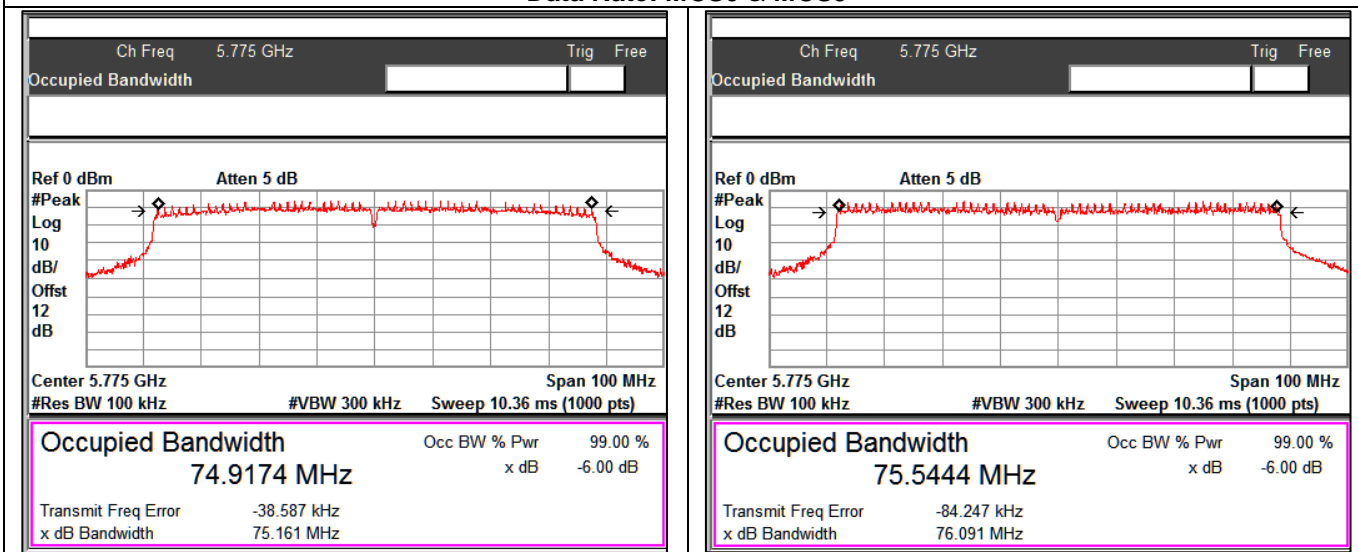


Modulation: 802.11ac-VHT80MHz: UNII 3

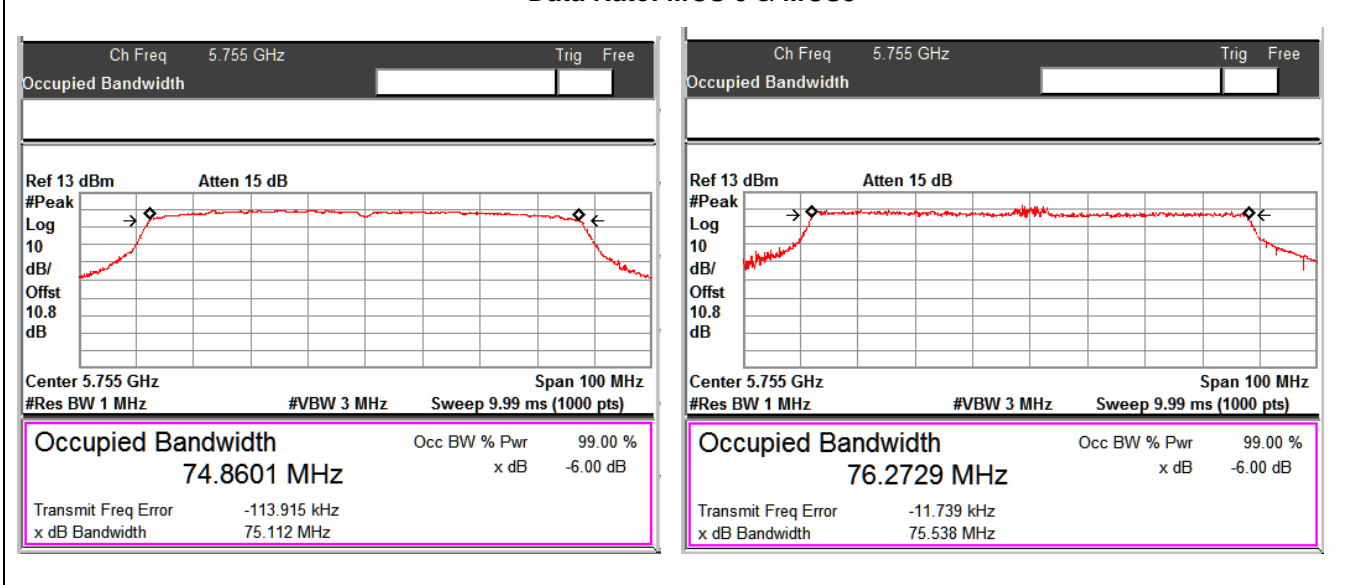
Data rate (Mbps)	Measured Frequency (MHz)	6 dB emission bandwidth (MHz)	Minimum Limit (MHz)
MCS0	5755	75.16	0.5
MCS9	5755	76.09	0.5

Data Rate: MCS0 & MCS9



Data rate (Mbps)	Measured Frequency (MHz)	99% Occupied Bandwidth (MHz)
MCS0	5755	74.86
MCS9	5755	76.27

Data Rate: MCS 0 & MCS9



7.2 Maximum Conducted Output Power

Result

Pass

Test Specification

FCC part 15 Subpart C 15.407 (a) / RSS 247 Issue 2
Section 6.2.1; 6.2.2; 6.2.3; & Section 6.2.4

Test Method

Subclause 12.3.2.4 of ANSI C63.10

Measurement Bandwidth

Refer the remarks below

Detector

Average sample detector mode

Port of testing

Antenna port

Requirement for FCC

1. For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW

2. For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz

3. For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W

Requirement for IC

1. For the band 5.15-5.25 GHz, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log₁₀ (B), dBm, whichever power is less. B is the 99% emission bandwidth in megahertz

2a. For the band 5.250 -5.350 GHz, the maximum conducted output power shall not exceed 250 mW or 11 + 10 log₁₀B, dBm, whichever is less

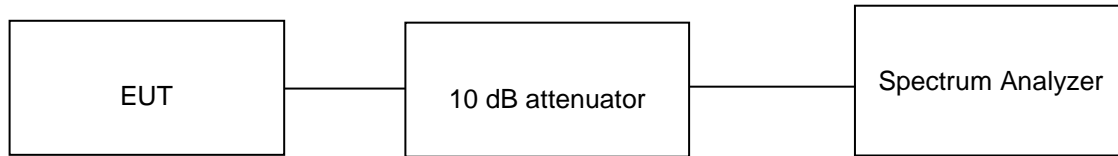
2b. For the band 5.250 -5.350 GHz, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log₁₀B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz

3a. For the band 5.470-5.725GHz, The maximum conducted output power shall not exceed 250 mW or 11 + 10 log₁₀B, dBm, whichever is less

3b. For the band 5.470-5.725GHz, The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log₁₀B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz

4. For the band 5.725-5.85 GHz, The maximum conducted output power shall not exceed 1 W

Test Method



The following procedure shall be used (trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction):

1. Set center frequency to the nominal EUT channel center frequency
2. Set span to encompass the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
3. Set RBW = 1MHz
4. Set VBW $\geq 3 \times$ RBW
5. Number of points in sweep $\geq 2 \times$ span / RBW. (This ensures that bin-to-bin spacing is \leq RBW/2, so that narrowband signals are not lost between frequency bins.)
6. Sweep time = auto
7. Detector = power averaging (rms), if available. Otherwise, use sample detector mode
8. Do not use sweep triggering. Allow the sweep to “free run.”
9. Trace average at least 100 traces and Compute power by integrating the spectrum across the EBW
10. Add $10 \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission)

Test Condition:

Normal Test Condition:

Temperature (Norm) = + 25 °C Voltage = 3.3VDC Relative humidity: 62 %

KDB Guidelines applied:

Measurements were made as per section E (2) sub-section (d) in KDB 789033 D02 General UNII Test Procedures New Rules v02r01

Test results:

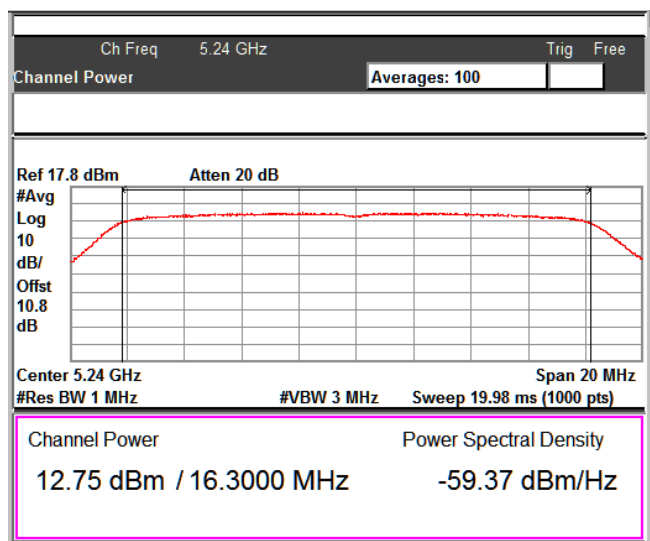
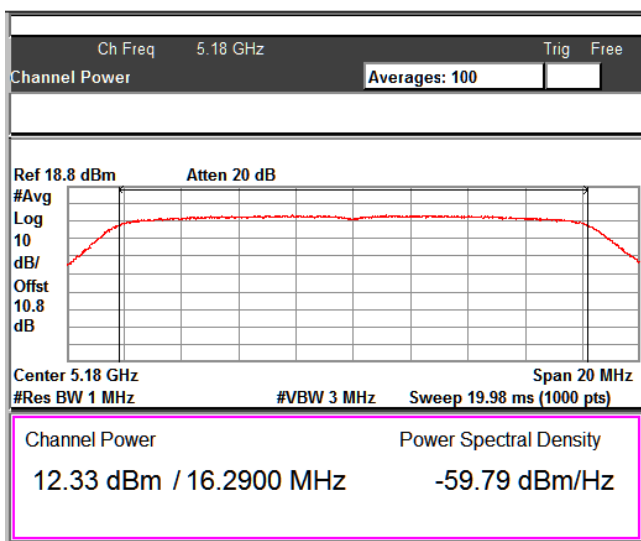
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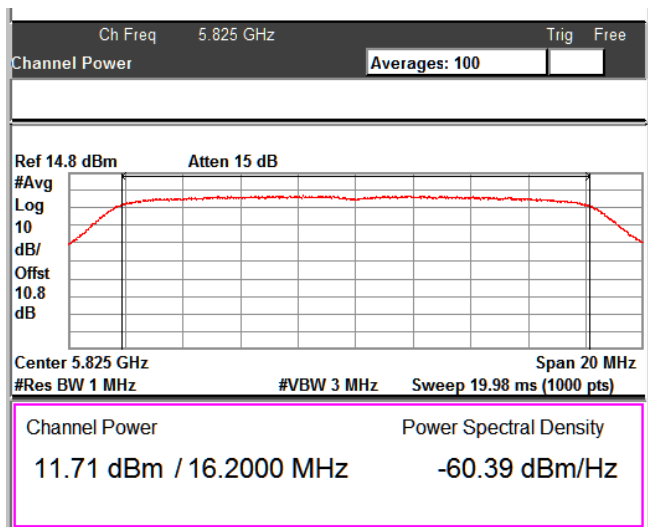
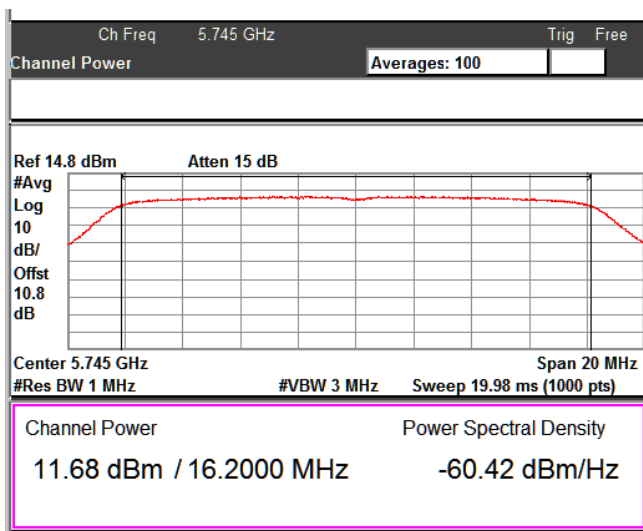
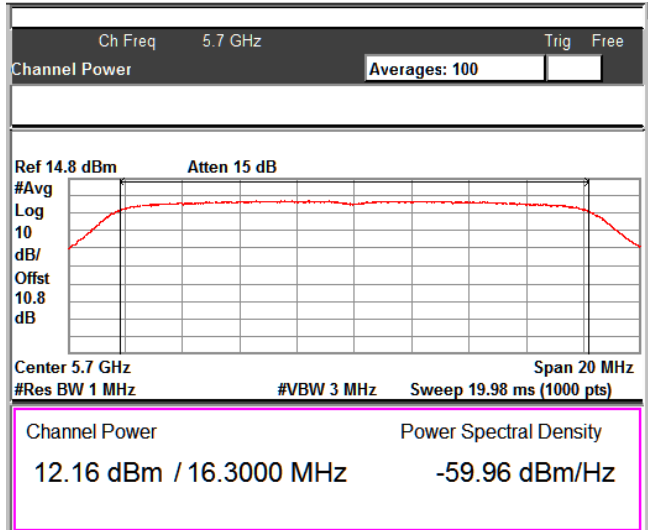
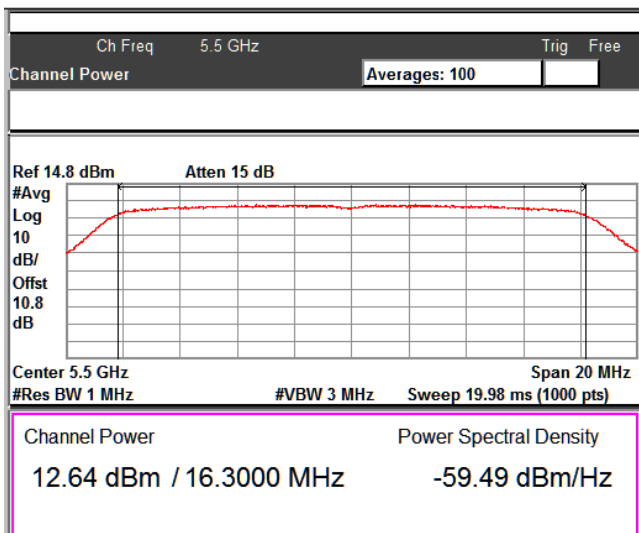
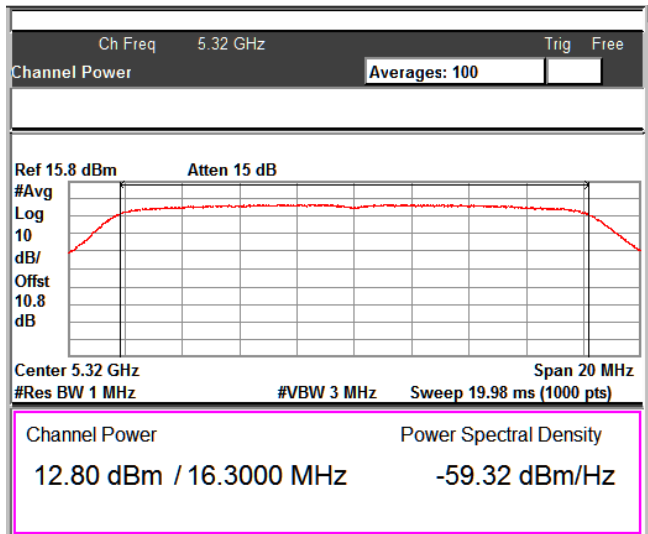
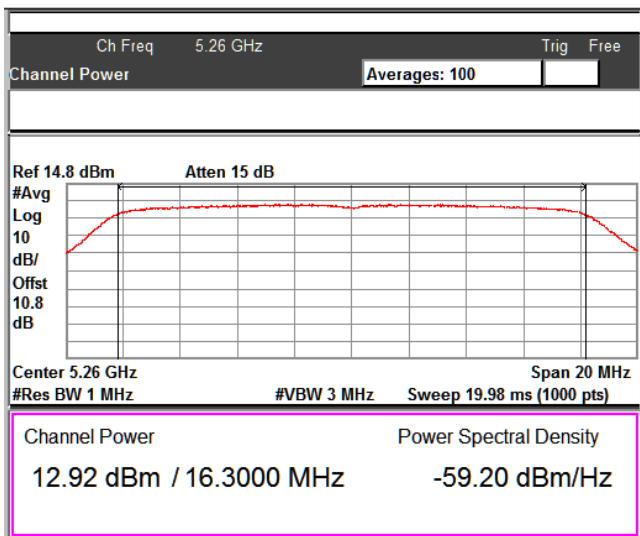
1. All the losses are included during measurement and final values are mentioned in the test report
10 dB attenuator + 0.8 dB Cable loss = 10.8 dB total offset
2. Duty cycle correction factor is considered in Final Average power
Duty cycle Correction factor = $10 \cdot \text{LOG}(1/X)$ Where X is Duty Cycle
3. This product do not support additional beamforming gain / directional gain, it uses signal antenna and hence directional gain of the single antenna is (3.10 dBi)
4. e.i.r.p = Maximum Average output power (dBm) + Antenna gain in dBi

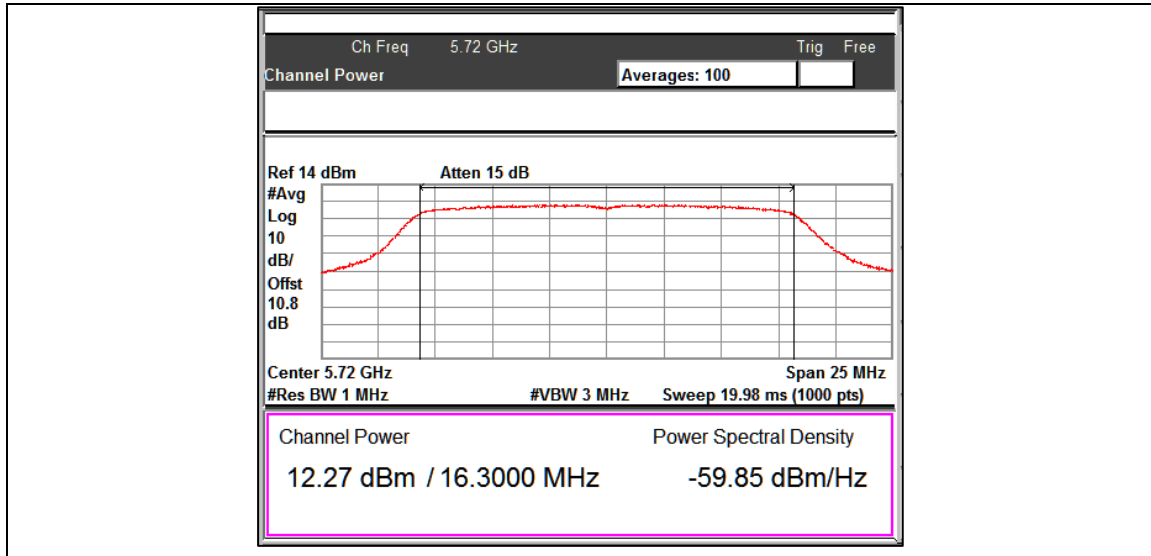
Modulation: 802.11a

Data rate (Mbps)	Measured Frequency (MHz)	Measured Average Power (dBm)	Duty Cycle X %	Duty cycle correction factor (dB)	Maximum Average output power (dBm)	e.i.r.p (dBm)	FCC Power Limit (dBm)	IC power Limit (dBm)	IC e.i.r.p Limit (dBm)
a_mode-6Mbps	5180	12.33	95.00	0.22	12.55	15.65	24.00	-	22.11
	5240	12.75	95.00	0.22	12.97	16.07	24.00	-	22.11
	5260	12.92	95.00	0.22	13.14	16.24	24.00	23.12	29.12
	5320	12.80	95.00	0.22	13.02	16.12	24.00	23.12	29.12
	5500	12.64	95.00	0.22	12.86	15.96	24.00	23.12	29.12
	5700	12.16	95.00	0.22	12.38	15.48	24.00	23.12	29.12
	5720	12.27	95.00	0.22	12.49	15.59	24.00	23.12	29.12
	5745	11.68	95.00	0.22	11.90	15.00	30.00	30.00	-
	5825	11.71	95.00	0.22	11.93	15.03	30.00	30.00	-
a_mode-54Mbps	5180	11.61	57.00	2.44	14.05	17.15	24.00	-	22.50
	5240	11.50	57.00	2.44	13.94	17.04	24.00	-	22.50
	5260	11.22	57.00	2.44	13.66	16.76	24.00	23.25	29.25
	5320	11.99	57.00	2.44	14.43	17.53	24.00	23.25	29.25
	5500	11.43	57.00	2.44	13.87	16.97	24.00	23.25	29.25
	5700	11.50	57.00	2.44	13.94	17.04	24.00	23.25	29.25
	5720	10.90	57.00	2.44	13.34	16.44	24.00	23.25	29.25
	5745	10.36	57.00	2.44	12.80	15.90	30.00	30.00	-
	5825	10.41	57.00	2.44	12.85	15.95	30.00	30.00	-

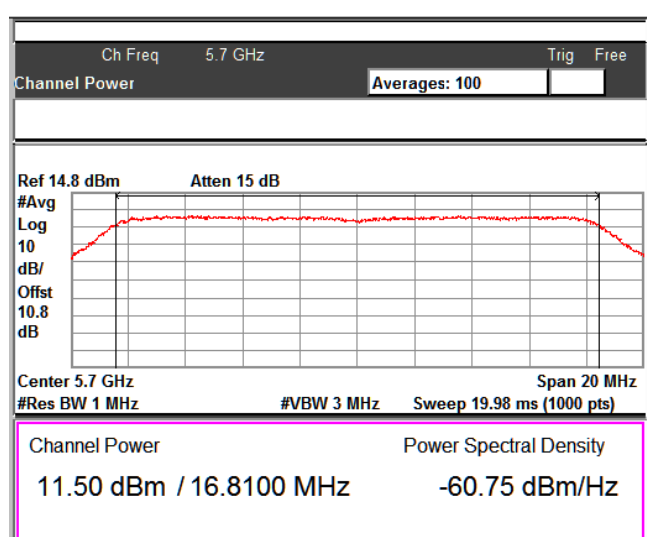
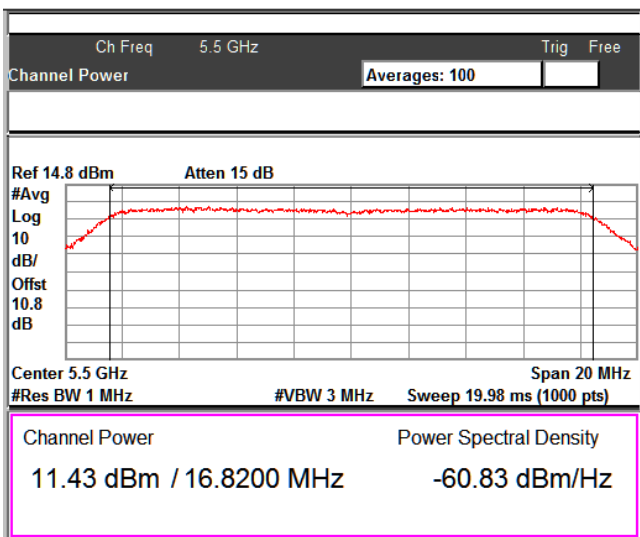
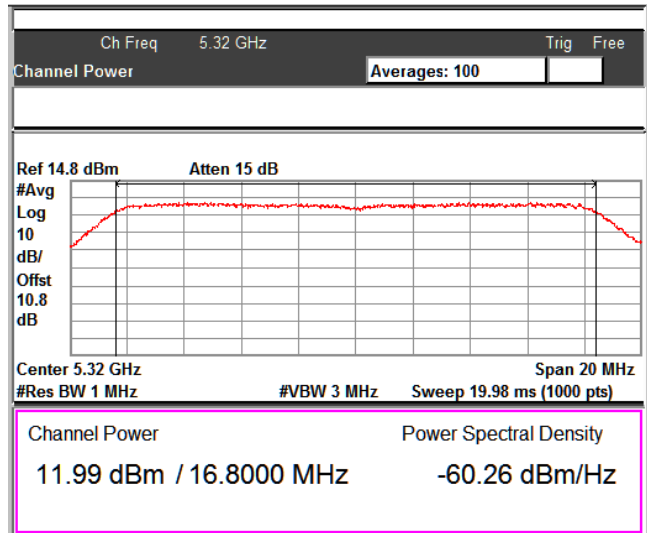
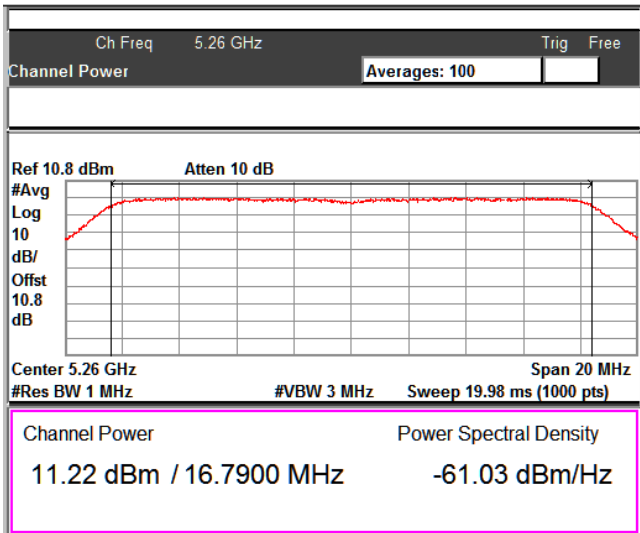
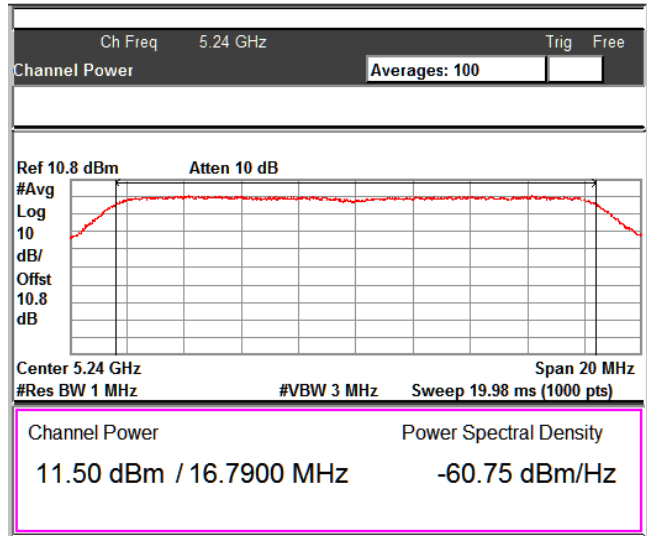
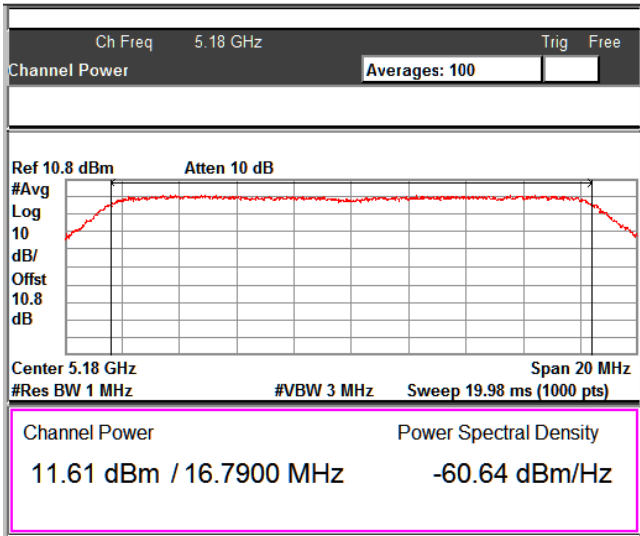
Data Rate : 6Mbps

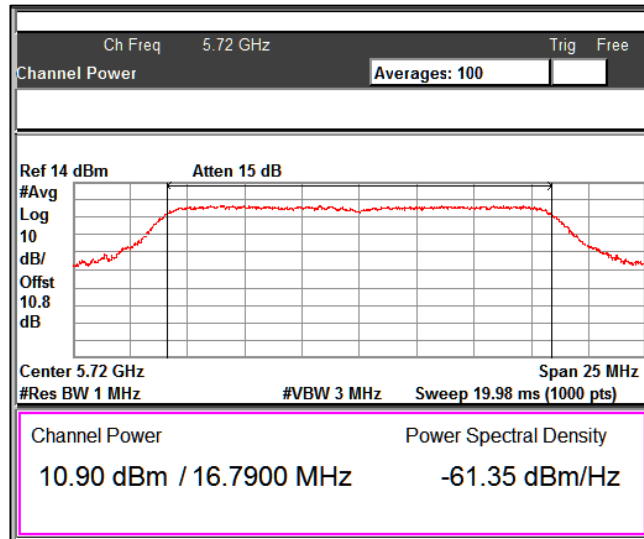
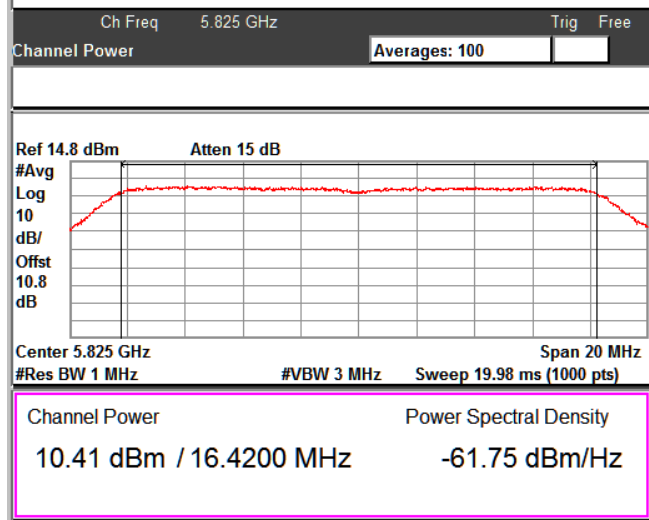
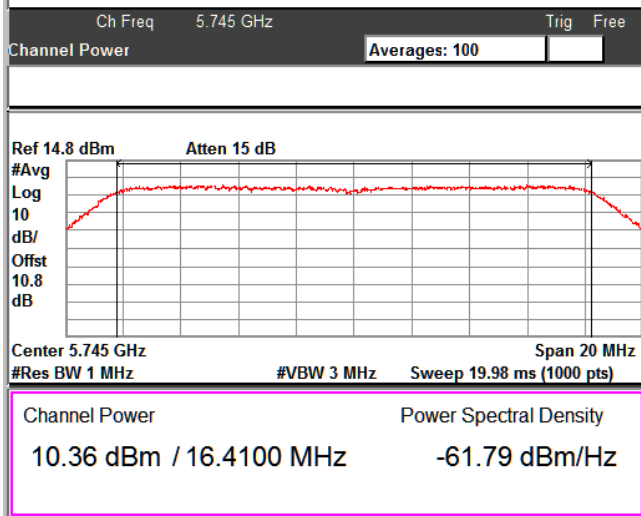






