

Appendix B_Radiated Spurious Emission Data for 2.4GHz WIFI:

1.Radiated Spurious Emission and Restricted Band

Test Result

Radiated Spurious Emission:

For 9 kHz ~ 30 MHz

Note:

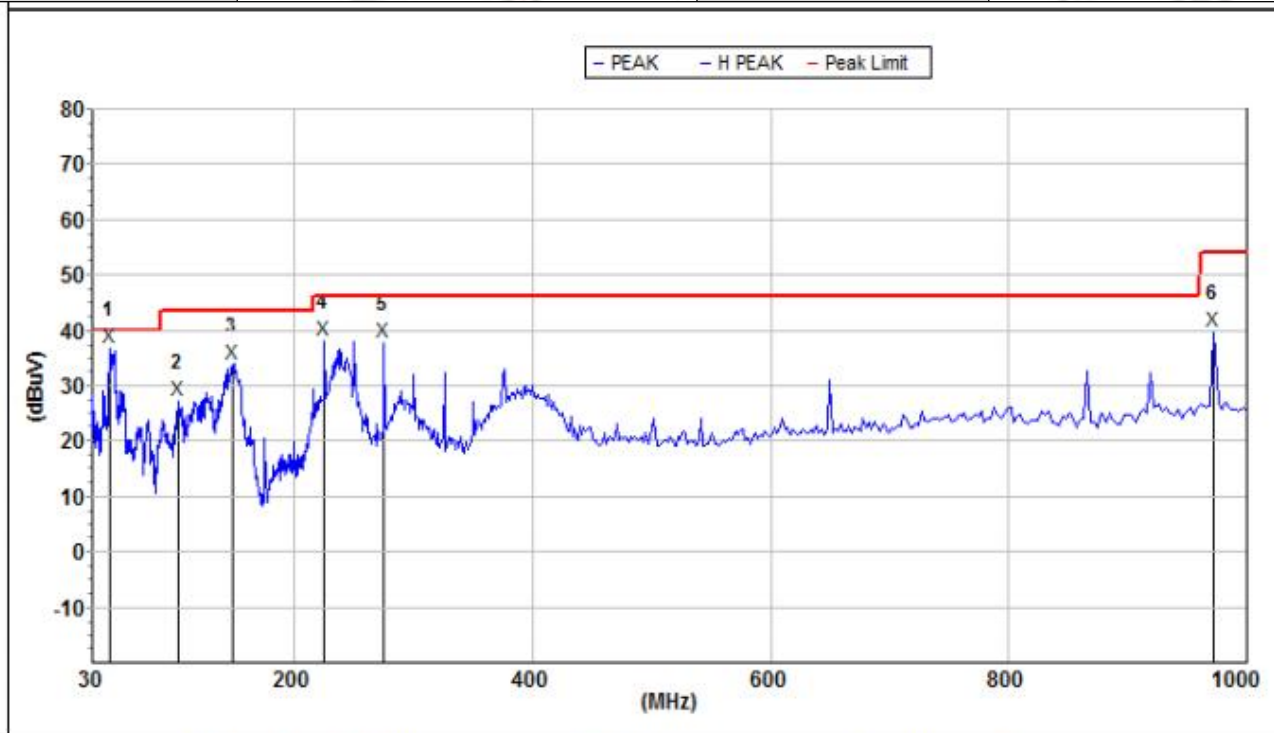
The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

Below 1GHz:

Note:

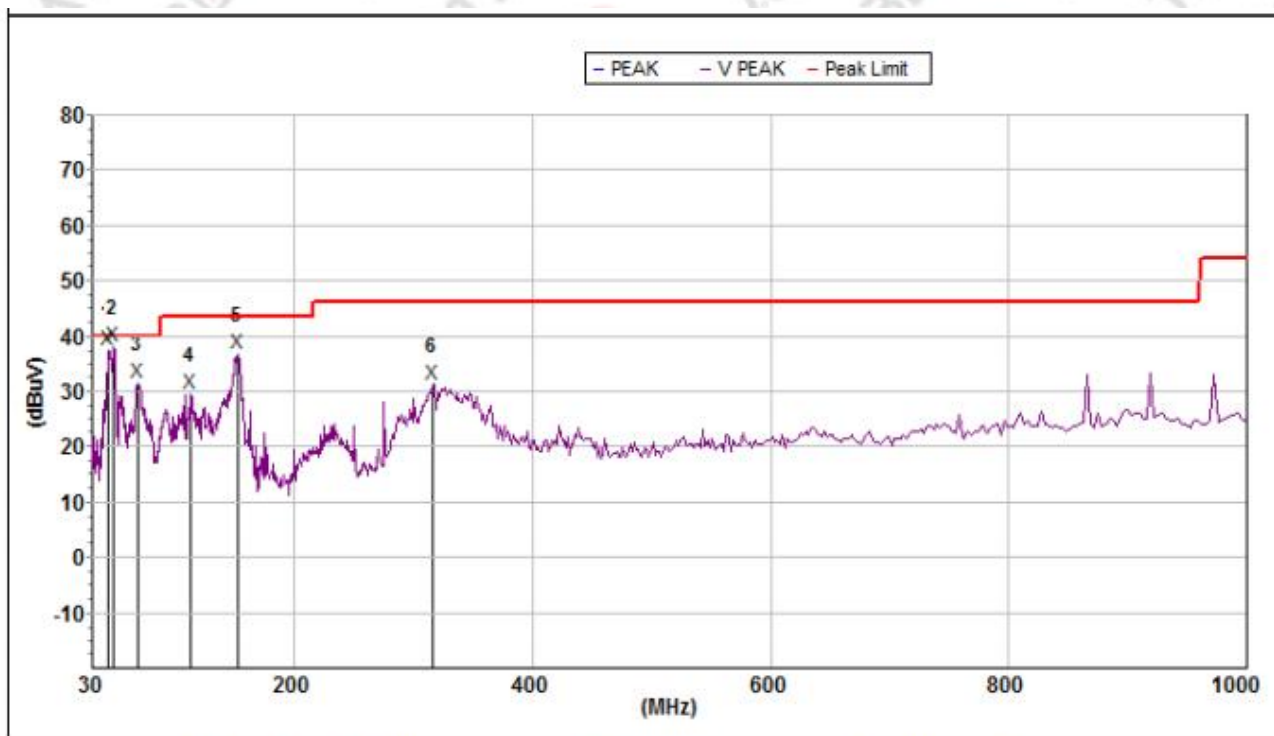
- 1.All modes have been tested, only worst (802.11n40-TX Channel 3)mode was recorded in the test report.
- 2.Emission Level (dBuV/m) = Reading Value (dBuV) + Correction Factor (dB/m).
- 3.Correction Factor (dB/m) = Antenna Pol. Factor (dB/m) + Cable Factor (dB)-Amplifier Gain.
- 4.The emission levels of other frequencies were less than 20dB margin against the limit.
- 5.Margin value = Emission level-Limit value.

EUT	DESKTOP TERMINAL	Model Name	Z108
Test Mode	802.11n40-TX Channel 3	Antenna Pol. Pol.	Horizontal



Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	45.217	79.0	-42.2	36.8	40.0	3.2	H
2	101.644	66.7	-39.4	27.3	43.5	16.2	H
3	147.921	68.7	-34.7	34.0	43.5	9.5	H
4	225.308	66.9	-28.7	38.2	46.0	7.8	H
5	275.157	64.9	-27.0	37.9	46.0	8.1	H
6	972.337	57.2	-17.2	40.0	54.0	14.0	H

EUT	DESKTOP TERMINAL	Model Name	Z108
Test Mode	802.11n40-TX Channel 3	Antenna Pol.	Vertical



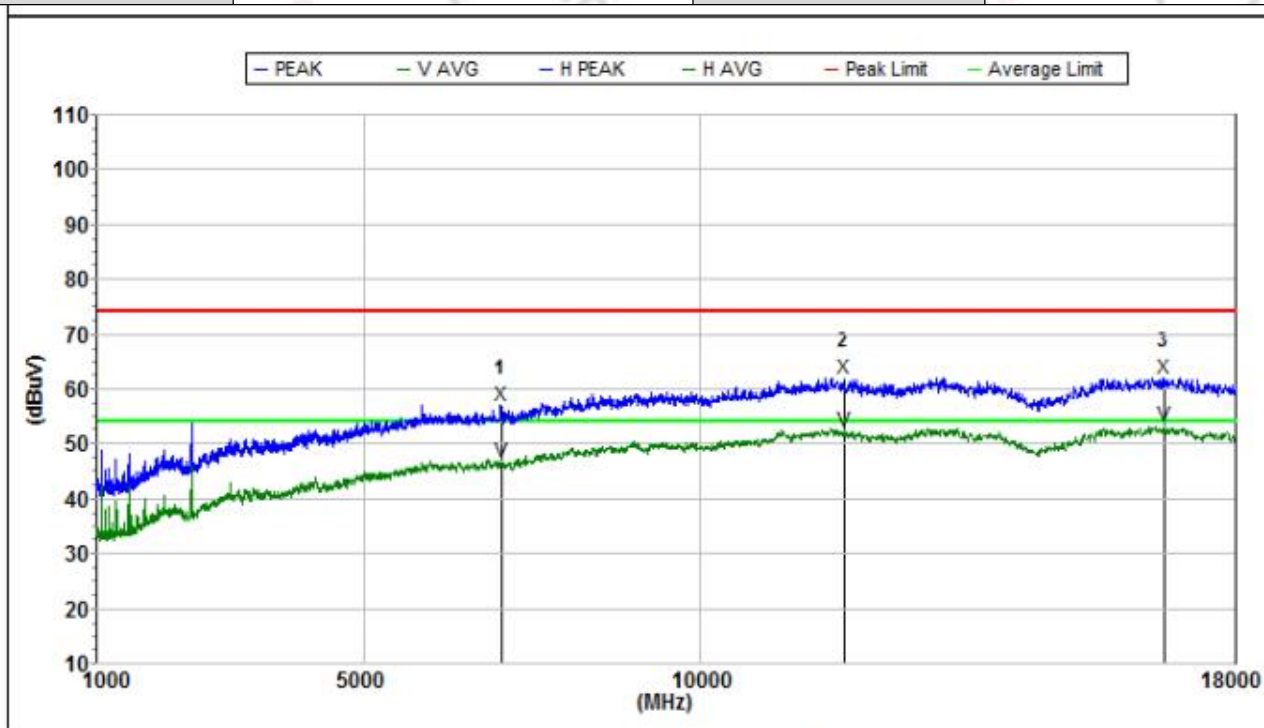
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	43.812	82.4	-44.8	37.6	40.0	2.4	V
2	48.332	82.2	-44.1	38.1	40.0	1.9	V
3	67.913	76.6	-45.0	31.6	40.0	8.4	V
4	112.920	62.1	-32.3	29.8	43.5	13.7	V
5	152.664	73.3	-36.5	36.8	43.5	6.7	V
6	316.589	58.4	-27.1	31.3	46.0	14.7	V

1GHz-18GHz:

Note:

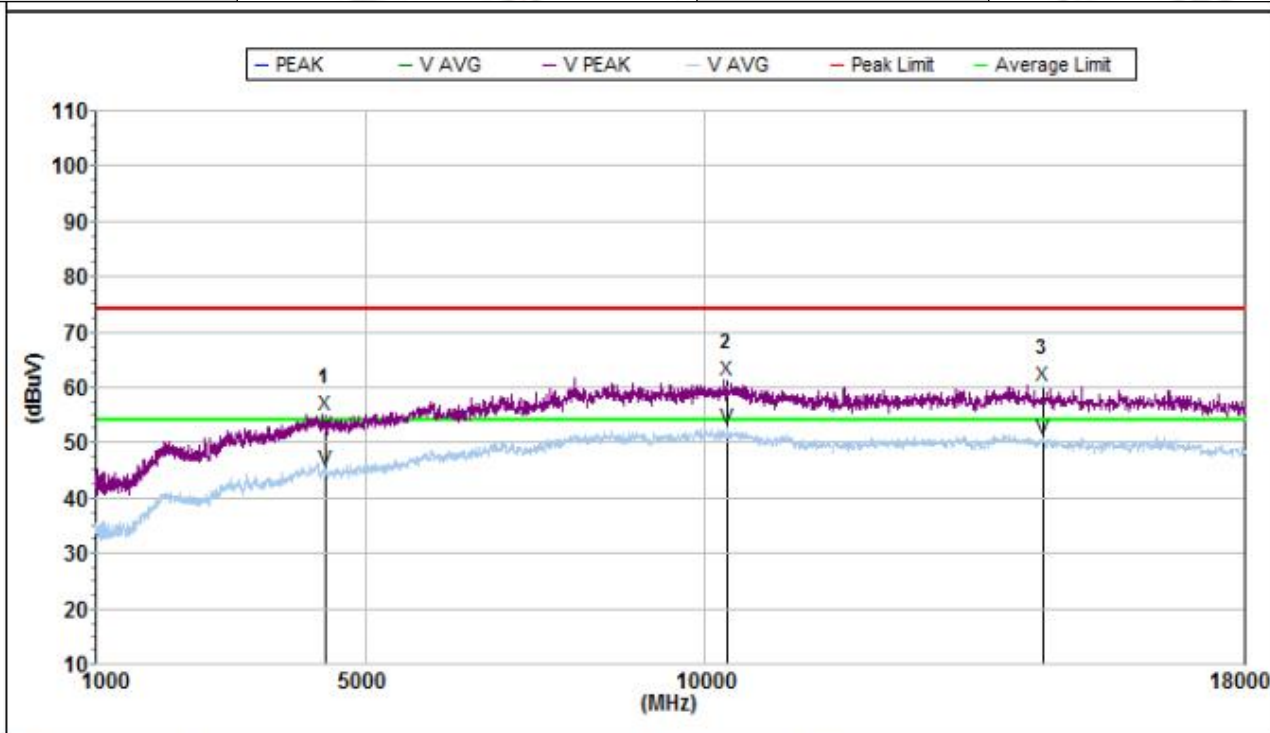
- 1.All modes have been tested, only worst (802.11n)mode was recorded in the test report.
- 2.We used the filter to test and the main frequency was filtered out.
- 3.Emission Level (dBuV/m) = Reading Value (dBuV) + Correction Factor (dB/m).
4. Correction Factor (dB/m) = Antenna Pol. Factor (dB/m) + Cable Factor (dB)-Amplifier Gain.
5. Margin value = Emission level-Limit value.
- 6.While performing the testing, the notch filter is used for avoiding test instrument overload.

EUT	DESKTOP TERMINAL	Model Name	Z108
Test Mode	802.11n40-TX Channel 3	Antenna Pol.	Horizontal



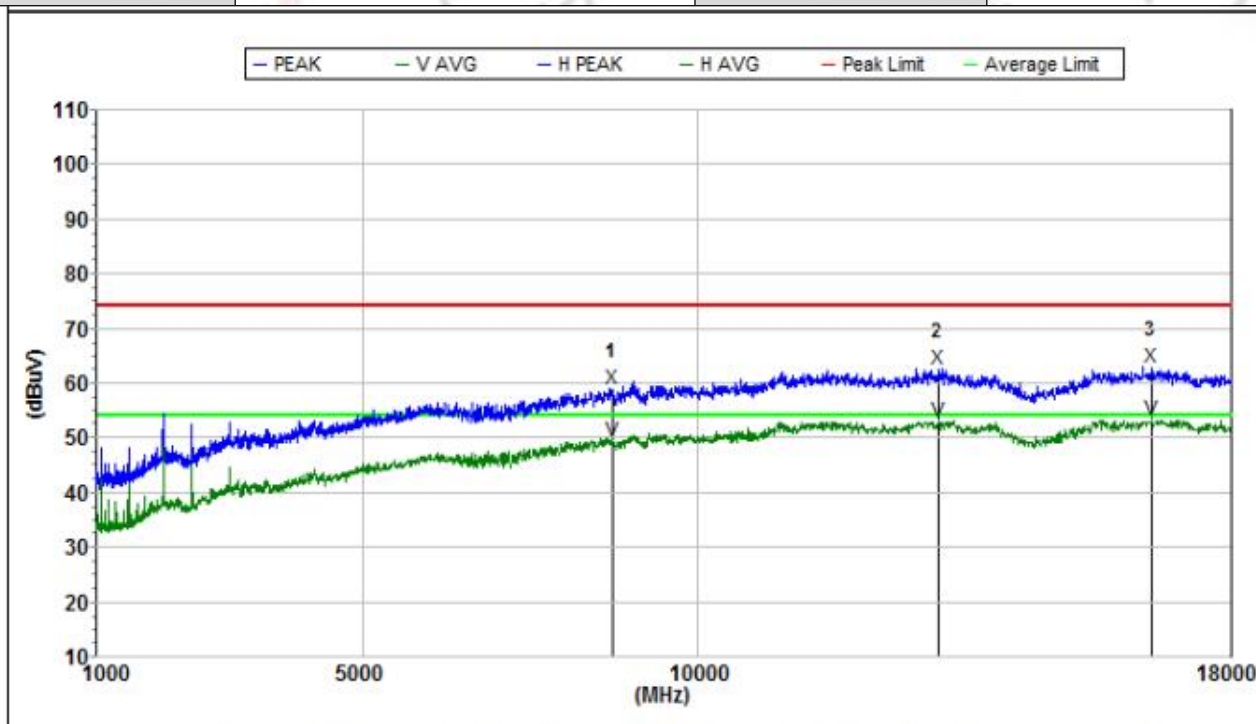
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	7044.000	60.0	-2.9	57.1	74.0	16.9	H
2	12150.000	59.2	2.8	62.0	74.0	12.0	H
3	16926.000	58.2	3.9	62.1	74.0	11.9	H
Avg							
1	7044.000	49.8	-2.9	46.9	54.0	7.1	H
2	12150.000	49.7	2.8	52.5	54.0	1.5	H
3	16926.000	49.4	3.9	53.3	54.0	0.7	H

EUT	DESKTOP TERMINAL	Model Name	Z108
Test Mode	802.11n40-TX Channel 3	Antenna Pol.	Vertical



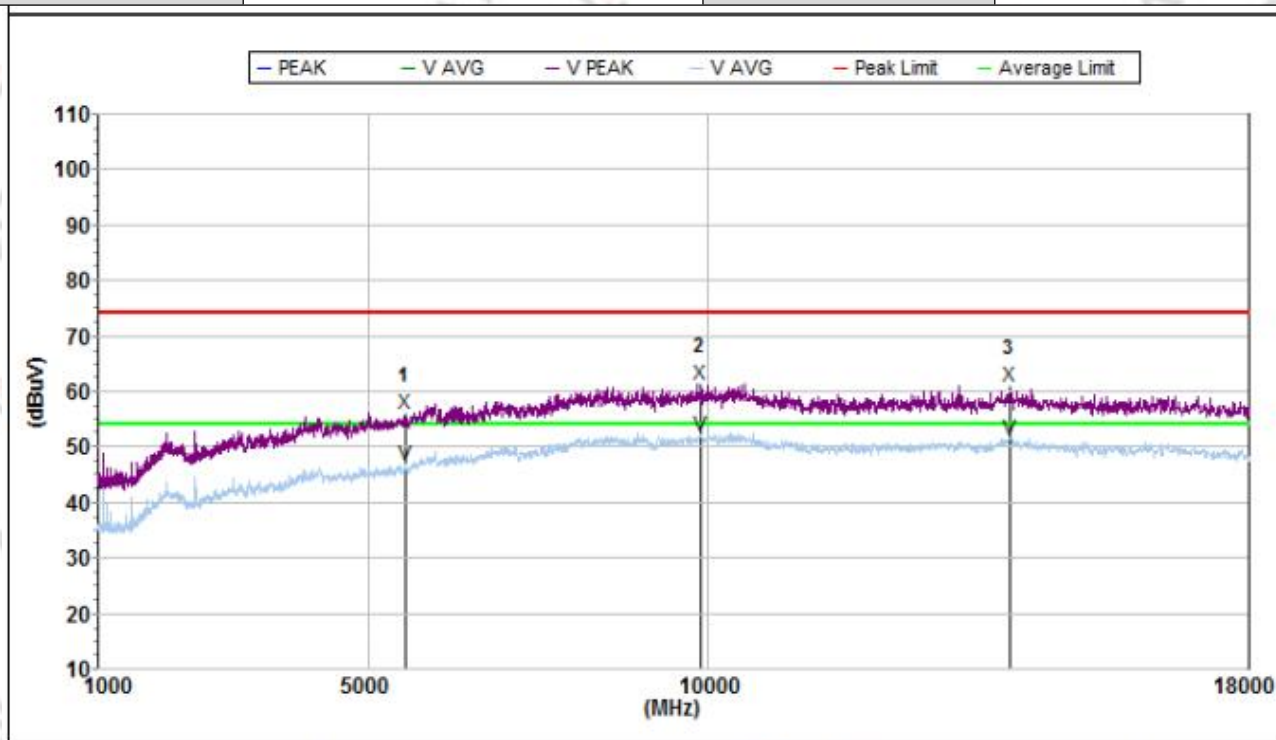
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	4387.500	60.2	-5.1	55.1	74.0	18.9	V
2	10356.000	57.9	3.3	61.2	74.0	12.8	V
3	15012.000	59.1	1.3	60.4	74.0	13.6	V
Avg							
1	4387.500	50.4	-5.1	45.3	54.0	8.7	V
2	10356.000	49.3	3.3	52.6	54.0	1.4	V
3	15012.000	49.6	1.3	50.9	54.0	3.1	V

EUT	DESKTOP TERMINAL	Model Name	Z108
Test Mode	802.11n40-TX Channel 6	Antenna Pol.	Horizontal



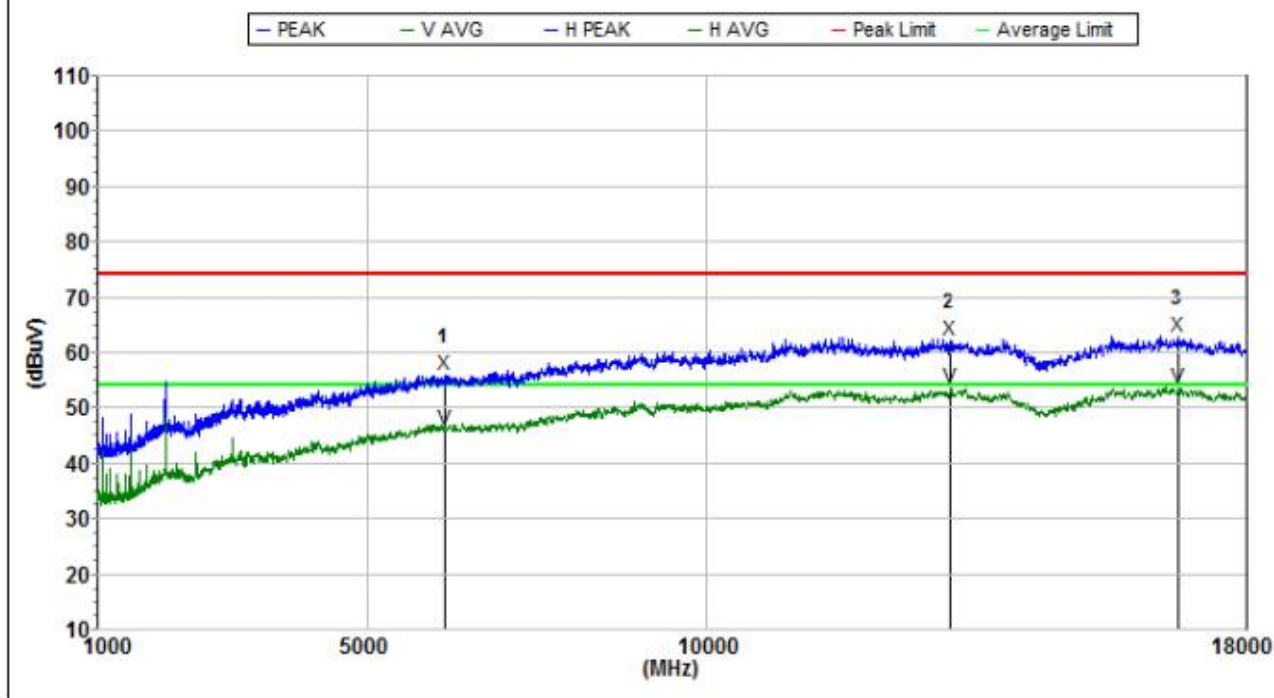
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	8724.000	59.3	-0.4	58.9	74.0	15.1	H
2	13620.000	59.6	3.0	62.6	74.0	11.4	H
3	16818.000	58.9	3.9	62.8	74.0	11.2	H
Avg							
1	8724.000	50.0	-0.4	49.6	54.0	4.4	H
2	13620.000	50.2	3.0	53.2	54.0	0.8	H
3	16818.000	49.5	3.9	53.4	54.0	0.6	H

