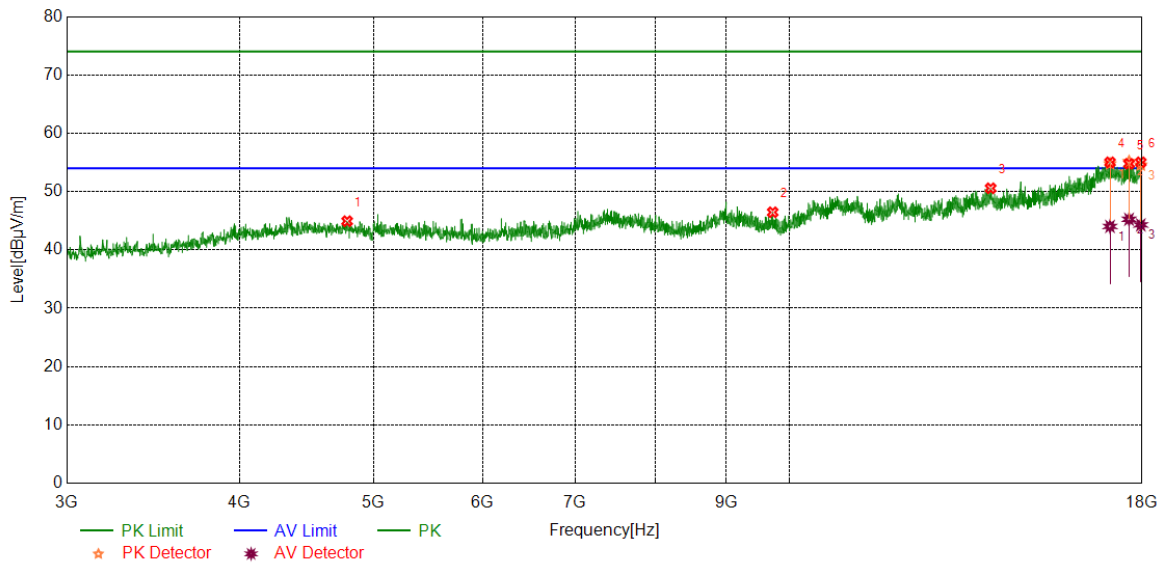




Test Mode	Channel	Polarization	Verdict
11N HT40 MIMO	MCH	Vertical	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	4787.0984	38.92	6.01	44.93	74.00	-29.07	peak
2	9728.3410	38.19	8.27	46.46	74.00	-27.54	peak
3	13986.9984	36.58	13.99	50.57	74.00	-23.43	peak
4	17064.258	36.08	18.94	55.02	74.00	-18.98	peak
		25.09	18.94	44.03	54.00	-9.97	average
5	17613.7017	36.98	17.78	54.76	74.00	-19.24	peak
		27.47	17.78	45.25	54.00	-8.75	average
6	17962.4953	36.75	18.27	55.02	74.00	-18.98	peak
		26.02	18.27	44.29	54.00	-9.71	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.

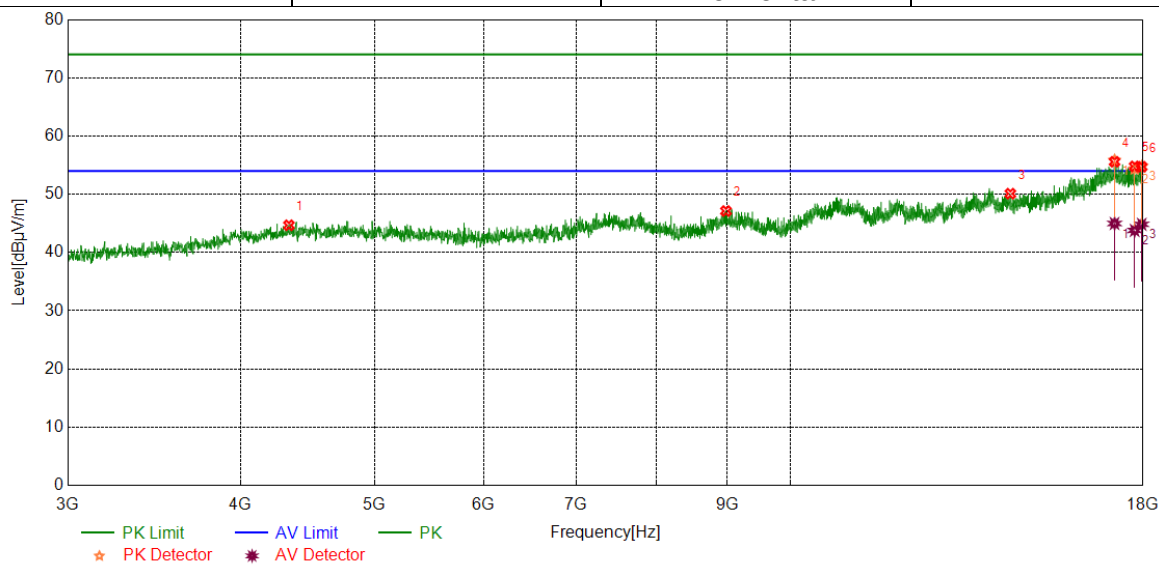
5. AVG: VBW refer to section 7.1.

