

Appendix C of data

C1.Maximum Peak conducted output power

Test Result

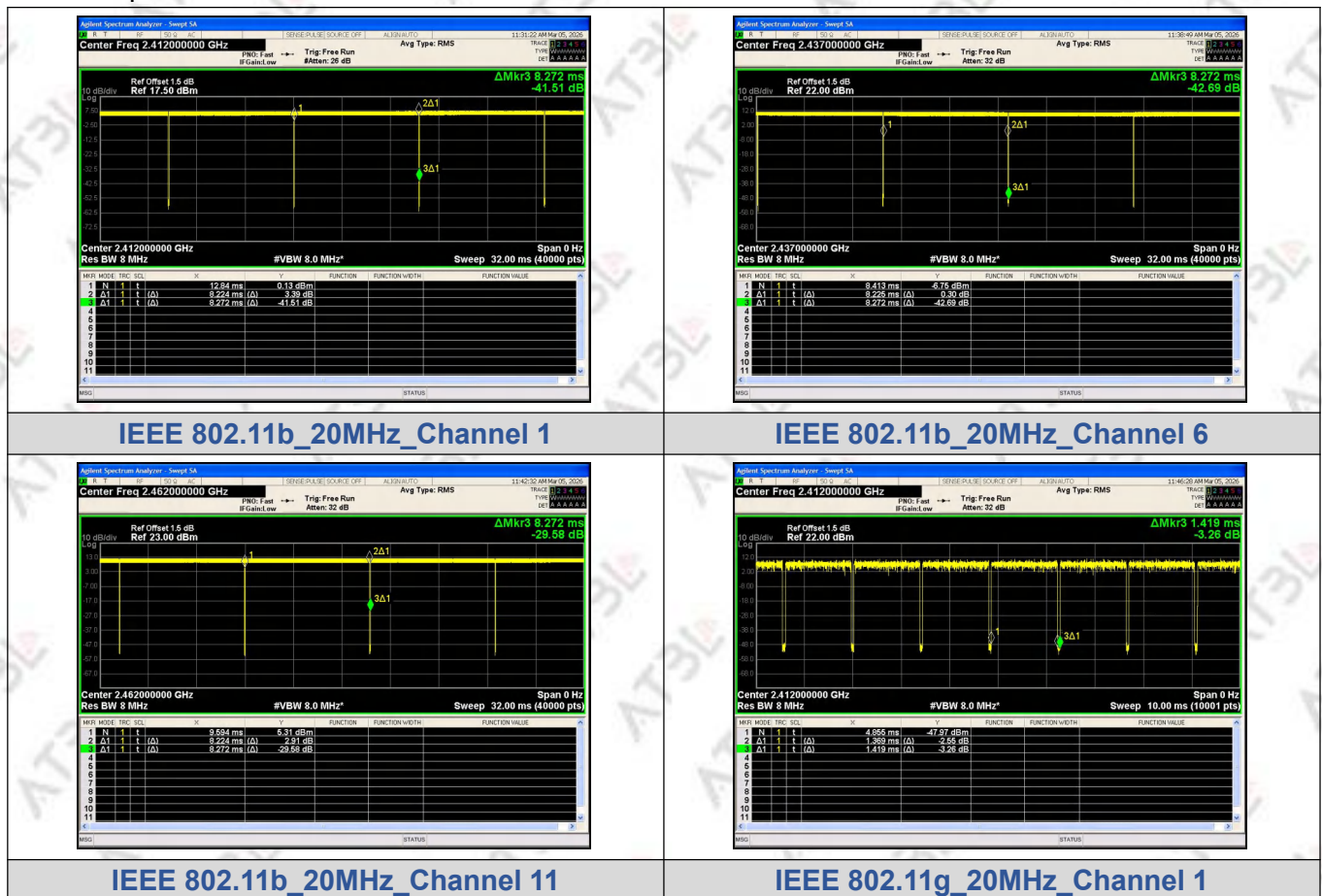
Mode	Channel	Ant. 0 (dBm)	Limit (dBm)	Result
IEEE 802.11b	1	14.1	≤30	PASS
	6	13.94	≤30	PASS
	11	14.88	≤30	PASS
IEEE 802.11g	1	13.99	≤30	PASS
	6	13.85	≤30	PASS
	11	14.88	≤30	PASS
IEEE 802.11n_20	1	14.33	≤30	PASS
	6	14.35	≤30	PASS
	11	15.12	≤30	PASS
IEEE 802.11n_40	3	15.68	≤30	PASS
	6	15.34	≤30	PASS
	9	15.53	≤30	PASS

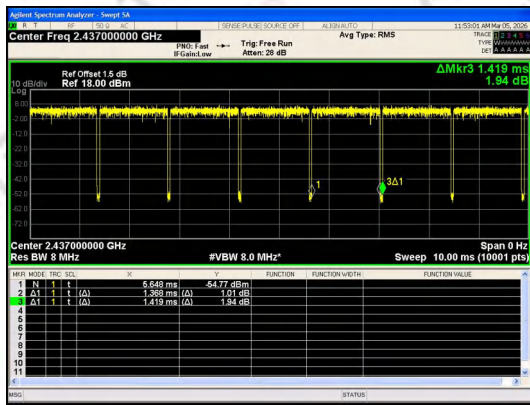
C2.Duty Cycle

Test Result

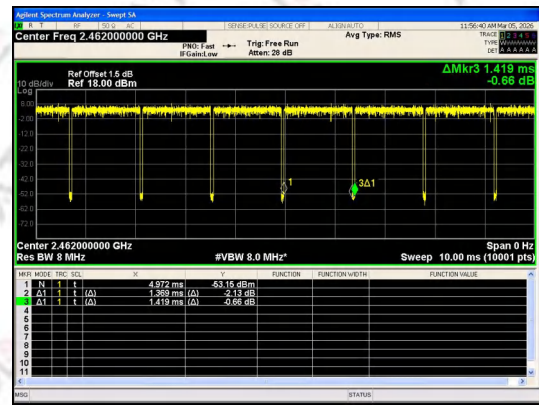
Mode	Data rates	Channel	Antenna	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)
IEEE 802.11b	1	1	0	8.224	8.272	99.42	0.9942	0.0253
		6		8.225	8.272	99.43	0.9943	0.0248
		11		8.224	8.272	99.42	0.9942	0.0253
IEEE 802.11g	6	1		1.369	1.419	96.48	0.9648	0.1556
		6		1.368	1.419	96.41	0.9641	0.1588
		11		1.369	1.419	96.48	0.9648	0.1556
IEEE 802.11n_20	MCS 0	1		1.155	1.206	95.74	0.9574	0.1891
		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	0.631	91.61	0.9161	0.3806
		6		0.578	0.631	91.61	0.9161	0.3806
		9		0.578	0.631	91.68	0.9168	0.3773

Test Graphs

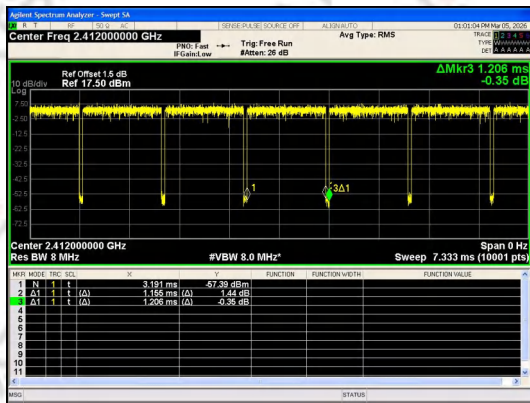




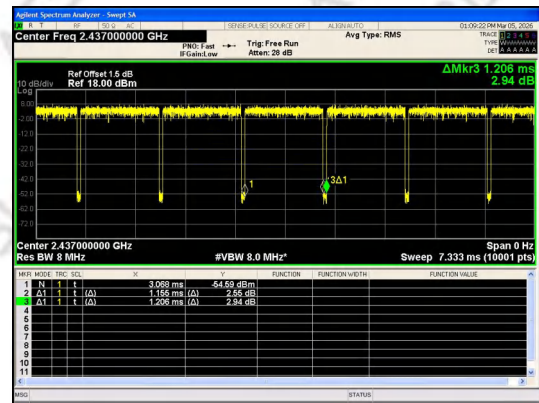
IEEE 802.11g_20MHz_Channel 6



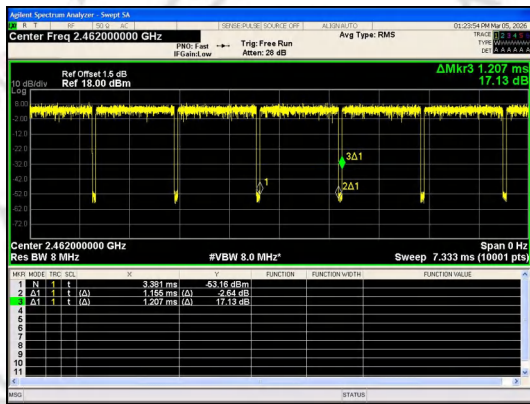
IEEE 802.11g_20MHz_Channel 11



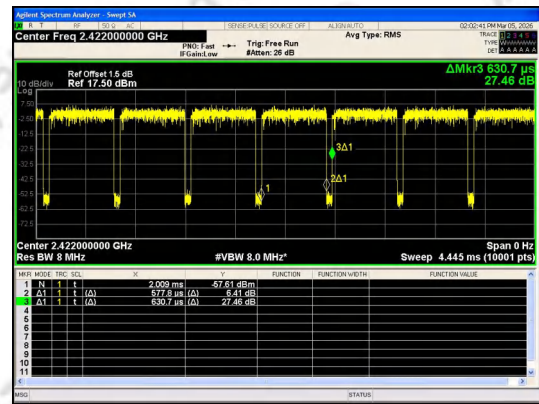
IEEE 802.11n_20MHz_Channel 1



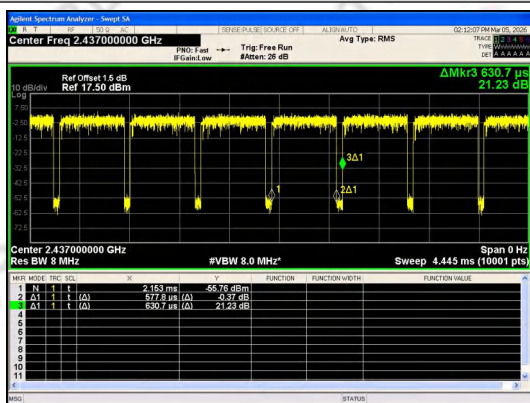
IEEE 802.11n_20MHz_Channel 6



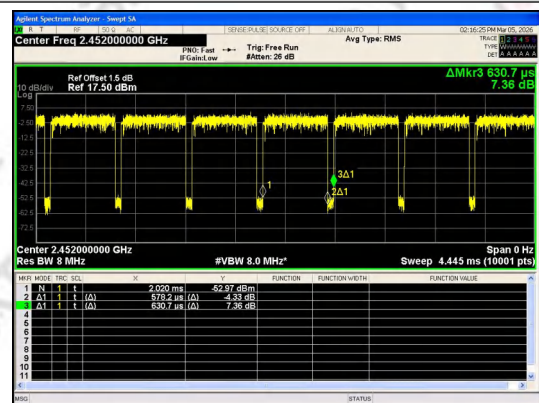
IEEE 802.11n_20MHz_Channel 11



IEEE 802.11n_40MHz_Channel 3



IEEE 802.11n_40MHz_Channel 6



IEEE 802.11n_40MHz_Channel 9

C3.6dB Bandwidth

Test Result

Mode	Channel	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b	1	0	2412	9.140	≥0.5	PASS
	6		2437	9.160		PASS
	11		2462	9.150		PASS
IEEE 802.11g	1		2412	30.00		PASS
	6		2437	16.30		PASS
	11		2462	23.16		PASS
IEEE 802.11n_20	1		2412	17.38		PASS
	6		2437	17.25		PASS
	11		2462	17.18		PASS
IEEE 802.11n_40	3		2422	48.03		PASS
	6		2437	35.49		PASS
	9		2452	35.75		PASS

