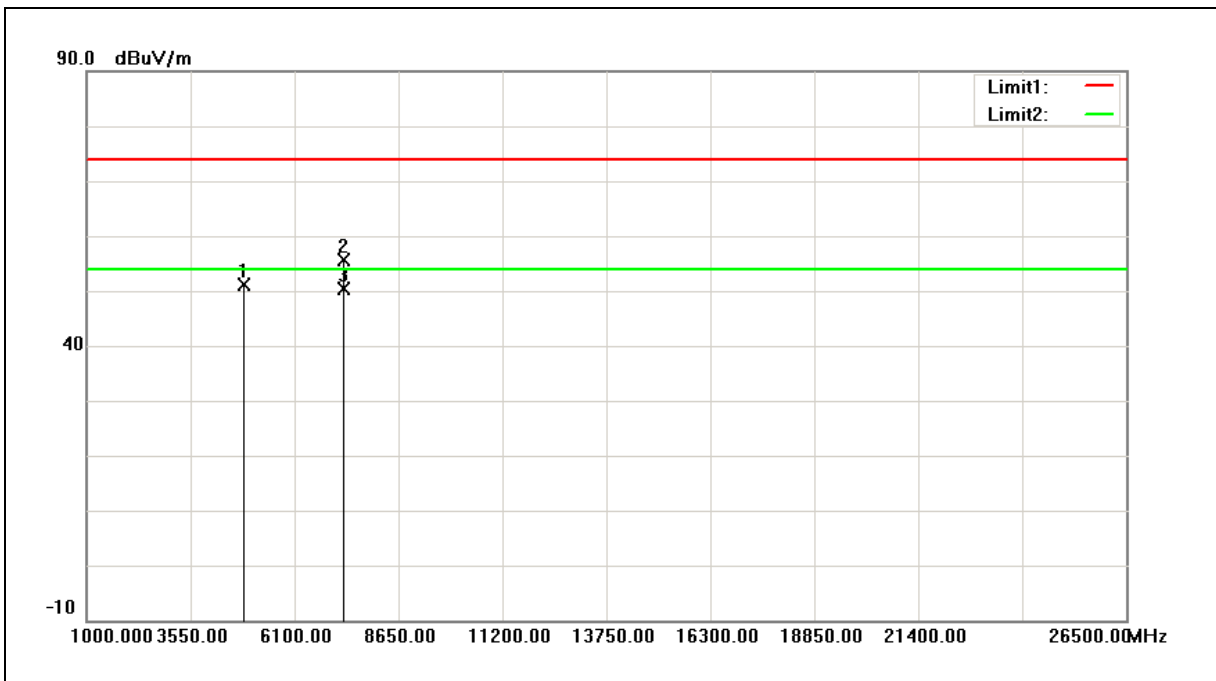




Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	2437MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4	Date:	04/10/2017
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	58.20	-6.95	51.25	74.00	-22.75	peak
2	7311.000	55.74	-0.16	55.58	74.00	-18.42	peak
3	7311.000	50.50	-0.16	50.34	54.00	-3.66	AVG

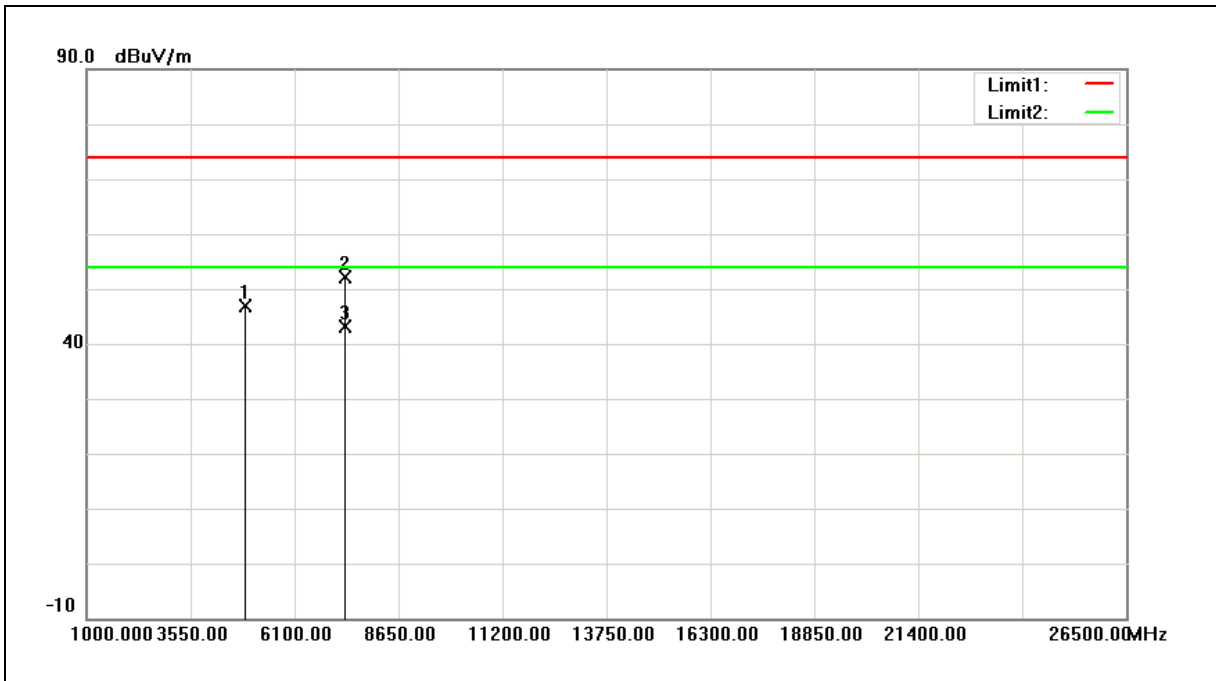
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 4	Date:	04/10/2017
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4904.000	53.71	-6.86	46.85	74.00	-27.15	peak
2	7356.000	52.09	0.01	52.10	74.00	-21.90	peak
3	7356.000	43.08	0.01	43.09	54.00	-10.91	AVG

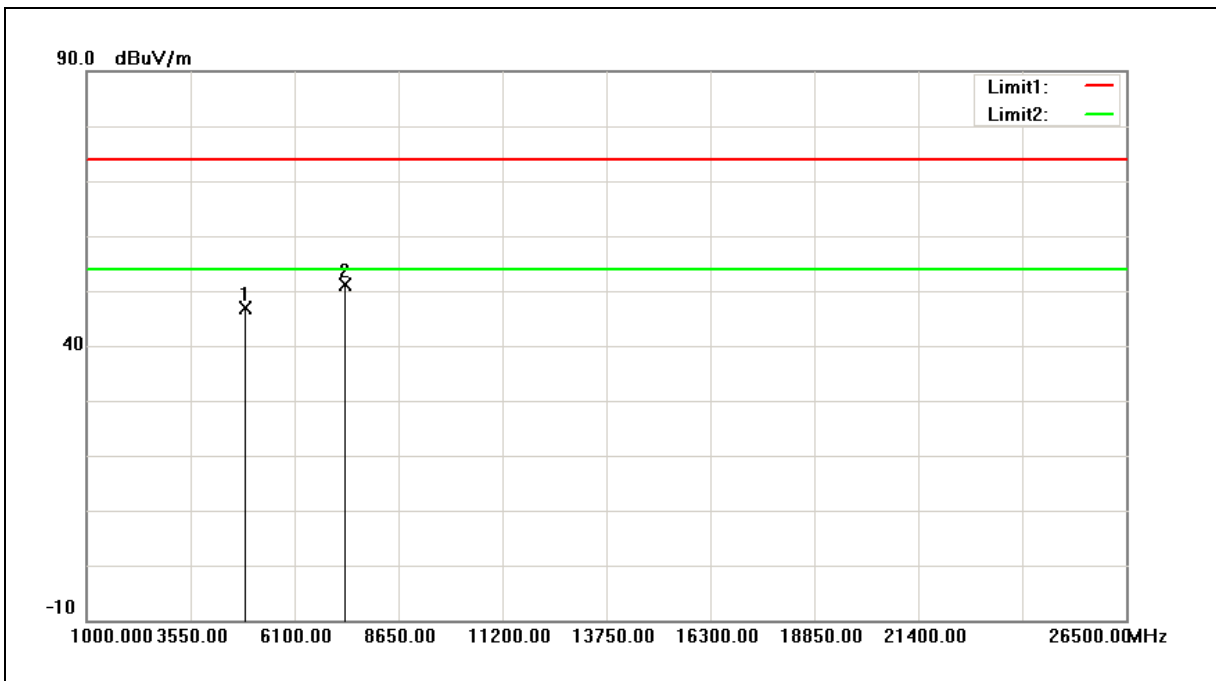
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 4	Date:	04/10/2017
Ant.Polar.:	Vertical		

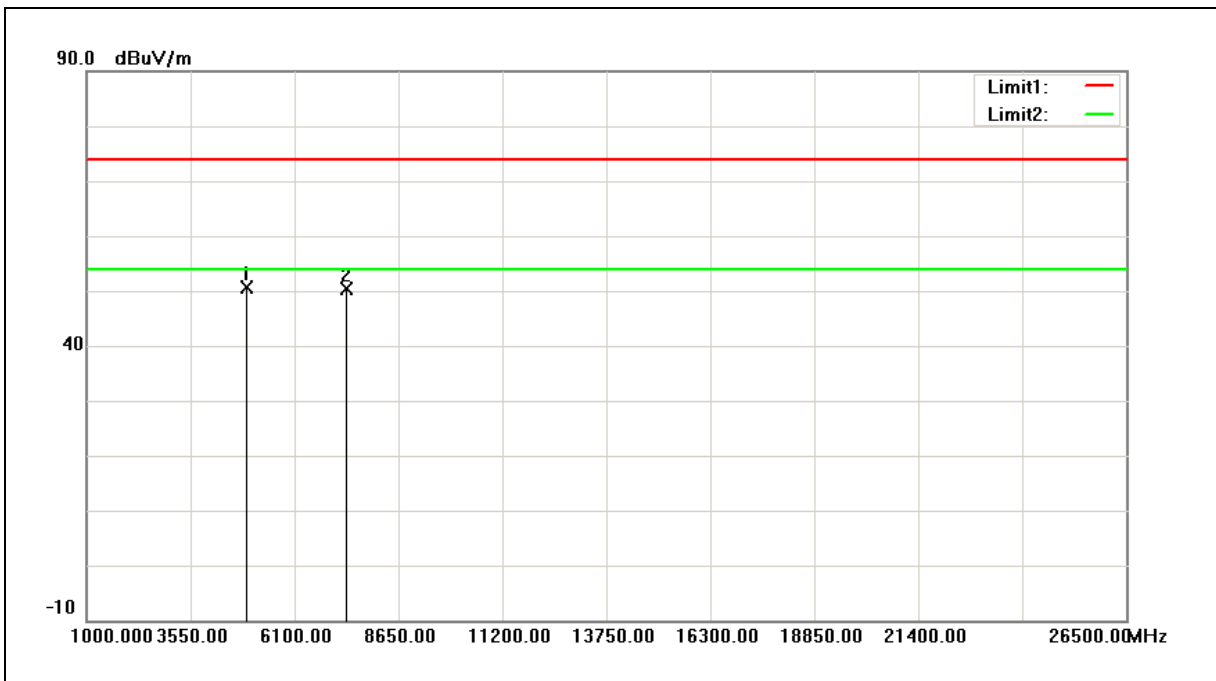


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4904.000	53.68	-6.86	46.82	74.00	-27.18	peak
2	7356.000	51.14	0.01	51.15	74.00	-22.85	peak

- 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:	2457MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4	Date:	04/10/2017
Ant.Polar.:	Horizontal		

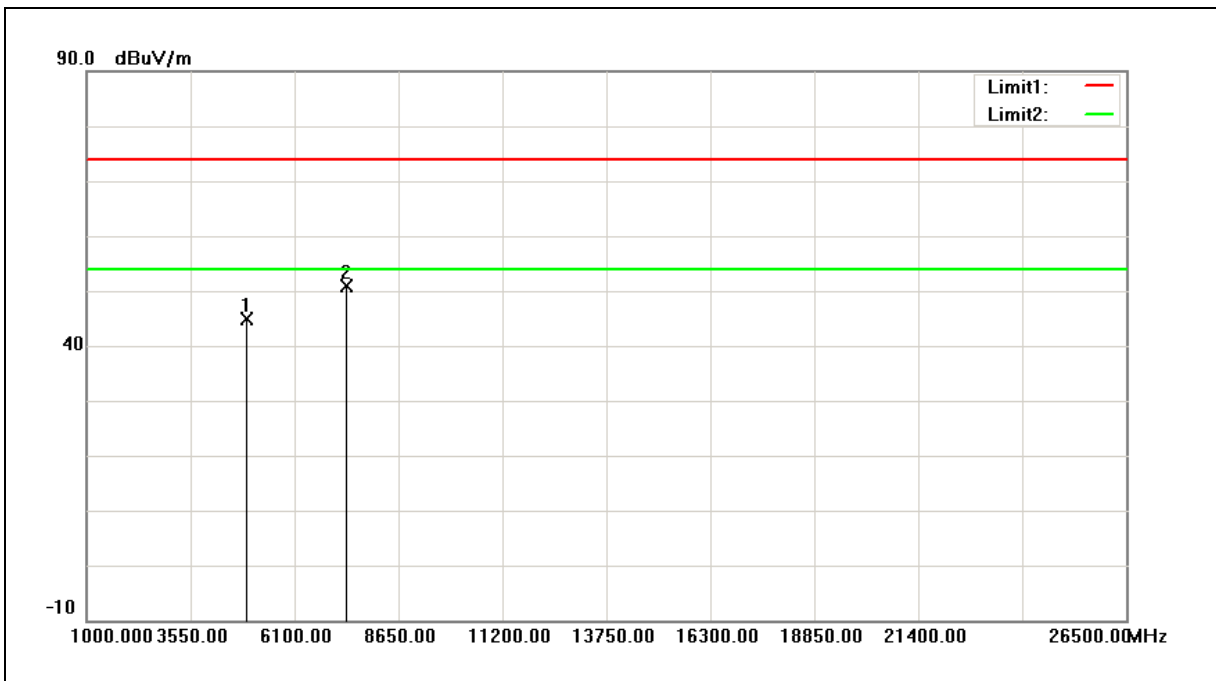


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4914.000	57.45	-6.83	50.62	74.00	-23.38	peak
2	7371.000	50.32	0.06	50.38	74.00	-23.62	peak

- 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:	2457MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4	Date:	04/10/2017
Ant.Polar.:	Vertical		

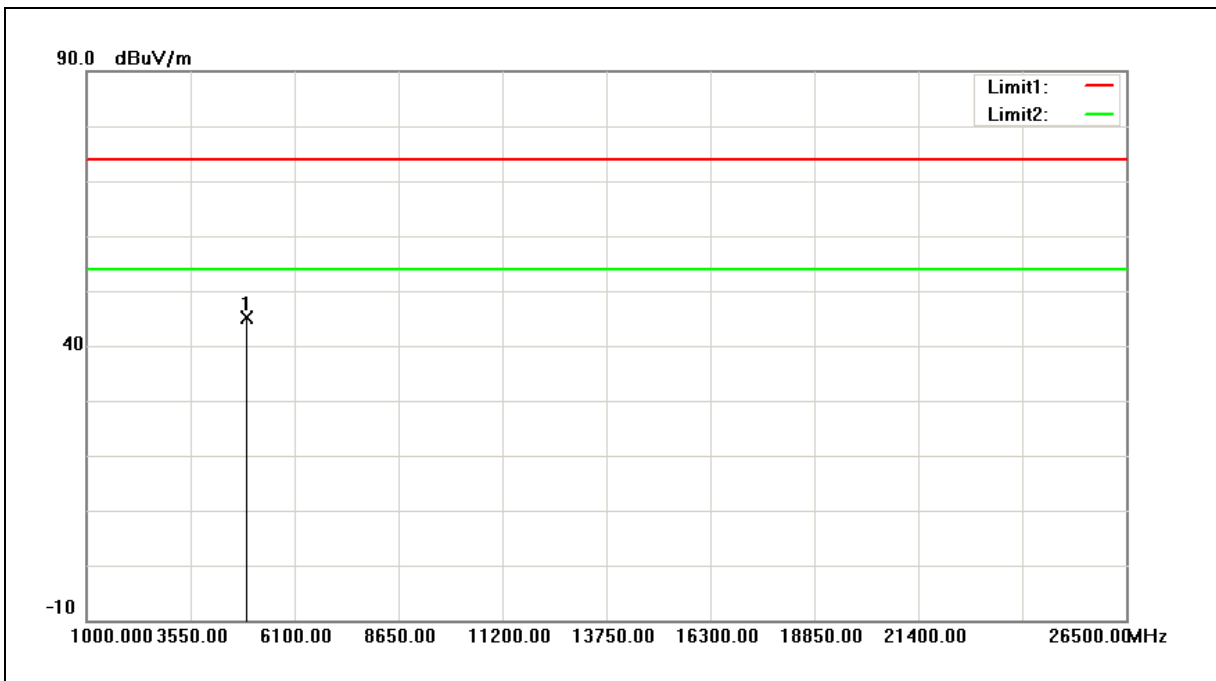


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4914.000	51.72	-6.83	44.89	74.00	-29.11	peak
2	7371.000	50.81	0.06	50.87	74.00	-23.13	peak

- 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:	2462MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4	Date:	04/10/2017
Ant.Polar.:	Horizontal		

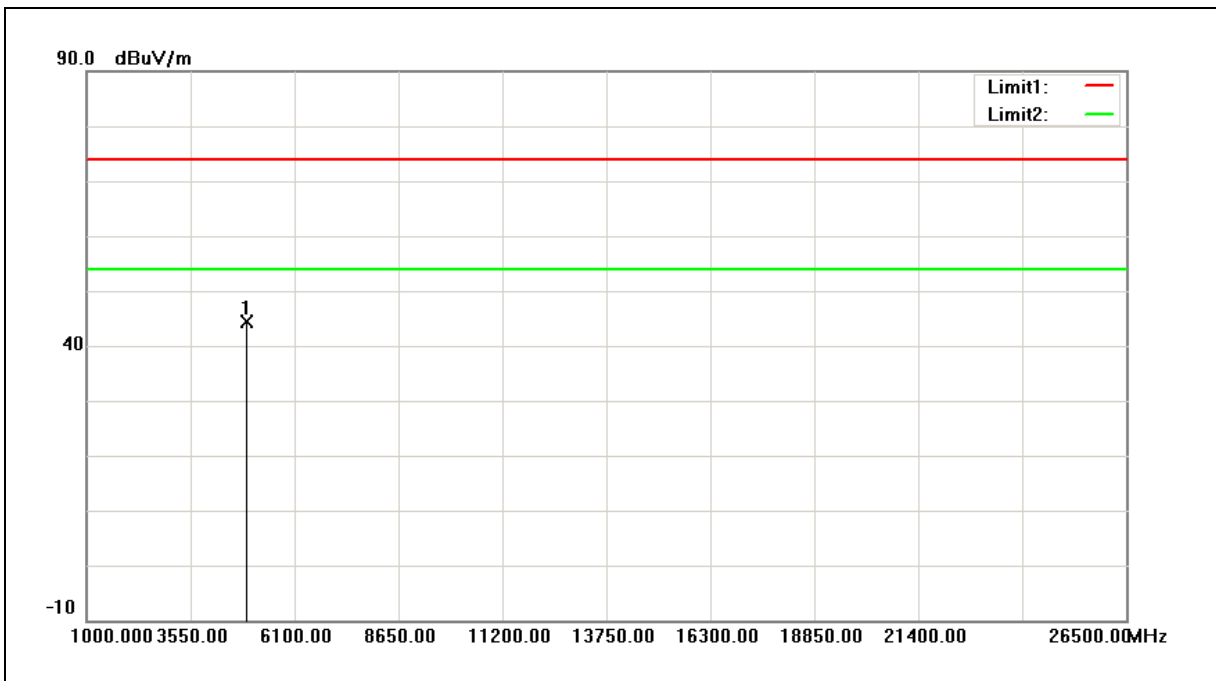


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	52.00	-6.81	45.19	74.00	-28.81	peak

- 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:	2462MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4	Date:	04/10/2017
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	51.16	-6.81	44.35	74.00	-29.65	peak

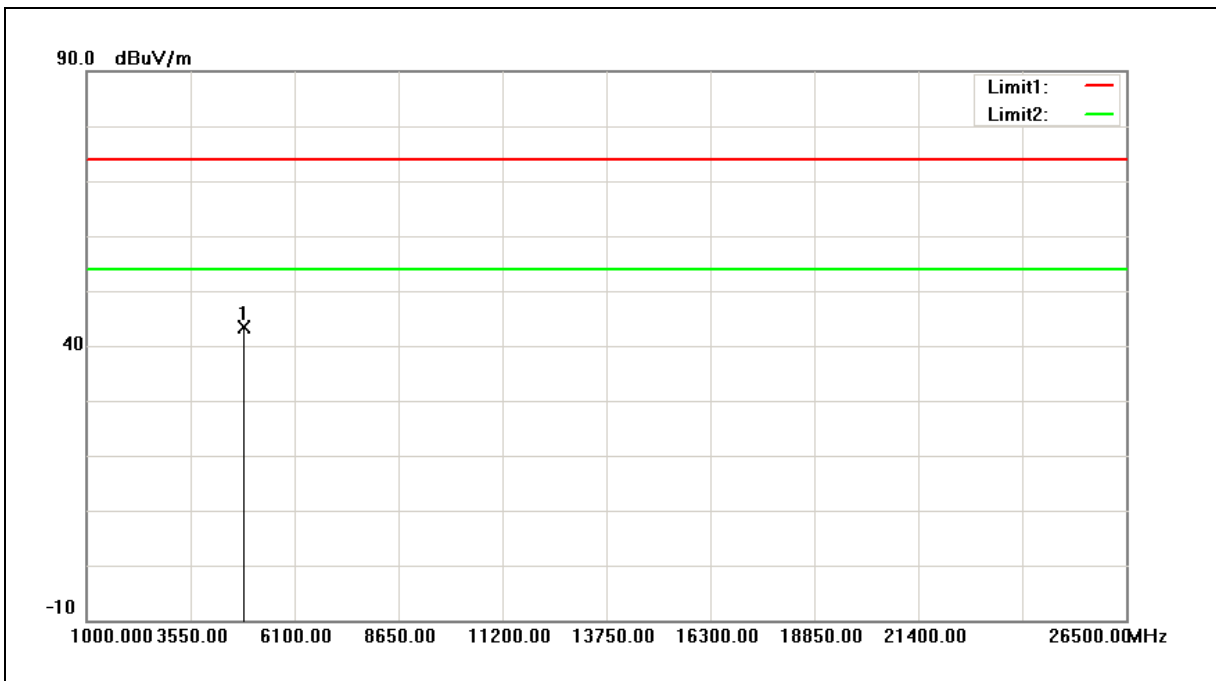
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	04/10/2017
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4844.000	50.31	-7.03	43.28	74.00	-30.72	peak

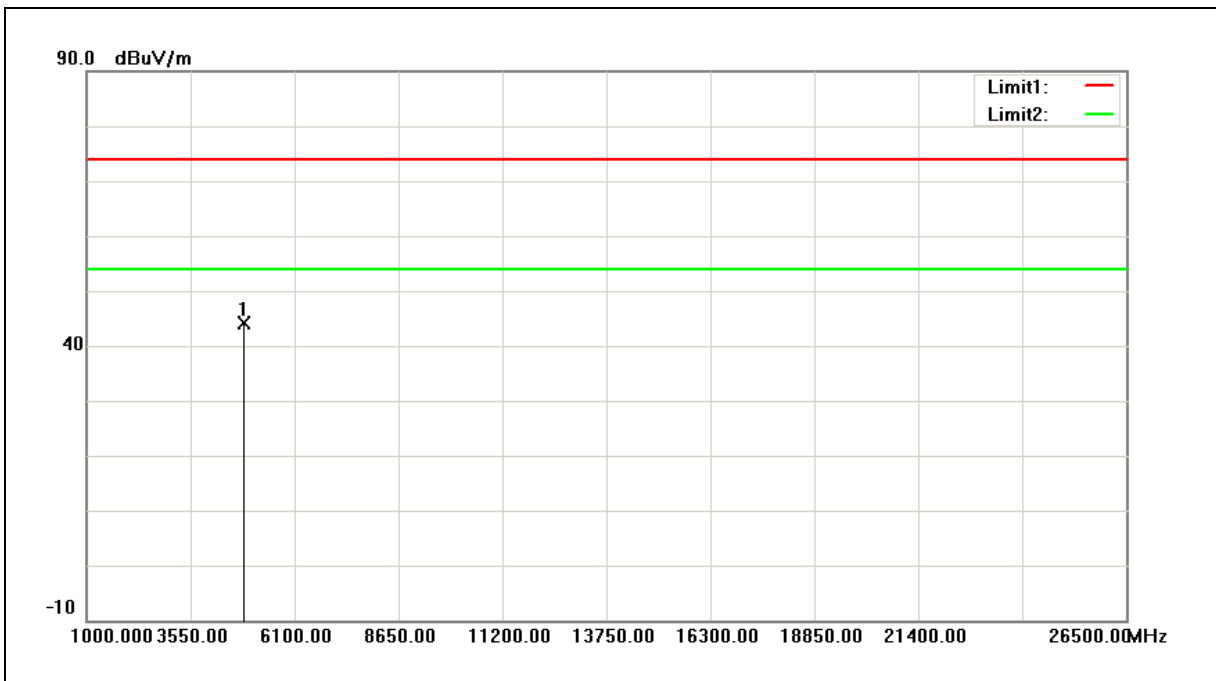
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	04/10/2017
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4844.000	51.26	-7.03	44.23	74.00	-29.77	peak

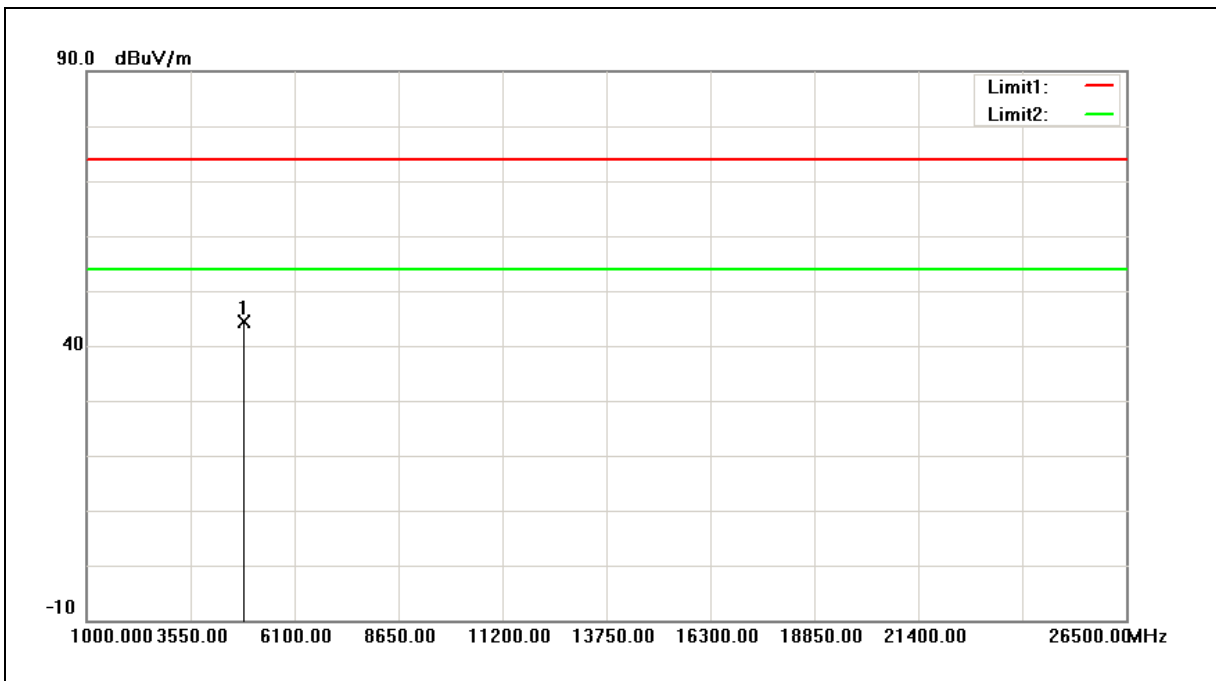
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	2427MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5	Date:	04/10/2017
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4854.000	51.39	-7.01	44.38	74.00	-29.62	peak

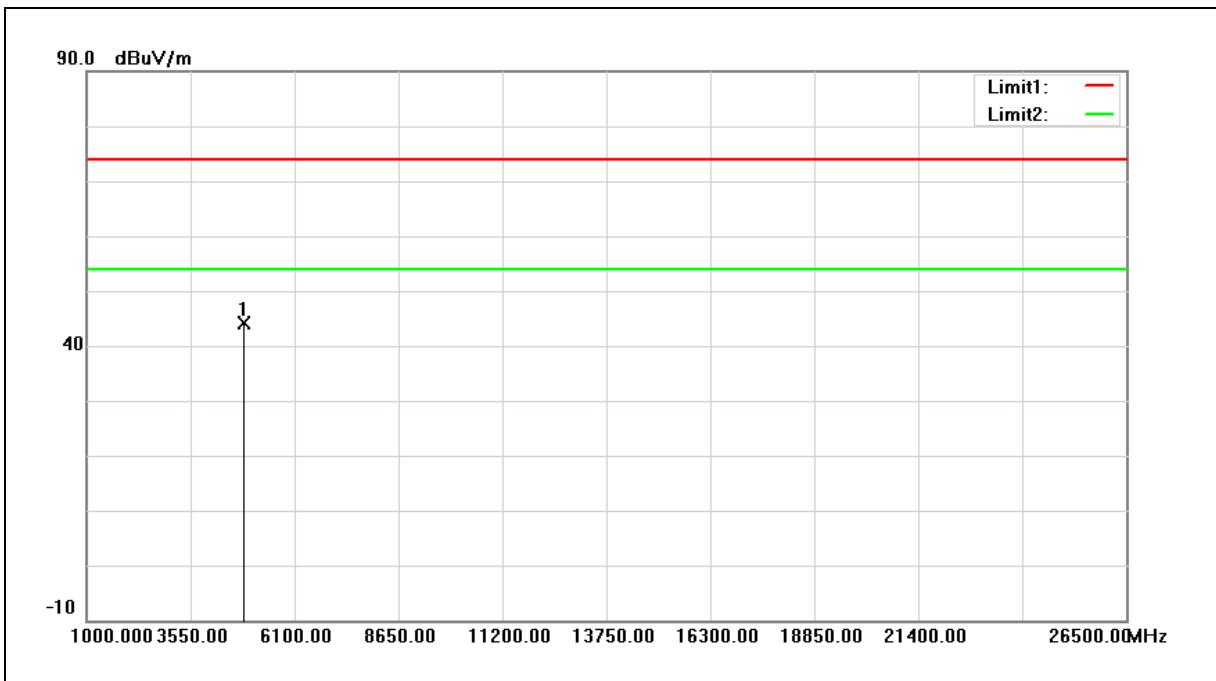
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	2427MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5	Date:	04/10/2017
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4854.000	51.17	-7.01	44.16	74.00	-29.84	peak

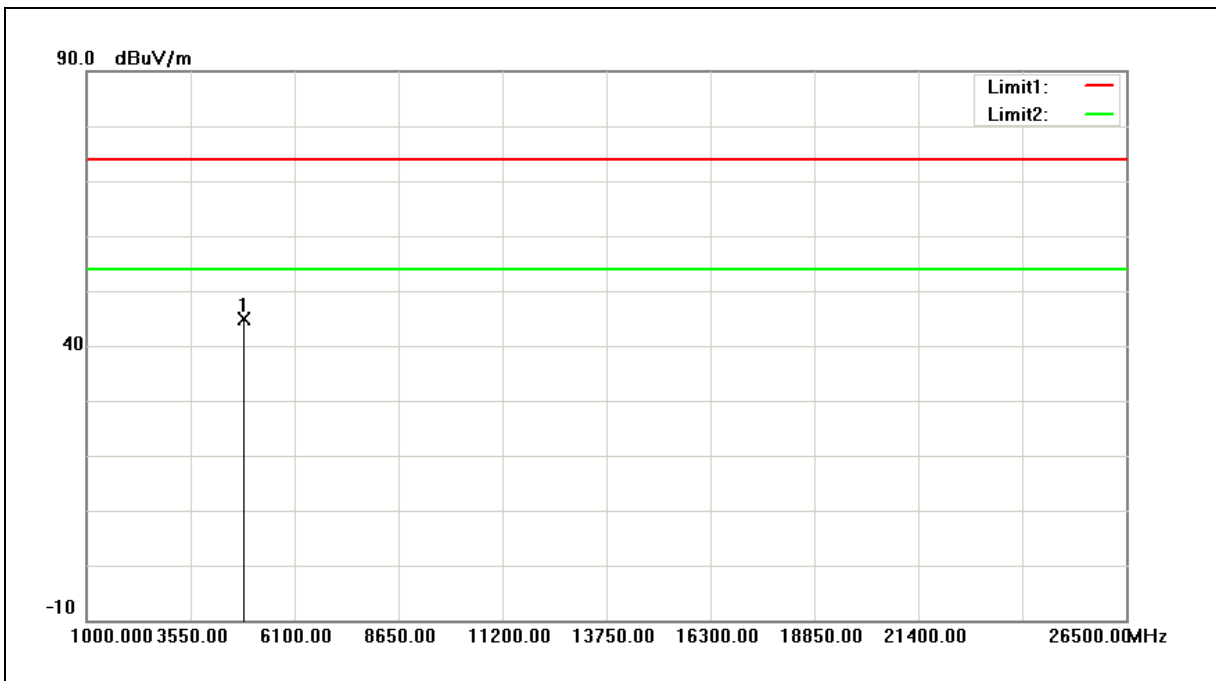
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	2437MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5	Date:	04/10/2017
Ant.Polar.:	Horizontal		

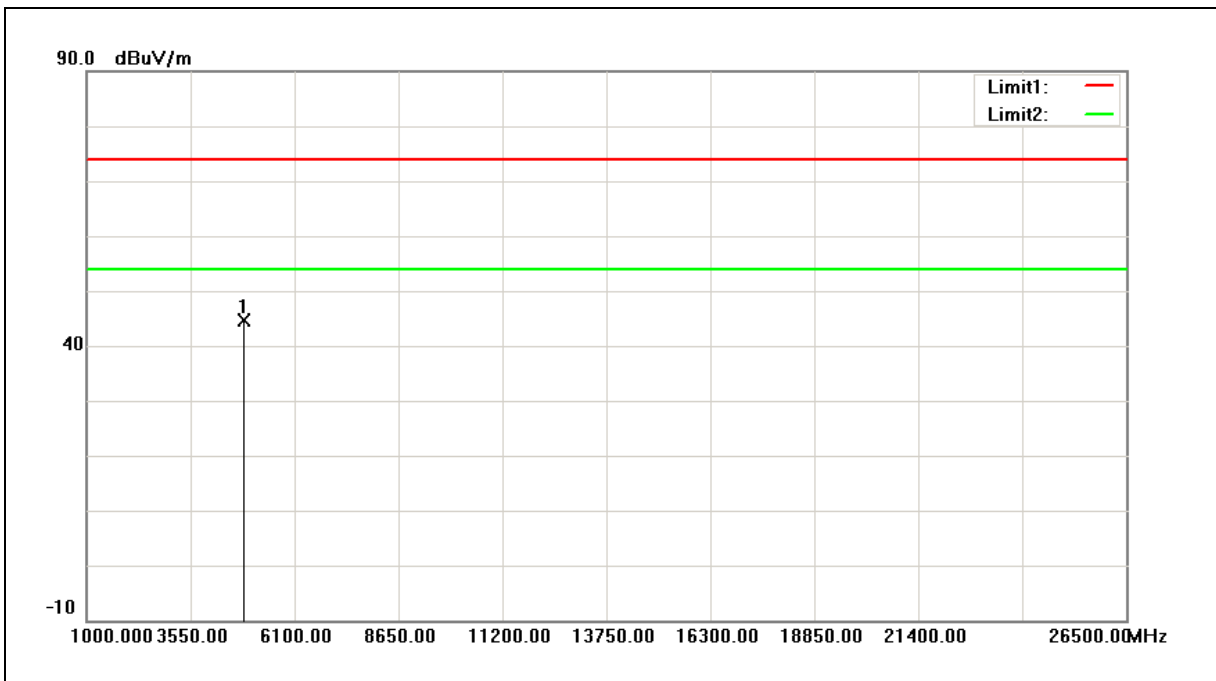


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	51.92	-6.95	44.97	74.00	-29.03	peak

- 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:	2437MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5	Date:	04/10/2017
Ant.Polar.:	Vertical		