Data Rate: 54Mbps





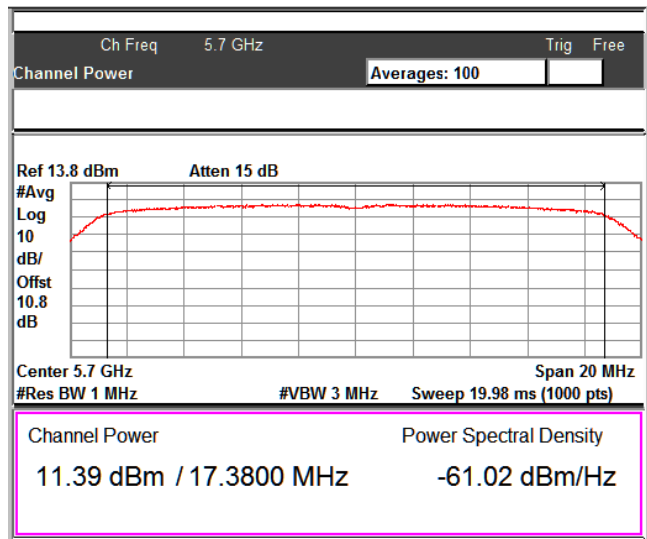
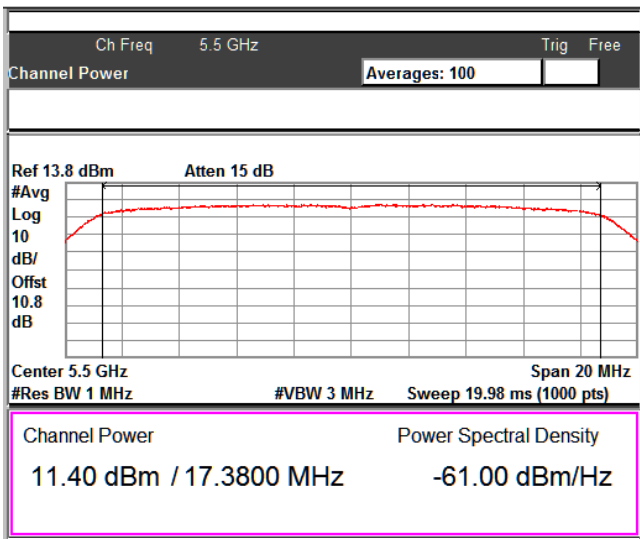
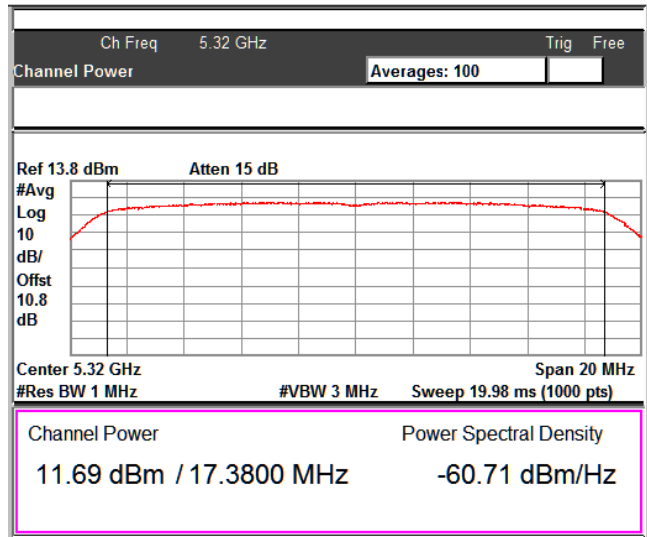
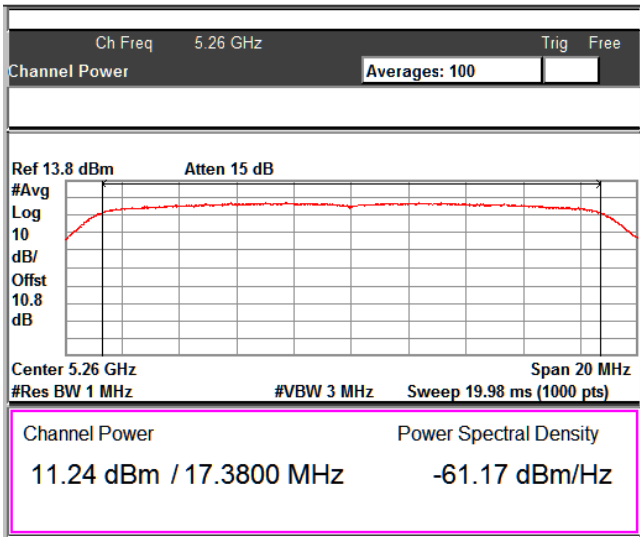
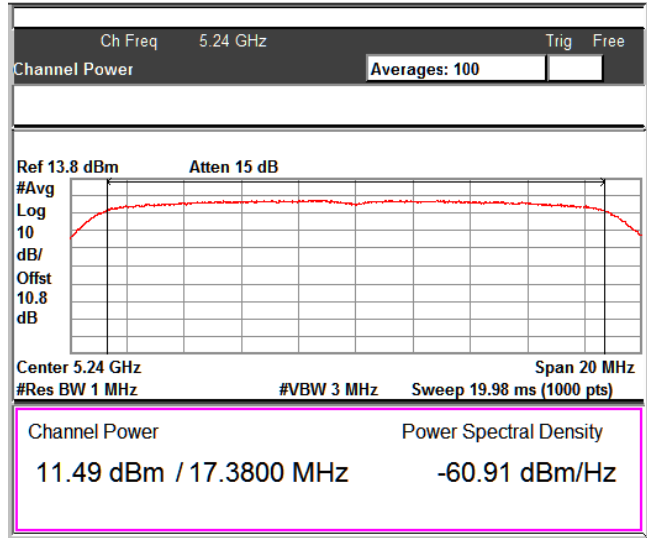
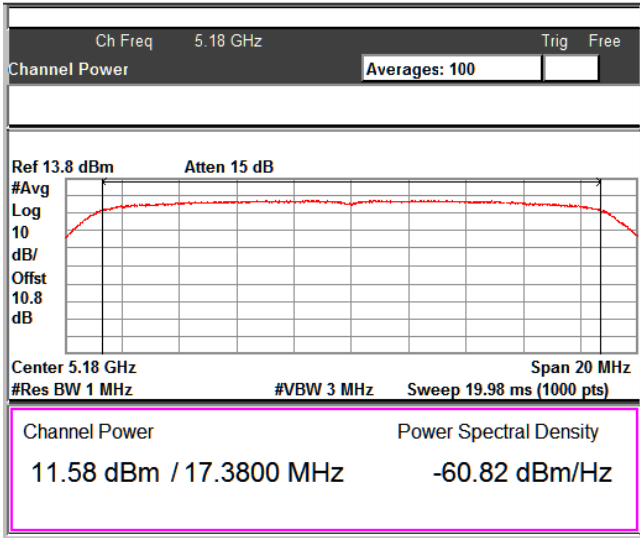
Prüfbericht - Nr.:
Test Report No.:

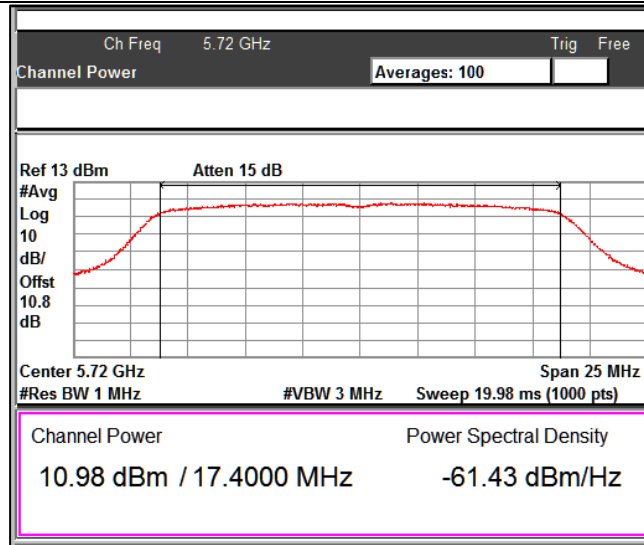
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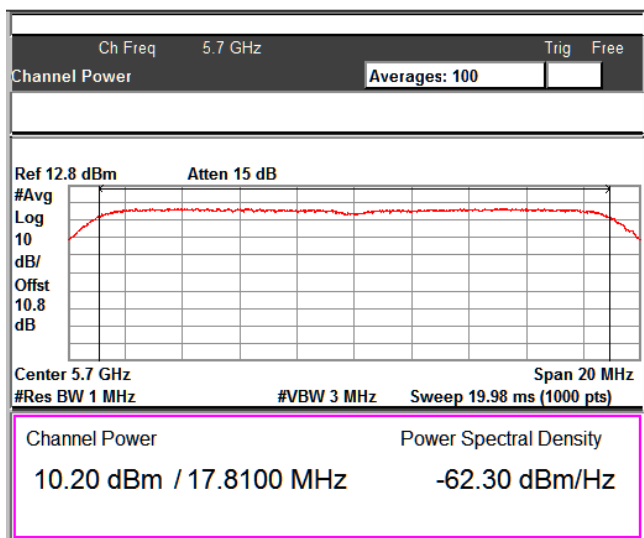
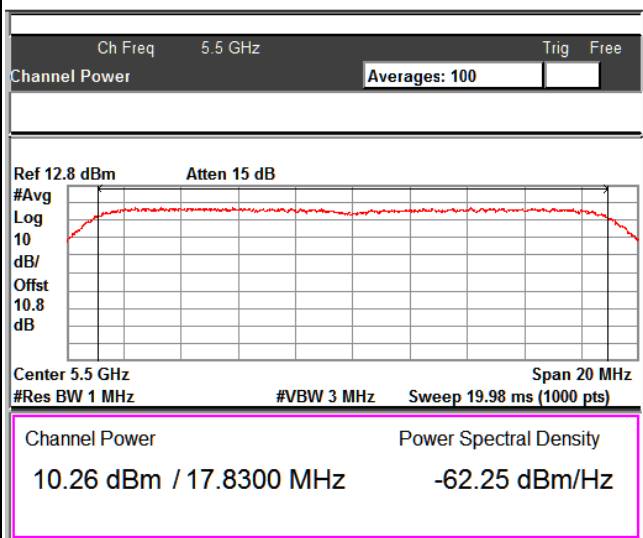
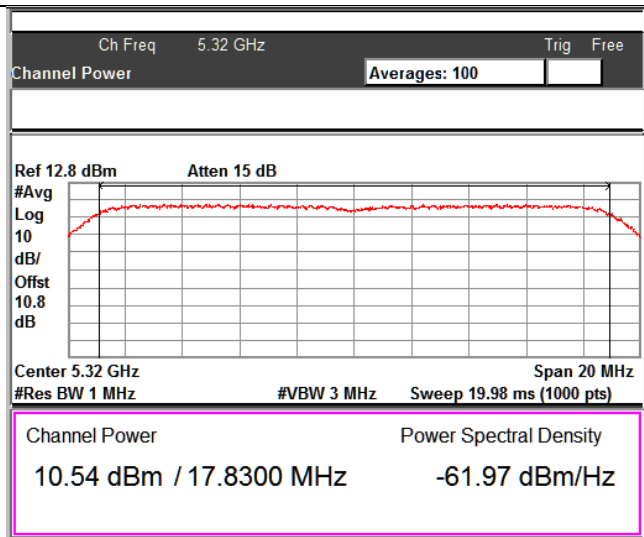
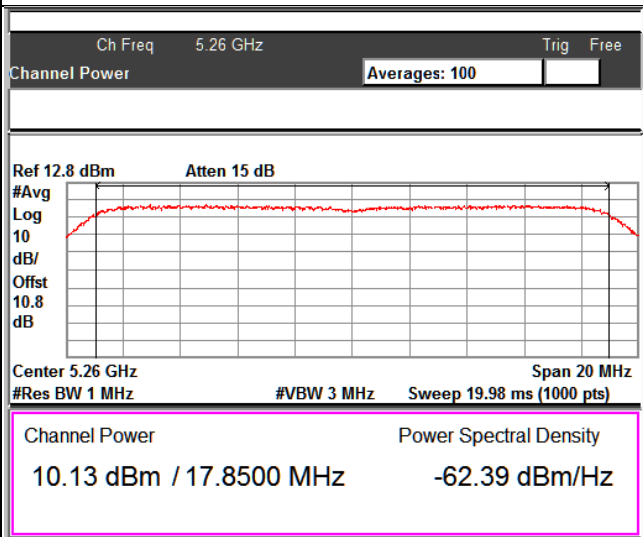
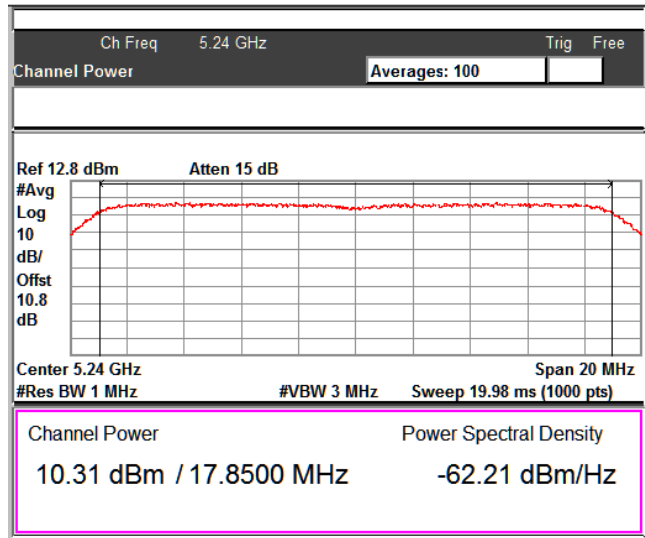
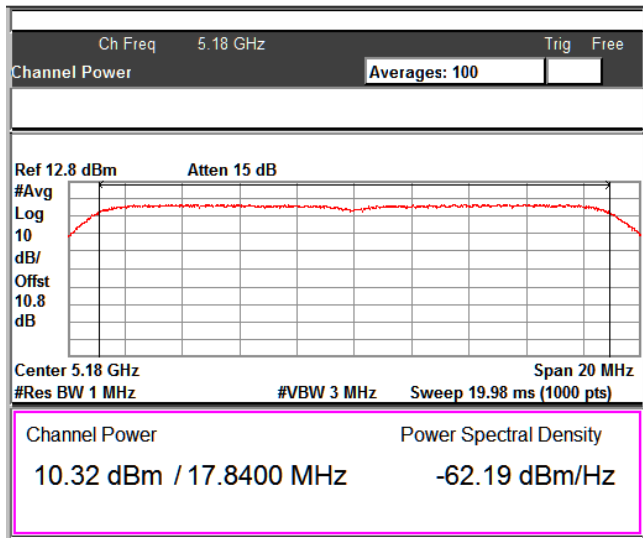
Modulation: 802.11n-20MHz

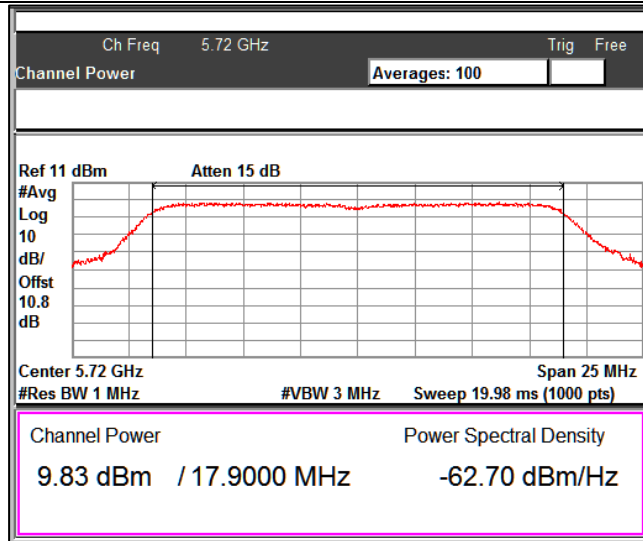
Data rate (Mbps)	Measured Frequency (MHz)	Measured Average Power (dBm)	Duty Cycle X %	Duty cycle correction factor (dB)	Maximum Average output power (dBm)	e.i.r.p (dBm)	FCC Power Limit (dBm)	IC power Limit (dBm)	IC e.i.r.p Limit (dBm)
n_mode-HT20MHz-MCS0	5180	11.58	92.00	0.36	11.94	15.04	24.00	-	22.51
	5240	11.49	92.00	0.36	11.85	14.95	24.00	-	22.51
	5260	11.24	92.00	0.36	11.60	14.70	24.00	23.51	29.51
	5320	11.69	92.00	0.36	12.05	15.15	24.00	23.51	29.51
	5500	11.40	92.00	0.36	11.76	14.86	24.00	23.40	29.40
	5700	11.39	92.00	0.36	11.75	14.85	24.00	23.40	29.40
	5720	10.98	92.00	0.36	11.34	14.44	24.00	23.40	29.40
	5745	11.51	92.00	0.36	11.87	14.97	30.00	30.00	-
	5825	11.55	92.00	0.36	11.91	15.01	30.00	30.00	-
n_mode-HT20MHz-MCS7	5180	10.32	57.00	2.44	12.76	15.86	24.00	-	22.51
	5240	10.31	57.00	2.44	12.75	15.85	24.00	-	22.51
	5260	10.13	57.00	2.44	12.57	15.67	24.00	23.51	29.51
	5320	10.54	57.00	2.44	12.98	16.08	24.00	23.51	29.51
	5500	10.26	57.00	2.44	12.70	15.80	24.00	23.40	29.40
	5700	10.20	57.00	2.44	12.64	15.74	24.00	23.40	29.40
	5720	9.83	57.00	2.44	12.27	15.37	24.00	23.40	29.40
	5745	10.32	57.00	2.44	12.76	15.86	30.00	30.00	-
	5825	10.38	57.00	2.44	12.82	15.92	30.00	30.00	-

MCS0




MCS 7





Prüfbericht - Nr.:
Test Report No.:

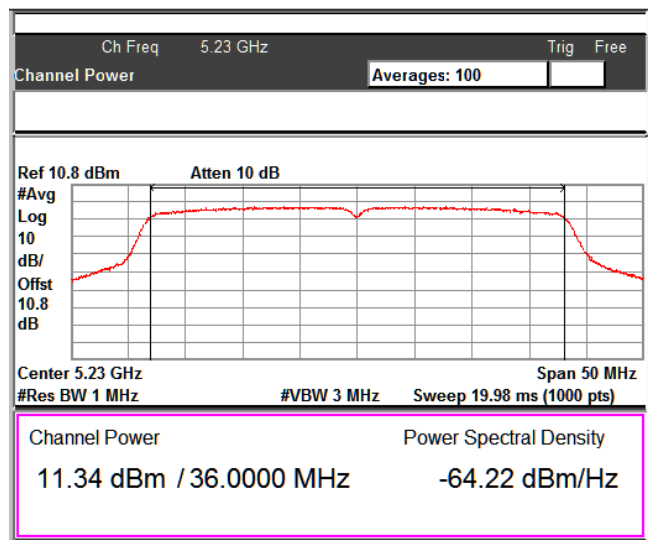
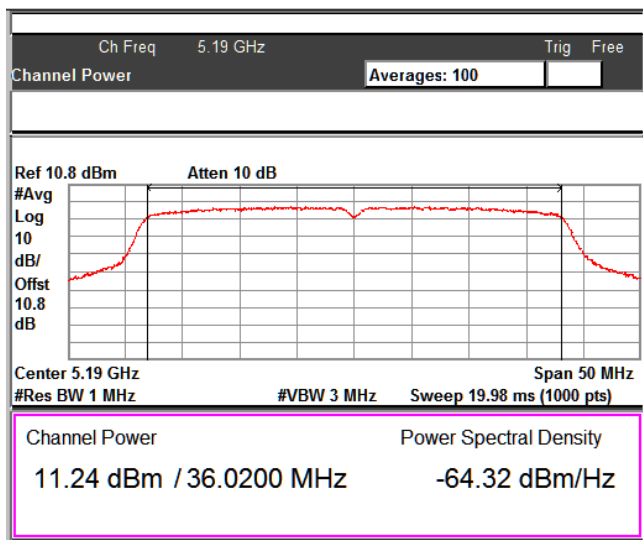
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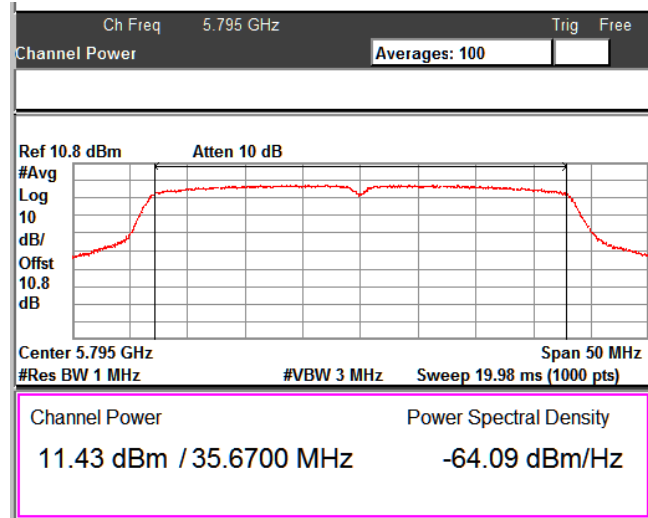
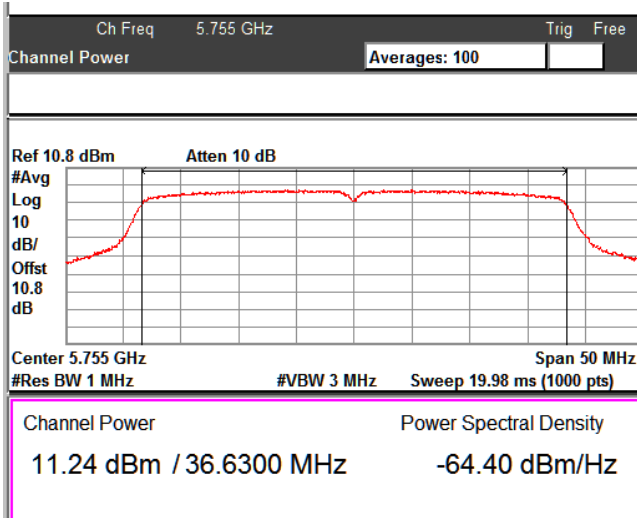
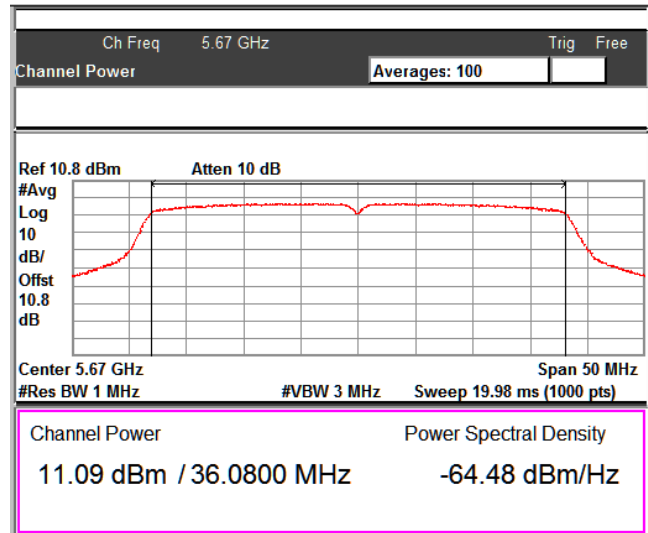
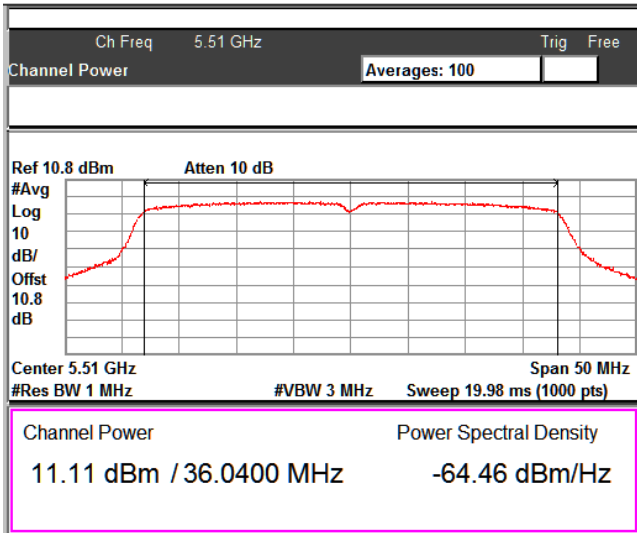
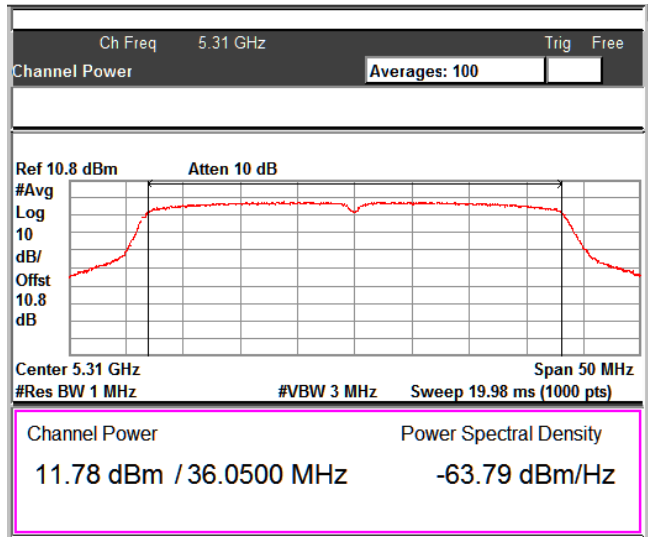
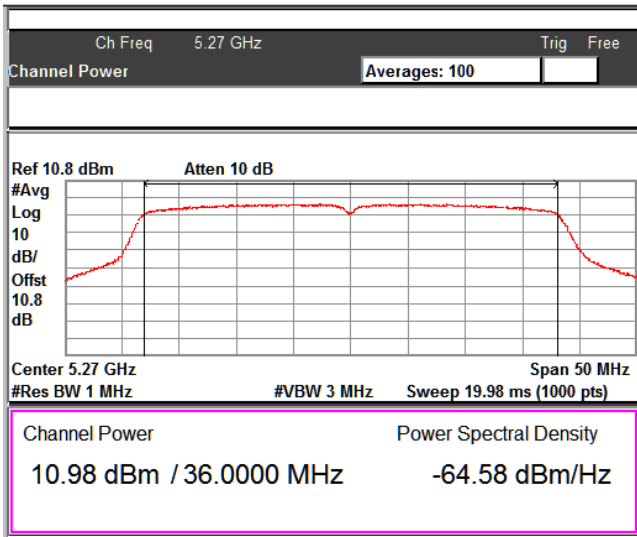
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Modulation: 802.11n-40MHz

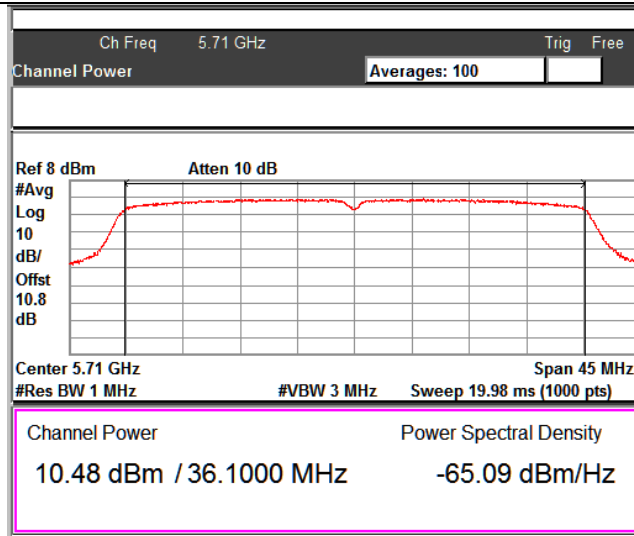
Data rate (Mbps)	Measured Frequency (MHz)	Measured Average Power (dBm)	Duty Cycle X %	Duty cycle correction factor (dB)	Maximum Average output power (dBm)	e.i.r.p (dBm)	FCC Power Limit (dBm)	IC power (dBm)	IC e.i.r.p Limit (dBm)
n_mode-HT40MHz_MCS 0	5190	11.24	85.00	0.71	11.95	15.05	24.00	-	23.00
	5230	11.34	85.00	0.71	12.05	15.15	24.00	-	23.00
	5270	10.98	85.00	0.71	11.69	14.79	24.00	23.97	30.00
	5310	11.78	85.00	0.71	12.49	15.59	24.00	23.97	30.00
	5510	11.11	85.00	0.71	11.82	14.92	24.00	23.97	30.00
	5590	11.19	85.00	0.71	11.90	15.00	24.00	23.97	30.00
	5670	11.09	85.00	0.71	11.80	14.90	24.00	23.97	30.00
	5710	10.48	85.00	0.71	11.19	14.29	24.00	23.97	30.00
	5755	11.24	85.00	0.71	11.95	15.05	30.00	30.00	-
	5795	11.43	85.00	0.71	12.14	15.24	30.00	30.00	-
n_mode-HT40MHz_MCS 7	5190	8.63	40.00	3.98	12.61	15.71	24.00	-	23.00
	5230	8.72	40.00	3.98	12.70	15.80	24.00	-	23.00
	5270	8.42	40.00	3.98	12.40	15.50	24.00	23.97	30.00
	5310	9.40	40.00	3.98	13.38	16.48	24.00	23.97	30.00
	5510	8.56	40.00	3.98	12.54	15.64	24.00	23.97	30.00
	5590	8.59	40.00	3.98	12.57	15.67	24.00	23.97	30.00
	5670	8.46	40.00	3.98	12.44	15.54	24.00	23.97	30.00
	5710	8.13	40.00	3.98	12.11	15.21	24.00	23.97	30.00
	5755	8.73	40.00	3.98	12.71	15.81	30.00	30.00	-
	5795	8.95	40.00	3.98	12.93	16.03	30.00	30.00	-

