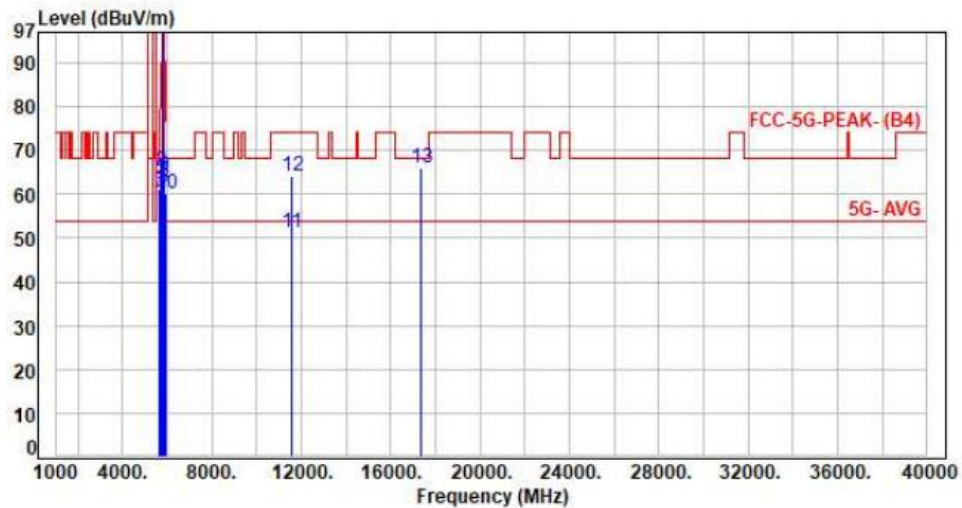


**Test Mode** : Mode 2

Test Mode : 2TX 11ac20 CH157 NSS1 MCS0
Voltage : From Adapter(AC120V/60Hz)
Pol : Vertical



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	7.54	53.75	61.29	68.20	-6.91	Peak	277	358	P
2	5700.00	7.41	57.87	65.28	105.20	-39.92	Peak	277	358	P
3	5720.00	7.39	56.10	63.49	110.80	-47.31	Peak	277	358	P
4	5725.00	7.39	52.51	59.90	122.20	-62.30	Peak	277	358	P
5	5785.00	7.34	94.76	102.10	200.00	-97.90	Average	277	358	P
6	5785.00	7.34	104.89	112.23	200.00	-87.77	Peak	277	358	P
7	5850.00	7.30	52.63	59.93	122.20	-62.27	Peak	277	358	P
8	5855.00	7.32	55.67	62.99	110.80	-47.81	Peak	277	358	P
9	5875.00	7.39	56.76	64.15	105.20	-41.05	Peak	277	358	P
10	5925.00	7.51	52.78	60.29	68.20	-7.91	Peak	277	358	P
11	11570.00	17.65	33.55	51.20	54.00	-2.80	Average	100	177	P
12	11570.00	17.65	46.57	64.22	74.00	-9.78	Peak	100	177	P
13	17355.00	25.69	40.23	65.92	68.20	-2.28	Peak	100	168	P

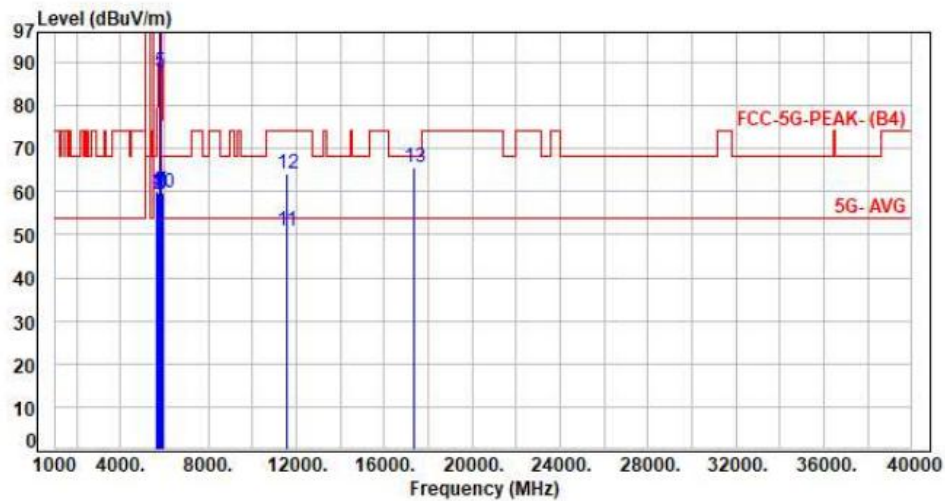
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor

**Test Mode** : Mode 2

Test Mode : 2TX 11ac20 CH157 NSS1 MCS0
Voltage : From Adapter(AC120V/60Hz)
Pol : Horizontal



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	7.54	52.40	59.94	68.20	-8.26	Peak	148	213	P
2	5700.00	7.41	52.01	59.42	105.20	-45.78	Peak	148	213	P
3	5720.00	7.39	52.07	59.46	110.80	-51.34	Peak	148	213	P
4	5725.00	7.39	52.37	59.76	122.20	-62.44	Peak	148	213	P
5	5785.00	7.34	80.31	87.65	200.00	-112.35	Average	148	213	P
6	5785.00	7.34	90.41	97.75	200.00	-102.25	Peak	148	213	P
7	5850.00	7.30	52.71	60.01	122.20	-62.19	Peak	148	213	P
8	5855.00	7.32	52.35	59.67	110.80	-51.13	Peak	148	213	P
9	5875.00	7.39	52.05	59.44	105.20	-45.76	Peak	148	213	P
10	5925.00	7.51	52.12	59.63	68.20	-8.57	Peak	148	213	P
11	11570.00	17.65	33.43	51.08	54.00	-2.92	Average	100	337	P
12	11570.00	17.65	46.68	64.33	74.00	-9.67	Peak	100	337	P
13	17355.00	25.69	39.99	65.68	68.20	-2.52	Peak	100	324	P

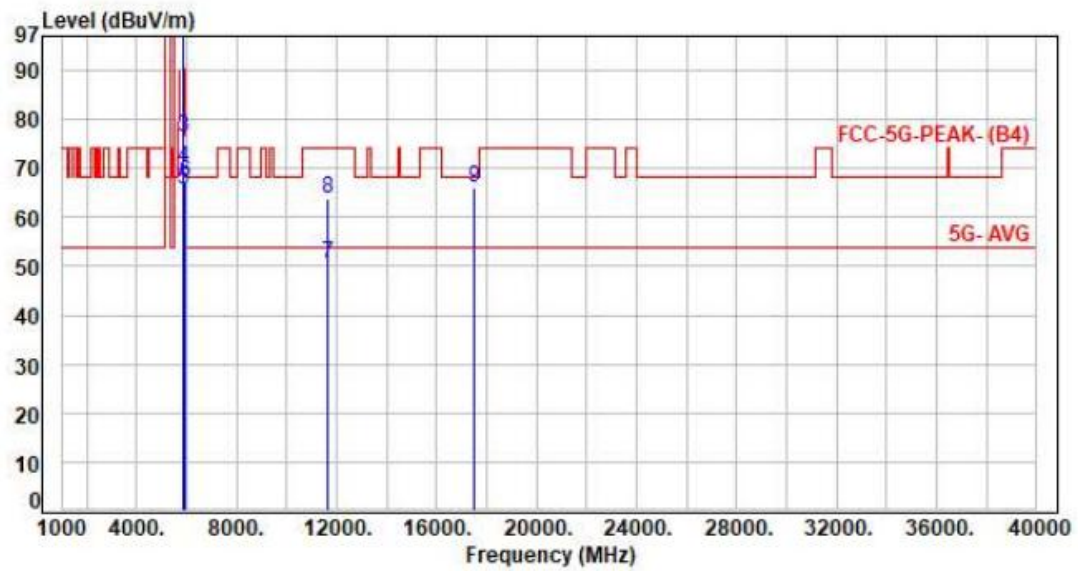
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor

**Test Mode** : Mode 2

Test Mode : 2TX 11ac20 CH165 NSS1 MCS0
Voltage : From Adapter(AC120V/60Hz)
Pol : Vertical



