

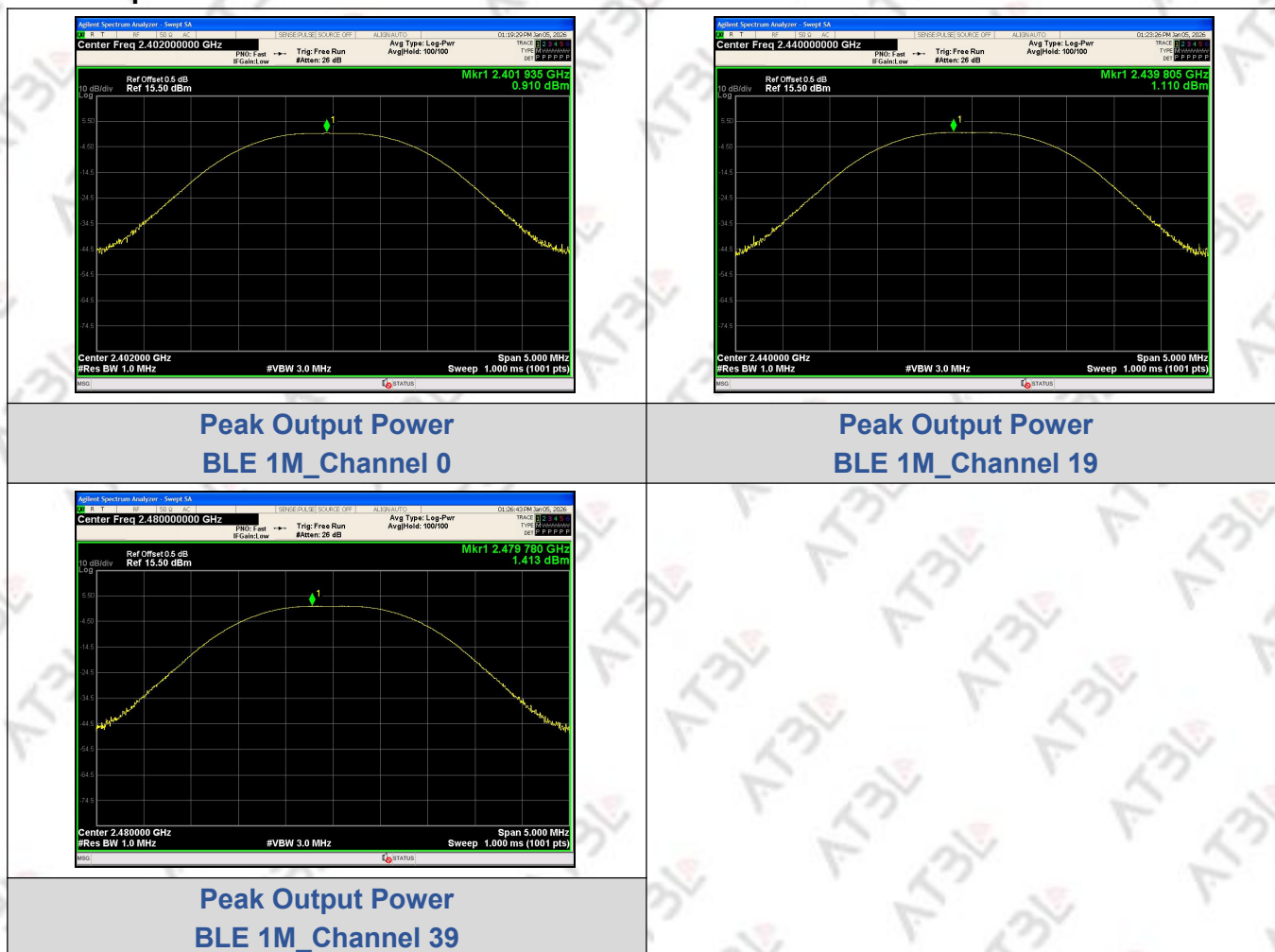
Appendix B of data

B1.Maximum Peak Conducted Output Power

Test Result

Mode	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
BLE 1M	0	0.91	1.23	≤30	PASS
	19	1.11	1.29	≤30	PASS
	39	1.41	1.38	≤30	PASS

Test Graphs

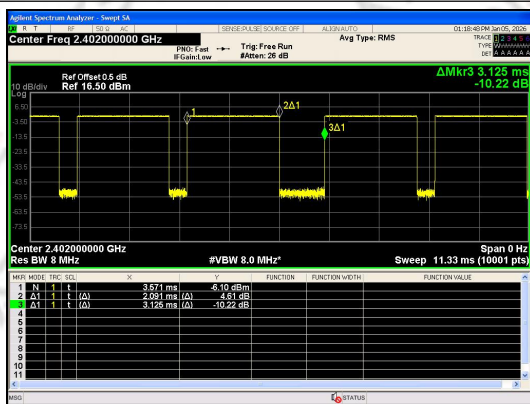


B2.Duty Cycle

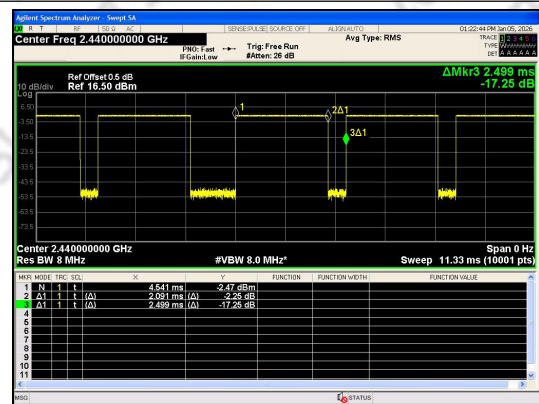
Test Result

Mode	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)
BLE 1M	0	2.091	3.125	66.92	0.6692	1.7444
	19	2.091	2.499	83.67	0.8367	0.7743
	39	2.091	2.499	83.67	0.8367	0.7743

