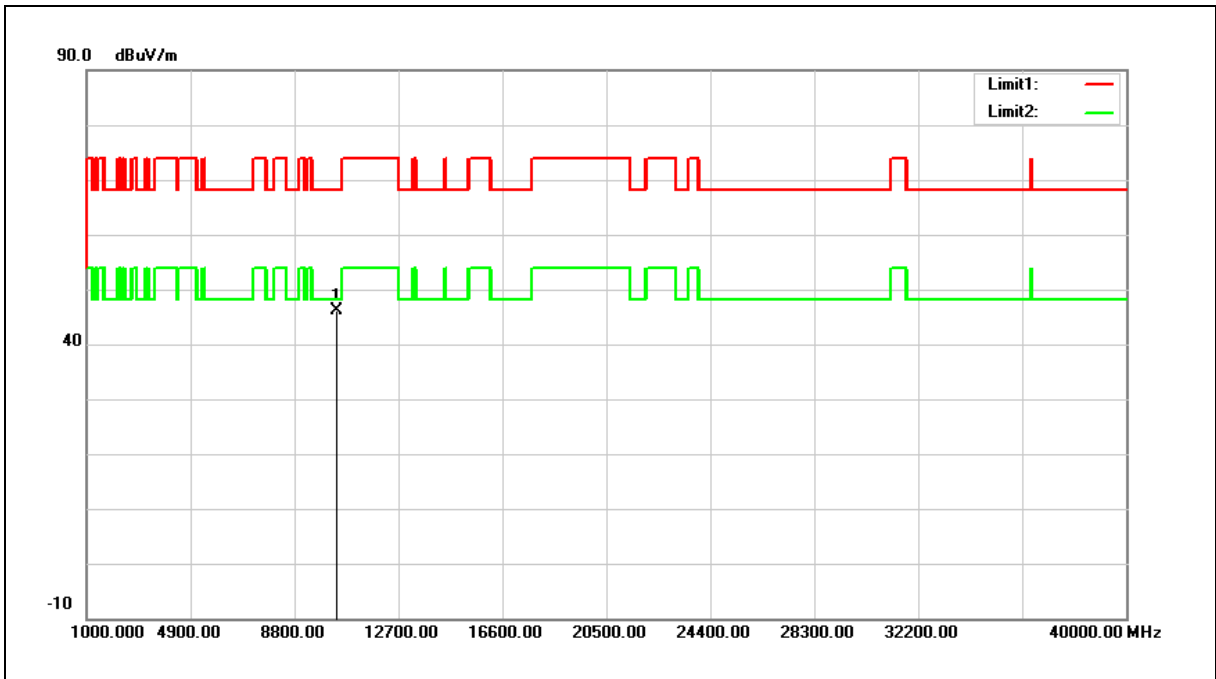




Standard:	FCC Part 15.407	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	5180MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10360.000	30.12	16.09	46.21	68.20	-21.99	peak

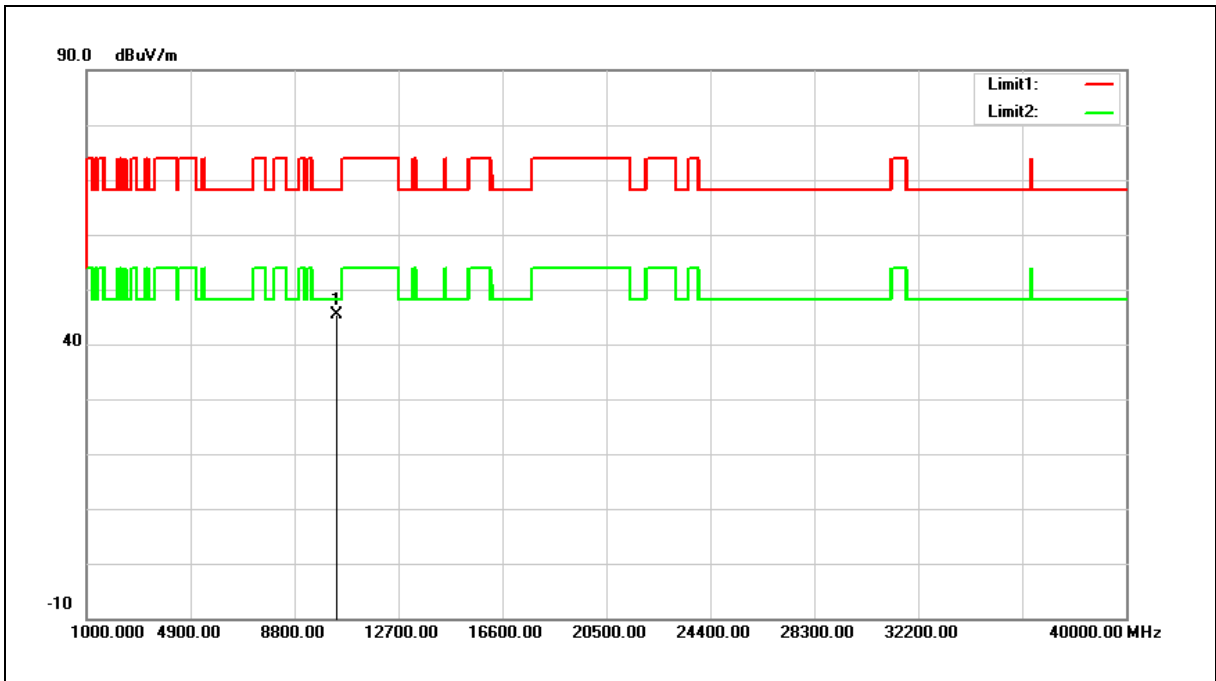
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 15.407	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	5200MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10400.000	29.11	16.22	45.33	68.20	-22.87	peak

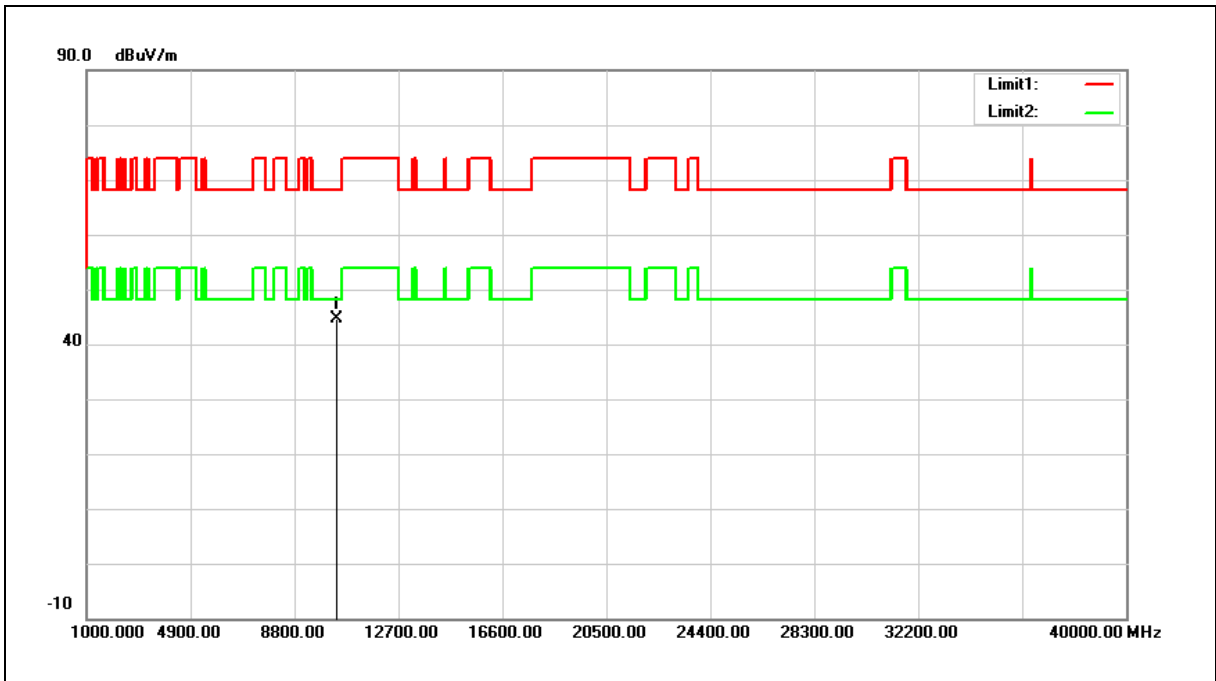
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 15.407	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	5200MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		

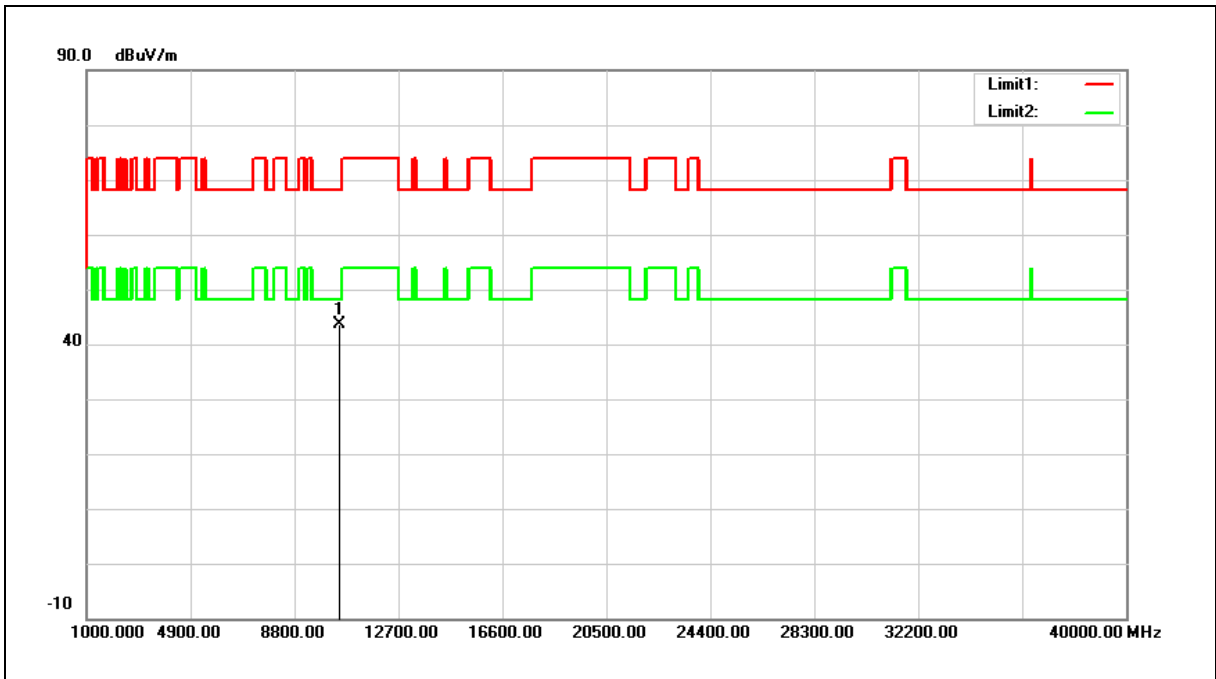


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10400.000	28.48	16.22	44.70	68.20	-23.50	peak

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



Standard:	FCC Part 15.407	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	5240MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10480.000	27.04	16.47	43.51	68.20	-24.69	peak

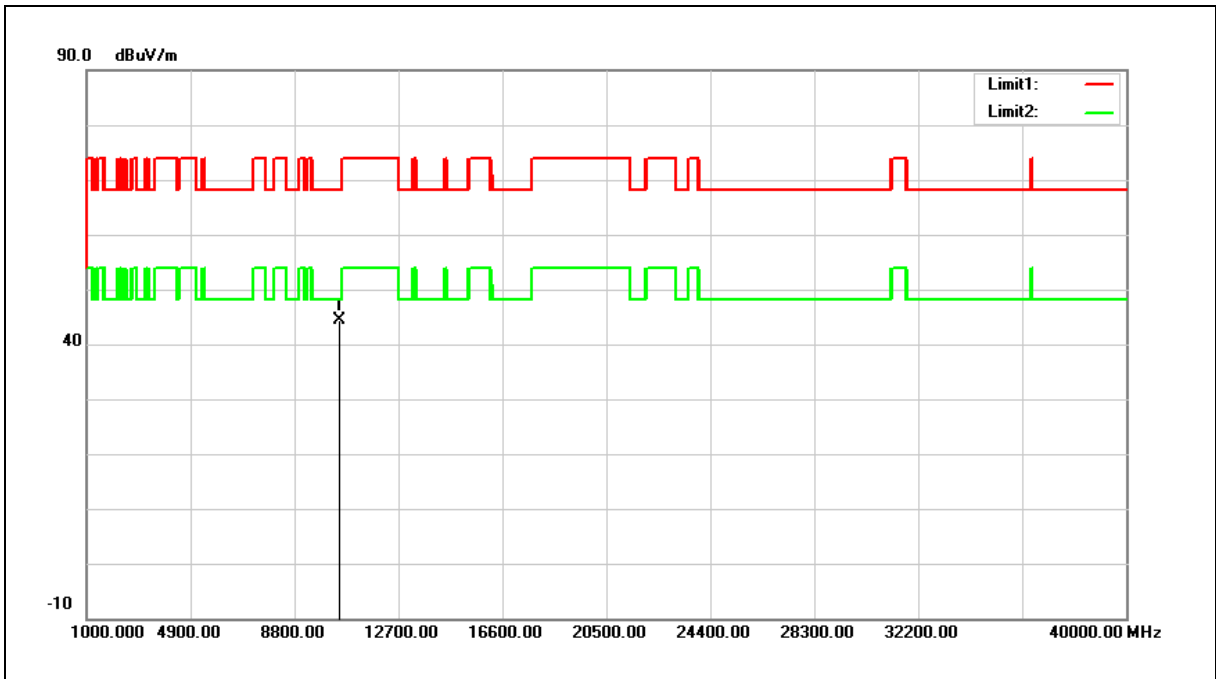
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 15.407	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	5240MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10480.000	27.85	16.47	44.32	68.20	-23.88	peak

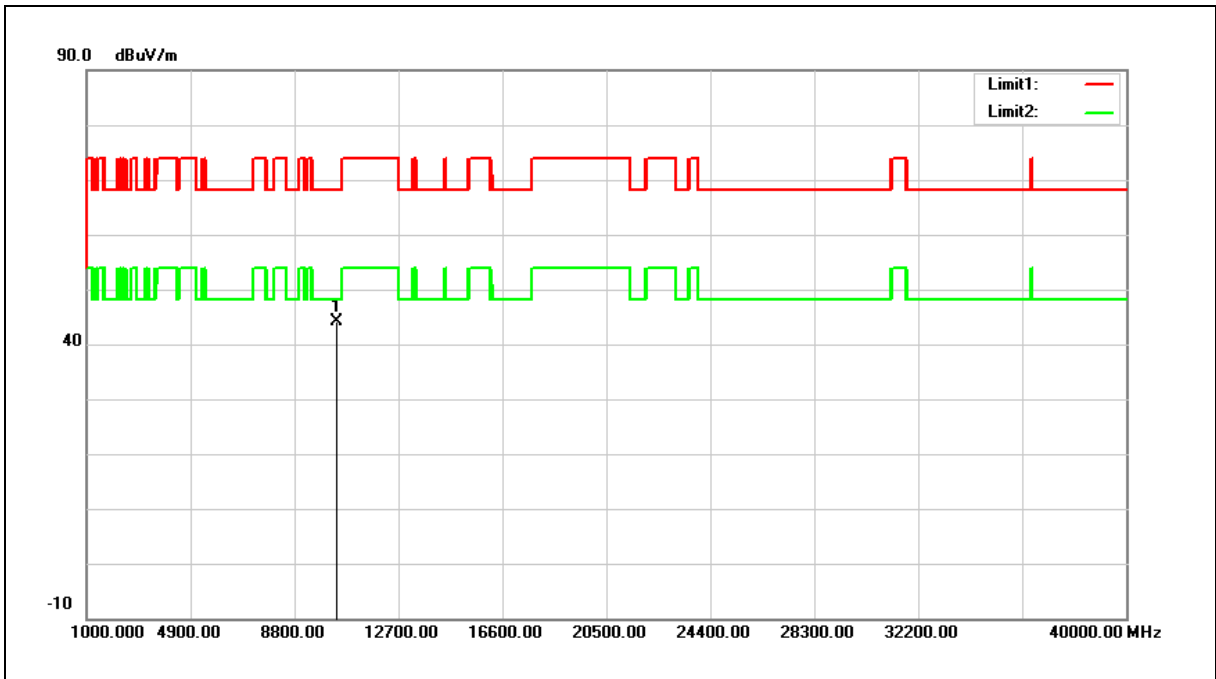
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 15.407	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	5190MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		

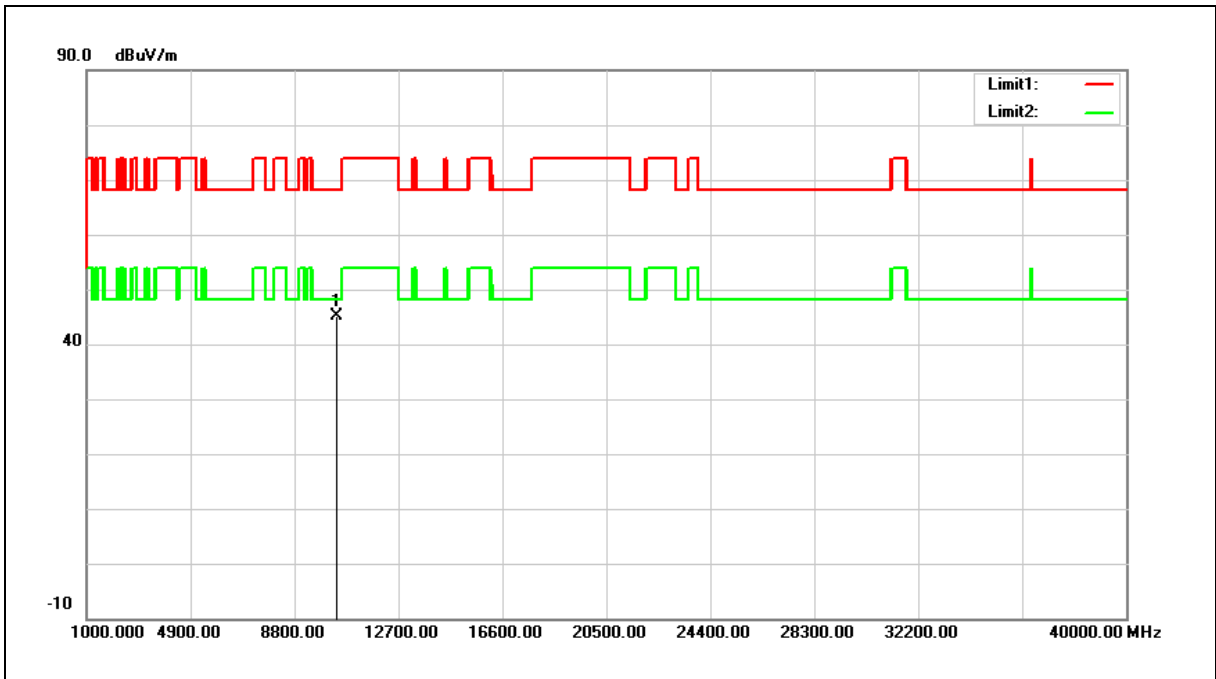


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10380.000	27.90	16.15	44.05	68.20	-24.15	peak

- 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 15.407	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	5190MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		

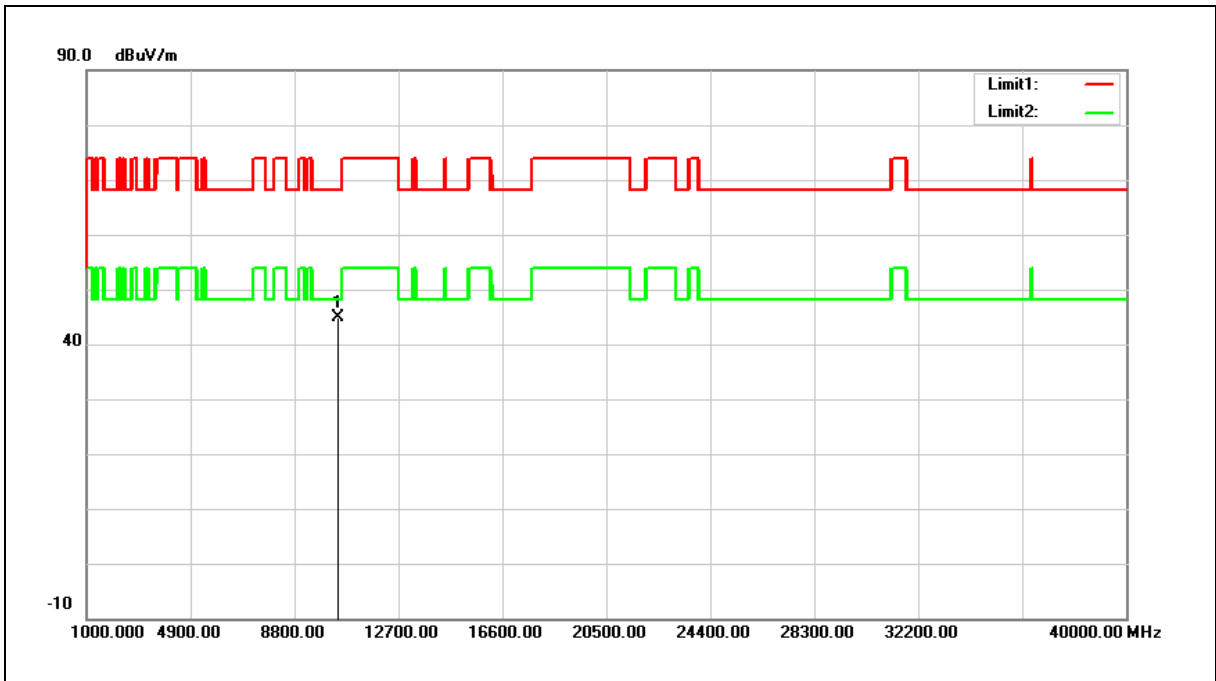


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10380.000	28.91	16.15	45.06	68.20	-23.14	peak

- 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 15.407	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	5230MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		

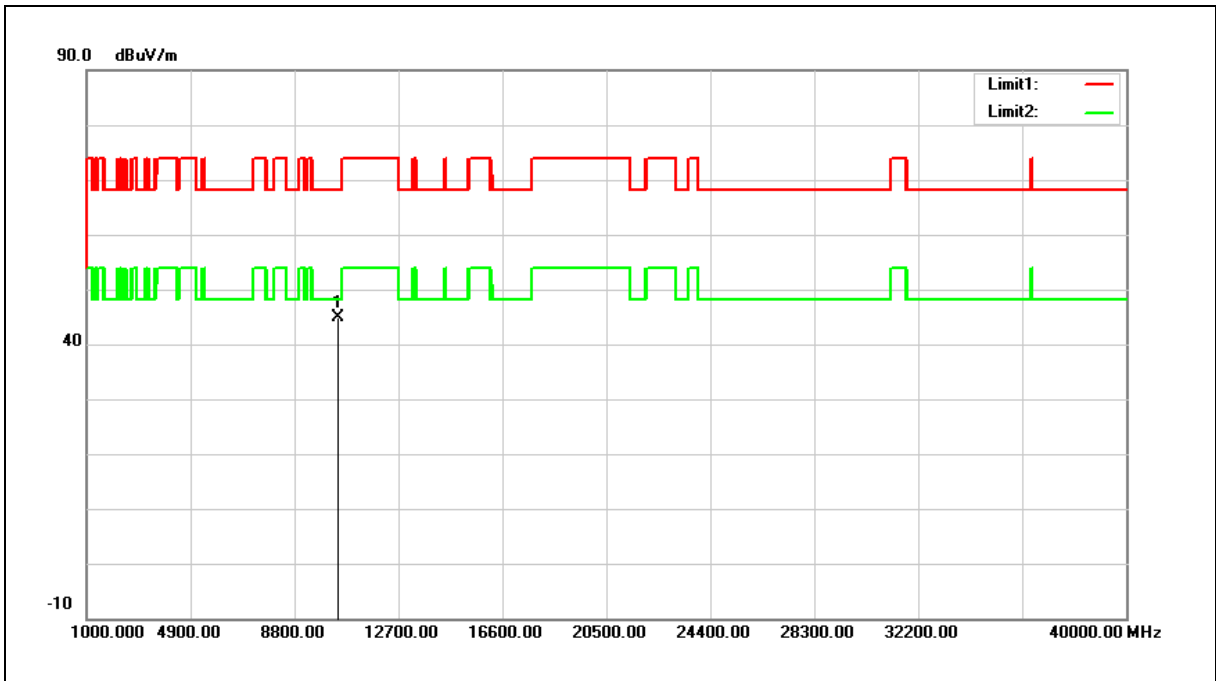


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10460.000	28.55	16.41	44.96	68.20	-23.24	peak

- 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 15.407	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	5230MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		

