

Appendix C of data

C1.Maximum Peak conducted output power

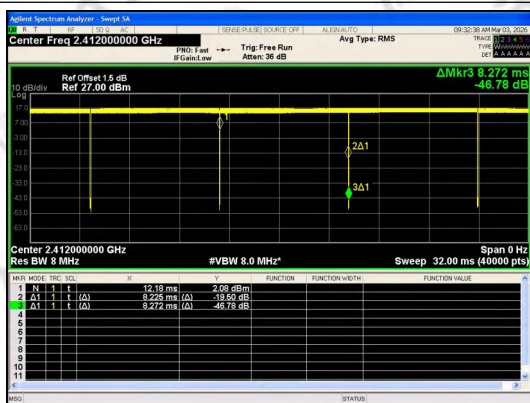
Test Result

Mode	Channel	Ant. 0 (dBm)	Limit (dBm)	Result
IEEE 802.11b	1	13.22	≤30	PASS
	6	13.59	≤30	PASS
	11	13.14	≤30	PASS
IEEE 802.11g	1	13.12	≤30	PASS
	6	13.77	≤30	PASS
	11	13.81	≤30	PASS
IEEE 802.11n_20	1	13.38	≤30	PASS
	6	13.93	≤30	PASS
	11	13.27	≤30	PASS
IEEE 802.11n_40	3	13.03	≤30	PASS
	6	13.79	≤30	PASS
	9	13.75	≤30	PASS

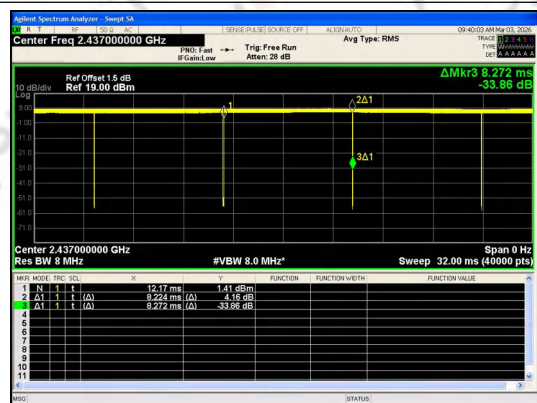
Test Result

Mode	Data rates	Channel	Antenna	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)
IEEE 802.11b	1	1	0	8.225	8.272	99.43	0.9943	0.0248
		6		8.224	8.272	99.42	0.9942	0.0253
		11		8.223	8.271	99.42	0.9942	0.0253
IEEE 802.11g	6	1		1.368	1.419	96.41	0.9641	0.1588
		6		1.368	1.419	96.41	0.9641	0.1588
		11		1.368	1.419	96.41	0.9641	0.1588
IEEE 802.11n_20	MCS 0	1		1.154	1.206	95.68	0.9568	0.1918
		6		1.155	1.206	95.74	0.9574	0.1891
		11		1.155	1.207	95.69	0.9569	0.1913
IEEE 802.11n_40		3		0.578	0.630	91.68	0.9168	0.3773
		6		0.578	0.631	91.68	0.9168	0.3773
		9		0.578	0.630	91.68	0.9168	0.3773

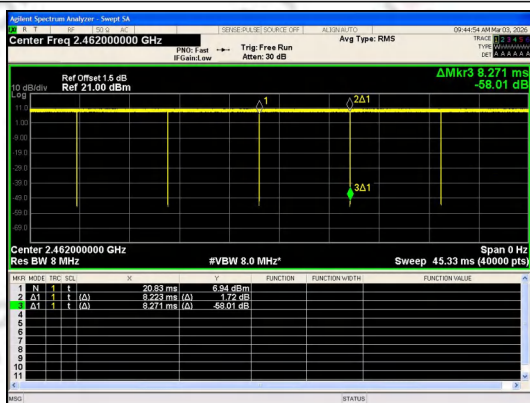
Test Graphs



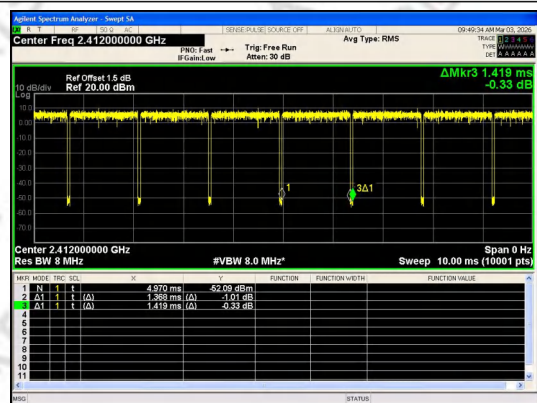
IEEE 802.11b_20MHz_Channel 1



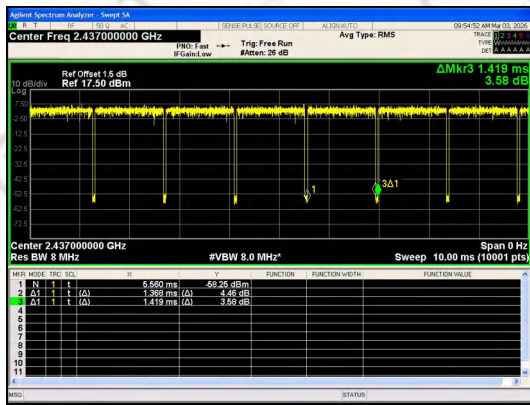
IEEE 802.11b_20MHz_Channel 6



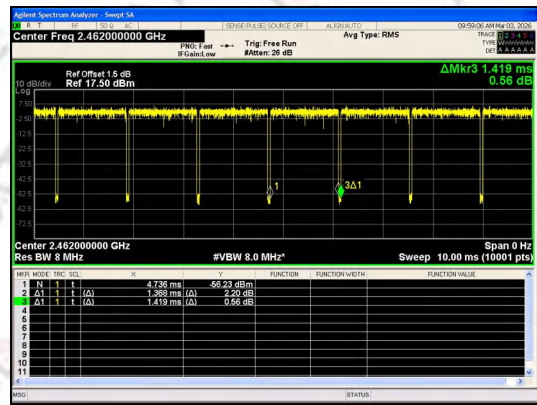
IEEE 802.11b_20MHz_Channel 11



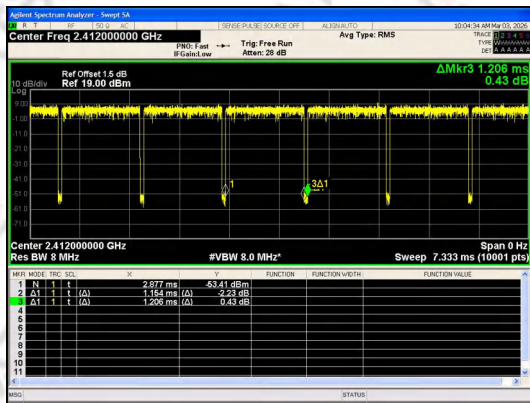
IEEE 802.11g_20MHz_Channel 1



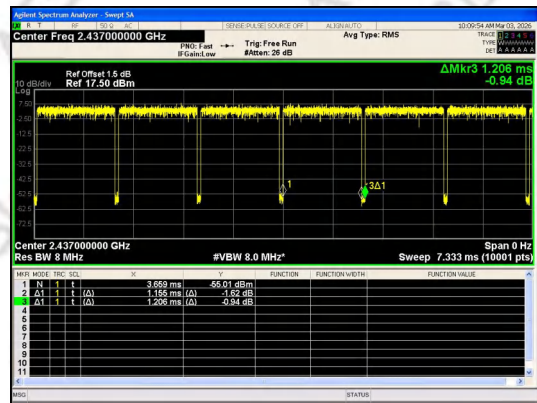
IEEE 802.11g_20MHz_Channel 6



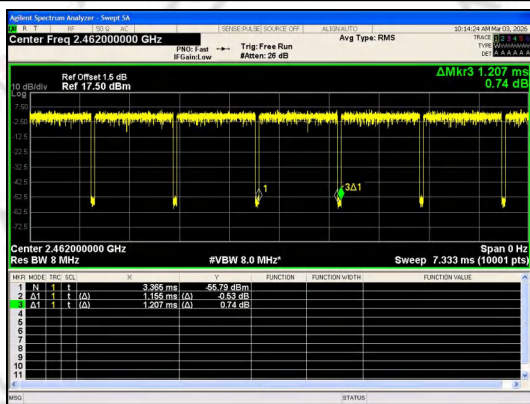
IEEE 802.11g_20MHz_Channel 11



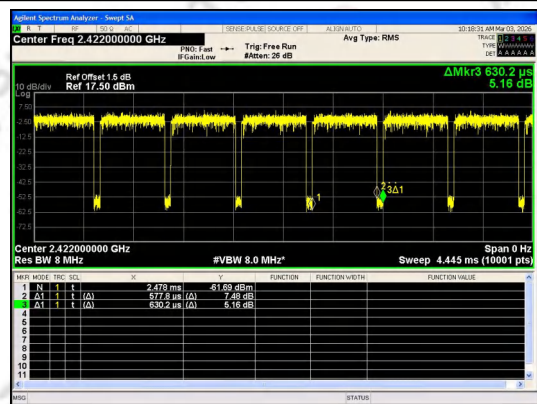
IEEE 802.11n_20MHz_Channel 1



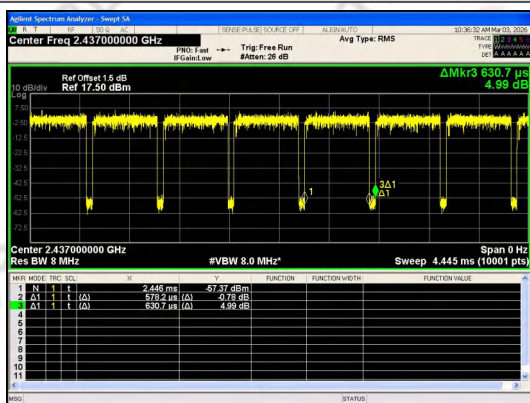
IEEE 802.11n_20MHz_Channel 6



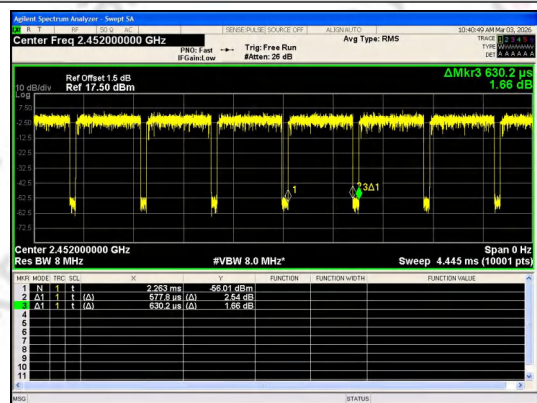
IEEE 802.11n_20MHz_Channel 11



IEEE 802.11n_40MHz_Channel 3



IEEE 802.11n_40MHz_Channel 6



IEEE 802.11n_40MHz_Channel 9

C3.6dB Bandwidth and 99% Bandwidth

6 dB Bandwidth

Test Result

Mode	Channel	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b	1	0	2412	8.680	≥0.5	PASS
	6		2437	9.130		PASS
	11		2462	9.120		PASS
IEEE 802.11g	1		2412	16.26		PASS
	6		2437	16.29		PASS
	11		2462	16.37		PASS
IEEE 802.11n_20	1		2412	17.00		PASS
	6		2437	17.30		PASS
	11		2462	17.26		PASS
IEEE 802.11n_40	3		2422	35.96		PASS
	6		2437	36.14		PASS
	9		2452	35.62		PASS