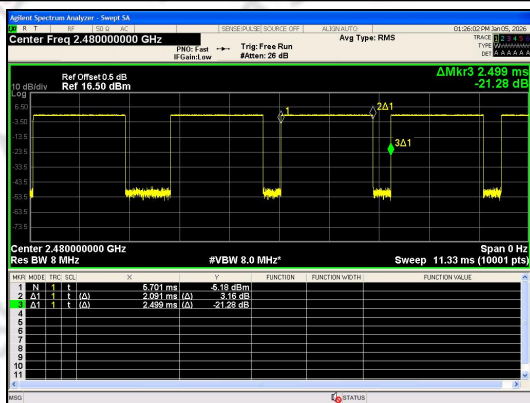
Test Graphs



BLE 1M_Channel 0



BLE 1M_Channel 19



BLE 1M_Channel 39

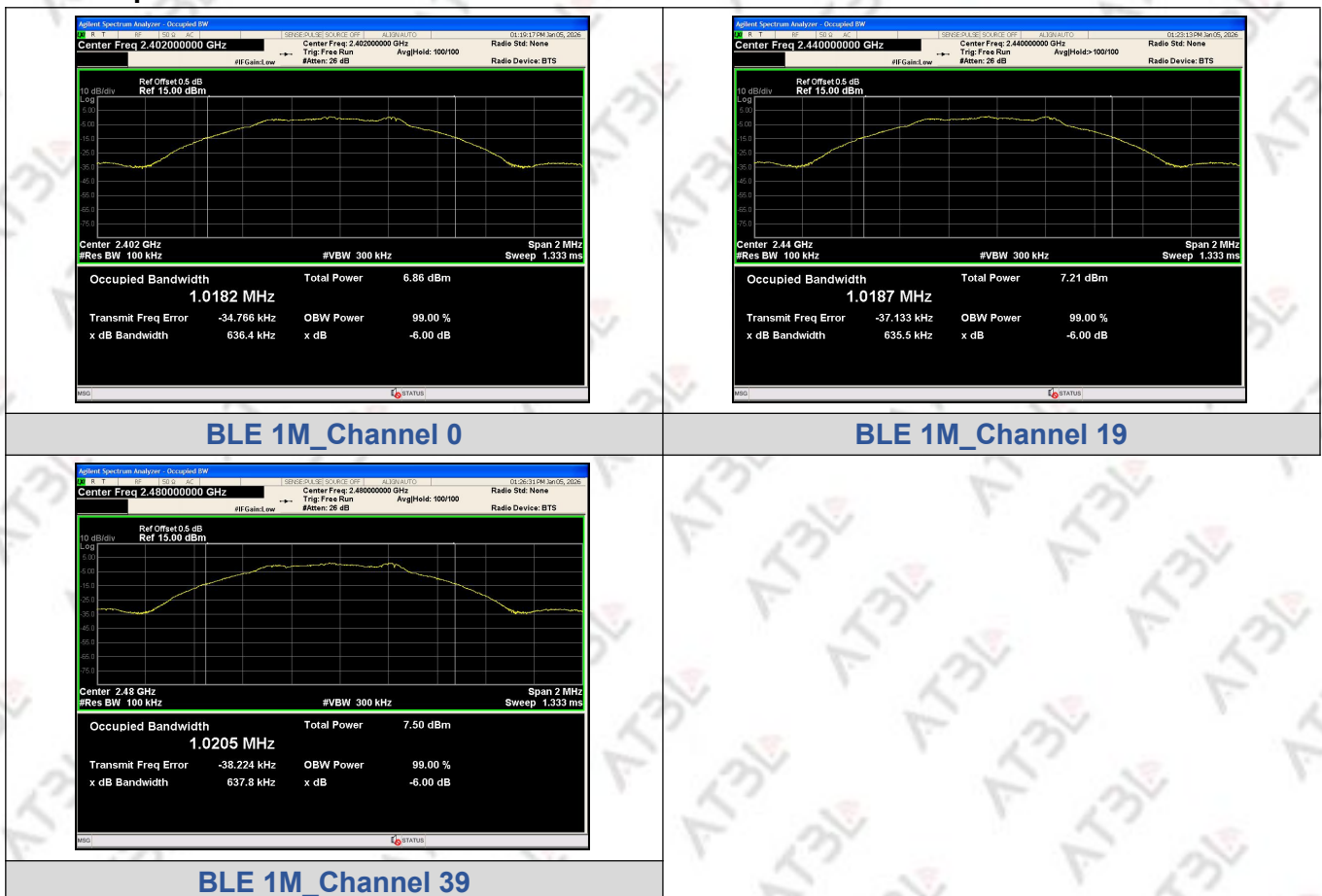
B3.6dB Bandwidth and 99% Bandwidth

6dB Bandwidth

Test Result

Mode	Channel	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
BLE 1M	0	2402	0.6364	≥0.5	PASS
	19	2440	0.6355		PASS
	39	2480	0.6378		PASS

Test Graphs

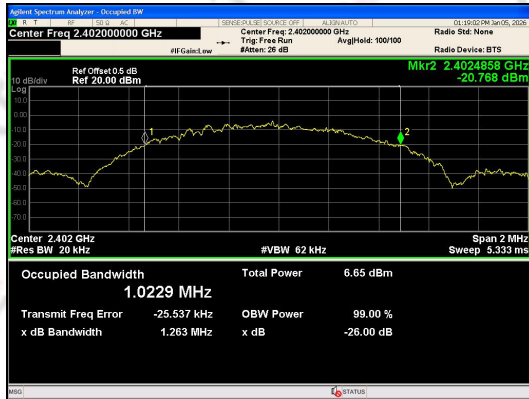


99%dB Bandwidth

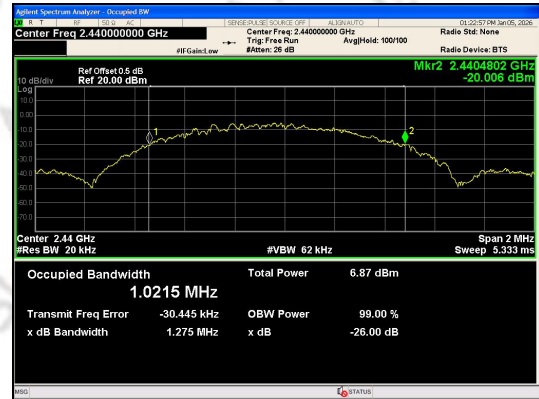
Test Result

Mode	Channel	Center Frequency (MHz)	99% BW (MHz)
BLE 1M	0	2402	1.0229
	19	2440	1.0215
	39	2480	1.0282

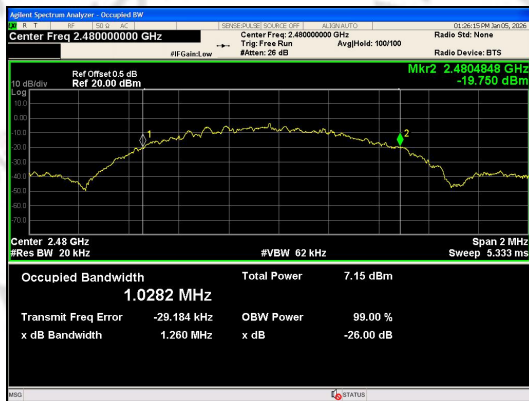
Test Graphs



BLE 1M_Channel 0



BLE 1M_Channel 19



BLE 1M_Channel 39

B4.Power Spectral Density

Test Result

Mode	Channel	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
BLE 1M	0	-14.387	≤8	PASS
	19	-13.990	≤8	PASS
	39	-13.234	≤8	PASS

Test Graphs



BLE 1M_Channel 0



BLE 1M_Channel 19



BLE 1M_Channel 39

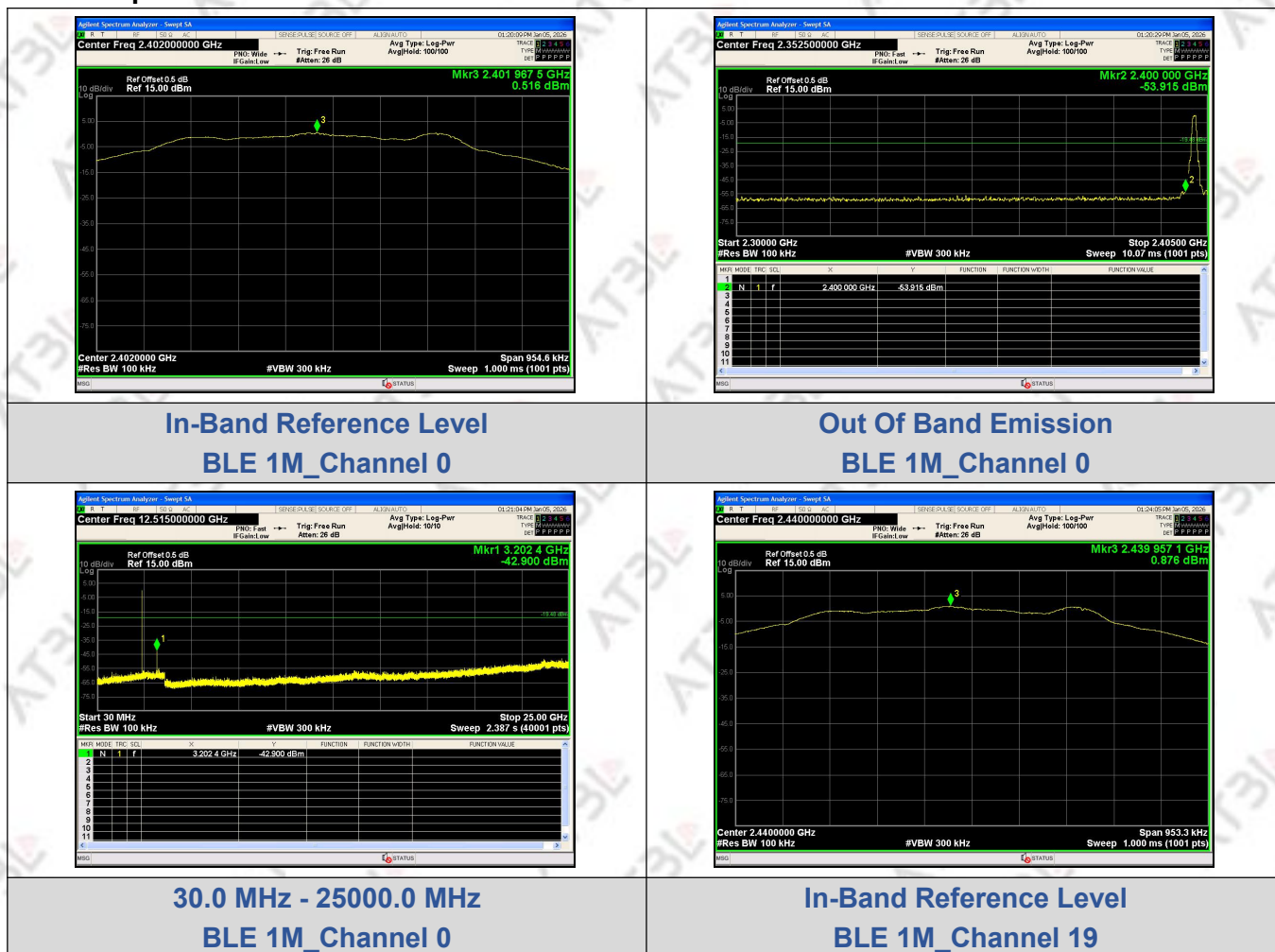
B5.Conducted Band Edge and Conducted Spurious Emission

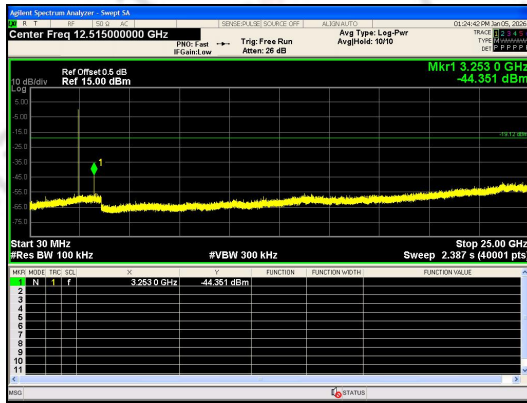
Test Result

Mode	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
BLE 1M	0	2400.00	-53.915	-19.48	-34.435	PASS
		3202.44	-42.900	-19.48	-23.420	PASS
	19	3253.00	-44.351	-19.12	-25.231	PASS
	39	2483.50	-56.679	-18.85	-37.829	PASS
		3306.69	-44.639	-18.85	-25.789	PASS

