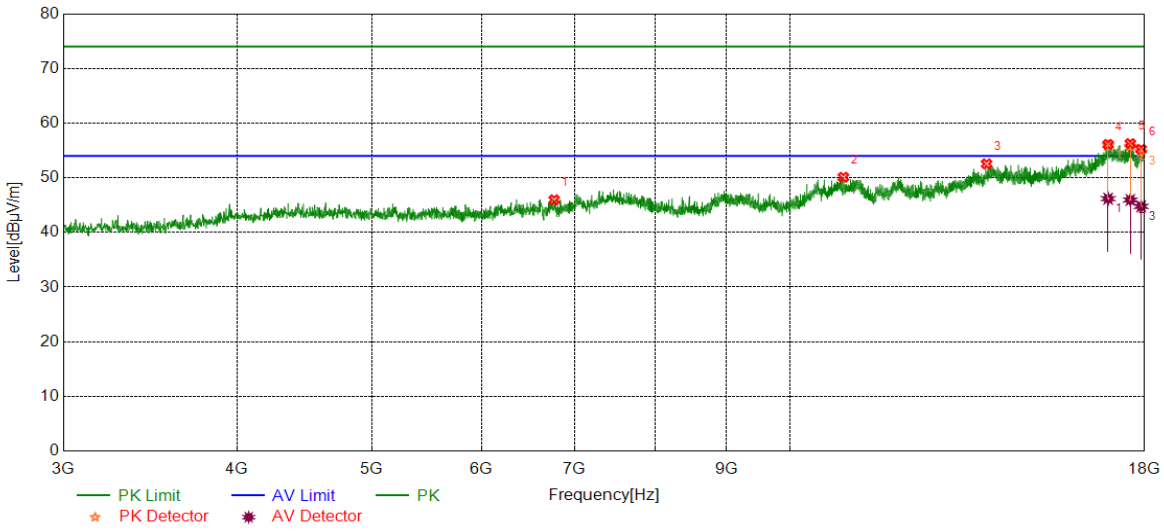
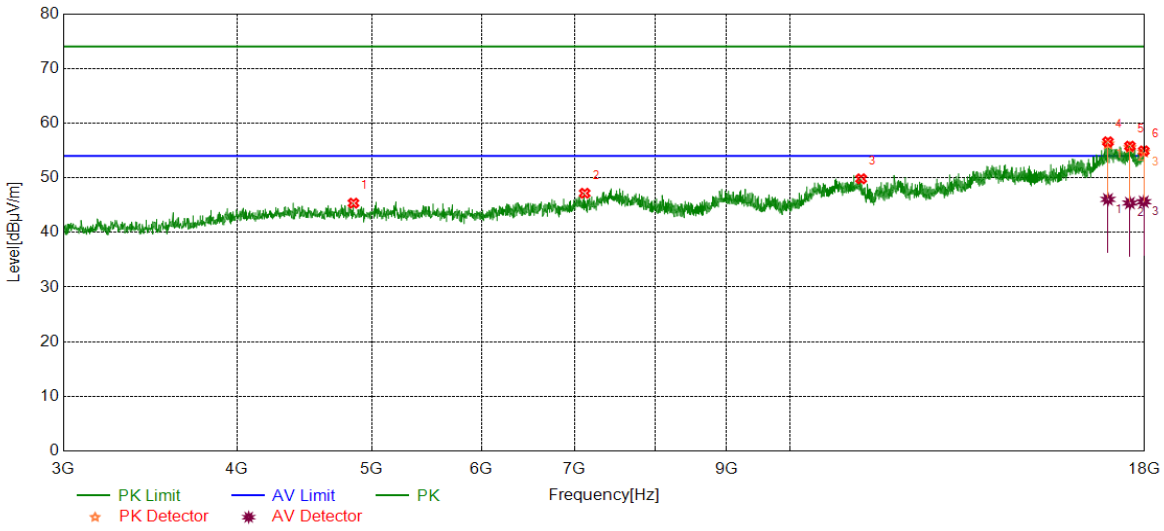
Test Mode	Channel	Polarization	Verdict
11N40 MIMO	MCH	Horizontal	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	6767.3459	37.65	8.32	45.97	74.00	-28.03	peak
2	10926.6158	37.65	12.45	50.10	74.00	-23.90	peak
3	13853.8567	37.76	14.79	52.55	74.00	-21.45	peak
4	16944.2430	36.77	19.33	56.10	74.00	-17.90	peak
		26.85	19.33	46.18	54.00	-7.82	average
5	17578.0723	37.27	18.98	56.25	74.00	-17.75	peak
		26.96	18.98	45.94	54.00	-8.06	average
6	17896.8621	36.93	18.27	55.20	74.00	-18.80	peak
		26.50	18.27	44.77	54.00	-9.23	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.