Test Graphs



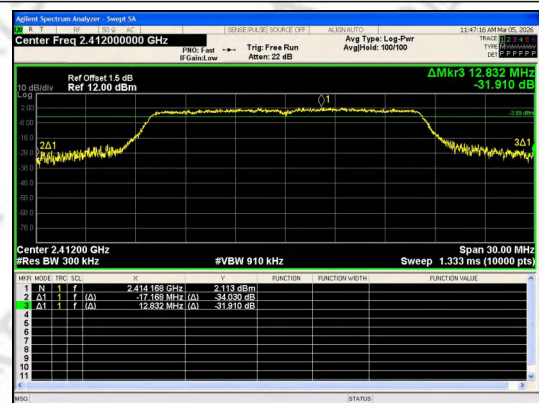
IEEE 802.11b_Channel 1_20MHz_Antenna 0



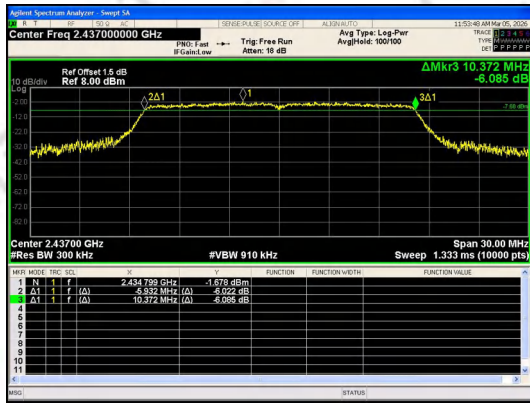
IEEE 802.11b_Channel 6_20MHz_Antenna 0



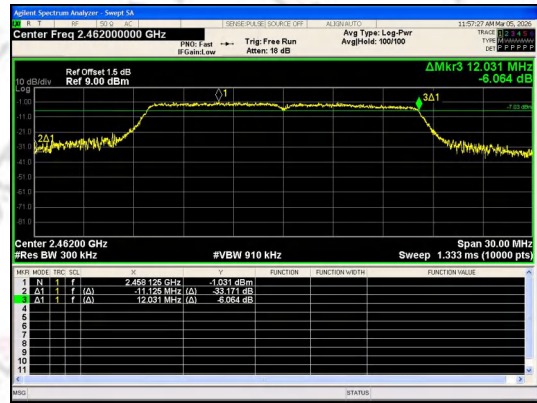
IEEE 802.11b_Channel 11_20MHz_Antenna 0



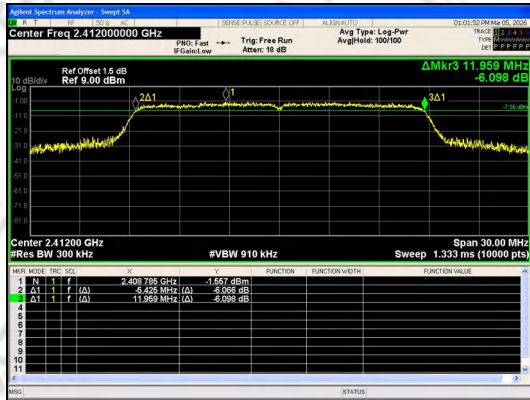
IEEE 802.11g_Channel 1_20MHz_Antenna 0



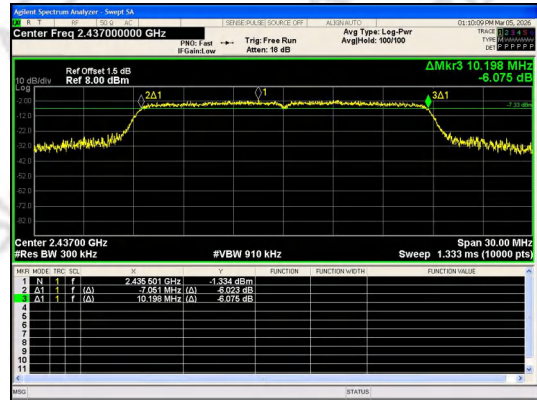
IEEE 802.11g_Channel 6_20MHz_Antenna 0



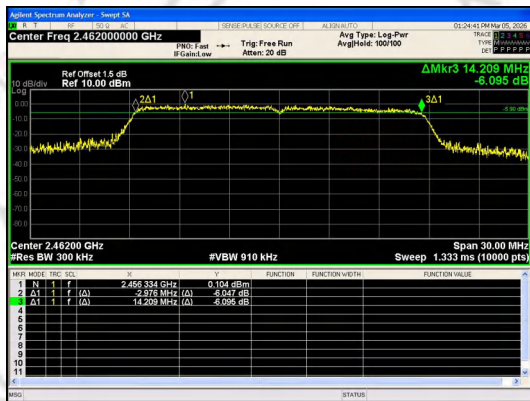
IEEE 802.11g_Channel 11_20MHz_Antenna 0



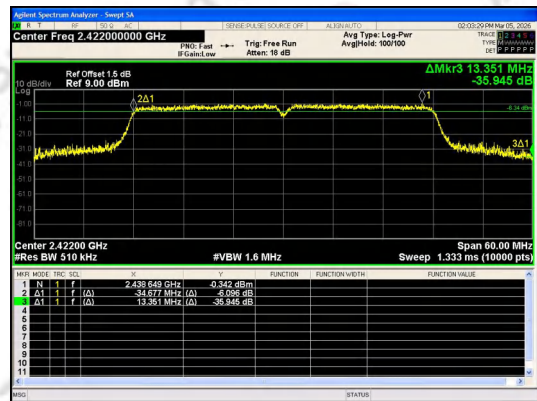
IEEE 802.11n_Channel 1_20MHz_Antenna 0



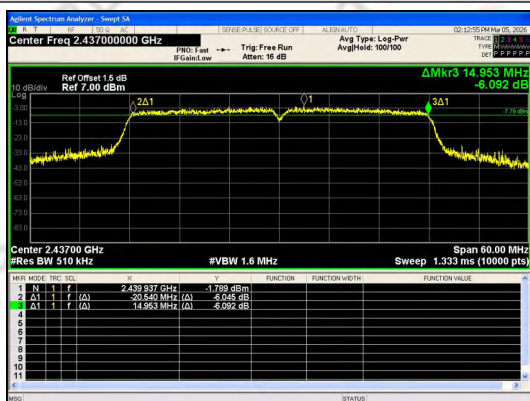
IEEE 802.11n_Channel 6_20MHz_Antenna 0



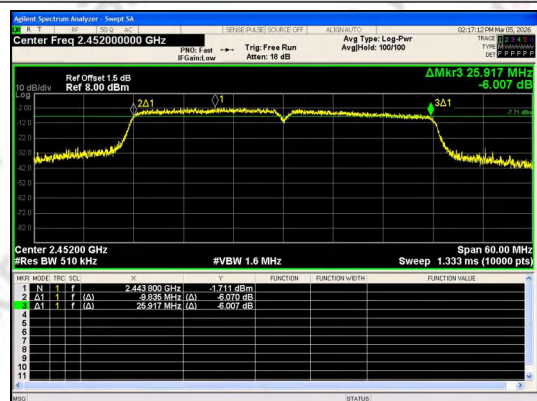
IEEE 802.11n_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 3_40MHz_Antenna 0



IEEE 802.11n_Channel 6_40MHz_Antenna 0



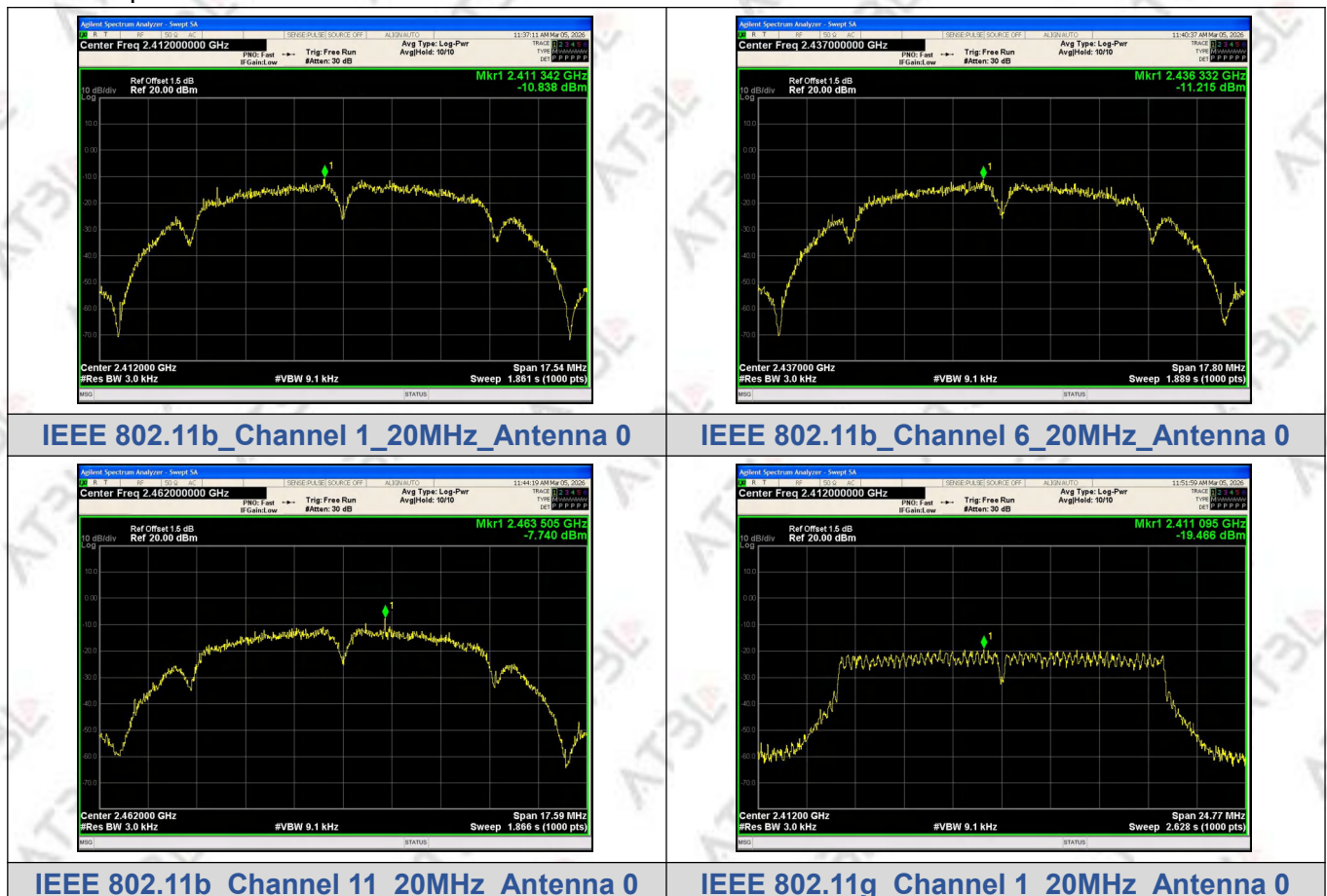
IEEE 802.11n_Channel 9_40MHz_Antenna 0

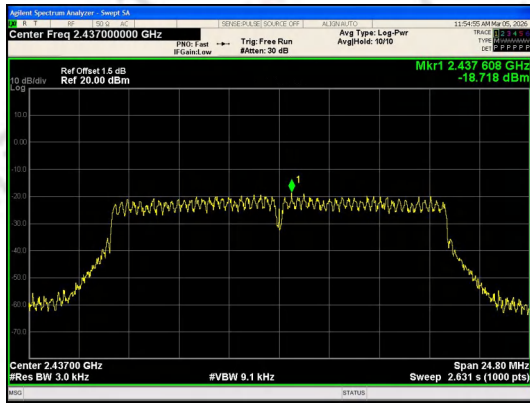
C4.Power Spectral Density

Test Result

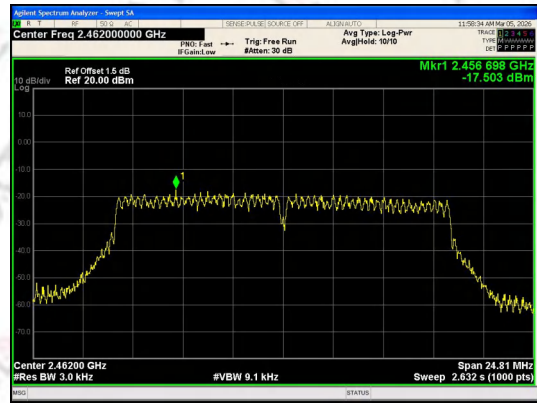
Mode	Channel	PSD (dBm/3kHz) Ant. 0	Limit (dBm/3kHz)	Result
IEEE 802.11b	1	-10.840	≤8	PASS
	6	-11.210		PASS
	11	-7.740		PASS
IEEE 802.11g	1	-19.470		PASS
	6	-18.720		PASS
	11	-17.500		PASS
IEEE 802.11n_20	1	-18.760		PASS
	6	-19.130		PASS
	11	-17.200		PASS
IEEE 802.11n_40	3	-22.000		PASS
	6	-22.930		PASS
	9	-21.840		PASS