EUT	DESKTOP TERMINAL	Model Name	Z108
Test Mode	802.11n40-TX Channel 6	Antenna Pol.	Vertical



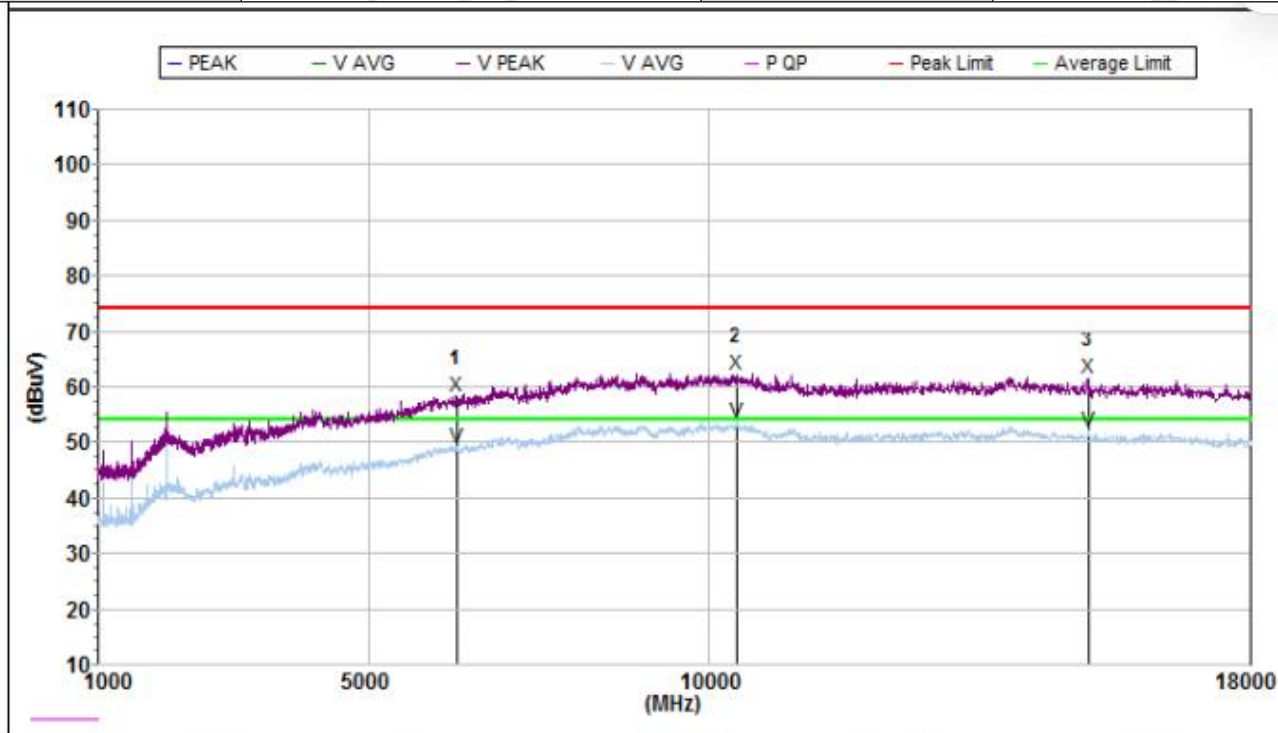
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	5545.000	59.3	-3.3	56.0	74.0	18.0	V
2	9894.000	58.4	2.9	61.3	74.0	12.7	V
3	14478.000	58.6	2.5	61.1	74.0	12.9	V
Avg							
1	5545.000	50.0	-3.3	46.7	54.0	7.3	V
2	9894.000	49.3	2.9	52.2	54.0	1.8	V
3	14478.000	49.1	2.5	51.6	54.0	2.4	V

EUT	DESKTOP TERMINAL	Model Name	Z108
Test Mode	802.11n40-TX Channel 9	Antenna Pol.	Horizontal



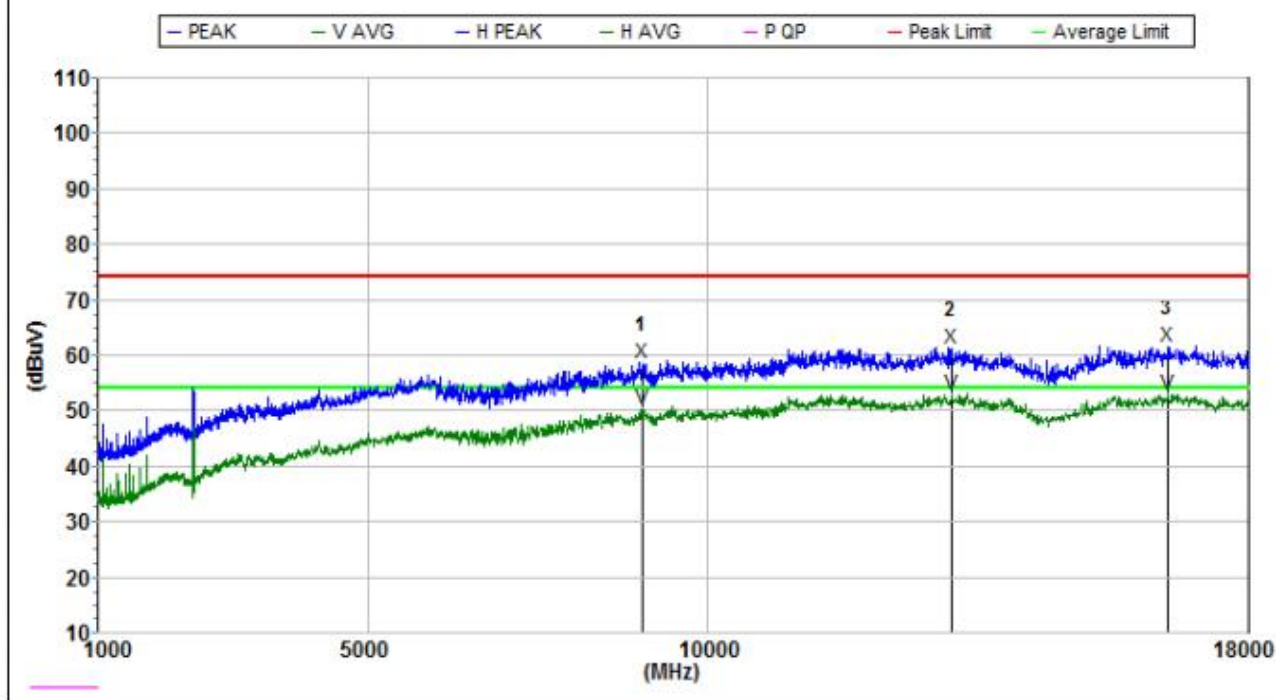
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	6138.000	58.9	-3.0	55.9	74.0	18.1	H
2	13608.000	59.3	3.0	62.3	74.0	11.7	H
3	16986.000	58.9	4.0	62.9	74.0	11.1	H
Avg							
1	6138.000	49.2	-3.0	46.2	54.0	7.8	H
2	13608.000	50.8	3.0	53.8	54.0	0.2	H
3	16986.000	49.9	4.0	53.9	54.0	0.1	H

EUT	DESKTOP TERMINAL	Model Name	Z108
Test Mode	802.11n40-TX Channel 9	Antenna Pol.	Vertical



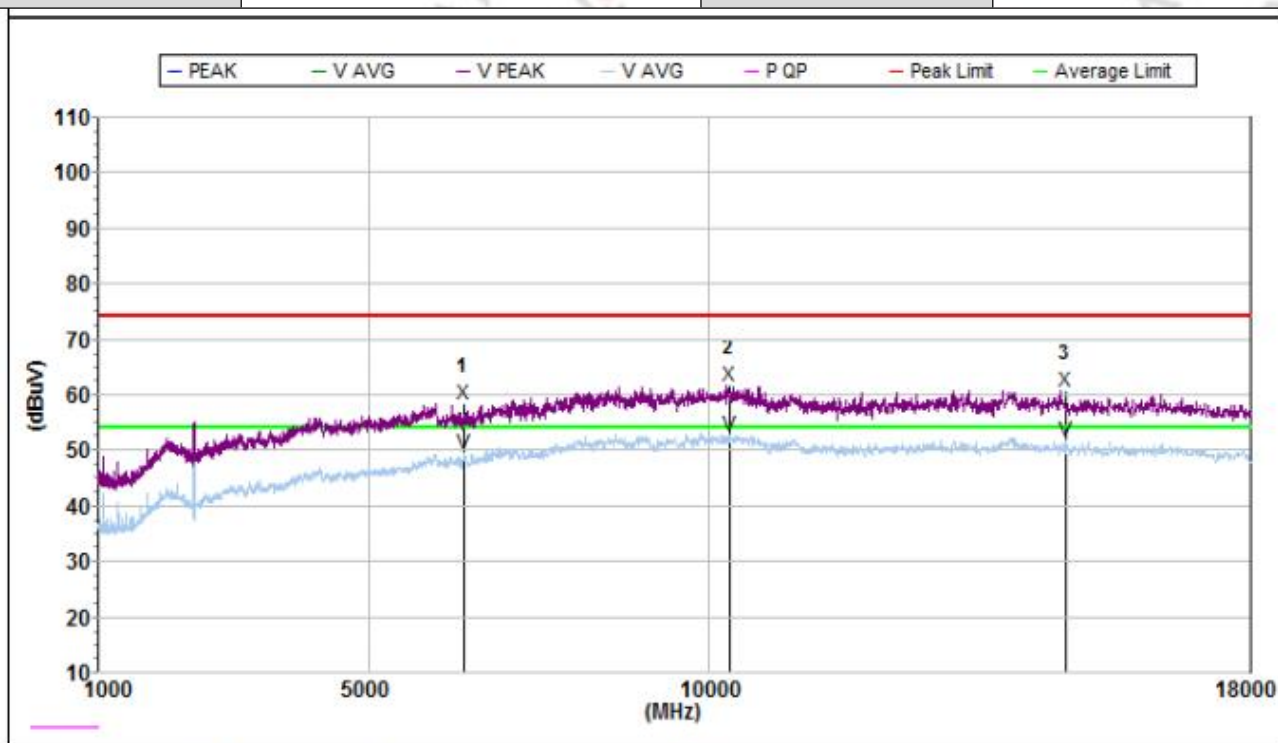
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	6306.000	58.8	-0.5	58.3	74.0	15.7	V
2	10416.000	59.1	3.3	62.4	74.0	11.6	V
3	15606.000	60.1	1.6	61.7	74.0	12.3	V
Avg							
1	6306.000	49.5	-0.5	49.0	54.0	5.0	V
2	10416.000	50.4	3.3	53.7	54.0	0.3	V
3	15606.000	50.5	1.6	52.1	54.0	1.9	V

EUT	DESKTOP TERMINAL	Model Name	Z108
Test Mode	802.11n20-TX Channel 1	Antenna Pol.	Horizontal



