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### Duty cycle

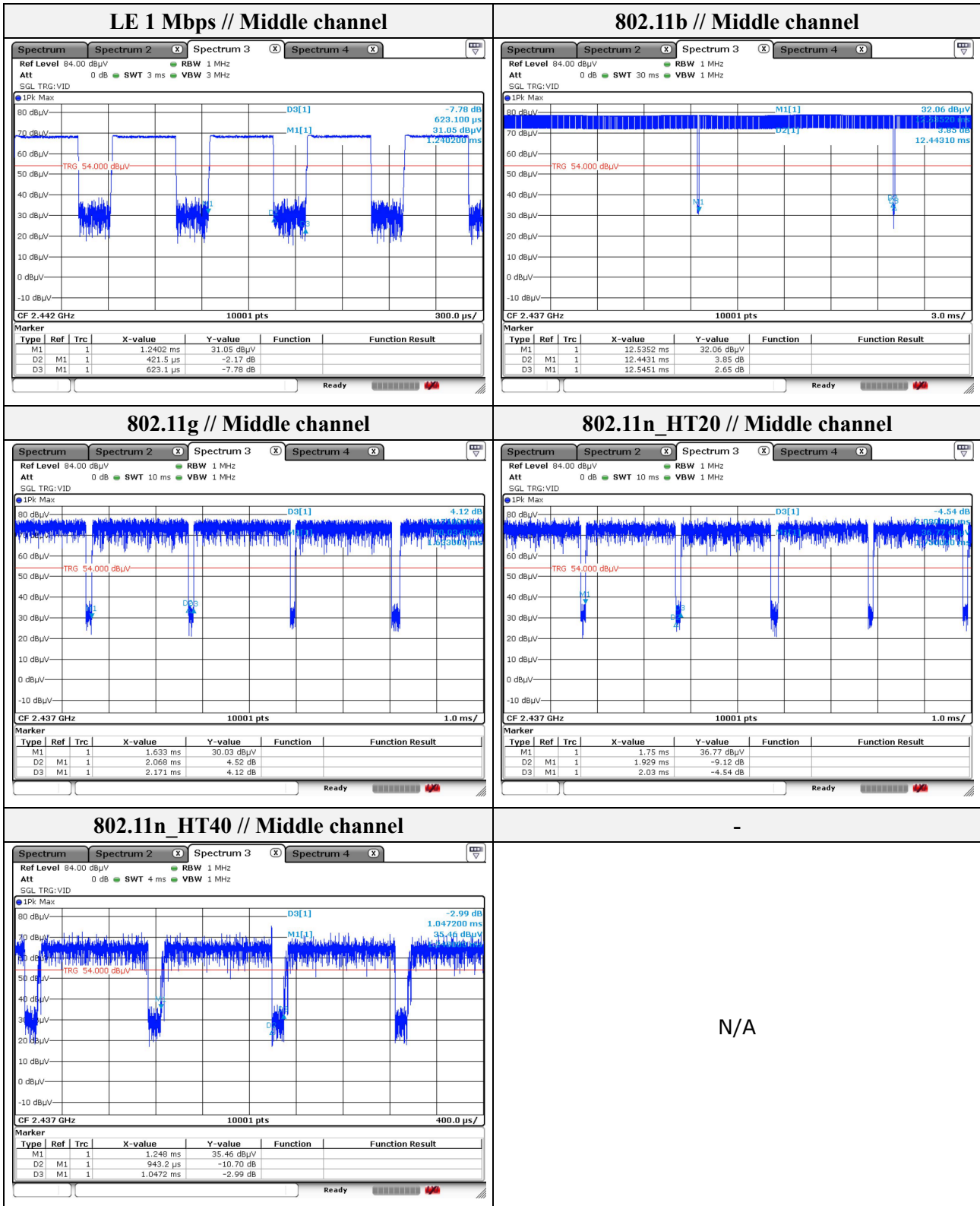
Regarding to KDB 558074 D01\_v04, 6.0, the maximum duty cycles of all modes were investigated and set the spectrum analyzer as below.

Set RBW  $\geq$  OBW if possible; otherwise, set RBW to the largest available value. Set detector = peak or average. The zero-span measurement method shall not be used unless both RBW and VBW are  $> 50/T$  and the number of sweep points across duration T exceeds 100.