MCS0



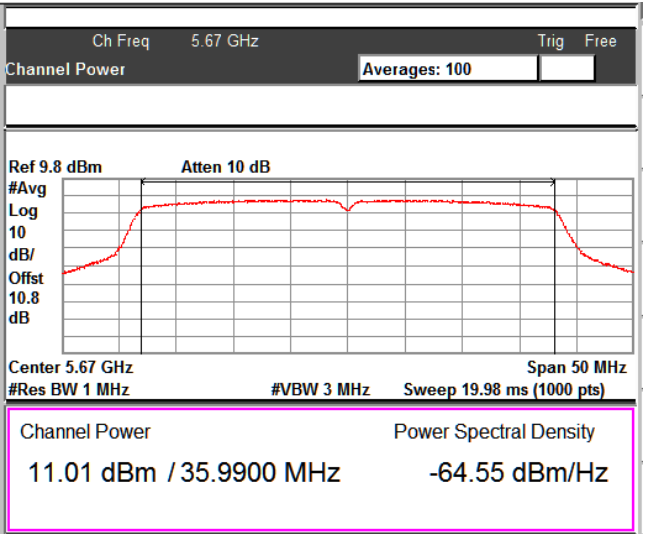
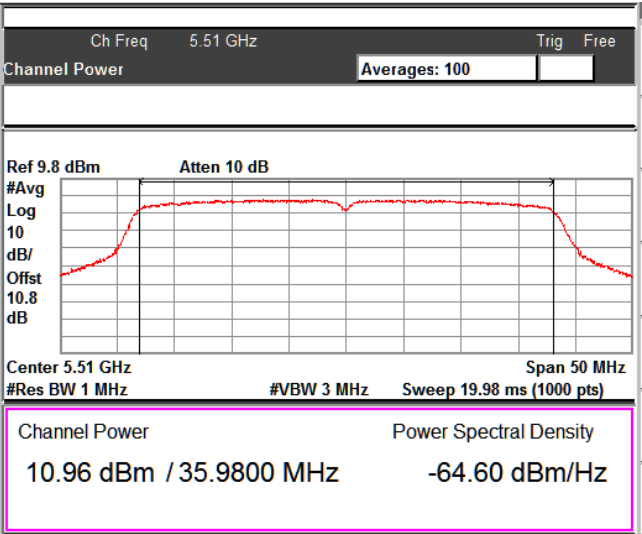
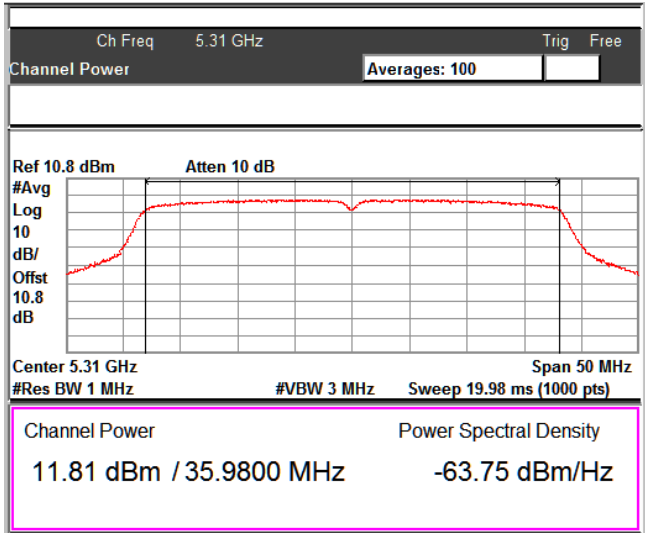
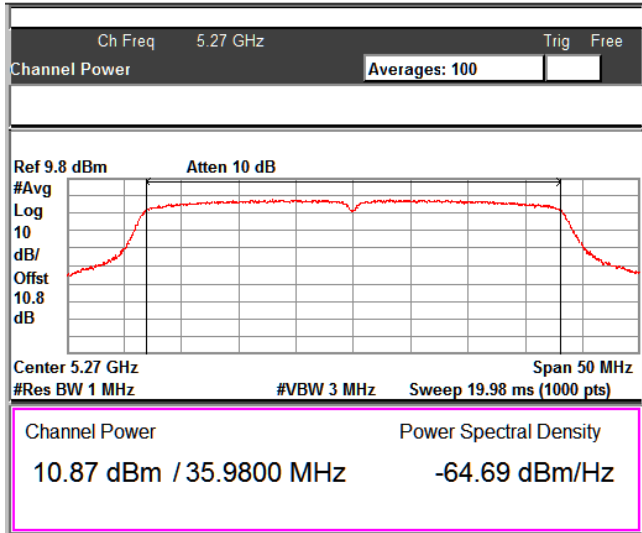
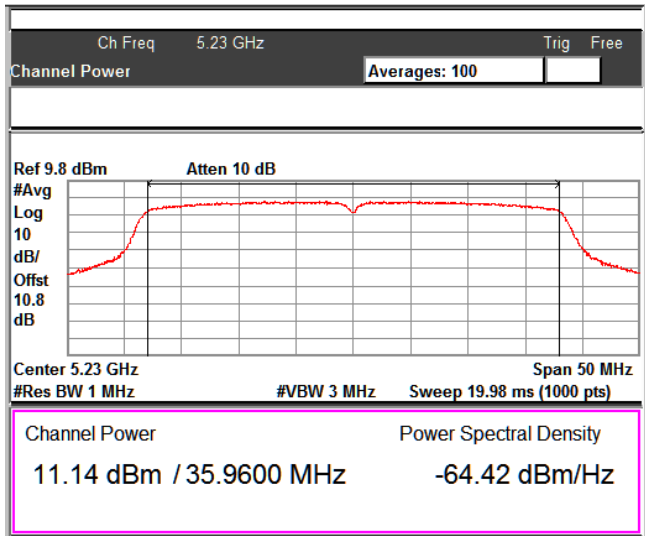
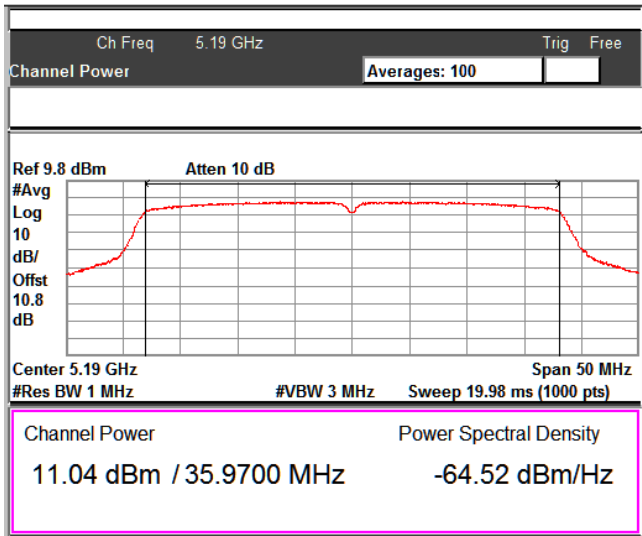


Only MCS 0 graphs are copied

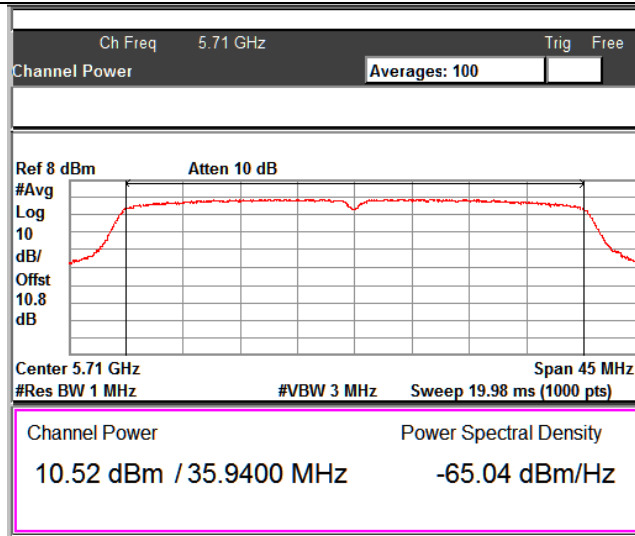


Modulation: 802.11n-VHT40MHz

Data rate (Mbps)	Measured Frequency (MHz)	Measured Average Power (dBm)	Duty Cycle X %	Duty cycle correction factor (dB)	Maximum Average output power (dBm)	e.i.r.p (dBm)	FCC Power Limit (dBm)	IC power (dBm)	IC e.i.r.p Limit (dBm)
n_mode_VHT40MHz_MCS0	5190	11.04	85.00	0.71	11.75	14.85	24.00	-	23.00
	5230	11.14	85.00	0.71	11.85	14.95	24.00	-	23.00
	5270	10.87	85.00	0.71	11.58	14.68	24.00	23.97	30.00
	5310	11.81	85.00	0.71	12.52	15.62	24.00	23.97	30.00
	5510	10.96	85.00	0.71	11.67	14.77	24.00	23.97	30.00
	5590	11.02	85.00	0.71	11.73	14.83	24.00	23.97	30.00
	5670	11.01	85.00	0.71	11.72	14.82	24.00	23.97	30.00
	5710	10.52	85.00	0.71	11.23	14.33	24.00	23.97	30.00
	5755	11.12	85.00	0.71	11.83	14.93	30.00	30.00	-
5795	11.36	85.00	0.71	12.07	15.17	30.00	30.00	-	
n_mode_VHT40MHz_MCS9	5190	8.30	21.00	6.78	15.08	18.18	24.00	-	23.00
	5230	8.22	21.00	6.78	15.00	18.10	24.00	-	23.00
	5270	7.98	21.00	6.78	14.76	17.86	24.00	23.97	30.00
	5310	9.04	21.00	6.78	15.82	18.92	24.00	23.97	30.00
	5510	8.05	21.00	6.78	14.83	17.93	24.00	23.97	30.00
	5590	8.14	21.00	6.78	14.92	18.02	24.00	23.97	30.00
	5670	7.96	21.00	6.78	14.74	17.84	24.00	23.97	30.00
	5710	7.54	21.00	6.78	14.32	17.42	24.00	23.97	30.00
	5755	8.27	21.00	6.78	15.05	18.15	30.00	30.00	-
5795	8.43	21.00	6.78	15.21	18.31	30.00	30.00	-	

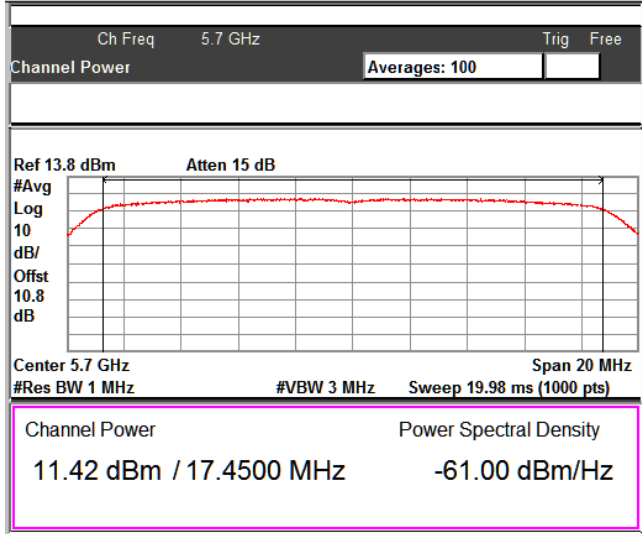
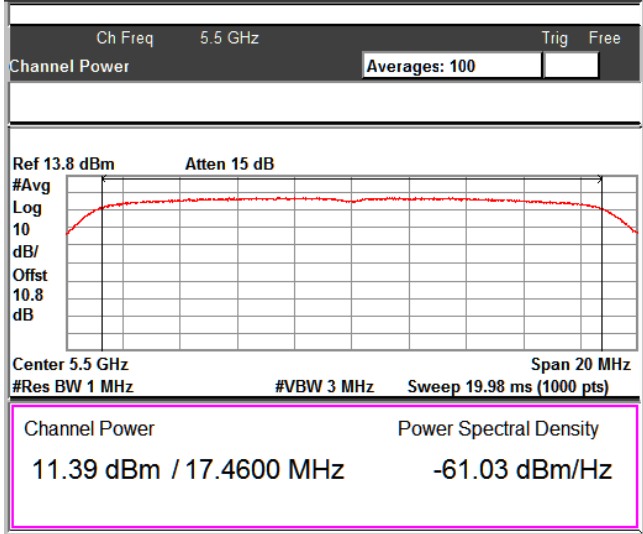
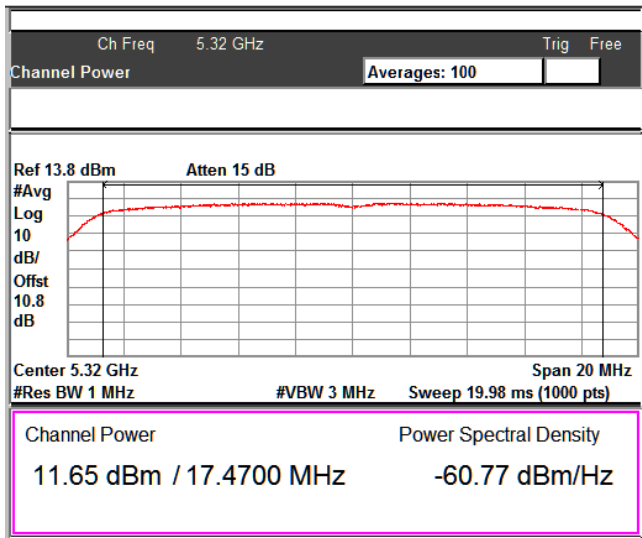
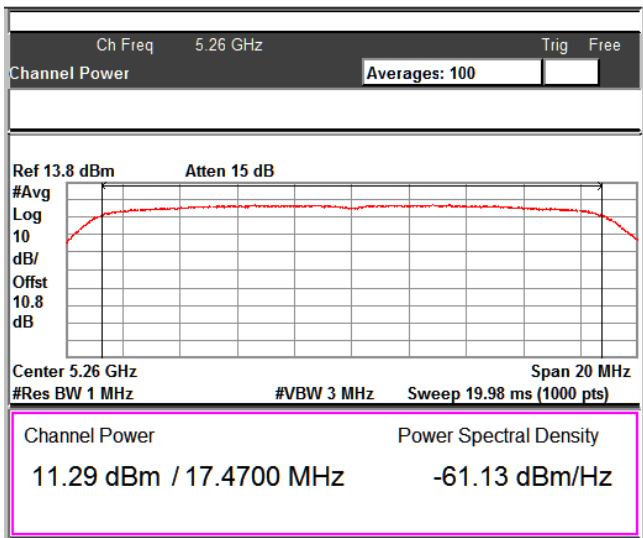
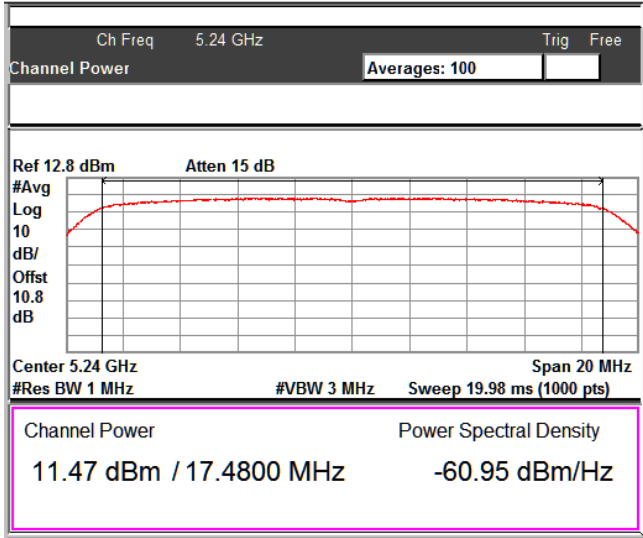
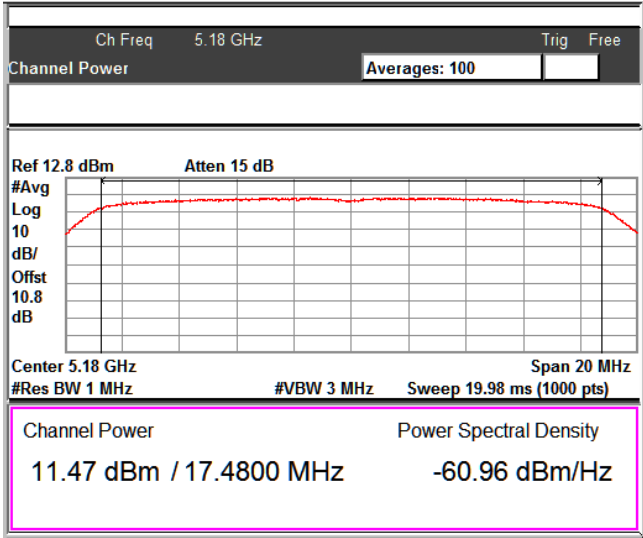
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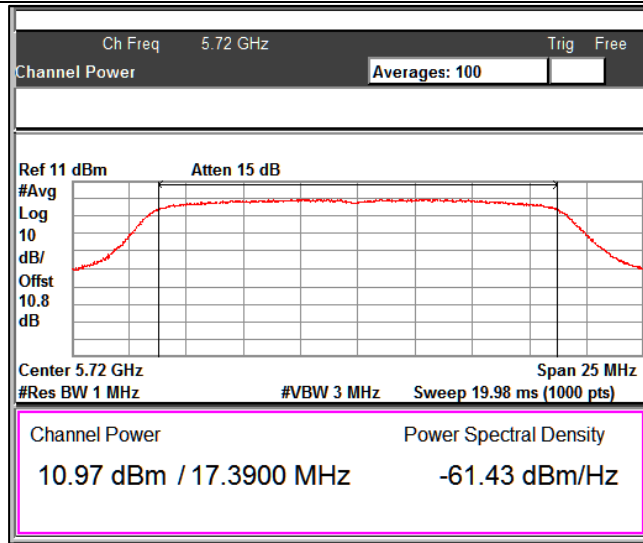
Only MCS 0 graphs are copied



Modulation: 802.11ac-VHT20MHz

Data rate (Mbps)	Measured Frequency (MHz)	Measured Average Power (dBm)	Duty Cycle X %	Duty cycle correction factor (dB)	Maximum Average output power (dBm)	e.i.r.p (dBm)	FCC Power Limit (dBm)	IC power (dBm)	IC e.i.r.p Limit (dBm)
ac_mode-VHT20MHz-MCS0	5180	11.47	92.00	0.36	11.83	14.93	24.00	-	22.42
	5240	11.47	92.00	0.36	11.83	14.93	24.00	-	22.42
	5260	11.29	92.00	0.36	11.65	14.75	24.00	23.42	29.42
	5320	11.65	92.00	0.36	12.01	15.11	24.00	23.42	29.42
	5500	11.39	92.00	0.36	11.75	14.85	24.00	23.42	29.42
	5700	11.42	92.00	0.36	11.78	14.88	24.00	23.42	29.42
	5720	10.97	92.00	0.36	11.33	14.43	24.00	23.42	29.42
	5745	11.45	92.00	0.36	11.81	14.91	30.00	30.00	-
5825	11.50	92.00	0.36	11.86	14.96	30.00	30.00	-	
ac_mode-VHT20MHz-MCS8	5180	9.23	47.00	3.28	12.51	15.61	24.00	-	22.46
	5240	9.14	47.00	3.28	12.42	15.52	24.00	-	22.46
	5260	8.98	47.00	3.28	12.26	15.36	24.00	23.46	29.46
	5320	9.39	47.00	3.28	12.67	15.77	24.00	23.46	29.46
	5500	9.20	47.00	3.28	12.48	15.58	24.00	23.47	29.47
	5700	9.16	47.00	3.28	12.44	15.54	24.00	23.47	29.47
	5720	8.72	47.00	3.28	12.00	15.10	24.00	23.47	29.47
	5745	9.15	47.00	3.28	12.43	15.53	30.00	30.00	-
5825	9.10	47.00	3.28	12.38	15.48	30.00	30.00	-	

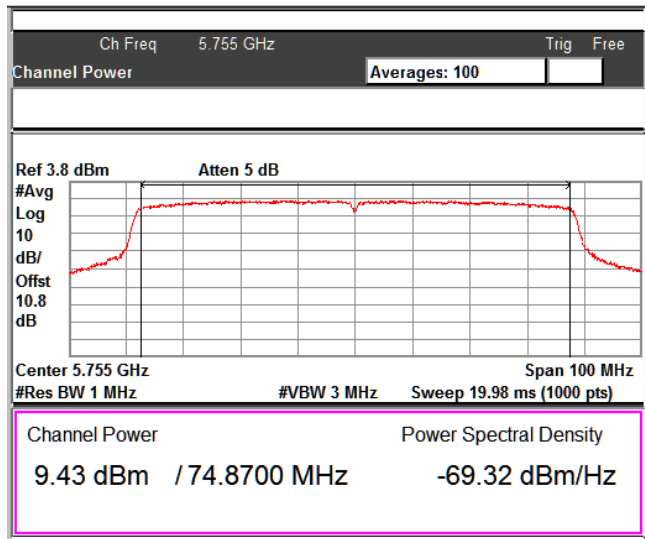
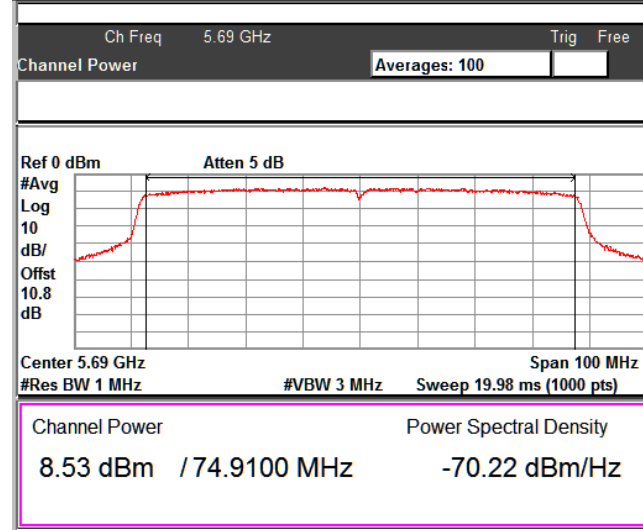
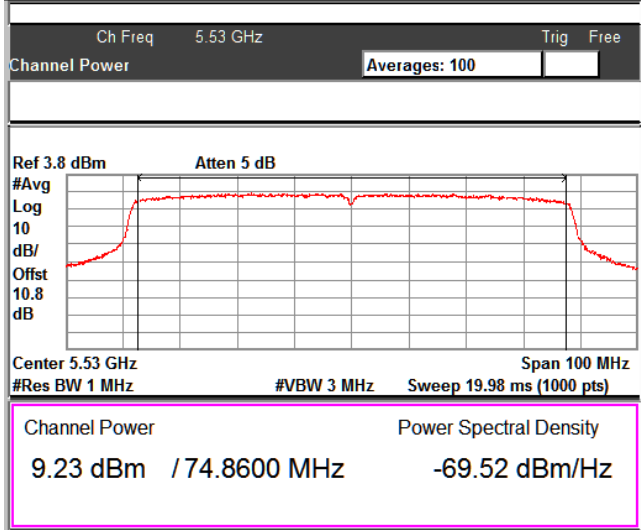
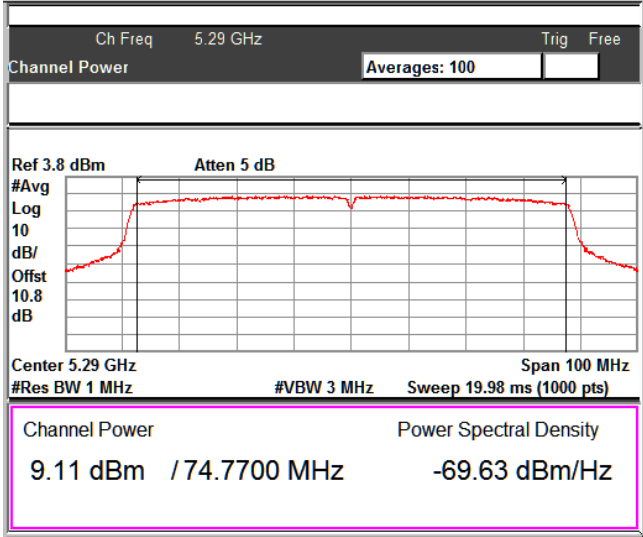
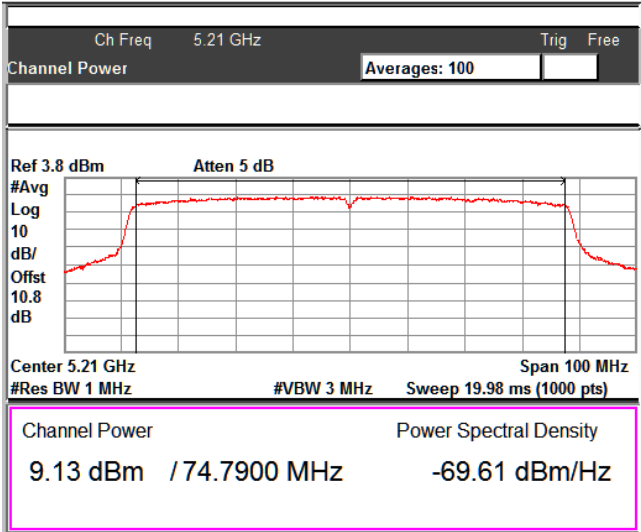
MCS0




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Modulation: 802.11ac-VHT80MHz

Data rate (Mbps)	Measured Frequency (MHz)	Measured Average Power (dBm)	Duty Cycle X %	Duty cycle correction factor (dB)	Maximum Average output power (dBm)	e.i.r.p (dBm)	FCC Power Limit (dBm)	IC power (dBm)	IC e.i.r.p Limit (dBm)
ac_mode-VHT80MHz_MCS0	5210	9.13	64.00	1.94	11.07	14.17	24.00	23.97	23.00
	5290	9.11	64.00	1.94	11.05	14.15	24.00	23.97	23.00
	5530	9.23	64.00	1.94	11.17	14.27	24.00	23.97	23.00
	5690	9.11	64.00	1.94	11.05	14.15	24.00	23.97	23.00
	5755	9.43	64.00	1.94	11.37	14.47	30.00	30.00	23.00
ac_mode-VHT80MHz_MCS9	5210	6.08	27.00	5.69	11.77	14.87	24.00	23.97	23.00
	5290	6.07	27.00	5.69	11.76	14.86	24.00	23.97	23.00
	5530	6.10	27.00	5.69	11.79	14.89	24.00	23.97	23.00
	5690	6.01	27.00	5.69	11.70	14.80	24.00	23.97	23.00
	5755	6.31	27.00	5.69	12.00	15.10	30.00	30.00	23.00

MCS0


Only MCS 0 graphs are copied

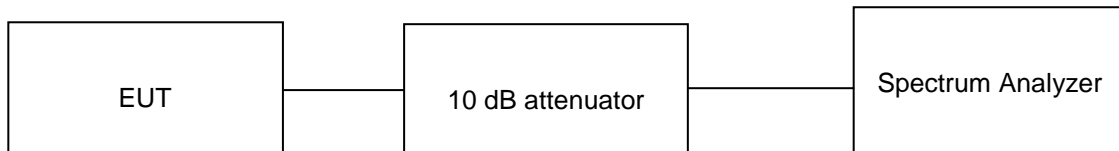
7.3 Maximum Power Spectral Density

Result

Pass

Test Specification	FCC part 15 Subpart C 15.407 (a) / RSS 247 Issue 2 Section 6.2.1; 6.2.2; 6.2.3; & Section 6.2.4
Test Method	Subclause 12.5 of ANSI C63.10
Measurement Bandwidth	1 MHz
Detector	Average sample detector
Port of testing	Antenna port
Requirement for FCC	<ol style="list-style-type: none"> 1. For client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 MHz band 2. For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band 3. For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band
Requirement for IC	<ol style="list-style-type: none"> 1. For the band 5.15-5.25 GHz, The e.i.r.p. spectral density shall not exceed 10 dBm in any 1 MHz band 2. For the 5.25-5.35 GHz, the power spectral density shall not exceed 11 dBm in any 1.0 MHz band 3. For the 5.47-5.725 GHz, the power spectral density shall not exceed 11 dBm in any 1.0 MHz band 4. For the band 5.725-5.85 GHz, The output power spectral density shall not exceed 30 dBm in any 500 kHz band

Test Method:



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The following procedure shall be used:

1. Set center frequency to the nominal EUT channel center frequency
2. Set span to encompass the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal
3. Set RBW = 1MHz (5.15-5.25 GHz band) / 500kHz (5.725-5.85 GHz band)
4. Set VBW $\geq 3 \times$ RBW
5. Number of points in sweep $\geq 2 \times$ span / RBW. (This ensures that bin-to-bin spacing is \leq RBW/2, so that narrowband signals are not lost between frequency bins.)
6. Sweep time = auto
7. Detector = power averaging (rms), if available. Otherwise, use sample detector mode
8. Do not use sweep triggering. Allow the sweep to "free run."
9. Trace average at least 100 traces and Compute power by integrating the spectrum across the EBW
10. Add $10 \log (1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission)
11. If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 kHz bandwidth, the following adjustments to the procedures apply:
 - a. Set RBW = 300 kHz
 - b. Set VBW ≥ 3 RBW
 - c. If measurement bandwidth of Maximum PSD is specified in 500 kHz

$$\text{PSD bandwidth correction Factor} = 10 * \log (500 \text{ kHz} / \text{RBW})$$

Test Condition:

Normal Test Condition:

Temperature (Norm) = + 25 °C

Voltage = 3.3VDC

Relative humidity: 62 %

KDB Guidelines applied:

Measurements were made as per section F in KDB 789033 D02 General UNII Test Procedures New Rules v02r01

Test results:

Note:

1. All the losses are included during measurement and final values are mentioned in the test report
10 dB attenuator + 0.8dB Cable loss = 10.8 dB total offset
2. Duty cycle correction factor is considered in Final Average power
Duty cycle Correction factor = $10 * \text{LOG} (1/X)$ Where X is Duty Cycle
3. This product do not support additional beamforming gain / directional gain, it uses signal antenna and hence directional gain of the single antenna is (3.10 dBi)
4. e.i.r.p = Maximum Average PSD (dBm) + Antenna gain in dBi