Test Graphs

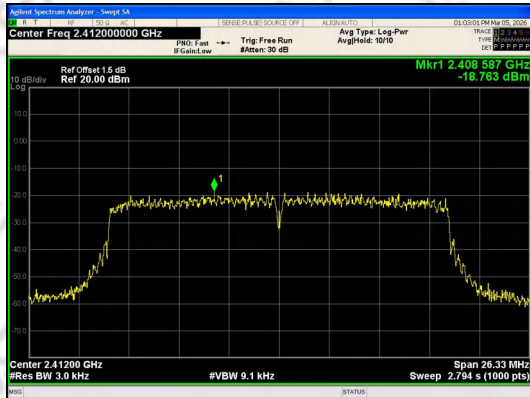




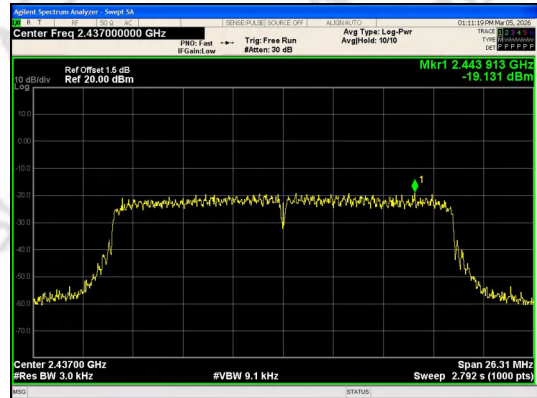
IEEE 802.11g_Channel 6_20MHz_Antenna 0



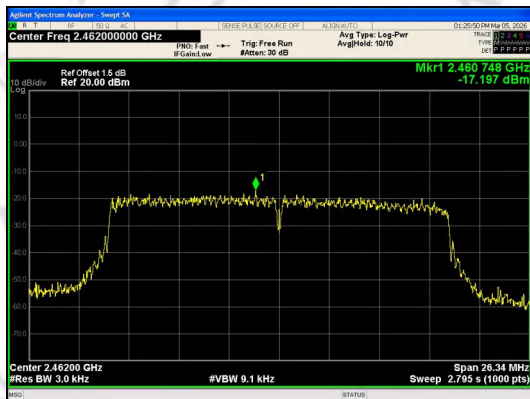
IEEE 802.11g_Channel 11_20MHz_Antenna 0



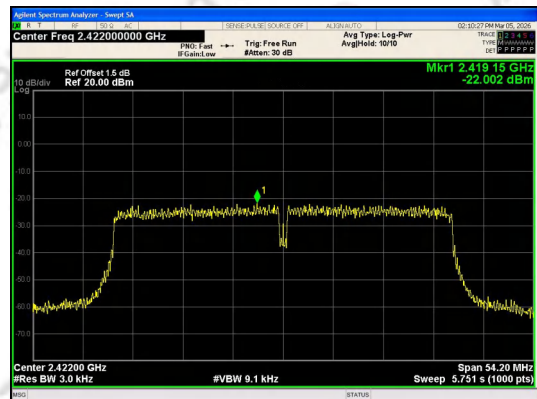
IEEE 802.11n_Channel 1_20MHz_Antenna 0



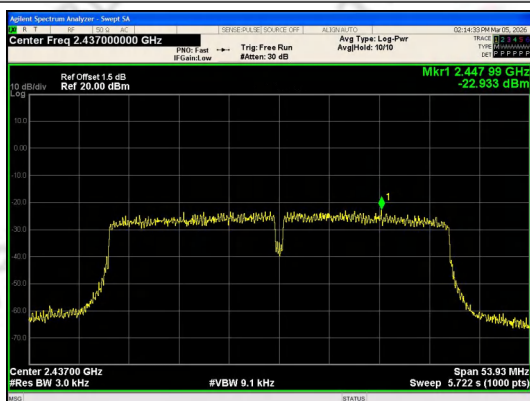
IEEE 802.11n_Channel 6_20MHz_Antenna 0



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

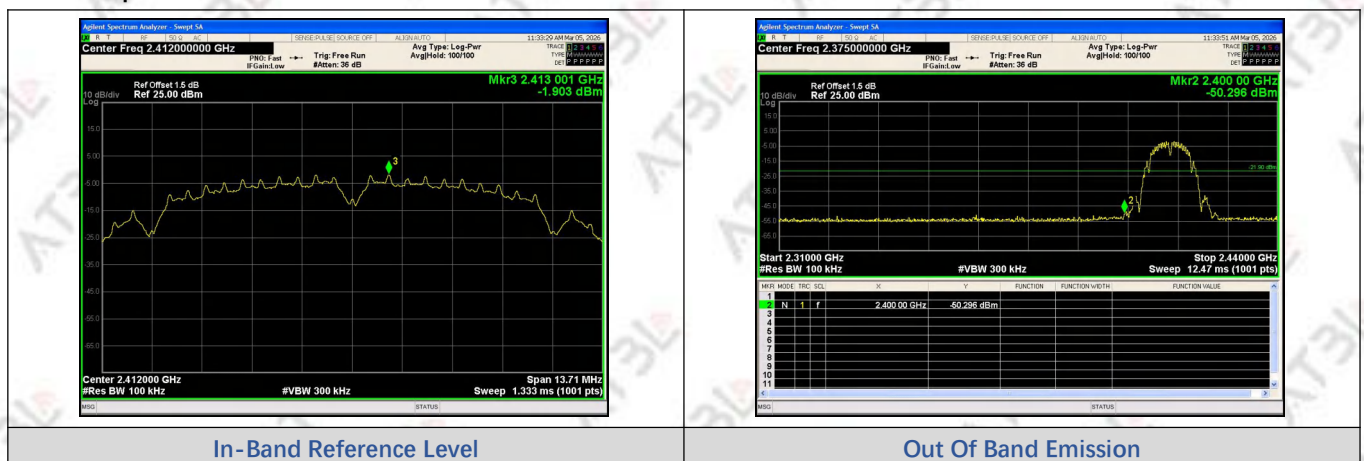
Mode	Channel	Ant.	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Cable Loss (dB)	Limit (dBm)	Over Limit (dB)	Result	
IEEE 802.11b	1	0	2400.00	-50.296	N/A	-21.9	-28.396	PASS	
			24716.0	-40.871	1.36	-21.9	-18.971	PASS	
	6		24914.5	-40.832	1.36	-17.46	-23.372	PASS	
	11		2483.50	-50.297	N/A	-16.43	-33.867	PASS	
			24789.0	-40.199	1.36	-16.43	-23.769	PASS	
IEEE 802.11g	1		2398.92	-33.676	N/A	-20.23	-13.446	PASS	
			2400.00	-33.879	N/A	-20.23	-13.649	PASS	
	6		24931.3	-41.688	1.36	-20.23	-21.458	PASS	
			11	24835.2	-40.739	1.36	-24.35	-16.389	PASS
				2483.50	-46.58	N/A	-23.55	-23.03	PASS
IEEE 802.11n_20	1		24878.9	-41.347	1.36	-23.55	-17.797	PASS	
			2397.62	-33.491	N/A	-24.27	-9.221	PASS	
	6		2400.00	-35.367	N/A	-24.27	-11.097	PASS	
			11	24925.7	-40.65	1.36	-24.27	-16.38	PASS
				24872.0	-41.198	1.36	-24.43	-16.768	PASS
IEEE 802.11n_40	3		2483.50	-46.87	N/A	-23.58	-23.29	PASS	
			24945.1	-41.548	1.36	-23.58	-17.968	PASS	
	6		2397.10	-37.958	N/A	-26.44	-11.518	PASS	
			9	2400.00	-39.167	N/A	-26.44	-12.727	PASS
				24991.9	-40.862	1.36	-26.44	-14.422	PASS
			24768.4	-40.672	1.36	-28.32	-12.352	PASS	
			2483.50	-48.589	N/A	-27.67	-20.919	PASS	
			24943.8	-40.643	1.36	-27.67	-12.973	PASS	

Note:

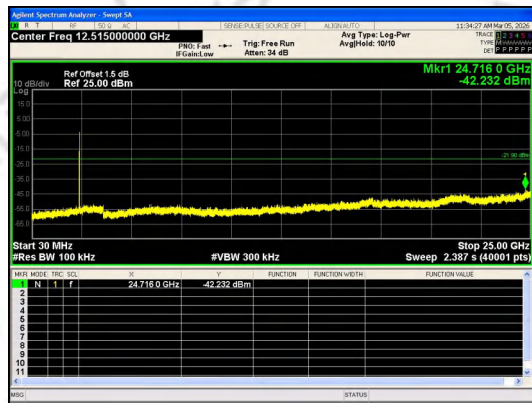
1. input compensation coefficient (dB) = Cable Loss (dB)

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

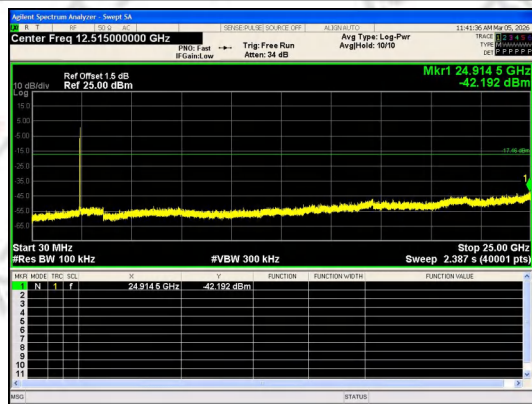


IEEE 802.11b_Channel 1_20MHz_Antenna 0



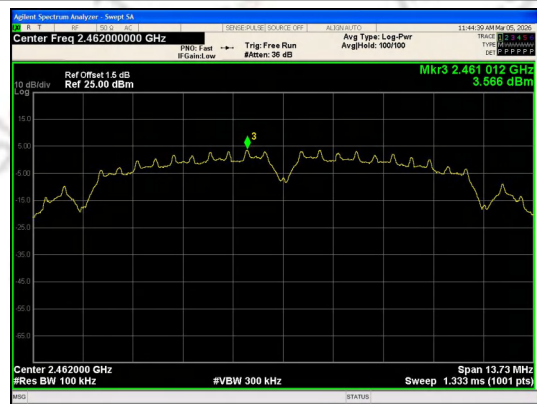
30.0 MHz - 25000.0 MHz

IEEE 802.11b_Channel 1_20MHz_Antenna 0



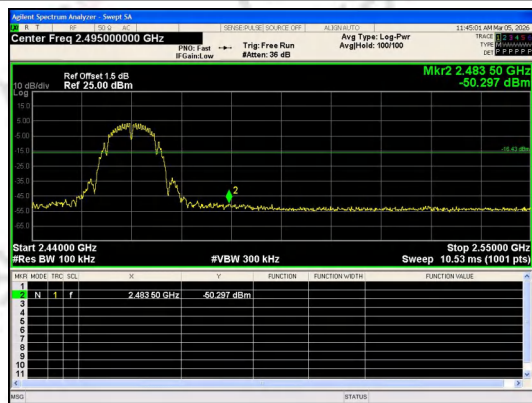
In-Band Reference Level

IEEE 802.11b_Channel 6_20MHz_Antenna 0



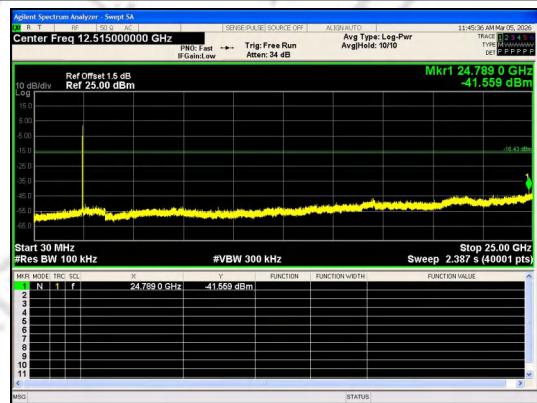
30.0 MHz - 25000.0 MHz

IEEE 802.11b_Channel 6_20MHz_Antenna 0



In-Band Reference Level

IEEE 802.11b_Channel 11_20MHz_Antenna 0

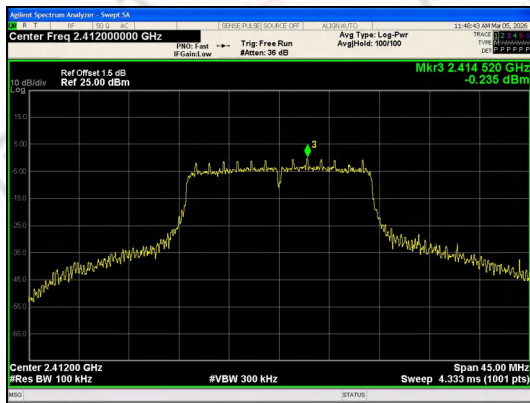


Out Of Band Emission

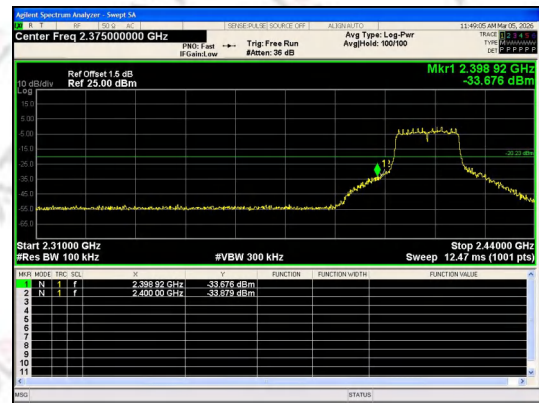
IEEE 802.11b_Channel 11_20MHz_Antenna 0

30.0 MHz - 25000.0 MHz

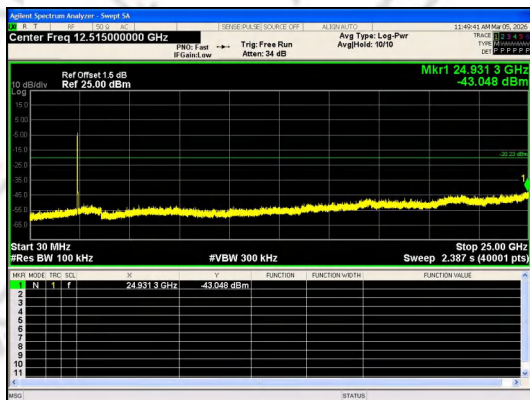
IEEE 802.11b_Channel 11_20MHz_Antenna 0



In-Band Reference Level
IEEE 802.11g_Channel 1_20MHz_Antenna 0



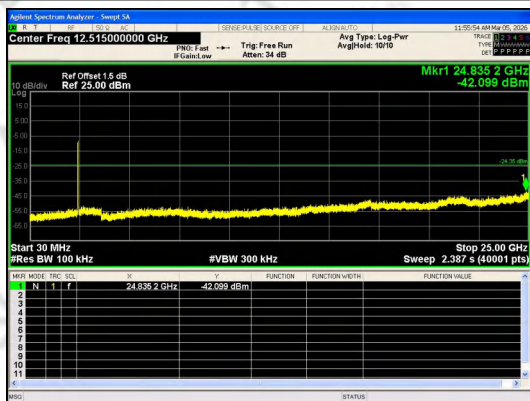
Out Of Band Emission
IEEE 802.11g_Channel 1_20MHz_Antenna 0



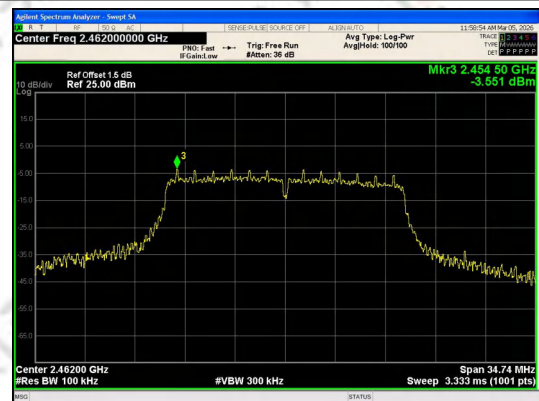
30.0 MHz - 25000.0 MHz
IEEE 802.11g_Channel 1_20MHz_Antenna 0



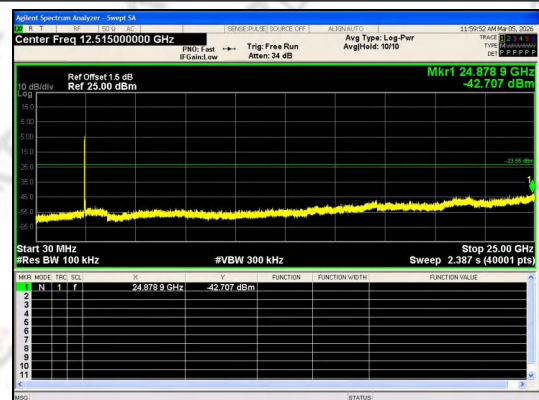
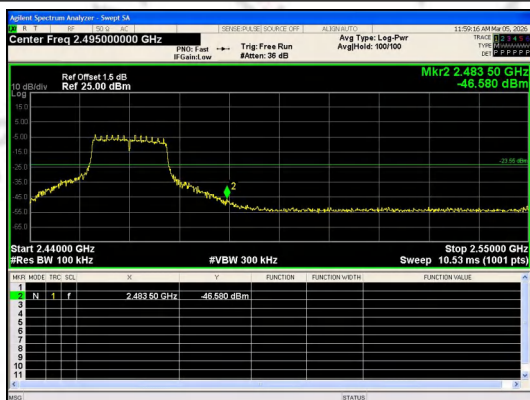
In-Band Reference Level
IEEE 802.11g_Channel 6_20MHz_Antenna 0



