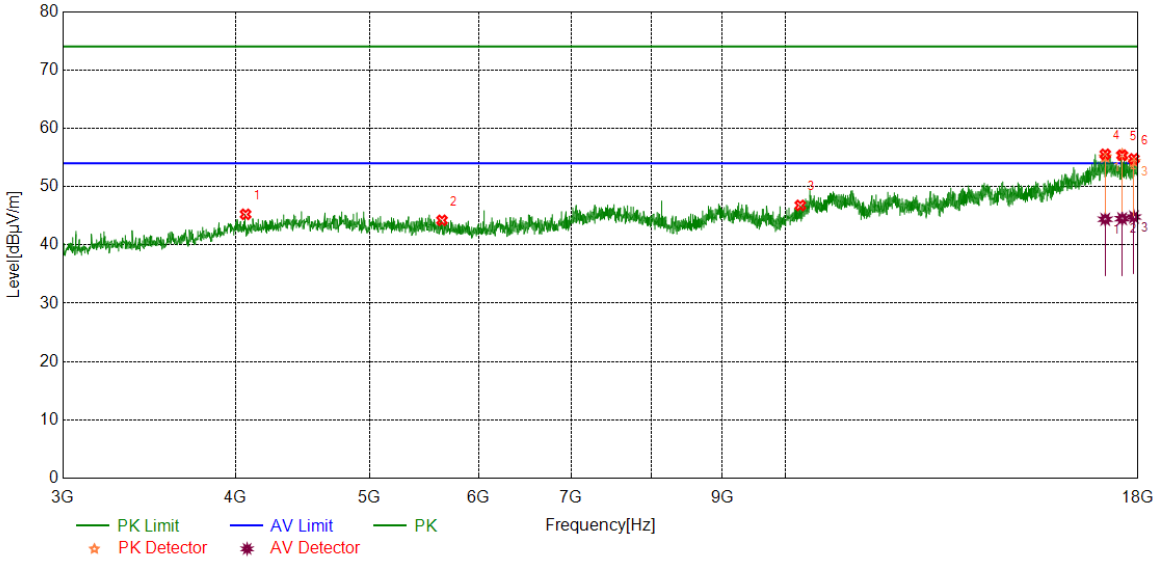
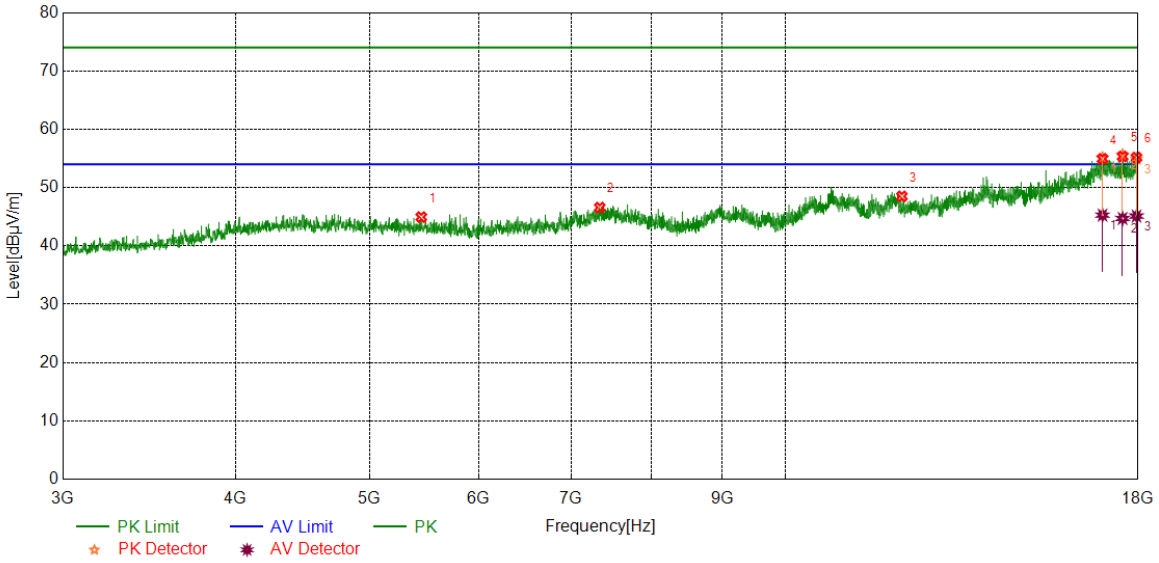
Test Mode	Channel	Polarization	Verdict
11N HT40	HCH	Horizontal	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	4068.8836	40.86	4.39	45.25	74.00	-28.75	peak
2	5644.0805	38.57	5.65	44.22	74.00	-29.78	peak
3	10253.4067	36.67	10.11	46.78	74.00	-27.22	peak
4	17041.7552	36.71	18.83	55.54	74.00	-18.46	peak
		25.57	18.83	44.40	54.00	-9.60	average
5	17529.3162	37.48	17.91	55.39	74.00	-18.61	peak
		26.59	17.91	44.50	54.00	-9.50	average
6	17876.2345	36.53	18.22	54.75	74.00	-19.25	peak
		26.57	18.22	44.79	54.00	-9.21	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. AVG: VBW refer to section 7.1.
6. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Test Mode	Channel	Polarization	Verdict
11N HT40	HCH	Vertical	PASS