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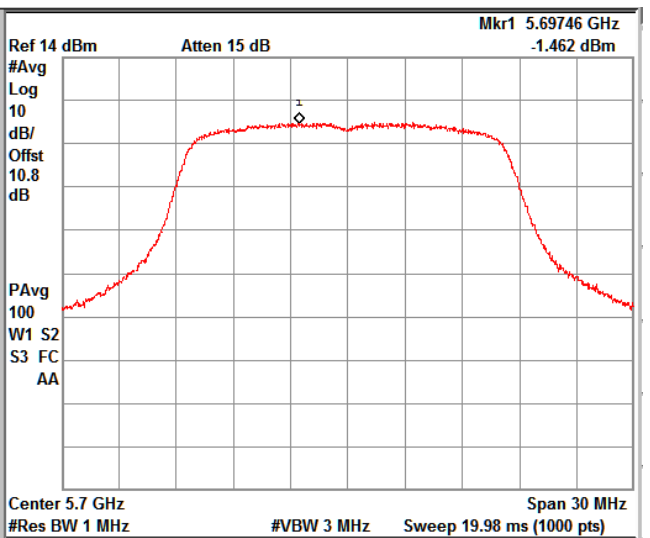
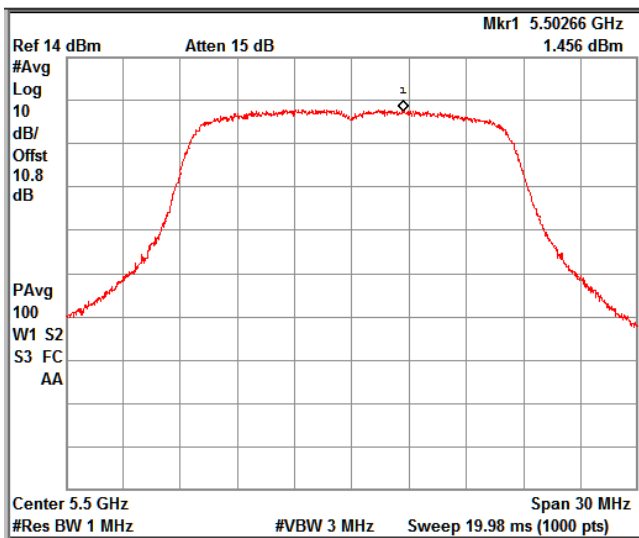
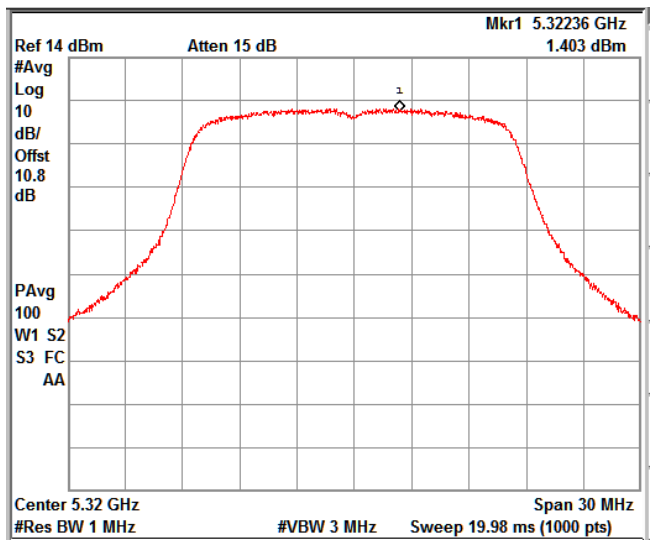
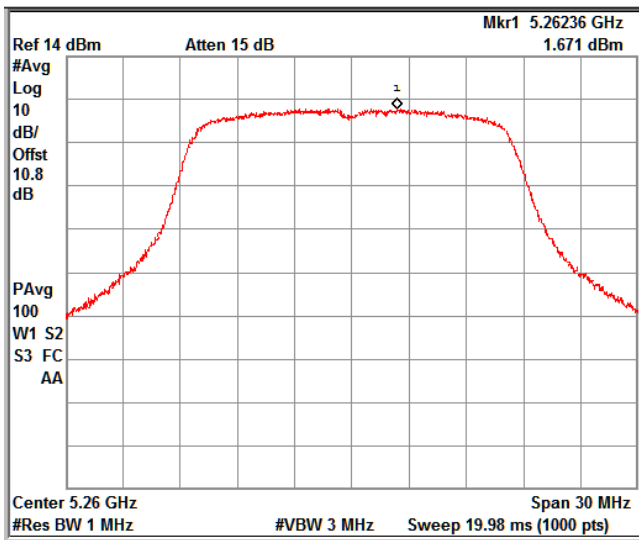
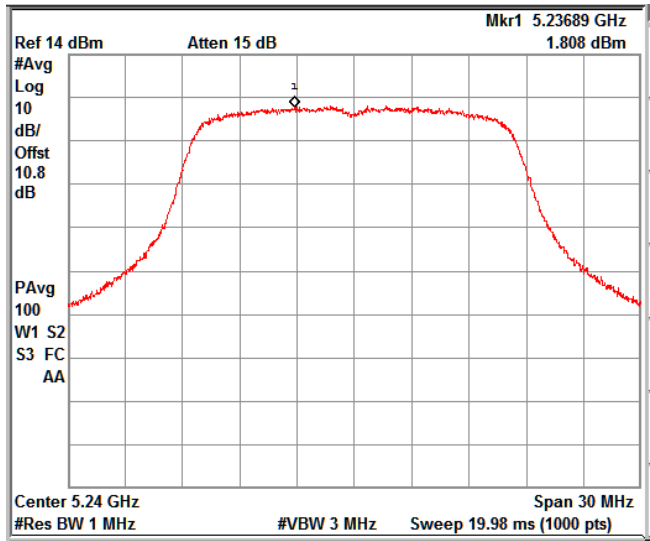
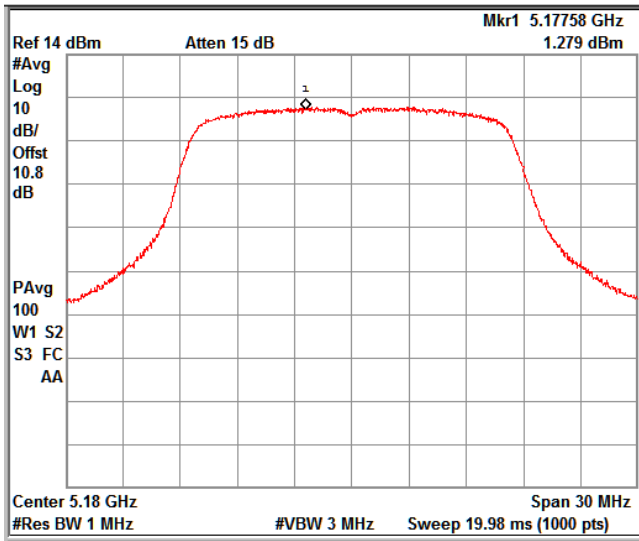
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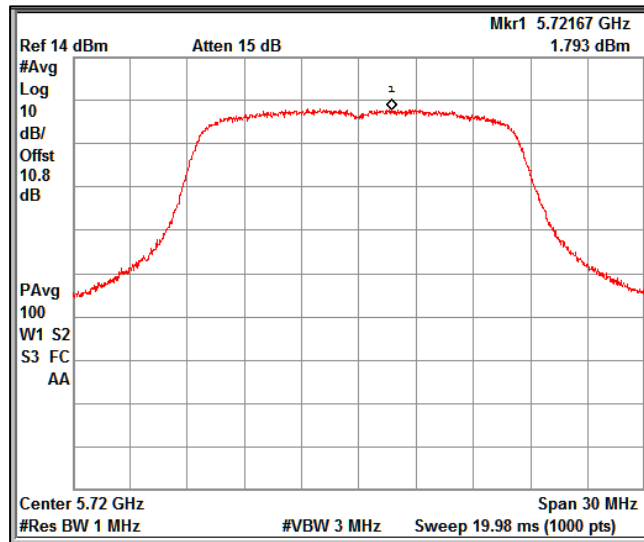
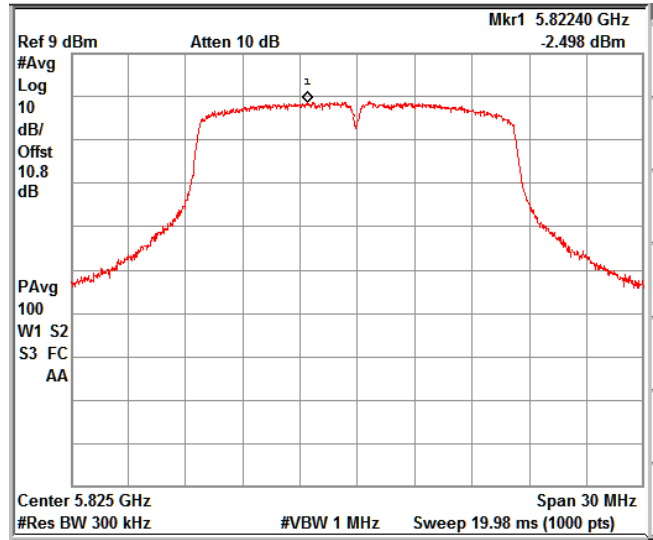
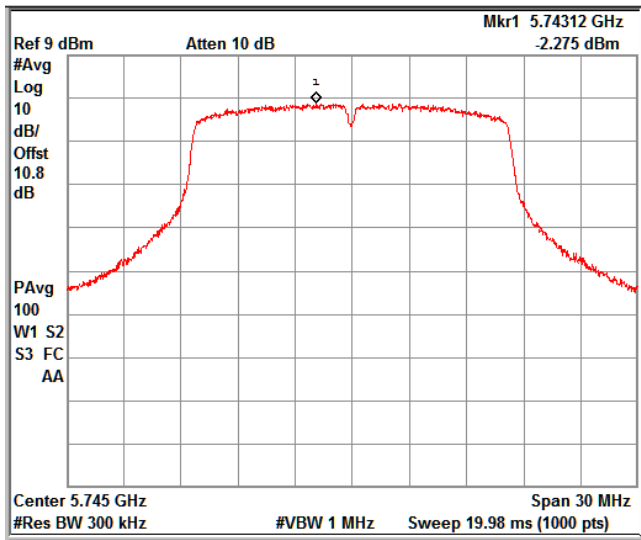
Modulation: 802.11a – UNII 1, UNII2a, UNII2c

Data rate (Mbps)	Measured Frequency (MHz)	Measured Average PSD (dBm/1MHz)	Duty Cycle X %	Duty cycle correction factor (dB)	Maximum Average PSD (dBm/1MHz)	PSD (e.i.r.p) (dBm/1MHz)	FCC PSD Limit (dBm/1MHz)	IC e.i.r.p SD (dBm/1MHz)
a_mode-6Mbps	5180	1.27	95.00	0.22	1.49	4.59	11.00	10.00
	5240	1.80	95.00	0.22	2.02	5.12	11.00	10.00
	5260	1.67	95.00	0.22	1.89	4.99	11.00	10.00
	5320	1.40	95.00	0.22	1.62	4.72	11.00	10.00
	5500	1.45	95.00	0.22	1.67	4.77	11.00	10.00
	5700	-1.46	95.00	0.22	-1.24	1.86	11.00	10.00
	5720	1.79	95.00	0.22	2.01	5.11	12.00	10.00
a_mode-54Mbps	5180	0.78	57.00	2.44	3.22	6.32	11.00	10.00
	5240	0.16	57.00	2.44	2.60	5.70	11.00	10.00
	5260	0.03	57.00	2.44	2.47	5.57	11.00	10.00
	5320	1.13	57.00	2.44	3.57	6.67	11.00	10.00
	5500	0.59	57.00	2.44	3.03	6.13	11.00	10.00
	5700	0.63	57.00	2.44	3.07	6.17	11.00	10.00
	5720	-1.14	57.00	2.44	1.30	4.40	11.00	10.00

Modulation: 802.11a – UNII 3

Data rate (Mbps)	Measured Frequency (MHz)	Measured Average PSD (dBm/0.3MHz)	Duty Cycle X %	Duty cycle correction factor (dB)	Bandwidth Correction (dB)	Maximum Average PSD (dBm/500kHz)	PSD (e.i.r.p) (dBm/500kHz)	FCC PSD Limit (dBm/500kHz)	IC e.i.r.p PSD (dBm/500kHz)
a_mode-6Mbps	5745	-7.60	95.00	0.22	2.21	-5.17	-2.07	11.00	10.00
	5825	-6.60	95.00	0.22	2.21	-4.17	-1.07	11.00	10.00
a_mode-54Mbps	5745	-4.48	57.00	2.44	2.21	0.17	3.27	11.00	10.00
	5825	-3.84	57.00	2.44	2.21	0.81	3.91	11.00	10.00

Data Rate: 6 Mbps




Only 6 Mbps plots are copied

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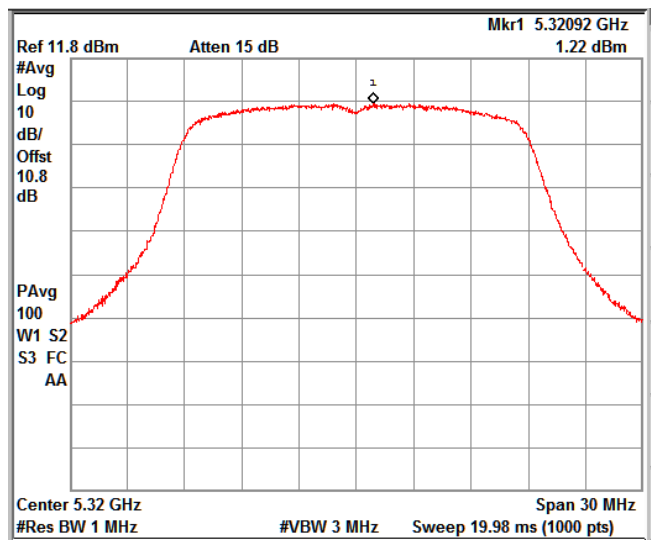
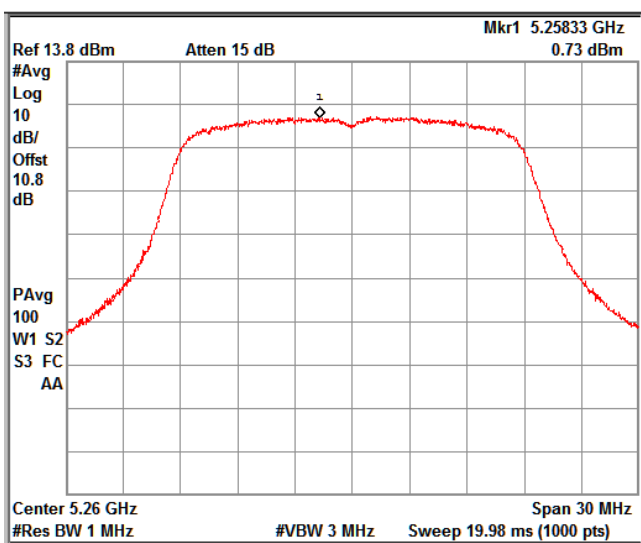
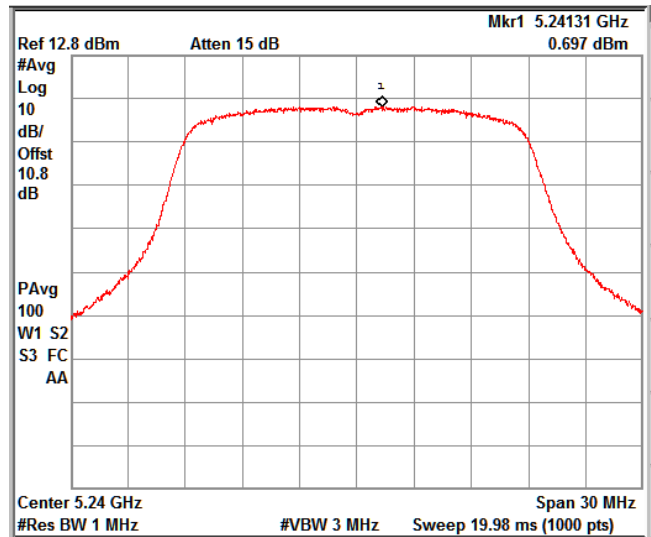
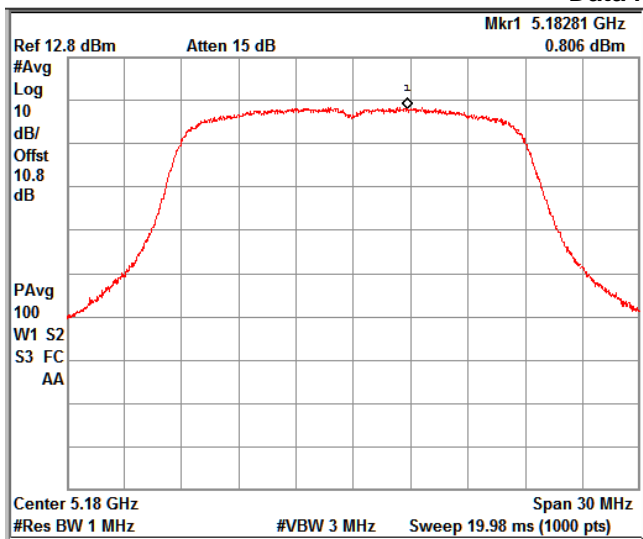
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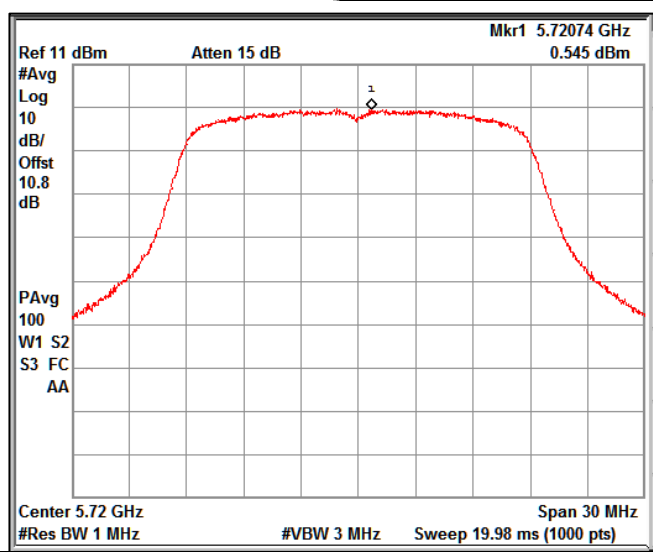
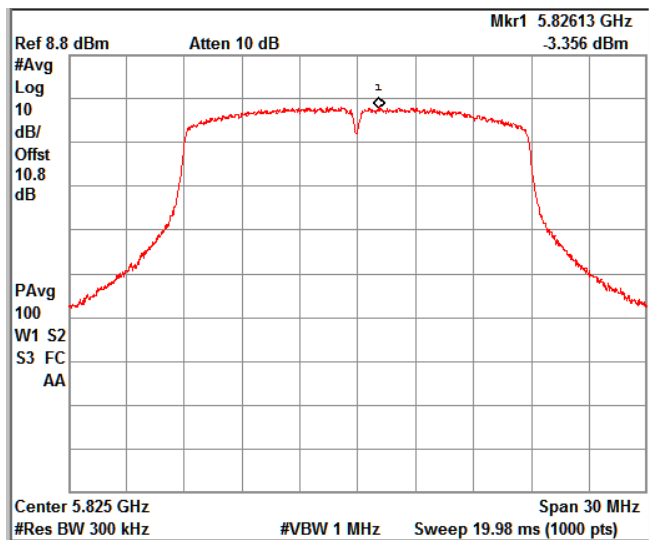
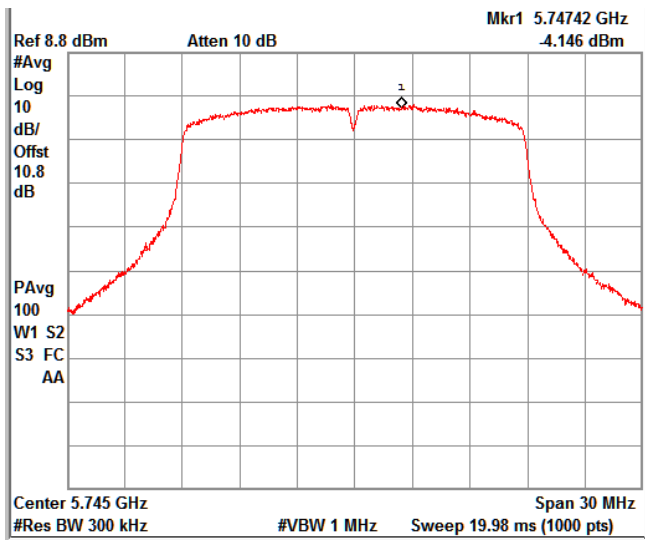
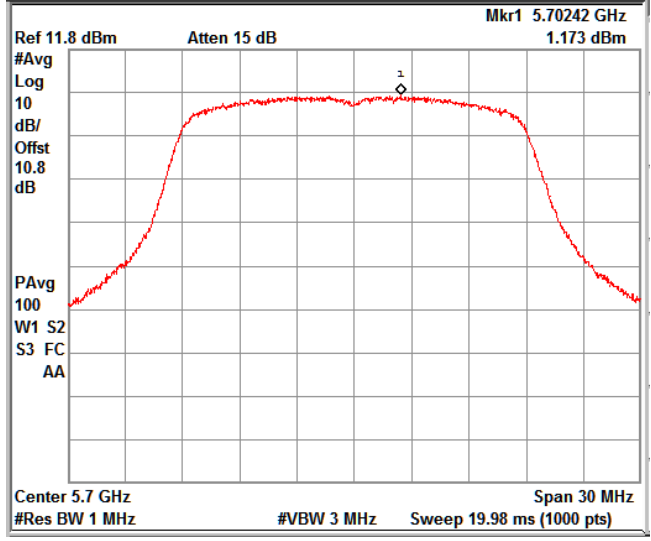
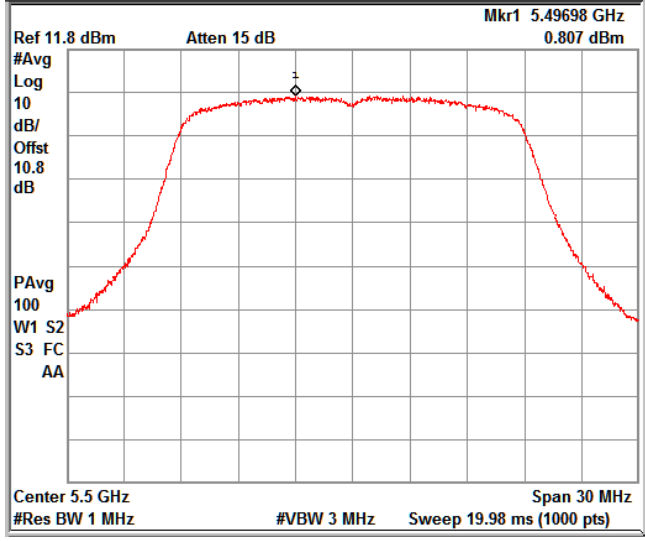
Modulation: 802.11n – 20MHz - UNII 1, UNII2a, UNII2c

Data rate (Mbps)	Measured Frequency (MHz)	Measured Average PSD (dBm/1MHz)	Duty Cycle X %	Duty cycle correction factor (dB)	Maximum Average PSD (dBm/ 1MHz)	PSD (e.i.r.p) (dBm/1MHz)	FCC PSD Limit (dBm/1MHz)	IC e.i.r.p SD (dBm/1MHz)
n_mode-HT20MHz-MCS0	5180	0.80	92.00	0.36	1.16	4.26	11.00	10.00
	5240	0.69	92.00	0.36	1.05	4.15	11.00	10.00
	5260	0.73	92.00	0.36	1.09	4.19	11.00	10.00
	5320	1.22	92.00	0.36	1.58	4.68	11.00	10.00
	5500	0.80	92.00	0.36	1.16	4.26	11.00	10.00
	5700	1.17	92.00	0.36	1.53	4.63	11.00	10.00
	5720	0.54	92.00	0.36	0.90	4.00	11.00	10.00
n_mode-HT20MHz-MCS7	5180	-0.18	57.00	2.44	2.26	5.36	11.00	10.00
	5240	-0.25	57.00	2.44	2.19	5.29	11.00	10.00
	5260	-0.67	57.00	2.44	1.77	4.87	11.00	10.00
	5320	-0.01	57.00	2.44	2.43	5.53	11.00	10.00
	5500	0.48	57.00	2.44	2.92	6.02	11.00	10.00
	5700	-0.32	57.00	2.44	2.12	5.22	11.00	10.00
	5720	-1.11	57.00	2.44	1.33	4.43	11.00	10.00

Modulation: 802.11n – 20MHz - UNII 3

Data rate (Mbps)	Measured Frequency (MHz)	Measured Average PSD (dBm/0.3MHz)	Duty Cycle X %	Duty cycle correction factor (dB)	Bandwidth Correction (dB)	Maximum Average PSD (dBm/500kHz)	PSD (e.i.r.p) (dBm/500kHz)	FCC PSD Limit (dBm/500kHz)	IC e.i.r.p PSD (dBm/500kHz)
n_mode-HT20MHz-MCS0	5745	-4.14	92.00	0.36	2.21	-1.57	1.53	11.00	10.00
	5825	-3.35	92.00	0.36	2.21	-0.78	2.32	11.00	10.00
n_mode-HT20MHz-MCS7	5745	-5.01	57.00	2.44	2.21	-0.36	2.74	11.00	10.00
	5825	-4.17	57.00	2.44	2.21	0.48	3.58	11.00	10.00

Data Rate: MCS0




Only MCS0 plots are copied

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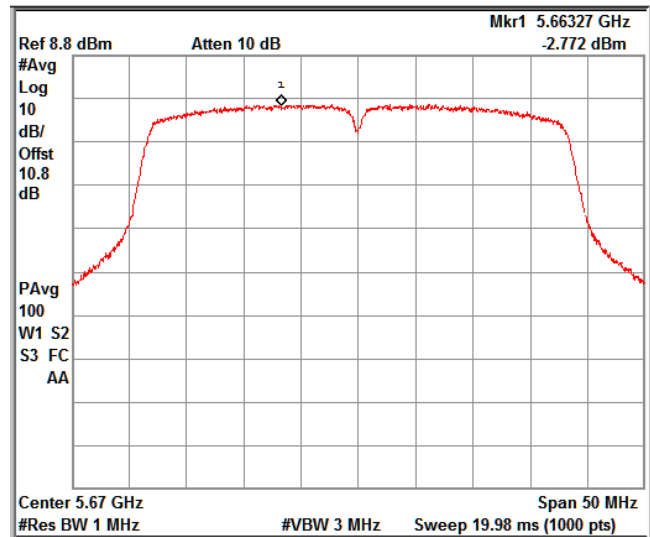
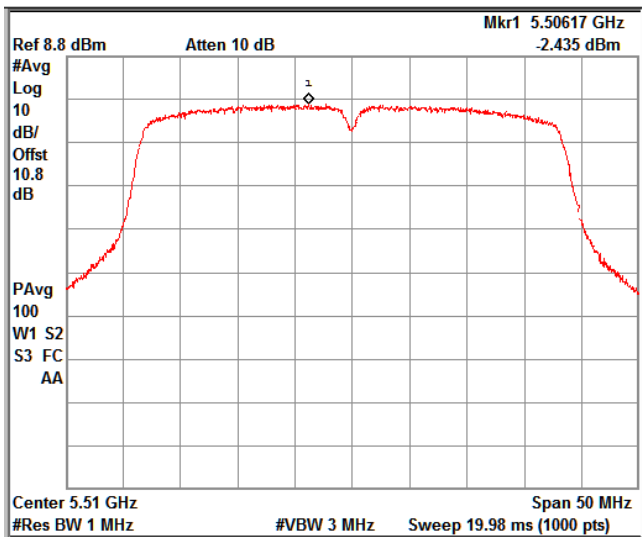
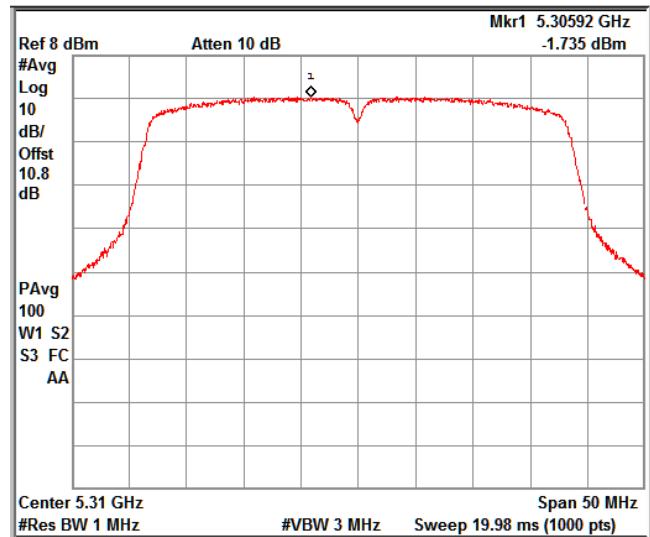
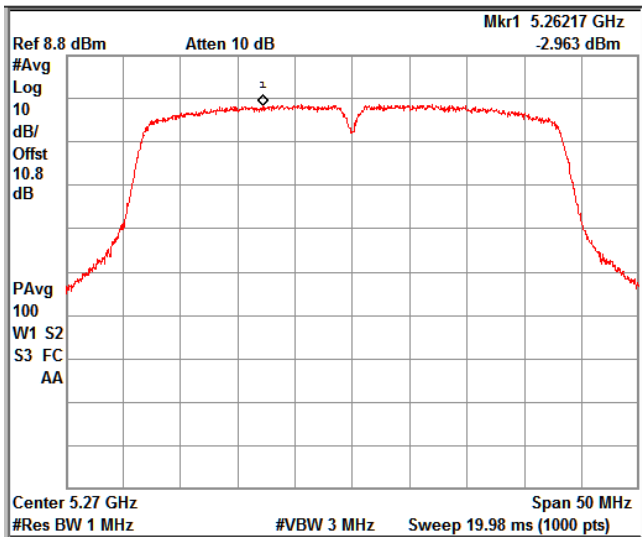
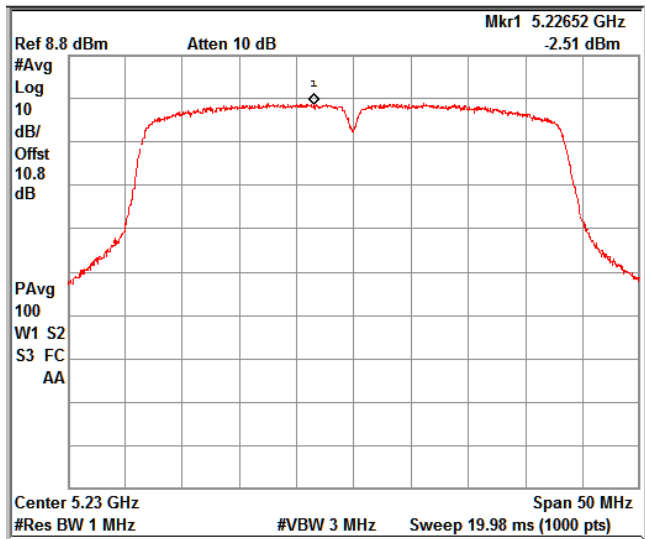
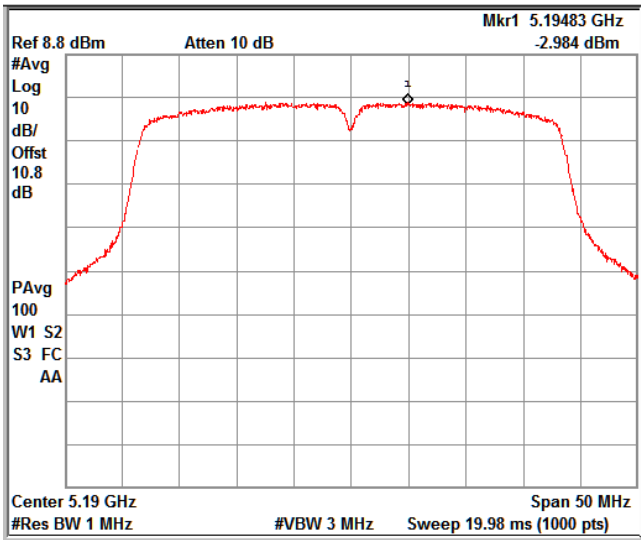
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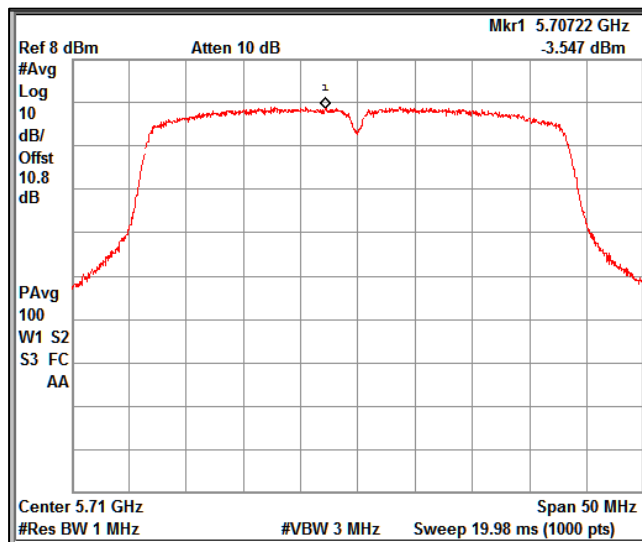
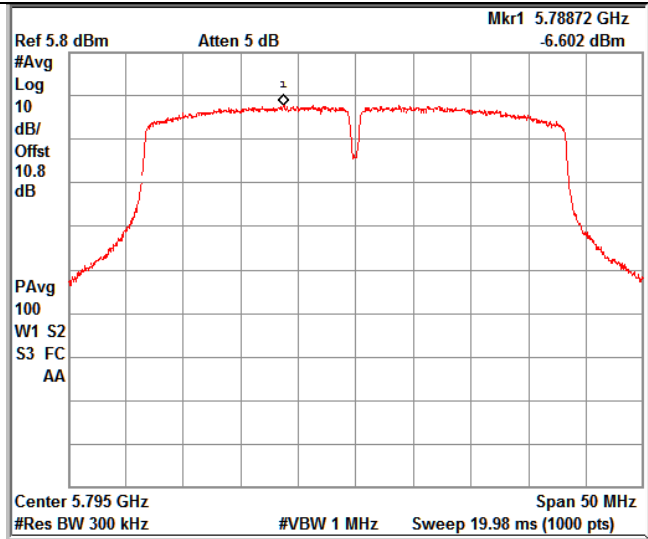
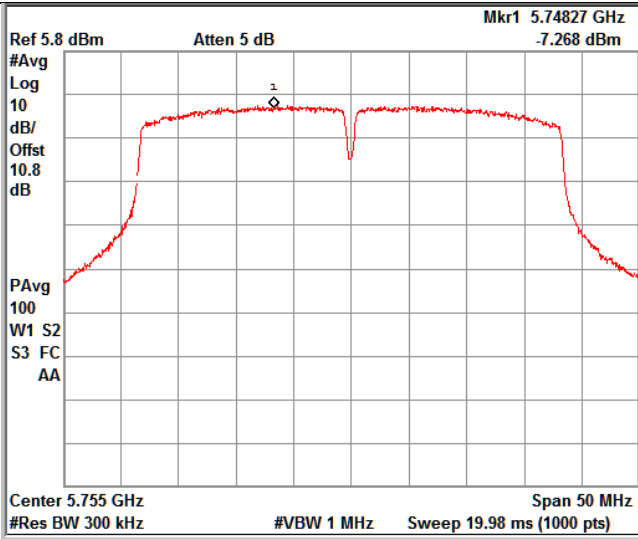
Modulation: 802.11n – 40MHz - UNII 1, UNII2a, UNII2c