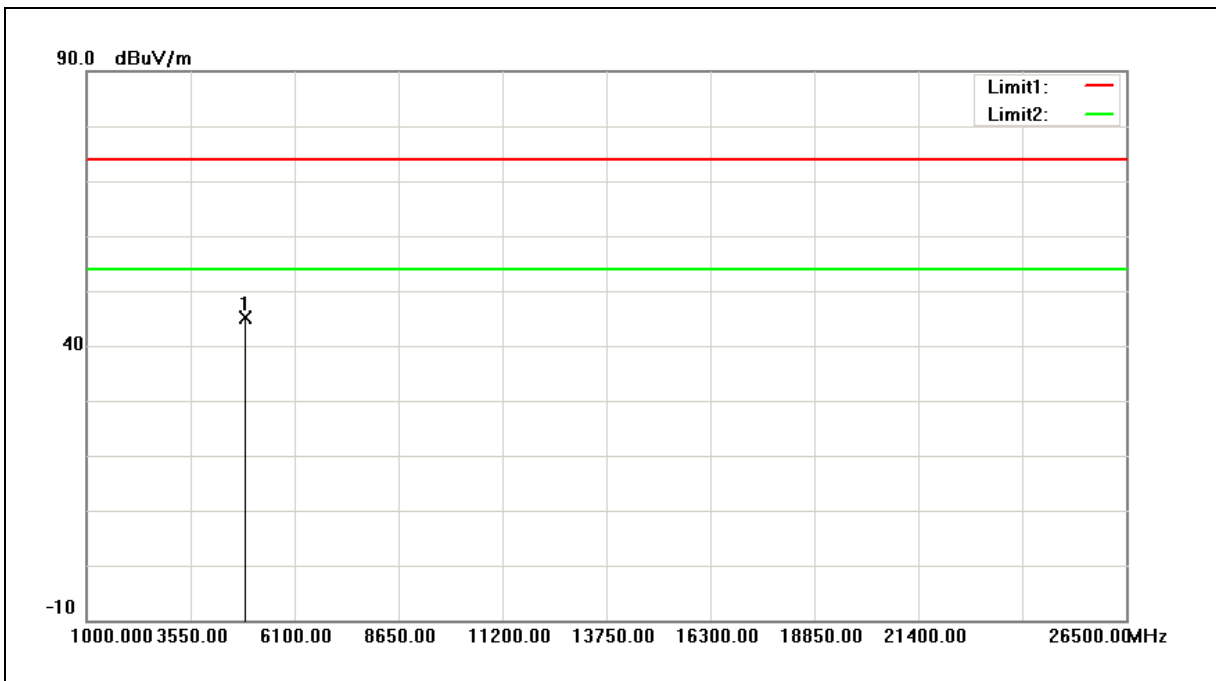


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	51.67	-6.95	44.72	74.00	-29.28	peak

- 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:	2447MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5	Date:	04/10/2017
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4894.000	51.91	-6.89	45.02	74.00	-28.98	peak

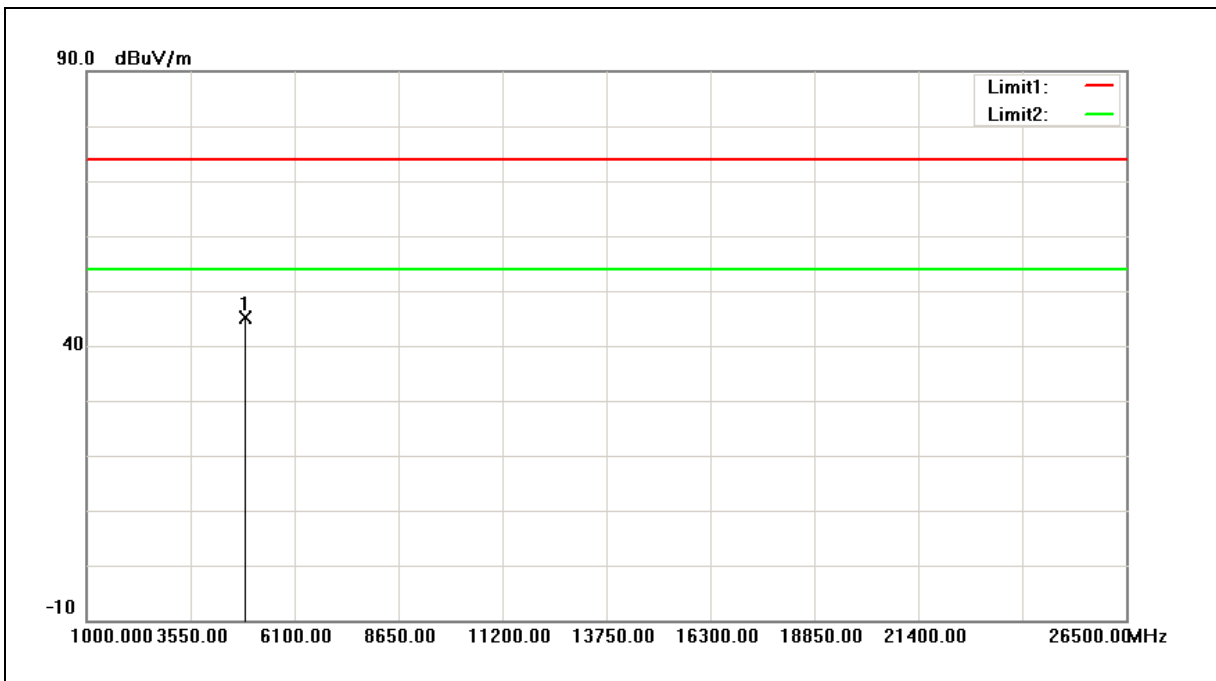
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	2447MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5	Date:	04/10/2017
Ant.Polar.:	Vertical		

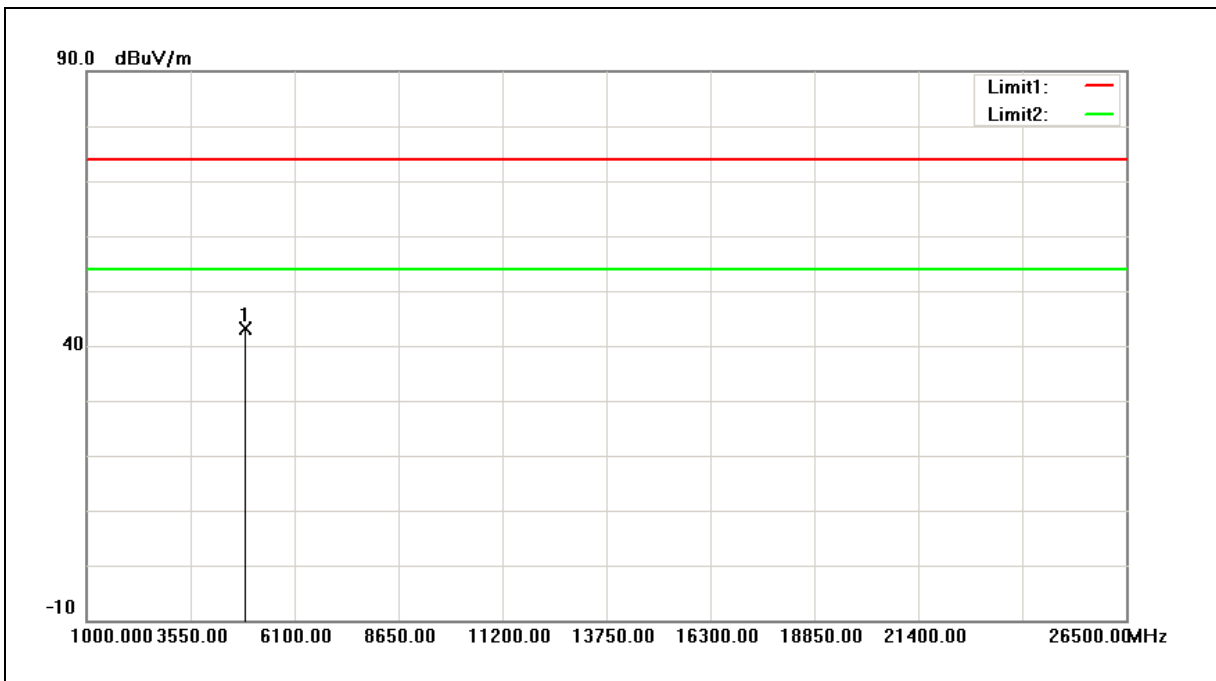


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4894.000	52.04	-6.89	45.15	74.00	-28.85	peak

- 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:	04/10/2017
Ant.Polar.:	Horizontal		

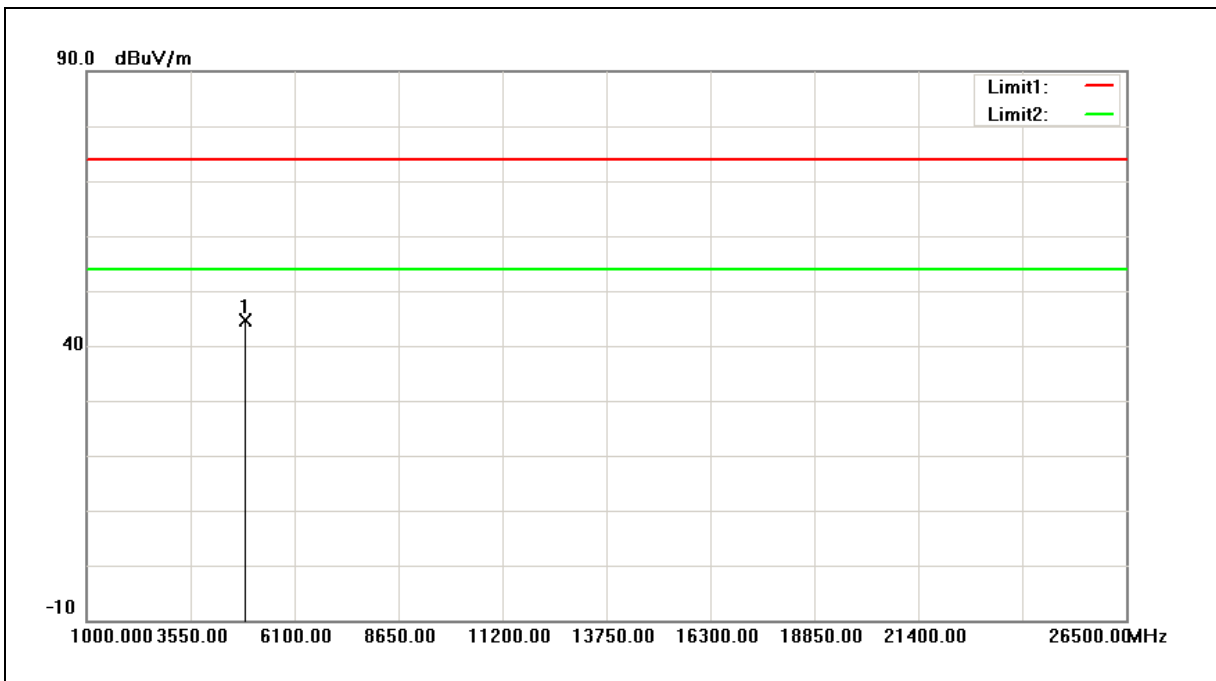


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4904.000	50.04	-6.86	43.18	74.00	-30.82	peak

- 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.



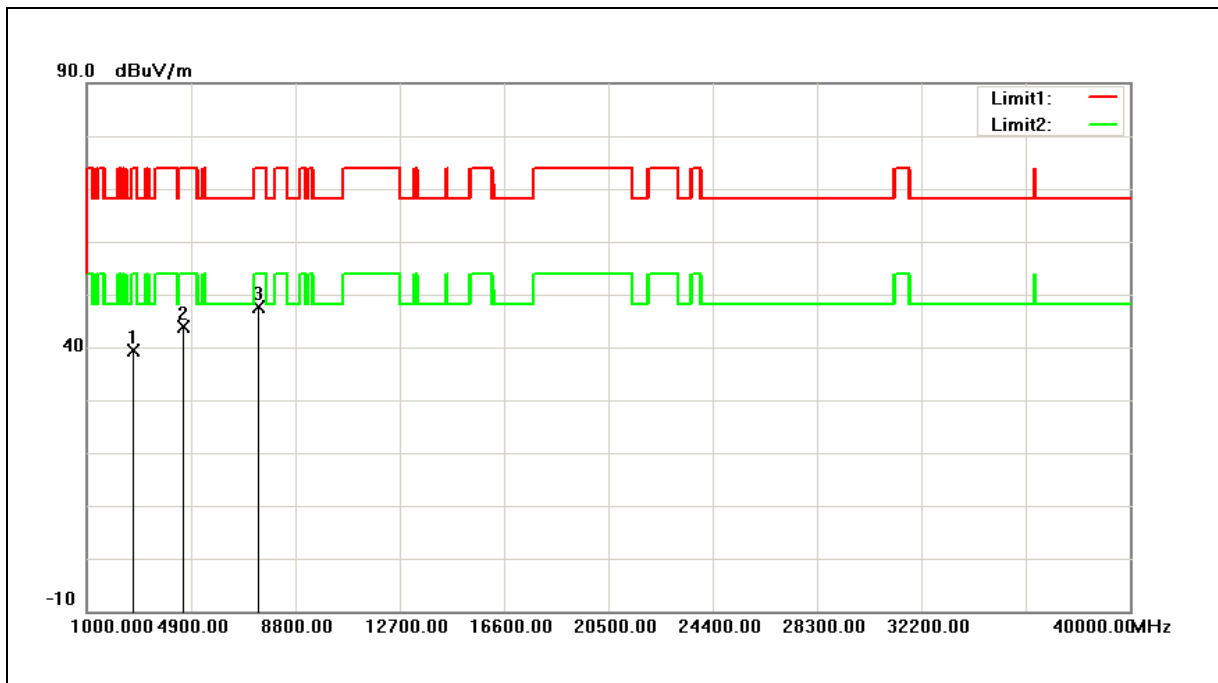
Standard:	FCC Part 15.247	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	2452MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5	Date:	04/10/2017
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4904.000	51.52	-6.86	44.66	74.00	-29.34	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:	Transmitter Unwanted Emissions	Power:	AC 120V/60Hz
Test Mode:	Simultaneous Transmitting (DTS+NII)	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Ant.Polar.:	Horizontal	Date:	04/06/2017



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2734.000	52.23	-12.97	39.26	74.00	-34.74	peak
2	4621.000	51.66	-7.71	43.95	74.00	-30.05	peak
3	7409.000	47.43	0.19	47.62	74.00	-26.38	peak

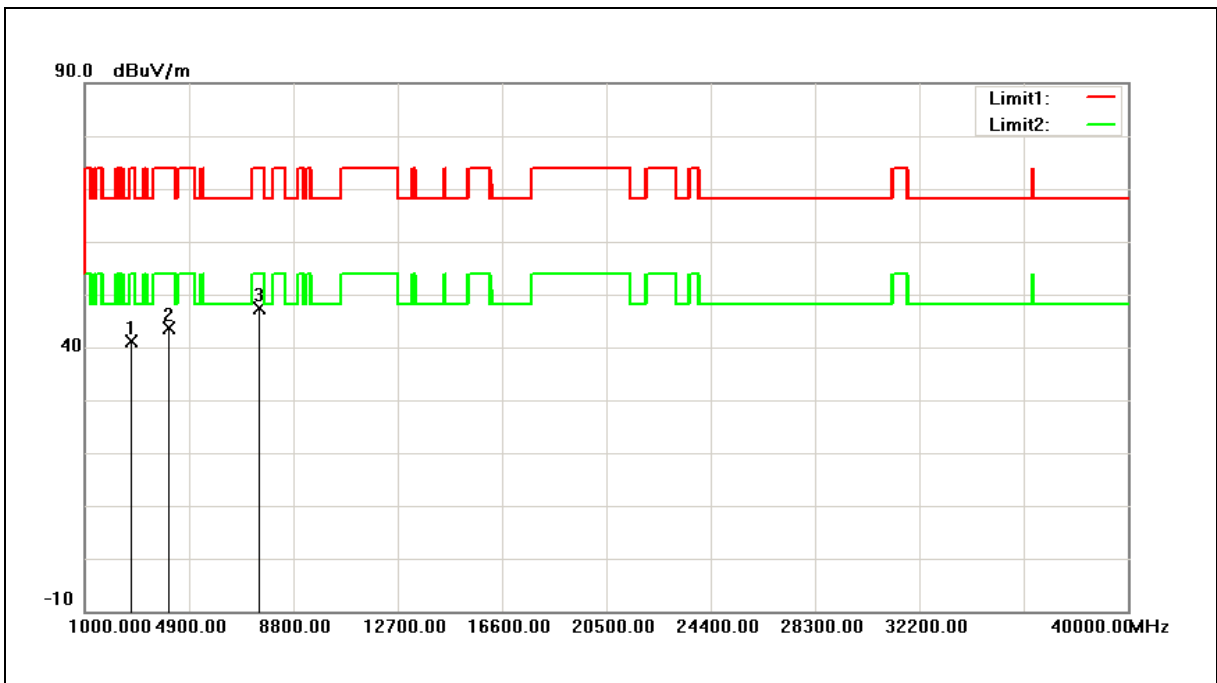
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	Transmitter Unwanted Emissions	Power:	AC 120V/60Hz
Test Mode:	Simultaneous Transmitting (DTS+NII)	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Ant.Polar.:	Vertical	Date:	04/06/2017



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2751.000	54.01	-12.93	41.08	74.00	-32.92	peak
2	4145.000	52.60	-9.00	43.60	74.00	-30.40	peak
3	7545.000	46.68	0.64	47.32	74.00	-26.68	peak

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

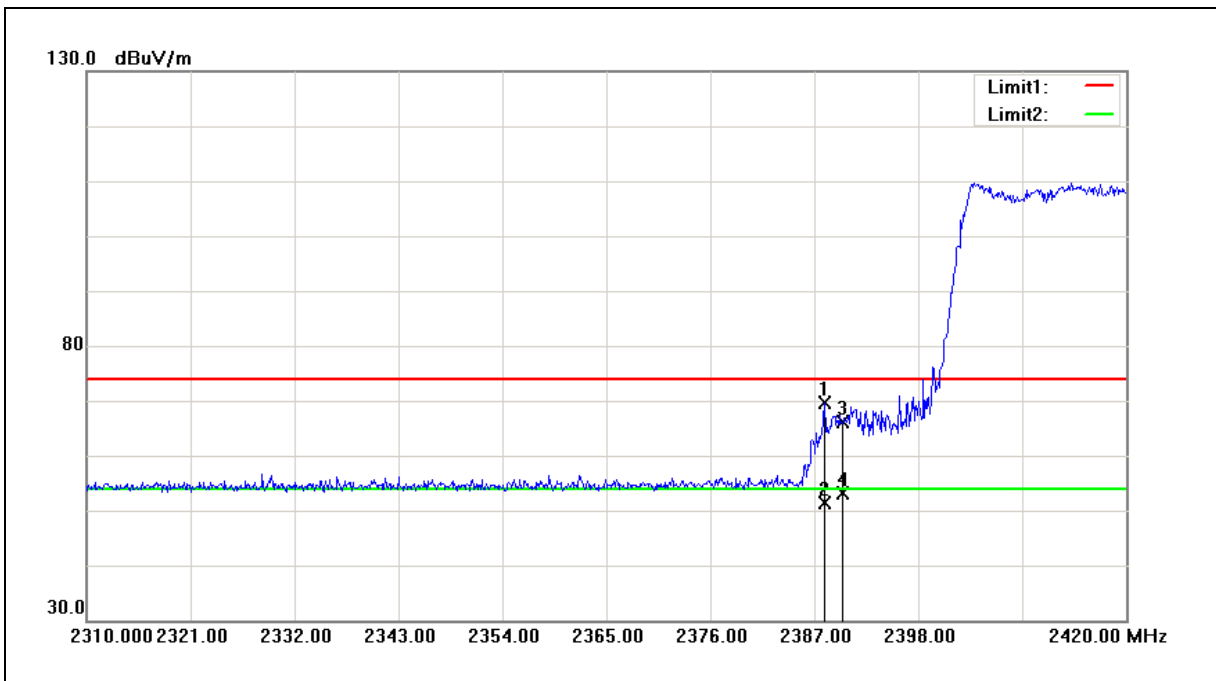
2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

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 4	Date:	05/26/2017
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.100	69.90	-0.26	69.64	74.00	-4.36	peak
2	2388.100	51.70	-0.26	51.44	54.00	-2.56	AVG
3	2390.000	66.40	-0.26	66.14	74.00	-7.86	peak
4	2390.000	53.38	-0.26	53.12	54.00	-0.88	AVG

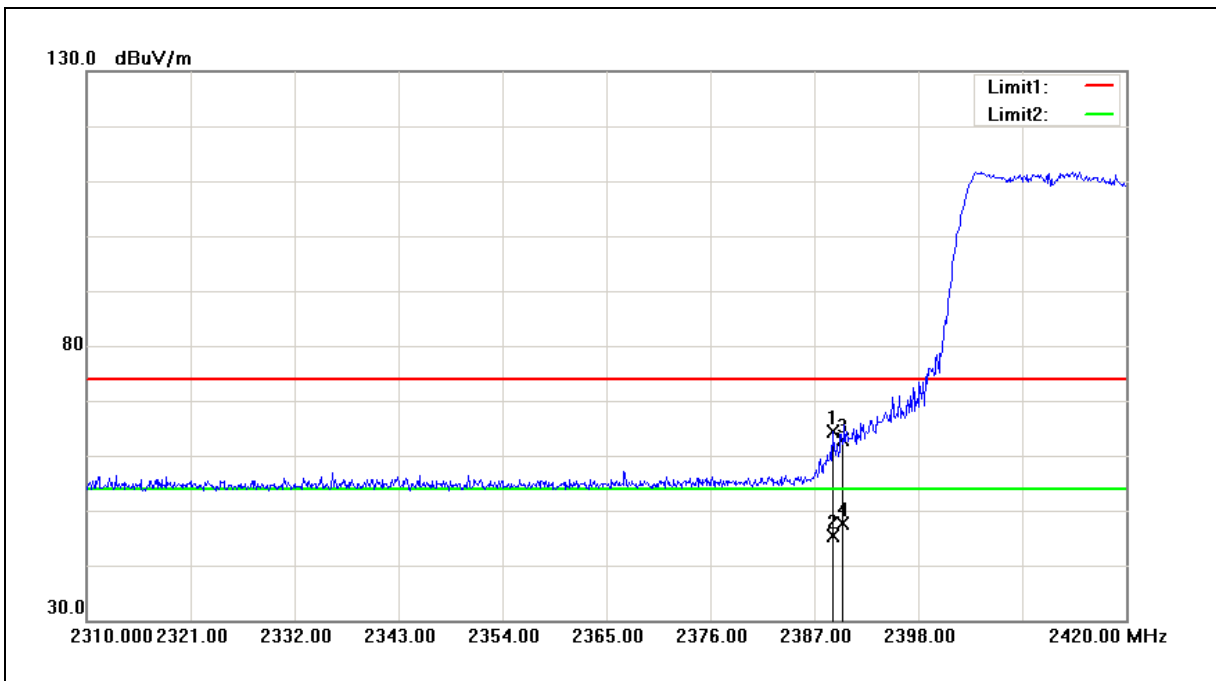
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	05/26/2017
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.980	64.72	-0.26	64.46	74.00	-9.54	peak
2	2388.980	45.59	-0.26	45.33	54.00	-8.67	AVG
3	2390.000	63.24	-0.26	62.98	74.00	-11.02	peak
4	2390.000	47.97	-0.26	47.71	54.00	-6.29	AVG

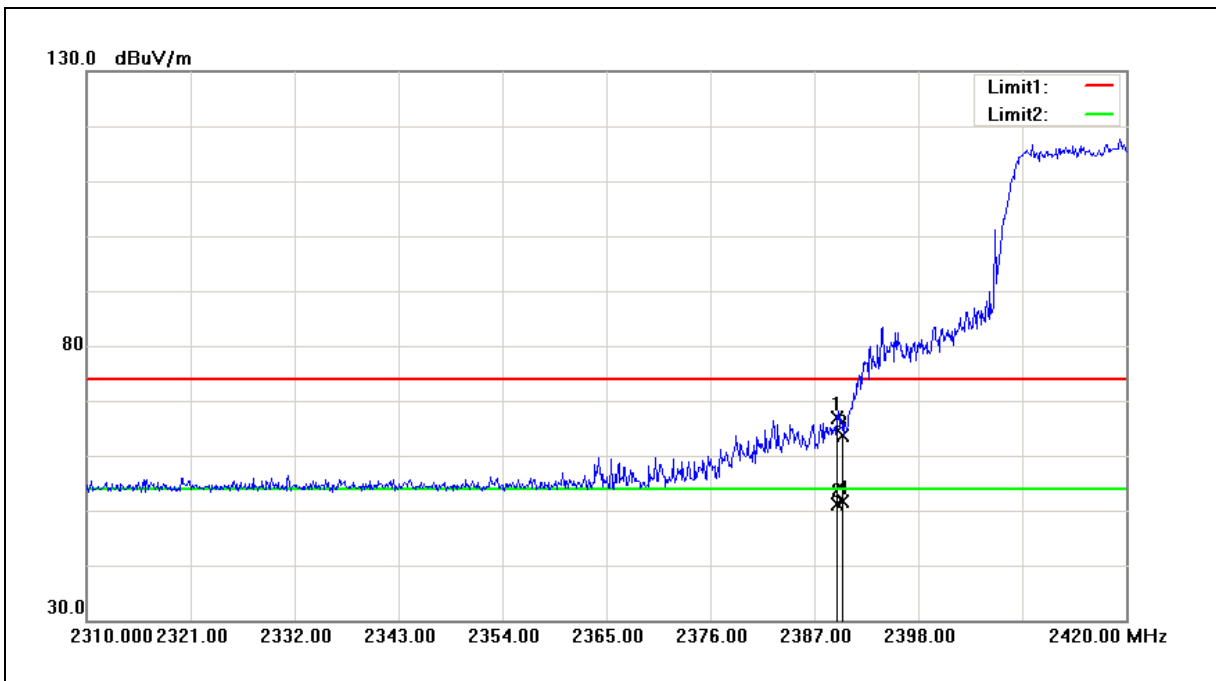
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	2417MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4	Date:	05/26/2017
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.420	67.18	-0.26	66.92	74.00	-7.08	peak
2	2389.420	51.43	-0.26	51.17	54.00	-2.83	AVG
3	2390.000	64.01	-0.26	63.75	74.00	-10.25	peak
4	2390.000	51.78	-0.26	51.52	54.00	-2.48	AVG

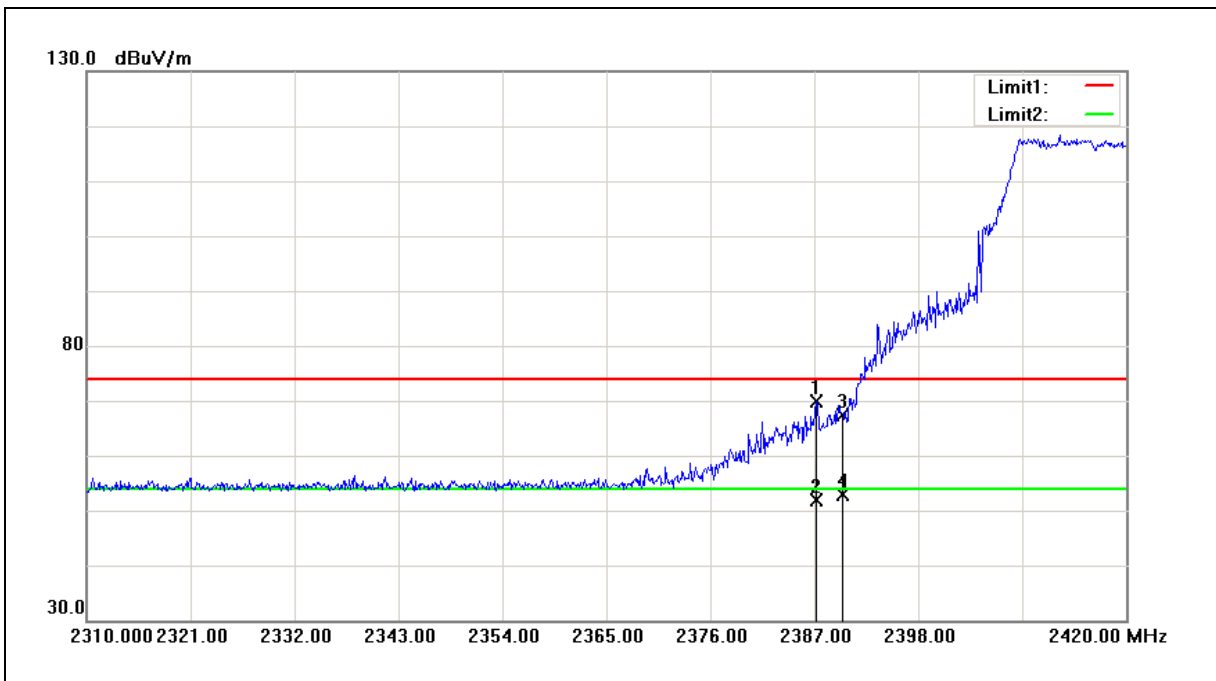
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	2417MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4	Date:	05/26/2017
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.220	70.16	-0.27	69.89	74.00	-4.11	peak
2	2387.220	52.19	-0.27	51.92	54.00	-2.08	AVG
3	2390.000	67.63	-0.26	67.37	74.00	-6.63	peak
4	2390.000	53.23	-0.26	52.97	54.00	-1.03	AVG

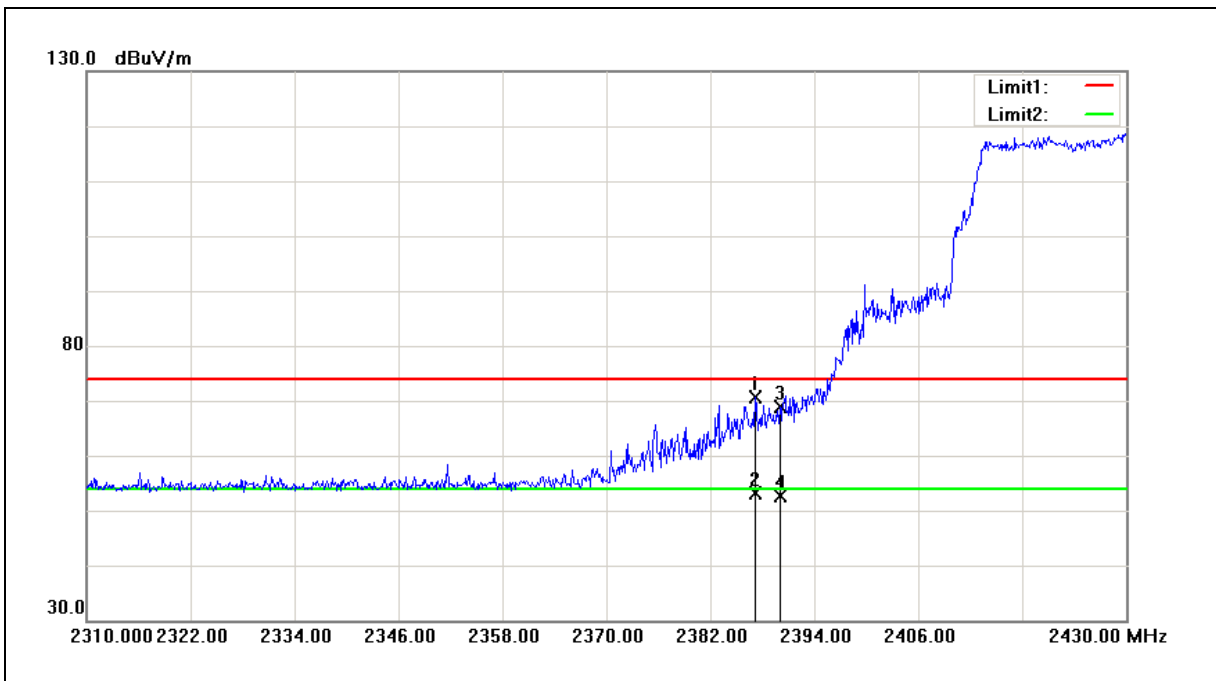
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	2422MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4	Date:	05/26/2017
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.160	71.01	-0.27	70.74	74.00	-3.26	peak
2	2387.160	53.35	-0.27	53.08	54.00	-0.92	AVG
3	2390.000	69.25	-0.26	68.99	74.00	-5.01	peak
4	2390.000	52.84	-0.26	52.58	54.00	-1.42	AVG

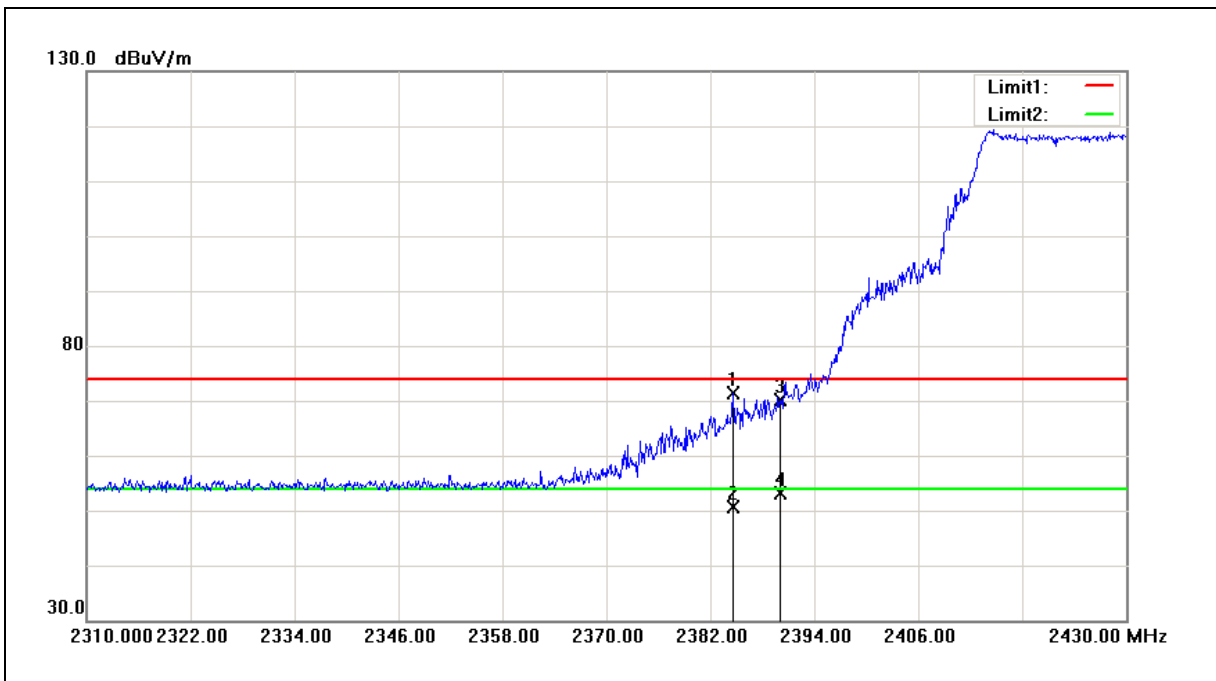
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 4	Date:	05/26/2017
Ant.Polar.:	Vertical		

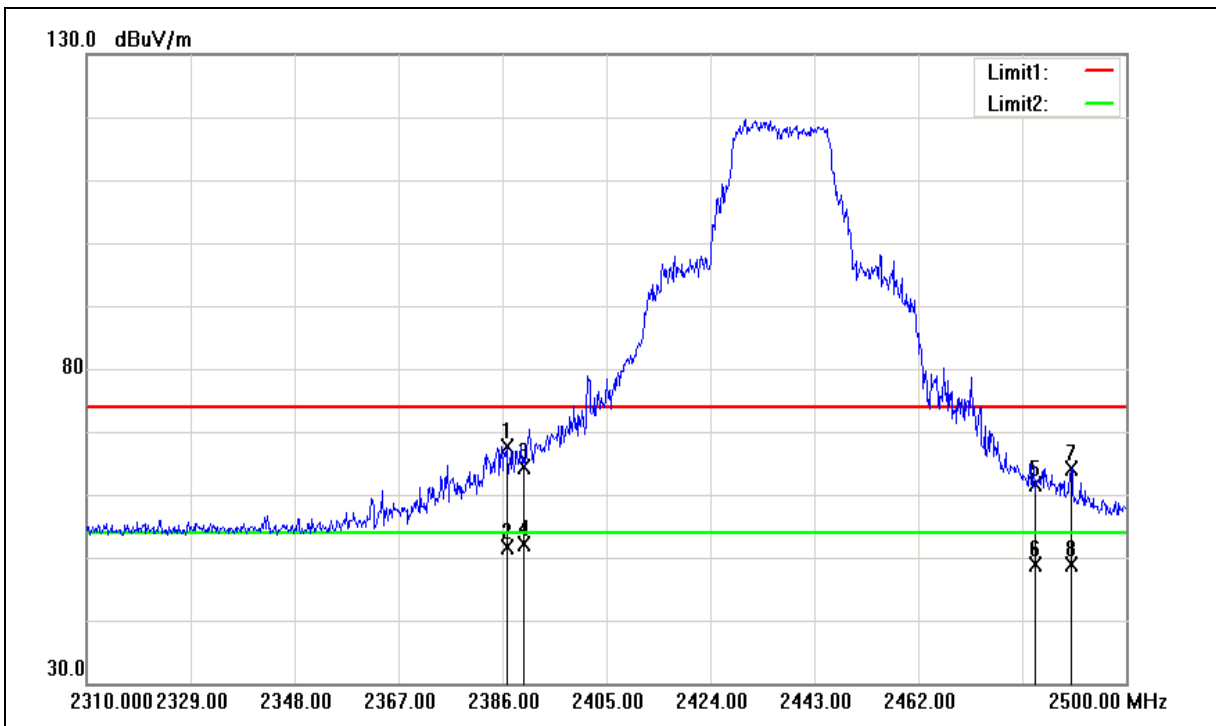


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2384.640	71.56	-0.28	71.28	74.00	-2.72	peak
2	2384.640	50.90	-0.28	50.62	54.00	-3.38	AVG
3	2390.000	70.40	-0.26	70.14	74.00	-3.86	peak
4	2390.000	53.39	-0.26	53.13	54.00	-0.87	AVG

- 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:	05/26/2017
Ant.Polar.:	Horizontal		





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:	05/26/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2386.760	67.88	-0.27	67.61	74.00	-6.39	peak
2	2386.760	51.83	-0.27	51.56	54.00	-2.44	AVG
3	2390.000	64.72	-0.26	64.46	74.00	-9.54	peak
4	2390.000	52.45	-0.26	52.19	54.00	-1.81	AVG
5	2483.500	61.47	0.11	61.58	74.00	-12.42	peak
6	2483.500	48.82	0.11	48.93	54.00	-5.07	AVG
7	2489.930	64.05	0.14	64.19	74.00	-9.81	peak
8	2489.930	48.69	0.14	48.83	54.00	-5.17	AVG

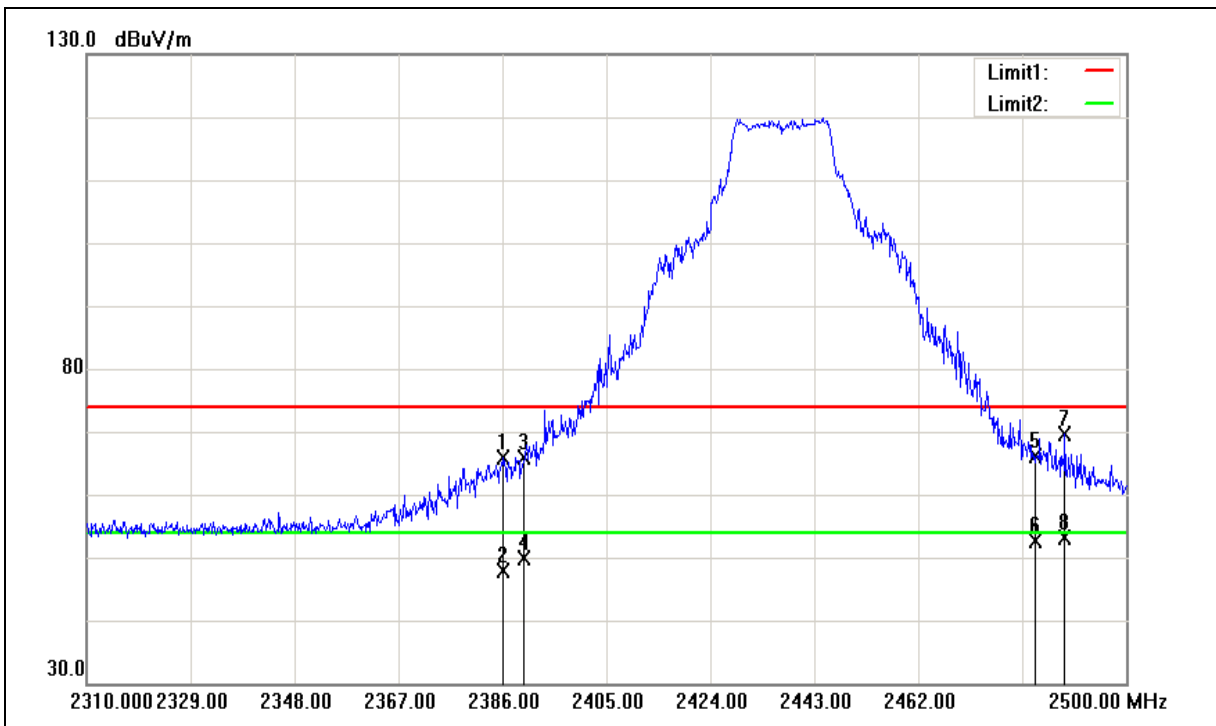
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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.



