

Appendix C of data

C1.Maximum Peak conducted output power

Test Result

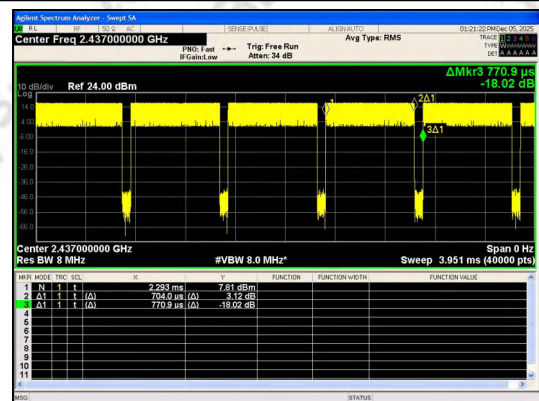
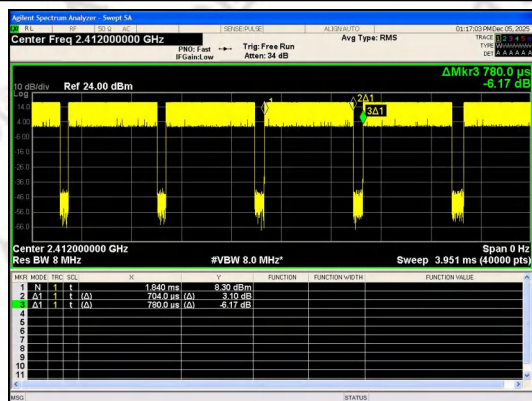
Mode	Channel	Ant. 0 (dBm)	Total (dBm)	Limit (dBm)	Result
IEEE 802.11b	1	16.98	16.98	≤30	PASS
	6	16.63	16.63	≤30	PASS
	11	15.53	15.53	≤30	PASS
IEEE 802.11g	1	19.03	19.03	≤30	PASS
	6	19.28	19.28	≤30	PASS
	11	17.33	17.33	≤30	PASS
IEEE 802.11n_20	1	19.08	19.08	≤30	PASS
	6	19.33	19.33	≤30	PASS
	11	17.42	17.42	≤30	PASS
IEEE 802.11n_40	3	17.90	17.9	≤30	PASS
	6	18.38	18.38	≤30	PASS
	9	18.14	18.14	≤30	PASS

C2.Duty Cycle

Test Result

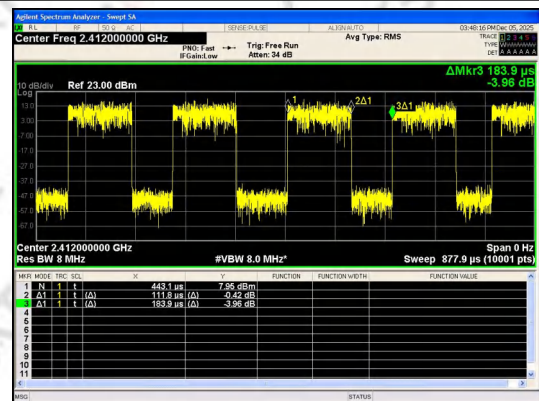
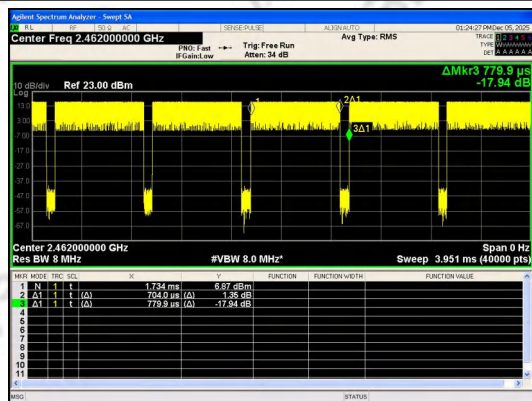
Mode	Data rates	Channel	Antenna	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)
IEEE 802.11b	1	1	1	0.704	0.780	90.26	0.9026	0.445
		6		0.704	0.771	91.33	0.9133	0.3939
		11		0.704	0.780	90.27	0.9027	0.4446
IEEE 802.11g	6	1		0.112	0.184	60.81	0.6081	2.1602
		6		0.112	0.184	60.86	0.6086	2.1567
		11		0.112	0.184	60.77	0.6077	2.1631
IEEE 802.11n_20	MCS 0	1		0.111	0.175	63.76	0.6376	1.9545
		6		0.111	0.184	60.49	0.6049	2.1832
		11		0.111	0.175	63.63	0.6363	1.9634
IEEE 802.11n_40		3	0.072	0.135	53.42	0.5342	2.723	
		6	0.072	0.135	53.48	0.5348	2.7181	
		9	0.072	0.135	53.48	0.5348	2.7181	