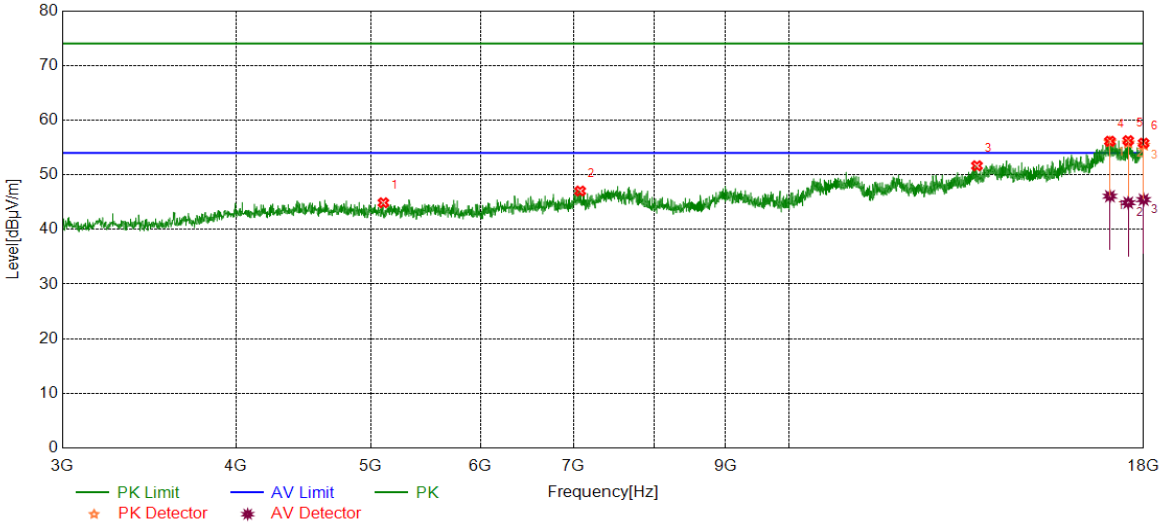
Test Mode	Channel	Polarization	Verdict
11N40 MIMO	MCH	Vertical	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	4852.7316	40.56	4.80	45.36	74.00	-28.64	peak
2	7118.0148	38.78	8.39	47.17	74.00	-26.83	peak
3	11252.9066	37.79	12.02	49.81	74.00	-24.19	peak
4	16938.6173	37.24	19.34	56.58	74.00	-17.42	peak
		26.71	19.34	46.05	54.00	-7.95	average
5	17566.8209	36.72	19.06	55.78	74.00	-18.22	peak
		26.32	19.06	45.38	54.00	-8.62	average
6	17973.7467	36.58	18.34	54.92	74.00	-19.08	peak
		27.28	18.34	45.62	54.00	-8.38	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.

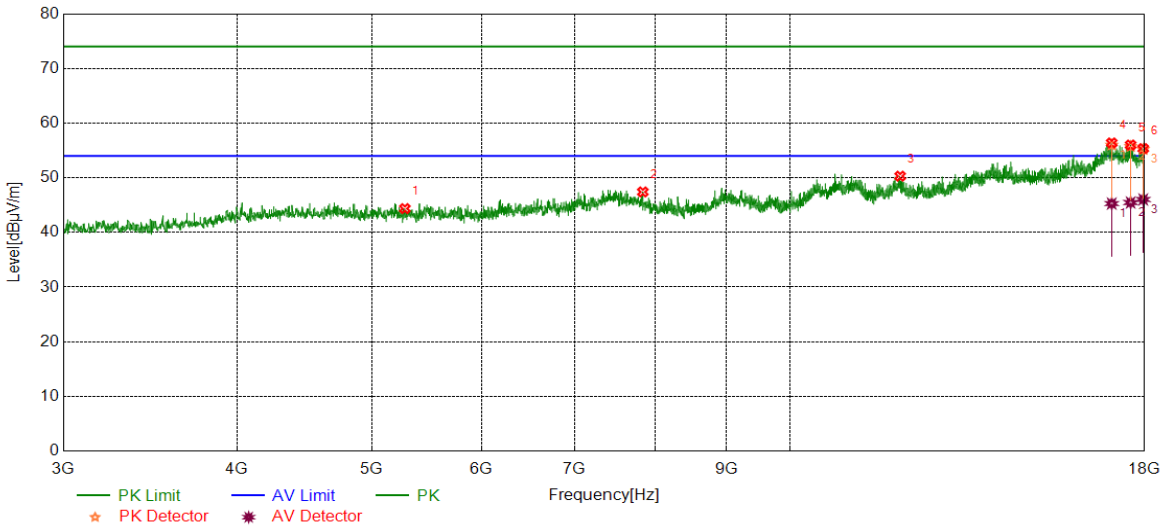
Test Mode	Channel	Polarization	Verdict
11N40 MIMO	HCH	Horizontal	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	5107.7635	39.98	4.90	44.88	74.00	-29.12	peak
2	7076.7596	38.33	8.70	47.03	74.00	-26.97	peak
3	13656.9571	37.72	13.93	51.65	74.00	-22.35	peak
4	17023.0029	36.81	19.33	56.14	74.00	-17.86	peak
		26.75	19.33	46.08	54.00	-7.92	average
5	17546.1933	37.93	18.32	56.25	74.00	-17.75	peak
		26.57	18.32	44.89	54.00	-9.11	average
6	18000.0000	37.46	18.32	55.78	74.00	-18.22	peak
		27.13	18.32	45.45	54.00	-8.55	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
11N40 MIMO	HCH	Vertical	PASS