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 MIMO	HCH	Horizontal	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	4337.0421	39.40	5.28	44.68	74.00	-29.32	peak
2	8983.8730	38.18	8.94	47.12	74.00	-26.88	peak
3	14429.5537	36.46	13.65	50.11	74.00	-23.89	peak
4	17165.5207	37.27	18.31	55.58	74.00	-18.42	peak
		26.67	18.31	44.98	54.00	-9.02	average
5	17748.7186	36.72	18.07	54.79	74.00	-19.21	peak
		25.73	18.07	43.80	54.00	-10.20	average
6	17960.6201	36.31	18.42	54.73	74.00	-19.27	peak
		26.42	18.42	44.84	54.00	-9.16	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.

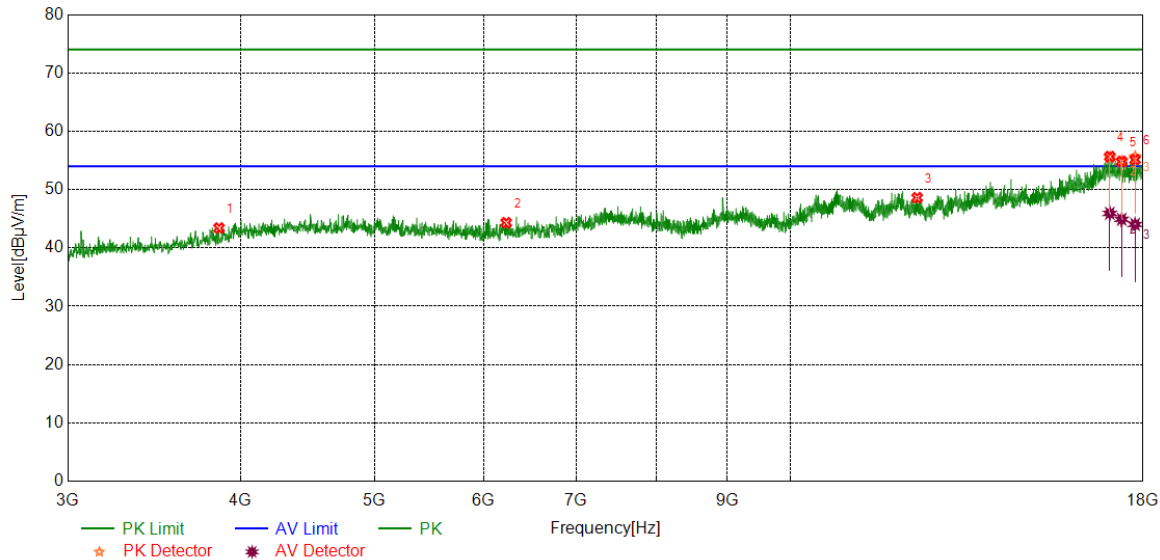
5. AVG: VBW refer to section 7.1.

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 MIMO	HCH	Vertical	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	3860.7326	40.00	3.41	43.41	74.00	-30.59	peak
2	6229.1536	38.24	6.08	44.32	74.00	-29.68	peak
3	12353.6692	36.81	11.80	48.61	74.00	-25.39	peak
4	17030.5038	36.63	19.03	55.66	74.00	-18.34	peak
		26.90	19.03	45.93	54.00	-8.07	average
5	17371.7965	36.32	18.52	54.84	74.00	-19.16	peak
		26.39	18.52	44.91	54.00	-9.09	average
6	17761.8452	37.35	17.78	55.13	74.00	-18.87	peak
		26.25	17.78	44.03	54.00	-9.97	average