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



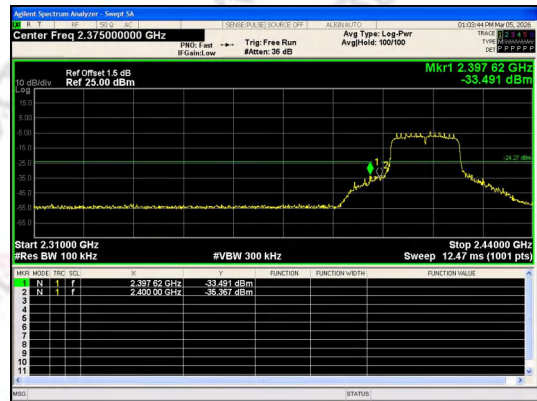
Out Of Band Emission

IEEE 802.11g_Channel 11_20MHz_Antenna 0



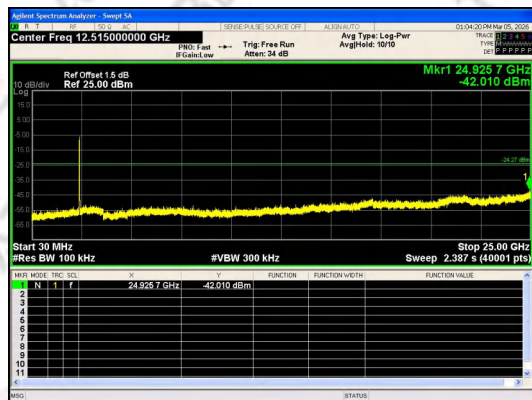
30.0 MHz - 25000.0 MHz

IEEE 802.11g_Channel 11_20MHz_Antenna 0



In-Band Reference Level

IEEE 802.11n_Channel 1_20MHz_Antenna 0



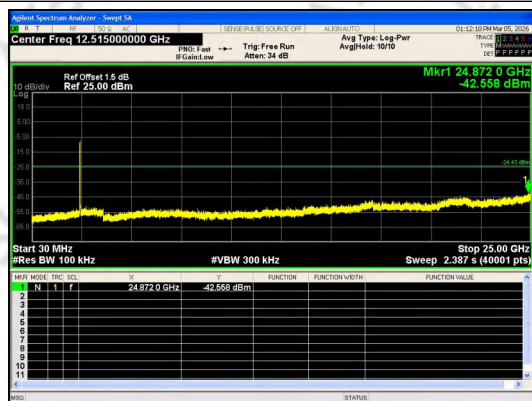
Out Of Band Emission

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

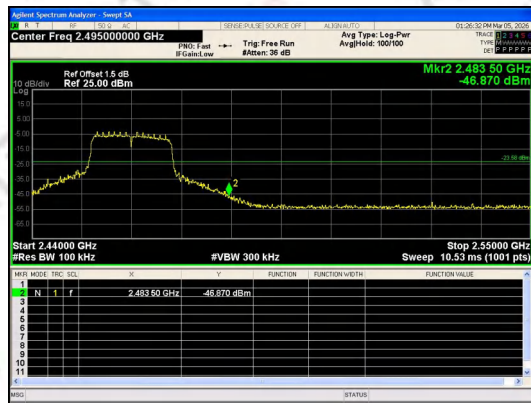
IEEE 802.11n_Channel 6_20MHz_Antenna 0



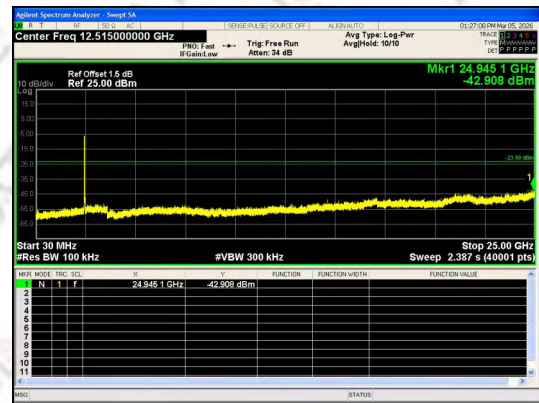
In-Band Reference Level

IEEE 802.11n_Channel 11_20MHz_Antenna 0

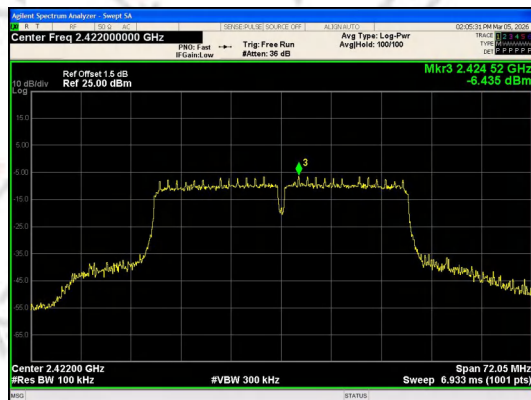




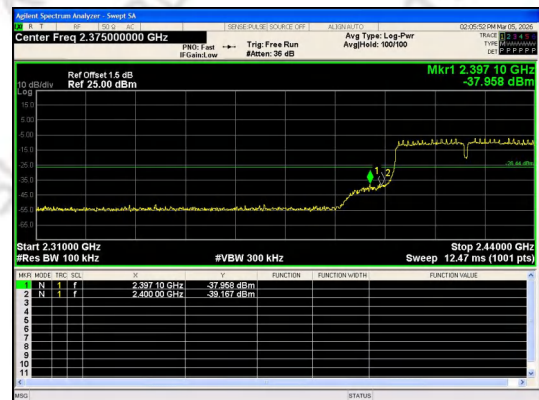
Out Of Band Emission
IEEE 802.11n_Channel 11_20MHz_Antenna 0



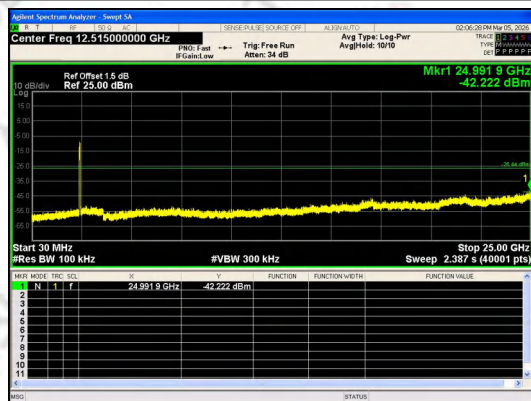
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 11_20MHz_Antenna 0



In-Band Reference Level
IEEE 802.11n_Channel 3_40MHz_Antenna 0



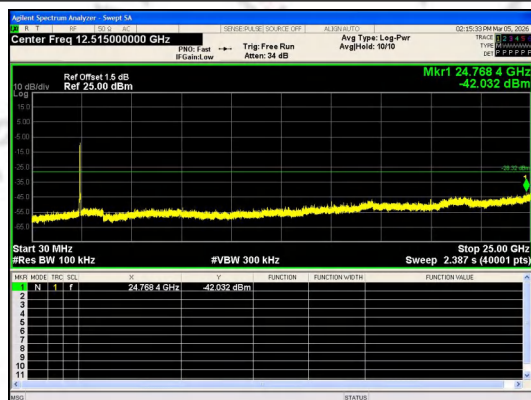
Out Of Band Emission
IEEE 802.11n_Channel 3_40MHz_Antenna 0

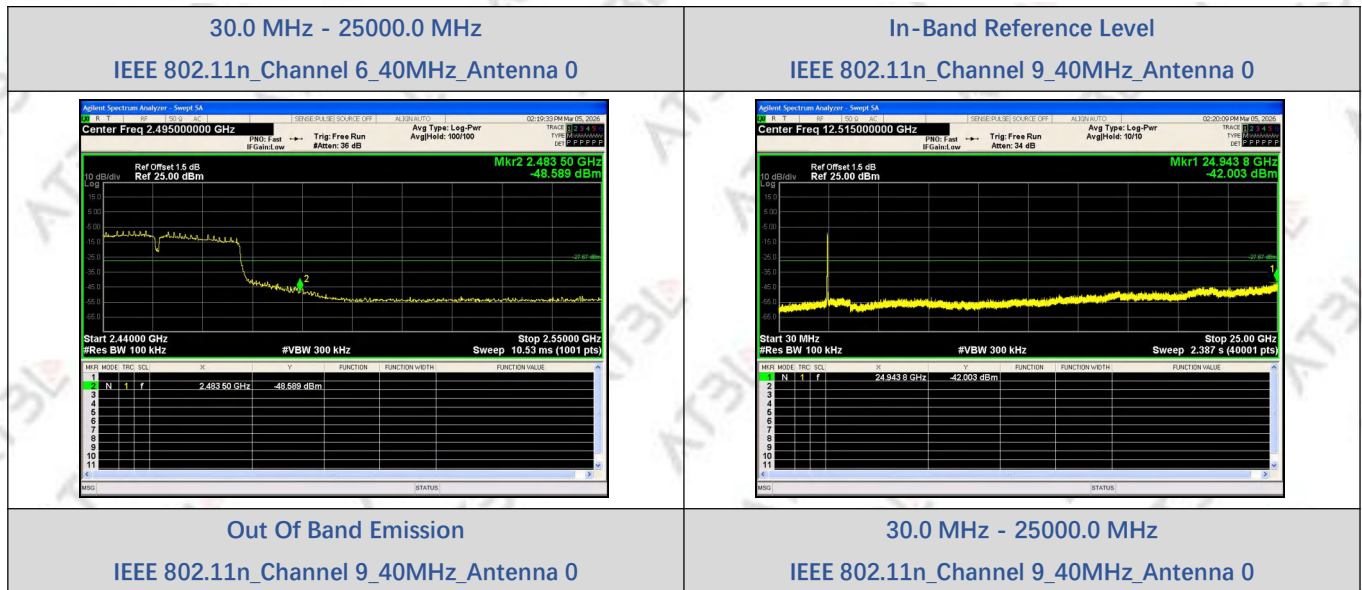


30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 3_40MHz_Antenna 0



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:

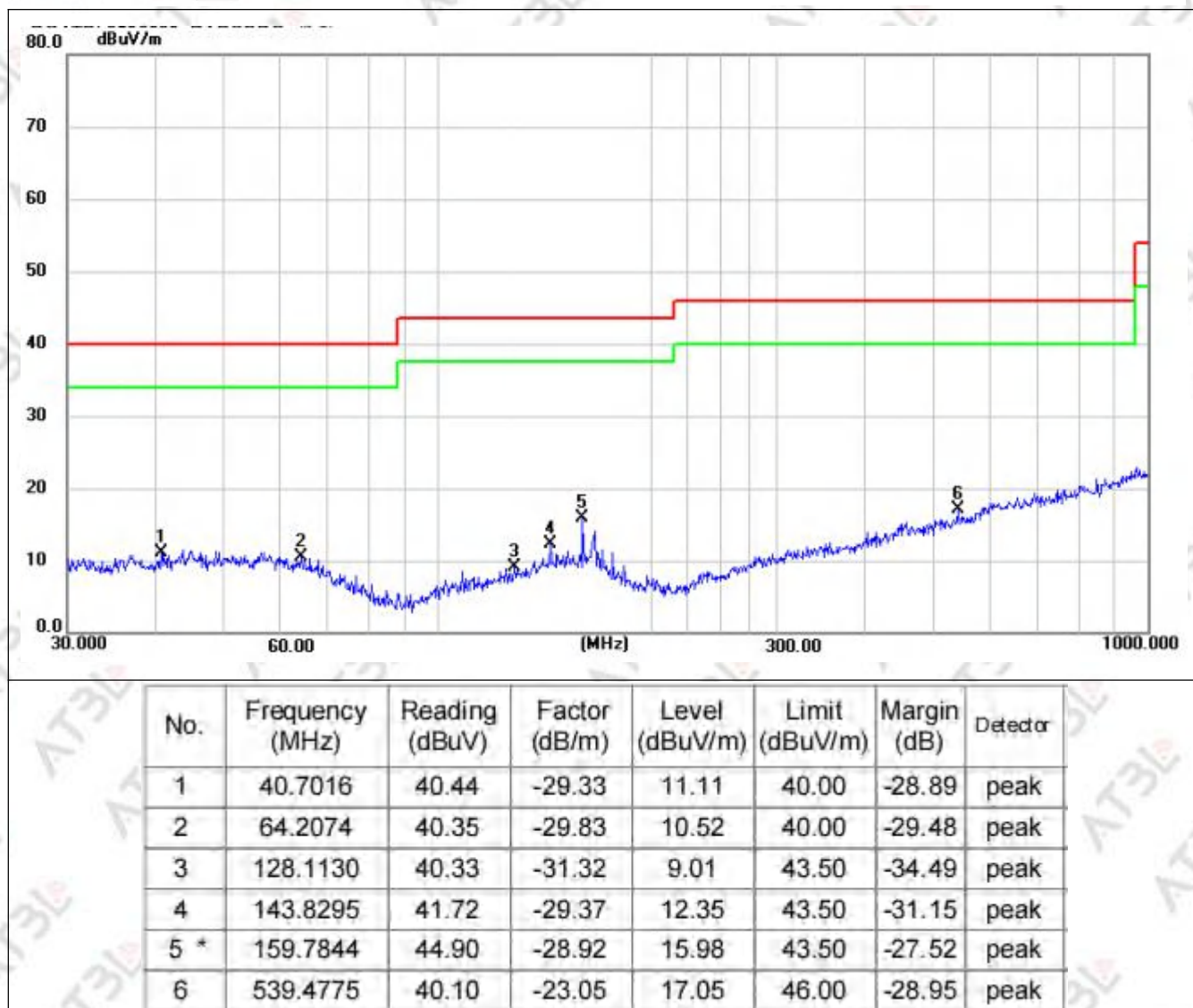
- 1.The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.
- 2.The all data rate modes had been test, but only worse test data was recorded in the test report.

