



7. On Time, Duty Cycle and Measurement methods

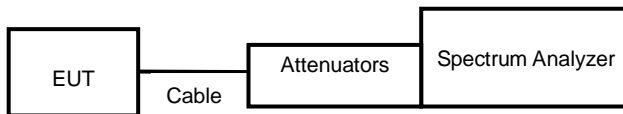
7.1. Test Limit

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	1.39	1.49	93.30%
802.11n HT20	1.31	1.41	92.89%
802.11n HT40	0.65	0.75	86.26%
802.11ac VHT20	1.31	1.41	92.92%
802.11ac VHT40	0.66	0.76	86.75%
802.11ac VHT80	0.32	0.42	76.60%

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 VHT20 (6.5Mbps)



Modulation Type: 802.11n HT20 (6.5Mbps)



Modulation Type: 802.11ac VHT40 (13.5Mbps)



Modulation Type: 802.11n HT40 (13.5Mbps)



Modulation Type: 802.11ac VHT80 (29.3Mbps)





8. 6dB Bandwidth & 99% Occupied Bandwidth

8.1. Test Limit

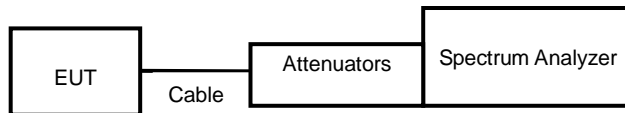
FCC §15.407

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	
11a	149	5745	15.81	0.50
11a	157	5785	15.84	0.50
11a	165	5825	15.81	0.50
11ac VHT20	149	5745	17.25	0.50
11ac VHT20	157	5785	16.89	0.50
11ac VHT20	165	5825	17.31	0.50
11ac VHT40	151	5755	36.06	0.50
11ac VHT40	159	5795	36.06	0.50
11ac VHT80	155	5775	75.12	0.50

In the 5.8G Band

Modulation Type	Channel	Frequency (MHz)	99% Bandwidth(MHz)
			ANT A
11a	149	5745	26.03
11a	157	5785	25.90
11a	165	5825	26.00
11ac VHT20	149	5745	25.57
11ac VHT20	157	5785	25.35
11ac VHT20	165	5825	25.74
11ac VHT40	151	5755	47.16
11ac VHT40	159	5795	49.47
11ac VHT80	155	5775	77.82



UNII Emission Bandwidth Result (Extends across 5725MHz band)

Modulation Type	Data Rate / MCS	Frequency (MHz)	6dB Bandwidth(MHz)	99% Bandwidth(MHz)
			ANT A	ANT A
11a	6 Mbps	5720	2.92	15.77
11n HT20	MCS 0	5720	2.90	17.44
11n HT40	MCS 0	5710	3.26	44.80
11ac VHT20	NSS1-MCS0	5720	3.52	17.10
11ac VHT40	NSS1-MCS0	5710	3.28	45.56
11ac VHT80	NSS1-MCS0	5690	2.94	67.57



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

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



CH157

CH157



CH165

CH165





6dB Bandwidth

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

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



CH159





6dB Bandwidth
Extends across 5725MHz Band, Straddle Channel
Modulation Type: 802.11a (6Mbps)
CH144

802.11ac VHT20 (6.5Mbps)
CH144



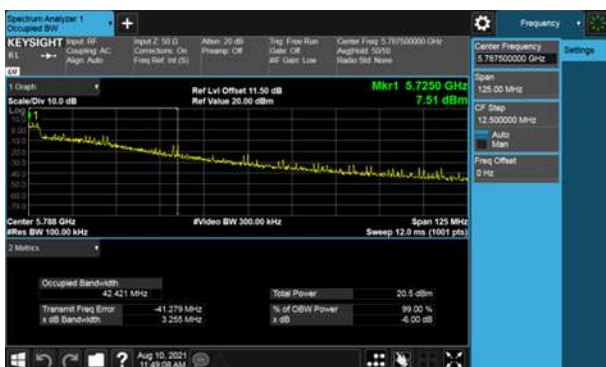
Modulation Type: 802.11n HT20 (6.5Mbps)
CH144

Modulation Type: 802.11ac VHT40 (29.3Mbps)
CH142



Modulation Type: 802.11n HT40 (13.5Mbps)
CH142

Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH138





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

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



CH157

CH157



CH165

CH165





99% Occupied Bandwidth
Modulation Type: 802.11ac, VHT40 (13.5Mbps)
CH151



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



CH159



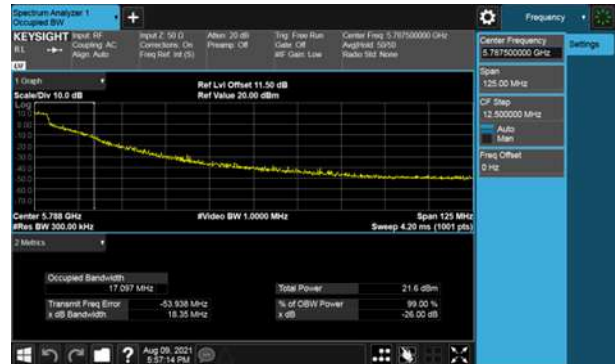
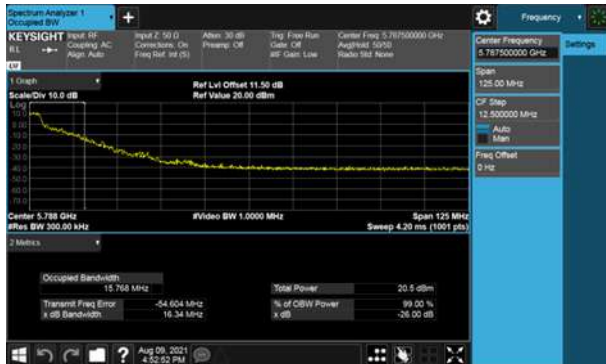


