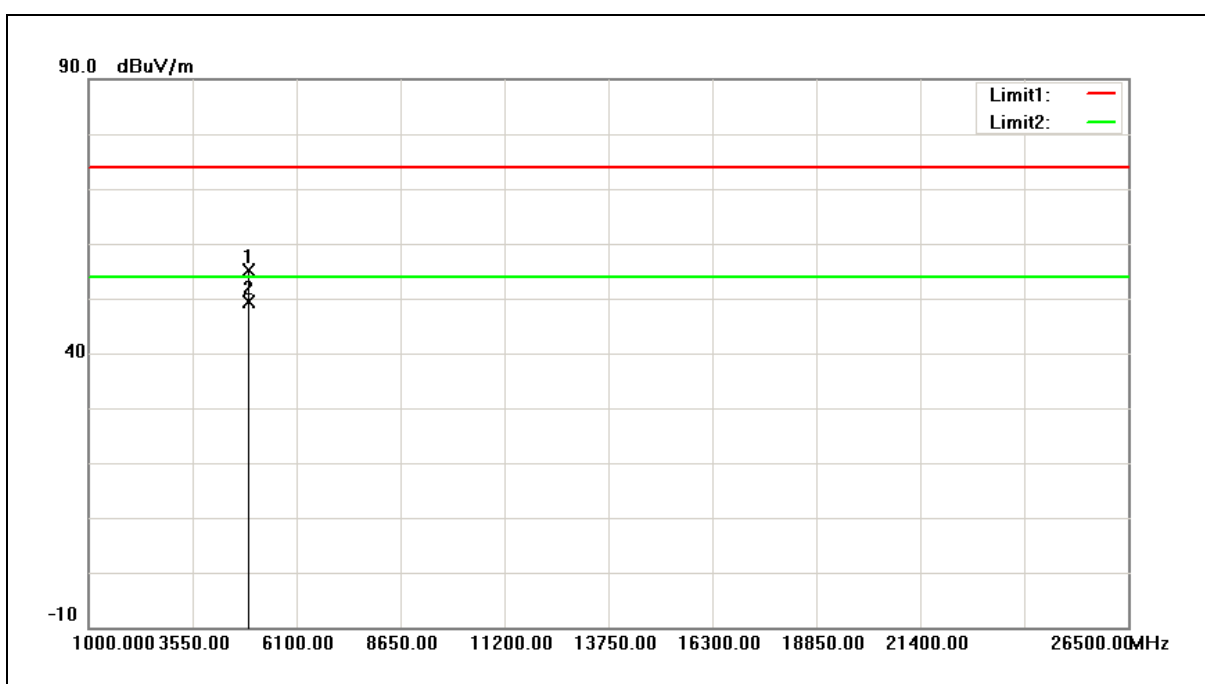


Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	2462MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4	Date:	06/21/2017
Ant.Polar.:	Horizontal		



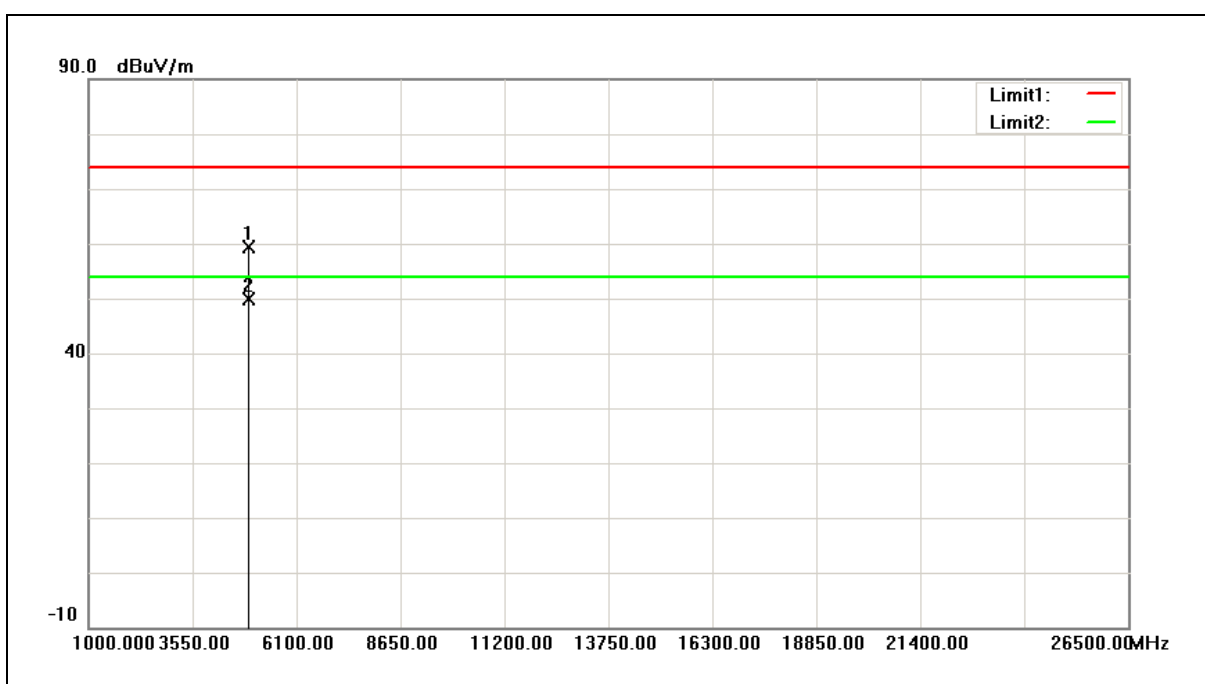
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	61.85	-6.81	55.04	74.00	-18.96	peak
2	4924.000	56.29	-6.81	49.48	54.00	-4.52	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	2462MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4	Date:	06/21/2017
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	66.14	-6.81	59.33	74.00	-14.67	peak
2	4924.000	56.80	-6.81	49.99	54.00	-4.01	AVG

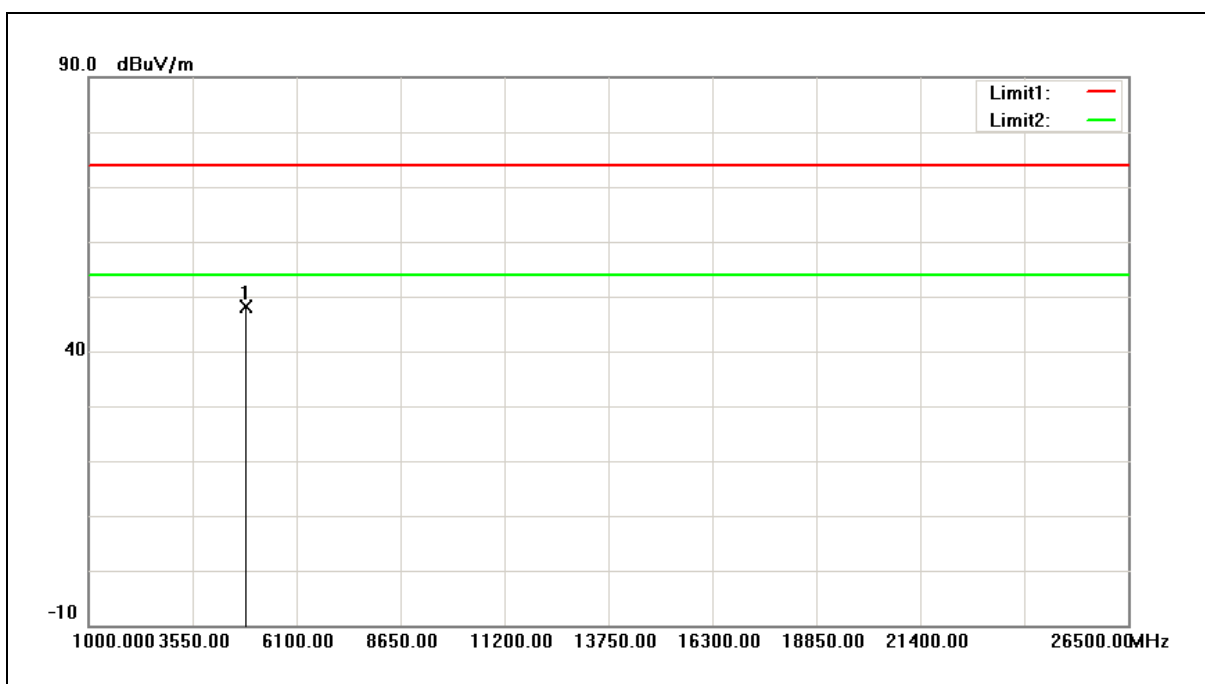
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	2422MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5	Date:	06/21/2017
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4844.000	55.09	-7.03	48.06	74.00	-25.94	peak

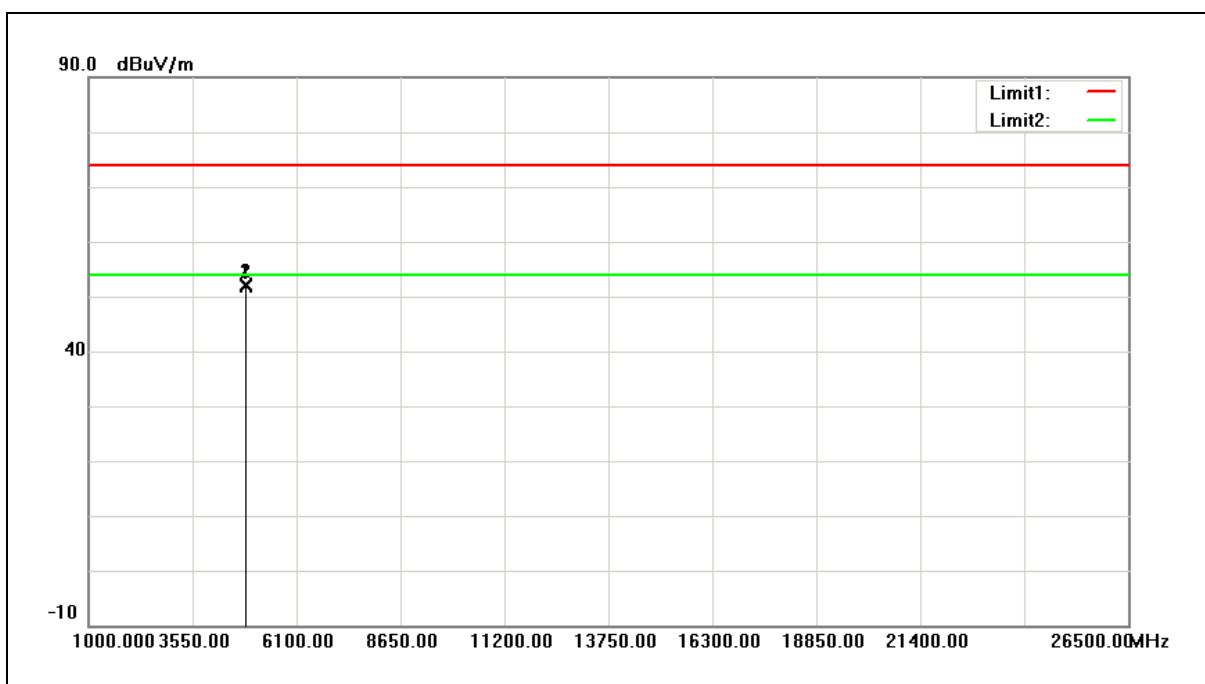
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	2422MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5	Date:	06/21/2017
Ant.Polar.:	Vertical		



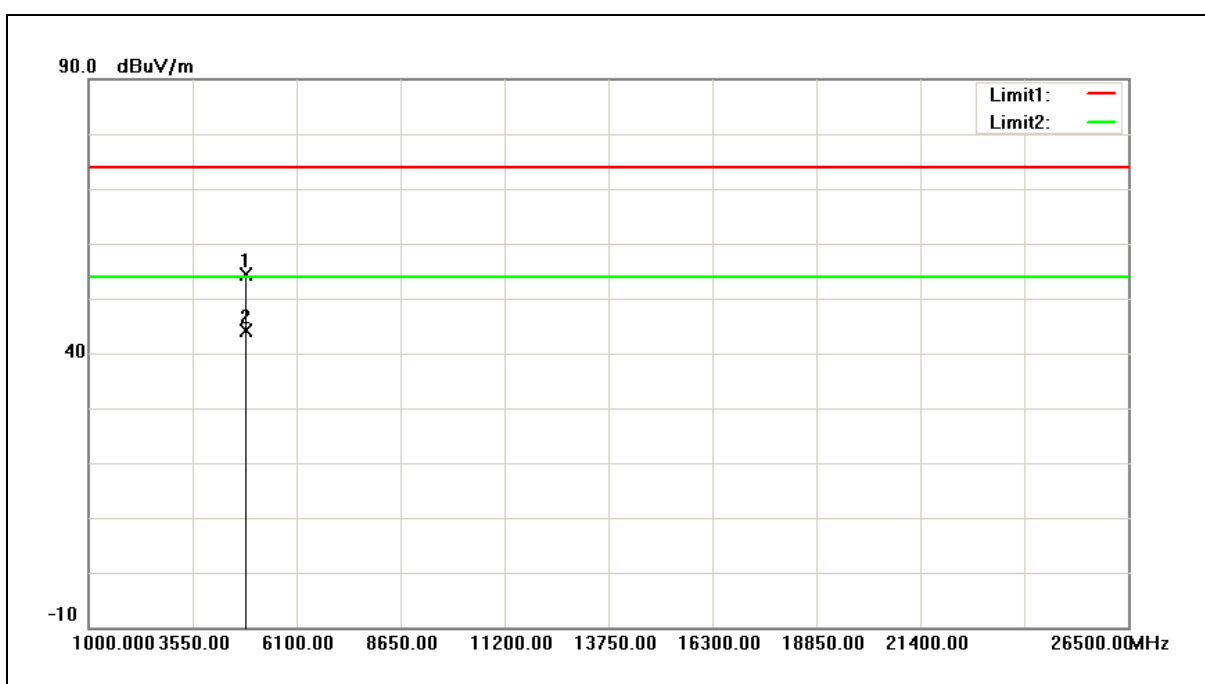
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4844.000	58.89	-7.03	51.86	74.00	-22.14	peak
2	4844.000	59.11	-7.03	52.08	54.00	-1.92	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	2437MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5	Date:	06/21/2017
Ant.Polar.:	Horizontal		



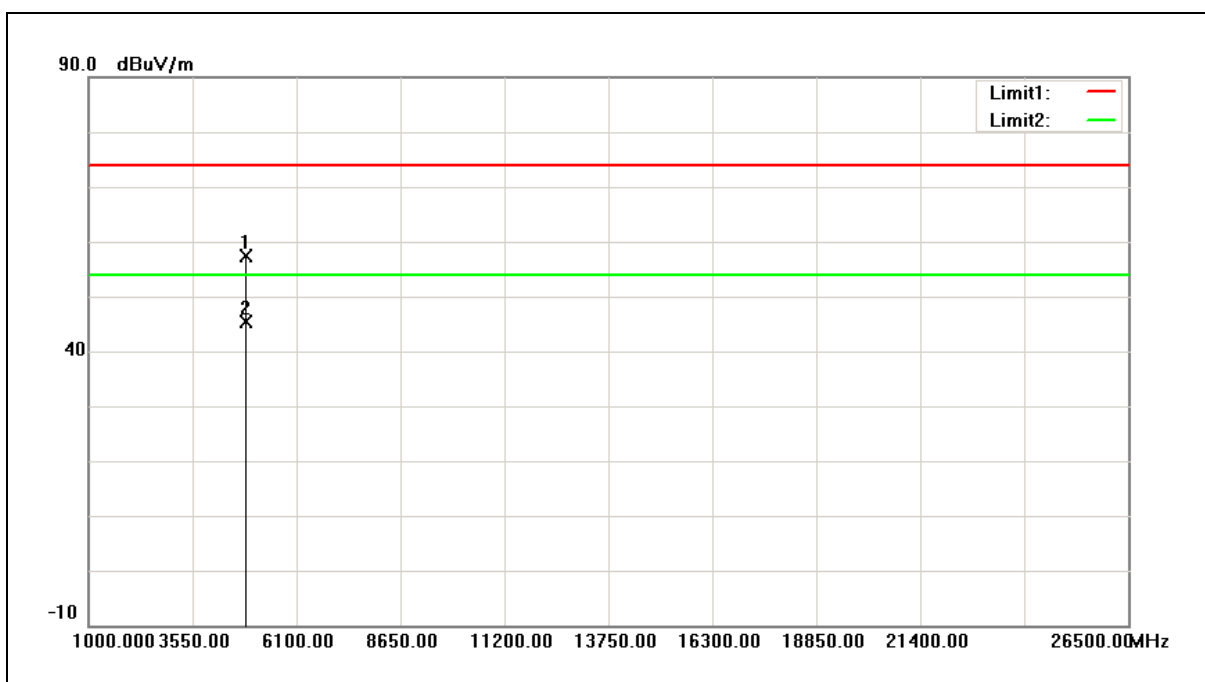
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	61.22	-6.95	54.27	74.00	-19.73	peak
2	4874.000	51.01	-6.95	44.06	54.00	-9.94	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	2437MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5	Date:	06/21/2017
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	64.30	-6.95	57.35	74.00	-16.65	peak
2	4874.000	52.26	-6.95	45.31	54.00	-8.69	AVG

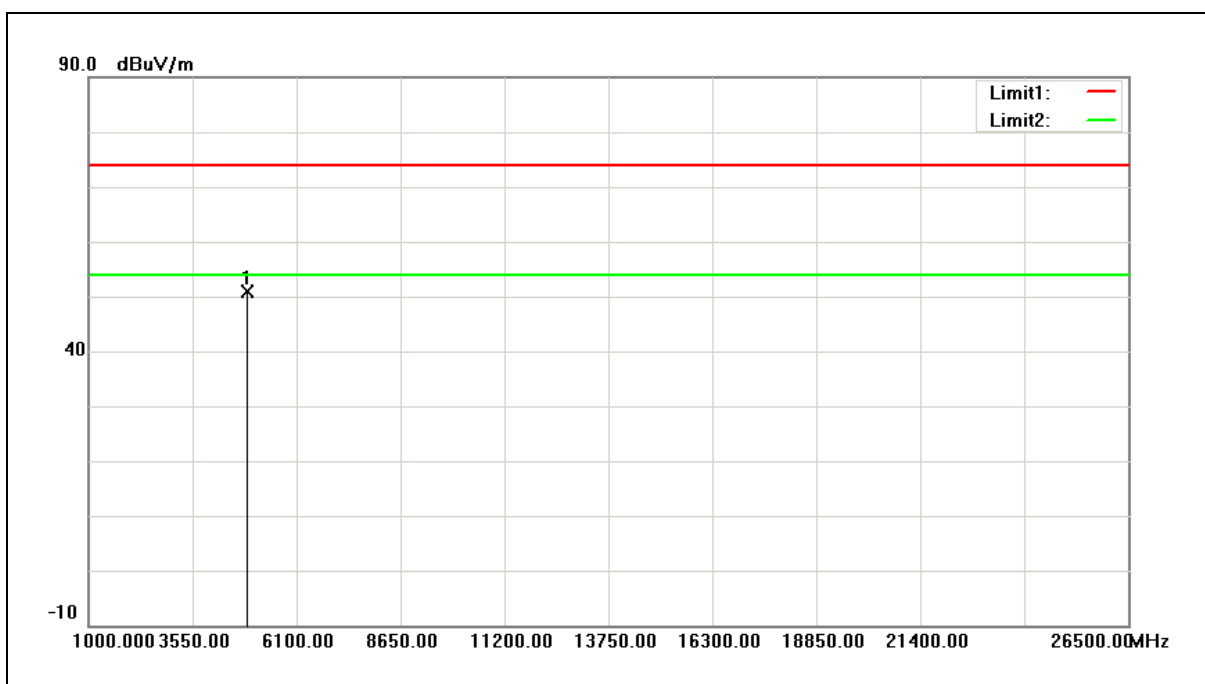
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	2452MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5	Date:	06/21/2017
Ant.Polar.:	Horizontal		



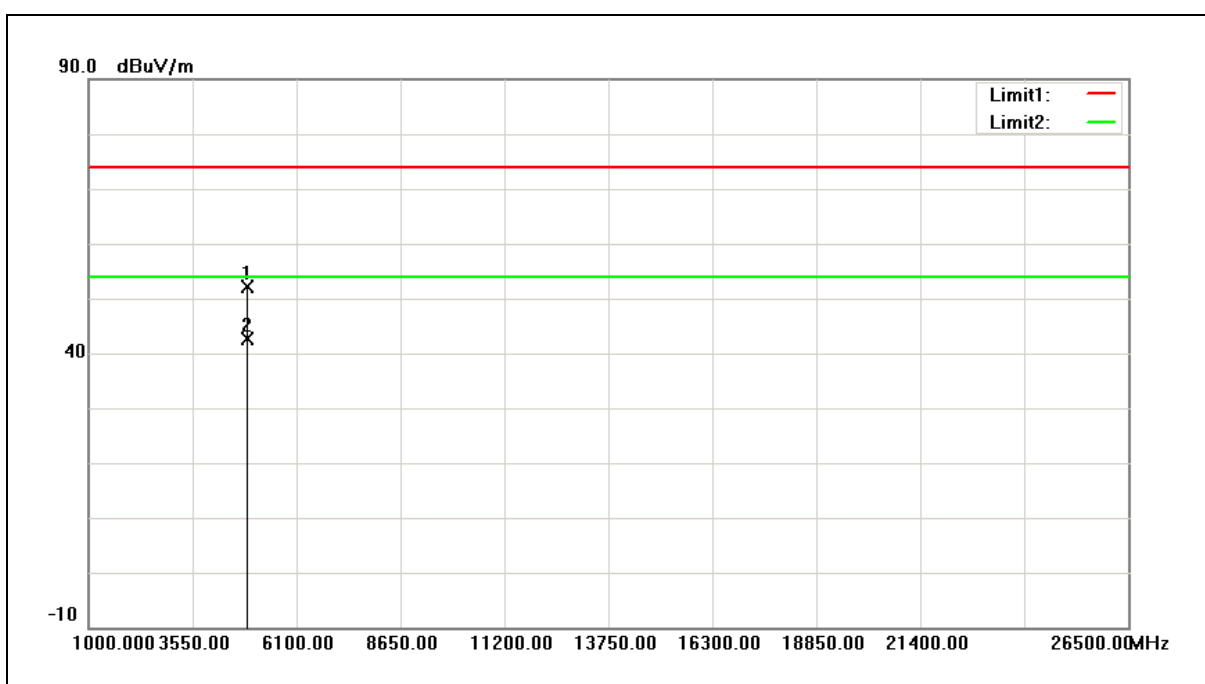
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4904.000	57.69	-6.86	50.83	74.00	-23.17	peak

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	2452MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5	Date:	06/21/2017
Ant.Polar.:	Vertical		



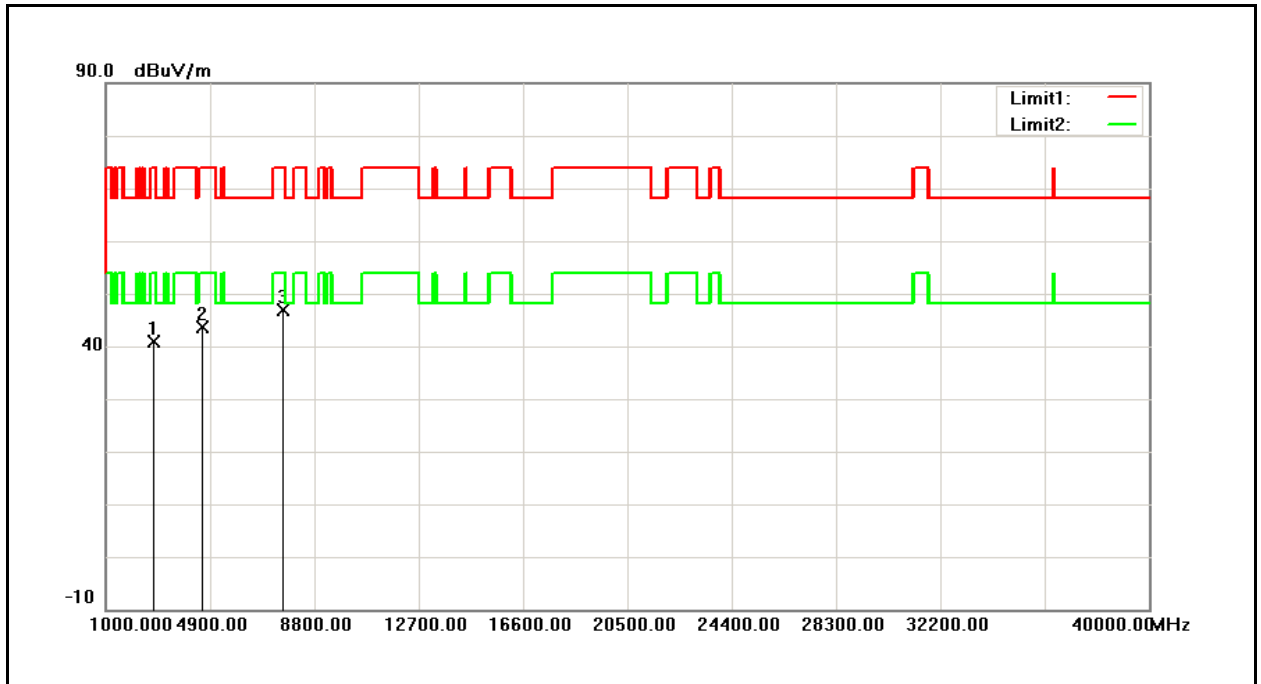
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4904.000	59.04	-6.86	52.18	74.00	-21.82	peak
2	4904.000	49.60	-6.86	42.74	54.00	-11.26	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

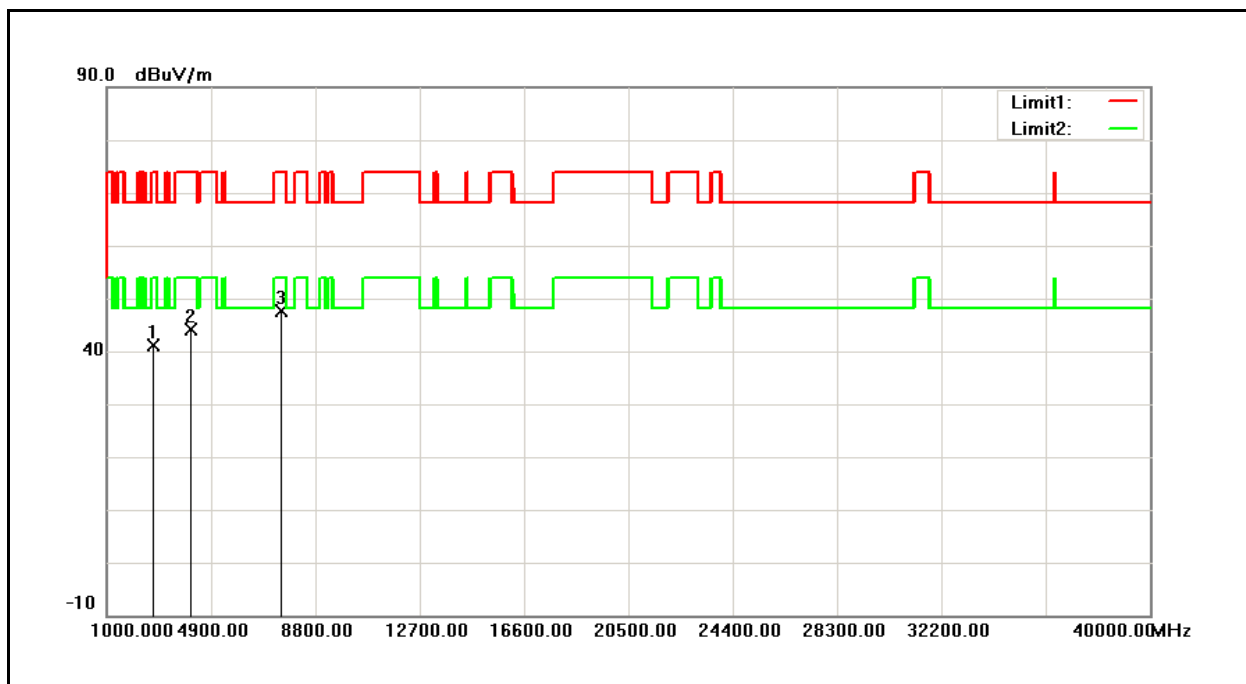
Standard:	FCC Part 15.247	Test Distance:	3m
Test Mode:	Simultaneous Transmitting (DTS+NII)	Power:	AC 120V/60Hz
Ant.Polar.:	Horizontal	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
		Date:	06/07/2017