Data rate (Mbps)	Measured Frequency (MHz)	Measured Average PSD (dBm/1MHz)	Duty Cycle X %	Duty cycle correction factor (dB)	Maximum Average PSD (dBm/1MHz)	PSD (e.i.r.p) (dBm/1MHz)	FCC PSD Limit (dBm/1MHz)	IC e.i.r.p SD (dBm/1MHz)
n_mode-HT40MHz MCS0	5190	-2.98	85.00	0.71	-2.27	0.83	11.00	10.00
	5230	-2.51	85.00	0.71	-1.80	1.30	11.00	10.00
	5270	-2.96	85.00	0.71	-2.25	0.85	11.00	10.00
	5310	-1.73	85.00	0.71	-1.02	2.08	11.00	10.00
	5510	-2.43	85.00	0.71	-1.72	1.38	11.00	10.00
	5590	-2.33	85.00	0.71	-1.62	1.48	11.00	10.00
	5670	-2.77	85.00	0.71	-2.06	1.04	11.00	10.00
n_mode-HT40MHz MCS7	5190	-5.24	40.00	3.98	-1.26	1.84	11.00	10.00
	5230	-5.00	40.00	3.98	-1.02	2.08	11.00	10.00
	5270	-5.47	40.00	3.98	-1.49	1.61	11.00	10.00
	5310	-3.70	40.00	3.98	0.28	3.38	11.00	10.00
	5510	-4.33	40.00	3.98	-0.35	2.75	11.00	10.00
	5590	-4.87	40.00	3.98	-0.89	2.21	11.00	10.00
	5670	-5.02	40.00	3.98	-1.04	2.06	11.00	10.00
	5710	-8.98	40.00	3.98	-5.00	-1.90	11.00	10.00

Modulation: 802.11n – 40MHz - UNII 3

Data rate (Mbps)	Measured Frequency (MHz)	Measured Average PSD (dBm/0.3MHz)	Duty Cycle X %	Duty cycle correction factor (dB)	Bandwidth Correction (dB)	Maximum Average PSD (dBm/500kHz)	PSD (e.i.r.p) (dBm/500kHz)	FCC PSD Limit (dBm/500kHz)	IC e.i.r.p PSD (dBm/500kHz)
n_mode-HT40MHz_MCS0	5755	-7.26	85.00	0.71	2.21	-4.34	-1.24	11.00	10.00
	5795	-6.60	85.00	0.71	2.21	-3.68	-0.58	11.00	10.00
n_mode-HT40MHz_MCS7	5755	-8.97	40.00	3.98	2.21	-2.78	0.32	11.00	10.00
	5795	-8.47	40.00	3.98	2.21	-2.28	0.82	11.00	10.00

Data Rate : MCS0




Only MCS0 plots are copied

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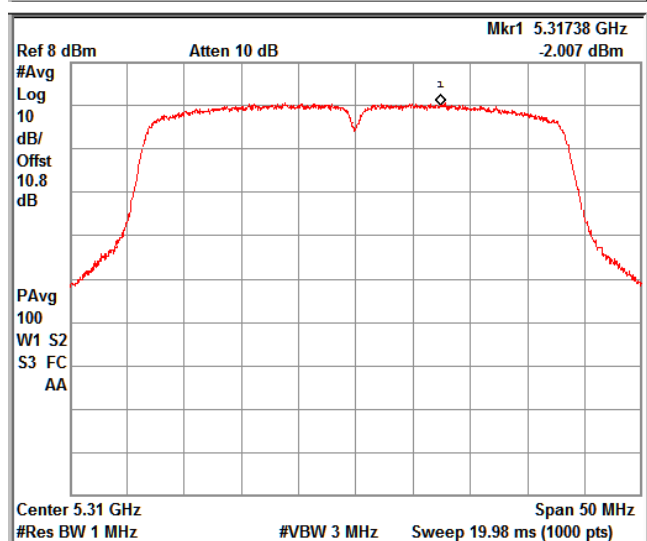
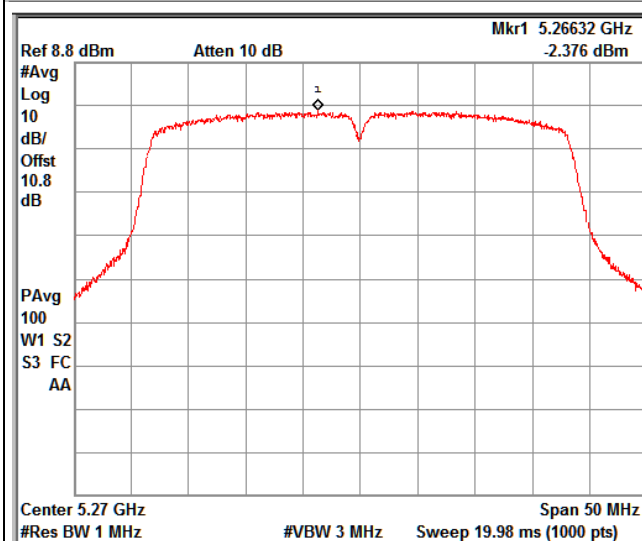
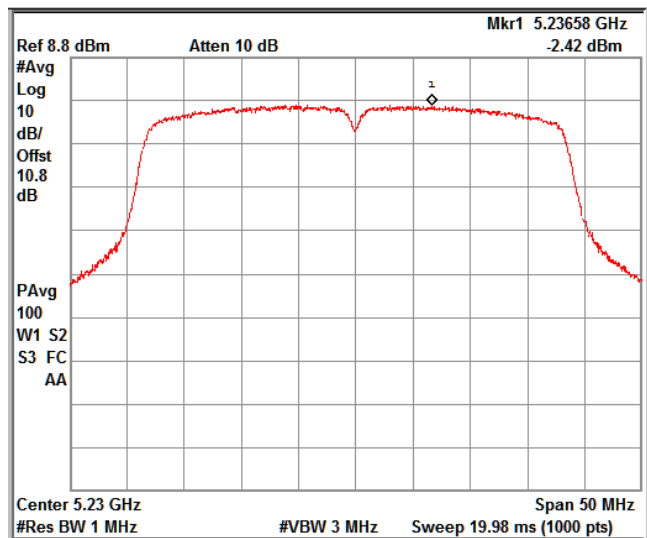
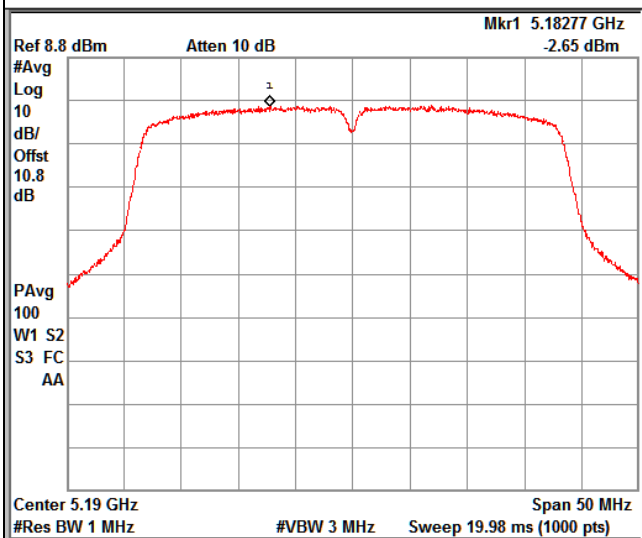
Modulation: 802.11n – VHT40MHz - UNII 1, UNII2a, UNII2c

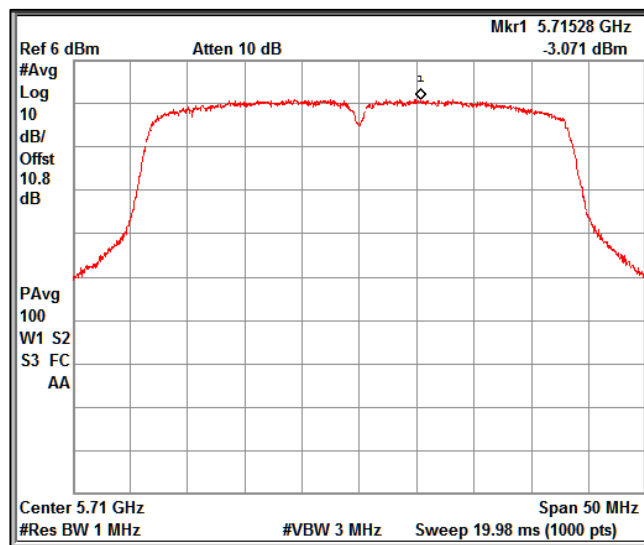
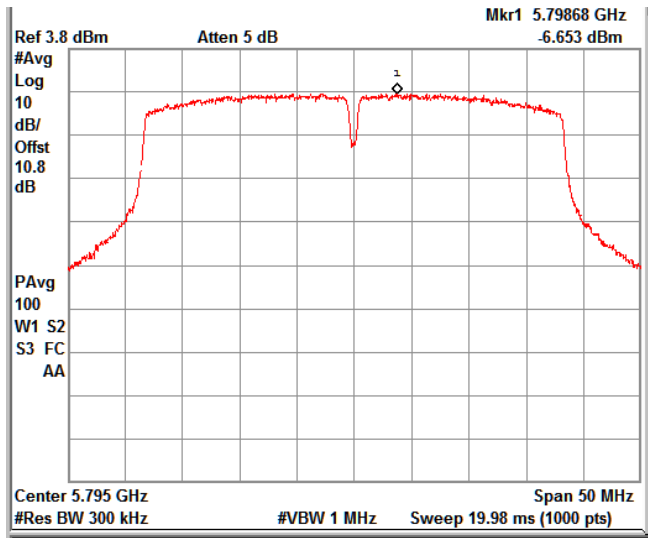
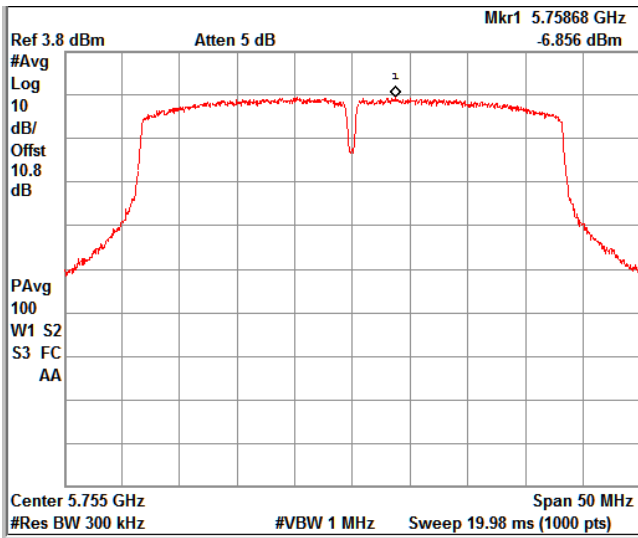
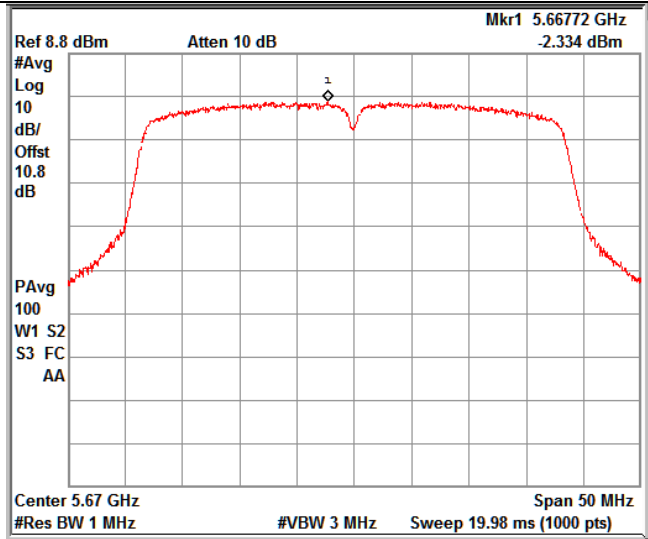
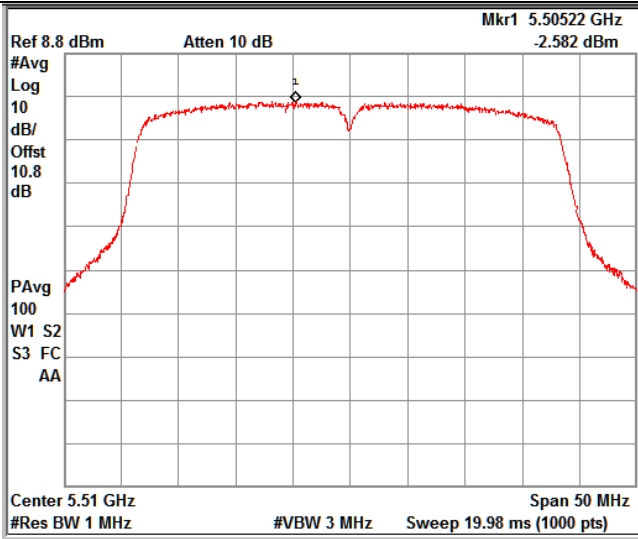
Data rate (Mbps)	Measured Frequency (MHz)	Measured Average PSD (dBm/1MHz)	Duty Cycle X %	Duty cycle correction factor (dB)	Maximum Average PSD (dBm/1MHz)	PSD (e.i.r.p) (dBm/1MHz)	FCC PSD Limit (dBm/1MHz)	IC e.i.r.p SD (dBm/1MHz)
n_mode_VHT40MHz_MCS0	5190	-2.65	85.00	0.71	-1.94	1.16	11.00	10.00
	5230	-2.42	85.00	0.71	-1.71	1.39	11.00	10.00
	5270	-2.37	85.00	0.71	-1.66	1.44	11.00	10.00
	5310	-2.00	85.00	0.71	-1.29	1.81	11.00	10.00
	5510	-2.58	85.00	0.71	-1.87	1.23	11.00	10.00
	5590	-2.89	85.00	0.71	-2.18	0.92	11.00	10.00
	5670	-2.33	85.00	0.71	-1.62	1.48	11.00	10.00
	5710	-3.07	85.00	0.71	-2.36	0.74	14.00	10.00
n_mode_VHT40MHz_MCS9	5190	-5.35	21.00	6.78	1.43	4.53	11.00	10.00
	5230	-5.39	21.00	6.78	1.39	4.49	11.00	10.00
	5310	-4.19	21.00	6.78	2.59	5.69	11.00	10.00
	5270	-5.63	21.00	6.78	1.15	4.25	11.00	10.00
	5510	-6.58	21.00	6.78	0.20	3.30	11.00	10.00
	5590	-5.57	21.00	6.78	1.21	4.31	11.00	10.00
	5670	-5.25	21.00	6.78	1.53	4.63	11.00	10.00
	5710	-6.07	21.00	6.78	0.71	3.81	14.00	10.00

Modulation: 802.11n – VHT40MHz - UNII 3

Data rate (Mbps)	Measured Frequency (MHz)	Measured Average PSD (dBm/0.3MHz)	Duty Cycle X %	Duty cycle correction factor (dB)	Bandwidth Correction (dB)	Maximum Average PSD (dBm/500kHz)	PSD (e.i.r.p) (dBm/500kHz)	FCC PSD Limit (dBm/500kHz)	IC e.i.r.p PSD (dBm/500kHz)
n_mode_VHT40 MHz_MCS0	5755	-6.85	85.00	0.71	2.21	-3.93	-0.83	11.00	10.00
	5795	-6.65	85.00	0.71	2.21	-3.73	-0.63	11.00	10.00
n_mode_VHT40 MHz_MCS9	5755	-9.11	21.00	6.78	2.21	-0.12	2.98	11.00	10.00
	5795	-8.50	21.00	6.78	2.21	0.49	3.59	11.00	10.00

Data Rate : MCS0





Only MCS0 plots are copied

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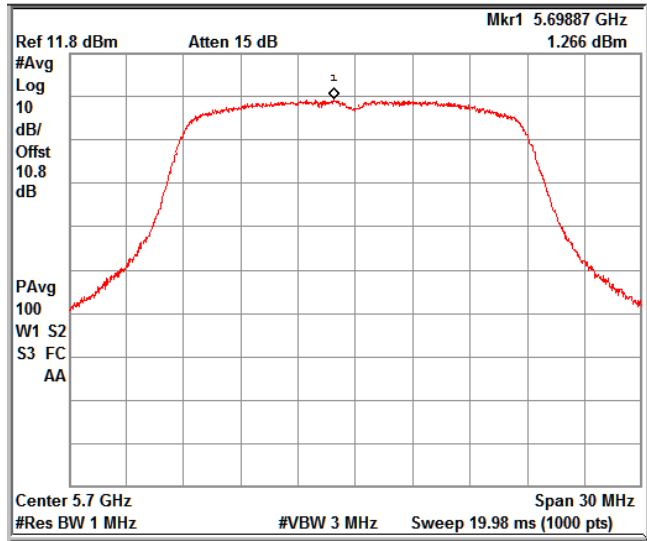
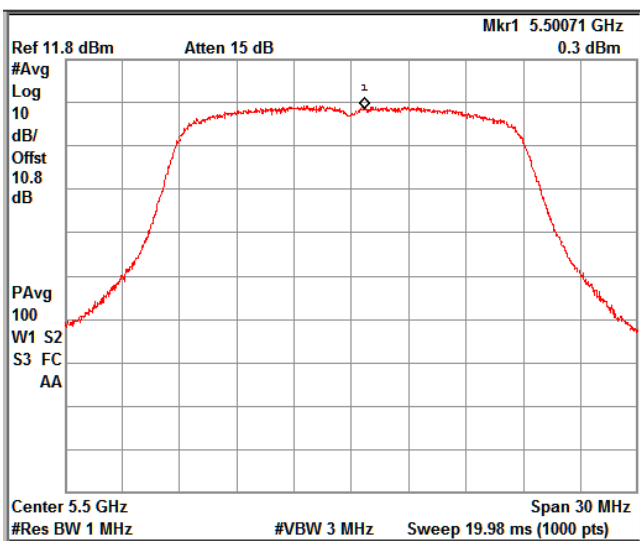
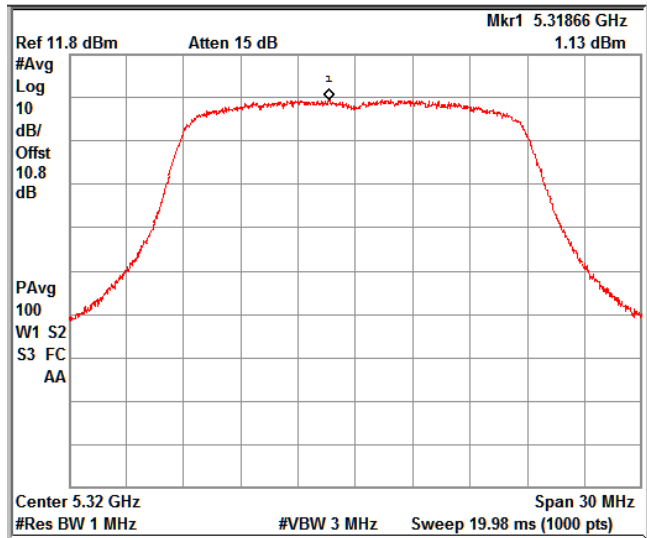
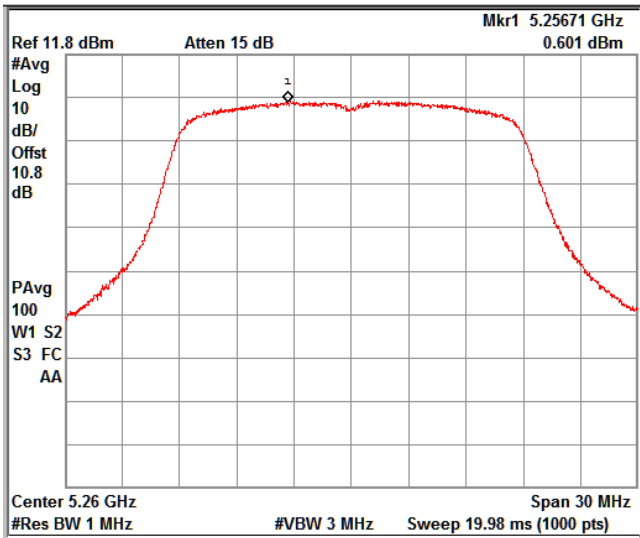
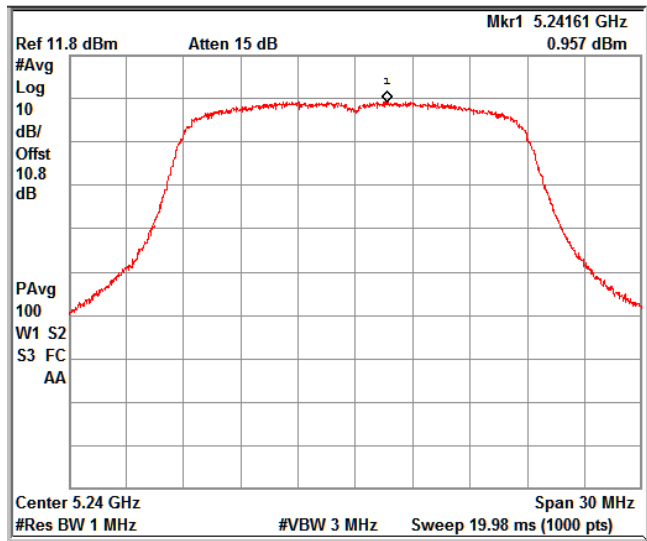
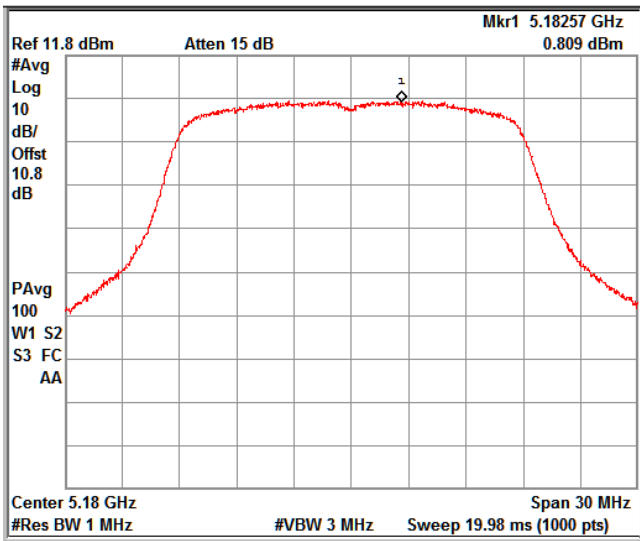
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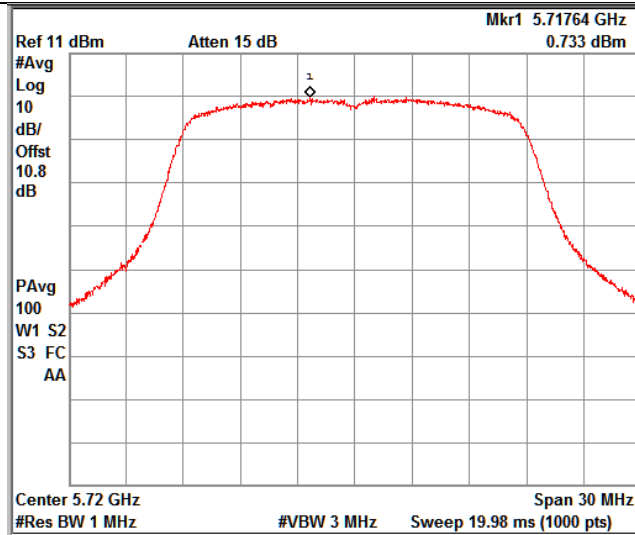
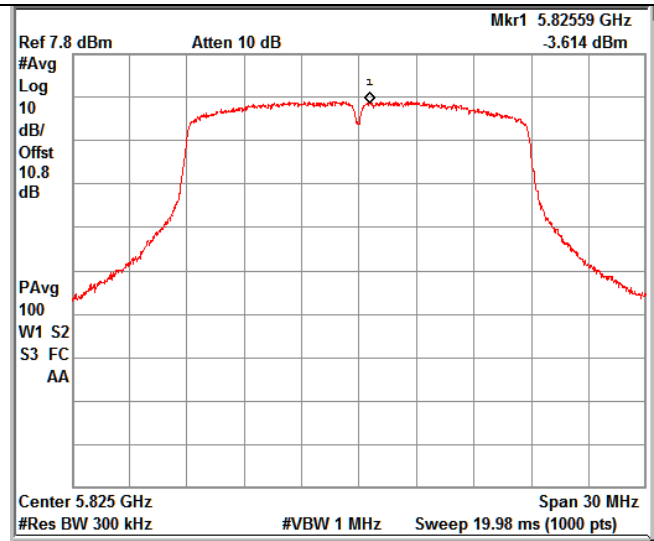
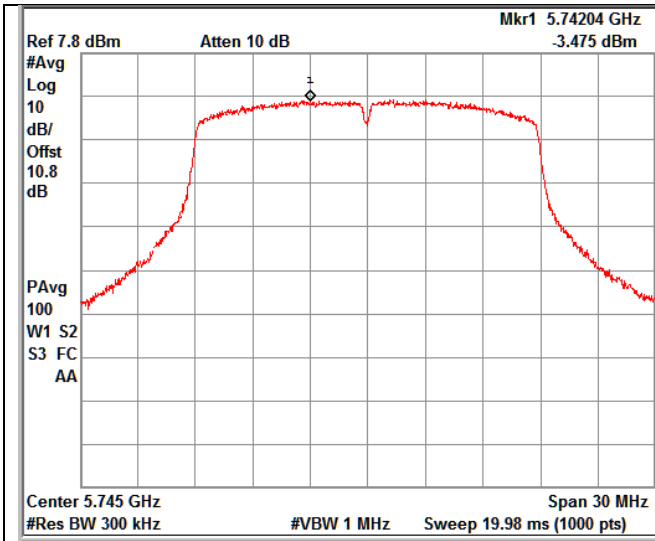
Modulation: 802.11ac – VHT20MHz - UNII 1, UNII2a, UNII2c

Data rate (Mbps)	Measured Frequency (MHz)	Measured Average PSD (dBm/1MHz)	Duty Cycle X %	Duty cycle correction factor (dB)	Maximum Average PSD (dBm/1MHz)	PSD (e.i.r.p) (dBm/1MHz)	FCC PSD Limit (dBm/1MHz)	IC e.i.r.p SD (dBm/1MHz)
ac_mode-VHT 20MHz-MCS0	5180	0.80	92.00	0.36	1.16	4.26	11.00	10.00
	5240	0.95	92.00	0.36	1.31	4.41	11.00	10.00
	5260	0.60	92.00	0.36	0.96	4.06	11.00	10.00
	5320	1.13	92.00	0.36	1.49	4.59	11.00	10.00
	5500	0.30	92.00	0.36	0.66	3.76	11.00	10.00
	5700	1.26	92.00	0.36	1.62	4.72	11.00	10.00
	5720	0.73	92.00	0.36	1.09	4.19	11.00	10.00
ac_mode-VHT 20MHz-MCS8	5180	-1.52	47.00	3.28	1.76	4.86	11.00	10.00
	5240	-1.50	47.00	3.28	1.78	4.88	11.00	10.00
	5260	-1.69	47.00	3.28	1.59	4.69	11.00	10.00
	5320	-1.14	47.00	3.28	2.14	5.24	11.00	10.00
	5500	-1.18	47.00	3.28	2.10	5.20	11.00	10.00
	5700	-2.23	47.00	3.28	1.05	4.15	11.00	10.00
	5720	-1.98	47.00	3.28	-1.80	1.30	14.00	10.00