99% Bandwidth

Extends across 5725MHz Band, Straddle Channel

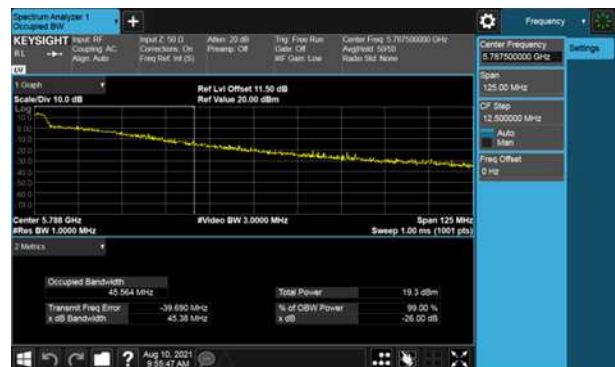
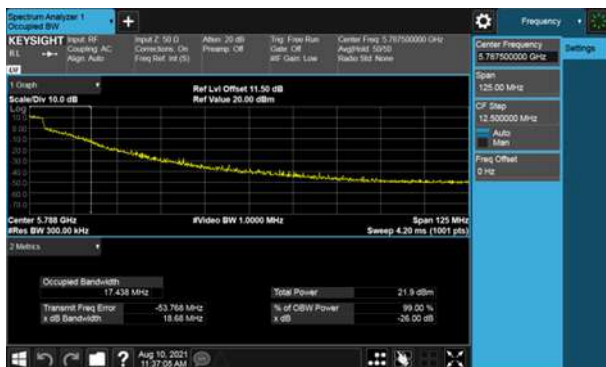
Modulation Type: 802.11a (6Mbps)
CH144

802.11ac VHT20 (6.5Mbps)
CH144



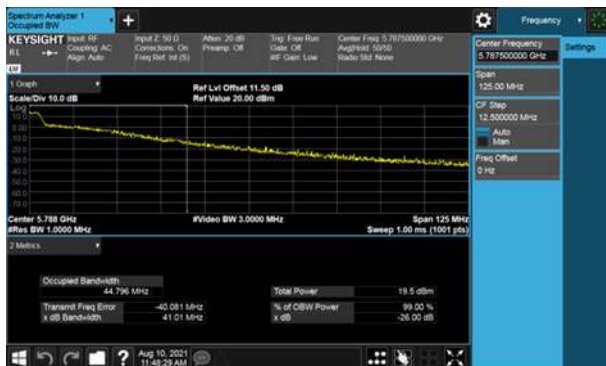
Modulation Type: 802.11n HT20 (6.5Mbps)
CH144

Modulation Type: 802.11ac VHT40 (29.3Mbps)
CH142



Modulation Type: 802.11n HT40 (13.5Mbps)
CH142

Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH138





9. 26dB Bandwidth & 99% Occupied Bandwidth

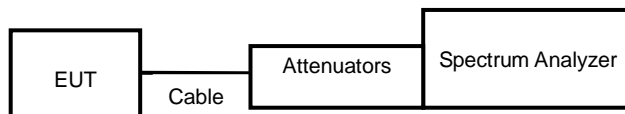
9.1. Test Limit

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 (26dB Bandwidth)

In the 5.2G Band

Mode	Channel	Frequency (MHz)	26dB Bandwidth(MHz)
			ANT A
11a	36	5180	21.59
11a	40	5200	36.03
11a	48	5240	37.09
11ac VHT20	36	5180	22.50
11ac VHT20	40	5200	35.92
11ac VHT20	48	5240	41.23
11ac VHT40	38	5190	43.56
11ac VHT40	46	5230	74.67
11ac VHT80	42	5210	81.79

In the 5.3G Band

Mode	Channel	Frequency (MHz)	26dB Bandwidth(MHz)
			ANT A
11a	52	5260	38.47
11a	60	5300	36.94
11a	64	5320	21.68
11ac VHT20	52	5260	46.03
11ac VHT20	60	5300	38.06
11ac VHT20	64	5320	25.37
11ac VHT40	54	5270	67.31
11ac VHT40	62	5310	42.32
11ac VHT80	58	5290	81.80

In the 5.5G Band

Mode	Channel	Frequency (MHz)	26dB Bandwidth(MHz)
			ANT A
11a	100	5500	21.67
11a	116	5580	40.35
11a	140	5700	21.68
11ac VHT20	100	5500	21.73
11ac VHT20	116	5580	45.69
11ac VHT20	140	5700	24.67
11ac VHT40	102	5510	40.92
11ac VHT40	110	5550	77.32
11ac VHT40	134	5670	66.81
11ac VHT80	106	5530	82.06
11ac VHT80	122	5610	125.00