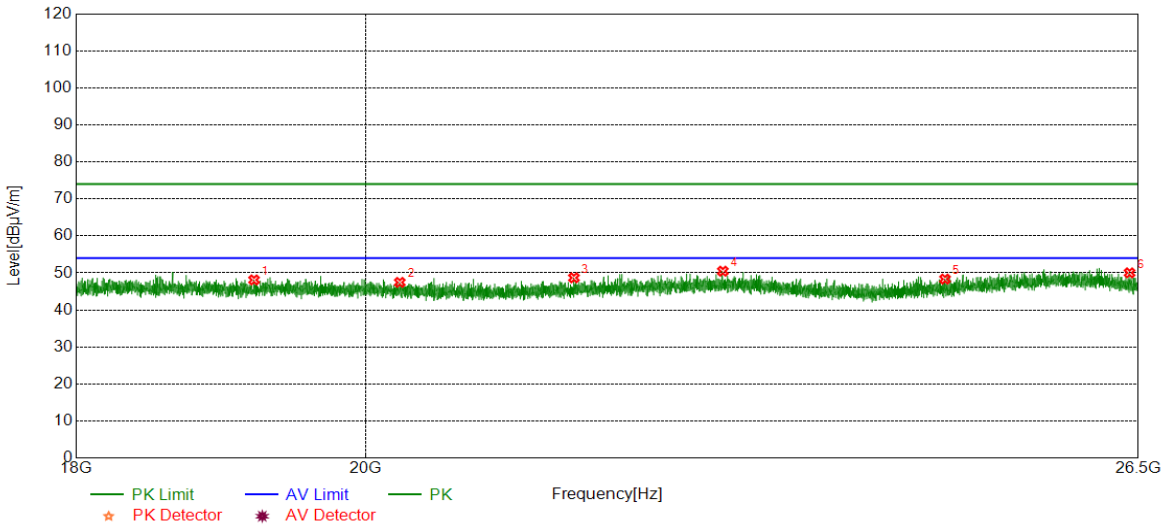
No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	5284.0355	39.29	5.07	44.36	74.00	-29.64	peak
2	7838.1048	39.45	7.96	47.41	74.00	-26.59	peak
3	12004.8756	37.21	13.09	50.30	74.00	-23.70	peak
4	17045.5057	36.84	19.54	56.38	74.00	-17.62	peak
		25.74	19.54	45.28	54.00	-8.72	average
5	17587.4484	37.18	18.82	56.00	74.00	-18.00	peak
		26.65	18.82	45.47	54.00	-8.53	average
6	17958.7448	36.87	18.48	55.35	74.00	-18.65	peak
		27.55	18.48	46.03	54.00	-7.97	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)