Test Graphs



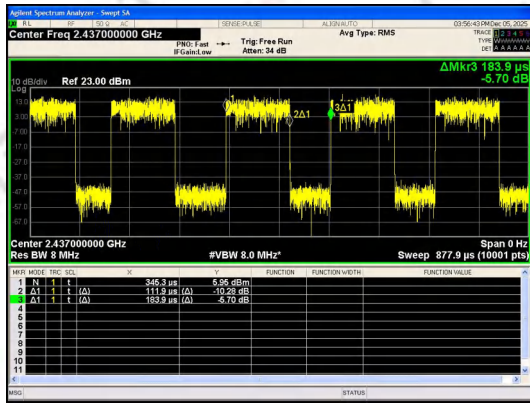
IEEE 802.11b_20MHz_Channel 1

IEEE 802.11b_20MHz_Channel 6

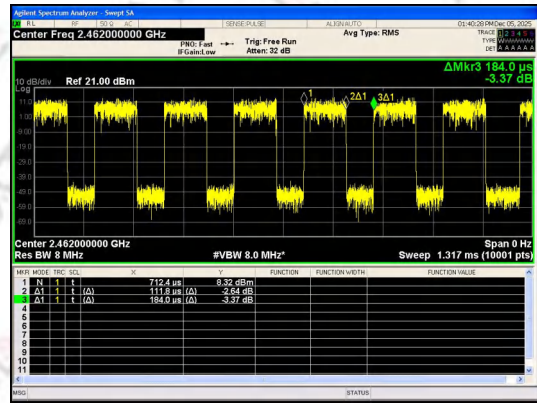


IEEE 802.11b_20MHz_Channel 11

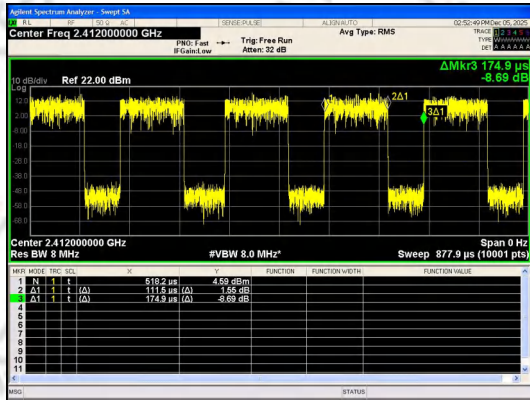
IEEE 802.11g_20MHz_Channel 1



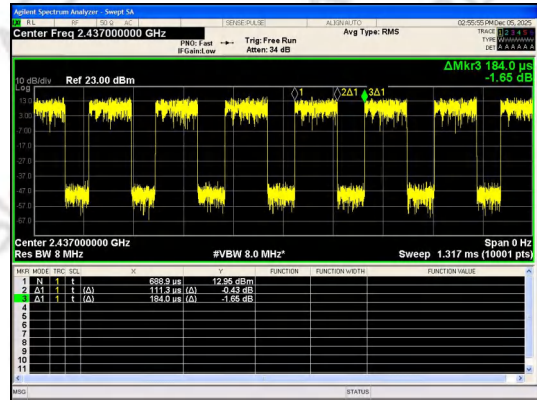
IEEE 802.11g_20MHz_Channel 6



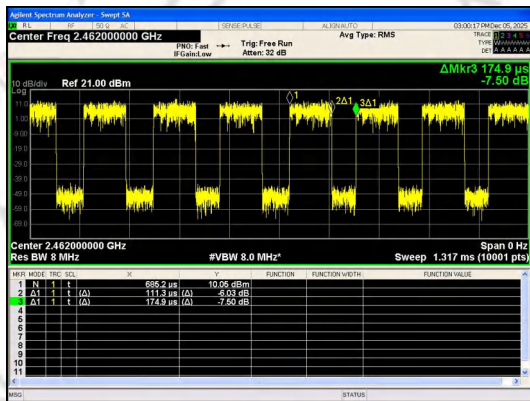
IEEE 802.11g_20MHz_Channel 11



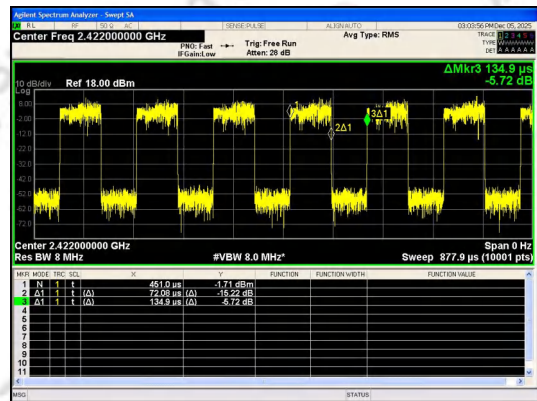
IEEE 802.11n_20MHz_Channel 1



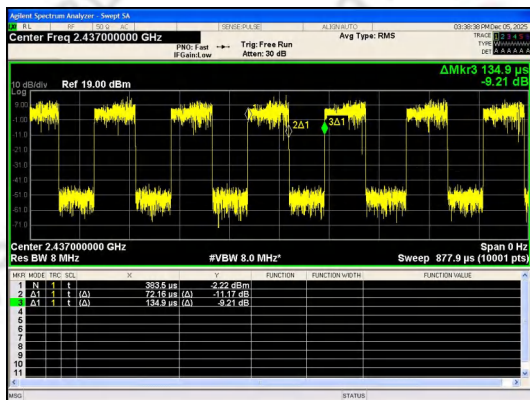
IEEE 802.11n_20MHz_Channel 6



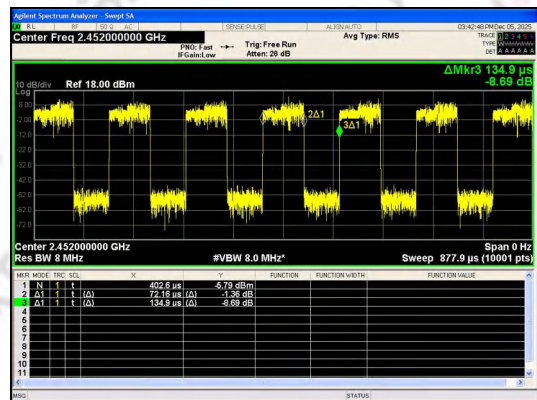
IEEE 802.11n_20MHz_Channel 11



IEEE 802.11n_40MHz_Channel 3



IEEE 802.11n_40MHz_Channel 6



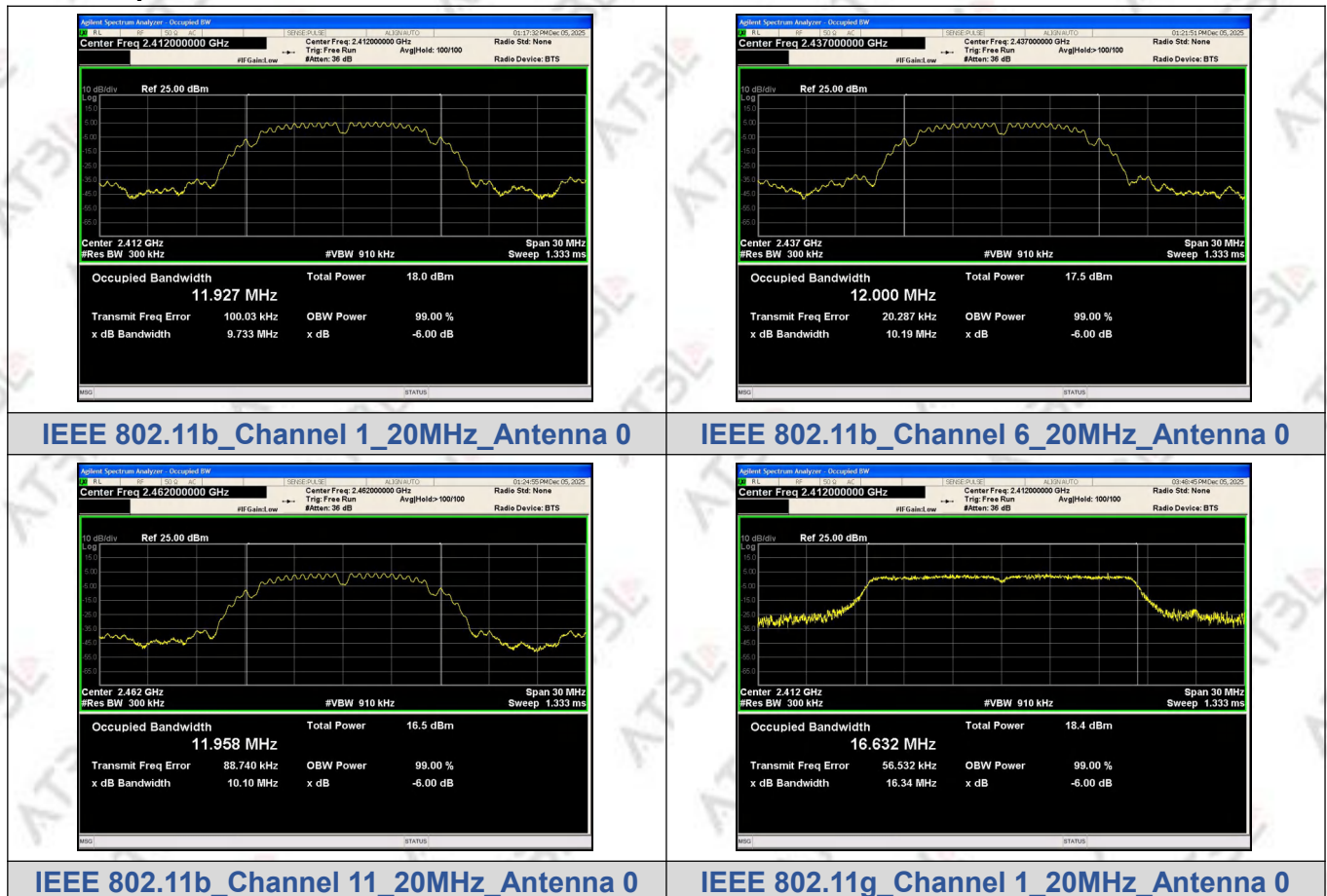
IEEE 802.11n_40MHz_Channel 9

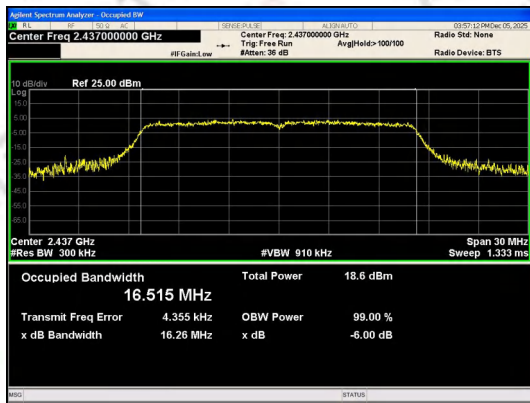
C3.6dB Bandwidth

Test Result

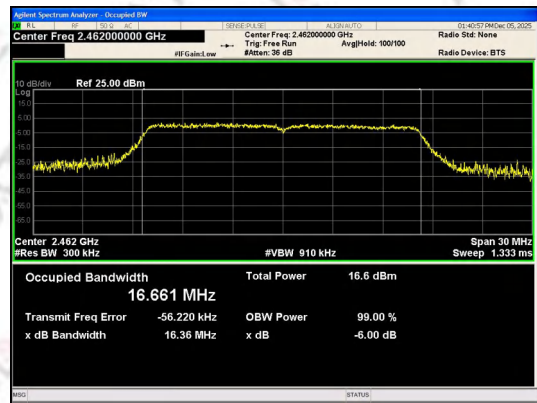
Mode	Channel	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b	1	0	2412	9.733	≥0.5	PASS
	6		2437	10.19		PASS
	11		2462	10.10		PASS
IEEE 802.11g	1		2412	16.34		PASS
	6		2437	16.26		PASS
	11		2462	16.36		PASS
IEEE 802.11n_20	1		2412	17.37		PASS
	6		2437	16.96		PASS
	11		2462	17.45		PASS
IEEE 802.11n_40	3		2422	35.86		PASS
	6		2437	35.00		PASS
	9		2452	35.50		PASS

Test Graphs

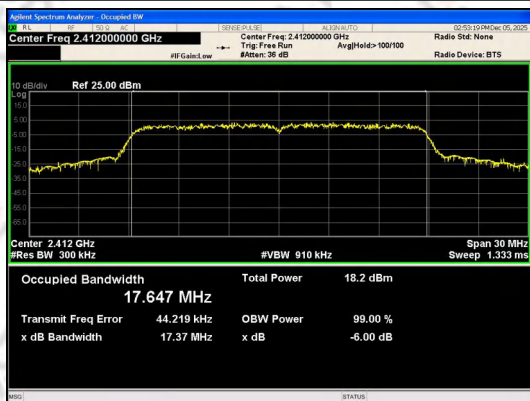




IEEE 802.11g_Channel 6_20MHz_Antenna 0



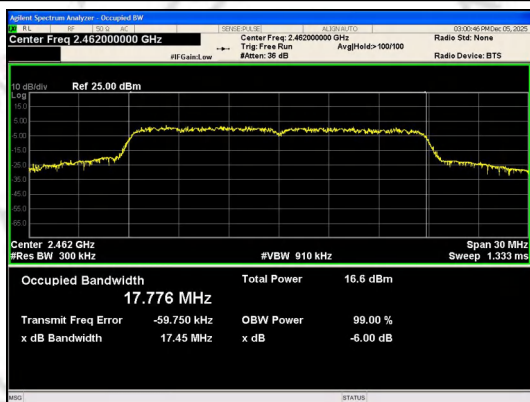
IEEE 802.11g_Channel 11_20MHz_Antenna 0



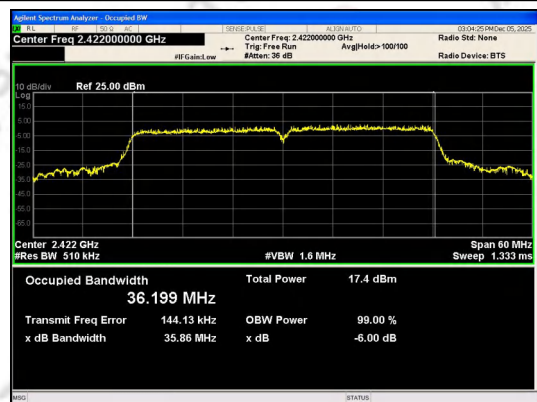
IEEE 802.11n_Channel 1_20MHz_Antenna 0



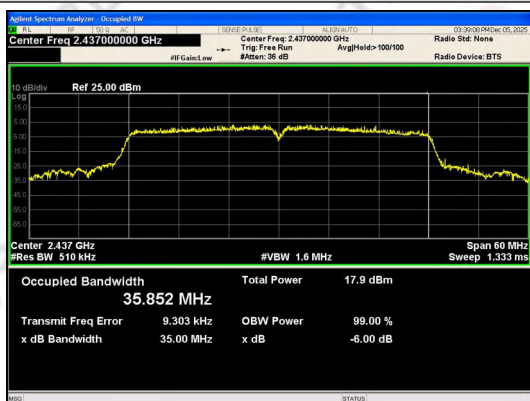
IEEE 802.11n_Channel 6_20MHz_Antenna 0



IEEE 802.11n_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 3_40MHz_Antenna 0



IEEE 802.11n_Channel 6_40MHz_Antenna 0



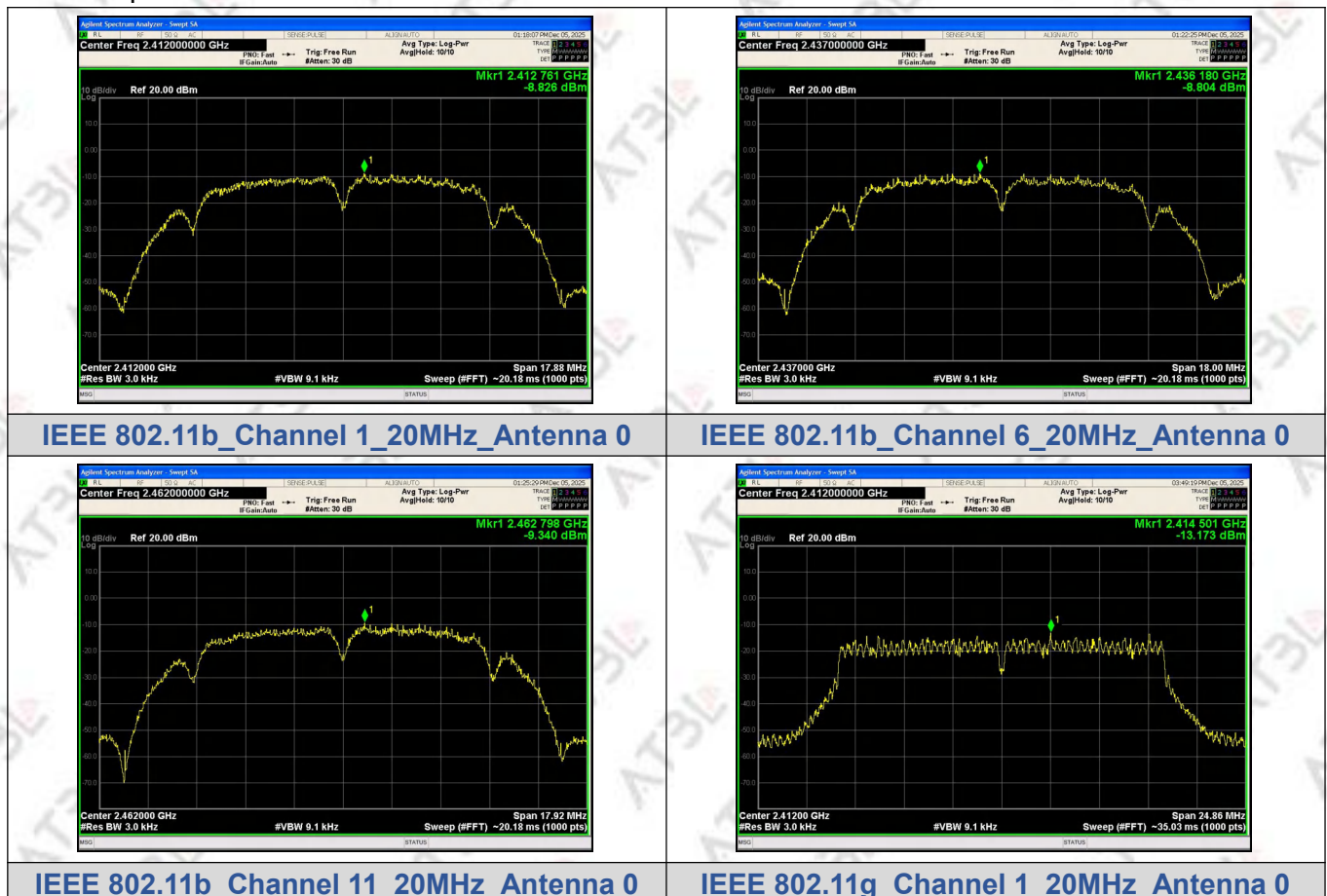
IEEE 802.11n_Channel 9_40MHz_Antenna 0

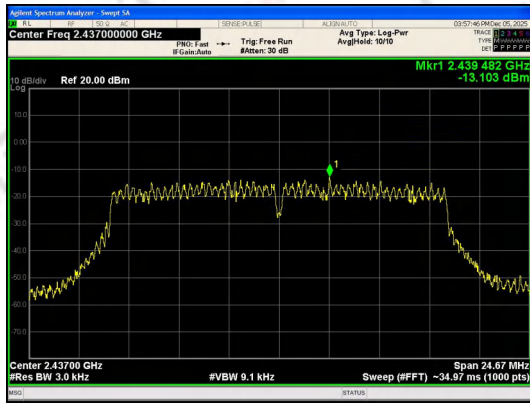
C4.Power Spectral Density

Test Result

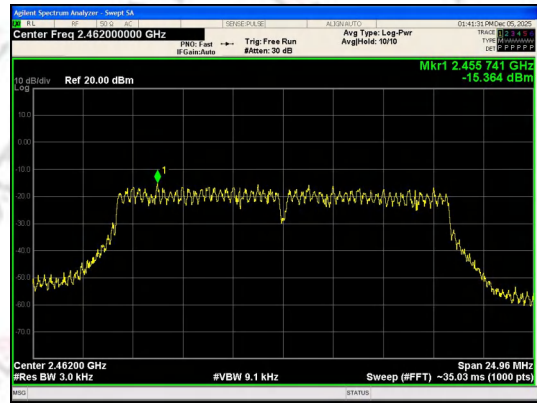
Mode	Channel	PSD (dBm/3kHz) Ant. 0	Limit (dBm/3kHz)	Result
IEEE 802.11b	1	-8.830	≤8	PASS
	6	-8.800		PASS
	11	-9.340		PASS
IEEE 802.11g	1	-13.170		PASS
	6	-13.100		PASS
	11	-15.360		PASS
IEEE 802.11n_20	1	-12.800		PASS
	6	-12.540		PASS
	11	-14.490		PASS
IEEE 802.11n_40	3	-15.770		PASS
	6	-15.570		PASS
	9	-15.780		PASS