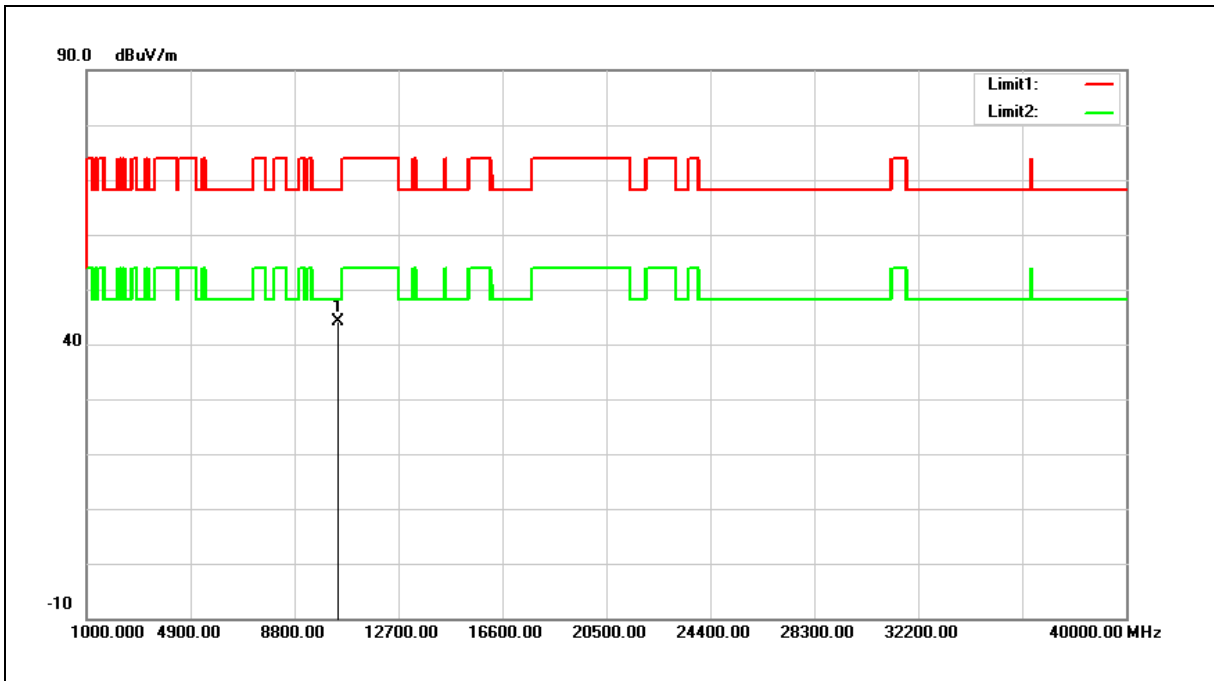


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10460.000	28.39	16.41	44.80	68.20	-23.40	peak

- 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 15.407	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	5210MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5		
Ant.Polar.:	Horizontal		

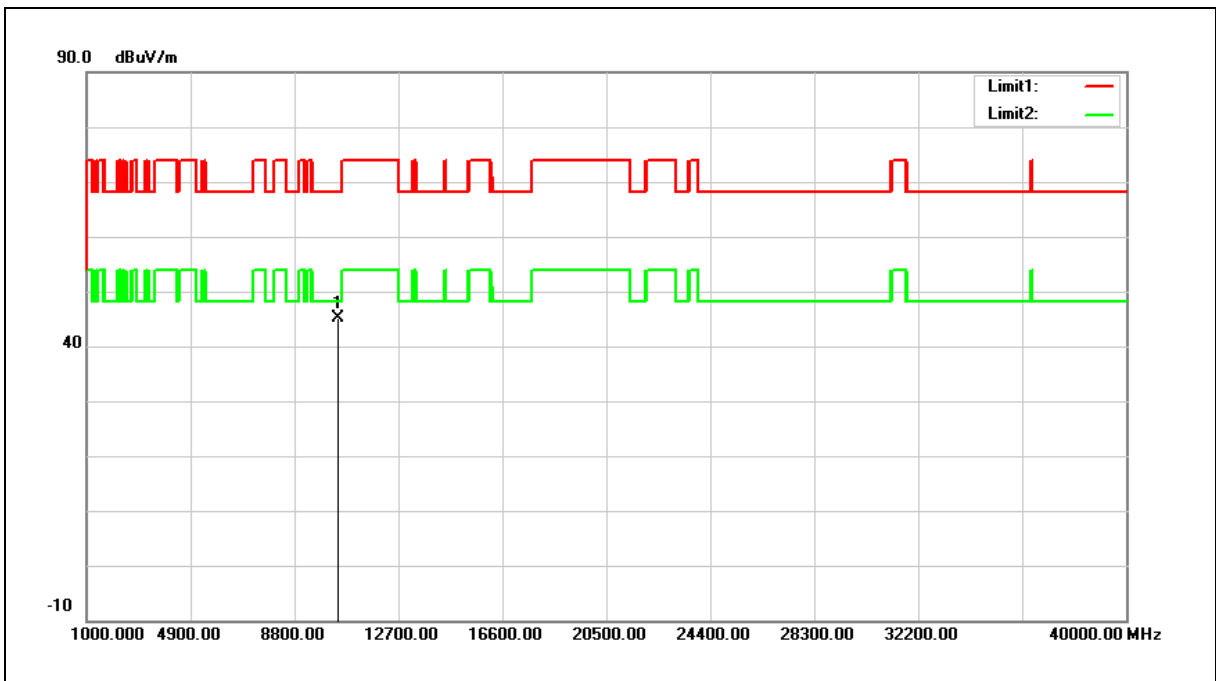


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10420.000	27.77	16.28	44.05	68.20	-24.15	peak

- 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 15.407	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	5210MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5		
Ant.Polar.:	Vertical		

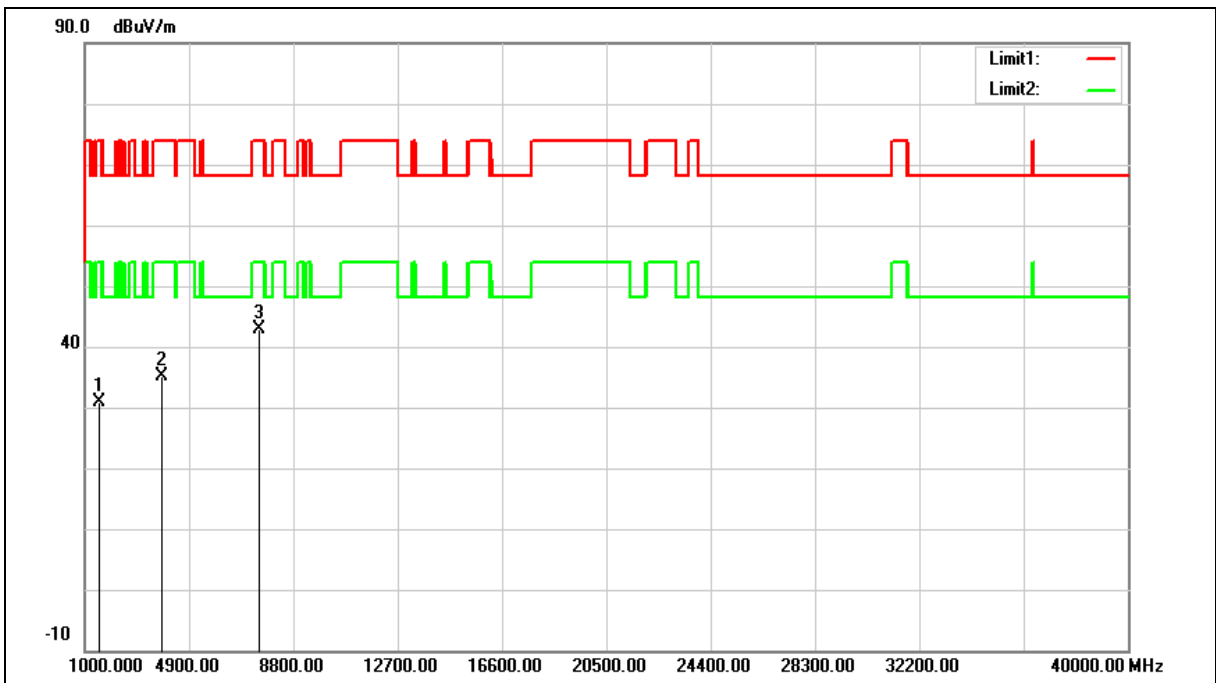


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10420.000	28.84	16.28	45.12	68.20	-23.08	peak

- 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 15.407	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		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1527.000	36.48	-5.51	30.97	74.00	-43.03	peak
2	3890.000	32.82	2.26	35.08	74.00	-38.92	peak
3	7477.000	30.95	11.89	42.84	74.00	-31.16	peak

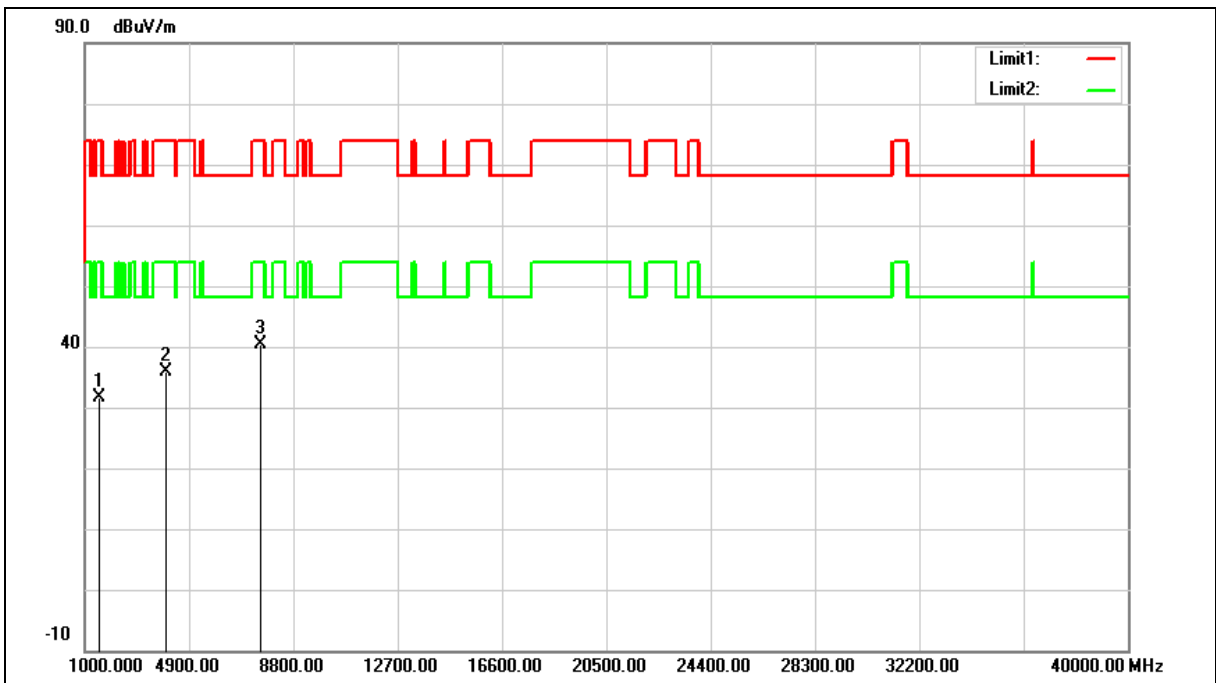
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 15.407	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:	06/07/2017



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1561.000	37.01	-5.35	31.66	74.00	-42.34	peak
2	4026.000	33.13	2.67	35.80	74.00	-38.20	peak
3	7562.000	28.32	12.04	40.36	74.00	-33.64	peak

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

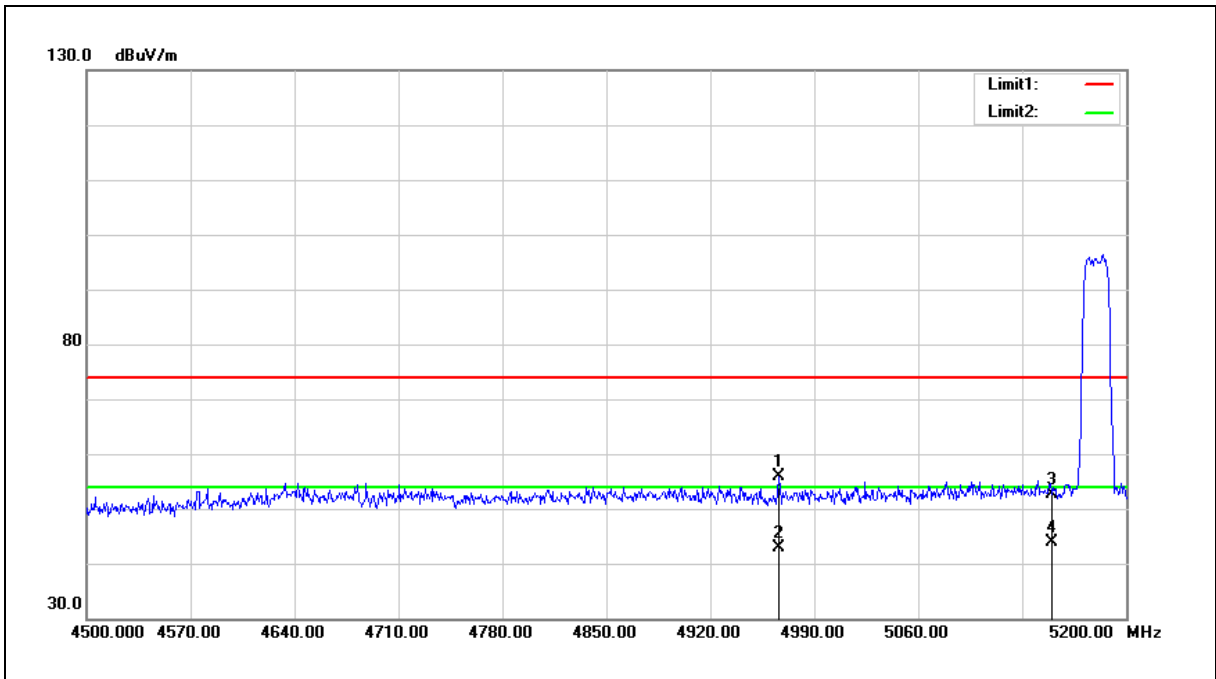
2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

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



Band Edge

Standard:	FCC Part 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5180MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4966.200	50.47	5.44	55.91	74.00	-18.09	peak
2	4966.200	37.36	5.44	42.80	54.00	-11.20	AVG
3	5150.000	46.82	5.78	52.60	74.00	-21.40	peak
4	5150.000	37.99	5.78	43.77	54.00	-10.23	AVG

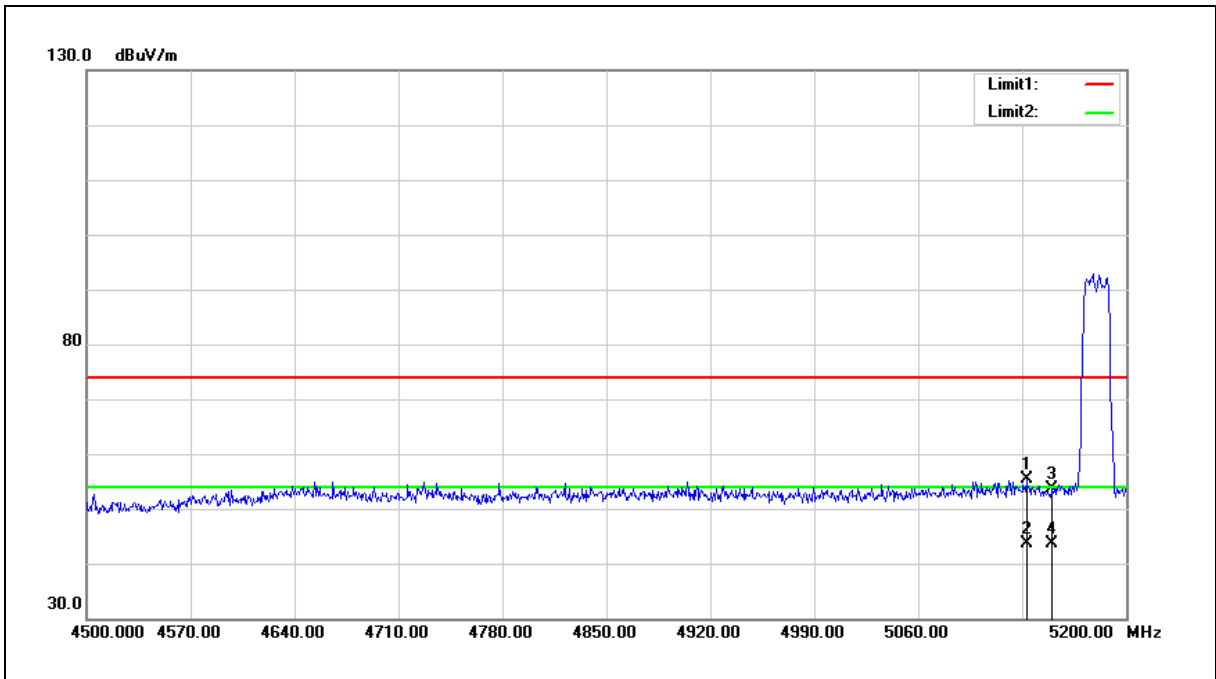
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5180MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5132.800	49.52	5.75	55.27	74.00	-18.73	peak
2	5132.800	37.99	5.75	43.74	54.00	-10.26	AVG
3	5150.000	47.76	5.78	53.54	74.00	-20.46	peak
4	5150.000	37.91	5.78	43.69	54.00	-10.31	AVG

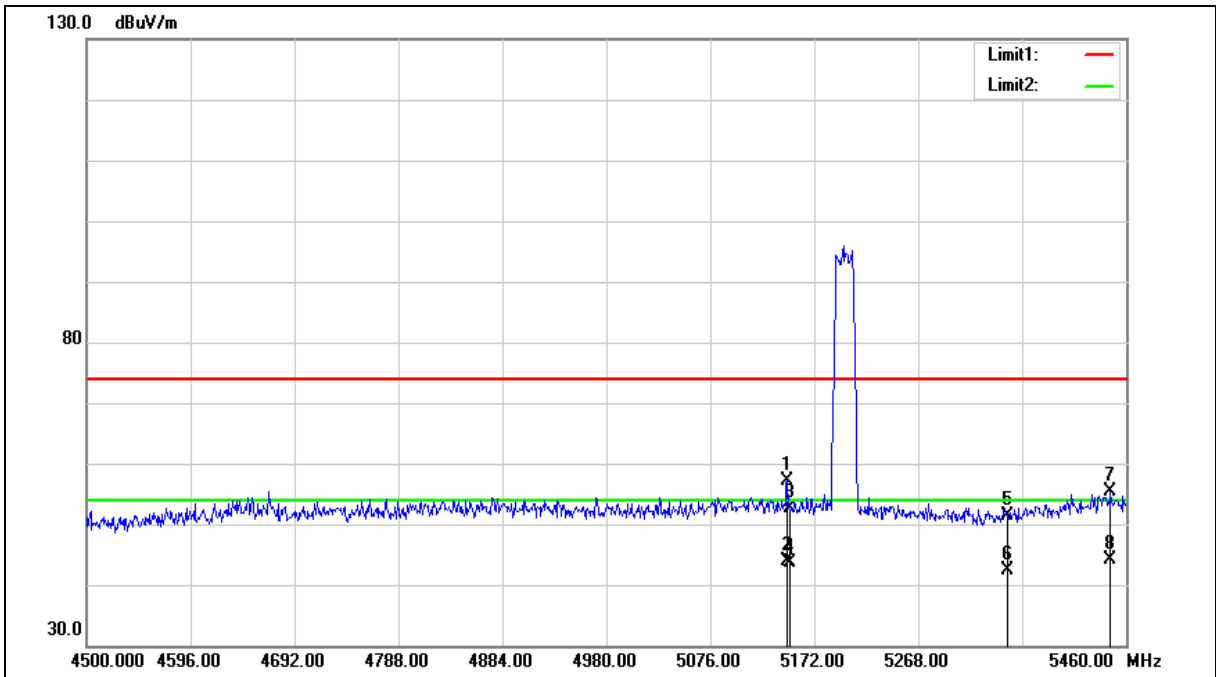
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5200MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		





Standard:	FCC Part 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5200MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5147.040	51.29	5.77	57.06	74.00	-16.94	peak
2	5147.040	38.00	5.77	43.77	54.00	-10.23	AVG
3	5150.000	46.84	5.78	52.62	74.00	-21.38	peak
4	5150.000	37.97	5.78	43.75	54.00	-10.25	AVG
5	5350.000	45.28	6.07	51.35	74.00	-22.65	peak
6	5350.000	36.26	6.07	42.33	54.00	-11.67	AVG
7	5445.600	49.07	6.21	55.28	74.00	-18.72	peak
8	5445.600	37.80	6.21	44.01	54.00	-9.99	AVG

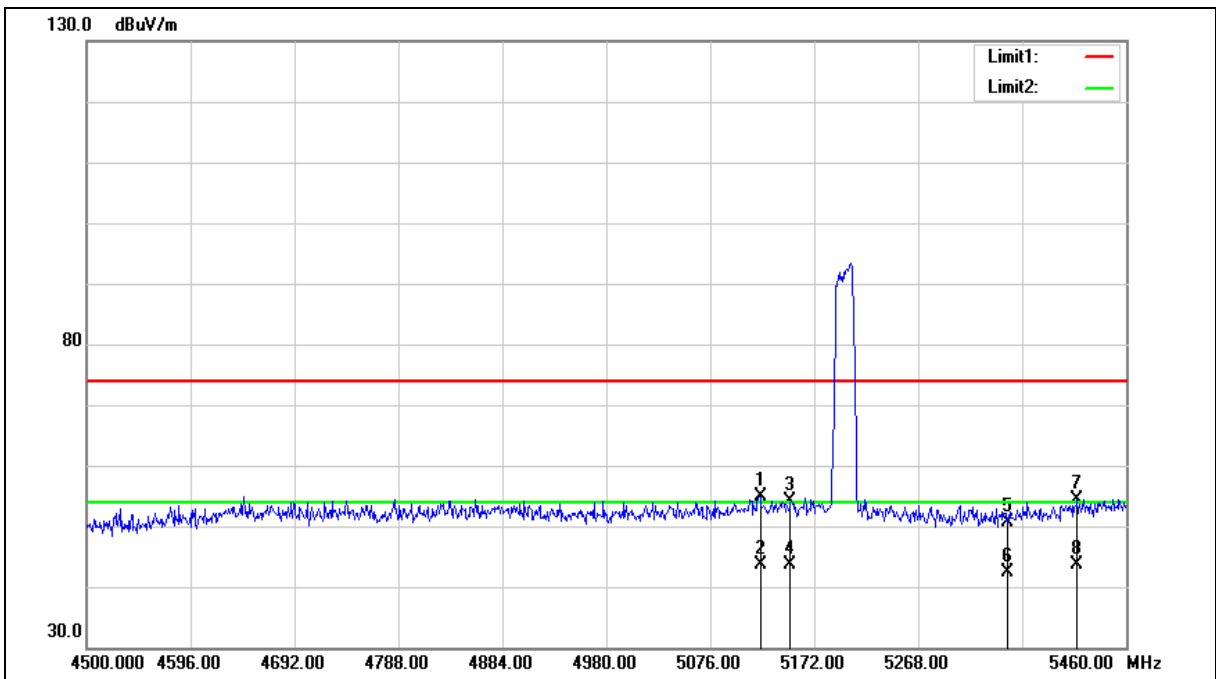
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5200MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		





Standard:	FCC Part 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5200MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5122.080	49.10	5.73	54.83	74.00	-19.17	peak
2	5122.080	37.90	5.73	43.63	54.00	-10.37	AVG
3	5150.000	48.29	5.78	54.07	74.00	-19.93	peak
4	5150.000	37.91	5.78	43.69	54.00	-10.31	AVG
5	5350.000	44.63	6.07	50.70	74.00	-23.30	peak
6	5350.000	36.24	6.07	42.31	54.00	-11.69	AVG
7	5414.880	48.13	6.17	54.30	74.00	-19.70	peak
8	5414.880	37.51	6.17	43.68	54.00	-10.32	AVG

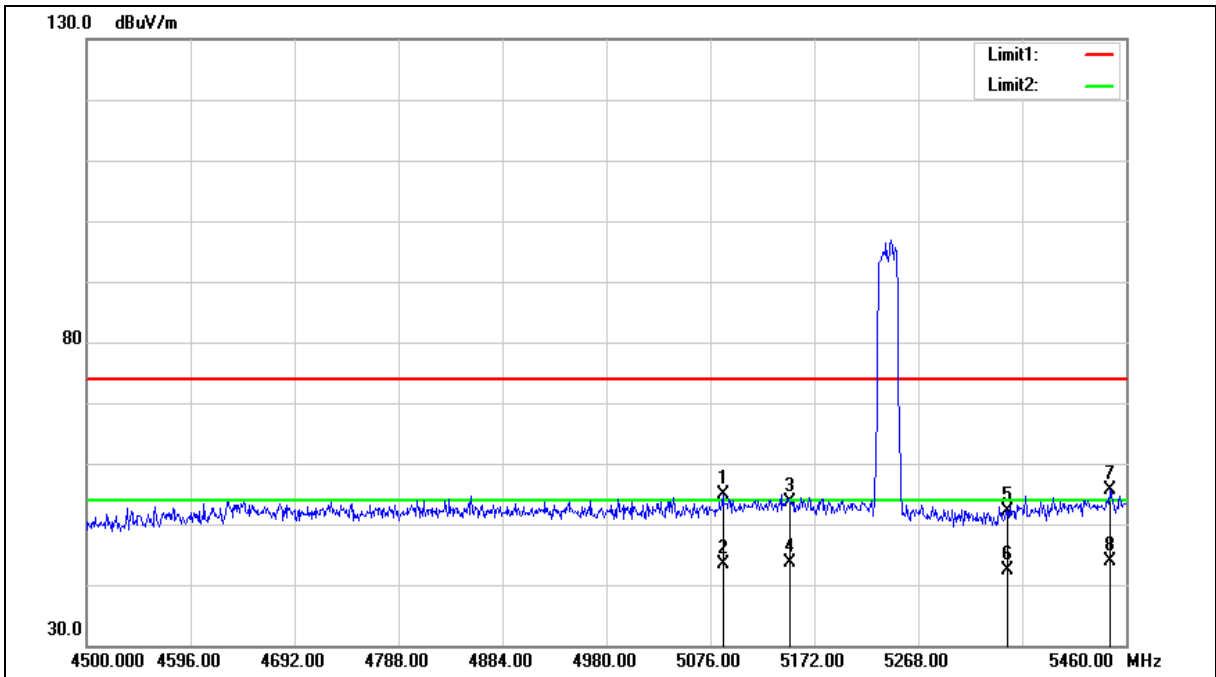
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5240MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		





