

Appendix B_Radiated Data for BLE:

1.Radiated Spurious Emission and Restricted Band

Test Result

Radiated Spurious Emission:

For 9 kHz ~ 30 MHz

Note:

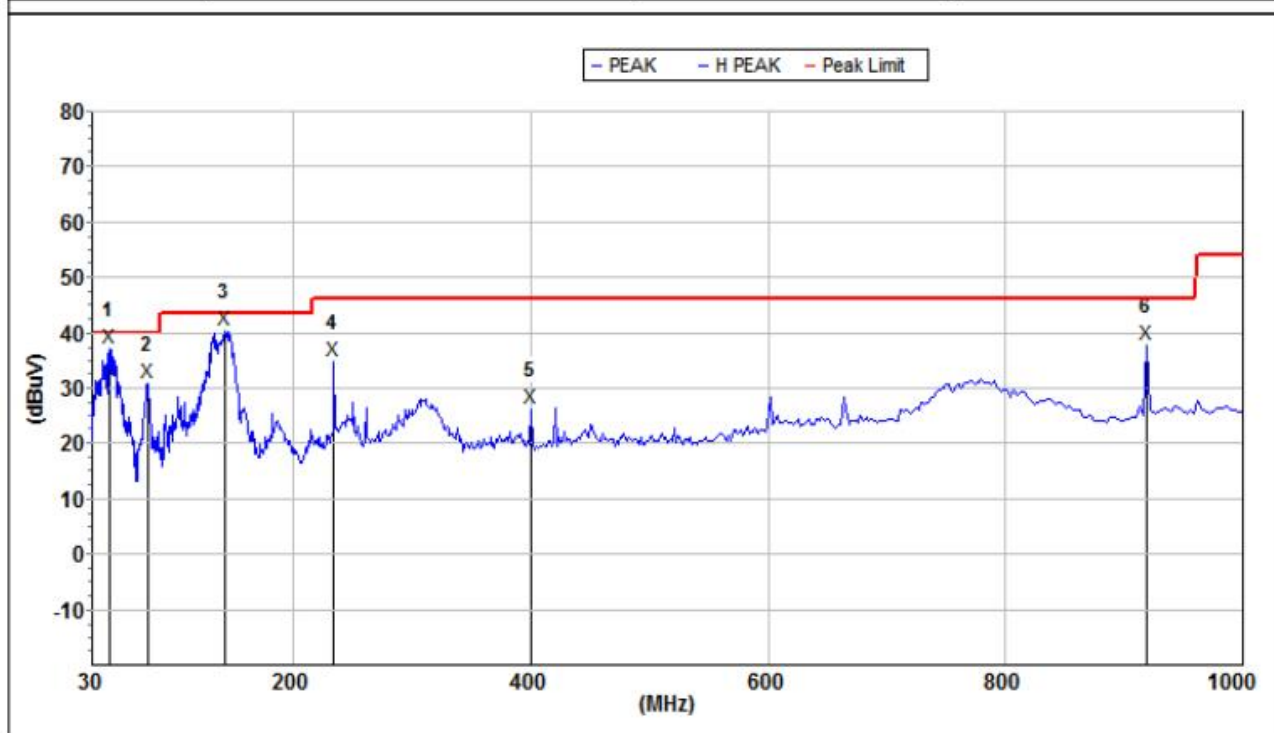
- 1.The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.
- 2.The all data rate modes had been test, but only worse test data was recorded in the test report.

Below 1GHz:

Note:

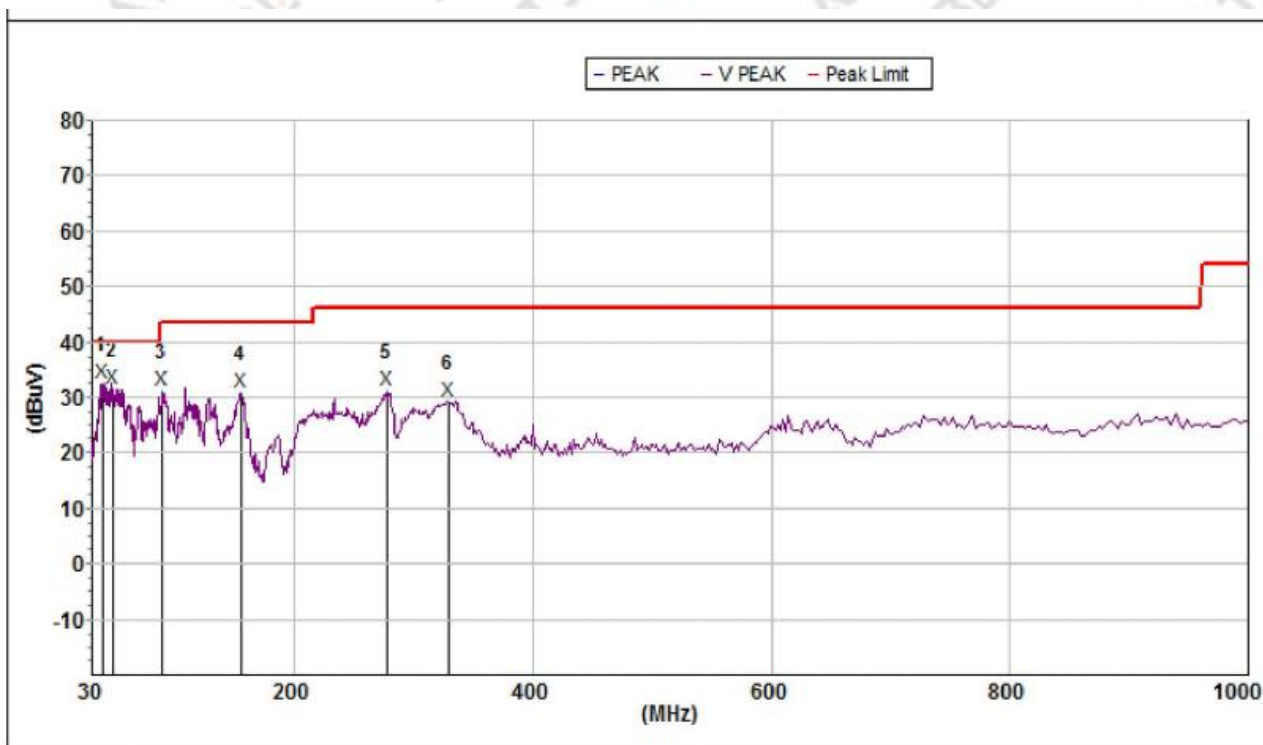
- 1.All modes have been tested, only worst (BLE_1M-TX-2480MHz)mode was recorded in the test report.
- 2.Emission Level (dBuV/m) = Reading Value (dBuV) + Correction Factor (dB/m).
- 3.Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)-Amplifier Gain.
- 4.The emission levels of other frequencies were less than 20dB margin against the limit.
- 5.Margin value = Emission level-Limit value.

EUT	Ziosk Mini 2	Model Name	Z700
Test Mode	BLE-1M-2480MHz	Antenna	Horizontal



Mk.	Freq.(MHz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Pol.	
Peak:							
1	45.375	37.3	40.0	2.7	-42.2	H	
2	76.512	30.9	40.0	9.1	-44.2	H	
3	142.324	40.4	43.5	3.1	-33.4	H	
4	234.168	34.8	46.0	11.2	-27.4	H	
5	400.432	26.4	46.0	19.6	-24.5	H	
6	919.287	37.8	46.0	8.2	-17.0	H	

EUT	Ziosk Mini 2	Model Name	Z700
Test Mode	BLE-1M-2480MHz	Antenna	Vertical



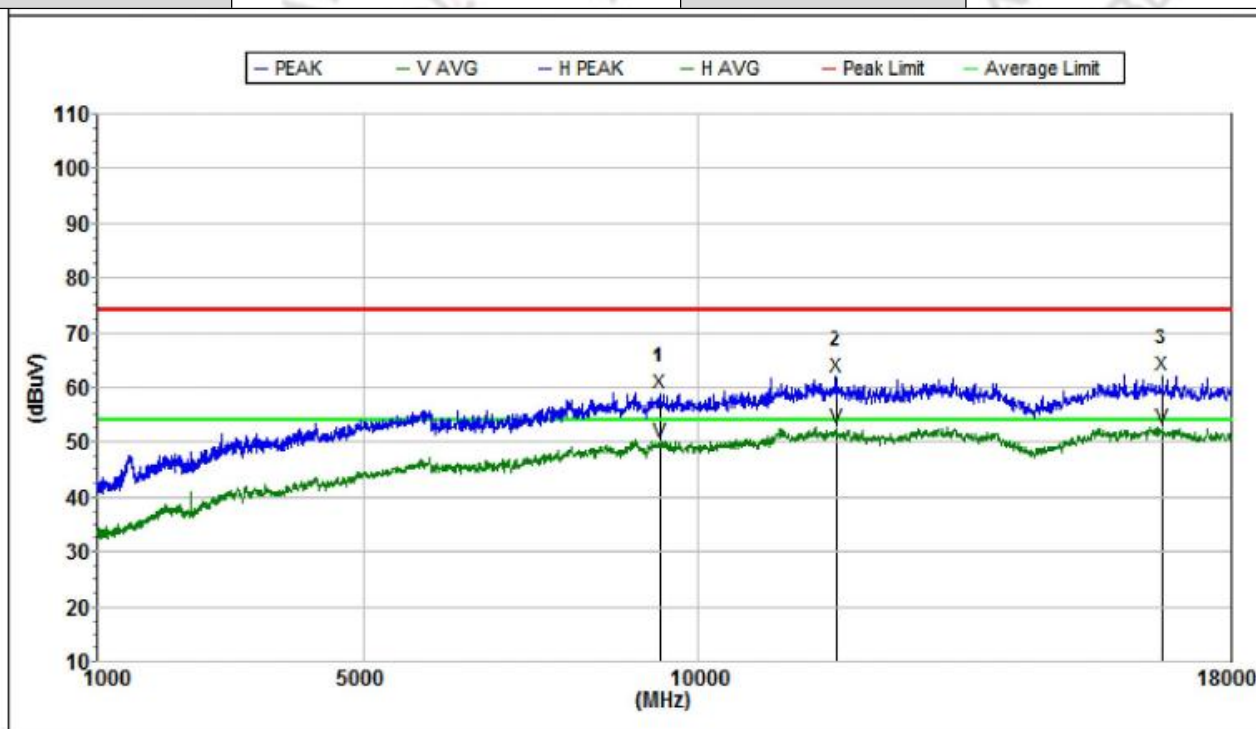
Mk	Freq.(MHz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Pol.
Peak:						
1	38.481	32.6	40.0	7.4	-45.9	V
2	47.659	31.7	40.0	8.3	-44.2	V
3	89.590	31.4	43.5	12.1	-40.7	V
4	154.821	30.9	43.5	12.6	-35.3	V
5	278.067	31.2	46.0	14.8	-27.5	V
6	329.039	29.3	46.0	16.7	-26.1	V