Test mode	T <sub>on</sub> time (ms)	Period (ms)	Duty cycle (Linear)	Duty cycle (%)	Duty cycle correction factor (dB)
LE 1 Mbps	0.421	0.623	0.676	67.65	1.70
802.11b	12.443	12.545	0.992	99.19	-
802.11g	2.068	2.171	0.953	95.26	0.21
802.11n_HT20	1.929	2.030	0.950	95.02	0.22
802.11n_HT40	0.943	1.047	0.901	90.07	0.45

Duty cycle (Linear) = T<sub>on</sub> time/Period

DCF(Duty cycle correction factor (dB)) = 10log(1/duty cycle)

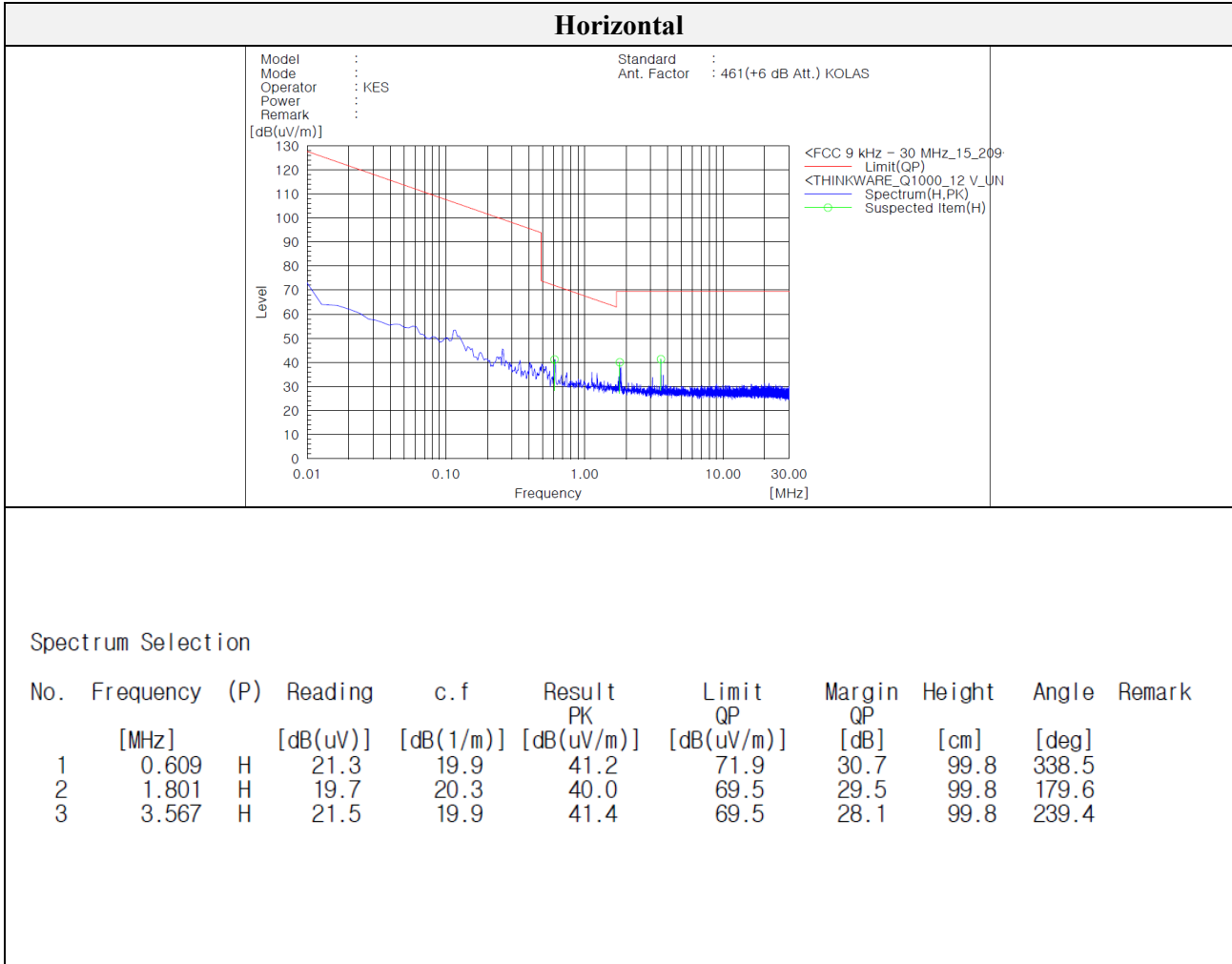


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**Test results (Below 30 MHz)**