Standard:	FCC Part 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5240MHz	Temp.(°C)/Hum. (%RH):	26(°C)/60%RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5087.520	49.19	5.67	54.86	74.00	-19.14	peak
2	5087.520	37.74	5.67	43.41	54.00	-10.59	AVG
3	5150.000	47.77	5.78	53.55	74.00	-20.45	peak
4	5150.000	37.95	5.78	43.73	54.00	-10.27	AVG
5	5350.000	46.16	6.07	52.23	74.00	-21.77	peak
6	5350.000	36.23	6.07	42.30	54.00	-11.70	AVG
7	5444.640	49.49	6.21	55.70	74.00	-18.30	peak
8	5444.640	37.79	6.21	44.00	54.00	-10.00	AVG

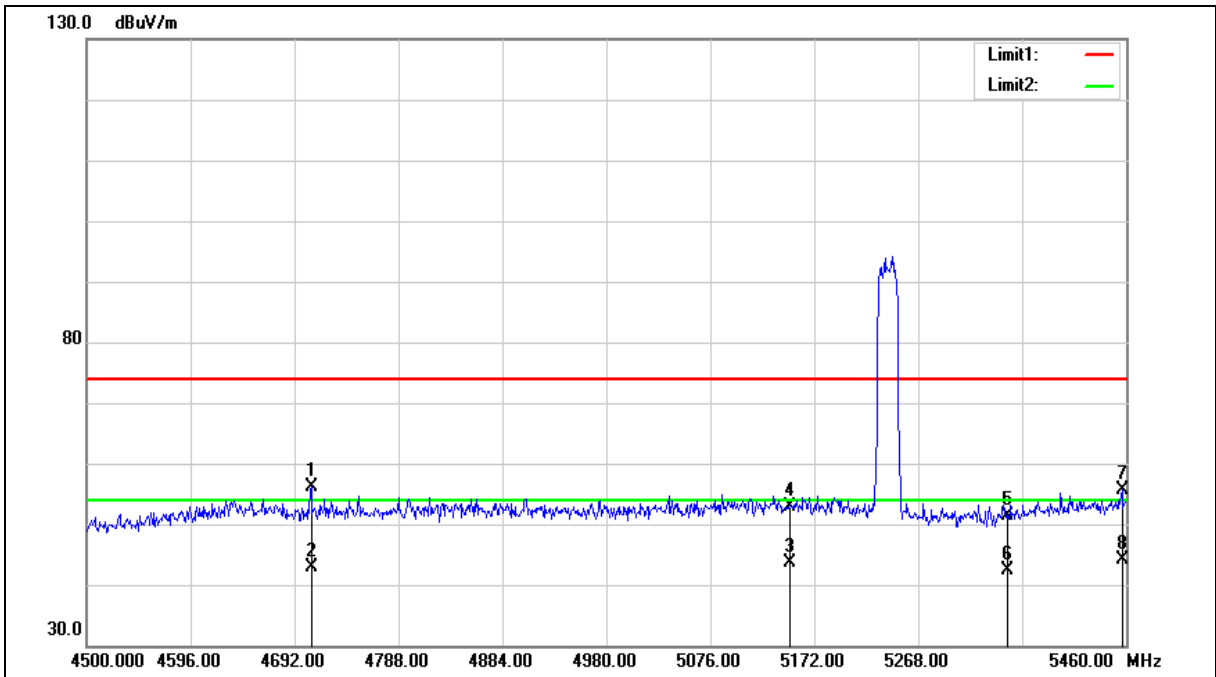
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5240MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		





Standard:	FCC Part 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5240MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4707.360	51.42	4.63	56.05	74.00	-17.95	peak
2	4707.360	38.27	4.63	42.90	54.00	-11.10	AVG
3	5150.000	37.88	5.78	43.66	54.00	-10.34	AVG
4	5150.000	47.14	5.78	52.92	74.00	-21.08	RMS
5	5350.000	45.38	6.07	51.45	74.00	-22.55	peak
6	5350.000	36.28	6.07	42.35	54.00	-11.65	AVG
7	5456.160	49.42	6.22	55.64	74.00	-18.36	peak
8	5456.160	37.87	6.22	44.09	54.00	-9.91	AVG

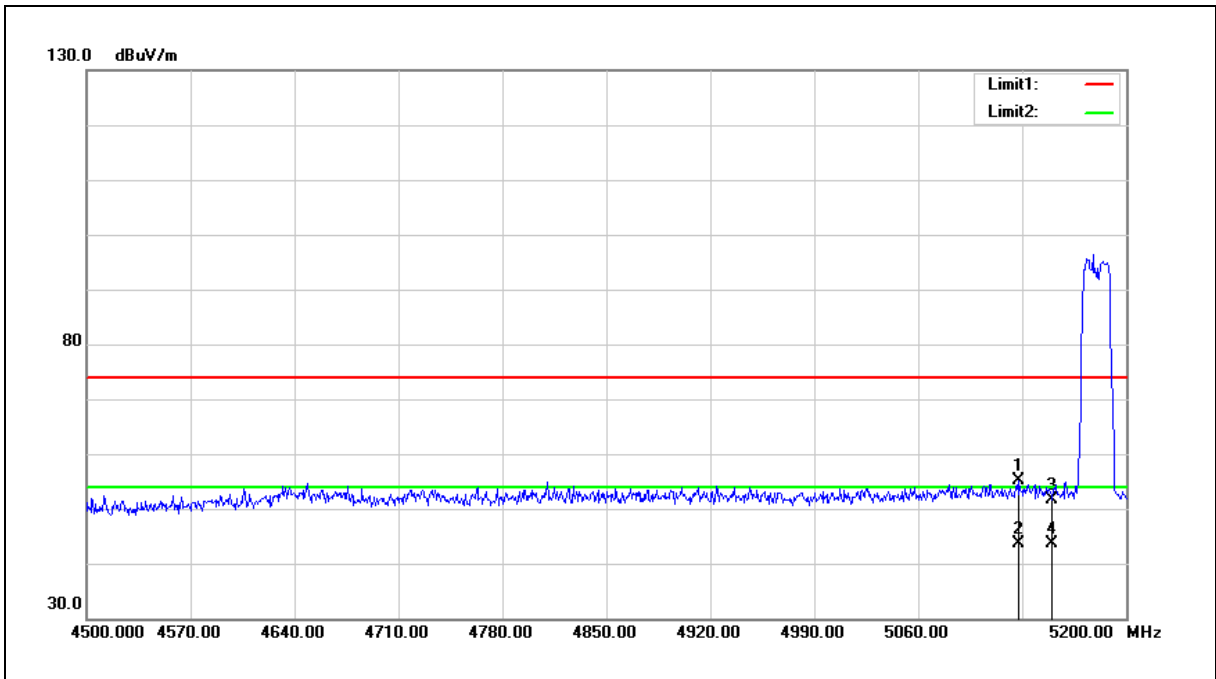
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5180MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5127.900	49.33	5.75	55.08	74.00	-18.92	peak
2	5127.900	37.99	5.75	43.74	54.00	-10.26	AVG
3	5150.000	45.88	5.78	51.66	74.00	-22.34	peak
4	5150.000	37.94	5.78	43.72	54.00	-10.28	AVG

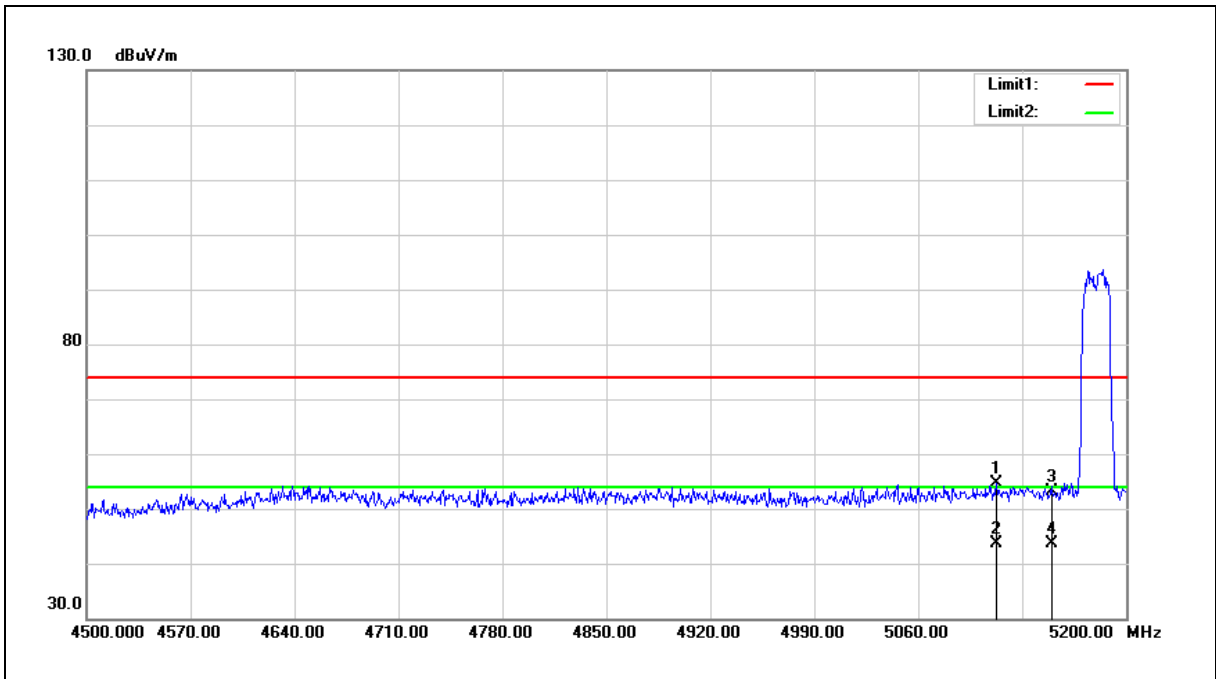
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5180MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5112.500	48.89	5.72	54.61	74.00	-19.39	peak
2	5112.500	37.90	5.72	43.62	54.00	-10.38	AVG
3	5150.000	47.27	5.78	53.05	74.00	-20.95	peak
4	5150.000	37.90	5.78	43.68	54.00	-10.32	AVG

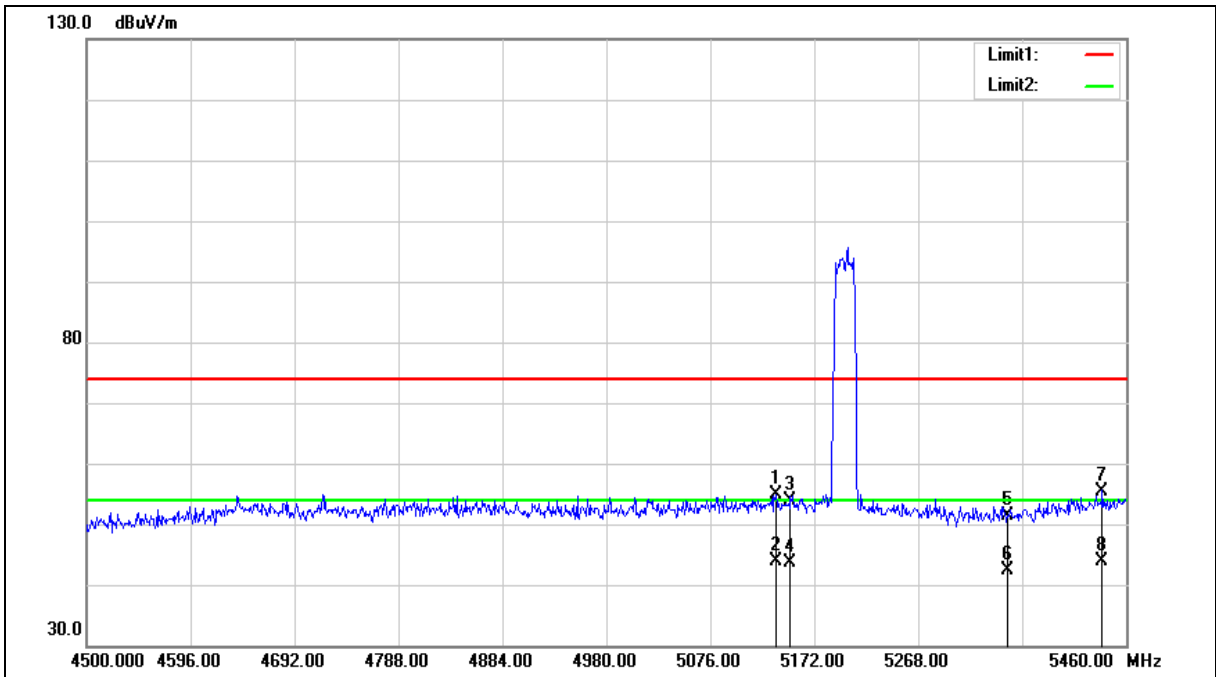
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5200MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		





Standard:	FCC Part 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5200MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5136.480	49.13	5.75	54.88	74.00	-19.12	peak
2	5136.480	38.08	5.75	43.83	54.00	-10.17	AVG
3	5150.000	48.17	5.78	53.95	74.00	-20.05	peak
4	5150.000	37.91	5.78	43.69	54.00	-10.31	AVG
5	5350.000	45.26	6.07	51.33	74.00	-22.67	peak
6	5350.000	36.22	6.07	42.29	54.00	-11.71	AVG
7	5437.920	49.30	6.20	55.50	74.00	-18.50	peak
8	5437.920	37.77	6.20	43.97	54.00	-10.03	AVG

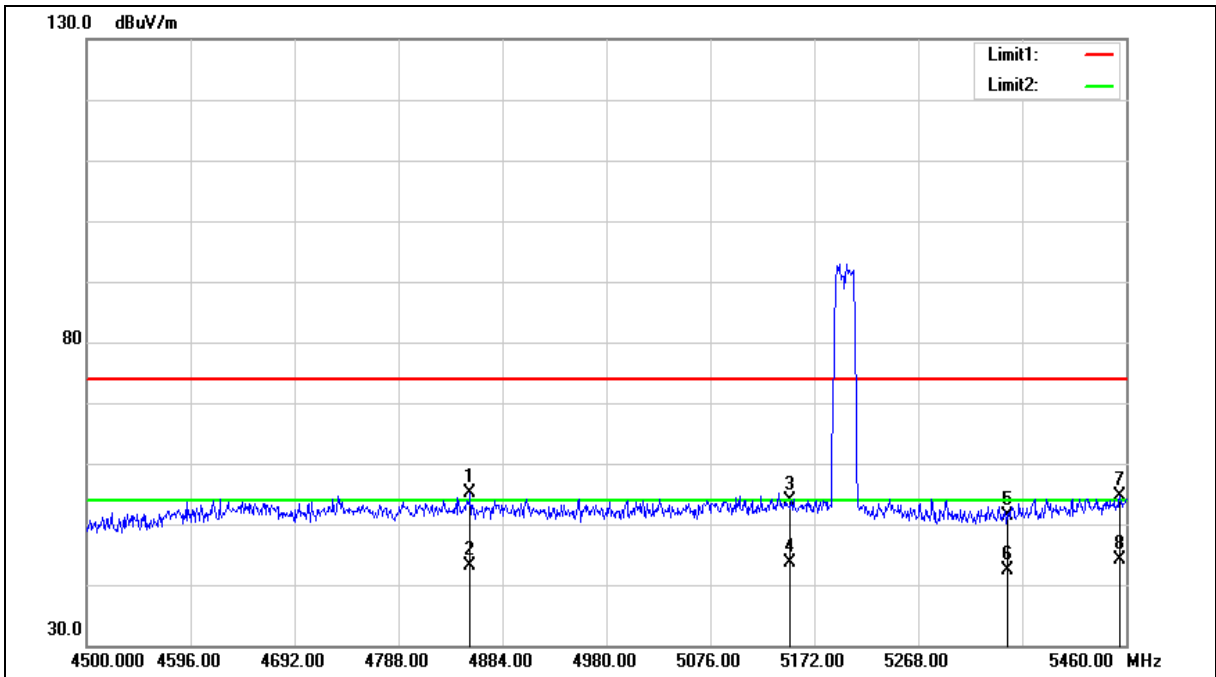
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5200MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		





Standard:	FCC Part 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5200MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4854.240	50.05	5.09	55.14	74.00	-18.86	peak
2	4854.240	37.96	5.09	43.05	54.00	-10.95	AVG
3	5150.000	48.09	5.78	53.87	74.00	-20.13	peak
4	5150.000	37.88	5.78	43.66	54.00	-10.34	AVG
5	5350.000	45.25	6.07	51.32	74.00	-22.68	peak
6	5350.000	36.24	6.07	42.31	54.00	-11.69	AVG
7	5454.240	48.37	6.22	54.59	74.00	-19.41	peak
8	5454.240	37.88	6.22	44.10	54.00	-9.90	AVG

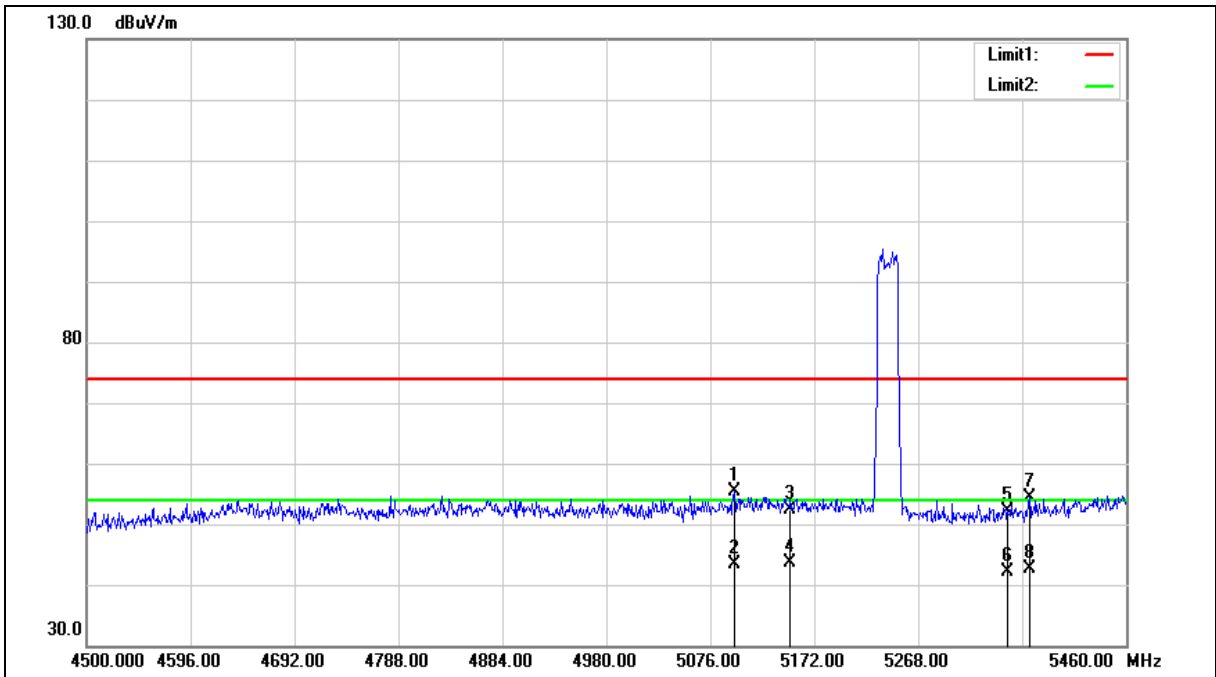
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5240MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		





Standard:	FCC Part 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5240MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5098.080	49.76	5.69	55.45	74.00	-18.55	peak
2	5098.080	37.80	5.69	43.49	54.00	-10.51	AVG
3	5150.000	46.71	5.78	52.49	74.00	-21.51	peak
4	5150.000	37.93	5.78	43.71	54.00	-10.29	AVG
5	5350.000	46.14	6.07	52.21	74.00	-21.79	peak
6	5350.000	35.98	6.07	42.05	54.00	-11.95	AVG
7	5370.720	48.39	6.10	54.49	74.00	-19.51	peak
8	5370.720	36.50	6.10	42.60	54.00	-11.40	AVG

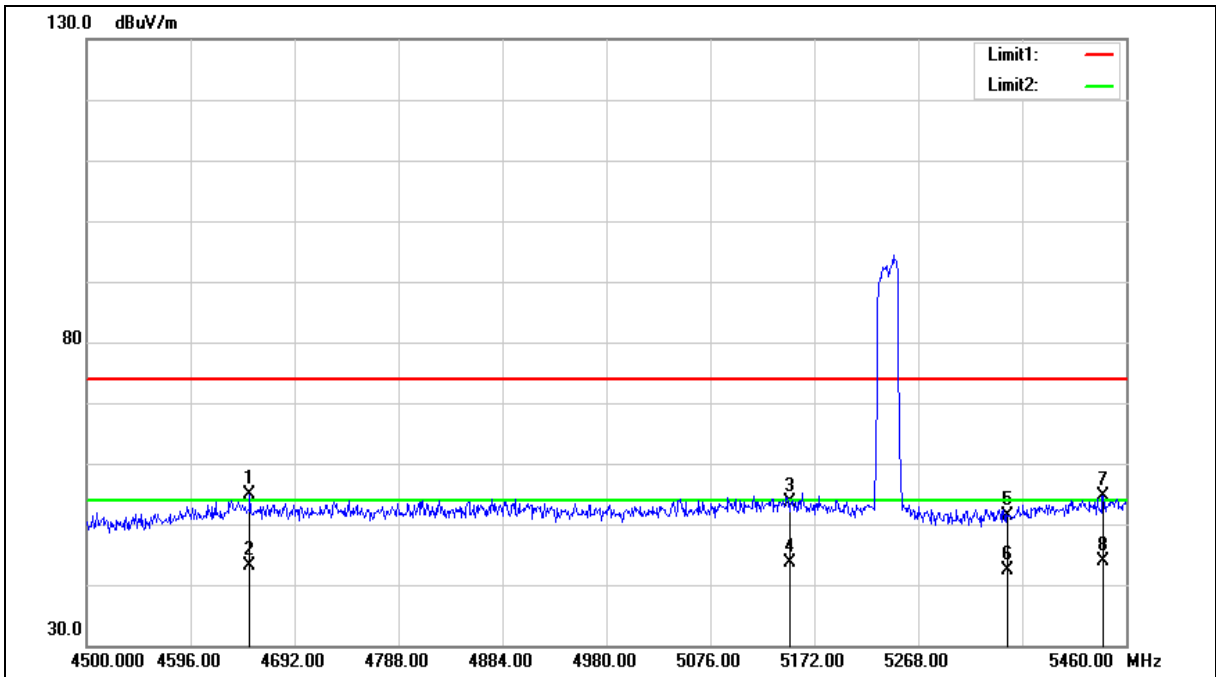
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5240MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		





Standard:	FCC Part 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5240MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4650.720	50.34	4.45	54.79	74.00	-19.21	peak
2	4650.720	38.77	4.45	43.22	54.00	-10.78	AVG
3	5150.000	47.76	5.78	53.54	74.00	-20.46	peak
4	5150.000	37.87	5.78	43.65	54.00	-10.35	AVG
5	5350.000	45.26	6.07	51.33	74.00	-22.67	peak
6	5350.000	36.24	6.07	42.31	54.00	-11.69	AVG
7	5438.880	48.50	6.20	54.70	74.00	-19.30	peak
8	5438.880	37.79	6.20	43.99	54.00	-10.01	AVG