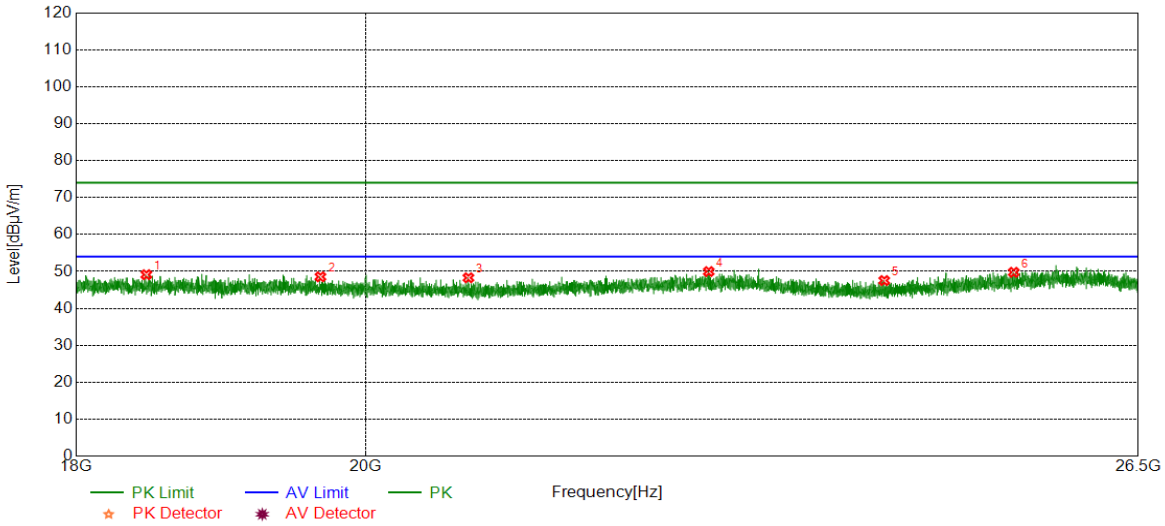
Test Mode	Channel	Polarization	Verdict
11N20 MIMO	LCH	Horizontal	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	19203.7204	49.08	-0.96	48.12	74.00	-25.88	peak
2	20251.0251	48.09	-0.63	47.46	74.00	-26.54	peak
3	21577.1577	49.11	-0.41	48.70	74.00	-25.30	peak
4	22780.0280	49.42	1.06	50.48	74.00	-23.52	peak
5	24700.3700	48.65	-0.30	48.35	74.00	-25.65	peak
6	26418.3918	49.23	0.81	50.04	74.00	-23.96	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
11N20 MIMO	LCH	Vertical	PASS



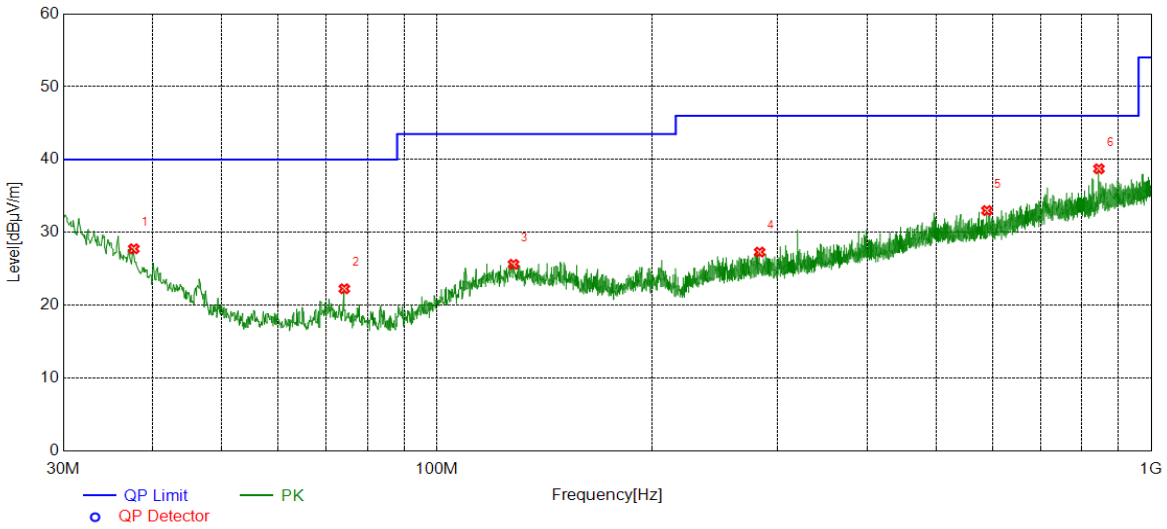
No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	18464.9965	50.09	-0.95	49.14	74.00	-24.86	peak
2	19673.8174	49.23	-0.67	48.56	74.00	-25.44	peak
3	20763.6264	49.17	-0.88	48.29	74.00	-25.71	peak
4	22663.5664	49.01	0.97	49.98	74.00	-24.02	peak
5	24159.7160	48.55	-1.01	47.54	74.00	-26.46	peak
6	25326.8827	49.22	0.56	49.78	74.00	-24.22	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)