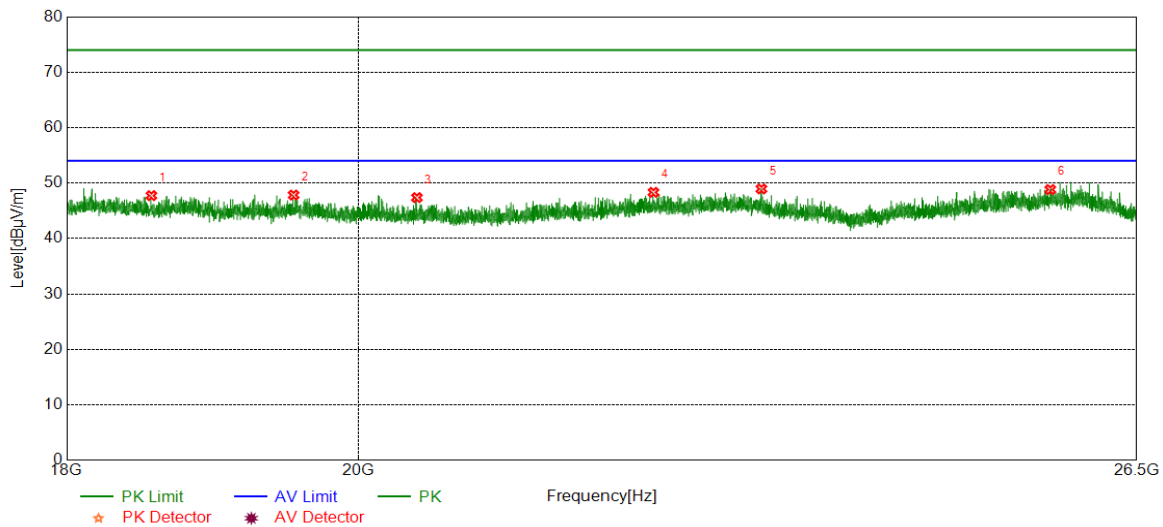
- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. AVG: VBW refer to section 7.1.
6. For above 3GHz part, filter losses were 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
11N HT40 MIMO	HCH	Horizontal	PASS

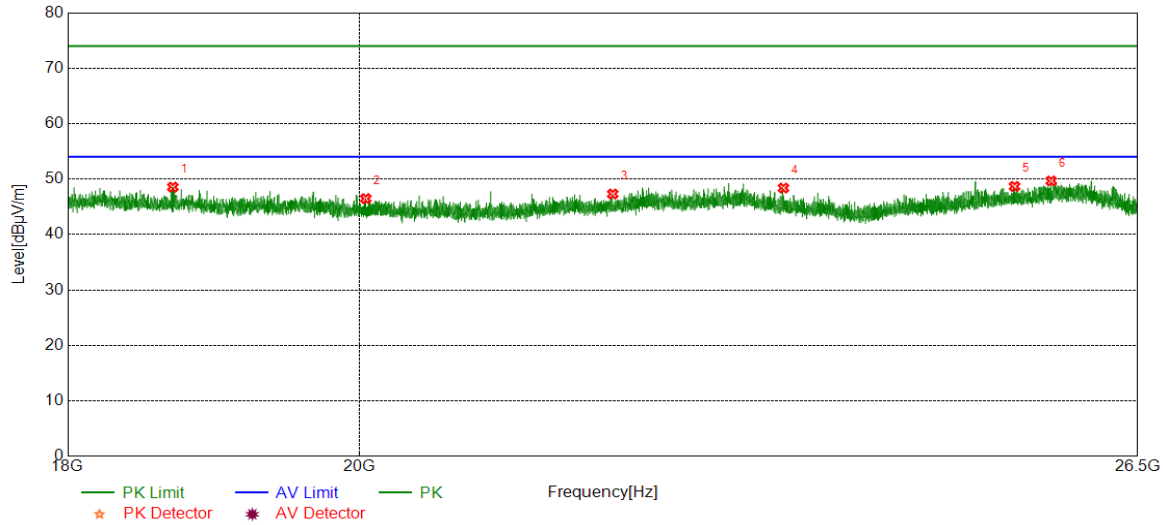


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	18559.3559	48.70	-0.96	47.74	74.00	-26.26	peak
2	19538.6539	48.55	-0.71	47.84	74.00	-26.16	peak
3	20429.5430	48.05	-0.67	47.38	74.00	-26.62	peak
4	22253.8254	47.85	0.48	48.33	74.00	-25.67	peak
5	23139.6140	48.09	0.86	48.95	74.00	-25.05	peak
6	25687.3187	47.67	1.16	48.83	74.00	-25.17	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
11N HT40 MIMO	HCH	Vertical	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	18697.0697	49.55	-1.00	48.55	74.00	-25.45	peak
2	20047.8548	47.00	-0.52	46.48	74.00	-27.52	peak
3	21920.5921	47.25	0.06	47.31	74.00	-26.69	peak
4	23316.4316	47.98	0.40	48.38	74.00	-25.62	peak
5	25348.1348	48.09	0.59	48.68	74.00	-25.32	peak
6	25686.4686	48.51	1.16	49.67	74.00	-24.33	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.