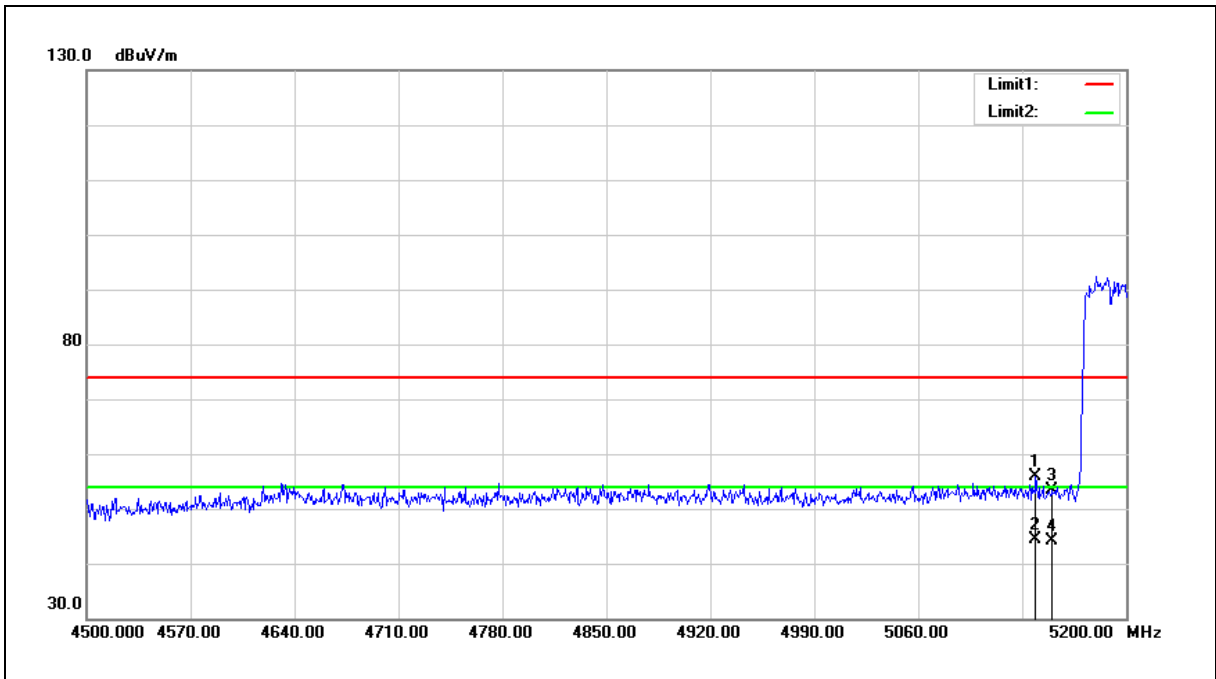
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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

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



Standard:	FCC Part 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5190MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5139.100	50.09	5.76	55.85	74.00	-18.15	peak
2	5139.100	38.68	5.76	44.44	54.00	-9.56	AVG
3	5150.000	47.67	5.78	53.45	74.00	-20.55	peak
4	5150.000	38.35	5.78	44.13	54.00	-9.87	AVG

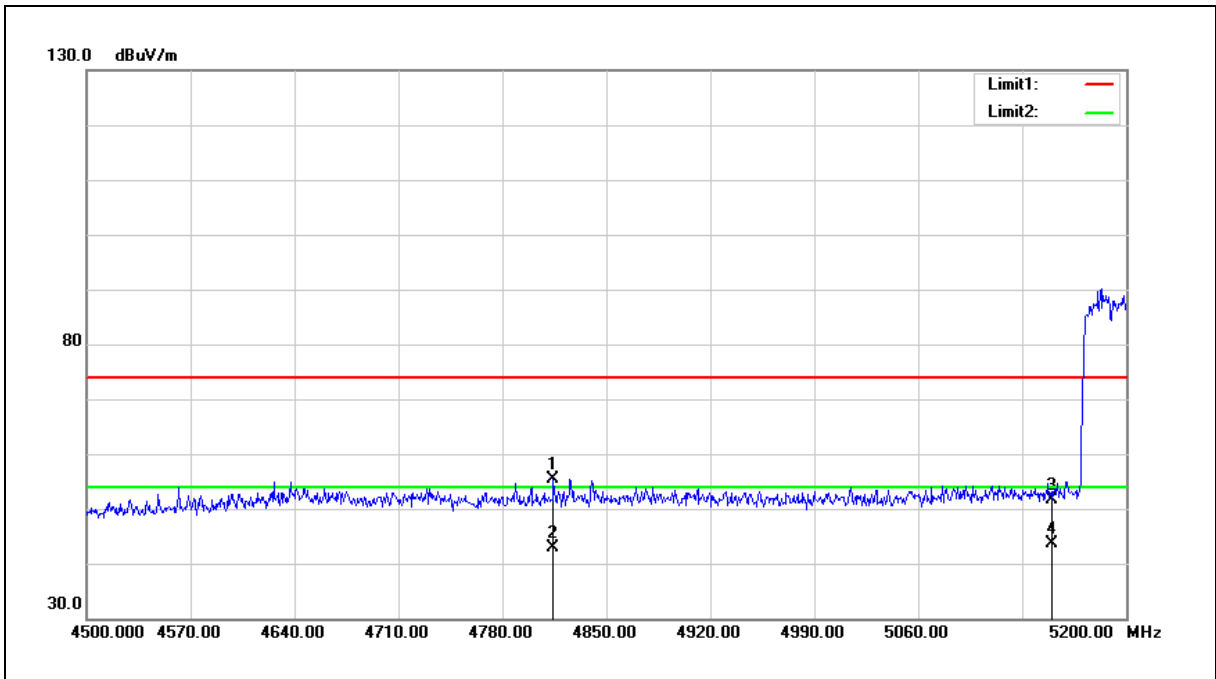
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5190MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4814.300	50.36	4.97	55.33	74.00	-18.67	peak
2	4814.300	37.99	4.97	42.96	54.00	-11.04	AVG
3	5150.000	45.86	5.78	51.64	74.00	-22.36	peak
4	5150.000	37.87	5.78	43.65	54.00	-10.35	AVG

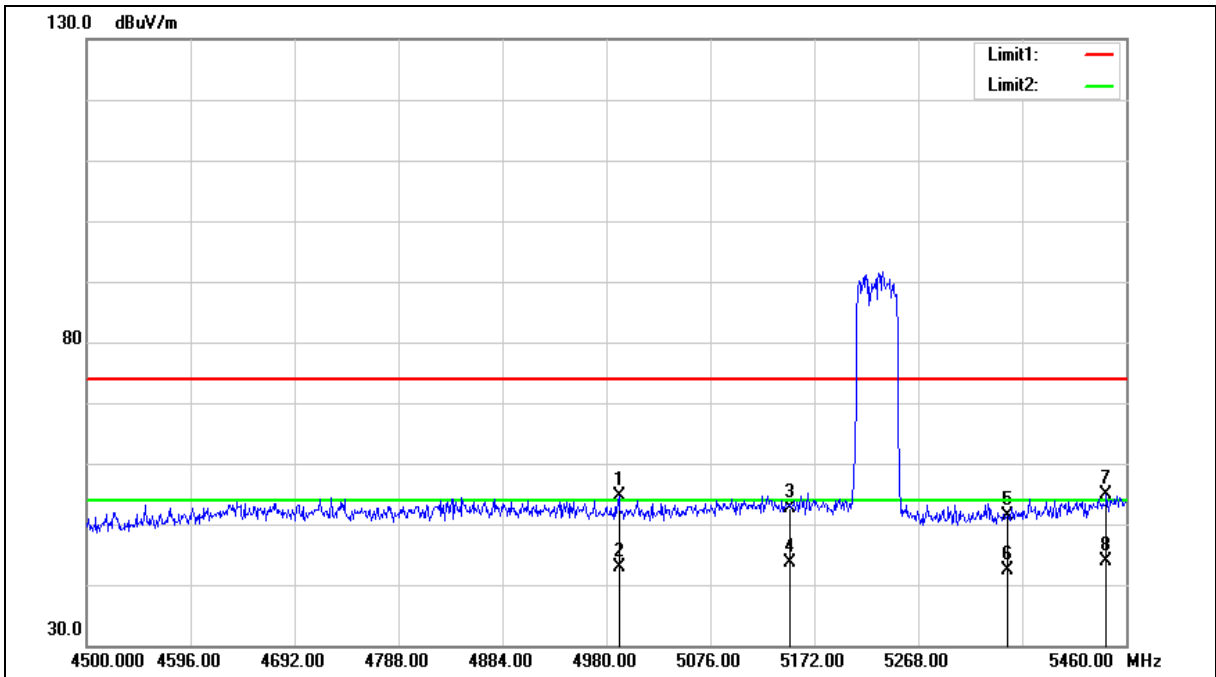
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5230MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		





Standard:	FCC Part 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5230MHz	Temp.(°C)/Hum. (%RH):	26(°C)/60%RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4991.520	49.21	5.52	54.73	74.00	-19.27	peak
2	4991.520	37.31	5.52	42.83	54.00	-11.17	AVG
3	5150.000	46.84	5.78	52.62	74.00	-21.38	peak
4	5150.000	37.91	5.78	43.69	54.00	-10.31	AVG
5	5350.000	45.32	6.07	51.39	74.00	-22.61	peak
6	5350.000	36.23	6.07	42.30	54.00	-11.70	AVG
7	5441.760	48.59	6.21	54.80	74.00	-19.20	peak
8	5441.760	37.78	6.21	43.99	54.00	-10.01	AVG

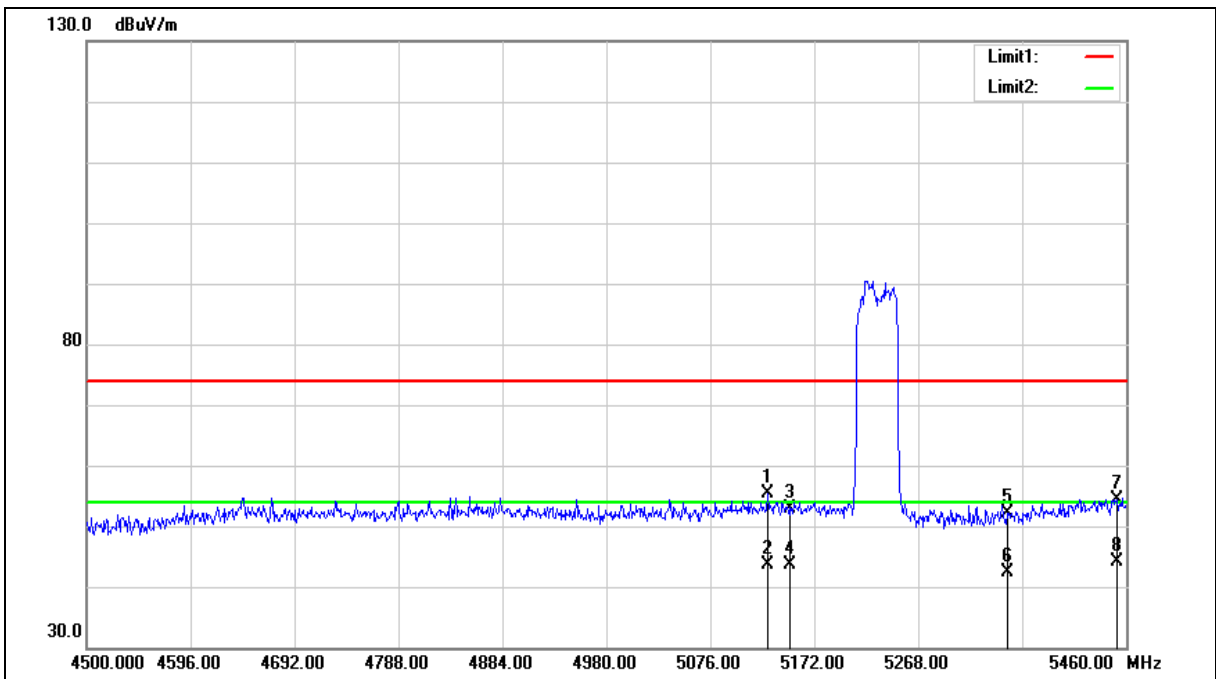
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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

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



Standard:	FCC Part 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5230MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		





Standard:	FCC Part 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5230MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5128.800	49.70	5.75	55.45	74.00	-18.55	peak
2	5128.800	37.92	5.75	43.67	54.00	-10.33	AVG
3	5150.000	46.99	5.78	52.77	74.00	-21.23	peak
4	5150.000	37.91	5.78	43.69	54.00	-10.31	AVG
5	5350.000	46.07	6.07	52.14	74.00	-21.86	peak
6	5350.000	36.23	6.07	42.30	54.00	-11.70	AVG
7	5451.360	48.17	6.22	54.39	74.00	-19.61	peak
8	5451.360	37.89	6.22	44.11	54.00	-9.89	AVG

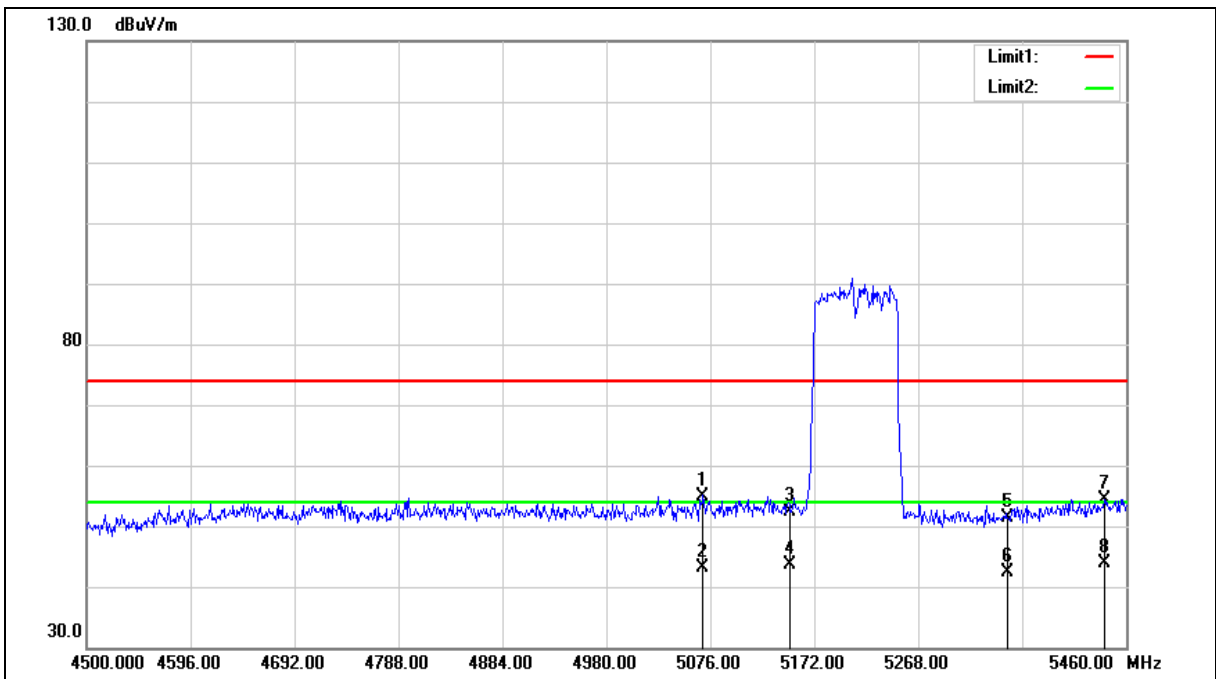
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5210MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5		
Ant.Polar.:	Horizontal		





Standard:	FCC Part 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5210MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5069.280	49.35	5.65	55.00	74.00	-19.00	peak
2	5069.280	37.56	5.65	43.21	54.00	-10.79	AVG
3	5150.000	46.59	5.78	52.37	74.00	-21.63	peak
4	5150.000	37.97	5.78	43.75	54.00	-10.25	AVG
5	5350.000	45.24	6.07	51.31	74.00	-22.69	peak
6	5350.000	36.20	6.07	42.27	54.00	-11.73	AVG
7	5439.840	48.24	6.20	54.44	74.00	-19.56	peak
8	5439.840	37.75	6.20	43.95	54.00	-10.05	AVG

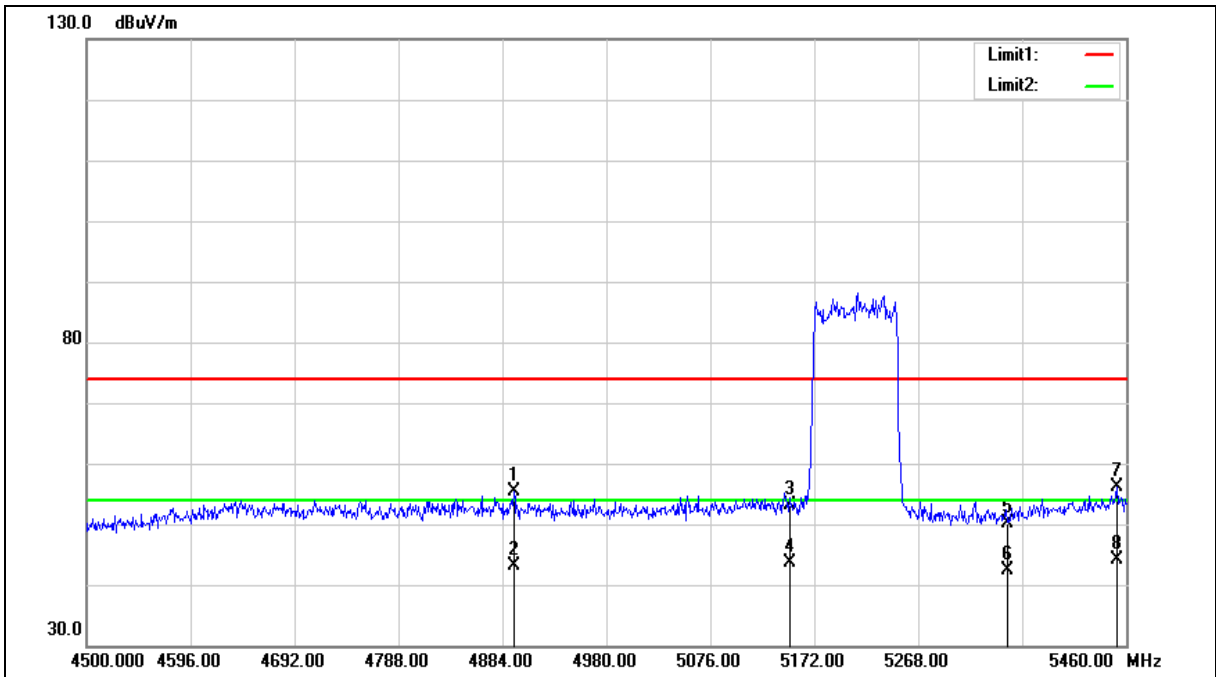
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5210MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5		
Ant.Polar.:	Vertical		





Standard:	FCC Part 15.407	Test Distance:	3m
Test item:	Band edge	Power:	AC 120V/60Hz
Frequency:	5210MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 5		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4894.560	50.16	5.22	55.38	74.00	-18.62	peak
2	4894.560	37.79	5.22	43.01	54.00	-10.99	AVG
3	5150.000	47.23	5.78	53.01	74.00	-20.99	peak
4	5150.000	37.94	5.78	43.72	54.00	-10.28	AVG
5	5350.000	44.18	6.07	50.25	74.00	-23.75	peak
6	5350.000	36.22	6.07	42.29	54.00	-11.71	AVG
7	5451.360	49.97	6.22	56.19	74.00	-17.81	peak
8	5451.360	37.88	6.22	44.10	54.00	-9.90	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.



5.3. Maximum Conducted Output Power & Additional Rule For Outdoor Operation Measurement

Test Item		Maximum Conducted Output Power						FCC Limit (dBm)
Test Mode		Mode 2: IEEE 802.11a Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		
		Max. Output Power						
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5180	6M	10.64	0.012	10.75	0.012	13.71	0.023	≤ 28.98
5200		10.66	0.012	10.91	0.012	13.80	0.024	
5220		10.47	0.011	10.67	0.012	13.58	0.023	
5240		10.68	0.012	10.67	0.012	13.69	0.023	
5180	54M	10.35	0.011	10.52	0.011	13.45	0.022	≤ 28.98
5200		10.41	0.011	10.61	0.012	13.52	0.022	
5220		10.22	0.011	10.40	0.011	13.32	0.021	
5240		10.42	0.011	10.38	0.011	13.41	0.022	

Test Item		Maximum Conducted Output Power						FCC Limit (dBm)
Test Mode		Mode 3: IEEE 802.11ac 20MHz Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		
		Max. Output Power						
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5180	13M	10.42	0.011	10.67	0.012	13.56	0.023	≤ 28.98
5200		10.65	0.012	10.75	0.012	13.71	0.023	
5220		10.52	0.011	10.56	0.011	13.55	0.023	
5240		10.65	0.012	10.55	0.011	13.61	0.023	
5180	173.4M	10.15	0.010	10.39	0.011	13.28	0.021	≤ 28.98
5200		10.42	0.011	10.51	0.011	13.48	0.022	
5220		10.30	0.011	10.30	0.011	13.31	0.021	
5240		10.38	0.011	10.25	0.011	13.33	0.022	

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



Test Item		Maximum Conducted Output Power						
Test Mode		Mode 4: IEEE 802.11ac 40MHz Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)
		Max. Output Power						
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5190	27M	10.89	0.012	10.98	0.013	13.95	0.025	≤ 28.98
5230		10.54	0.011	10.74	0.012	13.65	0.023	
5190	400M	10.57	0.011	10.71	0.012	13.65	0.023	≤ 28.98
5230		10.26	0.011	10.47	0.011	13.38	0.022	

Test Item		Maximum Conducted Output Power						
Test Mode		Mode 5: IEEE 802.11ac 80MHz Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)
		Max. Output Power						
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5210	58.6M	10.91	0.012	10.94	0.012	13.94	0.025	≤ 28.98
5210	866.6M	10.65	0.012	10.71	0.012	13.69	0.023	≤ 28.98

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



Test Item		Max_EIRP at any elevation angle > 30° form horizon				
Test Mode		Mode 2: IEEE 802.11a Continuous TX mode				
Frequency (MHz)	Data Rate	ANT-0+1	Directional Gain	Max_EIRP		FCC Limit (dBm)
		Max. Output Power		(dBm)	(W)	
		(dBm)	(dBi)	(dBm)	(W)	
5180	6M	13.71	7.02	20.73	0.118	< 21
5200		13.80	7.02	20.82	0.121	
5220		13.58	7.02	20.60	0.115	
5240		13.69	7.02	20.71	0.118	
5180	54M	13.45	7.02	20.47	0.111	< 21
5200		13.52	7.02	20.54	0.113	
5220		13.32	7.02	20.34	0.108	
5240		13.41	7.02	20.43	0.110	

Test Item		Max_EIRP at any elevation angle > 30° form horizon				
Test Mode		Mode 3: IEEE 802.11ac 20MHz Continuous TX mode				
Frequency (MHz)	Data Rate	ANT-0+1	Directional Gain	Max_EIRP		FCC Limit (dBm)
		Max. Output Power		(dBm)	(W)	
		(dBm)	(dBi)	(dBm)	(W)	
5180	13M	13.56	7.02	20.58	0.114	< 21
5200		13.71	7.02	20.73	0.118	
5220		13.55	7.02	20.57	0.114	
5240		13.61	7.02	20.63	0.116	
5180	173.4M	13.28	7.02	20.30	0.107	< 21
5200		13.48	7.02	20.50	0.112	
5220		13.31	7.02	20.33	0.108	
5240		13.33	7.02	20.35	0.108	

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



Test Item		Max_EIRP at any elevation angle > 30° form horizon				
Test Mode		Mode 4: IEEE 802.11ac 40MHz Continuous TX mode				
Frequency (MHz)	Data Rate	ANT-0+1	Directional Gain	Max_EIRP		FCC Limit (dBm)
		Max. Output Power (dBm)		(dBi)	(dBm)	
5190	27M	13.95	7.02	20.97	0.125	< 21
5230		13.65	7.02	20.67	0.117	
5190	400M	13.65	7.02	20.67	0.117	< 21
5230		13.38	7.02	20.40	0.110	

Test Item		Max_EIRP at any elevation angle > 30° form horizon				
Test Mode		Mode 5: IEEE 802.11ac 80MHz Continuous TX mode				
Frequency (MHz)	Data Rate	ANT-0+1	Directional Gain	Max_EIRP		FCC Limit (dBm)
		Max. Output Power (dBm)		(dBi)	(dBm)	
5210	58.6M	13.94	7.02	20.96	0.125	< 21
5210	866.6M	13.69	7.02	20.71	0.118	< 21

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



Beamforming on

Test Item		Maximum Conducted Output Power						FCC Limit (dBm)
Test Mode		Mode 2: IEEE 802.11a Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		
		Max. Output Power						
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5180	6M	7.56	0.006	7.68	0.006	10.63	0.012	≤ 28.98
5200		7.33	0.005	7.36	0.005	10.36	0.011	
5220		7.23	0.005	7.17	0.005	10.21	0.010	
5240		7.23	0.005	7.34	0.005	10.30	0.011	
5180	54M	7.32	0.005	7.48	0.006	10.41	0.011	≤ 28.98
5200		7.08	0.005	7.17	0.005	10.14	0.010	
5220		6.98	0.005	6.88	0.005	9.94	0.010	
5240		6.90	0.005	7.11	0.005	10.02	0.010	

Test Item		Maximum Conducted Output Power						FCC Limit (dBm)
Test Mode		Mode 3: IEEE 802.11ac 20MHz Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		
		Max. Output Power						
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5180	13M	7.26	0.005	7.12	0.005	10.20	0.010	≤ 28.98
5200		7.25	0.005	7.34	0.005	10.31	0.011	
5220		7.21	0.005	7.04	0.005	10.14	0.010	
5240		7.22	0.005	7.30	0.005	10.27	0.011	
5180	173.4M	6.98	0.005	6.88	0.005	9.94	0.010	≤ 28.98
5200		7.00	0.005	7.12	0.005	10.07	0.010	
5220		6.92	0.005	6.82	0.005	9.88	0.010	
5240		7.00	0.005	7.11	0.005	10.07	0.010	