Above 1GHz:

Note:

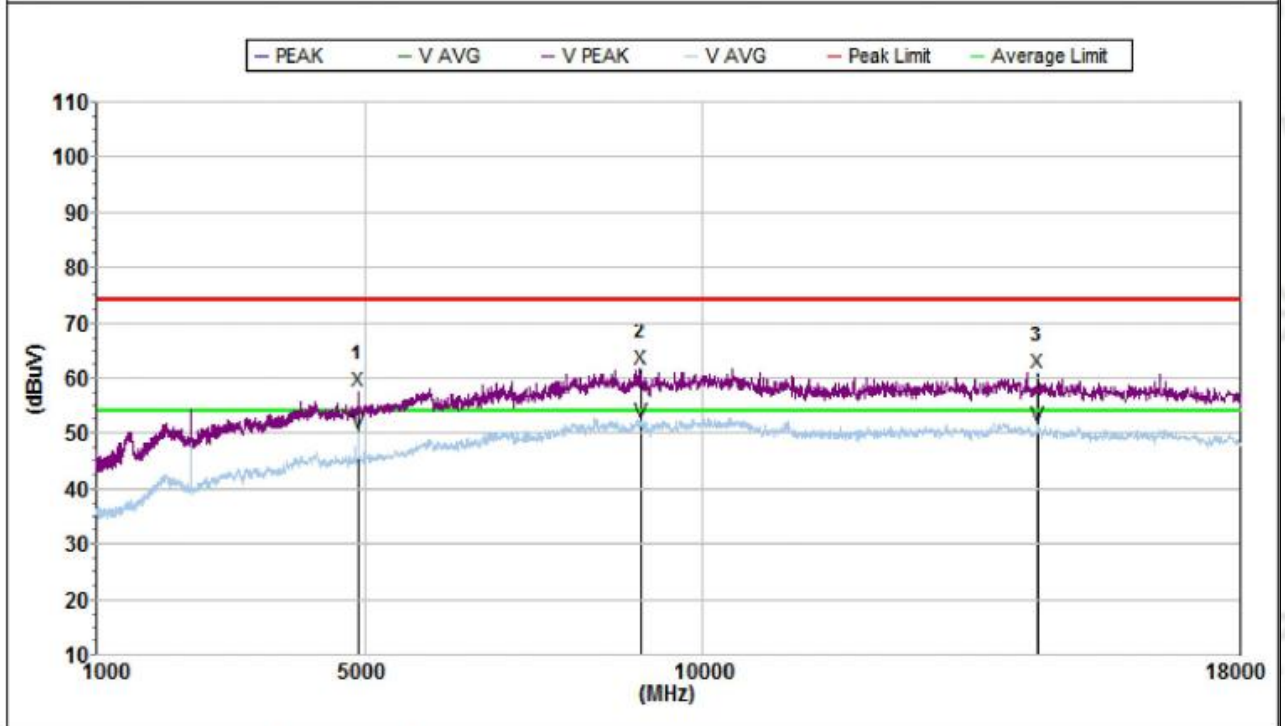
- 1.All modes have been tested, only worst mode was recorded in the test report.
- 2.In frequency ranges 18 ~25GHz no any other harmonic emissions detected which are tested to compliance with the limit. No recording in the test report. No any other emissions level which are attenuated less than 20dB 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.
- 7.While performing the testing, the notch filter is used for avoiding test instrument overload.

EUT	Ziosk Mini 2	Model Name	Z700
Test Mode	BLE-1M-2402MHz	Antenna	Horizontal



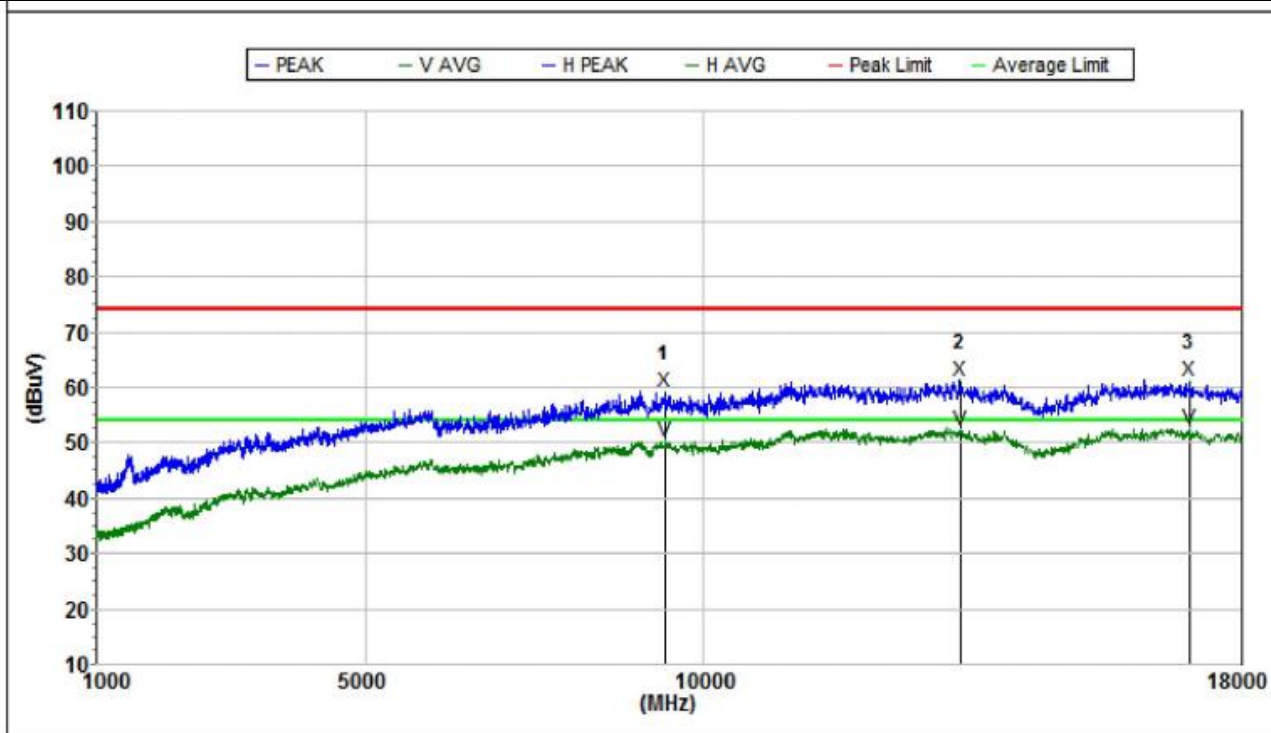
Mk.	Freq. (MHz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Pol.
Peak:						
1	9432.000	59.1	74.0	14.9	0.4	H
2	12072.000	61.9	74.0	12.1	3.0	H
3	16956.000	62.4	74.0	11.6	4.0	H
Avg						
1	9432.000	50.1	54.0	3.9	0.4	H
2	12072.000	52.6	54.0	1.4	3.0	H
3	16956.000	52.8	54.0	1.2	4.0	H

EUT	Ziosk Mini 2	Model Name	Z700
Test Mode	BLE-1M-2402MHz	Antenna	Vertical



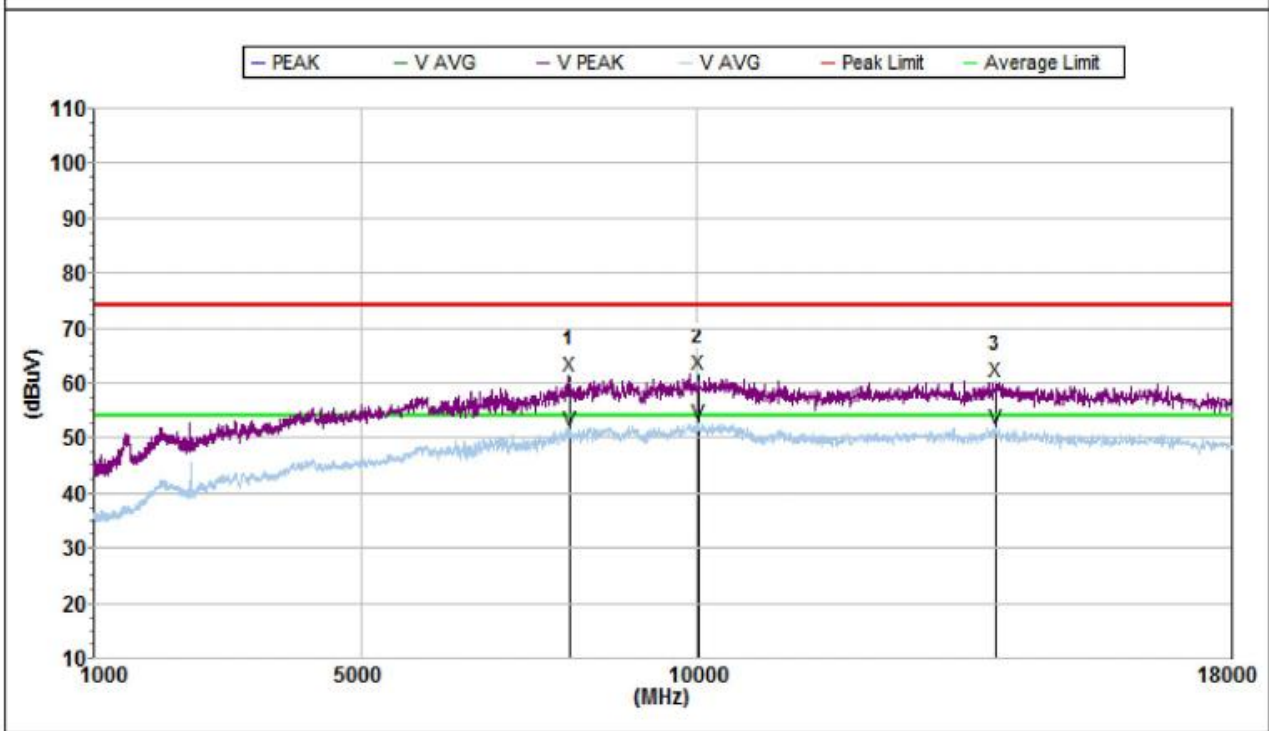
Mk.	Freq. (MHz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Pol.	
Peak:							
1	4887.500	57.6	74.0	16.4	-4.3	V	
2	9108.000	61.5	74.0	12.5	2.1	V	
3	15000.000	60.9	74.0	13.1	1.3	V	
Avg:							
1	4887.500	50.0	54.0	4.0	-4.3	V	
2	9108.000	52.1	54.0	1.9	2.1	V	
3	15000.000	51.4	54.0	2.6	1.3	V	