Test Graphs

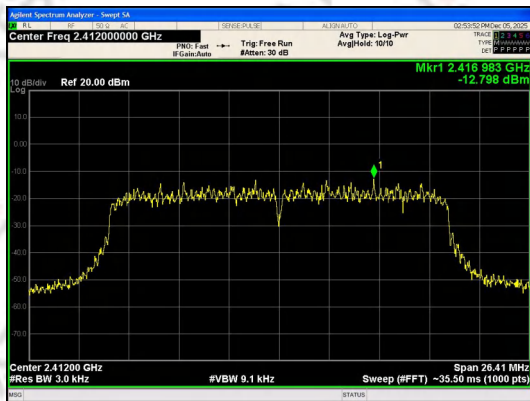




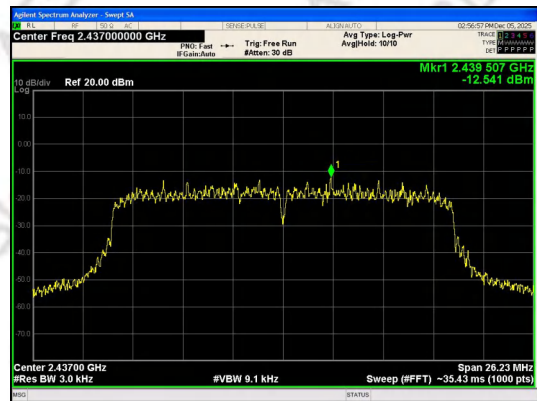
IEEE 802.11g_Channel 6_20MHz_Antenna 0



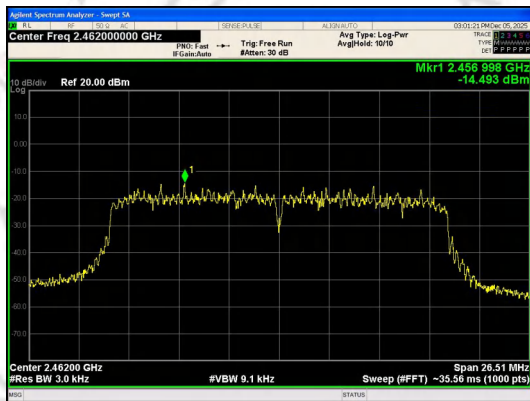
IEEE 802.11g_Channel 11_20MHz_Antenna 0



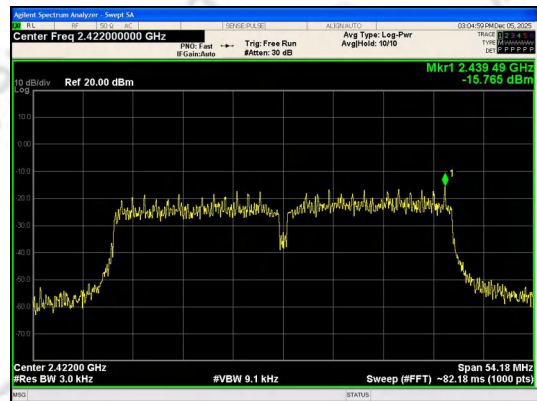
IEEE 802.11n_Channel 1_20MHz_Antenna 0



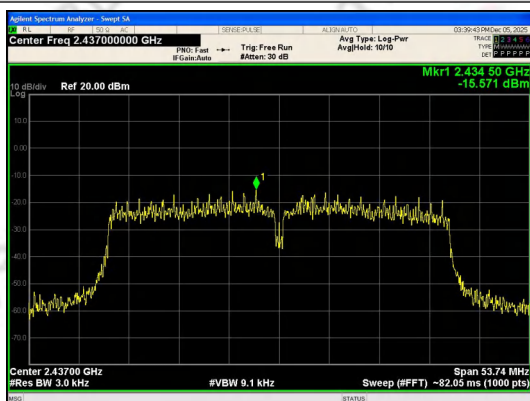
IEEE 802.11n_Channel 6_20MHz_Antenna 0



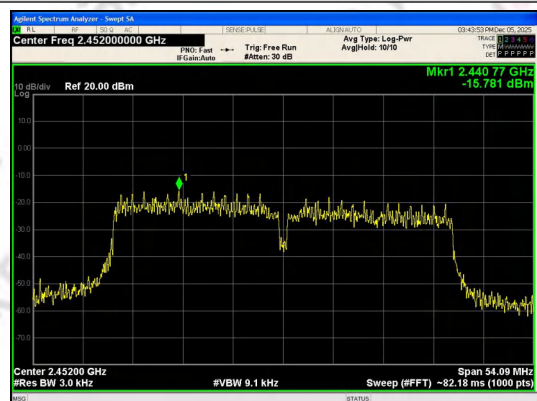
IEEE 802.11n_Channel 11_20MHz_Antenna 0



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 Band Edge and Conducted Spurious Emission

Test Result

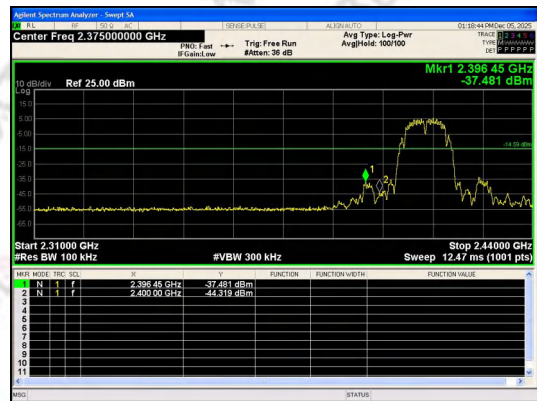
Mode	Channel	Ant.	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
IEEE 802.11b	1	0	2396.45	-37.481	-14.59	-22.891	PASS
			2400.00	-44.319	-14.59	-29.729	PASS
			9599.80	-39.407	-14.59	-24.817	PASS
	6		9599.75	-39.141	-15.27	-23.871	PASS
	11		2483.50	-46.914	-16.16	-30.754	PASS
			9599.75	-39.883	-16.16	-23.723	PASS
IEEE 802.11g	1		2400.00	-31.523	-18.59	-12.933	PASS
	6		9599.75	-37.706	-18.59	-19.116	PASS
			9599.75	-38.162	-18.05	-20.112	PASS
	11		2483.50	-44.348	-20.29	-24.058	PASS
			9599.75	-38.034	-20.29	-17.744	PASS
	IEEE 802.11n_20		1	2398.40	-30.141	-18.55	-11.591
2400.00				-30.250	-18.55	-11.700	PASS
9599.80				-38.595	-18.55	-20.045	PASS
6			9599.75	-38.001	-18.01	-19.991	PASS
11			2483.50	-43.338	-20.24	-23.098	PASS
			9599.75	-37.616	-20.24	-17.376	PASS
IEEE 802.11n_40	3		2395.80	-33.184	-21.66	-11.524	PASS
			2400.00	-37.578	-21.66	-15.918	PASS
			9599.80	-37.927	-21.66	-16.267	PASS
	6		9599.75	-38.915	-21.39	-17.525	PASS
	9		2483.50	-40.807	-21.16	-19.647	PASS
			9599.75	-38.254	-21.16	-17.094	PASS

Note: input compensation coefficient (dB)= Cable Loss (dB)

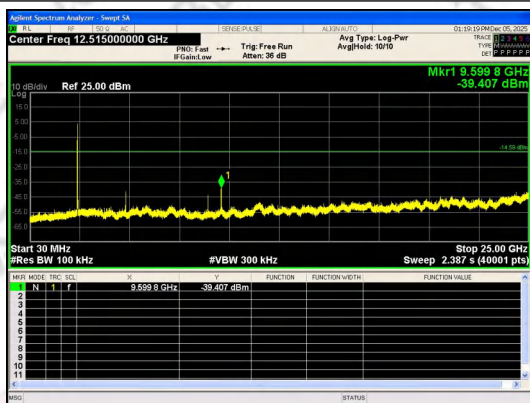
Test Graphs



In-Band Reference Level
IEEE 802.11b_Channel 1_20MHz_Antenna 0



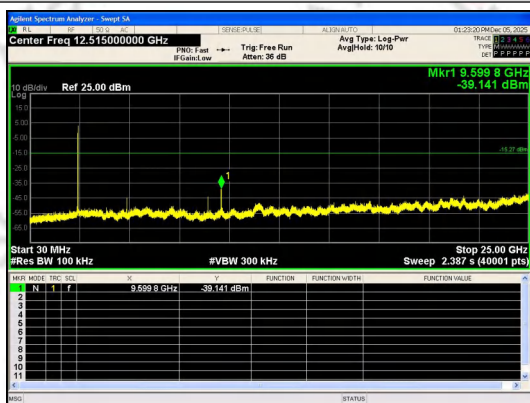
Out Of Band Emission
IEEE 802.11b_Channel 1_20MHz_Antenna 0



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



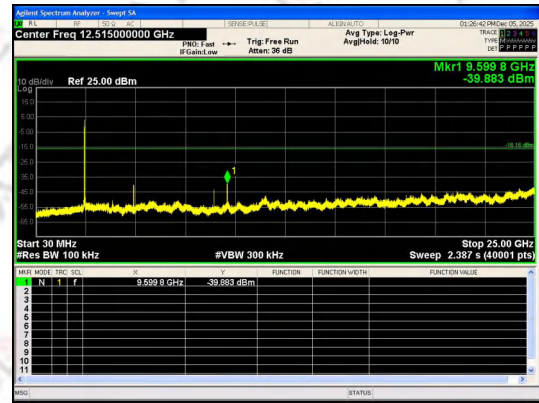
30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 6_20MHz_Antenna 0



In-Band Reference Level
IEEE 802.11b_Channel 11_20MHz_Antenna 0



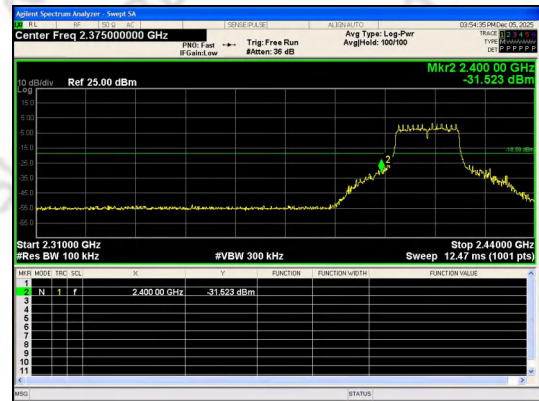
Out Of Band Emission
IEEE 802.11b_Channel 11_20MHz_Antenna 0



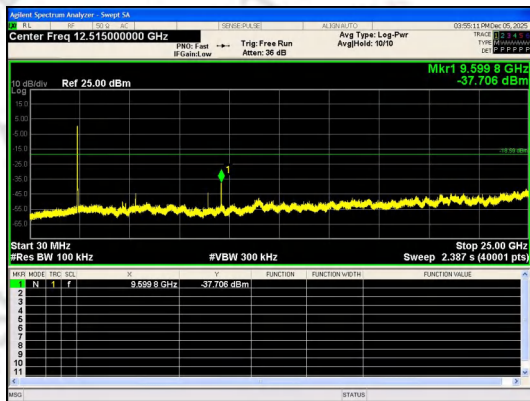
30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 11_20MHz_Antenna 0



In-Band Reference Level
IEEE 802.11g_Channel 1_20MHz_Antenna 0



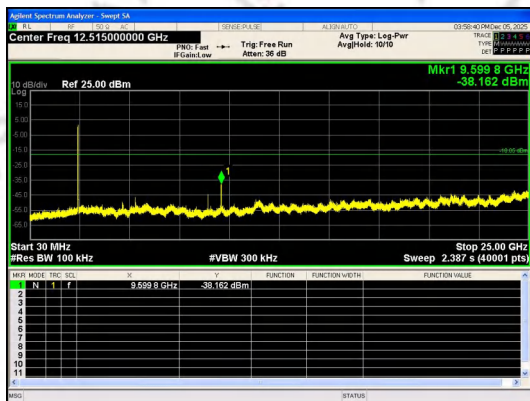
Out Of Band Emission
IEEE 802.11g_Channel 1_20MHz_Antenna 0



30.0 MHz - 25000.0 MHz
IEEE 802.11g_Channel 1_20MHz_Antenna 0



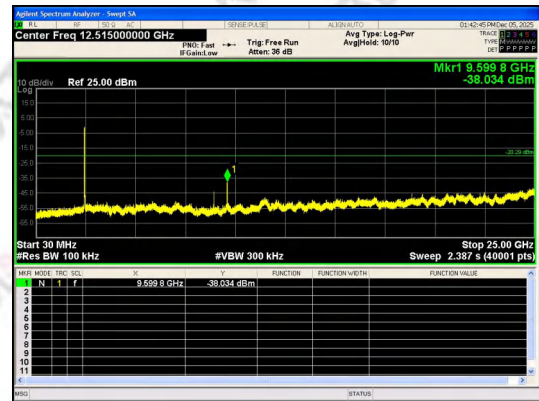
In-Band Reference Level
IEEE 802.11g_Channel 6_20MHz_Antenna 0



30.0 MHz - 25000.0 MHz IEEE 802.11g_Channel 6_20MHz_Antenna 0



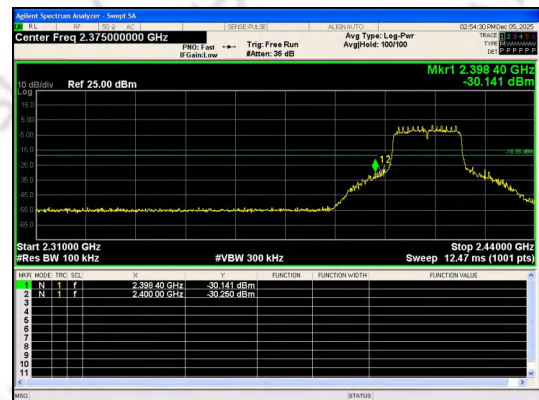
In-Band Reference Level IEEE 802.11g_Channel 11_20MHz_Antenna 0



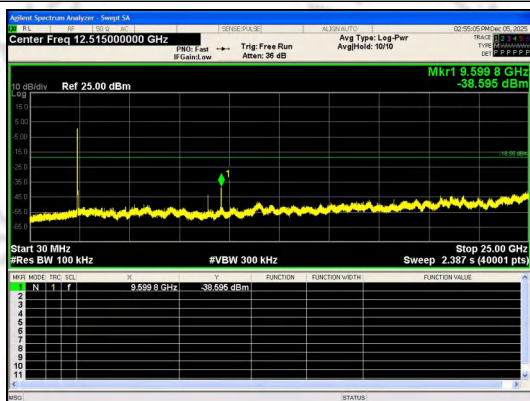
Out Of Band Emission IEEE 802.11g_Channel 11_20MHz_Antenna 0



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

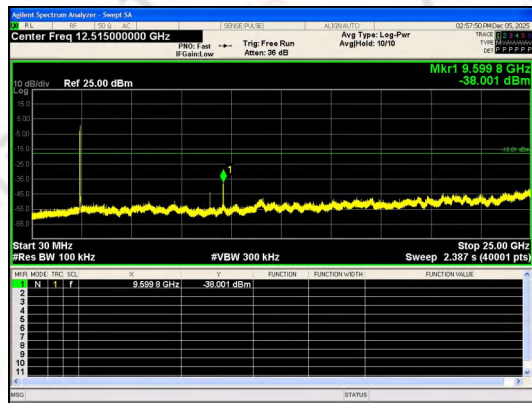


Out Of Band Emission IEEE 802.11n_Channel 1_20MHz_Antenna 0



30.0 MHz - 25000.0 MHz IEEE 802.11n_Channel 1_20MHz_Antenna 0

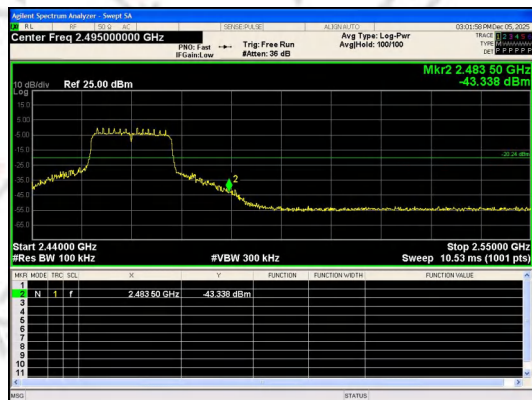
In-Band Reference Level IEEE 802.11n_Channel 6_20MHz_Antenna 0