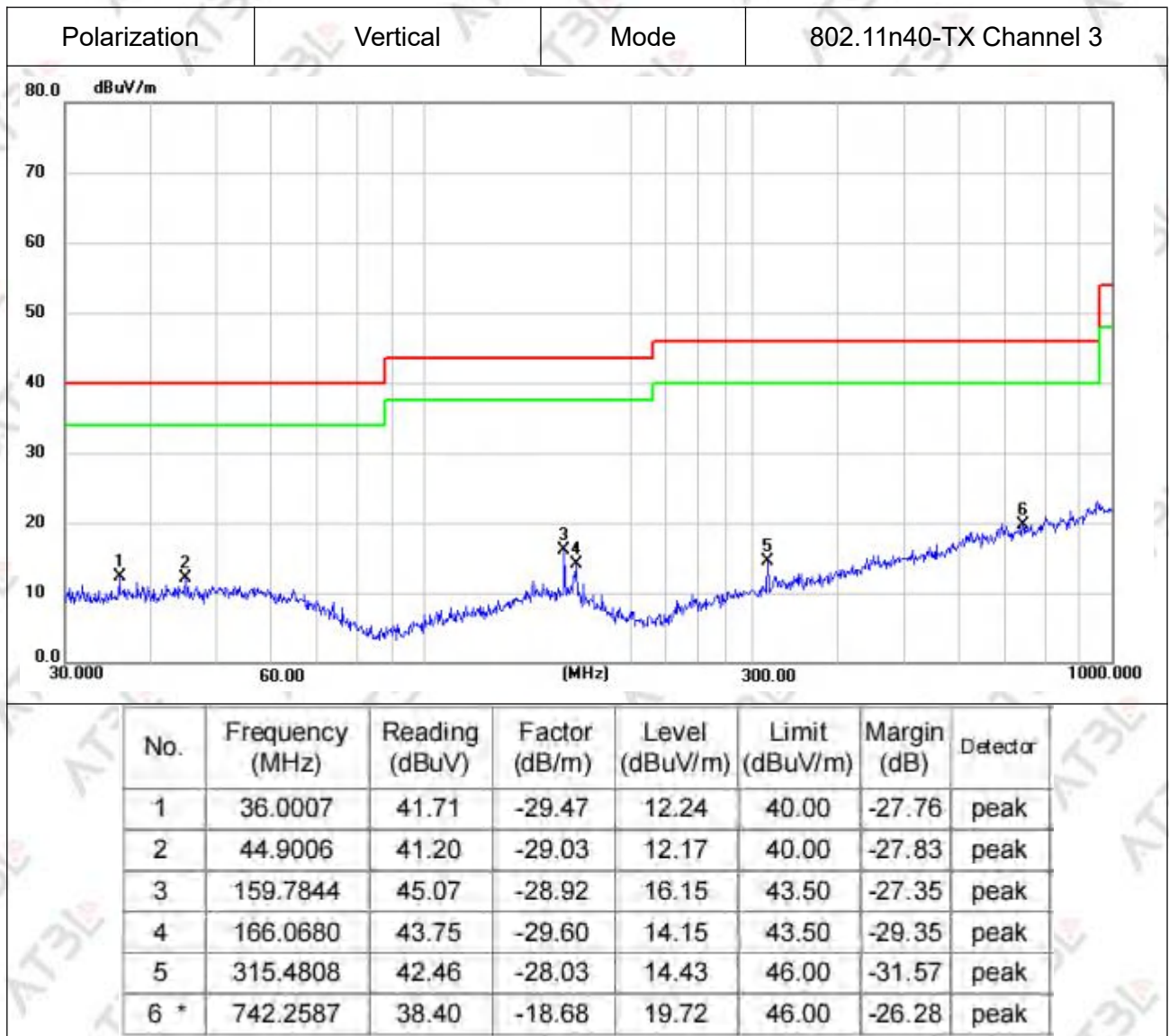
Below 1GHz:

Note:

- 1.All modes have been tested, only worst (802.11n40-TX Channel 3)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.

Polarization	Horizontal	Mode	802.11n40-TX Channel 3
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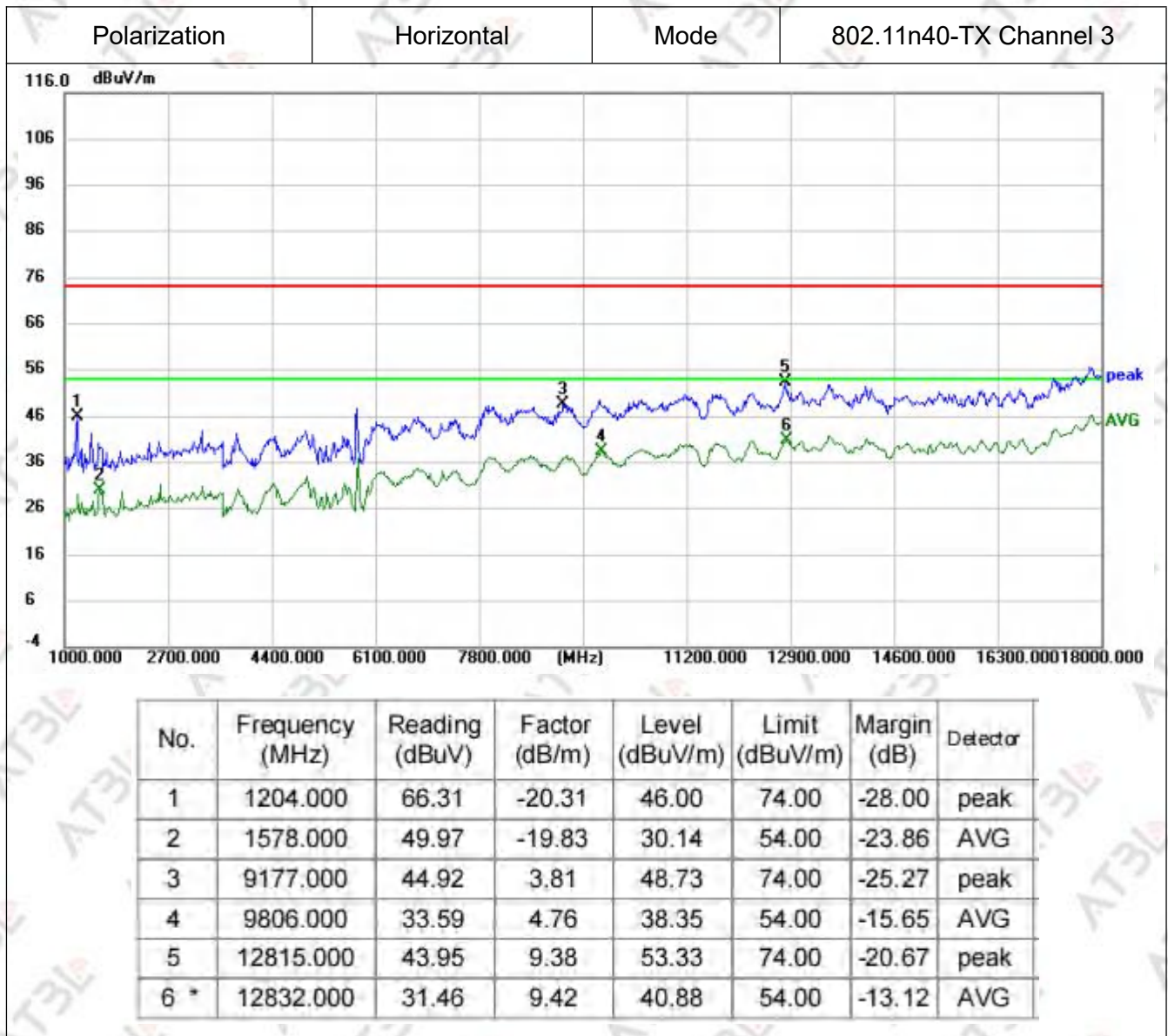


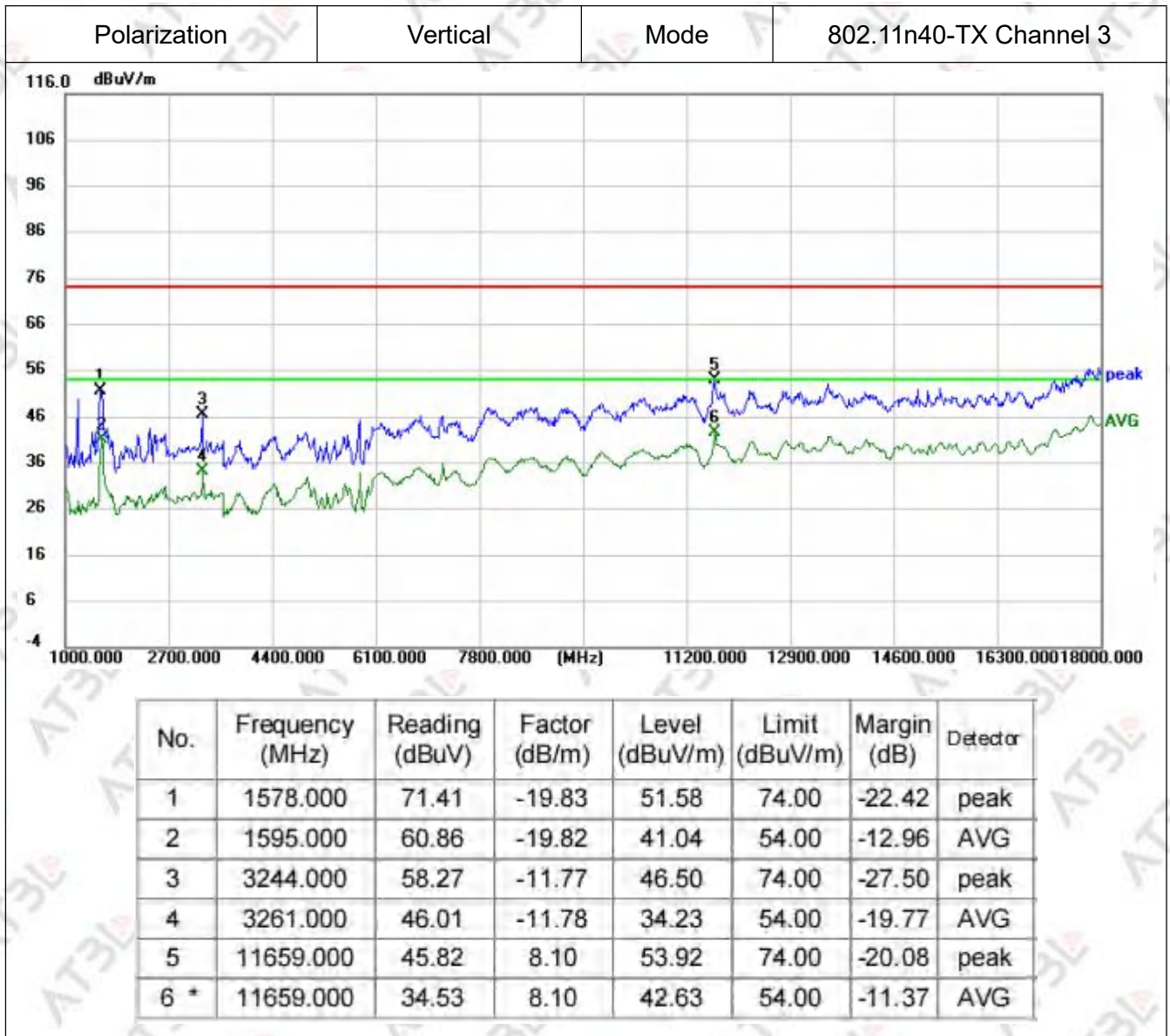


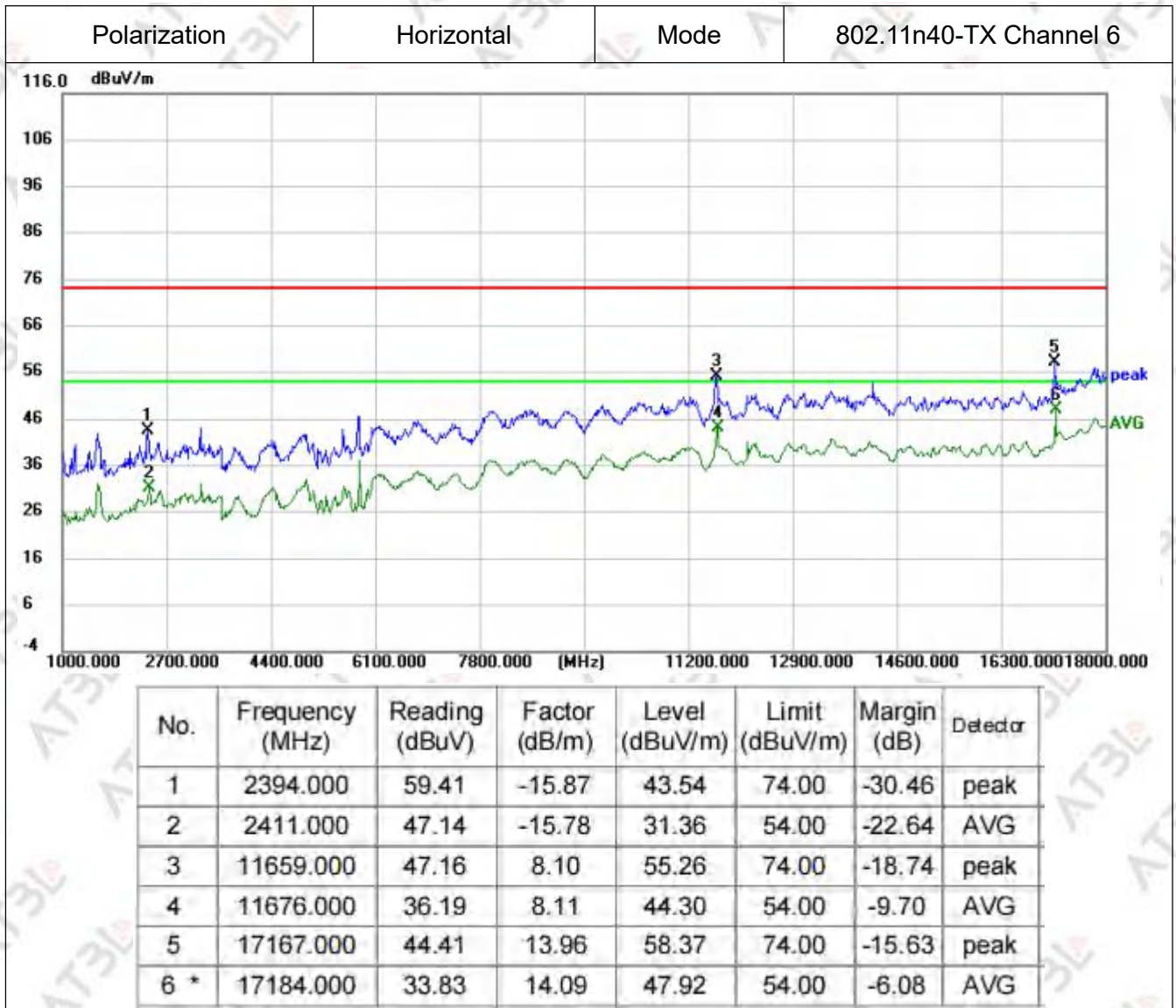
Above 1GHz:

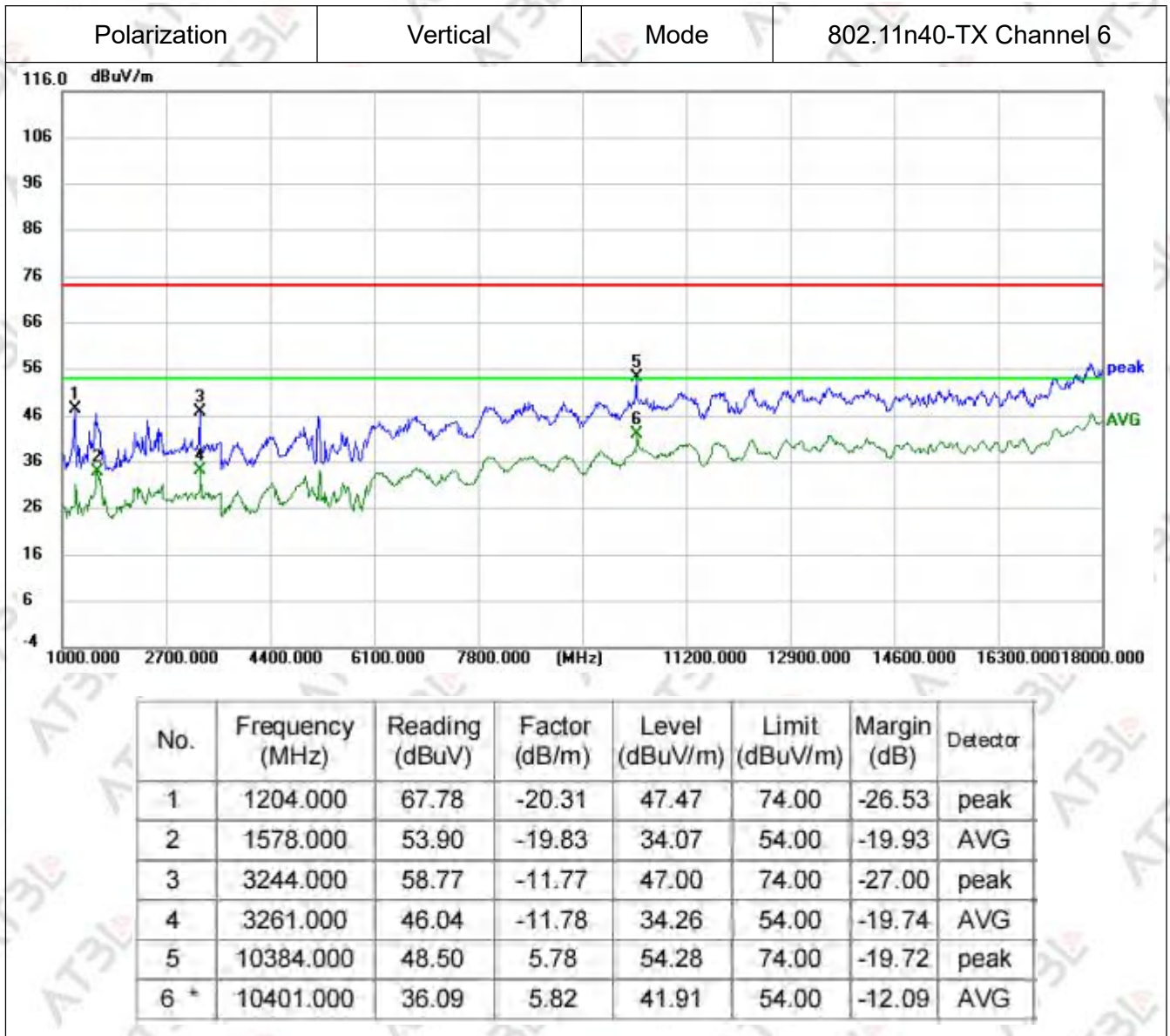
Note:

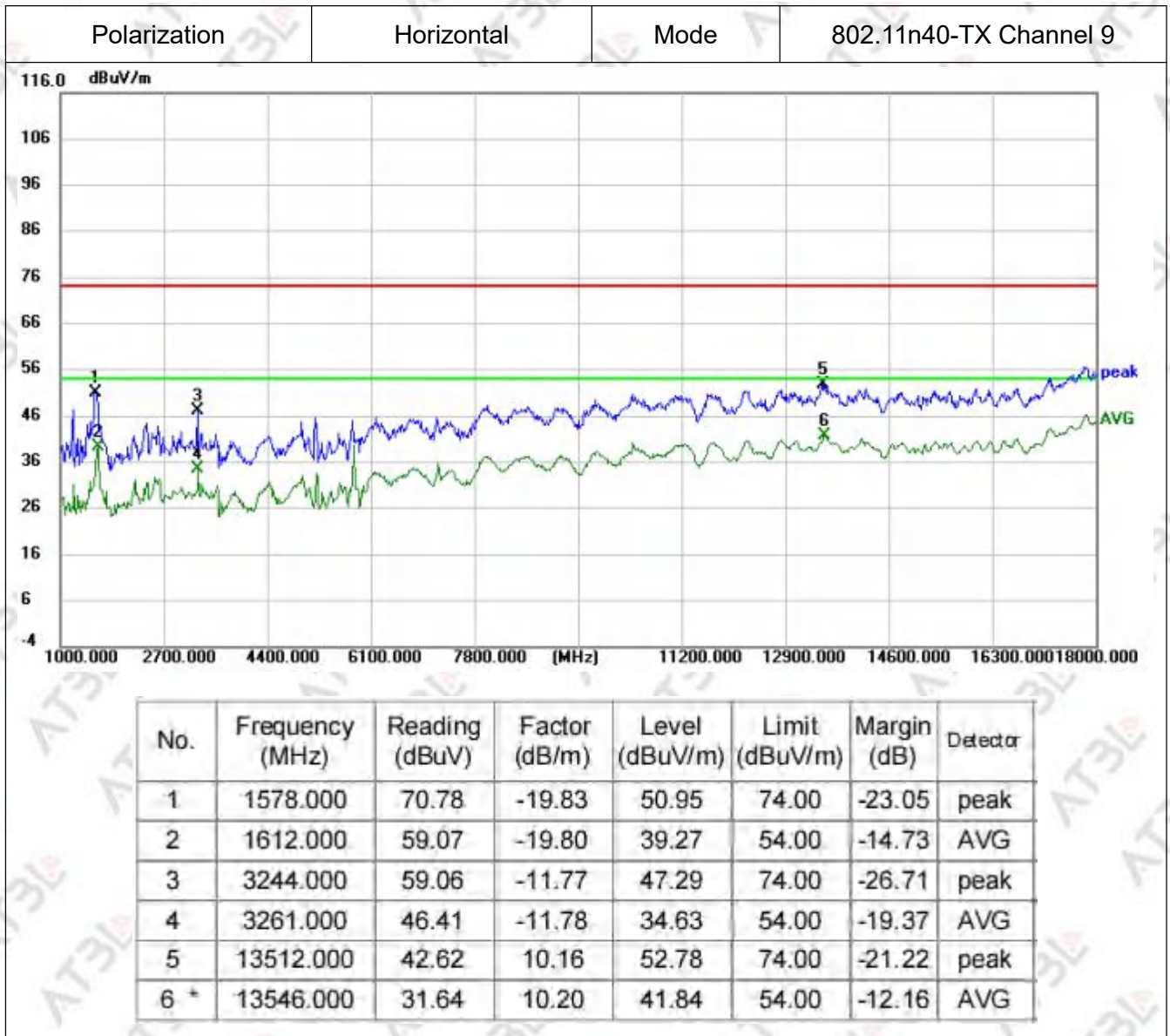
- 1.All modes have been tested, only worst (802.11n40)mode was recorded in the test report.
- 2.In frequency ranges 18 ~40GHz no any other harmonic emissions detected which are tested to compliance with the limit. No recording in the test report. No any other emissions level which are attenuated less 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.