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:	05/26/2017
Ant.Polar.:	Vertical		





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:	05/26/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2386.000	66.17	-0.28	65.89	74.00	-8.11	peak
2	2386.000	48.28	-0.28	48.00	54.00	-6.00	AVG
3	2390.000	66.12	-0.26	65.86	74.00	-8.14	peak
4	2390.000	50.21	-0.26	49.95	54.00	-4.05	AVG
5	2483.500	65.97	0.11	66.08	74.00	-7.92	peak
6	2483.500	52.54	0.11	52.65	54.00	-1.35	AVG
7	2488.790	69.40	0.14	69.54	74.00	-4.46	peak
8	2488.790	52.90	0.14	53.04	54.00	-0.96	AVG

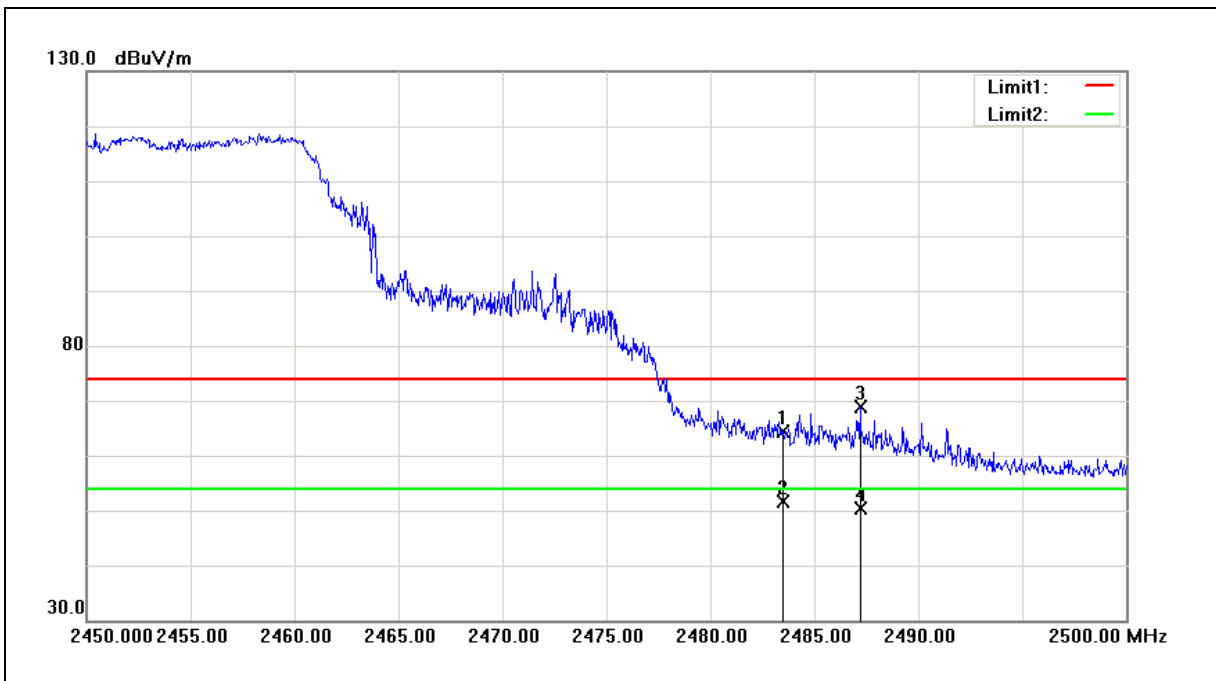
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	2452MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4	Date:	05/26/2017
Ant.Polar.:	Horizontal		

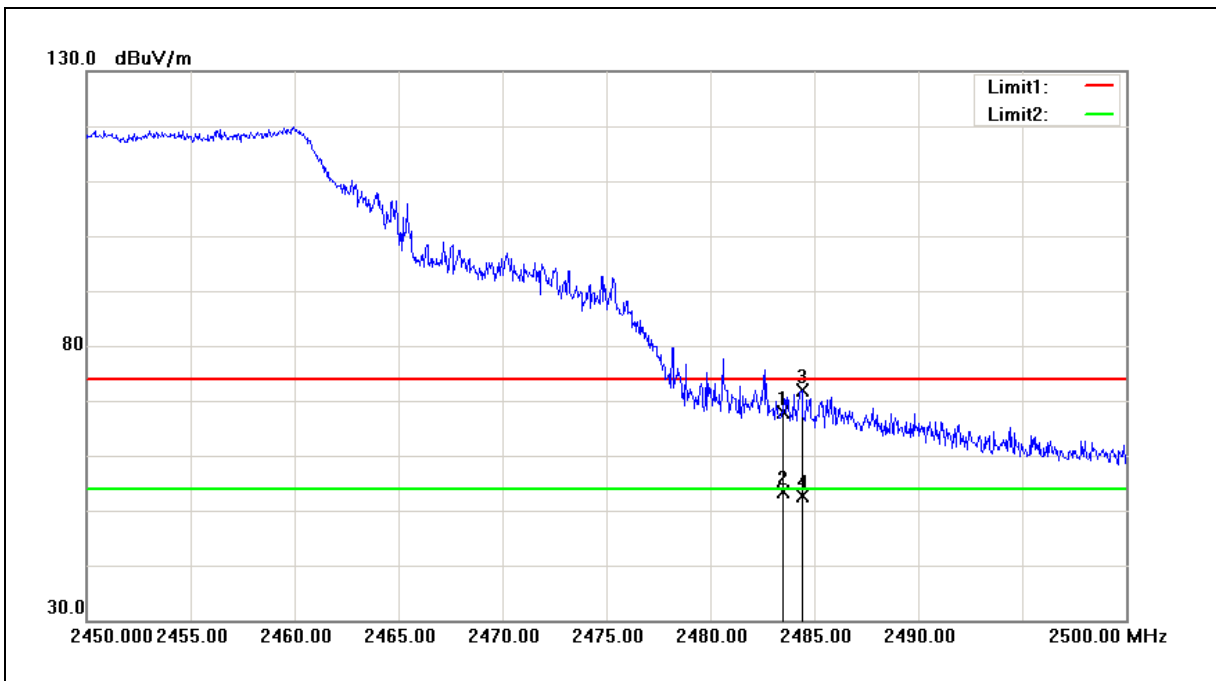


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	64.25	0.11	64.36	74.00	-9.64	peak
2	2483.500	51.42	0.11	51.53	54.00	-2.47	AVG
3	2487.200	68.85	0.12	68.97	74.00	-5.03	peak
4	2487.200	50.17	0.12	50.29	54.00	-3.71	AVG

- 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 4	Date:	05/26/2017
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	67.67	0.11	67.78	74.00	-6.22	peak
2	2483.500	53.25	0.11	53.36	54.00	-0.64	AVG
3	2484.400	71.83	0.12	71.95	74.00	-2.05	peak
4	2484.400	52.54	0.12	52.66	54.00	-1.34	AVG

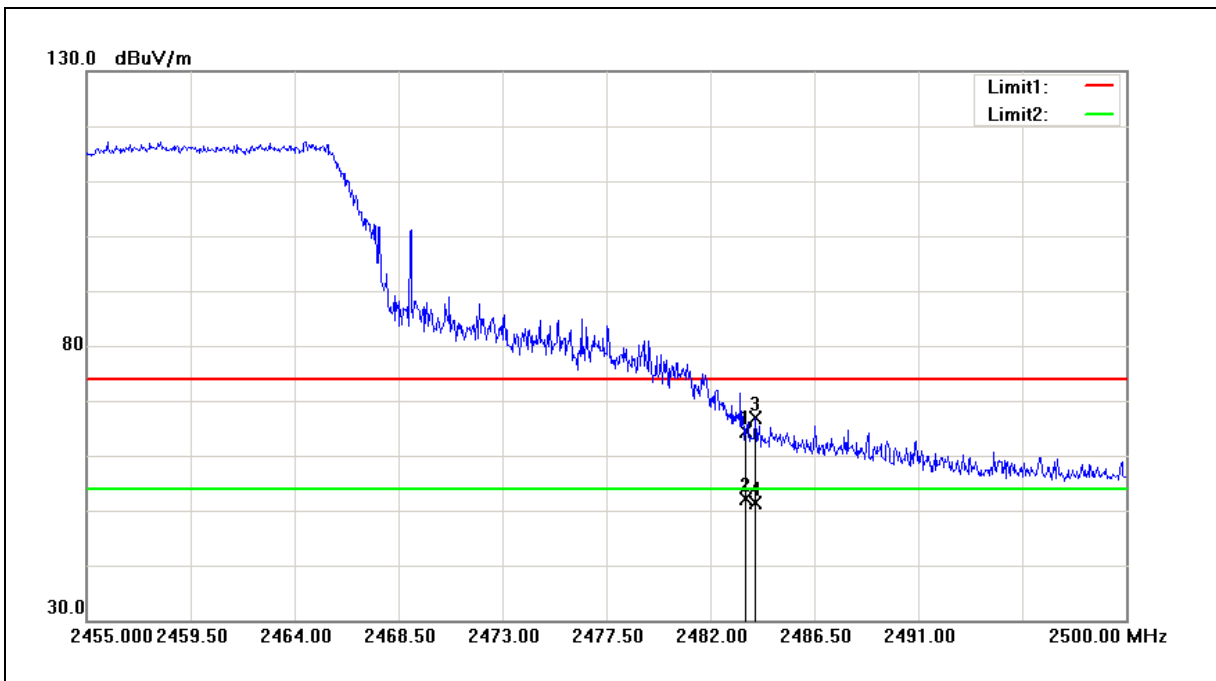
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	2457MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4	Date:	05/26/2017
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	64.37	0.11	64.48	74.00	-9.52	peak
2	2483.500	52.06	0.11	52.17	54.00	-1.83	AVG
3	2483.935	66.76	0.12	66.88	74.00	-7.12	peak
4	2483.935	51.33	0.12	51.45	54.00	-2.55	AVG

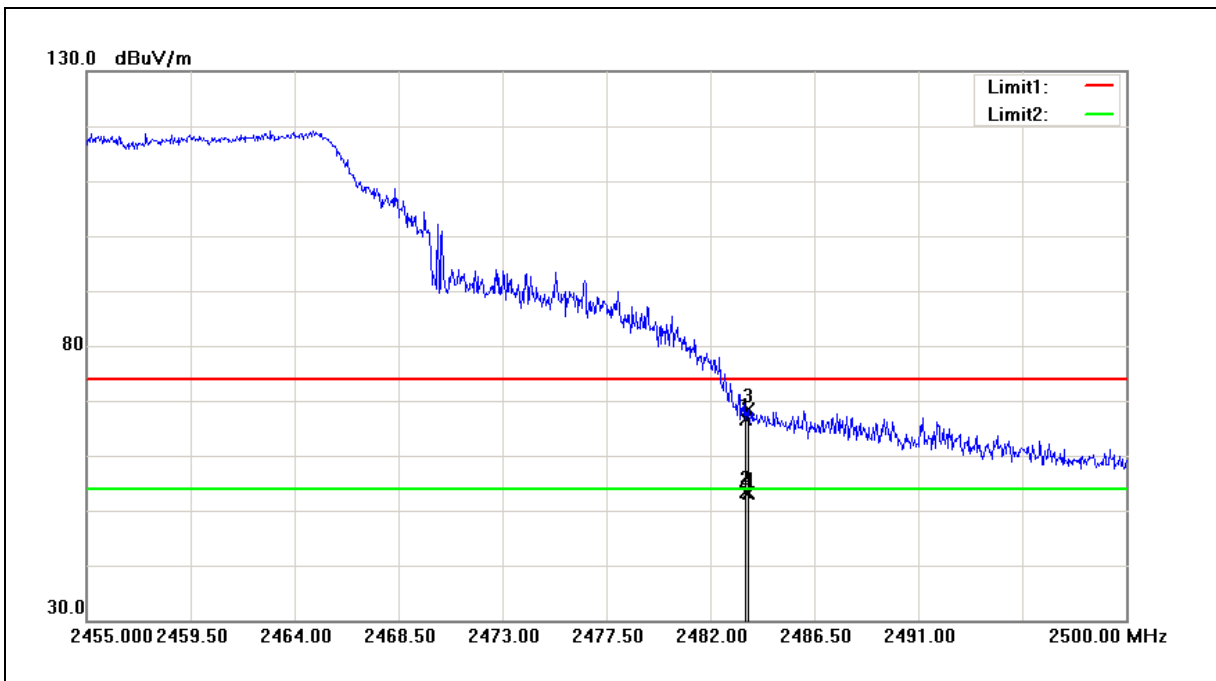
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	2457MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4	Date:	05/26/2017
Ant.Polar.:	Vertical		

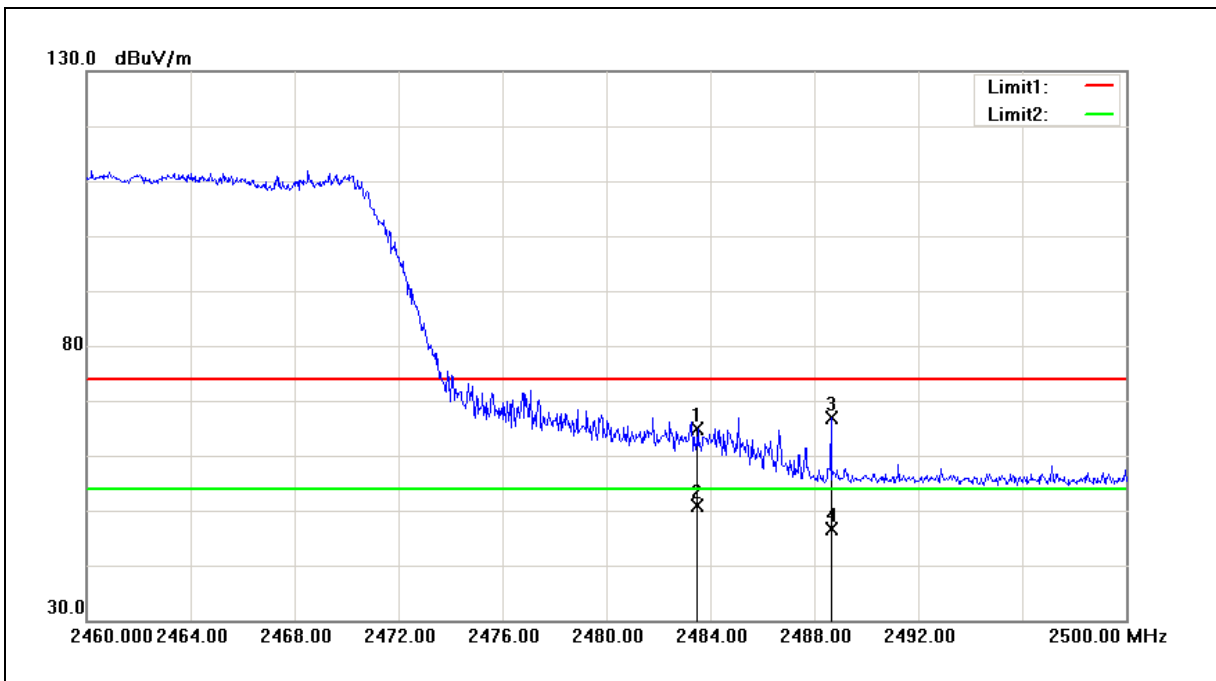


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	66.55	0.11	66.66	74.00	-7.34	peak
2	2483.500	53.25	0.11	53.36	54.00	-0.64	AVG
3	2483.665	68.15	0.11	68.26	74.00	-5.74	peak
4	2483.665	52.97	0.11	53.08	54.00	-0.92	AVG

- 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:	Band edge	Power:	AC 120V/60Hz
Frequency:	2462MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4	Date:	05/26/2017
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	64.65	0.11	64.76	74.00	-9.24	peak
2	2483.500	50.67	0.11	50.78	54.00	-3.22	AVG
3	2488.640	66.73	0.14	66.87	74.00	-7.13	peak
4	2488.640	46.38	0.14	46.52	54.00	-7.48	AVG

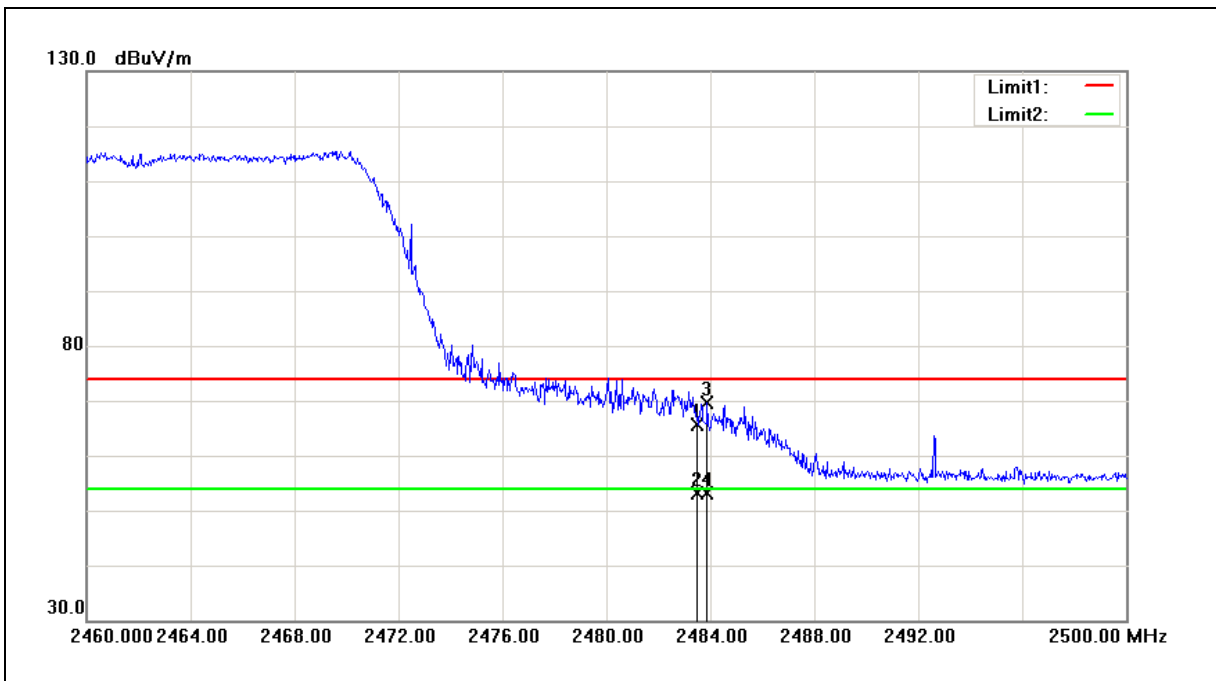
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	05/26/2017
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	65.56	0.11	65.67	74.00	-8.33	peak
2	2483.500	52.93	0.11	53.04	54.00	-0.96	AVG
3	2483.880	69.49	0.11	69.60	74.00	-4.40	peak
4	2483.880	53.11	0.11	53.22	54.00	-0.78	AVG

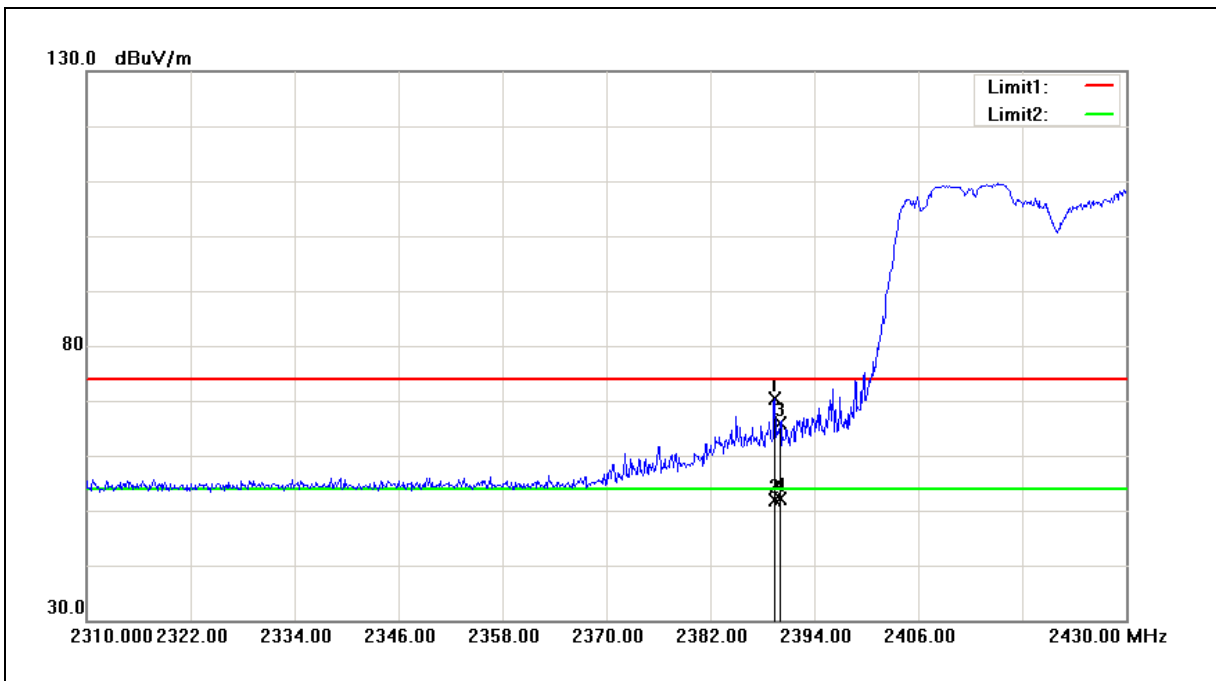
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	05/27/2017
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.440	70.64	-0.26	70.38	74.00	-3.62	peak
2	2389.440	52.10	-0.26	51.84	54.00	-2.16	AVG
3	2390.000	66.16	-0.26	65.90	74.00	-8.10	peak
4	2390.000	52.46	-0.26	52.20	54.00	-1.80	AVG

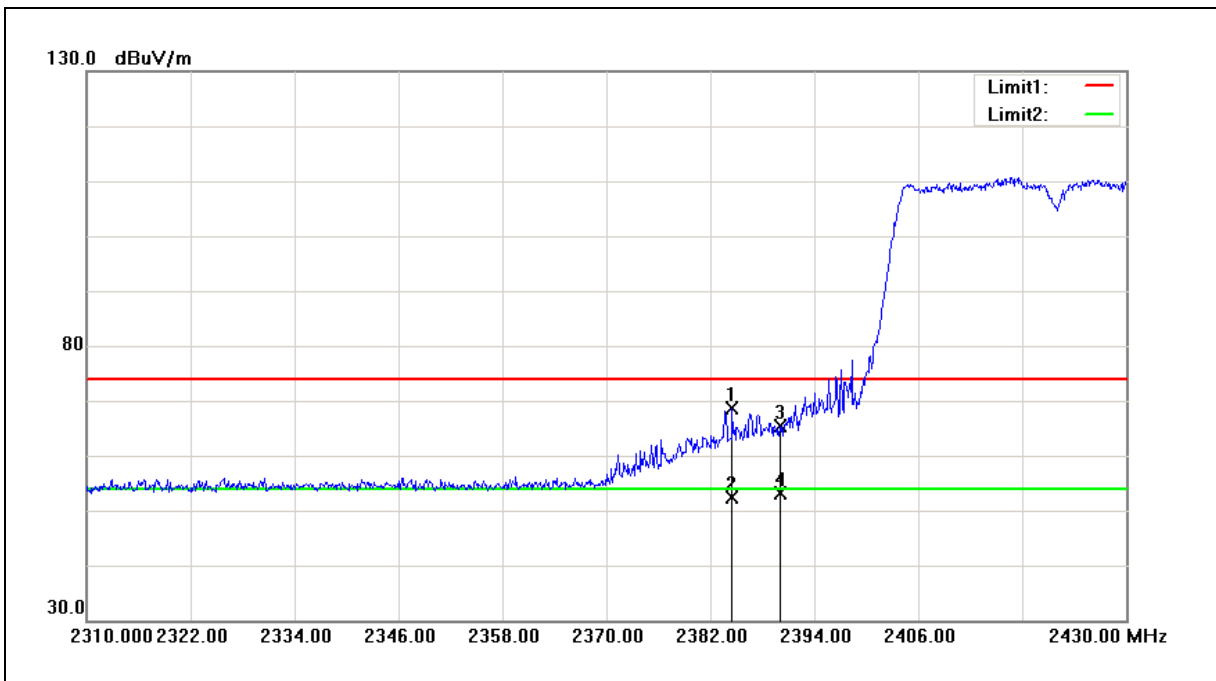
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	05/27/2017
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2384.520	68.81	-0.28	68.53	74.00	-5.47	peak
2	2384.520	52.76	-0.28	52.48	54.00	-1.52	AVG
3	2390.000	65.67	-0.26	65.41	74.00	-8.59	peak
4	2390.000	53.47	-0.26	53.21	54.00	-0.79	AVG

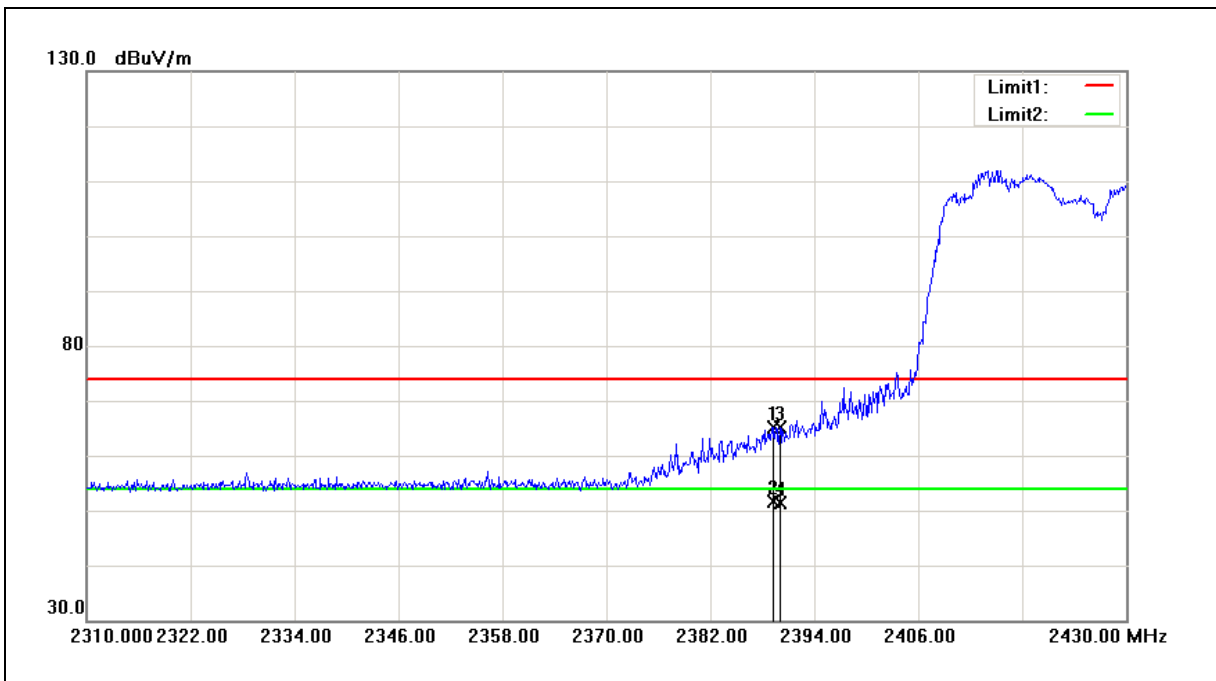
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	2427MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5	Date:	05/27/2017
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.200	65.41	-0.26	65.15	74.00	-8.85	peak
2	2389.200	52.00	-0.26	51.74	54.00	-2.26	AVG
3	2390.000	65.45	-0.26	65.19	74.00	-8.81	peak
4	2390.000	51.52	-0.26	51.26	54.00	-2.74	AVG

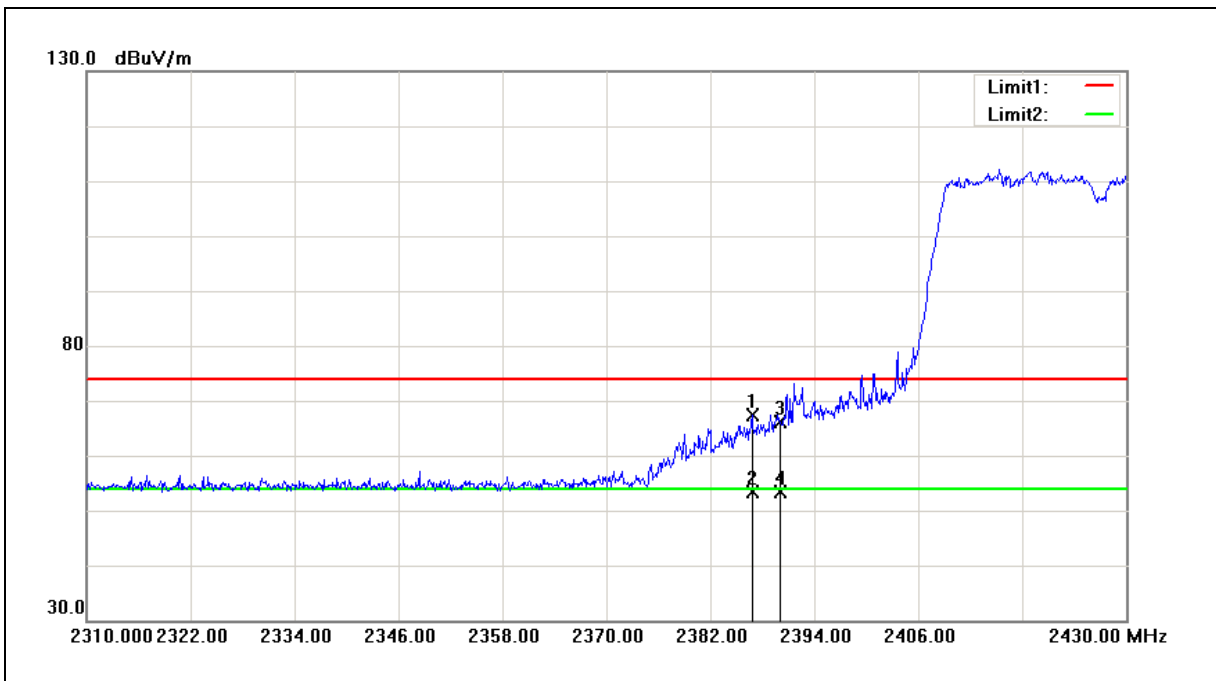
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	2427MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5	Date:	05/27/2017
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2386.800	67.72	-0.27	67.45	74.00	-6.55	peak
2	2386.800	53.55	-0.27	53.28	54.00	-0.72	AVG
3	2390.000	66.46	-0.26	66.20	74.00	-7.80	peak
4	2390.000	53.65	-0.26	53.39	54.00	-0.61	AVG