Modulation: 802.11ac – VHT20MHz - UNII 3

Data rate (Mbps)	Measured Frequency (MHz)	Measured Average PSD (dBm/0.3MHz)	Duty Cycle X %	Duty cycle correction factor (dB)	Bandwidth Correction (dB)	Maximum Average PSD (dBm/500kHz)	PSD (e.i.r.p) (dBm/500kHz)	FCC PSD Limit (dBm/500kHz)	IC e.i.r.p PSD (dBm/500kHz)
ac_mode-VHT 20MHz-MCS0	5745	-3.47	-3.47	92.00	0.36	2.21	-0.90	11.00	10.00
	5825	-3.61	-3.61	92.00	0.36	2.21	-1.04	11.00	10.00
ac_mode-VHT 20MHz-MCS8	5745	-5.08	-5.08	47.00	3.28	2.21	0.41	11.00	10.00
	5825	-5.58	-5.58	47.00	3.28	2.21	-0.09	11.00	10.00

Data Rate : MCS0




Only MCS0 graphs are copied

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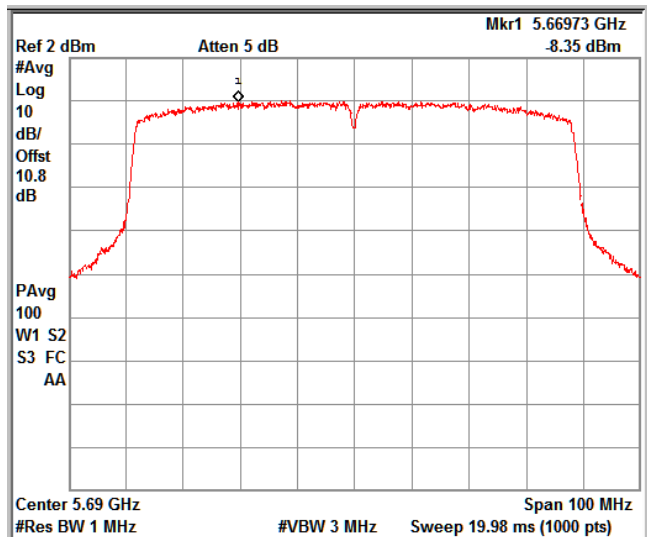
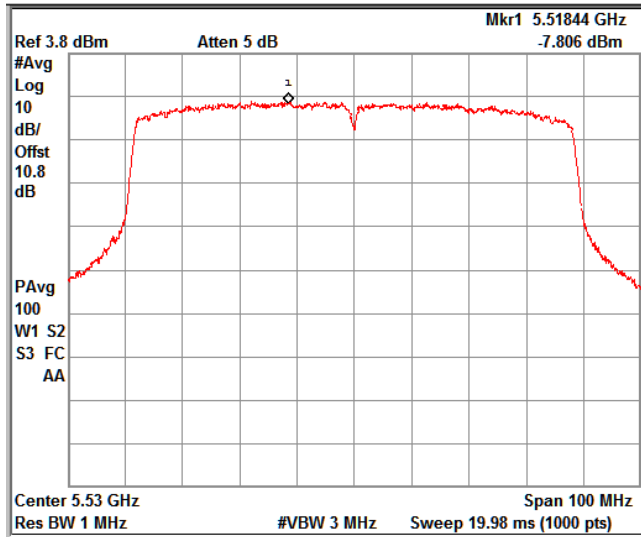
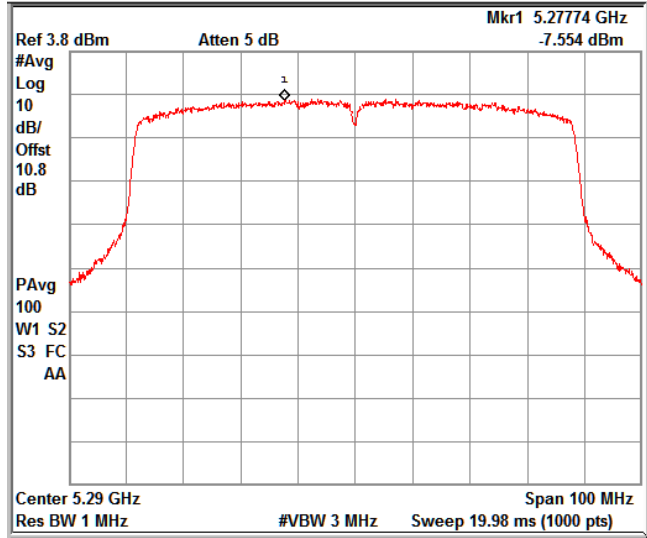
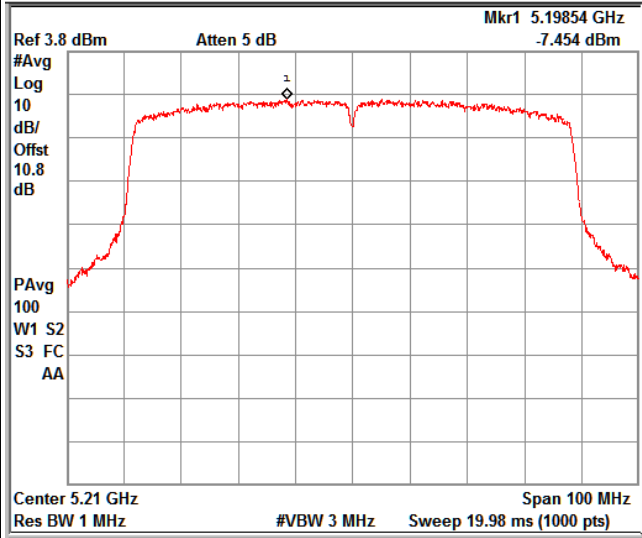
Modulation: 802.11ac – VHT80MHz - UNII 1, UNII2a, UNII2c

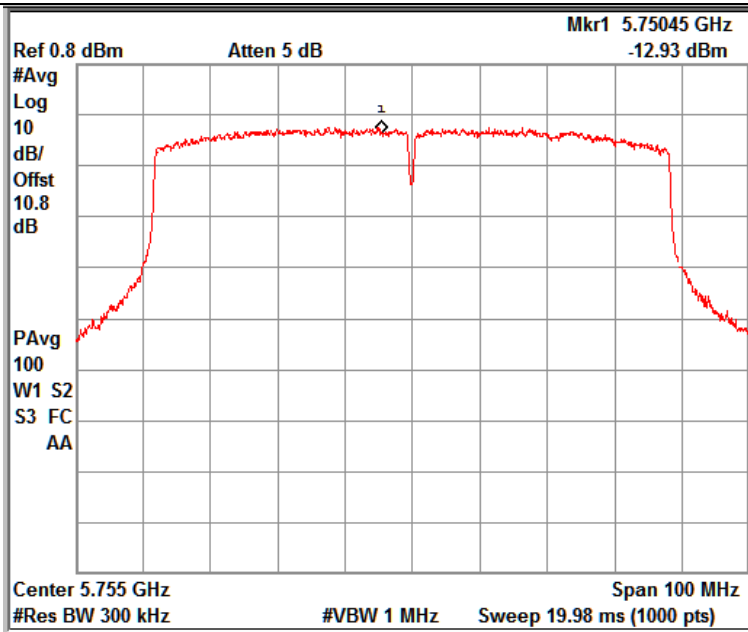
Data rate (Mbps)	Measured Frequency (MHz)	Measured Average PSD (dBm/1MHz)	Duty Cycle X %	Duty cycle correction factor (dB)	Maximum Average PSD (dBm/ 1MHz)	PSD (e.i.r.p) (dBm/1MHz)	FCC PSD Limit (dBm/1MHz)	IC e.i.r.p SD (dBm/1MHz)
ac_mode-VHT 80MHz_ MCS0	5210	-7.45	64.00	1.94	-5.51	-2.41	11.00	10.00
	5290	-7.55	64.00	1.94	-5.61	-2.51	11.00	10.00
	5530	-7.80	64.00	1.94	-5.86	-2.76	11.00	10.00
	5690	-8.18	64.00	1.94	-6.24	-3.14	11.00	10.00
ac_mode-VHT 80MHz_ MCS9	5210	-9.81	27.00	5.69	-4.12	-1.02	11.00	10.00
	5290	-10.70	27.00	5.69	-5.01	-1.91	11.00	10.00
	5530	-9.52	27.00	5.69	-3.83	-0.73	11.00	10.00
	5690	-9.29	27.00	5.69	-3.60	-0.50	11.00	10.00

Modulation: 802.11ac – VHT80MHz - UNII 3

Data rate (Mbps)	Measured Frequency (MHz)	Measured Average PSD (dBm/0.3MHz)	Duty Cycle X %	Duty cycle correction factor (dB)	Bandwidth Correction (dB)	Maximum Average PSD (dBm/500kHz)	PSD (e.i.r.p) (dBm/500kHz)	FCC PSD Limit (dBm/500kHz)	IC e.i.r.p PSD (dBm/500kHz)
ac_mode-VHT 80MHz_ MCS0	5755	-12.93	64.00	1.94	2.21	-8.78	-5.68	11.00	10.00
ac_mode-VHT 80MHz_ MCS9	5755	-13.20	27.00	5.69	2.21	-5.30	-2.20	11.00	10.00

Data Rate: MCS0





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7.4 Dynamic Frequency Selection (DFS)

Result

Pass

Test Specification 15.407 (h) / RSS 247 Issue 2 Section 6.3

Test Method FCC KDB Publication 905462 D02 & 905462 D03

Port of testing Conducted method

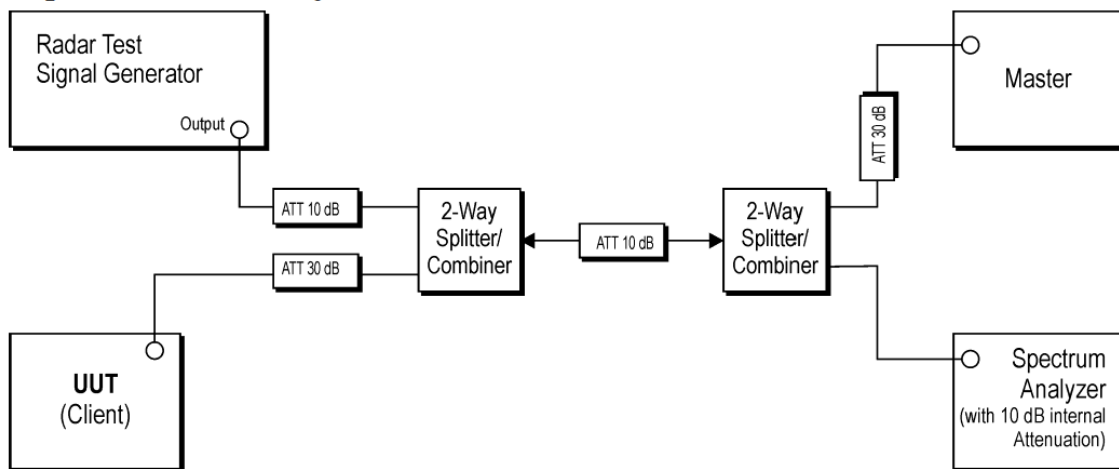
UUT Type Client without radar detection capabilities

1. Transmit power control (TPC). U-NII devices operating in the 5.25-5.35 GHz band and the 5.47-5.725 GHz band shall employ a TPC mechanism. The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm. A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW

2. Radar Detection Function of Dynamic Frequency Selection (DFS). U-NII devices operating with any part of its 26 dB emission bandwidth in the 5.25-5.35 GHz and 5.47-5.725 GHz bands shall employ a DFS radar detection mechanism to detect the presence of radar systems and to avoid co-channel operation with radar systems. Operators shall only use equipment with a DFS mechanism that is turned on when operating in these bands

Test Setup :

Setup for Client with injection at the Master



Note: FCC Certified Access Point is used for testing with FCC ID: LDK102087

Limits :

Applicability of DFS Requirements Prior to Use of a Channel

Requirement	Operational Mode		
	Master	Client Without Radar Detection	Client With Radar Detection
<i>Non-Occupancy Period</i>	Yes	Not required	Yes
<i>DFS Detection Threshold</i>	Yes	Not required	Yes
<i>Channel Availability Check Time</i>	Yes	Not required	Not required
<i>U-NII Detection Bandwidth</i>	Yes	Not required	Yes

Applicability of DFS requirements during normal operation

Requirement	Operational Mode	
	Master Device or Client with Radar Detection	Client Without Radar Detection
<i>DFS Detection Threshold</i>	Yes	Not required
<i>Channel Closing Transmission Time</i>	Yes	Yes
<i>Channel Move Time</i>	Yes	Yes
<i>U-NII Detection Bandwidth</i>	Yes	Not required

The operational behavior and individual DFS requirements that are associated with these modes are as follows: as per KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02

Client Devices

- a) A *Client Device* will not transmit before having received appropriate control signals from a *Master Device*.
- b) A *Client Device* will stop all its transmissions whenever instructed by a *Master Device* to which it is associated and will meet the *Channel Move Time* and *Channel Closing Transmission Time* requirements. The *Client Device* will not resume any transmissions until it has again received control signals from a *Master Device*.
- c) If a *Client Device* is performing *In-Service Monitoring* and detects a *Radar Waveform* above the *DFS Detection Threshold*, it will inform the *Master Device*. This is equivalent to the *Master Device* detecting the *Radar Waveform* and d) through f) of section 5.1.1 apply.
- d) Irrespective of *Client Device* or *Master Device* detection the *Channel Move Time* and *Channel Closing Transmission Time* requirements remain the same.
- e) The client test frequency must be monitored to ensure no transmission of any type has occurred for 30 minutes. Note: If the client moves with the master, the device is considered compliant if nothing appears in the client non-occupancy period test. For devices that shut down (rather than moving channels), no beacons should appear.

DFS Detection Thresholds

below provides the *DFS Detection Thresholds* for *Master Devices* as well as *Client Devices* incorporating *In-Service Monitoring*.

DFS Detection Thresholds for Master Devices and Client Devices with Radar Detection

Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP \geq 200 milliwatt	-64 dBm
EIRP $<$ 200 milliwatt and power spectral density $<$ 10 dBm/MHz	-62 dBm
EIRP $<$ 200 milliwatt that do not meet the power spectral density requirement	-64 dBm
<p>Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna. Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response. Note 3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.</p>	

Response Requirements

provides the response requirements for *Master* and *Client Devices* incorporating DFS.

DFS Response Requirement Values

Parameter	Value
<i>Non-occupancy period</i>	Minimum 30 minutes
<i>Channel Availability Check Time</i>	60 seconds
<i>Channel Move Time</i>	10 seconds See Note 1.
<i>Channel Closing Transmission Time</i>	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
<i>U-NII Detection Bandwidth</i>	Minimum 100% of the U- NII 99% transmission power bandwidth. See Note 3.

Note 1: *Channel Move Time* and the *Channel Closing Transmission Time* should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

Note 2: The *Channel Closing Transmission Time* is comprised of 200 milliseconds starting at the beginning of the *Channel Move Time* plus any additional intermittent control signals required to facilitate a *Channel* move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

Note 3: During the *U-NII Detection Bandwidth* detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

Note :

1. This UUT is classified as Client device without radar detection capabilities, hence only *Channel Move Time* and *Channel Closing Transmission Time* are applicable
2. *Channel Move Time* and *Channel Closing Transmission Time* is performed with Radar Type 0
3. *U-NII Detection Bandwidth* is not applicable for this device

Test Condition:

Normal Test Condition:

Temperature (Norm) = + 25 °C

Voltage = 3.3VDC

Relative humidity: 62 %

KDB Guidelines applied:

Measurements were made following the guidelines of *905462 D02 UNII DFS Compliance Procedures New Rules v02* & *905462 D03 Client Without DFS New Rules v01r02*

Test results:

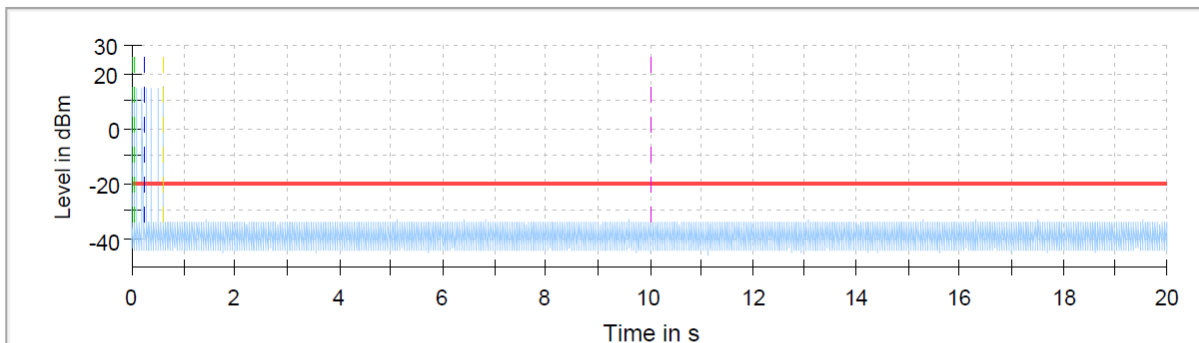
DFS In-Service Monitoring

UNII band : UNII 2a

Channel Bandwidth : 20MHz

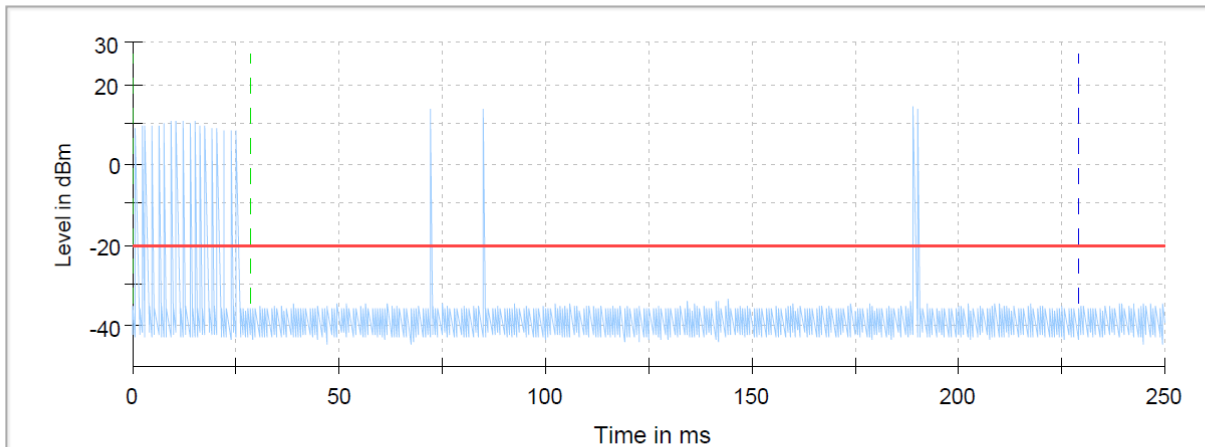
Operating Frequency (MHz)	Test	Measured Value	Limit
5320	Channel move Time	0.579 s	10 sec
	Channel Closing Transmission Time	0.784 ms + 1.424 ms	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period
	Non Occupancy Time	0	Min 30 minutes

Channel Move Time



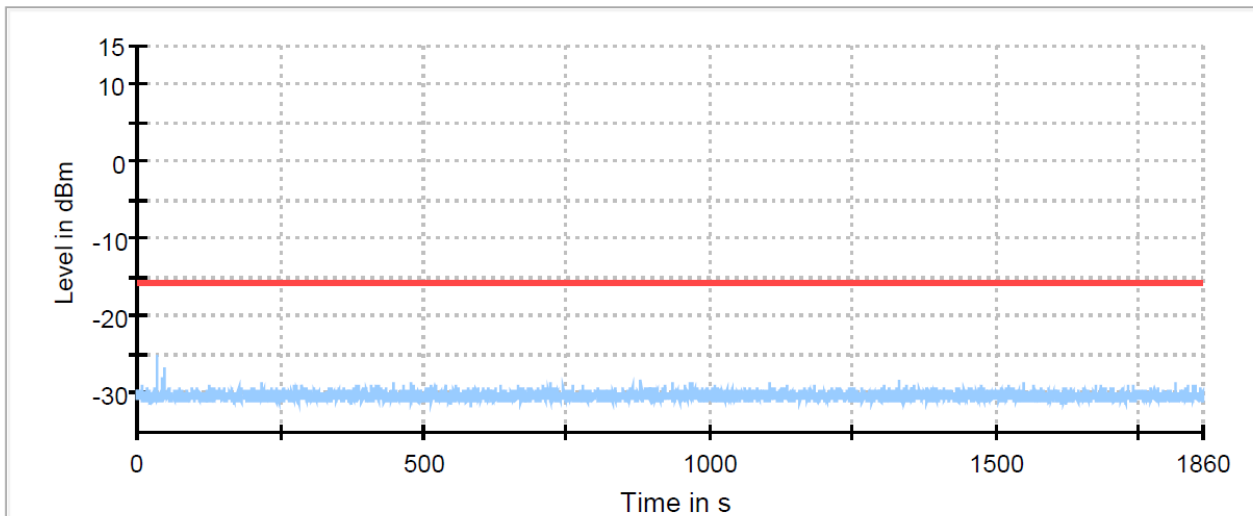
- Channel Move Time
- Threshold
- - - Start of Radar
- - - Trigger at end of Radar
- - - First 200ms of Channel Closing Tx Time
- - - 10sec Channel Move Time Limit
- - - Last measured edge of Channel Closing Tx Time

Channel Move Time first 200ms



- Channel Move Time first 200ms
- Threshold
- - - Start of Radar
- - - First 200ms of Channel Closing Tx Time
- - - Trigger at end of Radar

Non-occupancy period

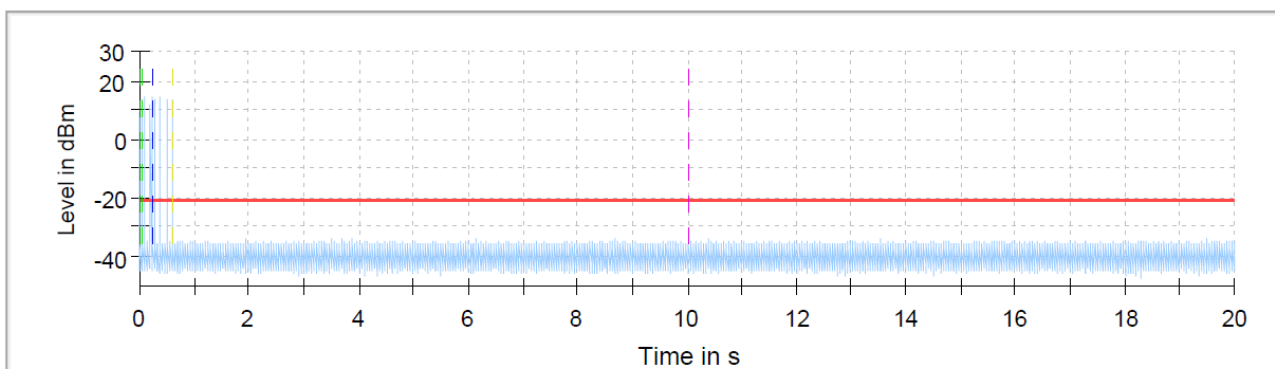


- Non-occupancy period
- Threshold

UNII band : UNII 2a
Channel Bandwidth : 40MHz

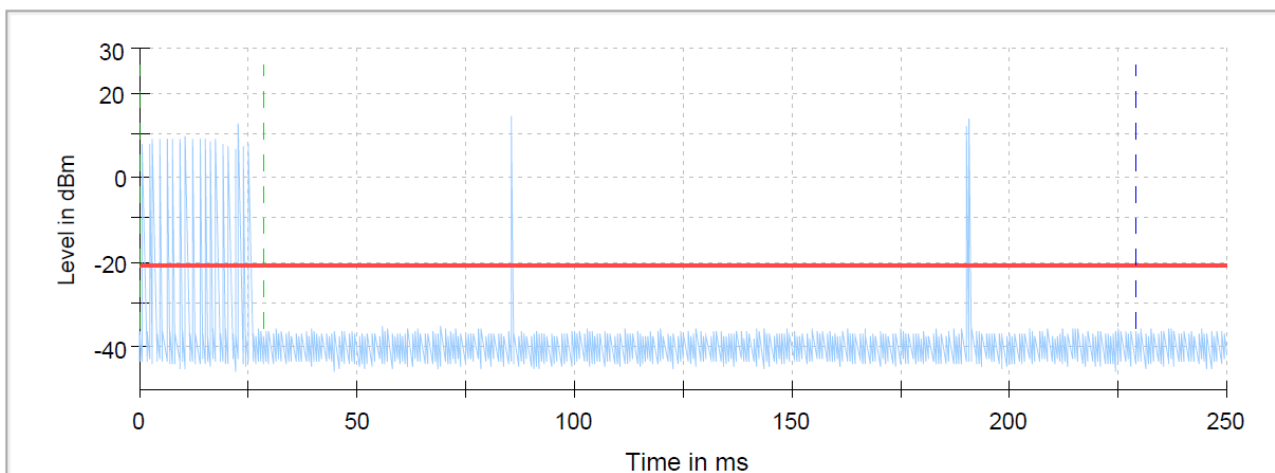
Operating Frequency (MHz)	Test	Measured Value	Limit
5260	Channel move Time	0.580 s	10 sec
	Channel Closing Transmission Time	0.704 ms + 1.424 ms	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period
	Non Occupancy Time	0	Min 30 minutes

Channel Move Time



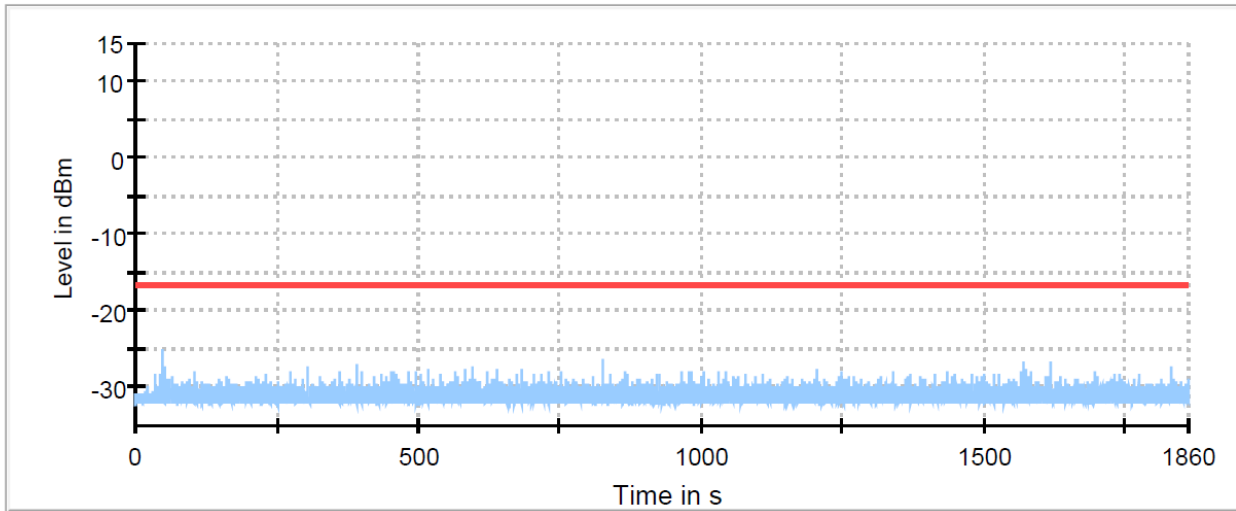
- Channel Move Time
- Threshold
- - Start of Radar
- - Trigger at end of Radar
- - First 200ms of Channel Closing Tx Time
- - 10sec Channel Move Time Limit
- - Last measured edge of Channel Closing Tx Time

Channel Move Time first 200ms



- Channel Move Time first 200ms
- Threshold
- - Start of Radar
- - Trigger at end of Radar
- - First 200ms of Channel Closing Tx Time

Non-occupancy period

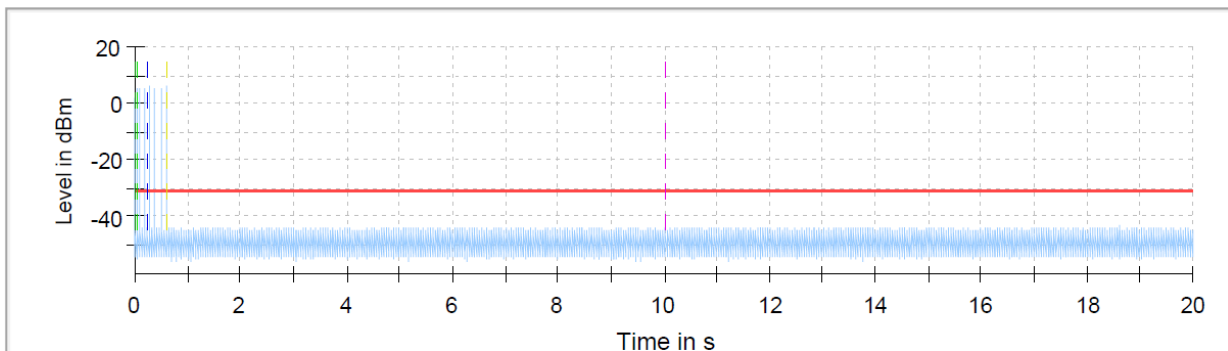


— Non-occupancy period — Threshold

UNII band : UNII 2c
Channel Bandwidth : 20MHz

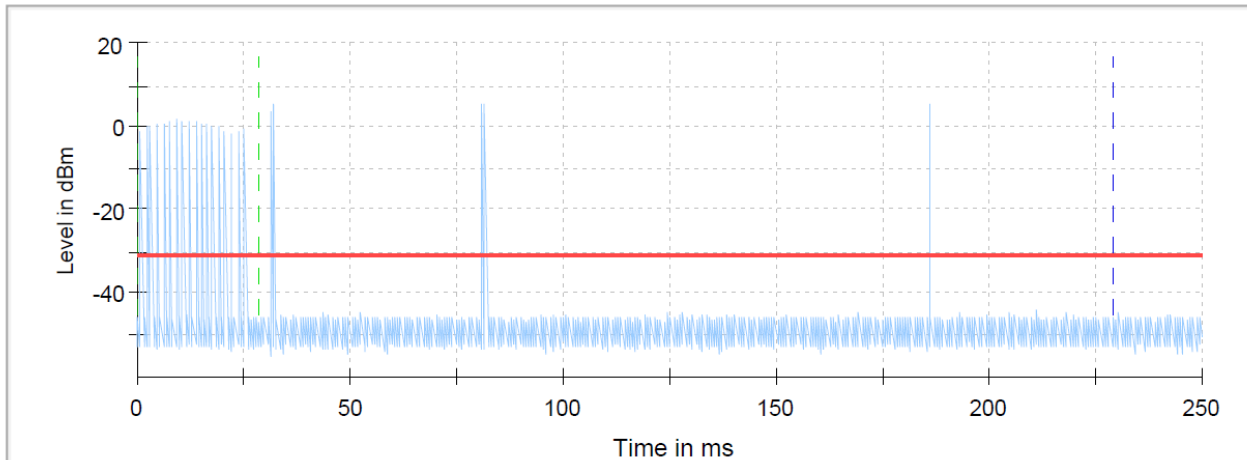
Operating Frequency (MHz)	Test	Measured Value	Limit
5500	Channel move Time	0.575 s	10 sec
	Channel Closing Transmission Time	0.760 ms + 1.384ms	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period
	Non Occupancy Time	0	Min 30 minutes