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2785.000	53.70	-12.85	40.85	74.00	-33.15	peak
2	4621.000	51.29	-7.71	43.58	74.00	-30.42	peak
3	7647.000	45.87	0.91	46.78	74.00	-27.22	peak

Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).
2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).
3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	FCC Part 15.247	Test Distance:	3m
Test Mode:	Simultaneous Transmitting (DTS+NII)	Power:	AC 120V/60Hz
Ant.Polar.:	Vertical	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
		Date:	06/07/2017

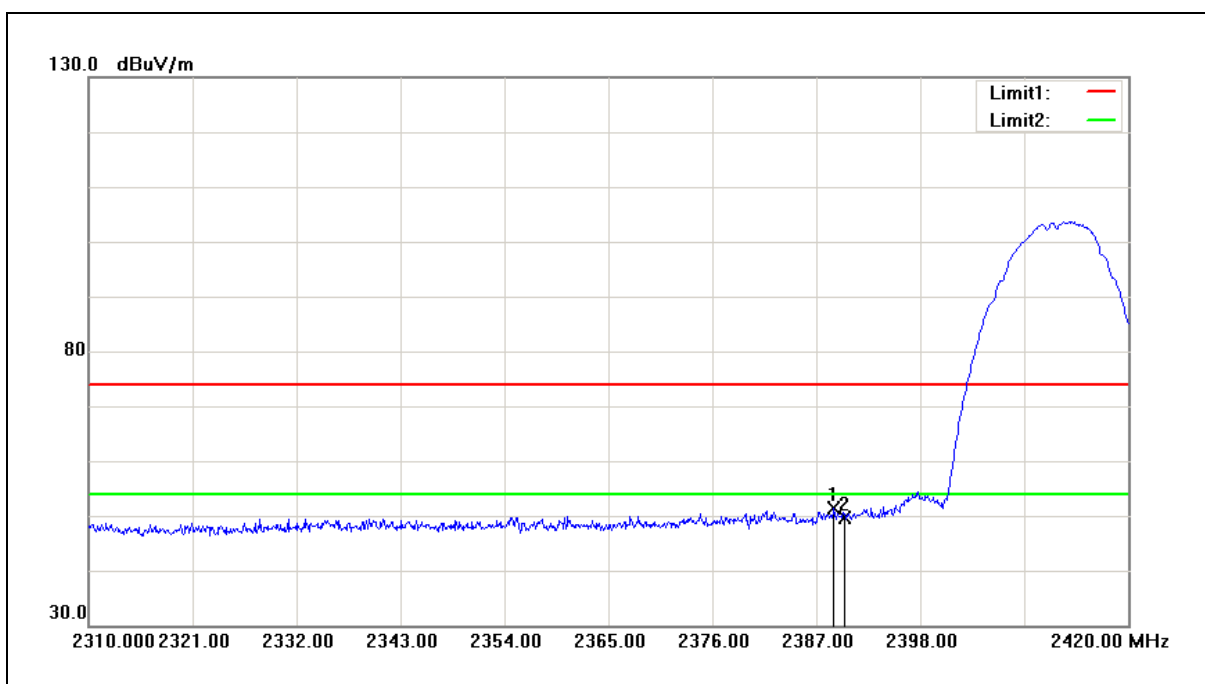


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2751.000	54.18	-12.93	41.25	74.00	-32.75	peak
2	4145.000	53.12	-9.00	44.12	74.00	-29.88	peak
3	7545.000	46.87	0.64	47.51	74.00	-26.49	peak

Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).
2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).
3. When the peak results are less than average limit, so not need to evaluate the average.

**Band Edge**

Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	2412MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 2	Date:	06/21/2017
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.870	51.11	0.15	51.26	74.00	-22.74	peak
2	2390.000	49.51	0.15	49.66	74.00	-24.34	peak

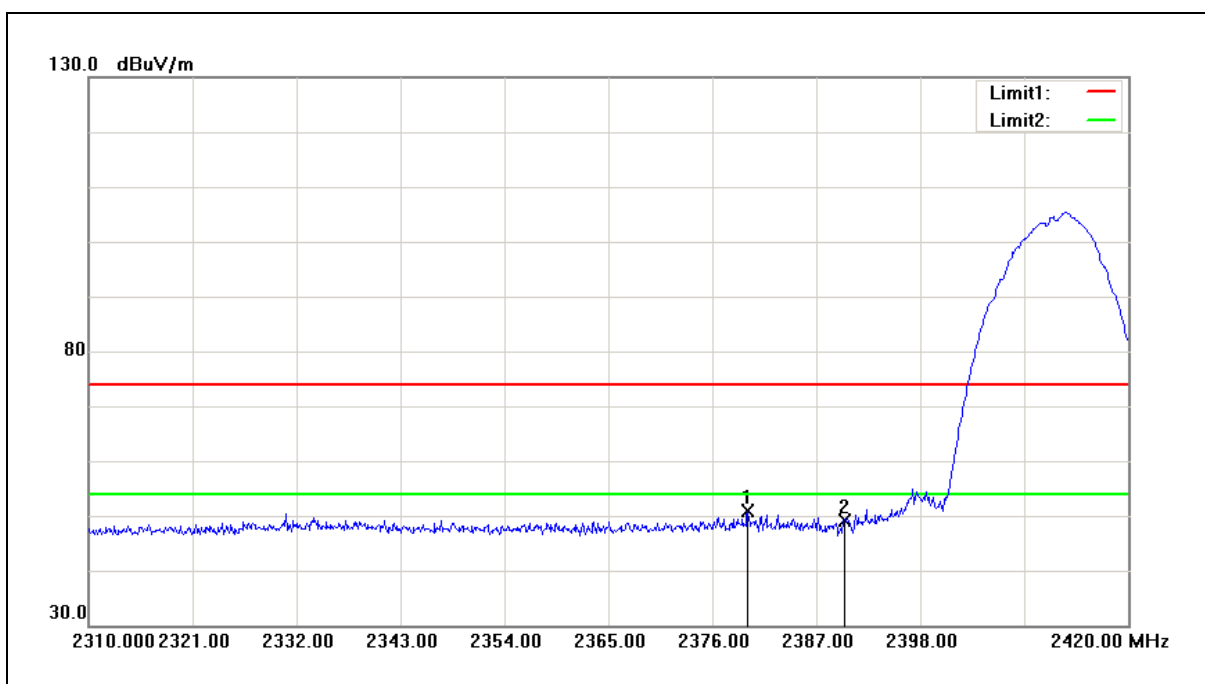
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	2412MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 2	Date:	06/21/2017
Ant.Polar.:	Vertical		



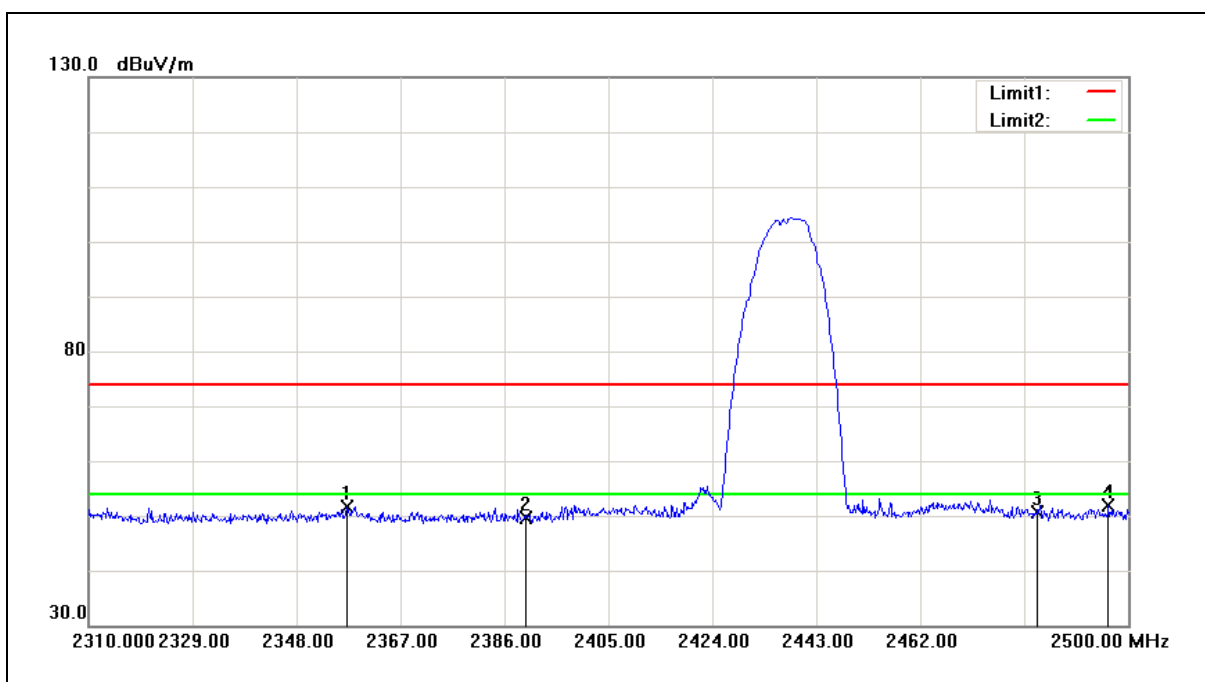
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2379.740	50.65	0.11	50.76	74.00	-23.24	peak
2	2390.000	48.95	0.15	49.10	74.00	-24.90	peak

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	2437MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 2	Date:	06/21/2017
Ant.Polar.:	Horizontal		



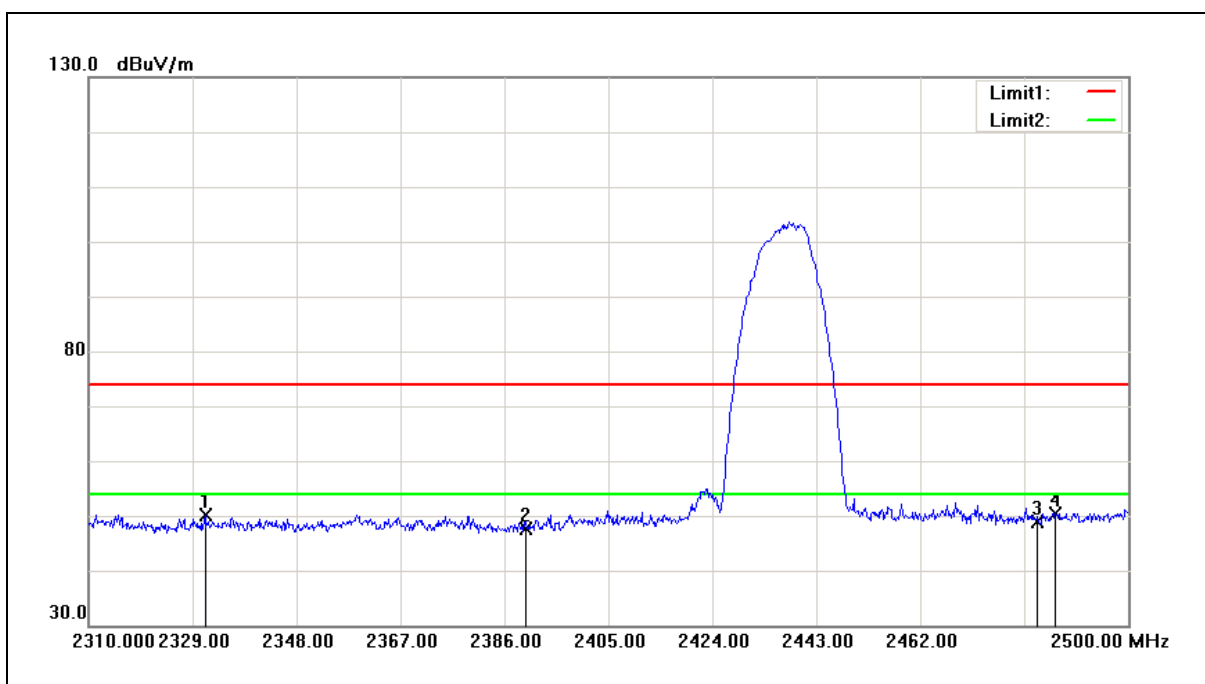
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2357.120	51.70	0.02	51.72	74.00	-22.28	peak
2	2390.000	49.47	0.15	49.62	74.00	-24.38	peak
3	2483.500	50.16	0.55	50.71	74.00	-23.29	peak
4	2496.390	51.22	0.60	51.82	74.00	-22.18	peak

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	2437MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 2	Date:	06/21/2017
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2331.280	50.22	-0.09	50.13	74.00	-23.87	peak
2	2390.000	47.48	0.15	47.63	74.00	-26.37	peak
3	2483.500	48.43	0.55	48.98	74.00	-25.02	peak
4	2486.700	49.94	0.56	50.50	74.00	-23.50	peak

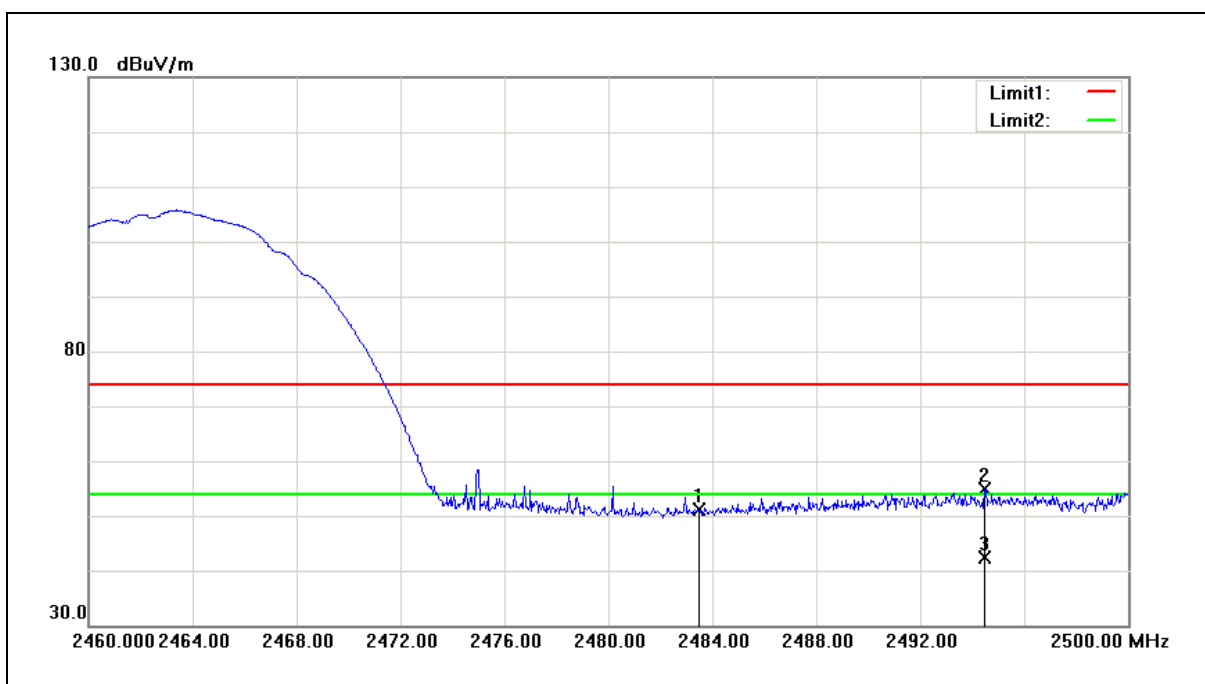
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	2462MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 2	Date:	06/21/2017
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	50.59	0.55	51.14	74.00	-22.86	peak
2	2494.480	54.17	0.59	54.76	74.00	-19.24	peak
3	2494.480	41.87	0.59	42.46	54.00	-11.54	AVG

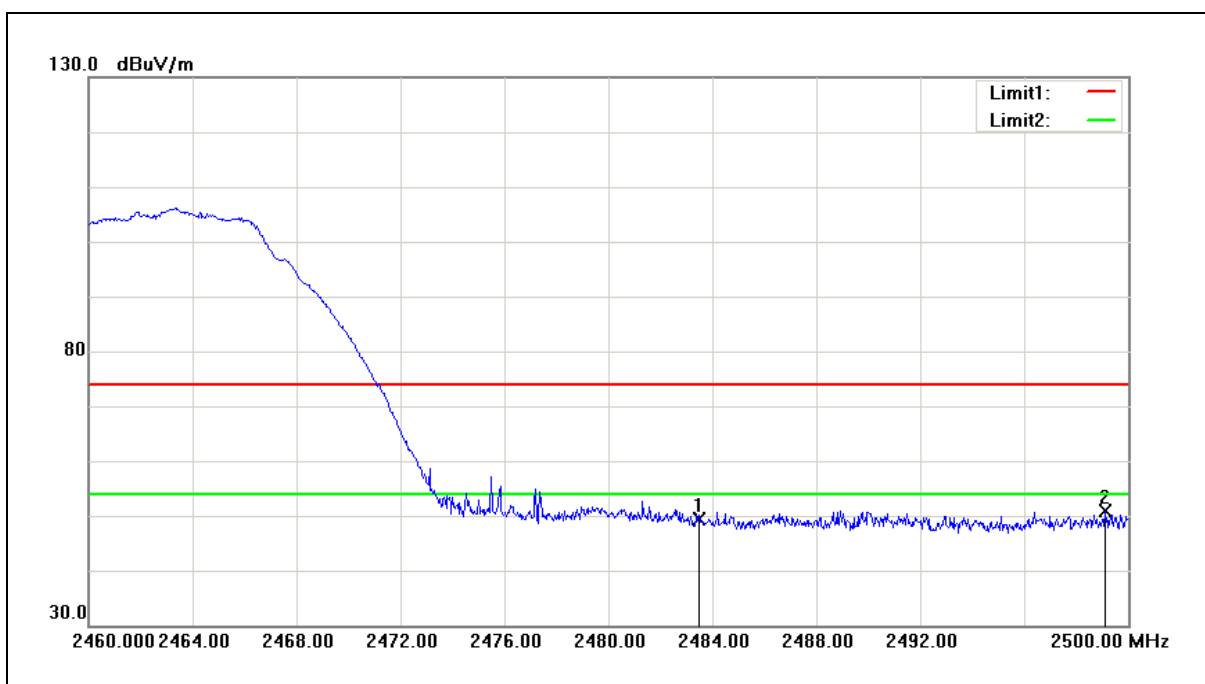
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	2462MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 2	Date:	06/21/2017
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	48.86	0.55	49.41	74.00	-24.59	peak
2	2499.120	50.38	0.62	51.00	74.00	-23.00	peak

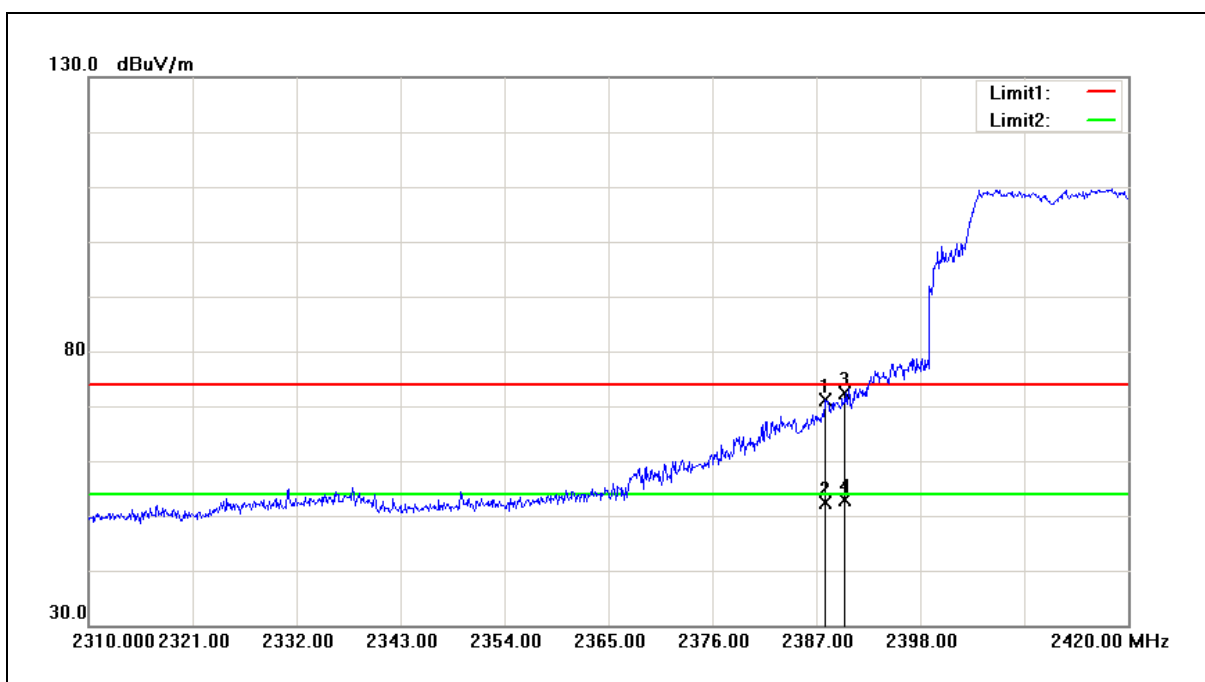
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	2412MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 3	Date:	06/21/2017
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.990	71.39	-0.26	71.13	74.00	-2.87	peak
2	2387.990	52.54	-0.26	52.28	54.00	-1.72	AVG
3	2390.000	72.61	-0.26	72.35	74.00	-1.65	peak
4	2390.000	53.17	-0.26	52.91	54.00	-1.09	AVG

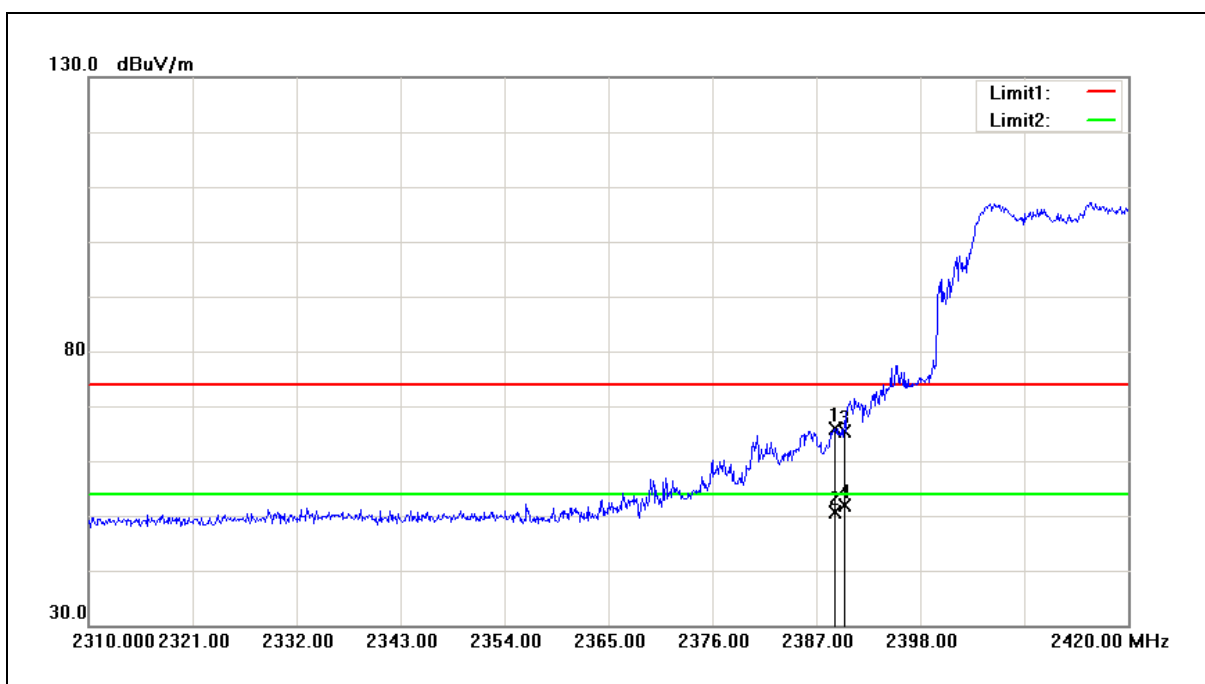
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	2412MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 3	Date:	06/21/2017
Ant.Polar.:	Vertical		



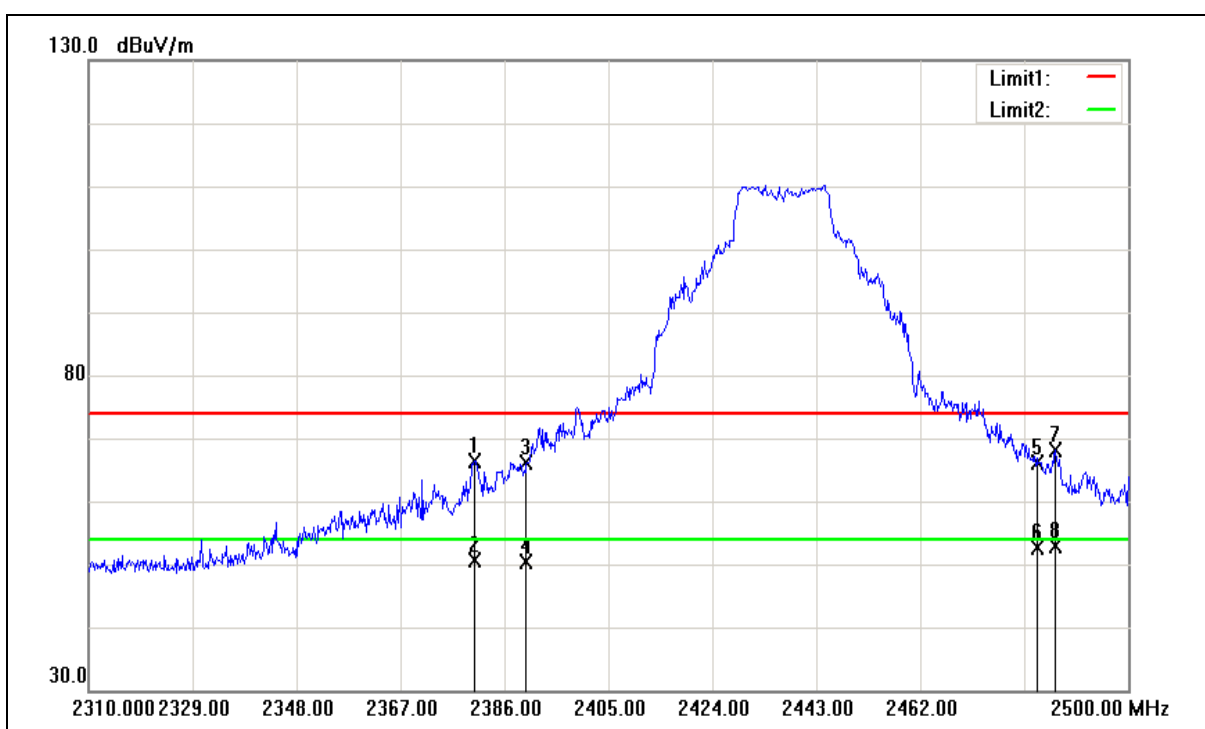
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.980	66.21	-0.26	65.95	74.00	-8.05	peak
2	2388.980	50.98	-0.26	50.72	54.00	-3.28	AVG
3	2390.000	65.73	-0.26	65.47	74.00	-8.53	peak
4	2390.000	52.15	-0.26	51.89	54.00	-2.11	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	2437MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 3	Date:	06/21/2017
Ant.Polar.:	Horizontal		