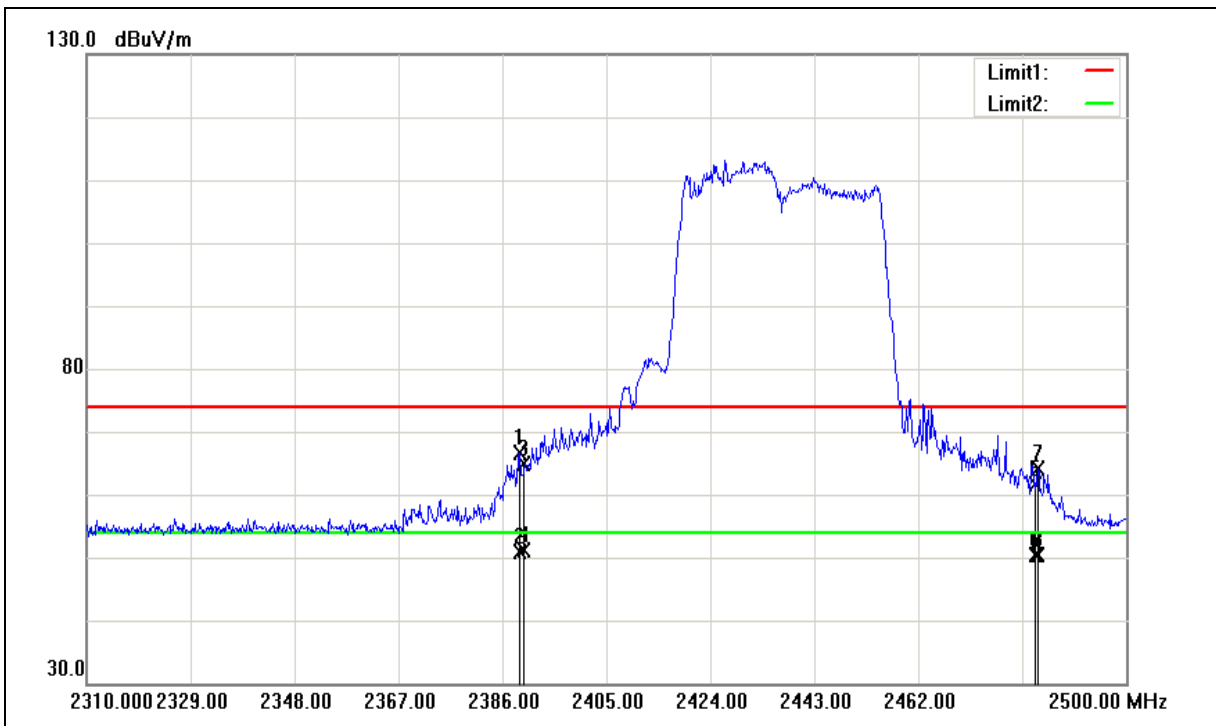
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	05/27/2017
Ant.Polar.:	Horizontal		





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:	05/27/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.230	66.93	-0.26	66.67	74.00	-7.33	peak
2	2389.230	51.14	-0.26	50.88	54.00	-3.12	AVG
3	2390.000	65.10	-0.26	64.84	74.00	-9.16	peak
4	2390.000	51.38	-0.26	51.12	54.00	-2.88	AVG
5	2483.500	61.46	0.11	61.57	74.00	-12.43	peak
6	2483.500	50.18	0.11	50.29	54.00	-3.71	AVG
7	2483.850	64.03	0.11	64.14	74.00	-9.86	peak
8	2483.850	50.36	0.11	50.47	54.00	-3.53	AVG

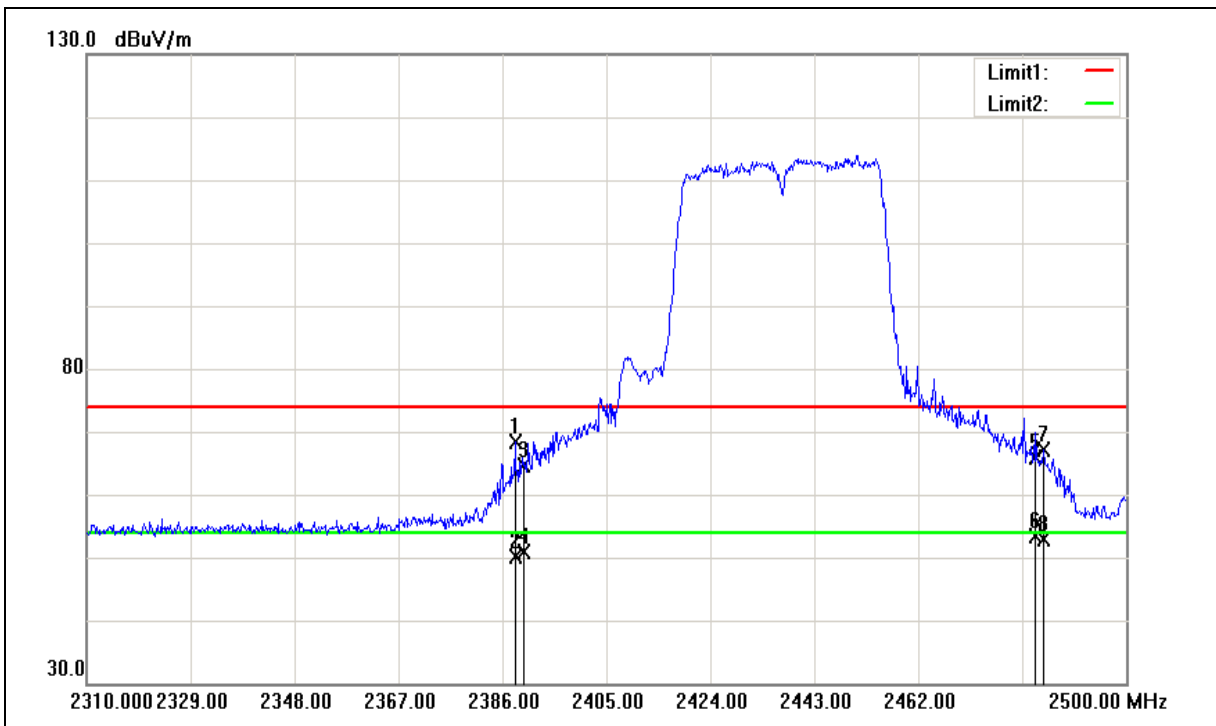
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	2437MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5	Date:	05/27/2017
Ant.Polar.:	Vertical		





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:	05/27/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.280	68.70	-0.26	68.44	74.00	-5.56	peak
2	2388.280	50.36	-0.26	50.10	54.00	-3.90	AVG
3	2390.000	64.90	-0.26	64.64	74.00	-9.36	peak
4	2390.000	51.23	-0.26	50.97	54.00	-3.03	AVG
5	2483.500	65.67	0.11	65.78	74.00	-8.22	peak
6	2483.500	53.28	0.11	53.39	54.00	-0.61	AVG
7	2484.990	66.92	0.12	67.04	74.00	-6.96	peak
8	2484.990	52.82	0.12	52.94	54.00	-1.06	AVG

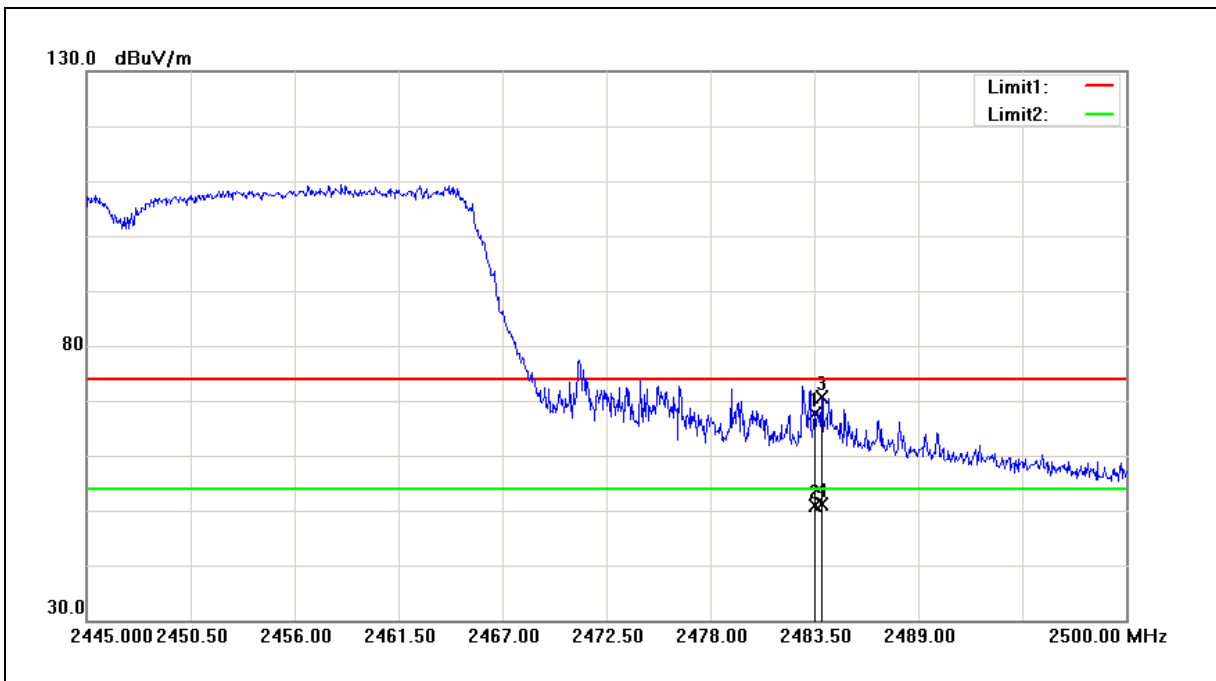
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	2447MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5	Date:	05/27/2017
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	67.50	0.11	67.61	74.00	-6.39	peak
2	2483.500	50.72	0.11	50.83	54.00	-3.17	AVG
3	2483.885	70.61	0.11	70.72	74.00	-3.28	peak
4	2483.885	51.13	0.11	51.24	54.00	-2.76	AVG

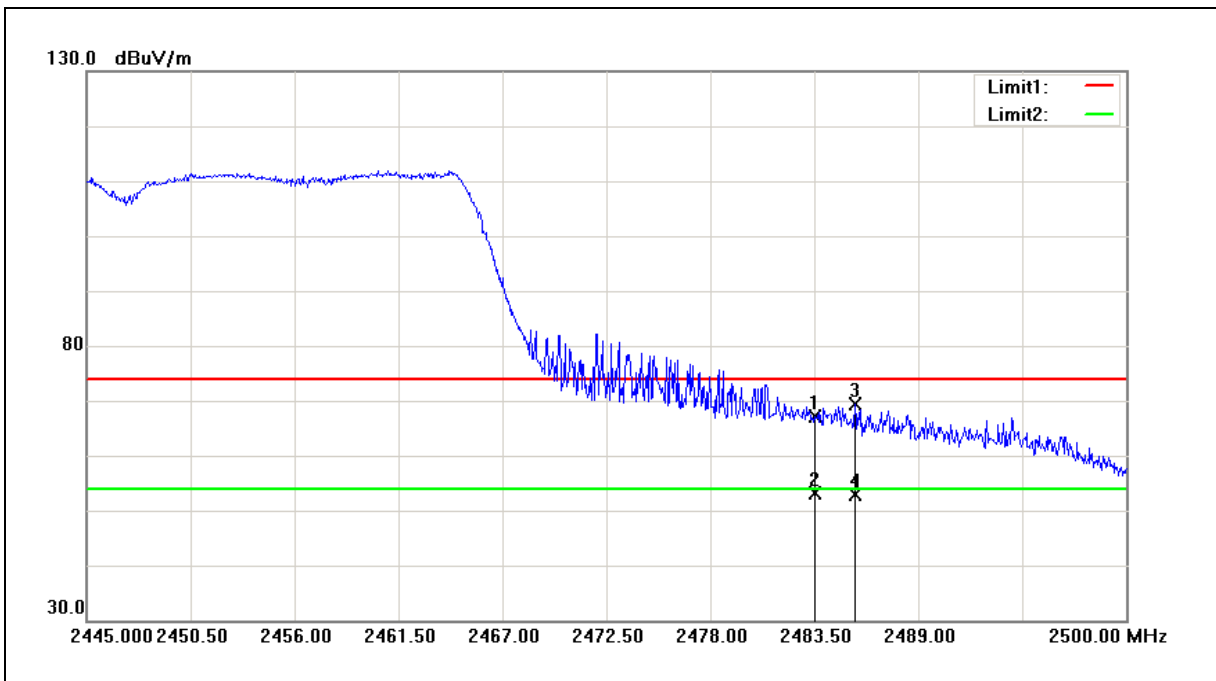
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	2447MHz	Temp.(°C)/Hum. (%RH):	26(°C)/60%RH
Mode:	Mode 5	Date:	05/27/2017
Ant.Polar.:	Vertical		

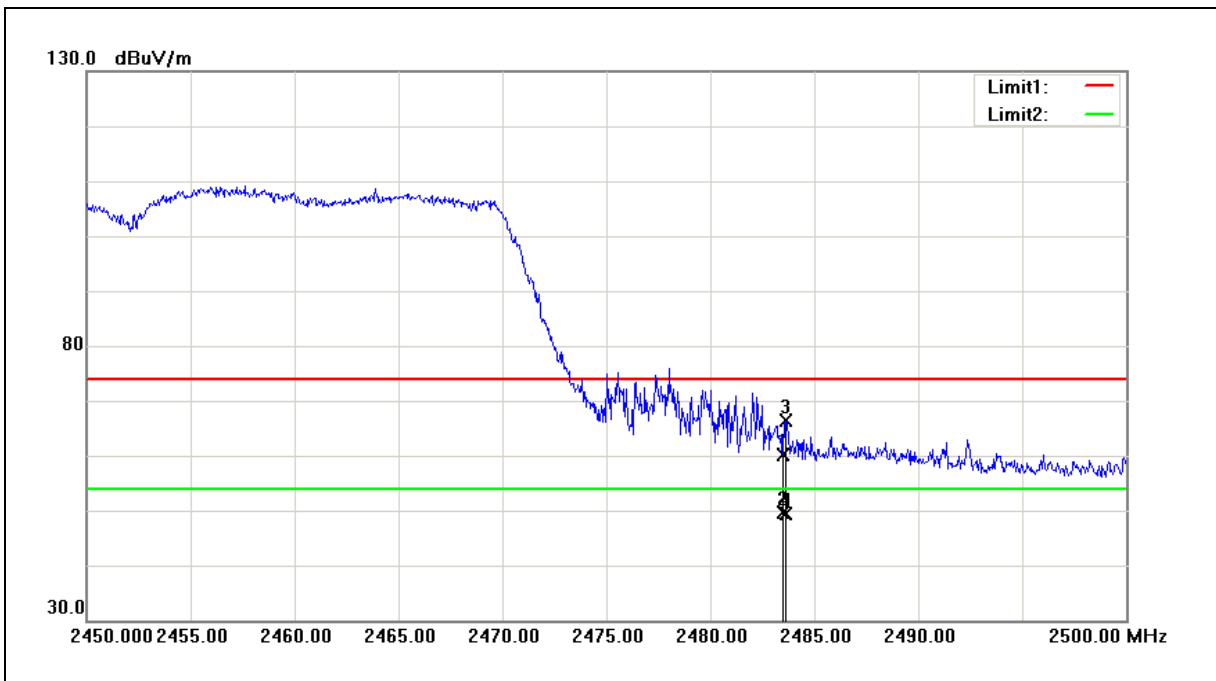


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	66.94	0.11	67.05	74.00	-6.95	peak
2	2483.500	52.99	0.11	53.10	54.00	-0.90	AVG
3	2485.645	69.34	0.12	69.46	74.00	-4.54	peak
4	2485.645	52.80	0.12	52.92	54.00	-1.08	AVG

- 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:	05/27/2017
Ant.Polar.:	Horizontal		

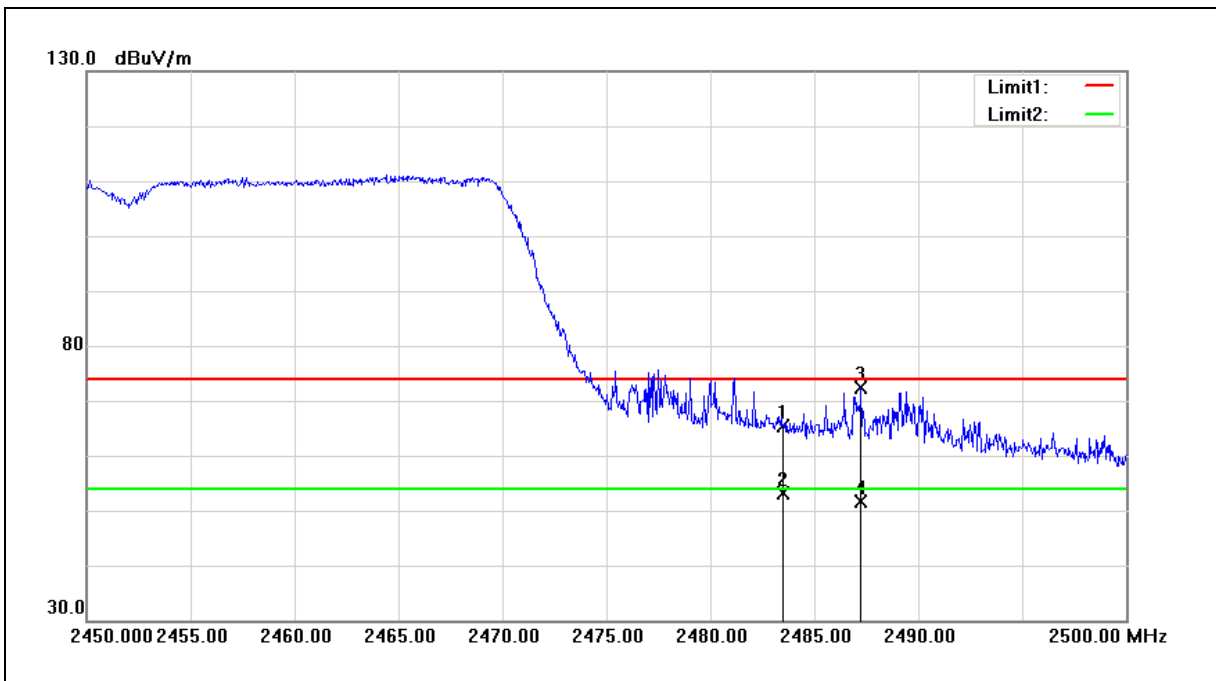


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	60.12	0.11	60.23	74.00	-13.77	peak
2	2483.500	49.52	0.11	49.63	54.00	-4.37	AVG
3	2483.650	66.25	0.11	66.36	74.00	-7.64	peak
4	2483.650	49.19	0.11	49.30	54.00	-4.70	AVG

- 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:	05/27/2017
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	65.27	0.11	65.38	74.00	-8.62	peak
2	2483.500	53.00	0.11	53.11	54.00	-0.89	AVG
3	2487.250	72.22	0.12	72.34	74.00	-1.66	peak
4	2487.250	51.55	0.12	51.67	54.00	-2.33	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

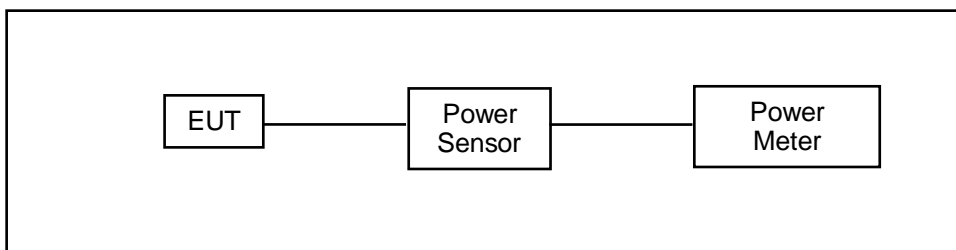
For systems using digital modulation in the 2400-2483.5MHz, the limit for maximum output power is 30dBm.

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.

* Beamforming on mode : Directional Gain = $10 \cdot \log \left[\frac{(10G_1/20 + 10G_2/20 + \dots + 10G_N/20)^2}{NANT} \right] = 6.6 \text{ dBi} > 6\text{dBi}$

* Beamforming on mode power limit shall be reduced = $30 - 0.6 = 29.4 \text{ dBm}$.

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	2412.0	1M	24.19	0.262	< 30
	2417.0		23.51	0.224	< 30
	2422.0		24.24	0.265	< 30
	2437.0		24.02	0.252	< 30
	2452.0		22.93	0.196	< 30
	2457.0		24.15	0.260	< 30
	2462.0		23.72	0.236	< 30
Mode 3	2412.0	6M	18.13	0.065	< 30
	2417.0		21.31	0.135	< 30
	2422.0		23.05	0.202	< 30
	2437.0		24.08	0.256	< 30
	2452.0		22.82	0.191	< 30
	2457.0		21.79	0.151	< 30
	2462.0		17.94	0.062	< 30
Mode 4	2412.0	19.5M	18.11	0.065	< 30
	2417.0		21.71	0.148	< 30
	2422.0		22.82	0.191	< 30
	2437.0		24.11	0.258	< 30
	2452.0		22.52	0.179	< 30
	2457.0		21.67	0.147	< 30
	2462.0		17.87	0.061	< 30
Mode 5	2422.0	40.5M	14.94	0.031	< 30
	2427.0		14.84	0.030	< 30
	2437.0		19.21	0.083	< 30
	2457.0		14.02	0.025	< 30
	2452.0		14.57	0.029	< 30

Note:1. The relevant measured result has the offset with cable loss already.

2. Evaluated high and low data rate, the report record worst case low data rate measurement results.



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	2412.0	1M	25.32	0.340	< 30
	2417.0		24.82	0.303	< 30
	2422.0		25.36	0.344	< 30
	2437.0		25.40	0.347	< 30
	2452.0		24.72	0.296	< 30
	2457.0		25.52	0.356	< 30
	2462.0		25.10	0.324	< 30
Mode 3	2412.0	6M	18.73	0.075	< 30
	2417.0		22.57	0.181	< 30
	2422.0		24.21	0.264	< 30
	2437.0		25.61	0.364	< 30
	2452.0		24.42	0.277	< 30
	2457.0		22.99	0.199	< 30
	2462.0		18.81	0.076	< 30
Mode 4	2412.0	19.5M	19.25	0.084	< 30
	2417.0		22.71	0.187	< 30
	2422.0		24.22	0.264	< 30
	2437.0		25.68	0.370	< 30
	2452.0		23.89	0.245	< 30
	2457.0		22.86	0.193	< 30
	2462.0		18.96	0.079	< 30
Mode 5	2422.0	40.5M	16.03	0.040	< 30
	2427.0		16.13	0.041	< 30
	2437.0		19.97	0.099	< 30
	2457.0		15.21	0.033	< 30
	2452.0		15.41	0.035	< 30

Note:1. The relevant measured result has the offset with cable loss already.

2. Evaluated high and low data rate, the report record worst case low data rate measurement results.



Test Item	Maximum Conducted Output Power				
ANT-2					
Test Mode	Frequency (MHz)	Data Rate	Average Output Power		
			Measurement Results		Limit
			dBm	W	dBm
Mode 2	2412.0	1M	24.64	0.291	< 30
	2417.0		23.82	0.241	< 30
	2422.0		24.69	0.294	< 30
	2437.0		24.54	0.284	< 30
	2452.0		23.62	0.230	< 30
	2457.0		24.62	0.290	< 30
	2462.0		24.17	0.261	< 30
Mode 3	2412.0	6M	18.29	0.067	< 30
	2417.0		21.75	0.150	< 30
	2422.0		23.41	0.219	< 30
	2437.0		24.83	0.304	< 30
	2452.0		23.32	0.215	< 30
	2457.0		22.05	0.160	< 30
	2462.0		18.24	0.067	< 30
Mode 4	2412.0	19.5M	18.68	0.074	< 30
	2417.0		21.97	0.157	< 30
	2422.0		23.44	0.221	< 30
	2437.0		24.85	0.305	< 30
	2452.0		22.88	0.194	< 30
	2457.0		21.97	0.157	< 30
	2462.0		18.14	0.065	< 30
Mode 5	2422.0	40.5M	15.51	0.036	< 30
	2427.0		15.53	0.036	< 30
	2437.0		19.71	0.094	< 30
	2457.0		14.84	0.030	< 30
	2452.0		15.06	0.032	< 30

Note:1. The relevant measured result has the offset with cable loss already.

2. Evaluated high and low data rate, the report record worst case low data rate measurement results.



Test Item	Maximum Conducted Output Power				
ANT-0+1+2					
Test Mode	Frequency (MHz)	Data Rate	Average Output Power		
			Measurement Results		Limit
			dBm	W	dBm
Mode 2	2412.0	1M	29.51	0.894	< 30
	2417.0		28.86	0.769	< 30
	2422.0		29.56	0.903	< 30
	2437.0		29.46	0.884	< 30
	2452.0		28.59	0.723	< 30
	2457.0		29.57	0.906	< 30
	2462.0		29.14	0.820	< 30
Mode 3	2412.0	6M	23.16	0.207	< 30
	2417.0		26.68	0.466	< 30
	2422.0		28.36	0.685	< 30
	2437.0		29.66	0.924	< 30
	2452.0		28.34	0.683	< 30
	2457.0		27.08	0.510	< 30
	2462.0		23.12	0.205	< 30
Mode 4	2412.0	19.5M	23.48	0.223	< 30
	2417.0		26.92	0.492	< 30
	2422.0		28.30	0.676	< 30
	2437.0		29.70	0.933	< 30
	2452.0		27.91	0.618	< 30
	2457.0		26.97	0.497	< 30
	2462.0		23.12	0.205	< 30
Mode 5	2422.0	40.5M	20.29	0.107	< 30
	2427.0		20.30	0.107	< 30
	2437.0		24.41	0.276	< 30
	2457.0		19.49	0.089	< 30
	2452.0		19.80	0.095	< 30

Note:1. The relevant measured result has the offset with cable loss already.

2. Evaluated high and low data rate, the report record worst case low data rate measurement results.



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 4	2412.0	19.5M	13.83	0.024	< 29.40
	2417.0		21.92	0.156	< 29.40
	2422.0		23.41	0.219	< 29.40
	2437.0		23.78	0.239	< 29.40
	2452.0		23.24	0.211	< 29.40
	2457.0		21.88	0.154	< 29.40
	2462.0		15.91	0.039	< 29.40
Mode 5	2422.0	40.5M	14.11	0.026	< 29.40
	2427.0		15.27	0.034	< 29.40
	2437.0		17.06	0.051	< 29.40
	2457.0		15.01	0.032	< 29.40
	2452.0		14.28	0.027	< 29.40

Note:1. The relevant measured result has the offset with cable loss already.

2. Evaluated high and low data rate, the report record worst case low data rate measurement results.



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	2412.0	19.5M	14.51	0.028	< 29.40
	2417.0		22.78	0.190	< 29.40
	2422.0		24.45	0.279	< 29.40
	2437.0		25.15	0.327	< 29.40
	2452.0		24.78	0.301	< 29.40
	2457.0		22.98	0.199	< 29.40
	2462.0		16.97	0.050	< 29.40
Mode 5	2422.0	40.5M	15.09	0.032	< 29.40
	2427.0		16.39	0.044	< 29.40
	2437.0		18.23	0.067	< 29.40
	2457.0		16.28	0.042	< 29.40
	2452.0		15.61	0.036	< 29.40

Note:1. The relevant measured result has the offset with cable loss already.

2. Evaluated high and low data rate, the report record worst case low data rate measurement results.



Test Item		Maximum Conducted Output Power			
ANT-2					
Test Mode	Frequency (MHz)	Data Rate	Average Output Power		
			Measurement Results		Limit
			dBm	W	dBm
Mode 4	2412.0	19.5M	14.11	0.026	< 29.40
	2417.0		22.02	0.159	< 29.40
	2422.0		23.57	0.228	< 29.40
	2437.0		24.36	0.273	< 29.40
	2452.0		23.64	0.231	< 29.40
	2457.0		22.04	0.160	< 29.40
	2462.0		16.24	0.042	< 29.40
Mode 5	2422.0	40.5M	14.43	0.028	< 29.40
	2427.0		15.77	0.038	< 29.40
	2437.0		17.68	0.059	< 29.40
	2457.0		15.68	0.037	< 29.40
	2452.0		14.74	0.030	< 29.40

Note:1. The relevant measured result has the offset with cable loss already.

2. Evaluated high and low data rate, the report record worst case low data rate measurement results.



Test Item		Maximum Conducted Output Power			
ANT-0+1+2					
Test Mode	Frequency (MHz)	Data Rate	Average Output Power		
			Measurement Results		Limit
			dBm	W	dBm
Mode 4	2412.0	19.5M	18.93	0.078	< 29.40
	2417.0		27.03	0.504	< 29.40
	2422.0		28.61	0.725	< 29.40
	2437.0		29.24	0.839	< 29.40
	2452.0		28.71	0.743	< 29.40
	2457.0		27.10	0.513	< 29.40
	2462.0		21.17	0.131	< 29.40
Mode 5	2422.0	40.5M	19.33	0.086	< 29.40
	2427.0		20.61	0.115	< 29.40
	2437.0		22.45	0.176	< 29.40
	2457.0		20.46	0.111	< 29.40
	2452.0		19.68	0.093	< 29.40

Note:1. The relevant measured result has the offset with cable loss already.

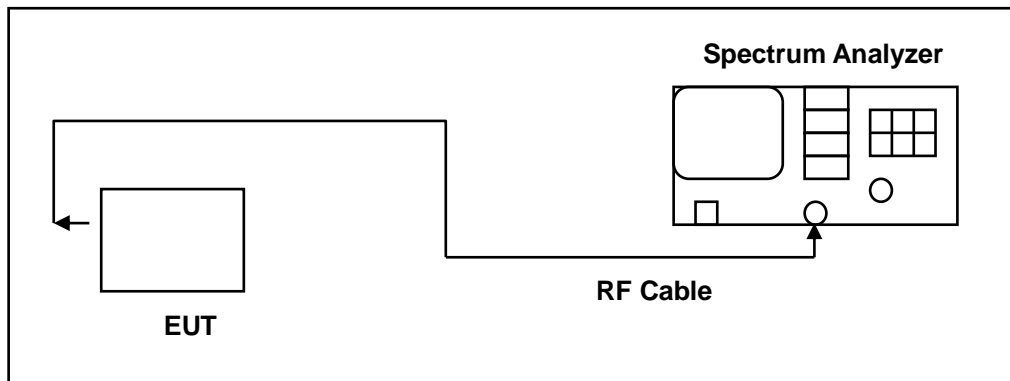
2. Evaluated high and low data rate, the report record worst case low data rate measurement results.

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	ANT-2	
Mode 2	2412	8112	8064	8088	> 500
	2437	8146	9062	8608	> 500
	2462	8154	8570	8127	> 500
Mode 3	2412	16403	16434	16490	> 500
	2437	16446	16469	16495	> 500
	2462	16421	16139	16408	> 500
Mode 4	2412	17603	17605	17635	> 500
	2437	17575	17643	17611	> 500
	2462	17590	17604	17633	> 500
Mode 5	2422	36379	35893	35997	> 500
	2437	35921	36402	36386	> 500
	2452	36254	35830	35821	> 500

Beamforming on

Test Mode	Frequency (MHz)	Measurement (kHz)			Limit (kHz)
		ANT-0	ANT-1	ANT-2	
Mode 4	2412	17781	17633	16586	> 500
	2437	17776	17620	17721	> 500
	2462	16940	17441	10144	> 500
Mode 5	2422	33375	32303	35976	> 500
	2437	36363	36357	32623	> 500
	2452	35038	32619	35695	> 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

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	



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

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	



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

<p>2422 MHz</p>	<p>Agilent R T</p> <p>Ch Freq 2.422 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 20 dB</p> <p>#Peak Log 10 dB/Offset 10.8 dB</p> <p>Center 2.422 GHz Span 50 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 5.18 ms (401 pts)</p> <p>Occupied Bandwidth 36.0985 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error 28.542 kHz x dB Bandwidth 36.379 MHz</p> <p>Freq/Channel</p> <p>Center Freq 2.42200000 GHz</p> <p>Start Freq 2.39700000 GHz</p> <p>Stop Freq 2.44700000 GHz</p> <p>CF Step 5.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>
<p>2437 MHz</p>	<p>Agilent R T</p> <p>Ch Freq 2.437 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 20 dB</p> <p>#Peak Log 10 dB/Offset 10.8 dB</p> <p>Center 2.437 GHz Span 50 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 5.18 ms (401 pts)</p> <p>Occupied Bandwidth 36.0313 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error 30.259 kHz x dB Bandwidth 35.921 MHz</p> <p>Freq/Channel</p> <p>Center Freq 2.43700000 GHz</p> <p>Start Freq 2.41200000 GHz</p> <p>Stop Freq 2.46200000 GHz</p> <p>CF Step 5.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>
<p>2452 MHz</p>	<p>Agilent R T</p> <p>Ch Freq 2.452 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 20 dB</p> <p>#Peak Log 10 dB/Offset 10.8 dB</p> <p>Center 2.452 GHz Span 50 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 5.18 ms (401 pts)</p> <p>Occupied Bandwidth 36.0219 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error -9.867 kHz x dB Bandwidth 36.254 MHz</p> <p>Freq/Channel</p> <p>Center Freq 2.45200000 GHz</p> <p>Start Freq 2.42700000 GHz</p> <p>Stop Freq 2.47700000 GHz</p> <p>CF Step 5.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>



Mode 2: IEEE 802.11b Continuous TX mode_ANT-1

<p>2412 MHz</p>	<p>Agilent R T</p> <p>Ch Freq 2.412 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 20 dB</p> <p>#Peak Log 10 dB/Offset 10.8 dB</p> <p>Center 2.412 GHz Span 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts)</p> <p>Occupied Bandwidth 11.3803 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error 138.338 kHz x dB Bandwidth 8.064 MHz</p> <p>Freq/Channel: Center Freq 2.41200000 GHz, Start Freq 2.39700000 GHz, Stop Freq 2.42700000 GHz, CF Step 3.00000000 MHz, Freq Offset 0.00000000 Hz, Signal Track On</p>
<p>2437 MHz</p>	<p>Agilent R T</p> <p>Ch Freq 2.437 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 20 dB</p> <p>#Peak Log 10 dB/Offset 10.8 dB</p> <p>Center 2.437 GHz Span 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts)</p> <p>Occupied Bandwidth 11.7188 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error -59.141 kHz x dB Bandwidth 9.062 MHz</p> <p>Freq/Channel: Center Freq 2.43700000 GHz, Start Freq 2.42200000 GHz, Stop Freq 2.45200000 GHz, CF Step 3.00000000 MHz, Freq Offset 0.00000000 Hz, Signal Track On</p>
<p>2462 MHz</p>	<p>Agilent R T</p> <p>Ch Freq 2.462 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 20 dB</p> <p>#Peak Log 10 dB/Offset 10.8 dB</p> <p>Center 2.462 GHz Span 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts)</p> <p>Occupied Bandwidth 11.3177 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error 223.096 kHz x dB Bandwidth 8.570 MHz</p> <p>Freq/Channel: Center Freq 2.46200000 GHz, Start Freq 2.44700000 GHz, Stop Freq 2.47700000 GHz, CF Step 3.00000000 MHz, Freq Offset 0.00000000 Hz, Signal Track On</p>



Mode 3: IEEE 802.11g Continuous TX mode_ANT-1

<p>2412 MHz</p>	<p>Agilent R T</p> <p>Ch Freq 2.412 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 20 dB</p> <p>#Peak</p> <p>Log</p> <p>10</p> <p>dB/</p> <p>Offset 10.8</p> <p>dB</p> <p>Center 2.412 GHz Span 30 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts)</p> <p>Occupied Bandwidth Occ BW % Pwr 99.00 %</p> <p>16.4329 MHz x dB -6.00 dB</p> <p>Transmit Freq Error 36.646 kHz</p> <p>x dB Bandwidth 16.434 MHz</p> <p>Freq/Channel</p> <p>Center Freq 2.41200000 GHz</p> <p>Start Freq 2.39700000 GHz</p> <p>Stop Freq 2.42700000 GHz</p> <p>CF Step 3.00000000 MHz</p> <p>Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>
<p>2437 MHz</p>	<p>Agilent R T</p> <p>Ch Freq 2.437 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 20 dB</p> <p>#Peak</p> <p>Log</p> <p>10</p> <p>dB/</p> <p>Offset 10.8</p> <p>dB</p> <p>Center 2.437 GHz Span 30 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts)</p> <p>Occupied Bandwidth Occ BW % Pwr 99.00 %</p> <p>16.5489 MHz x dB -6.00 dB</p> <p>Transmit Freq Error -10.224 kHz</p> <p>x dB Bandwidth 16.469 MHz</p> <p>Freq/Channel</p> <p>Center Freq 2.43700000 GHz</p> <p>Start Freq 2.42200000 GHz</p> <p>Stop Freq 2.45200000 GHz</p> <p>CF Step 3.00000000 MHz</p> <p>Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>
<p>2462 MHz</p>	<p>Agilent R T</p> <p>Ch Freq 2.462 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 20 dB</p> <p>#Peak</p> <p>Log</p> <p>10</p> <p>dB/</p> <p>Offset 10.8</p> <p>dB</p> <p>Center 2.462 GHz Span 30 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts)</p> <p>Occupied Bandwidth Occ BW % Pwr 99.00 %</p> <p>16.4032 MHz x dB -6.00 dB</p> <p>Transmit Freq Error 54.318 kHz</p> <p>x dB Bandwidth 16.139 MHz</p> <p>Freq/Channel</p> <p>Center Freq 2.46200000 GHz</p> <p>Start Freq 2.44700000 GHz</p> <p>Stop Freq 2.47700000 GHz</p> <p>CF Step 3.00000000 MHz</p> <p>Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>