EUT	Ziosk Mini 2	Model Name	Z700
Test Mode	BLE-1MHz2440MHz	Antenna	Horizontal



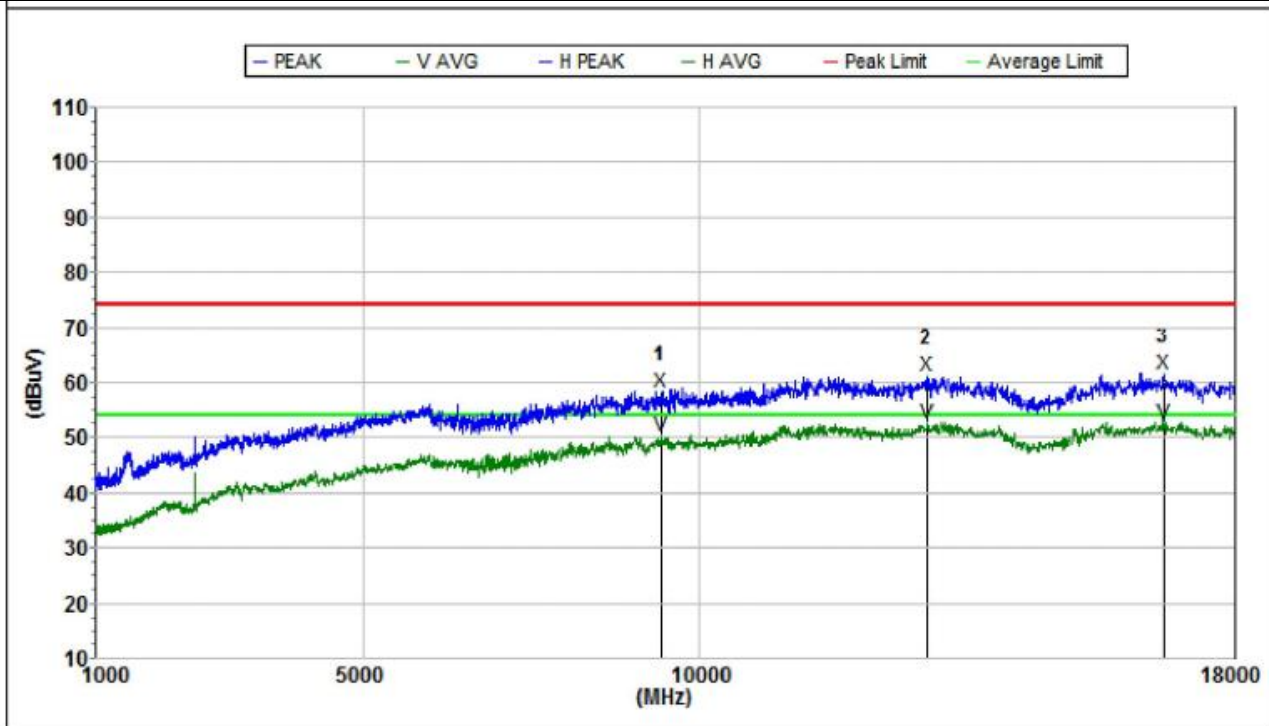
Mk.	Freq. (MHz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Pol.
Peak:						
1	9438.000	59.2	74.0	14.8	0.4	H
2	13824.000	61.4	74.0	12.6	2.6	H
3	17214.000	61.2	74.0	12.8	3.7	H
Avg						
1	9438.000	50.4	54.0	3.6	0.4	H
2	13824.000	52.3	54.0	1.7	2.6	H
3	17214.000	52.9	54.0	1.1	3.7	H

EUT	Ziosk Mini 2	Model Name	Z700
Test Mode	BLE-1MHz2440MHz	Antenna	Vertical



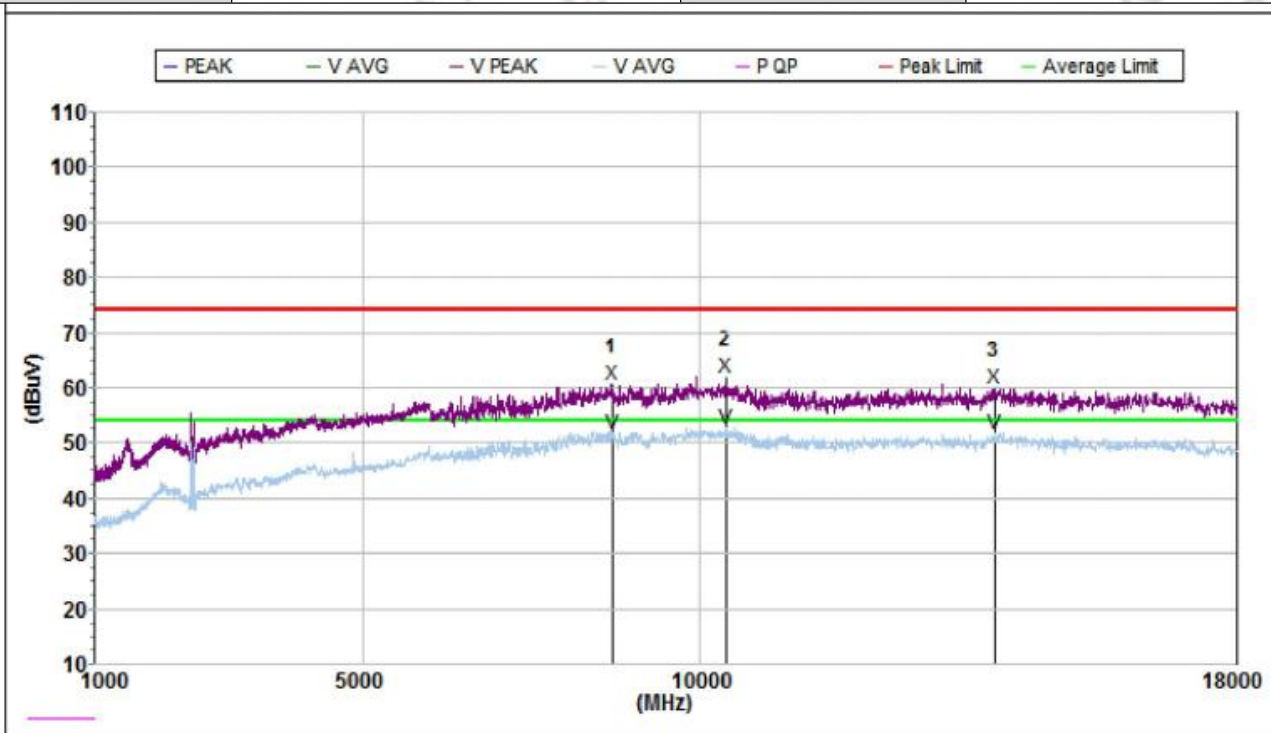
Mk.	Freq. (MHz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Pol.	
Peak:							
1	8100.000	61.4	74.0	12.6	2.3	V	
2	10026.000	61.6	74.0	12.4	3.0	V	
3	14478.000	60.3	74.0	13.7	2.5	V	
Avg:							
1	8100.000	51.4	54.0	2.6	2.3	V	
2	10026.000	52.7	54.0	1.3	3.0	V	
3	14478.000	51.8	54.0	2.2	2.5	V	

EUT	Ziosk Mini 2	Model Name	Z700
Test Mode	BLE-1MHz2480MHz	Antenna	Horizontal



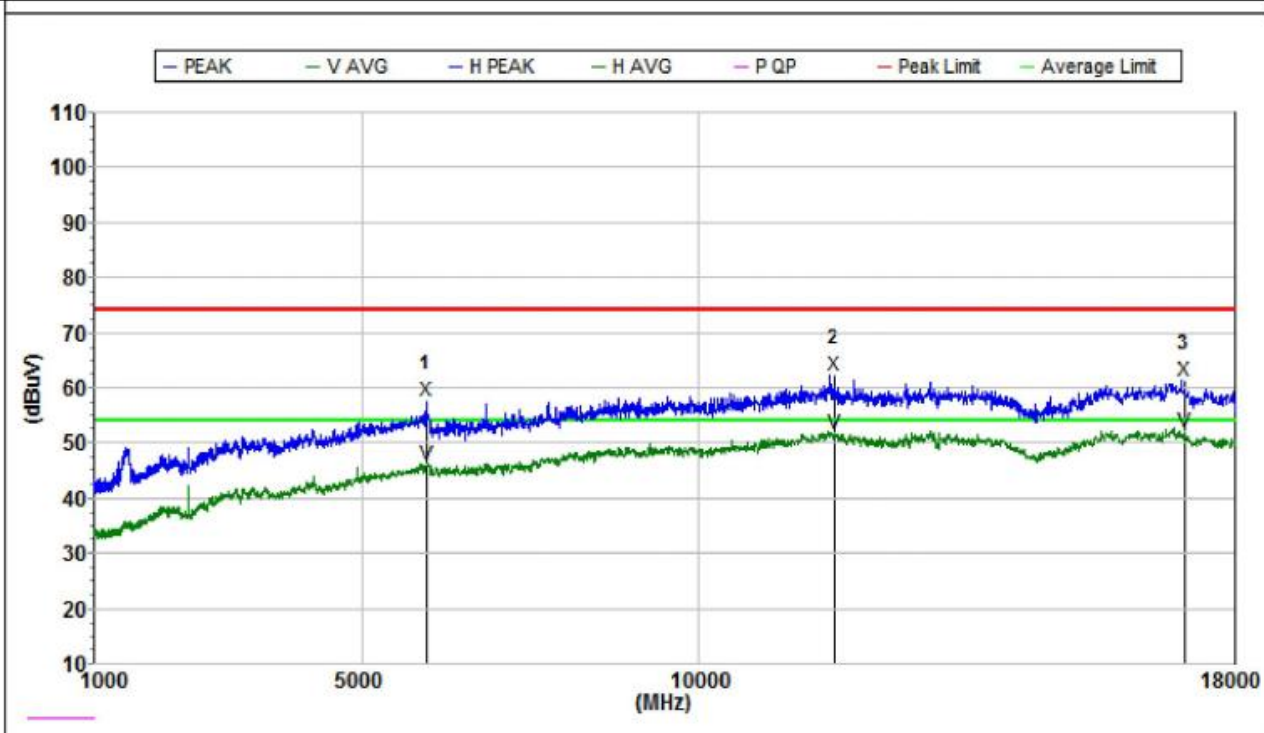
Mk.	Freq. (MHz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Pol.	
Peak:							
1	9438.000	58.4	74.0	15.6	0.4	H	
2	13404.000	61.3	74.0	12.7	2.9	H	
3	16938.000	61.8	74.0	12.2	3.9	H	
Avg							
1	9438.000	50.5	54.0	3.5	0.4	H	
2	13404.000	52.7	54.0	1.3	2.9	H	
3	16938.000	52.7	54.0	1.3	3.9	H	