Test Graphs



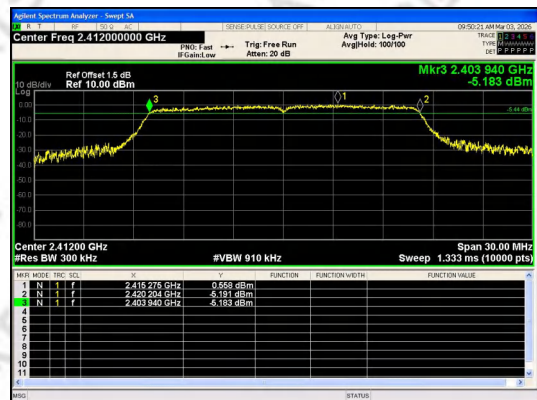
IEEE 802.11b_Channel 1_20MHz_Antenna 0



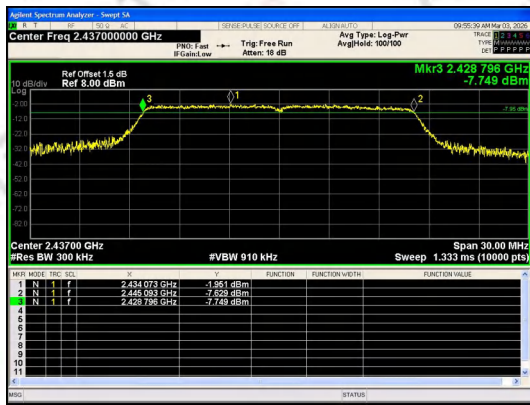
IEEE 802.11b_Channel 6_20MHz_Antenna 0



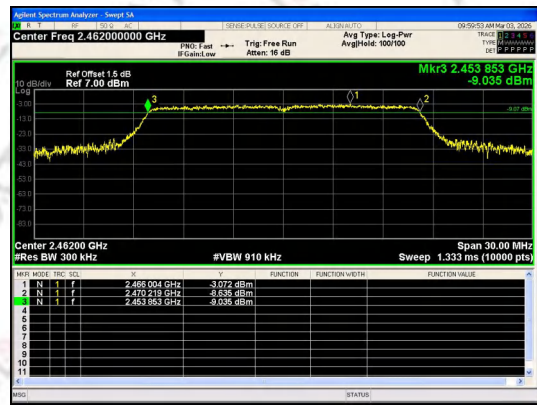
IEEE 802.11b_Channel 11_20MHz_Antenna 0



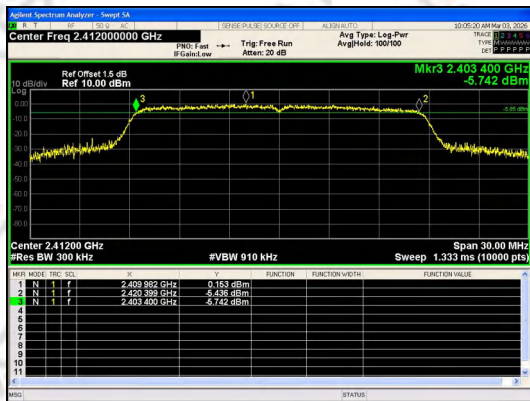
IEEE 802.11g_Channel 1_20MHz_Antenna 0



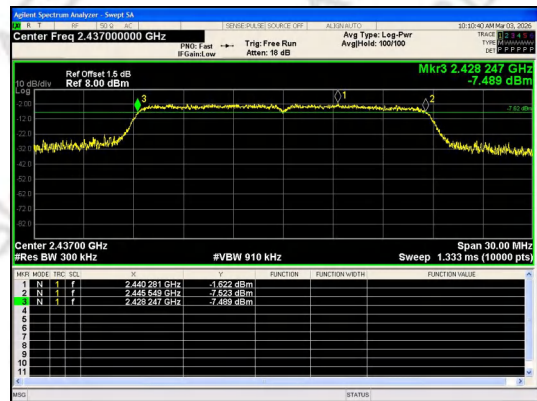
IEEE 802.11g_Channel 6_20MHz_Antenna 0



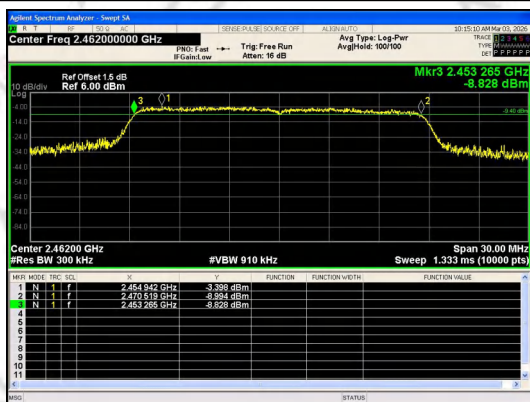
IEEE 802.11g_Channel 11_20MHz_Antenna 0



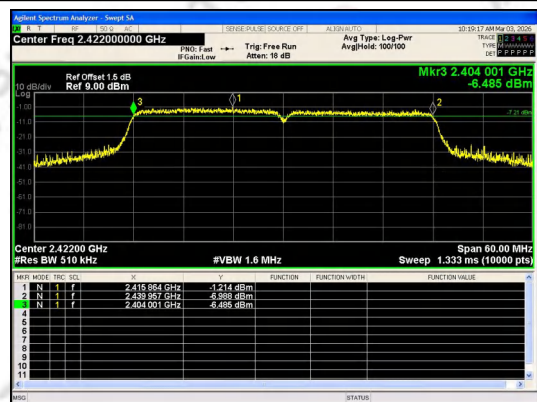
IEEE 802.11n_Channel 1_20MHz_Antenna 0



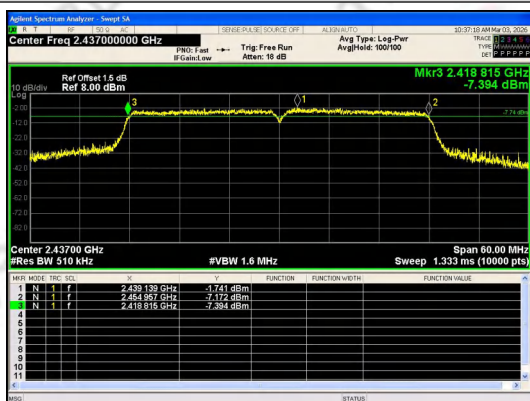
IEEE 802.11n_Channel 6_20MHz_Antenna 0



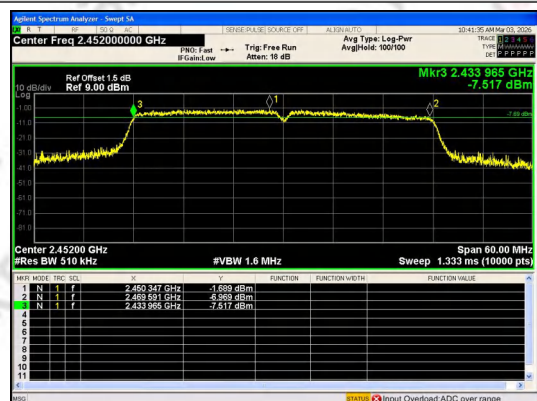
IEEE 802.11n_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 3_40MHz_Antenna 0



IEEE 802.11n_Channel 6_40MHz_Antenna 0



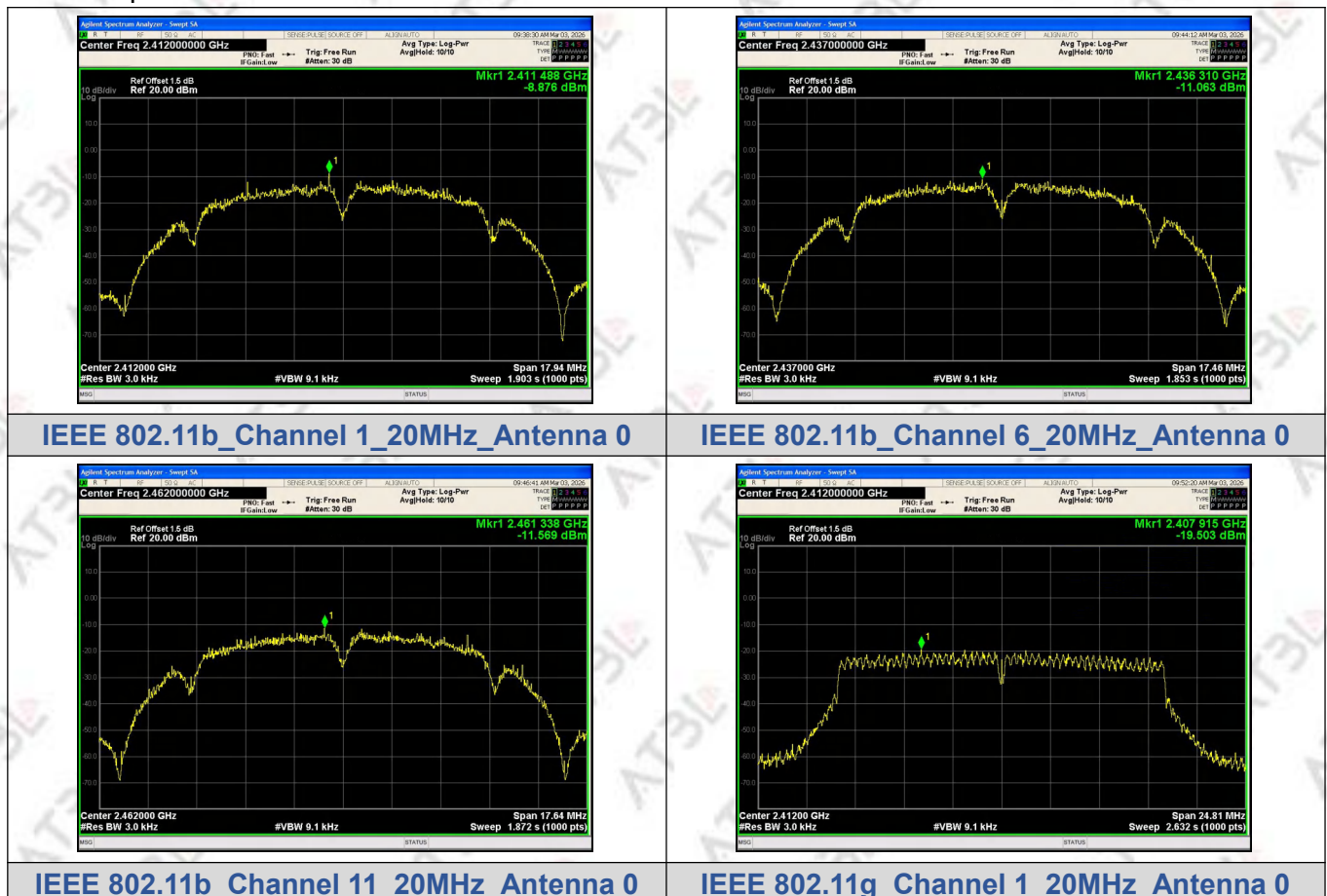
IEEE 802.11n_Channel 9_40MHz_Antenna 0

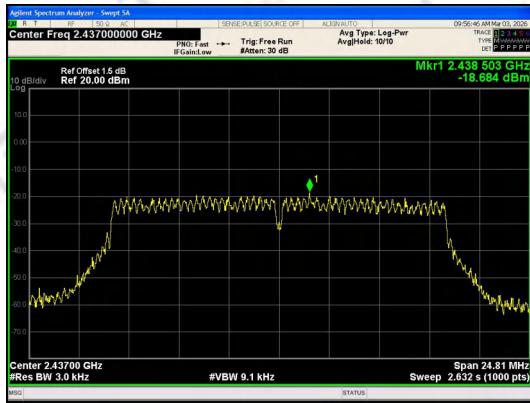
C4.Power Spectral Density

Test Result

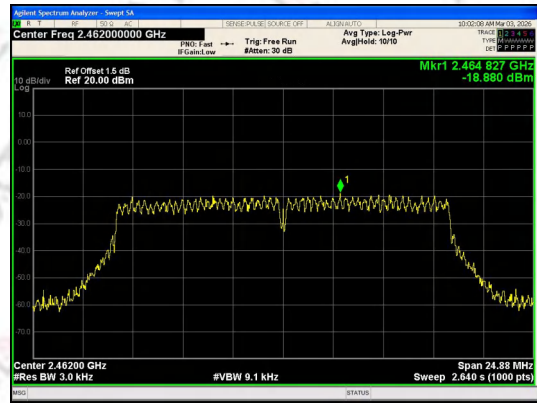
Mode	Channel	PSD (dBm/3kHz) Ant. 0	Limit (dBm/3kHz)	Result
IEEE 802.11b	1	-8.880	≤8	PASS
	6	-11.060		PASS
	11	-11.570		PASS
IEEE 802.11g	1	-19.500		PASS
	6	-18.680		PASS
	11	-18.880		PASS
IEEE 802.11n_20	1	-19.190		PASS
	6	-19.240		PASS
	11	-19.850		PASS
IEEE 802.11n_40	3	-22.390		PASS
	6	-22.590		PASS
	9	-19.480		PASS

Test Graphs

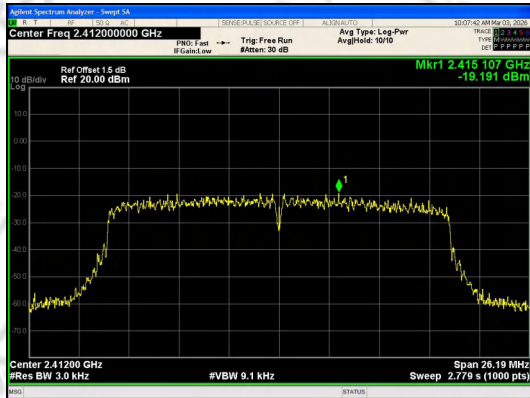




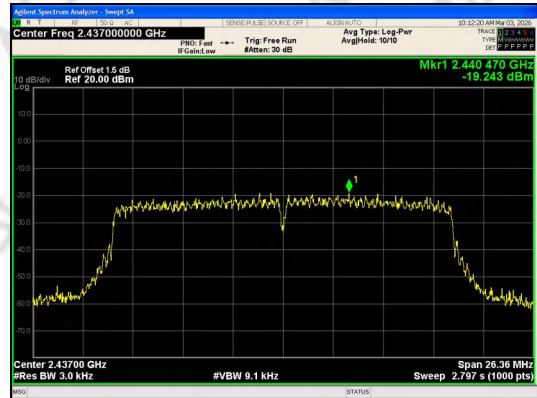
IEEE 802.11g_Channel 6_20MHz_Antenna 0



IEEE 802.11g_Channel 11_20MHz_Antenna 0



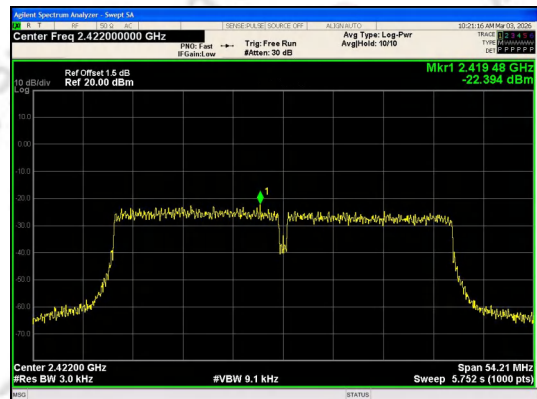
IEEE 802.11n_Channel 1_20MHz_Antenna 0



IEEE 802.11n_Channel 6_20MHz_Antenna 0



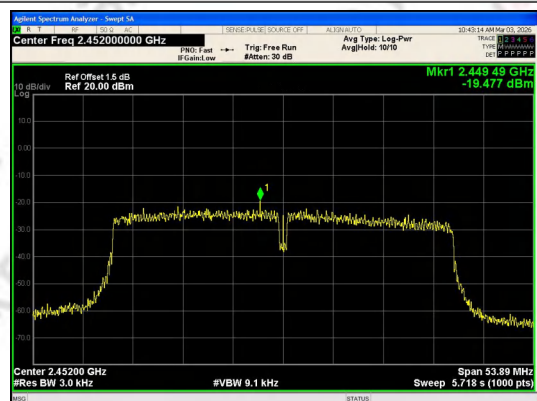
IEEE 802.11n_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 3_40MHz_Antenna 0