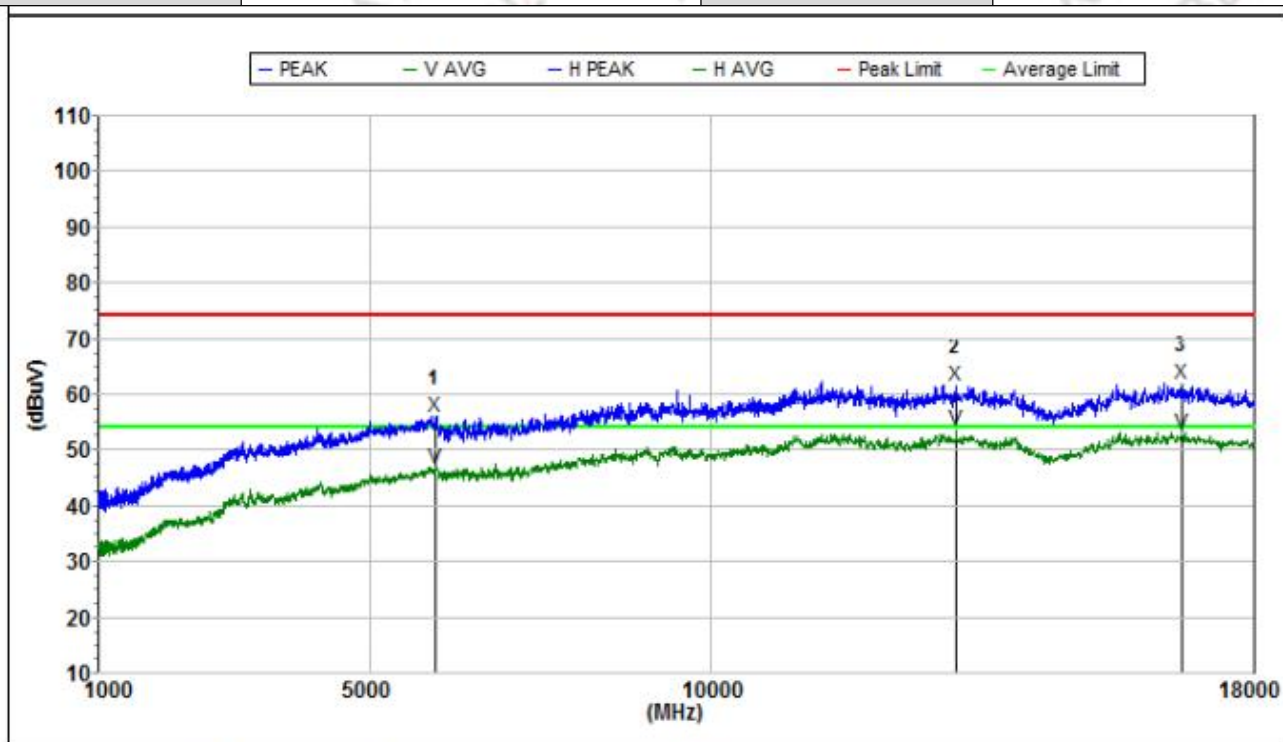
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	9036.000	58.9	-0.1	58.8	74.0	15.2	H
2	13620.000	58.3	3.0	61.3	74.0	12.7	H
3	16806.000	57.8	3.8	61.6	74.0	12.4	H
Avg							
1	9036.000	50.5	-0.1	50.4	54.0	3.6	H
2	13620.000	50.1	3.0	53.1	54.0	0.9	H
3	16806.000	49.2	3.8	53.0	54.0	1.0	H

EUT	DESKTOP TERMINAL	Model Name	Z108
Test Mode	802.11n20-TX Channel 1	Antenna Pol.	Vertical



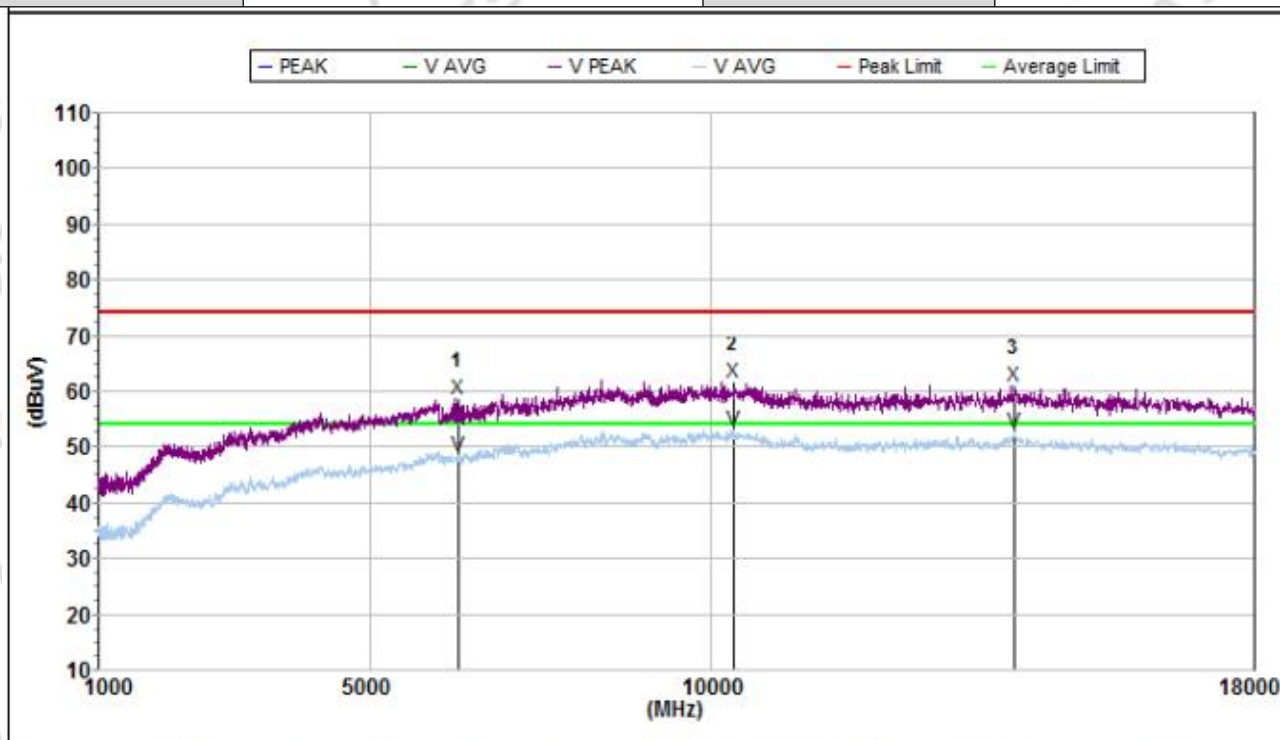
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	6396.000	58.6	-0.3	58.3	74.0	15.7	V
2	10308.000	58.4	3.2	61.6	74.0	12.4	V
3	15264.000	59.3	1.5	60.8	74.0	13.2	V
Avg							
1	6396.000	49.7	-0.3	49.4	54.0	4.6	V
2	10308.000	49.5	3.2	52.7	54.0	1.3	V
3	15264.000	50.3	1.5	51.8	54.0	2.2	V

EUT	DESKTOP TERMINAL	Model Name	Z108
Test Mode	802.11n20-TX Channel 6	Antenna Pol.	Horizontal



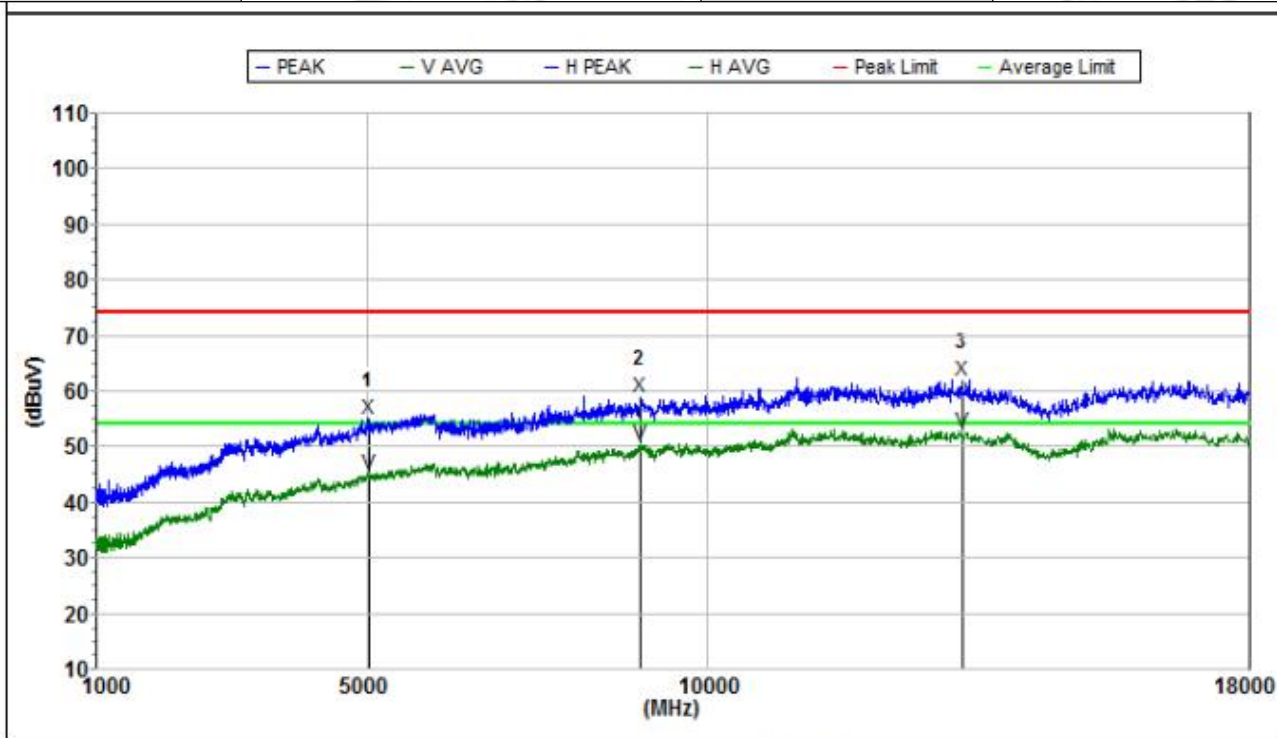
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	5970.000	59.3	-3.2	56.1	74.0	17.9	H
2	13614.000	58.5	3.0	61.5	74.0	12.5	H
3	16938.000	58.0	3.9	61.9	74.0	12.1	H
Avg							
1	5970.000	49.9	-3.2	46.7	54.0	7.3	H
2	13614.000	50.7	3.0	53.7	54.0	0.3	H
3	16938.000	49.3	3.9	53.2	54.0	0.8	H

EUT	DESKTOP TERMINAL	Model Name	Z108
Test Mode	802.11n20-TX Channel 6	Antenna Pol.	Vertical