Channel Move Time



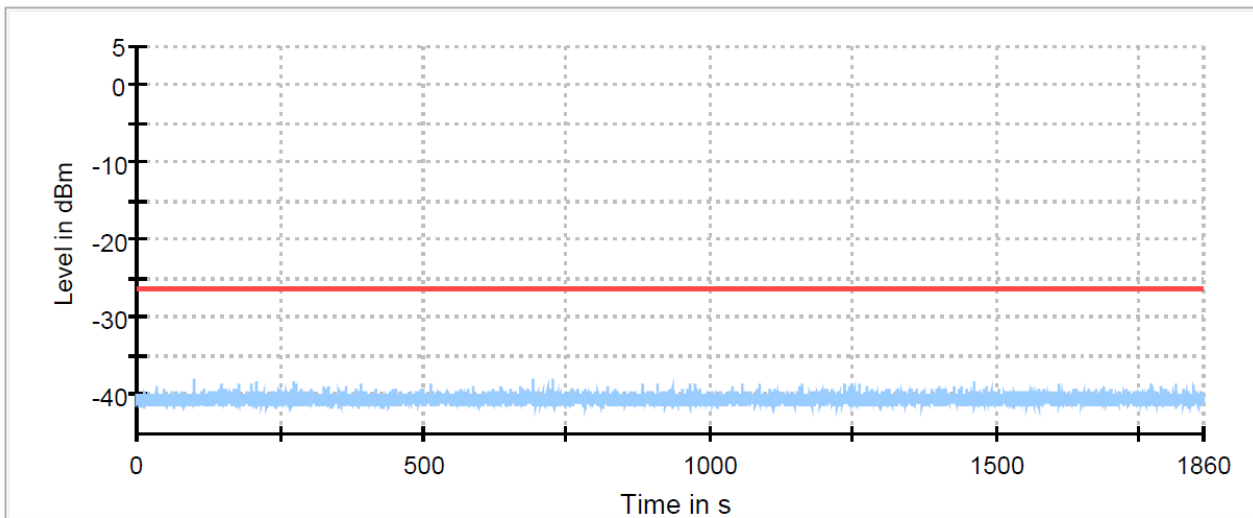
— Channel Move Time
— Threshold
- - - Start of Radar
- - - Trigger at end of Radar
- - - First 200ms of Channel Closing Tx Time
- - - 10sec Channel Move Time Limit
- - - Last measured edge of Channel Closing Tx Time

Channel Move Time first 200ms



- Channel Move Time first 200ms
- Threshold
- - - Start of Radar
- - - First 200ms of Channel Closing Tx Time
- - - Trigger at end of Radar

Non-occupancy period

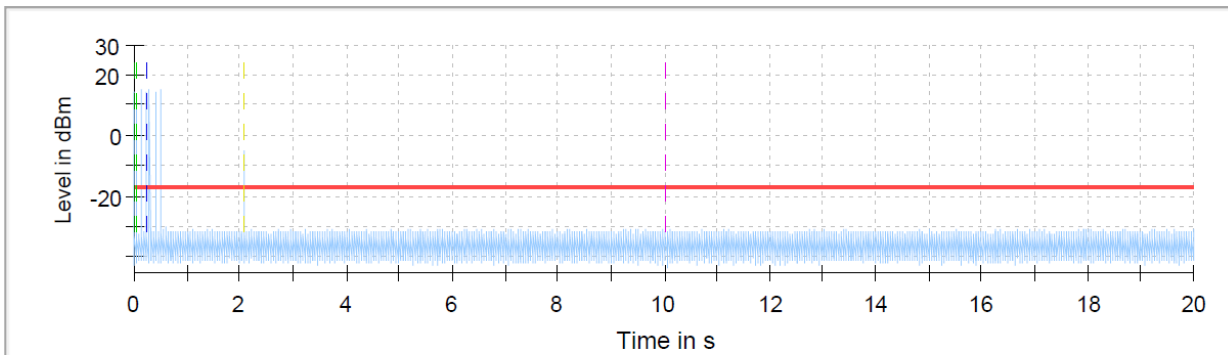


- Non-occupancy period
- Threshold

UNII band : UNII 2c
Channel Bandwidth : 40MHz

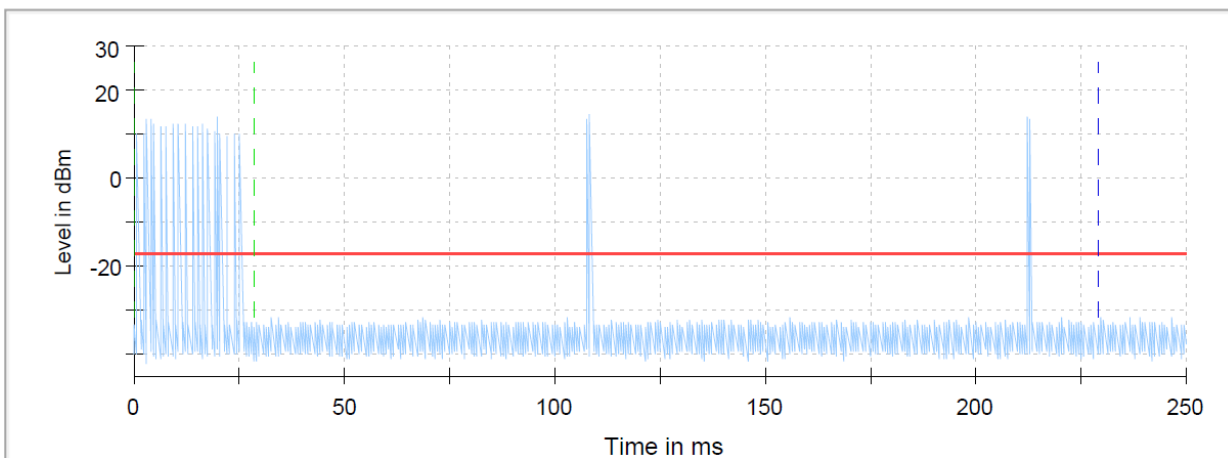
Operating Frequency (MHz)	Test	Measured Value	Limit
5700	Channel move Time	2.056 s	10 sec
	Channel Closing Transmission Time	0.704 ms + 1.180ms	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period
	Non Occupancy Time	0	Min 30 minutes

Channel Move Time



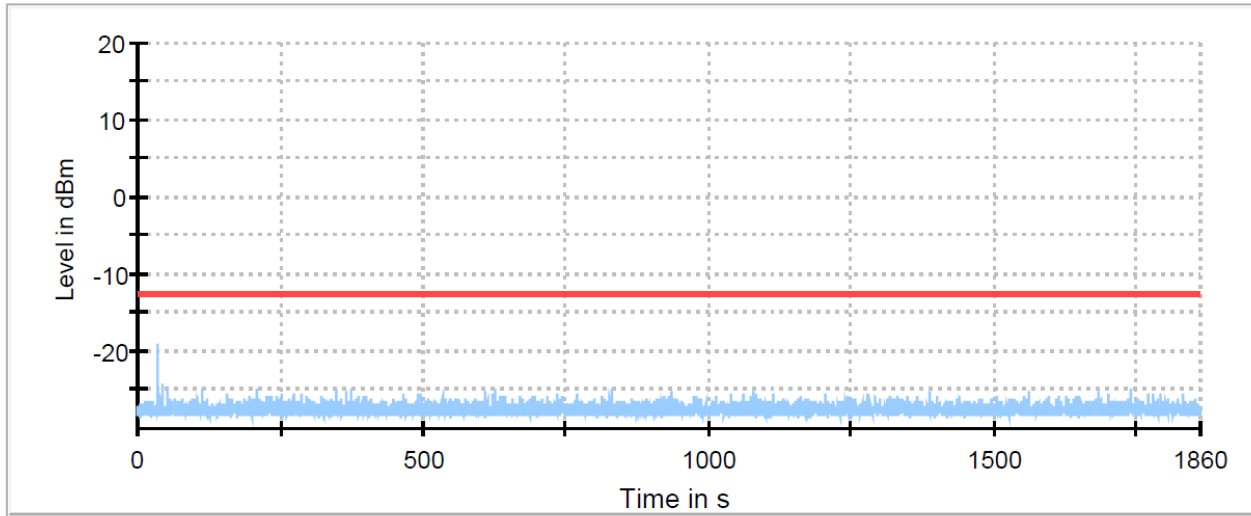
- Channel Move Time
- Threshold
- - - Start of Radar
- - - Trigger at end of Radar
- - - First 200ms of Channel Closing Tx Time
- | 10sec Channel Move Time Limit
- | Last measured edge of Channel Closing Tx Time

Channel Move Time first 200ms



- Channel Move Time first 200ms
- Threshold
- - - Start of Radar
- - - First 200ms of Channel Closing Tx Time
- - - Trigger at end of Radar

Non-occupancy period



— Non-occupancy period — Threshold

7.5 Spurious Radiated Emissions & Restricted Bands of Operation
Result Pass

Test Specification	FCC part 15 Subpart C Section 15.407 (b) (15.205 & 15.209) / RSS 247 Issue 2 Section 6.2.1; 6.2.2; 6.2.3; 6.2.4 / RSS Gen Issue 5 Section 8.9 & 8.10
Test Method	ANSI C 63.10 – 2013
Measurement Bandwidth	100kHz for below 1GHz 1MHz for above 1GHz
Measurement Location	Semi Anechoic Chamber 30MHz - 1 GHz Fully Anechoic Chamber 1 GHz - 40GHz
Measuring Distance	3 m
Detector	Refer Remark
Requirement	As per the limits mentioned in the below table
Test setup	Refer TEST METHODOLOGY

Limit:

Table 6: Undesirable emission limits

Frequency Band	Limit
5.15-5.25 GHz	e.i.r.p. -27dBm [68.2 dBuV/3m]
5.25-5.35 GHz	e.i.r.p. -27dBm [68.2 dBuV/3m]
5.47-5.725 GHz	e.i.r.p. -27dBm [68.2 dBuV/3m]
5.725-5.85 GHz	5.715 GHz to 5.725 GHz - e.i.r.p. -17dBm [78.2 dBuV/3m] 5.85 GHz to 5.86 GHz - e.i.r.p. -17dBm [78.2 dBuV/3m] other frequency range - e.i.r.p. -27dBm [68.2 dBuV/3m]

Table 7: Transmitter limits for Radiated emission

Frequency (MHz)	Field strength ($\mu\text{V/m}$)	Field strength ($\text{dB}\mu\text{V/m}$)	Distance of Measurement (m)
0.009 – 0.490	2400/F(kHz)	48.50 – 13.80	300*
0.490 – 1.705	24000/F(kHz)	33.80 – 23.00	30*
1.705 -30	30	29.54	30*
30-88	100	40.0	3
88-216	150	43.5	3
216-960	200	46.0	3
Above 960	500	54.0	3

Remark: * The limit shows in the table above of frequency range 0.009 – 0.490, 0.490 – 1.705 MHz and 1.705-30MHz is at 300 meter, 30 meter and 30 meter range respectively, which corresponds to 128.51 – 93.80, 73.80 – 62.96 and 69.54 $\text{dB}\mu\text{V/m}$ at 3m range by extrapolation calculation and the measurement of loop antenna.

The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz Radiated emission limits in these three bands are based on measurements employing an average detector.

Test Condition:

Normal Test Condition:

Temperature (Norm) = + 25 °C

Voltage = 3.3VDC

Relative humidity: 62 %

Test results:

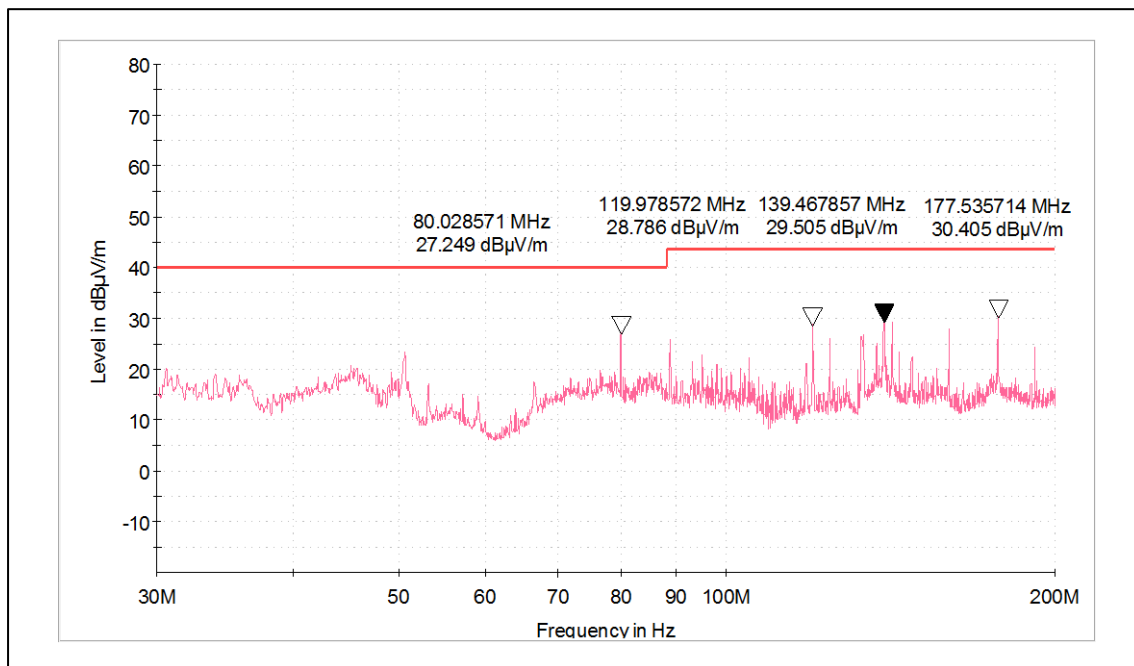
Note: All the losses are included during measurement and final values are mentioned in the test report. Refer TEST METHODOLOGY for more details

Test results for Frequency range : 9kHz – 30MHz

No Emissions found in the frequency range 9kHz – 30MHz

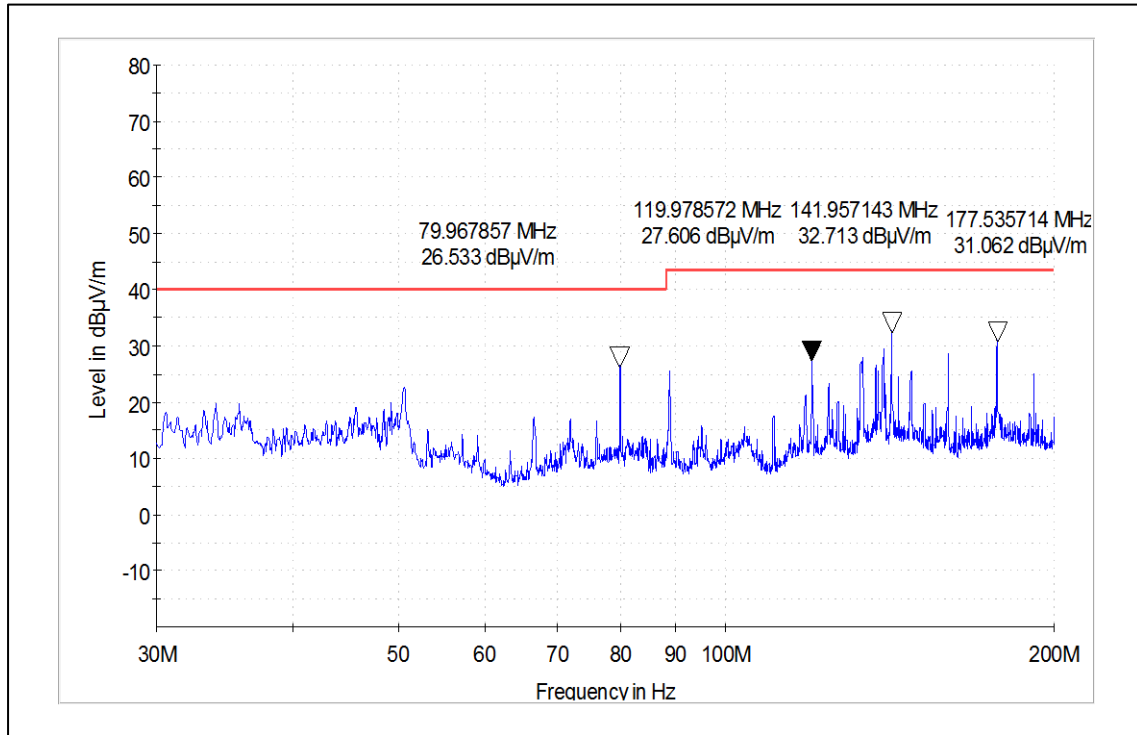
Test results for frequency range 30MHz – 1GHz

Antenna Polarization	Measured Frequency (MHz)	Measured value (dBµV/m)	Limit (dBµV/m)	Margin (dB)
Vertical	80.02	27.24	40.00	-12.76
	119.97	28.78	43.50	-14.72
	139.46	29.50	43.50	-14.00
	177.53	30.40	43.50	-13.10
	290.57	27.91	46.00	-18.09
	341.14	25.70	46.00	-20.30
	495.08	40.38	46.00	-5.62
	540.28	29.01	46.00	-16.99
Horizontal	79.96	26.53	40.00	-13.47
	119.97	27.60	43.50	-15.90
	141.95	32.71	43.50	-10.79
	177.53	31.06	43.50	-12.44
	316.69	31.90	46.00	-14.10
	356.75	31.95	46.00	-14.05
	396.02	34.00	46.00	-12.00
	490.42	30.22	46.00	-15.78



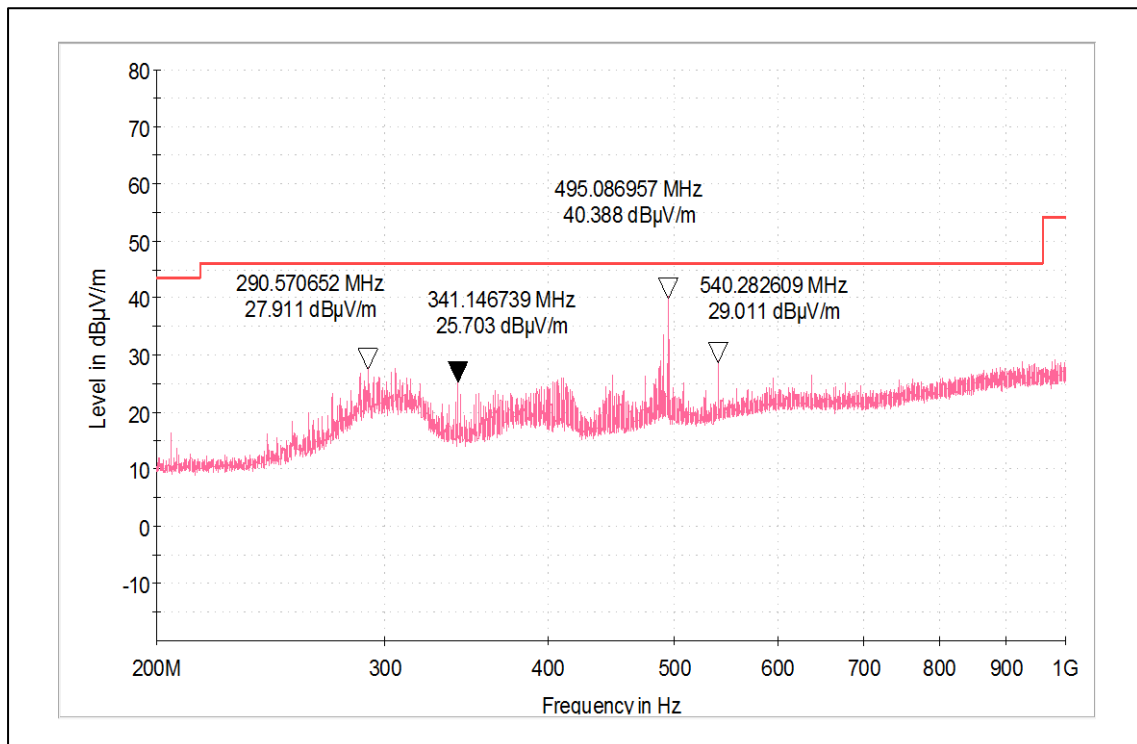
Channel Frequency 30MHz – 200MHz

Polarization Vertical



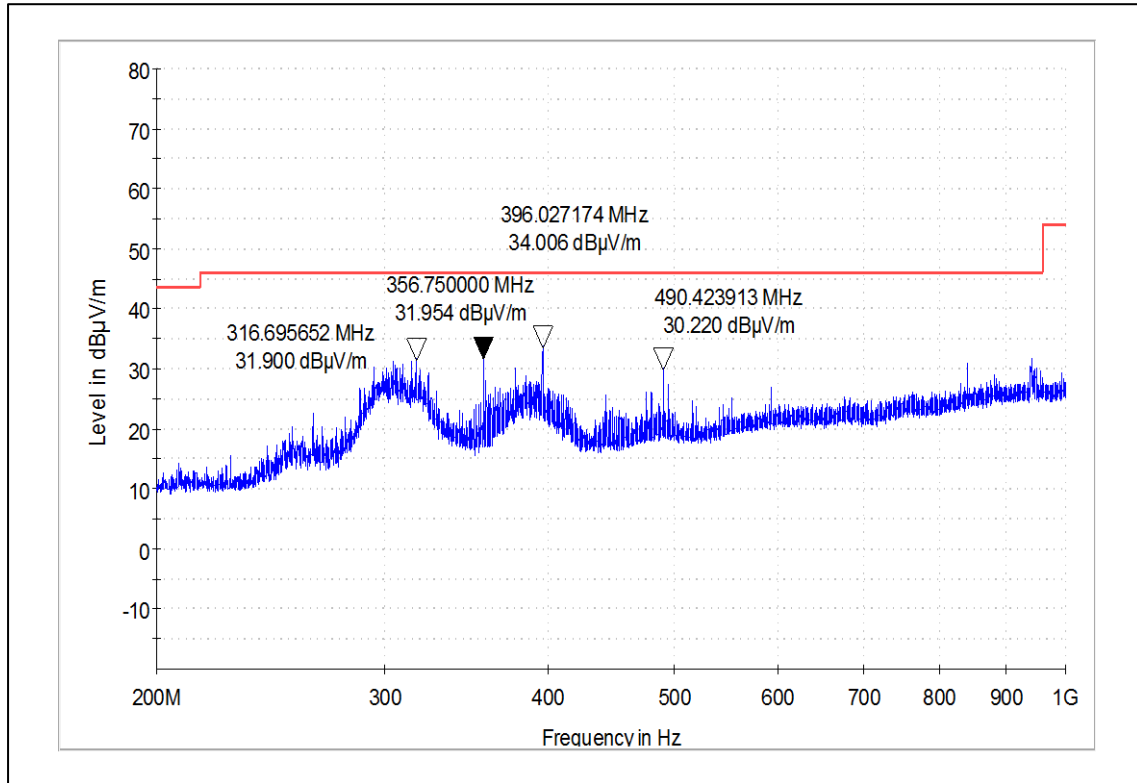
Channel Frequency 30MHz – 200MHz

Polarization Horizontal



Channel Frequency 200MHz – 1GHz

Polarization Vertical



Channel Frequency 200MHz – 1GHz

Polarization Horizontal

Test results for frequency range – 1GHz to 40 GHz

Modulation: 802.11a
Data rate: 6Mbps

Channel Frequency (MHz)	Frequency (MHz)	Polarization	Emission (dBµV/m)	Limit (dBm)	Margin (dB)
5180	5180 (Pk)	Vertical	104.86	*	-
	5180 (Av)		95.65	*	-
	5150 (Pk)		59.54	74	-14.46
	5150 (Av)		46.47	54	-7.53
	10360 (Pk)		49.91	68.23	-18.32
	10360 (Av)		37.96	68.23	-30.27
	15540 (Pk)		53.06	68.23	-15.17
	15540 (Av)		40.98	68.23	-27.25
	5180 (Pk)	Horizontal	98.91	*	-
	5180 (Av)		89.65	*	-
	5150 (Pk)		54.11	74	-19.89
	5150 (Av)		41.46	54	-12.54
	10360 (Pk)		49.30	68.23	-18.93
	10360 (Av)		37.82	68.23	-30.41
	15540 (Pk)		52.89	68.23	-15.34
	15540 (Av)		40.82	68.23	-27.41
5240	5240 (Pk)	Vertical	106.64	*	-
	5240 (Av)		98.85	*	-
	5350 (Pk)		50.67	74	-23.33
	5350 (Av)		37.88	54	-16.12
	10480 (Pk)		50.75	68.23	-17.48
	10480 (Av)		38.04	68.23	-30.19
	15720 (Pk)		52.98	68.23	-15.25
	15720 (Av)		40.38	68.23	-27.85
	5240 (Pk)	Horizontal	98.27	*	-
	5240 (Av)		88.68	*	-
	5350 (Pk)		45.18	74	-28.82
	5350 (Av)		33.46	54	-20.54
	10480 (Pk)		49.90	68.23	-18.33
	10480 (Av)		38.13	68.23	-30.10
	15720 (Pk)		52.99	68.23	-15.24
	15720 (Av)		40.76	68.23	-27.47

Note:

* :- Indicate restricted band frequency in 15.205
Pk: Peak Detector; Av: Average Detector

5260	5260 (Pk)	Vertical	98.32	*	-
	5260 (Av)		88.88	*	-
	5350 (Pk)		44.43	74	-29.57
	5350 (Av)		33.42	54	-20.58
	10520 (Pk)		49.86	68.23	-18.37
	10520 (Av)		37.77	68.23	-30.46
	15780 (Pk)		51.56	68.23	-16.67
	15780 (Av)		39.25	68.23	-28.98
	5260 (Pk)	Horizontal	98.68	*	-
	5260 (Av)		88.96	*	-
	5350 (Pk)		45.52	74	-28.48
	5350 (Av)		33.47	54	-20.53
	10520 (Pk)		50.13	68.23	-18.10
	10520 (Av)		37.71	68.23	-30.52
	15780 (Pk)		53.02	68.23	-15.21
	15780 (Av)		39.23	68.23	-29.00
5320	5320 (Pk)	Vertical	106.42	*	-
	5320 (Av)		96.99	*	-
	5350 (Pk)		60.27	74	-13.73
	5350 (Av)		46.66	54	-7.34
	10640 (Pk)		49.89	68.23	-18.34
	10640 (Av)		37.75	68.23	-30.48
	15960 (Pk)		51.27	68.23	-16.96
	15960 (Av)		39.18	68.23	-29.05
	5320 (Pk)	Horizontal	97.74	*	-
	5320 (Av)		88.30	*	-
	5350 (Pk)		51.11	74	-22.89
	5350 (Av)		37.38	54	-16.62
	10640 (Pk)		50.33	68.23	-17.90
	10640 (Av)		37.71	68.23	-30.52
	15960 (Pk)		51.50	68.23	-16.73
	15960 (Av)		39.25	68.23	-28.98
5500	5500 (Pk)	Vertical	107.35	*	-
	5500 (Av)		97.27	*	-
	5460 (Pk)		63.44	74	-10.56
	5460 (Av)		51.55	54	-2.45
	11000 (Pk)		49.21	68.23	-19.02
	11000 (Av)		37.36	68.23	-30.87
	16500 (Pk)		52.63	68.23	-15.60
	16500 (Av)		40.30	68.23	-27.93
	5500 (Pk)	Horizontal	97.17	*	-
	5500 (Av)		87.57	*	-
	5460 (Pk)		54.06	74	-19.94
	5460 (Av)		41.81	54	-12.19
	11000 (Pk)		49.94	68.23	-18.29
	11000 (Av)		37.26	68.23	-30.97
	16500 (Pk)		52.39	68.23	-15.84
	16500 (Av)		40.31	68.23	-27.92

Note:

* :- Indicate restricted band frequency in 15.205

Pk: Peak Detector; Av: Average Detector

5700	5700 (Pk)	Vertical	106.56	*	-
	5700 (Av)		96.81	*	-
	5460 (Pk)		43.43	74	-30.57
	5460 (Av)		31.50	54	-22.50
	11400 (Pk)		50.94	68.23	-17.29
	11400 (Av)		38.79	68.23	-29.44
	17100 (Pk)		56.25	68.23	-11.98
	17100 (Av)		42.49	68.23	-25.74
	5700 (Pk)	Horizontal	96.39	*	-
	5700 (Av)		86.64	*	-
	5460 (Pk)		42.63	74	-31.37
	5460 (Av)		29.28	54	-24.72
	11400 (Pk)		49.99	68.23	-18.24
	11400 (Av)		37.76	68.23	-30.47
	17100 (Pk)		54.84	68.23	-13.39
	17100 (Av)		42.56	68.23	-25.67
5720	5720 (Pk)	Vertical	106.01	*	-
	5720 (Av)		96.17	*	-
	5460 (Pk)		47.74	74	-26.26
	5460 (Av)		35.81	54	-18.19
	11440 (Pk)		50.67	68.23	-17.56
	11440 (Av)		39.62	68.23	-28.61
	17160 (Pk)		No Harmonics Found		
	17160 (Av)	No Harmonics Found			
	5720 (Pk)	Horizontal	85.40	*	-
	5720 (Av)		95.20	*	-
	5460 (Pk)		47.43	74	-26.57
	5460 (Av)		34.27	54	-19.73
	11440 (Pk)		50.16	68.23	-18.07
	11440 (Av)		38.05	68.23	-30.18
	17160 (Pk)		No Harmonics Found		
	17160 (Av)	No Harmonics Found			
5745	5715(Pk)	Vertical	50.43	78.2	-27.77
	5725(Pk)		54.81	78.2	-23.39
	5745 (Pk)		103.55	*	-
	5745 (Av)		94.01	*	-
	11490 (Pk)		54.96	68.23	-13.27
	11490 (Av)		41.33	68.23	-26.90
	17235 (Pk)		55.08	68.23	-13.15
	17235 (Av)		42.62	68.23	-25.61
	5715(Pk)	Horizontal	43.39	78.2	-34.81
	5725(Pk)		46.12	78.2	-32.08
	5745 (Pk)		92.76	*	-
	5745 (Av)		83.07	*	-
	11490 (Pk)		50.50	68.23	-17.73
	11490 (Av)		38.21	68.23	-30.02
	17235 (Pk)		54.96	68.23	-13.27
	17235 (Av)		42.61	68.23	-25.62