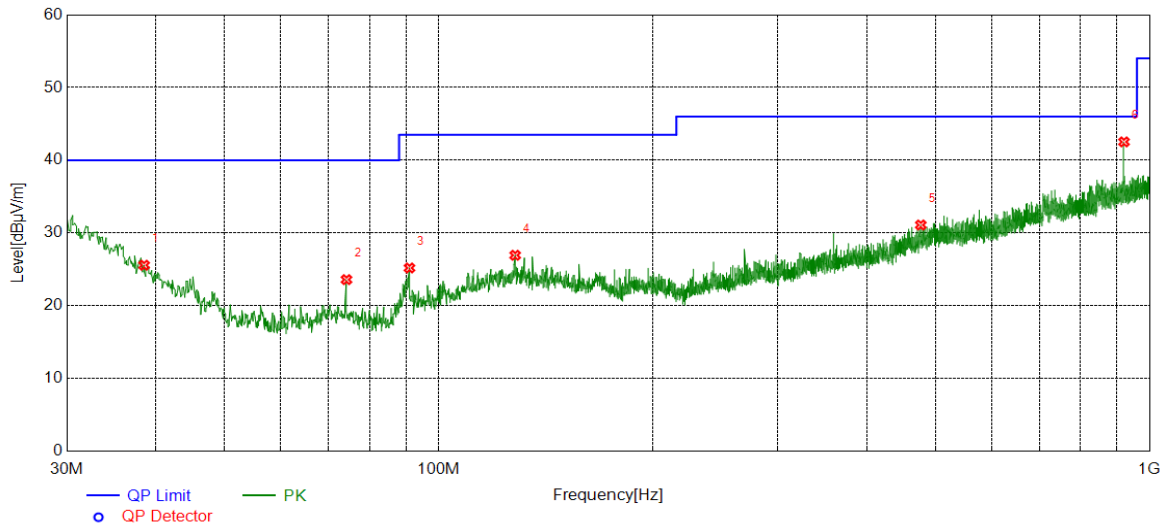
3. Measurement = Reading Level + Correct Factor.