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



Test Item		Maximum Conducted Output Power						
Test Mode		Mode 4: IEEE 802.11ac 40MHz Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)
		Max. Output Power						
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5190	27M	7.80	0.006	7.85	0.006	10.84	0.012	≤ 28.64
5230		7.17	0.005	7.12	0.005	10.16	0.010	
5190	400M	7.55	0.006	7.62	0.006	10.60	0.011	≤ 28.64
5230		6.92	0.005	6.93	0.005	9.94	0.010	

Test Item		Maximum Conducted Output Power						
Test Mode		Mode 5: IEEE 802.11ac 80MHz Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)
		Max. Output Power						
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5210	58.6M	7.39	0.005	7.44	0.006	10.43	0.011	≤ 28.64
5210	866.6M	7.11	0.005	7.20	0.005	10.17	0.010	≤ 28.64

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



Test Item		Max_EIRP at any elevation angle > 30° form horizon				
Test Mode		Mode 2: IEEE 802.11a Continuous TX mode				
Frequency (MHz)	Data Rate	ANT-0+1	Directional Gain	Max_EIRP		FCC Limit (dBm)
		Max. Output Power		(dBm)	(W)	
		(dBm)	(dBi)	(dBm)	(W)	
5180	6M	10.63	7.02	17.65	0.058	< 21
5200		10.36	7.02	17.38	0.055	
5220		10.21	7.02	17.23	0.053	
5240		10.30	7.02	17.32	0.054	
5180	54M	10.41	7.02	17.43	0.055	< 21
5200		10.14	7.02	17.16	0.052	
5220		9.94	7.02	16.96	0.050	
5240		10.02	7.02	17.04	0.051	

Test Item		Max_EIRP at any elevation angle > 30° form horizon				
Test Mode		Mode 3: IEEE 802.11ac 20MHz Continuous TX mode				
Frequency (MHz)	Data Rate	ANT-0+1	Directional Gain	Max_EIRP		FCC Limit (dBm)
		Max. Output Power		(dBm)	(W)	
		(dBm)	(dBi)	(dBm)	(W)	
5180	13M	10.20	7.02	17.22	0.053	< 21
5200		10.31	7.02	17.33	0.054	
5220		10.14	7.02	17.16	0.052	
5240		10.27	7.02	17.29	0.054	
5180	173.4M	9.94	7.02	16.96	0.050	< 21
5200		10.07	7.02	17.09	0.051	
5220		9.88	7.02	16.90	0.049	
5240		10.07	7.02	17.09	0.051	

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



Test Item		Max_EIRP at any elevation angle > 30° form horizon				
Test Mode		Mode 4: IEEE 802.11ac 40MHz Continuous TX mode				
Frequency (MHz)	Data Rate	ANT-0+1	Directional Gain	Max_EIRP		FCC Limit (dBm)
		Max. Output Power (dBm)		(dBi)	(dBm)	
5190	27M	10.84	7.02	17.86	0.061	< 21
5230		10.16	7.02	17.18	0.052	
5190	400M	10.60	7.02	17.62	0.058	< 21
5230		9.94	7.02	16.96	0.050	

Test Item		Max_EIRP at any elevation angle > 30° form horizon				
Test Mode		Mode 5: IEEE 802.11ac 80MHz Continuous TX mode				
Frequency (MHz)	Data Rate	ANT-0+1	Directional Gain	Max_EIRP		FCC Limit (dBm)
		Max. Output Power (dBm)		(dBi)	(dBm)	
5210	58.6M	10.43	7.02	17.45	0.056	< 21
5210	866.6M	10.17	7.02	17.19	0.052	< 21

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



5.4. 26dB RF Bandwidth Measurement & 99 % Occupied Bandwidth Measurement

Test Mode	Mode 2: IEEE 802.11a Continuous TX mode			
Frequency (MHz)	ANT-0	ANT-1	ANT-0	ANT-1
	26dB Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5180	19.280	16.417	16.458	16.417
5200	19.520	16.437	15.457	16.437
5240	19.320	16.421	15.441	16.421

Test Mode	Mode 3: IEEE 802.11ac 20MHz Continuous TX mode			
Frequency (MHz)	ANT-0	ANT-1	ANT-0	ANT-1
	26dB Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5180	20.210	20.320	17.628	17.653
5200	20.320	20.290	17.641	17.631
5240	20.660	20.480	17.625	17.638

Test Mode	Mode 4: IEEE 802.11ac 40MHz Continuous TX mode			
Frequency (MHz)	ANT-0	ANT-1	ANT-0	ANT-1
	26dB Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5190	40.260	39.970	36.084	36.051
5230	40.290	40.310	36.131	36.115

Test Mode	Mode 5: IEEE 802.11ac 80MHz Continuous TX mode			
Frequency (MHz)	ANT-0	ANT-1	ANT-0	ANT-1
	26dB Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5210	83.860	82.630	75.777	75.662

Note: The 99% occupied bandwidth not crossed 5250MHz.



Beamforming on

Test Mode	Mode 2: IEEE 802.11a Continuous TX mode			
Frequency (MHz)	ANT-0	ANT-1	ANT-0	ANT-1
	26dB Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5180	19.620	18.950	16.453	16.412
5200	19.480	19.240	16.455	16.439
5240	19.340	19.120	16.467	16.436

Test Mode	Mode 3: IEEE 802.11ac 20MHz Continuous TX mode			
Frequency (MHz)	ANT-0	ANT-1	ANT-0	ANT-1
	26dB Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5180	20.110	20.160	17.627	17.626
5200	20.110	20.380	17.619	17.645
5240	20.380	20.330	17.625	17.636

Test Mode	Mode 4: IEEE 802.11ac 40MHz Continuous TX mode			
Frequency (MHz)	ANT-0	ANT-1	ANT-0	ANT-1
	26dB Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5190	40.160	40.040	36.068	35.995
5230	40.050	40.240	36.005	36.080

Test Mode	Mode 5: IEEE 802.11ac 80MHz Continuous TX mode			
Frequency (MHz)	ANT-0	ANT-1	ANT-0	ANT-1
	26dB Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5210	82.840	83.390	75.663	75.705

Note: The 99% occupied bandwidth not crossed 5250MHz.



■ Test Graphs

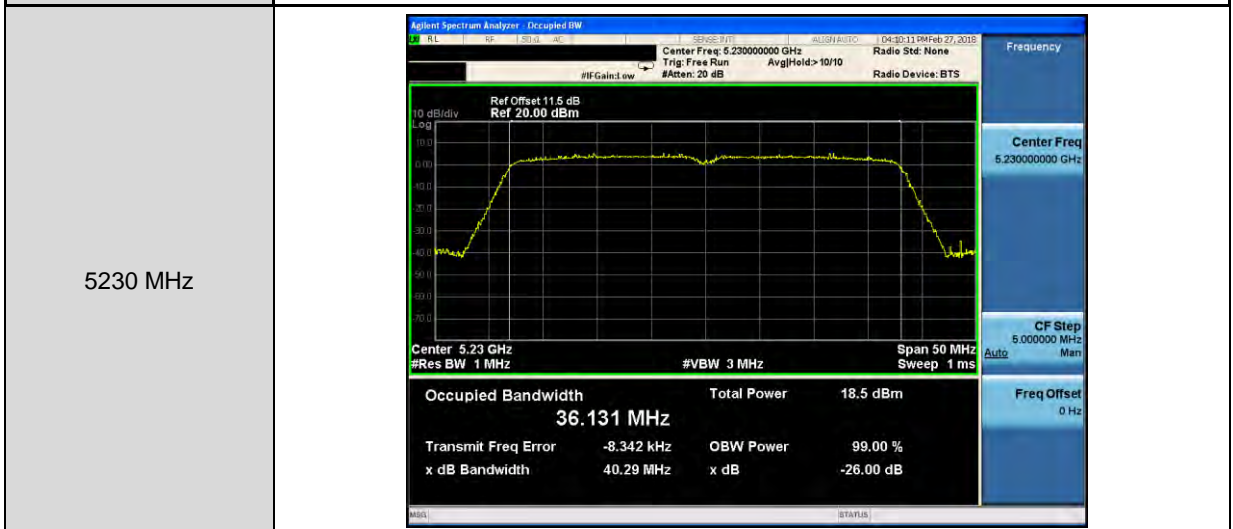
Mode 2: IEEE 802.11a Continuous TX mode_ ANT-0	
5180 MHz	
5200 MHz	
5240 MHz	



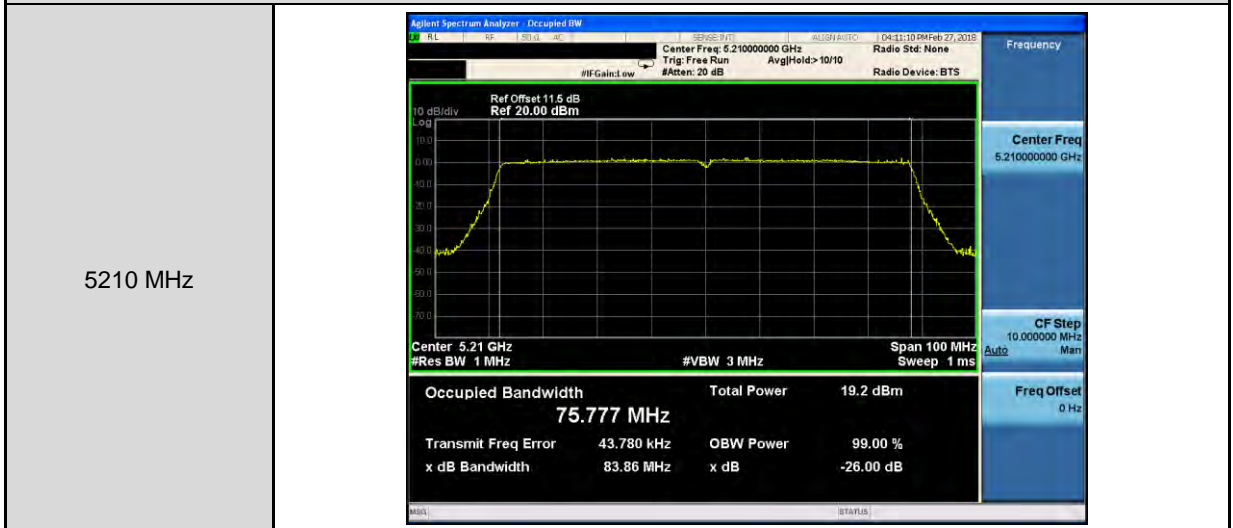
Mode 3: IEEE 802.11ac 20MHz Continuous TX mode_ ANT-0	
5180 MHz	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 5.18000000 GHz</p> <p>Ref Offset: 11.5 dB Ref: 20.00 dBm</p> <p>Center 5.18 GHz #Res BW 300 kHz</p> <p>Span 30 MHz Sweep 1 ms</p> <p>#VBW 1 MHz</p> <p>Occupied Bandwidth: 17.628 MHz</p> <p>Total Power: 17.5 dBm</p> <p>Transmit Freq Error: -6.345 kHz</p> <p>OBW Power: 99.00 %</p> <p>x dB Bandwidth: 20.21 MHz</p> <p>x dB: -26.00 dB</p>
5200 MHz	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 5.20000000 GHz</p> <p>Ref Offset: 11.5 dB Ref: 20.00 dBm</p> <p>Center 5.2 GHz #Res BW 300 kHz</p> <p>Span 30 MHz Sweep 1 ms</p> <p>#VBW 1 MHz</p> <p>Occupied Bandwidth: 17.641 MHz</p> <p>Total Power: 17.4 dBm</p> <p>Transmit Freq Error: -13.814 kHz</p> <p>OBW Power: 99.00 %</p> <p>x dB Bandwidth: 20.32 MHz</p> <p>x dB: -26.00 dB</p>
5240 MHz	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 5.24000000 GHz</p> <p>Ref Offset: 11.5 dB Ref: 20.00 dBm</p> <p>Center 5.24 GHz #Res BW 300 kHz</p> <p>Span 30 MHz Sweep 1 ms</p> <p>#VBW 1 MHz</p> <p>Occupied Bandwidth: 17.625 MHz</p> <p>Total Power: 17.7 dBm</p> <p>Transmit Freq Error: -17.224 kHz</p> <p>OBW Power: 99.00 %</p> <p>x dB Bandwidth: 20.66 MHz</p> <p>x dB: -26.00 dB</p>



Mode 4: IEEE 802.11ac 40MHz Continuous TX mode_ ANT-0



Mode 5: IEEE 802.11ac 80MHz Continuous TX mode_ ANT-0





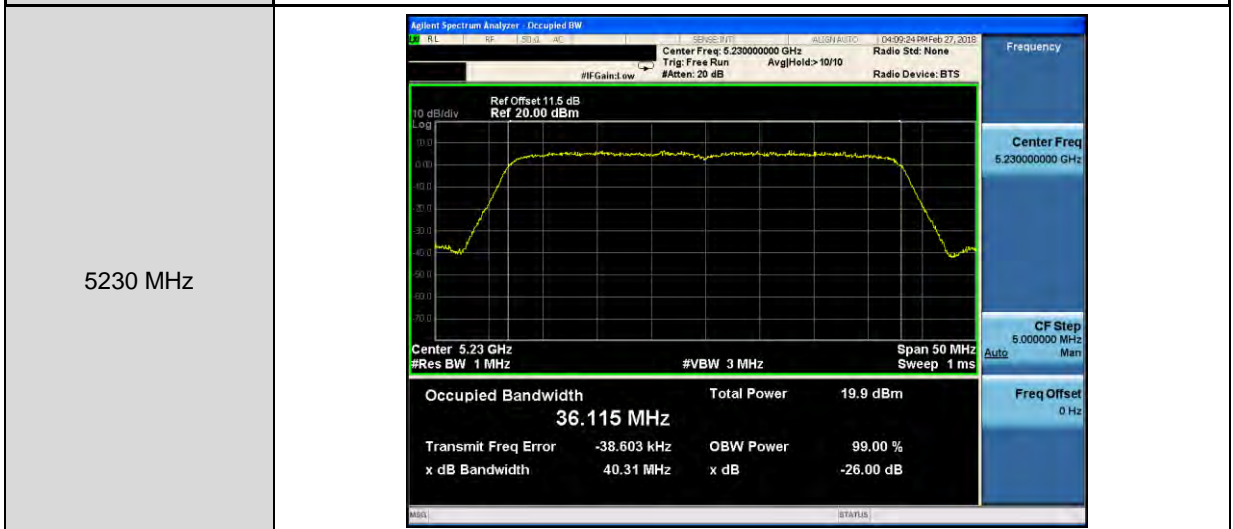
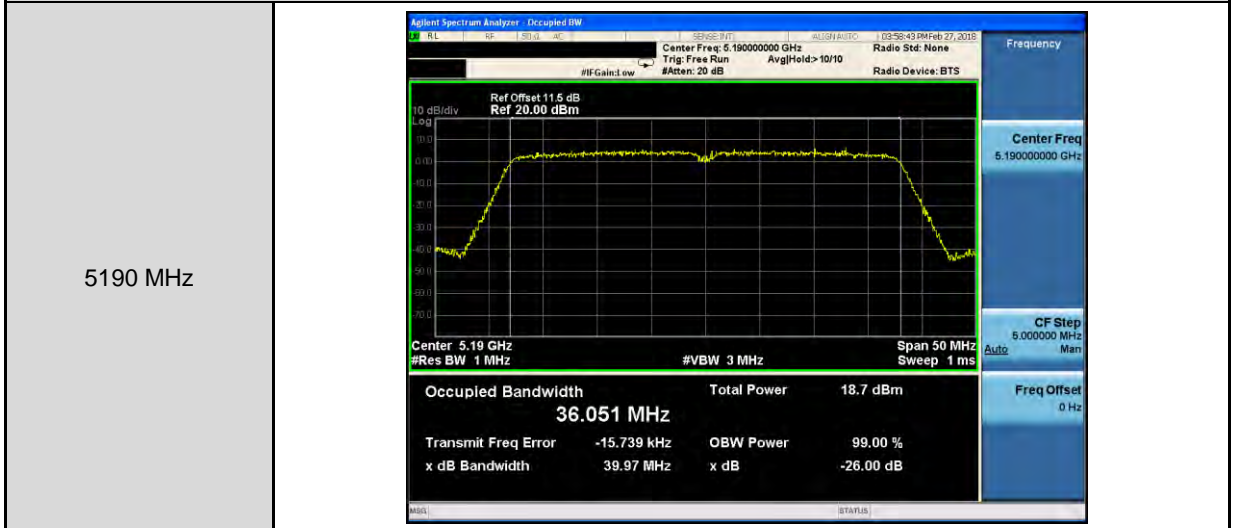
Mode 2: IEEE 802.11a Continuous TX mode_ ANT-1	
5180 MHz	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 5.18000000 GHz</p> <p>Ref Offset: 11.5 dB Ref 20.00 dBm</p> <p>Center 5.18 GHz #Res BW 300 kHz</p> <p>Span 30 MHz Sweep 1 ms</p> <p>#VBW 1 MHz</p> <p>Occupied Bandwidth 16.417 MHz</p> <p>Total Power 18.1 dBm</p> <p>Transmit Freq Error -6.722 kHz</p> <p>OBW Power 99.00 %</p> <p>x dB Bandwidth 19.16 MHz</p> <p>x dB -26.00 dB</p>
5200 MHz	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 5.20000000 GHz</p> <p>Ref Offset: 11.5 dB Ref 20.00 dBm</p> <p>Center 5.2 GHz #Res BW 300 kHz</p> <p>Span 30 MHz Sweep 1 ms</p> <p>#VBW 1 MHz</p> <p>Occupied Bandwidth 16.437 MHz</p> <p>Total Power 18.0 dBm</p> <p>Transmit Freq Error -15.618 kHz</p> <p>OBW Power 99.00 %</p> <p>x dB Bandwidth 19.32 MHz</p> <p>x dB -26.00 dB</p>
5240 MHz	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 5.24000000 GHz</p> <p>Ref Offset: 11.5 dB Ref 20.00 dBm</p> <p>Center 5.24 GHz #Res BW 300 kHz</p> <p>Span 30 MHz Sweep 1 ms</p> <p>#VBW 1 MHz</p> <p>Occupied Bandwidth 16.421 MHz</p> <p>Total Power 17.6 dBm</p> <p>Transmit Freq Error -20.163 kHz</p> <p>OBW Power 99.00 %</p> <p>x dB Bandwidth 19.01 MHz</p> <p>x dB -26.00 dB</p>



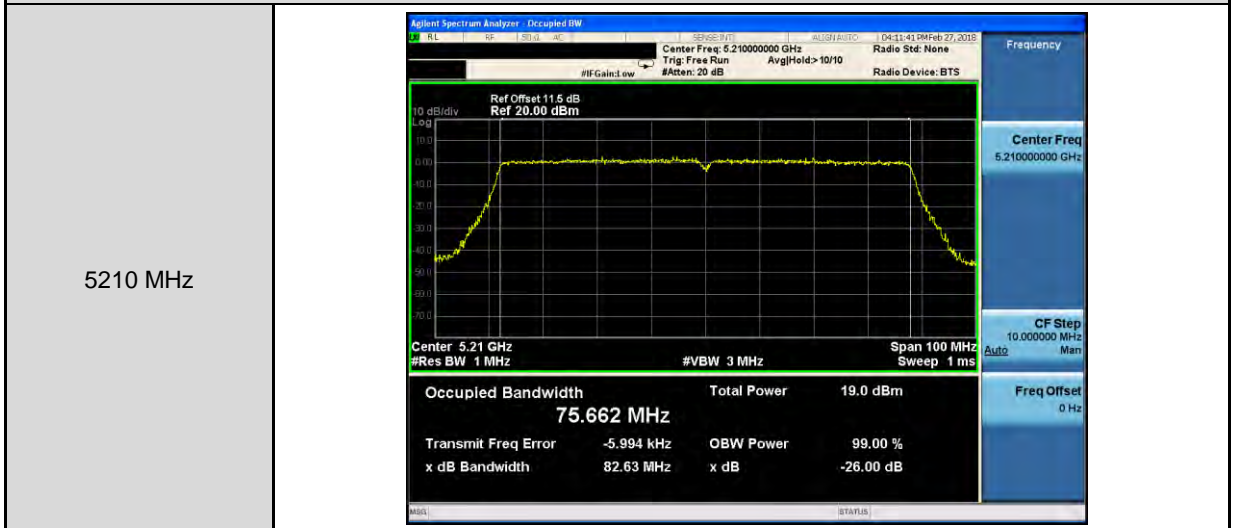
Mode 3: IEEE 802.11ac 20MHz Continuous TX mode_ ANT-1	
<p>5180 MHz</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 5.18000000 GHz</p> <p>Ref Offset: 11.5 dB Ref: 20.00 dBm</p> <p>Center 5.18 GHz #Res BW 300 kHz</p> <p>Span 30 MHz Sweep 1 ms</p> <p>#VBW 1 MHz</p> <p>Occupied Bandwidth: 17.653 MHz</p> <p>Total Power: 17.4 dBm</p> <p>Transmit Freq Error: -18.225 kHz</p> <p>OBW Power: 99.00 %</p> <p>x dB Bandwidth: 20.32 MHz</p> <p>x dB: -26.00 dB</p>
<p>5200 MHz</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 5.20000000 GHz</p> <p>Ref Offset: 11.5 dB Ref: 20.00 dBm</p> <p>Center 5.2 GHz #Res BW 300 kHz</p> <p>Span 30 MHz Sweep 1 ms</p> <p>#VBW 1 MHz</p> <p>Occupied Bandwidth: 17.631 MHz</p> <p>Total Power: 17.6 dBm</p> <p>Transmit Freq Error: -17.516 kHz</p> <p>OBW Power: 99.00 %</p> <p>x dB Bandwidth: 20.29 MHz</p> <p>x dB: -26.00 dB</p>
<p>5240 MHz</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 5.24000000 GHz</p> <p>Ref Offset: 11.5 dB Ref: 20.00 dBm</p> <p>Center 5.24 GHz #Res BW 300 kHz</p> <p>Span 30 MHz Sweep 1 ms</p> <p>#VBW 1 MHz</p> <p>Occupied Bandwidth: 17.638 MHz</p> <p>Total Power: 17.4 dBm</p> <p>Transmit Freq Error: -23.841 kHz</p> <p>OBW Power: 99.00 %</p> <p>x dB Bandwidth: 20.48 MHz</p> <p>x dB: -26.00 dB</p>