UNII Emission Bandwidth Result (Within 5470-5725MHz band)			
Modulation Type	Data Rate / MCS	Frequency (MHz)	26dB Bandwidth(MHz)
			ANT A
11a	6 Mbps	5720	25.61
11n HT20	MCS 0	5720	27.29
11n HT40	MCS 0	5710	63.21
11ac VHT20	NSS1-MCS0	5720	26.71
11ac VHT40	NSS1-MCS0	5710	63.43
11ac VHT80	NSS1-MCS0	5690	113.90



In the 5.2G Band

Modulation Type	Channel	Frequency (MHz)	99% Bandwidth(MHz)
			ANT A
11a	36	5180	16.95
11a	40	5200	19.64
11a	48	5240	19.78
11ac VHT20	36	5180	18.06
11ac VHT20	40	5200	18.83
11ac VHT20	48	5240	19.63
11ac VHT40	38	5190	36.61
11ac VHT40	46	5230	37.13
11ac VHT80	42	5210	75.46

In the 5.3G Band

Modulation Type	Channel	Frequency (MHz)	99% Bandwidth(MHz)
			ANT A
11a	52	5260	21.92
11a	60	5300	19.86
11a	64	5320	16.99
11ac VHT20	52	5260	22.26
11ac VHT20	60	5300	18.86
11ac VHT20	64	5320	18.07
11ac VHT40	54	5270	37.00
11ac VHT40	62	5310	36.51
11ac VHT80	58	5290	75.49

In the 5.5G Band

Modulation Type	Channel	Frequency (MHz)	99% Bandwidth(MHz)
			ANT A
11a	100	5500	16.91
11a	116	5580	22.70
11a	140	5700	16.96
11ac VHT20	100	5500	18.00
11ac VHT20	116	5580	22.98
11ac VHT20	140	5700	18.08
11ac VHT40	102	5510	36.52
11ac VHT40	110	5550	37.27
11ac VHT40	134	5670	36.96
11ac VHT80	106	5530	75.46
11ac VHT80	122	5610	76.08



UNII Emission Bandwidth Result (Within 5470-5725MHz band)			
Modulation Type	Data Rate / MCS	Frequency (MHz)	99% Bandwidth(MHz)
			ANT A
11a	6 Mbps	5720	19.01
11n HT20	MCS 0	5720	19.96
11n HT40	MCS 0	5710	47.51
11ac VHT20	NSS1-MCS0	5720	20.24
11ac VHT40	NSS1-MCS0	5710	49.01
11ac VHT80	NSS1-MCS0	5690	74.96



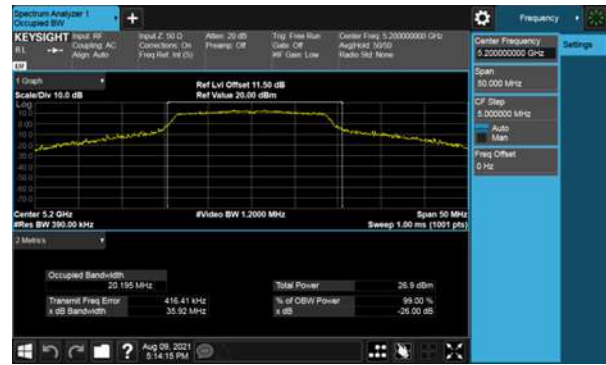
26dB Bandwidth Band 1
Modulation Type: 802.11a (6Mbps)
CH36

802.11ac VHT20 (6.5Mbps)
CH36



CH40

CH40



CH48

CH48





26dB Bandwidth Band 1

Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH38

Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH42



CH46





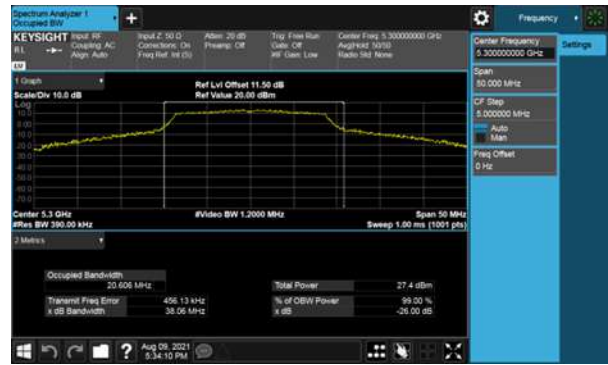
26dB Bandwidth Band 2
Modulation Type: 802.11a (6Mbps)
CH52