IEEE 802.11n_Channel 6_40MHz_Antenna 0



IEEE 802.11n_Channel 9_40MHz_Antenna 0

C5. Conducted Spurious & Band Edge Emission

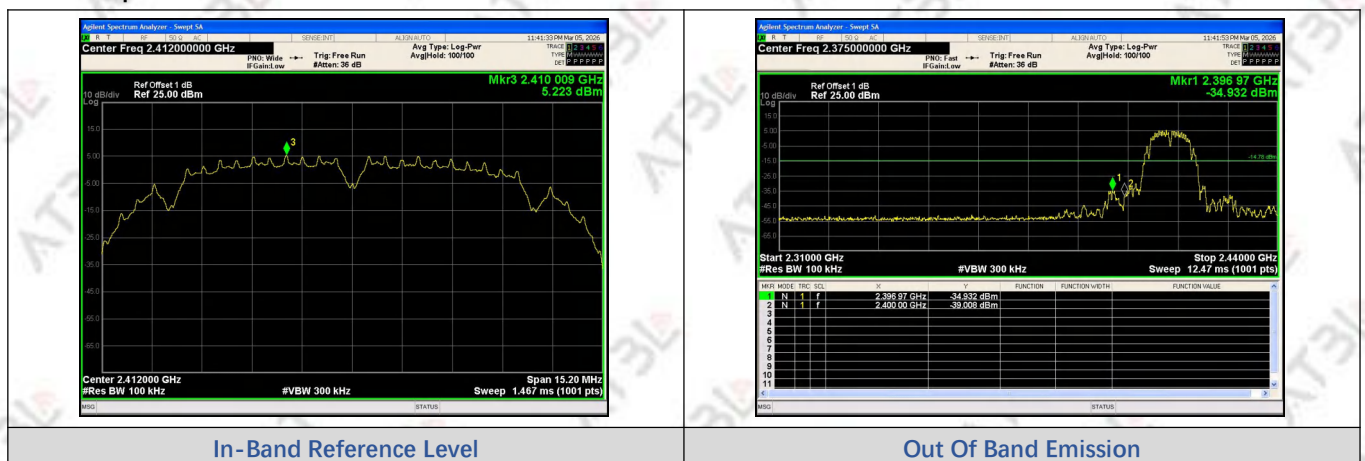
Mode	Channel	Ant.	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Cable Loss (dB)	Limit (dBm)	Over Limit (dB)	Result	
IEEE 802.11b	1	0	2396.97	-34.932	N/A	-14.78	-20.152	PASS	
			2400.00	-39.008	N/A	-14.78	-24.228	PASS	
			24348.3	-37.997	1.36	-14.78	-23.217	PASS	
	6		24890.1	-40.34	N/A	-15.97	-24.37	PASS	
			11	2483.50	-49.15	1.36	-13.36	-35.79	PASS
				24827.7	-40.09	1.36	-13.36	-26.73	PASS
IEEE 802.11g	1		2398.27	-36.441	N/A	-21.92	-14.521	PASS	
			2400.00	-37.011	N/A	-21.92	-15.091	PASS	
			24929.5	-39.67	1.36	-21.92	-17.75	PASS	
	6		24913.2	-39.083	1.36	-24.22	-14.863	PASS	
			11	2483.50	-50.134	N/A	-21.73	-28.404	PASS
				24882.0	-39.125	1.36	-21.73	-17.395	PASS
IEEE 802.11n_20	1		2398.27	-36.015	N/A	-21.48	-14.535	PASS	
			2400.00	-38.125	N/A	-21.48	-16.645	PASS	
			24874.5	-39.909	1.36	-21.48	-18.429	PASS	
	6		24895.1	-39.57	1.36	-24.3	-15.27	PASS	
			11	2483.50	-47.393	N/A	-21.66	-25.733	PASS
				24886.4	-39.755	1.36	-21.66	-18.095	PASS
IEEE 802.11n_40	3		2400.00	-36.892	N/A	-23.15	-13.742	PASS	
			24867.7	-39.732	1.36	-23.15	-16.582	PASS	
	6		24796.5	-38.661	1.36	-24.2	-14.461	PASS	
			9	2483.50	-44.758	N/A	-23.57	-21.188	PASS
	24936.3			-39.059	1.36	-23.57	-15.489	PASS	

Note:

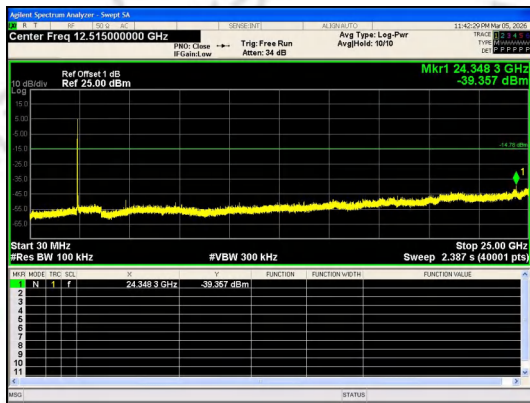
1. input compensation coefficient (dB) = Cable Loss (dB)

2. 30MHz~25GHz OOB Emission Level final result cable loss was added. maximum cable Loss is 2.86 dB (When the frequency reaches 25GHz, add an additional compensation of 1.36dB for Cable Loss.)

Test Graphs



IEEE 802.11b_Channel 1_20MHz_Antenna 0

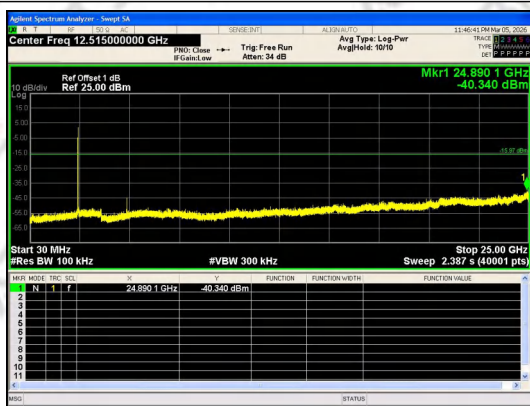


IEEE 802.11b_Channel 1_20MHz_Antenna 0



30.0 MHz - 25000.0 MHz

IEEE 802.11b_Channel 1_20MHz_Antenna 0



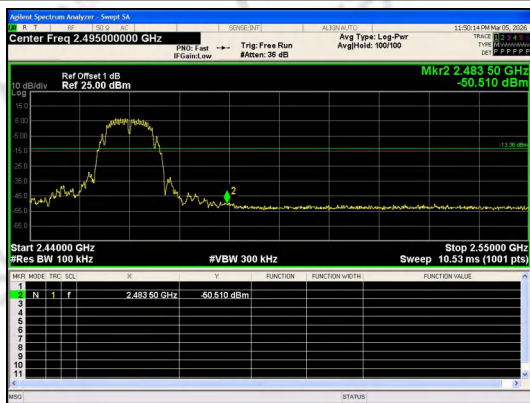
In-Band Reference Level

IEEE 802.11b_Channel 6_20MHz_Antenna 0



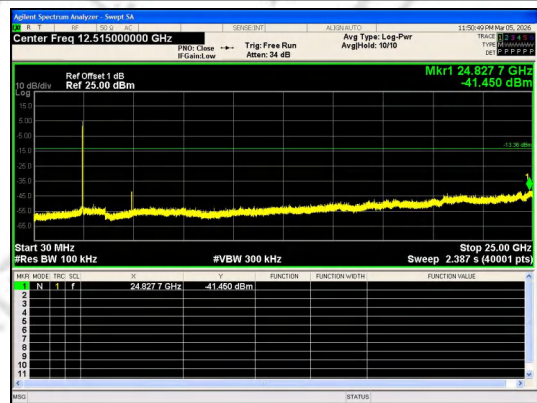
30.0 MHz - 25000.0 MHz

IEEE 802.11b_Channel 6_20MHz_Antenna 0



In-Band Reference Level

IEEE 802.11b_Channel 11_20MHz_Antenna 0



Out Of Band Emission

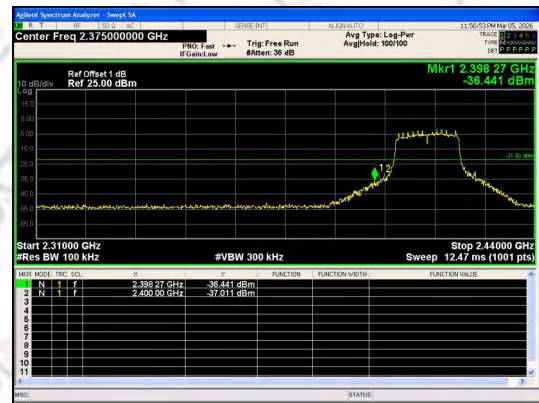
IEEE 802.11b_Channel 11_20MHz_Antenna 0

30.0 MHz - 25000.0 MHz

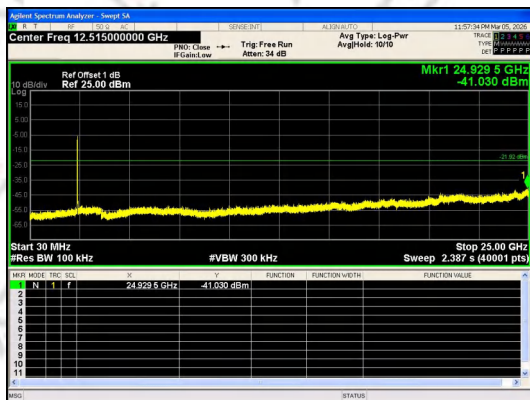
IEEE 802.11b_Channel 11_20MHz_Antenna 0



In-Band Reference Level
IEEE 802.11g_Channel 1_20MHz_Antenna 0



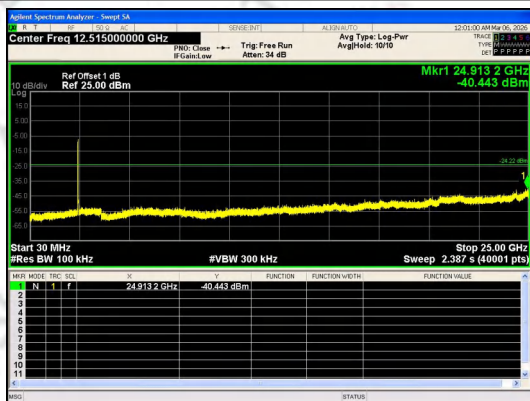
Out Of Band Emission
IEEE 802.11g_Channel 1_20MHz_Antenna 0



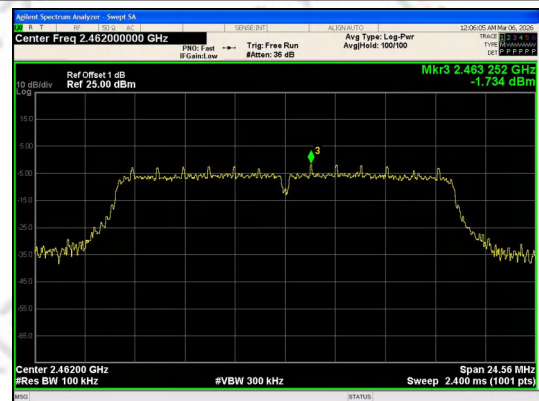
30.0 MHz - 25000.0 MHz
IEEE 802.11g_Channel 1_20MHz_Antenna 0



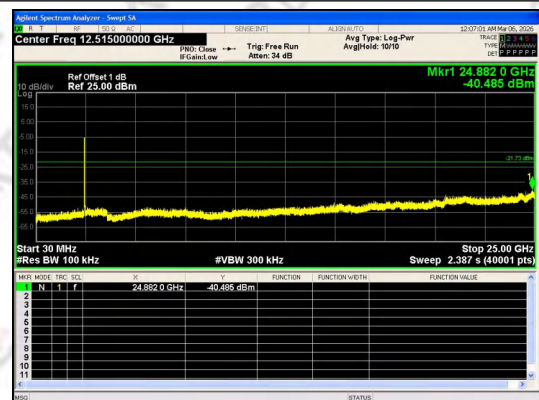
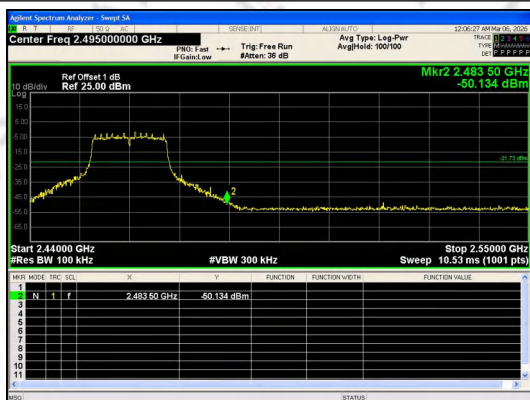
In-Band Reference Level
IEEE 802.11g_Channel 6_20MHz_Antenna 0