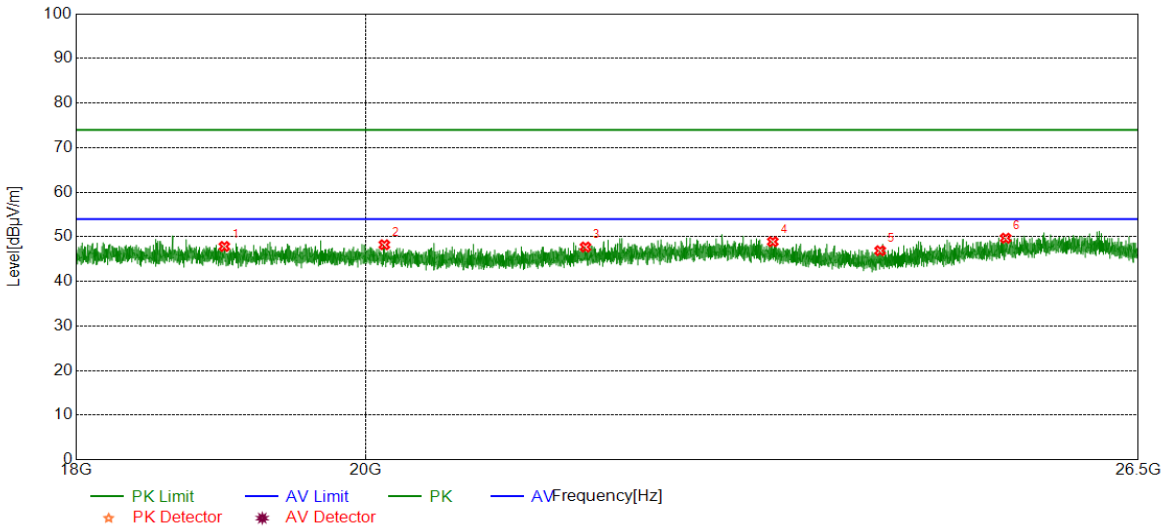
No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	5452.8066	39.17	5.78	44.95	74.00	-29.05	peak
2	7341.1676	38.02	8.56	46.58	74.00	-27.42	peak
3	12145.5182	36.27	12.23	48.50	74.00	-25.50	peak
4	16964.8706	36.38	18.56	54.94	74.00	-19.06	peak
		26.72	18.56	45.28	54.00	-8.72	average
5	17542.4428	37.79	17.55	55.34	74.00	-18.66	peak
		27.16	17.55	44.71	54.00	-9.29	average
6	17953.1191	36.62	18.54	55.16	74.00	-18.84	peak
		26.58	18.54	45.12	54.00	-8.88	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. AVG: VBW refer to section 7.1.
6. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Part III: 18GHz~26.5GHz

SPURIOUS EMISSIONS 18GHz TO 26.5GHz (WORST-CASE CONFIGURATION)