Mode: 12 V\_LE 1 Mbps  
 Channel: 39  
 Distance of measurement: 3 meter

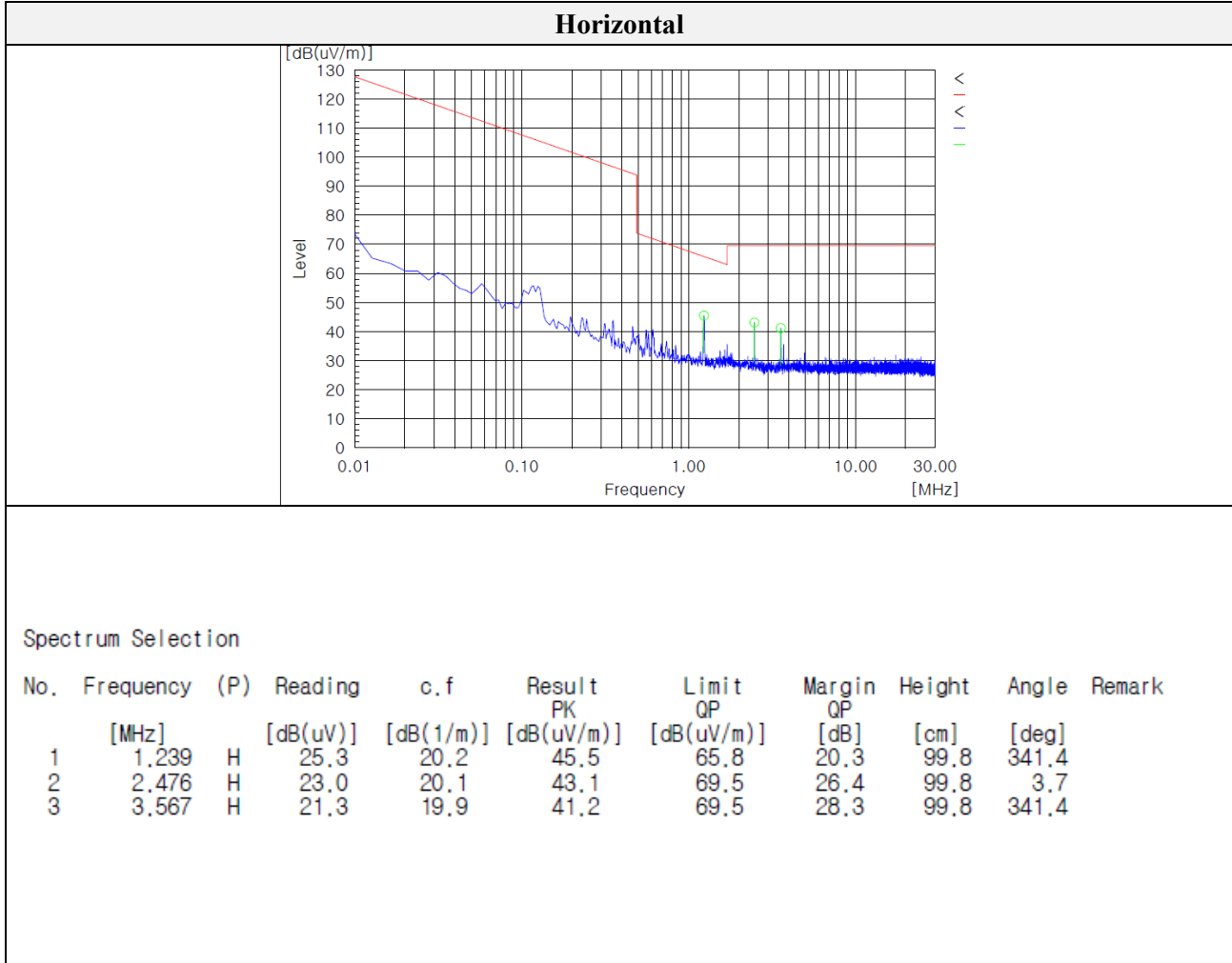


Note.

- No spurious emission were detected under 30 MHz, the above test result is the peak result.