EUT	Ziosk Mini 2	Model Name	Z700
Test Mode	BLE-1MHz2480MHz	Antenna	Vertical



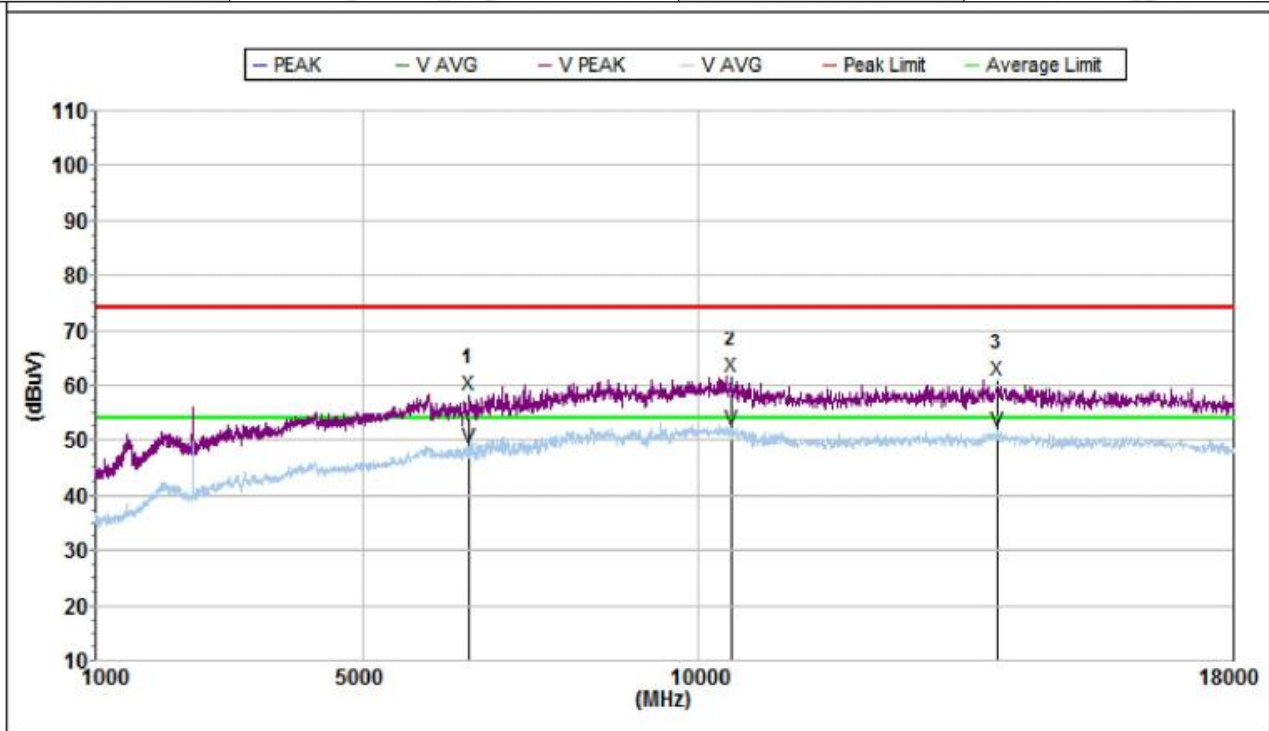
Mk.	Freq. (MHz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Pol.
Peak:						
1	8706.000	60.7	74.0	13.3	2.2	V
2	10404.000	61.9	74.0	12.1	3.3	V
3	14394.000	60.1	74.0	13.9	2.3	V
Avg						
1	8706.000	51.9	54.0	2.1	2.2	V
2	10404.000	52.7	54.0	1.3	3.3	V
3	14394.000	51.9	54.0	2.1	2.3	V

EUT	Ziosk Mini 2	Model Name	Z700
Test Mode	BLE-2MHz-2404MHz	Antenna	Horizontal



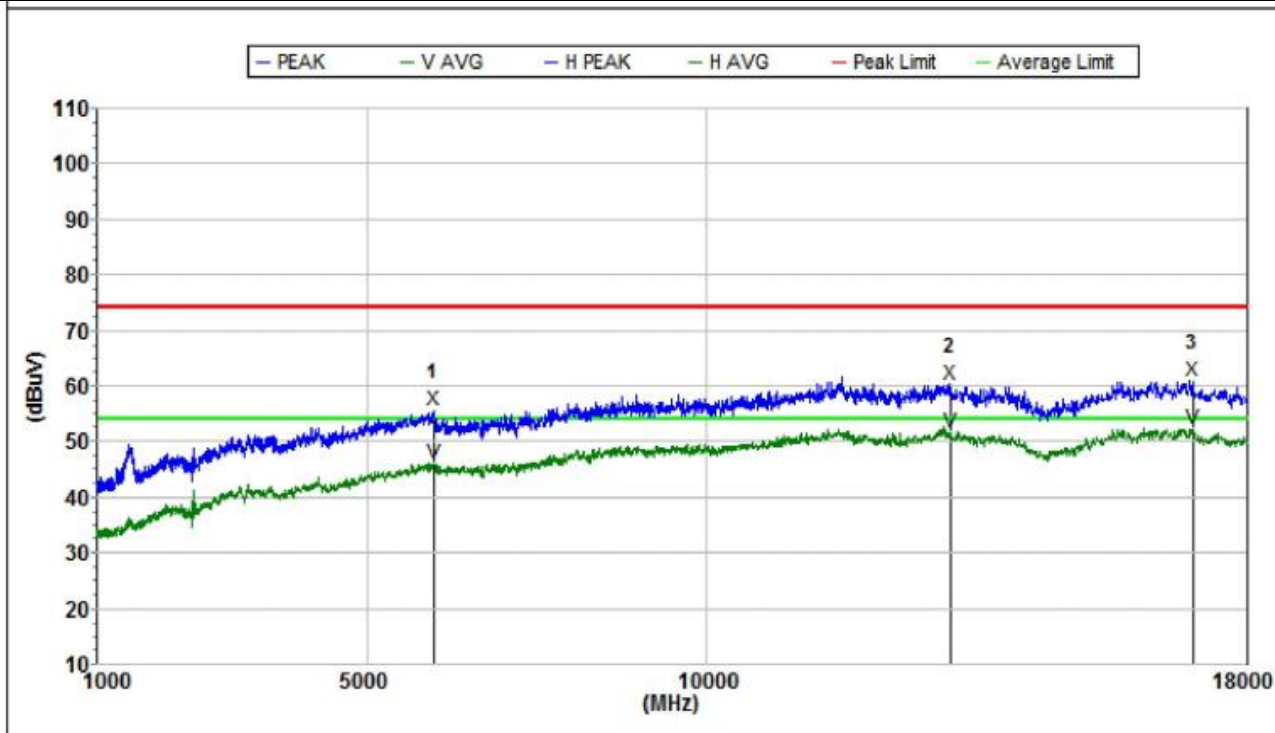
Mk.	Freq. (MHz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Pol.	
Peak:							
1	5960.000	57.7	74.0	16.3	-3.2	H	
2	12030.000	62.2	74.0	11.8	3.1	H	
3	17256.000	61.2	74.0	12.8	3.6	H	
Avg							
1	5960.000	46.3	54.0	7.7	-3.2	H	
2	12030.000	51.9	54.0	2.1	3.1	H	
3	17256.000	52.1	54.0	1.9	3.6	H	

EUT	Ziosk Mini 2	Model Name	Z700
Test Mode	BLE-2MHz-2404MHz	Antenna	Vertical



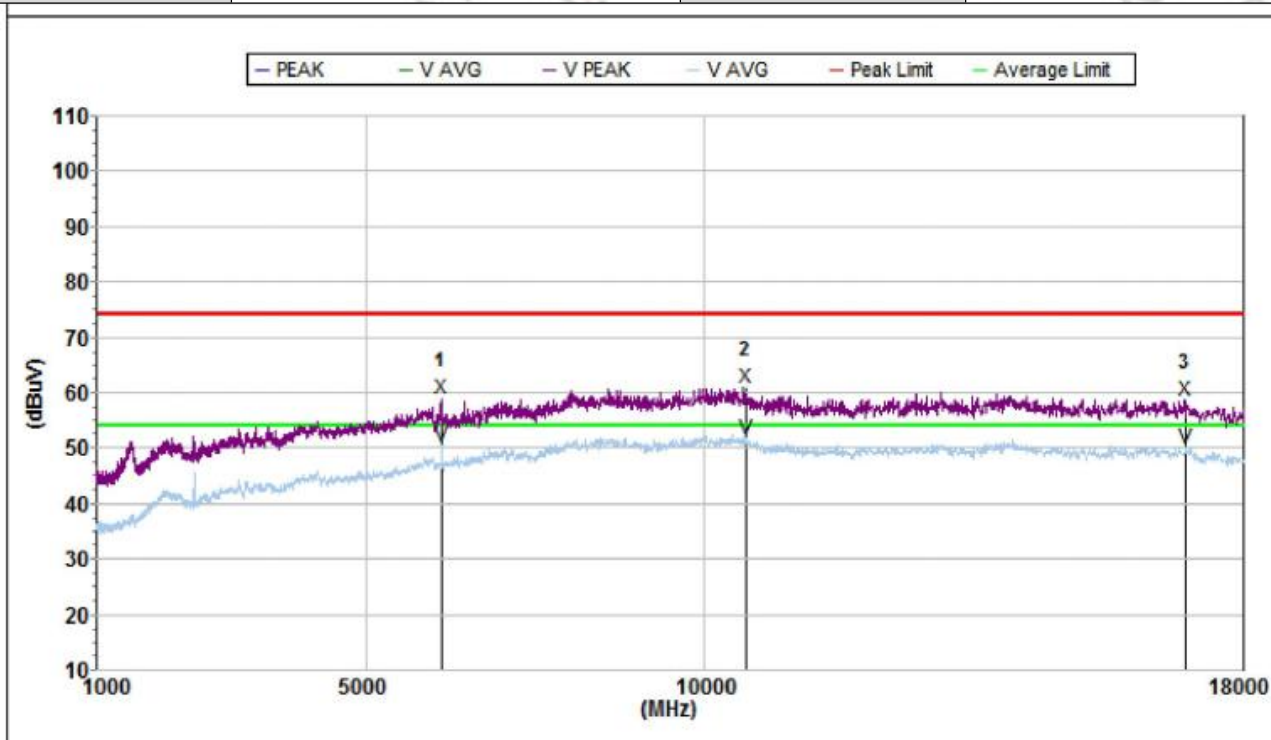
Mk.	Freq. (MHz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Pol.
Peak:						
1	6588.000	58.4	74.0	15.6	0.0	V
2	10488.000	61.5	74.0	12.5	3.4	V
3	14478.000	60.9	74.0	13.1	2.5	V
Avg						
1	6588.000	48.9	54.0	5.1	0.0	V
2	10488.000	52.1	54.0	1.9	3.4	V
3	14478.000	51.9	54.0	2.1	2.5	V