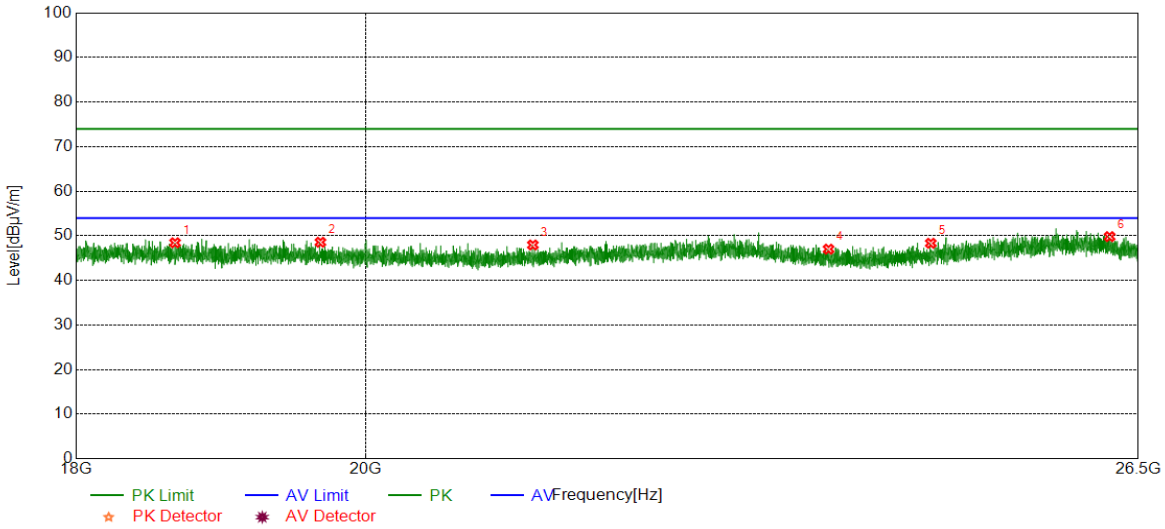
Test Mode	Channel	Polarization	Verdict
11B	HCH	Horizontal	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	18997.1497	48.97	-1.13	47.84	74.00	-26.16	peak
2	20137.1137	48.78	-0.56	48.22	74.00	-25.78	peak
3	21668.1168	47.99	-0.28	47.71	74.00	-26.29	peak
4	23198.2698	48.20	0.71	48.91	74.00	-25.09	peak
5	24124.0124	47.94	-1.06	46.88	74.00	-27.12	peak
6	25252.9253	49.25	0.44	49.69	74.00	-24.31	peak

Note: 1.If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
3. Measurement = Reading Level + Correct Factor.

Test Mode	Channel	Polarization	Verdict
11B	HCH	Vertical	PASS



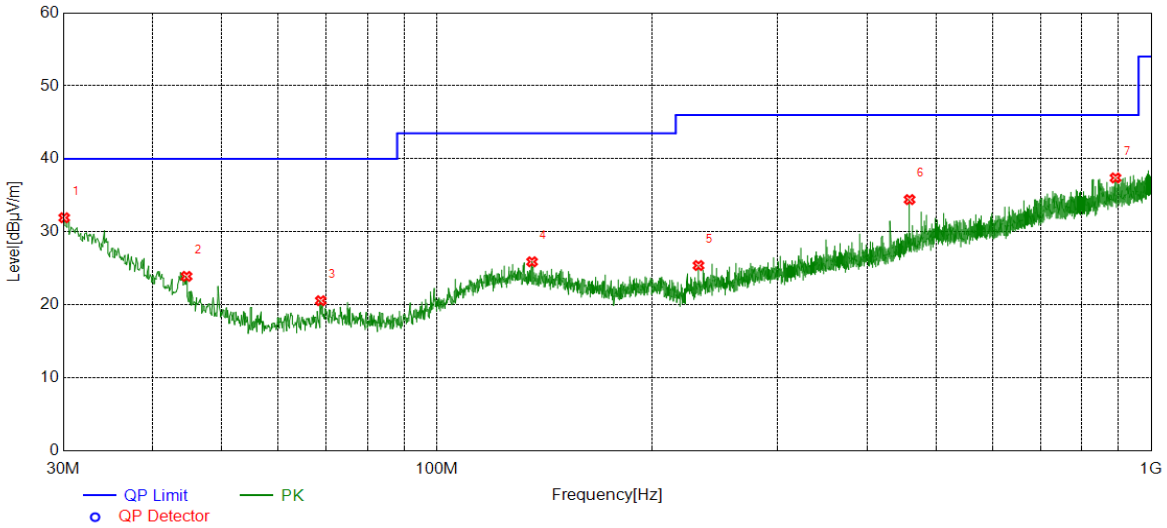
No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	18658.8159	49.43	-0.99	48.44	74.00	-25.56	peak
2	19673.8174	49.23	-0.67	48.56	74.00	-25.44	peak
3	21256.6757	48.70	-0.75	47.95	74.00	-26.05	peak
4	23674.3174	47.54	-0.53	47.01	74.00	-26.99	peak
5	24572.8573	48.81	-0.48	48.33	74.00	-25.67	peak
6	26227.1227	48.58	1.24	49.82	74.00	-24.18	peak