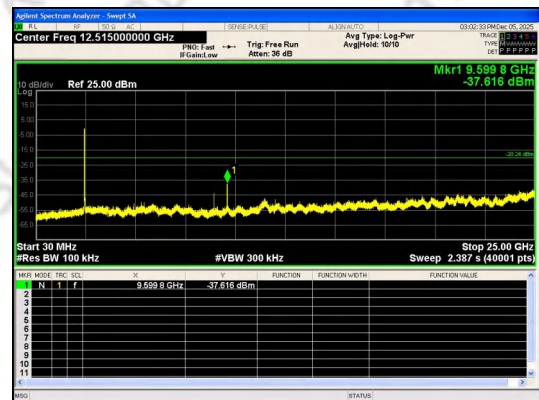
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 6_20MHz_Antenna 0



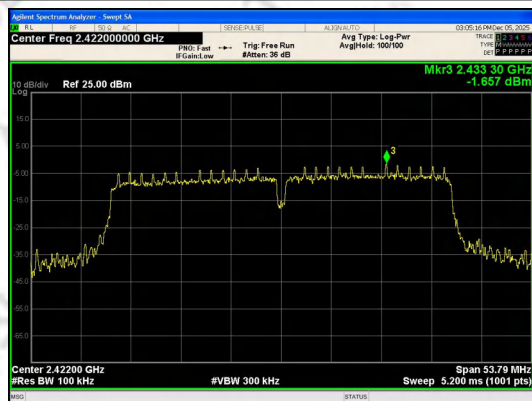
In-Band Reference Level
IEEE 802.11n_Channel 11_20MHz_Antenna 0



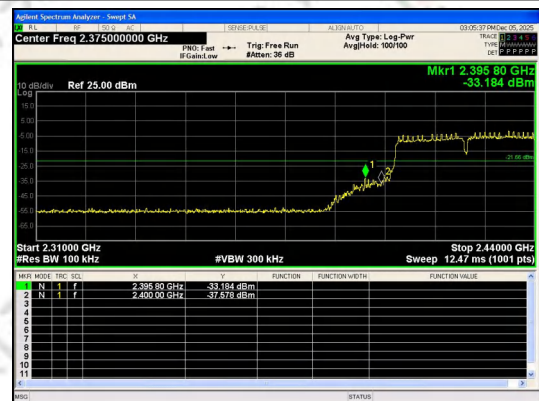
Out Of Band Emission
IEEE 802.11n_Channel 11_20MHz_Antenna 0



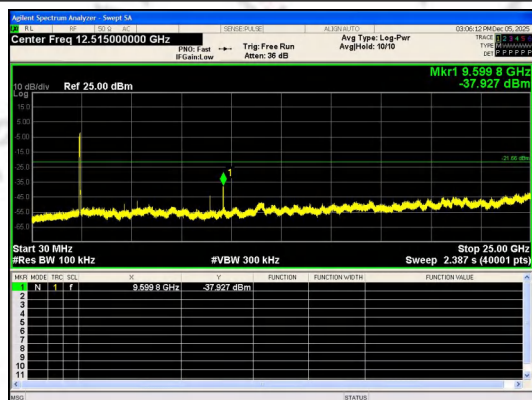
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 11_20MHz_Antenna 0



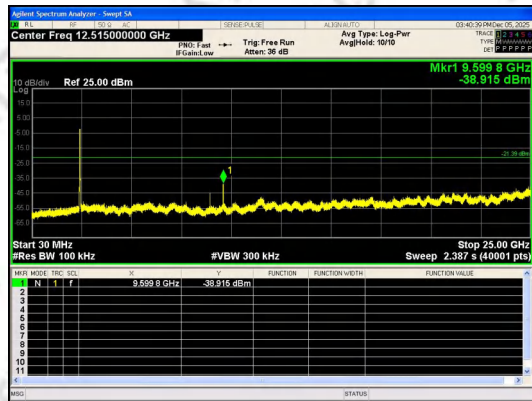
In-Band Reference Level
IEEE 802.11n_Channel 3_40MHz_Antenna 0



Out Of Band Emission
IEEE 802.11n_Channel 3_40MHz_Antenna 0



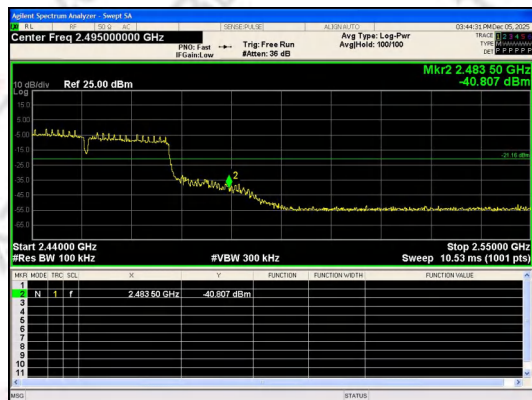
30.0 MHz - 25000.0 MHz IEEE 802.11n_Channel 3_40MHz_Antenna 0



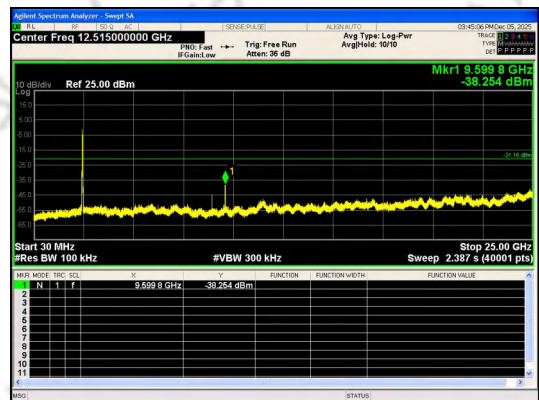
In-Band Reference Level IEEE 802.11n_Channel 6_40MHz_Antenna 0



30.0 MHz - 25000.0 MHz IEEE 802.11n_Channel 6_40MHz_Antenna 0



In-Band Reference Level IEEE 802.11n_Channel 9_40MHz_Antenna 0



Out Of Band Emission IEEE 802.11n_Channel 9_40MHz_Antenna 0

30.0 MHz - 25000.0 MHz IEEE 802.11n_Channel 9_40MHz_Antenna 0

C6.Radiated Spurious Emission and Restricted Band

For 9 kHz ~ 30 MHz

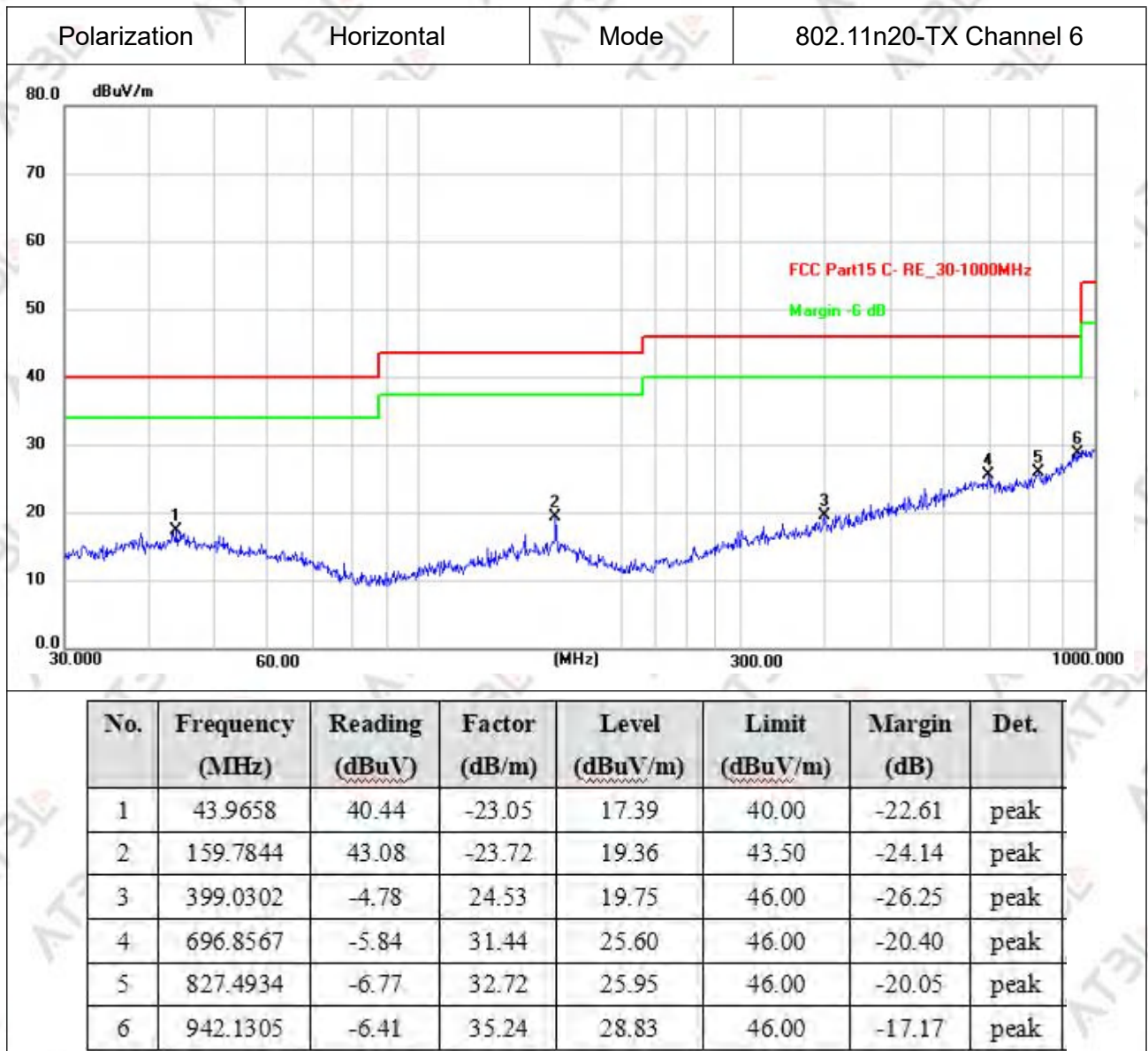
Note:

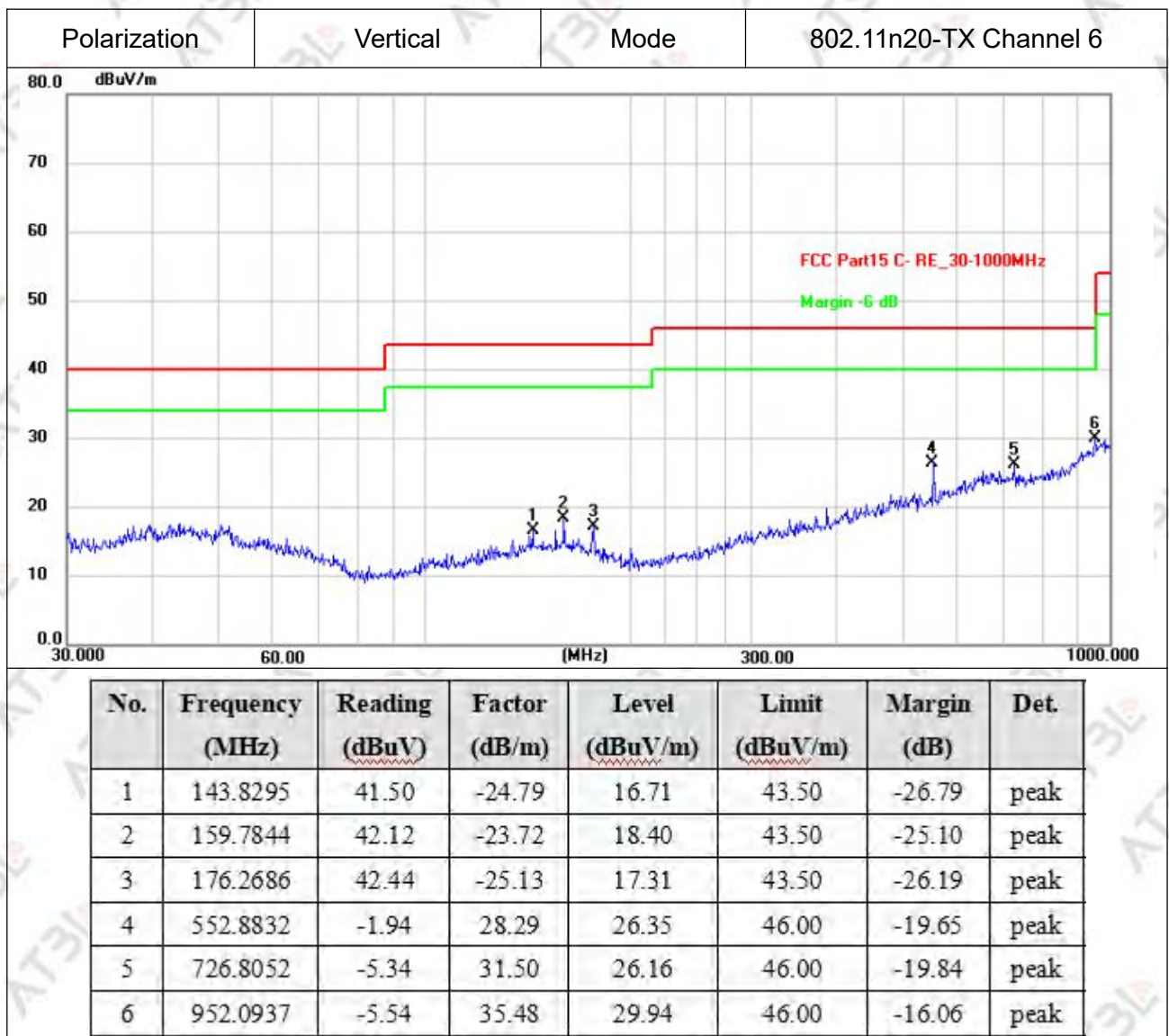
- 1.The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.
- 2.The all data rate modes had been test, but only worse test data was recorded in the test report.

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.