802.11ac VHT20 (6.5Mbps)
CH52



CH60

CH60



CH64

CH64





26dB Bandwidth Band 2

Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH54

Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH58



CH62





26dB Bandwidth Band 3
Modulation Type: 802.11a (6Mbps)
CH100

802.11ac VHT20 (6.5Mbps)
CH100



CH116

CH116



CH140

CH140





26dB Bandwidth Band 3

Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH102

Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH105



CH110



CH122



CH134



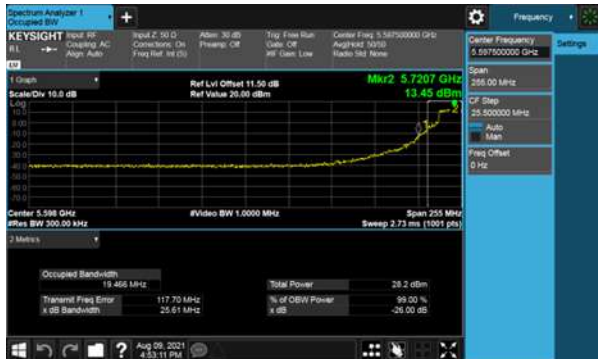


26dB Bandwidth

Within 5470-5725MHz Band, Straddle Channel

Modulation Type: 802.11a (6Mbps)
CH144

802.11ac VHT20 (6.5Mbps)
CH144



Modulation Type: 802.11n HT20 (6.5Mbps)
CH144

Modulation Type: 802.11ac VHT40 (29.3Mbps)
CH142



Modulation Type: 802.11n HT40 (13.5Mbps)
CH142

Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH138





99% Bandwidth Band 1
Modulation Type: 802.11a (6Mbps)
CH36

802.11ac VHT20 (6.5Mbps)
CH36



CH40

CH40



CH48

CH48





99% Bandwidth Band 1

Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH38

Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH42



CH46





99% Bandwidth Band 2
Modulation Type: 802.11a (6Mbps)
CH52

802.11ac VHT20 (6.5Mbps)
CH52



CH60

CH60



CH64

CH64





99% Bandwidth Band 2

Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH54

Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH58



CH62





99% Bandwidth Band 3
Modulation Type: 802.11a (6Mbps)
CH100

802.11ac VHT20 (6.5Mbps)
CH100



CH116

CH116



CH140

CH140





99% Bandwidth Band 3

Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH102

Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH102



CH110



CH122



CH134



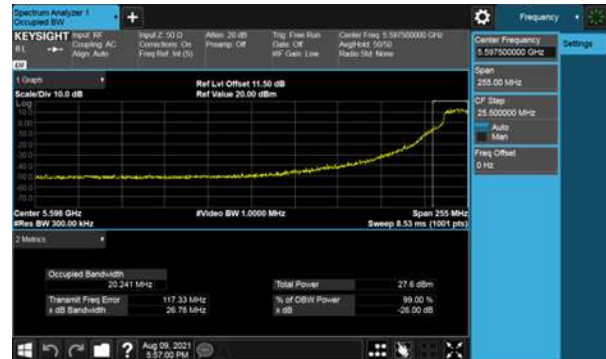
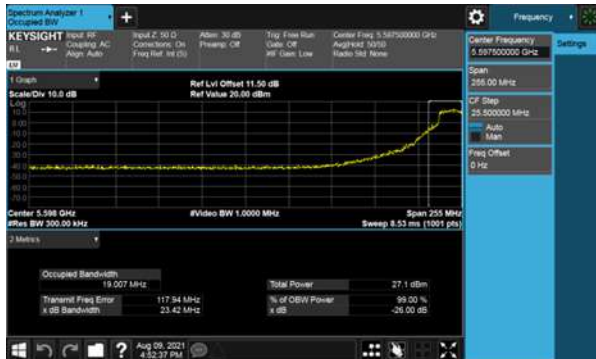


99% Bandwidth

Within 5470-5725MHz Band, Straddle Channel

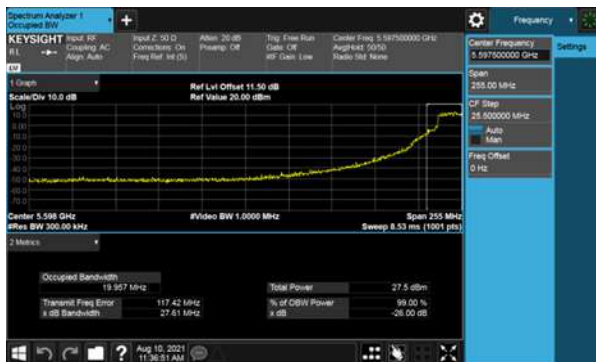
Modulation Type: 802.11a (6Mbps)
CH144

802.11ac VHT20 (6.5Mbps)
CH144



Modulation Type: 802.11n HT20 (6.5Mbps)
CH144

Modulation Type: 802.11ac VHT40 (29.3Mbps)
CH142



Modulation Type: 802.11n HT40 (13.5Mbps)
CH142

Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH138





10. Average Power

10.1. Test Limit

Output Power:

Frequency Band	Limit	
<input checked="" type="checkbox"/> 5.15~5.25GHz		
Operating Mode		
<input type="checkbox"/>	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).
<input type="checkbox"/>	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.
<input type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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.



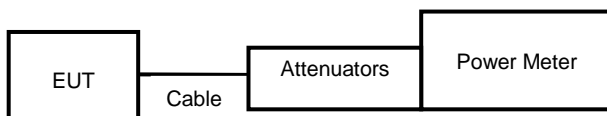
Frequency Band	Limit
<input checked="" type="checkbox"/> 5.25-5.35 GHz	The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (24dBm) or 11 dBm 10 log B, where B is the 26 dB emission bandwidth in megahertz. If transmitting antennas of directional 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.
<input checked="" type="checkbox"/> 5.470-5.725 GHz	
<input checked="" type="checkbox"/> 5.725~5.85 GHz	