Mode: 24 V\_802.11g  
 Channel: 06  
 Distance of measurement: 3 meter



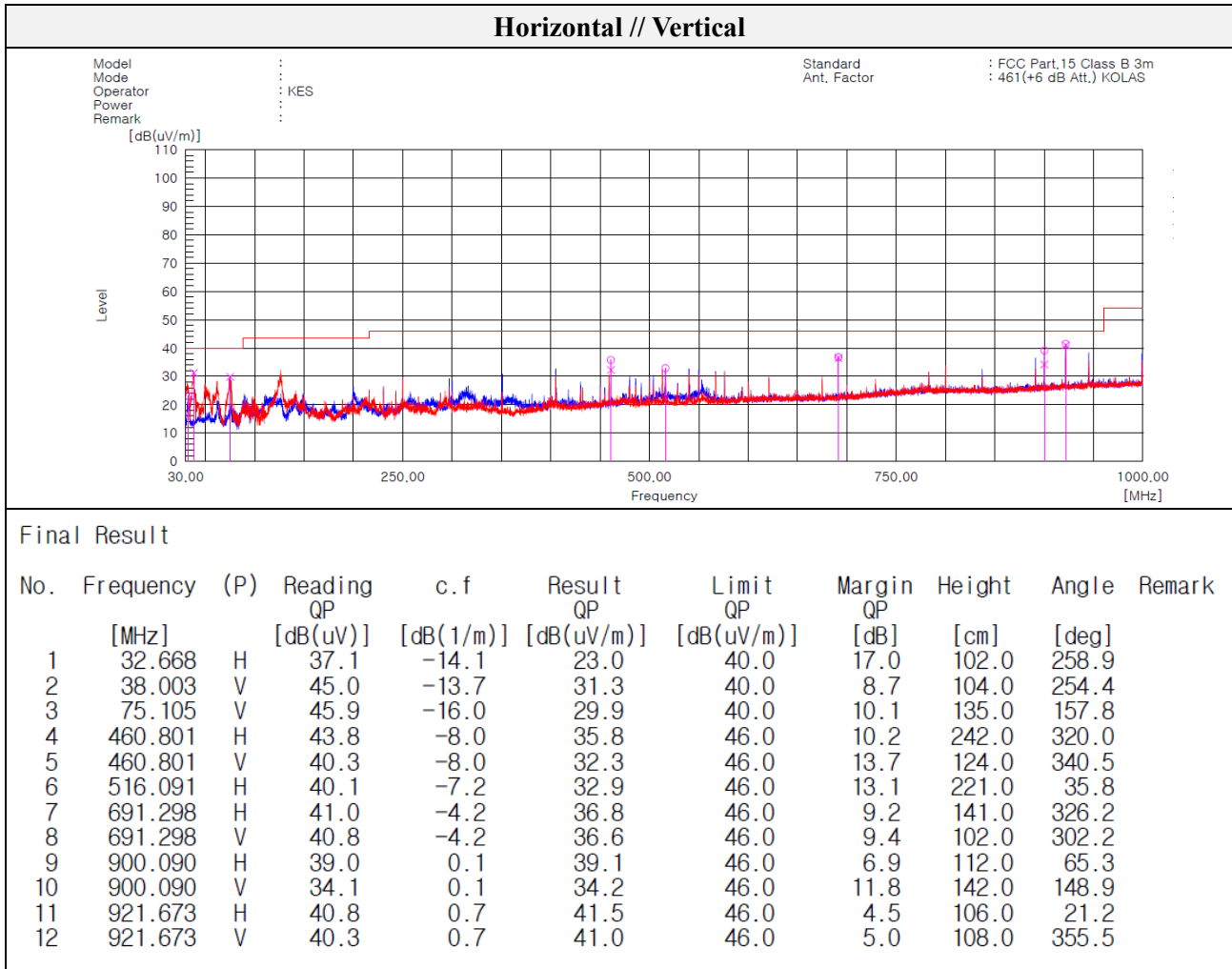
Note.