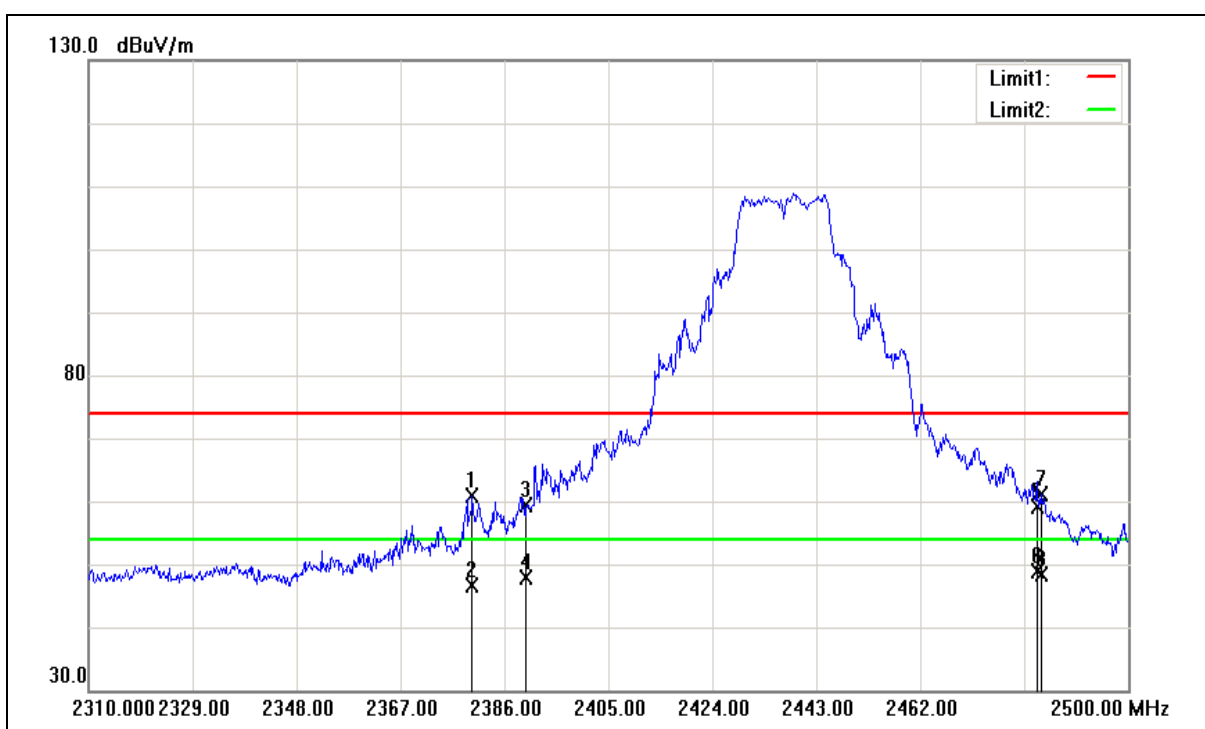
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2380.490	66.66	-0.29	66.37	74.00	-7.63	peak
2	2380.490	50.98	-0.29	50.69	54.00	-3.31	AVG
3	2390.000	66.40	-0.26	66.14	74.00	-7.86	peak
4	2390.000	50.62	-0.26	50.36	54.00	-3.64	AVG
5	2483.500	66.03	0.11	66.14	74.00	-7.86	peak
6	2483.500	52.51	0.11	52.62	54.00	-1.38	AVG
7	2486.700	67.98	0.12	68.10	74.00	-5.90	peak
8	2486.700	52.77	0.12	52.89	54.00	-1.11	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	2437MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 3	Date:	06/21/2017
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2380.110	61.16	-0.30	60.86	74.00	-13.14	peak
2	2380.110	46.82	-0.30	46.52	54.00	-7.48	AVG
3	2390.000	59.71	-0.26	59.45	74.00	-14.55	peak
4	2390.000	48.21	-0.26	47.95	54.00	-6.05	AVG
5	2483.500	58.99	0.11	59.10	74.00	-14.90	peak
6	2483.500	48.66	0.11	48.77	54.00	-5.23	AVG
7	2484.040	61.12	0.12	61.24	74.00	-12.76	peak
8	2484.040	48.20	0.12	48.32	54.00	-5.68	AVG

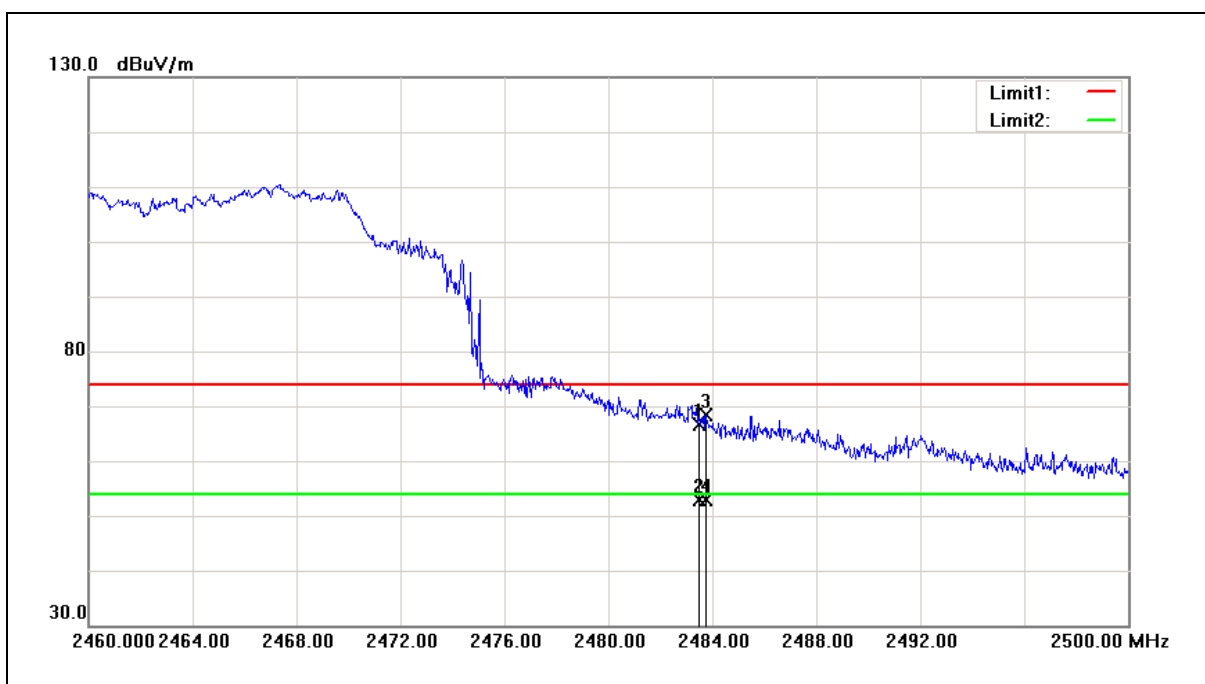
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	2462MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 3	Date:	06/21/2017
Ant.Polar.:	Horizontal		



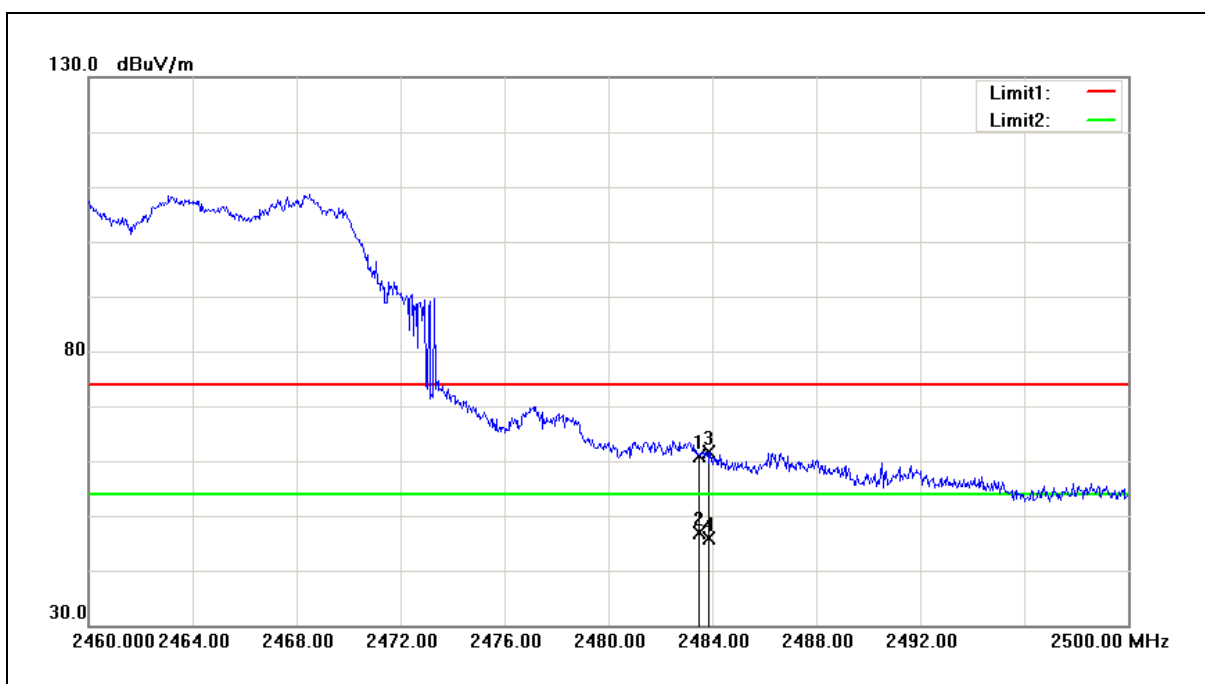
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	66.58	0.11	66.69	74.00	-7.31	peak
2	2483.500	52.87	0.11	52.98	54.00	-1.02	AVG
3	2483.760	68.21	0.11	68.32	74.00	-5.68	peak
4	2483.760	52.70	0.11	52.81	54.00	-1.19	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	2462MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 3	Date:	06/21/2017
Ant.Polar.:	Vertical		



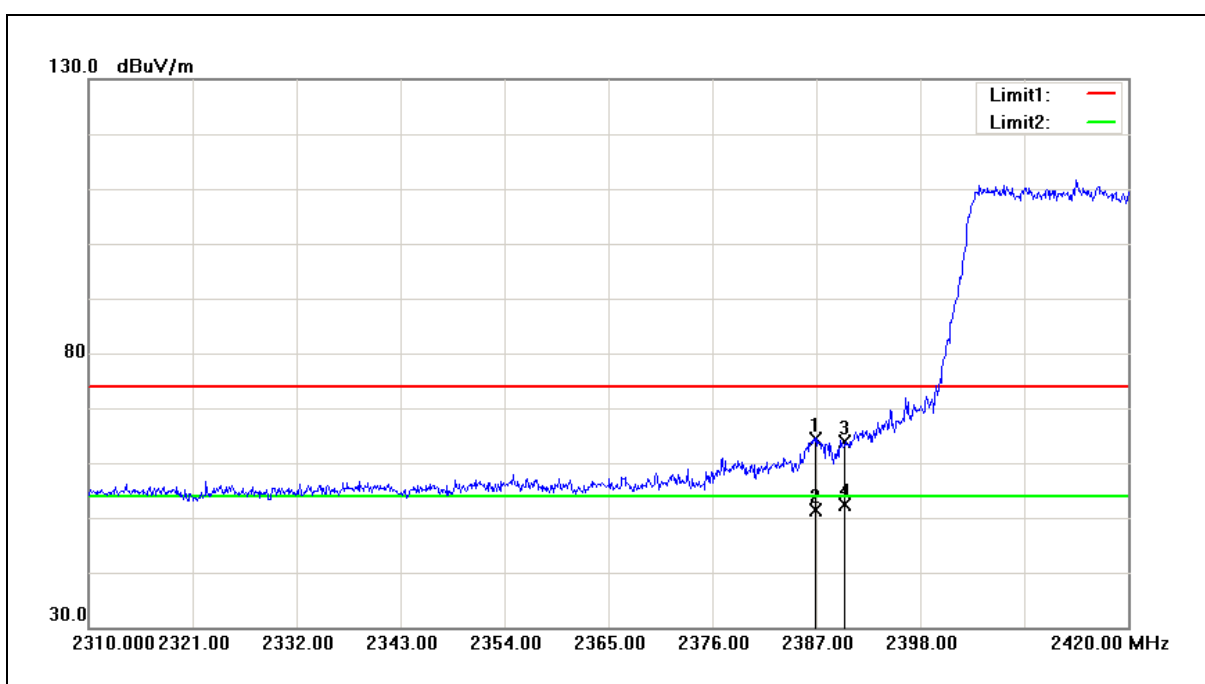
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	60.68	0.11	60.79	74.00	-13.21	peak
2	2483.500	46.83	0.11	46.94	54.00	-7.06	AVG
3	2483.840	61.44	0.11	61.55	74.00	-12.45	peak
4	2483.840	45.77	0.11	45.88	54.00	-8.12	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	2412MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4	Date:	06/21/2017
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2386.890	64.77	-0.27	64.50	74.00	-9.50	peak
2	2386.890	51.73	-0.27	51.46	54.00	-2.54	AVG
3	2390.000	64.10	-0.26	63.84	74.00	-10.16	peak
4	2390.000	52.70	-0.26	52.44	54.00	-1.56	AVG

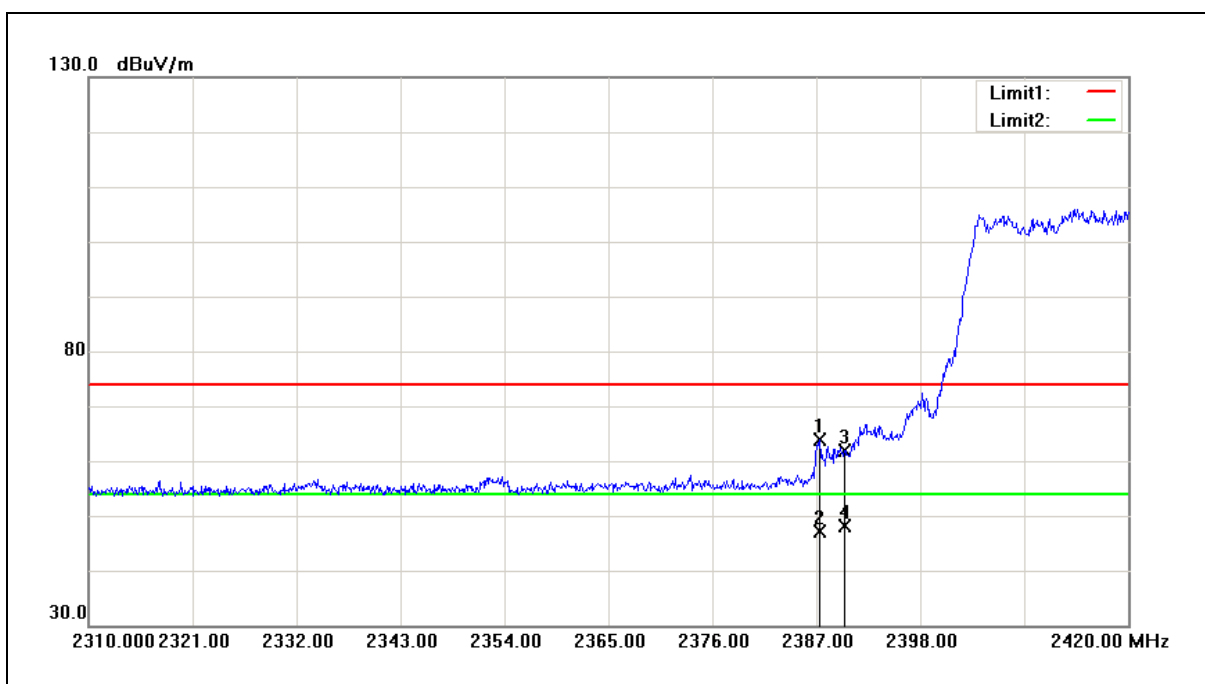
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	2412MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4	Date:	06/21/2017
Ant.Polar.:	Vertical		



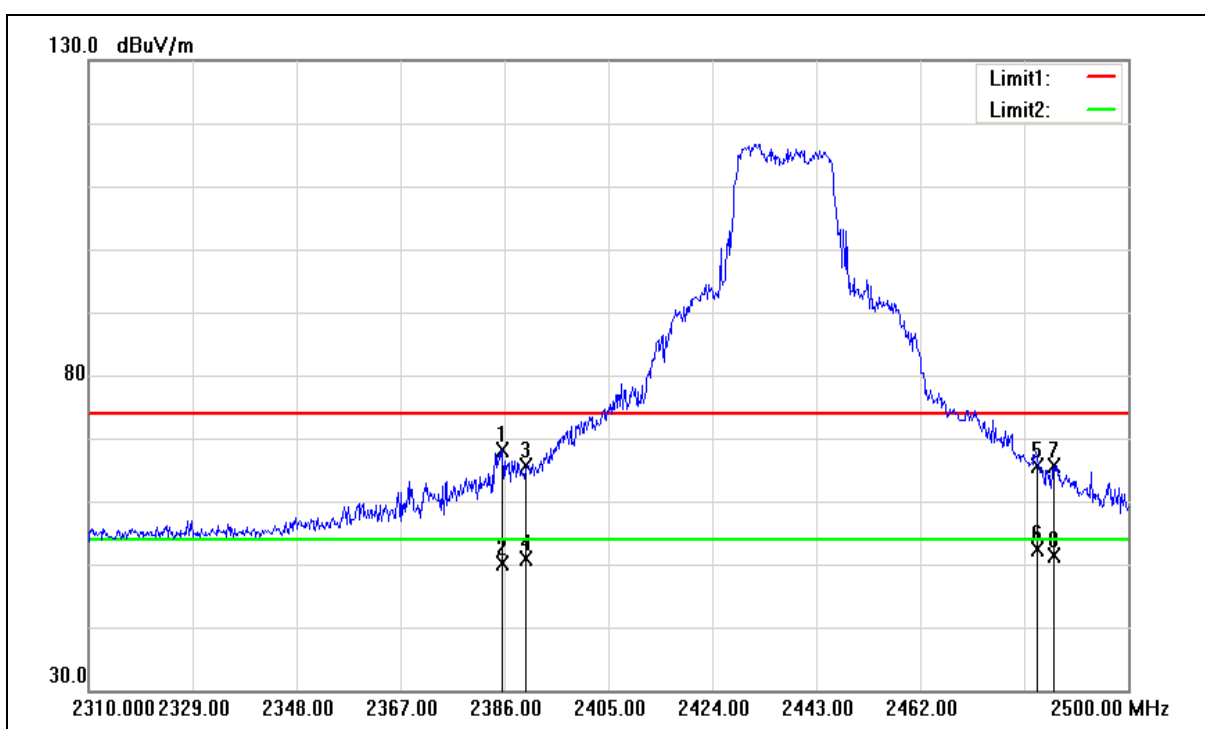
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.330	64.14	-0.27	63.87	74.00	-10.13	peak
2	2387.330	47.51	-0.27	47.24	54.00	-6.76	AVG
3	2390.000	62.18	-0.26	61.92	74.00	-12.08	peak
4	2390.000	48.30	-0.26	48.04	54.00	-5.96	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	2437MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4	Date:	06/21/2017
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2385.620	68.52	-0.28	68.24	74.00	-5.76	peak
2	2385.620	50.52	-0.28	50.24	54.00	-3.76	AVG
3	2390.000	65.96	-0.26	65.70	74.00	-8.30	peak
4	2390.000	51.12	-0.26	50.86	54.00	-3.14	AVG
5	2483.500	65.61	0.11	65.72	74.00	-8.28	peak
6	2483.500	52.23	0.11	52.34	54.00	-1.66	AVG
7	2486.320	65.50	0.12	65.62	74.00	-8.38	peak
8	2486.320	51.15	0.12	51.27	54.00	-2.73	AVG

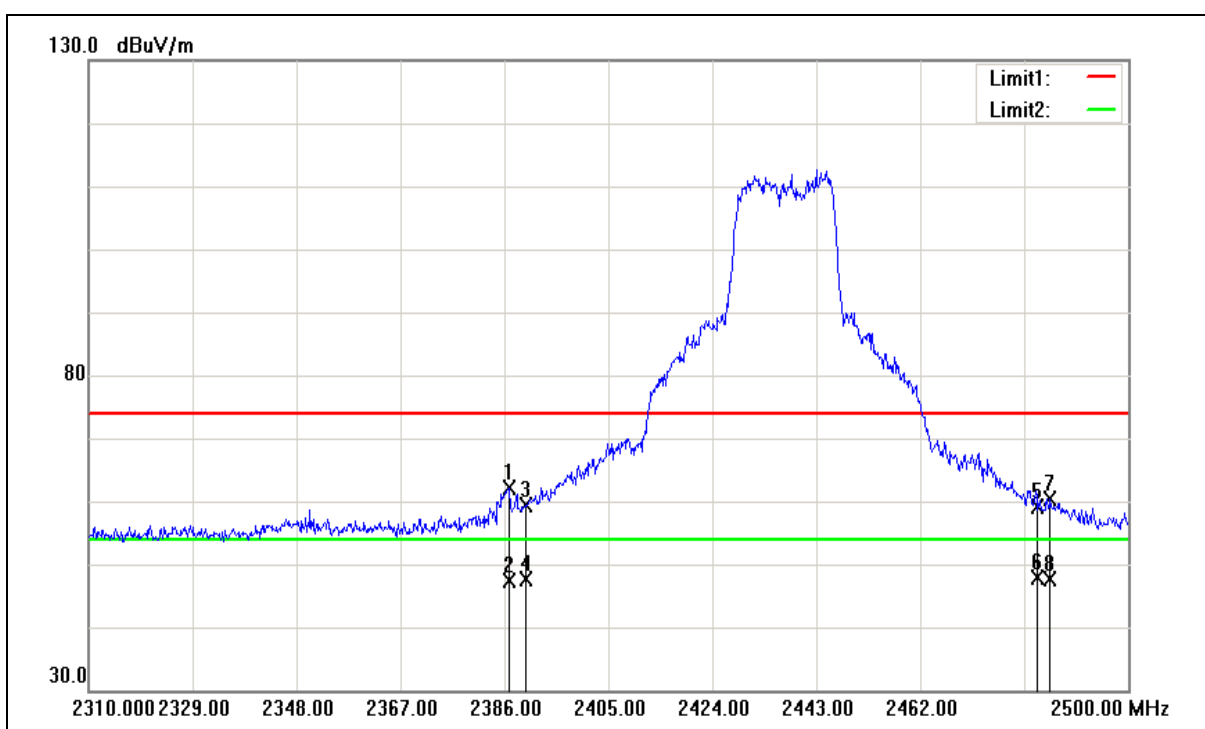
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	2437MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4	Date:	06/21/2017
Ant.Polar.:	Vertical		



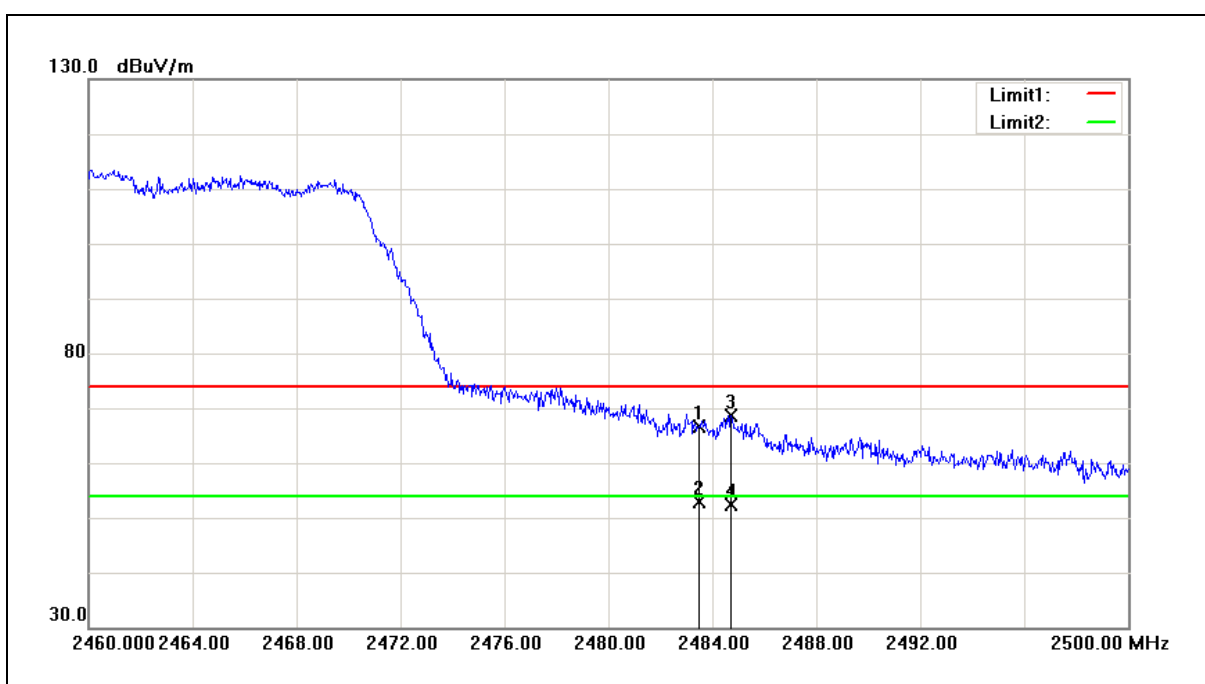
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2386.760	62.29	-0.27	62.02	74.00	-11.98	peak
2	2386.760	47.71	-0.27	47.44	54.00	-6.56	AVG
3	2390.000	59.63	-0.26	59.37	74.00	-14.63	peak
4	2390.000	47.80	-0.26	47.54	54.00	-6.46	AVG
5	2483.500	59.08	0.11	59.19	74.00	-14.81	peak
6	2483.500	47.86	0.11	47.97	54.00	-6.03	AVG
7	2485.750	60.26	0.12	60.38	74.00	-13.62	peak
8	2485.750	47.41	0.12	47.53	54.00	-6.47	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	2462MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4	Date:	06/21/2017
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	66.57	0.11	66.68	74.00	-7.32	peak
2	2483.500	52.82	0.11	52.93	54.00	-1.07	AVG
3	2484.720	68.60	0.12	68.72	74.00	-5.28	peak
4	2484.720	52.35	0.12	52.47	54.00	-1.53	AVG