EUT	Ziosk Mini 2	Model Name	Z700
Test Mode	BLE-2MHz-2440MHz	Antenna	Horizontal



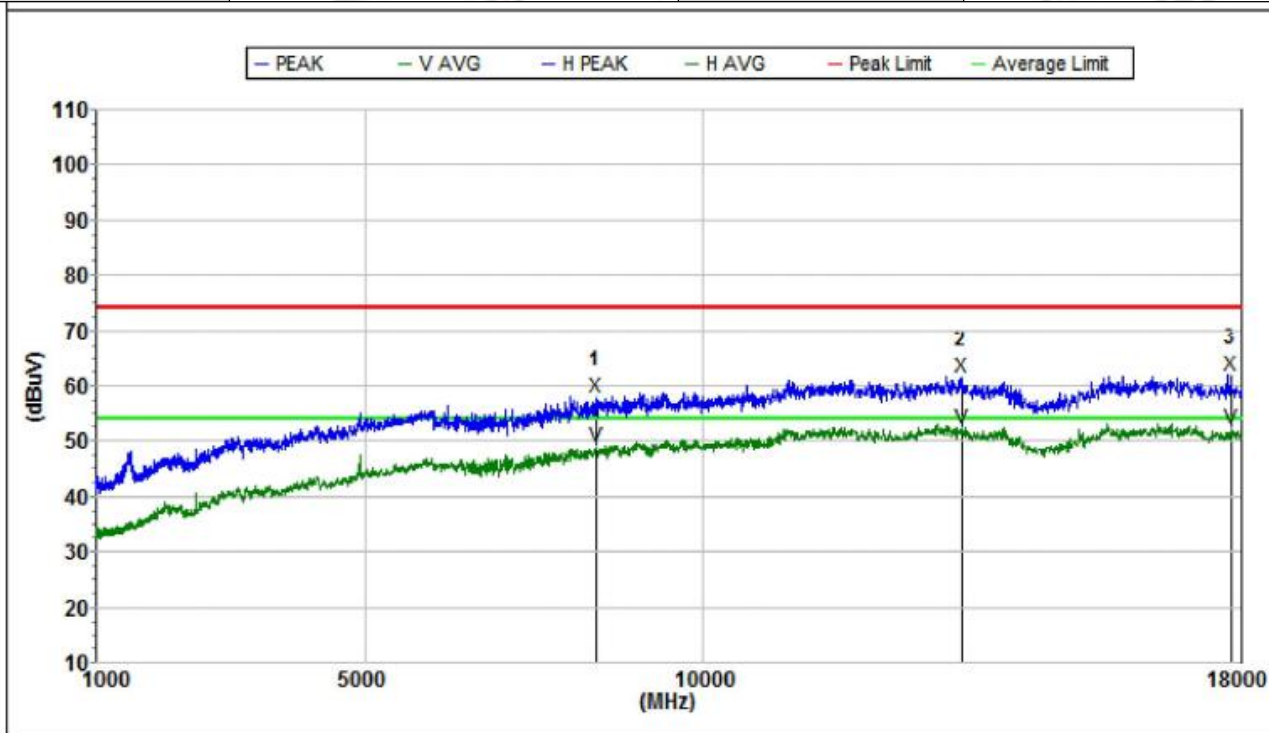
Mk.	Freq. (MHz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Pol.
Peak:						
1	5975.000	55.6	74.0	18.4	-3.2	H
2	13626.000	60.3	74.0	13.7	3.0	H
3	17190.000	60.9	74.0	13.1	3.7	H
Avg						
1	5975.000	46.2	54.0	7.8	-3.2	H
2	13626.000	51.7	54.0	2.3	3.0	H
3	17190.000	52.5	54.0	1.5	3.7	H

EUT	Ziosk Mini 2	Model Name	Z700
Test Mode	BLE-2MHz-2440MHz	Antenna	Vertical



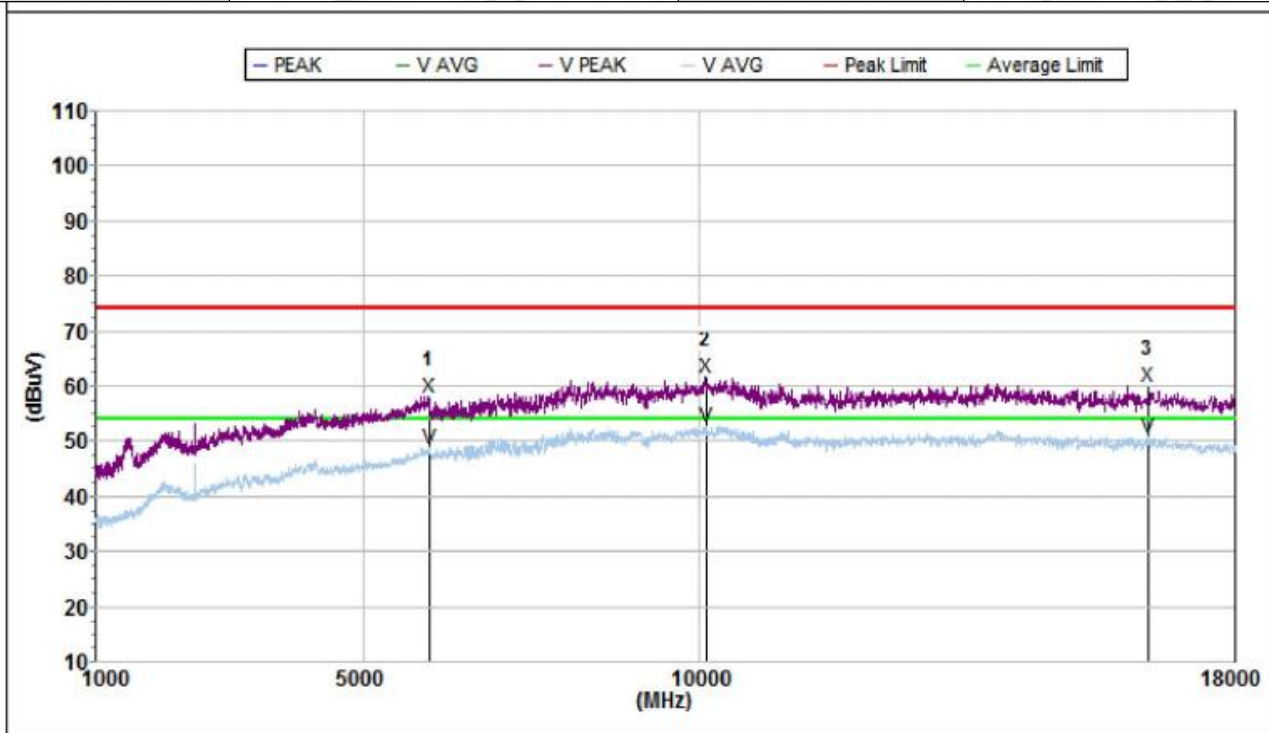
Mk.	Freq. (MHz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Pol.	
Peak:							
1	6108.000	58.9	74.0	15.1	-0.8	V	
2	10632.000	60.9	74.0	13.1	3.0	V	
3	17154.000	58.8	74.0	15.2	1.5	V	
Avg							
1	6108.000	50.6	54.0	3.4	-0.8	V	
2	10632.000	51.8	54.0	2.2	3.0	V	
3	17154.000	50.1	54.0	3.9	1.5	V	

EUT	Ziosk Mini 2	Model Name	Z700
Test Mode	BLE-2MHz-2478MHz	Antenna	Horizontal



Mk.	Freq. (MHz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Pol.	
Peak:							
1	8418.000	58.1	74.0	15.9	-0.6	H	
2	13836.000	61.8	74.0	12.2	2.5	H	
3	17844.000	62.0	74.0	12.0	3.2	H	
Avg							
1	8418.000	49.2	54.0	4.8	-0.6	H	
2	13836.000	52.3	54.0	1.7	2.5	H	
3	17844.000	52.5	54.0	1.5	3.2	H	

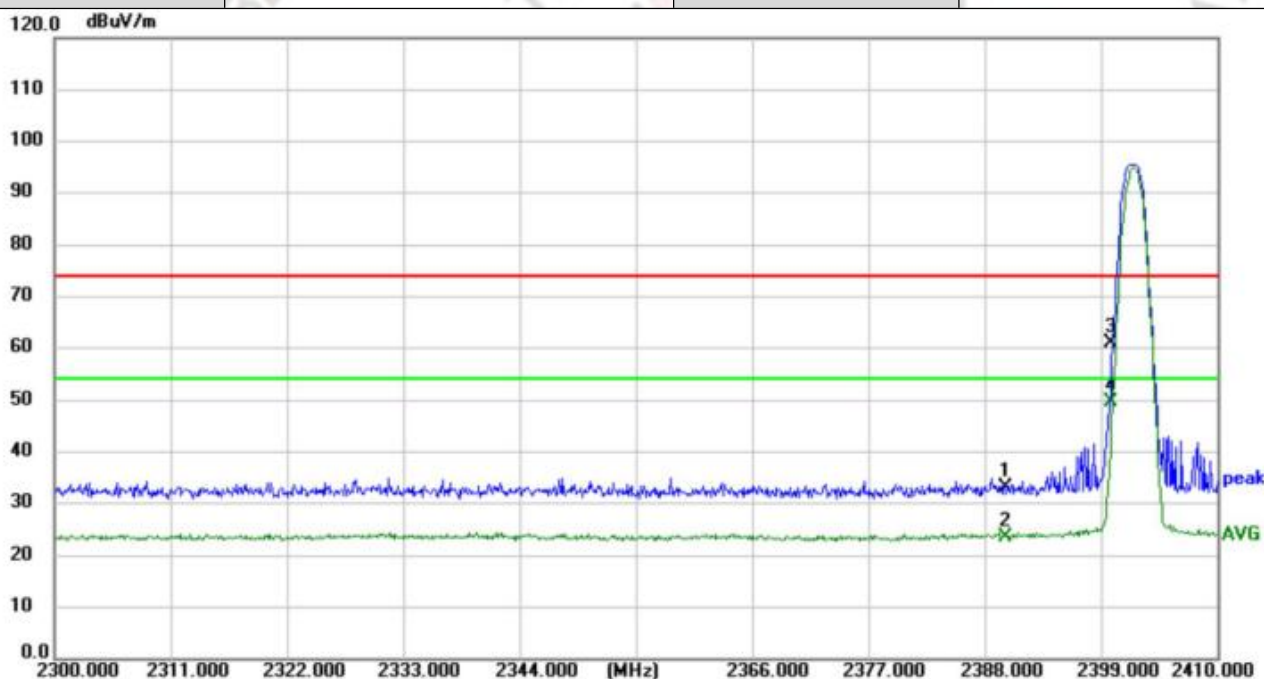
EUT	Ziosk Mini 2	Model Name	Z700
Test Mode	BLE-2MHz-2478MHz	Antenna	Vertical