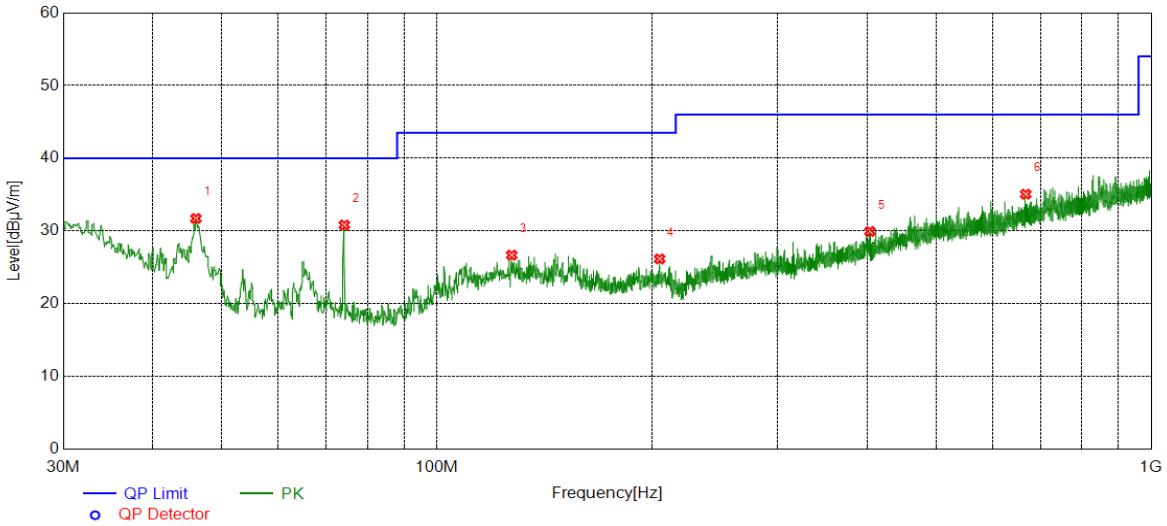
Test Mode	Channel	Polarization	Verdict
11N20 MIMO	LCH	Horizontal	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	37.6638	5.47	22.28	27.75	40.00	-12.25	peak
2	74.2364	7.50	14.77	22.27	40.00	-17.73	peak
3	128.0768	5.16	20.46	25.62	43.50	-17.88	peak
4	283.0983	6.52	20.78	27.30	46.00	-18.70	peak
5	588.8729	6.49	26.51	33.00	46.00	-13.00	peak
6	844.9785	8.56	30.17	38.73	46.00	-7.27	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.

Test Mode	Channel	Polarization	Verdict
11N20 MIMO	LCH	Vertical	PASS



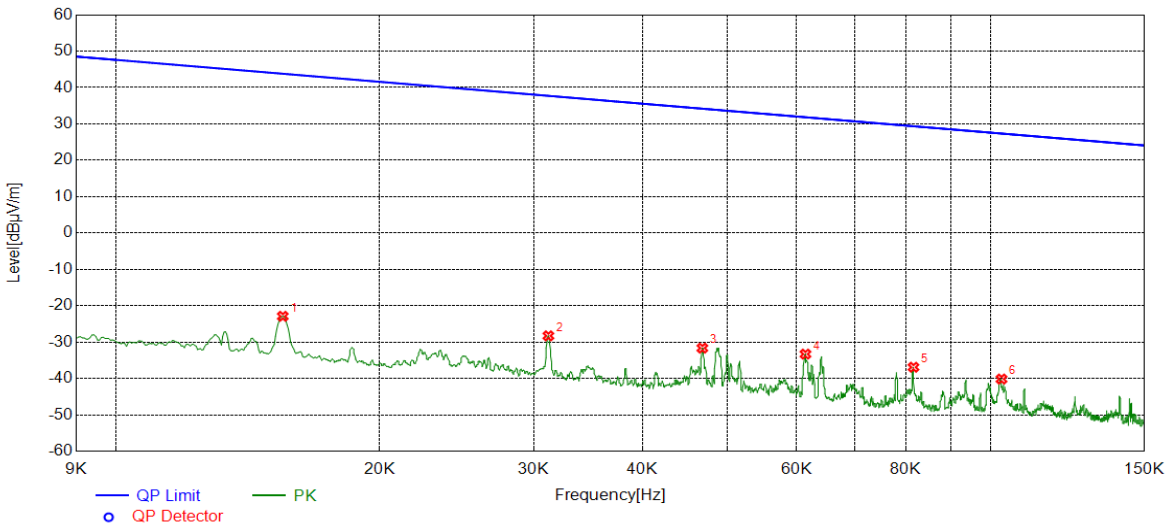
No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	46.0066	14.59	17.13	31.72	40.00	-8.28	peak
2	74.2364	16.05	14.77	30.82	40.00	-9.18	peak
3	127.3007	6.22	20.46	26.68	43.50	-16.82	peak
4	205.1025	7.09	19.07	26.16	43.50	-17.34	peak
5	403.9724	6.63	23.31	29.94	46.00	-16.06	peak
6	667.3537	7.14	27.92	35.06	46.00	-10.94	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)