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

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	



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

<p>2422 MHz</p>	<p>Agilent R T</p> <p>Ch Freq 2.422 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 20 dB</p> <p>#Peak Log 10 dB/Offset 10.8 dB</p> <p>Center 2.422 GHz Span 50 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 5.18 ms (401 pts)</p> <p>Occupied Bandwidth 36.0263 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error 37.796 kHz x dB Bandwidth 35.893 MHz</p> <p>Freq/Channel</p> <p>Center Freq 2.42200000 GHz</p> <p>Start Freq 2.39700000 GHz</p> <p>Stop Freq 2.44700000 GHz</p> <p>CF Step 5.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>
<p>2437 MHz</p>	<p>Agilent R T</p> <p>Ch Freq 2.437 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 20 dB</p> <p>#Peak Log 10 dB/Offset 10.8 dB</p> <p>Center 2.437 GHz Span 50 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 5.18 ms (401 pts)</p> <p>Occupied Bandwidth 36.1481 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error 22.285 kHz x dB Bandwidth 36.402 MHz</p> <p>Freq/Channel</p> <p>Center Freq 2.43700000 GHz</p> <p>Start Freq 2.41200000 GHz</p> <p>Stop Freq 2.46200000 GHz</p> <p>CF Step 5.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>
<p>2452 MHz</p>	<p>Agilent R T</p> <p>Ch Freq 2.452 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 20 dB</p> <p>#Peak Log 10 dB/Offset 10.8 dB</p> <p>Center 2.452 GHz Span 50 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 5.18 ms (401 pts)</p> <p>Occupied Bandwidth 36.0470 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error 81.958 kHz x dB Bandwidth 35.830 MHz</p> <p>Freq/Channel</p> <p>Center Freq 2.45200000 GHz</p> <p>Start Freq 2.42700000 GHz</p> <p>Stop Freq 2.47700000 GHz</p> <p>CF Step 5.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>



Mode 2: IEEE 802.11b Continuous TX mode_ANT-2

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	

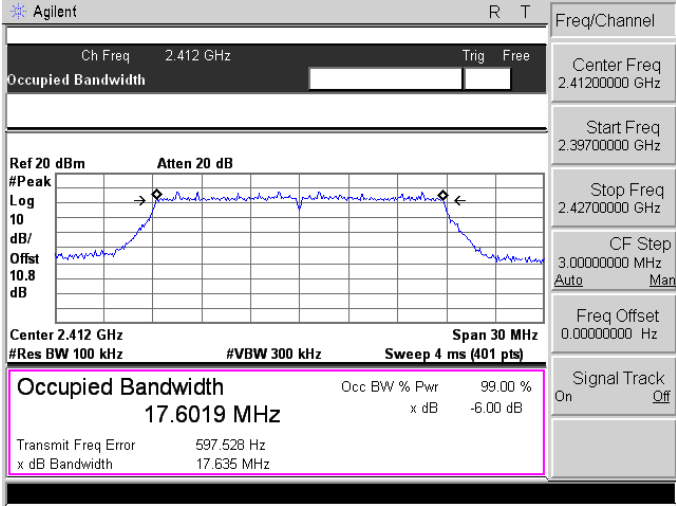
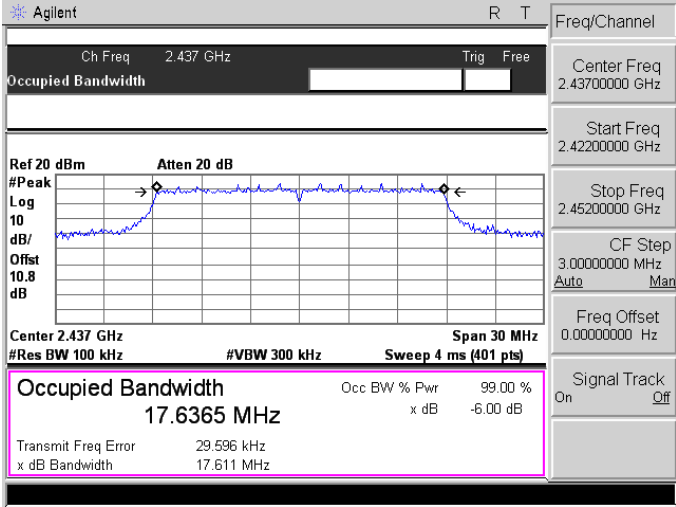
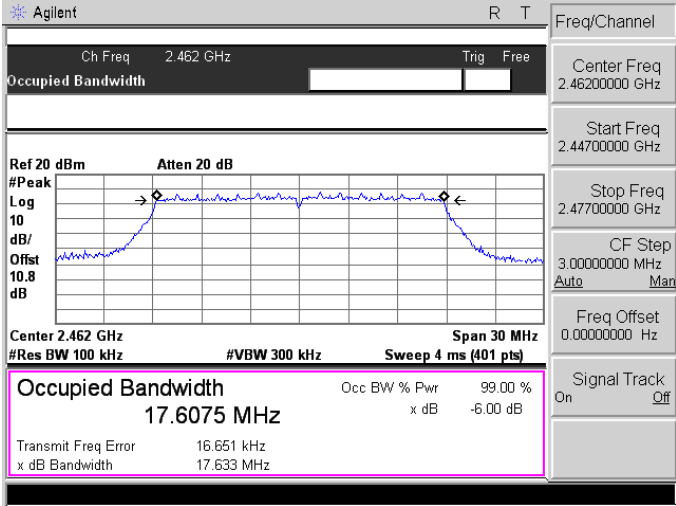


Mode 3: IEEE 802.11g Continuous TX mode_ANT-2

<p>2412 MHz</p>	<p>Agilent R T</p> <p>Ch Freq 2.412 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 20 dB</p> <p>#Peak</p> <p>Log</p> <p>10</p> <p>dB/</p> <p>Offset</p> <p>10.8</p> <p>dB</p> <p>Center 2.412 GHz Span 30 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts)</p> <p>Occupied Bandwidth Occ BW % Pwr 99.00 %</p> <p>16.4597 MHz x dB -6.00 dB</p> <p>Transmit Freq Error 12.937 kHz</p> <p>x dB Bandwidth 16.490 MHz</p> <p>Freq/Channel</p> <p>Center Freq 2.41200000 GHz</p> <p>Start Freq 2.39700000 GHz</p> <p>Stop Freq 2.42700000 GHz</p> <p>CF Step 3.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>
<p>2437 MHz</p>	<p>Agilent R T</p> <p>Ch Freq 2.437 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 20 dB</p> <p>#Peak</p> <p>Log</p> <p>10</p> <p>dB/</p> <p>Offset</p> <p>10.8</p> <p>dB</p> <p>Center 2.437 GHz Span 30 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts)</p> <p>Occupied Bandwidth Occ BW % Pwr 99.00 %</p> <p>16.4980 MHz x dB -6.00 dB</p> <p>Transmit Freq Error 22.020 kHz</p> <p>x dB Bandwidth 16.495 MHz</p> <p>Freq/Channel</p> <p>Center Freq 2.43700000 GHz</p> <p>Start Freq 2.42200000 GHz</p> <p>Stop Freq 2.45200000 GHz</p> <p>CF Step 3.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>
<p>2462 MHz</p>	<p>Agilent R T</p> <p>Ch Freq 2.462 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 20 dB</p> <p>#Peak</p> <p>Log</p> <p>10</p> <p>dB/</p> <p>Offset</p> <p>10.8</p> <p>dB</p> <p>Center 2.462 GHz Span 30 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts)</p> <p>Occupied Bandwidth Occ BW % Pwr 99.00 %</p> <p>16.4150 MHz x dB -6.00 dB</p> <p>Transmit Freq Error 8.271 kHz</p> <p>x dB Bandwidth 16.408 MHz</p> <p>Freq/Channel</p> <p>Center Freq 2.46200000 GHz</p> <p>Start Freq 2.44700000 GHz</p> <p>Stop Freq 2.47700000 GHz</p> <p>CF Step 3.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>



Mode 4: IEEE 802.11n 2.4GHz 20MHz Continuous TX mode_ANT-2

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	



Mode 5: IEEE 802.11n 2.4GHz 40MHz Continuous TX mode_ANT-2

<p>2422 MHz</p>	
<p>2437 MHz</p>	
<p>2452 MHz</p>	



Beamforming on

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

<p>2412 MHz</p>	<p>Agilent R T</p> <p>Ch Freq 2.412 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 15 dBm Atten 10 dB</p> <p>#Peak Log dB/Offset 15 dB</p> <p>Center 2.412 GHz Span 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts)</p> <p>Occupied Bandwidth 17.6353 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error -37.374 kHz x dB Bandwidth 17.781 MHz</p> <p>Freq/Channel</p> <p>Center Freq 2.41200000 GHz</p> <p>Start Freq 2.39700000 GHz</p> <p>Stop Freq 2.42700000 GHz</p> <p>CF Step 3.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>
<p>2437 MHz</p>	<p>Agilent R T</p> <p>Ch Freq 2.437 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 15 dB</p> <p>#Peak Log dB/Offset 15 dB</p> <p>Center 2.437 GHz Span 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts)</p> <p>Occupied Bandwidth 17.6465 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error 12.850 kHz x dB Bandwidth 17.776 MHz</p> <p>Freq/Channel</p> <p>Center Freq 2.43700000 GHz</p> <p>Start Freq 2.42200000 GHz</p> <p>Stop Freq 2.45200000 GHz</p> <p>CF Step 3.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>
<p>2462 MHz</p>	<p>Agilent R T</p> <p>Ch Freq 2.462 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 15 dB</p> <p>#Peak Log dB/Offset 15 dB</p> <p>Center 2.462 GHz Span 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts)</p> <p>Occupied Bandwidth 17.5834 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error -9.970 kHz x dB Bandwidth 16.940 MHz</p> <p>Freq/Channel</p> <p>Center Freq 2.46200000 GHz</p> <p>Start Freq 2.44700000 GHz</p> <p>Stop Freq 2.47700000 GHz</p> <p>CF Step 3.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>



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

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	



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

<p>2422 MHz</p>	
<p>2437 MHz</p>	
<p>2452 MHz</p>	



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

<p>2412 MHz</p>	<p>Agilent R T</p> <p>Ch Freq 2.422 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 15 dB</p> <p>#Peak</p> <p>Log</p> <p>10</p> <p>dB/</p> <p>Offset</p> <p>15</p> <p>dB</p> <p>Center 2.422 GHz Span 50 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 5.18 ms (401 pts)</p> <p>Occupied Bandwidth Occ BW % Pwr 99.00 %</p> <p>35.9134 MHz x dB -6.00 dB</p> <p>Transmit Freq Error -2.153 kHz</p> <p>x dB Bandwidth 32.303 MHz</p> <p>Freq/Channel</p> <p>Center Freq 2.42200000 GHz</p> <p>Start Freq 2.39700000 GHz</p> <p>Stop Freq 2.44700000 GHz</p> <p>CF Step 5.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>
<p>2437 MHz</p>	<p>Agilent R T</p> <p>Ch Freq 2.437 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 15 dB</p> <p>#Peak</p> <p>Log</p> <p>10</p> <p>dB/</p> <p>Offset</p> <p>15</p> <p>dB</p> <p>Center 2.437 GHz Span 50 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 5.18 ms (401 pts)</p> <p>Occupied Bandwidth Occ BW % Pwr 99.00 %</p> <p>36.1402 MHz x dB -6.00 dB</p> <p>Transmit Freq Error 17.548 kHz</p> <p>x dB Bandwidth 36.357 MHz</p> <p>Freq/Channel</p> <p>Center Freq 2.43700000 GHz</p> <p>Start Freq 2.41200000 GHz</p> <p>Stop Freq 2.46200000 GHz</p> <p>CF Step 5.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>
<p>2462 MHz</p>	<p>Agilent R T</p> <p>Ch Freq 2.452 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 15 dB</p> <p>#Peak</p> <p>Log</p> <p>10</p> <p>dB/</p> <p>Offset</p> <p>15</p> <p>dB</p> <p>Center 2.452 GHz Span 50 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 5.18 ms (401 pts)</p> <p>Occupied Bandwidth Occ BW % Pwr 99.00 %</p> <p>36.0364 MHz x dB -6.00 dB</p> <p>Transmit Freq Error 79.639 kHz</p> <p>x dB Bandwidth 32.619 MHz</p> <p>Freq/Channel</p> <p>Center Freq 2.45200000 GHz</p> <p>Start Freq 2.42700000 GHz</p> <p>Stop Freq 2.47700000 GHz</p> <p>CF Step 5.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>



Mode 4: IEEE 802.11n 2.4GHz 20MHz Continuous TX mode_ANT-2

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	



Mode 5: IEEE 802.11n 2.4GHz 40MHz Continuous TX mode_ANT-2

<p>2422 MHz</p>	<table border="1"> <tr> <td colspan="2">Agilent</td> <td>R</td> <td>T</td> </tr> <tr> <td colspan="2">Ch Freq 2.422 GHz</td> <td>Trig</td> <td>Free</td> </tr> <tr> <td colspan="4">Occupied Bandwidth</td> </tr> <tr> <td colspan="2">Ref 20 dBm</td> <td colspan="2">Atten 15 dB</td> </tr> <tr> <td>#Peak</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Log</td> <td></td> <td></td> <td></td> </tr> <tr> <td>10</td> <td></td> <td></td> <td></td> </tr> <tr> <td>dB/</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Offset</td> <td></td> <td></td> <td></td> </tr> <tr> <td>15</td> <td></td> <td></td> <td></td> </tr> <tr> <td>dB</td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="2">Center 2.422 GHz</td> <td colspan="2">Span 50 MHz</td> </tr> <tr> <td>#Res BW 100 kHz</td> <td>#VBW 300 kHz</td> <td colspan="2">Sweep 5.18 ms (401 pts)</td> </tr> <tr> <td colspan="2">Occupied Bandwidth</td> <td>Occ BW % Pwr</td> <td>99.00 %</td> </tr> <tr> <td colspan="2">36.0972 MHz</td> <td>x dB</td> <td>-6.00 dB</td> </tr> <tr> <td>Transmit Freq Error</td> <td>39.599 kHz</td> <td colspan="2"></td> </tr> <tr> <td>x dB Bandwidth</td> <td>35.976 MHz</td> <td colspan="2"></td> </tr> <tr> <td colspan="2">Freq/Channel</td> <td colspan="2">Center Freq 2.42200000 GHz</td> </tr> <tr> <td colspan="2"></td> <td colspan="2">Start Freq 2.39700000 GHz</td> </tr> <tr> <td colspan="2"></td> <td colspan="2">Stop Freq 2.44700000 GHz</td> </tr> <tr> <td colspan="2"></td> <td colspan="2">CF Step 5.00000000 MHz</td> </tr> <tr> <td colspan="2"></td> <td colspan="2">Auto Man</td> </tr> <tr> <td colspan="2"></td> <td colspan="2">Freq Offset 0.00000000 Hz</td> </tr> <tr> <td colspan="2">Signal Track</td> <td colspan="2">On Off</td> </tr> </table>	Agilent		R	T	Ch Freq 2.422 GHz		Trig	Free	Occupied Bandwidth				Ref 20 dBm		Atten 15 dB		#Peak				Log				10				dB/				Offset				15				dB				Center 2.422 GHz		Span 50 MHz		#Res BW 100 kHz	#VBW 300 kHz	Sweep 5.18 ms (401 pts)		Occupied Bandwidth		Occ BW % Pwr	99.00 %	36.0972 MHz		x dB	-6.00 dB	Transmit Freq Error	39.599 kHz			x dB Bandwidth	35.976 MHz			Freq/Channel		Center Freq 2.42200000 GHz				Start Freq 2.39700000 GHz				Stop Freq 2.44700000 GHz				CF Step 5.00000000 MHz				Auto Man				Freq Offset 0.00000000 Hz		Signal Track		On Off	
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<p>2437 MHz</p>	<table border="1"> <tr> <td colspan="2">Agilent</td> <td>R</td> <td>T</td> </tr> <tr> <td colspan="2">Ch Freq 2.437 GHz</td> <td>Trig</td> <td>Free</td> </tr> <tr> <td colspan="4">Occupied Bandwidth</td> </tr> <tr> <td colspan="2">Ref 20 dBm</td> <td colspan="2">Atten 15 dB</td> </tr> <tr> <td>#Peak</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Log</td> <td></td> <td></td> <td></td> </tr> <tr> <td>10</td> <td></td> <td></td> <td></td> </tr> <tr> <td>dB/</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Offset</td> <td></td> <td></td> <td></td> </tr> <tr> <td>15</td> <td></td> <td></td> <td></td> </tr> <tr> <td>dB</td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="2">Center 2.437 GHz</td> <td colspan="2">Span 50 MHz</td> </tr> <tr> <td>#Res BW 100 kHz</td> <td>#VBW 300 kHz</td> <td colspan="2">Sweep 5.18 ms (401 pts)</td> </tr> <tr> <td colspan="2">Occupied Bandwidth</td> <td>Occ BW % Pwr</td> <td>99.00 %</td> </tr> <tr> <td colspan="2">35.9345 MHz</td> <td>x dB</td> <td>-6.00 dB</td> </tr> <tr> <td>Transmit Freq Error</td> <td>63.801 kHz</td> <td colspan="2"></td> </tr> <tr> <td>x dB Bandwidth</td> <td>32.623 MHz</td> <td colspan="2"></td> </tr> <tr> <td colspan="2">Freq/Channel</td> <td colspan="2">Center Freq 2.43700000 GHz</td> </tr> <tr> <td colspan="2"></td> <td colspan="2">Start Freq 2.41200000 GHz</td> </tr> <tr> <td colspan="2"></td> <td colspan="2">Stop Freq 2.46200000 GHz</td> </tr> <tr> <td colspan="2"></td> <td colspan="2">CF Step 5.00000000 MHz</td> </tr> <tr> <td colspan="2"></td> <td colspan="2">Auto Man</td> </tr> <tr> <td colspan="2"></td> <td colspan="2">Freq Offset 0.00000000 Hz</td> </tr> <tr> <td colspan="2">Signal Track</td> <td colspan="2">On Off</td> </tr> </table>	Agilent		R	T	Ch Freq 2.437 GHz		Trig	Free	Occupied Bandwidth				Ref 20 dBm		Atten 15 dB		#Peak				Log				10				dB/				Offset				15				dB				Center 2.437 GHz		Span 50 MHz		#Res BW 100 kHz	#VBW 300 kHz	Sweep 5.18 ms (401 pts)		Occupied Bandwidth		Occ BW % Pwr	99.00 %	35.9345 MHz		x dB	-6.00 dB	Transmit Freq Error	63.801 kHz			x dB Bandwidth	32.623 MHz			Freq/Channel		Center Freq 2.43700000 GHz				Start Freq 2.41200000 GHz				Stop Freq 2.46200000 GHz				CF Step 5.00000000 MHz				Auto Man				Freq Offset 0.00000000 Hz		Signal Track		On Off	
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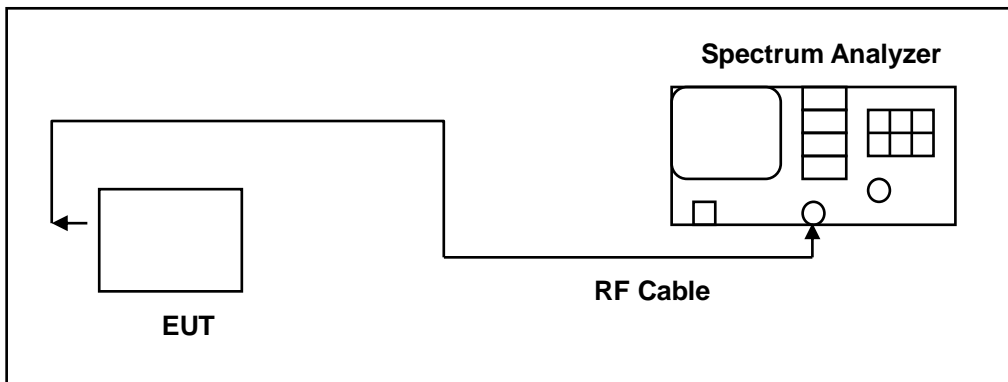
8 Maximum Power Density Measurement

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.

- * CDD/Beamforming mode : Directional Gain = $10 \cdot \log\{[10^{(G1/20)} + 10^{(G2/20)} + \dots + 10^{(Gn/20)}]^2 / NANT\}$ = 6.6 dBi > 6dBi
- * CDD/Beamforming mode power limit shall be reduced = $8 - 0.6 = 7.4$ dBm.

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-2	ANT-0+1+2	
Mode 2	2412	1.894	2.767	2.288	7.102	< 7.4
	2437	1.857	2.904	2.200	7.114	< 7.4
	2462	1.524	2.762	2.023	6.904	< 7.4
Mode 3	2412	-6.644	-5.273	-6.611	-1.356	< 7.4
	2437	-0.052	0.929	-0.052	5.071	< 7.4
	2462	-6.609	-5.446	-6.128	-1.263	< 7.4
Mode 4	2412	-6.332	-5.769	-6.141	-1.303	< 7.4
	2437	-0.663	-0.412	-0.569	4.224	< 7.4
	2462	-6.952	-4.618	-6.210	-1.044	< 7.4
Mode 5	2422	-11.530	-11.720	-11.140	-6.685	< 7.4
	2437	-8.098	-6.505	-7.343	-2.495	< 7.4
	2452	-12.640	-11.810	-11.640	-7.237	< 7.4

Beamforming on

Test Mode	Frequency (MHz)	Measurement (dBm/3KHz)				Limit (dBm/3KHz)
		ANT-0	ANT-1	ANT-2	ANT-0+1+2	
Mode 4	2412	-10.260	-9.229	-9.678	-4.931	< 7.4
	2437	-1.029	-0.274	-1.180	3.962	< 7.4
	2462	-9.991	-8.359	-8.231	-4.019	< 7.4
Mode 5	2422	-11.470	-10.400	-10.690	-6.059	< 7.4
	2437	-8.624	-9.736	-7.933	-3.931	< 7.4
	2452	-11.010	-8.359	-10.010	-4.882	< 7.4



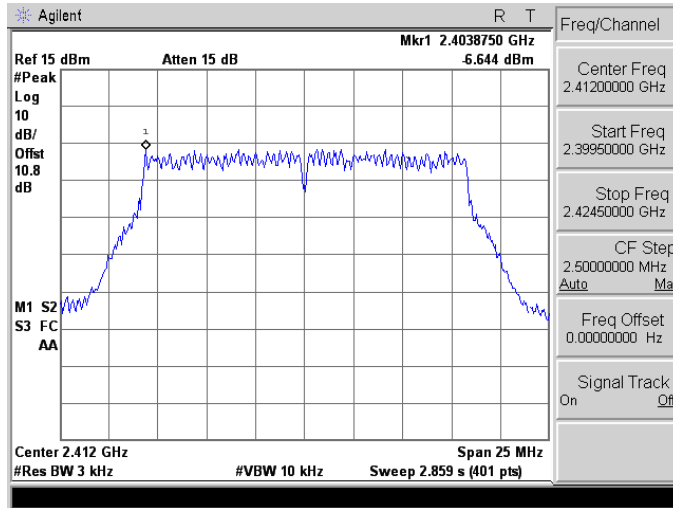
8.6. Test Graphs

Mode 2: IEEE 802.11b Continuous TX mode_ANT-0	
2412 MHz	
2437 MHz	
2462 MHz	

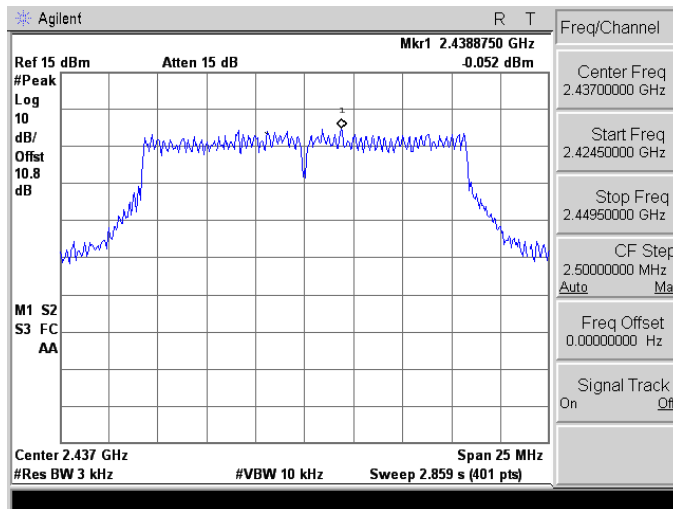


Mode 3: IEEE 802.11g Continuous TX mode_ANT-0

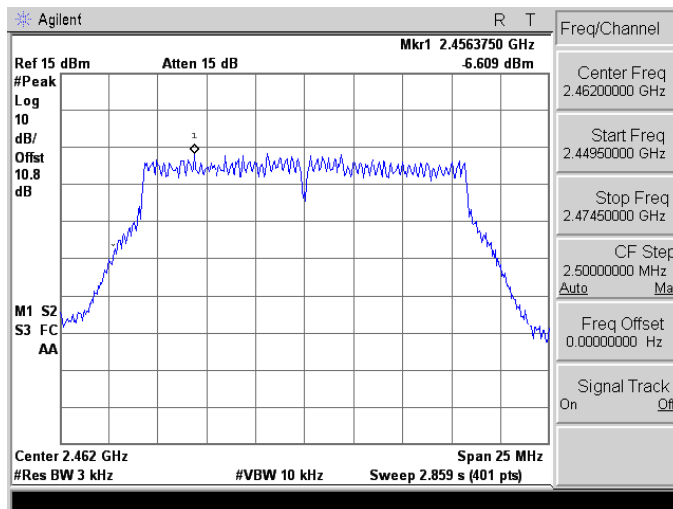
2412 MHz



2437 MHz



2462 MHz





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

2412 MHz	<p>Agilent R T Ref 15 dBm Atten 15 dB Mkr1 2.4188850 GHz #Peak Log dB/Offset 10.8 dB M1 S2 S3 FC AA Center 2.412 GHz Span 27 MHz #Res BW 3 kHz #VBW 10 kHz Sweep 3.088 s (401 pts)</p> <table border="1"><tr><td>Freq/Channel</td></tr><tr><td>Center Freq 2.41200000 GHz</td></tr><tr><td>Start Freq 2.39850000 GHz</td></tr><tr><td>Stop Freq 2.42550000 GHz</td></tr><tr><td>CF Step 2.70000000 MHz Auto Man</td></tr><tr><td>Freq Offset 0.00000000 Hz</td></tr><tr><td>Signal Track On Off</td></tr></table>	Freq/Channel	Center Freq 2.41200000 GHz	Start Freq 2.39850000 GHz	Stop Freq 2.42550000 GHz	CF Step 2.70000000 MHz Auto Man	Freq Offset 0.00000000 Hz	Signal Track On Off
Freq/Channel								
Center Freq 2.41200000 GHz								
Start Freq 2.39850000 GHz								
Stop Freq 2.42550000 GHz								
CF Step 2.70000000 MHz Auto Man								
Freq Offset 0.00000000 Hz								
Signal Track On Off								
2437 MHz	<p>Agilent R T Ref 15 dBm Atten 15 dB Mkr1 2.4416575 GHz #Peak Log dB/Offset 10.8 dB M1 S2 S3 FC AA Center 2.437 GHz Span 27 MHz #Res BW 3 kHz #VBW 10 kHz Sweep 3.088 s (401 pts)</p> <table border="1"><tr><td>Freq/Channel</td></tr><tr><td>Center Freq 2.43700000 GHz</td></tr><tr><td>Start Freq 2.42350000 GHz</td></tr><tr><td>Stop Freq 2.45050000 GHz</td></tr><tr><td>CF Step 2.70000000 MHz Auto Man</td></tr><tr><td>Freq Offset 0.00000000 Hz</td></tr><tr><td>Signal Track On Off</td></tr></table>	Freq/Channel	Center Freq 2.43700000 GHz	Start Freq 2.42350000 GHz	Stop Freq 2.45050000 GHz	CF Step 2.70000000 MHz Auto Man	Freq Offset 0.00000000 Hz	Signal Track On Off
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Start Freq 2.42350000 GHz								
Stop Freq 2.45050000 GHz								
CF Step 2.70000000 MHz Auto Man								
Freq Offset 0.00000000 Hz								
Signal Track On Off								
2462 MHz	<p>Agilent R T Ref 15 dBm Atten 15 dB Mkr1 2.4532925 GHz #Peak Log dB/Offset 10.8 dB M1 S2 S3 FC AA Center 2.462 GHz Span 27 MHz #Res BW 3 kHz #VBW 10 kHz Sweep 3.088 s (401 pts)</p> <table border="1"><tr><td>Freq/Channel</td></tr><tr><td>Center Freq 2.46200000 GHz</td></tr><tr><td>Start Freq 2.44850000 GHz</td></tr><tr><td>Stop Freq 2.47550000 GHz</td></tr><tr><td>CF Step 2.70000000 MHz Auto Man</td></tr><tr><td>Freq Offset 0.00000000 Hz</td></tr><tr><td>Signal Track On Off</td></tr></table>	Freq/Channel	Center Freq 2.46200000 GHz	Start Freq 2.44850000 GHz	Stop Freq 2.47550000 GHz	CF Step 2.70000000 MHz Auto Man	Freq Offset 0.00000000 Hz	Signal Track On Off
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Center Freq 2.46200000 GHz								
Start Freq 2.44850000 GHz								
Stop Freq 2.47550000 GHz								
CF Step 2.70000000 MHz Auto Man								
Freq Offset 0.00000000 Hz								
Signal Track On Off								



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

<p>2422 MHz</p>	
<p>2437 MHz</p>	
<p>2452 MHz</p>	



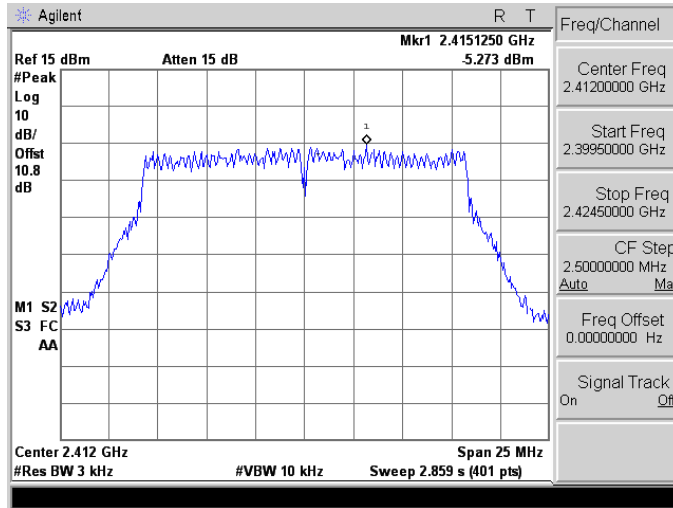
Mode 2: IEEE 802.11b Continuous TX mode_ANT-1

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	

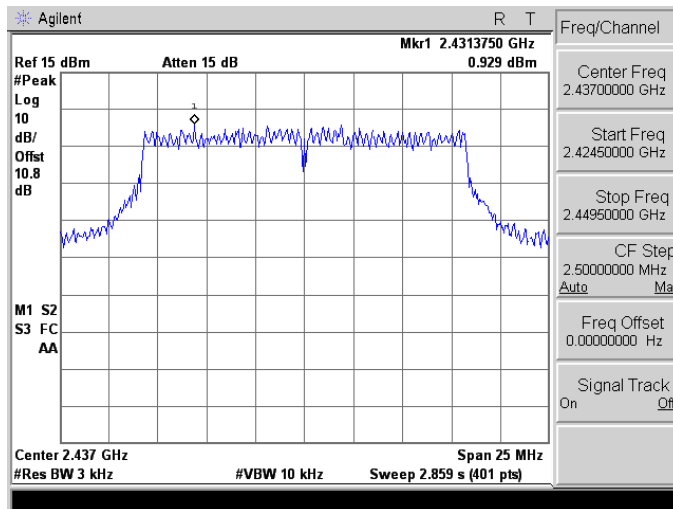


Mode 3: IEEE 802.11g Continuous TX mode_ANT-1

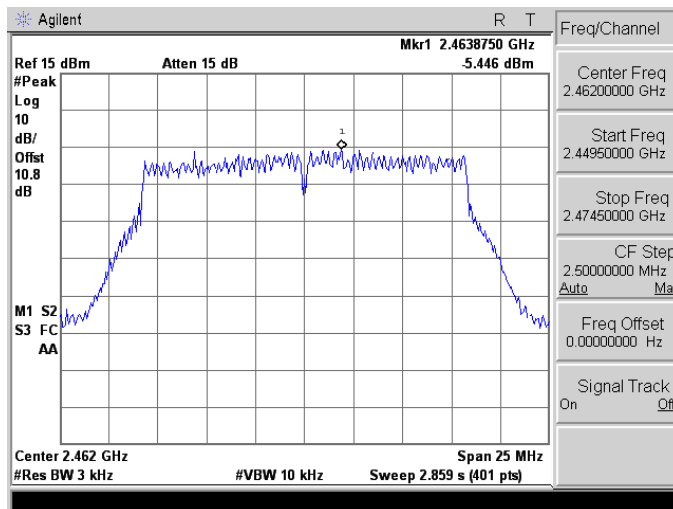
2412 MHz



2437 MHz



2462 MHz





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

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	



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

<p>2422 MHz</p>	
<p>2437 MHz</p>	
<p>2452 MHz</p>	



Mode 2: IEEE 802.11b Continuous TX mode_ANT-2

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	



Mode 3: IEEE 802.11g Continuous TX mode_ANT-2

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	



Mode 4: IEEE 802.11n 2.4GHz 20MHz Continuous TX mode_ANT-2

2412 MHz	<p>Agilent R T Mkr1 2.4107850 GHz 6.141 dBm Ref 15 dBm Atten 15 dB #Peak Log dB/Offset 10.8 dB M1 S2 S3 FC AA Center 2.412 GHz #Res BW 3 kHz #VBW 10 kHz Sweep 3.088 s (401 pts) Span 27 MHz Freq/Channel Center Freq 2.41200000 GHz Start Freq 2.39850000 GHz Stop Freq 2.42550000 GHz CF Step 2.70000000 MHz Freq Offset 0.00000000 Hz Signal Track On</p>
2437 MHz	<p>Agilent R T Mkr1 2.4372700 GHz 0.569 dBm Ref 15 dBm Atten 15 dB #Peak Log dB/Offset 10.8 dB M1 S2 S3 FC AA Center 2.437 GHz #Res BW 3 kHz #VBW 10 kHz Sweep 3.088 s (401 pts) Span 27 MHz Freq/Channel Center Freq 2.43700000 GHz Start Freq 2.42350000 GHz Stop Freq 2.45050000 GHz CF Step 2.70000000 MHz Freq Offset 0.00000000 Hz Signal Track On</p>
2462 MHz	<p>Agilent R T Mkr1 2.4539000 GHz 6.21 dBm Ref 15 dBm Atten 15 dB #Peak Log dB/Offset 10.8 dB M1 S2 S3 FC AA Center 2.462 GHz #Res BW 3 kHz #VBW 10 kHz Sweep 3.088 s (401 pts) Span 27 MHz Freq/Channel Center Freq 2.46200000 GHz Start Freq 2.44850000 GHz Stop Freq 2.47550000 GHz CF Step 2.70000000 MHz Freq Offset 0.00000000 Hz Signal Track On</p>