Mode 4: IEEE 802.11ac 40MHz Continuous TX mode_ ANT-1



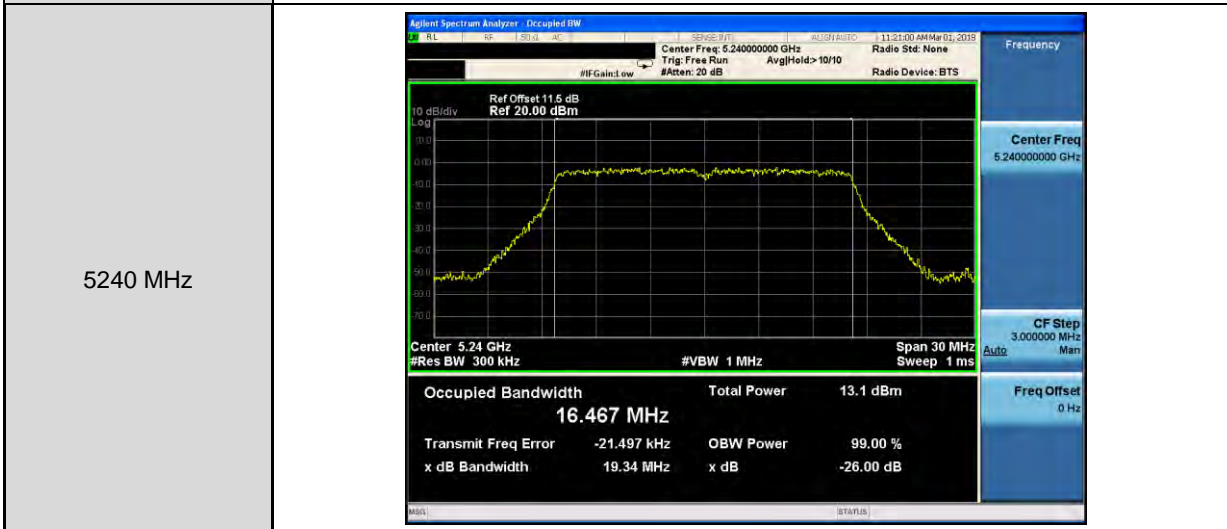
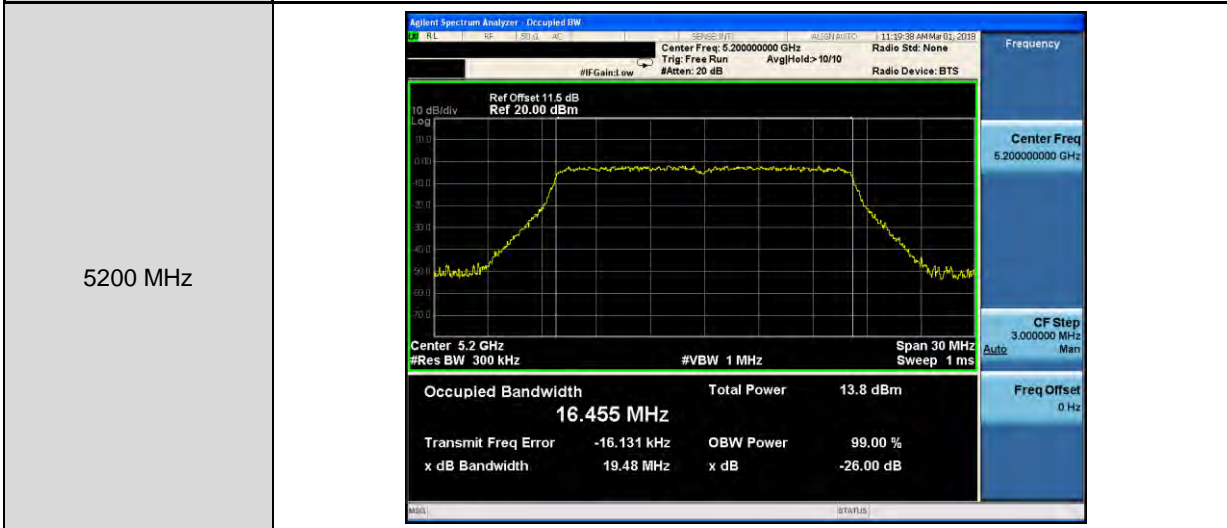
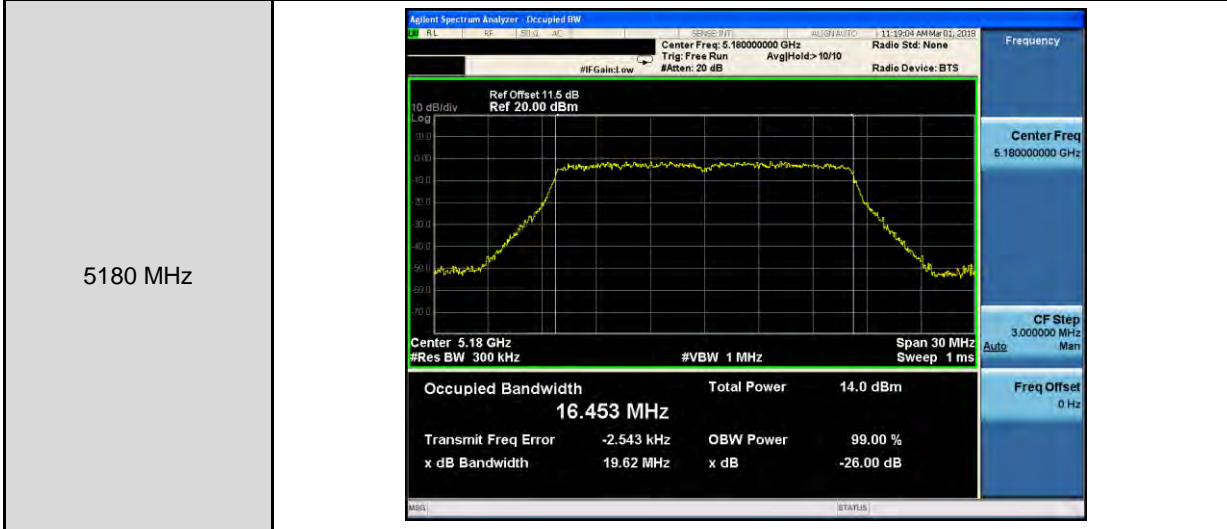
Mode 5: IEEE 802.11ac 80MHz Continuous TX mode_ ANT-1





Beamforming on

Mode 2: IEEE 802.11a Continuous TX mode_ANT-0

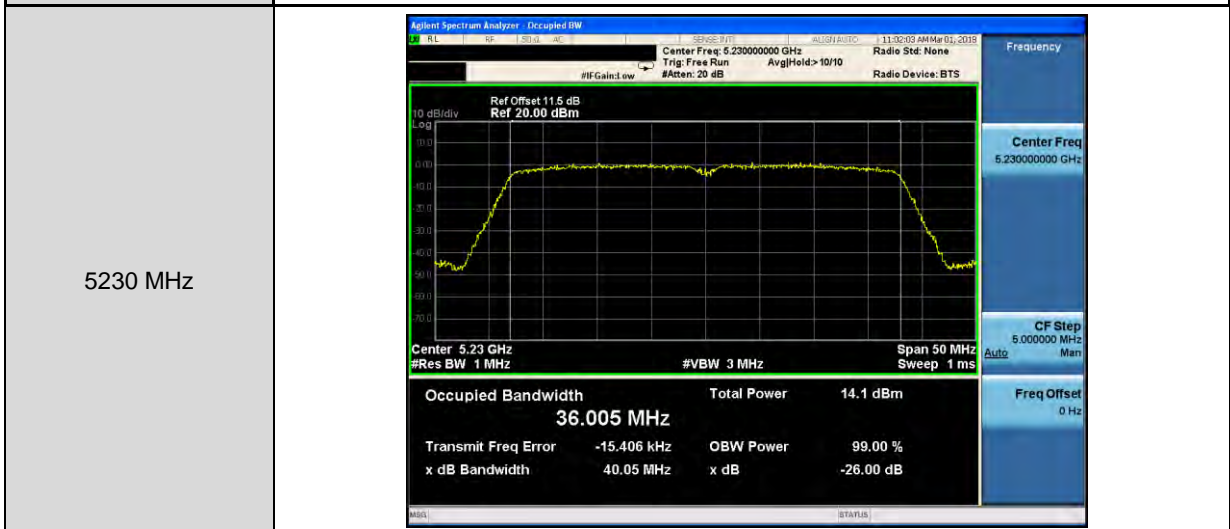
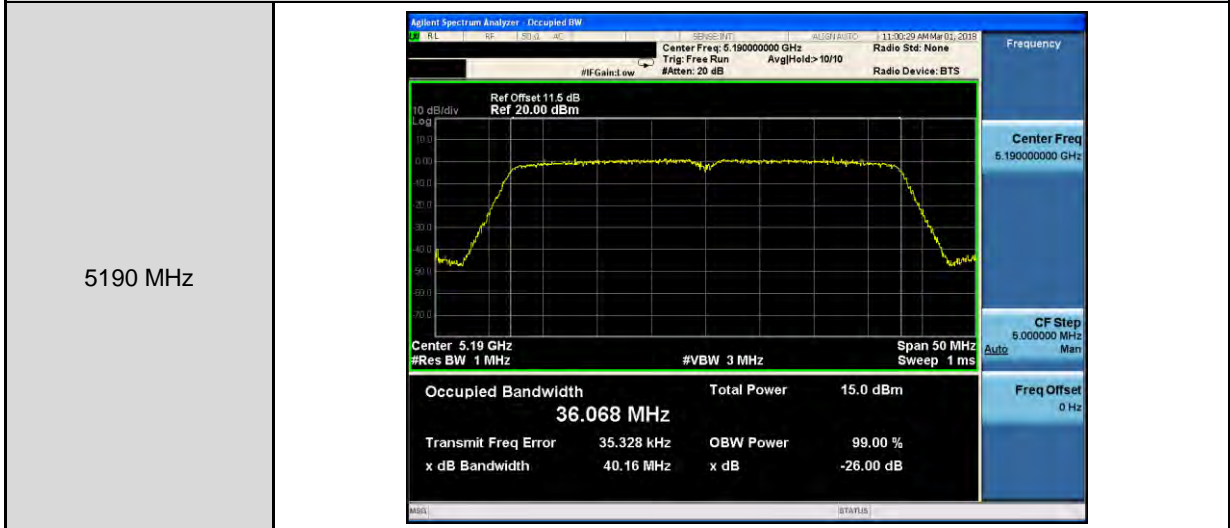




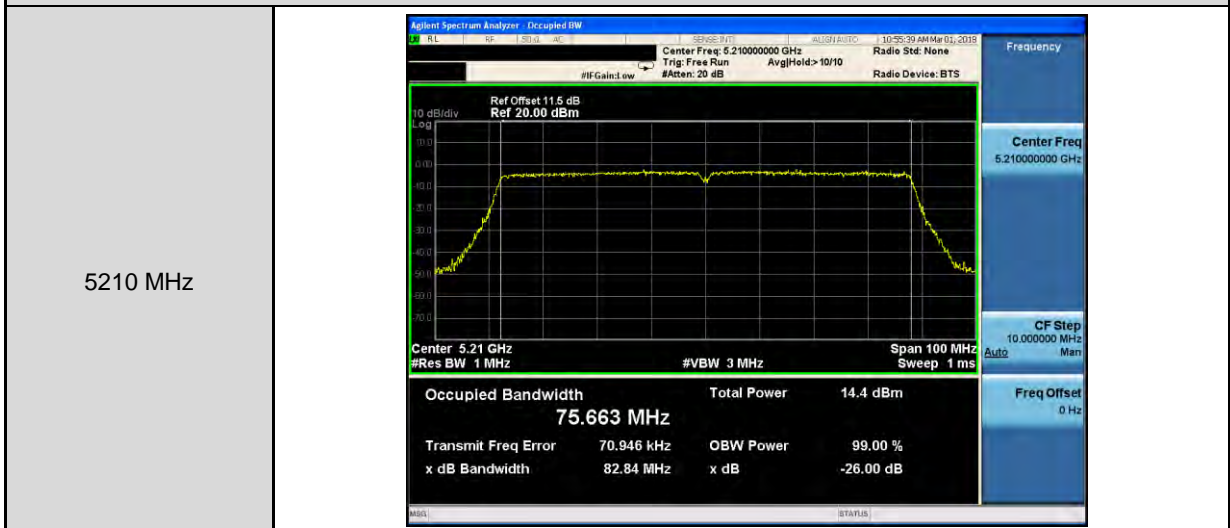
Mode 3: IEEE 802.11ac 20MHz Continuous TX mode_ ANT-0	
5180 MHz	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 5.18000000 GHz Trig: Free Run #Atten: 20 dB</p> <p>Ref Offset: 11.5 dB Ref: 20.00 dBm</p> <p>Center 5.18 GHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms</p> <p>Occupied Bandwidth: 17.627 MHz Total Power: 13.0 dBm Transmit Freq Error: -11.359 kHz OBW Power: 99.00 % x dB Bandwidth: 20.11 MHz x dB: -26.00 dB</p>
5200 MHz	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 5.20000000 GHz Trig: Free Run #Atten: 20 dB</p> <p>Ref Offset: 11.5 dB Ref: 20.00 dBm</p> <p>Center 5.2 GHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms</p> <p>Occupied Bandwidth: 17.619 MHz Total Power: 13.5 dBm Transmit Freq Error: -16.871 kHz OBW Power: 99.00 % x dB Bandwidth: 20.11 MHz x dB: -26.00 dB</p>
5240 MHz	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 5.24000000 GHz Trig: Free Run #Atten: 20 dB</p> <p>Ref Offset: 11.5 dB Ref: 20.00 dBm</p> <p>Center 5.24 GHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms</p> <p>Occupied Bandwidth: 17.625 MHz Total Power: 13.1 dBm Transmit Freq Error: -16.395 kHz OBW Power: 99.00 % x dB Bandwidth: 20.38 MHz x dB: -26.00 dB</p>



Mode 4: IEEE 802.11ac 40MHz Continuous TX mode_ ANT-0



Mode 5: IEEE 802.11ac 80MHz Continuous TX mode_ ANT-0





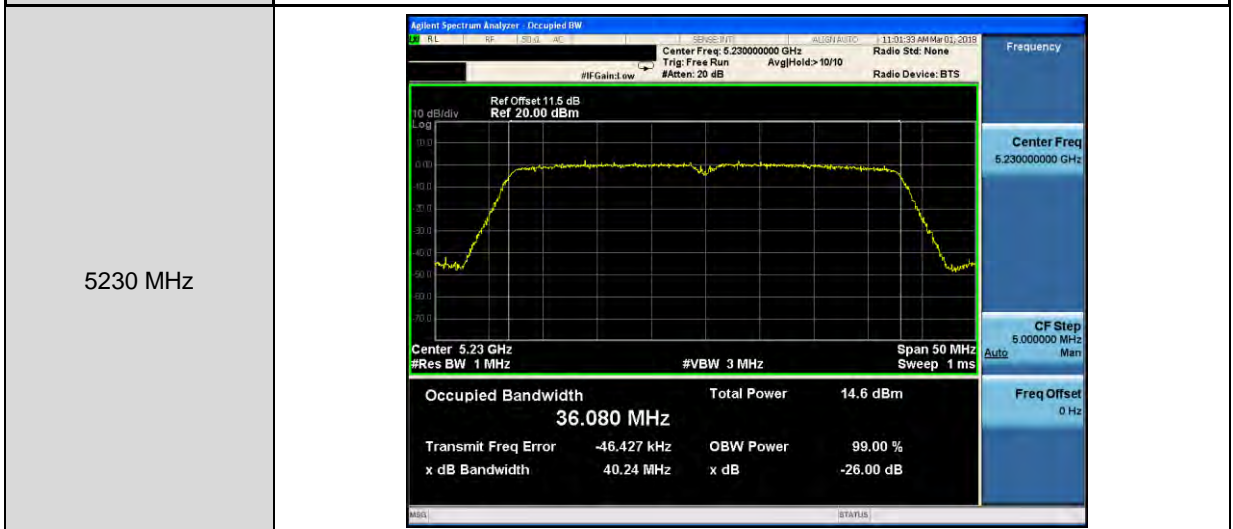
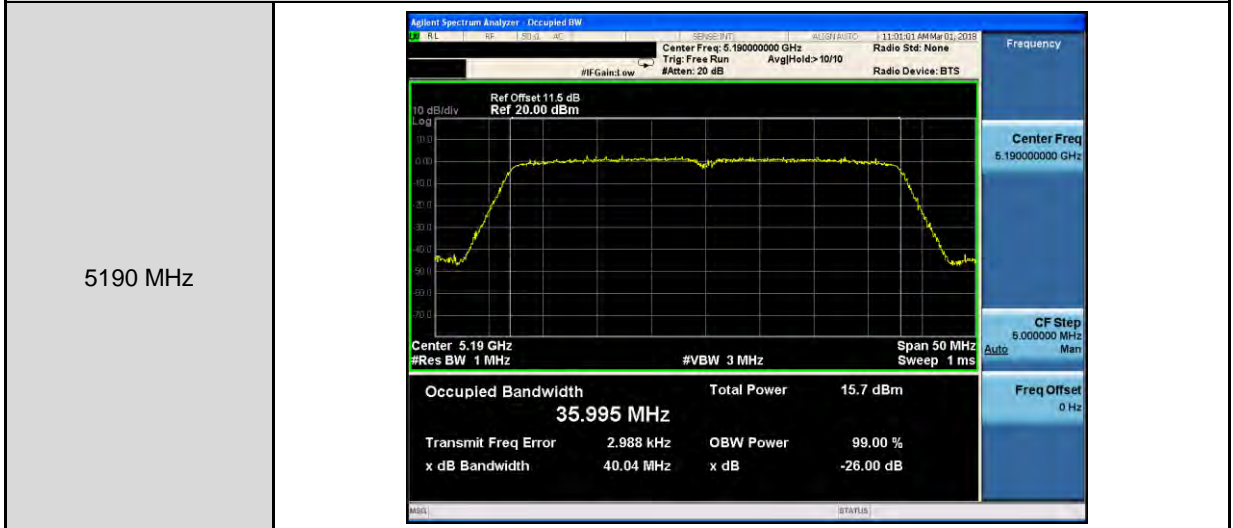
Mode 2: IEEE 802.11a Continuous TX mode_ ANT-1	
<p>5180 MHz</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 5.18000000 GHz</p> <p>Ref Offset: 11.5 dB Ref: 20.00 dBm</p> <p>Center 5.18 GHz #Res BW 300 kHz</p> <p>Span 30 MHz Sweep 1 ms</p> <p>#VBW 1 MHz</p> <p>Occupied Bandwidth 16.412 MHz</p> <p>Total Power 15.0 dBm</p> <p>Transmit Freq Error -9.010 kHz</p> <p>OBW Power 99.00 %</p> <p>x dB Bandwidth 18.95 MHz</p> <p>x dB -26.00 dB</p>
<p>5200 MHz</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 5.20000000 GHz</p> <p>Ref Offset: 11.5 dB Ref: 20.00 dBm</p> <p>Center 5.2 GHz #Res BW 300 kHz</p> <p>Span 30 MHz Sweep 1 ms</p> <p>#VBW 1 MHz</p> <p>Occupied Bandwidth 16.439 MHz</p> <p>Total Power 14.0 dBm</p> <p>Transmit Freq Error -24.785 kHz</p> <p>OBW Power 99.00 %</p> <p>x dB Bandwidth 19.24 MHz</p> <p>x dB -26.00 dB</p>
<p>5240 MHz</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 5.24000000 GHz</p> <p>Ref Offset: 11.5 dB Ref: 20.00 dBm</p> <p>Center 5.24 GHz #Res BW 300 kHz</p> <p>Span 30 MHz Sweep 1 ms</p> <p>#VBW 1 MHz</p> <p>Occupied Bandwidth 16.436 MHz</p> <p>Total Power 13.5 dBm</p> <p>Transmit Freq Error -15.512 kHz</p> <p>OBW Power 99.00 %</p> <p>x dB Bandwidth 19.12 MHz</p> <p>x dB -26.00 dB</p>



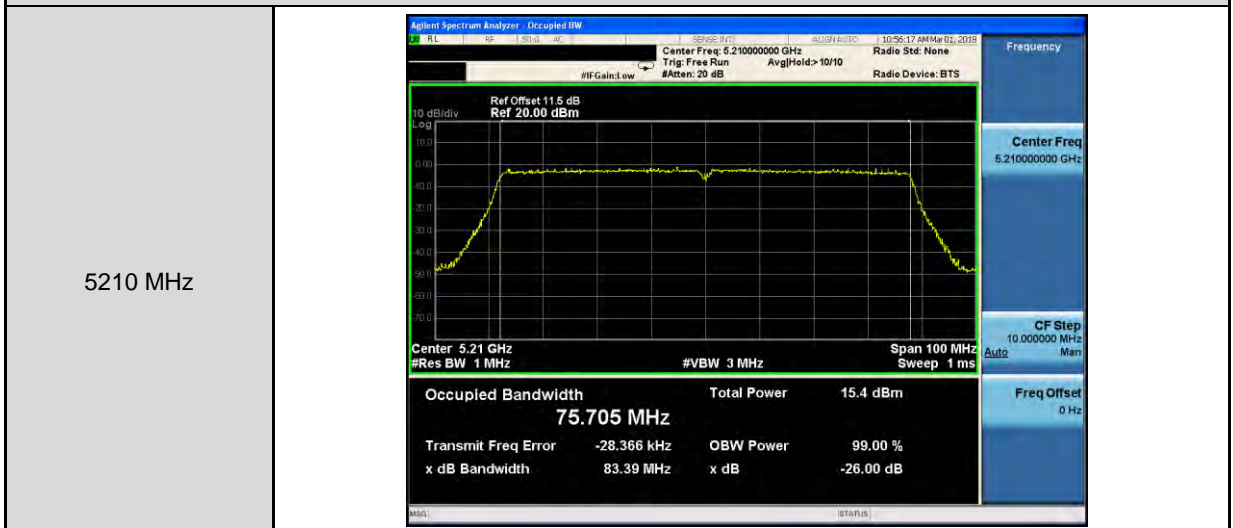
Mode 3: IEEE 802.11ac 20MHz Continuous TX mode_ ANT-1	
5180 MHz	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 5.18000000 GHz Trig: Free Run #Atten: 20 dB</p> <p>Ref Offset: 11.5 dB Ref: 20.00 dBm</p> <p>Center 5.18 GHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms</p> <p>Occupied Bandwidth 17.626 MHz Total Power 13.7 dBm Transmit Freq Error -21.200 kHz OBW Power 99.00 % x dB Bandwidth 20.16 MHz x dB -26.00 dB</p> <p>Frequency Center Freq 5.18000000 GHz CF Step 3.000000 MHz Freq Offset 0 Hz</p>
5200 MHz	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 5.20000000 GHz Trig: Free Run #Atten: 20 dB</p> <p>Ref Offset: 11.5 dB Ref: 20.00 dBm</p> <p>Center 5.2 GHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms</p> <p>Occupied Bandwidth 17.645 MHz Total Power 13.5 dBm Transmit Freq Error -21.268 kHz OBW Power 99.00 % x dB Bandwidth 20.38 MHz x dB -26.00 dB</p> <p>Frequency Center Freq 5.20000000 GHz CF Step 3.000000 MHz Freq Offset 0 Hz</p>
5240 MHz	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 5.24000000 GHz Trig: Free Run #Atten: 20 dB</p> <p>Ref Offset: 11.5 dB Ref: 20.00 dBm</p> <p>Center 5.24 GHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms</p> <p>Occupied Bandwidth 17.636 MHz Total Power 13.5 dBm Transmit Freq Error -20.028 kHz OBW Power 99.00 % x dB Bandwidth 20.33 MHz x dB -26.00 dB</p> <p>Frequency Center Freq 5.24000000 GHz CF Step 3.000000 MHz Freq Offset 0 Hz</p>



Mode 4: IEEE 802.11ac 40MHz Continuous TX mode_ ANT-1



Mode 5: IEEE 802.11ac 80MHz Continuous TX mode_ ANT-1





5.5. Maximum Power Spectral Density Measurement

Test Mode	Mode 2: IEEE 802.11a Continuous TX mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5180	0.058	0.105	0.163	< 15.98
5200	0.204	0.105	0.309	
5240	-0.147	0.105	-0.042	
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5180	0.100	0.105	0.205	< 15.98
5200	0.190	0.105	0.295	
5240	0.136	0.105	0.241	
Frequency (MHz)	ANT-0+1			Limit (dBm/MHz)
	Calculated (dBm/MHz)			
5180	3.195			< 15.98
5200	3.312			
5240	3.112			

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.



Test Mode	Mode 3: IEEE 802.11ac 20MHz Continuous TX mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5180	-0.226	0.026	-0.200	< 15.98
5200	-0.383	0.026	-0.357	
5240	-0.784	0.026	-0.758	
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5180	0.103	0.026	0.129	< 15.98
5200	0.157	0.026	0.183	
5240	-0.682	0.026	-0.656	
Frequency (MHz)	ANT-0+1			Limit (dBm/MHz)
	Calculated (dBm/MHz)			Limit (dBm/MHz)
5180	2.978			< 15.98
5200	2.932			
5240	2.304			

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.



Test Mode	Mode 4: IEEE 802.11ac 40MHz Continuous TX mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5190	-2.924	0.071	-2.853	< 15.98
5230	-3.457	0.071	-3.386	
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5190	-2.551	0.071	-2.480	< 15.98
5230	-3.141	0.071	-3.070	
Frequency (MHz)	ANT-0+1			Limit (dBm/MHz)
	Calculated (dBm/MHz)			
5190	0.347			< 15.98
5230	-0.215			

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Test Mode	Mode 5: IEEE 802.11ac 80MHz Continuous TX mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5210	-6.291	0.185	-6.106	< 15.98
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5210	-5.954	0.185	-5.769	< 15.98
Frequency (MHz)	ANT-0+1			Limit (dBm/MHz)
	Calculated (dBm/MHz)			
5210	2.924			< 15.98

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.



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Test Mode	Mode 2: IEEE 802.11a Continuous TX mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
	5180	-2.978	0.105	-2.873
	5200	-3.457	0.105	-3.352
5240	-3.878	0.105	-3.773	< 15.98
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
	5180	-2.935	0.105	-2.830
	5200	-3.379	0.105	-3.274
5240	-3.622	0.105	-3.517	< 15.98
Frequency (MHz)	ANT-0+1			Limit (dBm/MHz)
	Calculated (dBm/MHz)			
	5180	0.159		< 15.98
	5200	-0.302		
5240	-0.633			

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.



Test Mode	Mode 3: IEEE 802.11ac 20MHz Continuous TX mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5180	-3.905	0.026	-3.879	< 15.98
5200	-4.070	0.026	-4.044	
5240	-4.336	0.026	-4.310	
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5180	-3.645	0.026	-3.619	< 15.98
5200	-3.773	0.026	-3.747	
5240	-3.915	0.026	-3.889	
Frequency (MHz)	ANT-0+1			Limit (dBm/MHz)
	Calculated (dBm/MHz)			Limit (dBm/MHz)
5180	-0.737			< 15.98
5200	-0.883			
5240	-1.084			

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.