Part IV: 30MHz~1GHz

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

Test Mode	Channel	Polarization	Verdict
11N HT40 MIMO	HCH	Horizontal	PASS

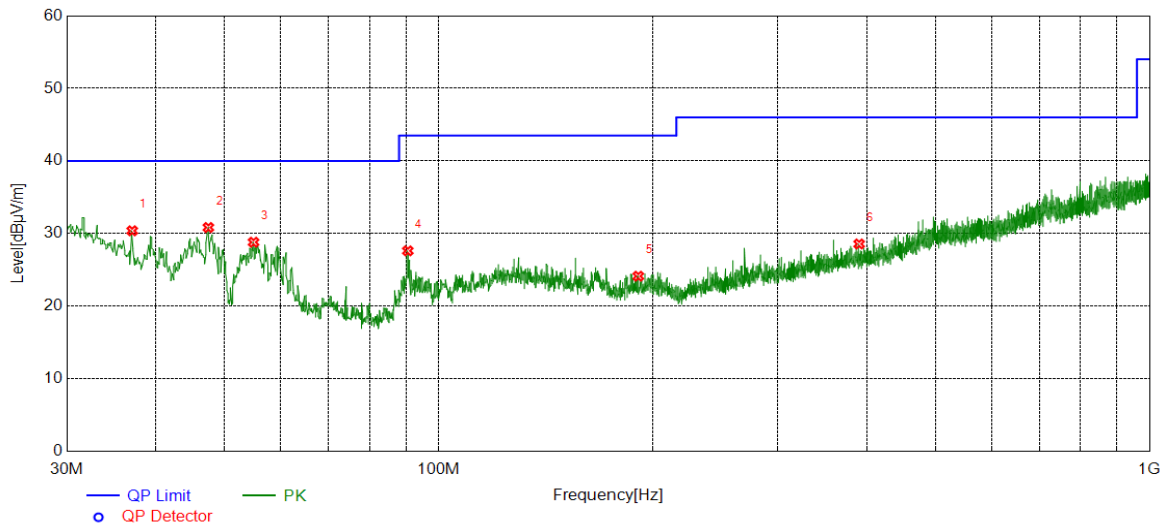


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	38.5369	3.99	21.58	25.57	40.00	-14.43	peak
2	74.2364	8.98	14.61	23.59	40.00	-16.41	peak
3	91.0191	10.52	14.67	25.19	43.50	-18.31	peak
4	128.1738	6.70	20.24	26.94	43.50	-16.56	peak
5	476.7297	6.01	25.09	31.10	46.00	-14.90	peak
6	920.6461	11.18	31.35	42.53	46.00	-3.47	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
11N HT40 MIMO	HCH	Vertical	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)				
1	37.0817	7.86	22.52	30.38	40.00	-9.62	peak
2	47.4617	14.73	16.11	30.84	40.00	-9.16	peak
3	54.9315	14.51	14.30	28.81	40.00	-11.19	peak
4	90.5341	13.07	14.55	27.62	43.50	-15.88	peak
5	190.9391	5.53	18.60	24.13	43.50	-19.37	peak
6	390.4880	5.87	22.70	28.57	46.00	-17.43	peak

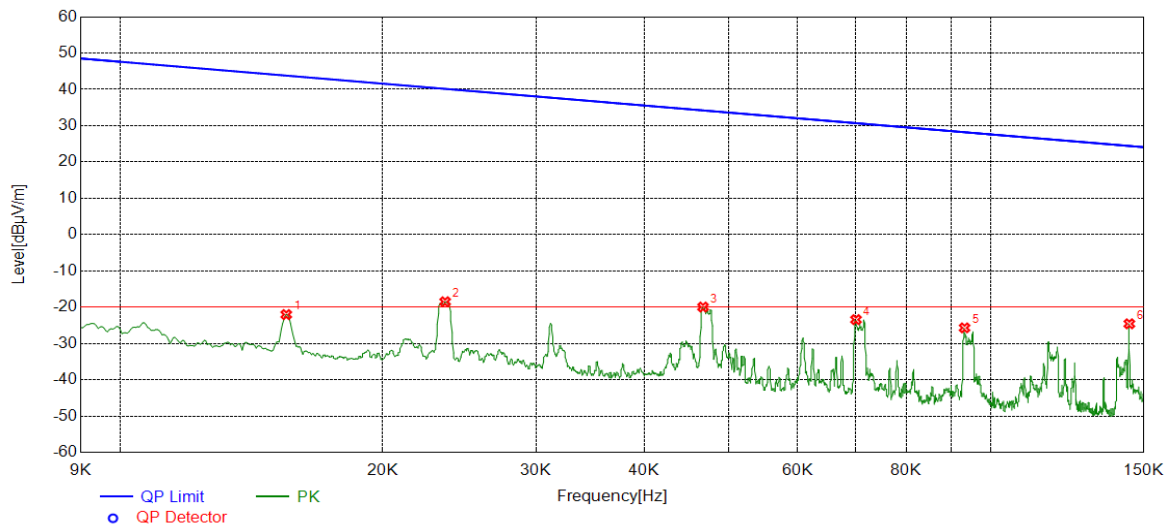
Note: 1. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
2. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.
3. Measurement = Reading Level + Correct Factor.