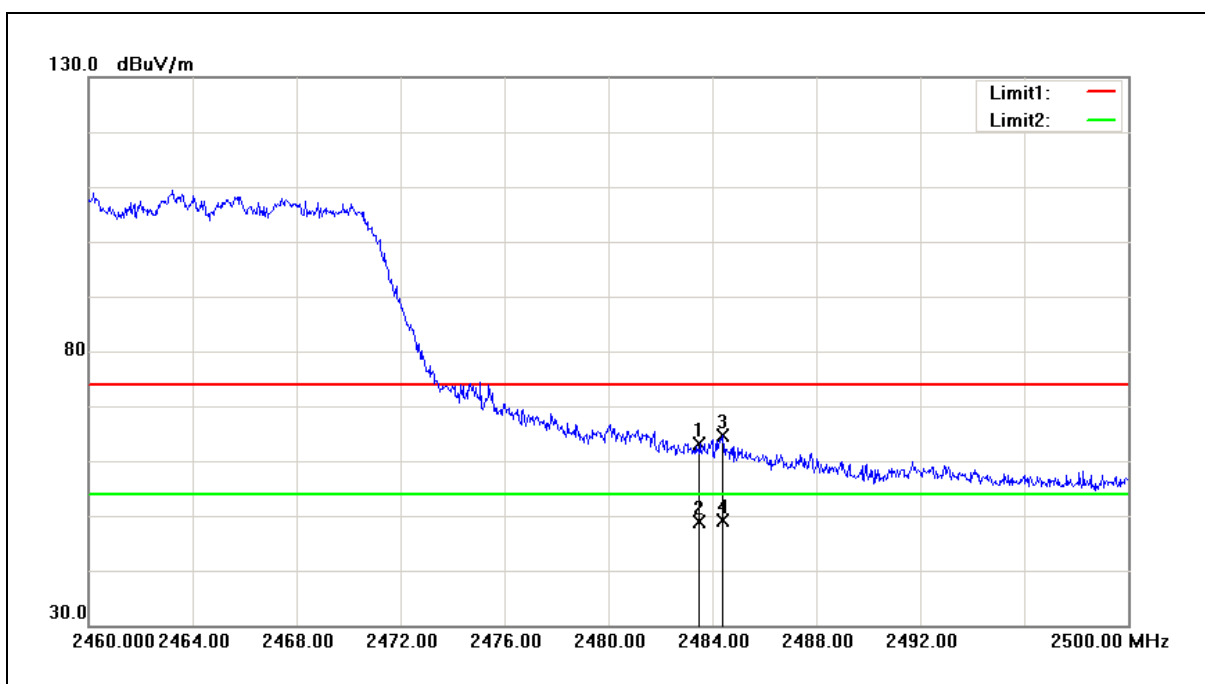
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	2462MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4	Date:	06/21/2017
Ant.Polar.:	Vertical		



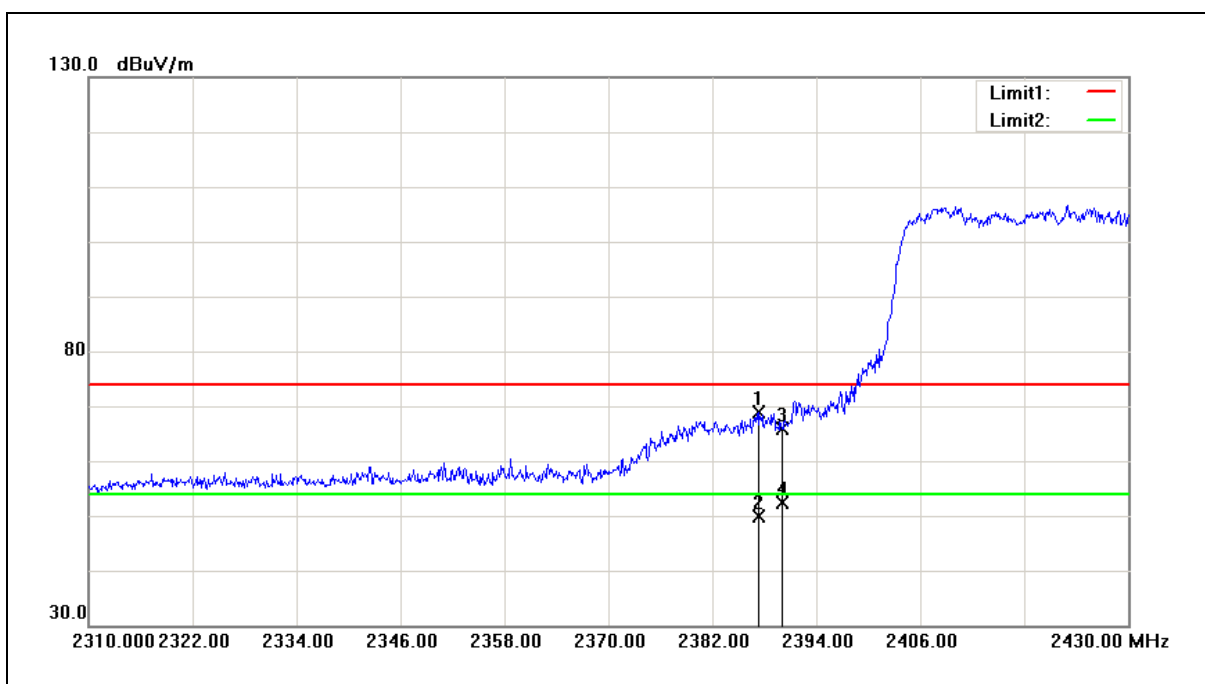
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	62.95	0.11	63.06	74.00	-10.94	peak
2	2483.500	48.80	0.11	48.91	54.00	-5.09	AVG
3	2484.400	64.51	0.12	64.63	74.00	-9.37	peak
4	2484.400	49.07	0.12	49.19	54.00	-4.81	AVG

Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	2422MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5	Date:	06/21/2017
Ant.Polar.:	Horizontal		



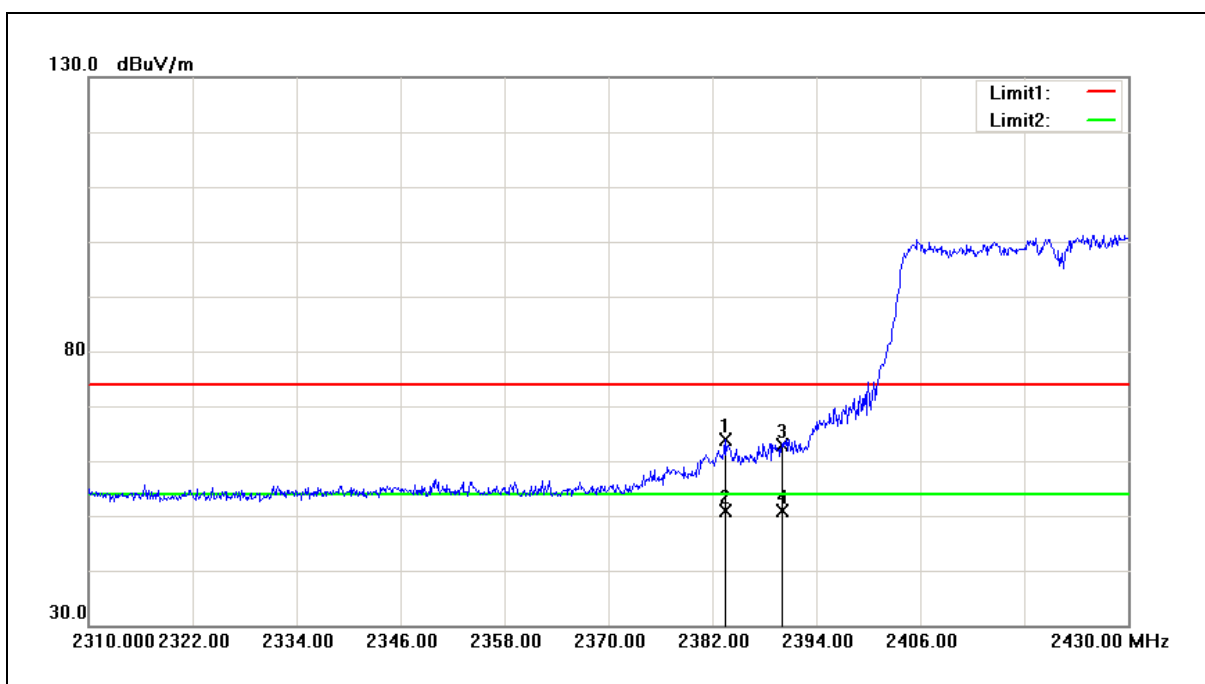
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.400	69.03	-0.27	68.76	74.00	-5.24	peak
2	2387.400	50.09	-0.27	49.82	54.00	-4.18	AVG
3	2390.000	66.02	-0.26	65.76	74.00	-8.24	peak
4	2390.000	52.71	-0.26	52.45	54.00	-1.55	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	2422MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5	Date:	06/21/2017
Ant.Polar.:	Vertical		



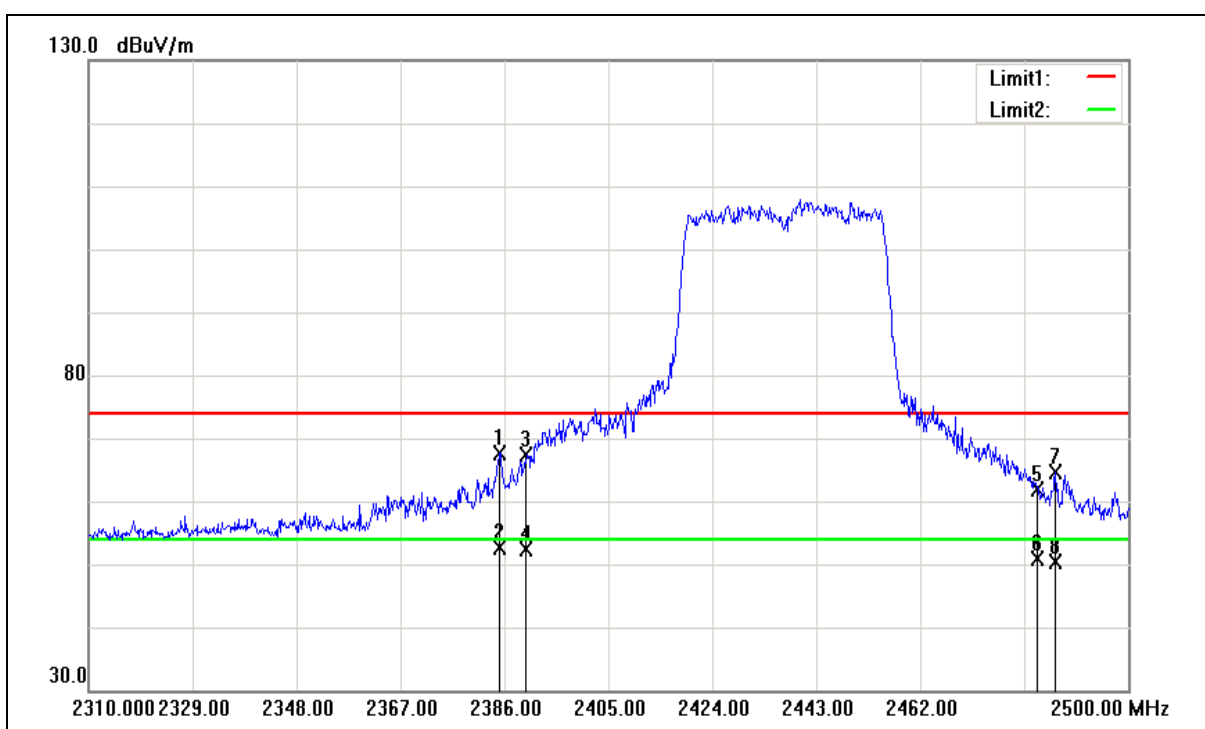
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2383.440	64.24	-0.29	63.95	74.00	-10.05	peak
2	2383.440	51.06	-0.29	50.77	54.00	-3.23	AVG
3	2390.000	63.24	-0.26	62.98	74.00	-11.02	peak
4	2390.000	51.11	-0.26	50.85	54.00	-3.15	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	2437MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5	Date:	06/21/2017
Ant.Polar.:	Horizontal		



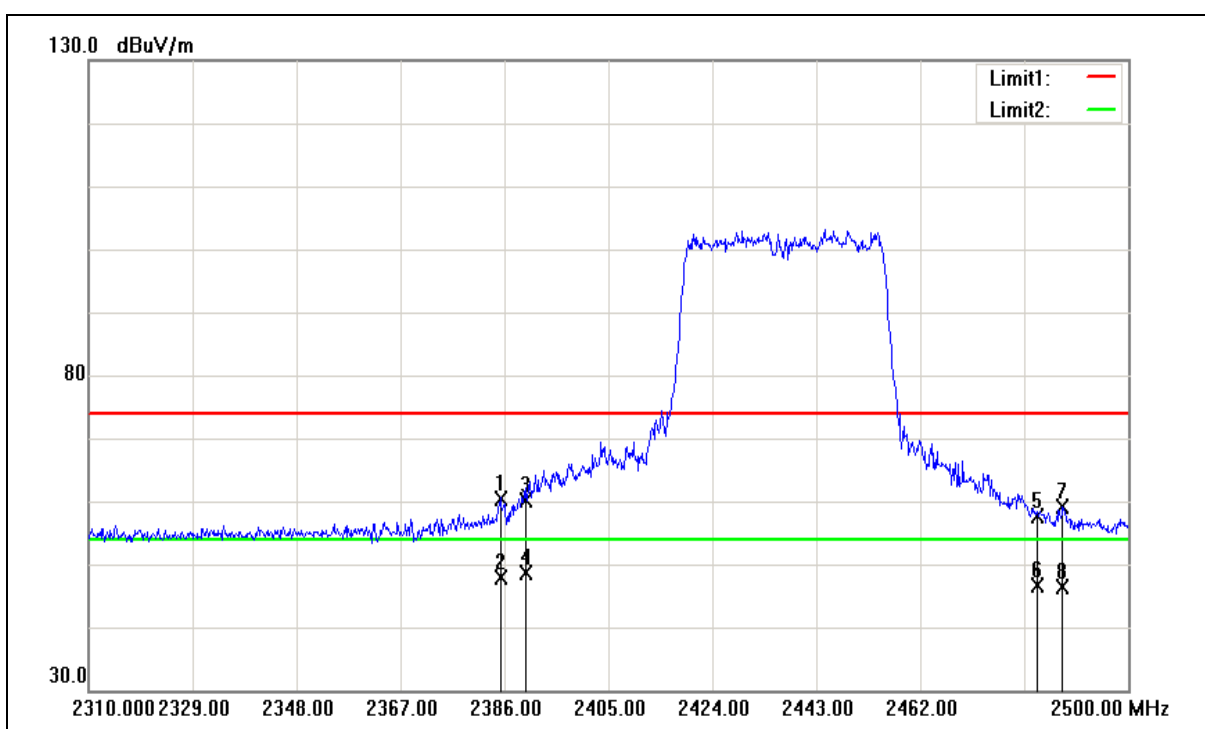
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2385.050	67.84	-0.28	67.56	74.00	-6.44	peak
2	2385.050	52.97	-0.28	52.69	54.00	-1.31	AVG
3	2390.000	67.72	-0.26	67.46	74.00	-6.54	peak
4	2390.000	52.60	-0.26	52.34	54.00	-1.66	AVG
5	2483.500	61.67	0.11	61.78	74.00	-12.22	peak
6	2483.500	50.73	0.11	50.84	54.00	-3.16	AVG
7	2486.700	64.46	0.12	64.58	74.00	-9.42	peak
8	2486.700	50.25	0.12	50.37	54.00	-3.63	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	2437MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5	Date:	06/21/2017
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2385.240	60.78	-0.28	60.50	74.00	-13.50	peak
2	2385.240	48.05	-0.28	47.77	54.00	-6.23	AVG
3	2390.000	60.45	-0.26	60.19	74.00	-13.81	peak
4	2390.000	48.88	-0.26	48.62	54.00	-5.38	AVG
5	2483.500	57.46	0.11	57.57	74.00	-16.43	peak
6	2483.500	46.60	0.11	46.71	54.00	-7.29	AVG
7	2488.030	59.11	0.13	59.24	74.00	-14.76	peak
8	2488.030	46.29	0.13	46.42	54.00	-7.58	AVG

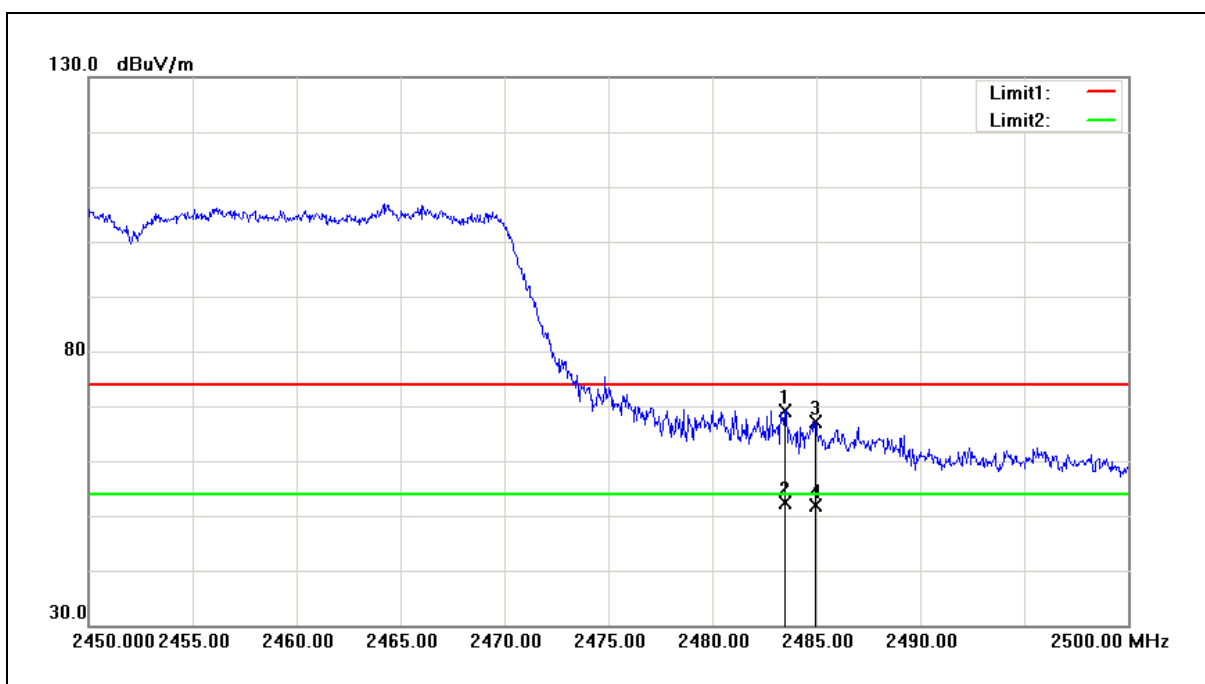
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	2452MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5	Date:	06/21/2017
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	69.04	0.11	69.15	74.00	-4.85	peak
2	2483.500	52.37	0.11	52.48	54.00	-1.52	AVG
3	2484.950	67.03	0.12	67.15	74.00	-6.85	peak
4	2484.950	51.85	0.12	51.97	54.00	-2.03	AVG

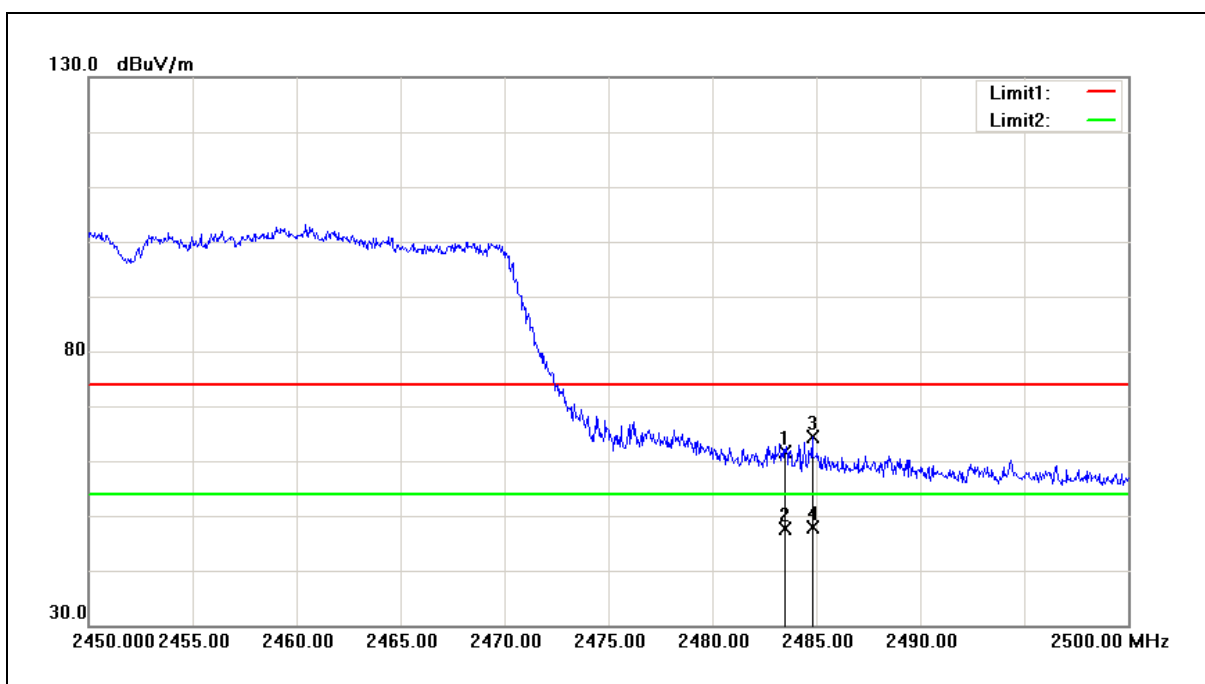
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	2452MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5	Date:	06/21/2017
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	61.63	0.11	61.74	74.00	-12.26	peak
2	2483.500	47.42	0.11	47.53	54.00	-6.47	AVG
3	2484.800	64.37	0.12	64.49	74.00	-9.51	peak
4	2484.800	47.71	0.12	47.83	54.00	-6.17	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

6 Maximum Conducted Output Power Measurement

6.1. Limit

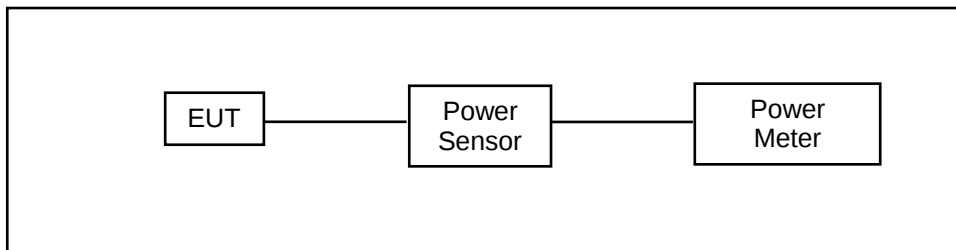
For systems using digital modulation in the 2400-2483.5MHz, the limit for maximum output power is 30dBm.

And According to 15.247 (b), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

* MIMO/BF mode : Directional Gain = $10 \cdot \log\{[10^{(G1/20)} + 10^{(G2/20)} + \dots + 10^{(Gn/20)}]^2 / N_{ANT}\} = 6.84 \text{ dBi} > 6\text{dBi}$

* MIMO/BF mode power limit shall be reduced = $30 - 0.84 = 29.16 \text{ dBm}$.

6.2. Test Setup



6.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
Power Sensor	Anritsu	MA2411B	1126022	08/29/2016	1 year
Power Meter	Anritsu	ML2495A	1135009	08/29/2016	1 year
Microwave Cable	EMCI	EMC104-SM-SM-1500	140303	02/22/2017	1 year
Test Site	ATL	TE05	TE05	N.C.R.	-----

Note: N.C.R. = No Calibration Request.

6.4. Test Procedure

The tests below are run with the EUT's transmitter set at high power in TX mode. The EUT is needed to force selection of output power level and channel number. While testing, EUT was set to transmit continuously. Remove the Subjective device's antenna and connect the RF output port to power sensor.

6.5. Test Result

Test Item	Maximum Conducted Output Power				
ANT-0					
Test Mode	Frequency (MHz)	Data Rate	Average Output Power		
			Measurement Results		Limit
			dBm	W	dBm
Mode 2	2412	1M	15.20	0.033	< 29.16
	2437		17.47	0.056	< 29.16
	2462		12.76	0.019	< 29.16
	2437	2M	17.11	0.051	< 29.16
	2437	5.5M	16.89	0.049	< 29.16
	2437	11M	16.66	0.046	< 29.16
Mode 3	2412	6M	15.23	0.033	< 29.16
	2437		17.77	0.060	< 29.16
	2462		15.05	0.032	< 29.16
	2437	9M	17.62	0.058	< 29.16
	2437	12M	17.54	0.057	< 29.16
	2437	18M	17.50	0.056	< 29.16
	2437	24M	17.68	0.059	< 29.16
	2437	36M	17.31	0.054	< 29.16
	2437	48M	17.42	0.055	< 29.16
	2437	54M	17.25	0.053	< 29.16

Note: The relevant measured result has the offset with cable loss already.

Test Item	Maximum Conducted Output Power				
ANT-0					
Test Mode	Frequency (MHz)	Data Rate	Average Output Power		
			Measurement Results		Limit
			dBm	W	dBm
Mode 4	2412	13M	15.42	0.035	< 29.16
	2437		17.69	0.059	< 29.16
	2462		15.33	0.034	< 29.16
	2437	28.8M	17.52	0.056	< 29.16
	2437	43.4M	17.37	0.055	< 29.16
	2437	57.8M	17.45	0.056	< 29.16
	2437	86.6M	17.28	0.053	< 29.16
	2437	115.6M	17.33	0.054	< 29.16
	2437	130M	17.20	0.052	< 29.16
	2437	144.4M	17.29	0.054	< 29.16
	2437	173.4M	17.40	0.055	< 29.16
Mode 5	2422	27M	13.93	0.025	< 29.16
	2437		15.23	0.033	< 29.16
	2452		13.53	0.023	< 29.16
	2437	60M	15.11	0.032	< 29.16
	2437	90M	15.02	0.032	< 29.16
	2437	120M	14.93	0.031	< 29.16
	2437	180M	15.07	0.032	< 29.16
	2437	240M	15.18	0.033	< 29.16
	2437	270M	15.05	0.032	< 29.16
	2437	300M	15.15	0.033	< 29.16
	2437	360M	14.99	0.032	< 29.16
	2437	400M	15.12	0.033	< 29.16

Note: The relevant measured result has the offset with cable loss already.

Test Item	Maximum Conducted Output Power				
ANT-1					
Test Mode	Frequency (MHz)	Data Rate	Average Output Power		
			Measurement Results		Limit
			dBm	W	dBm
Mode 2	2412	1M	16.79	0.048	< 29.16
	2437		16.70	0.047	< 29.16
	2462		13.75	0.024	< 29.16
	2437	2M	16.50	0.045	< 29.16
	2437	5.5M	16.37	0.043	< 29.16
	2437	11M	16.15	0.041	< 29.16
Mode 3	2412	6M	16.80	0.048	< 29.16
	2437		18.24	0.067	< 29.16
	2462		16.69	0.047	< 29.16
	2437	9M	18.17	0.066	< 29.16
	2437	12M	18.20	0.066	< 29.16
	2437	18M	18.11	0.065	< 29.16
	2437	24M	18.15	0.065	< 29.16
	2437	36M	17.92	0.062	< 29.16
	2437	48M	17.85	0.061	< 29.16
	2437	54M	17.80	0.060	< 29.16

Note: The relevant measured result has the offset with cable loss already.

Test Item	Maximum Conducted Output Power				
ANT-1					
Test Mode	Frequency (MHz)	Data Rate	Average Output Power		
			Measurement Results		Limit
			dBm	W	dBm
Mode 4	2412	13M	16.30	0.043	< 29.16
	2437		18.16	0.065	< 29.16
	2462		15.94	0.039	< 29.16
	2437	28.8M	17.93	0.062	< 29.16
	2437	43.4M	17.80	0.060	< 29.16
	2437	57.8M	17.85	0.061	< 29.16
	2437	86.6M	17.77	0.060	< 29.16
	2437	115.6M	17.80	0.060	< 29.16
	2437	130M	17.44	0.055	< 29.16
	2437	144.4M	17.37	0.055	< 29.16
	2437	173.4M	17.52	0.056	< 29.16
Mode 5	2422	27M	15.32	0.034	< 29.16
	2437		15.31	0.034	< 29.16
	2452		13.79	0.024	< 29.16
	2437	60M	15.25	0.033	< 29.16
	2437	90M	15.21	0.033	< 29.16
	2437	120M	15.11	0.032	< 29.16
	2437	180M	15.18	0.033	< 29.16
	2437	240M	14.90	0.031	< 29.16
	2437	270M	15.04	0.032	< 29.16
	2437	300M	15.22	0.033	< 29.16
	2437	360M	15.14	0.033	< 29.16
	2437	400M	15.06	0.032	< 29.16

Note: The relevant measured result has the offset with cable loss already.