Test Mode	Mode 4: IEEE 802.11ac 40MHz Continuous TX mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5190	-5.489	0.071	-5.418	< 15.98
5230	-6.844	0.071	-6.773	
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5190	-5.809	0.071	-5.738	< 15.98
5230	-6.840	0.071	-6.769	
Frequency (MHz)	ANT-0+1			Limit (dBm/MHz)
	Calculated (dBm/MHz)			
5190	-2.565			< 15.98
5230	-3.761			

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Test Mode	Mode 5: IEEE 802.11ac 80MHz Continuous TX mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5210	-9.781	0.185	-9.596	< 15.98
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5210	-9.845	0.185	-9.660	< 15.98
Frequency (MHz)	ANT-0+1			Limit (dBm/MHz)
	Calculated (dBm/MHz)			
5210	-6.618			< 15.98

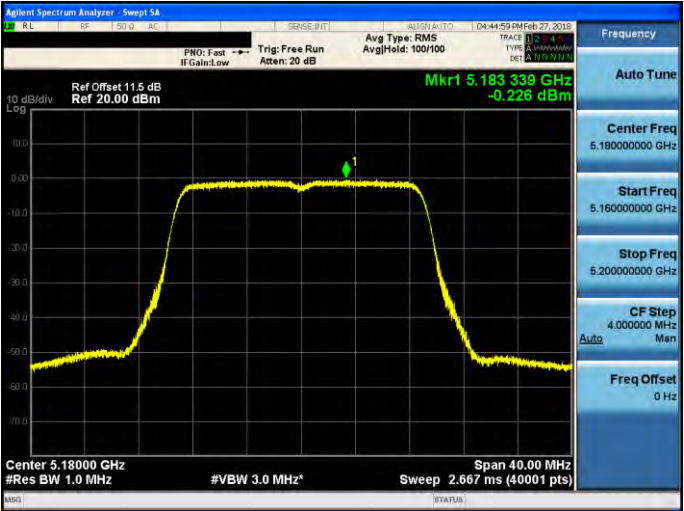
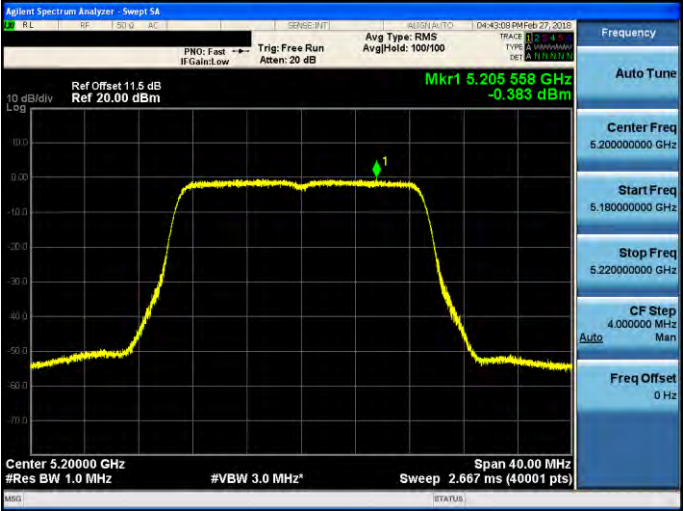
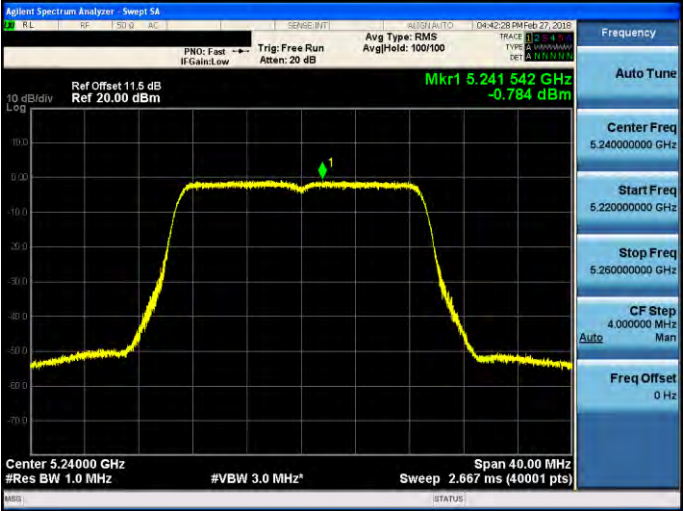
Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.



■ Test Graphs

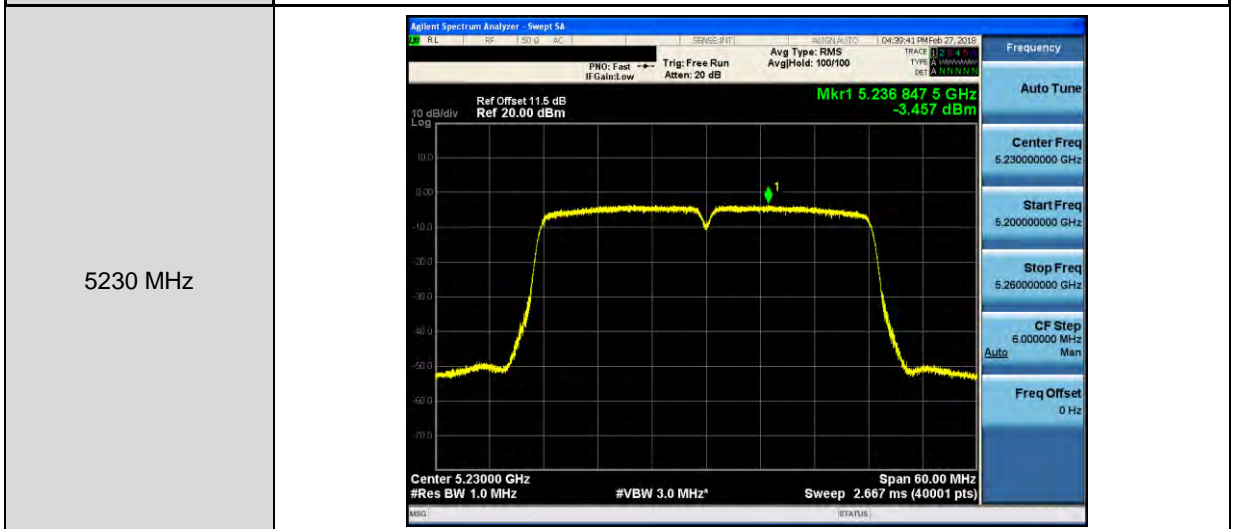
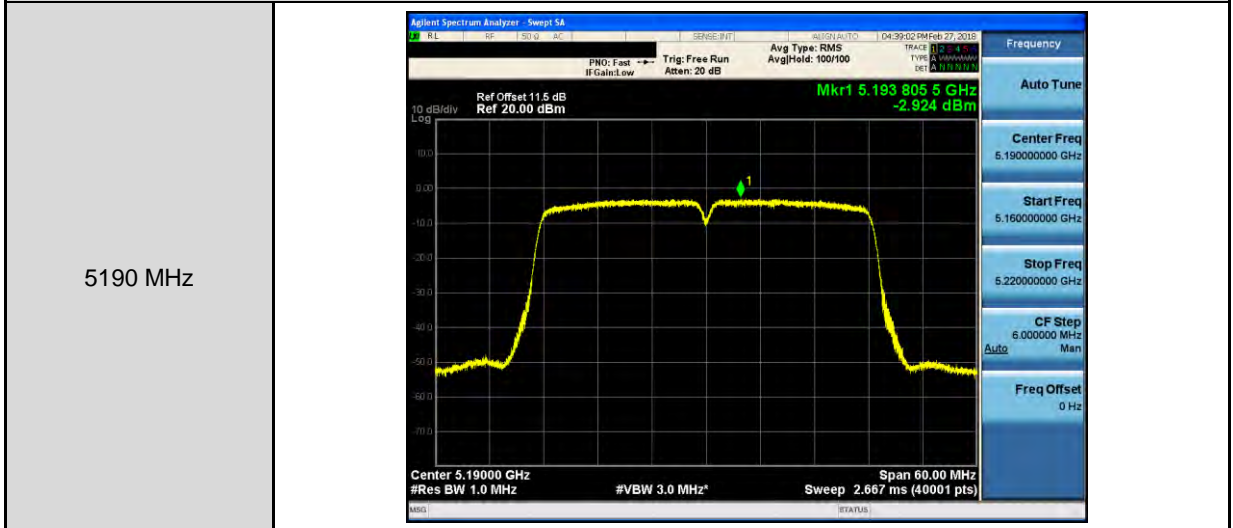
Mode 2: IEEE 802.11a Continuous TX mode_ ANT-0	
<p>5180 MHz</p>	
<p>5200 MHz</p>	
<p>5240 MHz</p>	



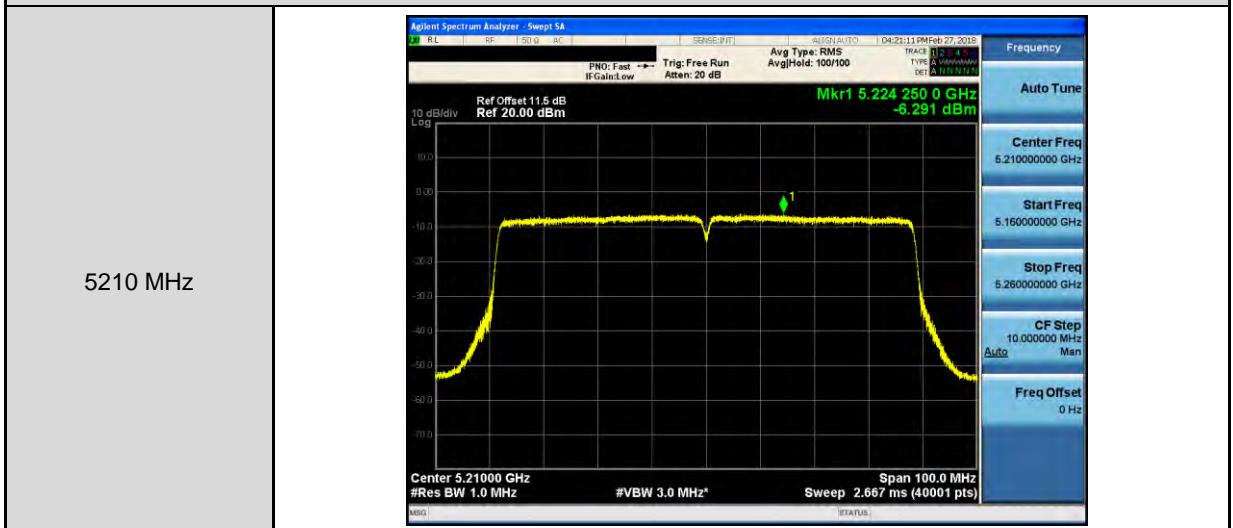
Mode 3: IEEE 802.11ac 20MHz Continuous TX mode _ ANT-0	
5180 MHz	 <p>Agilent Spectrum Analyzer - Sweep SA PNO: Fast IF Gain: Low Trig: Free Run Avg Type: RMS Avg Hold: 100/100 Ref Offset 11.5 dB Ref 20.00 dBm Mkr1 5.183 339 GHz -0.226 dBm Center 5.18000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Sweep 2.667 ms (40001 pts) Span 40.00 MHz Frequency: Auto Tune, Center Freq 5.180000000 GHz, Start Freq 5.160000000 GHz, Stop Freq 5.200000000 GHz, CF Step 4.000000 MHz, Freq Offset 0 Hz</p>
5200 MHz	 <p>Agilent Spectrum Analyzer - Sweep SA PNO: Fast IF Gain: Low Trig: Free Run Avg Type: RMS Avg Hold: 100/100 Ref Offset 11.5 dB Ref 20.00 dBm Mkr1 5.205 558 GHz -0.383 dBm Center 5.20000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Sweep 2.667 ms (40001 pts) Span 40.00 MHz Frequency: Auto Tune, Center Freq 5.200000000 GHz, Start Freq 5.180000000 GHz, Stop Freq 5.220000000 GHz, CF Step 4.000000 MHz, Freq Offset 0 Hz</p>
5240 MHz	 <p>Agilent Spectrum Analyzer - Sweep SA PNO: Fast IF Gain: Low Trig: Free Run Avg Type: RMS Avg Hold: 100/100 Ref Offset 11.5 dB Ref 20.00 dBm Mkr1 5.241 542 GHz -0.784 dBm Center 5.24000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Sweep 2.667 ms (40001 pts) Span 40.00 MHz Frequency: Auto Tune, Center Freq 5.240000000 GHz, Start Freq 5.220000000 GHz, Stop Freq 5.260000000 GHz, CF Step 4.000000 MHz, Freq Offset 0 Hz</p>



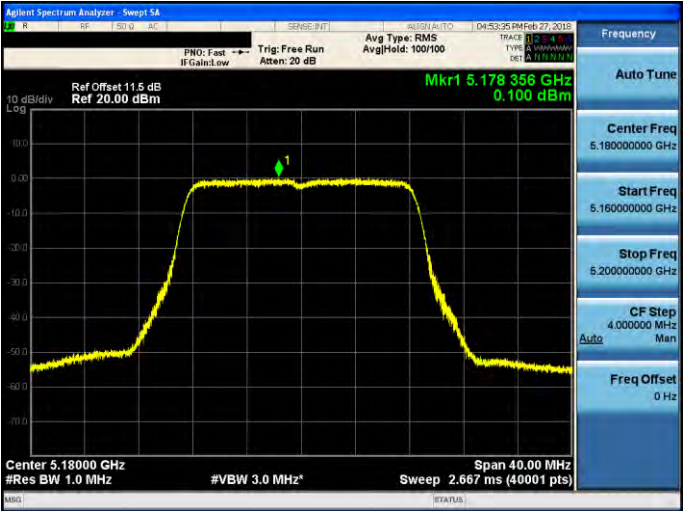
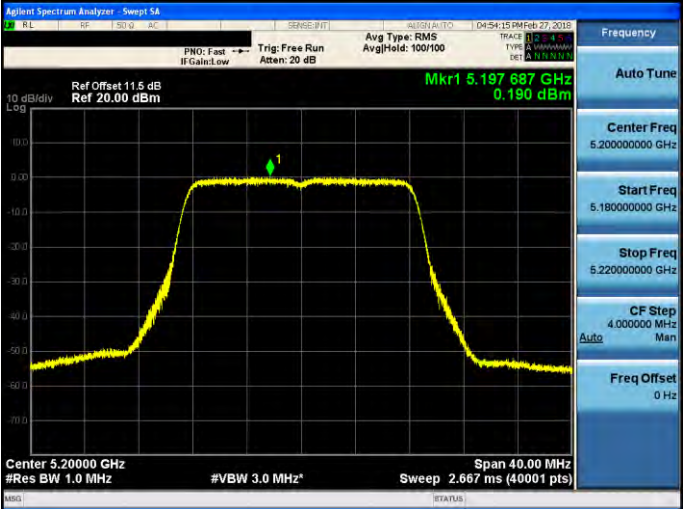
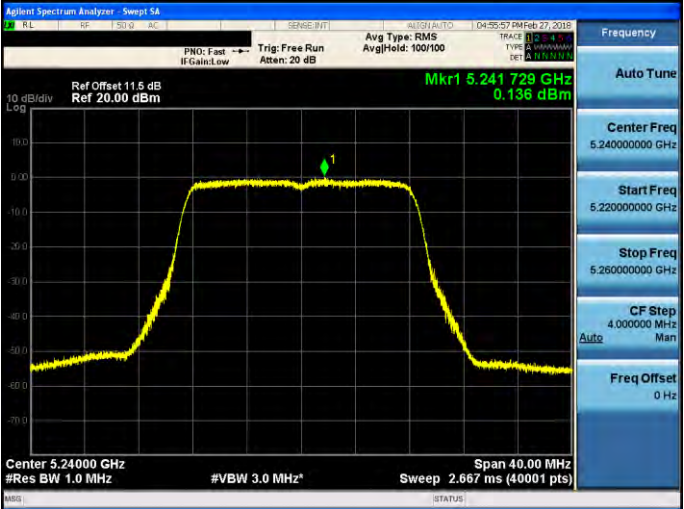
Mode 4: IEEE 802.11ac 40MHz Continuous TX mode_ ANT-0



Mode 5: IEEE 802.11ac 80MHz Continuous TX mode_ ANT-0





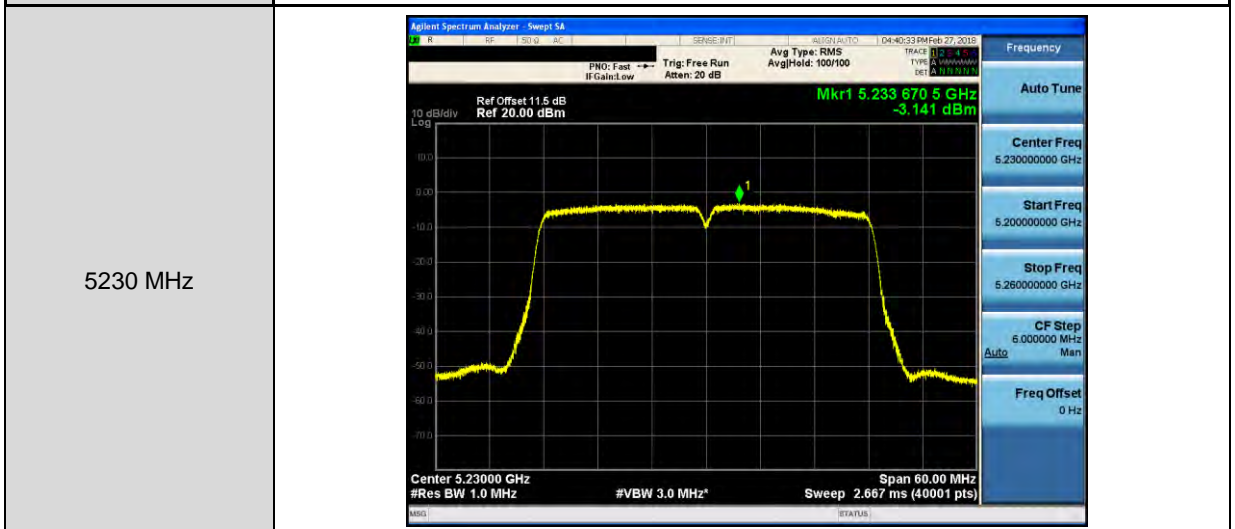
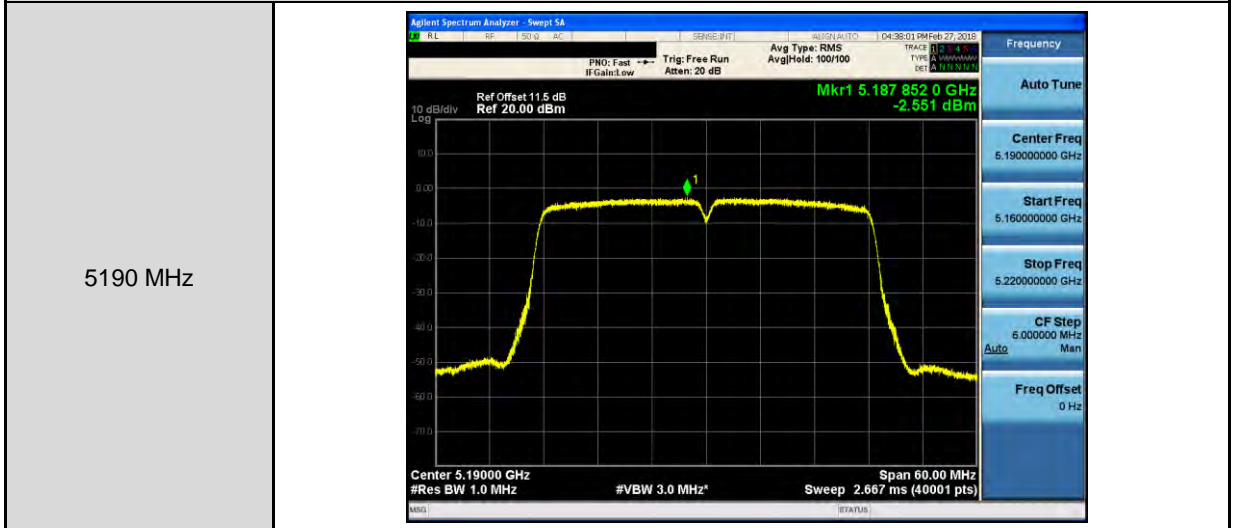
Mode 2: IEEE 802.11a Continuous TX mode_ ANT-1	
5180 MHz	 <p>Agilent Spectrum Analyzer: Sweep SA PNO: Fast Trig: Free Run Avg Type: RMS IF Gain: Low Atten: 20 dB AvgHeld: 100/100 Ref Offset 11.5 dB Ref 20.00 dBm Mkr1 5.178 356 GHz 0.100 dBm Center 5.18000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Span 40.00 MHz Sweep 2.667 ms (40001 pts)</p>
5200 MHz	 <p>Agilent Spectrum Analyzer: Sweep SA PNO: Fast Trig: Free Run Avg Type: RMS IF Gain: Low Atten: 20 dB AvgHeld: 100/100 Ref Offset 11.5 dB Ref 20.00 dBm Mkr1 5.197 687 GHz 0.190 dBm Center 5.20000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Span 40.00 MHz Sweep 2.667 ms (40001 pts)</p>
5240 MHz	 <p>Agilent Spectrum Analyzer: Sweep SA PNO: Fast Trig: Free Run Avg Type: RMS IF Gain: Low Atten: 20 dB AvgHeld: 100/100 Ref Offset 11.5 dB Ref 20.00 dBm Mkr1 5.241 729 GHz 0.136 dBm Center 5.24000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Span 40.00 MHz Sweep 2.667 ms (40001 pts)</p>



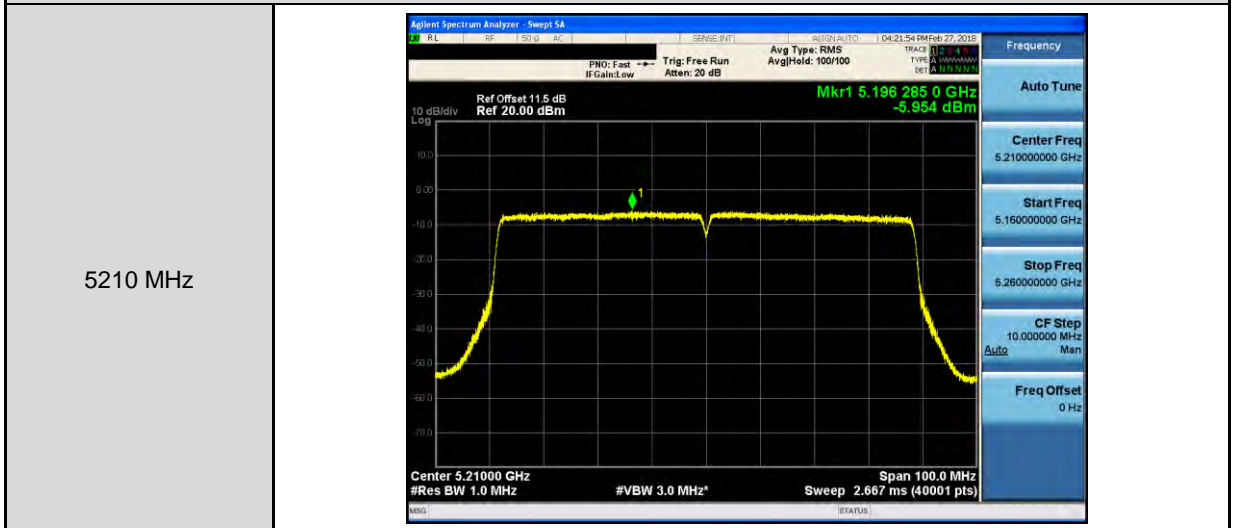
Mode 3: IEEE 802.11ac 20MHz Continuous TX mode _ANT-1	
5180 MHz	
5200 MHz	
5240 MHz	



Mode 4: IEEE 802.11ac 40MHz Continuous TX mode_ ANT-1



Mode 5: IEEE 802.11ac 80MHz Continuous TX mode_ ANT-1





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Mode 2: IEEE 802.11a Continuous TX mode_ ANT-0

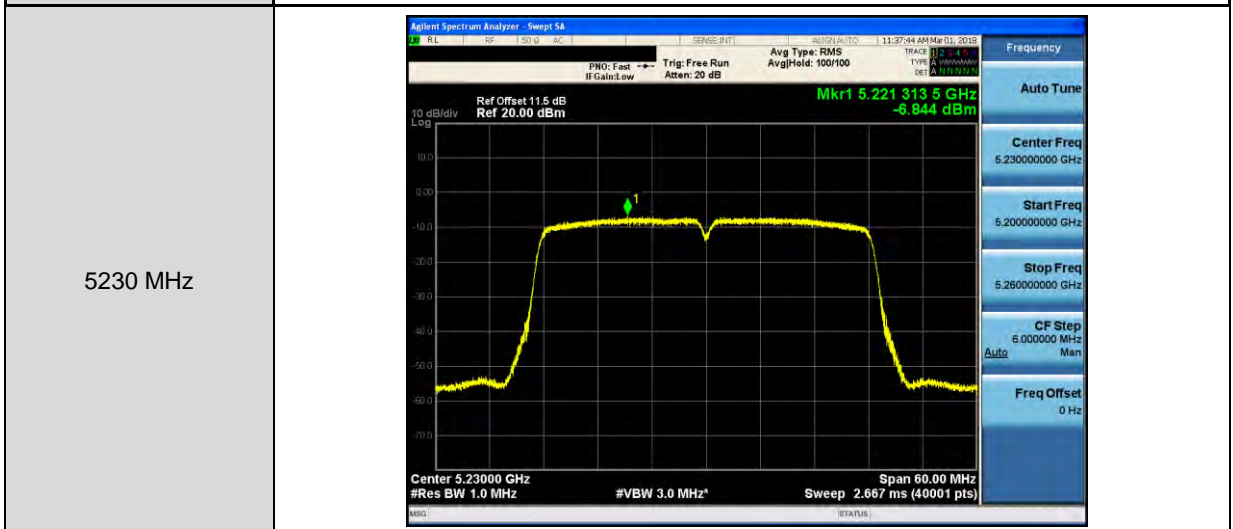
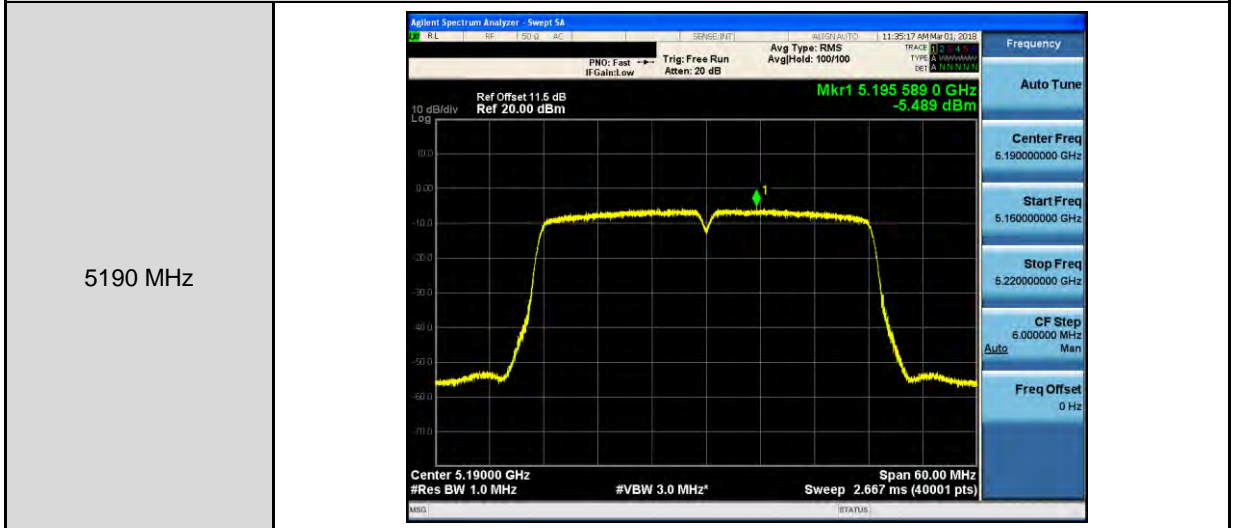
<p>5180 MHz</p>	
<p>5200 MHz</p>	
<p>5240 MHz</p>	