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

Test Graphs

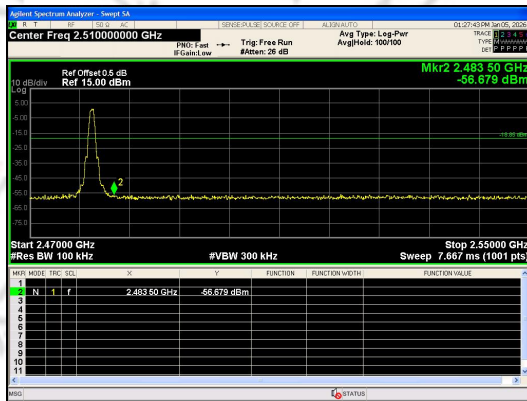




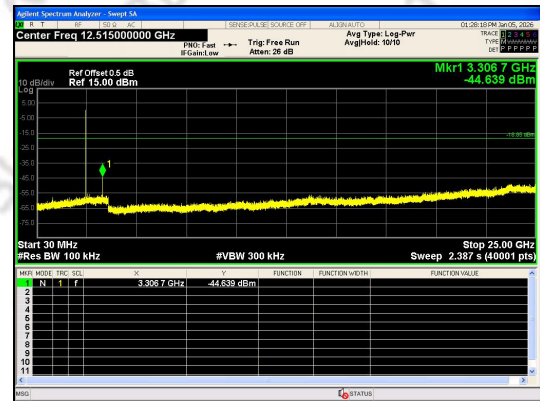
30.0 MHz - 25000.0 MHz
BLE 1M_Channel 19



In-Band Reference Level
BLE 1M_Channel 39



Out Of Band Emission
BLE 1M_Channel 39



30.0 MHz - 25000.0 MHz
BLE 1M_Channel 39

B6.Radiated Spurious Emission and Restricted Band

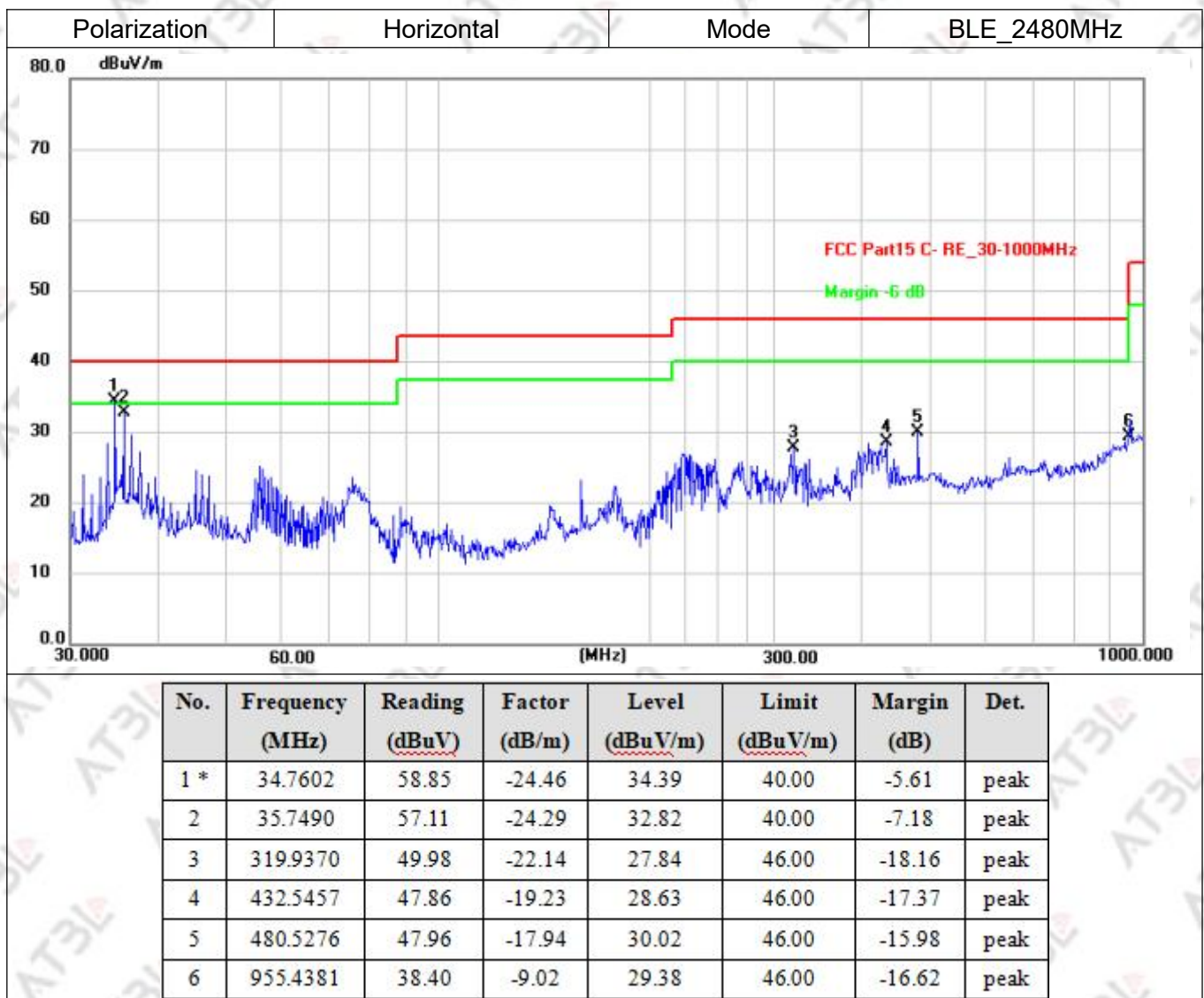
For 9 kHz ~ 30 MHz

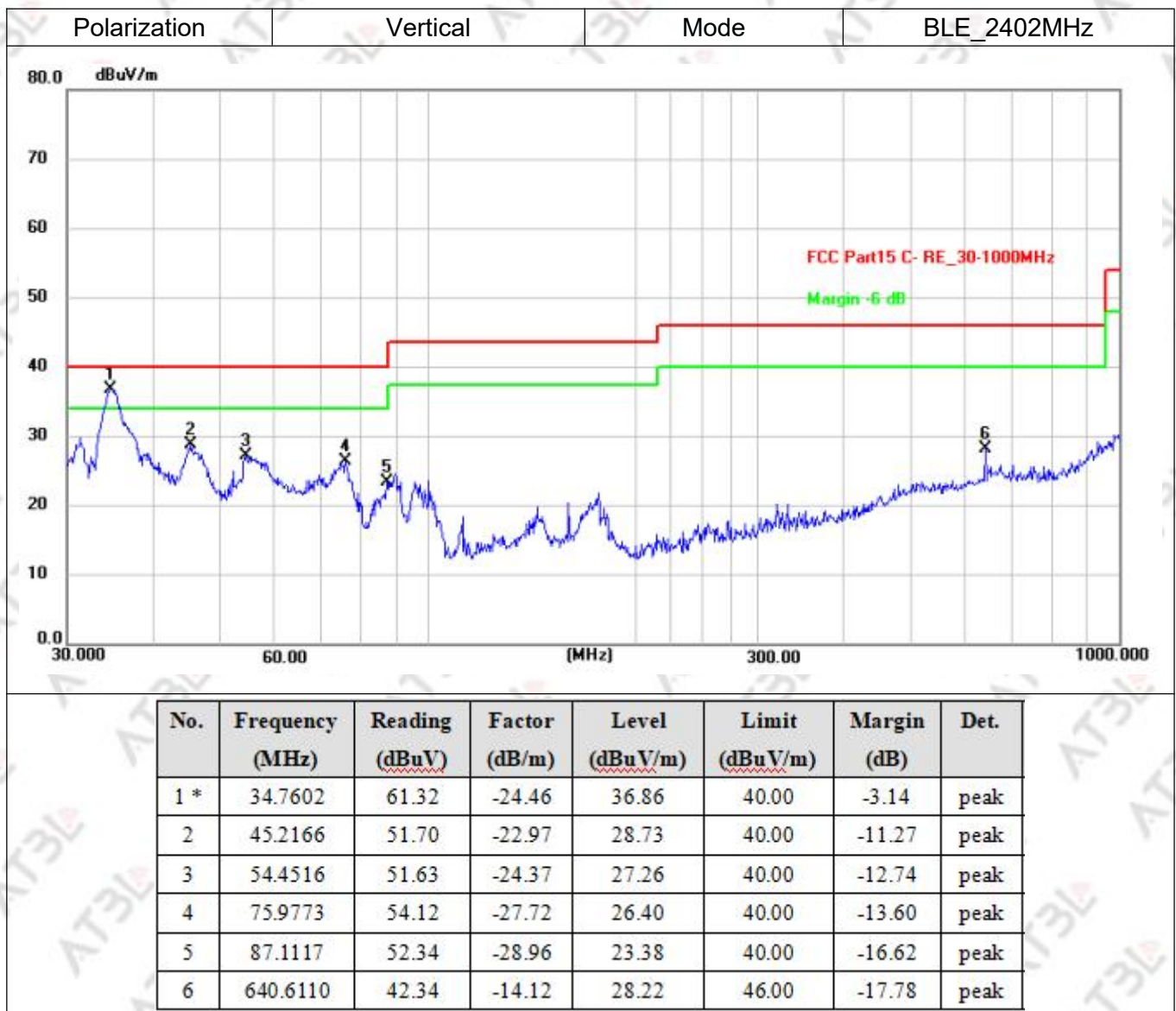
The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

For 30 MHz ~ 1 GHz:

Note:

- 1.All modes have been tested, only worst (BLE_2480MHz)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.