Test Item	Maximum Conducted Output Power				
ANT-0+1					
Test Mode	Frequency (MHz)	Data Rate	Average Output Power		
			Measurement Results		Limit
			dBm	W	dBm
Mode 2	2412	1M	19.08	0.081	< 29.16
	2437		20.11	0.103	< 29.16
	2462		16.29	0.043	< 29.16
	2437	2M	19.83	0.096	< 29.16
	2437	5.5M	19.65	0.092	< 29.16
	2437	11M	19.42	0.088	< 29.16
Mode 3	2412	6M	19.10	0.081	< 29.16
	2437		21.02	0.127	< 29.16
	2462		18.96	0.079	< 29.16
	2437	9M	20.91	0.123	< 29.16
	2437	12M	20.89	0.123	< 29.16
	2437	18M	20.83	0.121	< 29.16
	2437	24M	20.93	0.124	< 29.16
	2437	36M	20.64	0.116	< 29.16
	2437	48M	20.65	0.116	< 29.16
	2437	54M	20.54	0.113	< 29.16

Note: The relevant measured result has the offset with cable loss already.

Test Item	Maximum Conducted Output Power				
ANT-0+1					
Test Mode	Frequency (MHz)	Data Rate	Average Output Power		
			Measurement Results		Limit
			dBm	W	dBm
Mode 4	2412	13M	18.89	0.077	< 29.16
	2437		20.94	0.124	< 29.16
	2462		18.66	0.073	< 29.16
	2437	28.8M	20.74	0.119	< 29.16
	2437	43.4M	20.60	0.115	< 29.16
	2437	57.8M	20.66	0.117	< 29.16
	2437	86.6M	20.54	0.113	< 29.16
	2437	115.6M	20.58	0.114	< 29.16
	2437	130M	20.33	0.108	< 29.16
	2437	144.4M	20.34	0.108	< 29.16
	2437	173.4M	20.47	0.111	< 29.16
Mode 5	2422	27M	17.69	0.059	< 29.16
	2437		18.28	0.067	< 29.16
	2452		16.67	0.046	< 29.16
	2437	60M	18.19	0.066	< 29.16
	2437	90M	18.13	0.065	< 29.16
	2437	120M	18.03	0.064	< 29.16
	2437	180M	18.14	0.065	< 29.16
	2437	240M	18.05	0.064	< 29.16
	2437	270M	18.06	0.064	< 29.16
	2437	300M	18.20	0.066	< 29.16
	2437	360M	18.08	0.064	< 29.16
	2437	400M	18.10	0.065	< 29.16

Note: The relevant measured result has the offset with cable loss already.

Beamforming on

Test Item	Maximum Conducted Output Power				
ANT-0					
Test Mode	Frequency (MHz)	Data Rate	Average Output Power		
			Measurement Results		Limit
			dBm	W	dBm
Mode 2	2412	1M	11.11	0.013	< 29.16
	2437		12.44	0.018	< 29.16
	2462		9.18	0.008	< 29.16
	2437	2M	12.21	0.017	< 29.16
	2437	5.5M	12.05	0.016	< 29.16
	2437	11M	11.89	0.015	< 29.16
Mode 3	2412	6M	11.28	0.013	< 29.16
	2437		13.84	0.024	< 29.16
	2462		11.29	0.013	< 29.16
	2437	9M	13.75	0.024	< 29.16
	2437	12M	13.53	0.023	< 29.16
	2437	18M	13.38	0.022	< 29.16
	2437	24M	13.22	0.021	< 29.16
	2437	36M	13.15	0.021	< 29.16
	2437	48M	13.02	0.020	< 29.16
	2437	54M	12.93	0.020	< 29.16

Note: The relevant measured result has the offset with cable loss already.

Test Item	Maximum Conducted Output Power				
ANT-0					
Test Mode	Frequency (MHz)	Data Rate	Average Output Power		
			Measurement Results		Limit
			dBm	W	dBm
Mode 4	2412	13M	11.07	0.013	< 29.16
	2437		13.10	0.020	< 29.16
	2462		11.23	0.013	< 29.16
	2437	28.8M	12.92	0.020	< 29.16
	2437	43.4M	12.79	0.019	< 29.16
	2437	57.8M	12.65	0.018	< 29.16
	2437	86.6M	12.43	0.017	< 29.16
	2437	115.6M	12.26	0.017	< 29.16
	2437	130M	12.11	0.016	< 29.16
	2437	144.4M	11.98	0.016	< 29.16
	2437	173.4M	11.82	0.015	< 29.16
Mode 5	2422	27M	10.14	0.010	< 29.16
	2437		10.63	0.012	< 29.16
	2452		9.11	0.008	< 29.16
	2437	60M	10.48	0.011	< 29.16
	2437	90M	10.29	0.011	< 29.16
	2437	120M	10.10	0.010	< 29.16
	2437	180M	9.98	0.010	< 29.16
	2437	240M	9.79	0.010	< 29.16
	2437	270M	9.62	0.009	< 29.16
	2437	300M	9.45	0.009	< 29.16
	2437	360M	9.33	0.009	< 29.16
	2437	400M	9.18	0.008	< 29.16

Note: The relevant measured result has the offset with cable loss already.

Test Item	Maximum Conducted Output Power				
ANT-1					
Test Mode	Frequency (MHz)	Data Rate	Average Output Power		
			Measurement Results		Limit
			dBm	W	dBm
Mode 2	2412	1M	12.91	0.020	< 29.16
	2437		14.08	0.026	< 29.16
	2462		9.97	0.010	< 29.16
	2437	2M	13.92	0.025	< 29.16
	2437	5.5M	13.69	0.023	< 29.16
	2437	11M	13.41	0.022	< 29.16
Mode 3	2412	6M	12.89	0.019	< 29.16
	2437		14.65	0.029	< 29.16
	2462		12.63	0.018	< 29.16
	2437	9M	14.43	0.028	< 29.16
	2437	12M	14.27	0.027	< 29.16
	2437	18M	14.12	0.026	< 29.16
	2437	24M	14.01	0.025	< 29.16
	2437	36M	13.86	0.024	< 29.16
	2437	48M	13.64	0.023	< 29.16
	2437	54M	13.41	0.022	< 29.16

Note: The relevant measured result has the offset with cable loss already.

Test Item	Maximum Conducted Output Power				
ANT-1					
Test Mode	Frequency (MHz)	Data Rate	Average Output Power		
			Measurement Results		Limit
			dBm	W	dBm
Mode 4	2412	13M	12.88	0.019	< 29.16
	2437		14.78	0.030	< 29.16
	2462		12.38	0.017	< 29.16
	2437	28.8M	14.55	0.029	< 29.16
	2437	43.4M	14.23	0.026	< 29.16
	2437	57.8M	14.00	0.025	< 29.16
	2437	86.6M	13.85	0.024	< 29.16
	2437	115.6M	13.64	0.023	< 29.16
	2437	130M	13.39	0.022	< 29.16
	2437	144.4M	13.11	0.020	< 29.16
	2437	173.4M	12.88	0.019	< 29.16
Mode 5	2422	27M	11.57	0.014	< 29.16
	2437		12.29	0.017	< 29.16
	2452		10.58	0.011	< 29.16
	2437	60M	12.13	0.016	< 29.16
	2437	90M	11.99	0.016	< 29.16
	2437	120M	11.82	0.015	< 29.16
	2437	180M	11.69	0.015	< 29.16
	2437	240M	11.53	0.014	< 29.16
	2437	270M	11.41	0.014	< 29.16
	2437	300M	11.28	0.013	< 29.16
	2437	360M	11.20	0.013	< 29.16
	2437	400M	11.09	0.013	< 29.16

Note: The relevant measured result has the offset with cable loss already.

Test Item	Maximum Conducted Output Power				
ANT-0+1					
Test Mode	Frequency (MHz)	Data Rate	Average Output Power		
			Measurement Results		Limit
			dBm	W	dBm
Mode 2	2412	1M	15.11	0.032	< 29.16
	2437		16.35	0.043	< 29.16
	2462		12.60	0.018	< 29.16
	2437	2M	16.16	0.041	< 29.16
	2437	5.5M	15.96	0.039	< 29.16
	2437	11M	15.73	0.037	< 29.16
Mode 3	2412	6M	15.17	0.033	< 29.16
	2437		17.27	0.053	< 29.16
	2462		15.02	0.032	< 29.16
	2437	9M	17.11	0.051	< 29.16
	2437	12M	16.93	0.049	< 29.16
	2437	18M	16.78	0.048	< 29.16
	2437	24M	16.64	0.046	< 29.16
	2437	36M	16.53	0.045	< 29.16
	2437	48M	16.35	0.043	< 29.16
	2437	54M	16.19	0.042	< 29.16

Note: The relevant measured result has the offset with cable loss already.

Test Item	Maximum Conducted Output Power				
ANT-0+1					
Test Mode	Frequency (MHz)	Data Rate	Average Output Power		
			Measurement Results		Limit
			dBm	W	dBm
Mode 4	2412	13M	15.08	0.032	< 29.16
	2437		17.03	0.050	< 29.16
	2462		14.85	0.031	< 29.16
	2437	28.8M	16.82	0.048	< 29.16
	2437	43.4M	16.58	0.045	< 29.16
	2437	57.8M	16.39	0.044	< 29.16
	2437	86.6M	16.21	0.042	< 29.16
	2437	115.6M	16.01	0.040	< 29.16
	2437	130M	15.81	0.038	< 29.16
	2437	144.4M	15.59	0.036	< 29.16
	2437	173.4M	15.39	0.035	< 29.16
Mode 5	2422	27M	13.92	0.025	< 29.16
	2437		14.55	0.029	< 29.16
	2452		12.92	0.020	< 29.16
	2437	60M	14.39	0.027	< 29.16
	2437	90M	14.23	0.027	< 29.16
	2437	120M	14.05	0.025	< 29.16
	2437	180M	13.93	0.025	< 29.16
	2437	240M	13.76	0.024	< 29.16
	2437	270M	13.62	0.023	< 29.16
	2437	300M	13.47	0.022	< 29.16
	2437	360M	13.38	0.022	< 29.16
	2437	400M	13.25	0.021	< 29.16

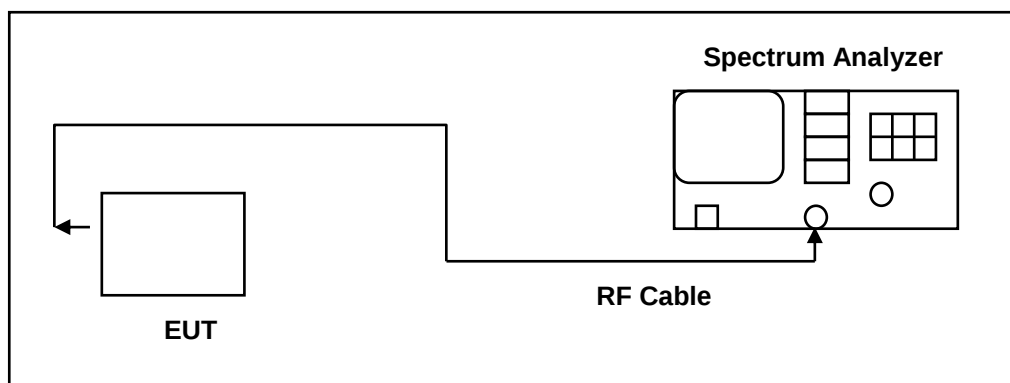
Note: The relevant measured result has the offset with cable loss already.

7 6dB RF Bandwidth Measurement

7.1. Limit

6dB RF Bandwidth: Systems using digital modulation techniques may operate in the 2400–2483.5 MHz bands. The minimum 6 dB band-width shall be at least 500 kHz.

7.2. Test Setup



7.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
Spectrum Analyzer	Agilent	E4445A	MY45300744	12/19/2016	1 year
Microwave Cable	EMCI	EMC104-SM-SM-1500	140303	02/22/2017	1 year
Test Site	ATL	TE05	TE05	N.C.R.	-----

Note: N.C.R. = No Calibration Request.

7.4. Test Procedure

The EUT tested to DTS test procedure of KDB558074D01 for compliance to FCC 47CFR 15.247 requirements.

6dB RF Bandwidth: The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer RBW was set to 100 kHz. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A peak output reading was taken, a DISPLAY line was drawn 6 dB lower than peak level. The 6 dB bandwidth was determined from where the channel output spectrum intersected the display line.

The test was performed at 3 channels (Channel low, middle, high)



7.5. Test Result

Test Item	6dB RF Bandwidth			
Test Mode	Frequency (MHz)	Measurement (kHz)		Limit (kHz)
		ANT-0	ANT-1	
Mode 2	2412	8070	8085	> 500
	2437	8069	8089	> 500
	2462	8068	7094	> 500
Mode 3	2412	16380	16410	> 500
	2437	16350	16360	> 500
	2462	16350	16370	> 500
Mode 4	2412	17570	17570	> 500
	2437	17590	17540	> 500
	2462	17630	17560	> 500
Mode 5	2422	35330	35120	> 500
	2437	35340	35140	> 500
	2452	35360	35120	> 500

Beamforming on

Test Mode	Frequency (MHz)	Measurement (kHz)		Limit (kHz)
		ANT-0	ANT-1	
Mode 2	2412	8074	8095	> 500
	2437	8072	8089	> 500
	2462	8070	7099	> 500
Mode 3	2412	16380	16400	> 500
	2437	16360	16360	> 500
	2462	16370	16350	> 500
Mode 4	2412	17570	17560	> 500
	2437	17560	17570	> 500
	2462	17580	17560	> 500
Mode 5	2422	35320	35130	> 500
	2437	36420	36060	> 500
	2452	36450	36310	> 500