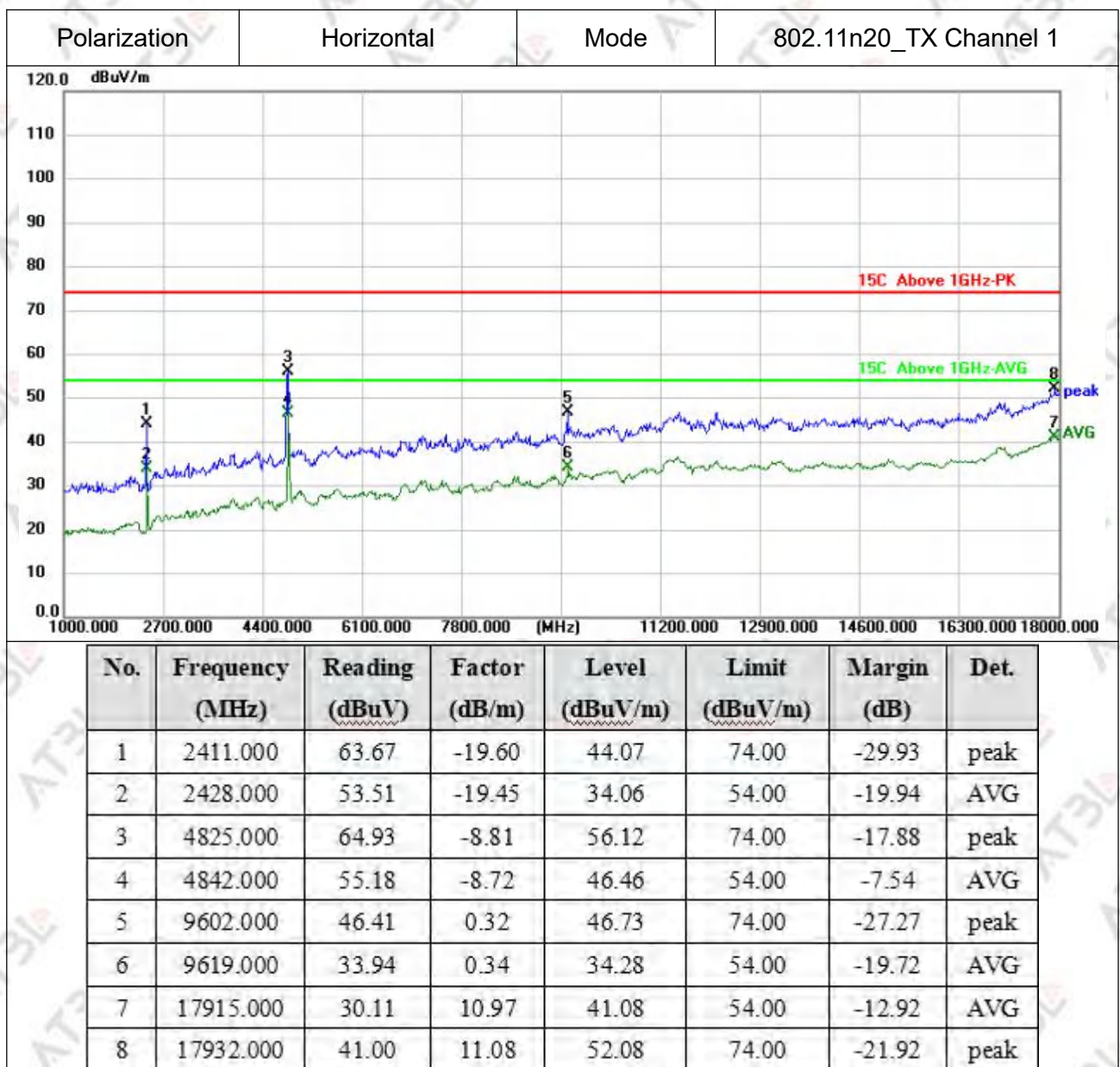


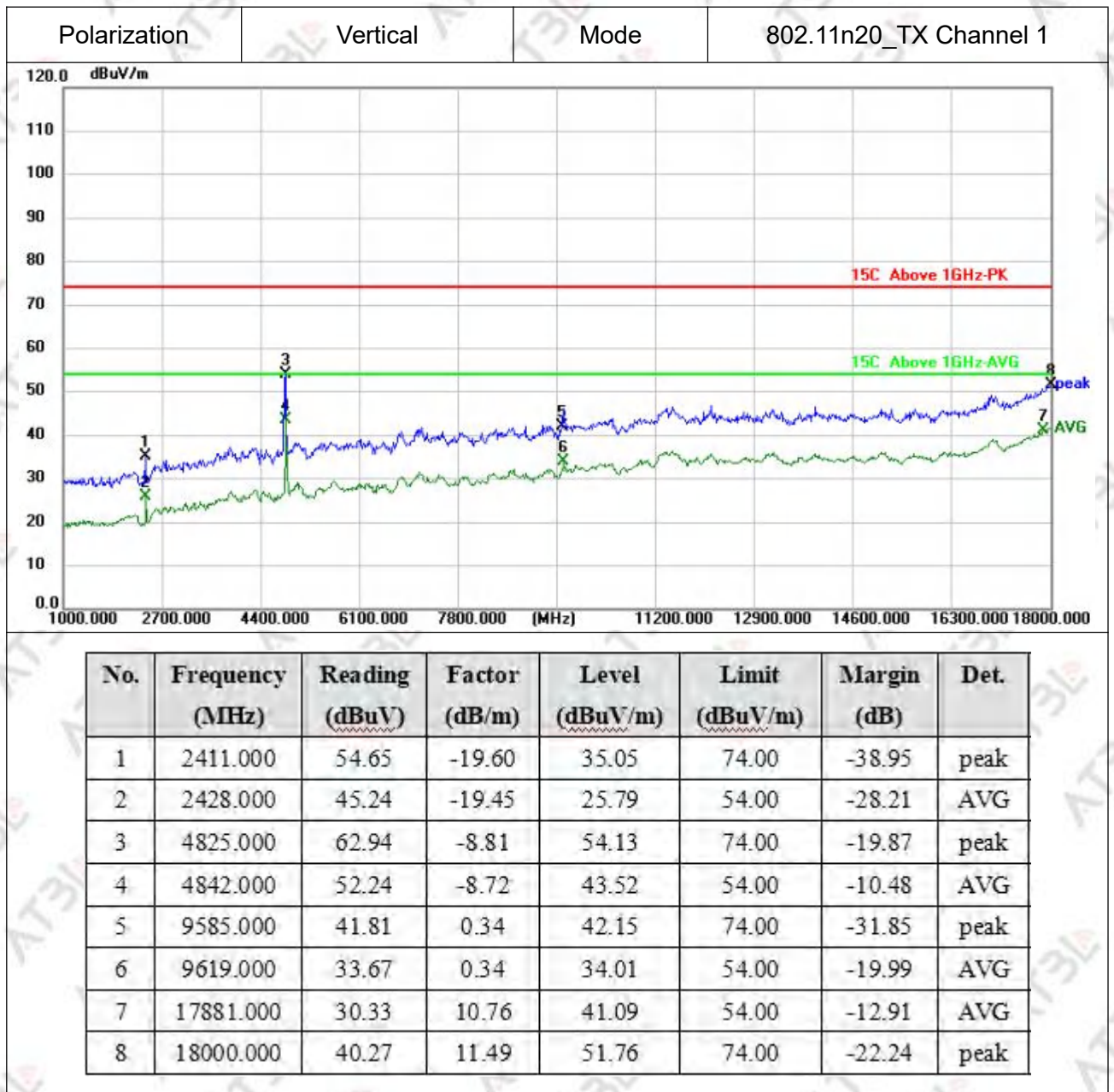


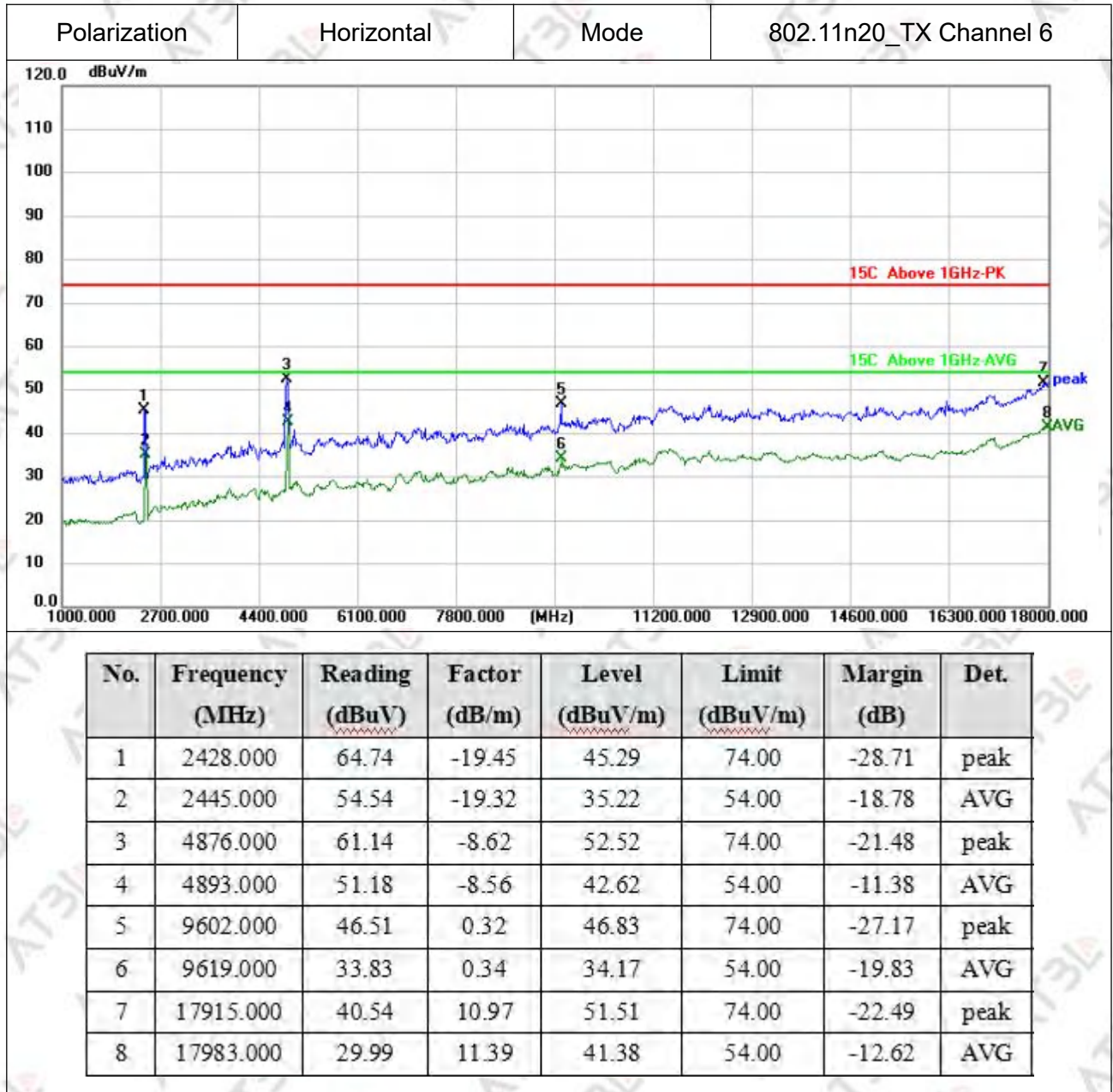
Above 1GHz:

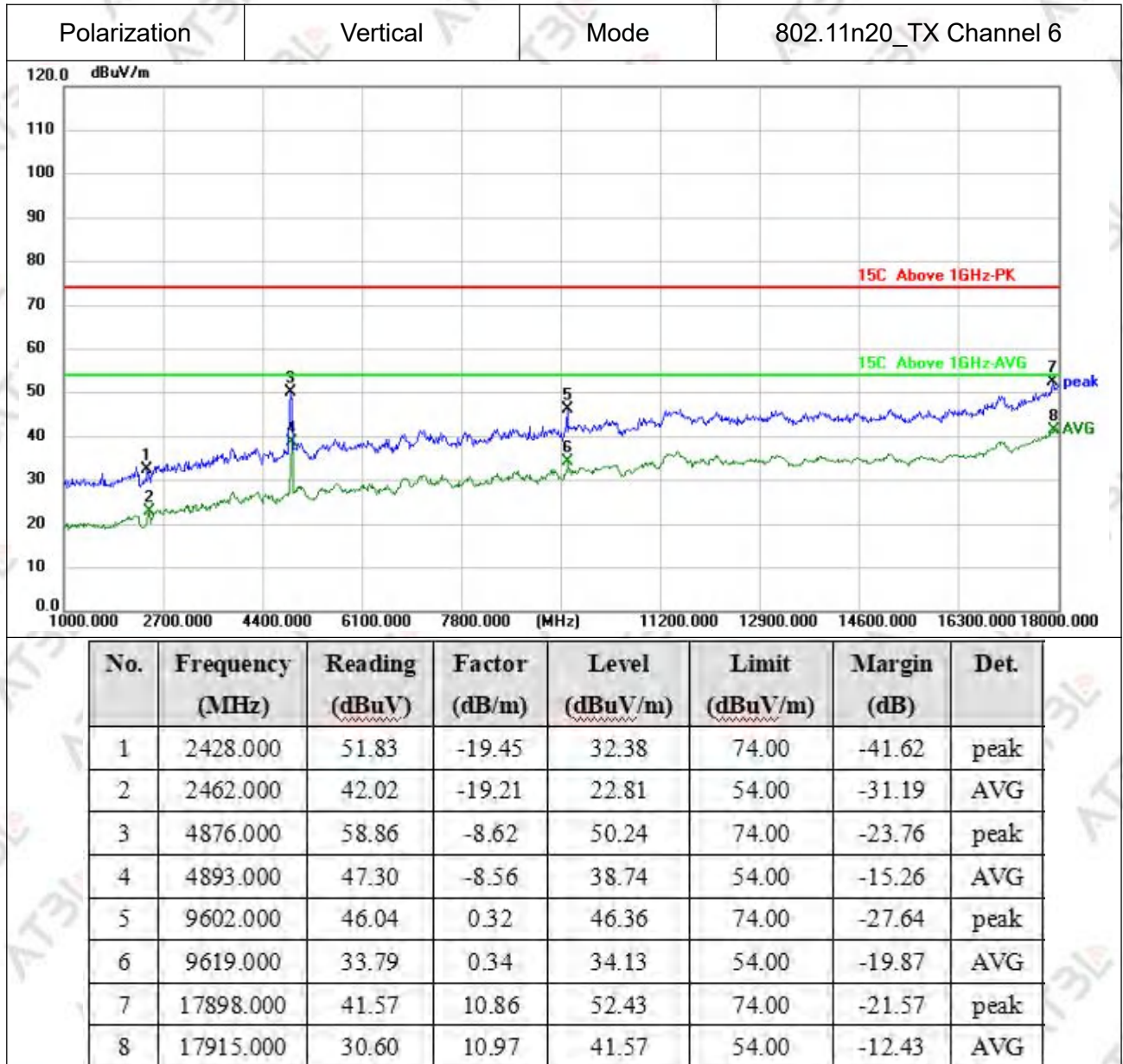
Note:

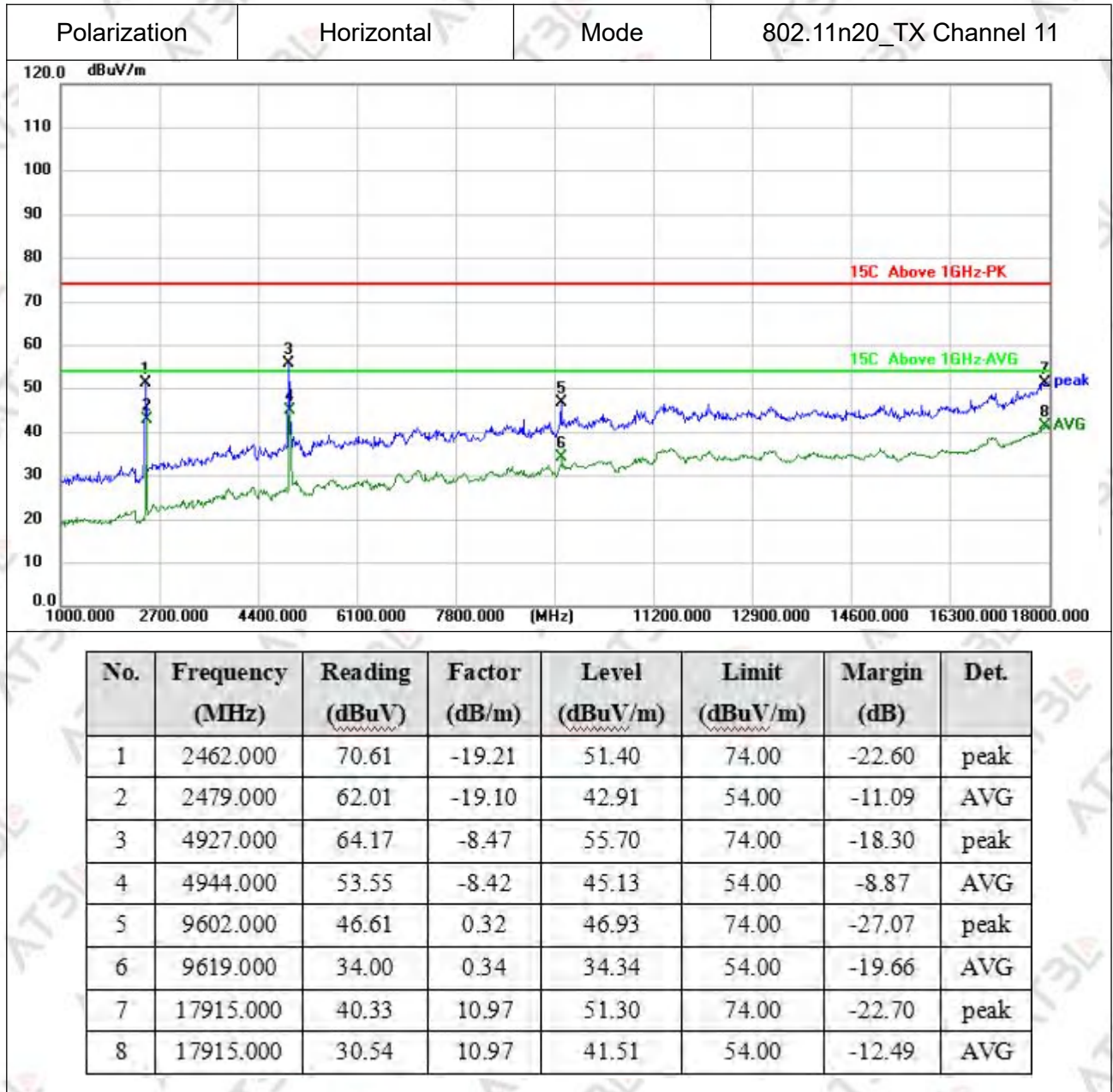
- 1.All modes have been tested, only worst (802.11n20 and 802.11n40)mode was recorded in the test report.
- 2.In frequency ranges 18 ~25GHz no any other harmonic emissions detected which are tested to compliance with the limit. No recording in the test report. No any other emissions level which are attenuated 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.