Part V: 9KHz~30MHz

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

Test Mode	Channel	Frequency Range	Verdict
11N HT40 MIMO	HCH	9KHz~150KHz	PASS

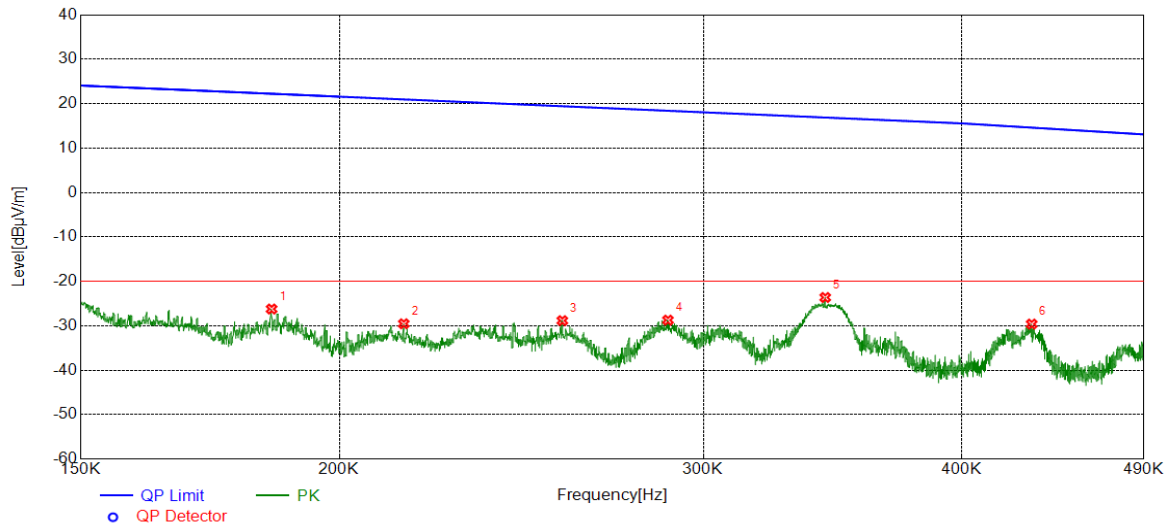


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0155	38.94	-60.98	-22.04	43.77	-65.81	peak
2	0.0236	42.36	-60.87	-18.51	40.14	-58.65	peak
3	0.0467	41.06	-61.02	-19.96	34.22	-54.18	peak
4	0.0700	37.92	-61.35	-23.43	30.70	-54.13	peak
5	0.0933	35.21	-60.91	-25.70	28.21	-53.91	peak
6	0.1443	36.67	-61.25	-24.58	24.42	-49.00	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
11N HT40 MIMO	HCH	150KHz~490Hz	PASS

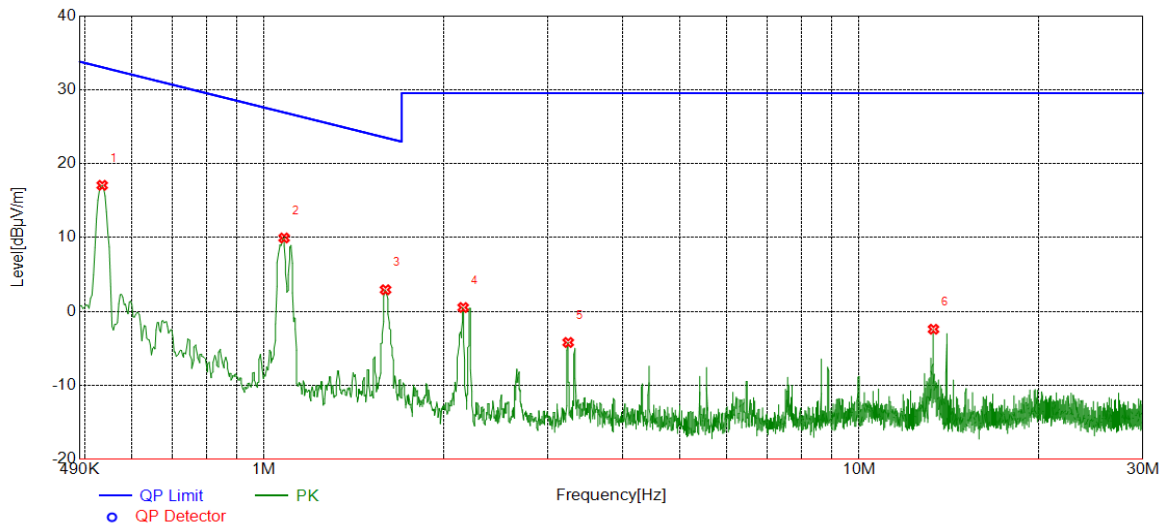


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1855	34.91	-61.13	-26.22	22.24	-48.46	peak
2	0.2149	31.44	-60.98	-29.54	20.95	-50.49	peak
3	0.2564	31.96	-60.80	-28.84	19.42	-48.26	peak
4	0.2884	32.05	-60.77	-28.72	18.40	-47.12	peak
5	0.3436	37.11	-60.73	-23.62	16.88	-40.50	peak
6	0.4324	31.04	-60.65	-29.61	14.61	-44.22	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
11N HT40 MIMO	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	37.66	-20.60	17.06	33.05	-15.99	peak
2	1.0803	30.28	-20.34	9.94	26.94	-17.00	peak
3	1.5997	23.20	-20.27	2.93	23.52	-20.59	peak
4	2.1604	20.78	-20.25	0.53	29.54	-29.01	peak
5	3.2436	16.17	-20.37	-4.20	29.54	-33.74	peak
6	13.3340	16.73	-19.14	-2.41	29.54	-31.95	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