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5825.00	7.32	97.83	105.15	200.00	-94.85	Average	276	357	P
2	5825.00	7.32	107.38	114.70	200.00	-85.30	Peak	276	357	P
3	5850.00	7.30	68.95	76.25	122.20	-45.95	Peak	276	357	P
4	5855.00	7.32	62.61	69.93	110.80	-40.87	Peak	276	357	P
5	5875.00	7.39	58.13	65.52	105.20	-39.68	Peak	276	357	P
6	5925.00	7.51	59.57	67.08	68.20	-1.12	Peak	276	357	P
7	11650.00	17.74	32.83	50.57	54.00	-3.43	Average	100	172	P
8	11650.00	17.74	46.05	63.79	74.00	-10.21	Peak	100	172	P
9	17475.00	26.42	39.68	66.10	68.20	-2.10	Peak	100	166	P

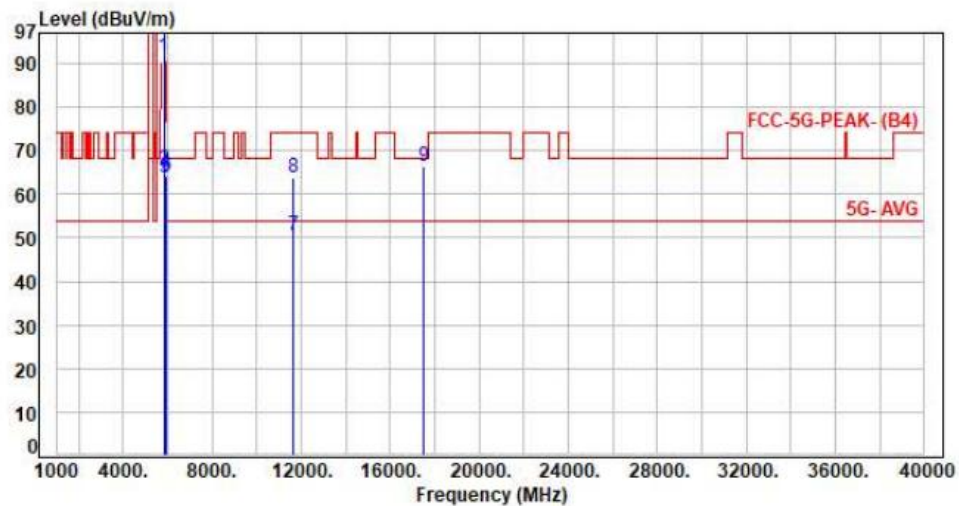
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor

**Test Mode** : Mode 2

Test Mode : 2TX 11ac20 CH165 NSS1 MCS0
Voltage : From Adapter(AC120V/60Hz)
Pol : Horizontal



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5825.00	7.32	84.11	91.43	200.00	-108.57	Average	113	132	P
2	5825.00	7.32	93.39	100.71	200.00	-99.29	Peak	113	132	P
3	5850.00	7.30	58.21	65.51	122.20	-56.69	Peak	113	132	P
4	5855.00	7.32	57.68	65.00	110.80	-45.80	Peak	113	132	P
5	5875.00	7.39	56.56	63.95	105.20	-41.25	Peak	113	132	P
6	5925.00	7.51	56.62	64.13	68.20	-4.07	Peak	113	132	P
7	11650.00	17.74	32.75	50.49	54.00	-3.51	Average	100	336	P
8	11650.00	17.74	46.17	63.91	74.00	-10.09	Peak	100	336	P
9	17475.00	26.42	39.86	66.28	68.20	-1.92	Peak	100	325	P

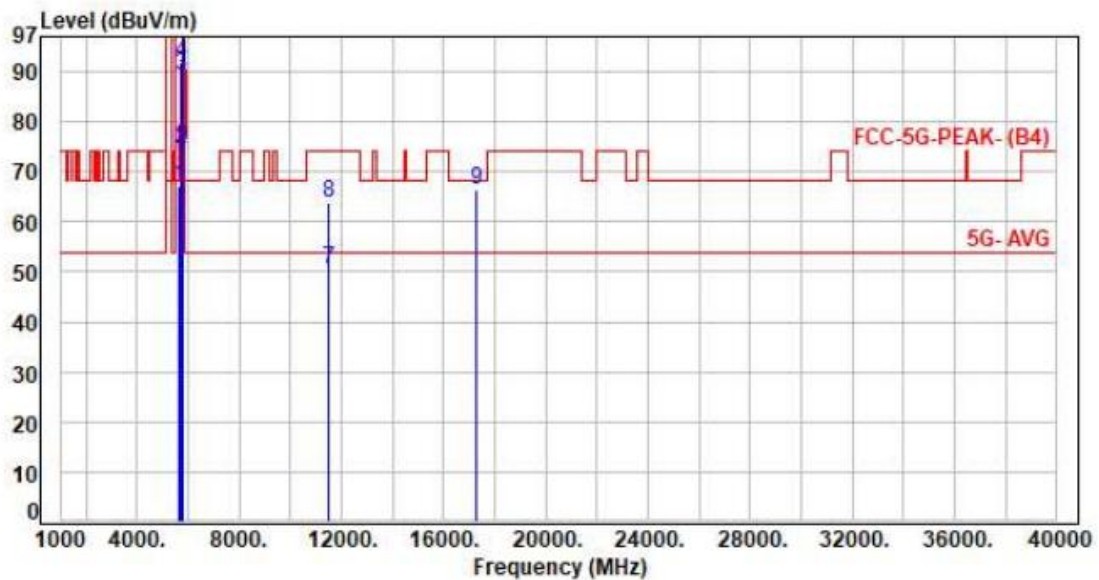
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor

**Test Mode** : Mode 3

Test Mode : 2TX 11ac40 CH151 NSS1 MCS0
Voltage : From Adapter(AC120V/60Hz)
Pol : Vertical



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	7.54	59.62	67.16	68.20	-1.04	Peak	281	359	P
2	5700.00	7.41	67.20	74.61	105.20	-30.59	Peak	281	359	P
3	5720.00	7.39	82.01	89.40	110.80	-21.40	Peak	281	359	P
4	5725.00	7.39	84.47	91.86	122.20	-30.34	Peak	281	359	P
5	5755.00	7.36	96.78	104.14	200.00	-95.86	Average	281	359	P
6	5755.00	7.36	105.64	113.00	200.00	-87.00	Peak	281	359	P
7	11510.00	16.90	33.72	50.62	54.00	-3.38	Average	100	173	P
8	11510.00	16.90	47.02	63.92	74.00	-10.08	Peak	100	173	P
9	17265.00	24.97	41.42	66.39	68.20	-1.81	Peak	100	168	P

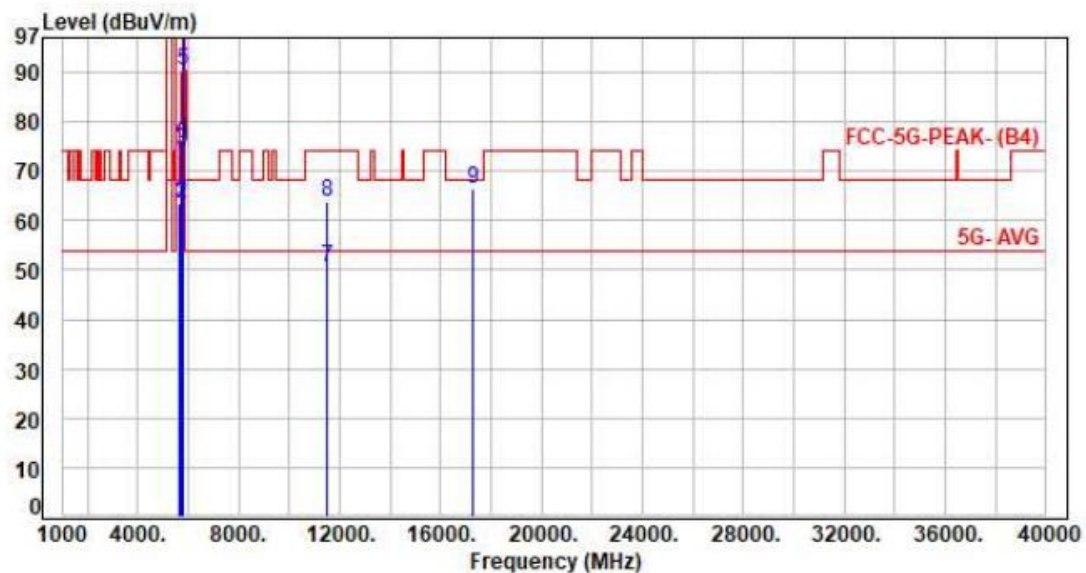
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor

**Test Mode** : Mode 3

Test Mode : 2TX 11ac40 CH151 NSS1 MCS0
Voltage : From Adapter(AC120V/60Hz)
Pol : Horizontal



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	7.54	55.78	63.32	68.20	-4.88	Peak	108	131	P
2	5700.00	7.41	56.12	63.53	105.20	-41.67	Peak	108	131	P
3	5720.00	7.39	66.79	74.18	110.80	-36.62	Peak	108	131	P
4	5725.00	7.39	69.05	76.44	122.20	-45.76	Peak	108	131	P
5	5755.00	7.36	82.96	90.32	200.00	-109.68	Average	108	131	P
6	5755.00	7.36	91.41	98.77	200.00	-101.23	Peak	108	131	P
7	11510.00	16.90	33.80	50.70	54.00	-3.30	Average	100	338	P
8	11510.00	16.90	46.98	63.88	74.00	-10.12	Peak	100	338	P
9	17265.00	24.97	41.38	66.35	68.20	-1.85	Peak	100	324	P

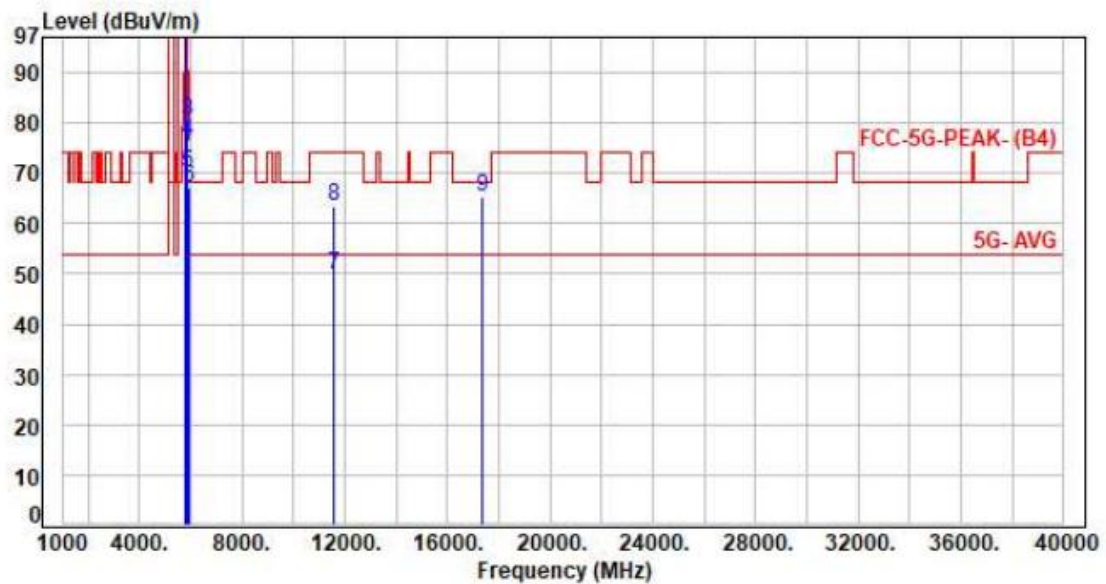
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor

**Test Mode** : Mode 3

Test Mode : 2TX 11ac40 CH159 NSS1 MCS0
Voltage : From Adapter(AC120V/60Hz)
Pol : Vertical



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5795.00	7.34	97.70	105.04	200.00	-94.96	Average	287	360	P
2	5795.00	7.34	107.03	114.37	200.00	-85.63	Peak	287	360	P
3	5850.00	7.30	72.99	80.29	122.20	-41.91	Peak	287	360	P
4	5855.00	7.32	69.19	76.51	110.80	-34.29	Peak	287	360	P
5	5875.00	7.39	62.52	69.91	105.20	-35.29	Peak	287	360	P
6	5925.00	7.51	59.52	67.03	68.20	-1.17	Peak	287	360	P
7	11590.00	17.90	31.78	49.68	54.00	-4.32	Average	100	175	P
8	11590.00	17.90	45.59	63.49	74.00	-10.51	Peak	100	175	P
9	17385.00	25.89	39.31	65.20	68.20	-3.00	Peak	100	166	P

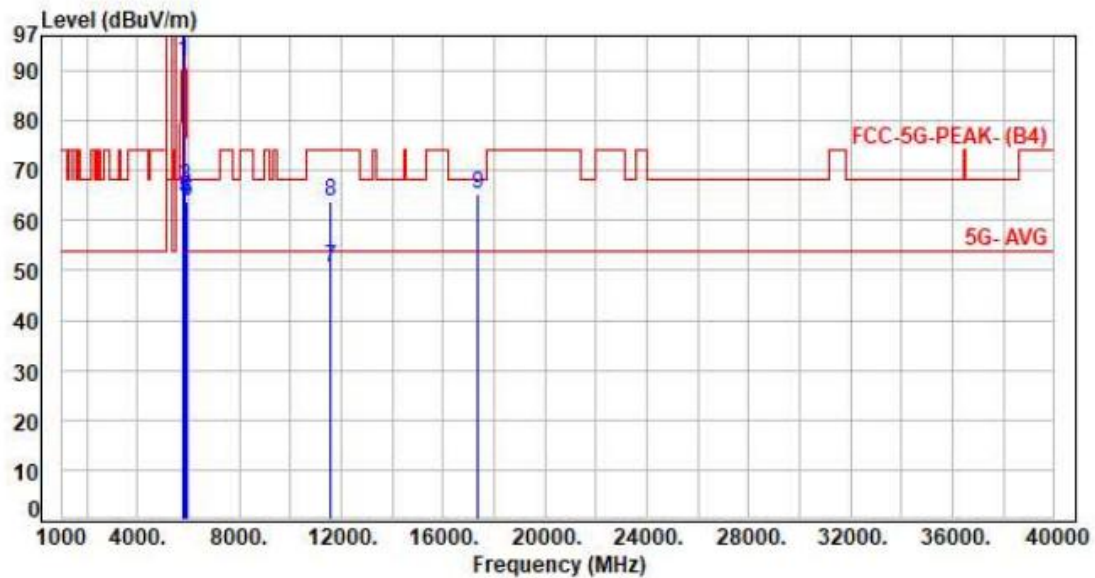
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor

**Test Mode** : Mode 3

Test Mode : 2TX 11ac40 CH159 NSS1 MCS0
Voltage : From Adapter(AC120V/60Hz)
Pol : Horizontal



No.	Frequency (MHz)	Factor (dB)	Reading (dBUV)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5795.00	7.34	84.32	91.66	200.00	-108.34	Average	143	212	P
2	5795.00	7.34	93.35	100.69	200.00	-99.31	Peak	143	212	P
3	5850.00	7.30	59.47	66.77	122.20	-55.43	Peak	143	212	P
4	5855.00	7.32	56.97	64.29	110.80	-46.51	Peak	143	212	P
5	5875.00	7.39	57.14	64.53	105.20	-40.67	Peak	143	212	P
6	5925.00	7.51	56.23	63.74	68.20	-4.46	Peak	143	212	P
7	11590.00	17.90	32.47	50.37	54.00	-3.63	Average	100	333	P
8	11590.00	17.90	46.05	63.95	74.00	-10.05	Peak	100	333	P
9	17385.00	25.89	39.38	65.27	68.20	-2.93	Peak	100	327	P

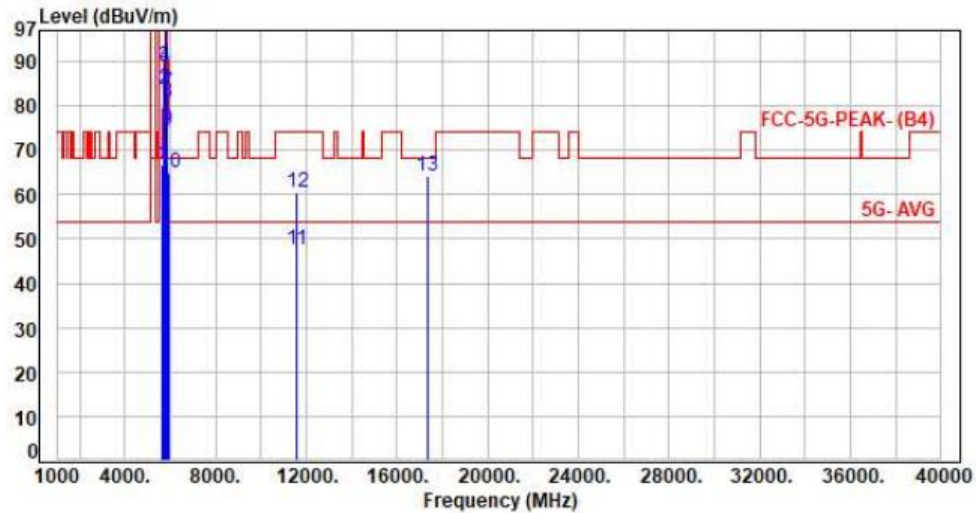
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor

**Test Mode** : Mode 4

Test Mode : 2TX 11ac80 CH155 NSS1 MCS0
Voltage : From Adapter(AC120V/60Hz)
Pol : Vertical



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	7.54	59.36	66.90	68.20	-1.30	Peak	276	360	P
2	5700.00	7.41	76.29	83.70	105.20	-21.50	Peak	276	360	P
3	5720.00	7.39	81.57	88.96	110.80	-21.84	Peak	276	360	P
4	5725.00	7.39	81.48	88.87	122.20	-33.33	Peak	276	360	P
5	5775.00	7.35	92.64	99.99	200.00	-100.01	Average	276	360	P
6	5775.00	7.35	103.05	110.40	200.00	-89.60	Peak	276	360	P
7	5850.00	7.30	75.58	82.88	122.20	-39.32	Peak	276	360	P
8	5855.00	7.32	73.42	80.74	110.80	-30.06	Peak	276	360	P
9	5875.00	7.39	67.05	74.44	105.20	-30.76	Peak	276	360	P
10	5925.00	7.51	57.47	64.98	68.20	-3.22	Peak	276	360	P
11	11550.00	17.40	30.16	47.56	54.00	-6.44	Average	100	174	P
12	11550.00	17.40	42.96	60.36	74.00	-13.64	Peak	100	174	P
13	17325.00	25.39	38.81	64.20	68.20	-4.00	Peak	100	168	P

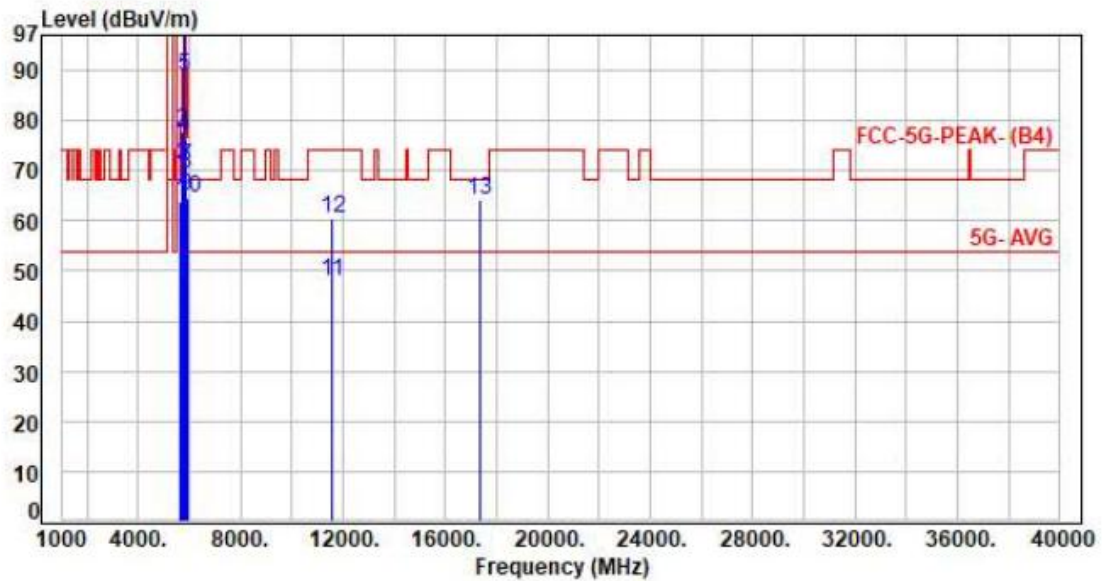
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor

**Test Mode** : Mode 4

Test Mode : 2TX 11ac80 CH155 NSS1 MCS0
Voltage : From Adapter(AC120V/60Hz)
Pol : Horizontal



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	7.54	56.17	63.71	68.20	-4.49	Peak	100	221	P
2	5700.00	7.41	63.73	71.14	105.20	-34.06	Peak	100	221	P
3	5720.00	7.39	70.40	77.79	110.80	-33.01	Peak	100	221	P
4	5725.00	7.39	69.44	76.83	122.20	-45.37	Peak	100	221	P
5	5775.00	7.35	81.57	88.92	200.00	-111.08	Average	100	221	P
6	5775.00	7.35	90.88	98.23	200.00	-101.77	Peak	100	221	P
7	5850.00	7.30	63.44	70.74	122.20	-51.46	Peak	100	221	P
8	5855.00	7.32	61.89	69.21	110.80	-41.59	Peak	100	221	P
9	5875.00	7.39	57.57	64.96	105.20	-40.24	Peak	100	221	P
10	5925.00	7.51	56.96	64.47	68.20	-3.73	Peak	100	221	P
11	11550.00	17.40	30.38	47.78	54.00	-6.22	Average	100	339	P
12	11550.00	17.40	43.06	60.46	74.00	-13.54	Peak	100	339	P
13	17325.00	25.39	38.92	64.31	68.20	-3.89	Peak	100	322	P

Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor

**6.7. Restricted Bands of Operation**

Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.09000 – 0.11000	16.42000 – 16.42300	399.9 – 410.0	4.500 – 5.150
0.49500 – 0.505**	16.69475 – 16.69525	608.0 – 614.0	5.350 – 5.460
2.17350 – 2.19050	16.80425 – 16.80475	960.0 – 1240.0	7.250 – 7.750
4.12500 – 4.12800	25.50000 – 25.67000	1300.0 – 1427.0	8.025 – 8.500
4.17725 – 4.17775	37.50000 – 38.25000	1435.0 – 1626.5	9.000 – 9.200
4.20725 – 4.20775	73.00000 – 74.60000	1645.5 – 1646.5	9.300 – 9.500
6.21500 – 6.21800	74.80000 – 75.20000	1660.0 – 1710.0	10.600 – 12.700
6.26775 – 6.26825	108.00000 – 121.94000	1718.8 – 1722.2	13.250 – 13.400
6.31175 – 6.31225	123.00000 – 138.00000	2200.0 – 2300.0	14.470 – 14.500
8.29100 – 8.29400	149.90000 – 150.05000	2310.0 – 2390.0	15.350 – 16.200
8.36200 – 8.36600	156.52475 – 156.52525	2483.5 – 2500.0	17.700 – 21.400
8.37625 – 8.38675	156.70000 – 156.90000	2655.0 – 2900.0	22.010 – 23.120
8.41425 – 8.41475	162.01250 – 167.17000	3260.0 – 3267.0	23.600 – 24.000
12.29000 – 12.29300	167.72000 – 173.20000	3332.0 – 3339.0	31.200 – 31.800
12.51975 – 12.52025	240.00000 – 285.00000	3345.8 – 3358.0	36.430 – 36.500
12.57675 – 12.57725	322.00000 – 335.40000	3600.0 – 4400.0	Above 38.6
13.36000 – 13.41000			

** : Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz



7. On Time, Duty Cycle and Measurement methods

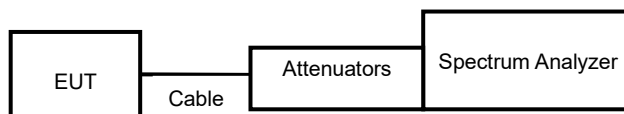
7.1. Test Limit

None; for reporting purposes only.

7.2. Test Procedure

KDB 789033 Zero-Span Spectrum Analyzer Method.