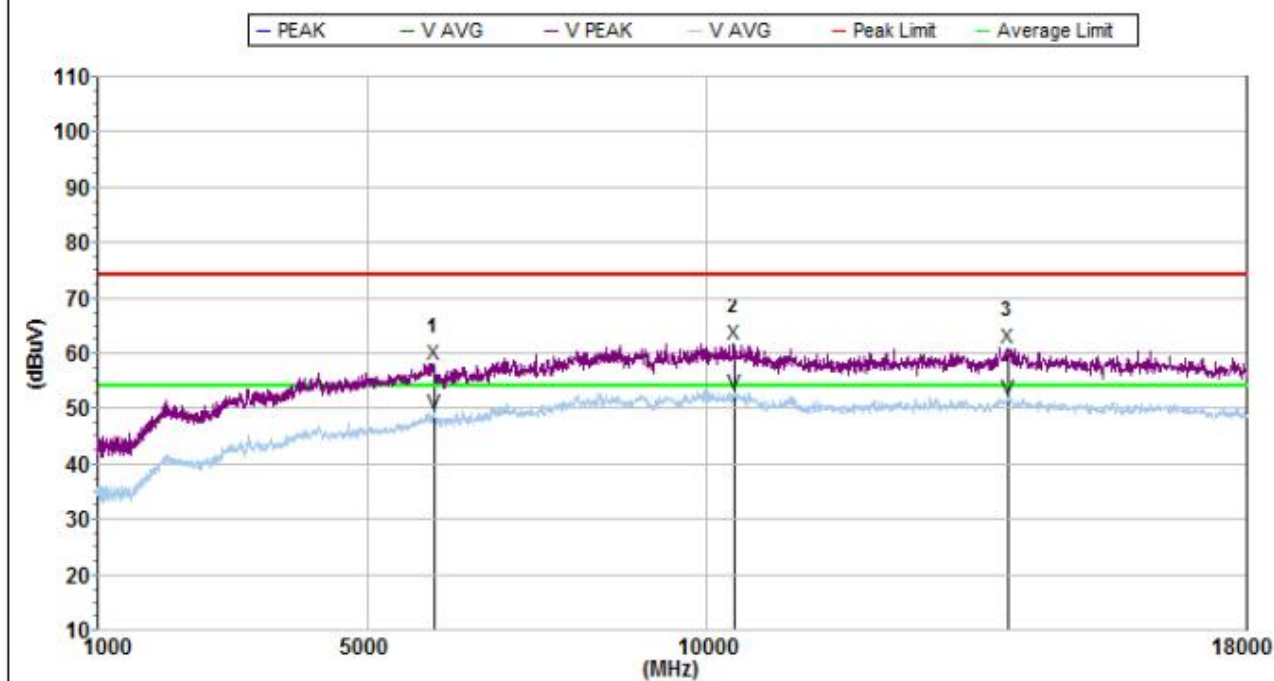
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	6288.000	59.1	-0.5	58.6	74.0	15.4	V
2	10350.000	58.2	3.3	61.5	74.0	12.5	V
3	14472.000	58.4	2.5	60.9	74.0	13.1	V
Avg							
1	6288.000	48.9	-0.5	48.4	54.0	5.6	V
2	10350.000	49.8	3.3	53.1	54.0	0.9	V
3	14472.000	50.3	2.5	52.8	54.0	1.2	V

EUT	DESKTOP TERMINAL	Model Name	Z108
Test Mode	802.11n20-TX Channel 11	Antenna Pol.	Horizontal



Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	5015.000	60.5	-5.5	55.0	74.0	19.0	H
2	9030.000	59.2	-0.1	59.1	74.0	14.9	H
3	13758.000	59.3	2.7	62.0	74.0	12.0	H
Avg							
1	5015.000	50.8	-5.5	45.3	54.0	8.7	H
2	9030.000	50.7	-0.1	50.6	54.0	3.4	H
3	13758.000	50.1	2.7	52.8	54.0	1.2	H

EUT	DESKTOP TERMINAL	Model Name	Z108
Test Mode	802.11n20-TX Channel 11	Antenna Pol.	Vertical



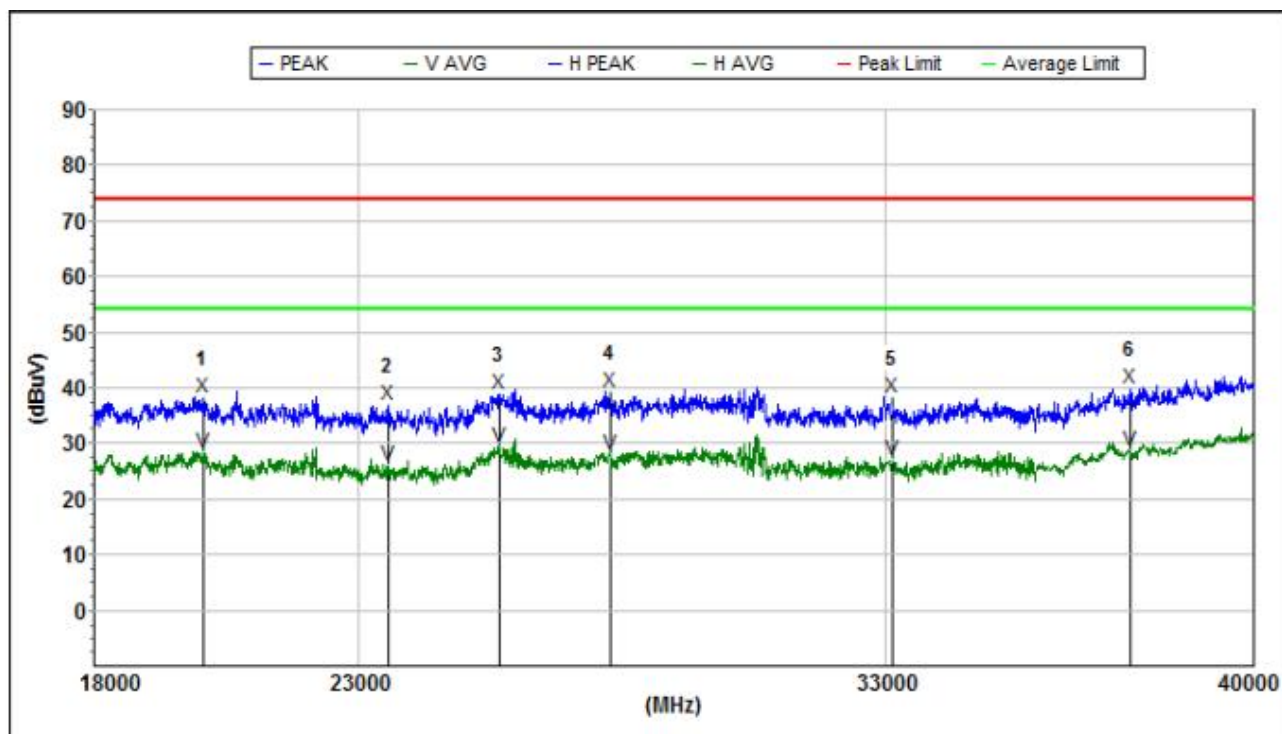
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	5972.500	59.3	-1.2	58.1	74.0	15.9	V
2	10416.000	58.4	3.3	61.7	74.0	12.3	V
3	14472.000	58.6	2.5	61.1	74.0	12.9	V
Avg							
1	5972.500	50.2	-1.2	49.0	54.0	5.0	V
2	10416.000	49.3	3.3	52.6	54.0	1.4	V
3	14472.000	49.4	2.5	51.9	54.0	2.1	V

18GHz-40GHz:

Note:

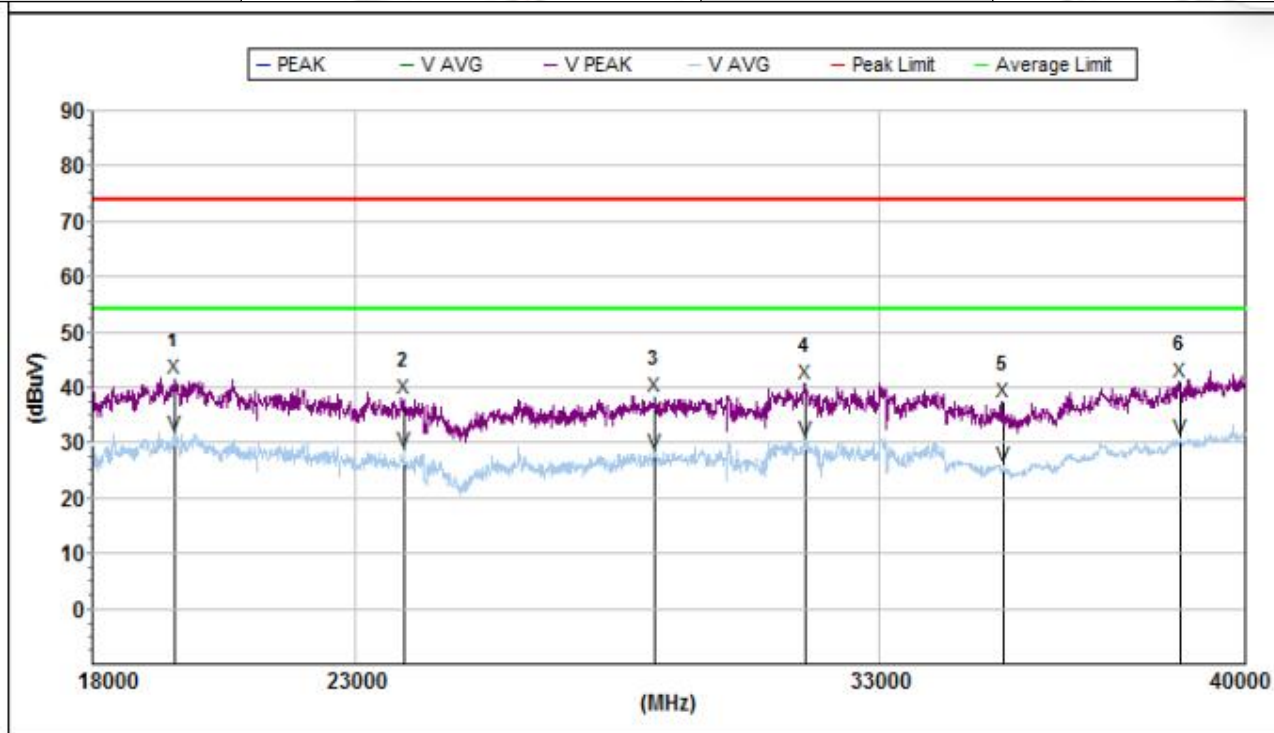
- 1).All modes have been tested, only worst (802.11n40-TX Channel 3)mode was recorded in the test report.
- 2).While performing the testing, the notch filter is used for avoiding test instrument overload.

EUT	Telephone headset	Model Name	Spark 07
Test Mode	802.11n40-TX Channel 3	Antenna Pol.	Horizontal



Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	20068.000	59.9	-21.4	38.5	74.0	35.5	H
2	23577.000	58.7	-21.5	37.2	74.0	36.8	H
3	25689.000	56.8	-17.9	38.9	74.0	35.1	H
4	27790.000	56.3	-17.0	39.3	74.0	34.7	H
5	33136.000	55.5	-17.1	38.4	74.0	35.6	H
6	37668.000	56.7	-16.6	40.1	74.0	33.9	H
Avg							
1	20068.000	50.0	-21.4	28.6	54.0	25.4	H
2	23577.000	47.6	-21.5	26.1	54.0	27.9	H
3	25689.000	47.4	-17.9	29.5	54.0	24.5	H
4	27790.000	45.2	-17.0	28.2	54.0	25.8	H
5	33136.000	44.2	-17.1	27.1	54.0	26.9	H
6	37668.000	45.4	-16.6	28.8	54.0	25.2	H