1. No spurious emission were detected under 30 Mhz, the above test result is the peak result.



**Test results (Below 1 000 MHz)**

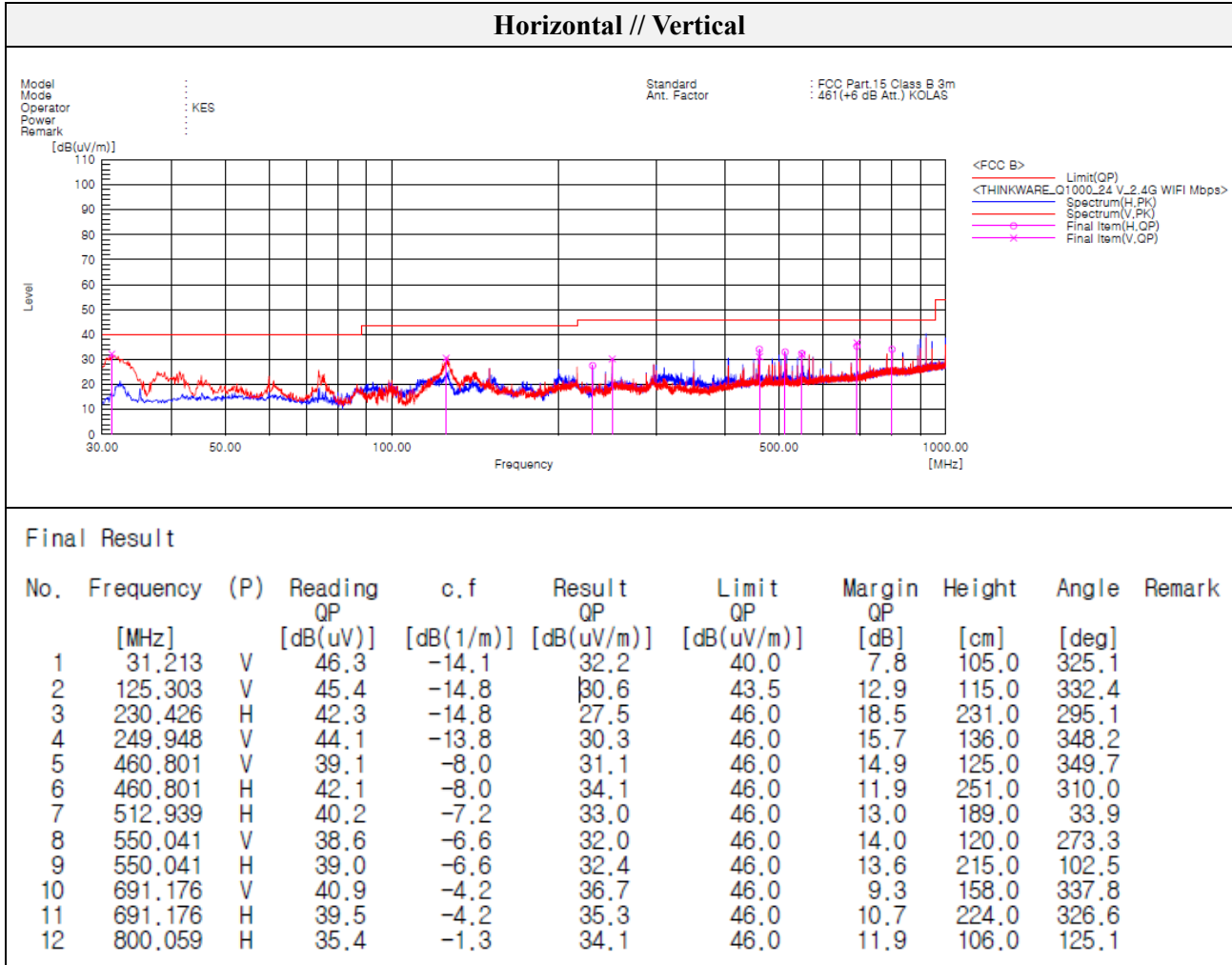
Mode: 12 V\_LE 1 Mbps  
 Channel: 39  
 Distance of measurement: 3 meter



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Mode: 24 V\_802.11g  
 Channel: 06  
 Distance of measurement: 3 meter



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**Test results (Above 1 000 MHz)**

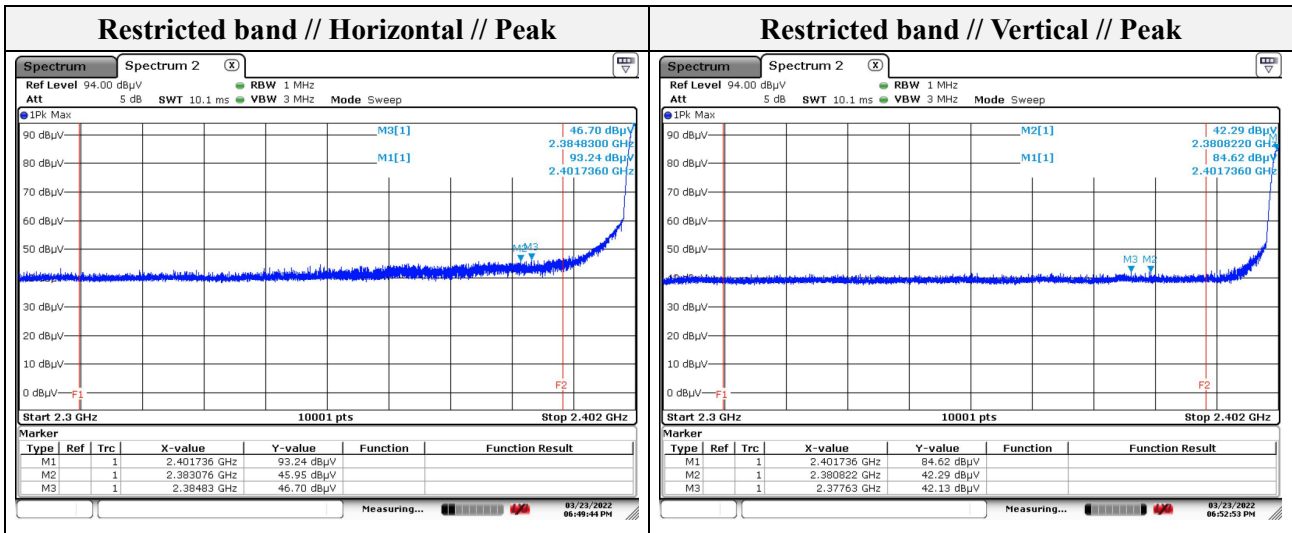
Mode: 12 V\_LE 1 Mbps  
 Channel: 00  
 Distance of measurement: 3 meter