Mode 5: IEEE 802.11n 2.4GHz 40MHz Continuous TX mode_ANT-2

<p>2422 MHz</p>	
<p>2437 MHz</p>	
<p>2452 MHz</p>	



Beamforming on

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

<p>2412 MHz</p>	<p>Agilent R T</p> <p>Ref 10 dBm Atten 5 dB Mkr1 2.4107850 GHz -10.26 dBm</p> <p>Peak Log 10 dB/Offset 15 dB</p> <p>M1 S2 S3 FC AA</p> <p>Center 2.412 GHz Span 27 MHz #Res BW 3 kHz #VBW 10 kHz Sweep 3.088 s (401 pts)</p> <table border="1"> <tr><td>Freq/Channel</td></tr> <tr><td>Center Freq 2.41200000 GHz</td></tr> <tr><td>Start Freq 2.39850000 GHz</td></tr> <tr><td>Stop Freq 2.42550000 GHz</td></tr> <tr><td>CF Step 2.70000000 MHz Auto Man</td></tr> <tr><td>Freq Offset 0.00000000 Hz</td></tr> <tr><td>Signal Track On Off</td></tr> </table>	Freq/Channel	Center Freq 2.41200000 GHz	Start Freq 2.39850000 GHz	Stop Freq 2.42550000 GHz	CF Step 2.70000000 MHz Auto Man	Freq Offset 0.00000000 Hz	Signal Track On Off
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Center Freq 2.41200000 GHz								
Start Freq 2.39850000 GHz								
Stop Freq 2.42550000 GHz								
CF Step 2.70000000 MHz Auto Man								
Freq Offset 0.00000000 Hz								
Signal Track On Off								
<p>2437 MHz</p>	<p>Agilent R T</p> <p>Ref 10 dBm Atten 5 dB Mkr1 2.4398350 GHz -1.029 dBm</p> <p>Peak Log 10 dB/Offset 15 dB</p> <p>M1 S2 S3 FC AA</p> <p>Center 2.437 GHz Span 27 MHz #Res BW 3 kHz #VBW 10 kHz Sweep 3.088 s (401 pts)</p> <table border="1"> <tr><td>Freq/Channel</td></tr> <tr><td>Center Freq 2.43700000 GHz</td></tr> <tr><td>Start Freq 2.42350000 GHz</td></tr> <tr><td>Stop Freq 2.45050000 GHz</td></tr> <tr><td>CF Step 2.70000000 MHz Auto Man</td></tr> <tr><td>Freq Offset 0.00000000 Hz</td></tr> <tr><td>Signal Track On Off</td></tr> </table>	Freq/Channel	Center Freq 2.43700000 GHz	Start Freq 2.42350000 GHz	Stop Freq 2.45050000 GHz	CF Step 2.70000000 MHz Auto Man	Freq Offset 0.00000000 Hz	Signal Track On Off
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CF Step 2.70000000 MHz Auto Man								
Freq Offset 0.00000000 Hz								
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<p>2462 MHz</p>	<p>Agilent R T</p> <p>Ref 10 dBm Atten 5 dB Mkr1 2.4616625 GHz 9.991 dBm</p> <p>Peak Log 10 dB/Offset 15 dB</p> <p>M1 S2 S3 FC AA</p> <p>Center 2.462 GHz Span 27 MHz #Res BW 3 kHz #VBW 10 kHz Sweep 3.088 s (401 pts)</p> <table border="1"> <tr><td>Freq/Channel</td></tr> <tr><td>Center Freq 2.46200000 GHz</td></tr> <tr><td>Start Freq 2.44850000 GHz</td></tr> <tr><td>Stop Freq 2.47550000 GHz</td></tr> <tr><td>CF Step 2.70000000 MHz Auto Man</td></tr> <tr><td>Freq Offset 0.00000000 Hz</td></tr> <tr><td>Signal Track On Off</td></tr> </table>	Freq/Channel	Center Freq 2.46200000 GHz	Start Freq 2.44850000 GHz	Stop Freq 2.47550000 GHz	CF Step 2.70000000 MHz Auto Man	Freq Offset 0.00000000 Hz	Signal Track On Off
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Freq Offset 0.00000000 Hz								
Signal Track On Off								



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

<p>2422 MHz</p>	
<p>2437 MHz</p>	
<p>2452 MHz</p>	



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

<p>2412 MHz</p>	<p>Agilent R T</p> <p>Ref 10 dBm Atten 5 dB Mkr1 2.4188850 GHz 9.229 dBm</p> <p>Peak Log 10 dB/Offset 15 dB</p> <p>M1 S2 S3 FC AA</p> <p>Center 2.412 GHz Span 27 MHz #Res BW 3 kHz #VBW 10 kHz Sweep 3.088 s (401 pts)</p> <table border="1"> <tr><th colspan="2">Freq/Channel</th></tr> <tr><td>Center Freq</td><td>2.41200000 GHz</td></tr> <tr><td>Start Freq</td><td>2.39850000 GHz</td></tr> <tr><td>Stop Freq</td><td>2.42550000 GHz</td></tr> <tr><td>CF Step</td><td>2.70000000 MHz</td></tr> <tr><td>Auto</td><td>Man</td></tr> <tr><td>Freq Offset</td><td>0.00000000 Hz</td></tr> <tr><td>Signal Track</td><td>On Off</td></tr> </table>	Freq/Channel		Center Freq	2.41200000 GHz	Start Freq	2.39850000 GHz	Stop Freq	2.42550000 GHz	CF Step	2.70000000 MHz	Auto	Man	Freq Offset	0.00000000 Hz	Signal Track	On Off
Freq/Channel																	
Center Freq	2.41200000 GHz																
Start Freq	2.39850000 GHz																
Stop Freq	2.42550000 GHz																
CF Step	2.70000000 MHz																
Auto	Man																
Freq Offset	0.00000000 Hz																
Signal Track	On Off																
<p>2437 MHz</p>	<p>Agilent R T</p> <p>Ref 10 dBm Atten 5 dB Mkr1 2.4399025 GHz 0.274 dBm</p> <p>Peak Log 10 dB/Offset 15 dB</p> <p>M1 S2 S3 FC AA</p> <p>Center 2.437 GHz Span 27 MHz #Res BW 3 kHz #VBW 10 kHz Sweep 3.088 s (401 pts)</p> <table border="1"> <tr><th colspan="2">Freq/Channel</th></tr> <tr><td>Center Freq</td><td>2.43700000 GHz</td></tr> <tr><td>Start Freq</td><td>2.42350000 GHz</td></tr> <tr><td>Stop Freq</td><td>2.45050000 GHz</td></tr> <tr><td>CF Step</td><td>2.70000000 MHz</td></tr> <tr><td>Auto</td><td>Man</td></tr> <tr><td>Freq Offset</td><td>0.00000000 Hz</td></tr> <tr><td>Signal Track</td><td>On Off</td></tr> </table>	Freq/Channel		Center Freq	2.43700000 GHz	Start Freq	2.42350000 GHz	Stop Freq	2.45050000 GHz	CF Step	2.70000000 MHz	Auto	Man	Freq Offset	0.00000000 Hz	Signal Track	On Off
Freq/Channel																	
Center Freq	2.43700000 GHz																
Start Freq	2.42350000 GHz																
Stop Freq	2.45050000 GHz																
CF Step	2.70000000 MHz																
Auto	Man																
Freq Offset	0.00000000 Hz																
Signal Track	On Off																
<p>2462 MHz</p>	<p>Agilent R T</p> <p>Ref 10 dBm Atten 5 dB Mkr1 2.4626750 GHz 8.359 dBm</p> <p>Peak Log 10 dB/Offset 15 dB</p> <p>M1 S2 S3 FC AA</p> <p>Center 2.462 GHz Span 27 MHz #Res BW 3 kHz #VBW 10 kHz Sweep 3.088 s (401 pts)</p> <table border="1"> <tr><th colspan="2">Freq/Channel</th></tr> <tr><td>Center Freq</td><td>2.46200000 GHz</td></tr> <tr><td>Start Freq</td><td>2.44850000 GHz</td></tr> <tr><td>Stop Freq</td><td>2.47550000 GHz</td></tr> <tr><td>CF Step</td><td>2.70000000 MHz</td></tr> <tr><td>Auto</td><td>Man</td></tr> <tr><td>Freq Offset</td><td>0.00000000 Hz</td></tr> <tr><td>Signal Track</td><td>On Off</td></tr> </table>	Freq/Channel		Center Freq	2.46200000 GHz	Start Freq	2.44850000 GHz	Stop Freq	2.47550000 GHz	CF Step	2.70000000 MHz	Auto	Man	Freq Offset	0.00000000 Hz	Signal Track	On Off
Freq/Channel																	
Center Freq	2.46200000 GHz																
Start Freq	2.44850000 GHz																
Stop Freq	2.47550000 GHz																
CF Step	2.70000000 MHz																
Auto	Man																
Freq Offset	0.00000000 Hz																
Signal Track	On Off																



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

2422 MHz	<p>Agilent R T Ref 10 dBm Atten 5 dB Mkr1 2.41650 GHz -10.4 dBm Peak Log 10 dB/Offset 15 dB M1 S2 S3 FC AA Center 2.422 GHz Span 55 MHz #Res BW 3 kHz #VBW 10 kHz Sweep 6.29 s (401 pts)</p> <table border="1"><tr><td>Freq/Channel</td></tr><tr><td>Center Freq 2.42200000 GHz</td></tr><tr><td>Start Freq 2.39450000 GHz</td></tr><tr><td>Stop Freq 2.44950000 GHz</td></tr><tr><td>CF Step 5.50000000 MHz Auto Man</td></tr><tr><td>Freq Offset 0.00000000 Hz</td></tr><tr><td>Signal Track On Off</td></tr></table>	Freq/Channel	Center Freq 2.42200000 GHz	Start Freq 2.39450000 GHz	Stop Freq 2.44950000 GHz	CF Step 5.50000000 MHz Auto Man	Freq Offset 0.00000000 Hz	Signal Track On Off
Freq/Channel								
Center Freq 2.42200000 GHz								
Start Freq 2.39450000 GHz								
Stop Freq 2.44950000 GHz								
CF Step 5.50000000 MHz Auto Man								
Freq Offset 0.00000000 Hz								
Signal Track On Off								
2437 MHz	<p>Agilent R T Ref 10 dBm Atten 5 dB Mkr1 2.42394 GHz 9.736 dBm Peak Log 10 dB/Offset 15 dB M1 S2 S3 FC AA Center 2.437 GHz Span 55 MHz #Res BW 3 kHz #VBW 10 kHz Sweep 6.29 s (401 pts)</p> <table border="1"><tr><td>Freq/Channel</td></tr><tr><td>Center Freq 2.43700000 GHz</td></tr><tr><td>Start Freq 2.40950000 GHz</td></tr><tr><td>Stop Freq 2.46450000 GHz</td></tr><tr><td>CF Step 5.50000000 MHz Auto Man</td></tr><tr><td>Freq Offset 0.00000000 Hz</td></tr><tr><td>Signal Track On Off</td></tr></table>	Freq/Channel	Center Freq 2.43700000 GHz	Start Freq 2.40950000 GHz	Stop Freq 2.46450000 GHz	CF Step 5.50000000 MHz Auto Man	Freq Offset 0.00000000 Hz	Signal Track On Off
Freq/Channel								
Center Freq 2.43700000 GHz								
Start Freq 2.40950000 GHz								
Stop Freq 2.46450000 GHz								
CF Step 5.50000000 MHz Auto Man								
Freq Offset 0.00000000 Hz								
Signal Track On Off								
2452 MHz	<p>Agilent R T Ref 10 dBm Atten 5 dB Mkr1 2.46025 GHz 8.359 dBm Peak Log 10 dB/Offset 15 dB M1 S2 S3 FC AA Center 2.452 GHz Span 55 MHz #Res BW 3 kHz #VBW 10 kHz Sweep 6.29 s (401 pts)</p> <table border="1"><tr><td>Freq/Channel</td></tr><tr><td>Center Freq 2.45200000 GHz</td></tr><tr><td>Start Freq 2.42450000 GHz</td></tr><tr><td>Stop Freq 2.47950000 GHz</td></tr><tr><td>CF Step 5.50000000 MHz Auto Man</td></tr><tr><td>Freq Offset 0.00000000 Hz</td></tr><tr><td>Signal Track On Off</td></tr></table>	Freq/Channel	Center Freq 2.45200000 GHz	Start Freq 2.42450000 GHz	Stop Freq 2.47950000 GHz	CF Step 5.50000000 MHz Auto Man	Freq Offset 0.00000000 Hz	Signal Track On Off
Freq/Channel								
Center Freq 2.45200000 GHz								
Start Freq 2.42450000 GHz								
Stop Freq 2.47950000 GHz								
CF Step 5.50000000 MHz Auto Man								
Freq Offset 0.00000000 Hz								
Signal Track On Off								



Mode 4: IEEE 802.11n 2.4GHz 20MHz Continuous TX mode_ANT-2

<p>2412 MHz</p>	<p>Agilent R T Ref 10 dBm Atten 5 dB Mkr1 2.4115950 GHz 9.678 dBm Peak Log 10 dB/Offset 15 dB M1 S2 S3 FC AA Center 2.412 GHz Span 27 MHz #Res BW 3 kHz #VBW 10 kHz Sweep 3.088 s (401 pts)</p> <table border="1"> <tr><th colspan="2">Freq/Channel</th></tr> <tr><td>Center Freq</td><td>2.41200000 GHz</td></tr> <tr><td>Start Freq</td><td>2.39850000 GHz</td></tr> <tr><td>Stop Freq</td><td>2.42550000 GHz</td></tr> <tr><td>CF Step</td><td>2.70000000 MHz</td></tr> <tr><td>Auto</td><td>Man</td></tr> <tr><td>Freq Offset</td><td>0.00000000 Hz</td></tr> <tr><td>Signal Track</td><td>On Off</td></tr> </table>	Freq/Channel		Center Freq	2.41200000 GHz	Start Freq	2.39850000 GHz	Stop Freq	2.42550000 GHz	CF Step	2.70000000 MHz	Auto	Man	Freq Offset	0.00000000 Hz	Signal Track	On Off
Freq/Channel																	
Center Freq	2.41200000 GHz																
Start Freq	2.39850000 GHz																
Stop Freq	2.42550000 GHz																
CF Step	2.70000000 MHz																
Auto	Man																
Freq Offset	0.00000000 Hz																
Signal Track	On Off																
<p>2437 MHz</p>	<p>Agilent R T Ref 10 dBm Atten 5 dB Mkr1 2.4442225 GHz -1.18 dBm Peak Log 10 dB/Offset 15 dB M1 S2 S3 FC AA Center 2.437 GHz Span 27 MHz #Res BW 3 kHz #VBW 10 kHz Sweep 3.088 s (401 pts)</p> <table border="1"> <tr><th colspan="2">Freq/Channel</th></tr> <tr><td>Center Freq</td><td>2.43700000 GHz</td></tr> <tr><td>Start Freq</td><td>2.42350000 GHz</td></tr> <tr><td>Stop Freq</td><td>2.45050000 GHz</td></tr> <tr><td>CF Step</td><td>2.70000000 MHz</td></tr> <tr><td>Auto</td><td>Man</td></tr> <tr><td>Freq Offset</td><td>0.00000000 Hz</td></tr> <tr><td>Signal Track</td><td>On Off</td></tr> </table>	Freq/Channel		Center Freq	2.43700000 GHz	Start Freq	2.42350000 GHz	Stop Freq	2.45050000 GHz	CF Step	2.70000000 MHz	Auto	Man	Freq Offset	0.00000000 Hz	Signal Track	On Off
Freq/Channel																	
Center Freq	2.43700000 GHz																
Start Freq	2.42350000 GHz																
Stop Freq	2.45050000 GHz																
CF Step	2.70000000 MHz																
Auto	Man																
Freq Offset	0.00000000 Hz																
Signal Track	On Off																
<p>2462 MHz</p>	<p>Agilent R T Ref 10 dBm Atten 5 dB Mkr1 2.4626750 GHz 8.231 dBm Peak Log 10 dB/Offset 15 dB M1 S2 S3 FC AA Center 2.462 GHz Span 27 MHz #Res BW 3 kHz #VBW 10 kHz Sweep 3.088 s (401 pts)</p> <table border="1"> <tr><th colspan="2">Freq/Channel</th></tr> <tr><td>Center Freq</td><td>2.46200000 GHz</td></tr> <tr><td>Start Freq</td><td>2.44850000 GHz</td></tr> <tr><td>Stop Freq</td><td>2.47550000 GHz</td></tr> <tr><td>CF Step</td><td>2.70000000 MHz</td></tr> <tr><td>Auto</td><td>Man</td></tr> <tr><td>Freq Offset</td><td>0.00000000 Hz</td></tr> <tr><td>Signal Track</td><td>On Off</td></tr> </table>	Freq/Channel		Center Freq	2.46200000 GHz	Start Freq	2.44850000 GHz	Stop Freq	2.47550000 GHz	CF Step	2.70000000 MHz	Auto	Man	Freq Offset	0.00000000 Hz	Signal Track	On Off
Freq/Channel																	
Center Freq	2.46200000 GHz																
Start Freq	2.44850000 GHz																
Stop Freq	2.47550000 GHz																
CF Step	2.70000000 MHz																
Auto	Man																
Freq Offset	0.00000000 Hz																
Signal Track	On Off																



Mode 5: IEEE 802.11n 2.4GHz 40MHz Continuous TX mode_ANT-2

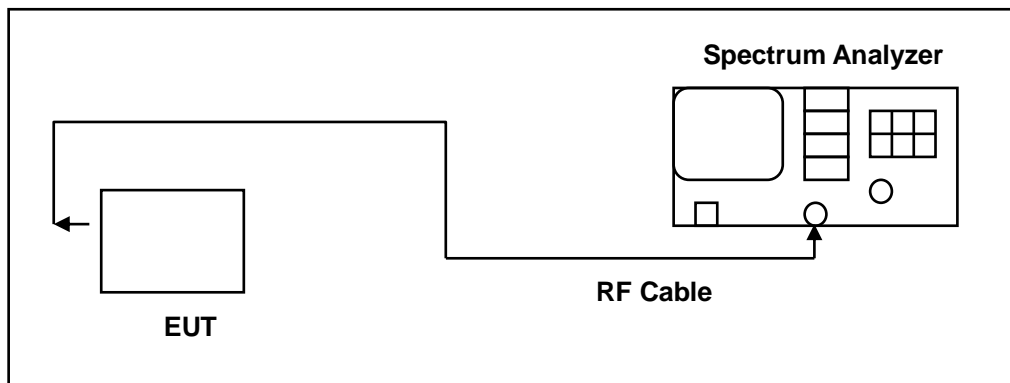
<p>2422 MHz</p>	
<p>2437 MHz</p>	
<p>2452 MHz</p>	

9 Out of Band Conducted Emissions Measurement

9.1. Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power

9.2. Test Setup



9.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
Spectrum Analyzer	Agilent	E4445A	MY45300744	12/19/2016	1 year
Spectrum Analyzer	Agilent	E4408B	MY45107753	08/08/2016	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.

9.4. Test Procedure

In any 100 kHz bandwidth outside the EUT pass band, the RF power produced by the modulation products of the spreading sequence, the information sequence, and the carrier frequency shall be at least 30dB below that of the maximum in-band 100 kHz emission, antenna output of the EUT was coupled directly to spectrum analyzer; if an external attenuator and/or cable was used, these losses are compensated for with the analyzer OFFSET function.

All other types of emissions from the EUT shall meet the general limits for radiated frequencies outside the pass band.

The test was performed at 3 channels.



9.5. Test Graphs

Reference level

Mode 2: IEEE 802.11b Continuous TX mode_ANT-0

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	



Mode 3: IEEE 802.11g Continuous TX mode_ANT-0

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	



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

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	

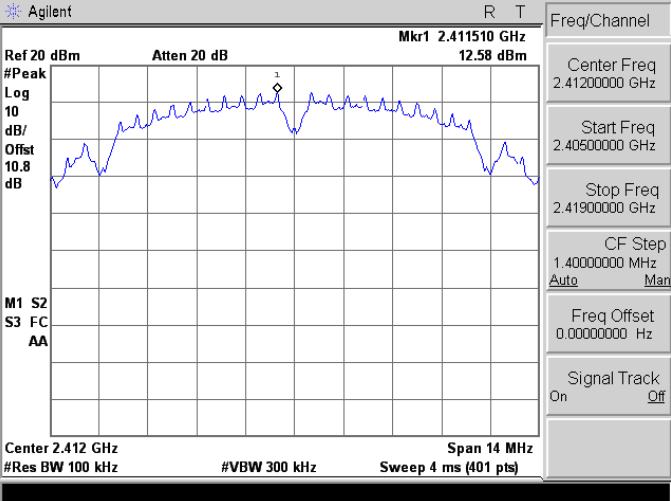
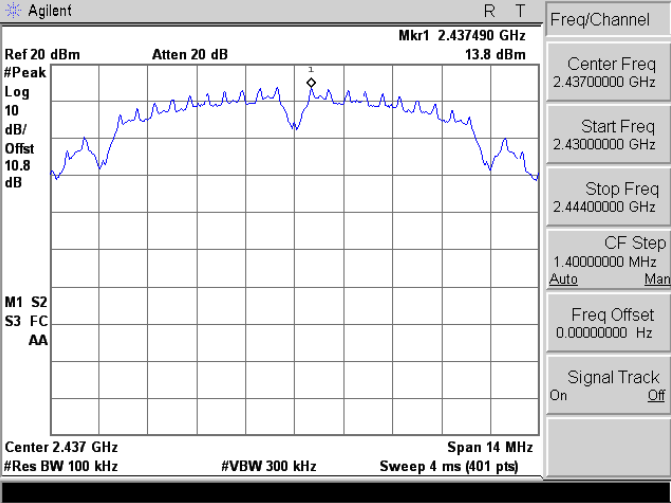
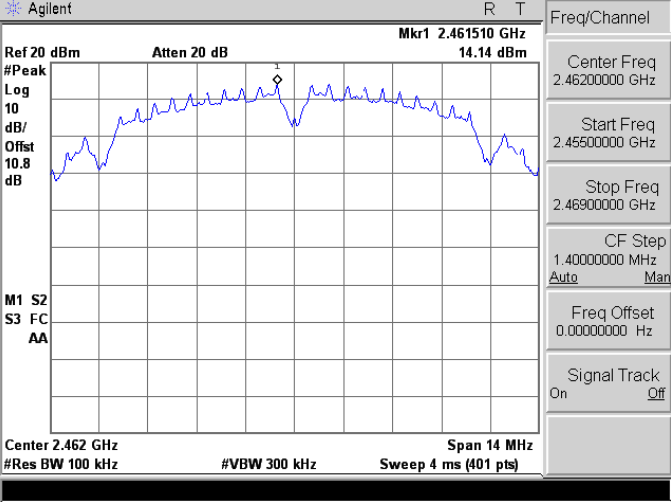


Mode 5: IEEE 802.11n 2.4GHz 40MHz Continuous TX mode_ANT-0

<p>2422 MHz</p>	
<p>2437 MHz</p>	
<p>2452 MHz</p>	



Mode 2: IEEE 802.11b Continuous TX mode_ANT-1

<p>2412 MHz</p>	 <p>Agilent R T Ref 20 dBm Atten 20 dB Mkr1 2.411510 GHz 12.58 dBm #Peak Log dB/Offst 10.8 dB M1 S2 S3 FC AA Center 2.412 GHz Span 14 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts)</p> <table border="1"><tr><th colspan="2">Freq/Channel</th></tr><tr><td>Center Freq</td><td>2.41200000 GHz</td></tr><tr><td>Start Freq</td><td>2.40500000 GHz</td></tr><tr><td>Stop Freq</td><td>2.41900000 GHz</td></tr><tr><td>CF Step</td><td>1.40000000 MHz</td></tr><tr><td></td><td>Auto Man</td></tr><tr><td>Freq Offset</td><td>0.00000000 Hz</td></tr><tr><td>Signal Track</td><td>On Off</td></tr></table>	Freq/Channel		Center Freq	2.41200000 GHz	Start Freq	2.40500000 GHz	Stop Freq	2.41900000 GHz	CF Step	1.40000000 MHz		Auto Man	Freq Offset	0.00000000 Hz	Signal Track	On Off
Freq/Channel																	
Center Freq	2.41200000 GHz																
Start Freq	2.40500000 GHz																
Stop Freq	2.41900000 GHz																
CF Step	1.40000000 MHz																
	Auto Man																
Freq Offset	0.00000000 Hz																
Signal Track	On Off																
<p>2437 MHz</p>	 <p>Agilent R T Ref 20 dBm Atten 20 dB Mkr1 2.437490 GHz 13.8 dBm #Peak Log dB/Offst 10.8 dB M1 S2 S3 FC AA Center 2.437 GHz Span 14 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts)</p> <table border="1"><tr><th colspan="2">Freq/Channel</th></tr><tr><td>Center Freq</td><td>2.43700000 GHz</td></tr><tr><td>Start Freq</td><td>2.43000000 GHz</td></tr><tr><td>Stop Freq</td><td>2.44400000 GHz</td></tr><tr><td>CF Step</td><td>1.40000000 MHz</td></tr><tr><td></td><td>Auto Man</td></tr><tr><td>Freq Offset</td><td>0.00000000 Hz</td></tr><tr><td>Signal Track</td><td>On Off</td></tr></table>	Freq/Channel		Center Freq	2.43700000 GHz	Start Freq	2.43000000 GHz	Stop Freq	2.44400000 GHz	CF Step	1.40000000 MHz		Auto Man	Freq Offset	0.00000000 Hz	Signal Track	On Off
Freq/Channel																	
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Stop Freq	2.44400000 GHz																
CF Step	1.40000000 MHz																
	Auto Man																
Freq Offset	0.00000000 Hz																
Signal Track	On Off																
<p>2462 MHz</p>	 <p>Agilent R T Ref 20 dBm Atten 20 dB Mkr1 2.461510 GHz 14.14 dBm #Peak Log dB/Offst 10.8 dB M1 S2 S3 FC AA Center 2.462 GHz Span 14 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts)</p> <table border="1"><tr><th colspan="2">Freq/Channel</th></tr><tr><td>Center Freq</td><td>2.46200000 GHz</td></tr><tr><td>Start Freq</td><td>2.45500000 GHz</td></tr><tr><td>Stop Freq</td><td>2.46900000 GHz</td></tr><tr><td>CF Step</td><td>1.40000000 MHz</td></tr><tr><td></td><td>Auto Man</td></tr><tr><td>Freq Offset</td><td>0.00000000 Hz</td></tr><tr><td>Signal Track</td><td>On Off</td></tr></table>	Freq/Channel		Center Freq	2.46200000 GHz	Start Freq	2.45500000 GHz	Stop Freq	2.46900000 GHz	CF Step	1.40000000 MHz		Auto Man	Freq Offset	0.00000000 Hz	Signal Track	On Off
Freq/Channel																	
Center Freq	2.46200000 GHz																
Start Freq	2.45500000 GHz																
Stop Freq	2.46900000 GHz																
CF Step	1.40000000 MHz																
	Auto Man																
Freq Offset	0.00000000 Hz																
Signal Track	On Off																



Mode 3: IEEE 802.11g Continuous TX mode_ANT-1

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	



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

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	



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

<p>2422 MHz</p>	
<p>2437 MHz</p>	
<p>2452 MHz</p>	



Mode 2: IEEE 802.11b Continuous TX mode_ANT-2

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	



Mode 3: IEEE 802.11g Continuous TX mode_ANT-2

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	



Mode 4: IEEE 802.11n 2.4GHz 20MHz Continuous TX mode_ANT-2

<p>2412 MHz</p>	<p>Agilent R T</p> <p>Ref 20 dBm Atten 20 dB Mkr1 2.4132825 GHz 7.906 dBm</p> <p>#Peak Log dB/Offst 10.8 dB</p> <p>M1 S2 S3 FC AA</p> <p>Center 2.412 GHz Span 27 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts)</p> <p>Freq/Channel</p> <p>Center Freq 2.41200000 GHz</p> <p>Start Freq 2.39850000 GHz</p> <p>Stop Freq 2.42550000 GHz</p> <p>CF Step 2.70000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>
<p>2437 MHz</p>	<p>Agilent R T</p> <p>Ref 20 dBm Atten 20 dB Mkr1 2.4444925 GHz 13.74 dBm</p> <p>#Peak Log dB/Offst 10.8 dB</p> <p>M1 S2 S3 FC AA</p> <p>Center 2.437 GHz Span 27 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts)</p> <p>Freq/Channel</p> <p>Center Freq 2.43700000 GHz</p> <p>Start Freq 2.42350000 GHz</p> <p>Stop Freq 2.45050000 GHz</p> <p>CF Step 2.70000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>
<p>2462 MHz</p>	<p>Agilent R T</p> <p>Ref 20 dBm Atten 20 dB Mkr1 2.4632150 GHz 7.096 dBm</p> <p>#Peak Log dB/Offst 10.8 dB</p> <p>M1 S2 S3 FC AA</p> <p>Center 2.462 GHz Span 27 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts)</p> <p>Freq/Channel</p> <p>Center Freq 2.46200000 GHz</p> <p>Start Freq 2.44850000 GHz</p> <p>Stop Freq 2.47550000 GHz</p> <p>CF Step 2.70000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>



Mode 5: IEEE 802.11n 2.4GHz 40MHz Continuous TX mode_ANT-2

<p>2422 MHz</p>	
<p>2437 MHz</p>	
<p>2452 MHz</p>	



Out of Band Conducted Emissions

Mode 2: IEEE 802.11b Continuous TX mode_ANT-0

<p>2412 MHz</p>	<p>Agilent R T</p> <p>Ref 20 dBm Atten 20 dB Mkr1 2.41 GHz 12.35 dBm</p> <p>#Peak Log 10 dB/Offst 10.8 dB DI -18.4 dBm</p> <p>Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Stop 26.5 GHz Sweep 2.742 s (401 pts)</p> <table border="1"> <thead> <tr> <th>Marker</th> <th>Trace</th> <th>Type</th> <th>X Axis</th> <th>Amplitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>(1)</td> <td>Freq</td> <td>2.41 GHz</td> <td>12.35 dBm</td> </tr> </tbody> </table> <p>Freq/Channel: Center Freq 13.2650000 GHz, Start Freq 30.0000000 MHz, Stop Freq 26.5000000 GHz, CF Step 2.64700000 GHz, Freq Offset 0.0000000 Hz, Signal Track On Off</p>	Marker	Trace	Type	X Axis	Amplitude	1	(1)	Freq	2.41 GHz	12.35 dBm
Marker	Trace	Type	X Axis	Amplitude							
1	(1)	Freq	2.41 GHz	12.35 dBm							
<p>2437 MHz</p>	<p>Agilent R T</p> <p>Ref 20 dBm Atten 20 dB Mkr1 2.44 GHz 10.86 dBm</p> <p>#Peak Log 10 dB/Offst 10.8 dB DI -17.9 dBm</p> <p>Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Stop 26.5 GHz Sweep 2.742 s (401 pts)</p> <table border="1"> <thead> <tr> <th>Marker</th> <th>Trace</th> <th>Type</th> <th>X Axis</th> <th>Amplitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>(1)</td> <td>Freq</td> <td>2.44 GHz</td> <td>10.86 dBm</td> </tr> </tbody> </table> <p>Freq/Channel: Center Freq 13.2650000 GHz, Start Freq 30.0000000 MHz, Stop Freq 26.5000000 GHz, CF Step 2.64700000 GHz, Freq Offset 0.0000000 Hz, Signal Track On Off</p>	Marker	Trace	Type	X Axis	Amplitude	1	(1)	Freq	2.44 GHz	10.86 dBm
Marker	Trace	Type	X Axis	Amplitude							
1	(1)	Freq	2.44 GHz	10.86 dBm							
<p>2462 MHz</p>	<p>Agilent R T</p> <p>Ref 20 dBm Atten 20 dB Mkr1 2.46 GHz 11.19 dBm</p> <p>#Peak Log 10 dB/Offst 10.8 dB DI -17.4 dBm</p> <p>Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Stop 26.5 GHz Sweep 2.742 s (401 pts)</p> <table border="1"> <thead> <tr> <th>Marker</th> <th>Trace</th> <th>Type</th> <th>X Axis</th> <th>Amplitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>(1)</td> <td>Freq</td> <td>2.46 GHz</td> <td>11.19 dBm</td> </tr> </tbody> </table> <p>Freq/Channel: Center Freq 13.2650000 GHz, Start Freq 30.0000000 MHz, Stop Freq 26.5000000 GHz, CF Step 2.64700000 GHz, Freq Offset 0.0000000 Hz, Signal Track On Off</p>	Marker	Trace	Type	X Axis	Amplitude	1	(1)	Freq	2.46 GHz	11.19 dBm
Marker	Trace	Type	X Axis	Amplitude							
1	(1)	Freq	2.46 GHz	11.19 dBm							



Mode 3: IEEE 802.11g Continuous TX mode_ANT-0

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	



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

<p>2412 MHz</p>	<p>Agilent R T Ref 20 dBm Atten 20 dB Mkr1 2.41 GHz 7.063 dBm #Peak Log 10 dB/Offst 10.8 dB DI -22.4 dBm Start 30 MHz Stop 26.5 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.742 s (401 pts) <table border="1"> <thead> <tr> <th>Marker</th> <th>Trace</th> <th>Type</th> <th>X Axis</th> <th>Amplitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>(1)</td> <td>Freq</td> <td>2.41 GHz</td> <td>7.063 dBm</td> </tr> </tbody> </table> Freq/Channel Center Freq 13.2650000 GHz Start Freq 30.0000000 MHz Stop Freq 26.5000000 GHz CF Step 2.64700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off</p>	Marker	Trace	Type	X Axis	Amplitude	1	(1)	Freq	2.41 GHz	7.063 dBm
Marker	Trace	Type	X Axis	Amplitude							
1	(1)	Freq	2.41 GHz	7.063 dBm							
<p>2437 MHz</p>	<p>Agilent R T Ref 20 dBm Atten 20 dB Mkr1 2.44 GHz 12.85 dBm #Peak Log 10 dB/Offst 10.8 dB DI -16.8 dBm Start 30 MHz Stop 26.5 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.742 s (401 pts) <table border="1"> <thead> <tr> <th>Marker</th> <th>Trace</th> <th>Type</th> <th>X Axis</th> <th>Amplitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>(1)</td> <td>Freq</td> <td>2.44 GHz</td> <td>12.85 dBm</td> </tr> </tbody> </table> Freq/Channel Center Freq 13.2650000 GHz Start Freq 30.0000000 MHz Stop Freq 26.5000000 GHz CF Step 2.64700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off</p>	Marker	Trace	Type	X Axis	Amplitude	1	(1)	Freq	2.44 GHz	12.85 dBm
Marker	Trace	Type	X Axis	Amplitude							
1	(1)	Freq	2.44 GHz	12.85 dBm							
<p>2462 MHz</p>	<p>Agilent R T Ref 20 dBm Atten 20 dB Mkr1 2.46 GHz 6.729 dBm #Peak Log 10 dB/Offst 10.8 dB DI -22.7 dBm Start 30 MHz Stop 26.5 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.742 s (401 pts) <table border="1"> <thead> <tr> <th>Marker</th> <th>Trace</th> <th>Type</th> <th>X Axis</th> <th>Amplitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>(1)</td> <td>Freq</td> <td>2.46 GHz</td> <td>6.729 dBm</td> </tr> </tbody> </table> Freq/Channel Center Freq 13.2650000 GHz Start Freq 30.0000000 MHz Stop Freq 26.5000000 GHz CF Step 2.64700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off</p>	Marker	Trace	Type	X Axis	Amplitude	1	(1)	Freq	2.46 GHz	6.729 dBm
Marker	Trace	Type	X Axis	Amplitude							
1	(1)	Freq	2.46 GHz	6.729 dBm							



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

<p>2422 MHz</p>	<p>Agilent R T Ref 20 dBm Atten 20 dB Mkr1 2.42 GHz 1.5 dBm #Peak Log dB/ Offst 10.8 dB DI -28.5 dBm Start 30 MHz Stop 26.5 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.742 s (401 pts) Marker Trace Type X Axis Amplitude 1 (1) Freq 2.42 GHz 1.5 dBm</p> <p>Freq/Channel Center Freq 13.2650000 GHz Start Freq 30.0000000 MHz Stop Freq 26.5000000 GHz CF Step 2.64700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off</p>
<p>2437 MHz</p>	<p>Agilent R T Ref 20 dBm Atten 20 dB Mkr1 2.44 GHz 5.315 dBm #Peak Log dB/ Offst 10.8 dB DI -24.0 dBm Start 30 MHz Stop 26.5 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.742 s (401 pts) Marker Trace Type X Axis Amplitude 1 (1) Freq 2.44 GHz 5.315 dBm</p> <p>Freq/Channel Center Freq 13.2650000 GHz Start Freq 30.0000000 MHz Stop Freq 26.5000000 GHz CF Step 2.64700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off</p>
<p>2452 MHz</p>	<p>Agilent R T Ref 20 dBm Atten 20 dB Mkr1 2.45 GHz 1.445 dBm #Peak Log dB/ Offst 10.8 dB DI -28.6 dBm Start 30 MHz Stop 26.5 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.742 s (401 pts) Marker Trace Type X Axis Amplitude 1 (1) Freq 2.45 GHz 1.445 dBm</p> <p>Freq/Channel Center Freq 13.2650000 GHz Start Freq 30.0000000 MHz Stop Freq 26.5000000 GHz CF Step 2.64700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off</p>