10.2. Test Procedure

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**

Modulation Type	Data Rate	Setting	Channel	Frequency (MHz)	Measured value of each antenna port (dBm)	Total power (dBm)	Total power (mW)	FCC Limit (dBm)
					ANT A			
11a	6 Mbps	64	36	5180	16.36	16.36	43.251	24.00
11a	6 Mbps	78	40	5200	19.87	19.87	97.051	24.00
11a	6 Mbps	78	48	5240	19.34	19.34	85.901	24.00
11n HT20	MCS 0	62	36	5180	15.59	15.59	36.224	24.00
11n HT20	MCS 0	76	40	5200	18.97	18.97	78.886	24.00
11n HT20	MCS 0	78	48	5240	19.19	19.19	82.985	24.00
11n HT40	MCS 0	54	38	5190	13.72	13.72	23.550	24.00
11n HT40	MCS 0	72	46	5230	18.39	18.39	69.024	24.00
11ac VHT20	NSS1-MCS0	62	36	5180	15.59	15.59	36.224	24.00
11ac VHT20	NSS1-MCS0	76	40	5200	18.97	18.97	78.886	24.00
11ac VHT20	NSS1-MCS0	78	48	5240	19.19	19.19	82.985	24.00
11ac VHT40	NSS1-MCS0	54	38	5190	13.72	13.72	23.550	24.00
11ac VHT40	NSS1-MCS0	72	46	5230	18.39	18.39	69.024	24.00
11ac VHT80	NSS1-MCS0	40	42	5210	10.15	10.15	10.351	24.00



Modulation Type	Data Rate	Setting	Channel	Frequency (MHz)	Measured value of each antenna port (dBm)	Total power (dBm)	Total power (mW)	FCC Limit (dBm)
					ANT A			
11a	6 Mbps	81	52	5260	20.18	20.18	104.232	24.00
11a	6 Mbps	78	60	5300	19.96	19.96	99.083	24.00
11a	6 Mbps	64	64	5320	16.51	16.51	44.771	24.00
11n HT20	MCS 0	82	52	5260	20.45	20.45	110.917	24.00
11n HT20	MCS 0	76	60	5300	19.33	19.33	85.704	24.00
11n HT20	MCS 0	62	64	5320	15.74	15.74	37.497	24.00
11n HT40	MCS 0	69	54	5270	17.78	17.78	59.979	24.00
11n HT40	MCS 0	50	62	5310	12.88	12.88	19.409	24.00
11ac VHT20	NSS1-MCS0	82	52	5260	20.49	20.49	111.944	24.00
11ac VHT20	NSS1-MCS0	76	60	5300	19.36	19.36	86.298	24.00
11ac VHT20	NSS1-MCS0	62	64	5320	15.76	15.76	37.670	24.00
11ac VHT40	NSS1-MCS0	69	54	5270	17.82	17.82	60.534	24.00
11ac VHT40	NSS1-MCS0	50	62	5310	12.93	12.93	19.634	24.00
11ac VHT80	NSS1-MCS0	40	58	5290	10.33	10.33	10.789	24.00



Modulation Type	Data Rate	Setting	Channel	Frequency (MHz)	Measured value of each antenna port (dBm)	Total power (dBm)	Total power (mW)	FCC Limit (dBm)
					ANT A			
11a	6 Mbps	54	100	5500	13.64	13.64	23.121	24.00
11a	6 Mbps	82	116	5580	20.38	20.38	109.144	24.00
11a	6 Mbps	62	140	5700	15.16	15.16	32.810	24.00
11n HT20	MCS 0	58	100	5500	14.22	14.22	26.424	24.00
11n HT20	MCS 0	83	116	5580	20.63	20.63	115.611	24.00
11n HT20	MCS 0	64	140	5700	15.18	15.18	32.961	24.00
11n HT40	MCS 0	54	102	5510	13.26	13.26	21.184	24.00
11n HT40	MCS 0	72	110	5550	18.18	18.18	65.766	24.00
11n HT40	MCS 0	70	134	5670	17.47	17.47	55.847	24.00
11ac VHT20	NSS1-MCS0	58	100	5500	14.26	14.26	26.669	24.00
11ac VHT20	NSS1-MCS0	83	116	5580	20.67	20.67	116.681	24.00
11ac VHT20	NSS1-MCS0	64	140	5700	15.22	15.22	33.266	24.00
11ac VHT40	NSS1-MCS0	54	102	5510	13.31	13.31	21.429	24.00
11ac VHT40	NSS1-MCS0	72	110	5550	18.22	18.22	66.374	24.00
11ac VHT40	NSS1-MCS0	70	134	5670	17.51	17.51	56.364	24.00
11ac VHT80	NSS1-MCS0	50	106	5530	12.10	12.10	16.218	24.00
11ac VHT80	NSS1-MCS0	72	122	5610	17.82	17.82	60.534	24.00



FCC Maximum Conducted Output Power (Within 5470-5725MHz band) RF Output Power(dBm)									
Setting	Modulation Type	Data Rate	Frequency (MHz)	W/O Duty Factor Measured value of each antenna port (dBm)	W/O duty factor Total power (dBm)	Duty Factor (dB)	With duty factor Total power (mW)	With duty factor Total power (dBm)	FCC Limit (dBm)
				ANT A					
83	11a	6M	5720	20.24	20.24	0.30	113.240	20.54	24.00
84	11n HT20	MCS0	5720	20.55	20.55	0.32	122.180	20.87	24.00
80	11n HT40	MCS0	5710	20.92	20.92	0.64	143.219	21.56	24.00
84	11ac VHT20	NSS1-MCS0	5720	20.56	20.56	0.32	122.462	20.88	24.00
80	11ac VHT40	NSS1-MCS0	5710	21.21	21.21	0.62	152.405	21.83	24.00
79	11ac VHT80	NSS1-MCS0	5690	19.13	19.13	1.16	106.905	20.29	24.00