7.3. Test Setup Layout



7.4. Test Result and Data

Modulation Type	On Time (ms)	Period Time (ms)	Duty Cycle (%)
802.11a,6M	1.45	1.62	89.14%
802.11ac VHT20	1.37	1.41	97.09%
802.11ac VHT40	0.68	0.74	91.67%
802.11ac VHT80	0.34	0.43	79.23%

7.5. Measurement Methods

26 dB and 6dB Emission BW	KDB 789033 D02 v02r01, Section C
99% Occupied BW	KDB 789033 D02 v02r01, Section D
Conducted Output Power	KDB 789033 D02 v02r01, Section E.2.d and E.3.b (Method PM-G)
Power Spectral Density	KDB 789033 D02 v02r01, Section F
Unwanted emissions in restricted bands	KDB 789033 D02 v02r01, Sections G and H
Unwanted emissions in non-restricted bands	KDB 789033 D02 v02r01, Sections G and H



Modulation Type: 802.11a (6Mbps)



Modulation Type: 802.11ac VHT80 (29.3Mbps)



Modulation Type: 802.11ac VHT20 (6.5Mbps)



Modulation Type: 802.11ac VHT40 (13.5Mbps)





8. 6dB Bandwidth & 99% Occupied Bandwidth

8.1. Test Limit

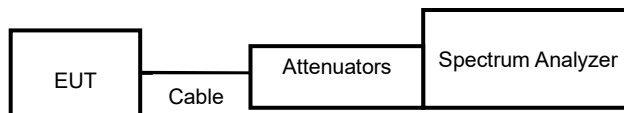
FCC §15.407

The minimum 6 dB bandwidth shall be at least 500 kHz.

8.2. Test Procedure

Reference to 789033 D02 General UNII Test Procedures New Rules v01: The transmitter output is connected to a spectrum analyzer with the RBW set to 100KHz, the VBW $\geq 3 \times$ RBW, peak detector and max hold.

8.3. Test Setup Layout





8.4. Test Result and Data

In the 5.8G Band

Modulation Type	Channel	Frequency (MHz)	6dB Bandwidth(MHz)		Minimum Limit (MHz)
			ANT A	ANT B	
11a	149	5745	15.79	16.26	0.50
11a	157	5785	15.48	15.44	0.50
11a	165	5825	16.30	15.68	0.50
11ac VHT20	149	5745	16.98	15.25	0.50
11ac VHT20	157	5785	15.77	16.63	0.50
11ac VHT20	165	5825	16.98	17.00	0.50
11ac VHT40	151	5755	35.12	34.42	0.50
11ac VHT40	159	5795	35.14	35.11	0.50
11ac VHT80	155	5775	75.07	73.86	0.50

In the 5.8G Band

Modulation Type	Channel	Frequency (MHz)	99% Bandwidth(MHz)	
			ANT A	ANT B
11a	149	5745	16.69	16.77
11a	157	5785	16.98	16.97
11a	165	5825	16.88	16.87
11ac VHT20	149	5745	17.69	17.68
11ac VHT20	157	5785	17.76	17.78
11ac VHT20	165	5825	17.90	17.89
11ac VHT40	151	5755	36.60	36.77
11ac VHT40	159	5795	39.23	39.23
11ac VHT80	155	5775	75.32	75.45



ANT A -6dB Bandwidth
Modulation Type: 802.11a (6Mbps)
CH149



Modulation Type: 802.11ac, VHT20 (6.5Mbps)
CH149



CH157



CH157



CH165



CH165





ANT A-6dB Bandwidth

Modulation Type: 802.11ac, VHT40 (13.5Mbps)
CH151



Modulation Type: 802.11ac, VHT80 (29.3Mbps)
CH155



CH159





ANT B -6dB Bandwidth
Modulation Type: 802.11a (6Mbps)
CH149



Modulation Type: 802.11ac, VHT20 (6.5Mbps)
CH149



CH157



CH157



CH165



CH165





ANT B-6dB Bandwidth

Modulation Type: 802.11ac, VHT40 (13.5Mbps)
CH151



Modulation Type: 802.11ac, VHT80 (29.3Mbps)
CH155



CH159





ANT A-99% Occupied Bandwidth
Modulation Type: 802.11a (6Mbps)
CH149



Modulation Type: 802.11ac, VHT20 (6.5Mbps)
CH149



CH157



CH157



CH165



CH165



Modulation Type: 802.11ac, VHT80 (29.3Mbps)
CH155

Spectrum Analyzer 1
Occupied BW1

KEYSIGHT Input: RF, Coupling: AC, Attenuation: 0 dB, Input 2: 50 Ω, Center Freq: 5.795000000 GHz, Span: 60 MHz, Res: 30 dB, Noise Floor: -140 dBm, Span: 60 MHz, Span: 60 MHz, Span: 60 MHz

1 Graph, Scale/Div 10.0 dB, Ref Lvl Offset 10.50 dB, Ref Value 30.00 dBm

Center 5.795 GHz, #Freq 1,0000 MHz, #Video BW 3,0000 MHz, Span 60 MHz, Sweep 1.07 ms (4001 pts)

2 Markers

Occupied Bandwidth		Total Power	
39.231 MHz		25.0 dBm	
Transmit Freq Error	-0.140 kHz	% of CW Power	99.00 %
3-dB Bandwidth	60.00 MHz	x dB Power	-26.00 dB

Windows taskbar: Nov 04, 2024, 2:20:25 AM



ANT B-99% Occupied Bandwidth
Modulation Type: 802.11a (6Mbps)
CH149



Modulation Type: 802.11ac, VHT20 (6.5Mbps)
CH149



CH157



CH157



CH165



CH165





ANT B-99% Occupied Bandwidth

Modulation Type: 802.11ac, VHT40 (13.5Mbps)
CH151



Modulation Type: 802.11ac, VHT80 (29.3Mbps)
CH155



CH159





9. 26dB Bandwidth & 99% Occupied Bandwidth

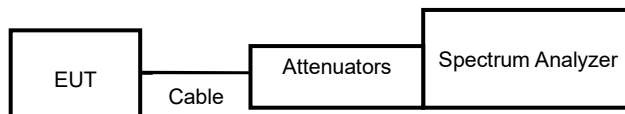
9.1. Test Limit

None; for reporting purposes only.

9.2. Test Procedure

Reference to 789033 D02 General UNII Test Procedures New Rules v01: The transmitter output is connected to a spectrum analyzer with the RBW = approximately 1% of the emission bandwidth, the VBW $\geq 3 \times$ RBW, peak detector and max hold.

9.3. Test Setup Layout



**9.4. Test Result and Data**

In the 5.2G Band

Mode	Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
			ANT A	ANT B
11a	36	5180	19.93	19.79
11a	40	5200	19.97	20.06
11a	48	5240	20.13	19.93
11ac VHT20	36	5180	20.33	20.39
11ac VHT20	40	5200	20.46	20.42
11ac VHT20	48	5240	20.48	20.39
11ac VHT40	38	5190	41.48	41.45
11ac VHT40	46	5230	41.26	41.48
11ac VHT80	42	5210	81.4	81.44

Modulation Type	Channel	Frequency (MHz)	99% Bandwidth(MHz)	
			ANT A	ANT B
11a	36	5180	16.69	16.72
11a	40	5200	16.80	16.80
11a	48	5240	16.82	16.76
11ac VHT20	36	5180	17.68	17.66
11ac VHT20	40	5200	17.67	17.66
11ac VHT20	48	5240	17.68	17.68
11ac VHT40	38	5190	36.13	36.15
11ac VHT40	46	5230	36.11	36.15
11ac VHT80	42	5210	74.96	75.08



ANT A-26dB Bandwidth Band 1
Modulation Type: 802.11a (6Mbps)
CH36

802.11ac VHT20 (6.5Mbps)
CH36



CH40

CH40



CH48

CH48





ANT A-26dB Bandwidth Band 1

Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH38



Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH42



CH46





ANT B-26dB Bandwidth Band 1
Modulation Type: 802.11a (6Mbps)
CH36

802.11ac VHT20 (6.5Mbps)
CH36



CH40



CH40



CH48



CH48





ANT B-26dB Bandwidth Band 1

Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH38



Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH42



CH46





ANT A-99% Occupied Bandwidth Band 1
Modulation Type: 802.11a (6Mbps)
CH36

802.11ac VHT20 (6.5Mbps)
CH36



CH40

CH40



CH48

CH48





ANT A-99% Occupied Bandwidth Band 1

Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH38



Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH42



CH46





ANT B-99% Occupied Bandwidth Band 1
Modulation Type: 802.11a (6Mbps)
CH36

802.11ac VHT20 (6.5Mbps)
CH36





ANT B-99% Occupied Bandwidth Band 1

Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH38



Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH42



CH46





10. Average Power

10.1. Test Limit

Output Power:

Frequency Band		Limit
☒	5.15~5.25GHz	
	Operating Mode	
☐	Outdoor access point	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm) provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30degrees as measured from the horizon must not exceed 125 mW (21 dBm).
☐	Indoor access point	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm) provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
☐	Fixed point-to-point access points	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm). Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi.
☒	client devices	The maximum conducted output power over the frequency band of operation shall not exceed 250 mW (24dBm) provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.