**- Spurious**

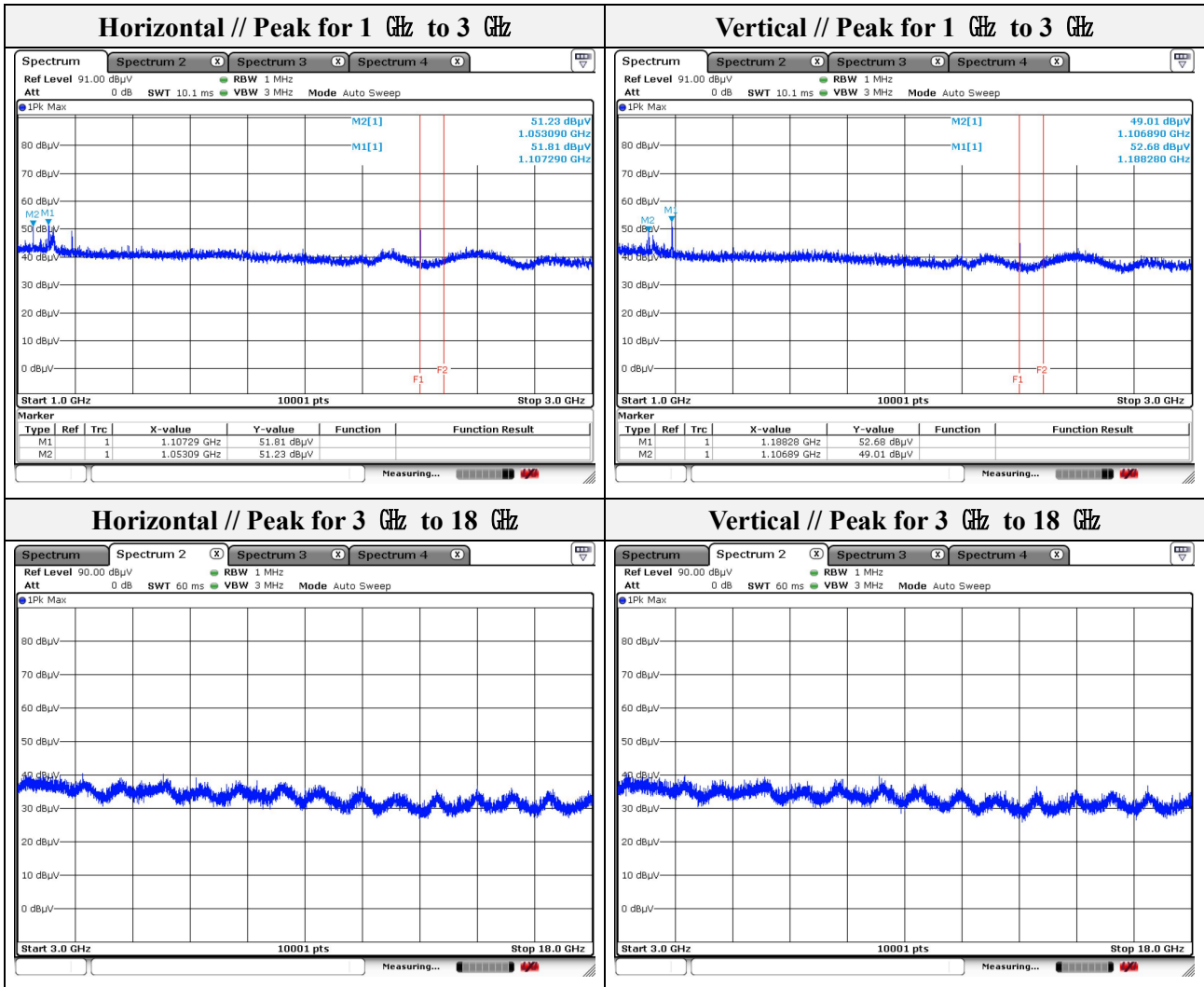
Frequency (MHz)	Level (dBμV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
1 053.09	51.23	Peak	H	-10.88	-	40.35	74.00	33.65
1 106.89	49.01	Peak	V	-10.59	-	38.42	74.00	35.58
1 107.29	51.81	Peak	H	-10.59	-	41.22	74.00	32.78
1 188.28	52.68	Peak	V	-10.16	-	42.52	74.00	31.48