Note: 1.If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
3. Measurement = Reading Level + Correct Factor.

Part IV: 30MHz~1GHz

SPURIOUS EMISSIONS 30M TO 1GHHz (WORST-CASE CONFIGURATION)

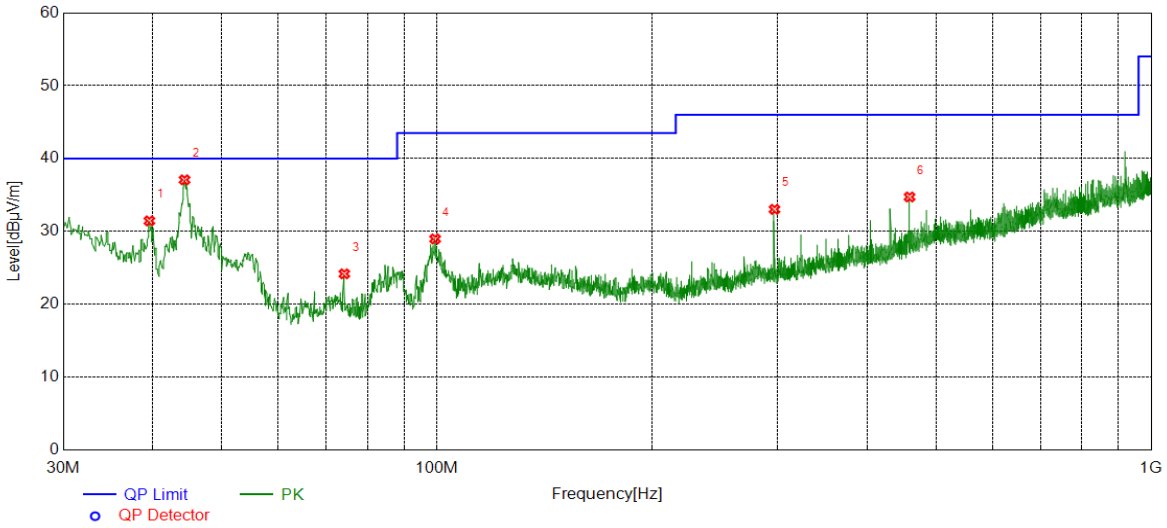
Test Mode	Channel	Polarization	Verdict
11B	HCH	Horizontal	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	30.0970	4.93	27.00	31.93	40.00	-8.07	peak
2	44.6485	6.08	17.82	23.90	40.00	-16.10	peak
3	68.8039	5.88	14.69	20.57	40.00	-19.43	peak
4	135.9346	5.83	20.07	25.90	43.50	-17.60	peak
5	232.4592	7.01	18.38	25.39	46.00	-20.61	peak
6	458.9769	9.85	24.57	34.42	46.00	-11.58	peak
7	891.3491	6.39	31.00	37.39	46.00	-8.61	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.