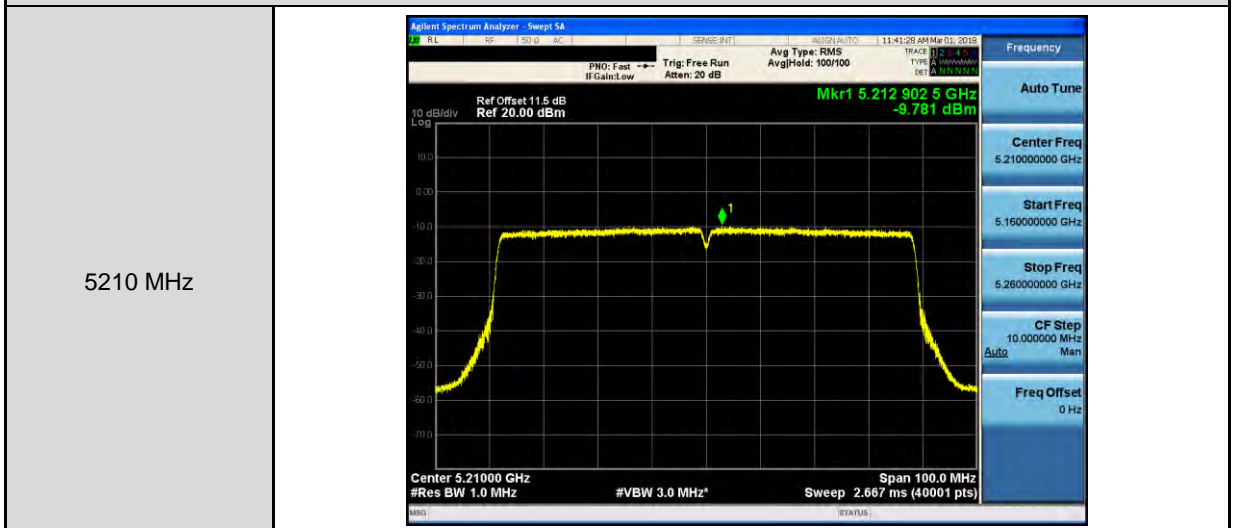
Mode 3: IEEE 802.11ac 20MHz Continuous TX mode _ANT-0	
5180 MHz	<p>Agilent Spectrum Analyzer - Sweep SA PNO: Fast Trig: Free Run Avg Type: RMS IF Gain: Low Atten: 20 dB AvgHeld: 100/100 Mkr1 5.184 804 GHz -3.905 dBm Ref Offset 11.5 dB Ref 20.00 dBm 10 dB/div Log Center 5.18000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Sweep 2.667 ms (40001 pts) Span 40.00 MHz Frequency Auto Tune Center Freq 5.18000000 GHz Start Freq 5.16000000 GHz Stop Freq 5.20000000 GHz CF Step 4.000000 MHz Auto Man Freq Offset 0 Hz</p>
5200 MHz	<p>Agilent Spectrum Analyzer - Sweep SA PNO: Fast Trig: Free Run Avg Type: RMS IF Gain: Low Atten: 20 dB AvgHeld: 100/100 Mkr1 5.201 549 GHz -4.070 dBm Ref Offset 11.5 dB Ref 20.00 dBm 10 dB/div Log Center 5.20000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Sweep 2.667 ms (40001 pts) Span 40.00 MHz Frequency Auto Tune Center Freq 5.20000000 GHz Start Freq 5.18000000 GHz Stop Freq 5.22000000 GHz CF Step 4.000000 MHz Auto Man Freq Offset 0 Hz</p>
5240 MHz	<p>Agilent Spectrum Analyzer - Sweep SA PNO: Fast Trig: Free Run Avg Type: RMS IF Gain: Low Atten: 20 dB AvgHeld: 100/100 Mkr1 5.234 883 GHz -4.336 dBm Ref Offset 11.5 dB Ref 20.00 dBm 10 dB/div Log Center 5.24000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Sweep 2.667 ms (40001 pts) Span 40.00 MHz Frequency Auto Tune Center Freq 5.24000000 GHz Start Freq 5.22000000 GHz Stop Freq 5.26000000 GHz CF Step 4.000000 MHz Auto Man Freq Offset 0 Hz</p>



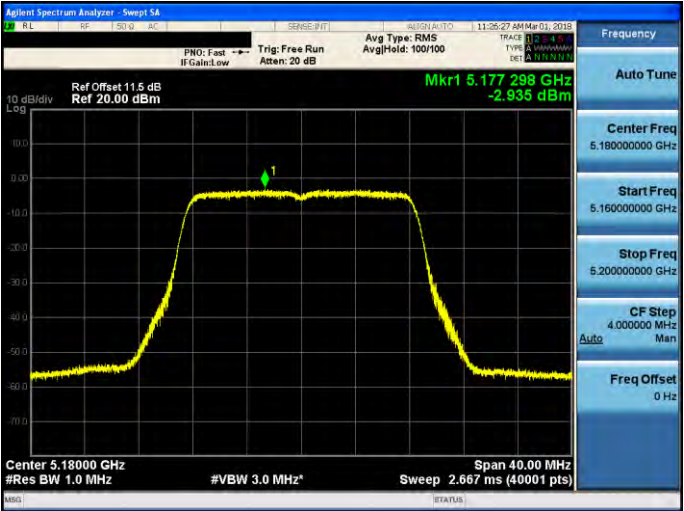
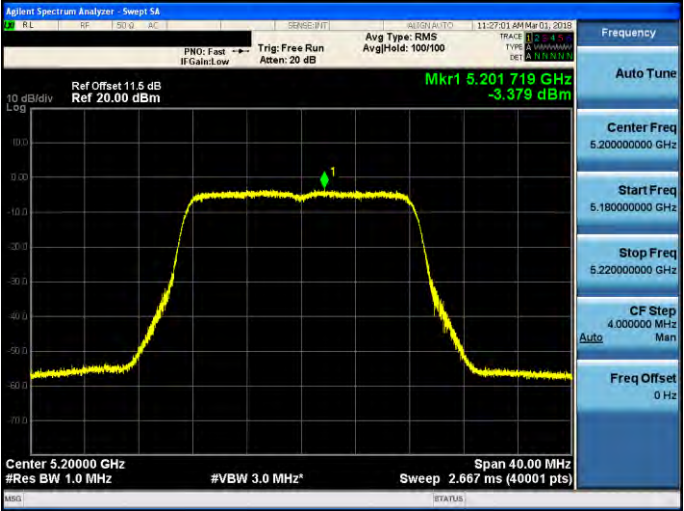
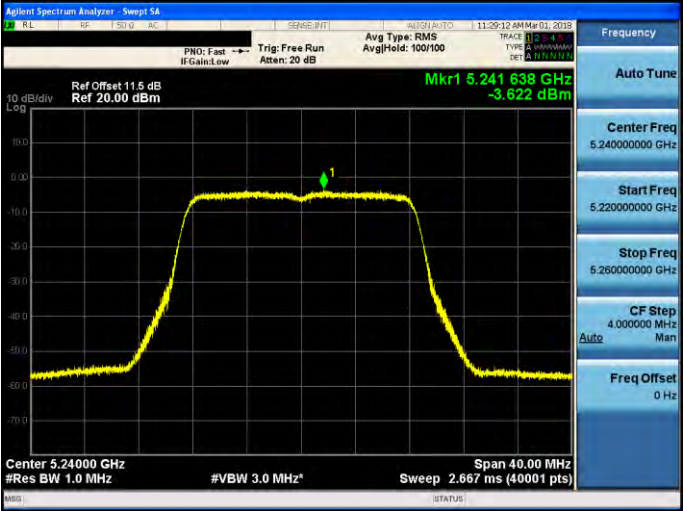
Mode 4: IEEE 802.11ac 40MHz Continuous TX mode_ ANT-0



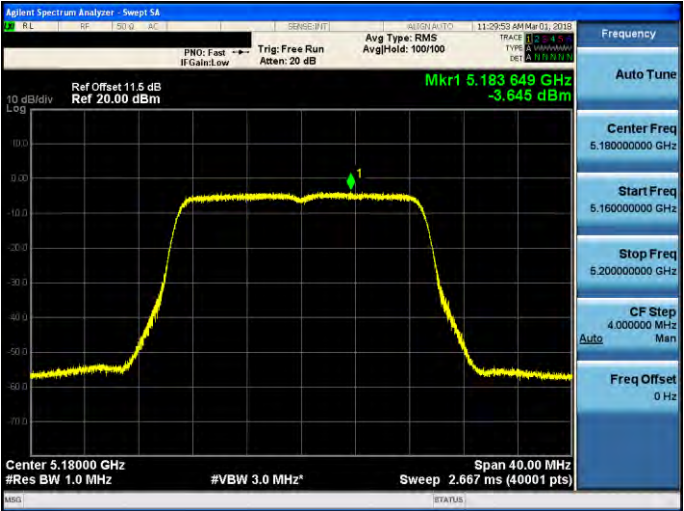
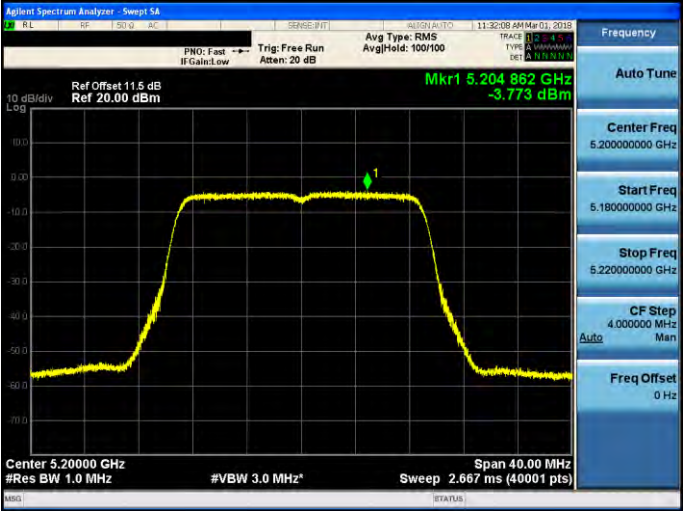
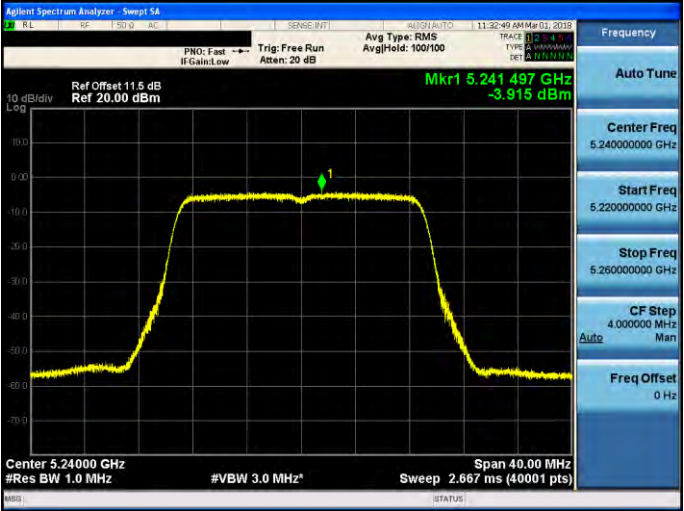
Mode 5: IEEE 802.11ac 80MHz Continuous TX mode_ ANT-0





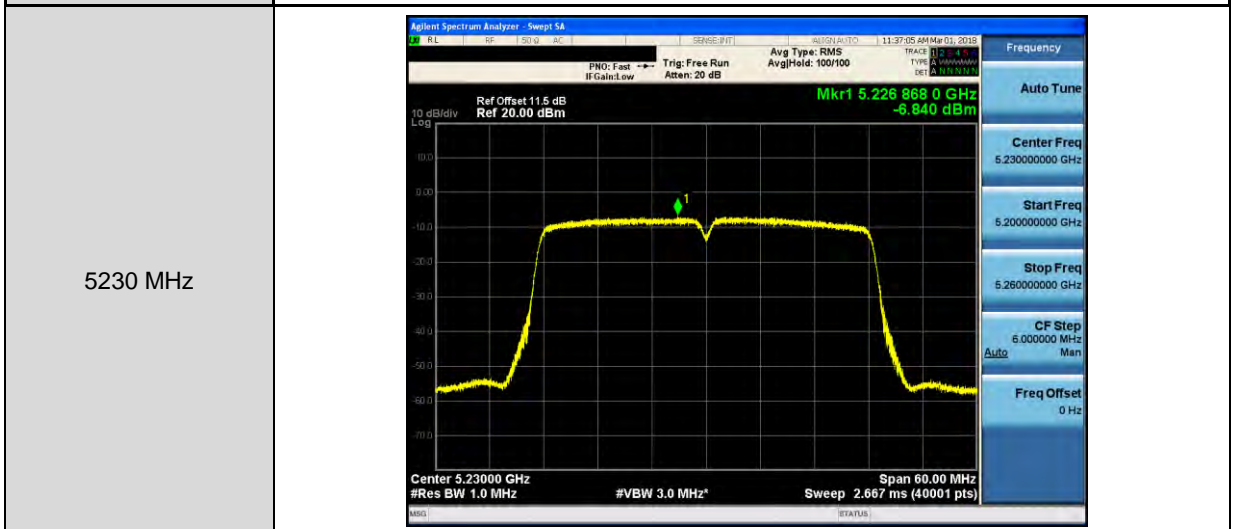
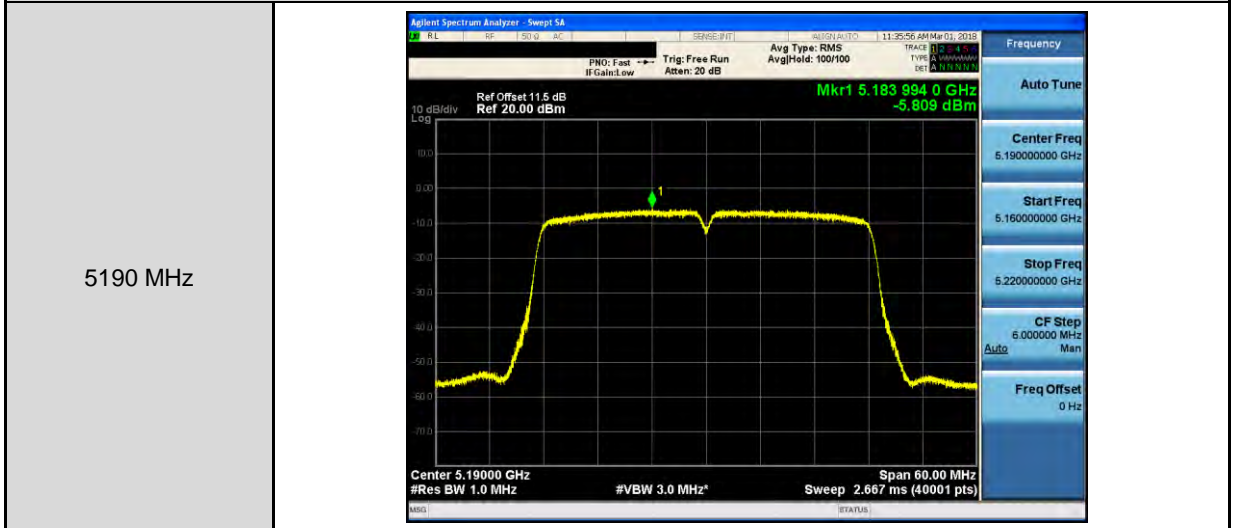
Mode 2: IEEE 802.11a Continuous TX mode_ ANT-1	
5180 MHz	 <p>Agilent Spectrum Analyzer - Sweep SA PNO: Fast Trig: Free Run Avg Type: RMS IF Gain: Low Atten: 20 dB AvgHeld: 100/100 Ref Offset 11.5 dB Ref 20.00 dBm Mkr1 5.177 298 GHz -2.935 dBm Center 5.18000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Sweep 2.667 ms (40001 pts) Span 40.00 MHz Frequency: Auto Tune, Center Freq 5.180000000 GHz, Start Freq 5.160000000 GHz, Stop Freq 5.200000000 GHz, CF Step 4.000000 MHz, Freq Offset 0 Hz</p>
5200 MHz	 <p>Agilent Spectrum Analyzer - Sweep SA PNO: Fast Trig: Free Run Avg Type: RMS IF Gain: Low Atten: 20 dB AvgHeld: 100/100 Ref Offset 11.5 dB Ref 20.00 dBm Mkr1 5.201 719 GHz -3.379 dBm Center 5.20000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Sweep 2.667 ms (40001 pts) Span 40.00 MHz Frequency: Auto Tune, Center Freq 5.200000000 GHz, Start Freq 5.180000000 GHz, Stop Freq 5.220000000 GHz, CF Step 4.000000 MHz, Freq Offset 0 Hz</p>
5240 MHz	 <p>Agilent Spectrum Analyzer - Sweep SA PNO: Fast Trig: Free Run Avg Type: RMS IF Gain: Low Atten: 20 dB AvgHeld: 100/100 Ref Offset 11.5 dB Ref 20.00 dBm Mkr1 5.241 638 GHz -3.622 dBm Center 5.24000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Sweep 2.667 ms (40001 pts) Span 40.00 MHz Frequency: Auto Tune, Center Freq 5.240000000 GHz, Start Freq 5.220000000 GHz, Stop Freq 5.260000000 GHz, CF Step 4.000000 MHz, Freq Offset 0 Hz</p>



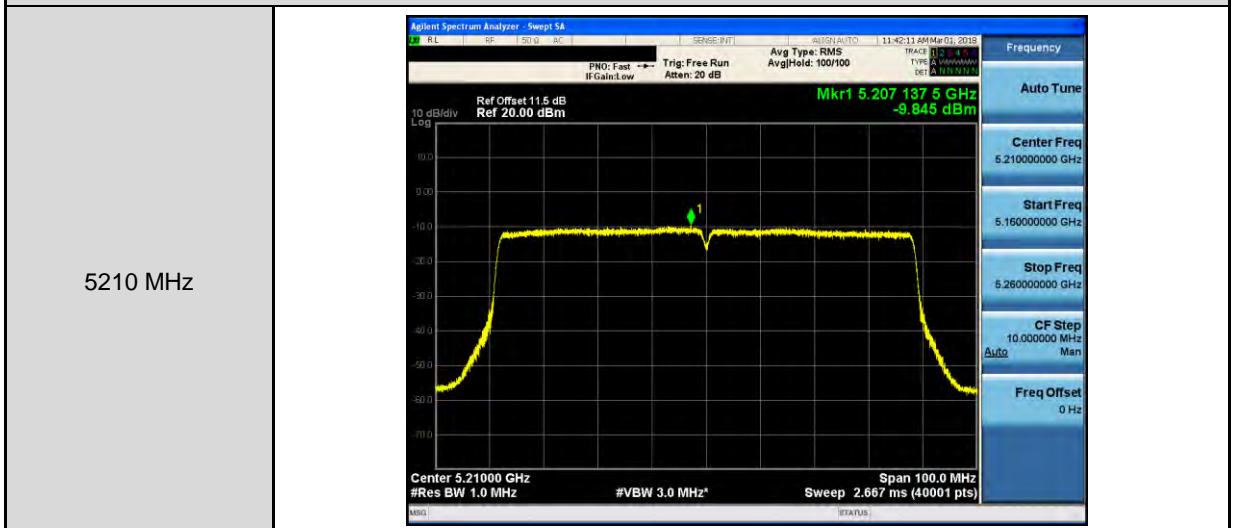
Mode 3: IEEE 802.11ac 20MHz Continuous TX mode _ ANT-1	
5180 MHz	 <p>Agilent Spectrum Analyzer - Sweep SA PNO: Fast IF Gain: Low Trig: Free Run Avg Type: RMS Avg Hold: 100/100 Ref Offset 11.5 dB Ref 20.00 dBm Mkr1 5.183 649 GHz -3.645 dBm Center 5.18000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Sweep 2.667 ms (40001 pts) Span 40.00 MHz</p>
5200 MHz	 <p>Agilent Spectrum Analyzer - Sweep SA PNO: Fast IF Gain: Low Trig: Free Run Avg Type: RMS Avg Hold: 100/100 Ref Offset 11.5 dB Ref 20.00 dBm Mkr1 5.204 862 GHz -3.773 dBm Center 5.20000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Sweep 2.667 ms (40001 pts) Span 40.00 MHz</p>
5240 MHz	 <p>Agilent Spectrum Analyzer - Sweep SA PNO: Fast IF Gain: Low Trig: Free Run Avg Type: RMS Avg Hold: 100/100 Ref Offset 11.5 dB Ref 20.00 dBm Mkr1 5.241 497 GHz -3.915 dBm Center 5.24000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Sweep 2.667 ms (40001 pts) Span 40.00 MHz</p>



Mode 4: IEEE 802.11ac 40MHz Continuous TX mode_ ANT-1



Mode 5: IEEE 802.11ac 80MHz Continuous TX mode_ ANT-1





5.6. Frequency Stability Measurement

Temperature Variations

Frequency	Temp. (°C)	Voltage (Vac)	Measured Freq. (MHz)	Delta Freq. (Hz)	Tolerance (ppm)	Result (Pass/Fail)
5200 MHz	0	120	5199.9743	-25700	-4.942	Pass
	10		5199.9768	-23200	-4.462	Pass
	20		5199.9772	-22800	-4.385	Pass
	30		5199.9777	-22300	-4.288	Pass
	40		5199.9782	-21800	-4.192	Pass
	50		5199.9786	-21400	-4.115	Pass

Voltage Variations

Frequency	Temp. (°C)	Voltage (Vac)	Measured Freq. (MHz)	Delta Freq. (Hz)	Tolerance (ppm)	Result (Pass/Fail)
5200 MHz	20	138.00	5199.977	-23000	-4.423	Pass
		120.00	5199.9772	-22800	-4.385	Pass
		102.00	5199.9777	-22300	-4.288	Pass

Note: The manufacturer's frequency stability specification is better than 20ppm.



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Temperature Variations

Frequency	Temp. (°C)	Voltage (Vac)	Measured Freq. (MHz)	Delta Freq. (Hz)	Tolerance (ppm)	Result (Pass/Fail)
5200 MHz	0	120	5199.9743	-25700	-4.942	Pass
	10		5199.9768	-23200	-4.462	Pass
	20		5199.9772	-22800	-4.385	Pass
	30		5199.9777	-22300	-4.288	Pass
	40		5199.9782	-21800	-4.192	Pass
	50		5199.9786	-21400	-4.115	Pass

Voltage Variations

Frequency	Temp. (°C)	Voltage (Vac)	Measured Freq. (MHz)	Delta Freq. (Hz)	Tolerance (ppm)	Result (Pass/Fail)
5200 MHz	20	138.00	5199.977	-23000	-4.423	Pass
		120.00	5199.9772	-22800	-4.385	Pass
		102.00	5199.9777	-22300	-4.288	Pass

Note: The manufacturer's frequency stability specification is better than 20ppm.



5.7. Automatically discontinue transmission

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving.

5.8. Antenna Requirement

■ **Antenna Connector Construction**

See section 2 – antenna information.

■ **Directional Gain Calculated**

Directional Gain = $10 \cdot \log\{[10^{(G1/20)} + 10^{(G2/20)} + \dots + 10^{(Gn/20)}]^2 / NANT\}$ = 7.02 dBi > 6dBi

Operate Freq. Band		Directional Gain (dBi)
IEEE 802.11a	U-NII Band I	7.02
IEEE 802.11ac 20MHz	U-NII Band I	7.02
IEEE 802.11ac 40MHz	U-NII Band I	7.02
IEEE 802.11ac 80MHz	U-NII Band I	7.02