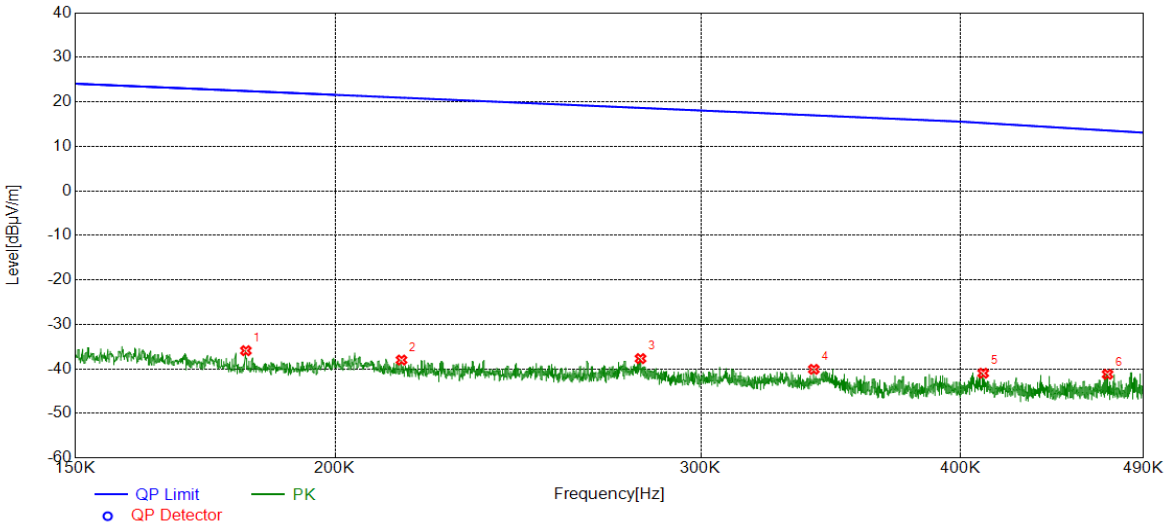
Test Mode	Channel	Frequency Range	Verdict
11N20 MIMO	LCH	9KHz~150KHz	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0155	37.98	-60.88	-22.90	43.80	-66.70	peak
2	0.0312	32.53	-60.81	-28.28	37.72	-66.00	peak
3	0.0468	29.27	-60.92	-31.65	34.19	-65.84	peak
4	0.0614	27.82	-61.12	-33.30	31.84	-65.14	peak
5	0.0816	24.24	-61.15	-36.91	29.37	-66.28	peak
6	0.1029	20.51	-60.67	-40.16	27.35	-67.51	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

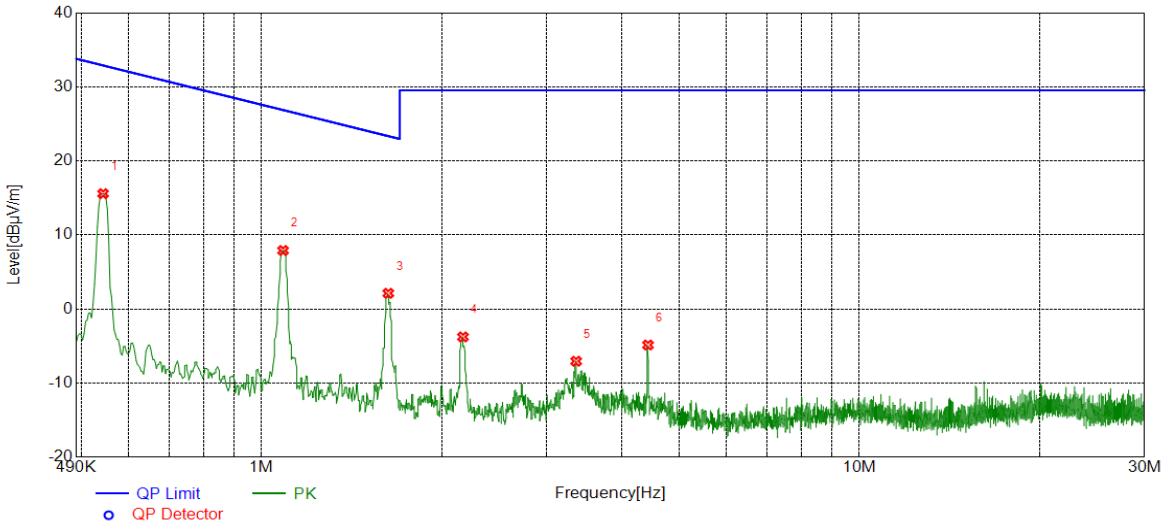
Test Mode	Channel	Frequency Range	Verdict
11N20 MIMO	LCH	150KHz~490Hz	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1812	25.18	-61.08	-35.90	22.44	-58.34	peak
2	0.2153	22.91	-60.91	-38.00	20.94	-58.94	peak
3	0.2806	23.02	-60.70	-37.68	18.64	-56.32	peak
4	0.3400	20.56	-60.65	-40.09	16.97	-57.06	peak
5	0.4102	19.64	-60.60	-40.96	15.25	-56.21	peak
6	0.4708	19.33	-60.54	-41.21	13.57	-54.78	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
11N20 MIMO	LCH	490KHz~30MHz	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.5431	36.12	-20.54	15.58	32.91	-17.33	peak
2	1.0862	28.19	-20.29	7.90	26.89	-18.99	peak
3	1.6292	22.33	-20.21	2.12	23.36	-21.24	peak
4	2.1722	16.44	-20.21	-3.77	29.54	-33.31	peak
5	3.3587	13.22	-20.27	-7.05	29.54	-36.59	peak
6	4.4300	15.20	-20.06	-4.86	29.54	-34.40	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