Frequency Band		Limit
☐	5.25-5.35 GHz	The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (24dBm) or 11 dBm 10 log B, where B is the 26 dB emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
☐	5.470-5.725 GHz	
☒	5.725~5.85 GHz	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm). If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power.

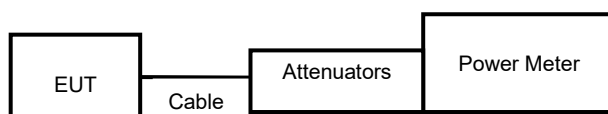
10.2.Test Procedure

According to the methods defined in ANSI C63.10-2020+Cor.1-2023 and ANSI C63.10a-2024 Section 12.4

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 11.5 dB (including 10 dB pad and 1.5 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

10.3.Test Setup Layout





10.4. Test Result and Data

In the 5.2G Band

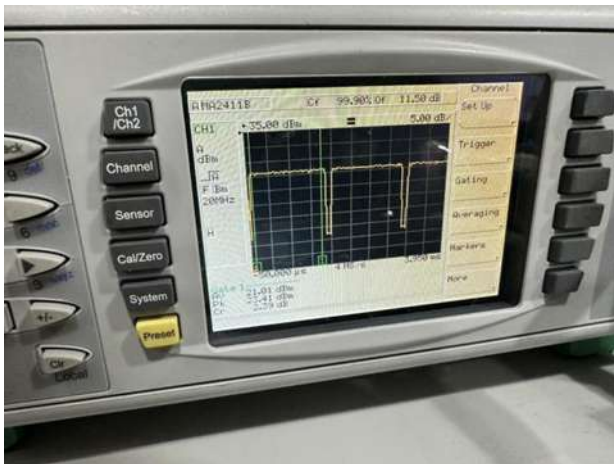
Modulation Type	Data Rate	Conducted Setting	Channel	Frequency (MHz)	Measured value of each antenna port (dBm)		Total power (dBm)	Total power (mW)	FCC Limit (dBm)
					ANT A	ANT B			
11a	6 Mbps	6	36	5180	6.39	3.52	8.20	6.604	24.00
11a	6 Mbps	5	40	5200	7.02	5.72	9.43	8.768	24.00
11a	6 Mbps	4	48	5240	6.36	6.27	9.33	8.562	24.00
11ac VHT20	NSS1-MCS0	7	36	5180	5.74	6.54	9.17	8.258	24.00
11ac VHT20	NSS1-MCS0	9	40	5200	7.94	6.97	10.49	11.200	24.00
11ac VHT20	NSS1-MCS0	7	48	5240	6.88	6.57	9.74	9.415	24.00
11ac VHT40	NSS1-MCS0	A	38	5190	8.10	8.14	11.13	12.973	24.00
11ac VHT40	NSS1-MCS0	B	46	5230	8.87	8.48	11.69	14.756	24.00
11ac VHT80	NSS1-MCS0	7	42	5210	6.58	5.82	9.23	8.369	24.00

In the 5.8G Band

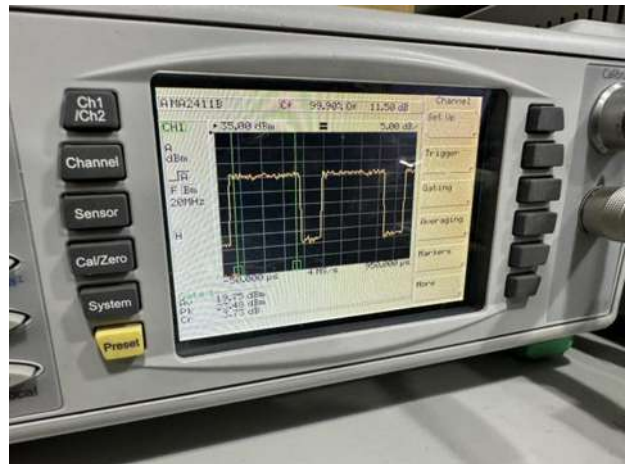
Modulation Type	Data Rate	Conducted Setting	Channel	Frequency (MHz)	Measured value of each antenna port (dBm)		Total power (dBm)	Total power (mW)	FCC Limit (dBm)
					ANT A	ANT B			
11a	6 Mbps	17	149	5745	14.72	14.83	17.79	60.057	30.00
11a	6 Mbps	1B	157	5785	16.47	16.32	19.41	87.216	30.00
11a	6 Mbps	18	165	5825	15.15	15.17	18.17	65.619	30.00
11ac VHT20	NSS1-MCS0	16	149	5745	12.99	13.21	16.11	40.848	30.00
11ac VHT20	NSS1-MCS0	1B	157	5785	15.51	15.52	18.53	71.208	30.00
11ac VHT20	NSS1-MCS0	1D	165	5825	16.36	16.30	19.34	85.909	30.00
11ac VHT40	NSS1-MCS0	1F	151	5755	18.04	18.23	21.15	130.207	30.00
11ac VHT40	NSS1-MCS0	22	159	5795	19.72	19.84	22.79	190.139	30.00
11ac VHT80	NSS1-MCS0	1E	155	5775	17.01	17.27	20.15	103.568	30.00



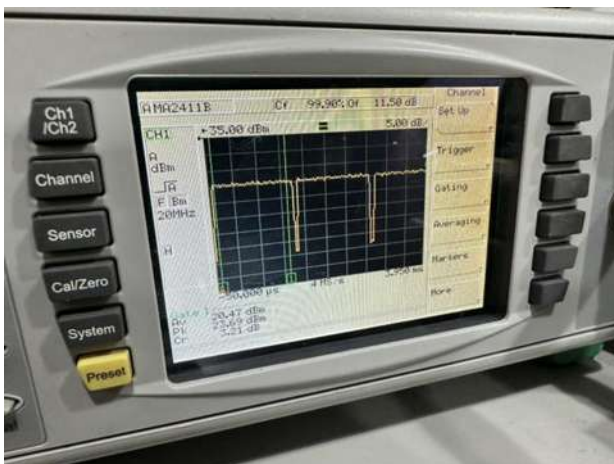
Modulation Type: 802.11a (6Mbps)



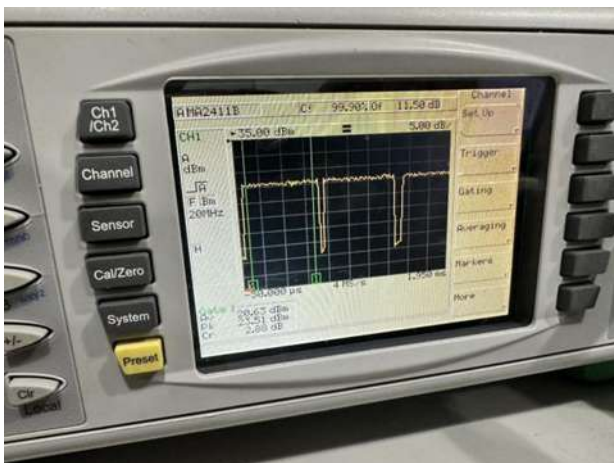
Modulation Type: 802.11ac VHT80 (29.3Mbps)



Modulation Type: 802.11ac VHT20 (6.5Mbps)



Modulation Type: 802.11ac VHT40 (13.5Mbps)





11. Power Spectral Density

11.1. Test Limit

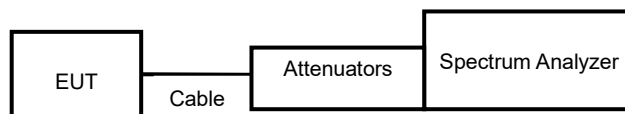
PSD:

Frequency Band		Limit
☒	5.15~5.25GHz	
	Operating Mode	
☐	Outdoor access point	17 dBm/MHz
☐	Indoor access point	17 dBm/MHz
☐	Fixed point-to-point access points	17 dBm/MHz
☒	Mobile and portable client devices	11 dBm/MHz
☐	5.725~5.85 GHz	11 dBm/MHz
☐	5.470-5.725 GHz	11 dBm/MHz
☒	5.725~5.85 GHz	30 dBm/500kHz

11.2. Test Procedure

Reference to KDB789033 D02 General UNII Test Procedures New Rules v02r01

11.3. Test Setup Layout





11.4. Test Result and Data

In the 5.2G Band

In the 5.2G Band

Modulation Type	Channel	Frequency (MHz)	Meas PSD (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	Total Corr'd PSD (dBm/MHz)	PSD Limit (dBm/MHz)
			ANT A	ANT B				
11a	36	5180	-7.033	-8.730	-4.79	0.50	-4.29	8.50
11a	40	5200	-7.259	-8.177	-4.68	0.50	-4.18	8.50
11a	48	5240	-8.192	-8.867	-5.51	0.50	-5.01	8.50
11ac VHT20	36	5180	-8.519	-8.898	-5.69	0.13	-5.56	8.50
11ac VHT20	40	5200	-7.717	-7.818	-4.76	0.13	-4.63	8.50
11ac VHT20	48	5240	-7.949	-8.592	-5.25	0.13	-5.12	8.50
11ac VHT40	38	5190	-11.145	-11.549	-8.33	0.38	-7.95	8.50
11ac VHT40	46	5230	-10.572	-11.810	-8.14	0.38	-7.76	8.50
11ac VHT80	42	5210	-18.872	-18.144	-15.48	1.01	-14.47	8.50

In the 5.8G Band

Modulation Type	Channel (MHz)	Frequency (MHz)	Meas PSD (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	10log(500KHz/RBW) CF (dB)	Total Corr'd PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)
			ANT A	ANT B					
11a	149	5745	-1.703	-1.750	1.28	0.50	-3.01	-1.23	27.56
11a	157	5785	-0.174	-0.207	2.82	0.50	-3.01	0.31	27.56
11a	165	5825	-1.285	-1.684	1.53	0.50	-3.01	-0.98	27.56
11ac VHT20	149	5745	-3.877	-4.058	-0.96	0.13	-3.01	-3.84	27.56
11ac VHT20	157	5785	-1.500	-1.609	1.46	0.13	-3.01	-1.42	27.56
11ac VHT20	165	5825	-0.528	-0.818	2.34	0.13	-3.01	-0.54	27.56
11ac VHT40	151	5755	-4.959	-4.660	-1.80	0.38	-3.01	-4.43	27.56
11ac VHT40	159	5795	-3.508	-3.282	-0.38	0.38	-3.01	-3.01	27.56
11ac VHT80	155	5775	-11.539	-11.150	-8.33	1.01	-3.01	-10.33	27.56



ANT A

Modulation Type: 802.11a (6Mbps)

CH36



Modulation Type: 802.11ac VHT20 (6.5Mbps)

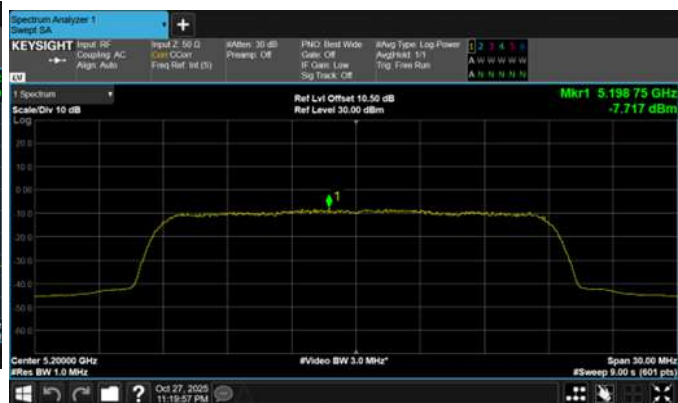
CH36



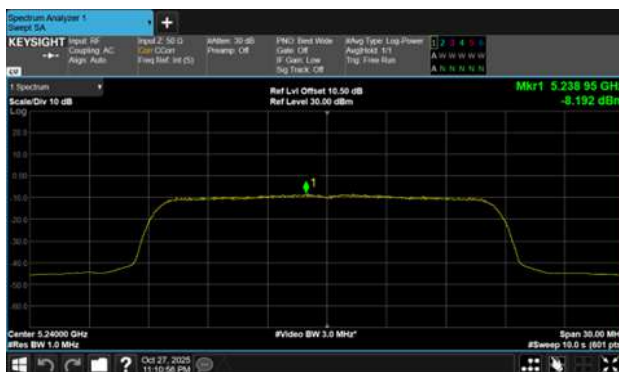
CH40



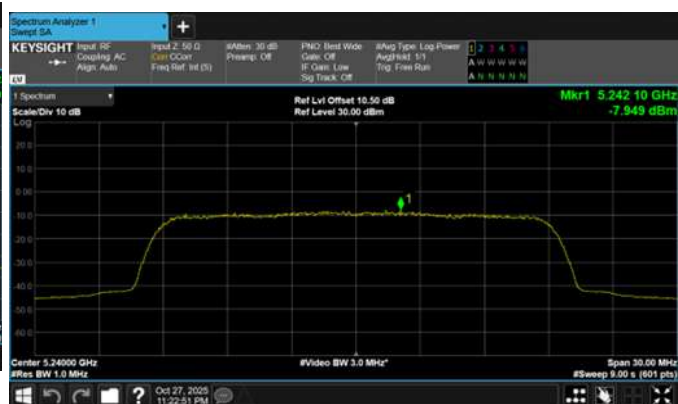
CH40



CH48



CH48





ANT A

Modulation Type: 802.11ac VHT40 (13.5Mbps)

CH38

Modulation Type: 802.11ac VHT80 (29.3Mbps)

CH42



CH46





ANT B

Modulation Type: 802.11a (6Mbps)

CH36



Modulation Type: 802.11ac VHT20 (6.5Mbps)