Mode 2: IEEE 802.11b Continuous TX mode_ANT-1

<p>2412 MHz</p>	<p>Agilent R T Ref 20 dBm Atten 20 dB Mkr1 2.41 GHz 11.52 dBm #Peak Log 10 dB/ dB/ Offset 10.8 dB DI -17.4 dBm Start 30 MHz Stop 26.5 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.742 s (401 pts) <table border="1"> <thead> <tr> <th>Marker</th> <th>Trace</th> <th>Type</th> <th>X Axis</th> <th>Amplitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>(1)</td> <td>Freq</td> <td>2.41 GHz</td> <td>11.52 dBm</td> </tr> </tbody> </table> Freq/Channel Center Freq 13.2650000 GHz Start Freq 30.0000000 MHz Stop Freq 26.5000000 GHz CF Step 2.64700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off</p>	Marker	Trace	Type	X Axis	Amplitude	1	(1)	Freq	2.41 GHz	11.52 dBm
Marker	Trace	Type	X Axis	Amplitude							
1	(1)	Freq	2.41 GHz	11.52 dBm							
<p>2437 MHz</p>	<p>Agilent R T Ref 20 dBm Atten 20 dB Mkr1 2.44 GHz 13.44 dBm #Peak Log 10 dB/ dB/ Offset 10.8 dB DI -16.2 dBm Start 30 MHz Stop 26.5 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.742 s (401 pts) <table border="1"> <thead> <tr> <th>Marker</th> <th>Trace</th> <th>Type</th> <th>X Axis</th> <th>Amplitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>(1)</td> <td>Freq</td> <td>2.44 GHz</td> <td>13.44 dBm</td> </tr> </tbody> </table> Freq/Channel Center Freq 13.2650000 GHz Start Freq 30.0000000 MHz Stop Freq 26.5000000 GHz CF Step 2.64700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off</p>	Marker	Trace	Type	X Axis	Amplitude	1	(1)	Freq	2.44 GHz	13.44 dBm
Marker	Trace	Type	X Axis	Amplitude							
1	(1)	Freq	2.44 GHz	13.44 dBm							
<p>2462 MHz</p>	<p>Agilent R T Ref 20 dBm Atten 20 dB Mkr1 2.46 GHz 12.46 dBm #Peak Log 10 dB/ dB/ Offset 10.8 dB DI -15.6 dBm Start 30 MHz Stop 26.5 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.742 s (401 pts) <table border="1"> <thead> <tr> <th>Marker</th> <th>Trace</th> <th>Type</th> <th>X Axis</th> <th>Amplitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>(1)</td> <td>Freq</td> <td>2.46 GHz</td> <td>12.46 dBm</td> </tr> </tbody> </table> Freq/Channel Center Freq 13.2650000 GHz Start Freq 30.0000000 MHz Stop Freq 26.5000000 GHz CF Step 2.64700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off</p>	Marker	Trace	Type	X Axis	Amplitude	1	(1)	Freq	2.46 GHz	12.46 dBm
Marker	Trace	Type	X Axis	Amplitude							
1	(1)	Freq	2.46 GHz	12.46 dBm							



Mode 3: IEEE 802.11g Continuous TX mode_ANT-1

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	



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

<p>2412 MHz</p>	<p>Agilent R T Ref 20 dBm Atten 20 dB Mkr1 2.41 GHz 8.646 dBm #Peak Log 10 dB/ Offst 10.8 dB DI -21.3 dBm Start 30 MHz Stop 26.5 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.742 s (401 pts) Marker Trace Type X Axis Amplitude 1 (1) Freq 2.41 GHz 8.646 dBm</p> <p>Freq/Channel Center Freq 13.2650000 GHz Start Freq 30.0000000 MHz Stop Freq 26.5000000 GHz CF Step 2.64700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off</p>
<p>2437 MHz</p>	<p>Agilent R T Ref 20 dBm Atten 20 dB Mkr1 2.44 GHz 14.85 dBm #Peak Log 10 dB/ Offst 10.8 dB DI -15.4 dBm Start 30 MHz Stop 26.5 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.742 s (401 pts) Marker Trace Type X Axis Amplitude 1 (1) Freq 2.44 GHz 14.85 dBm</p> <p>Freq/Channel Center Freq 13.2650000 GHz Start Freq 30.0000000 MHz Stop Freq 26.5000000 GHz CF Step 2.64700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off</p>
<p>2462 MHz</p>	<p>Agilent R T Ref 20 dBm Atten 20 dB Mkr1 2.46 GHz 8.198 dBm #Peak Log 10 dB/ Offst 10.8 dB DI -21.7 dBm Start 30 MHz Stop 26.5 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.742 s (401 pts) Marker Trace Type X Axis Amplitude 1 (1) Freq 2.46 GHz 8.198 dBm</p> <p>Freq/Channel Center Freq 13.2650000 GHz Start Freq 30.0000000 MHz Stop Freq 26.5000000 GHz CF Step 2.64700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off</p>



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

<p>2422 MHz</p>	
<p>2437 MHz</p>	
<p>2452 MHz</p>	



Mode 2: IEEE 802.11b Continuous TX mode_ANT-2

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	



Mode 3: IEEE 802.11g Continuous TX mode_ANT-2

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	



Mode 4: IEEE 802.11n 2.4GHz 20MHz Continuous TX mode_ANT-2

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	



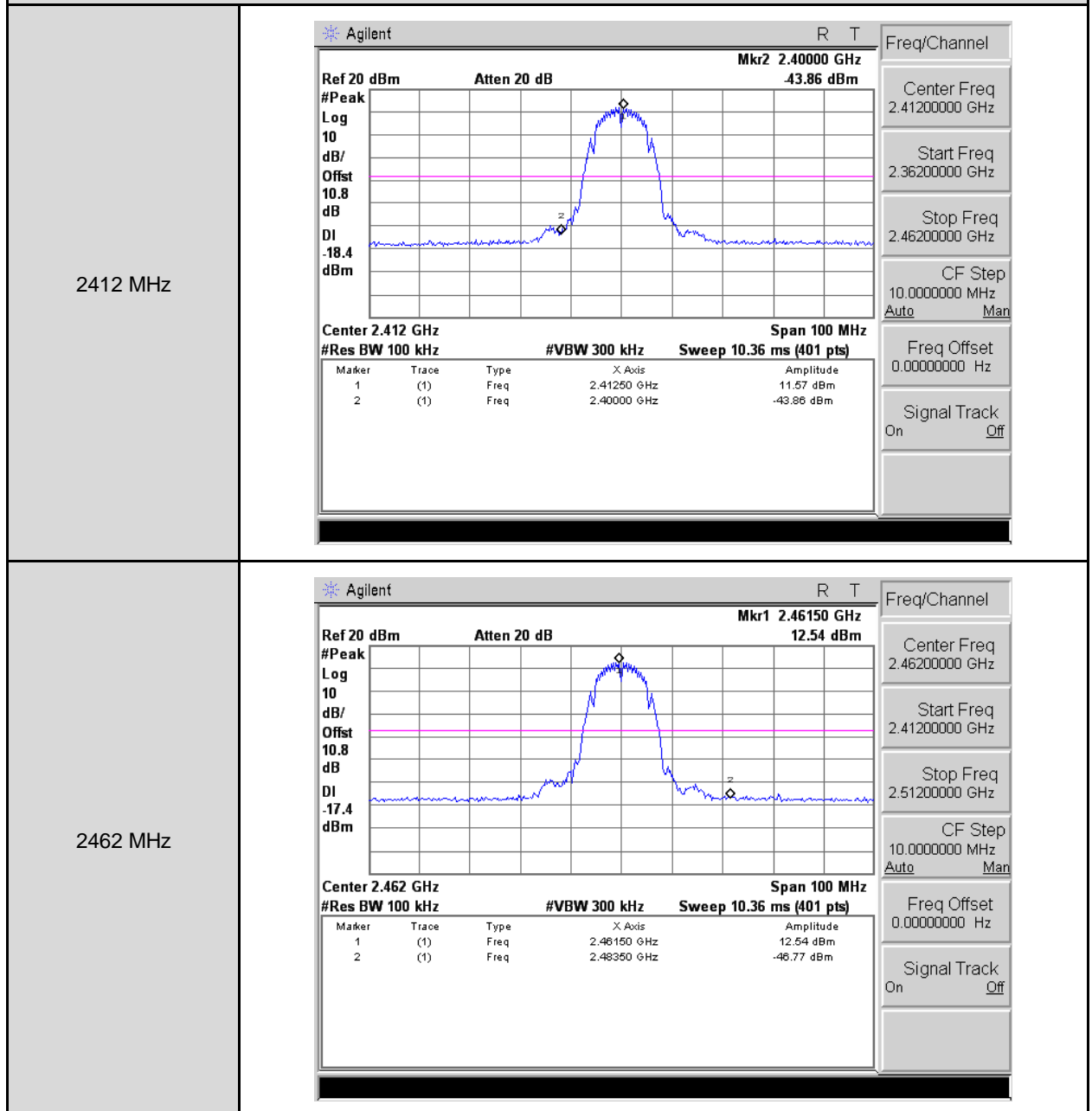
Mode 5: IEEE 802.11n 2.4GHz 40MHz Continuous TX mode_ANT-2

<p>2422 MHz</p>	
<p>2437 MHz</p>	
<p>2452 MHz</p>	



Conducted Band Edge

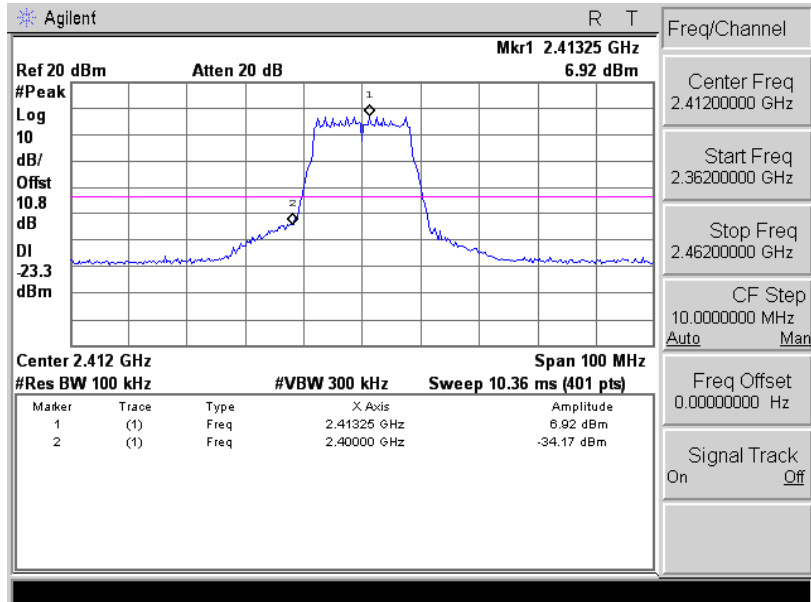
Mode 2: IEEE 802.11b Continuous TX mode_ANT-0



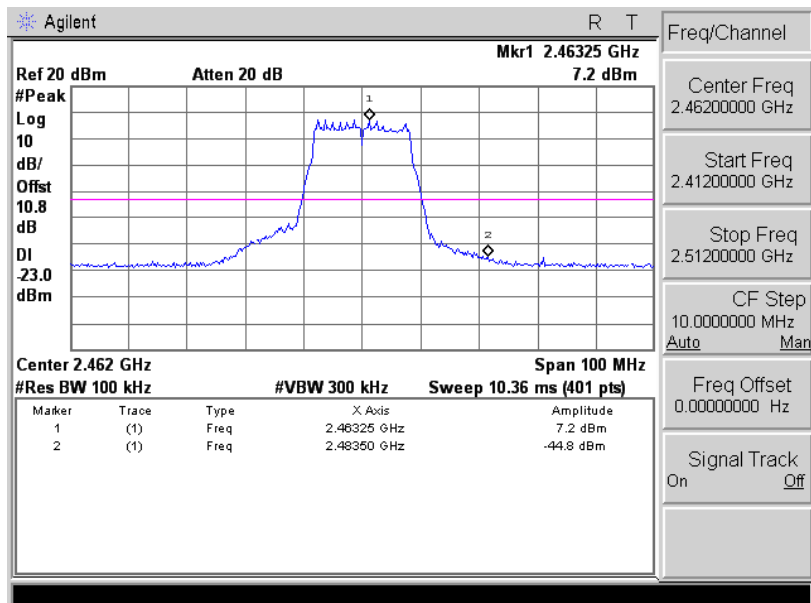


Mode 3: IEEE 802.11g Continuous TX mode_ANT-0

2412 MHz



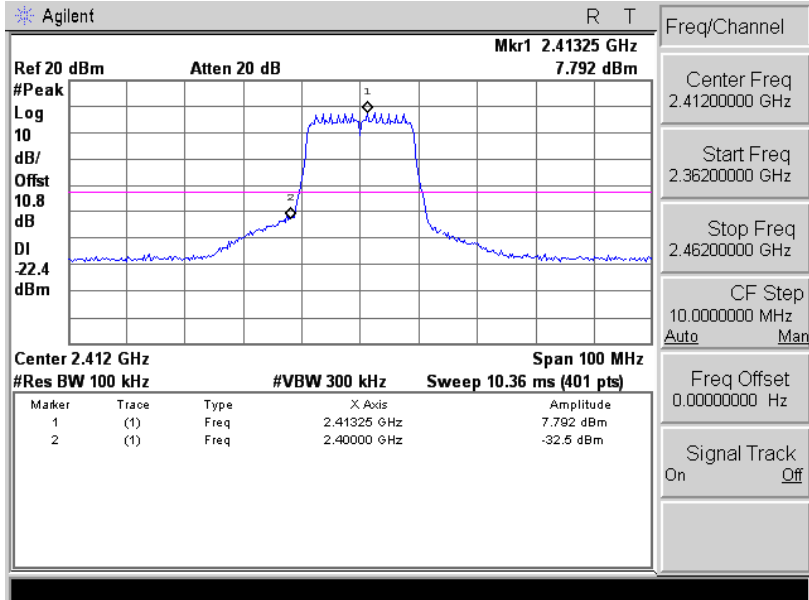
2462 MHz



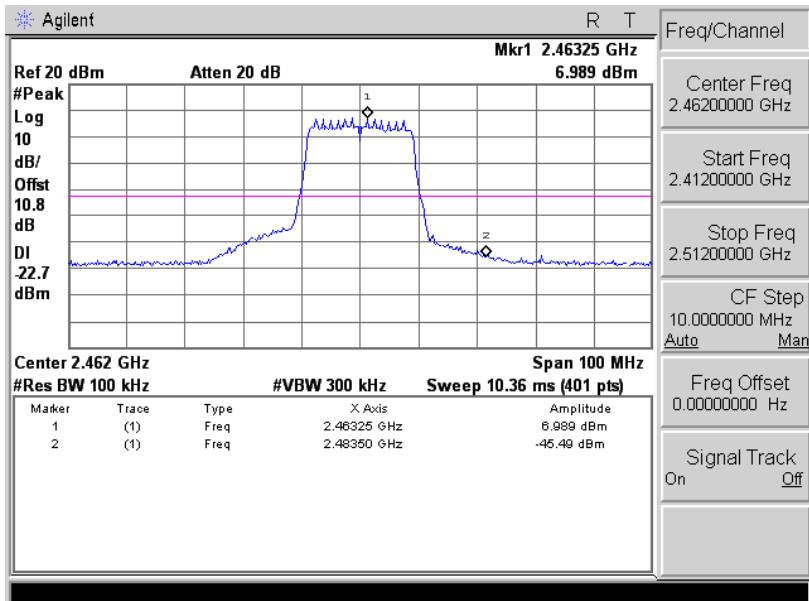


Mode 4: IEEE 802.11n 2.4GHz 20MHz Continuous TX mode_ANT-0

2412 MHz



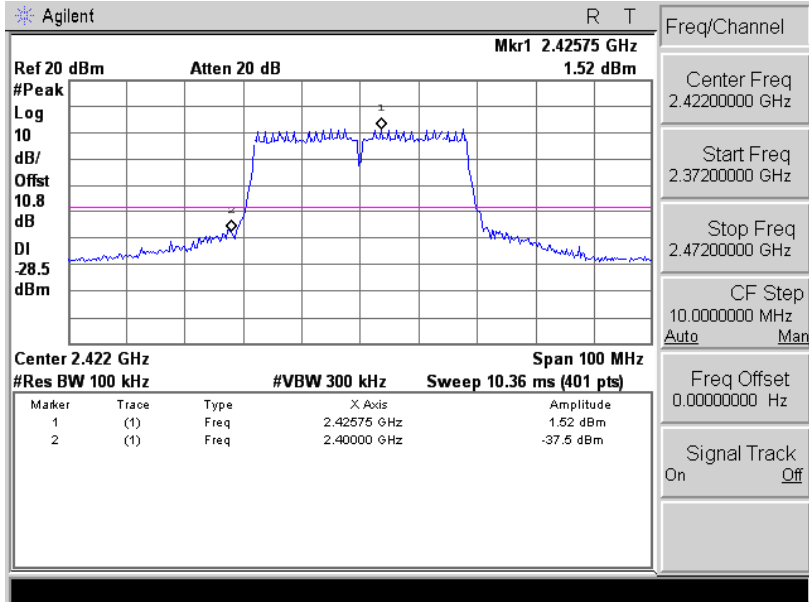
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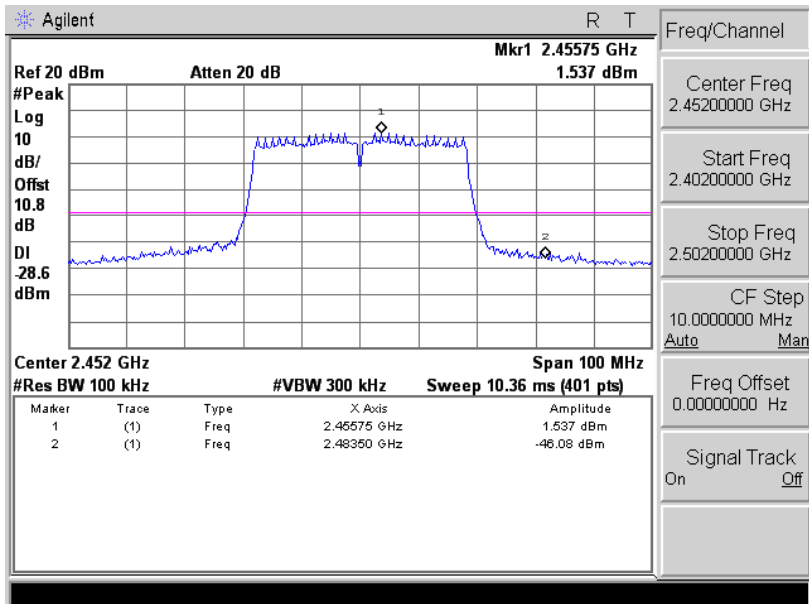