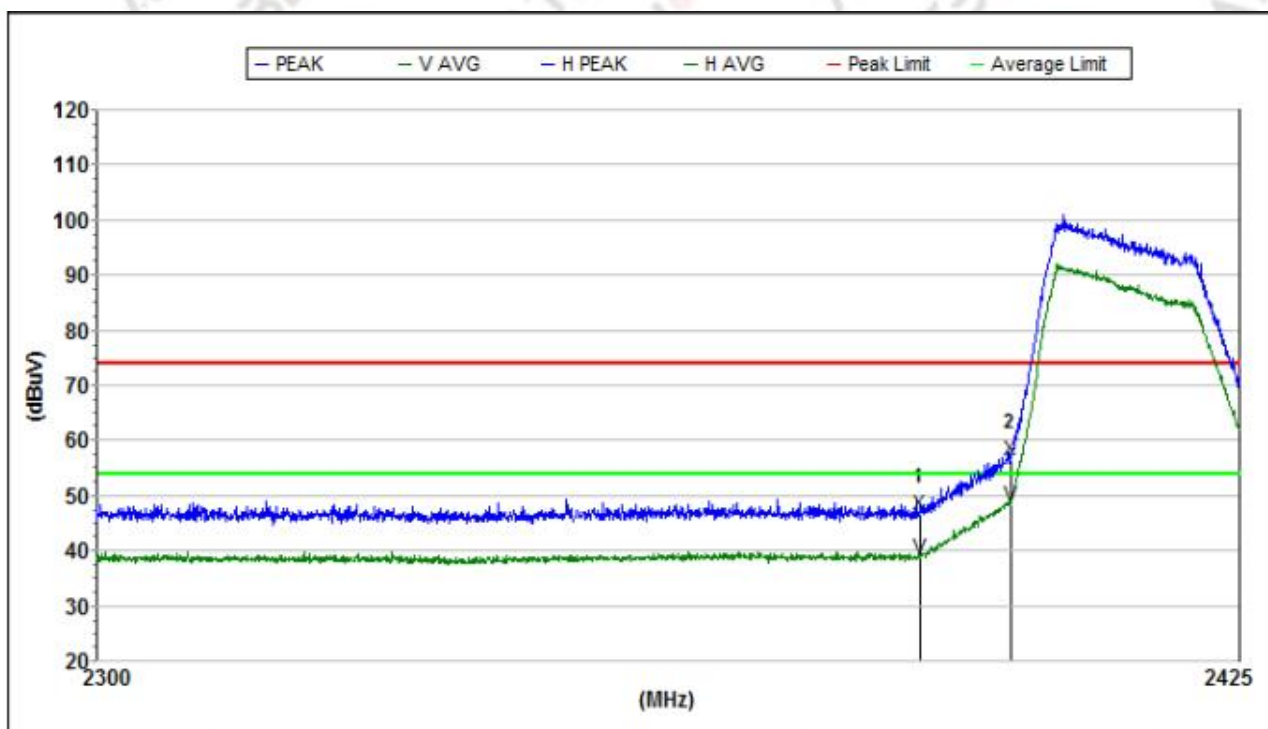
EUT	Telephone headset	Model Name	Spark 07
Test Mode	802.11n40-TX Channel 3	Antenna Pol.	Vertical



Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	19584.000	58.0	-16.4	41.6	74.0	32.4	V
2	23951.000	54.4	-16.4	38.0	74.0	36.0	V
3	28747.000	55.2	-16.7	38.5	74.0	35.5	V
4	31618.000	57.6	-16.8	40.8	74.0	33.2	V
5	35391.000	55.8	-18.5	37.3	74.0	36.7	V
6	38779.000	56.5	-15.6	40.9	74.0	33.1	V
Avg							
1	19584.000	47.7	-16.4	31.3	54.0	22.7	V
2	23951.000	44.9	-16.4	28.5	54.0	25.5	V
3	28747.000	44.9	-16.7	28.2	54.0	25.8	V
4	31618.000	47.2	-16.8	30.4	54.0	23.6	V
5	35391.000	44.2	-18.5	25.7	54.0	28.3	V
6	38779.000	46.4	-15.6	30.8	54.0	23.2	V

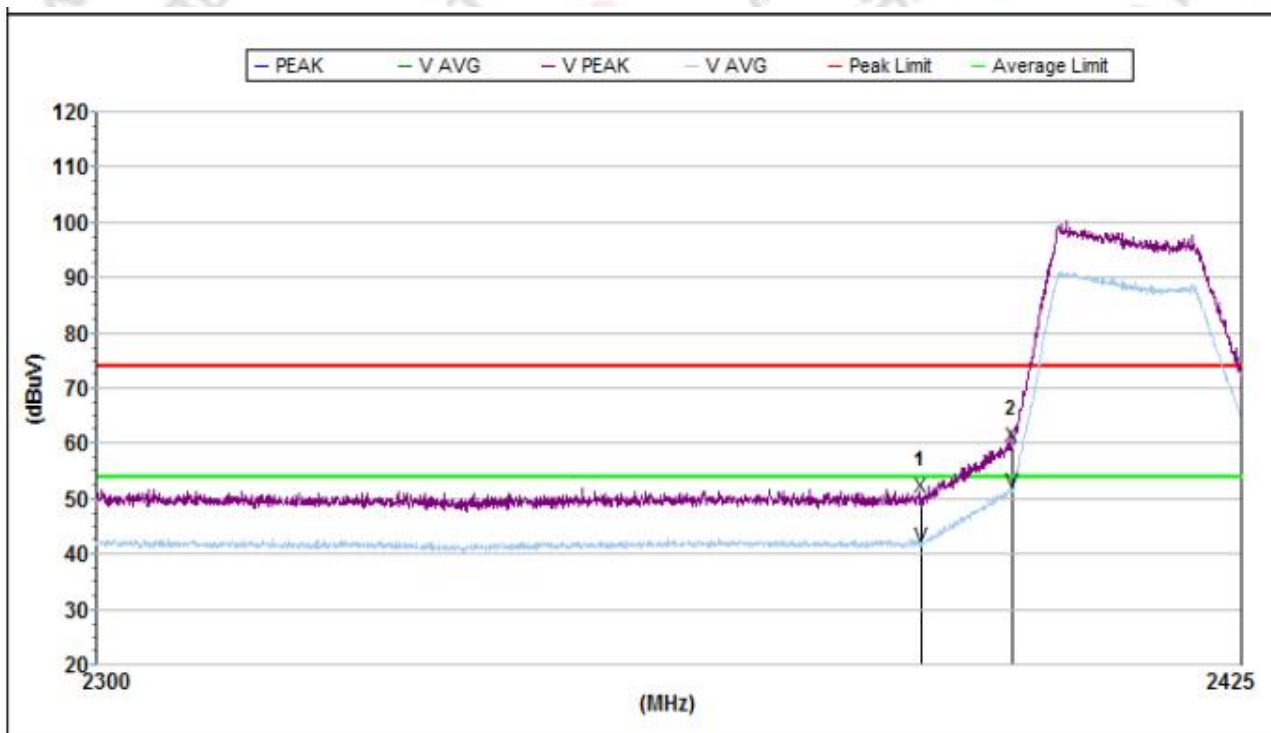
Restricted Band:

EUT	DESKTOP TERMINAL	Model Name	Z108
Test Mode	N20_CH1 2412	Antenna Pol.	Horizontal



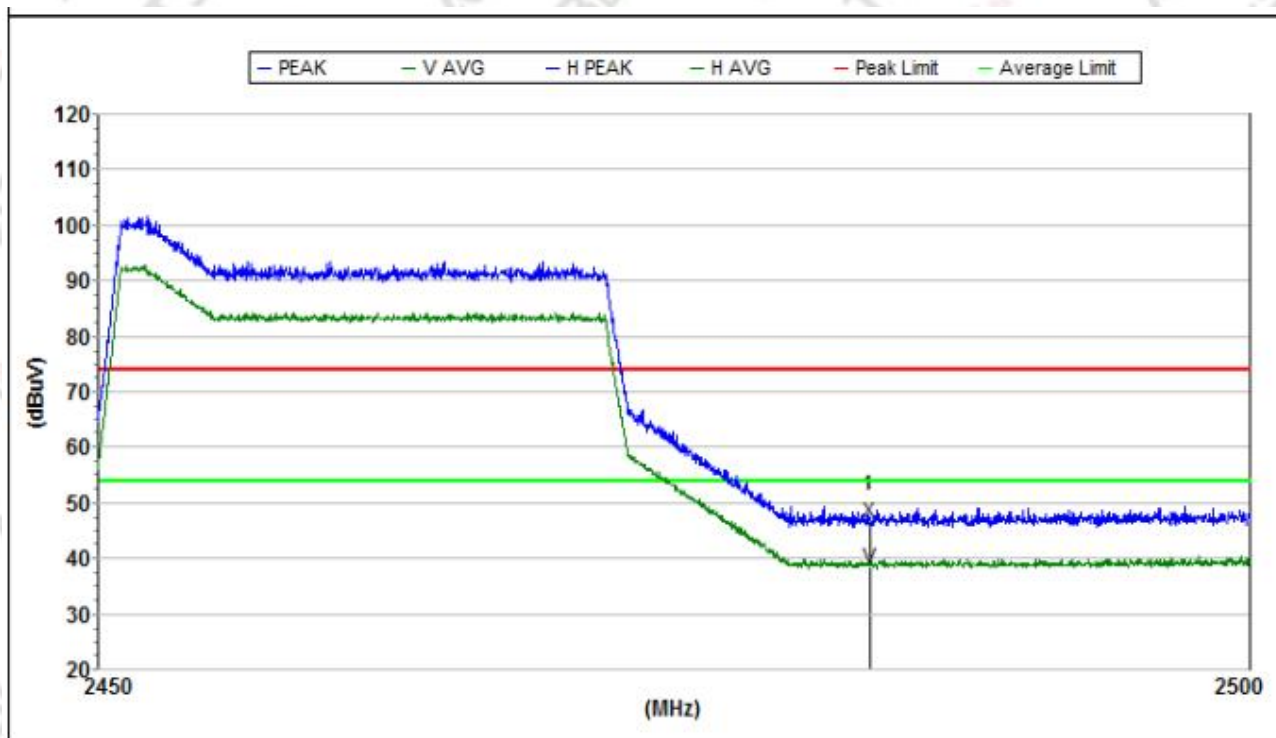
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	2390.000	57.3	-10.7	46.6	74.0	27.4	H
2	2400.000	57.5	-0.9	56.6	74.0	17.4	H
Avg							
1	2390.000	49.3	-10.7	38.6	54.0	15.4	H
2	2400.000	49.3	-0.9	48.4	54.0	5.6	H

EUT	DESKTOP TERMINAL	Model Name	Z108
Test Mode	N20_CH1 2412	Antenna Pol.	Vertical



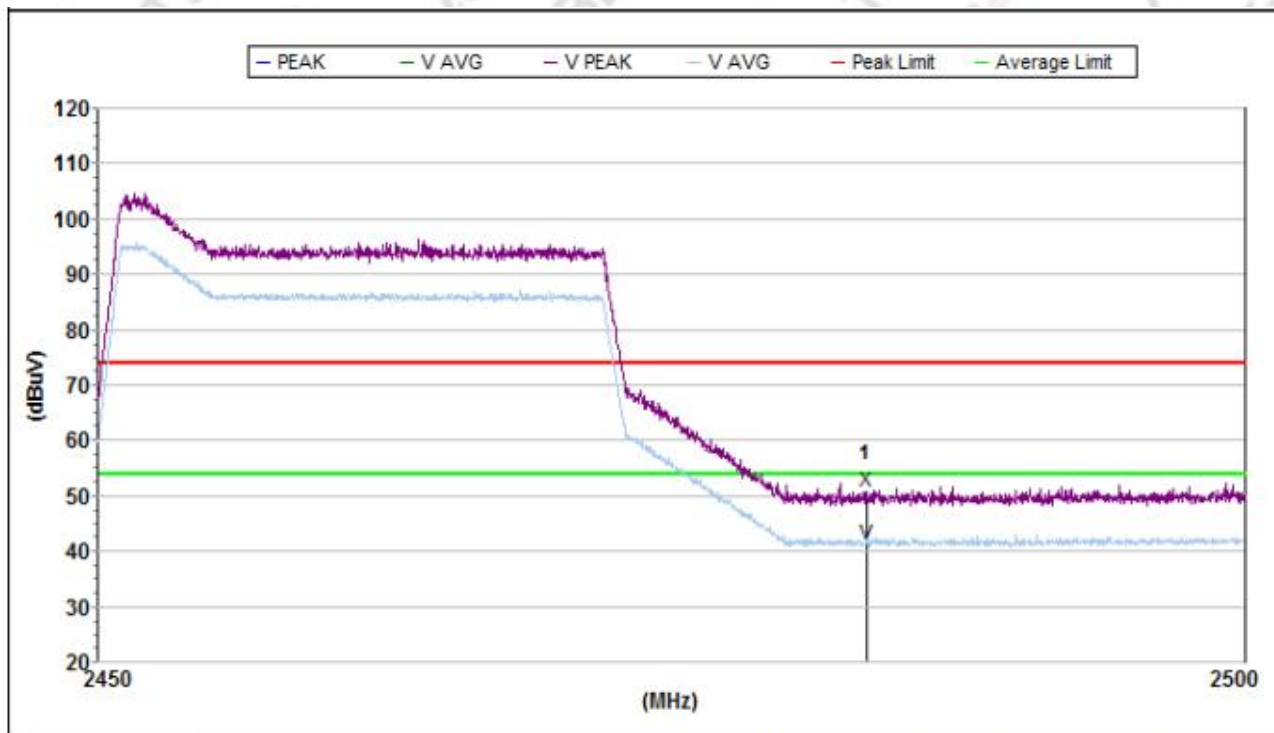
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	2390.000	57.9	-7.8	50.1	74.0	23.9	V
2	2400.000	57.7	1.9	59.6	74.0	14.4	V
Avg							
1	2390.000	49.2	-7.8	41.4	54.0	12.6	V
2	2400.000	49.5	1.9	51.4	54.0	2.6	V