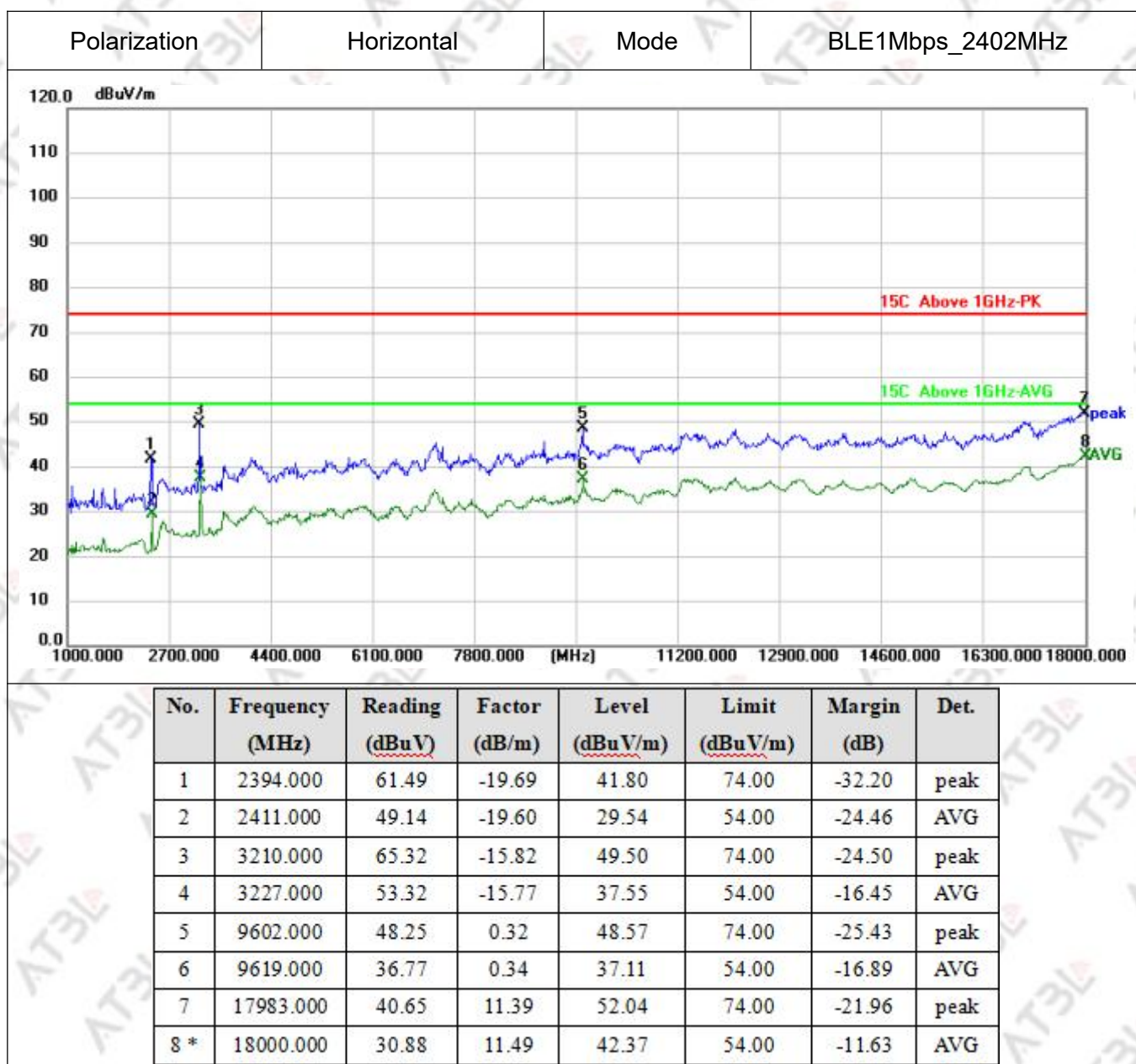


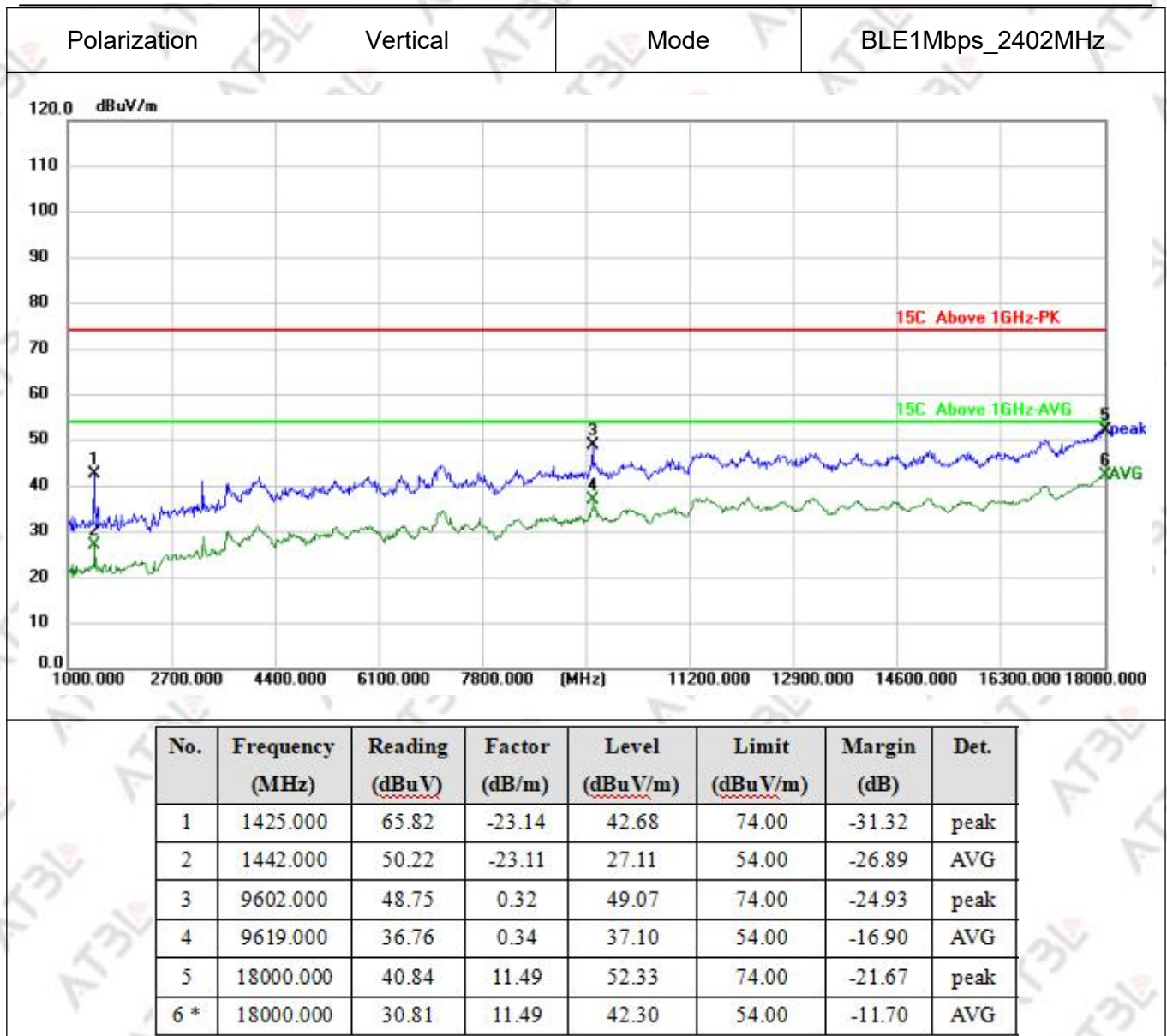


For 1 GHz ~ 18GHz:

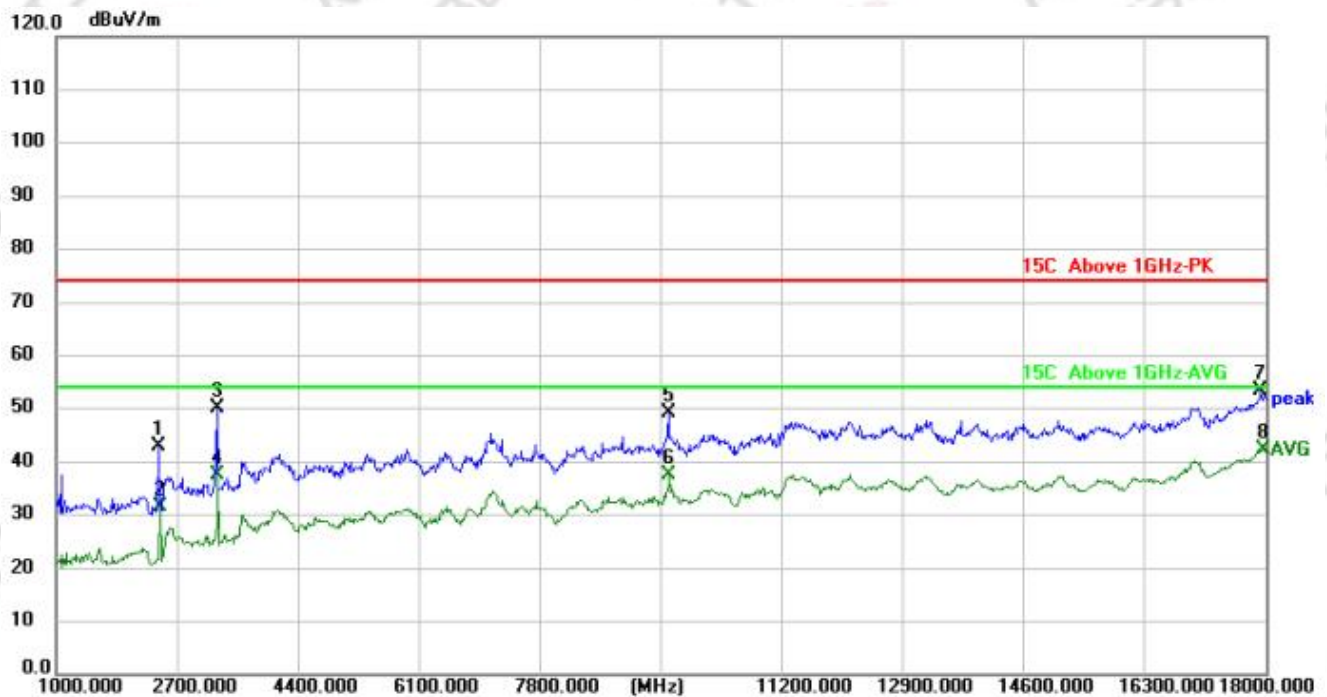
Note:

1. 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.
2. We used the filter to test and the main frequency was filtered out.
3. Emission Level (dBuV/m) = Reading Value (dBuV) + Correction Factor (dB/m).
4. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)-Amplifier Gain.
5. The emission levels of other frequencies were less than 20dB margin against the limit.
6. Margin value = Emission level-Limit value.
7. All modes have been tested, only worst mode(BLE1Mbps) was recorded in the test report.

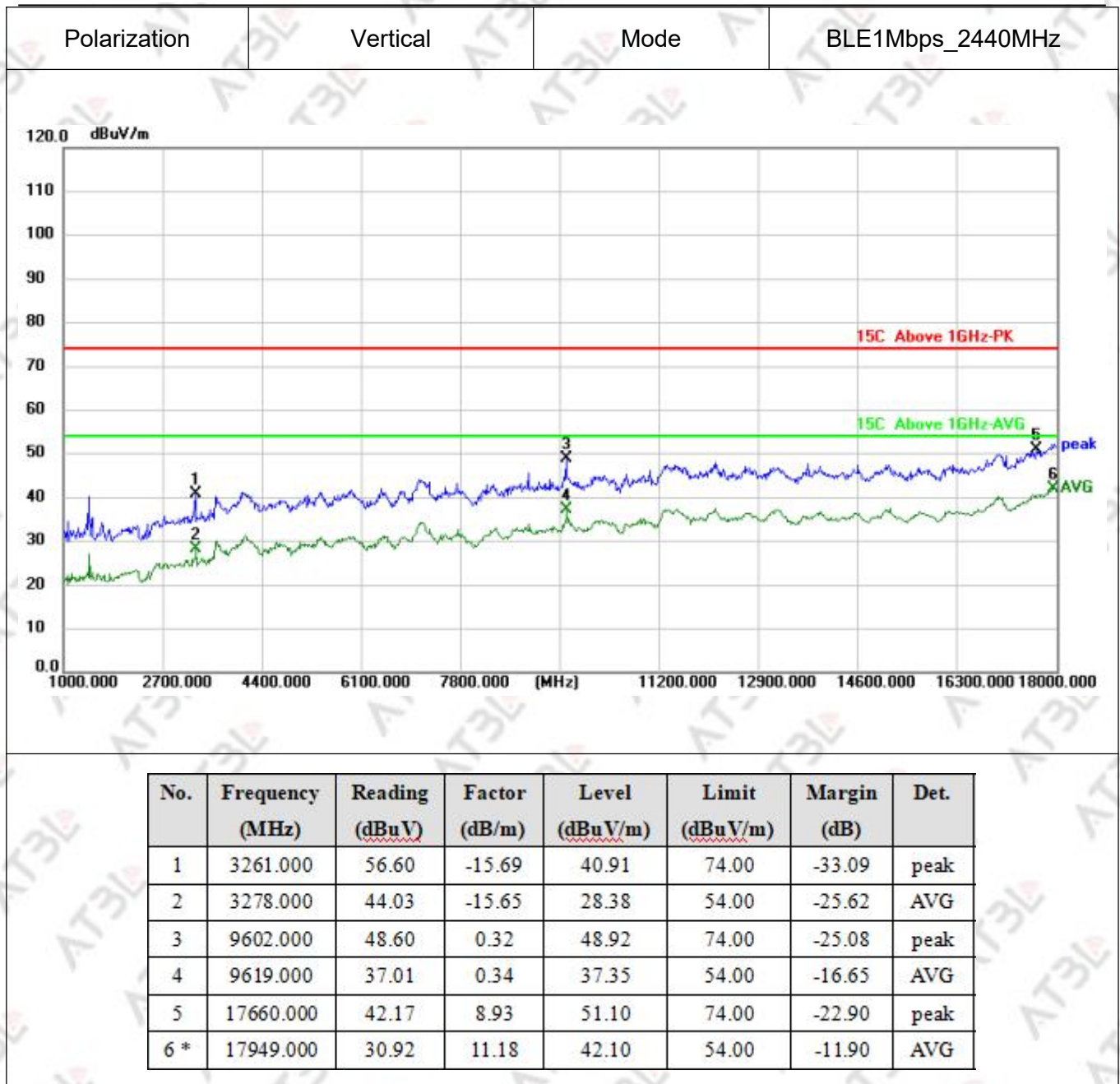


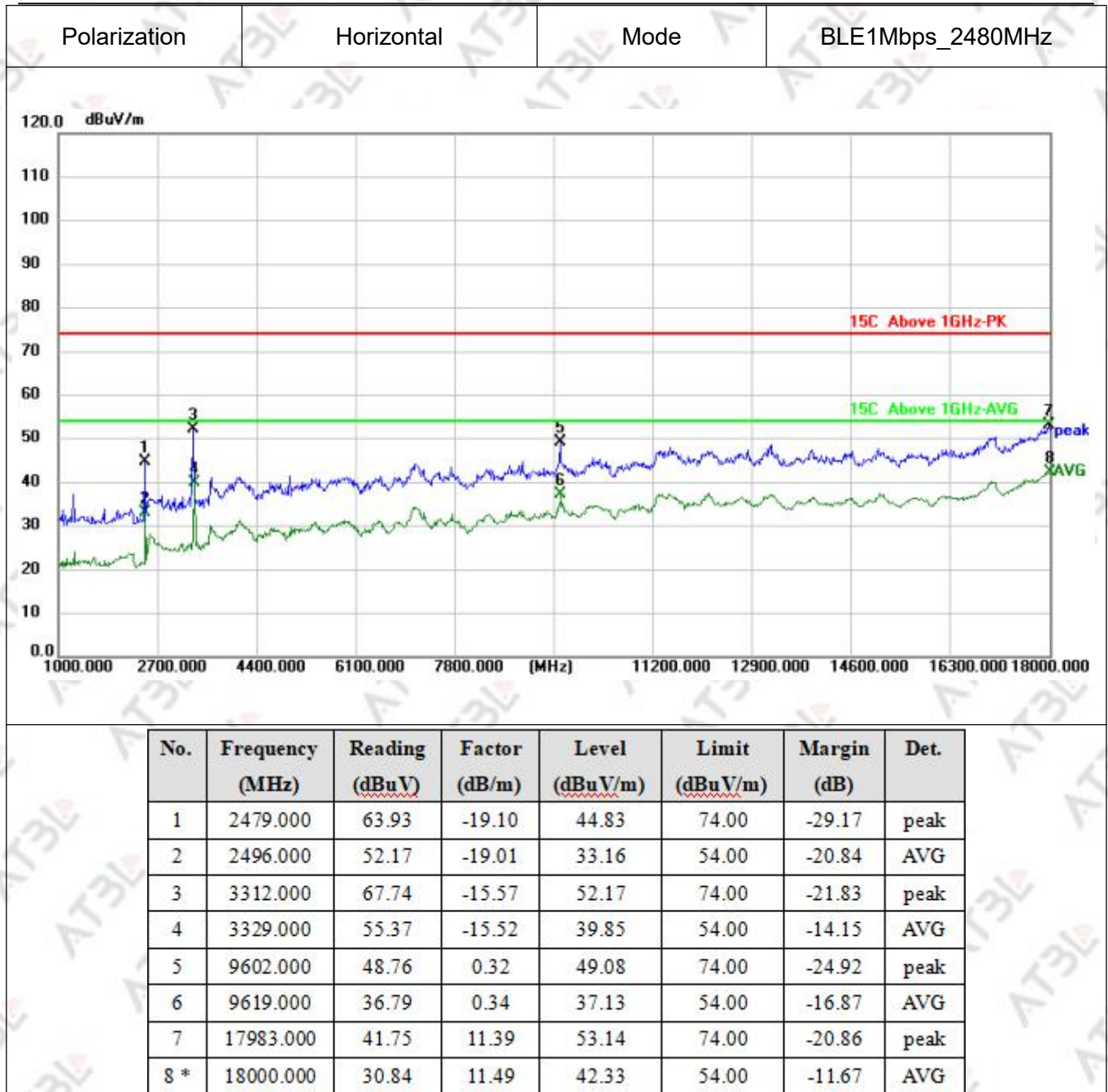


Polarization	Horizontal	Mode	BLE1Mbps_2440MHz
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No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	2445.000	62.32	-19.32	43.00	74.00	-31.00	peak
2	2462.000	50.91	-19.21	31.70	54.00	-22.30	AVG
3	3261.000	65.76	-15.69	50.07	74.00	-23.93	peak
4	3278.000	53.18	-15.65	37.53	54.00	-16.47	AVG
5	9602.000	48.95	0.32	49.27	74.00	-24.73	peak
6	9619.000	37.21	0.34	37.55	54.00	-16.45	AVG
7	17932.000	42.42	11.08	53.50	74.00	-20.50	peak
8 *	17966.000	31.03	11.28	42.31	54.00	-11.69	AVG