Mode 5: IEEE 802.11n 2.4GHz 40MHz Continuous TX mode_ANT-0

2422 MHz



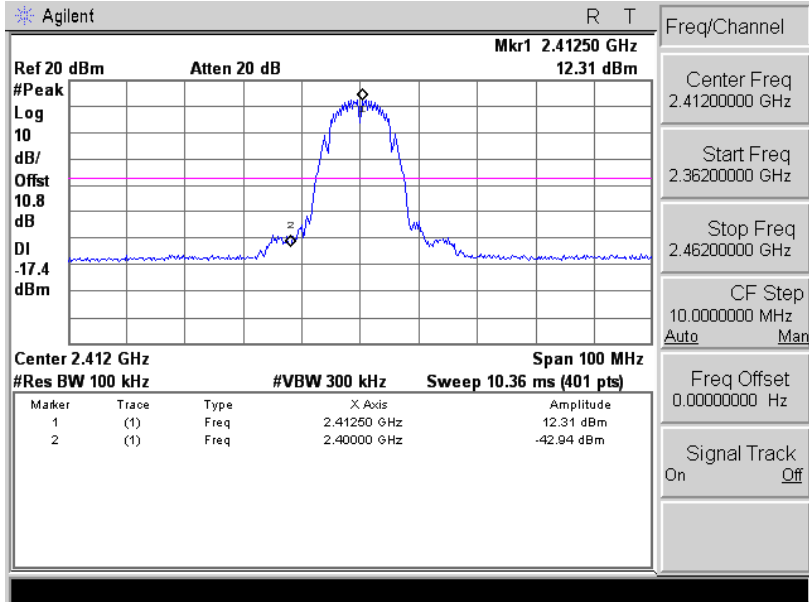
2452 MHz



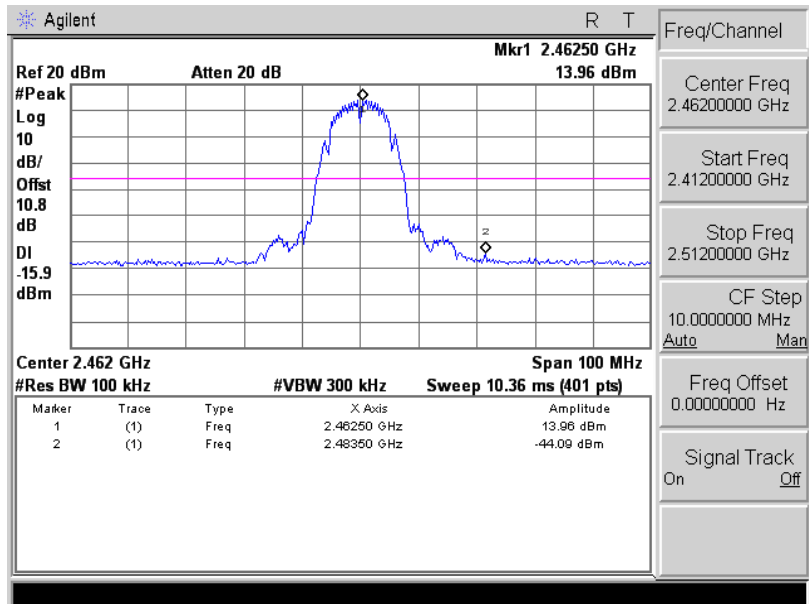


Mode 2: IEEE 802.11b Continuous TX mode_ANT-1

2412 MHz



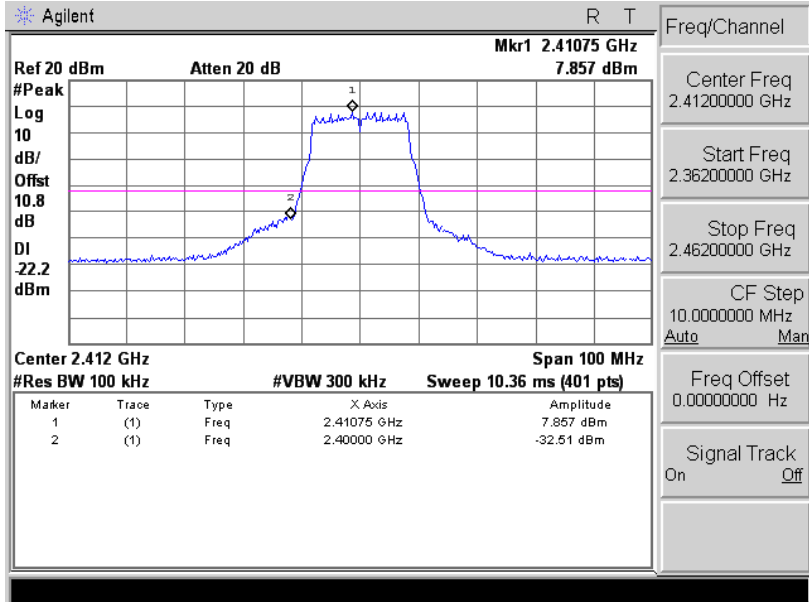
2462 MHz



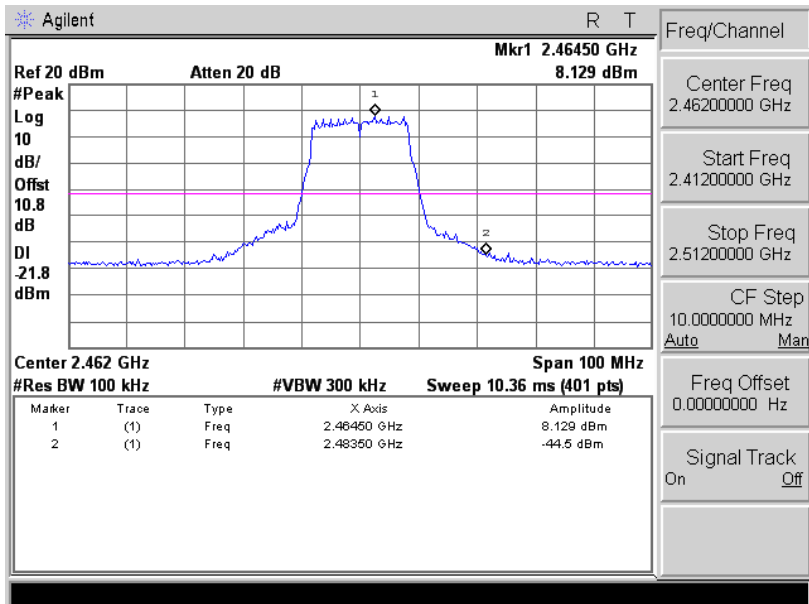


Mode 3: IEEE 802.11g Continuous TX mode_ANT-1

2412 MHz



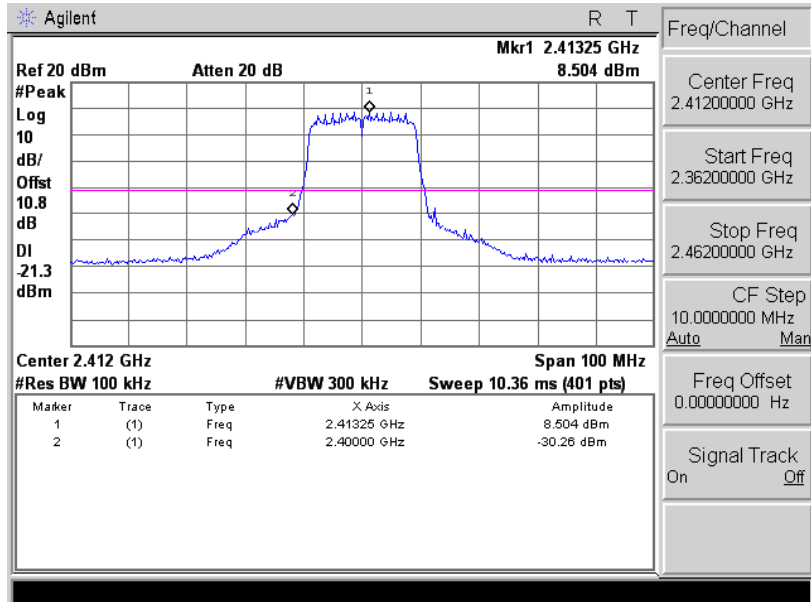
2462 MHz



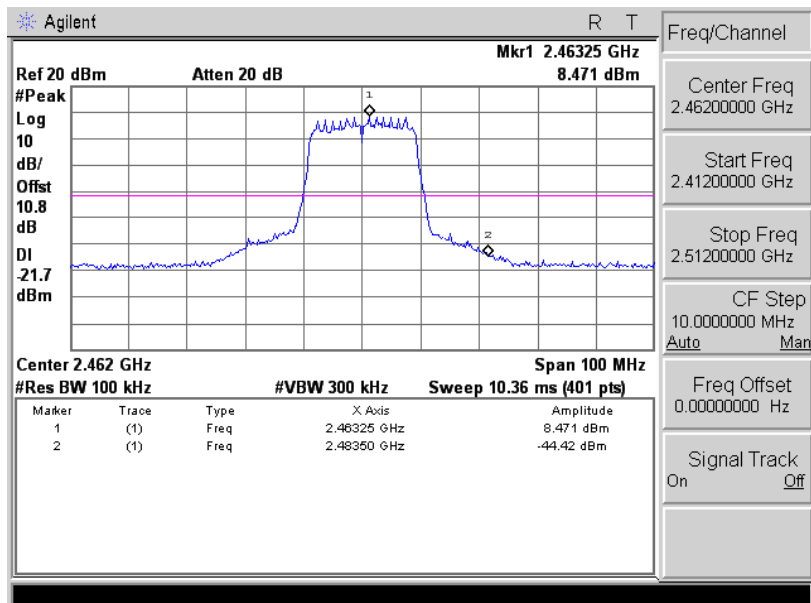


Mode 4: IEEE 802.11n 2.4GHz 20MHz Continuous TX mode_ANT-1

2412 MHz



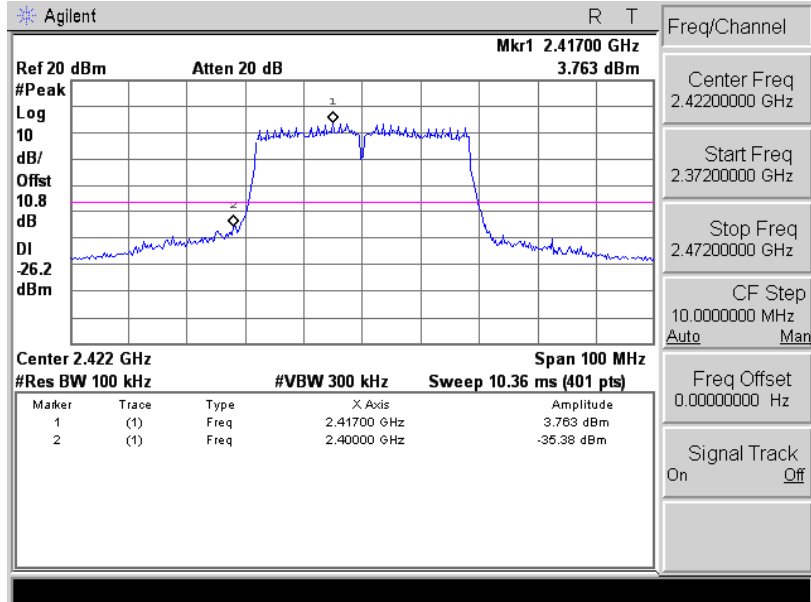
2462 MHz



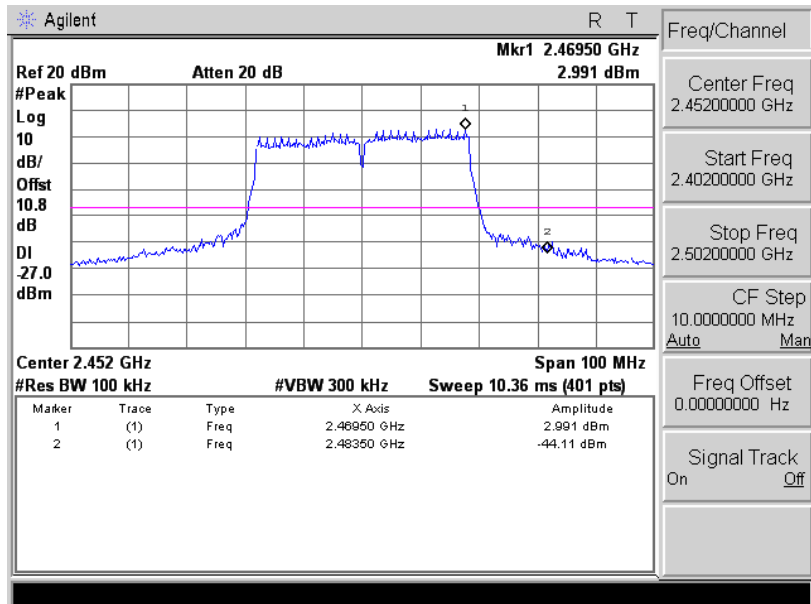


Mode 5: IEEE 802.11n 2.4GHz 40MHz Continuous TX mode_ANT-1

2422 MHz



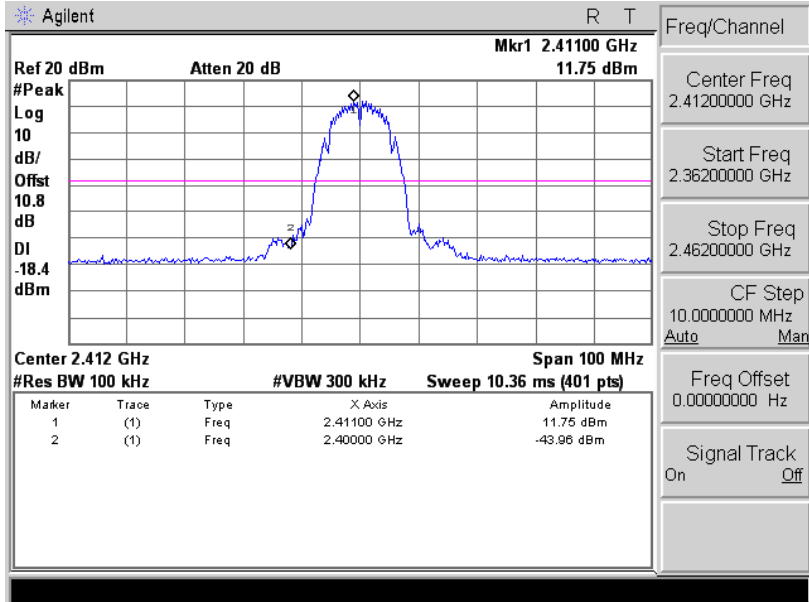
2452 MHz



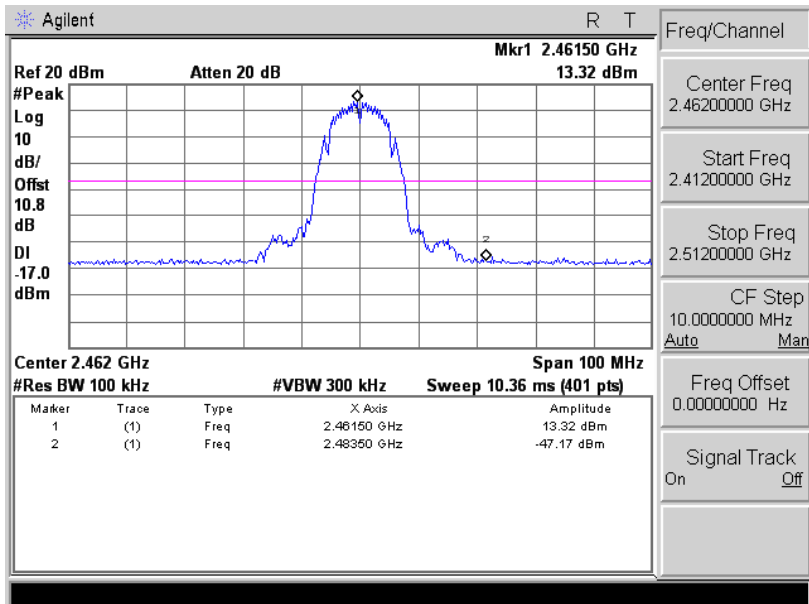


Mode 2: IEEE 802.11b Continuous TX mode_ANT-2

2412 MHz

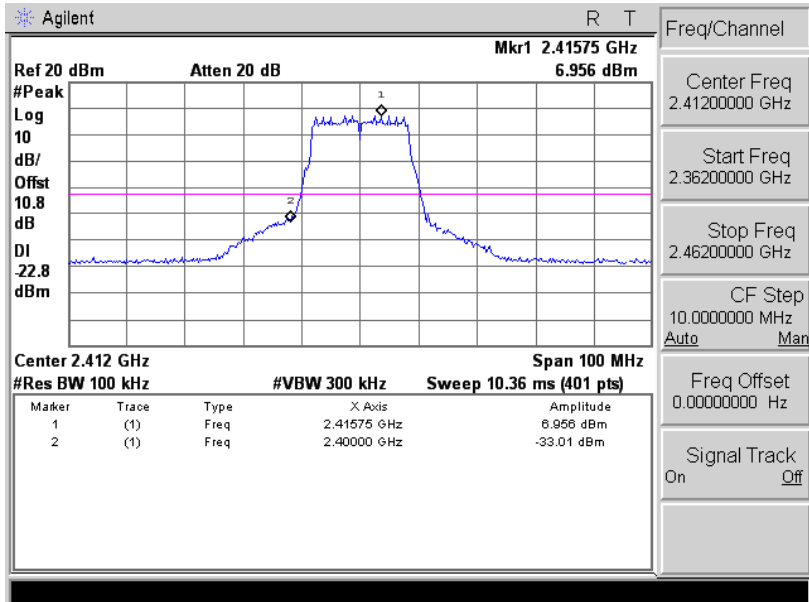


2462 MHz

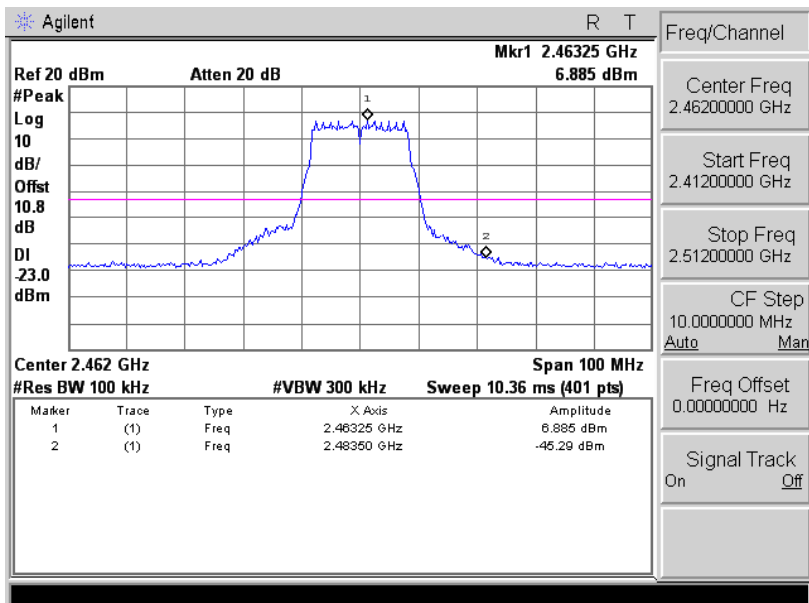


Mode 3: IEEE 802.11g Continuous TX mode_ANT-2

2412 MHz



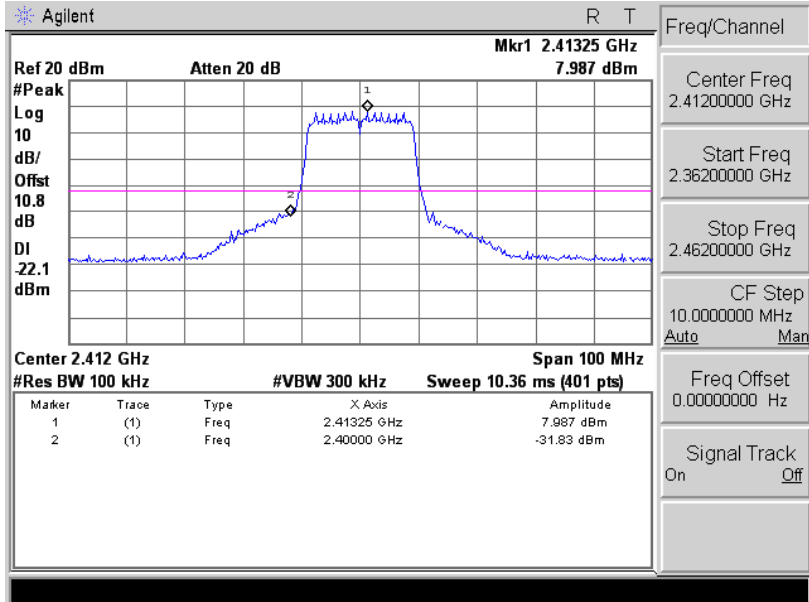
2462 MHz



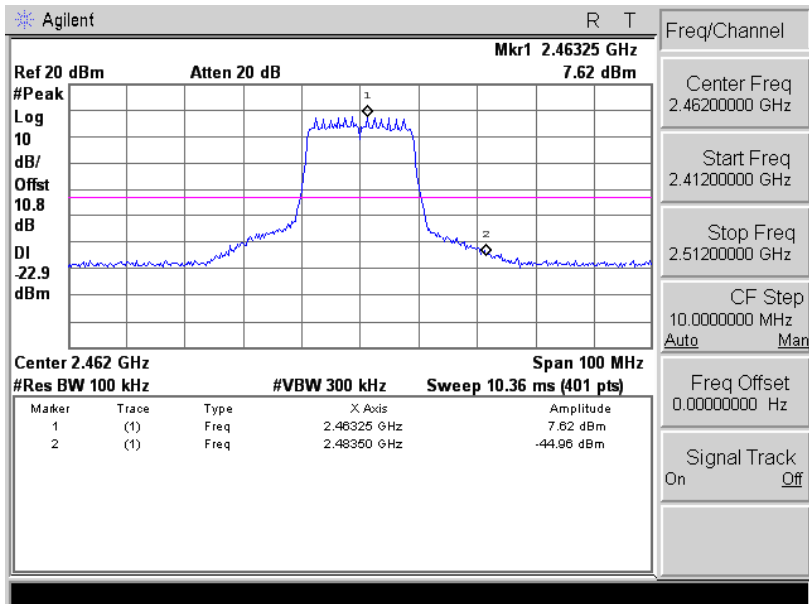


Mode 4: IEEE 802.11n 2.4GHz 20MHz Continuous TX mode_ANT-2

2412 MHz



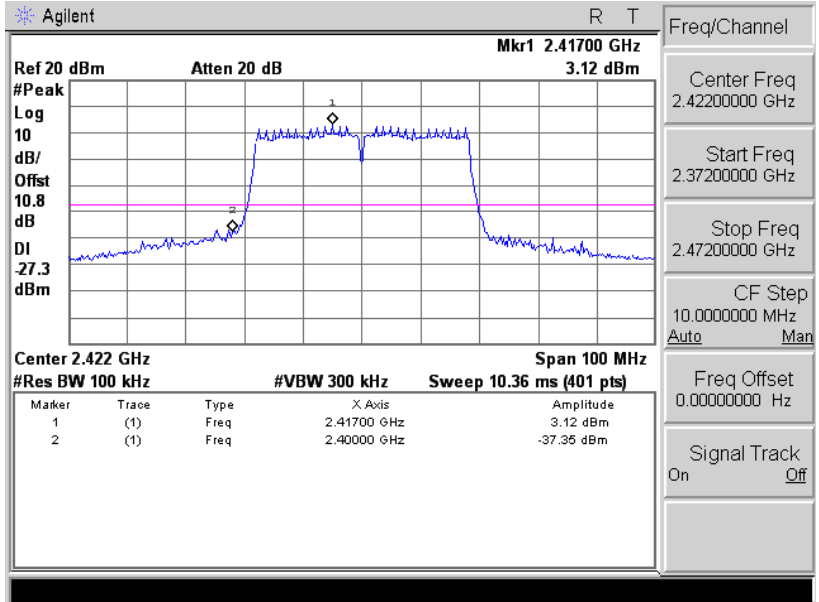
2462 MHz



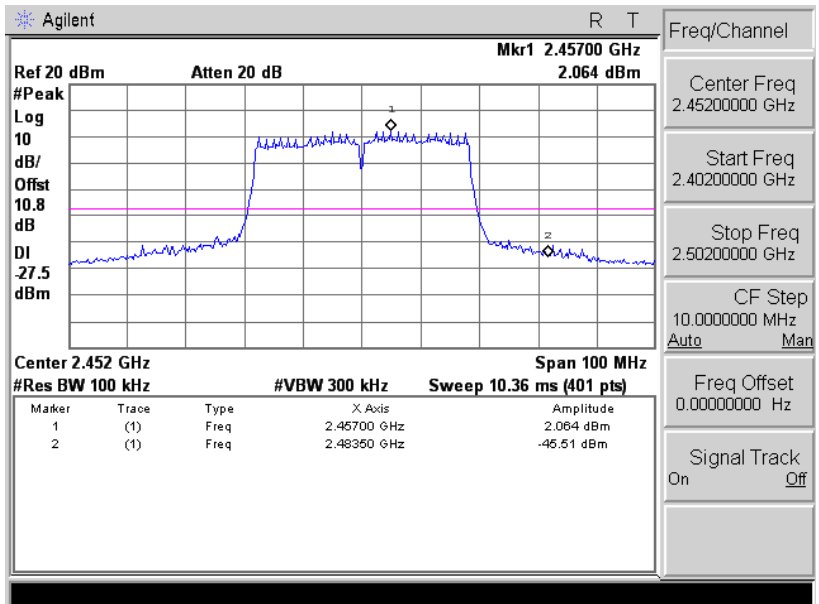


Mode 5: IEEE 802.11n 2.4GHz 40MHz Continuous TX mode_ANT-2

2422 MHz



2452 MHz





Reference level

Beamforming on

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

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	



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

<p>2422 MHz</p>	
<p>2437 MHz</p>	
<p>2452 MHz</p>	



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

<p>2412 MHz</p>	<p>Agilent R T</p> <p>Ref 20 dBm Atten 15 dB Mkr1 2.4140250 GHz 5.011 dBm</p> <p>Peak Log 10 dB/Offst 15 dB</p> <p>M1 S2 S3 FC AA</p> <p>Center 2.412 GHz Span 27 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts)</p> <table border="1"> <tr><th colspan="2">Freq/Channel</th></tr> <tr><td>Center Freq</td><td>2.41200000 GHz</td></tr> <tr><td>Start Freq</td><td>2.39850000 GHz</td></tr> <tr><td>Stop Freq</td><td>2.42550000 GHz</td></tr> <tr><td>CF Step</td><td>2.70000000 MHz</td></tr> <tr><td>Auto</td><td>Man</td></tr> <tr><td>Freq Offset</td><td>0.00000000 Hz</td></tr> <tr><td>Signal Track</td><td>On Off</td></tr> </table>	Freq/Channel		Center Freq	2.41200000 GHz	Start Freq	2.39850000 GHz	Stop Freq	2.42550000 GHz	CF Step	2.70000000 MHz	Auto	Man	Freq Offset	0.00000000 Hz	Signal Track	On Off
Freq/Channel																	
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CF Step	2.70000000 MHz																
Auto	Man																
Freq Offset	0.00000000 Hz																
Signal Track	On Off																
<p>2437 MHz</p>	<p>Agilent R T</p> <p>Ref 20 dBm Atten 15 dB Mkr1 2.4380125 GHz 16.05 dBm</p> <p>Peak Log 10 dB/Offst 15 dB</p> <p>M1 S2 S3 FC AA</p> <p>Center 2.437 GHz Span 27 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts)</p> <table border="1"> <tr><th colspan="2">Freq/Channel</th></tr> <tr><td>Center Freq</td><td>2.43700000 GHz</td></tr> <tr><td>Start Freq</td><td>2.42350000 GHz</td></tr> <tr><td>Stop Freq</td><td>2.45050000 GHz</td></tr> <tr><td>CF Step</td><td>2.70000000 MHz</td></tr> <tr><td>Auto</td><td>Man</td></tr> <tr><td>Freq Offset</td><td>0.00000000 Hz</td></tr> <tr><td>Signal Track</td><td>On Off</td></tr> </table>	Freq/Channel		Center Freq	2.43700000 GHz	Start Freq	2.42350000 GHz	Stop Freq	2.45050000 GHz	CF Step	2.70000000 MHz	Auto	Man	Freq Offset	0.00000000 Hz	Signal Track	On Off
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Stop Freq	2.45050000 GHz																
CF Step	2.70000000 MHz																
Auto	Man																
Freq Offset	0.00000000 Hz																
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<p>2462 MHz</p>	<p>Agilent R T</p> <p>Ref 20 dBm Atten 15 dB Mkr1 2.4600425 GHz 5.765 dBm</p> <p>Peak Log 10 dB/Offst 15 dB</p> <p>M1 S2 S3 FC AA</p> <p>Center 2.462 GHz Span 27 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts)</p> <table border="1"> <tr><th colspan="2">Freq/Channel</th></tr> <tr><td>Center Freq</td><td>2.46200000 GHz</td></tr> <tr><td>Start Freq</td><td>2.44850000 GHz</td></tr> <tr><td>Stop Freq</td><td>2.47550000 GHz</td></tr> <tr><td>CF Step</td><td>2.70000000 MHz</td></tr> <tr><td>Auto</td><td>Man</td></tr> <tr><td>Freq Offset</td><td>0.00000000 Hz</td></tr> <tr><td>Signal Track</td><td>On Off</td></tr> </table>	Freq/Channel		Center Freq	2.46200000 GHz	Start Freq	2.44850000 GHz	Stop Freq	2.47550000 GHz	CF Step	2.70000000 MHz	Auto	Man	Freq Offset	0.00000000 Hz	Signal Track	On Off
Freq/Channel																	
Center Freq	2.46200000 GHz																
Start Freq	2.44850000 GHz																
Stop Freq	2.47550000 GHz																
CF Step	2.70000000 MHz																
Auto	Man																
Freq Offset	0.00000000 Hz																
Signal Track	On Off																



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

<p>2422 MHz</p>	
<p>2437 MHz</p>	
<p>2452 MHz</p>	



Mode 4: IEEE 802.11n 2.4GHz 20MHz Continuous TX mode_ANT-2

<p>2412 MHz</p>	<p>Agilent R T</p> <p>Ref 20 dBm Atten 15 dB Mkr1 2.4134850 GHz 4.01 dBm</p> <p>Peak Log 10 dB/Offset 15 dB</p> <p>M1 S2 S3 FC AA</p> <p>Center 2.412 GHz Span 27 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts)</p> <table border="1"> <tr><th colspan="2">Freq/Channel</th></tr> <tr><td>Center Freq</td><td>2.41200000 GHz</td></tr> <tr><td>Start Freq</td><td>2.39850000 GHz</td></tr> <tr><td>Stop Freq</td><td>2.42550000 GHz</td></tr> <tr><td>CF Step</td><td>2.70000000 MHz</td></tr> <tr><td></td><td>Auto Man</td></tr> <tr><td>Freq Offset</td><td>0.00000000 Hz</td></tr> <tr><td>Signal Track</td><td>On Off</td></tr> </table>	Freq/Channel		Center Freq	2.41200000 GHz	Start Freq	2.39850000 GHz	Stop Freq	2.42550000 GHz	CF Step	2.70000000 MHz		Auto Man	Freq Offset	0.00000000 Hz	Signal Track	On Off
Freq/Channel																	
Center Freq	2.41200000 GHz																
Start Freq	2.39850000 GHz																
Stop Freq	2.42550000 GHz																
CF Step	2.70000000 MHz																
	Auto Man																
Freq Offset	0.00000000 Hz																
Signal Track	On Off																
<p>2437 MHz</p>	<p>Agilent R T</p> <p>Ref 20 dBm Atten 15 dB Mkr1 2.4375400 GHz 15.25 dBm</p> <p>Peak Log 10 dB/Offset 15 dB</p> <p>M1 S2 S3 FC AA</p> <p>Center 2.437 GHz Span 27 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts)</p> <table border="1"> <tr><th colspan="2">Freq/Channel</th></tr> <tr><td>Center Freq</td><td>2.43700000 GHz</td></tr> <tr><td>Start Freq</td><td>2.42350000 GHz</td></tr> <tr><td>Stop Freq</td><td>2.45050000 GHz</td></tr> <tr><td>CF Step</td><td>2.70000000 MHz</td></tr> <tr><td></td><td>Auto Man</td></tr> <tr><td>Freq Offset</td><td>0.00000000 Hz</td></tr> <tr><td>Signal Track</td><td>On Off</td></tr> </table>	Freq/Channel		Center Freq	2.43700000 GHz	Start Freq	2.42350000 GHz	Stop Freq	2.45050000 GHz	CF Step	2.70000000 MHz		Auto Man	Freq Offset	0.00000000 Hz	Signal Track	On Off
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Stop Freq	2.45050000 GHz																
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Freq Offset	0.00000000 Hz																
Signal Track	On Off																
<p>2462 MHz</p>	<p>Agilent R T</p> <p>Ref 20 dBm Atten 15 dB Mkr1 2.4630125 GHz 5.546 dBm</p> <p>Peak Log 10 dB/Offset 15 dB</p> <p>M1 S2 S3 FC AA</p> <p>Center 2.462 GHz Span 27 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts)</p> <table border="1"> <tr><th colspan="2">Freq/Channel</th></tr> <tr><td>Center Freq</td><td>2.46200000 GHz</td></tr> <tr><td>Start Freq</td><td>2.44850000 GHz</td></tr> <tr><td>Stop Freq</td><td>2.47550000 GHz</td></tr> <tr><td>CF Step</td><td>2.70000000 MHz</td></tr> <tr><td></td><td>Auto Man</td></tr> <tr><td>Freq Offset</td><td>0.00000000 Hz</td></tr> <tr><td>Signal Track</td><td>On Off</td></tr> </table>	Freq/Channel		Center Freq	2.46200000 GHz	Start Freq	2.44850000 GHz	Stop Freq	2.47550000 GHz	CF Step	2.70000000 MHz		Auto Man	Freq Offset	0.00000000 Hz	Signal Track	On Off
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Signal Track	On Off																



Mode 5: IEEE 802.11n 2.4GHz 40MHz Continuous TX mode_ANT-2

<p>2422 MHz</p>	
<p>2437 MHz</p>	
<p>2452 MHz</p>	



Out of Band Conducted Emissions

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

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	



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

<p>2422 MHz</p>	
<p>2437 MHz</p>	
<p>2452 MHz</p>	



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

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	



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

<p>2422 MHz</p>	
<p>2437 MHz</p>	
<p>2452 MHz</p>	



Mode 4: IEEE 802.11n 2.4GHz 20MHz Continuous TX mode_ANT-2

<p>2412 MHz</p>	
<p>2437 MHz</p>	
<p>2462 MHz</p>	



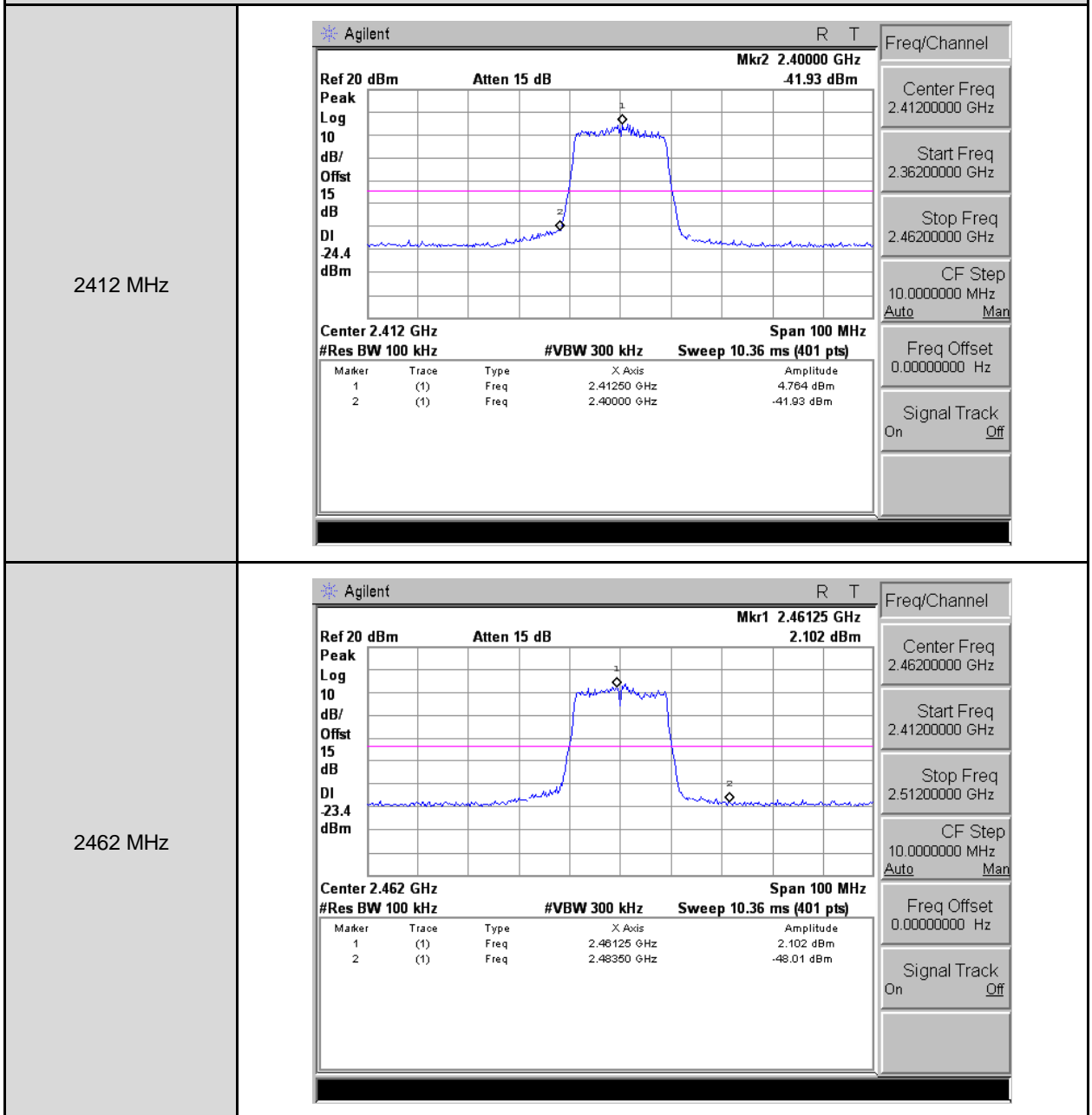
Mode 5: IEEE 802.11n 2.4GHz 40MHz Continuous TX mode_ANT-2

<p>2422 MHz</p>	
<p>2437 MHz</p>	
<p>2452 MHz</p>	



Conducted Band Edge

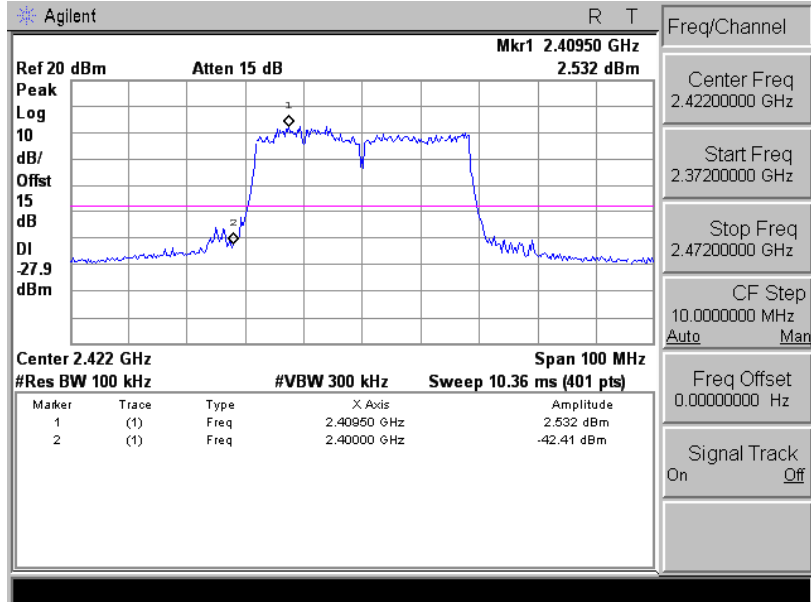
Mode 4: IEEE 802.11n 2.4GHz 20MHz Continuous TX mode_ANT-0



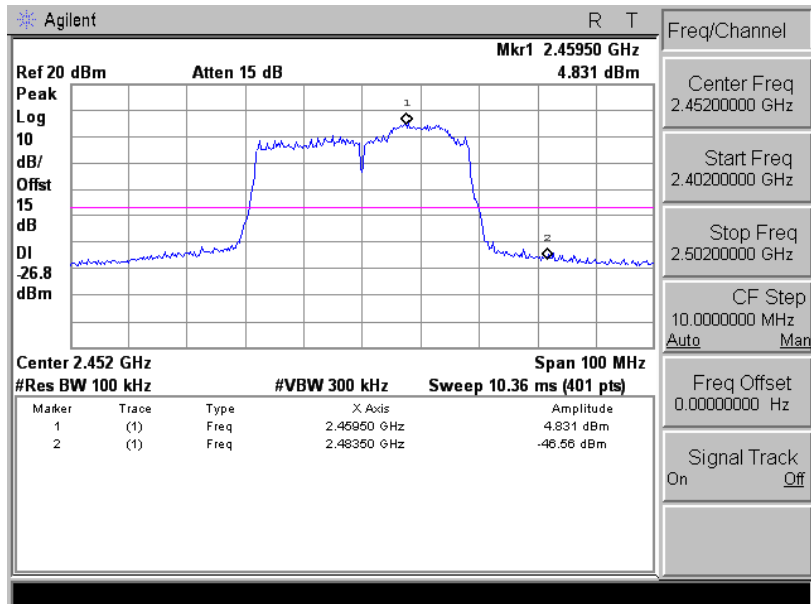


Mode 5: IEEE 802.11n 2.4GHz 40MHz Continuous TX mode_ANT-0

2422 MHz



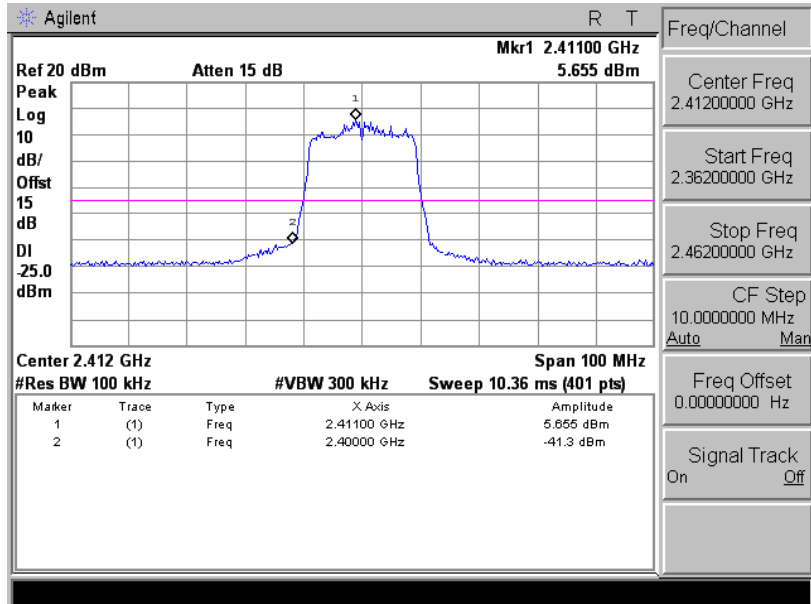
2452 MHz



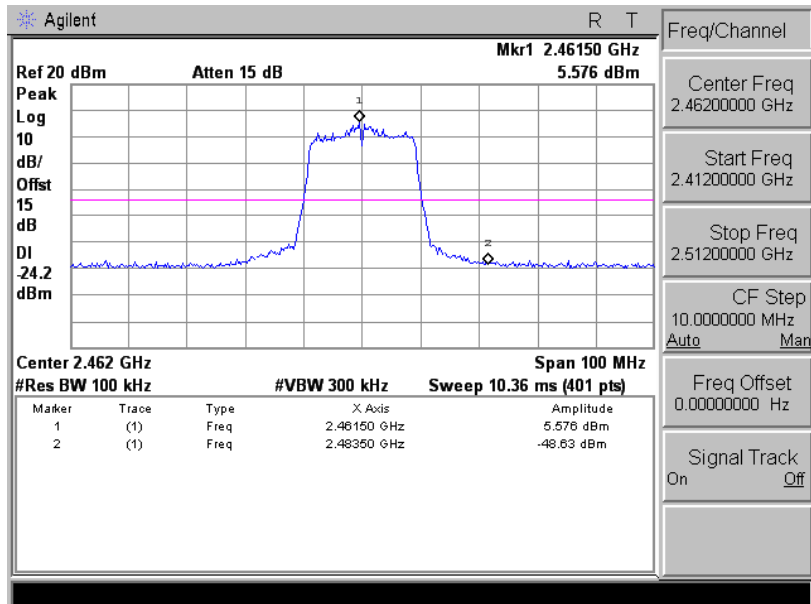


Mode 4: IEEE 802.11n 2.4GHz 20MHz Continuous TX mode_ANT-1

2412 MHz



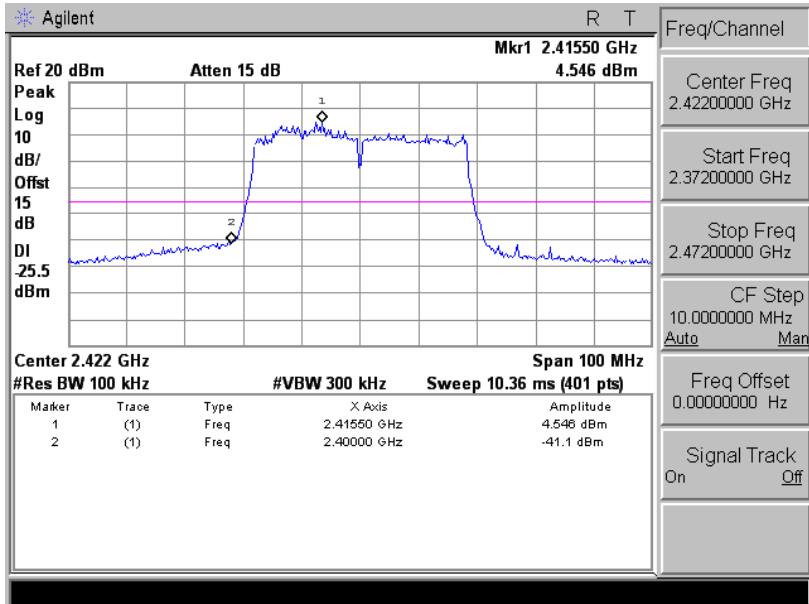
2462 MHz



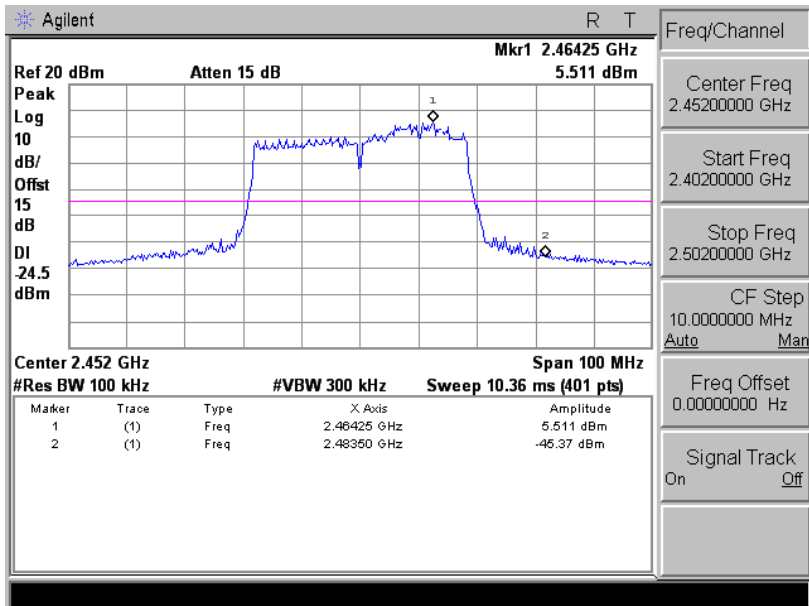


Mode 5: IEEE 802.11n 2.4GHz 40MHz Continuous TX mode_ANT-1

2422 MHz



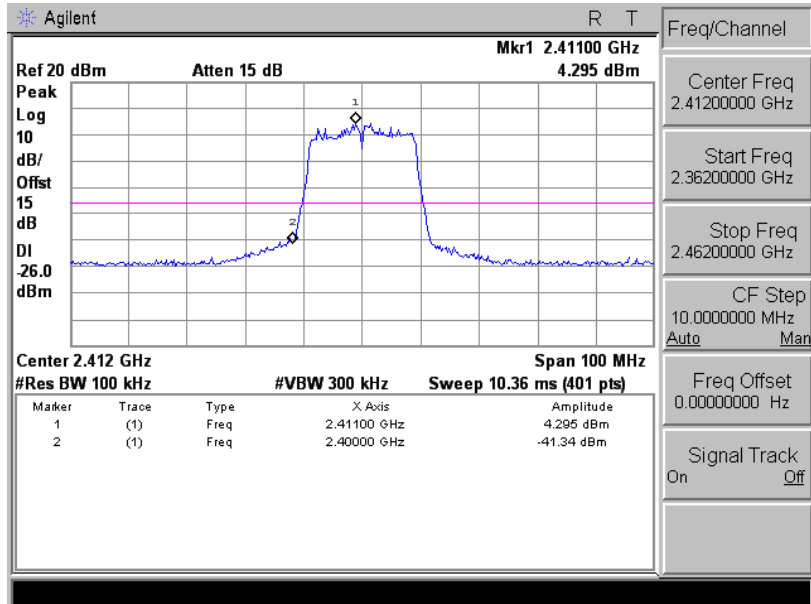
2452 MHz



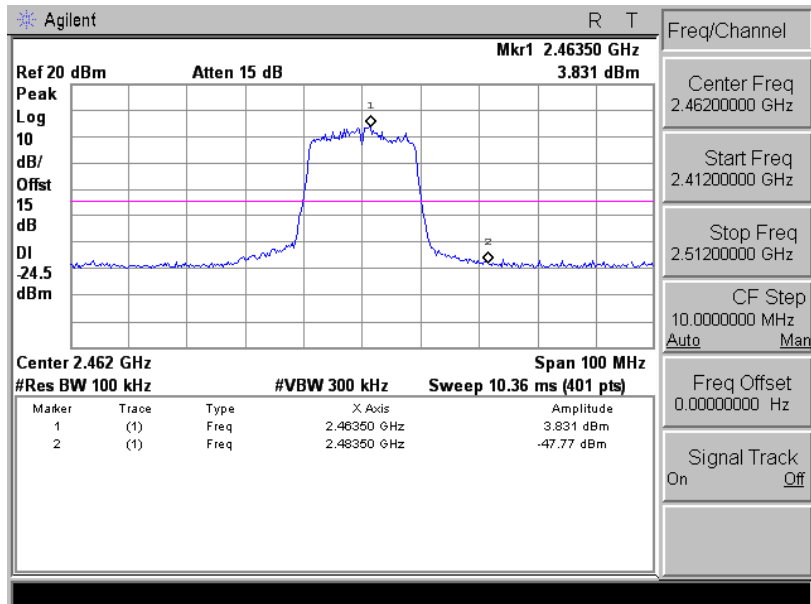


Mode 4: IEEE 802.11n 2.4GHz 20MHz Continuous TX mode_ANT-2

2412 MHz



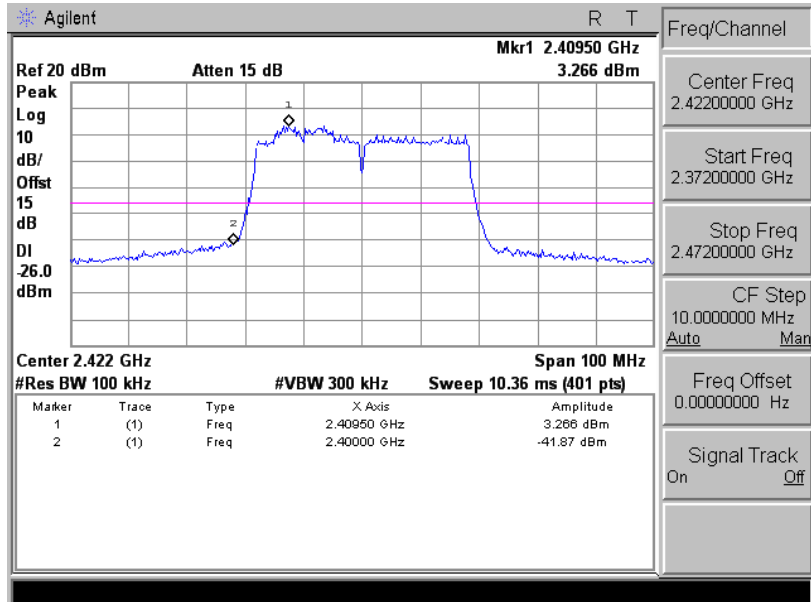
2462 MHz



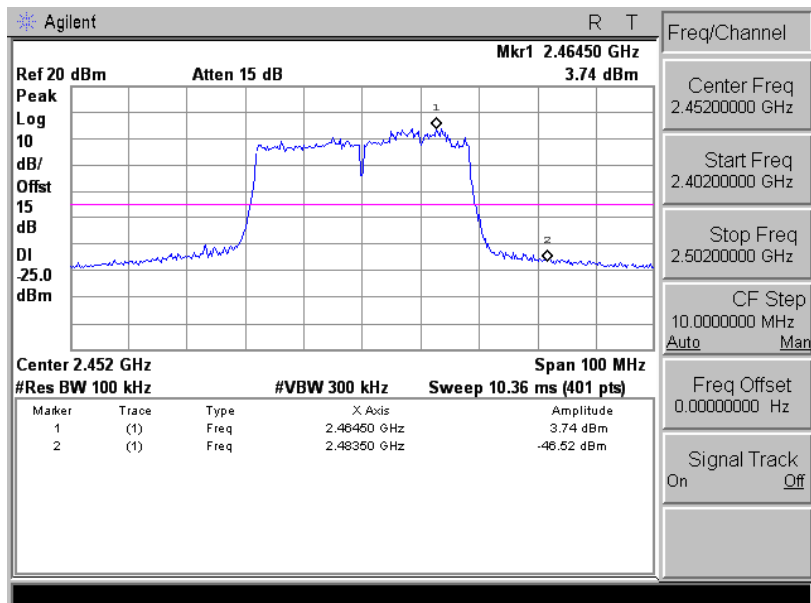


Mode 5: IEEE 802.11n 2.4GHz 40MHz Continuous TX mode_ANT-2

2422 MHz



2452 MHz





10 Antenna Measurement

10.1.Limit

For intentional device, according to 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

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.

10.2.Antenna Description

See section 2 – antenna information.

10.3.Directiona Gain Calculated

For Maximum Conducted Output Power Beamforming on mode

Directional Gain = $10 \cdot \log\{[10^{(G1/20)} + 10^{(G2/20)} + \dots + 10^{(Gn/20)}]^2 / NANT\}$ = 6.6 dBi > 6dBi

Operate Freq. Band	Directional Gain (dBi)
IEEE 802.11n 2.4GHz 20MHz	6.6
IEEE 802.11n 2.4GHz 40MHz	6.6

For Maximum Power Density CDD/Beamforming on mode

Directional Gain = $10 \cdot \log\{[10^{(G1/20)} + 10^{(G2/20)} + \dots + 10^{(Gn/20)}]^2 / NANT\}$ = 6.6 dBi > 6dBi

Operate Freq. Band	Directional Gain (dBi)
IEEE 802.11b Continuous TX mode	6.6
IEEE 802.11g Continuous TX mode	6.6
IEEE 802.11n 2.4GHz 20MHz	6.6
IEEE 802.11n 2.4GHz 40MHz	6.6