EUT	DESKTOP TERMINAL	Model Name	Z108
Test Mode	N20_CH11 2462	Antenna Pol.	Horizontal



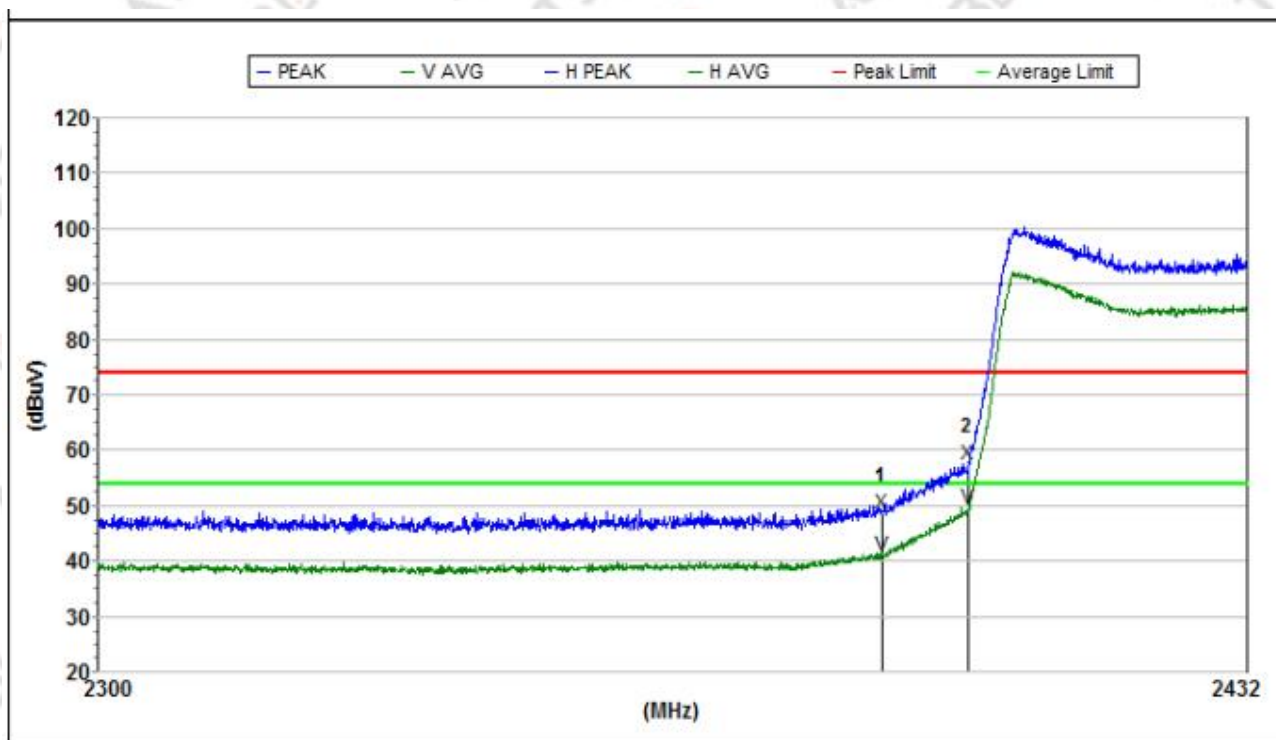
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	2483.500	57.5	-10.8	46.7	74.0	27.3	H
Avg							
1	2483.500	49.2	-10.8	38.4	54.0	15.6	H

EUT	DESKTOP TERMINAL	Model Name	Z108
Test Mode	N20_CH11 2462	Antenna Pol.	Vertical



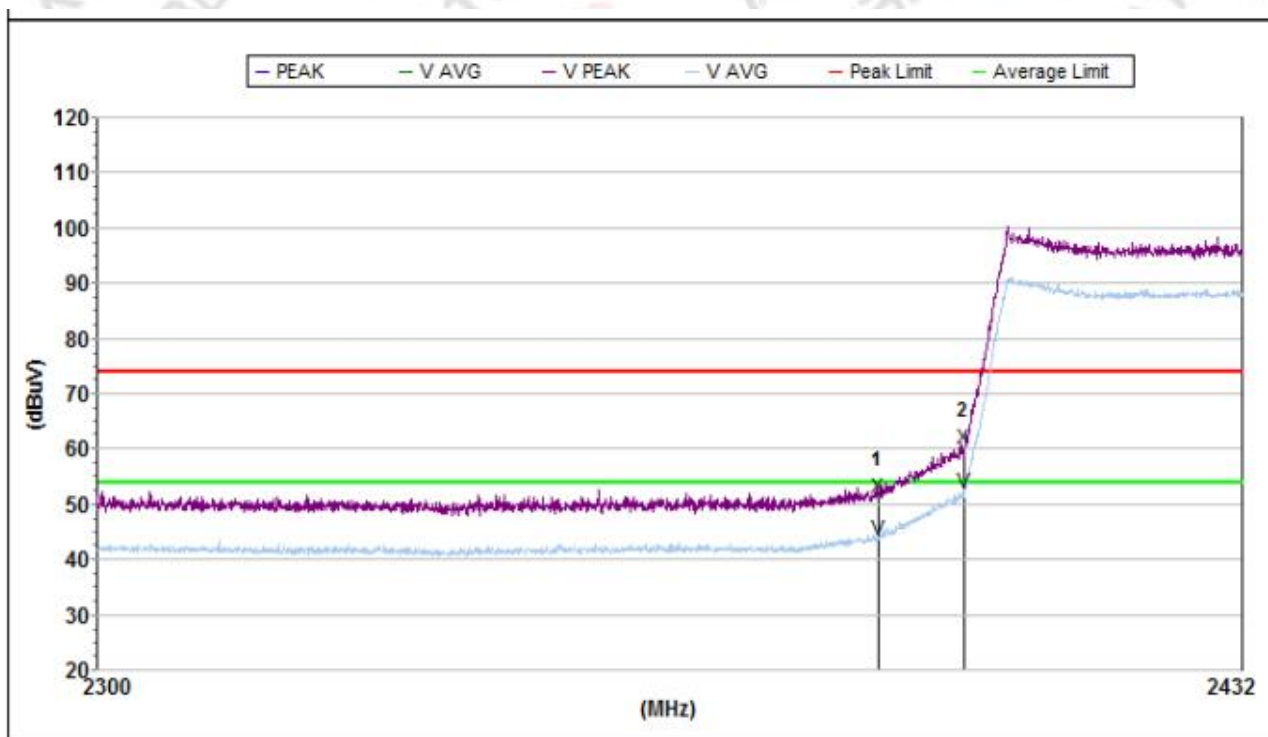
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	2483.500	59.0	-8.2	50.8	74.0	23.2	V
Avg							
1	2483.500	49.7	-8.2	41.5	54.0	12.5	V

EUT	DESKTOP TERMINAL	Model Name	Z108
Test Mode	N40_CH3 2422	Antenna Pol.	Horizontal



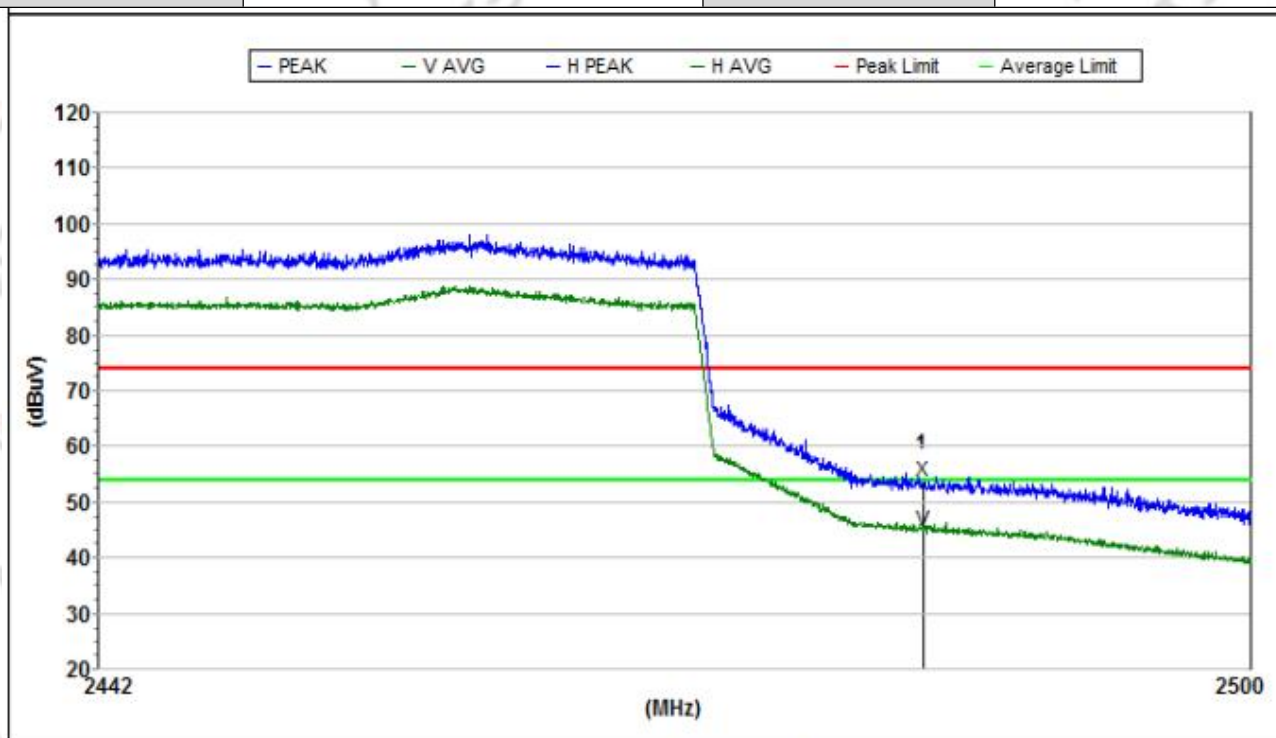
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	2390.000	57.4	-8.7	48.7	74.0	25.3	H
2	2400.000	58.2	-0.7	57.5	74.0	16.5	H
Avg							
1	2390.000	49.8	-8.7	41.1	54.0	12.9	H
2	2400.000	50.2	-0.7	49.5	54.0	4.5	H

EUT	DESKTOP TERMINAL	Model Name	Z108
Test Mode	N40_CH3 2422	Antenna Pol.	Vertical