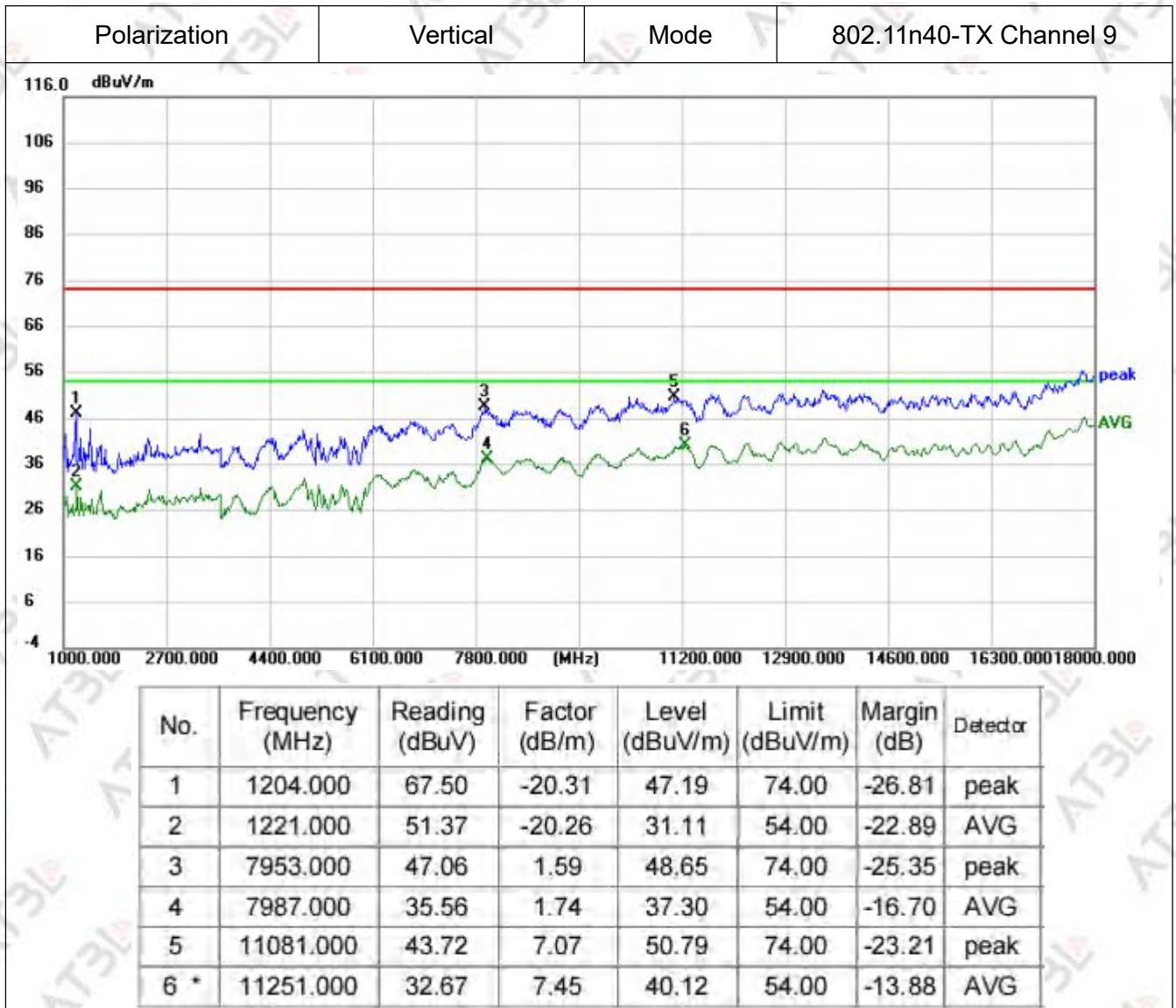




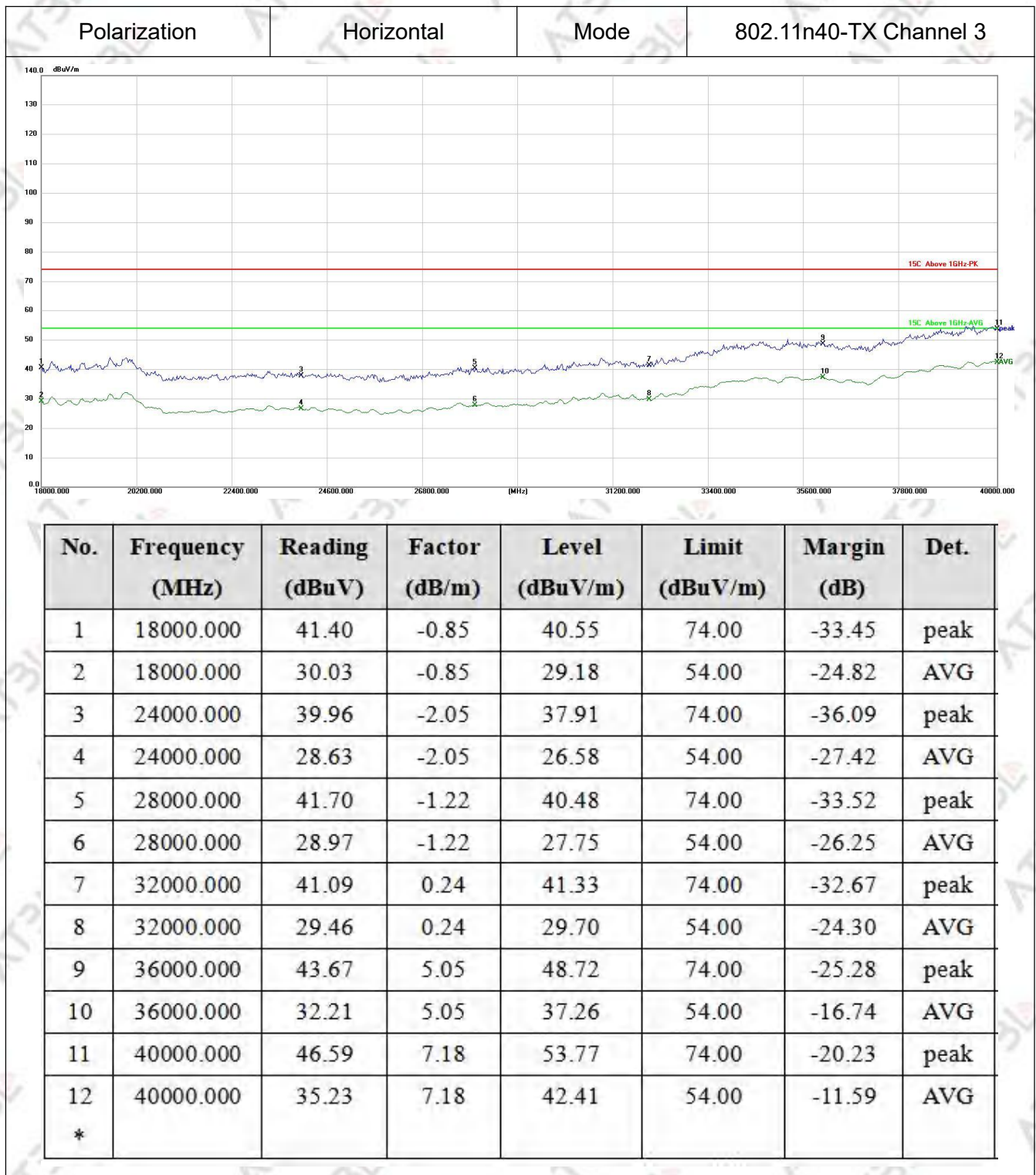


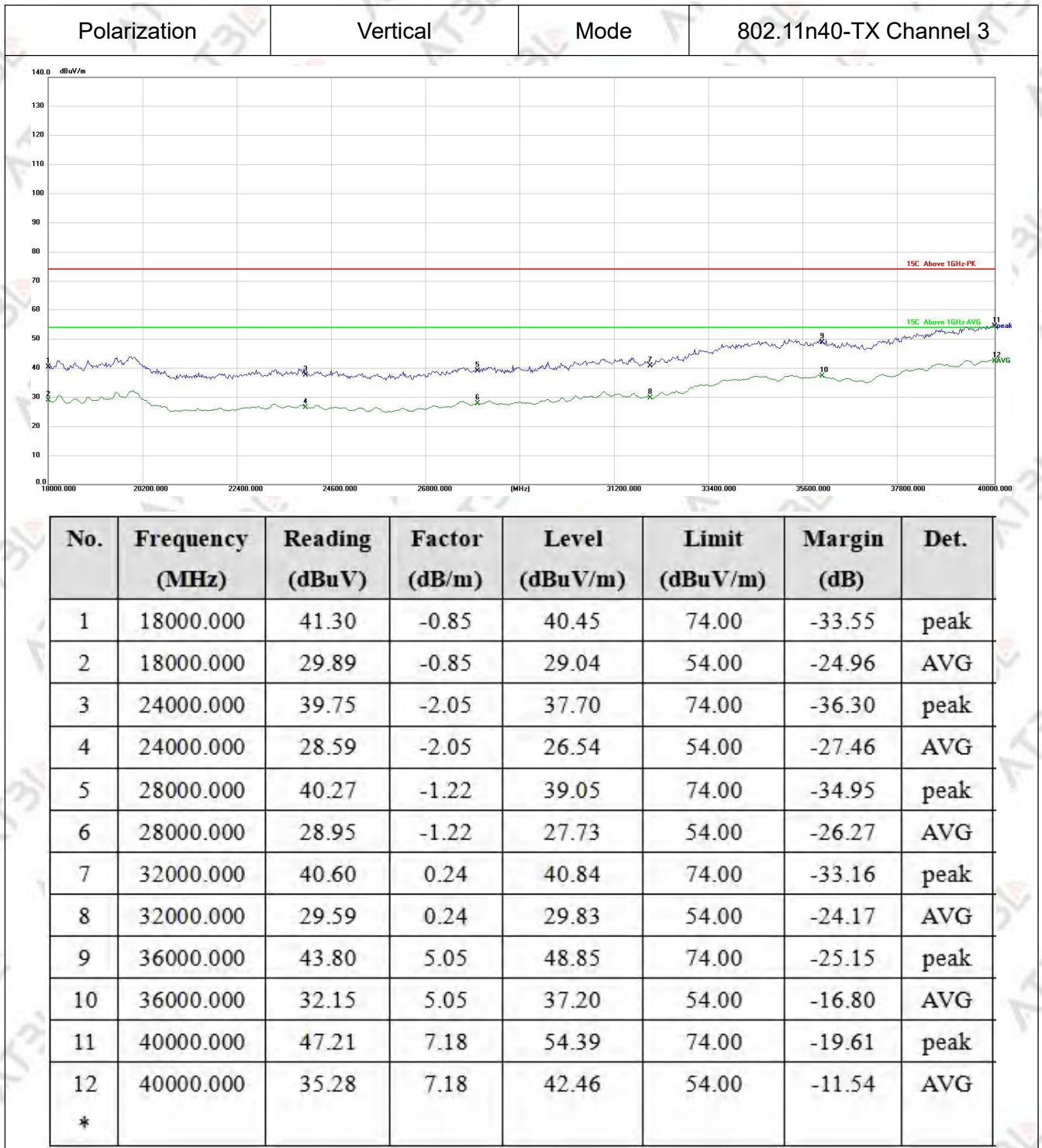






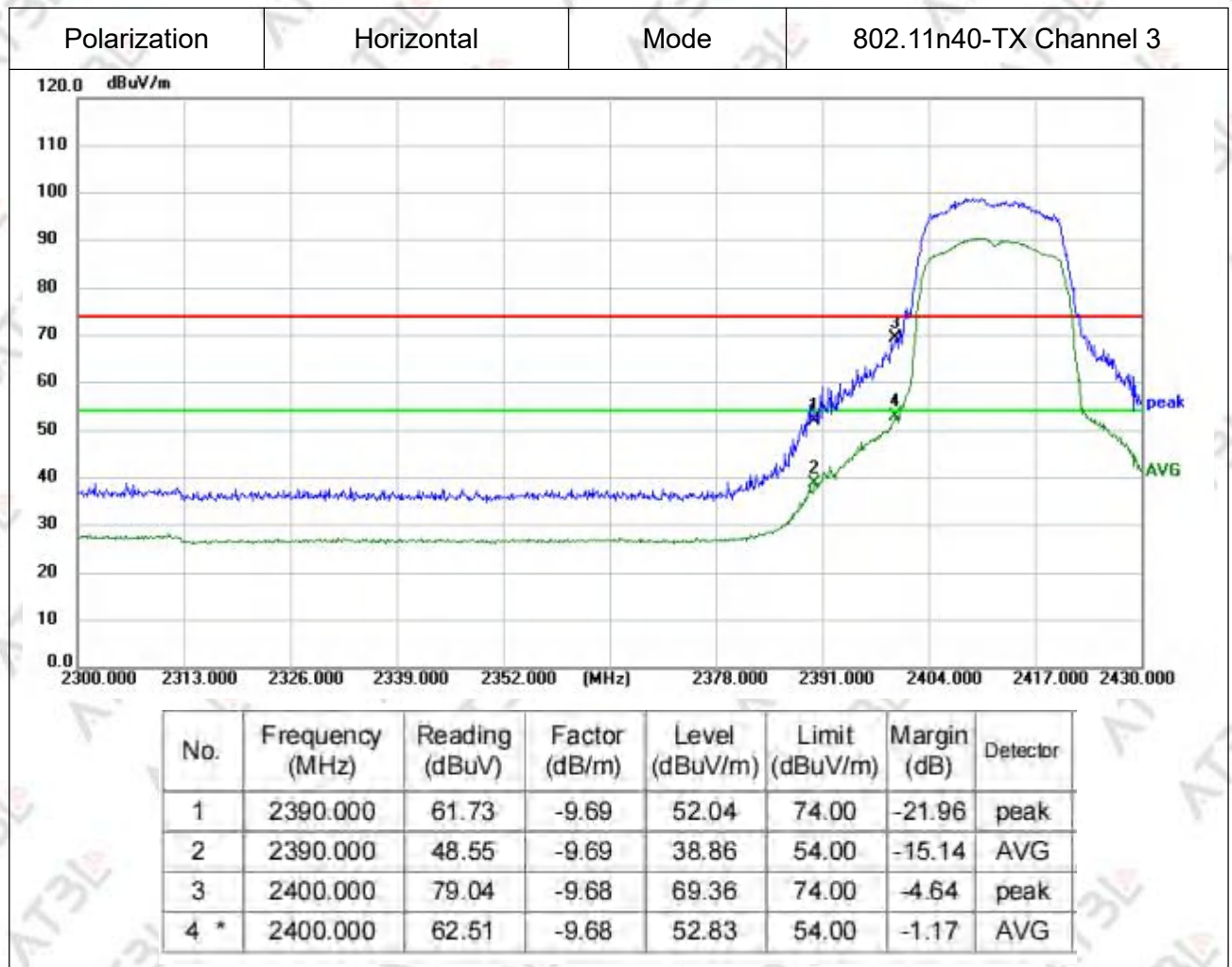
Note:All modes have been tested, only worst (802.11n40-TX Channel 3)mode was recorded in the test report.