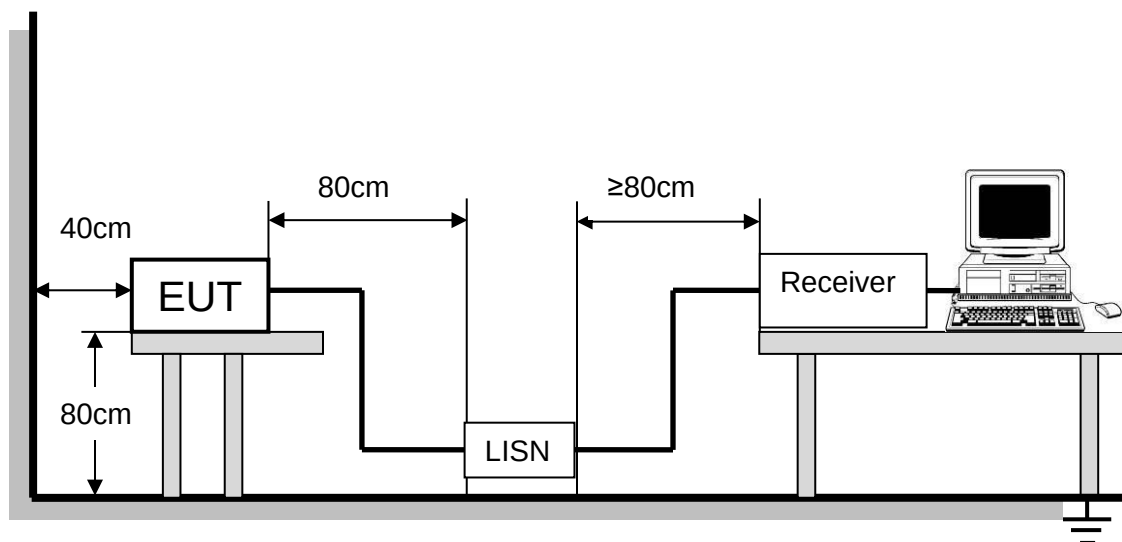
8. AC POWER LINE CONDUCTED EMISSIONS

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

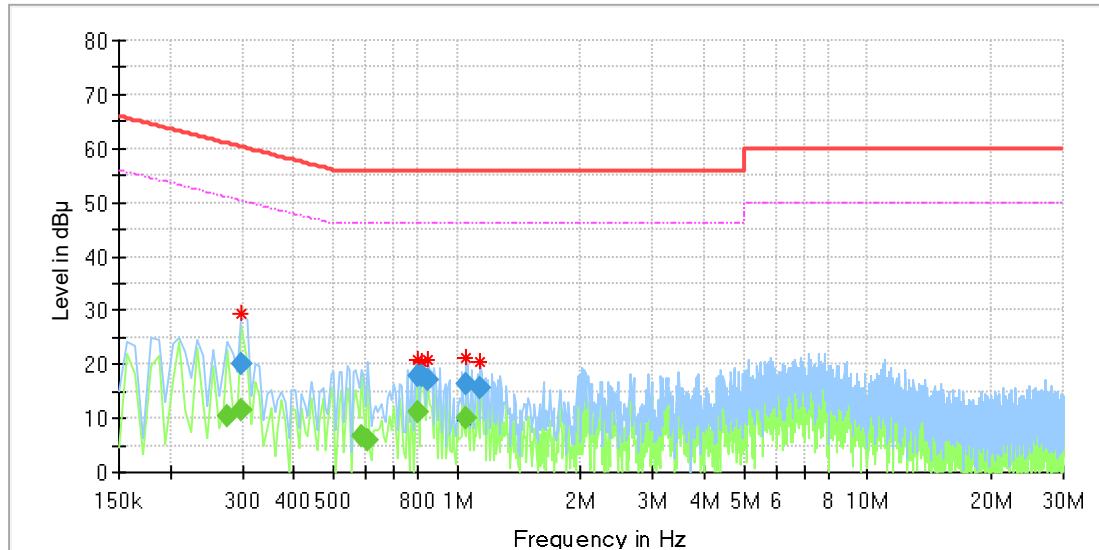


The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3)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