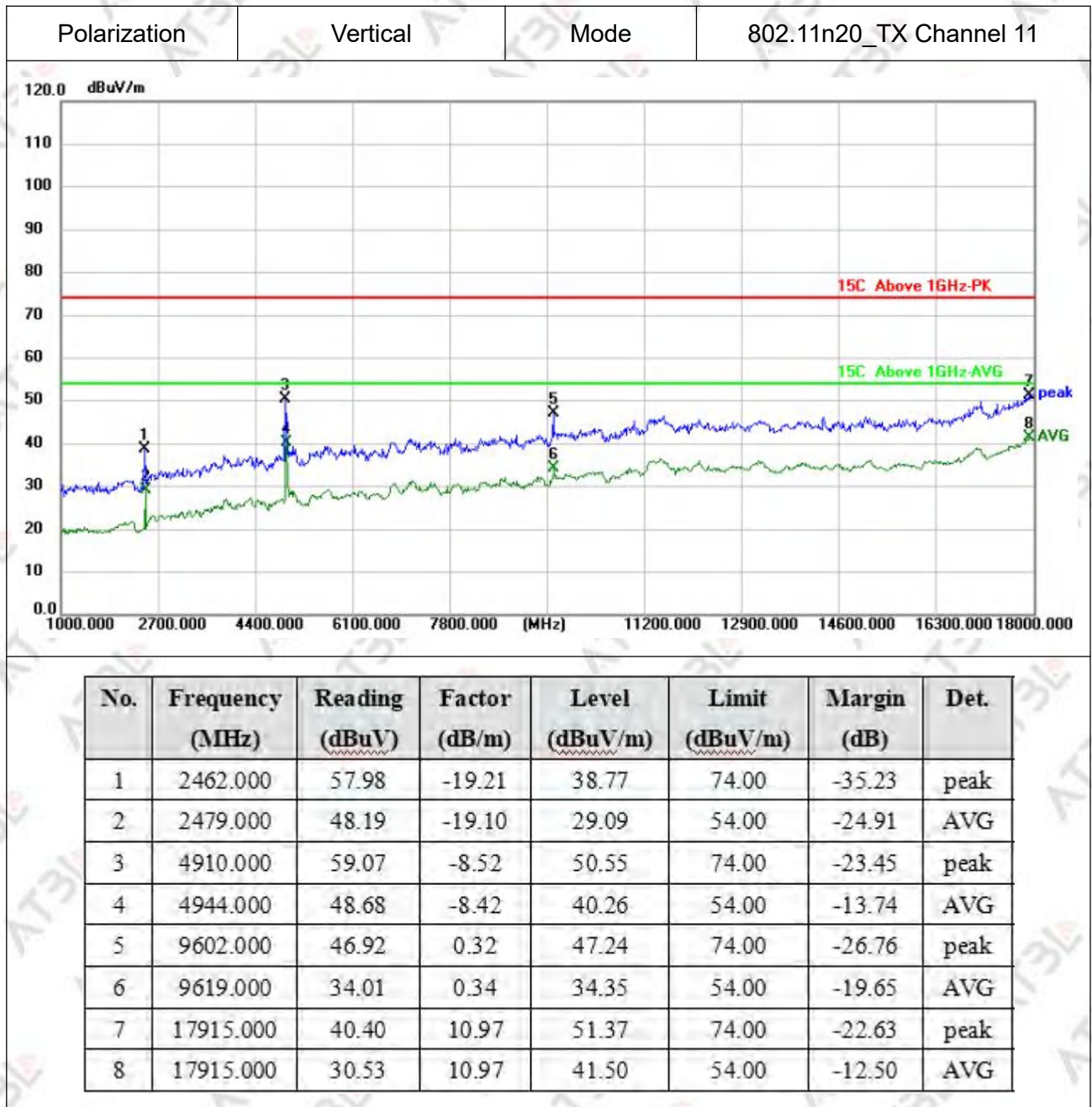


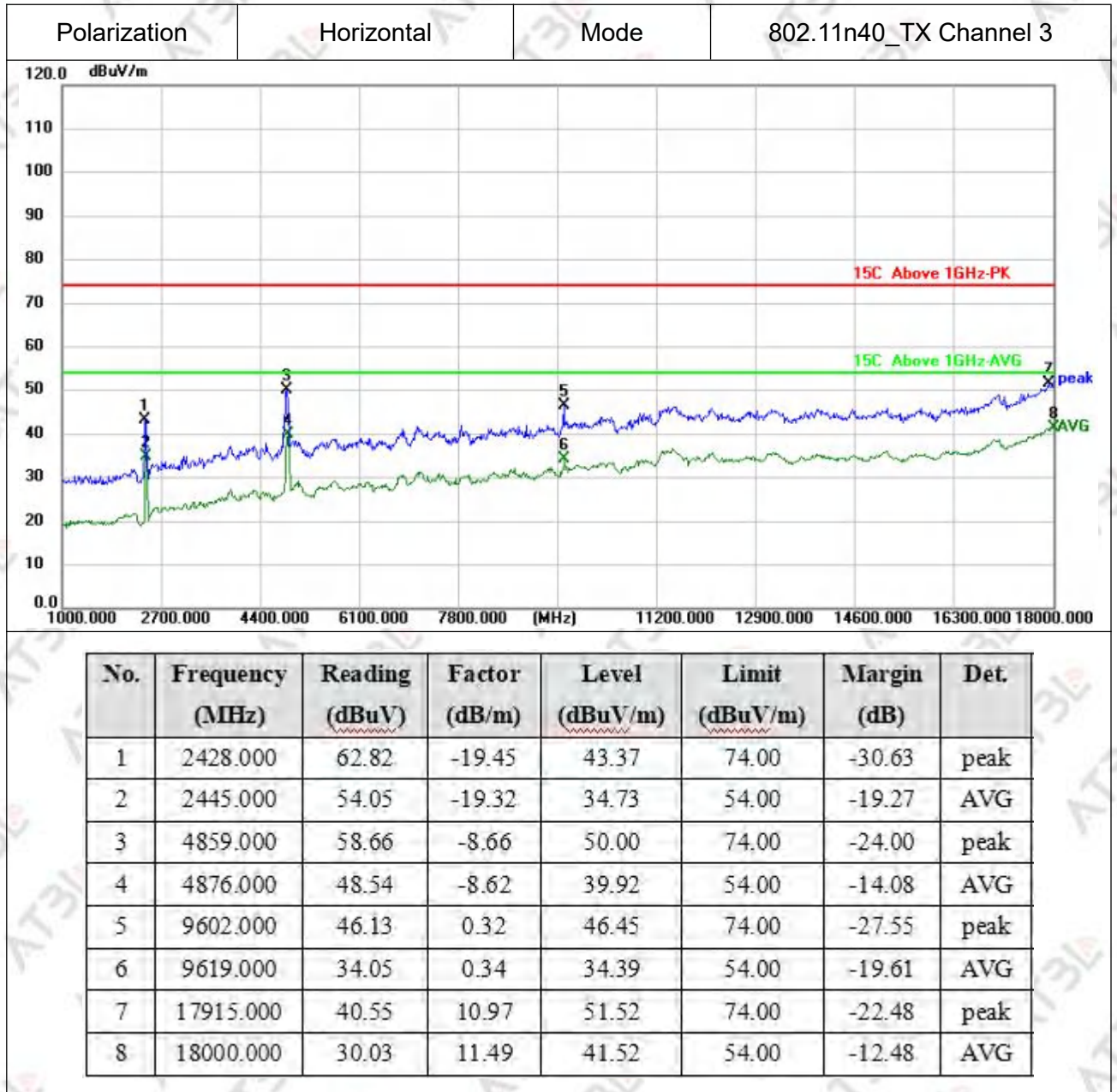


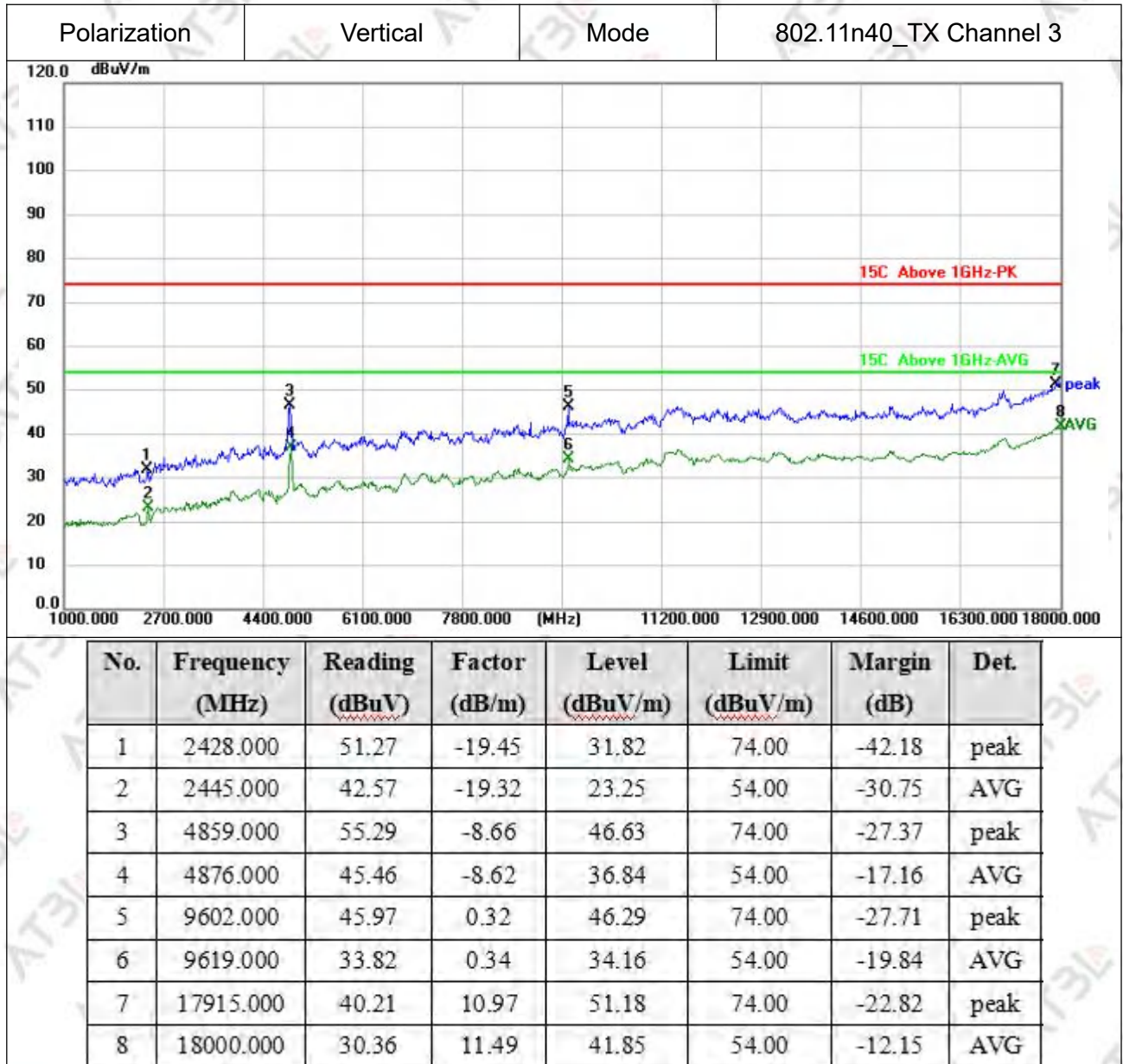


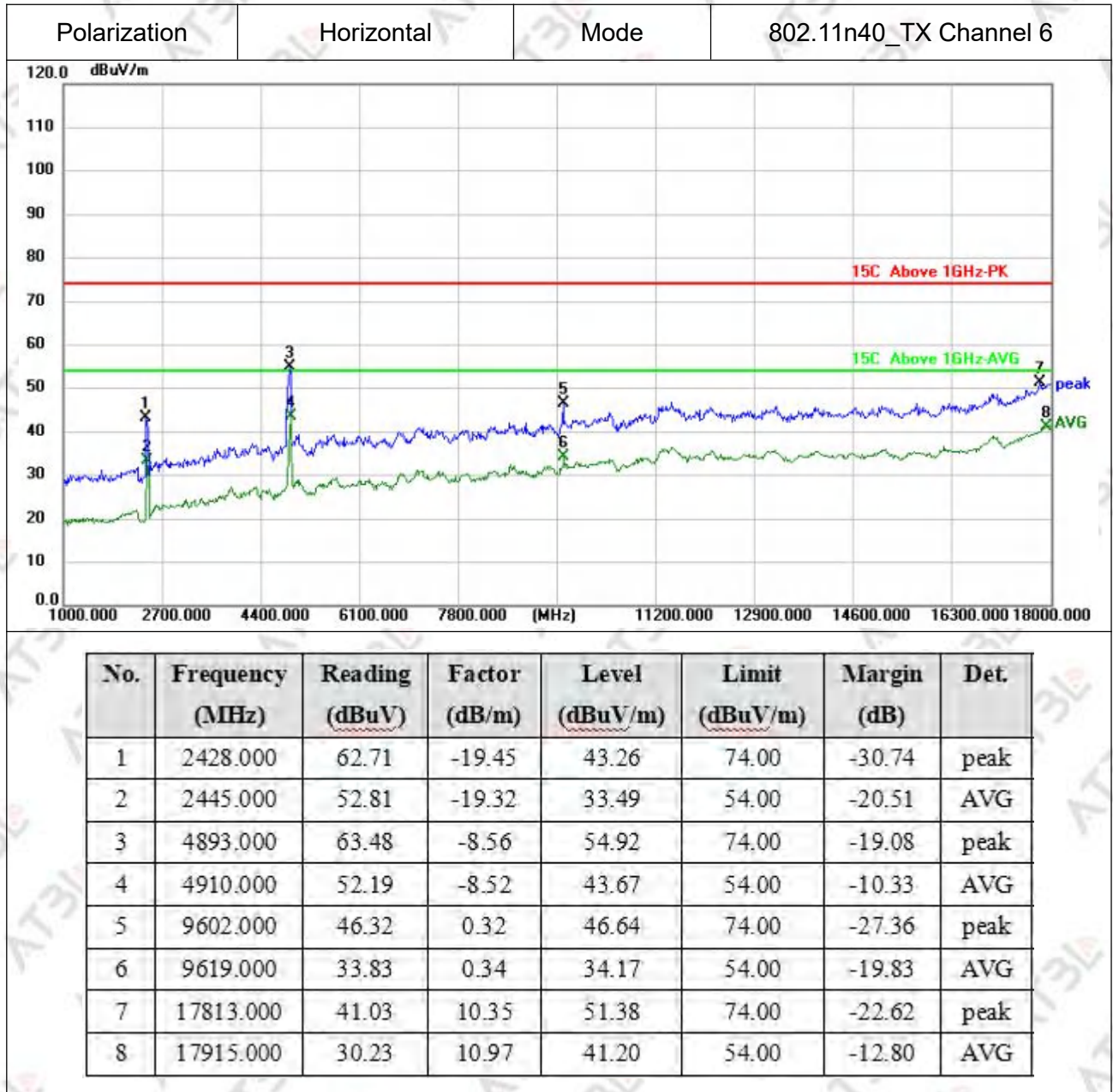


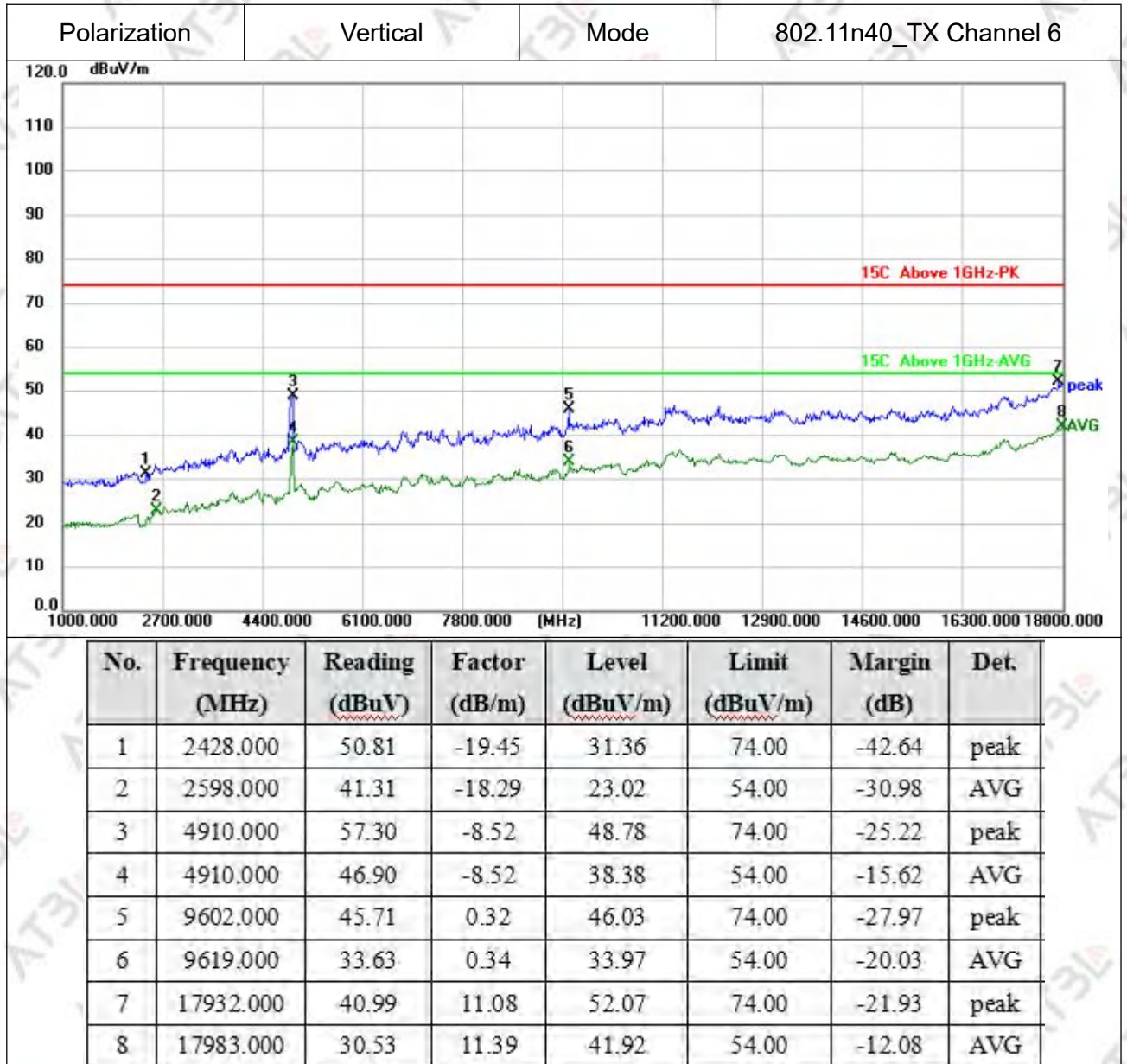


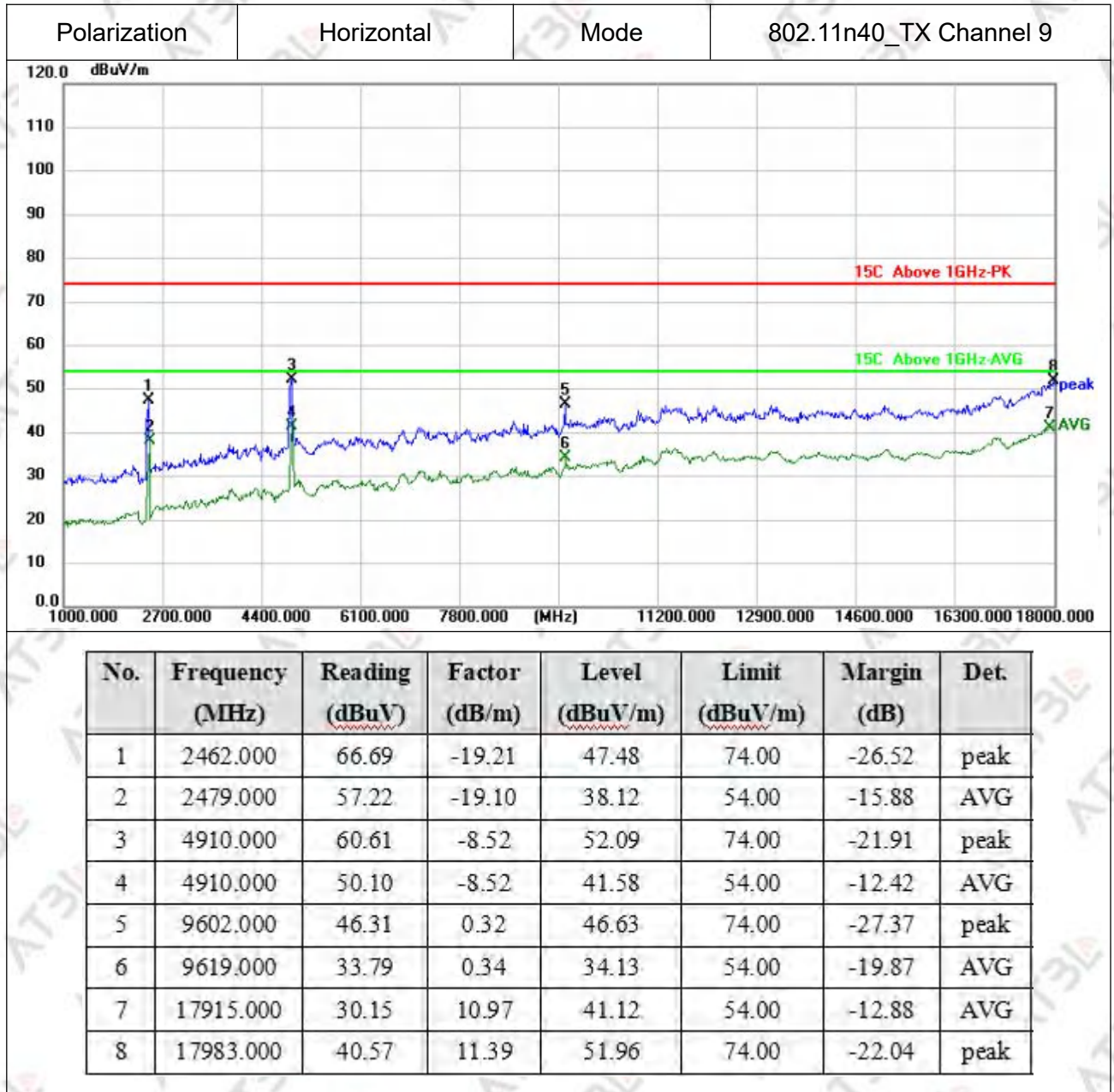


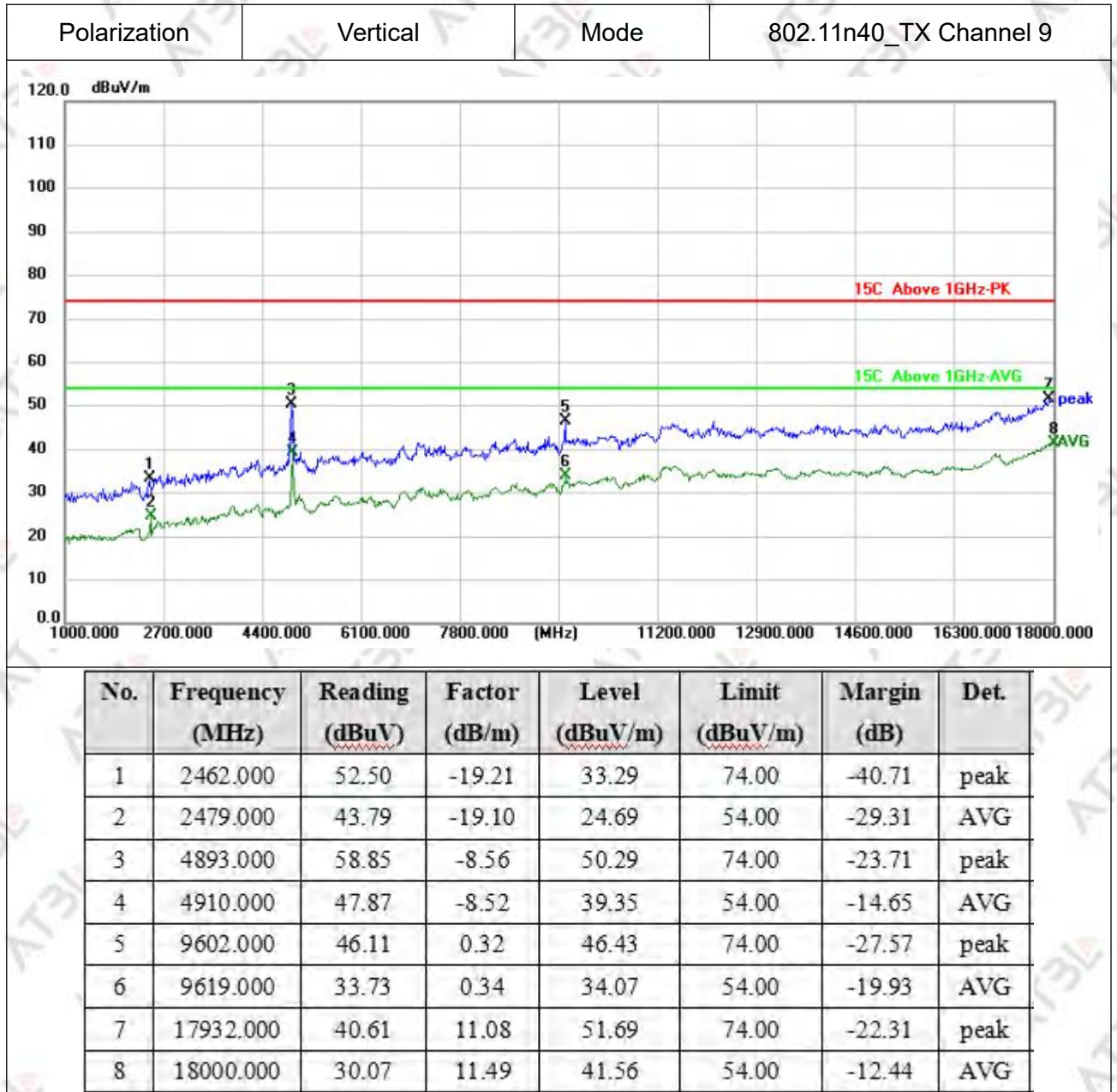












Test Result of Restricted Band

Test Mode: 802.11n20							
Test Channel: Lowest channel, Test Polarization: Vertical							
Frequency (MHz)	Reading (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Marging (dB)	Detector	Result
2310.000	50.21	-19.82	30.39	74.00	-43.61	peak	Pass
2310.000	40.48	-19.82	20.66	54.00	-33.34	AV	Pass
2390.000	52.00	-19.70	32.30	74.00	-41.70	peak	Pass
2390.000	40.96	-19.70	21.26	54.00	-32.74	AV	Pass
Test Channel: Lowest channel, Test Polarization: Horizontal							
Frequency (MHz)	Reading (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Marging (dB)	Detector	Result
2310.000	50.29	-19.82	30.47	74.00	-43.53	peak	Pass
2310.000	40.42	-19.82	20.60	54.00	-33.40	AV	Pass
2390.000	50.21	-19.70	30.51	74.00	-43.49	peak	Pass
2390.000	41.13	-19.70	21.43	54.00	-32.57	AV	Pass
Test Channel: Highest channel, Test Polarization: Vertical							
Frequency (MHz)	Reading (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Marging (dB)	Detector	Result
2483.500	50.41	-19.07	31.34	74.00	-42.66	peak	Pass
2483.500	41.12	-19.07	22.05	54.00	-31.95	AV	Pass
2500.000	51.67	-18.98	32.69	74.00	-41.31	peak	Pass
2500.000	41.61	-18.98	22.63	54.00	-31.37	AV	Pass
Test Channel: Highest channel, Test Polarization: Horizontal							
Frequency (MHz)	Reading (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Marging (dB)	Detector	Result
2483.500	50.87	-19.07	31.80	74.00	-42.20	peak	Pass
2483.500	41.03	-19.07	21.96	54.00	-32.04	AV	Pass
2500.000	51.33	-18.98	32.35	74.00	-41.65	peak	Pass