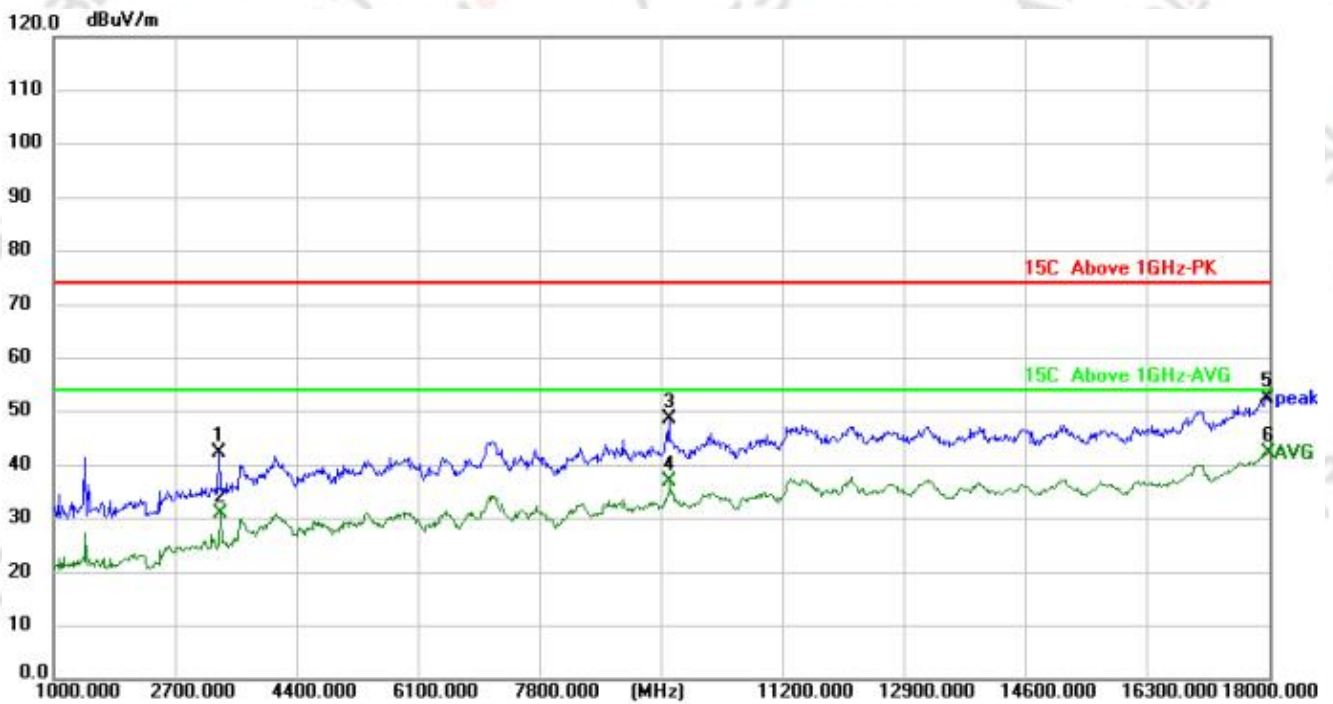


Polarization

Vertical

Mode

BLE1Mbps_2480MHz

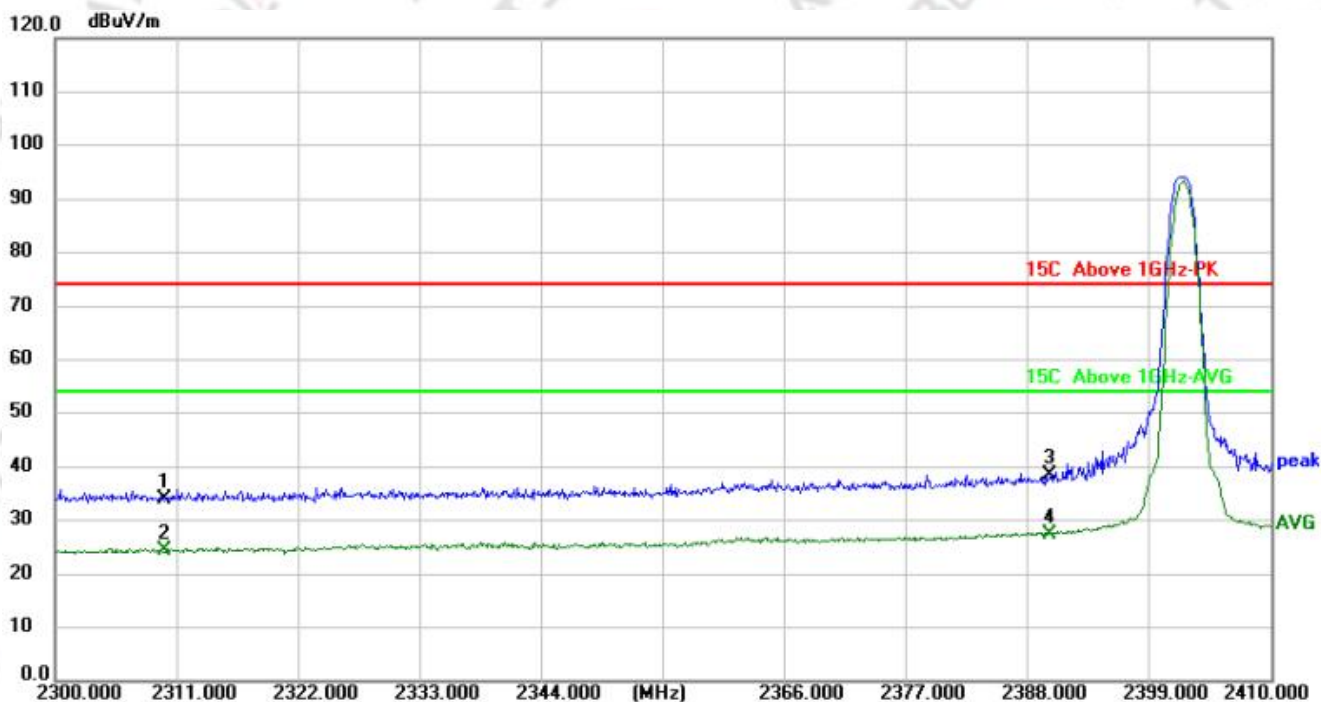


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	3312.000	58.04	-15.57	42.47	74.00	-31.53	peak
2	3329.000	46.42	-15.52	30.90	54.00	-23.10	AVG
3	9602.000	48.24	0.32	48.56	74.00	-25.44	peak
4	9619.000	36.72	0.34	37.06	54.00	-16.94	AVG
5	17966.000	41.18	11.28	52.46	74.00	-21.54	peak
6 *	17983.000	31.04	11.39	42.43	54.00	-11.57	AVG