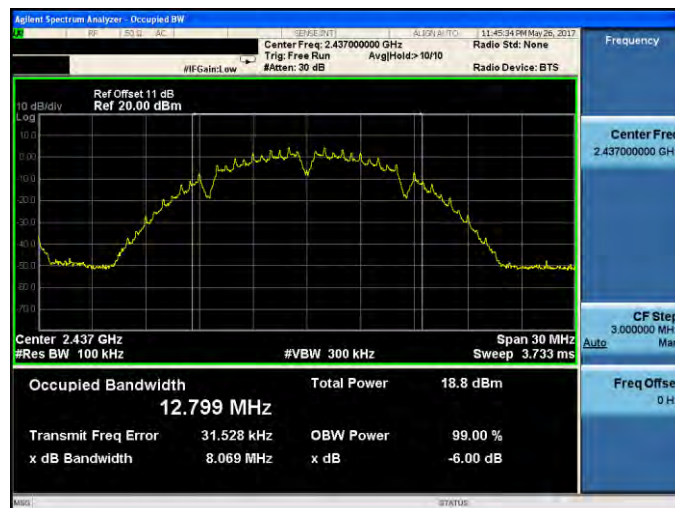
7.6. Test Graphs

Mode 2: IEEE 802.11b Continuous TX mode_ANT-0

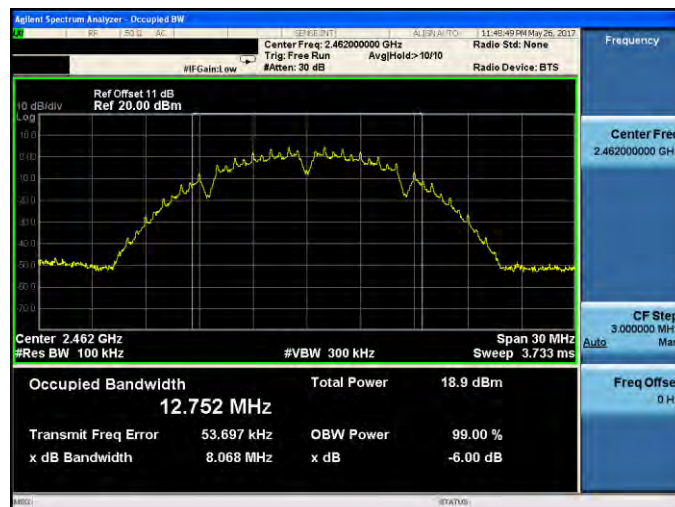
2412 MHz



2437 MHz



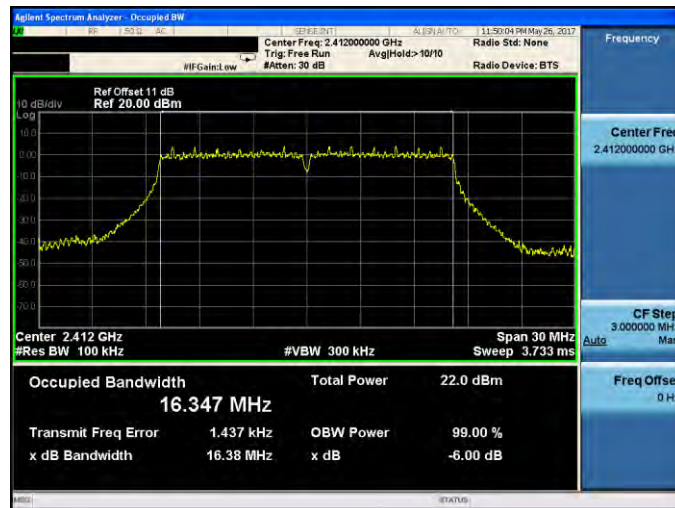
2462 MHz



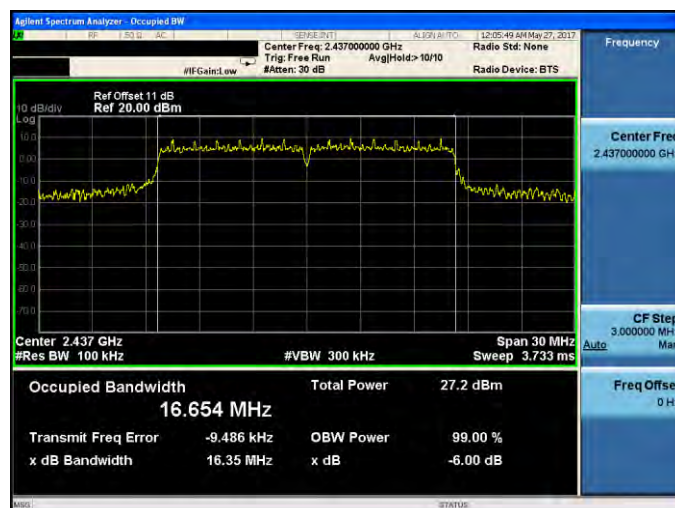


Mode 3: IEEE 802.11g Continuous TX mode_ANT-0

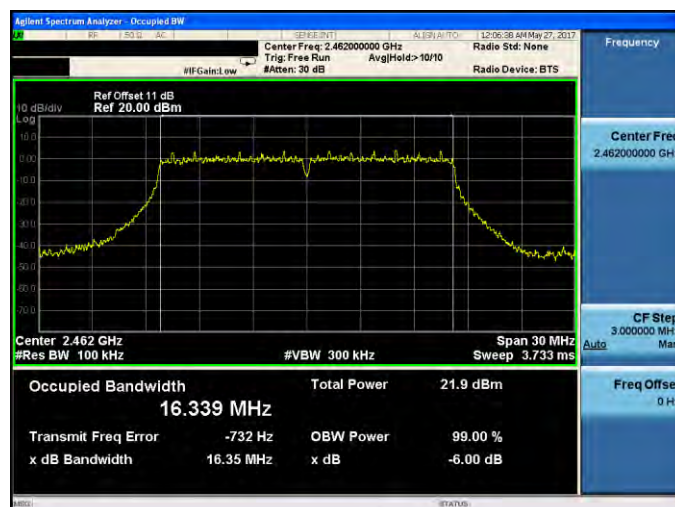
2412 MHz



2437 MHz



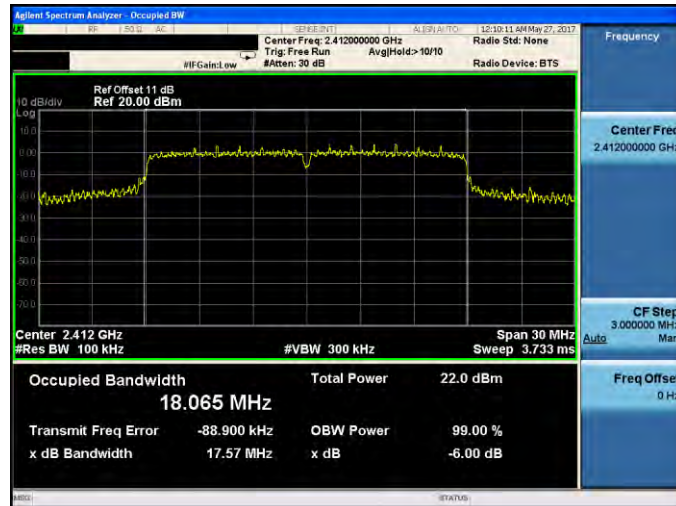
2462 MHz



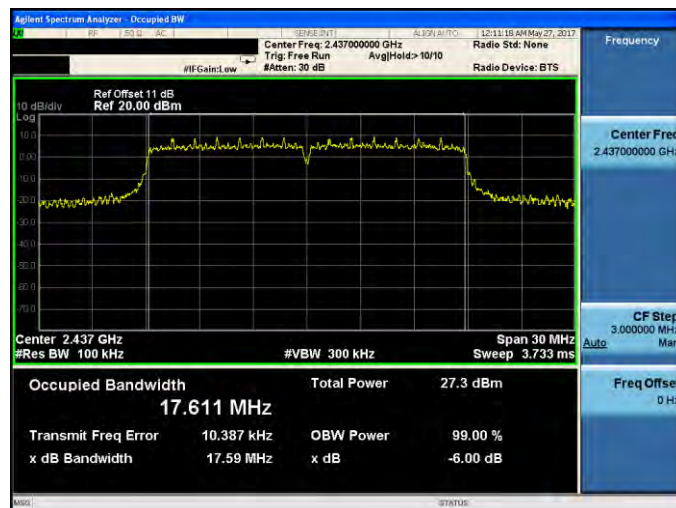


Mode 4: IEEE 802.11n 2.4GHz 20MHz Continuous TX mode_ANT-0

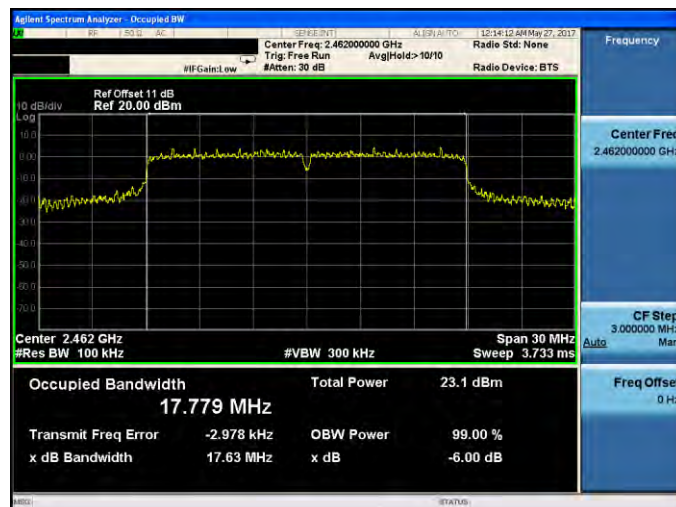
2412 MHz



2437 MHz



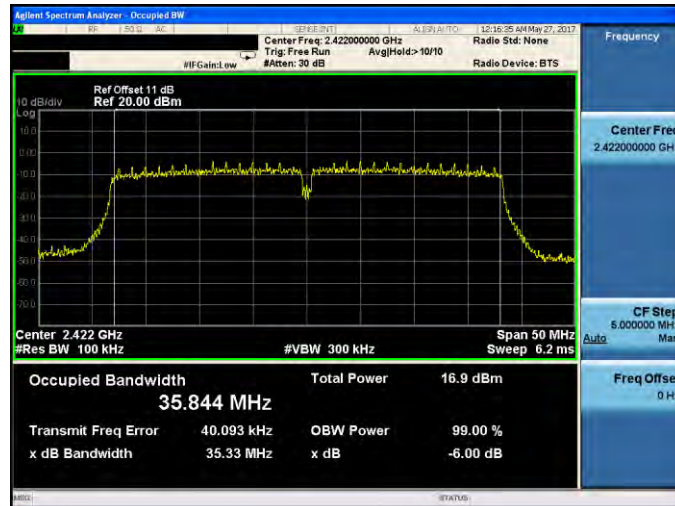
2462 MHz



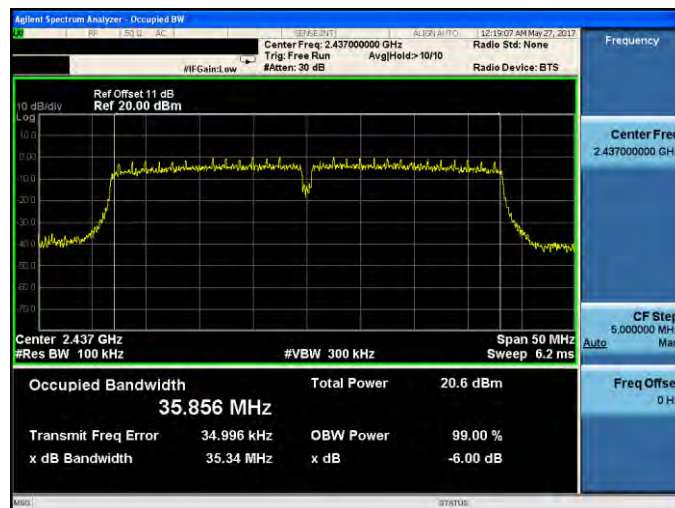


Mode 5: IEEE 802.11n 2.4GHz 40MHz Continuous TX mode_ANT-0

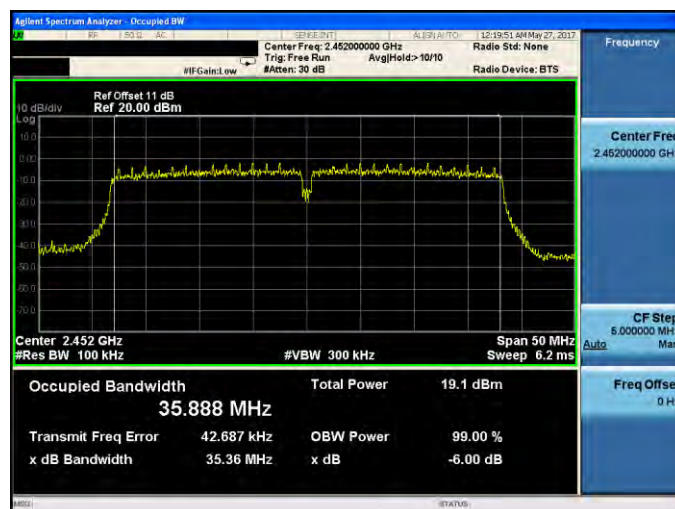
2422 MHz



2437 MHz



2452 MHz



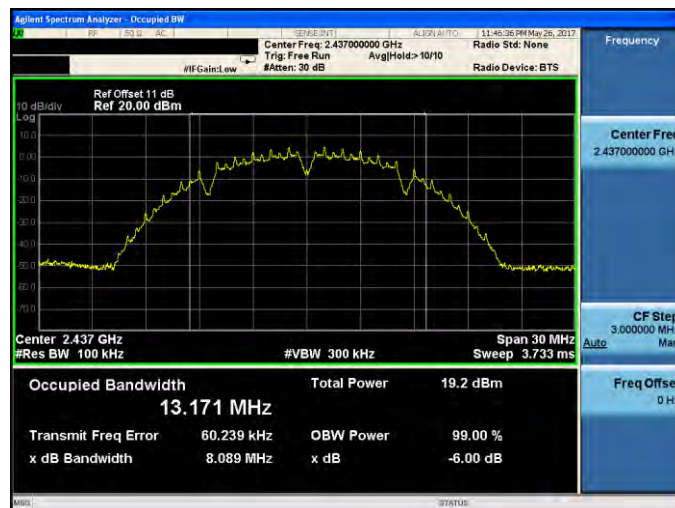


Mode 2: IEEE 802.11b Continuous TX mode_ANT-1

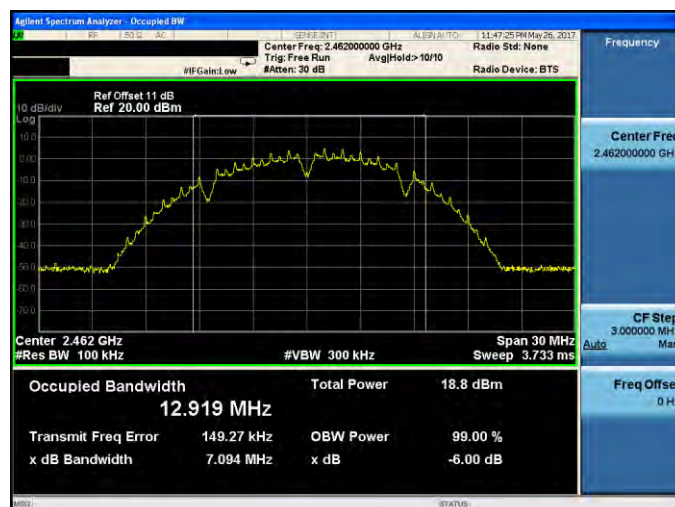
2412 MHz



2437 MHz



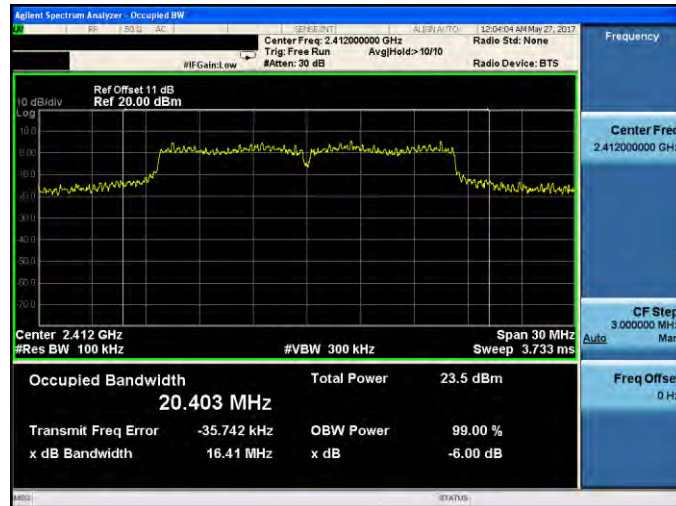
2462 MHz



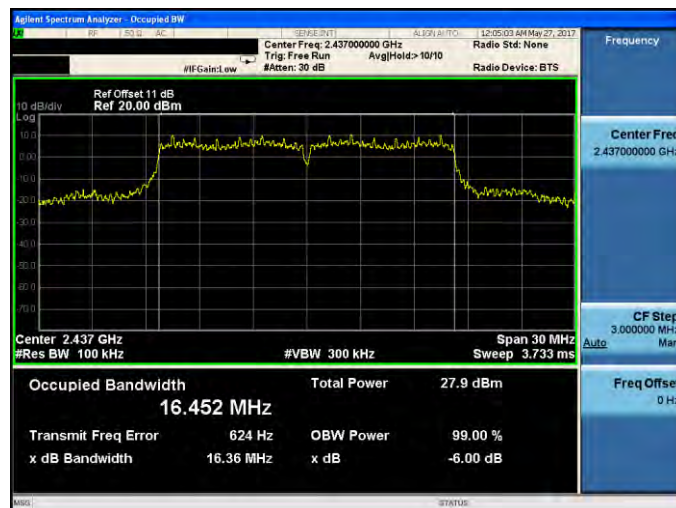


Mode 3: IEEE 802.11g Continuous TX mode_ANT-1

2412 MHz



2437 MHz



2462 MHz



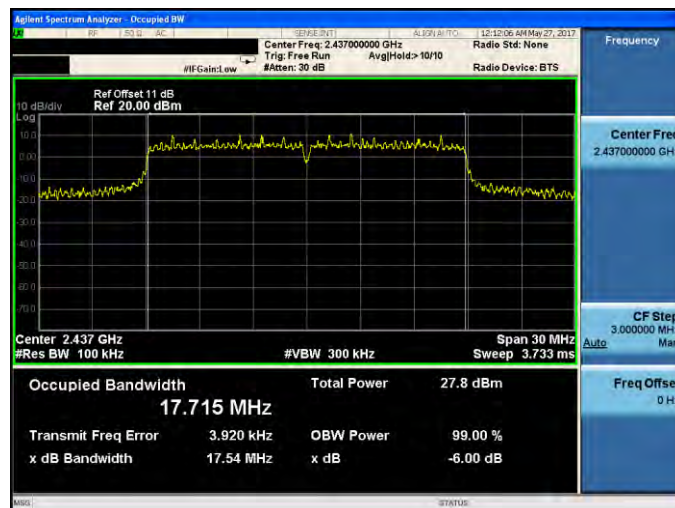


Mode 4: IEEE 802.11n 2.4GHz 20MHz Continuous TX mode_ANT-1

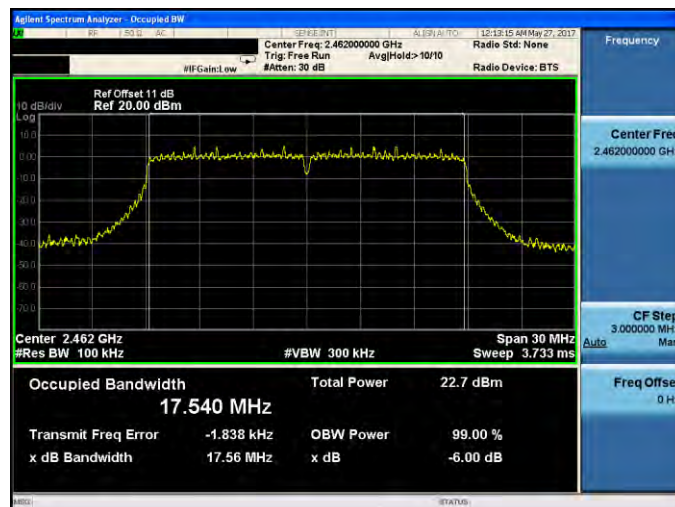
2412 MHz



2437 MHz



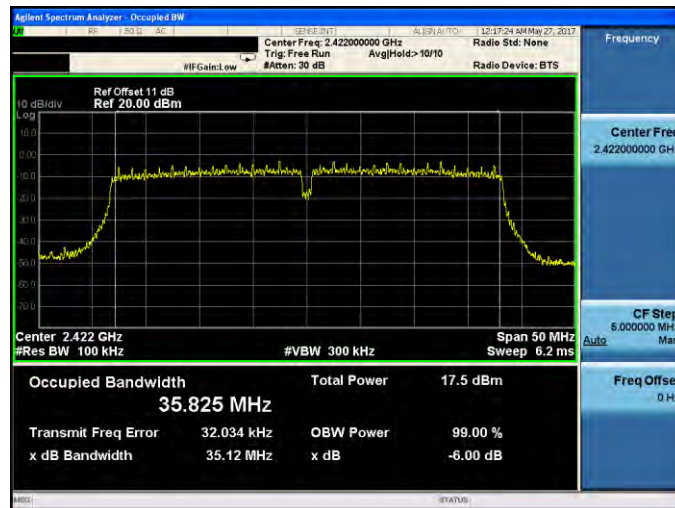
2462 MHz



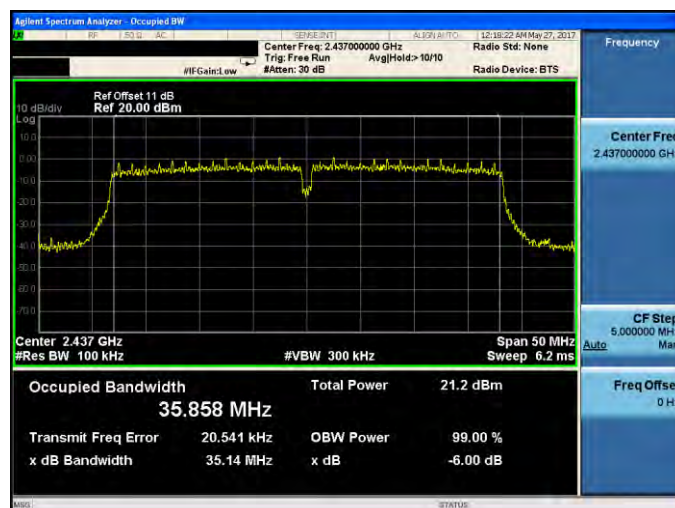


Mode 5: IEEE 802.11n 2.4GHz 40MHz Continuous TX mode_ANT-1

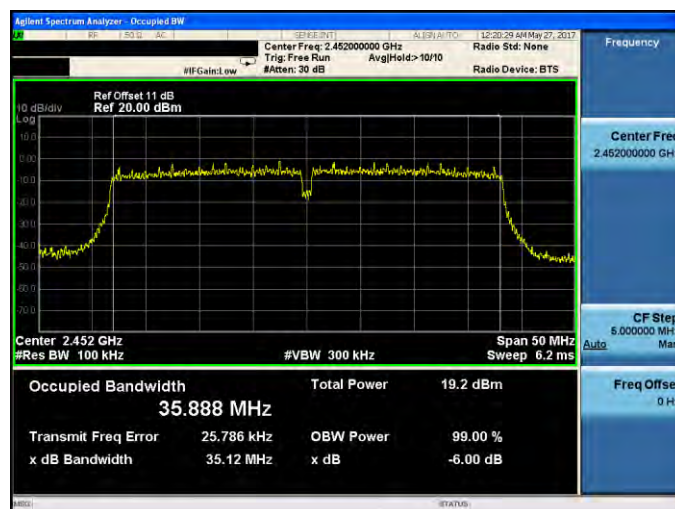
2422 MHz



2437 MHz



2452 MHz

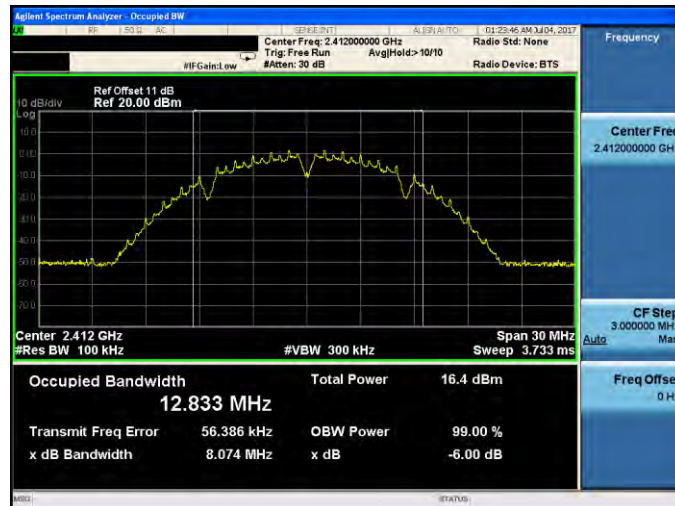




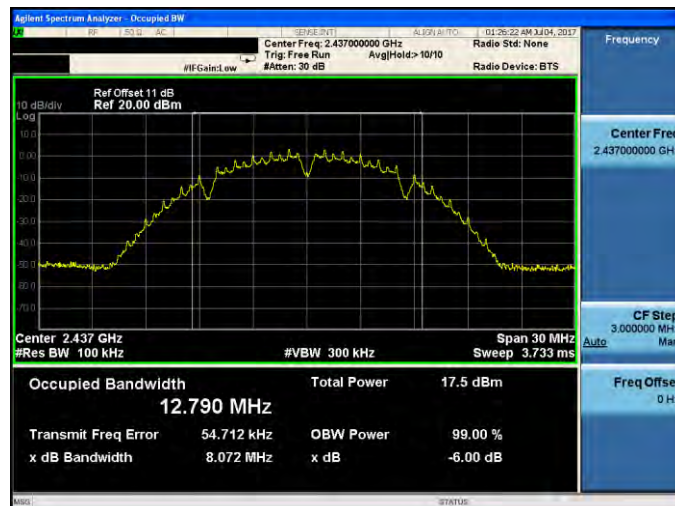
Beamforming on

Mode 2: IEEE 802.11b Continuous TX mode_ANT-0

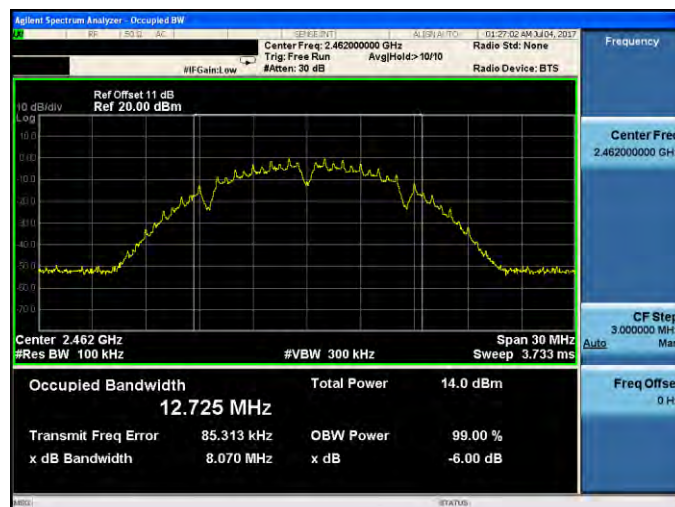
2412 MHz



2437 MHz



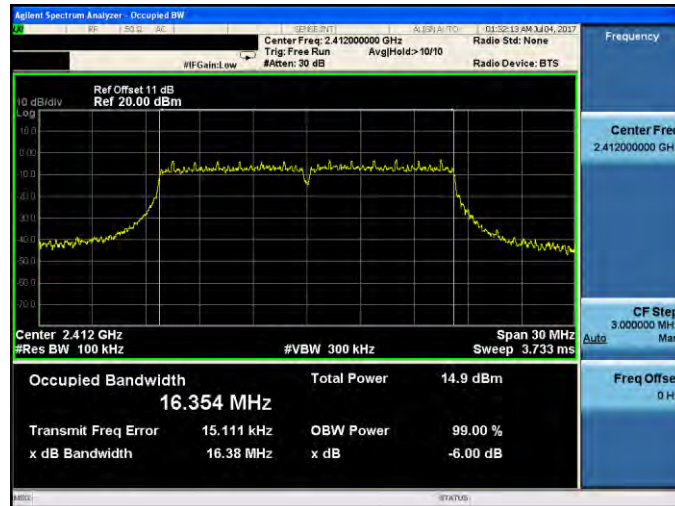
2462 MHz



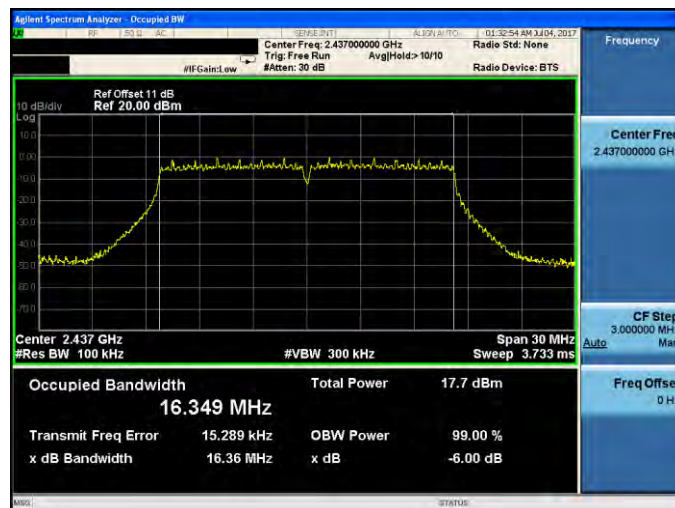


Mode 3: IEEE 802.11g Continuous TX mode_ANT-0

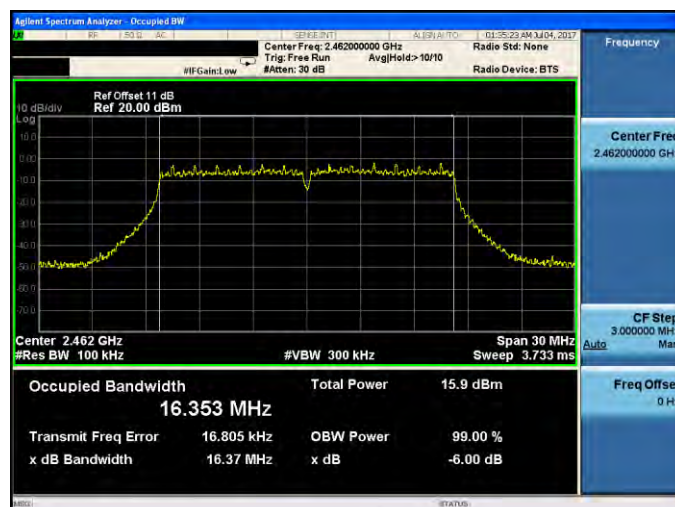
2412 MHz



2437 MHz



2462 MHz



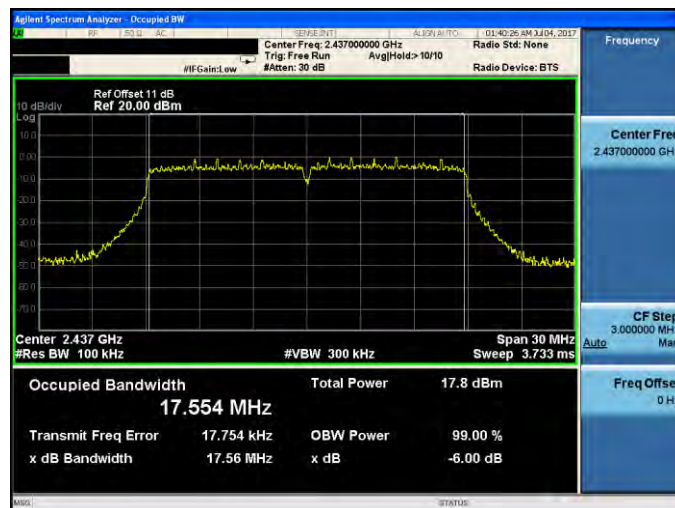


Mode 4: IEEE 802.11n 2.4GHz 20MHz Continuous TX mode_ANT-0

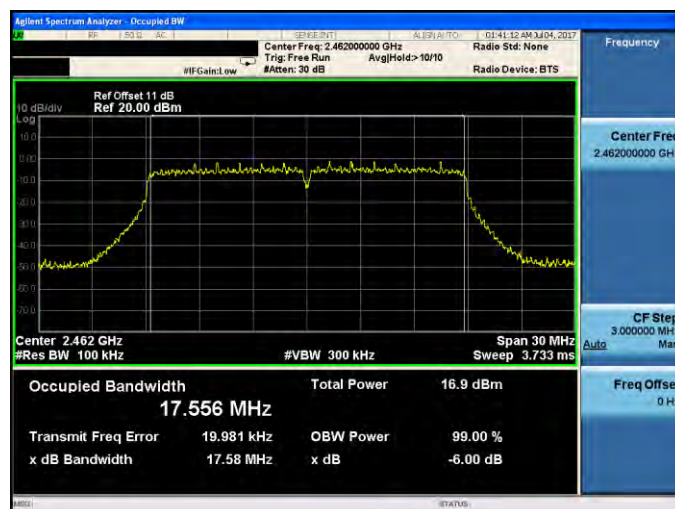
2412 MHz



2437 MHz



2462 MHz



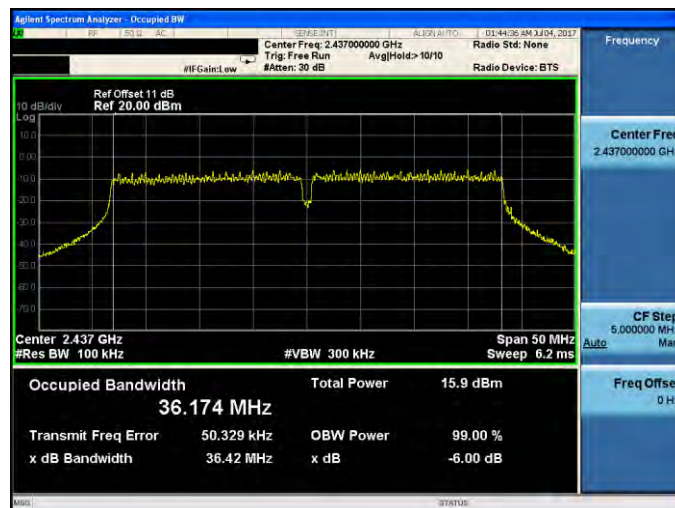


Mode 5: IEEE 802.11n 2.4GHz 40MHz Continuous TX mode_ANT-0

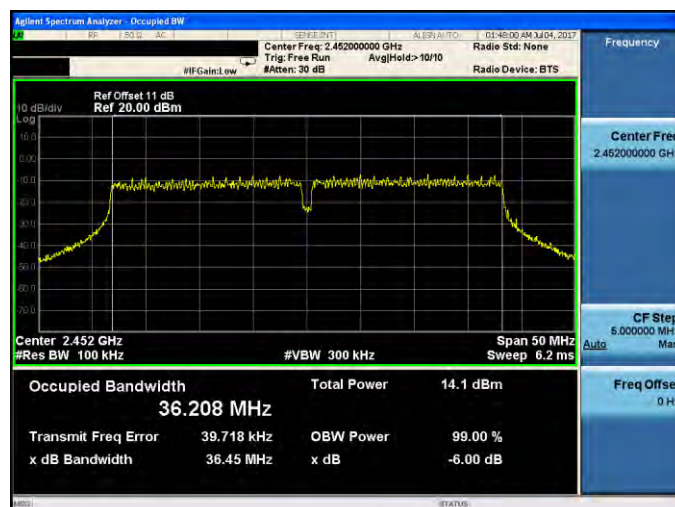
2422 MHz



2437 MHz



2452 MHz



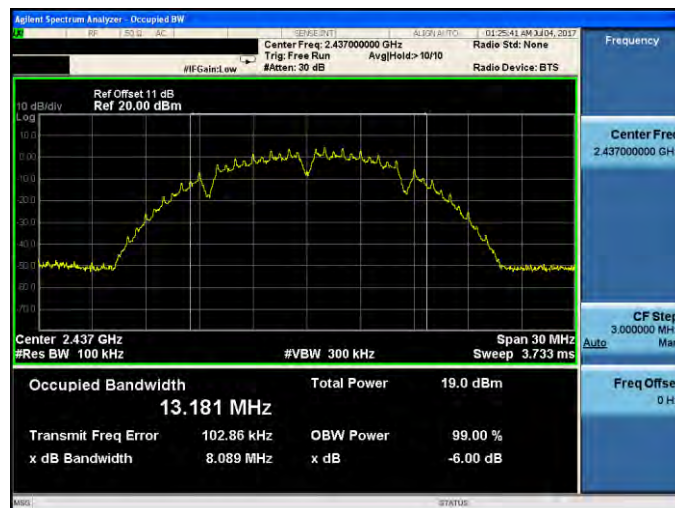


Mode 2: IEEE 802.11b Continuous TX mode_ANT-1

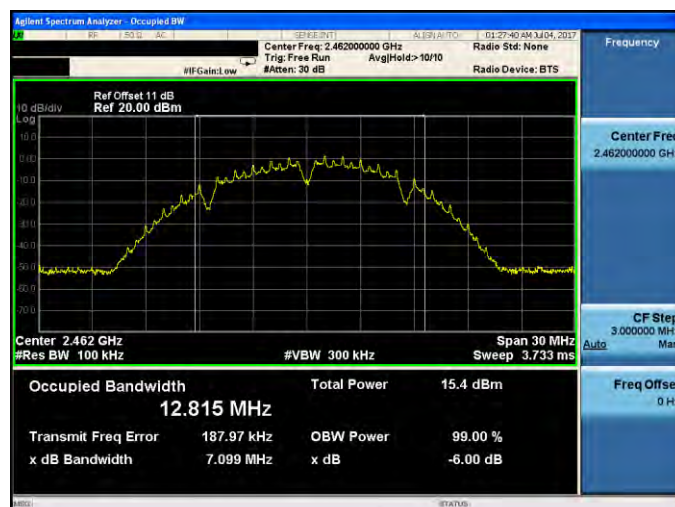
2412 MHz



2437 MHz



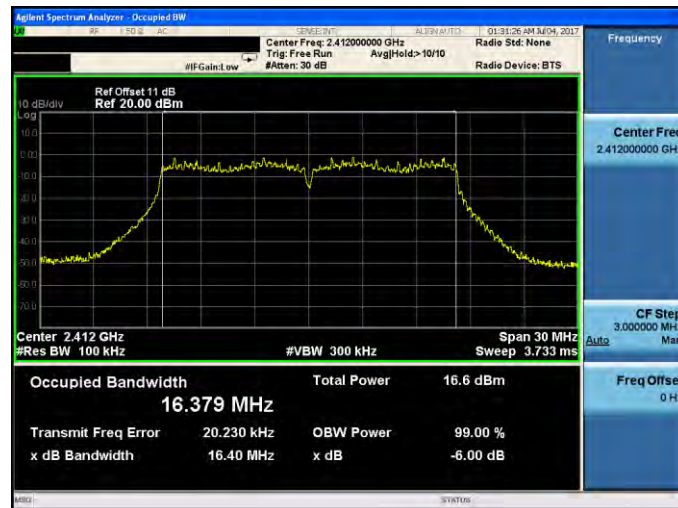
2462 MHz



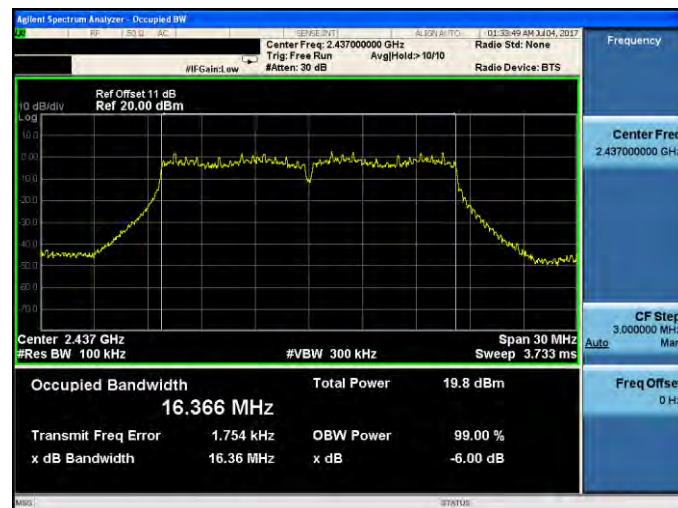


Mode 3: IEEE 802.11g Continuous TX mode_ANT-1

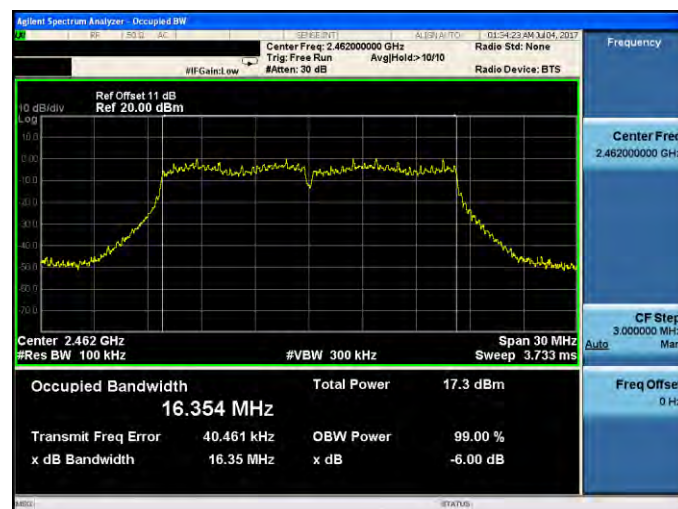
2412 MHz