**- Band edge**

Frequency (MHz)	Level (dBμV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2 377.63	42.13	Peak	V	-2.82	-	39.31	74.00	34.69
2 380.82	42.29	Peak	V	-2.80	-	39.49	74.00	34.51
2 383.08	45.95	Peak	H	-2.80	-	43.15	74.00	30.85
2 384.83	46.70	Peak	H	-2.79	-	43.91	74.00	30.09



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Note.

1. Average test would be performed if the peak result were greater than the average limit.
2. No spurious emission were detected at horizontal above 3 GHz.

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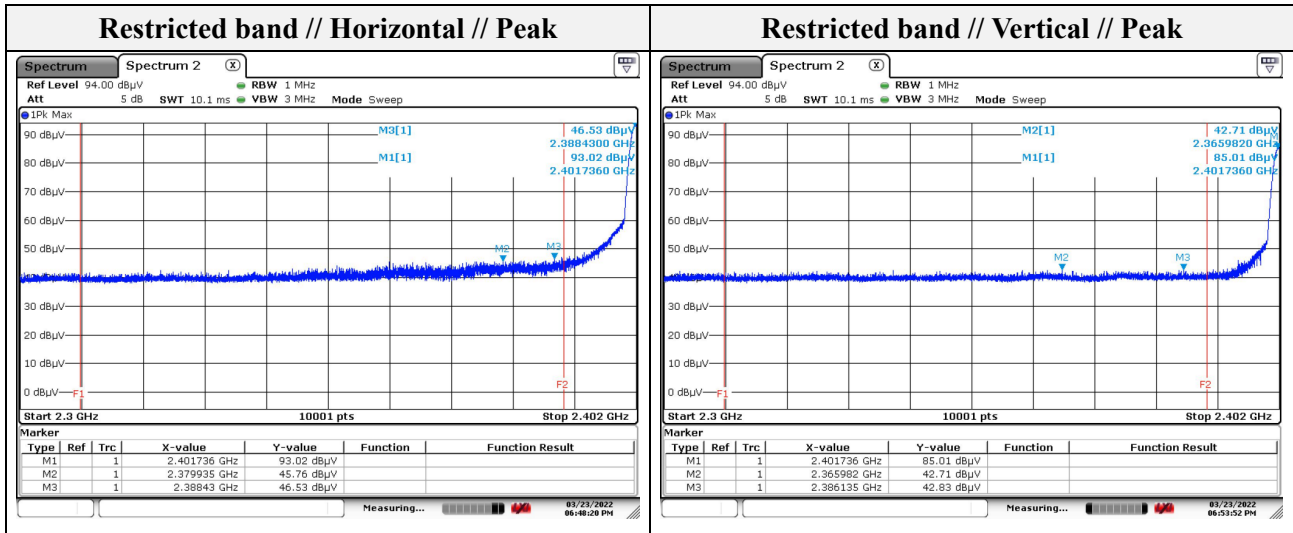
Mode: 24 V\_LE 1 Mbps  
 Channel: 00  
 Distance of measurement: 3 meter