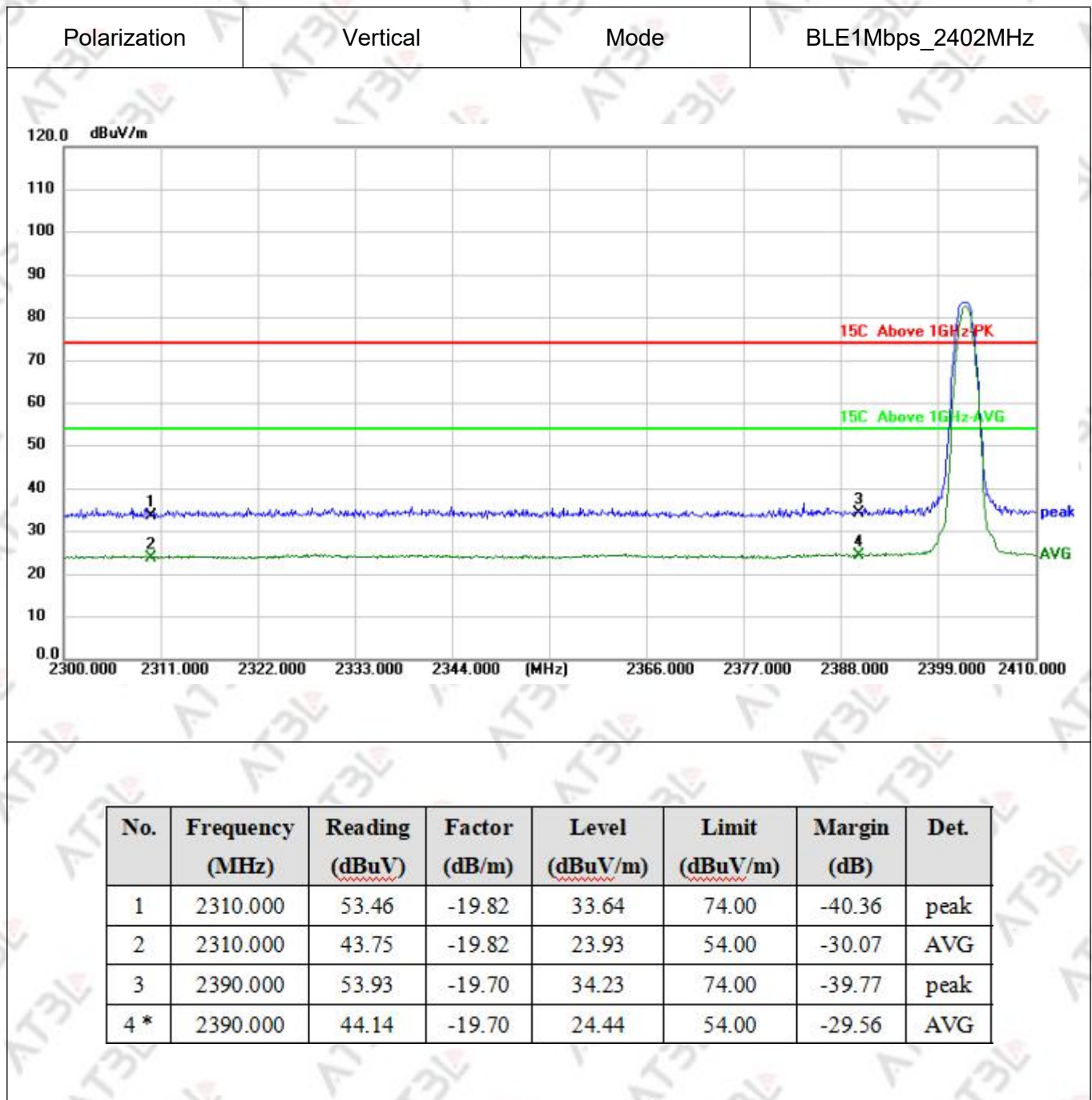
Test Result of Restricted Band

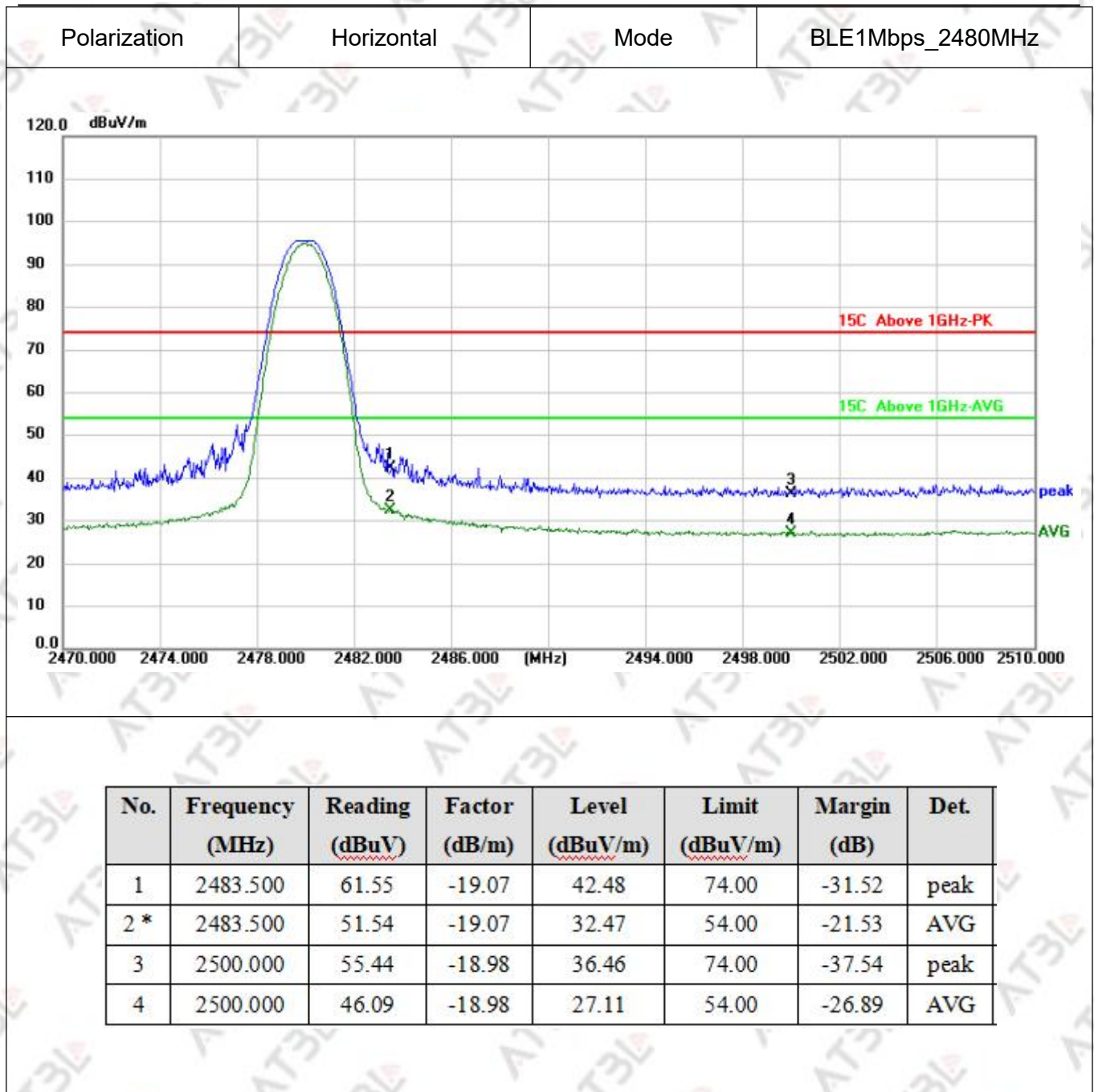
Note:
All modes have been tested, only worst case(BLE1Mbps)mode was recorded in the test report.

Polarization	Horizontal	Mode	BLE1Mbps_2402MHz
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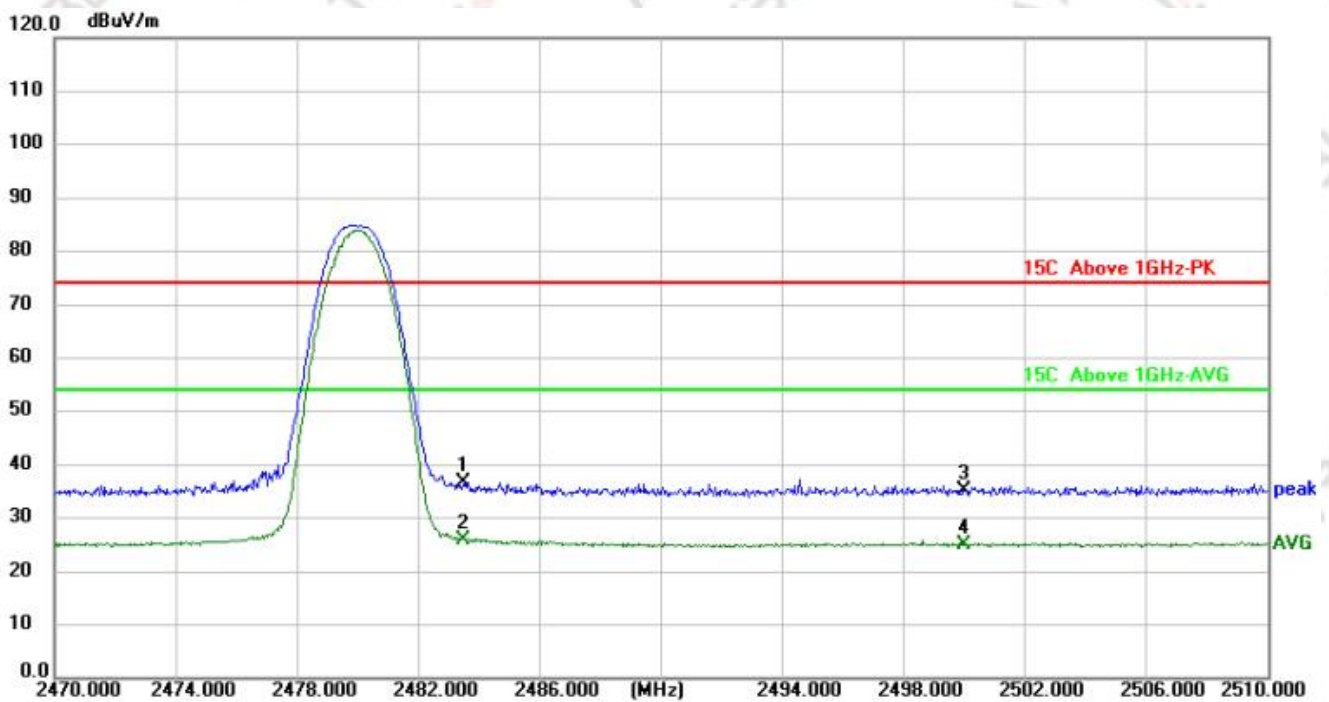