Mk.	Freq. (MHz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Pol.
Peak:						
1	5982.500	58.1	74.0	15.9	-1.1	V
2	10098.000	61.7	74.0	12.3	3.1	V
3	16692.000	60.0	74.0	14.0	1.8	V
Avg:						
1	5982.500	48.7	54.0	5.3	-1.1	V
2	10098.000	52.7	54.0	1.3	3.1	V
3	16692.000	50.8	54.0	3.2	1.8	V

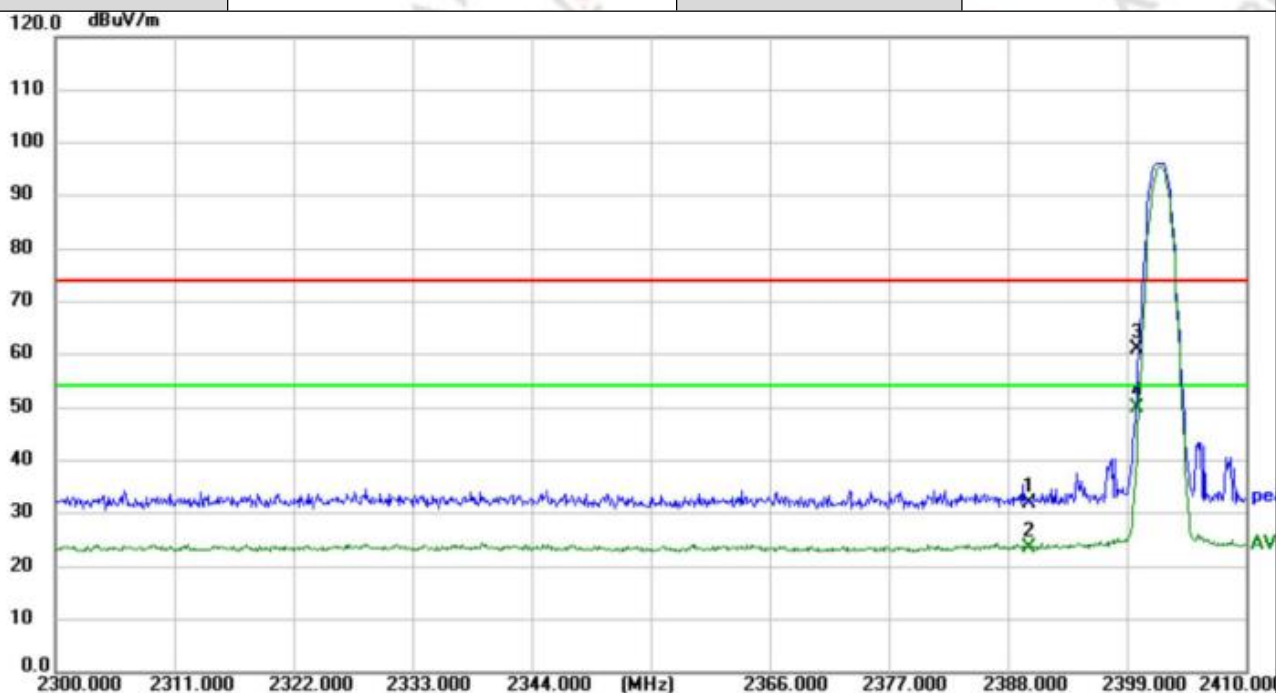
Restricted Band:

EUT	Ziosk Mini 2	Model Name	Z700
Test Mode	BLE-1M-2402MHz	Antenna	Vertical



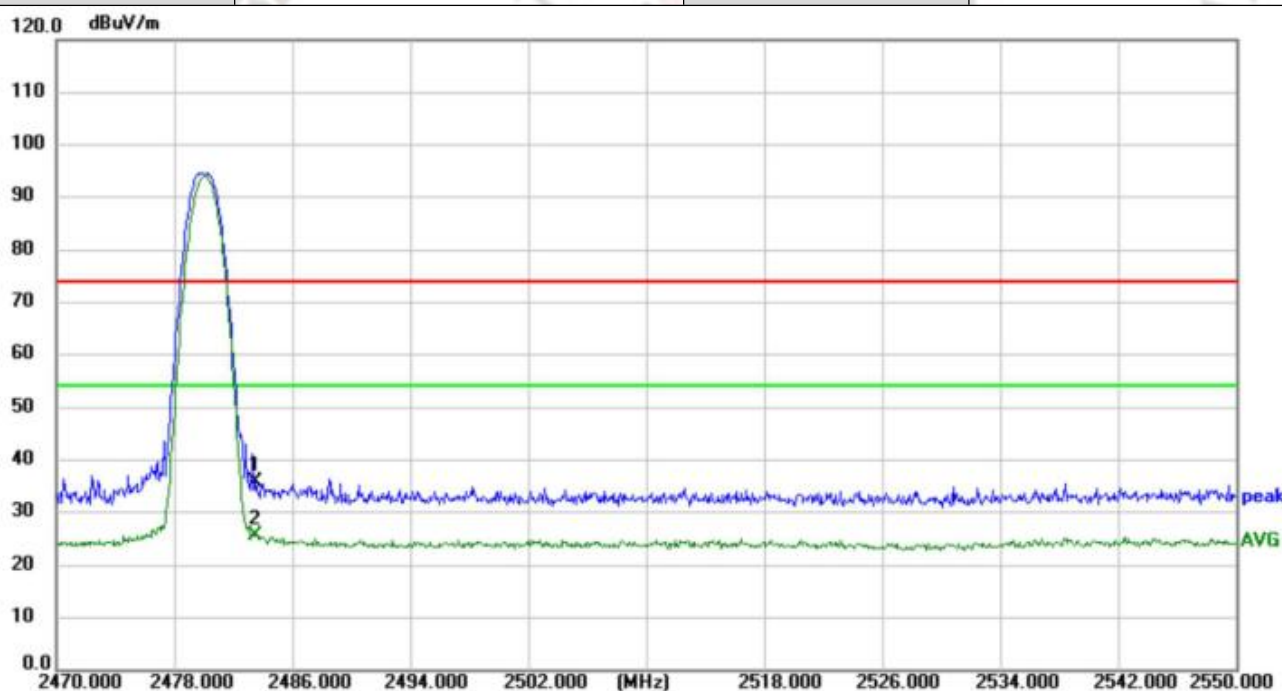
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	52.83	-19.70	33.13	74.00	-40.87	peak
2	2390.000	43.26	-19.70	23.56	54.00	-30.44	AVG
3	2400.000	80.72	-19.68	61.04	74.00	-12.96	peak
4 *	2400.000	69.34	-19.68	49.66	54.00	-4.34	AVG

EUT	Ziosk Mini 2	Model Name	Z700
Test Mode	BLE-1M-2402MHz	Antenna	Horizontal



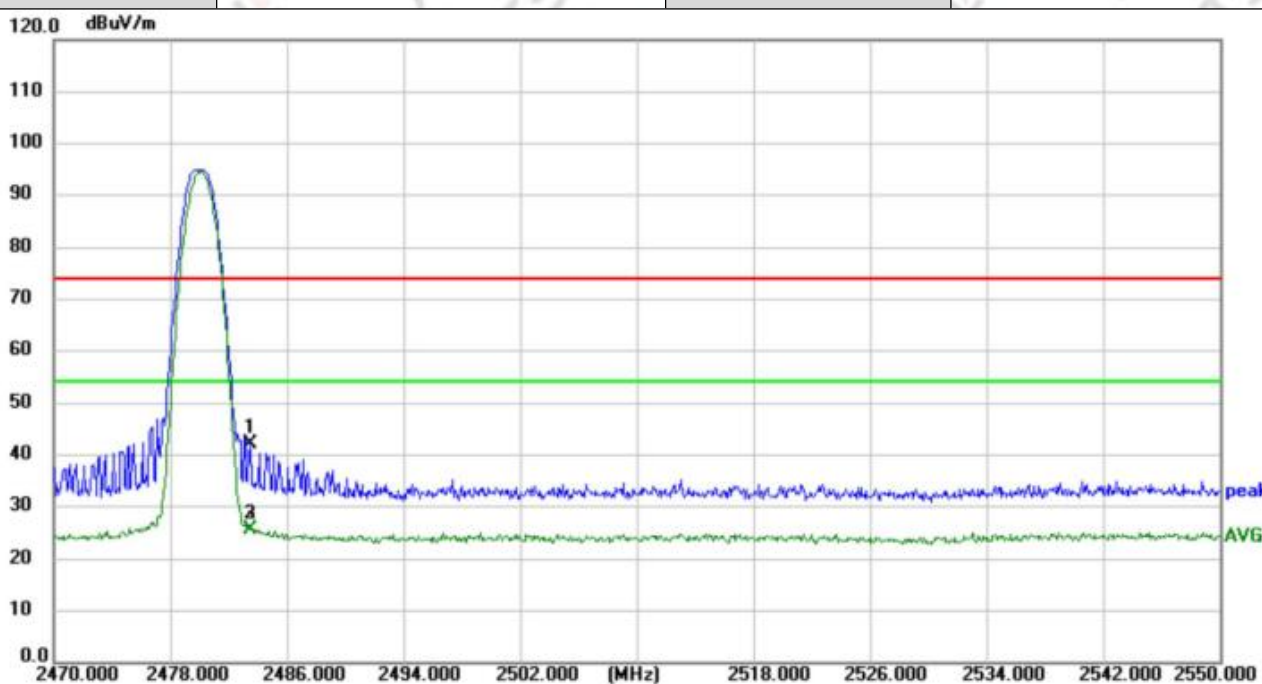
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	51.55	-19.70	31.85	74.00	-42.15	peak
2	2390.000	43.38	-19.70	23.68	54.00	-30.32	AVG
3	2400.000	80.67	-19.68	60.99	74.00	-13.01	peak
4 *	2400.000	69.56	-19.68	49.88	54.00	-4.12	AVG