**- Spurious**

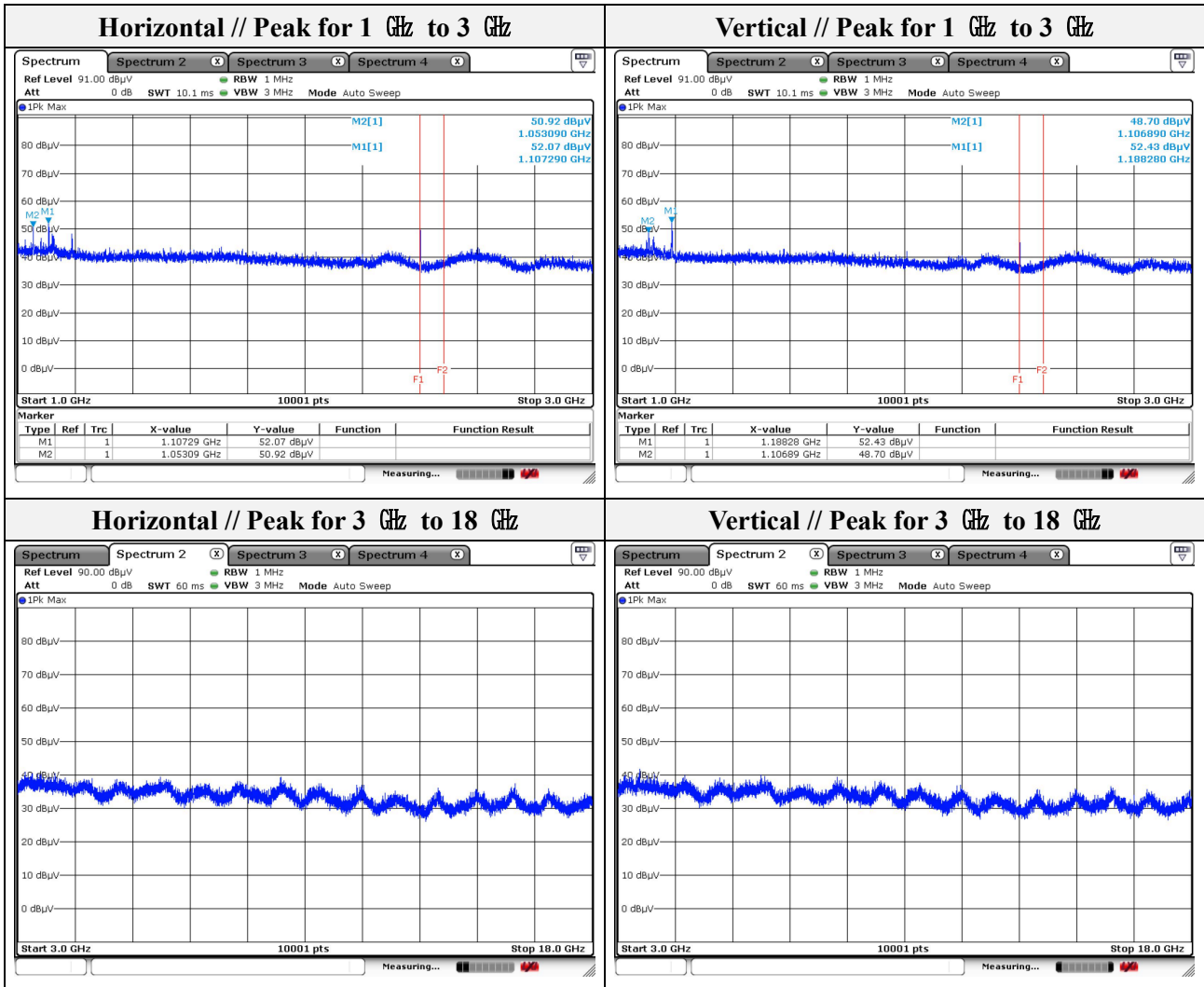
Frequency (MHz)	Level (dB $\mu$ V)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
1 053.09	50.92	Peak	H	-10.88	-	40.04	74.00	33.96
1 106.89	48.70	Peak	V	-10.59	-	38.11	74.00	35.89
1 107.29	52.07	Peak	H	-10.59	-	41.48	74.00	32.52
1 188.28	52.43	Peak	V	-10.16	-	42.27	74.00	31.73

**- Band edge**

Frequency (MHz)	Level (dB $\mu$ V)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
2 365.98	42.71	Peak	V	-2.87	-	39.84	74.00	34.16
2 379.94	45.76	Peak	H	-2.81	-	42.95	74.00	31.05
2 386.14	42.83	Peak	V	-2.78	-	40.05	74.00	33.95
2 388.43	46.53	Peak	H	-2.77	-	43.76	74.00	30.24



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Note.

1. Average test would be performed if the peak result were greater than the average limit.
2. No spurious emission were detected at horizontal above 3 GHz.

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