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	2310.000	53.80	-19.82	33.98	74.00	-40.02	peak
2	2310.000	44.06	-19.82	24.24	54.00	-29.76	AVG
3	2390.000	58.25	-19.70	38.55	74.00	-35.45	peak
4 *	2390.000	47.23	-19.70	27.53	54.00	-26.47	AVG





Polarization	Vertical	Mode	BLE1Mbps_2480MHz
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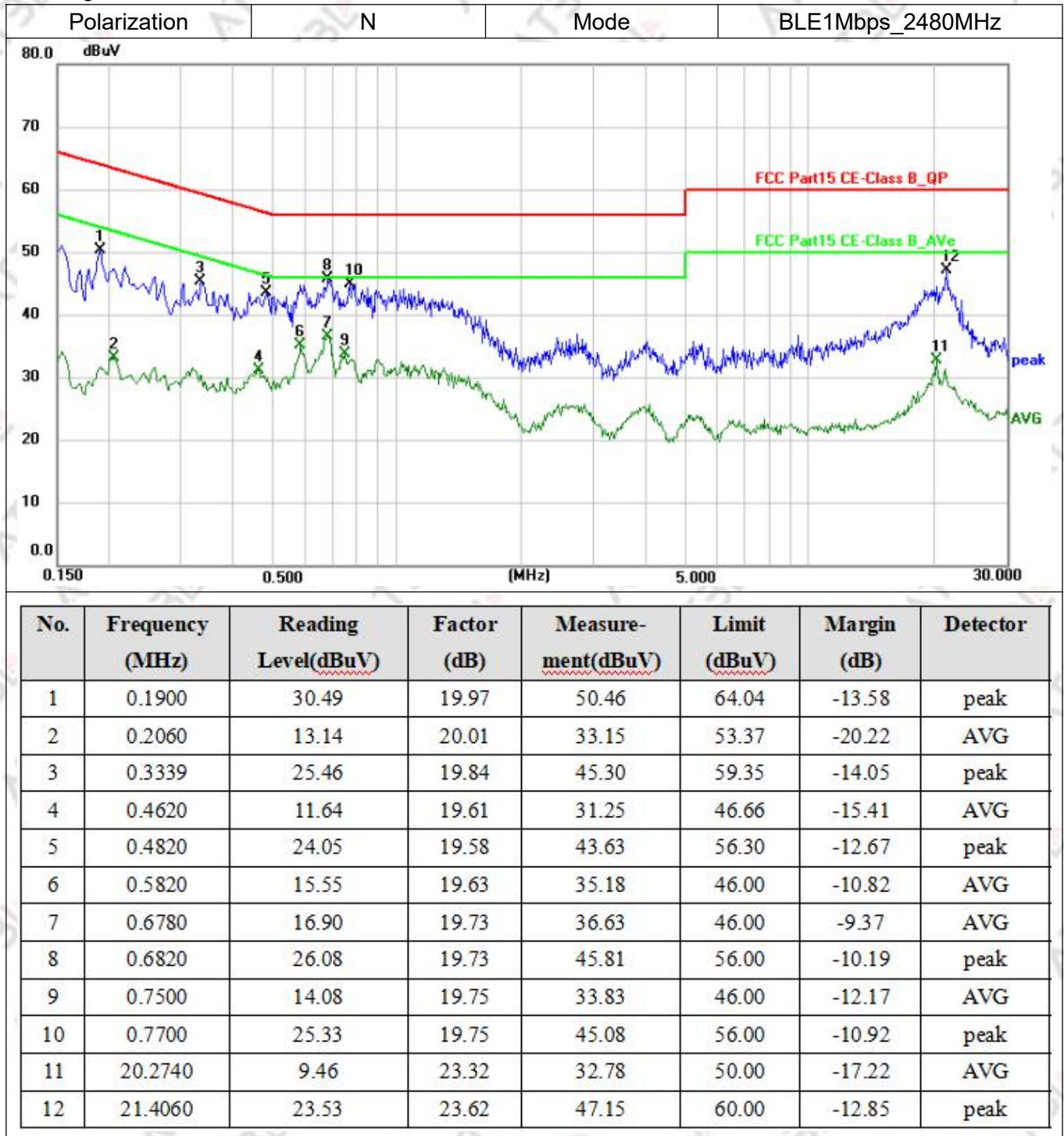


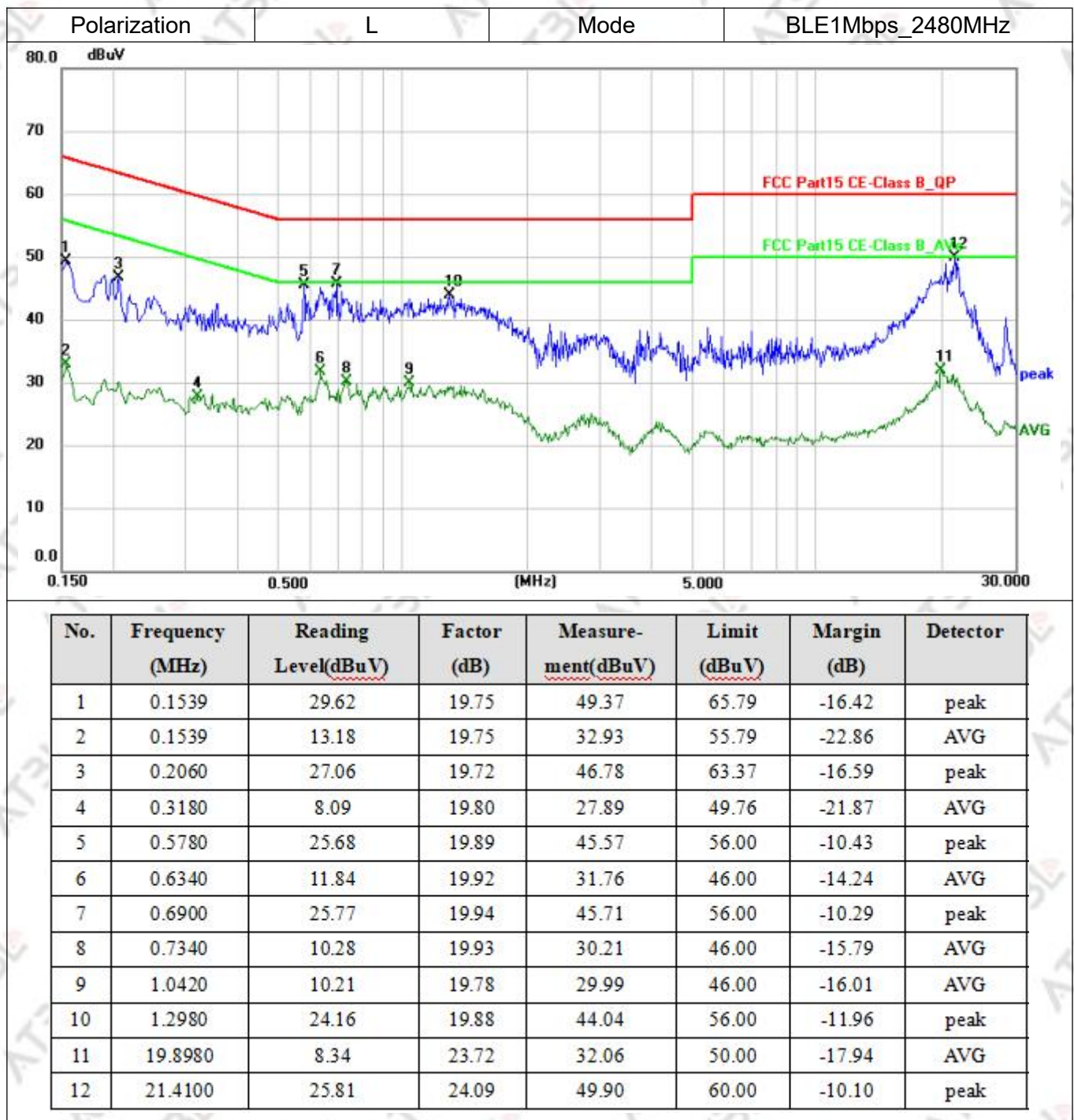
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	2483.500	55.64	-19.07	36.57	74.00	-37.43	peak
2 *	2483.500	45.02	-19.07	25.95	54.00	-28.05	AVG
3	2500.000	54.05	-18.98	35.07	74.00	-38.93	peak
4	2500.000	44.08	-18.98	25.10	54.00	-28.90	AVG

B7.AC Power-Line Conducted Emission

Note:

- 1.All modes have been tested, only worst mode(BLE1Mbps_2480MHz) 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).
4. The emission levels of other frequencies were less than 20dB margin against the limit.
5. Margin value = Emission level-Limit value.





*****END*****