30.0 MHz - 25000.0 MHz
IEEE 802.11g_Channel 6_20MHz_Antenna 0



In-Band Reference Level
IEEE 802.11g_Channel 11_20MHz_Antenna 0



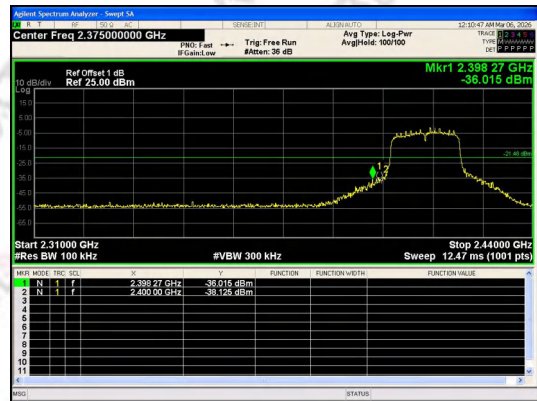
Out Of Band Emission

IEEE 802.11g_Channel 11_20MHz_Antenna 0



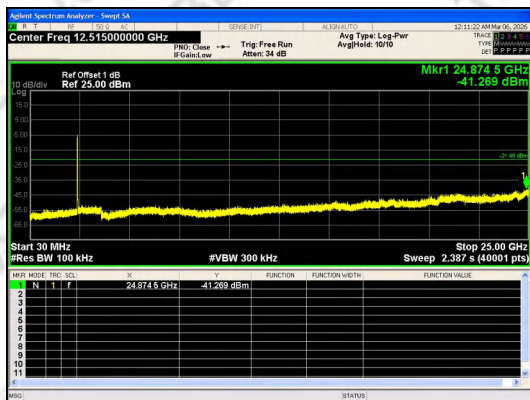
30.0 MHz - 25000.0 MHz

IEEE 802.11g_Channel 11_20MHz_Antenna 0



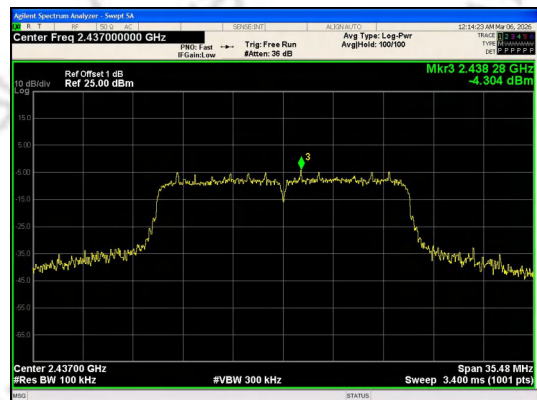
In-Band Reference Level

IEEE 802.11n_Channel 1_20MHz_Antenna 0



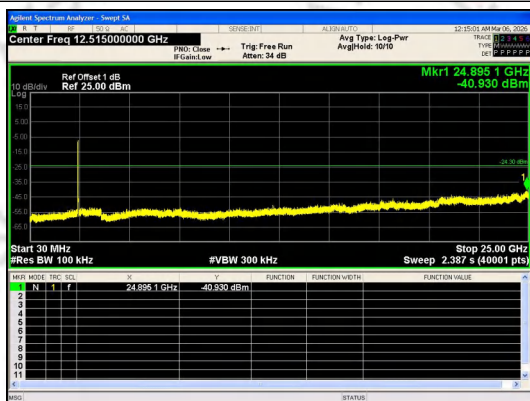
Out Of Band Emission

IEEE 802.11n_Channel 1_20MHz_Antenna 0



30.0 MHz - 25000.0 MHz

IEEE 802.11n_Channel 1_20MHz_Antenna 0



In-Band Reference Level

IEEE 802.11n_Channel 6_20MHz_Antenna 0

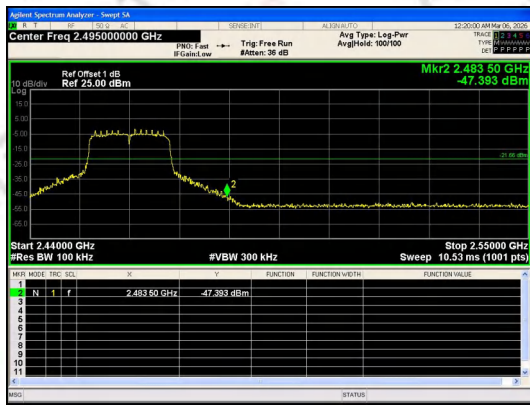


30.0 MHz - 25000.0 MHz

IEEE 802.11n_Channel 6_20MHz_Antenna 0

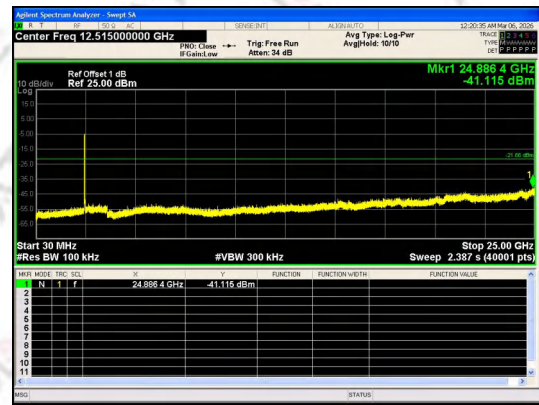
In-Band Reference Level

IEEE 802.11n_Channel 11_20MHz_Antenna 0



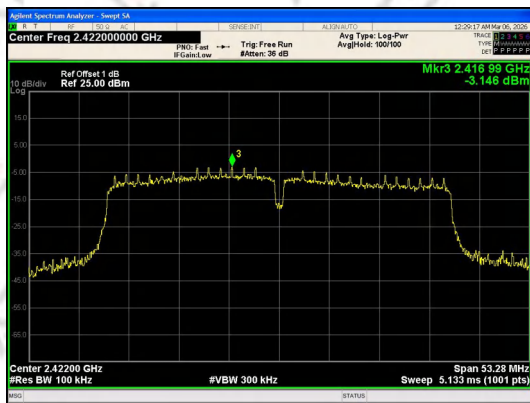
Out Of Band Emission

IEEE 802.11n_Channel 11_20MHz_Antenna 0



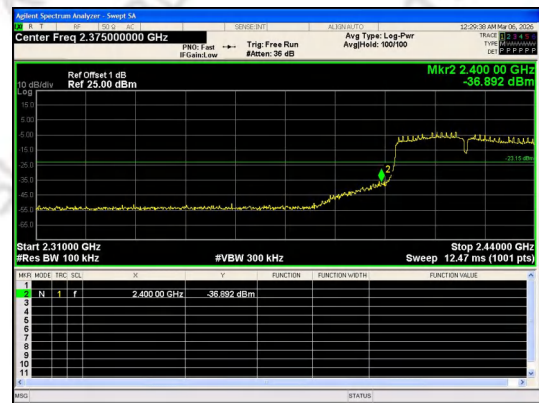
30.0 MHz - 25000.0 MHz

IEEE 802.11n_Channel 11_20MHz_Antenna 0



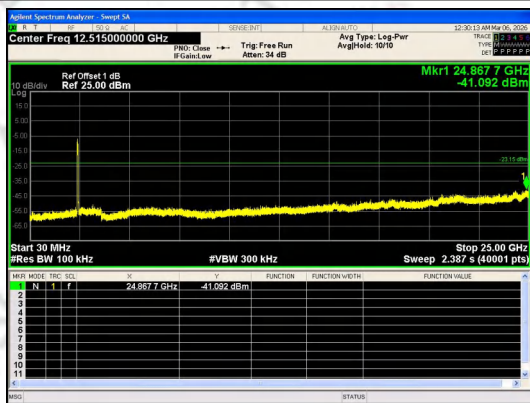
In-Band Reference Level

IEEE 802.11n_Channel 3_40MHz_Antenna 0



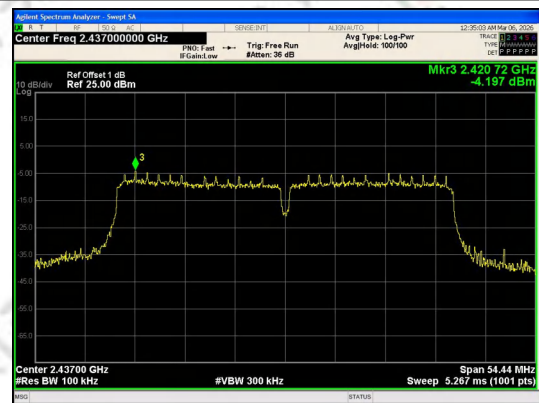
Out Of Band Emission

IEEE 802.11n_Channel 3_40MHz_Antenna 0



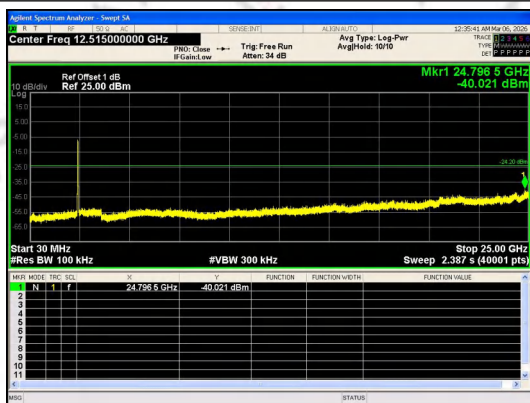
30.0 MHz - 25000.0 MHz

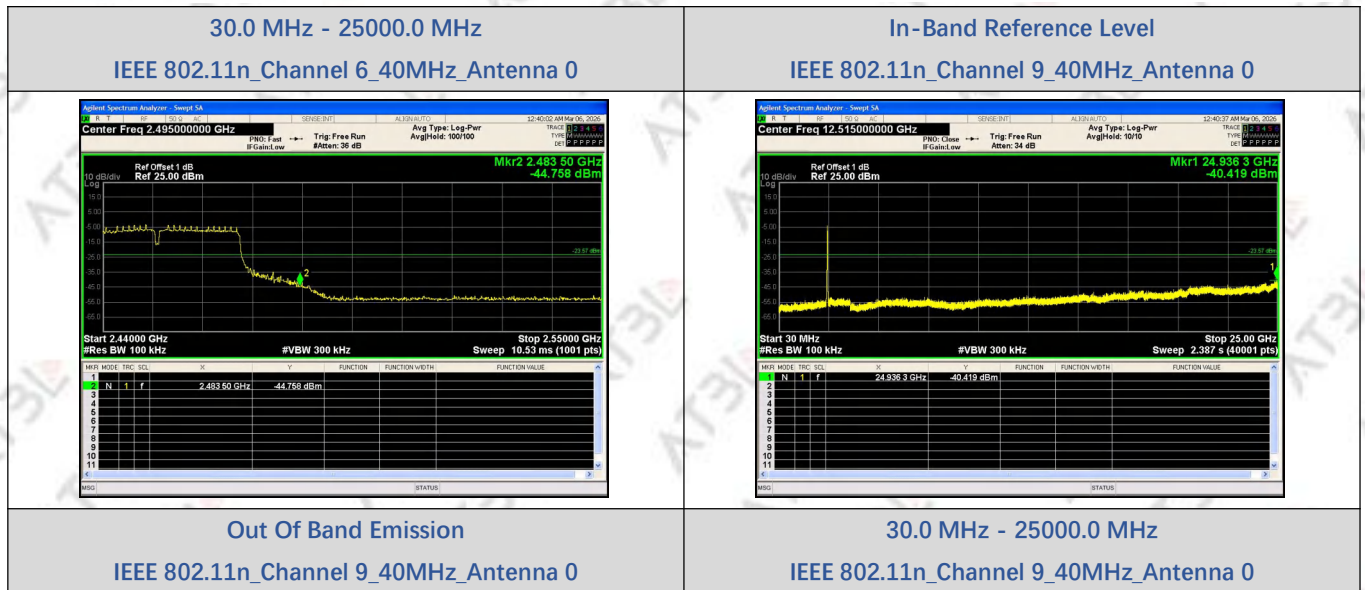
IEEE 802.11n_Channel 3_40MHz_Antenna 0



In-Band Reference Level

IEEE 802.11n_Channel 6_40MHz_Antenna 0





C5.Radiated Spurious Emission and Restricted Band

For 9 kHz ~ 30 MHz

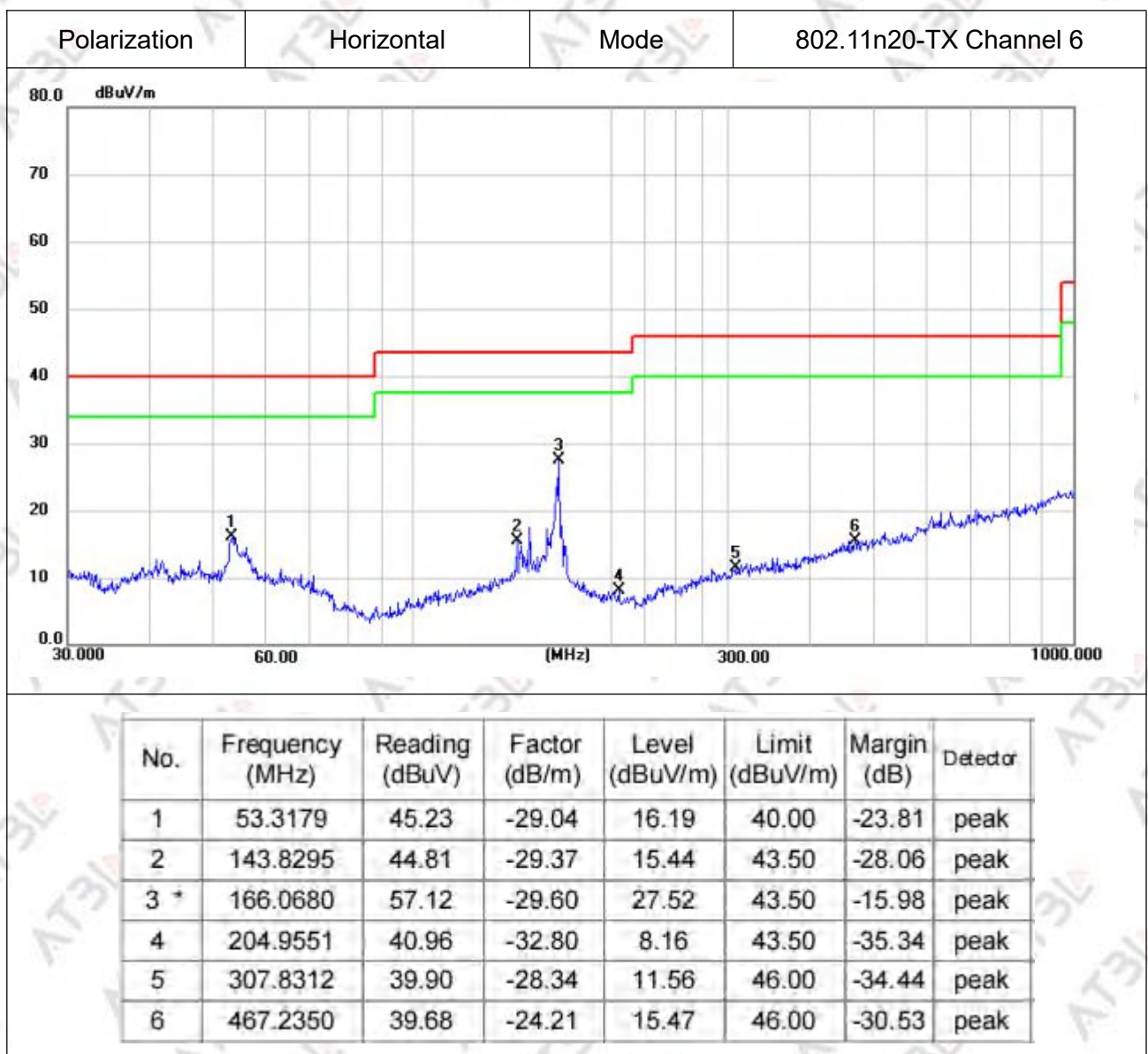
Note:

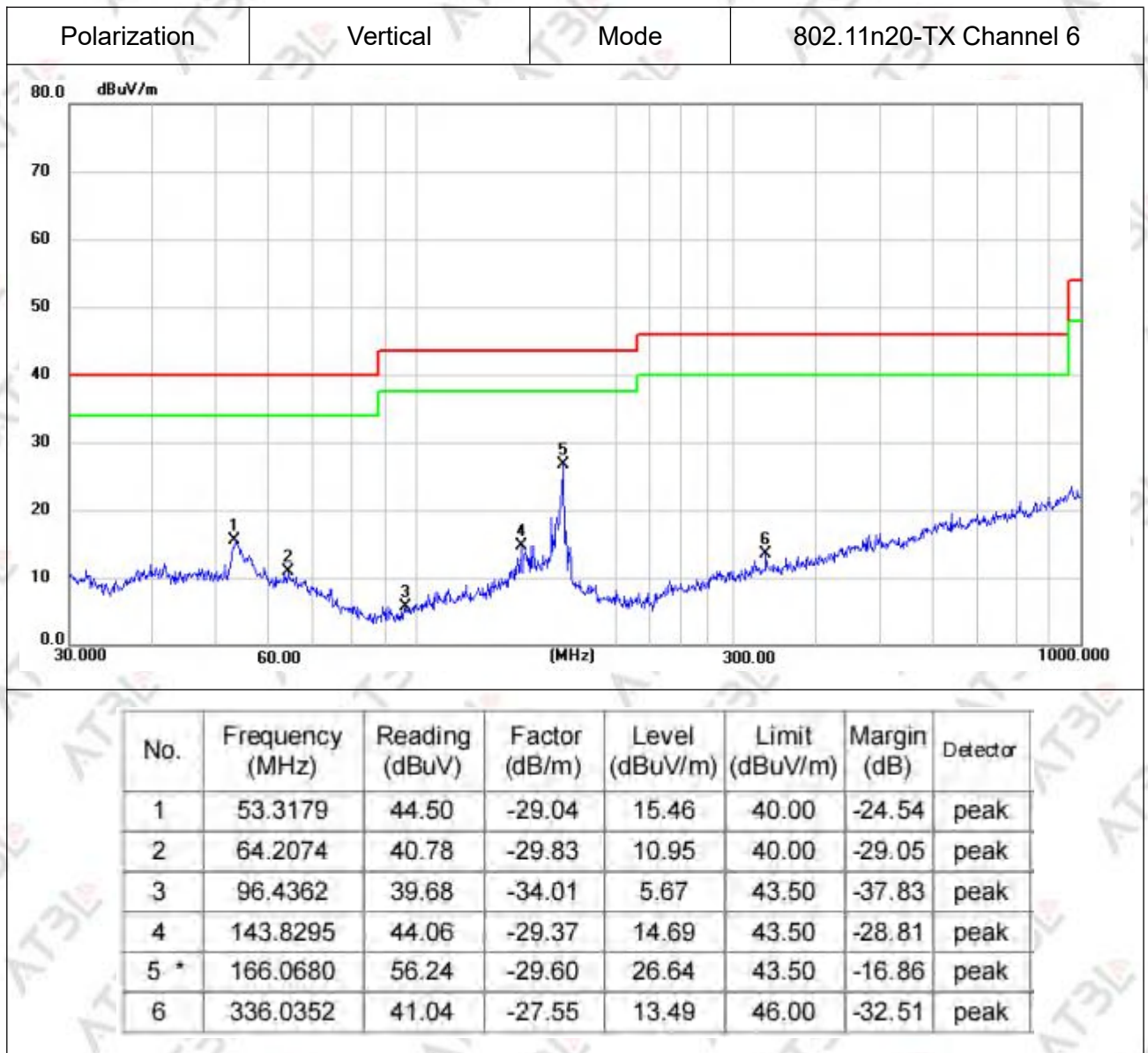
- 1.The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.
- 2.The all data rate modes had been test, but only worse test data was recorded in the test report.

Below 1GHz:

Note:

- 1.All modes have been tested, only worst (802.11n20-TX Channel 6)mode was recorded in the test report.
- 2.Emission Level (dBuV/m) = Reading Value (dBuV) + Correction Factor (dB/m).
- 3.Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)-Amplifier Gain.
- 4.The emission levels of other frequencies were less than 20dB margin against the limit.
- 5.Margin value = Emission level-Limit value.

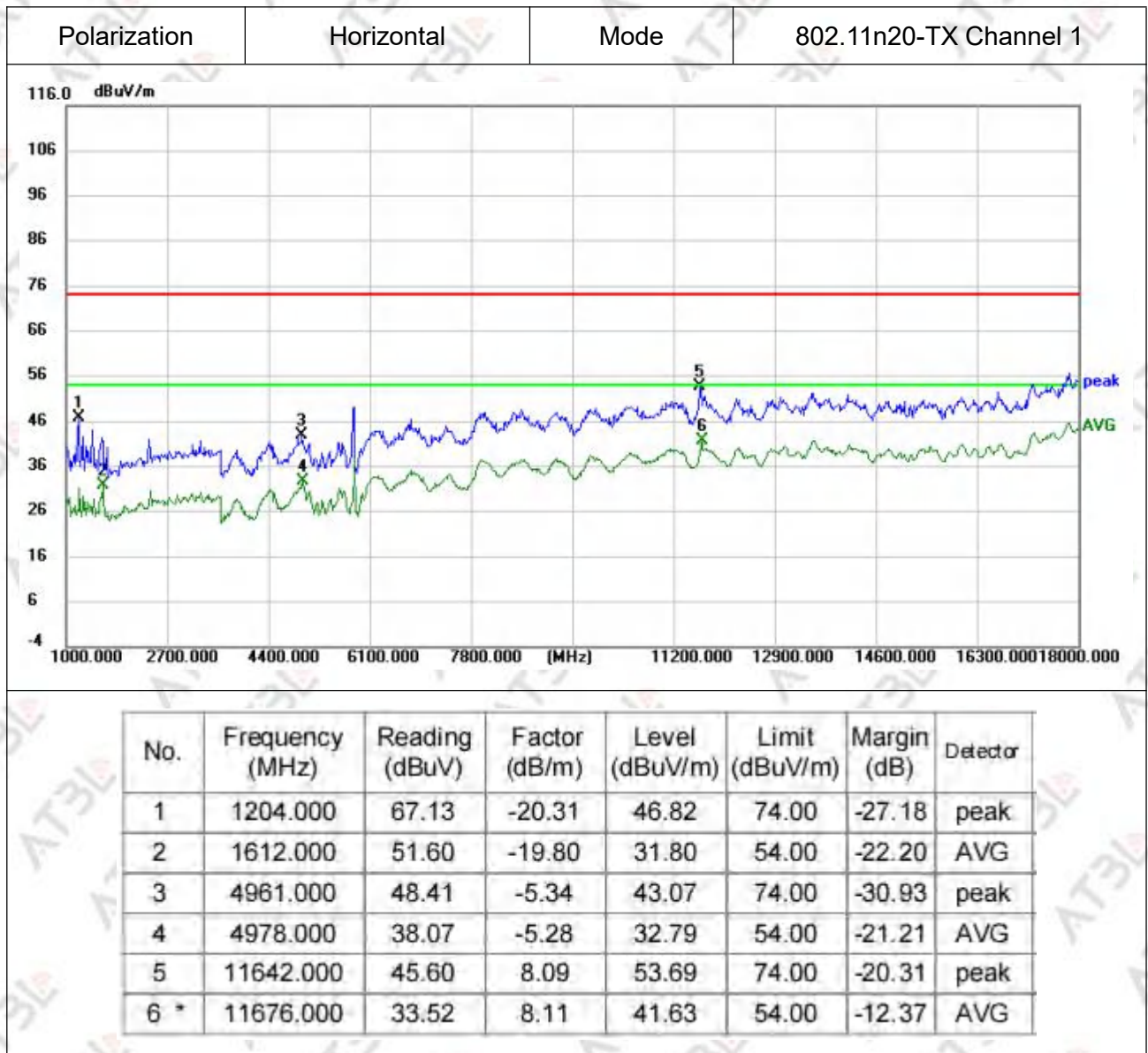


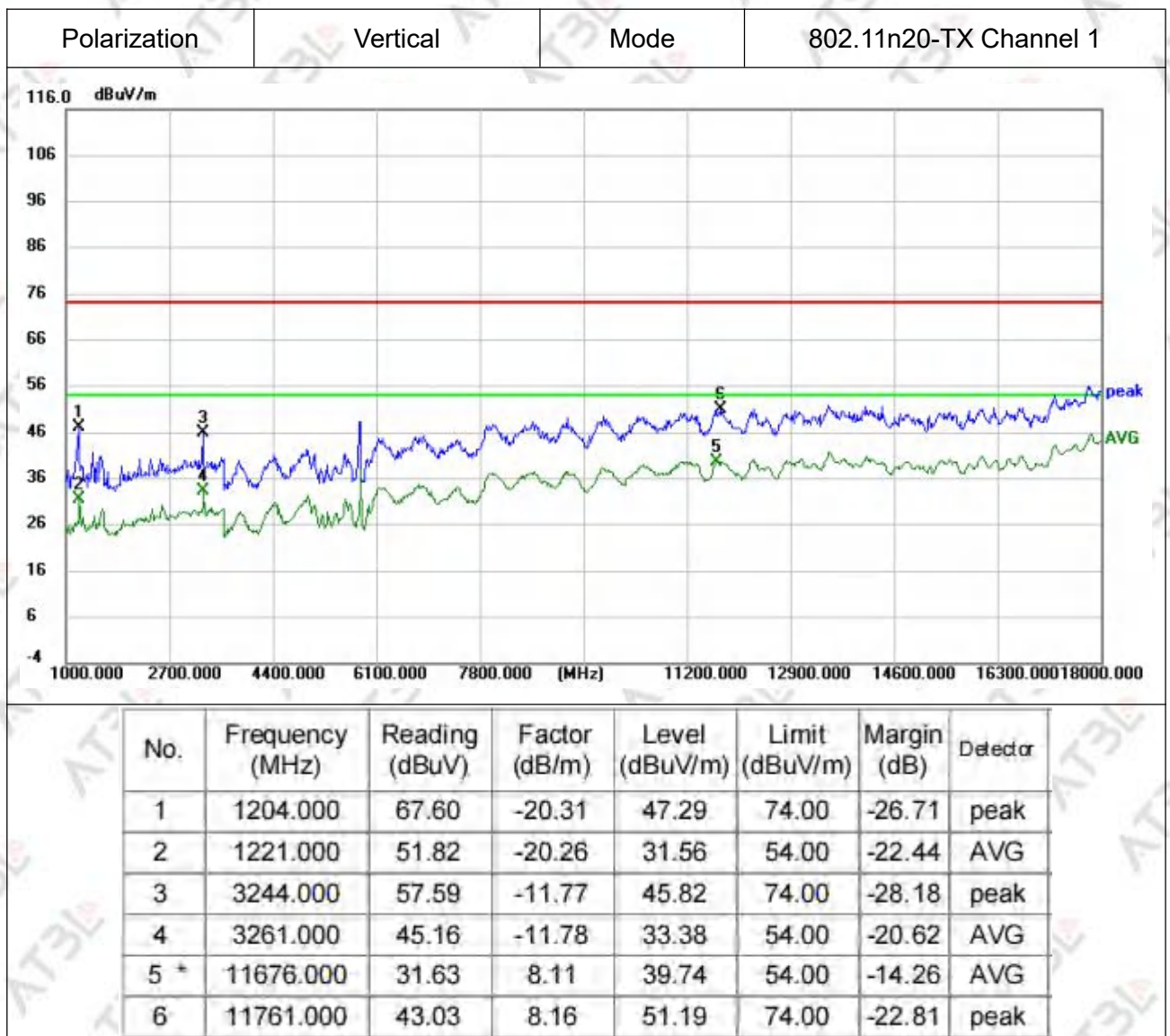


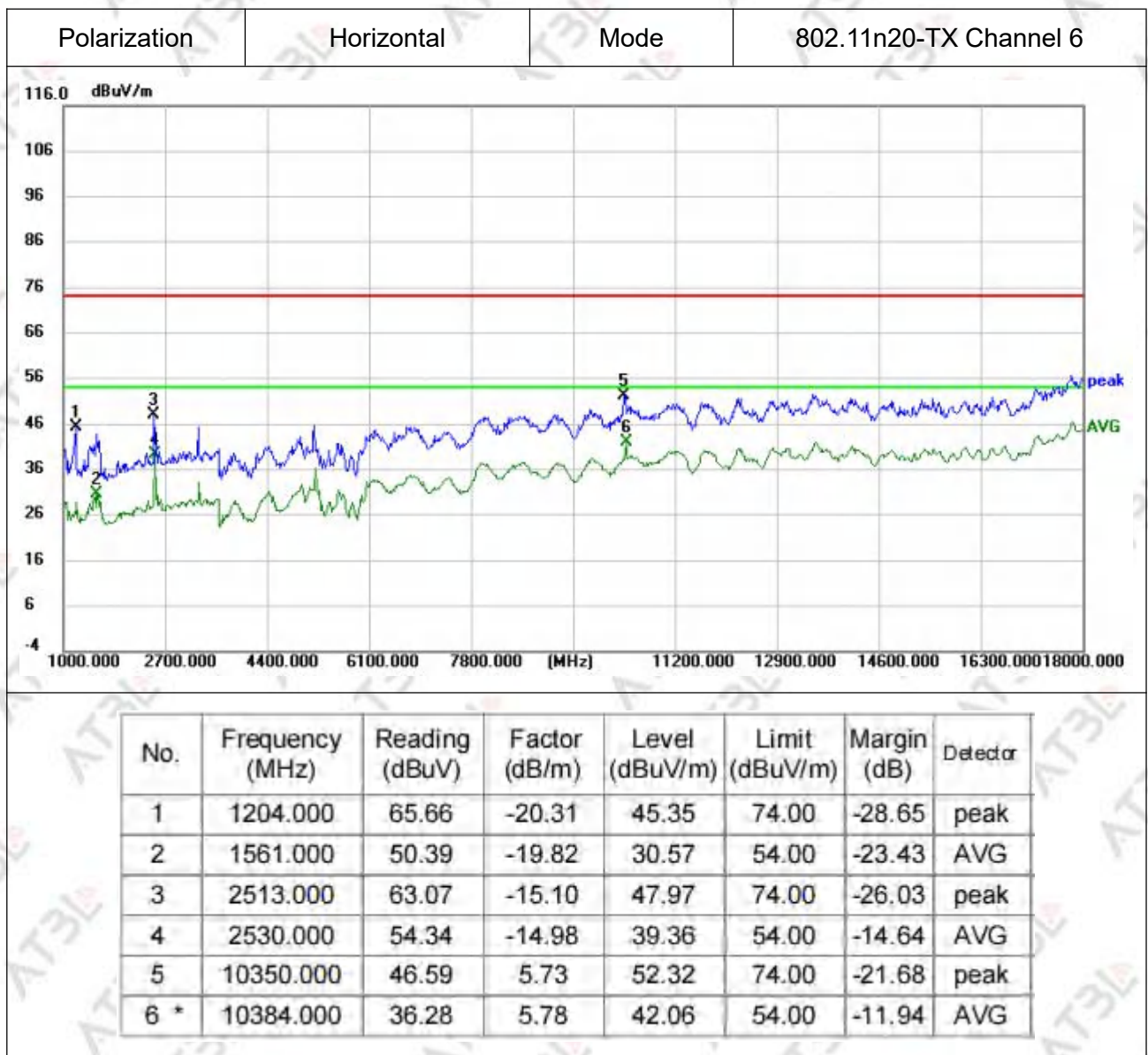
Above 1GHz:

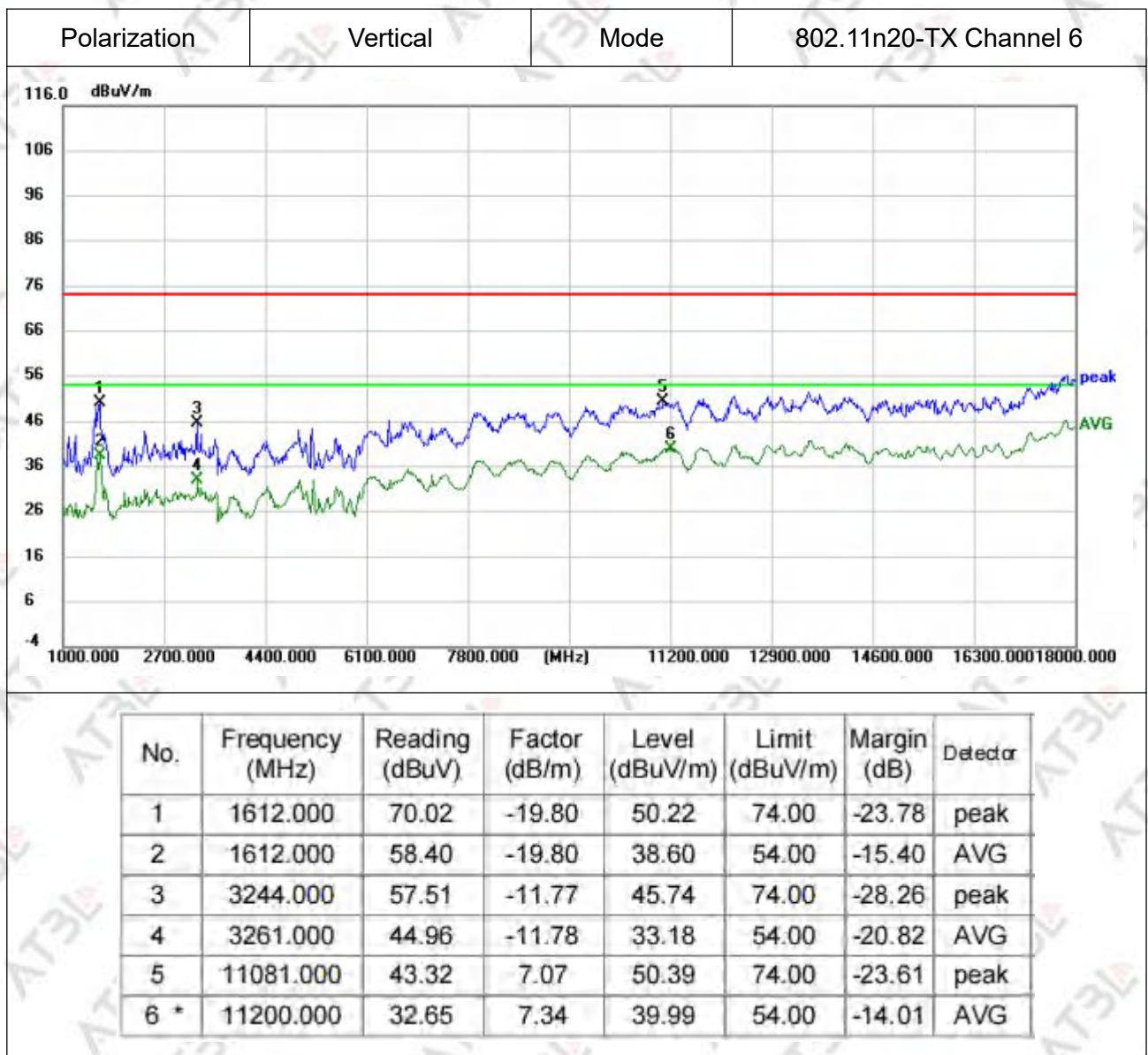
Note:

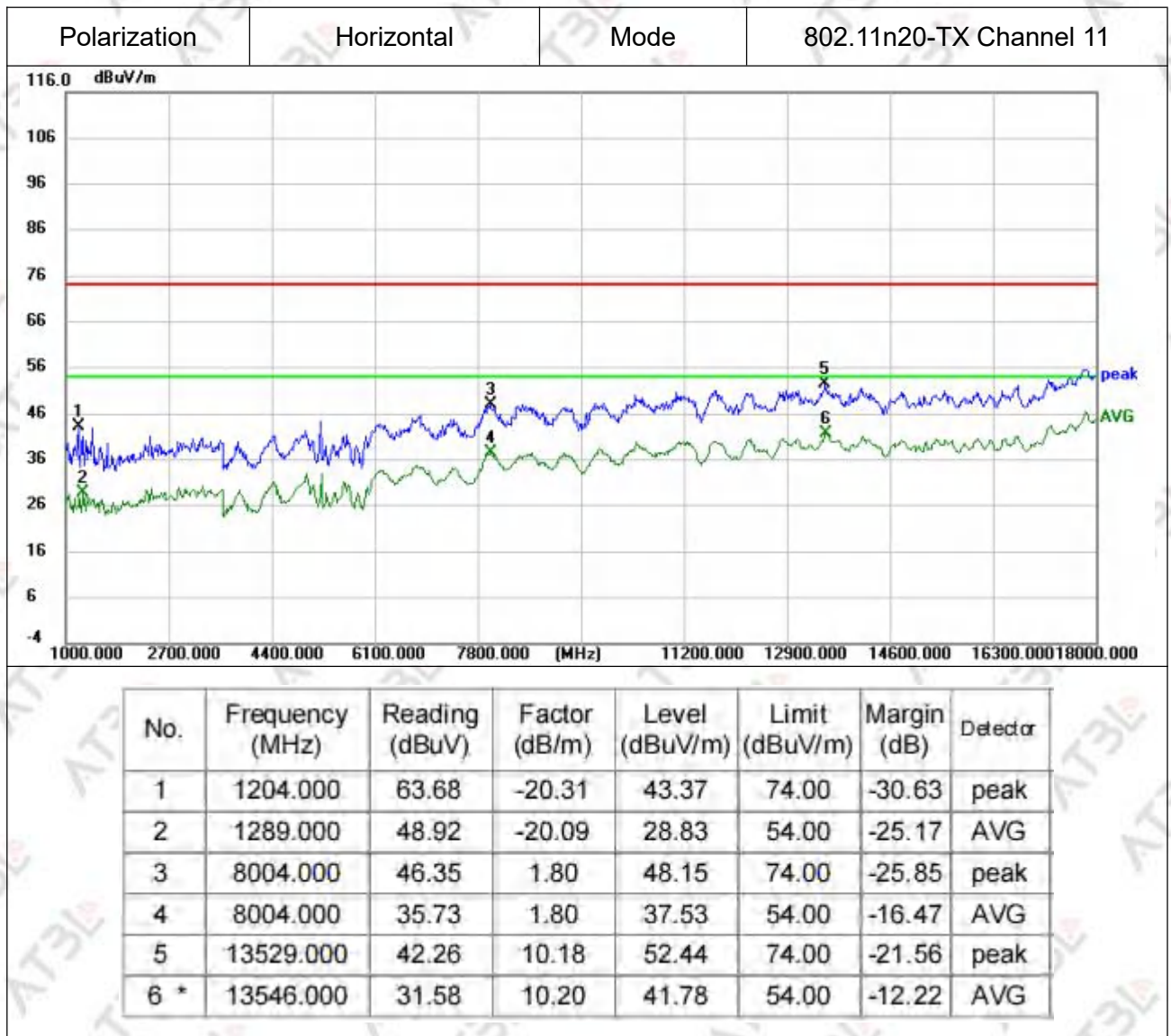
- 1.All modes have been tested, only worst (802.11n20)mode was recorded in the test report.
- 2.In frequency ranges 18 ~25GHz no any other harmonic emissions detected which are tested to compliance with the limit. No recording in the test report. No any other emissions level which are attenuated less than 20dB below the limit. No recording in the test report.
- 3.We used the filter to test and the main frequency was filtered out.
- 4.Emission Level (dBuV/m) = Reading Value (dBuV) + Correction Factor (dB/m).
5. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)-Amplifier Gain.
6. Margin value = Emission level-Limit value.