FCC Maximum Conducted Output Power (Extends across 5725MHz band) RF Output Power(dBm)									
Setting	Modulation Type	Data Rate	Frequency (MHz)	W/O Duty Factor Measured value of each antenna port (dBm)	W/O duty factor Total power (dBm)	Duty Factor (dB)	With duty factor Total power (mW)	With duty factor Total power (dBm)	FCC Limit (dBm)
				ANT A					
83	11a	6M	5720	12.94	12.94	0.30	21.086	13.24	30.00
84	11n HT20	MCS0	5720	13.81	13.81	0.32	25.882	14.13	30.00
80	11n HT40	MCS0	5710	10.48	10.48	0.64	12.942	11.12	30.00
84	11ac VHT20	NSS1-MCS0	5720	13.79	13.79	0.32	25.763	14.11	30.00
80	11ac VHT40	NSS1-MCS0	5710	10.49	10.49	0.62	12.912	11.11	30.00
79	11ac VHT80	NSS1-MCS0	5690	4.61	4.61	1.16	3.776	5.77	30.00

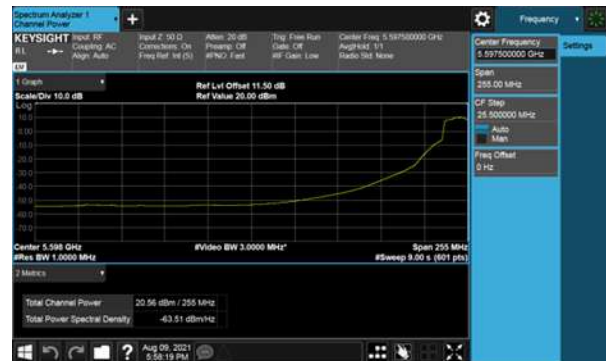
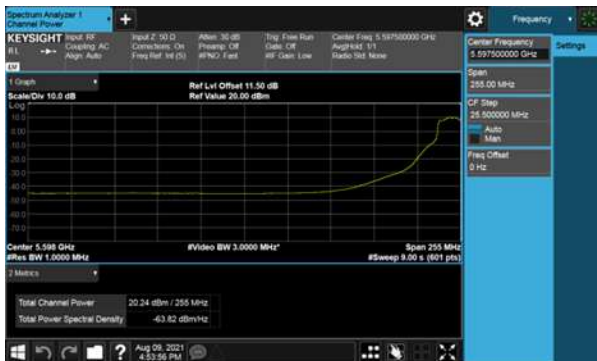


Modulation Type	Data Rate	Setting	Channel	Frequency (MHz)	Measured value of each antenna port (dBm)	Total power (dBm)	Total power (mW)	FCC Limit (dBm)
					ANT A			
11a	6 Mbps	85	149	5745	21.90	21.90	154.882	30.00
11a	6 Mbps	85	157	5785	21.64	21.64	145.881	30.00
11a	6 Mbps	85	165	5825	21.64	21.64	145.881	30.00
11n HT20	MCS 0	85	149	5745	21.85	21.85	153.109	30.00
11n HT20	MCS 0	85	157	5785	21.68	21.68	147.231	30.00
11n HT20	MCS 0	85	165	5825	21.59	21.59	144.212	30.00
11n HT40	MCS 0	80	151	5755	21.70	21.70	147.911	30.00
11n HT40	MCS 0	80	159	5795	21.43	21.43	138.995	30.00
11ac VHT20	NSS1-MCS0	85	149	5745	21.89	21.89	154.525	30.00
11ac VHT20	NSS1-MCS0	85	157	5785	21.73	21.73	148.936	30.00
11ac VHT20	NSS1-MCS0	85	165	5825	21.63	21.63	145.546	30.00
11ac VHT40	NSS1-MCS0	80	151	5755	21.75	21.75	149.624	30.00
11ac VHT40	NSS1-MCS0	80	159	5795	21.47	21.47	140.281	30.00
11ac VHT80	NSS1-MCS0	78	155	5775	19.32	19.32	85.507	30.00



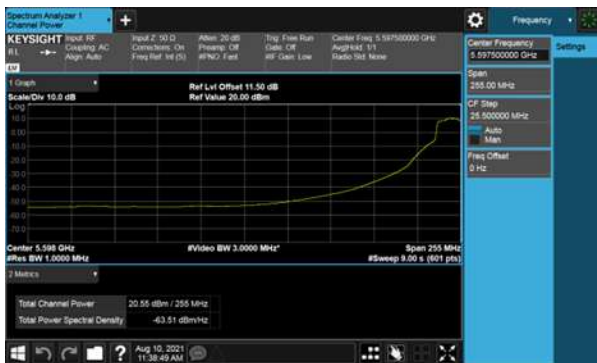
Within 5470-5725MHz Band, Straddle Channel
Modulation Type: 802.11a (6Mbps)
CH144

802.11ac VHT20 (6.5Mbps)
CH144



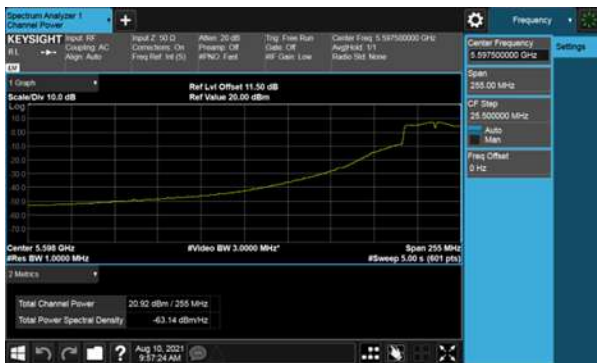
Modulation Type: 802.11n HT20 (6.5Mbps)
CH144