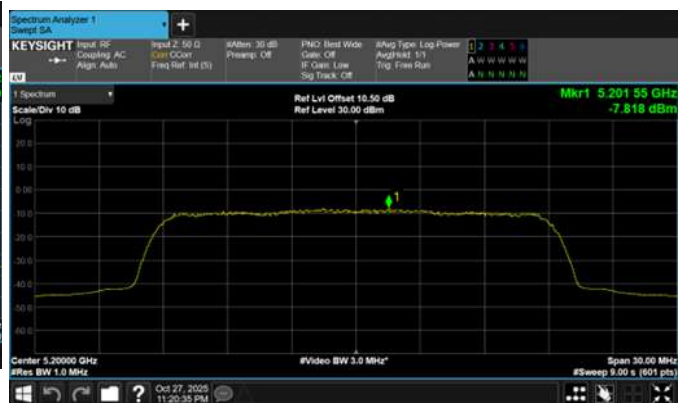
CH36



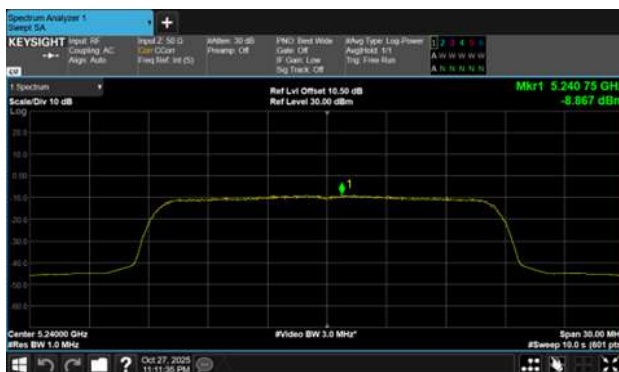
CH40



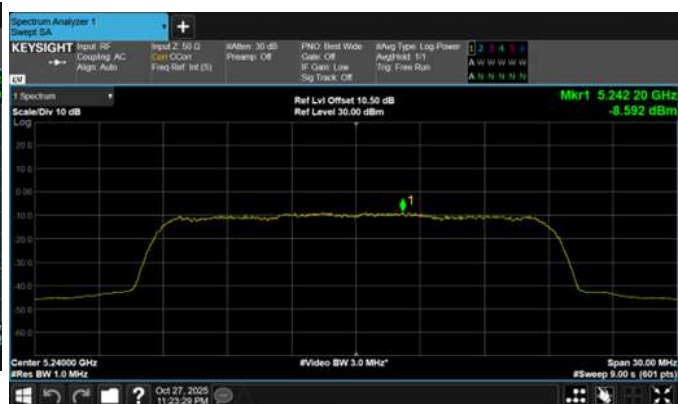
CH40



CH48



CH48





ANT B

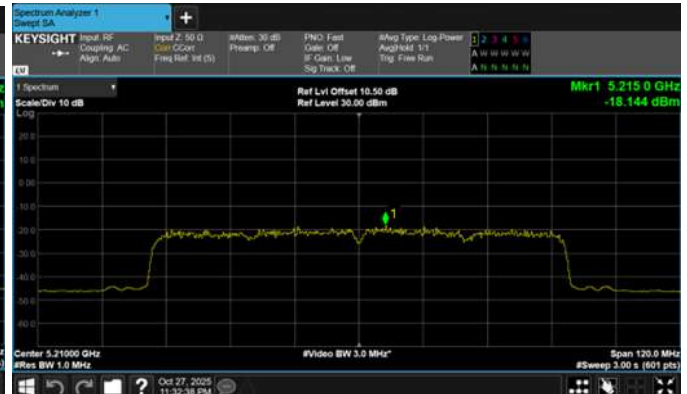
Modulation Type: 802.11ac VHT40 (13.5Mbps)

CH38



Modulation Type: 802.11ac VHT80 (29.3Mbps)

CH42



CH46





ANT A

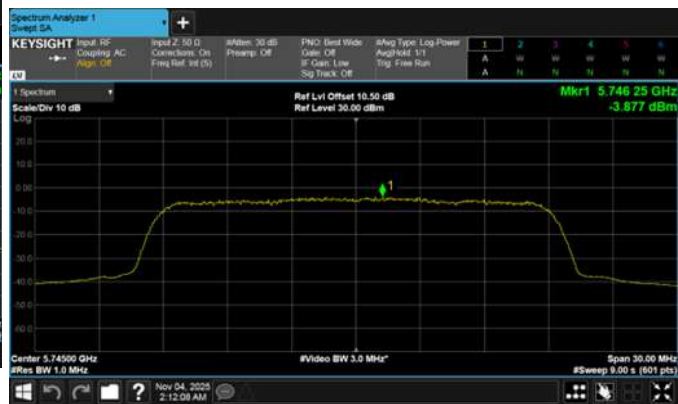
Modulation Type: 802.11a (6Mbps)

CH149



Modulation Type: 802.11ac VHT20 (6.5Mbps)

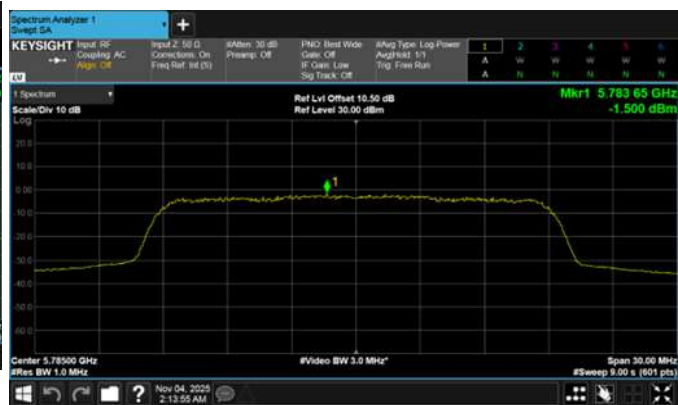
CH149



CH157



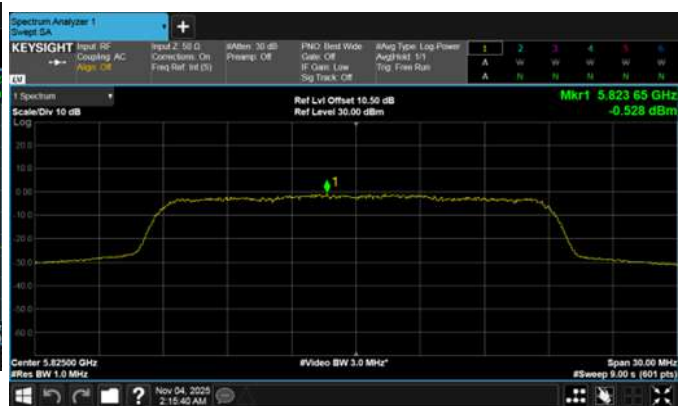
CH157



CH165



CH165





ANT A

Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH151



Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH155



CH159

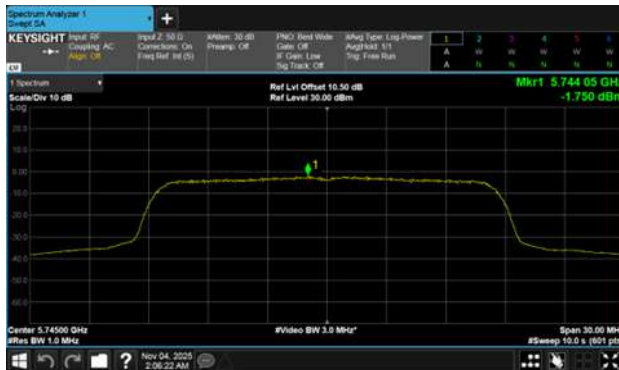




ANT B

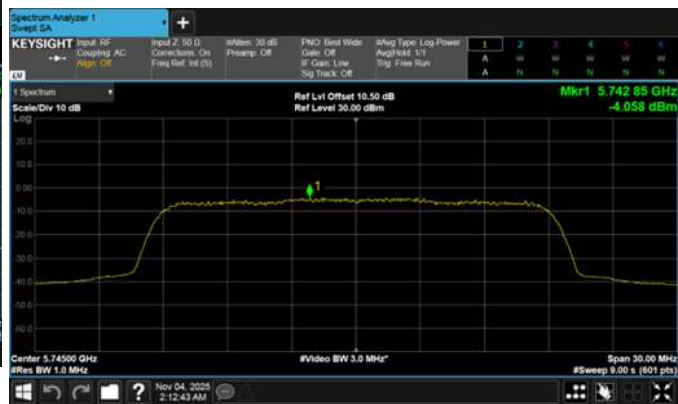
Modulation Type: 802.11a (6Mbps)

CH149



Modulation Type: 802.11ac VHT20 (6.5Mbps)

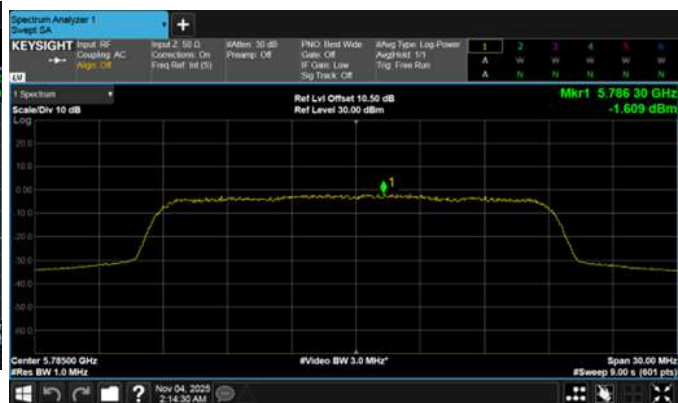
CH149



CH157



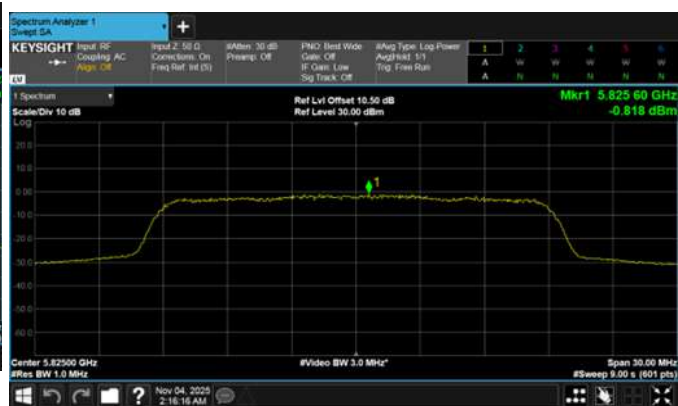
CH157



CH165



CH165





ANT B

Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH151



Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH155



CH159



-----THE END OF REPORT-----