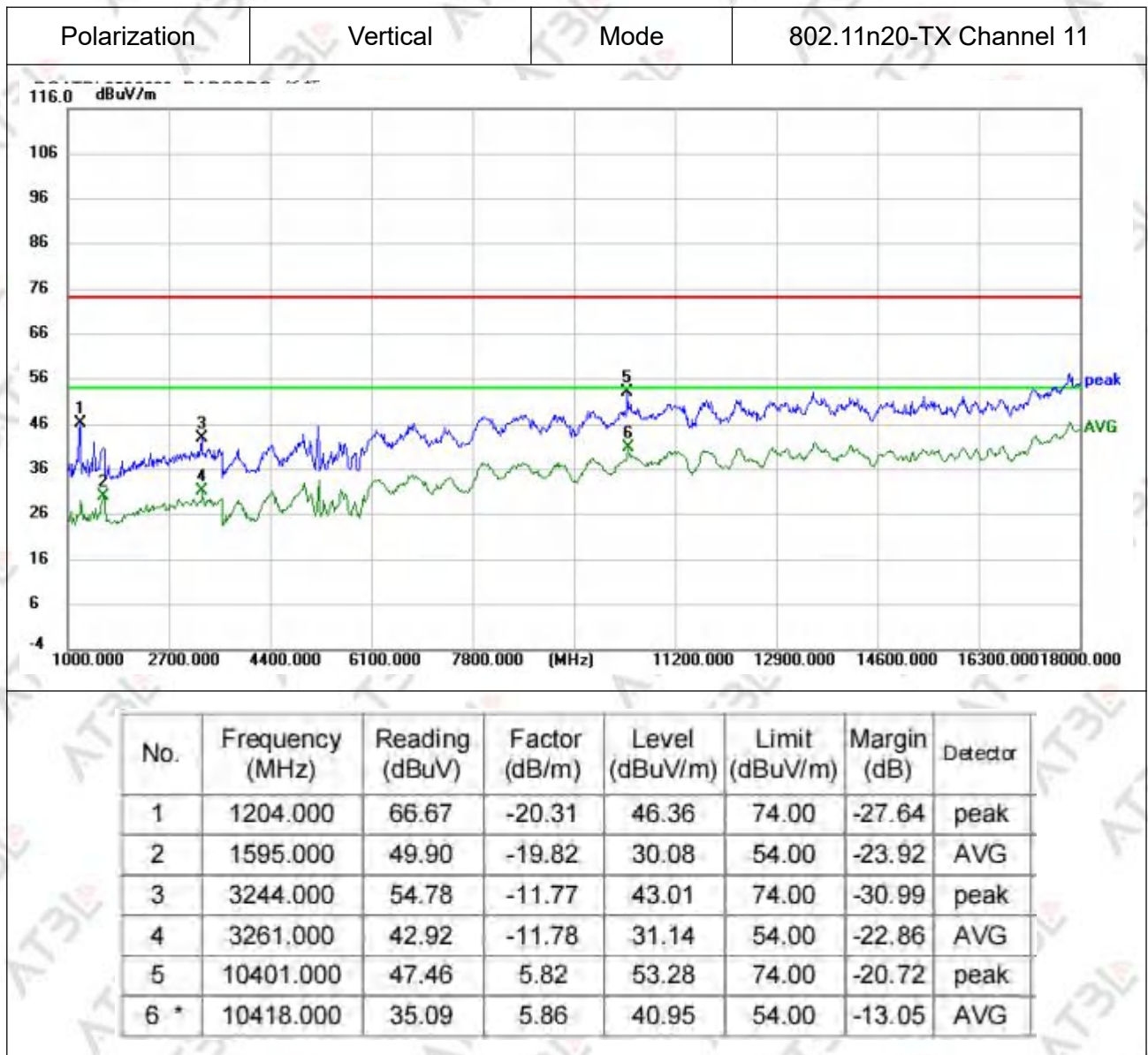




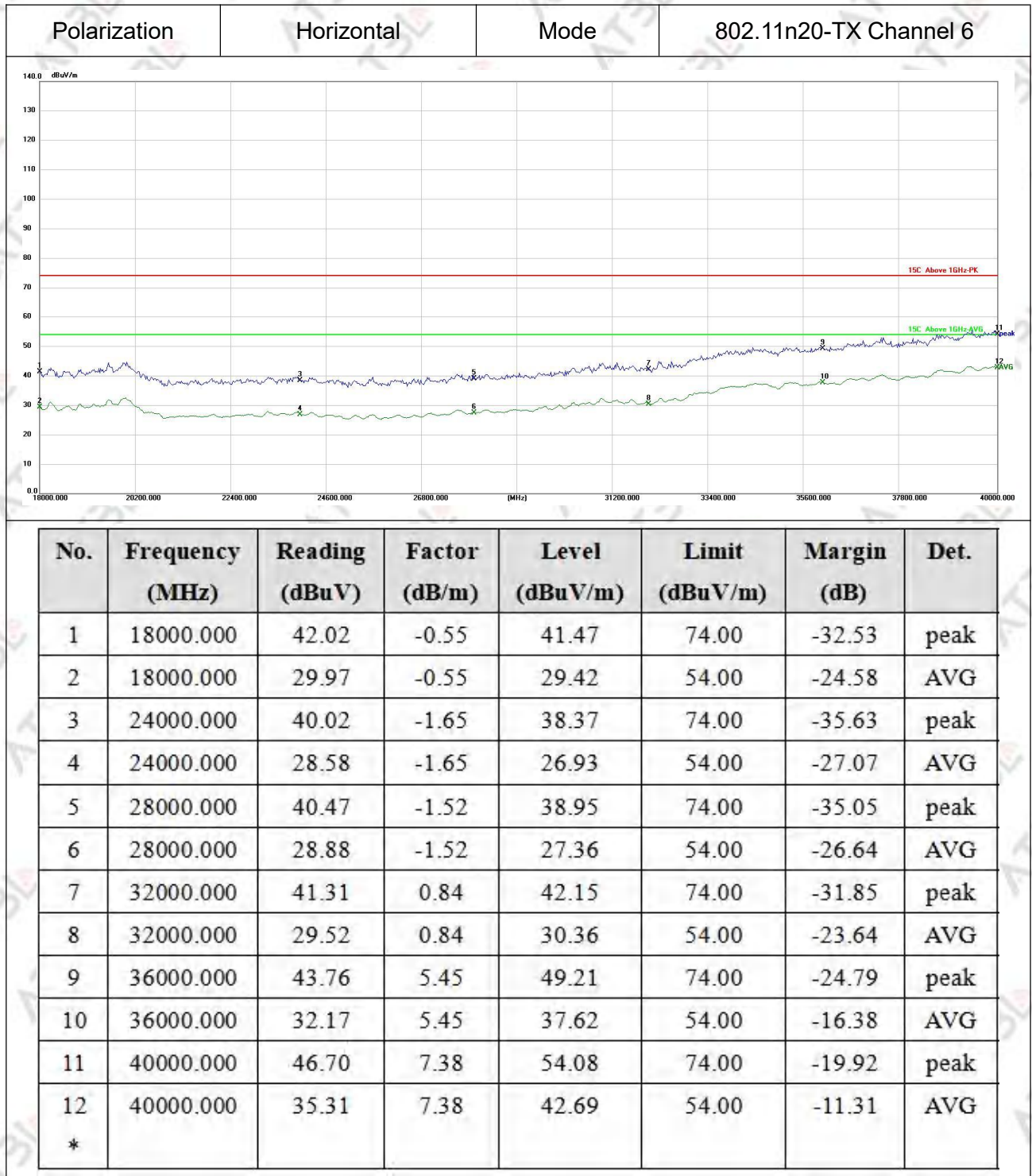


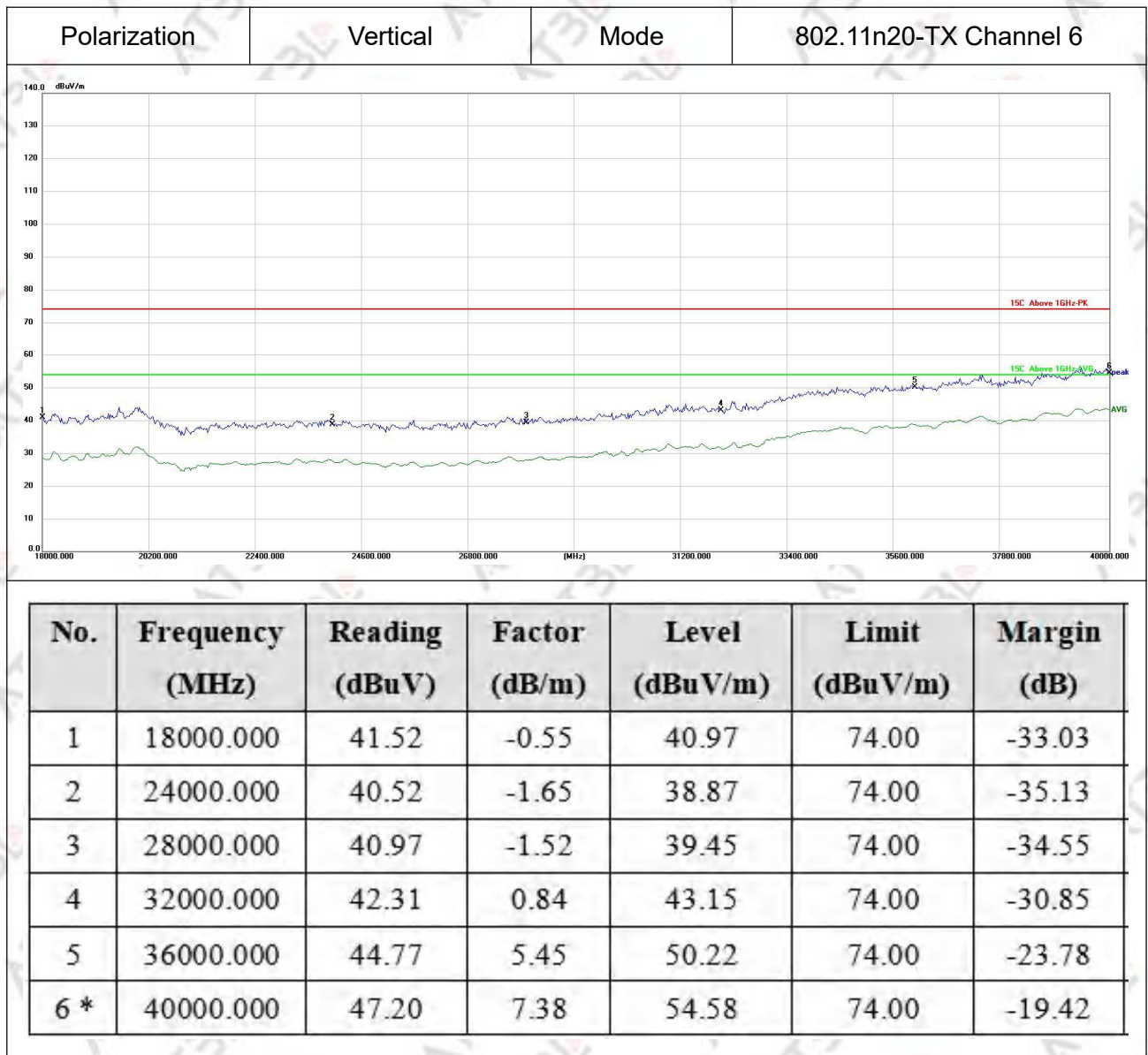






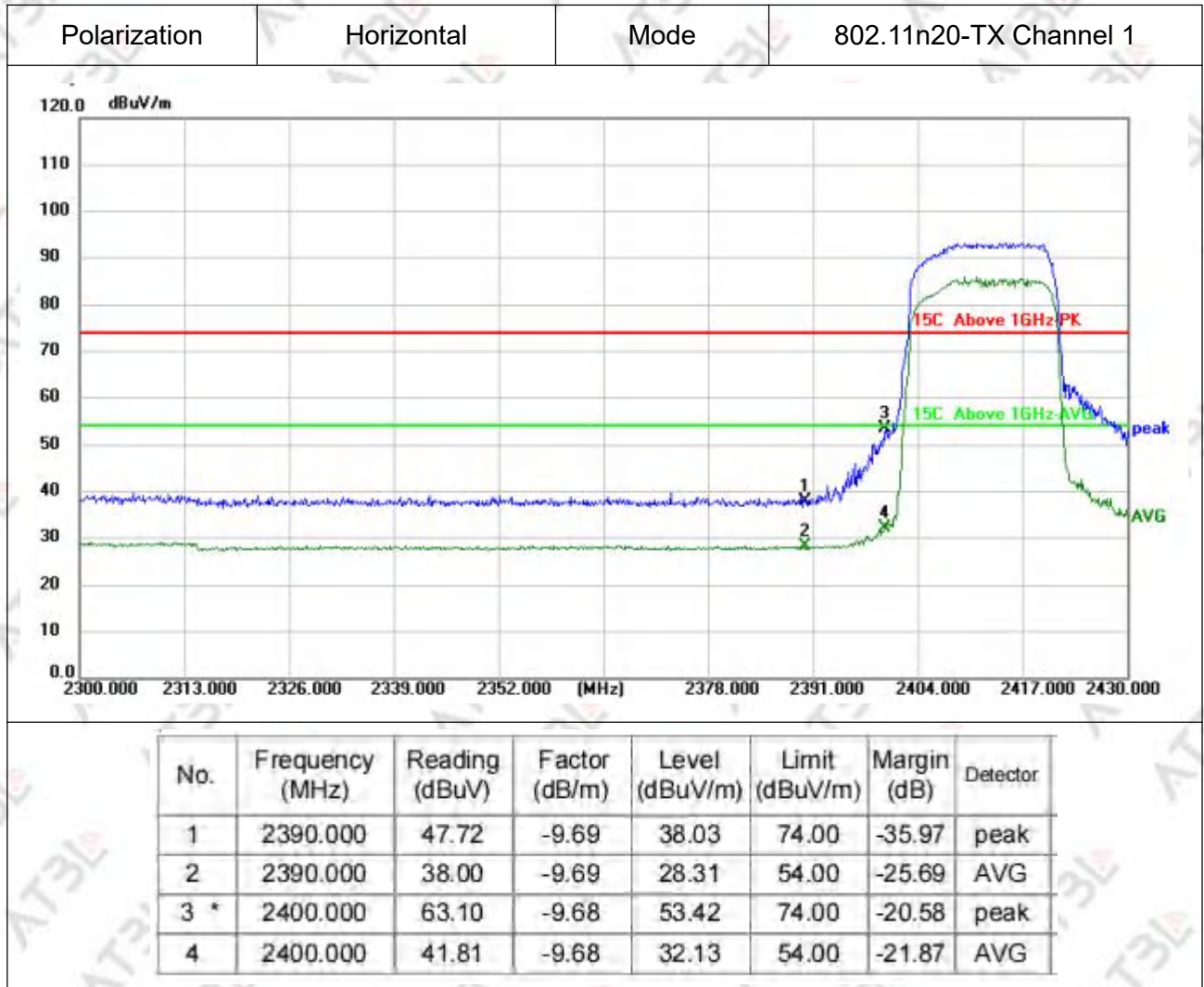
Note:All modes have been tested, only worst (802.11n20-TX Channel 6)mode was recorded in the test report.