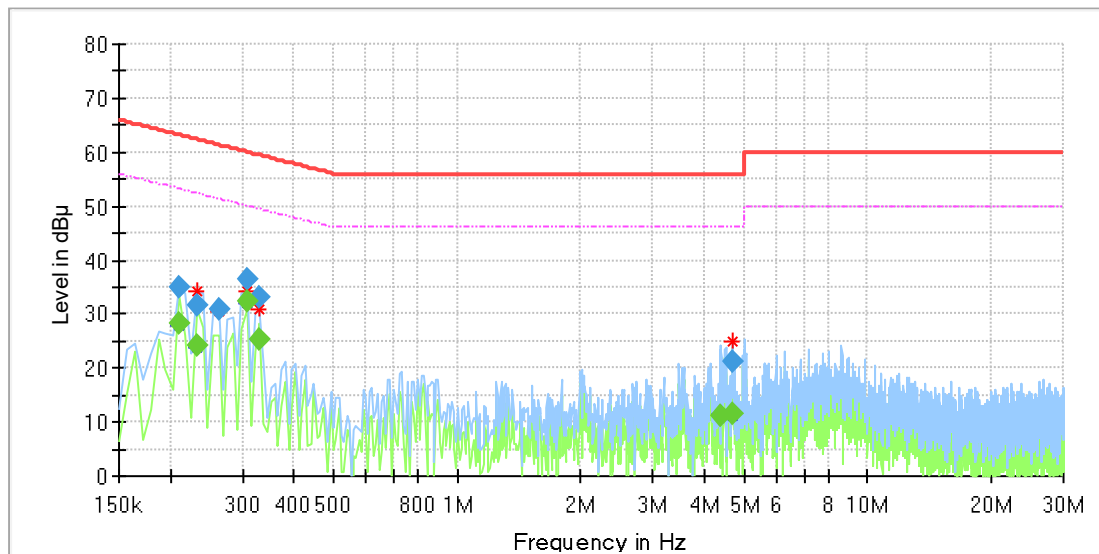
Final Result

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.276863	---	10.36	50.91	40.55	1000.0	9.000	N	OFF	9.6
0.299250	---	11.41	50.26	38.86	1000.0	9.000	N	OFF	9.6
0.299250	20.03	---	60.26	40.23	1000.0	9.000	N	OFF	9.6
0.582825	---	6.81	46.00	39.19	1000.0	9.000	N	OFF	9.6
0.605213	---	6.11	46.00	39.89	1000.0	9.000	N	OFF	9.5
0.799238	17.99	---	56.00	38.01	1000.0	9.000	N	OFF	9.4
0.799238	---	11.07	46.00	34.93	1000.0	9.000	N	OFF	9.4
0.821625	17.96	---	56.00	38.04	1000.0	9.000	N	OFF	9.5
0.844013	17.20	---	56.00	38.80	1000.0	9.000	N	OFF	9.6
1.052963	16.33	---	56.00	39.67	1000.0	9.000	N	OFF	9.7
1.052963	---	9.95	46.00	36.05	1000.0	9.000	N	OFF	9.7
1.142513	15.67	---	56.00	40.33	1000.0	9.000	N	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 11N40 MIMO 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)
0.209700	---	28.11	53.22	25.10	1000.0	9.000	L1	OFF	9.7
0.209700	34.81	---	63.22	28.41	1000.0	9.000	L1	OFF	9.7
0.232088	---	24.16	52.38	28.22	1000.0	9.000	L1	OFF	9.6
0.232088	31.76	---	62.38	30.61	1000.0	9.000	L1	OFF	9.6
0.261938	30.85	---	61.37	30.52	1000.0	9.000	L1	OFF	9.5
0.306713	---	32.25	50.06	17.81	1000.0	9.000	L1	OFF	9.6
0.306713	36.33	---	60.06	23.73	1000.0	9.000	L1	OFF	9.6
0.329100	---	25.21	49.47	24.27	1000.0	9.000	L1	OFF	9.6
0.329100	33.14	---	59.47	26.34	1000.0	9.000	L1	OFF	9.6
4.403625	---	11.16	46.00	34.84	1000.0	9.000	L1	OFF	9.6
4.687200	---	11.66	46.00	34.34	1000.0	9.000	L1	OFF	9.5
4.687200	21.21	---	56.00	34.79	1000.0	9.000	L1	OFF	9.5

- 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 mode which 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 two Internal antenna.

ANTENNA GAIN

The antenna gain of EUT is less than 6 dBi

END OF REPORT