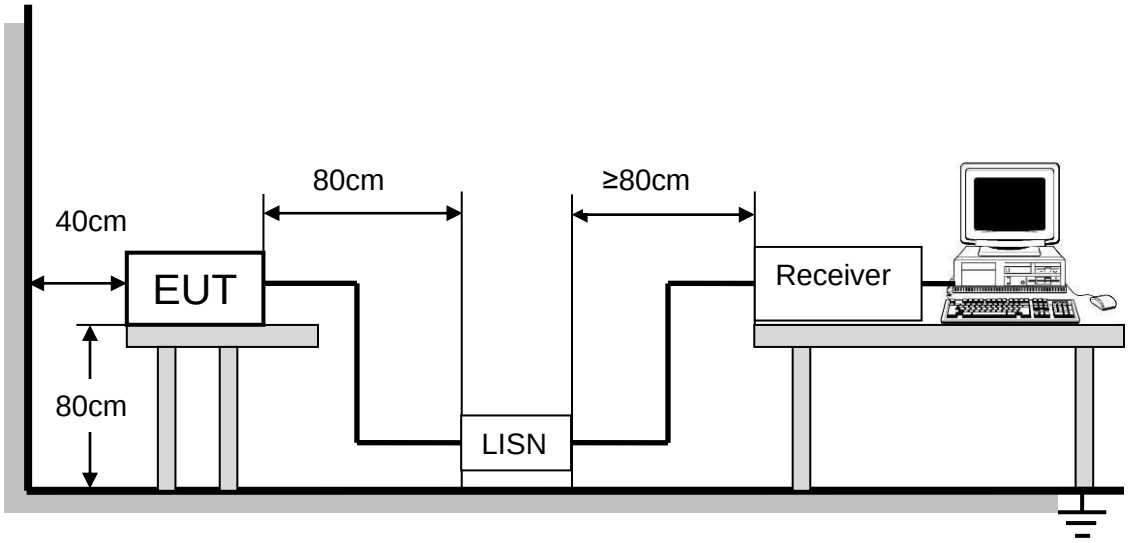
8. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

Please refer to FCC §15.207 (a)

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

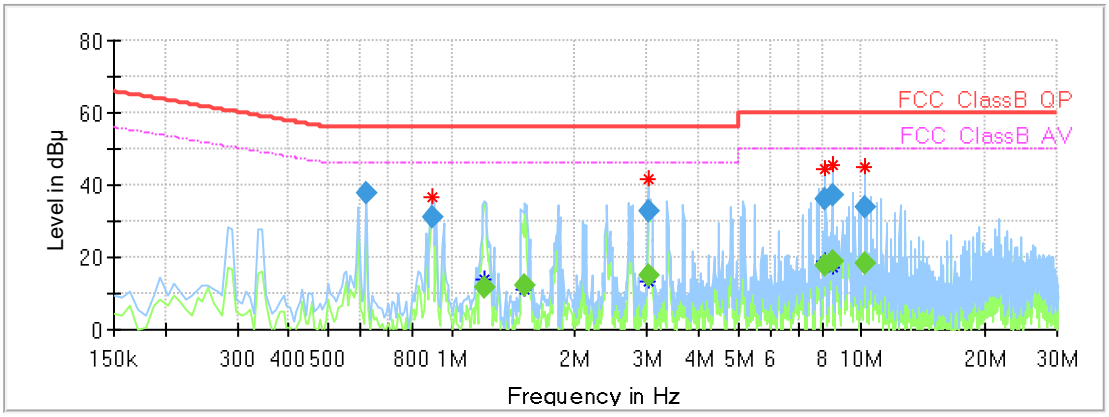


The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3)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