EUT	Ziosk Mini 2	Model Name	Z700
Test Mode	BLE-1M-2480MHz	Antenna	Vertical



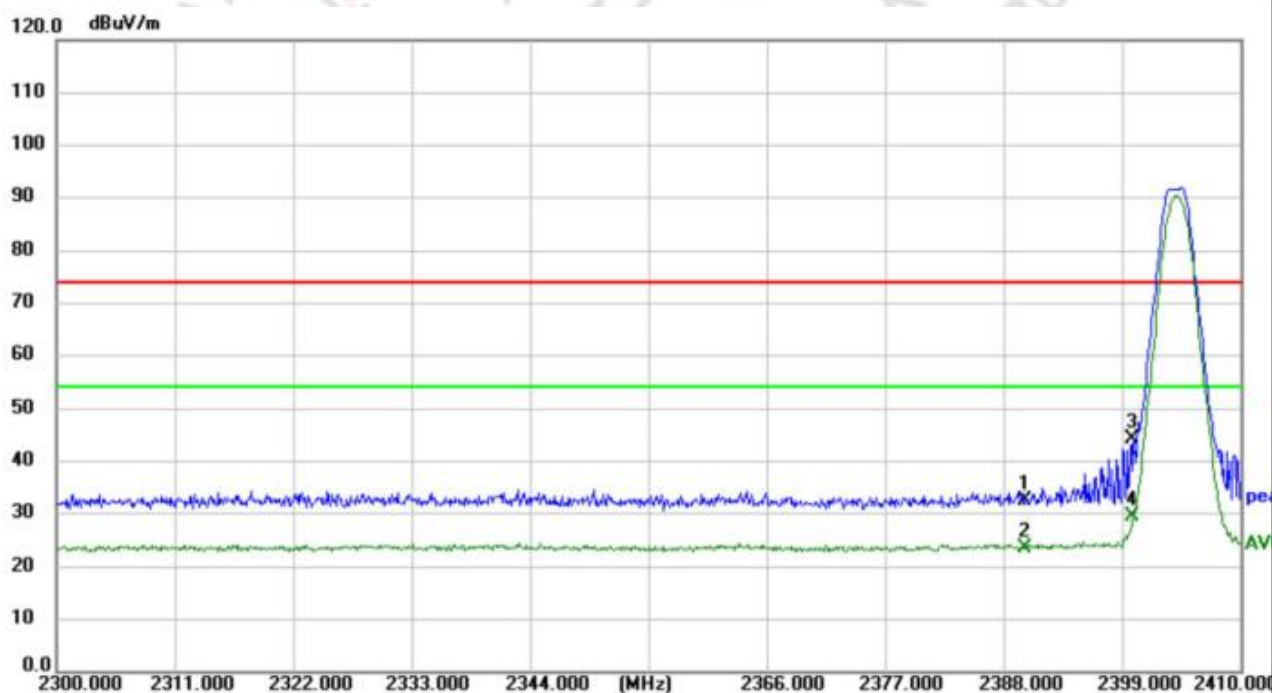
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2483.500	55.02	-19.07	35.95	74.00	-38.05	peak
2 *	2483.500	44.62	-19.07	25.55	54.00	-28.45	AVG

EUT	Ziosk Mini 2	Model Name	Z700
Test Mode	BLE-1M-2480MHz	Antenna	Horizontal



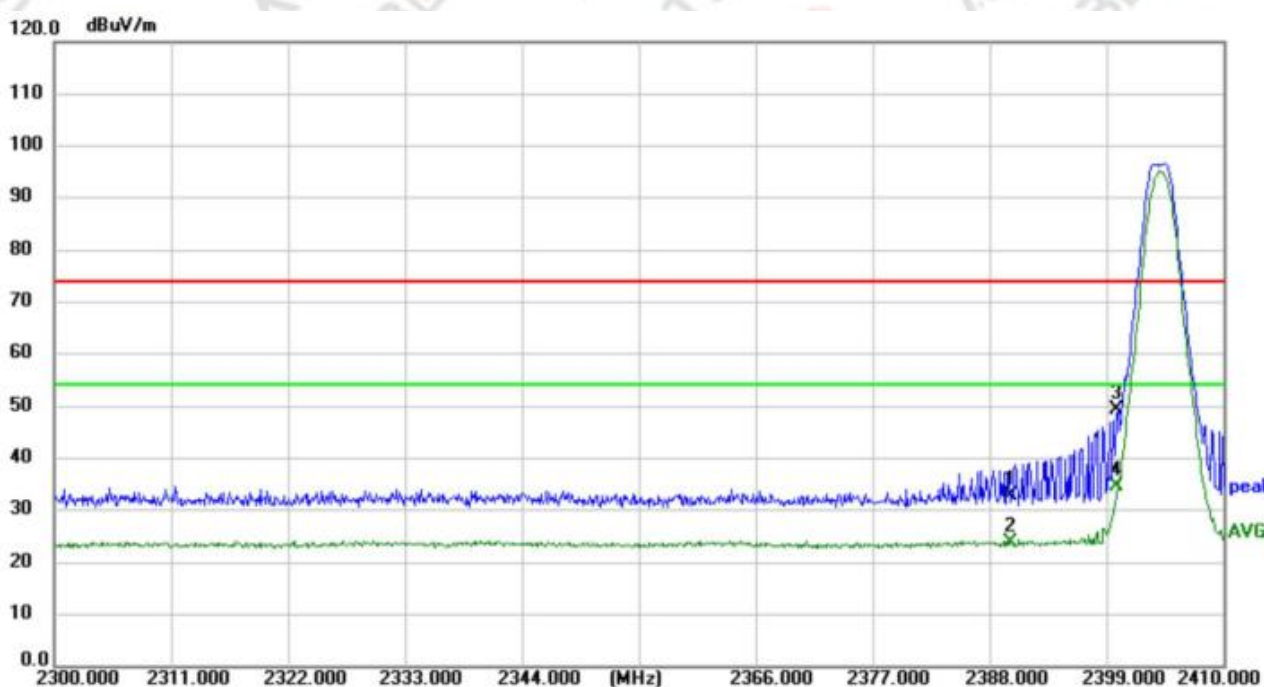
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2483.500	61.29	-19.07	42.22	74.00	-31.78	peak
2 *	2483.500	44.81	-19.07	25.74	54.00	-28.26	AVG

EUT	Ziosk Mini 2	Model Name	Z700
Test Mode	BLE-2M-2404MHz	Antenna	Vertical



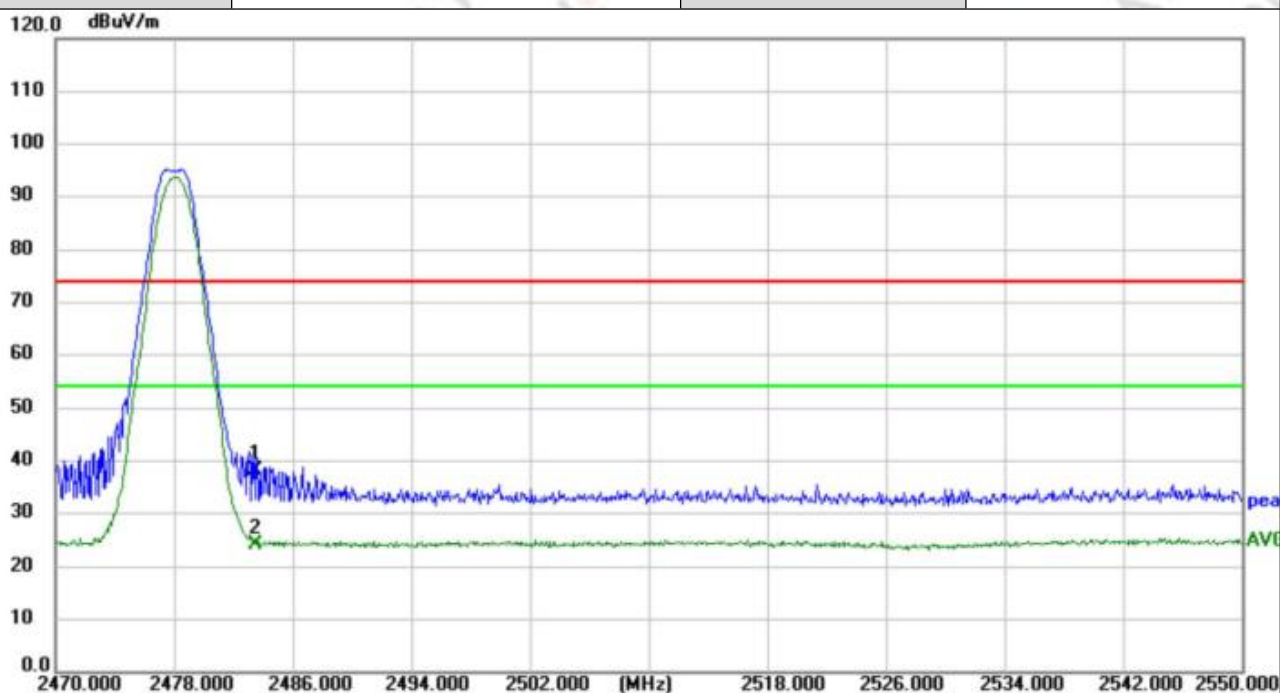
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	52.38	-19.70	32.68	74.00	-41.32	peak
2	2390.000	43.37	-19.70	23.67	54.00	-30.33	AVG
3	2400.000	64.07	-19.68	44.39	74.00	-29.61	peak
4 *	2400.000	49.36	-19.68	29.68	54.00	-24.32	AVG