Test Mode	Channel	Polarization	Verdict
11B	HCH	Vertical	PASS



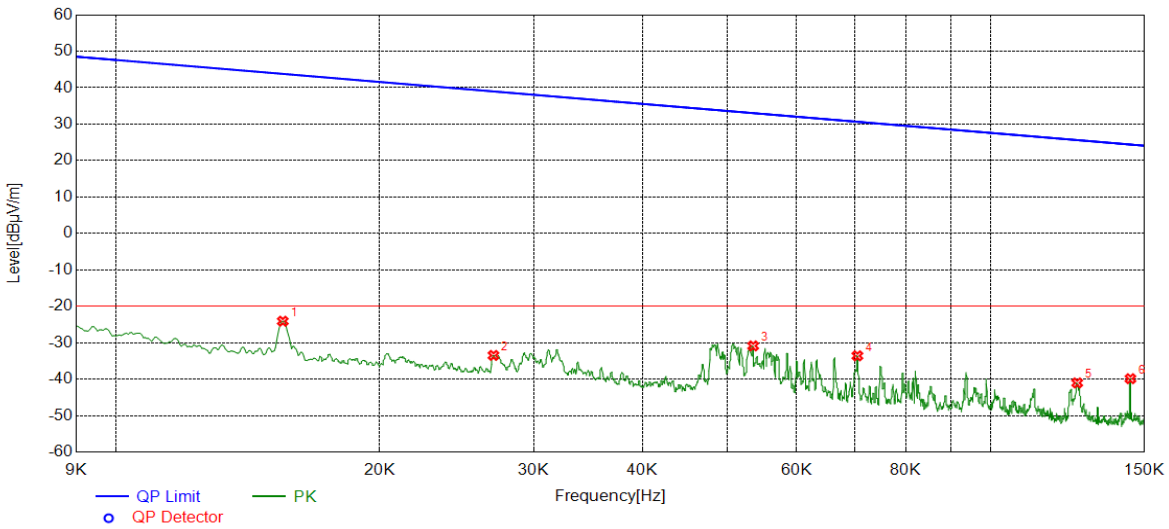
No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	39.6040	10.53	20.92	31.45	40.00	-8.55	peak
2	44.3574	19.08	18.00	37.08	40.00	-2.92	peak
3	74.2364	9.57	14.61	24.18	40.00	-15.82	peak
4	99.4589	12.22	16.75	28.97	43.50	-14.53	peak
5	296.9707	12.54	20.49	33.03	46.00	-12.97	peak
6	458.9769	10.16	24.57	34.73	46.00	-11.27	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.

Part V: 9KHz~30MHz

SPURIOUS EMISSIONS Below 30MHz (WORST CASE CONFIGURATION-FACE ON)

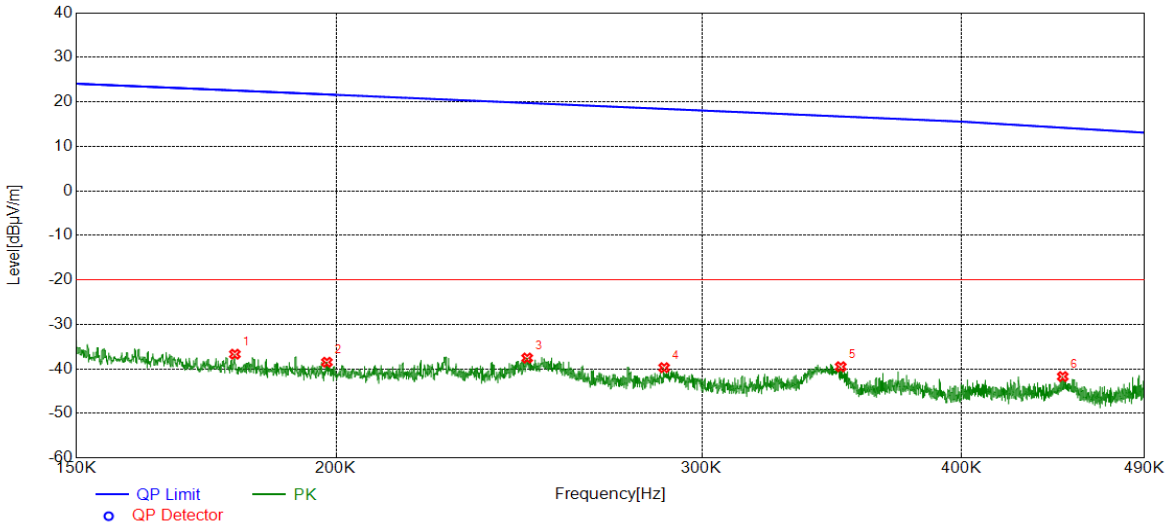
Test Mode	Channel	Frequency Range	Verdict
11B	HCH	9KHz~150KHz	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0155	36.89	-60.98	-24.09	43.80	-67.89	peak
2	0.0270	27.41	-60.89	-33.48	38.97	-72.45	peak
3	0.0535	30.22	-61.09	-30.87	33.04	-63.91	peak
4	0.0704	27.77	-61.36	-33.59	30.64	-64.23	peak
5	0.1256	19.99	-61.02	-41.03	25.63	-66.66	peak
6	0.1445	21.39	-61.25	-39.86	24.40	-64.26	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. Result 300m= Result 3m-80 dBuV/m
3. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
4. 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