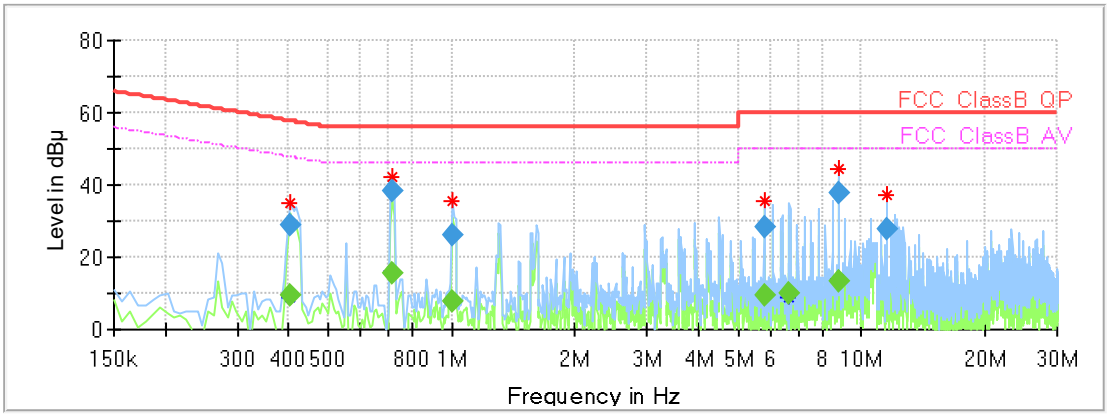


Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.620138	37.57	---	56.00	18.43	1000.0	9.000	L1	OFF	9.6
0.896250	30.84	---	56.00	25.16	1000.0	9.000	L1	OFF	9.6
1.202213	---	11.72	46.00	34.28	1000.0	9.000	L1	OFF	9.6
1.508175	---	12.24	46.00	33.76	1000.0	9.000	L1	OFF	9.6
3.015600	---	14.95	46.00	31.05	1000.0	9.000	L1	OFF	9.7
3.015600	32.88	---	56.00	23.12	1000.0	9.000	L1	OFF	9.7
8.164725	35.91	---	60.00	24.09	1000.0	9.000	L1	OFF	9.9
8.164725	---	17.90	50.00	32.10	1000.0	9.000	L1	OFF	9.9
8.470688	37.21	---	60.00	22.79	1000.0	9.000	L1	OFF	9.9
8.470688	---	18.68	50.00	31.32	1000.0	9.000	L1	OFF	9.9
10.194525	---	18.26	50.00	31.74	1000.0	9.000	L1	OFF	10.0
10.194525	33.91	---	60.00	26.09	1000.0	9.000	L1	OFF	10.0

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 11N40 MIMO which is the worst case, so only the worst case is include 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)
0.403725	---	9.48	47.78	38.30	1000.0	9.000	N	OFF	9.6
0.403725	29.13	---	57.78	28.65	1000.0	9.000	N	OFF	9.6
0.717150	---	15.50	46.00	30.50	1000.0	9.000	N	OFF	9.6
0.717150	38.52	---	56.00	17.48	1000.0	9.000	N	OFF	9.6
1.008188	---	7.61	46.00	38.39	1000.0	9.000	N	OFF	9.6
1.008188	25.90	---	56.00	30.10	1000.0	9.000	N	OFF	9.6
5.791650	28.53	---	60.00	31.47	1000.0	9.000	N	OFF	9.8
5.791650	---	9.44	50.00	40.56	1000.0	9.000	N	OFF	9.8
6.679688	---	9.84	50.00	40.16	1000.0	9.000	N	OFF	9.8
8.776650	37.64	---	60.00	22.36	1000.0	9.000	N	OFF	9.9
8.776650	---	13.35	50.00	36.65	1000.0	9.000	N	OFF	9.9
11.530313	27.98	---	60.00	32.02	1000.0	9.000	N	OFF	10.0

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 11N40 MIMO which is the worst case, so only the worst case is include 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 two Dipole Antennas.

ANTENNA GAIN

The antenna gain of EUT is less than 6 dBi.

END OF REPORT