802.11ac VHT40 (13.5Mbps)
CH142



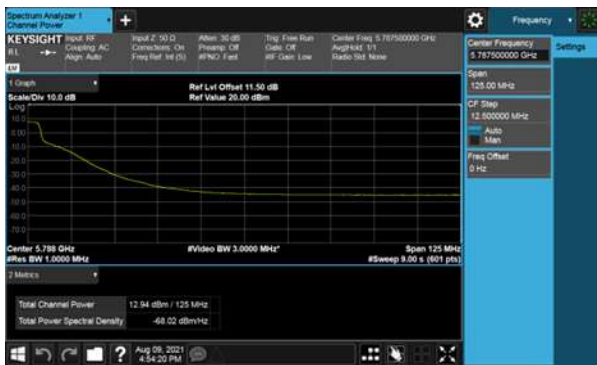
Modulation Type: 802.11n HT40 (13.5Mbps)
CH142

Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH138

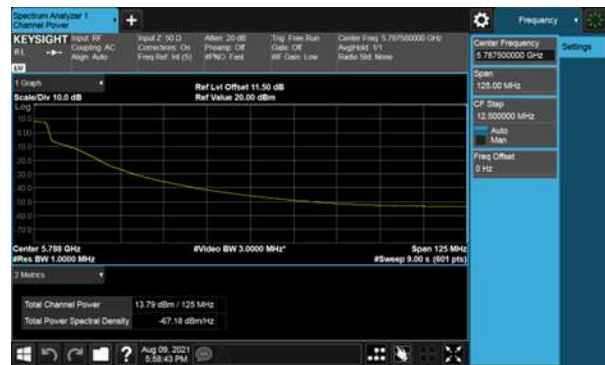




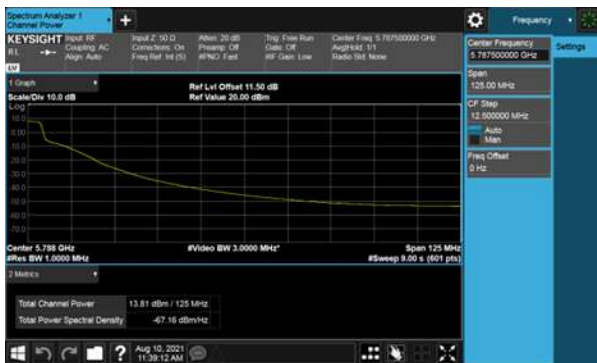
Extends across 5725MHz band, Straddle Channel
Modulation Type: 802.11a (6Mbps)
CH144



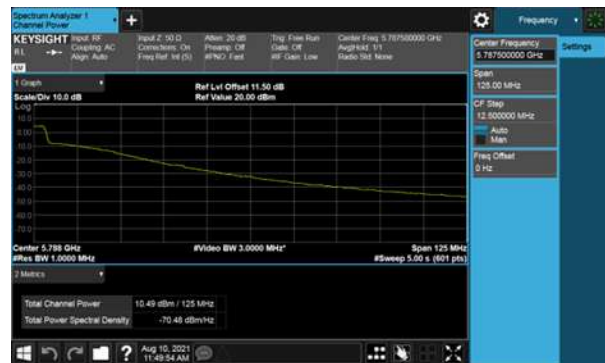
802.11ac VHT20 (6.5Mbps)
CH144



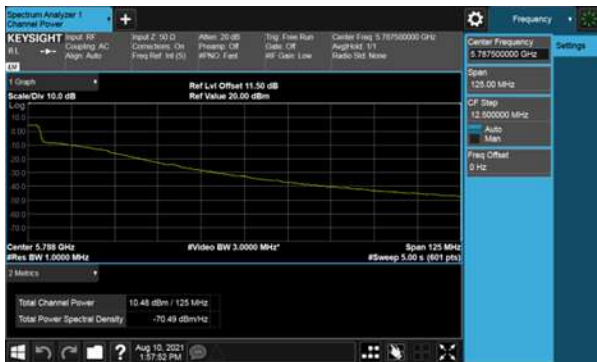
Modulation Type: 802.11n HT20 (6.5Mbps)
CH144



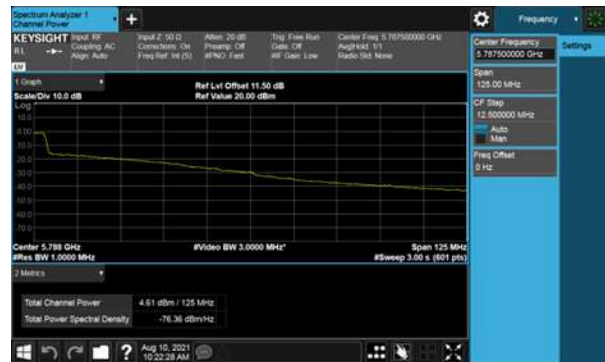
802.11ac VHT40 (13.5Mbps)
CH142



Modulation Type: 802.11n HT40 (13.5Mbps)
CH142



Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH138





11. Power Spectral Density

11.1. Test Limit

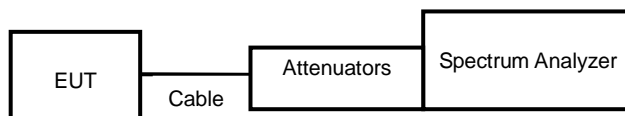
PSD:

Frequency Band		Limit
<input checked="" type="checkbox"/>	5.15~5.25GHz	
	Operating Mode	
<input type="checkbox"/>	Outdoor access point	17 dBm/MHz
<input type="checkbox"/>	Indoor access point	17 dBm/MHz
<input type="checkbox"/>	Fixed point-to-point access points	17 dBm/MHz
<input checked="" type="checkbox"/>	Mobile and portable client devices	11 dBm/MHz
<input checked="" type="checkbox"/>	5.725~5.85 GHz	11 dBm/MHz
<input checked="" type="checkbox"/>	5.470-5.725 GHz	11 dBm/MHz
<input checked="" type="checkbox"/>	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

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				
11a	36	5180	6.04	6.04	0.30	6.34	11.00
11a	40	5200	9.65	9.65	0.30	9.95	11.00
11a	48	5240	8.40	8.40	0.30	8.70	11.00
11ac VHT20	36	5180	5.07	5.07	0.32	5.39	11.00
11ac VHT20	40	5200	8.70	8.70	0.32	9.02	11.00
11ac VHT20	48	5240	8.02	8.02	0.32	8.34	11.00
11ac VHT40	38	5190	-0.11	-0.11	0.62	0.51	11.00
11ac VHT40	46	5230	4.48	4.48	0.62	5.10	11.00
11ac VHT80	42	5210	-6.96	-6.96	1.16	-5.80	11.00

In the 5.3G 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				
11a	52	5260	10.53	10.53	0.30	10.83	11.00
11a	60	5300	9.76	9.76	0.30	10.06	11.00
11a	64	5320	6.36	6.36	0.30	6.66	11.00
11ac VHT20	52	5260	10.38	10.38	0.32	10.70	11.00
11ac VHT20	60	5300	8.79	8.79	0.32	9.11	11.00
11ac VHT20	64	5320	5.06	5.06	0.32	5.38	11.00
11ac VHT40	54	5270	3.74	3.74	0.62	4.36	11.00
11ac VHT40	62	5310	-1.20	-1.20	0.62	-0.58	11.00
11ac VHT80	58	5290	-6.94	-6.94	1.16	-5.78	11.00



In the 5.5G Band

Modulation Type	Channel (MHz)	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				
11a	100	5500	3.69	3.69	0.30	3.99	11.00
11a	116	5580	10.48	10.48	0.30	10.78	11.00
11a	140	5700	5.07	5.07	0.30	5.37	11.00
11a	144	5720	10.45	10.45	0.30	10.75	11.00
11ac VHT20	100	5500	2.88	2.88	0.32	3.20	11.00
11ac VHT20	116	5580	10.47	10.47	0.32	10.79	11.00
11ac VHT20	140	5700	4.85	4.85	0.32	5.17	11.00
11ac VHT20	144	5720	10.57	10.57	0.32	10.89	11.00
11ac VHT40	102	5510	-0.90	-0.90	0.62	-0.28	11.00
11ac VHT40	110	5550	4.22	4.22	0.62	4.84	11.00
11ac VHT40	134	5670	3.32	3.32	0.62	3.94	11.00
11ac VHT40	142	5710	7.45	7.45	0.62	8.07	11.00
11ac VHT80	106	5530	-5.24	-5.24	1.16	-4.08	11.00
11ac VHT80	122	5610	0.54	0.54	1.16	1.70	11.00
11ac VHT80	138	5690	2.76	2.76	1.16	3.92	11.00

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					
11a	149	5745	11.24	11.24	0.30	-3.01	8.53	30.00
11a	157	5785	10.89	10.89	0.30	-3.01	8.18	30.00
11a	165	5825	10.86	10.86	0.30	-3.01	8.15	30.00
11ac VHT20	149	5745	10.96	10.96	0.32	-3.01	8.27	30.00
11ac VHT20	157	5785	10.61	10.61	0.32	-3.01	7.92	30.00
11ac VHT20	165	5825	10.62	10.62	0.32	-3.01	7.93	30.00
11ac VHT40	151	5755	6.73	6.73	0.62	-3.01	4.34	30.00
11ac VHT40	159	5795	7.03	7.03	0.62	-3.01	4.64	30.00
11ac VHT80	155	5775	1.78	1.78	1.16	-3.01	-0.07	30.00



Modulation Type: 802.11a (6Mbps)
CH36

Modulation Type: 802.11ac VHT20 (6.5Mbps)
CH36



CH40

CH40



CH48

CH48





Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH38

Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH42



CH46





Modulation Type: 802.11a (6Mbps)
CH52



802.11ac VHT20 (6.5Mbps)
CH52



CH60



CH60



CH64



CH64





Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH54



Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH58



CH62





Modulation Type: 802.11a (6Mbps)
CH100



802.11ac VHT20 (6.5Mbps)
CH100



CH116



CH116



CH140



CH140





Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH102

Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH106



CH110

CH122



CH134





Straddle Channel
Modulation Type: 802.11a (6Mbps)
CH144



Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH138



Modulation Type: 802.11ac VHT20 (6.5Mbps)
CH144



Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH142





Modulation Type: 802.11a (6Mbps)
CH149



Modulation Type: 802.11ac VHT20 (6.5Mbps)
CH149



CH157



CH157



CH165



CH165





Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH151

Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH155



CH159