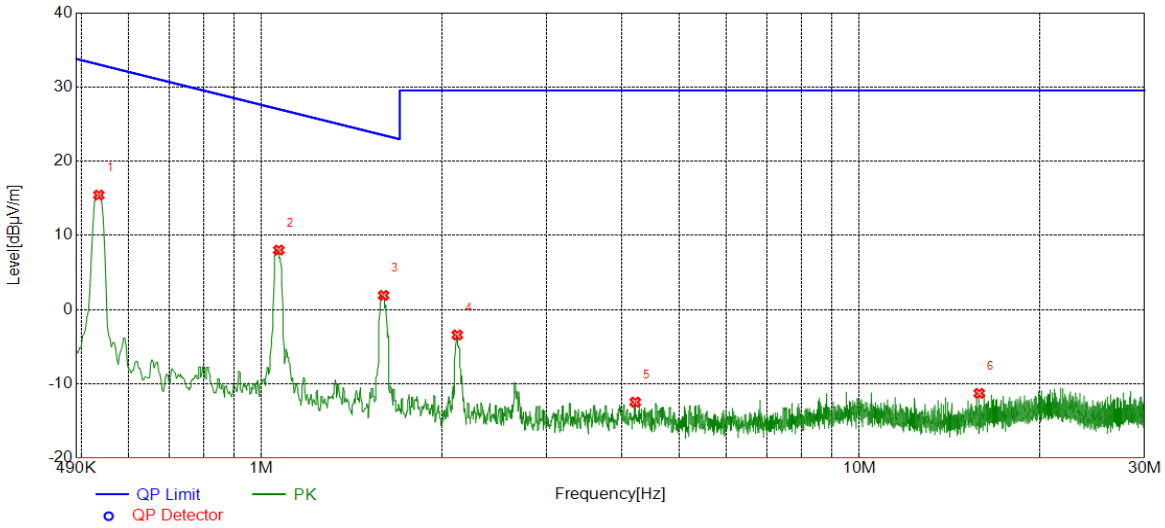
Test Mode	Channel	Frequency Range	Verdict
11B	HCH	150KHz~490Hz	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1788	24.48	-61.17	-36.69	22.56	-59.25	peak
2	0.1980	22.58	-61.07	-38.49	21.67	-60.16	peak
3	0.2472	23.26	-60.82	-37.56	19.74	-57.30	peak
4	0.2877	21.05	-60.77	-39.72	18.42	-58.14	peak
5	0.3499	21.21	-60.72	-39.51	16.72	-56.23	peak
6	0.4475	18.92	-60.64	-41.72	14.19	-55.91	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. Result 300m= Result 3m-80 dBuV/m
3. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
4. 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	HCH	490KHz~30MHz	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.5343	36.04	-20.60	15.44	33.05	-17.61	peak
2	1.0685	28.37	-20.35	8.02	27.03	-19.01	peak
3	1.5997	22.18	-20.27	1.91	23.52	-21.61	peak
4	2.1250	16.82	-20.24	-3.42	29.54	-32.96	peak
5	4.2175	7.61	-20.08	-12.47	29.54	-42.01	peak
6	15.8662	7.65	-18.94	-11.29	29.54	-40.83	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. Result 30m= Result 3m-40 dBuV/m
3. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
4. 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