2437 MHz



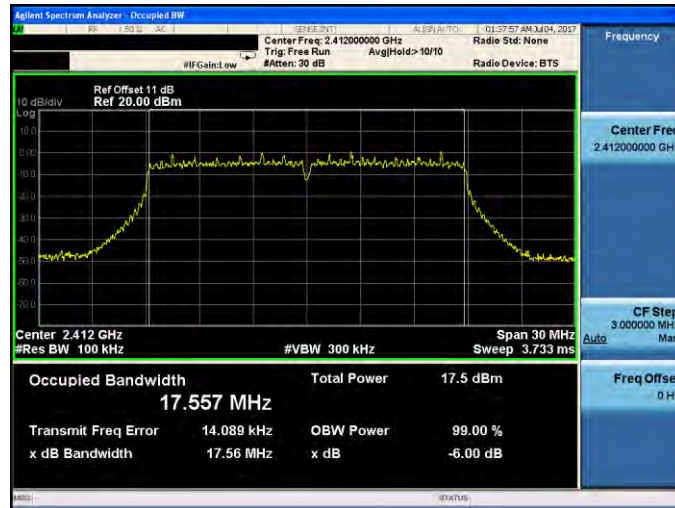
2462 MHz



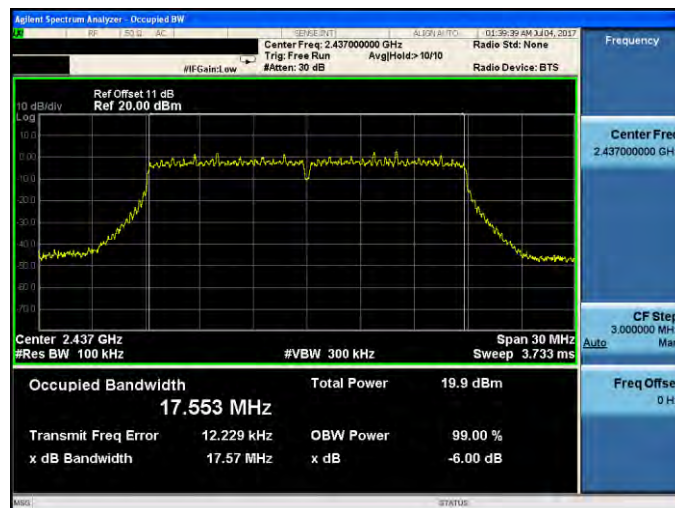


Mode 4: IEEE 802.11n 2.4GHz 20MHz Continuous TX mode_ANT-1

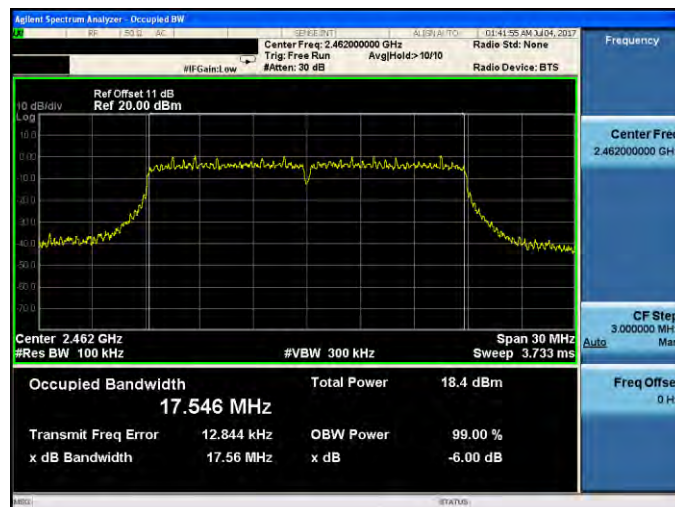
2412 MHz



2437 MHz



2462 MHz



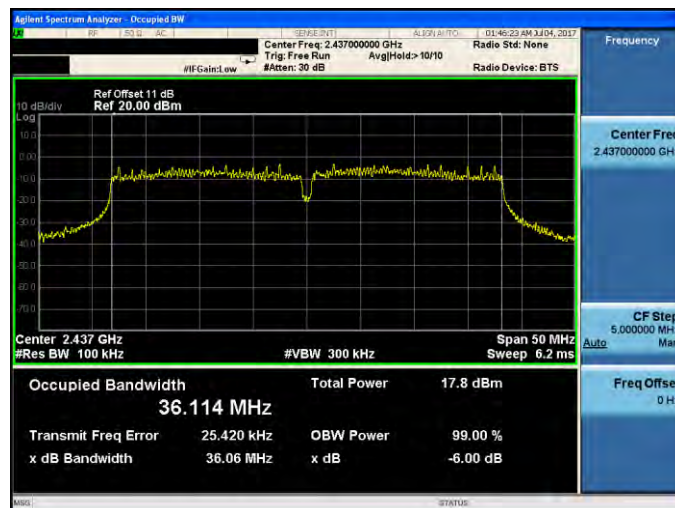


Mode 5: IEEE 802.11n 2.4GHz 40MHz Continuous TX mode_ANT-1

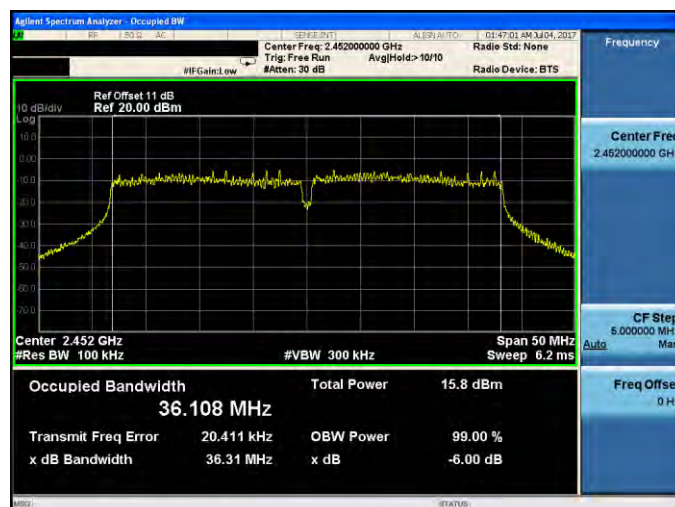
2422 MHz



2437 MHz



2452 MHz



8 Maximum Power Density Measurement

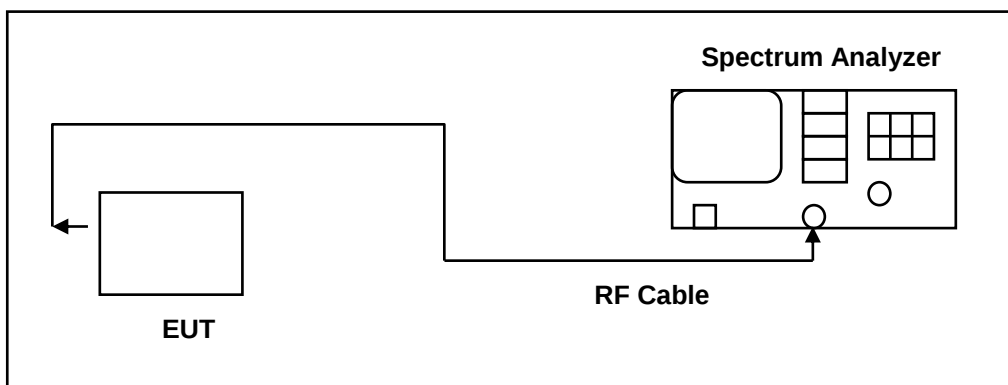
8.1. Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

* MIMO/BF mode : Directional Gain = $10 \cdot \log\{[10^{(G1/20)} + 10^{(G2/20)} + \dots + 10^{(Gn/20)}]^2 / N_{ANT}\} = 6.84 \text{ dBi} > 6 \text{ dBi}$

* MIMO/BF mode power limit shall be reduced = $8 - 0.84 = 7.16 \text{ dBm/3KHz}$

8.2. Test Setup



8.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
Spectrum Analyzer	Agilent	E4445A	MY45300744	12/19/2016	1 year
Microwave Cable	EMCI	EMC104-SM-SM-1500	140303	02/22/2017	1 year
Test Site	ATL	TE05	TE05	N.C.R.	-----

Note: N.C.R. = No Calibration Request.

8.4. Test Procedure

The EUT tested to DTS test procedure of KDB558074D01 for compliance to FCC 47CFR 15.247 requirements.

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS bandwidth.
3. Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
4. Set the VBW $\geq 3 \times \text{RBW}$.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level within the RBW.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

8.5. Test Result

Test Item	Maximum Power Density				
Test Mode	Frequency (MHz)	Measurement (dBm/3KHz)			Limit (dBm/3KHz)
		ANT-0	ANT-1	ANT-0+1	
Mode 2	2412	-10.065	-9.369	-6.693	< 7.16
	2437	-10.986	-9.114	-6.940	< 7.16
	2462	-10.567	-11.205	-7.864	< 7.16
Mode 3	2412	-10.254	-10.156	-7.194	< 7.16
	2437	-4.540	-3.569	-1.017	< 7.16
	2462	-10.393	-10.245	-7.308	< 7.16
Mode 4	2412	-10.670	-11.302	-7.964	< 7.16
	2437	-5.829	-5.573	-2.689	< 7.16
	2462	-10.622	-10.087	-7.336	< 7.16
Mode 5	2422	-15.917	-13.599	-11.595	< 7.16
	2437	-13.419	-11.958	-9.617	< 7.16
	2452	-15.506	-16.284	-12.867	< 7.16

Beamforming on

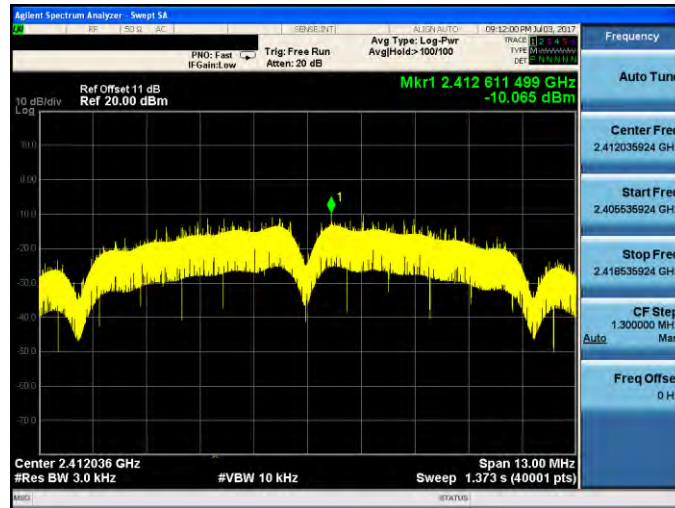
Test Mode	Frequency (MHz)	Measurement (dBm/3KHz)			Limit (dBm/3KHz)
		ANT-0	ANT-1	ANT-0+1	
Mode 2	2412	-15.320	-13.312	-11.191	< 7.16
	2437	-13.738	-12.974	-10.329	< 7.16
	2462	-16.902	-15.536	-13.155	< 7.16
Mode 3	2412	-17.311	-14.058	-12.376	< 7.16
	2437	-14.839	-12.893	-10.748	< 7.16
	2462	-16.701	-15.146	-12.844	< 7.16
Mode 4	2412	-17.023	-14.318	-12.453	< 7.16
	2437	-14.664	-13.054	-10.775	< 7.16
	2462	-15.092	-14.723	-11.893	< 7.16
Mode 5	2422	-18.208	-16.912	-14.502	< 7.16
	2437	-18.174	-16.453	-14.219	< 7.16
	2452	-19.502	-18.117	-15.744	< 7.16