2500.000	41.38	-18.98	22.40	54.00	-31.60	AV	Pass

Note:Margin=Level-Limit=Reading+factor-Limit

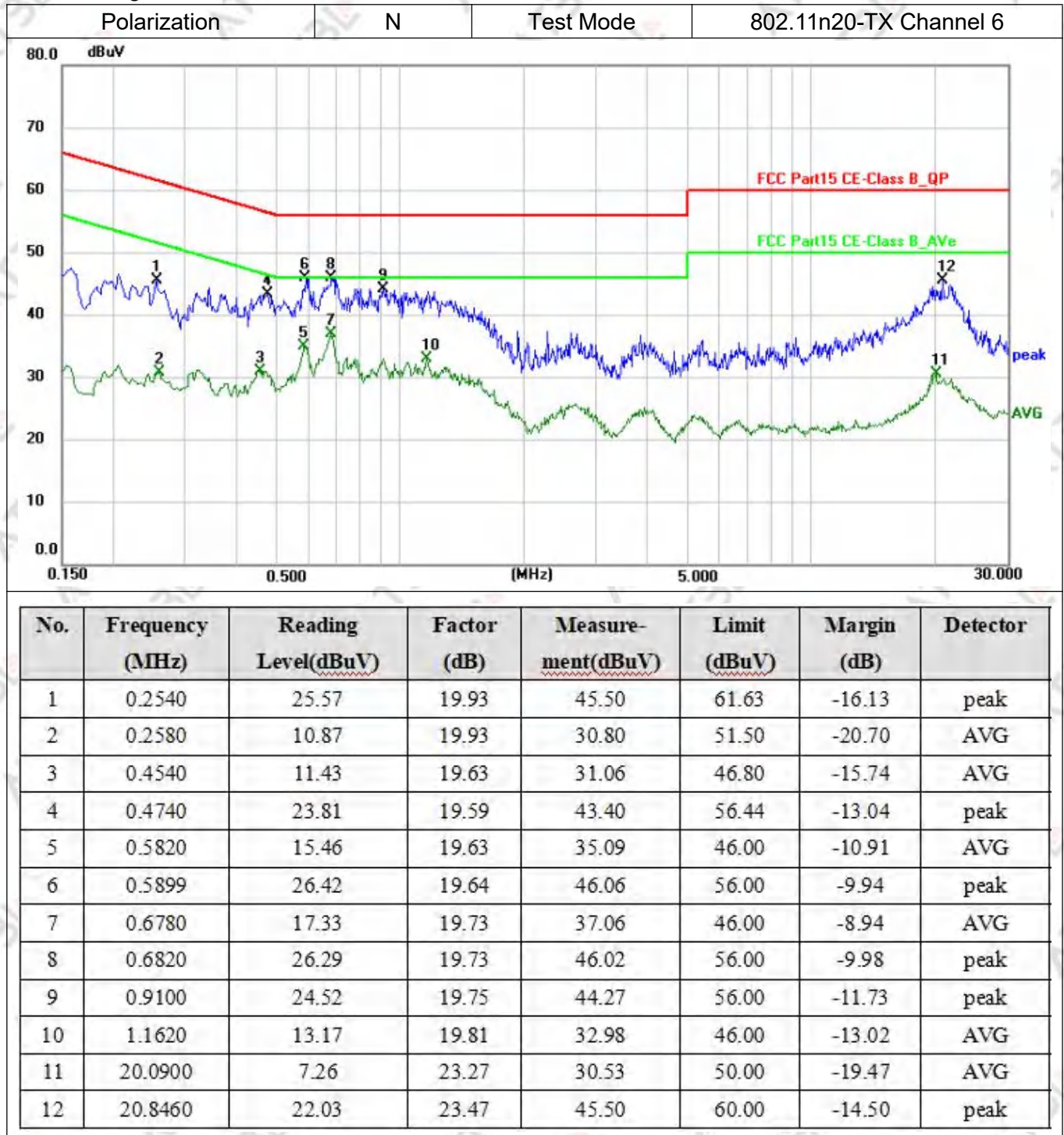
Test Mode: 802.11n40							
Test Channel: Lowest channel, Test Polarization: Vertical							
Frequency (MHz)	Reading (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Marging (dB)	Detector	Result
2310.000	51.48	-19.82	31.66	74.00	-42.34	peak	Pass
2310.000	40.56	-19.82	20.74	54.00	-33.26	AV	Pass
2390.000	50.80	-19.70	31.10	74.00	-42.90	peak	Pass
2390.000	41.06	-19.70	21.36	54.00	-32.64	AV	Pass
Test Channel: Lowest channel, Test Polarization: Horizontal							
Frequency (MHz)	Reading (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Marging (dB)	Detector	Result
2310.000	50.26	-19.82	30.44	74.00	-43.56	peak	Pass
2310.000	40.64	-19.82	20.82	54.00	-33.18	AV	Pass
2390.000	50.89	-19.70	31.19	74.00	-42.81	peak	Pass
2390.000	40.91	-19.70	21.21	54.00	-32.79	AV	Pass
Test Channel: Highest channel, Test Polarization: Vertical							
Frequency (MHz)	Reading (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Marging (dB)	Detector	Result
2483.500	50.49	-19.07	31.42	74.00	-42.58	peak	Pass
2483.500	41.16	-19.07	22.09	54.00	-31.91	AV	Pass
2500.000	51.40	-18.98	32.42	74.00	-41.58	peak	Pass
2500.000	41.98	-18.98	23.00	54.00	-31.00	AV	Pass
Test Channel: Highest channel, Test Polarization: Horizontal							
Frequency (MHz)	Reading (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Marging (dB)	Detector	Result
2483.500	50.76	-19.07	31.69	74.00	-42.31	peak	Pass
2483.500	41.07	-19.07	22.00	54.00	-32.00	AV	Pass
2500.000	51.33	-18.98	32.35	74.00	-41.65	peak	Pass
2500.000	41.32	-18.98	22.34	54.00	-31.66	AV	Pass

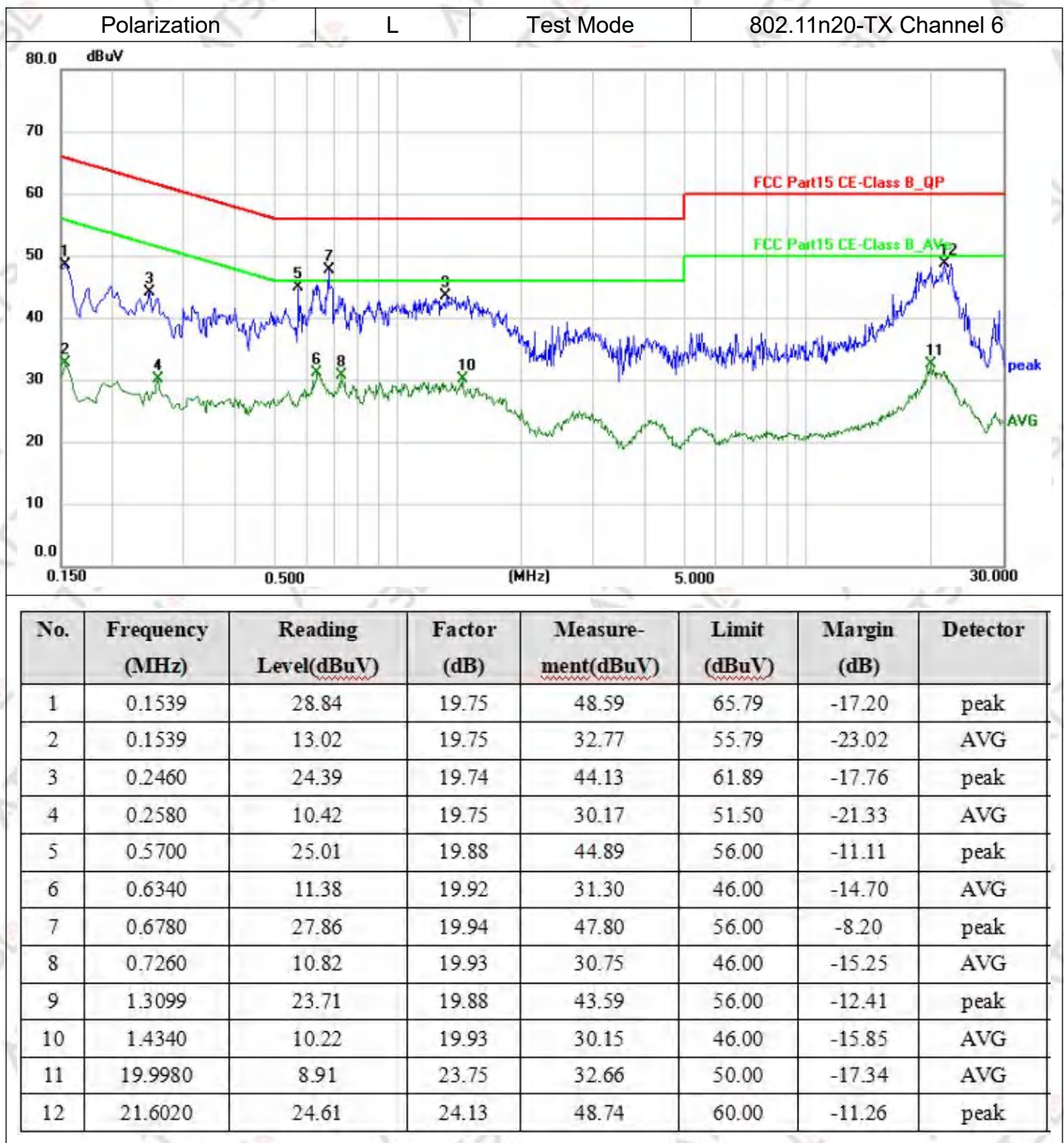
Note:Margin=Level-Limit=Reading+factor-Limit

C7.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.





*****END*****