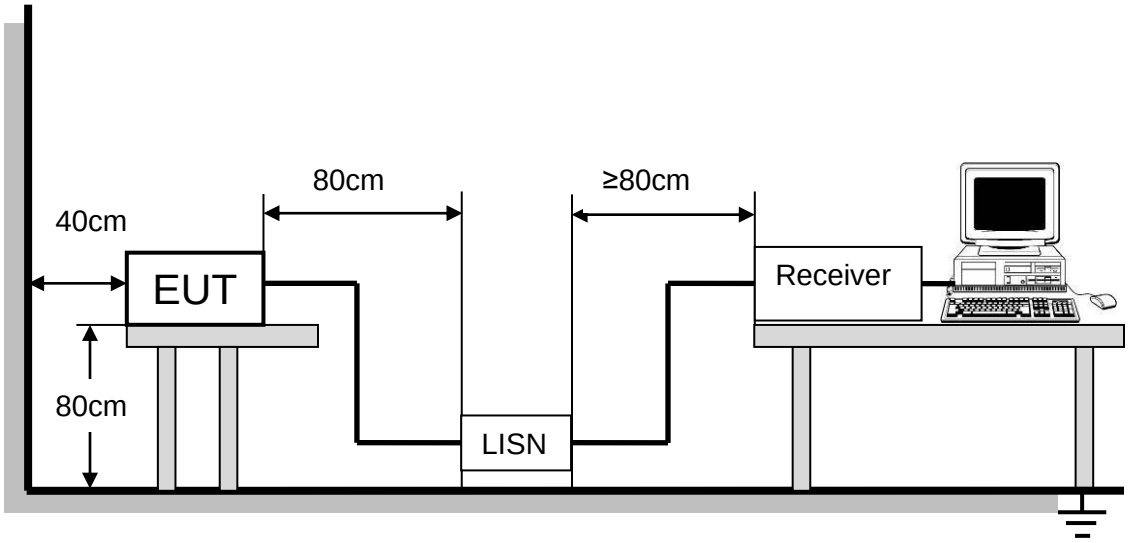
8. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

Please refer to FCC §15.207 (a), ISED RSS-Gen Clause 8.8

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

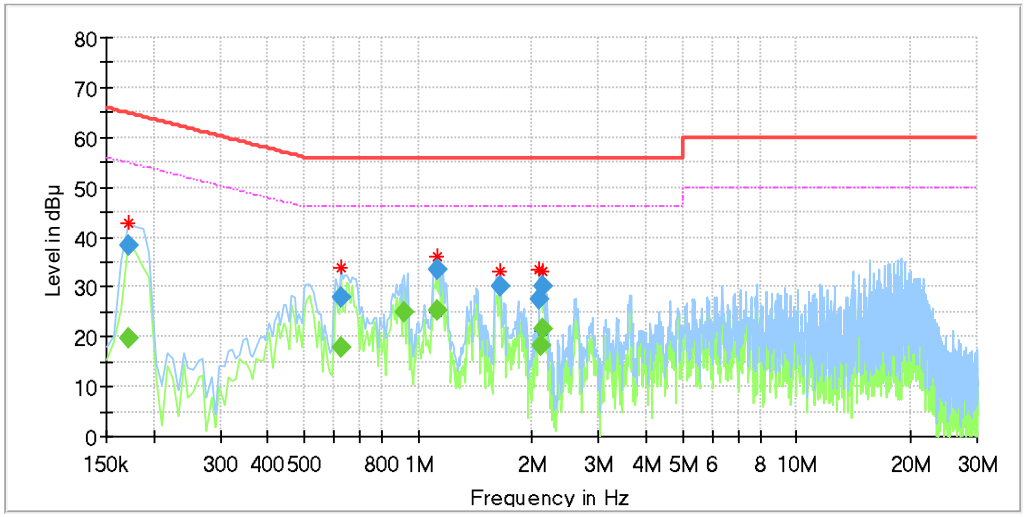


The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) 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 RESULTS (WORST CASE CONFIGURATION)

For L Line:

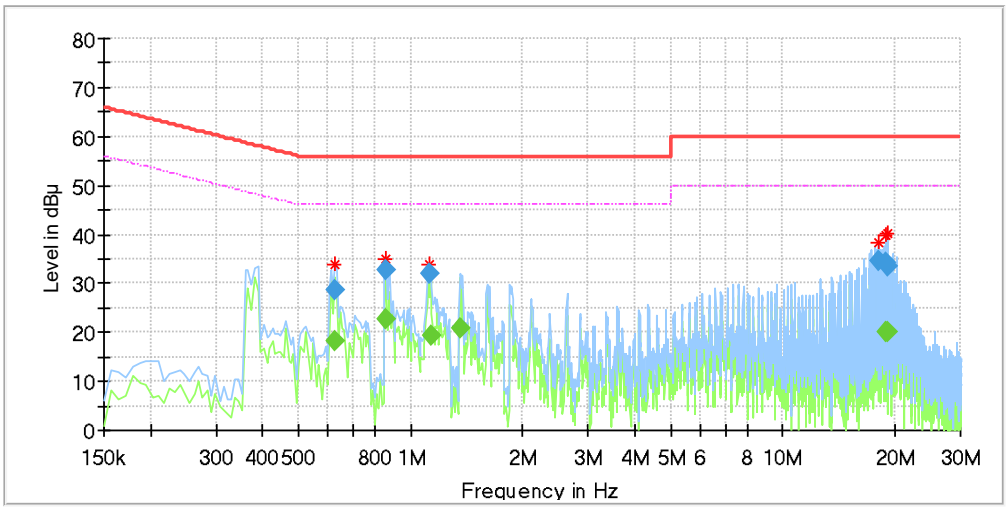


Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.172388	---	19.59	54.85	35.25	1000.0	9.000	L1	OFF	9.4
0.172388	38.50	---	64.85	26.35	1000.0	9.000	L1	OFF	9.4
0.627600	---	17.94	46.00	28.06	1000.0	9.000	L1	OFF	9.6
0.627600	28.09	---	56.00	27.91	1000.0	9.000	L1	OFF	9.6
0.918638	---	24.86	46.00	21.14	1000.0	9.000	L1	OFF	9.7
1.120125	33.59	---	56.00	22.41	1000.0	9.000	L1	OFF	9.5
1.120125	---	25.20	46.00	20.80	1000.0	9.000	L1	OFF	9.5
1.649963	30.24	---	56.00	25.76	1000.0	9.000	L1	OFF	9.6
2.090250	27.37	---	56.00	28.63	1000.0	9.000	L1	OFF	9.6
2.112638	---	18.09	46.00	27.91	1000.0	9.000	L1	OFF	9.7
2.142488	---	21.64	46.00	24.36	1000.0	9.000	L1	OFF	9.7
2.142488	30.27	---	56.00	25.73	1000.0	9.000	L1	OFF	9.7

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 HCH of 11B mode which is the worst case, so only the worst case is included in this test report.

For N Line:



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.627600	---	18.37	46.00	27.63	1000.0	9.000	N	OFF	9.5
0.627600	28.78	---	56.00	27.22	1000.0	9.000	N	OFF	9.5
0.858938	---	22.53	46.00	23.47	1000.0	9.000	N	OFF	9.6
0.858938	32.56	---	56.00	23.44	1000.0	9.000	N	OFF	9.6
1.120125	32.08	---	56.00	23.92	1000.0	9.000	N	OFF	9.7
1.135050	---	19.40	46.00	26.60	1000.0	9.000	N	OFF	9.7
1.366388	---	21.00	46.00	25.00	1000.0	9.000	N	OFF	9.6
18.052538	34.58	---	60.00	25.42	1000.0	9.000	N	OFF	9.6
18.910725	34.14	---	60.00	25.86	1000.0	9.000	N	OFF	9.6
18.910725	---	20.02	50.00	29.98	1000.0	9.000	N	OFF	9.6
19.171913	33.61	---	60.00	26.39	1000.0	9.000	N	OFF	9.6
19.179375	---	20.02	50.00	29.98	1000.0	9.000	N	OFF	9.6

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 HCH of 11B mode swhich is the worst case, so only the worst case is included in this test report.

9. 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 CONNECTOR

EUT has a EUT with one Patch antenna.

ANTENNA GAIN

The antenna gain of EUT is less than 6 dBi

END OF REPORT