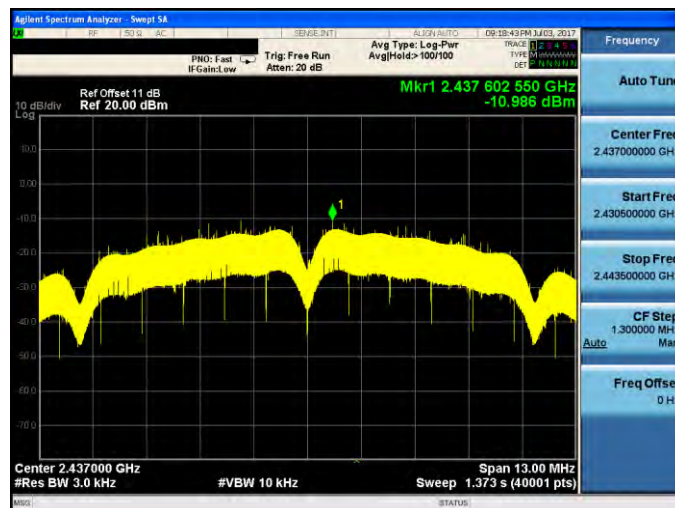
8.6. Test Graphs

Mode 2: IEEE 802.11b Continuous TX mode_ANT-0

2412 MHz



2437 MHz



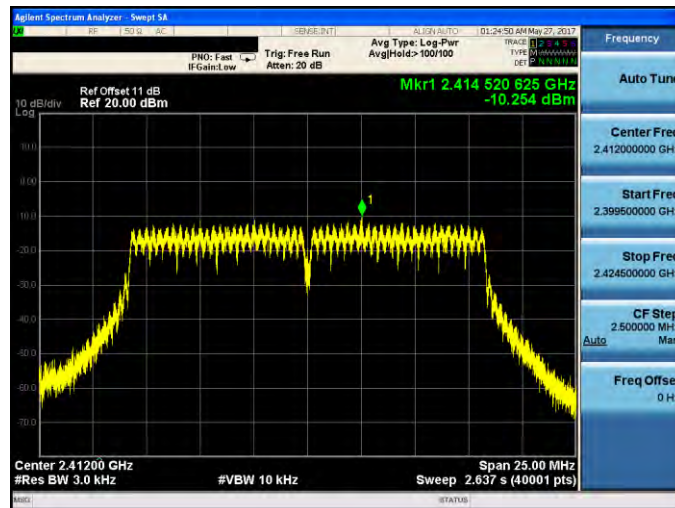
2462 MHz



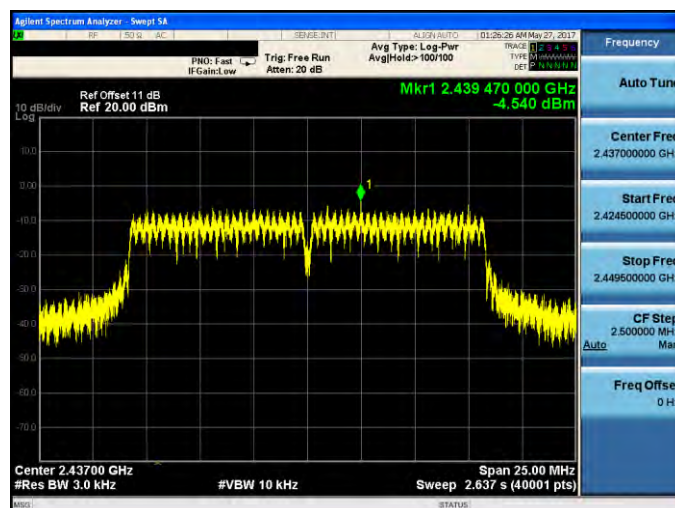


Mode 3: IEEE 802.11g Continuous TX mode_ANT-0

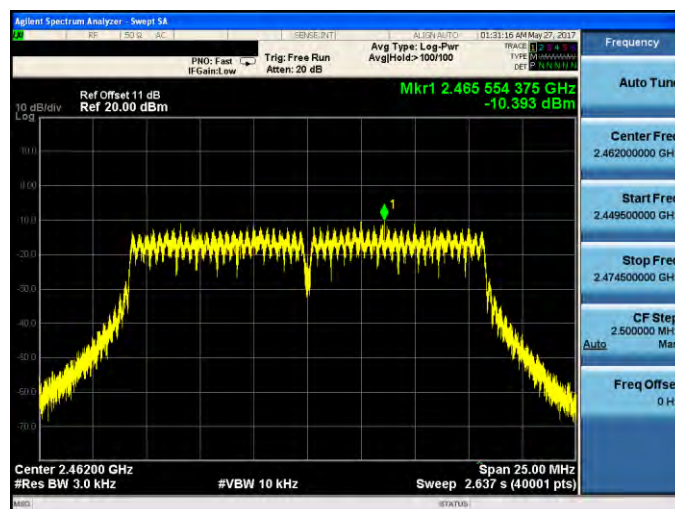
2412 MHz



2437 MHz



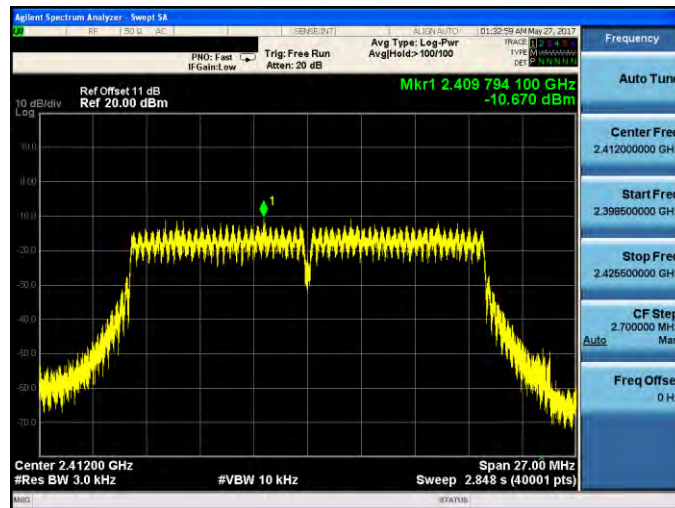
2462 MHz



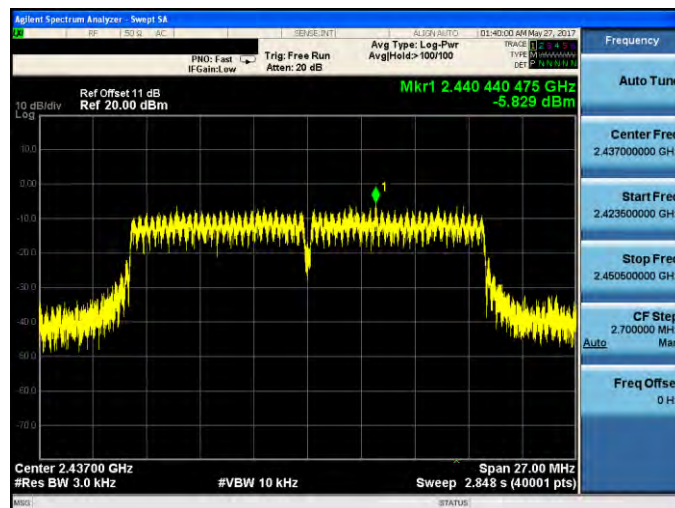


Mode 4: IEEE 802.11n 2.4GHz 20MHz Continuous TX mode_ANT-0

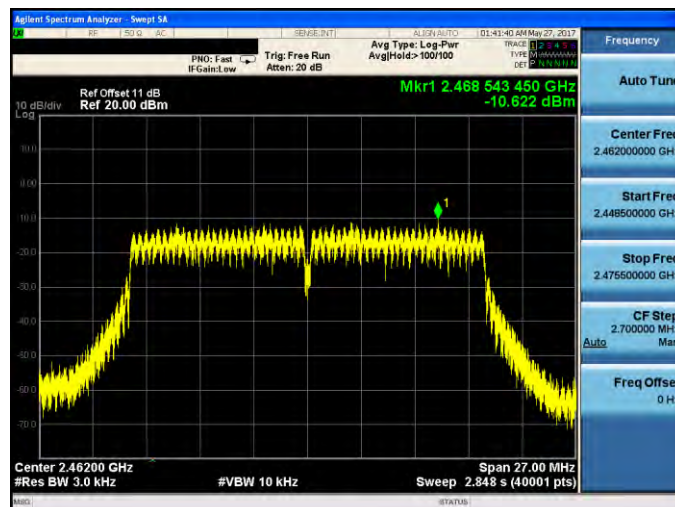
2412 MHz



2437 MHz



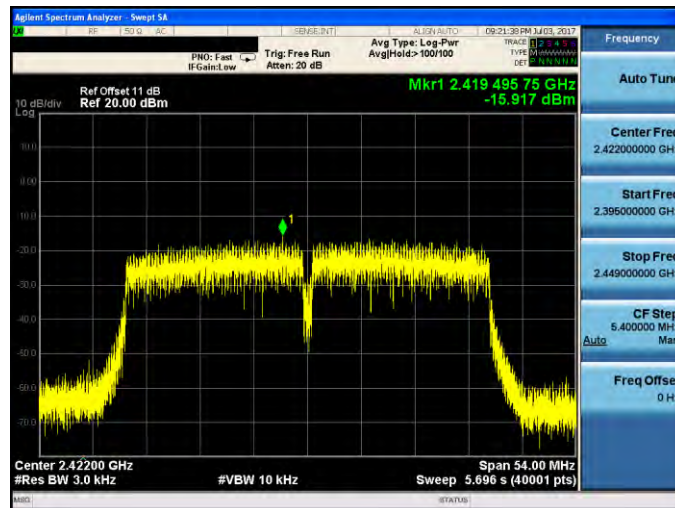
2462 MHz



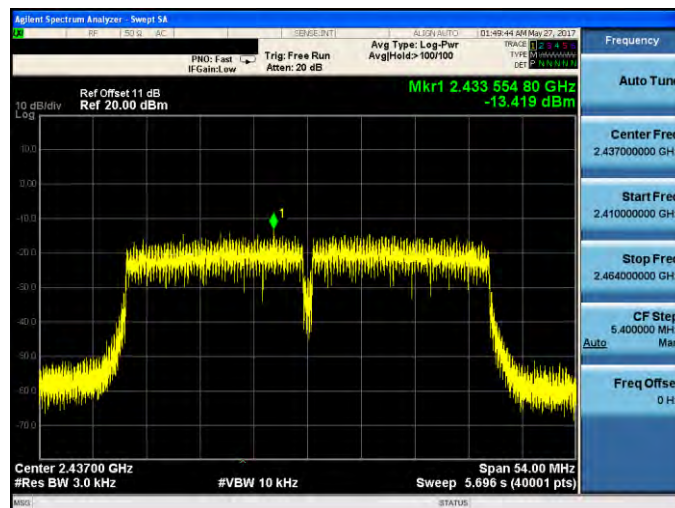


Mode 5: IEEE 802.11n 2.4GHz 40MHz Continuous TX mode_ANT-0

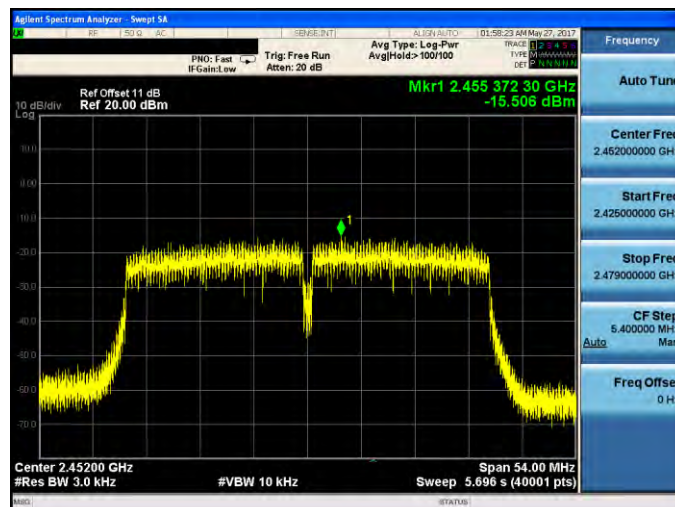
2422 MHz



2437 MHz



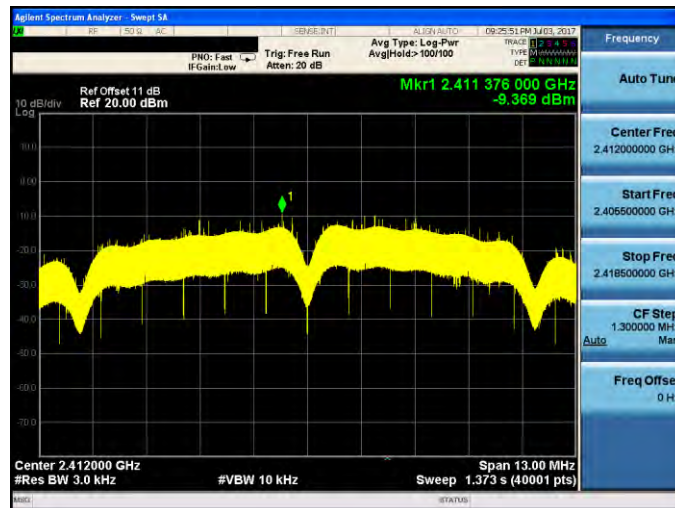
2452 MHz



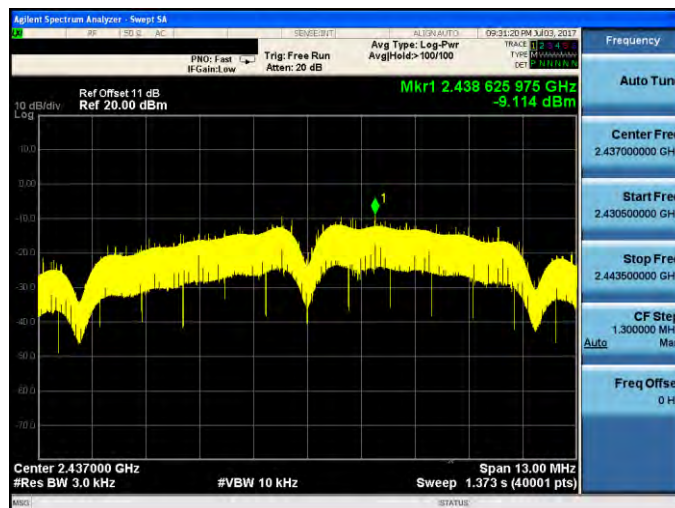


Mode 2: IEEE 802.11b Continuous TX mode_ANT-1

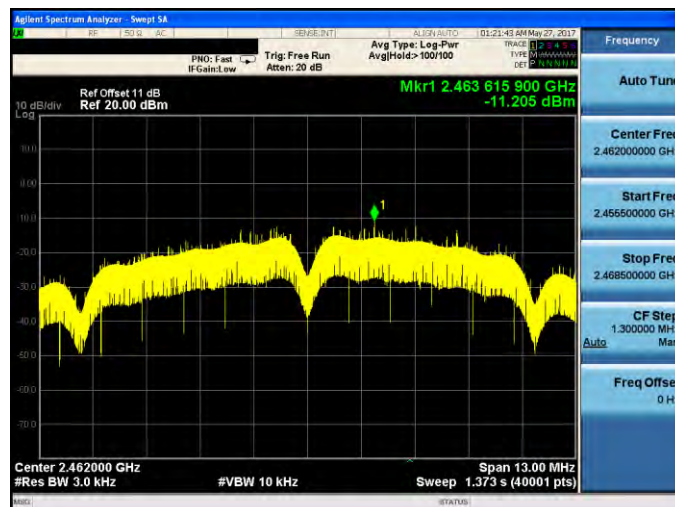
2412 MHz



2437 MHz



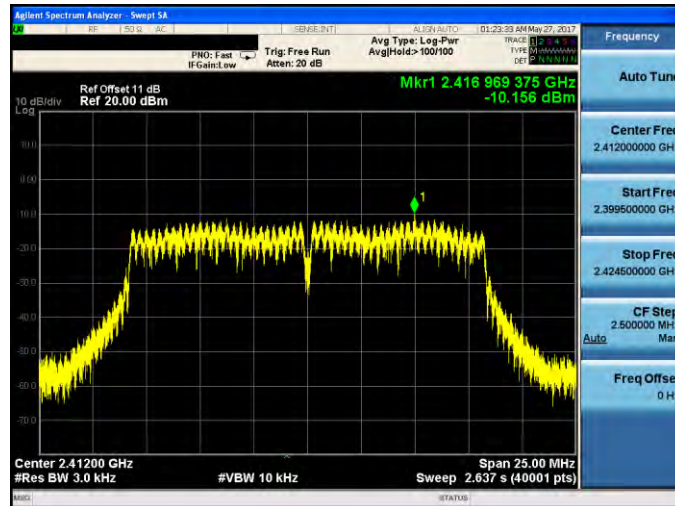
2462 MHz



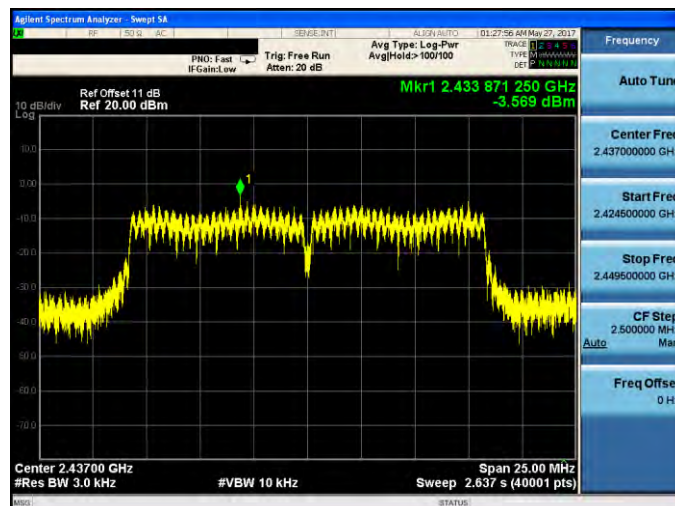


Mode 3: IEEE 802.11g Continuous TX mode_ANT-1

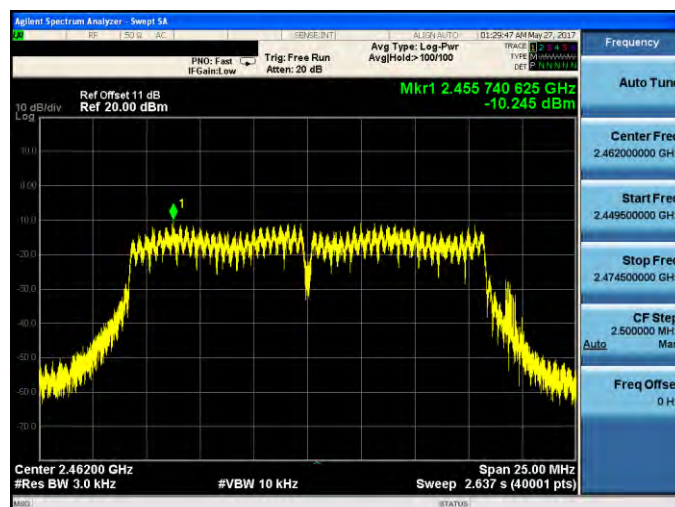
2412 MHz



2437 MHz



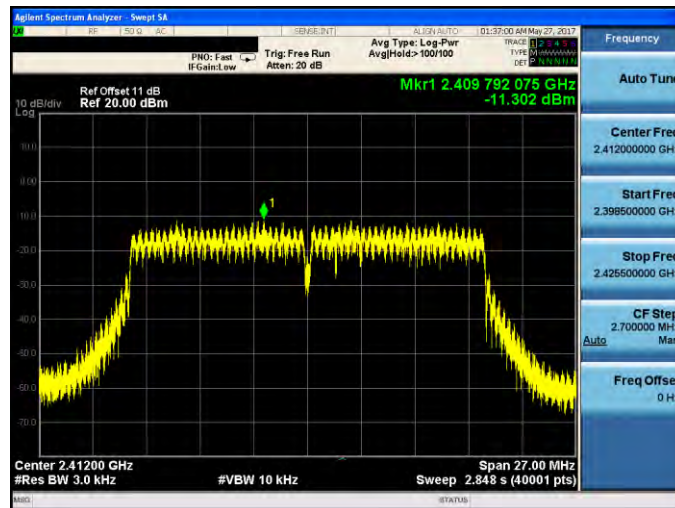
2462 MHz



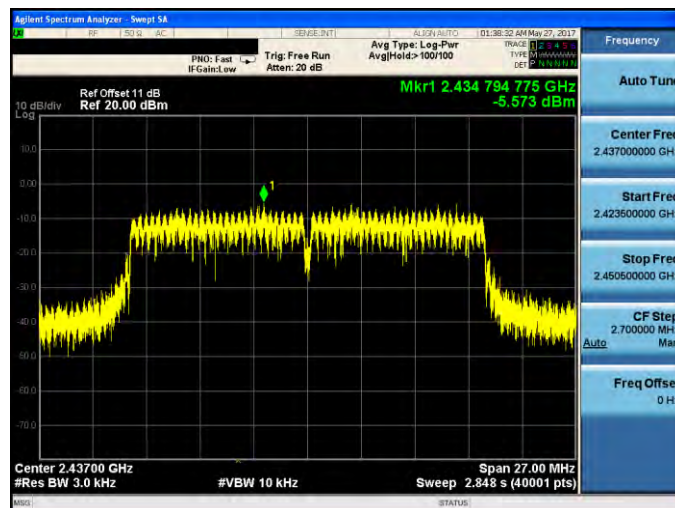


Mode 4: IEEE 802.11n 2.4GHz 20MHz Continuous TX mode_ANT-1

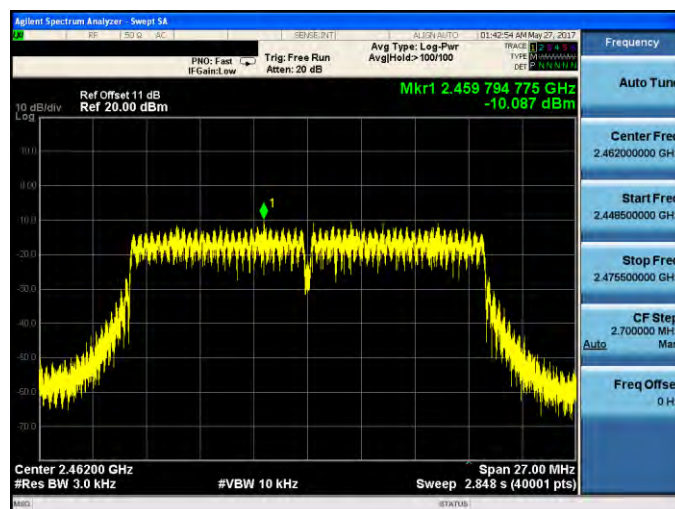
2412 MHz



2437 MHz



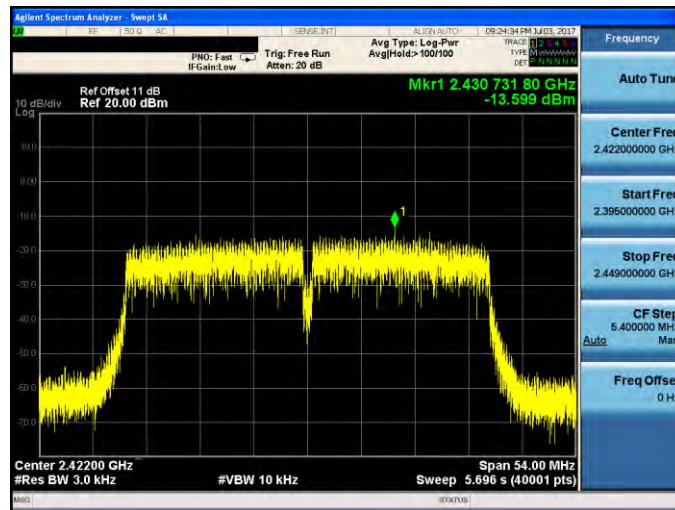
2462 MHz



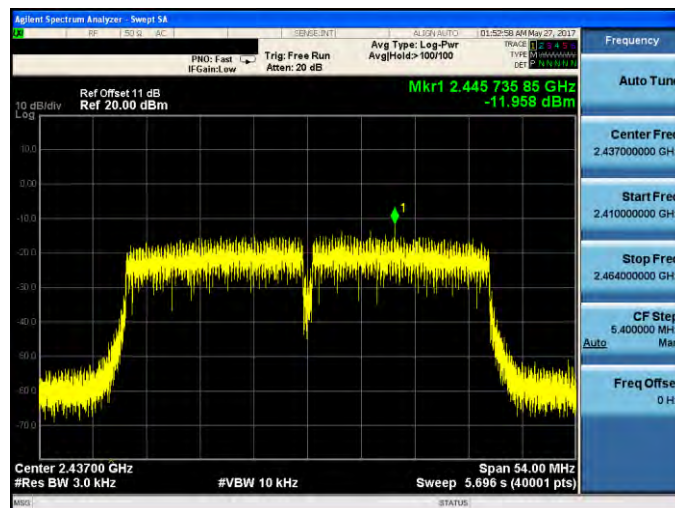


Mode 5: IEEE 802.11n 2.4GHz 40MHz Continuous TX mode_ANT-1

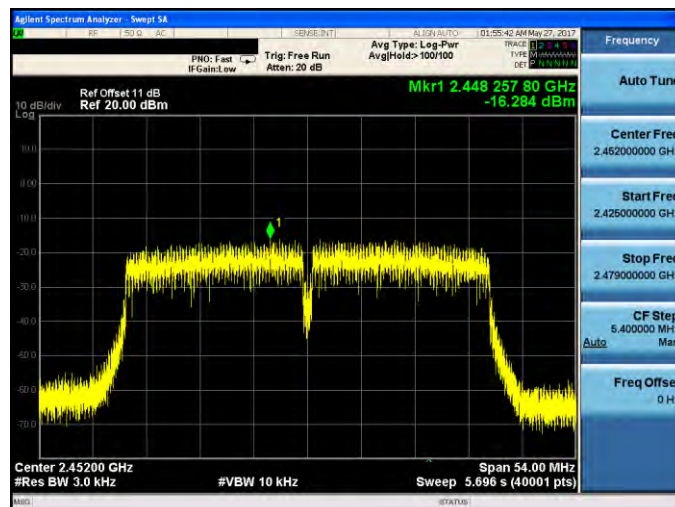
2422 MHz



2437 MHz



2452 MHz

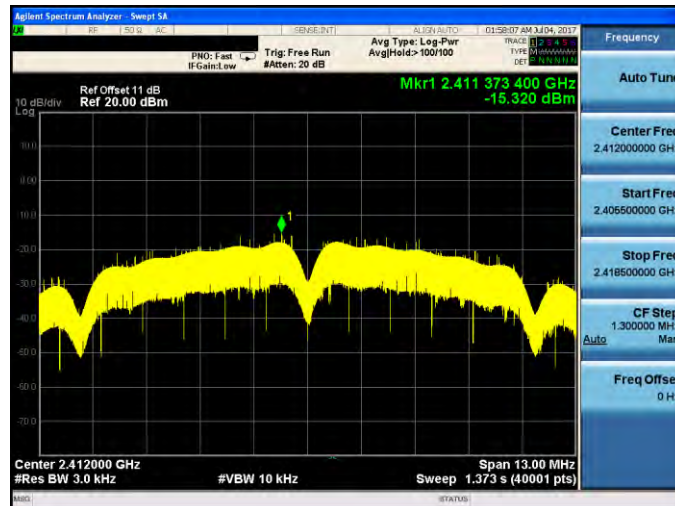




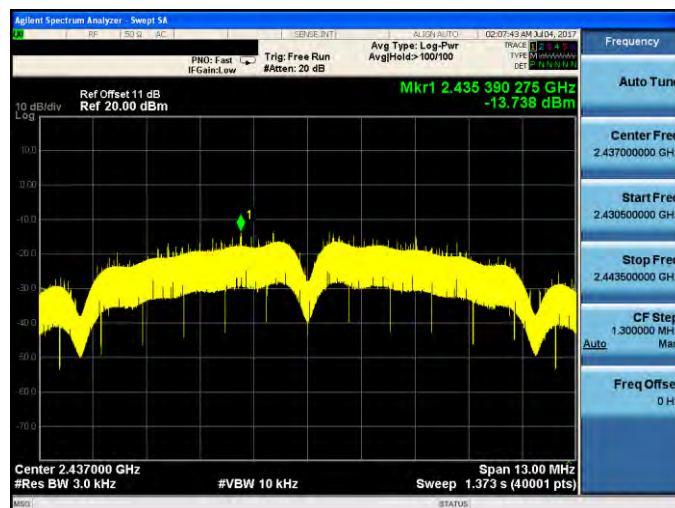
Beamforming on

Mode 2: IEEE 802.11b Continuous TX mode_ANT-0

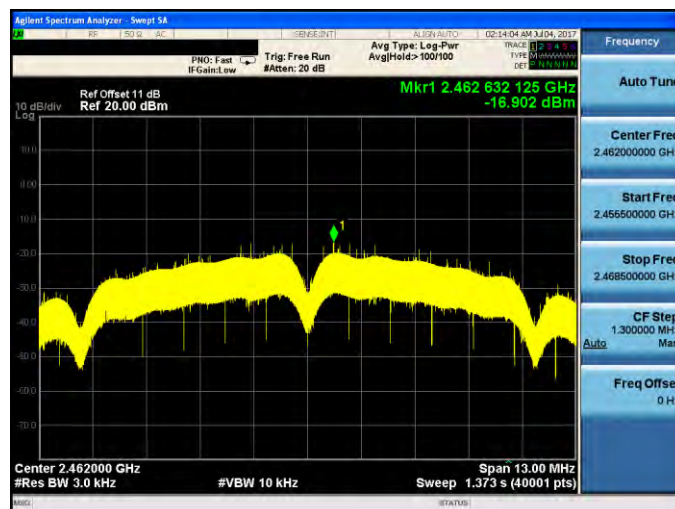
2412 MHz



2437 MHz



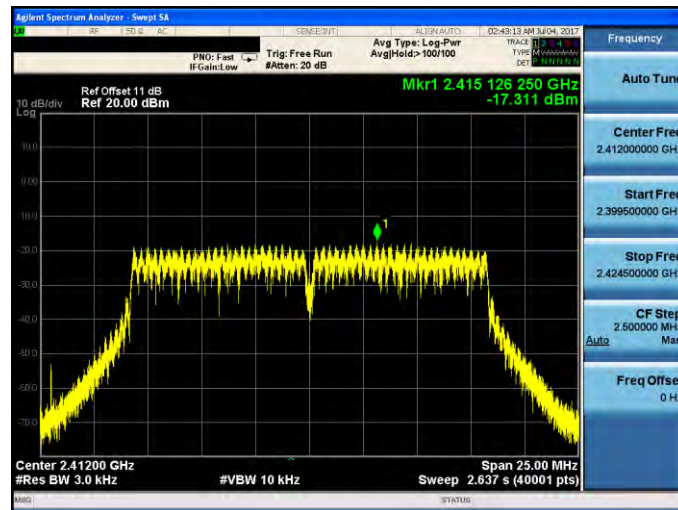
2462 MHz



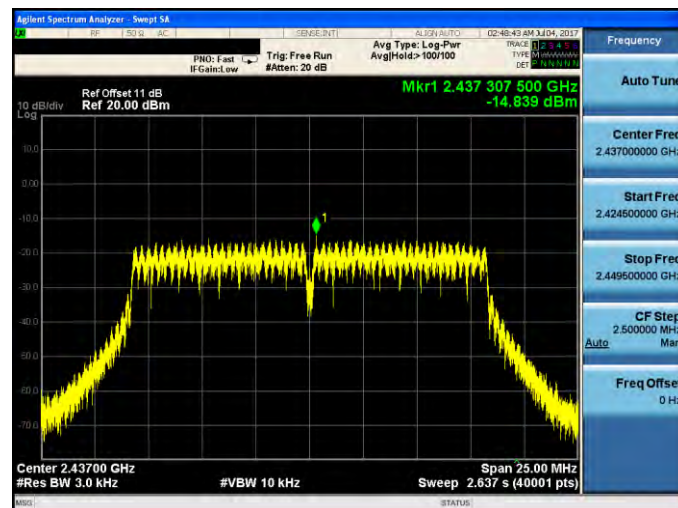


Mode 3: IEEE 802.11g Continuous TX mode_ANT-0

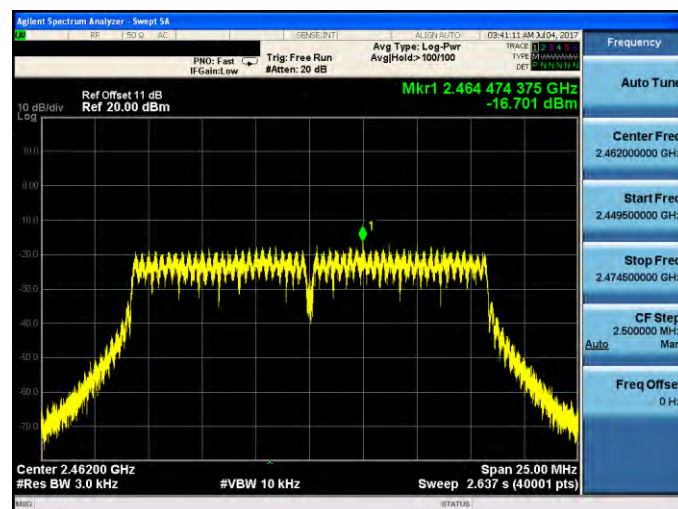
2412 MHz



2437 MHz



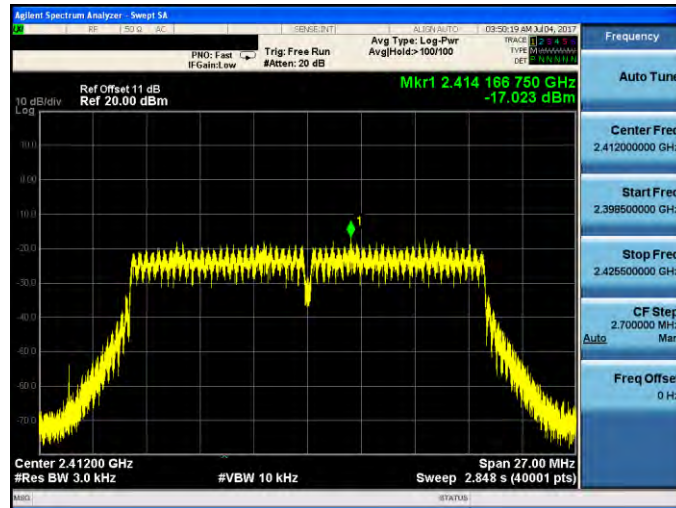
2462 MHz



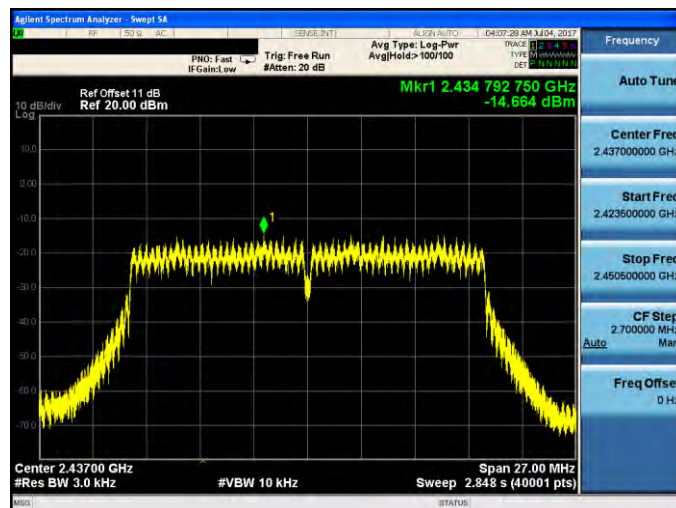


Mode 4: IEEE 802.11n 2.4GHz 20MHz Continuous TX mode_ANT-0

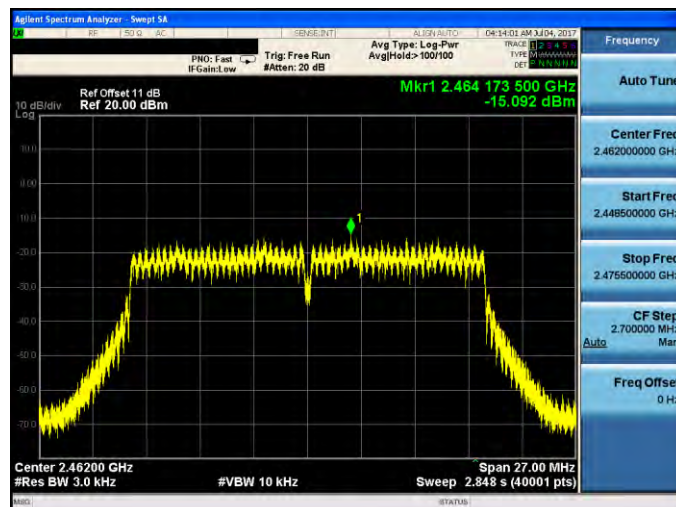
2412 MHz



2437 MHz



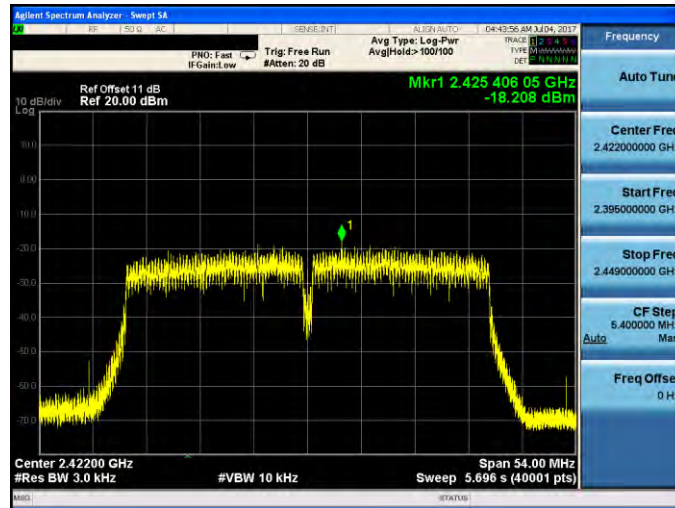
2462 MHz



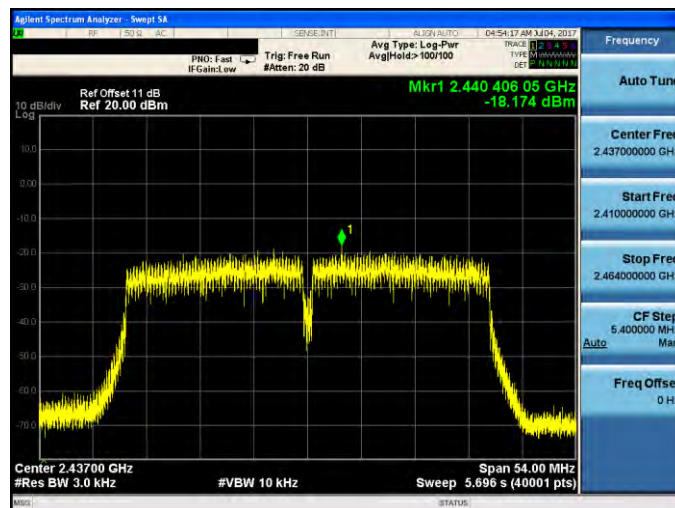


Mode 5: IEEE 802.11n 2.4GHz 40MHz Continuous TX mode_ANT-0

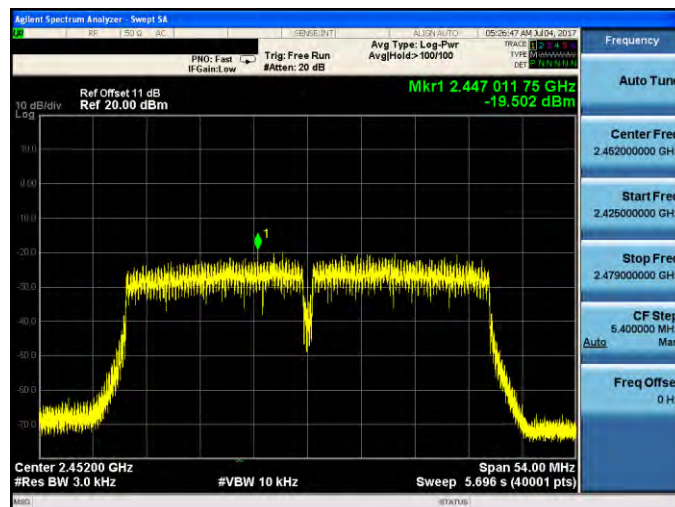
2422 MHz



2437 MHz



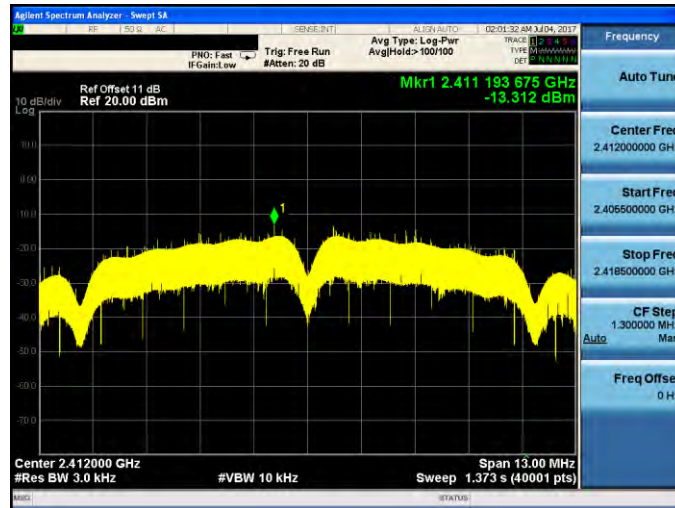
2452 MHz



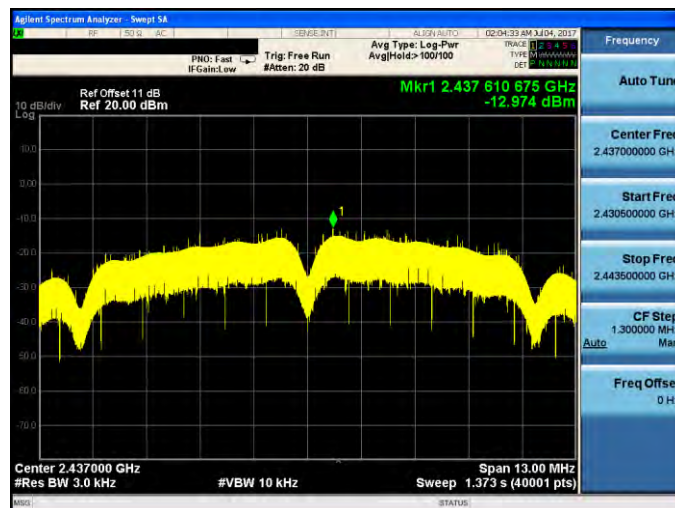


Mode 2: IEEE 802.11b Continuous TX mode_ANT-1

2412 MHz



2437 MHz



2462 MHz