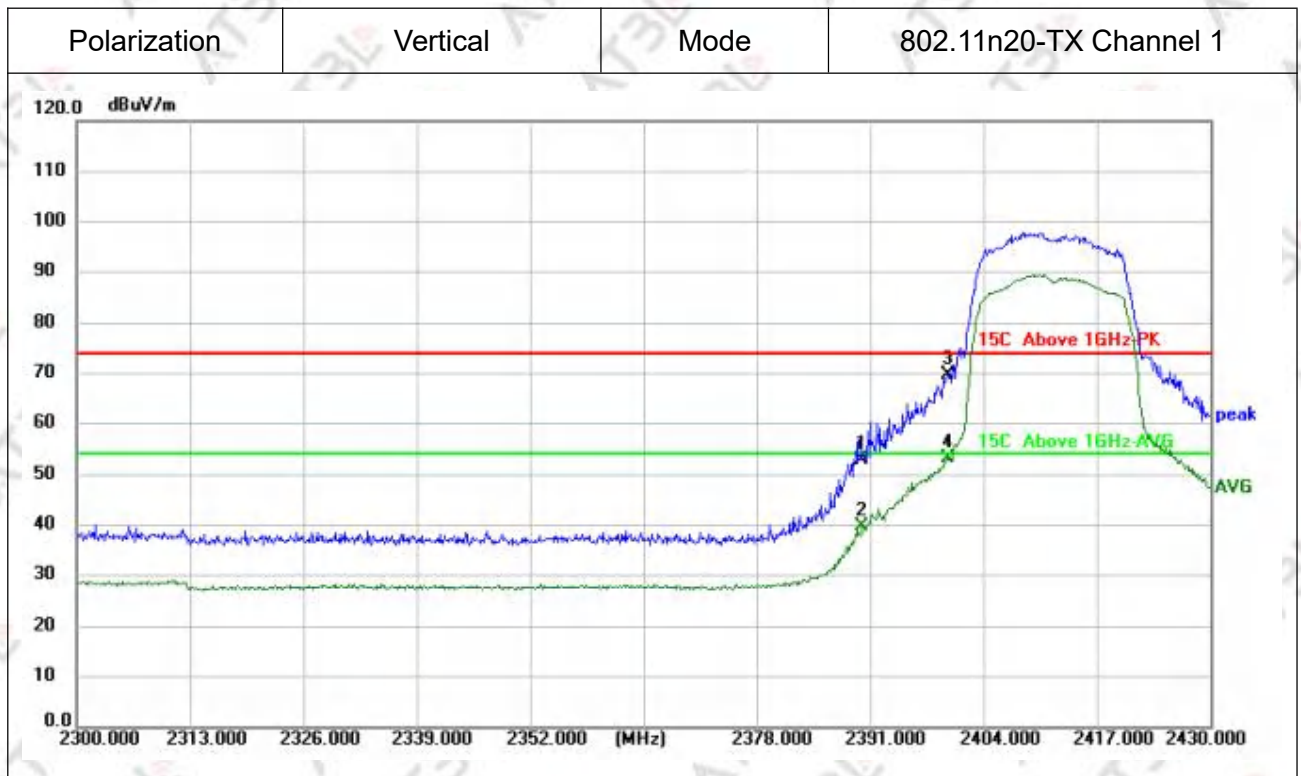




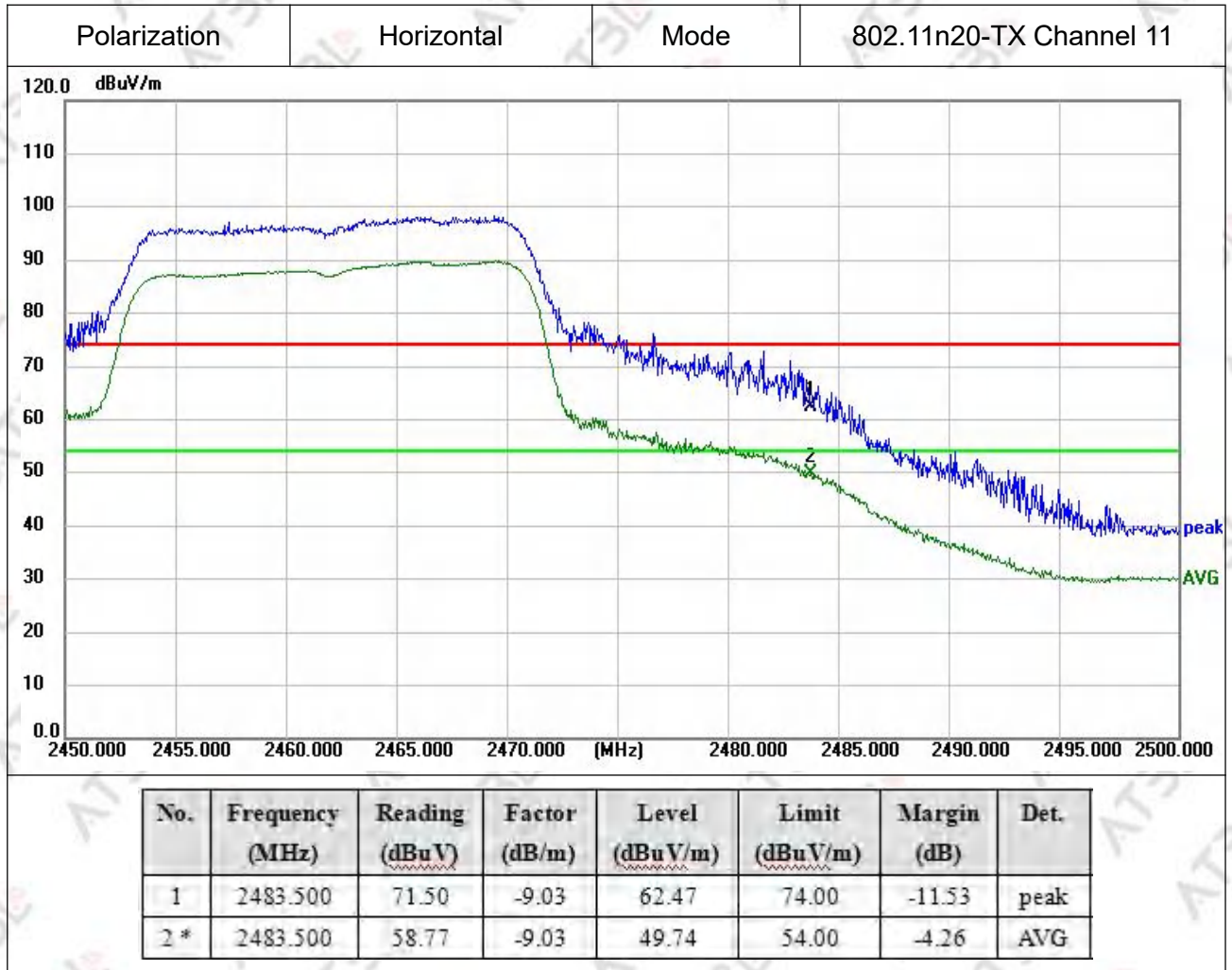
Test Result of Restricted Band

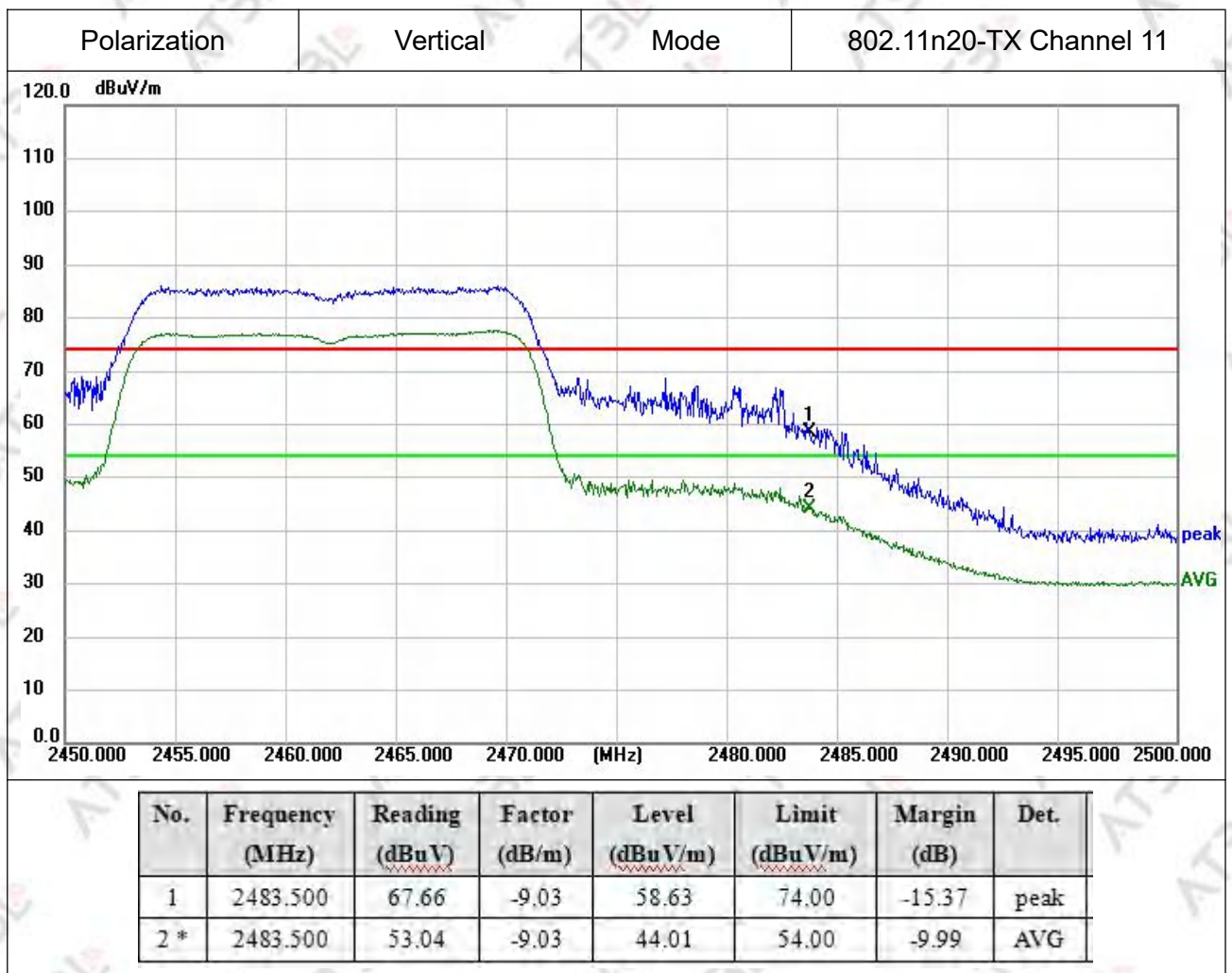
Note:All modes have been tested, only worst (802.11n20)mode was recorded in the test report.





No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	62.73	-9.69	53.04	74.00	-20.96	peak
2	2390.000	49.55	-9.69	39.86	54.00	-14.14	AVG
3	2400.000	79.54	-9.68	69.86	74.00	-4.14	peak
4 *	2400.000	63.01	-9.68	53.33	54.00	-0.67	AVG

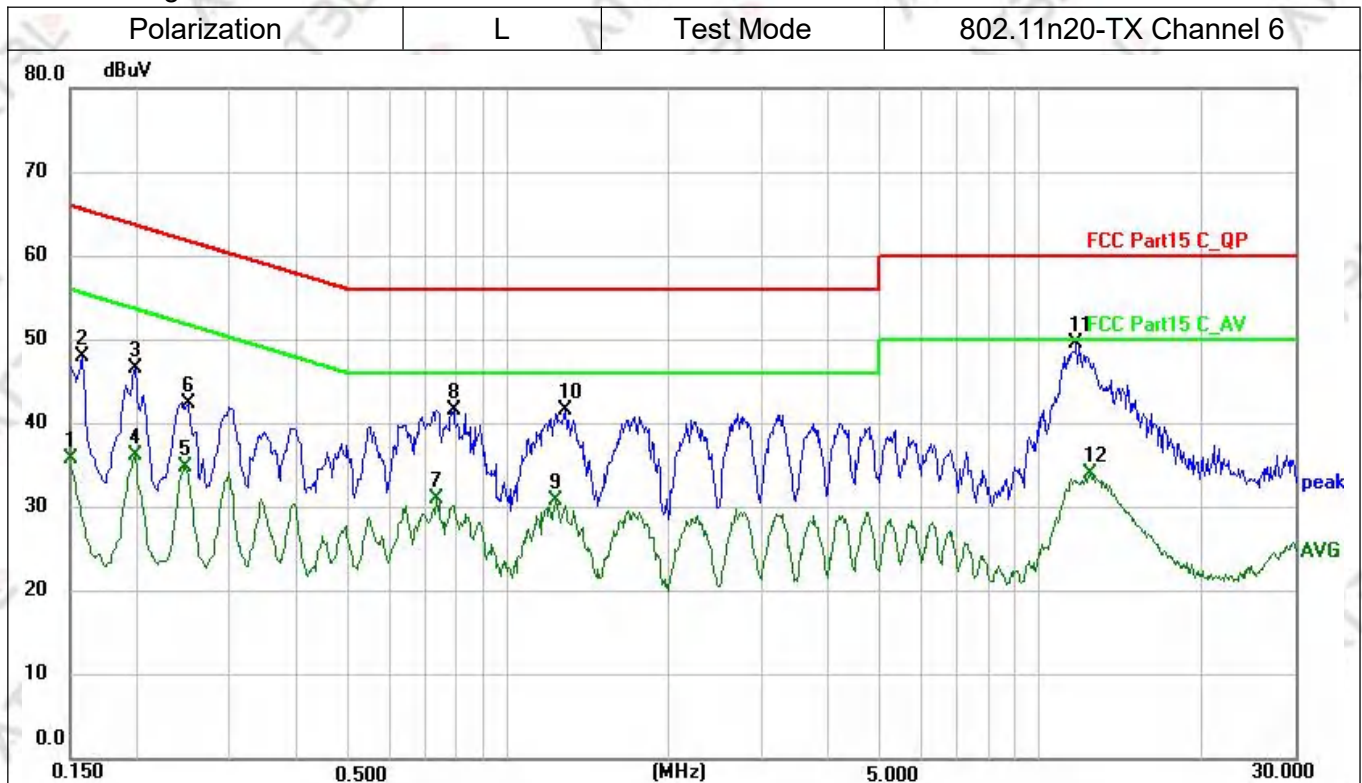




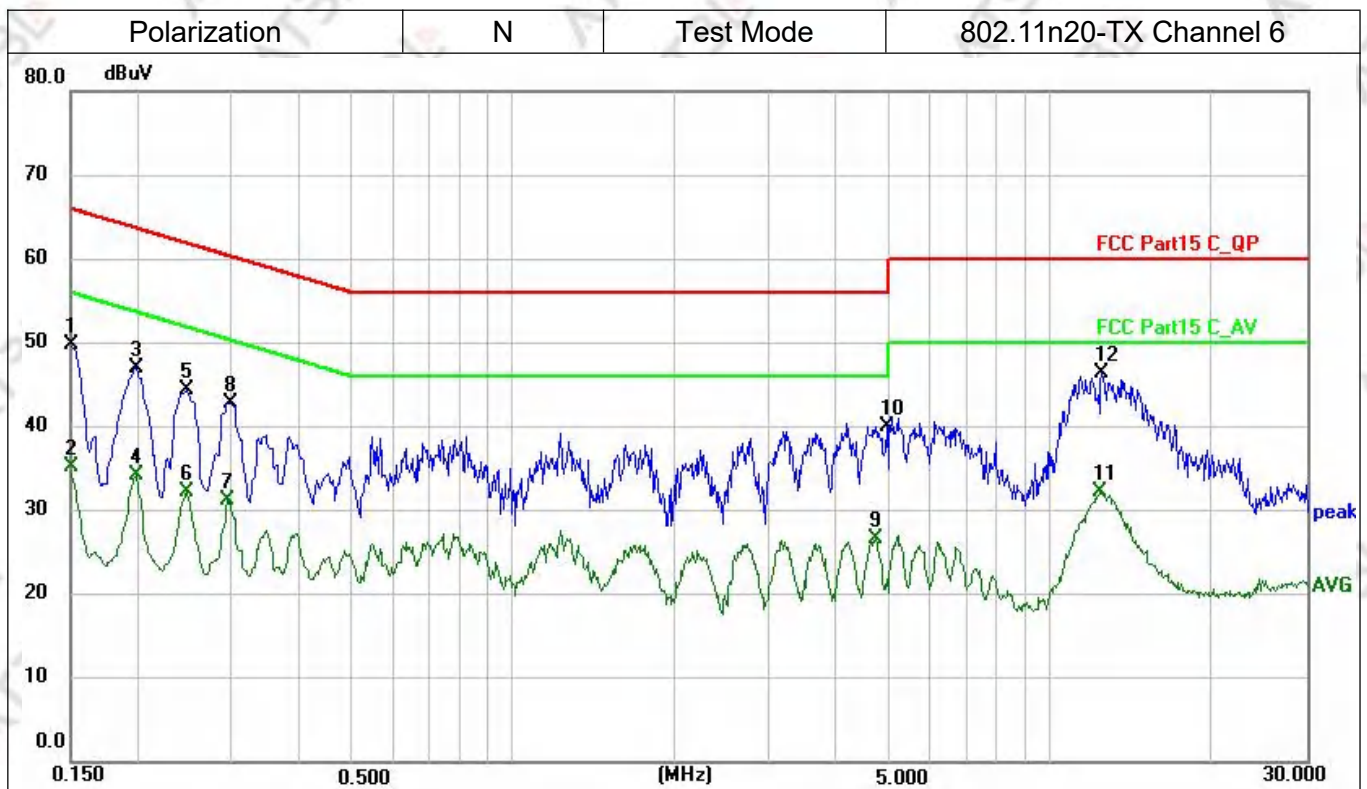
C6.AC Power-Line Conducted Emission

Note:

- 1.All modes have been tested, only worst mode(802.11n20-TX Channel 6) was recorded in the test report.
- 2.Emission Level = Reading Value + Correction Factor .
3. Correction Factor = Insertion loss + Cable loss.
4. The emission levels of other frequencies were less than 20dB margin against the limit.
5. Margin value = Emission level-Limit value.



No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1500	16.11	19.75	35.86	56.00	-20.14	AVG
2	0.1580	28.09	19.80	47.89	65.57	-17.68	peak
3	0.1980	26.50	20.01	46.51	63.69	-17.18	peak
4	0.1980	16.11	20.01	36.12	53.69	-17.57	AVG
5	0.2460	14.96	19.94	34.90	51.89	-16.99	AVG
6	0.2500	22.46	19.94	42.40	61.76	-19.36	peak
7	0.7340	11.27	19.75	31.02	46.00	-14.98	AVG
8	0.7900	21.83	19.75	41.58	56.00	-14.42	peak
9	1.2260	11.08	19.83	30.91	46.00	-15.09	AVG
10	1.2820	21.78	19.84	41.62	56.00	-14.38	peak
11 *	11.6340	28.61	21.05	49.66	60.00	-10.34	peak
12	12.4340	12.82	21.17	33.99	50.00	-16.01	AVG



No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure- ment(dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1500	30.00	19.75	49.75	66.00	-16.25	peak
2	0.1500	15.38	19.75	35.13	56.00	-20.87	AVG
3	0.1980	27.33	19.72	47.05	63.69	-16.64	peak
4	0.1980	14.45	19.72	34.17	53.69	-19.52	AVG
5	0.2460	24.57	19.74	44.31	61.89	-17.58	peak
6	0.2460	12.46	19.74	32.20	51.89	-19.69	AVG
7	0.2940	11.44	19.79	31.23	50.41	-19.18	AVG
8	0.2980	22.98	19.79	42.77	60.30	-17.53	peak
9	4.7340	6.21	20.36	26.57	46.00	-19.43	AVG
10	4.9780	19.70	20.39	40.09	56.00	-15.91	peak
11	12.3979	10.95	21.30	32.25	50.00	-17.75	AVG
12 *	12.4660	25.06	21.32	46.38	60.00	-13.62	peak

*****END*****