EUT	Ziosk Mini 2	Model Name	Z700
Test Mode	BLE-2M-2404MHz	Antenna	Horizontal



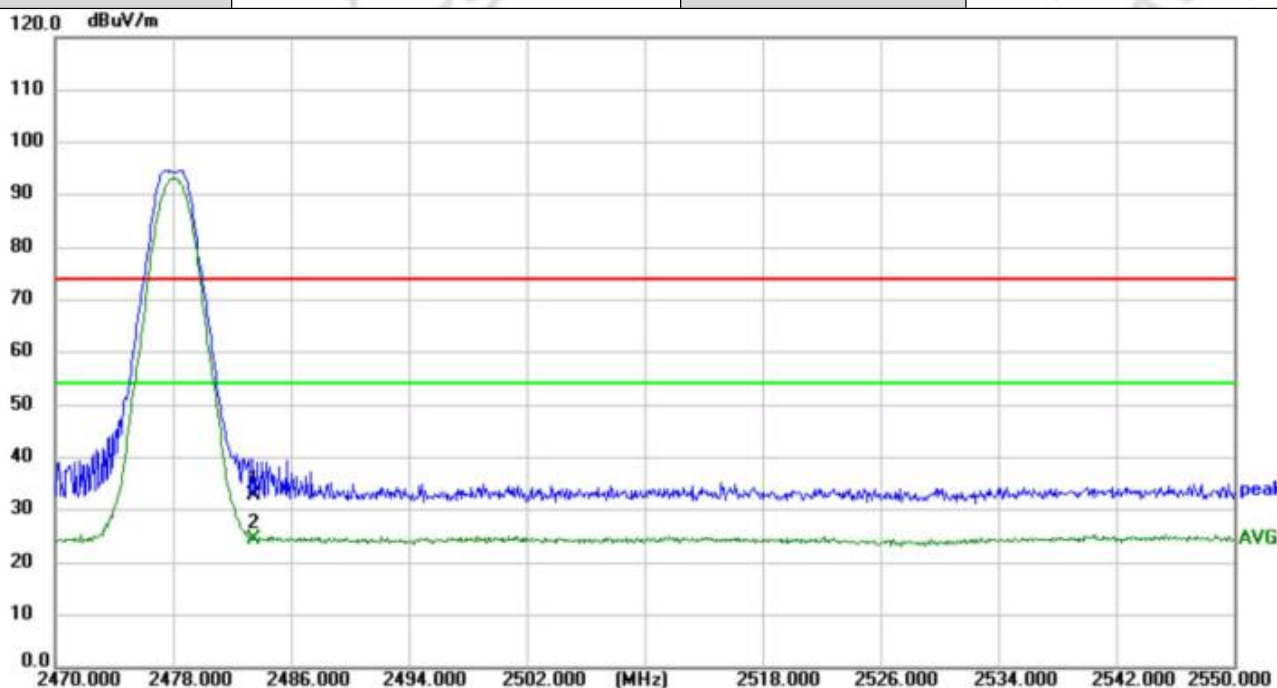
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	52.51	-19.70	32.81	74.00	-41.19	peak
2	2390.000	43.64	-19.70	23.94	54.00	-30.06	AVG
3	2400.000	68.93	-19.68	49.25	74.00	-24.75	peak
4 *	2400.000	54.36	-19.68	34.68	54.00	-19.32	AVG

EUT	Ziosk Mini 2	Model Name	Z700
Test Mode	BLE-2M-2478MHz	Antenna	Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2483.500	57.40	-19.07	38.33	74.00	-35.67	peak
2 *	2483.500	43.37	-19.07	24.30	54.00	-29.70	AVG

EUT	Ziosk Mini 2	Model Name	Z700
Test Mode	BLE-2M-2478MHz	Antenna	Vertical



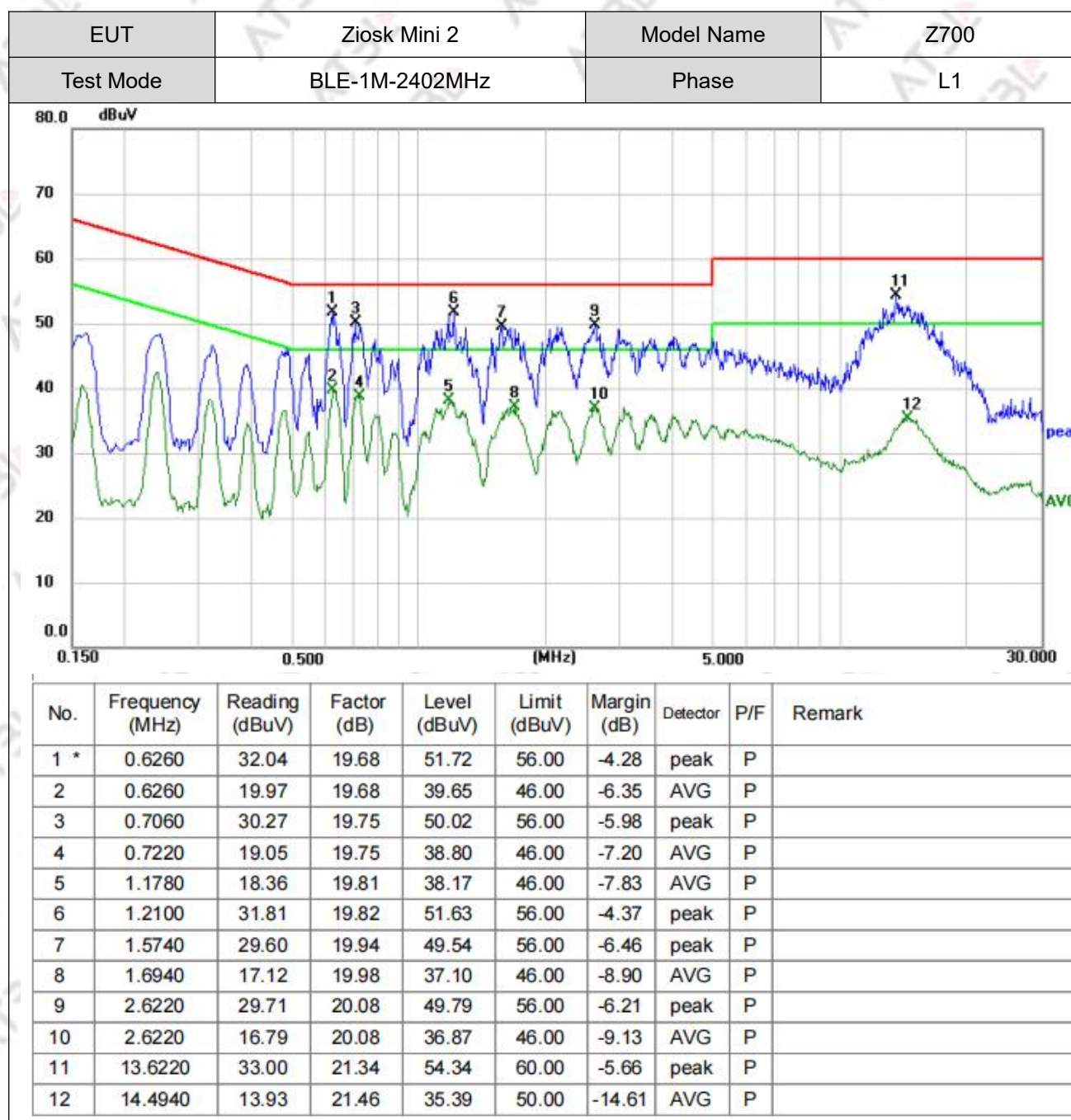
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2483.500	52.07	-19.07	33.00	74.00	-41.00	peak
2 *	2483.500	43.65	-19.07	24.58	54.00	-29.42	AVG

2.AC Power-Line Conducted Emission

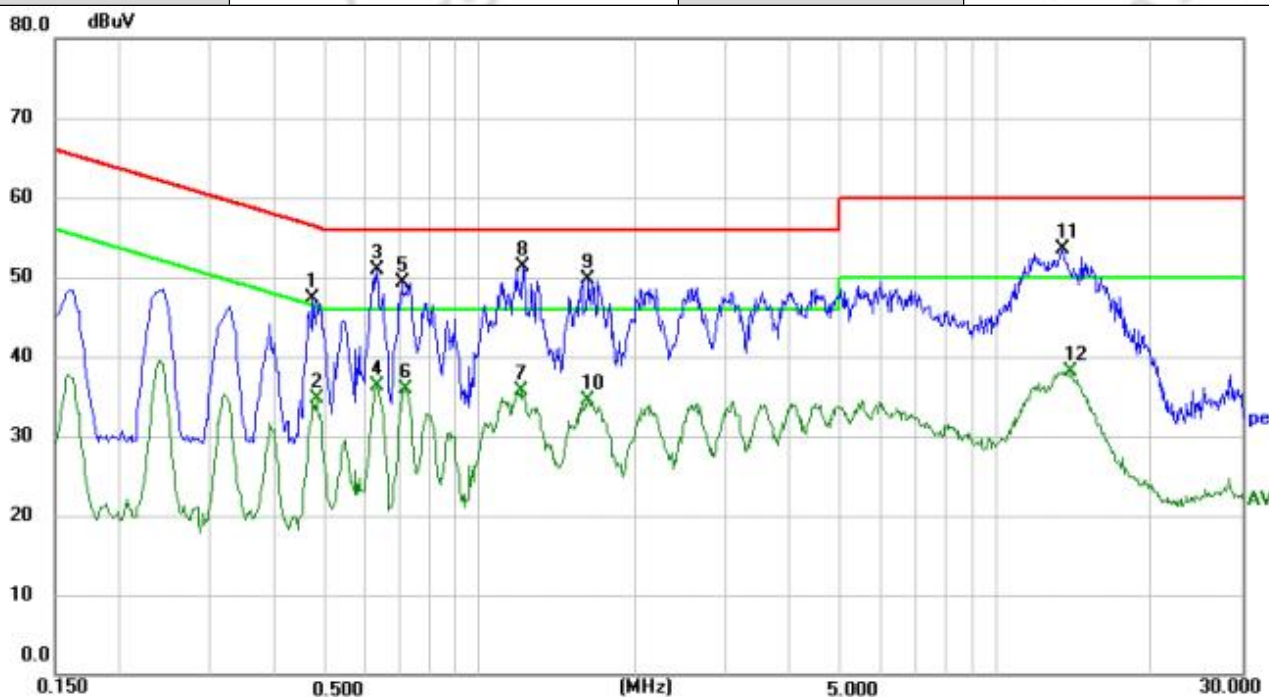
Test Result

Note:

- 1.All modes have been tested, only worst mode(BLE-1M-2480MHz) 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	Ziosk Mini 2	Model Name	Z700
Test Mode	BLE-1M-2480MHz	Phase	N



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.4740	27.76	19.59	47.35	56.44	-9.09	peak	P	
2	0.4820	15.06	19.58	34.64	46.30	-11.66	AVG	P	
3	0.6300	31.31	19.68	50.99	56.00	-5.01	peak	P	
4	0.6300	16.67	19.68	36.35	46.00	-9.65	AVG	P	
5	0.7060	29.56	19.75	49.31	56.00	-6.69	peak	P	
6	0.7180	16.15	19.75	35.90	46.00	-10.10	AVG	P	
7	1.2020	15.94	19.82	35.76	46.00	-10.24	AVG	P	
8 *	1.2100	31.50	19.82	51.32	56.00	-4.68	peak	P	
9	1.6260	29.83	19.96	49.79	56.00	-6.21	peak	P	
10	1.6260	14.64	19.96	34.60	46.00	-11.40	AVG	P	
11	13.4420	32.10	21.31	53.41	60.00	-6.59	peak	P	
12	13.9500	16.71	21.38	38.09	50.00	-11.91	AVG	P	