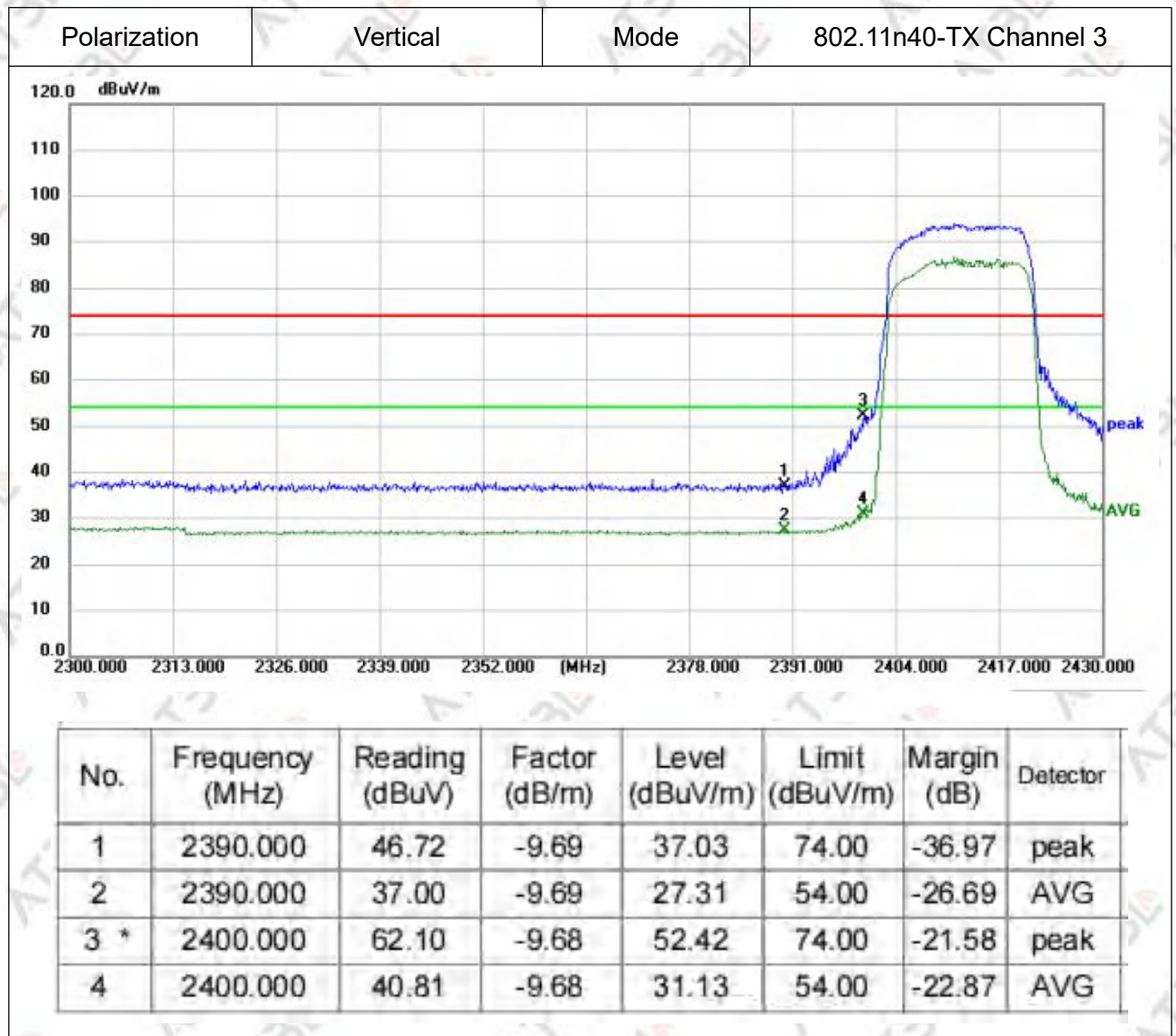


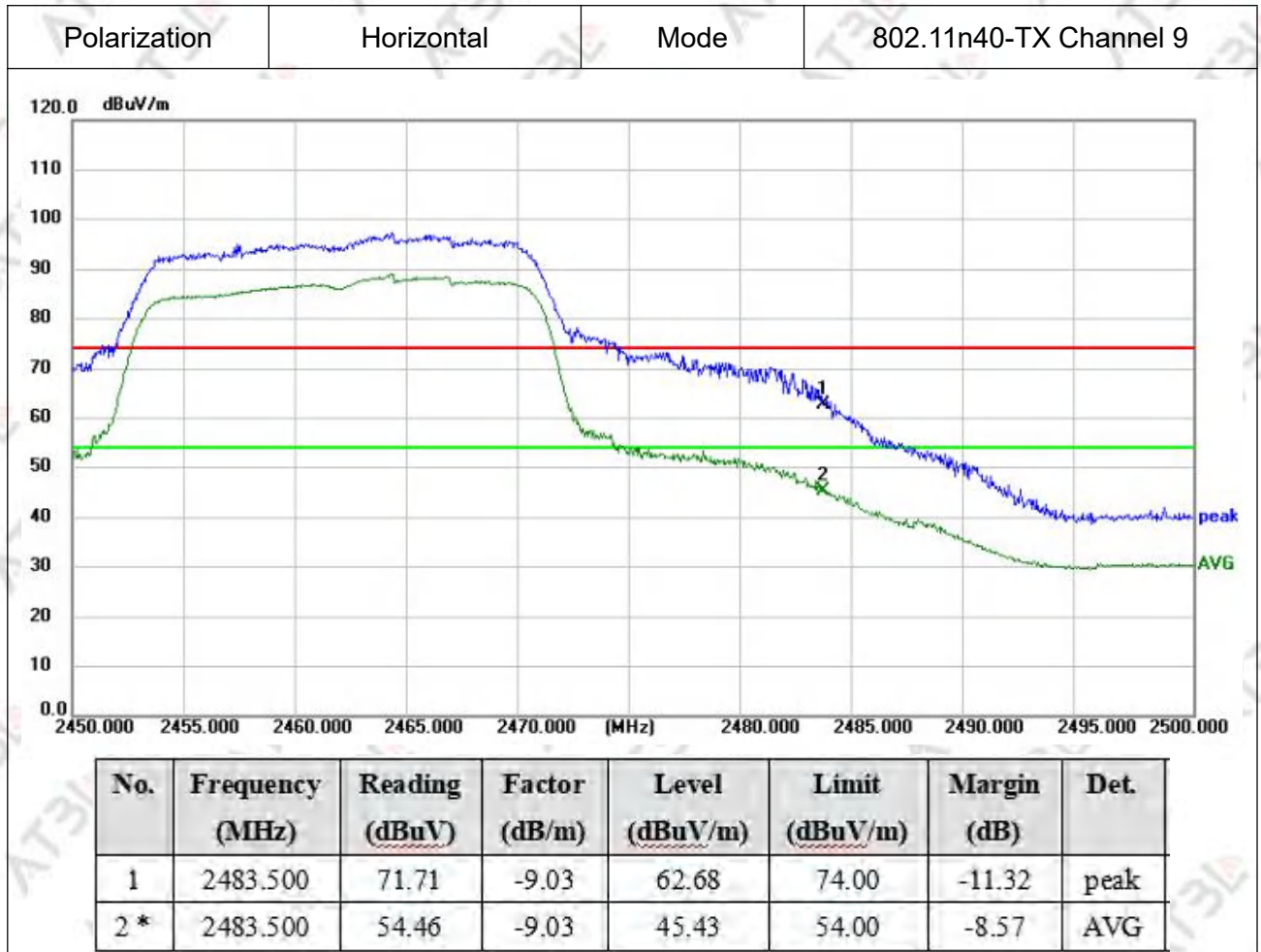


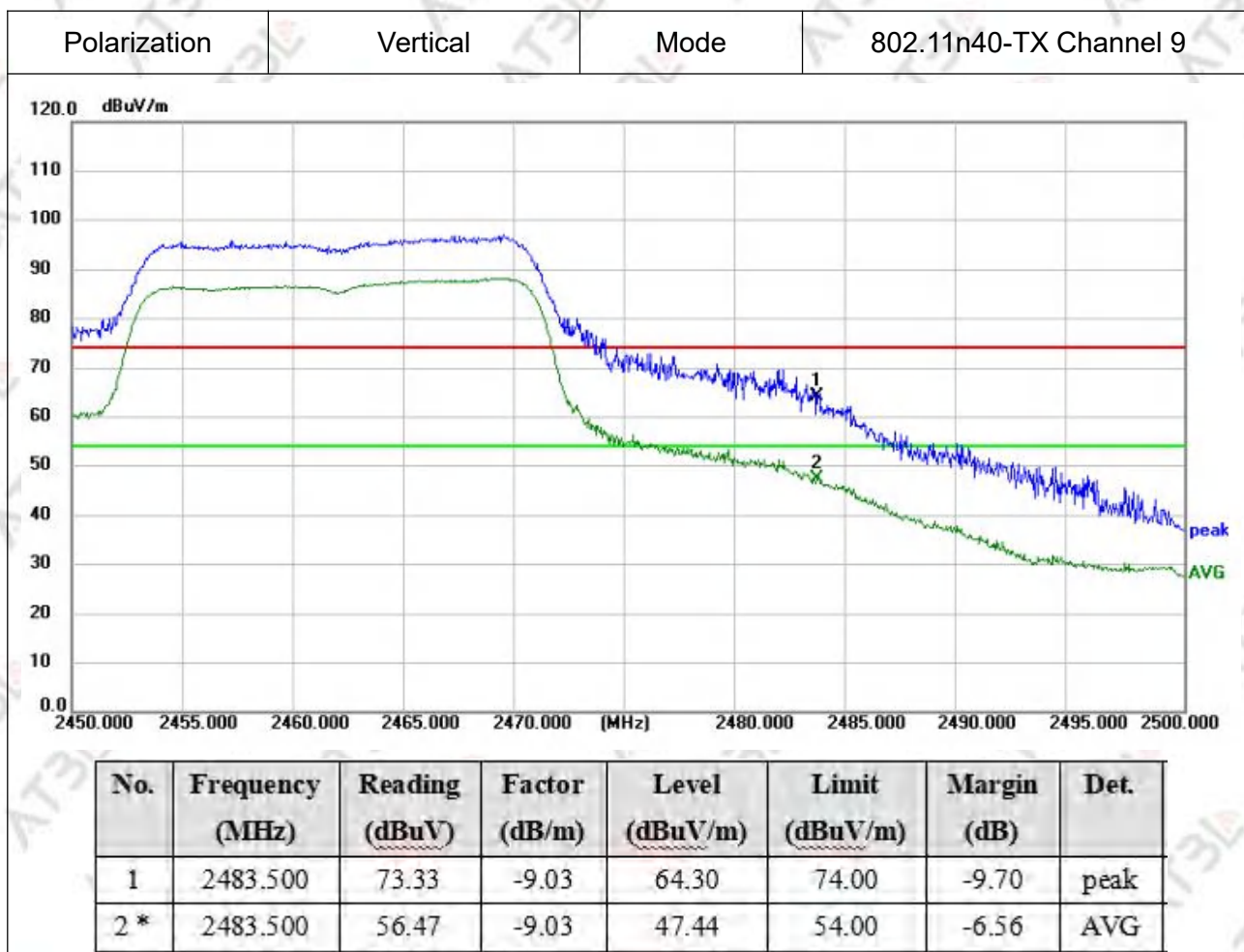
Test Result of Restricted Band

Note:All modes have been tested, only worst (802.11n40)mode was recorded in the test report.





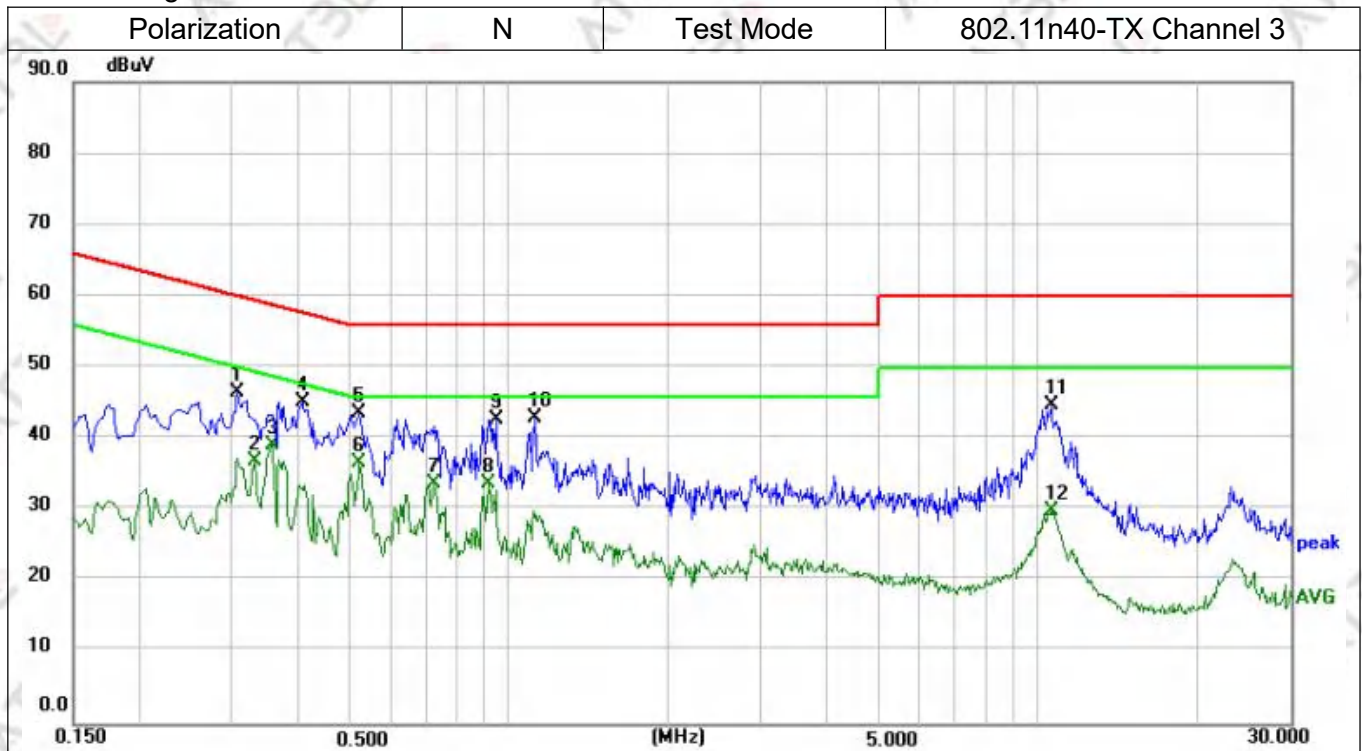




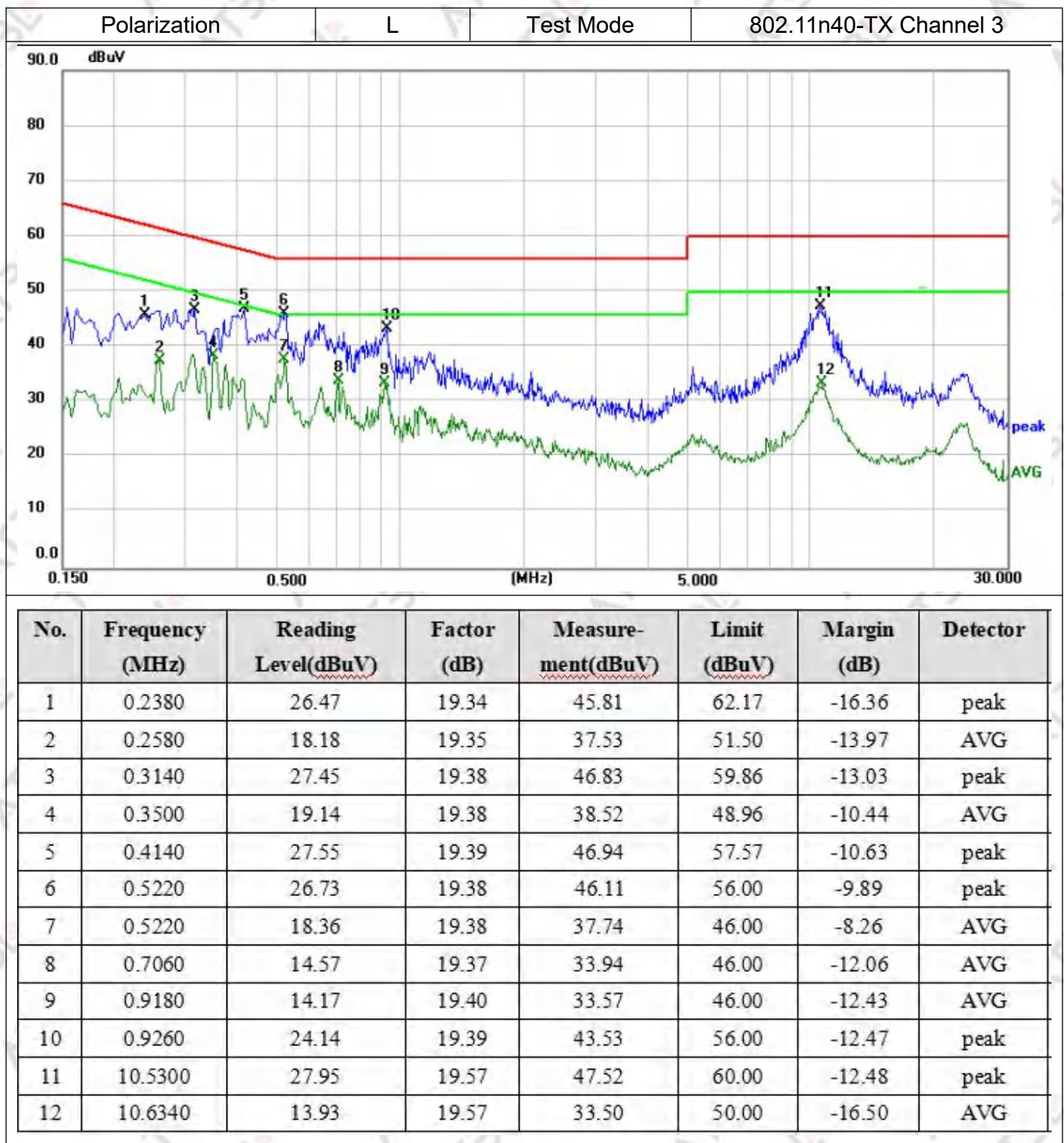
C6.AC Power-Line Conducted Emission

Note:

- 1.All modes have been tested, only worst mode(802.11n40-TX Channel3) 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	0.3060	27.14	19.33	46.47	60.08	-13.61	peak
2	0.3300	17.53	19.34	36.87	49.45	-12.58	AVG
3	0.3540	19.80	19.35	39.15	48.87	-9.72	AVG
4	0.4060	25.79	19.37	45.16	57.73	-12.57	peak
5	0.5220	24.31	19.37	43.68	56.00	-12.32	peak
6	0.5220	17.30	19.37	36.67	46.00	-9.33	AVG
7	0.7220	14.39	19.38	33.77	46.00	-12.23	AVG
8	0.9180	14.43	19.40	33.83	46.00	-12.17	AVG
9	0.9460	23.40	19.37	42.77	56.00	-13.23	peak
10	1.1220	23.56	19.39	42.95	56.00	-13.05	peak
11	10.5860	25.11	19.63	44.74	60.00	-15.26	peak
12	10.5860	10.34	19.63	29.97	50.00	-20.03	AVG



*****END*****