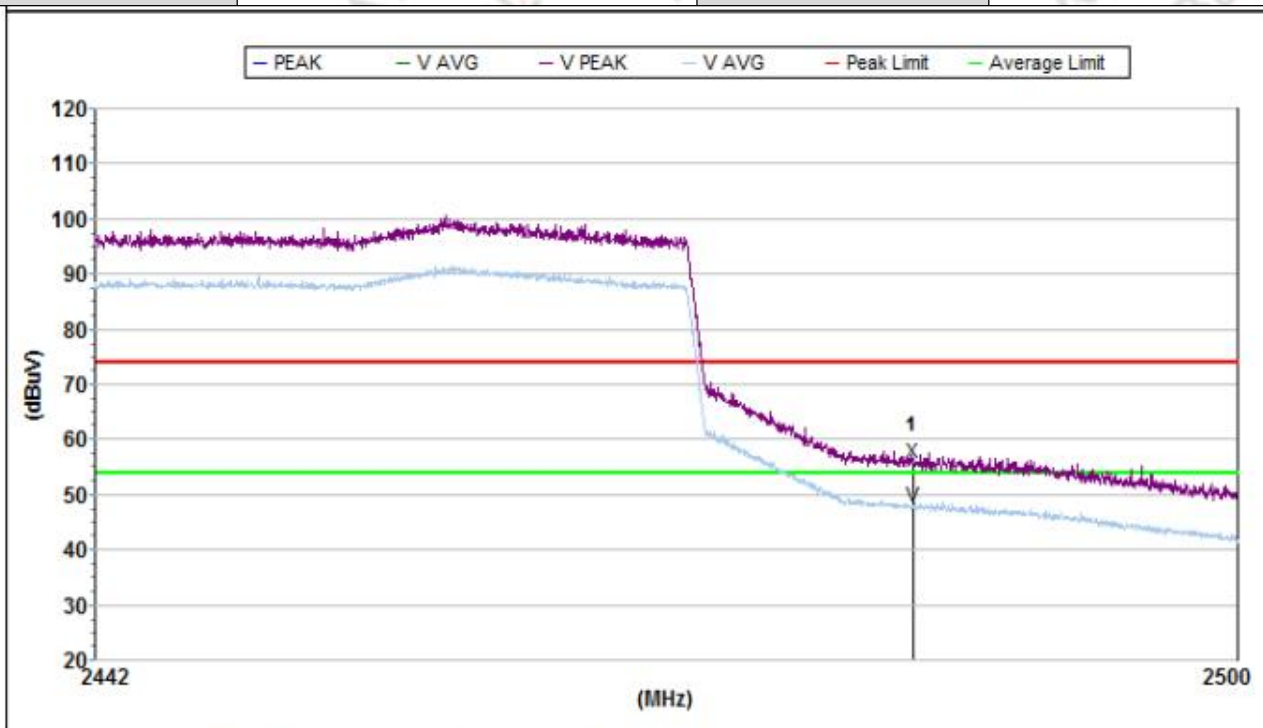
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	2390.000	57.1	-5.8	51.3	74.0	22.7	V
2	2400.000	58.0	2.1	60.1	74.0	13.9	V
Avg							
1	2390.000	49.5	-5.8	43.7	54.0	10.3	V
2	2400.000	50.2	2.1	52.3	54.0	1.7	V

EUT	DESKTOP TERMINAL	Model Name	Z108
Test Mode	N40_CH9 2452	Antenna Pol.	Horizontal



Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	2483.500	58.3	-4.5	53.8	74.0	20.2	H
Avg							
1	2483.500	49.4	-4.5	44.9	54.0	9.1	H

EUT	DESKTOP TERMINAL	Model Name	Z108
Test Mode	N40_CH9 2452	Antenna Pol.	Vertical



Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	2483.500	57.6	-1.9	55.7	74.0	18.3	V
Avg							
1	2483.500	49.9	-1.9	48.0	54.0	6.0	V

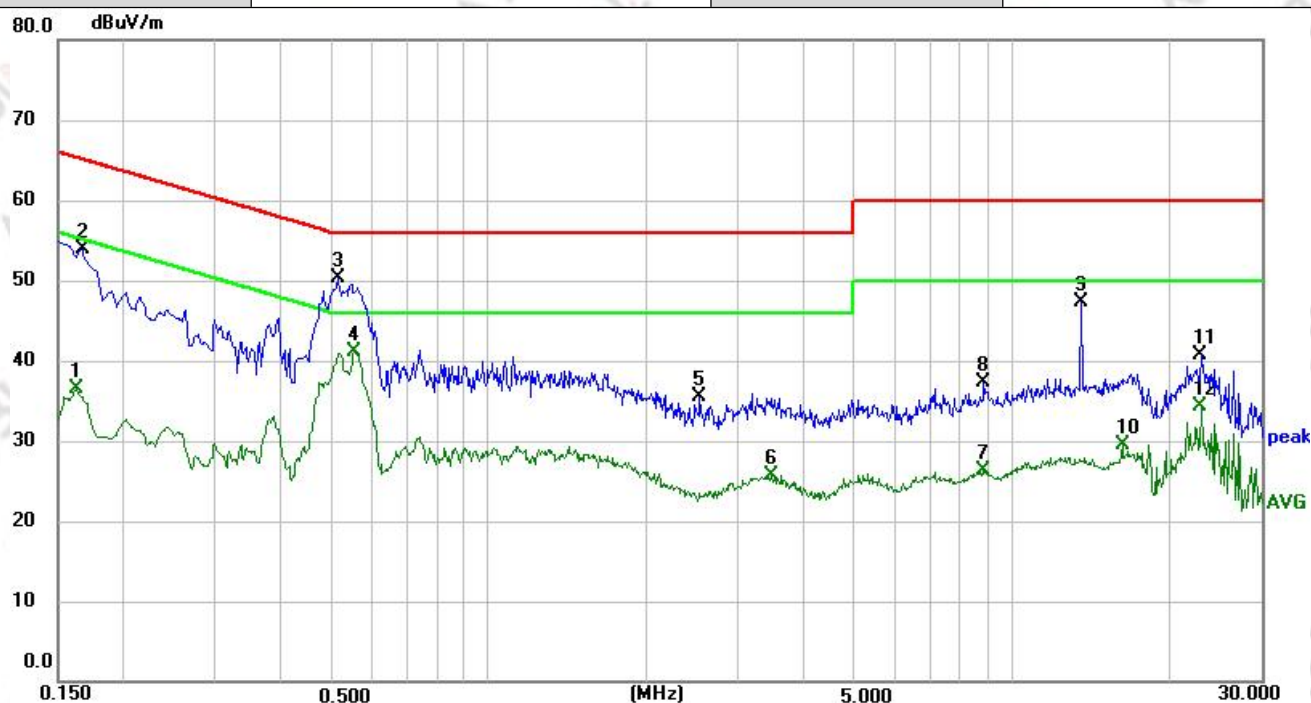
2.AC Power-Line Conducted Emission

Test Result

Note:

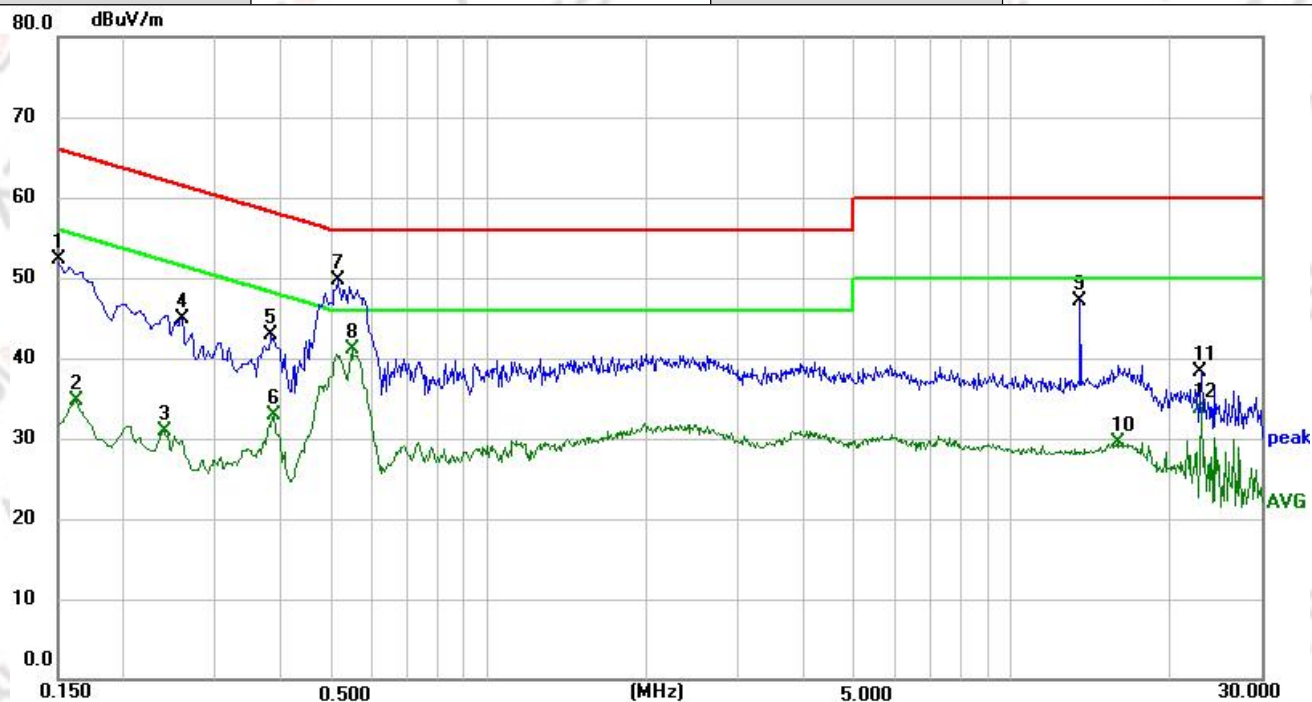
- 1.All modes have been tested, only worst mode(802.11n40-TX Channel 3) was recorded in the test report.
- 2.Emission Level = Reading Value + Correction Factor .
3. Correction Factor = Insertion loss + Cable loss.
4. The emission levels of other frequencies were less than 20dB margin against the limit.
5. Margin value = Emission level-Limit value.

EUT	DESKTOP TERMINAL	Model Name	Z108
Test Mode	802.11n40-TX Channel 3	Phase	L1



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	0.1620	16.73	19.74	36.47	55.36	-18.89	AVG	P	
2	0.1660	34.17	19.74	53.91	65.16	-11.25	peak	P	
3	0.5140	30.43	19.86	50.29	56.00	-5.71	peak	P	
4 *	0.5540	21.15	19.88	41.03	46.00	-4.97	AVG	P	
5	2.5300	15.25	20.21	35.46	56.00	-20.54	peak	P	
6	3.4540	5.52	20.25	25.77	46.00	-20.23	AVG	P	
7	8.7900	5.73	20.61	26.34	50.00	-23.66	AVG	P	
8	8.8660	16.70	20.61	37.31	60.00	-22.69	peak	P	
9	13.5900	25.74	21.64	47.38	60.00	-12.62	peak	P	
10	16.2300	7.05	22.46	29.51	50.00	-20.49	AVG	P	
11	23.1299	16.17	24.51	40.68	60.00	-19.32	peak	P	
12	23.1299	9.85	24.51	34.36	50.00	-15.64	AVG	P	

EUT	DESKTOP TERMINAL	Model Name	Z108
Test Mode	802.11n40-TX Channel 3	Phase	N



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	0.1500	32.49	19.75	52.24	66.00	-13.76	peak	P	
2	0.1620	14.95	19.81	34.76	55.36	-20.60	AVG	P	
3	0.2380	10.88	19.96	30.84	52.17	-21.33	AVG	P	
4	0.2580	25.03	19.93	44.96	61.50	-16.54	peak	P	
5	0.3820	23.19	19.75	42.94	58.24	-15.30	peak	P	
6	0.3860	13.22	19.74	32.96	48.15	-15.19	AVG	P	
7	0.5140	30.05	19.56	49.61	56.00	-6.39	peak	P	
8 *	0.5460	21.42	19.60	41.02	46.00	-4.98	AVG	P	
9	13.5060	25.73	21.32	47.05	60.00	-12.95	peak	P	
10	16.0020	7.72	21.87	29.59	50.00	-20.41	AVG	P	
11	23.1299	14.31	24.07	38.38	60.00	-21.62	peak	P	
12	23.1299	9.62	24.07	33.69	50.00	-16.31	AVG	P	