5825	5825 (Pk)	Vertical	103.67	*	-
	5825 (Av)		94.16	*	-
	5850 (Pk)		51.03	78.2	-27.17
	5860 (Pk)		48.76	78.2	-29.44
	11650 (Pk)		56.24	68.23	-11.99
	11650 (Av)		42.91	68.23	-25.32
	17475 (Pk)		54.98	68.23	-13.25
	17475 (Av)		42.78	68.23	-25.45
	5825 (Pk)	Horizontal	94.25	*	-
	5825 (Av)		84.59	*	-
	5850 (Pk)		45.43	78.2	-32.77
	5860 (Pk)		42.80	78.2	-35.40
	11650 (Pk)		51.13	68.23	-17.10
	11650 (Av)		38.41	68.23	-29.82
	17475 (Pk)		55.31	68.23	-12.92
	17475 (Av)		42.83	68.23	-25.40

Note:

* :- Indicate restricted band frequency in 15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:
Test Report No.:

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Modulation: 802.11a
Data rate: 54Mbps

Channel Frequency (MHz)	Frequency (MHz)	Polarization	Emission (dBµV/m)	Limit (dBm)	Margin (dB)
5180	5180 (Pk)	Vertical	105.18	*	-
	5180 (Av)		92.11	*	-
	5150 (Pk)		63.98	74	-10.02
	5150 (Av)		51.18	54	-2.82
	10360 (Pk)		49.99	68.23	-18.24
	10360 (Av)		37.50	68.23	-30.73
	15540 (Pk)		51.93	68.23	-16.30
	15540 (Av)		40.19	68.23	-28.04
	5180 (Pk)	Horizontal	96.92	*	-
	5180 (Av)		83.26	*	-
	5150 (Pk)		54.85	74	-19.15
	5150 (Av)		41.32	54	-12.68
	10360 (Pk)		49.43	68.23	-18.80
	10360 (Av)		37.46	54	-16.54
	15540 (Pk)		52.00	68.23	-16.23
	15540 (Av)		40.18	54	-13.82
5240	5240 (Pk)	Vertical	97.37	*	-
	5240 (Av)		83.88	*	-
	5350 (Pk)		45.10	74	-28.90
	5350 (Av)		33.24	54	-20.76
	10480 (Pk)		49.87	68.23	-18.36
	10480 (Av)		37.80	68.23	-30.43
	15720 (Pk)		52.00	68.23	-16.23
	15720 (Av)		39.57	68.23	-28.66
	5240 (Pk)	Horizontal	97.37	*	-
	5240 (Av)		83.85	*	-
	5350 (Pk)		45.84	74	-28.16
	5350 (Av)		33.29	54	-20.71
	10480 (Pk)		50.17	68.23	-18.06
	10480 (Av)		37.84	68.23	-30.39
	15720 (Pk)		51.51	68.23	-16.72
	15720 (Av)		39.61	68.23	-28.62
5260	5260 (Pk)	Vertical	104.70	*	-
	5260 (Av)		91.47	*	-
	5350 (Pk)		49.76	74	-24.24
	5350 (Av)		37.37	54	-16.63
	10520 (Pk)		50.48	68.23	-17.75
	10520 (Av)		37.54	68.23	-30.69
	15780 (Pk)		51.58	68.23	-16.65
	15780 (Av)		38.99	68.23	-29.24
	5260 (Pk)	Horizontal	98.13	*	-
	5260 (Av)		84.57	*	-
	5350 (Pk)		45.65	74	-28.35
	5350 (Av)		33.32	54	-20.68
	10520 (Pk)		49.82	68.23	-18.41
	10520 (Av)		37.60	68.23	-30.63
	15780 (Pk)		50.79	68.23	-17.44
	15780 (Av)		39.07	68.23	-29.16

5320	5320 (Pk)	Vertical	106.25	*	-
	5320 (Av)		92.79	*	-
	5350 (Pk)		58.93	74	-15.07
	5350 (Av)		43.46	54	-10.54
	10640 (Pk)		49.87	68.23	-18.36
	10640 (Av)		37.66	68.23	-30.57
	15960 (Pk)		51.01	68.23	-17.22
	15960 (Av)		39.07	68.23	-29.16
	5320 (Pk)	Horizontal	97.02	*	-
	5320 (Av)		83.61	*	-
	5350 (Pk)		51.48	74	-22.52
	5350 (Av)		35.04	54	-18.96
	10640 (Pk)		49.80	68.23	-18.43
	10640 (Av)		37.60	68.23	-30.63
	15960 (Pk)		51.13	68.23	-17.10
	15960 (Av)		39.09	68.23	-29.14
5500	5500 (Pk)	Vertical	106.07	*	-
	5500 (Av)		92.74	*	-
	5460 (Pk)		64.28	74	-9.72
	5460 (Av)		51.51	54	-2.49
	11000 (Pk)		49.14	68.23	-19.09
	11000 (Av)		37.33	68.23	-30.90
	16500 (Pk)		52.79	68.23	-15.44
	16500 (Av)		40.31	68.23	-27.92
	5500 (Pk)	Horizontal	96.02	*	-
	5500 (Av)		81.92	*	-
	5460 (Pk)		53.30	74	-20.70
	5460 (Av)		41.72	54	-12.28
	11000 (Pk)		49.01	68.23	-19.22
	11000 (Av)		37.23	68.23	-31.00
	16500 (Pk)		51.81	68.23	-16.42
	16500 (Av)		40.31	68.23	-27.92
5700	5700 (Pk)	Vertical	105.59	*	-
	5700 (Av)		92.04	*	-
	5460 (Pk)		44.47	74	-29.53
	5460 (Av)		30.65	54	-23.35
	11400 (Pk)		50.69	68.23	-17.54
	11400 (Av)		38.59	68.23	-29.64
	17100 (Pk)		54.90	68.23	-13.33
	17100 (Av)		42.61	68.23	-25.62
	5700 (Pk)	Horizontal	98.08	*	-
	5700 (Av)		84.37	*	-
	5460 (Pk)		41.83	74	-32.17
	5460 (Av)		28.98	54	-25.02
	11400 (Pk)		49.85	68.23	-18.38
	11400 (Av)		37.59	68.23	-30.64
	17100 (Pk)		55.21	68.23	-13.02
	17100 (Av)		42.54	68.23	-25.69

5720	5720 (Pk)	Vertical	105.35	*	-
	5720 (Av)		95.53	*	-
	5460 (Pk)		48.91	74	-25.09
	5460 (Av)		35.92	54	-18.08
	11440 (Pk)		51.66	68.23	-16.57
	11440 (Av)		39.10	68.23	-29.13
	17160 (Pk)		No Harmonics Found		
	17160 (Av)		No Harmonics Found		
	5720 (Pk)	Horizontal	94.04	*	-
	5720 (Av)		84.51	*	-
	5460 (Pk)		47.07	74	-26.93
	5460 (Av)		34.26	54	-19.74
	11440 (Pk)		49.40	68.23	-18.83
	11440 (Av)		37.99	68.23	-30.24
	17160 (Pk)		No Harmonics Found		
	17160 (Av)		No Harmonics Found		
5745	5715(Pk)	Vertical	54.85	78.2	-23.35
	5725(Pk)		68.72	78.2	-9.48
	5745 (Pk)		103.14	*	-
	5745 (Av)		89.76	*	-
	11490 (Pk)		53.78	68.23	-14.45
	11490 (Av)		39.42	68.23	-28.81
	17235 (Pk)		54.74	68.23	-13.49
	17235 (Av)		42.70	68.23	-25.53
	5715(Pk)	Horizontal	48.20	78.2	-30.00
	5725(Pk)		59.86	78.2	-18.34
	5745 (Pk)		96.53	*	-
	5745 (Av)		83.07	*	-
	11490 (Pk)		50.14	68.23	-18.09
	11490 (Av)		38.21	68.23	-30.02
	17235 (Pk)		54.73	68.23	-13.50
	17235 (Av)		42.71	68.23	-25.52
5825	5825 (Pk)	Vertical	104.45	*	-
	5825 (Av)		91.14	*	-
	5850 (Pk)		56.88	78.2	-21.32
	5860 (Pk)		50.93	78.2	-27.27
	11650 (Pk)		55.05	68.23	-13.18
	11650 (Av)		40.43	68.23	-27.80
	17475 (Pk)		54.75	68.23	-13.48
	17475 (Av)		42.85	68.23	-25.38
	5825 (Pk)	Horizontal	97.03	*	-
	5825 (Av)		82.71	*	-
	5850 (Pk)		49.46	78.2	-28.74
	5860 (Pk)		44.74	78.2	-33.46
	11650 (Pk)		51.14	68.23	-17.09
	11650 (Av)		38.27	68.23	-29.96
	17475 (Pk)		55.84	68.23	-12.39
	17475 (Av)		42.82	68.23	-25.41

Note:

* :- Indicate restricted band frequency in 15.205

Pk: Peak Detector; Av: Average Detector

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Modulation: 802.11n _ HT 20MHz
Data rate: MCS0

Channel Frequency (MHz)	Frequency (MHz)	Polarization	Emission (dBµV/m)	Limit (dBm)	Margin (dB)
5180	5180 (Pk)	Vertical	105.72	*	-
	5180 (Av)		95.37	*	-
	5150 (Pk)		62.10	74	-11.90
	5150 (Av)		51.00	54	-3.00
	10360 (Pk)		49.73	68.23	-18.50
	10360 (Av)		38.40	68.23	-29.83
	15540 (Pk)		52.43	68.23	-15.80
	15540 (Av)		40.35	68.23	-27.88
	5180 (Pk)	Horizontal	94.92	*	-
	5180 (Av)		85.32	*	-
	5150 (Pk)		52.88	74	-21.12
	5150 (Av)		41.22	54	-12.78
	10360 (Pk)		50.22	68.23	-18.01
	10360 (Av)		37.59	68.23	-30.64
	15540 (Pk)		53.44	68.23	-14.79
	15540 (Av)		40.30	68.23	-27.93
5240	5240 (Pk)	Vertical	106.44	*	-
	5240 (Av)		96.41	*	-
	5350 (Pk)		54.74	74	-19.26
	5350 (Av)		42.02	54	-11.98
	10480 (Pk)		50.80	68.23	-17.43
	10480 (Av)		37.96	68.23	-30.27
	15720 (Pk)		53.10	68.23	-15.13
	15720 (Av)		39.70	68.23	-28.53
	5240 (Pk)	Horizontal	95.00	*	-
	5240 (Av)		85.37	*	-
	5350 (Pk)		43.08	74	-30.92
	5350 (Av)		30.84	54	-23.16
	10480 (Pk)		50.33	68.23	-17.90
	10480 (Av)		37.98	68.23	-30.25
	15720 (Pk)		52.08	68.23	-16.15
	15720 (Av)		39.68	68.23	-28.55

5260	5260 (Pk)	Vertical	106.61	*	-
	5260 (Av)		96.78	*	-
	5350 (Pk)		54.00	74	-20.00
	5350 (Av)		42.09	54	-11.91
	10520 (Pk)		49.88	68.23	-18.35
	10520 (Av)		37.79	68.23	-30.44
	15780 (Pk)		51.07	68.23	-17.16
	15780 (Av)		39.14	68.23	-29.09
	5260 (Pk)	Horizontal	95.37	*	-
	5260 (Av)		85.35	*	-
	5350 (Pk)		43.32	74	-30.68
	5350 (Av)		30.96	54	-23.04
	10520 (Pk)		49.93	68.23	-18.30
	10520 (Av)		37.76	68.23	-30.47
	15780 (Pk)		51.29	68.23	-16.94
	15780 (Av)		39.14	68.23	-29.09
5320	5320 (Pk)	Vertical	106.45	*	-
	5320 (Av)		97.04	*	-
	5350 (Pk)		57.87	74	-16.13
	5350 (Av)		44.58	54	-9.42
	10640 (Pk)		50.11	68.23	-18.12
	10640 (Av)		37.74	68.23	-30.49
	15960 (Pk)		51.16	68.23	-17.07
	15960 (Av)		39.07	68.23	-29.16
	5320 (Pk)	Horizontal	94.72	*	-
	5320 (Av)		84.72	*	-
	5350 (Pk)		46.36	74	-27.64
	5350 (Av)		33.93	54	-20.07
	10640 (Pk)		49.33	68.23	-18.90
	10640 (Av)		37.68	68.23	-30.55
	15960 (Pk)		51.14	68.23	-17.09
	15960 (Av)		39.04	68.23	-29.19
5500	5500 (Pk)	Vertical	106.50	*	-
	5500 (Av)		96.58	*	-
	5460 (Pk)		63.54	74	-10.46
	5460 (Av)		51.60	54	-2.40
	11000 (Pk)		50.53	68.23	-17.70
	11000 (Av)		37.43	68.23	-30.80
	16500 (Pk)		52.33	68.23	-15.90
	16500 (Av)		40.34	68.23	-27.89
	5500 (Pk)	Horizontal	94.61	*	-
	5500 (Av)		85.05	*	-
	5460 (Pk)		54.00	74	-20.00
	5460 (Av)		41.78	54	-12.22
	11000 (Pk)		49.53	68.23	-18.70
	11000 (Av)		37.30	68.23	-30.93
	16500 (Pk)		52.78	68.23	-15.45
	16500 (Av)		40.32	68.23	-27.91

5720	5720 (Pk)	Vertical	104.13	*	-
	5720 (Av)		94.27	*	-
	5460 (Pk)		49.22	74	-24.78
	5460 (Av)		35.03	54	-18.97
	11440 (Pk)		50.47	68.23	-17.76
	11440 (Av)		38.78	68.23	-29.45
	17160 (Pk)		No Harmonics Found		
	17160 (Av)		No Harmonics Found		
	5720 (Pk)	Horizontal	93.90	*	-
	5720 (Av)		84.22	*	-
	5460 (Pk)		48.10	74	-25.90
	5460 (Av)		34.27	54	-19.73
	11440 (Pk)		50.95	68.23	-17.28
	11440 (Av)		38.03	68.23	-30.20
	17160 (Pk)		No Harmonics Found		
	17160 (Av)		No Harmonics Found		
5700	5700 (Pk)	Vertical	105.47	*	-
	5700 (Av)		95.75	*	-
	5460 (Pk)		45.89	74	-28.11
	5460 (Av)		32.26	54	-21.74
	11400 (Pk)		50.66	68.23	-17.57
	11400 (Av)		38.27	68.23	-29.96
	17100 (Pk)		55.22	68.23	-13.01
	17100 (Av)		42.67	68.23	-25.56
	5700 (Pk)	Horizontal	94.93	*	-
	5700 (Av)		85.26	*	-
	5460 (Pk)		41.66	74	-32.34
	5460 (Av)		28.97	54	-25.03
	11400 (Pk)		50.19	68.23	-18.04
	11400 (Av)		37.44	68.23	-30.79
	17100 (Pk)		54.67	68.23	-13.56
	17100 (Av)		42.68	68.23	-25.55
5745	5715(Pk)	Vertical	52.15	78.2	-26.05
	5725(Pk)		55.72	78.2	-22.48
	5745 (Pk)		104.57	*	-
	5745 (Av)		95.03	*	-
	11490 (Pk)		52.50	68.23	-15.73
	11490 (Av)		40.20	68.23	-28.03
	17235 (Pk)		55.16	68.23	-13.07
	17235 (Av)		42.71	68.23	-25.52
	5715(Pk)	Horizontal	45.07	78.2	-33.13
	5725(Pk)		45.94	78.2	-32.26
	5745 (Pk)		95.32	*	-
	5745 (Av)		85.72	*	-
	11490 (Pk)		50.75	68.23	-17.48
	11490 (Av)		38.03	68.23	-30.20
	17235 (Pk)		55.14	68.23	-13.09
	17235 (Av)		42.67	68.23	-25.56

5825	5825 (Pk)	Vertical	105.08	*	-
	5825 (Av)		94.91	*	-
	5850 (Pk)		51.24	78.2	-26.96
	5860 (Pk)		49.52	78.2	-28.68
	11650 (Pk)		55.29	68.23	-12.94
	11650 (Av)		41.88	68.23	-26.35
	17475 (Pk)		54.87	68.23	-13.36
	17475 (Av)		42.78	68.23	-25.45
	5825 (Pk)	Horizontal	95.71	*	-
	5825 (Av)		85.74	*	-
	5850 (Pk)		46.31	78.2	-31.89
	5860 (Pk)		44.00	78.2	-34.20
	11650 (Pk)		50.05	68.23	-18.18
	11650 (Av)		38.09	68.23	-30.14
	17475 (Pk)		55.59	68.23	-12.64
	17475 (Av)		42.80	68.23	-25.43

Note:

* :- Indicate restricted band frequency in 15.205

Pk: Peak Detector; Av: Average Detector

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Modulation: 802.11n _ HT 20MHz
Data rate: MCS7

Channel Frequency (MHz)	Frequency (MHz)	Polarization	Emission (dBµV/m)	Limit (dBm)	Margin (dB)
5180	5180 (Pk)	Vertical	107.14	*	-
	5180 (Av)		92.66	*	-
	5150 (Pk)		63.45	74	-10.55
	5150 (Av)		51.08	54	-2.92
	10360 (Pk)		49.01	68.23	-19.22
	10360 (Av)		36.76	68.23	-31.47
	15540 (Pk)		53.44	68.23	-14.79
	15540 (Av)		41.20	68.23	-27.03
	5180 (Pk)	Horizontal	97.07	*	-
	5180 (Av)		82.34	*	-
	5150 (Pk)		53.67	74	-20.33
	5150 (Av)		41.31	54	-12.69
	10360 (Pk)		48.54	68.23	-19.69
	10360 (Av)		36.51	68.23	-31.72
	15540 (Pk)		52.44	68.23	-15.79
	15540 (Av)		41.05	68.23	-27.18
5240	5240 (Pk)	Vertical	108.23	*	-
	5240 (Av)		93.13	*	-
	5350 (Pk)		54.16	74	-19.84
	5350 (Av)		42.00	54	-12.00
	10480 (Pk)		49.58	68.23	-18.65
	10480 (Av)		37.63	68.23	-30.60
	15720 (Pk)		52.46	68.23	-15.77
	15720 (Av)		40.05	68.23	-28.18
	5240 (Pk)	Horizontal	96.86	*	-
	5240 (Av)		82.19	*	-
	5350 (Pk)		43.54	74	-30.46
	5350 (Av)		30.87	54	-23.13
	10480 (Pk)		50.24	68.23	-17.99
	10480 (Av)		37.81	68.23	-30.42
	15720 (Pk)		52.56	68.23	-15.67
	15720 (Av)		40.17	68.23	-28.06

5260	5260 (Pk)	Vertical	108.55	*	-
	5260 (Av)		94.05	*	-
	5350 (Pk)		54.29	74	-19.71
	5350 (Av)		42.03	54	-11.97
	10520 (Pk)		50.63	68.23	-17.60
	10520 (Av)		37.76	68.23	-30.47
	15780 (Pk)		51.55	68.23	-16.68
	15780 (Av)		39.13	68.23	-29.10
	5260 (Pk)	Horizontal	96.74	*	-
	5260 (Av)		82.29	*	-
	5350 (Pk)		44.26	74	-29.74
	5350 (Av)		30.95	54	-23.05
	10520 (Pk)		50.38	68.23	-17.85
	10520 (Av)		37.76	68.23	-30.47
	15780 (Pk)		51.75	68.23	-16.48
	15780 (Av)		39.13	68.23	-29.10
5320	5320 (Pk)	Vertical	108.78	*	-
	5320 (Av)		94.21	*	-
	5350 (Pk)		60.70	74	-13.30
	5350 (Av)		44.80	54	-9.20
	10640 (Pk)		49.90	68.23	-18.33
	10640 (Av)		37.78	68.23	-30.45
	15960 (Pk)		51.66	68.23	-16.57
	15960 (Av)		39.08	68.23	-29.15
	5320 (Pk)	Horizontal	96.51	*	-
	5320 (Av)		82.02	*	-
	5350 (Pk)		50.31	74	-23.69
	5350 (Av)		35.22	54	-18.78
	10640 (Pk)		49.92	68.23	-18.31
	10640 (Av)		37.72	68.23	-30.51
	15960 (Pk)		51.26	68.23	-16.97
	15960 (Av)		39.13	68.23	-29.10
5500	5500 (Pk)	Vertical	108.73	*	-
	5500 (Av)		94.37	*	-
	5460 (Pk)		63.73	74	-10.27
	5460 (Av)		51.62	54	-2.38
	11000 (Pk)		49.76	68.23	-18.47
	11000 (Av)		37.43	68.23	-30.80
	16500 (Pk)		53.03	68.23	-15.20
	16500 (Av)		40.40	68.23	-27.83
	5500 (Pk)	Horizontal	95.77	*	-
	5500 (Av)		81.40	*	-
	5460 (Pk)		54.63	74	-19.37
	5460 (Av)		41.78	54	-12.22
	11000 (Pk)		49.63	68.23	-18.60
	11000 (Av)		37.88	68.23	-30.35
	16500 (Pk)		52.68	68.23	-15.55
	16500 (Av)		40.38	68.23	-27.85

5720	5720 (Pk)	Vertical	106.03	*	-
	5720 (Av)		90.79	*	-
	5460 (Pk)		47.86	74	-26.14
	5460 (Av)		34.83	54	-19.17
	11440 (Pk)		51.39	68.23	-16.84
	11440 (Av)		38.72	68.23	-29.51
	17160 (Pk)		No Harmonics Found		
	17160 (Av)		No Harmonics Found		
	5720 (Pk)	Horizontal	81.20	*	-
	5720 (Av)		96.05	*	-
	5460 (Pk)		46.83	74	-27.17
	5460 (Av)		34.19	54	-19.81
	11440 (Pk)		50.38	68.23	-17.85
	11440 (Av)		37.99	68.23	-30.24
	17160 (Pk)		No Harmonics Found		
	17160 (Av)		No Harmonics Found		
5700	5700 (Pk)	Vertical	107.28	*	-
	5700 (Av)		92.79	*	-
	5460 (Pk)		44.20	74	-29.80
	5460 (Av)		31.64	54	-22.36
	11400 (Pk)		50.22	68.23	-18.01
	11400 (Av)		38.05	68.23	-30.18
	17100 (Pk)		54.73	68.23	-13.50
	17100 (Av)		42.64	68.23	-25.59
	5700 (Pk)	Horizontal	97.50	*	-
	5700 (Av)		82.77	*	-
	5460 (Pk)		41.94	74	-32.06
	5460 (Av)		29.03	54	-24.97
	11400 (Pk)		49.96	68.23	-18.27
	11400 (Av)		37.44	68.23	-30.79
	17100 (Pk)		54.89	68.23	-13.34
	17100 (Av)		42.70	68.23	-25.53
5745	5715(Pk)	Vertical	56.51	78.2	-21.69
	5725(Pk)		70.01	78.2	-8.19
	5745 (Pk)		106.94	*	-
	5745 (Av)		92.38	*	-
	11490 (Pk)		51.87	68.23	-16.36
	11490 (Av)		39.72	68.23	-28.51
	17235 (Pk)		54.87	68.23	-13.36
	17235 (Av)		42.67	68.23	-25.56
	5715(Pk)	Horizontal	48.03	78.2	-30.17
	5725(Pk)		58.20	78.2	-20.00
	5745 (Pk)		97.19	*	-
	5745 (Av)		82.45	*	-
	11490 (Pk)		49.65	68.23	-18.58
	11490 (Av)		38.04	68.23	-30.19
	17235 (Pk)		54.82	68.23	-13.41
	17235 (Av)		42.67	68.23	-25.56

5825	5825 (Pk)	Vertical	106.48	*	-
	5825 (Av)		92.23	*	-
	5850 (Pk)		63.22	78.2	-14.98
	5860 (Pk)		51.29	78.2	-26.91
	11650 (Pk)		53.32	68.23	-14.91
	11650 (Av)		39.69	68.23	-28.54
	17475 (Pk)		54.79	68.23	-13.44
	17475 (Av)		42.78	68.23	-25.45
	5825 (Pk)	Horizontal	97.16	*	-
	5825 (Av)		82.74	*	-
	5850 (Pk)		52.10	78.2	-26.10
	5860 (Pk)		45.24	78.2	-32.96
	11650 (Pk)		50.43	68.23	-17.80
	11650 (Av)		38.01	68.23	-30.22
	17475 (Pk)		54.83	68.23	-13.40
	17475 (Av)		43.79	68.23	-24.44

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Modulation: 802.11n _ HT 40MHz
Data rate: MCS0

Channel Frequency (MHz)	Frequency (MHz)	Polarization	Emission (dBµV/m)	Limit (dBm)	Margin (dB)
5190	5190 (Pk)	Vertical	103.70	*	-
	5190 (Av)		92.63	*	-
	5150 (Pk)		64.00	74	-10.00
	5150 (Av)		42.25	54	-11.75
	10380 (Pk)		47.96	68.23	-20.27
	10380 (Av)		35.00	68.23	-33.23
	15570 (Pk)		52.85	68.23	-15.38
	15570 (Av)		40.22	68.23	-28.01
	5190 (Pk)	Horizontal	91.20	*	-
	5190 (Av)		80.77	*	-
	5150 (Pk)		54.11	74	-19.89
	5150 (Av)		32.86	54	-21.14
	10380 (Pk)		47.00	68.23	-21.23
	10380 (Av)		35.03	68.23	-33.20
	15570 (Pk)		52.63	68.23	-15.60
	15570 (Av)		40.24	68.23	-27.99
5230	5230 (Pk)	Vertical	102.90	*	-
	5230 (Av)		92.74	*	-
	5150 (Pk)		56.07	74	-17.93
	5150 (Av)		35.15	54	-18.85
	10460 (Pk)		47.70	68.23	-20.53
	10460 (Av)		35.64	68.23	-32.59
	15690 (Pk)		52.23	68.23	-16.00
	15690 (Av)		40.05	68.23	-28.18
	5230 (Pk)	Horizontal	91.08	*	-
	5230 (Av)		80.61	*	-
	5150 (Pk)		46.53	74	-27.47
	5150 (Av)		30.35	54	-23.65
	10460 (Pk)		47.58	68.23	-20.65
	10460 (Av)		35.60	68.23	-32.63
	15690 (Pk)		52.22	68.23	-16.01
	15690 (Av)		40.02	68.23	-28.21

5270	5270 (Pk)	Vertical	103.40	*	-
	5270 (Av)		93.14	*	-
	5350 (Pk)		58.41	74	-15.59
	5350 (Av)		36.64	54	-17.36
	10540 (Pk)		48.57	68.23	-19.66
	10540 (Av)		36.12	68.23	-32.11
	15810 (Pk)		51.33	68.23	-16.90
	15810 (Av)		39.45	68.23	-28.78
	5270 (Pk)	Horizontal	91.73	*	-
	5270 (Av)		80.80	*	-
	5350 (Pk)		44.77	74	-29.23
	5350 (Av)		30.01	54	-23.99
	10540 (Pk)		48.92	68.23	-19.31
	10540 (Av)		36.15	68.23	-32.08
	15810 (Pk)		51.62	68.23	-16.61
	15810 (Av)		39.44	68.23	-28.79
5510	5510 (Pk)	Vertical	103.10	*	-
	5510 (Av)		93.05	*	-
	5460 (Pk)		62.22	74	-11.78
	5460 (Av)		43.53	54	-10.47
	11020 (Pk)		51.82	68.23	-16.41
	11020 (Av)		39.04	68.23	-29.19
	16530 (Pk)		52.65	68.23	-15.58
	16530 (Av)		40.27	68.23	-27.96
	5510 (Pk)	Horizontal	90.77	*	-
	5510 (Av)		80.24	*	-
	5460 (Pk)		51.88	74	-22.12
	5460 (Av)		32.68	54	-21.32
	11020 (Pk)		51.12	68.23	-17.11
	11020 (Av)		38.98	68.23	-29.25
	16530 (Pk)		52.62	68.23	-15.61
	16530 (Av)		40.34	68.23	-27.89
5590	5590 (Pk)	Vertical	102.71	*	-
	5590 (Av)		92.59	*	-
	5460 (Pk)		55.65	74	-18.35
	5460 (Av)		34.01	54	-19.99
	11180 (Pk)		51.39	68.23	-16.84
	11180 (Av)		39.00	68.23	-29.23
	16770 (Pk)		54.30	68.23	-13.93
	16770 (Av)		41.49	68.23	-26.74
	5590 (Pk)	Horizontal	90.60	*	-
	5590 (Av)		80.38	*	-
	5460 (Pk)		45.40	74	-28.60
	5460 (Av)		29.62	54	-24.38
	11180 (Pk)		50.54	68.23	-17.69
	11180 (Av)		38.79	68.23	-29.44
	16770 (Pk)		53.86	68.23	-14.37
	16770 (Av)		41.50	68.23	-26.73

5670	5670 (Pk)	Vertical	102.29	*	-	
	5670 (Av)		92.19	*	-	
	5460 (Pk)		49.12	74	-24.88	
	5460 (Av)		32.88	54	-21.12	
	11340 (Pk)		52.30	68.23	-15.93	
	11340 (Av)		40.14	68.23	-28.09	
	17010 (Pk)		52.90	68.23	-15.33	
	17010 (Av)		40.61	68.23	-27.62	
	5670 (Pk)	Horizontal	91.50	*	-	
	5670 (Av)		81.37	*	-	
	5460 (Pk)		42.46	74	-31.54	
	5460 (Av)		29.63	54	-24.37	
	11340 (Pk)		52.02	68.23	-16.21	
	11340 (Av)		39.59	68.23	-28.64	
	17010 (Pk)		53.23	68.23	-15.00	
	17010 (Av)		40.60	68.23	-27.63	
	5710	5720 (Pk)	Vertical	100.86	*	-
		5720 (Av)		89.92	*	-
5460 (Pk)		49.71		74	-24.29	
5460 (Av)		35.46		54	-18.54	
11420 (Pk)		49.73		68.23	-18.50	
11420 (Av)		38.17		68.23	-30.06	
17130 (Pk)		No Harmonics Found				
17130 (Av)		No Harmonics Found				
5720 (Pk)		Horizontal	90.13	*	-	
5720 (Av)			80.11	*	-	
5460 (Pk)			47.12	74	-26.88	
5460 (Av)			34.28	54	-19.72	
11420 (Pk)			50.43	68.23	-17.80	
11420 (Av)			37.87	68.23	-30.36	
17130 (Pk)	No Harmonics Found					
17130 (Av)	No Harmonics Found					
5755	5755 (Pk)	Vertical	102.50	*	-	
	5755 (Av)		91.51	*	-	
	11510 (Pk)		52.59	68.23	-15.64	
	11510 (Av)		40.65	68.23	-27.58	
	17265 (Pk)		55.54	68.23	-12.69	
	17265 (Av)		42.98	68.23	-25.25	
	5755 (Pk)	Horizontal	91.82	*	-	
	5755 (Av)		81.74	*	-	
	11510 (Pk)		53.66	68.23	-14.57	
	11510 (Av)		40.19	54	-13.81	
	17265 (Pk)		55.55	68.23	-12.68	
	17265 (Av)		42.98	54	-11.02	

5795	5795 (Pk)	Vertical	101.40	*	-
	5795 (Av)		90.88	*	-
	11590 (Pk)		53.27	68.23	-14.96
	11590 (Av)		41.37	68.23	-26.86
	17385 (Pk)		55.25	68.23	-12.98
	17385 (Av)		42.84	68.23	-25.39
	5795 (Pk)	Horizontal	91.36	*	-
	5795 (Av)		81.02	*	-
	11590 (Pk)		52.29	68.23	-15.94
	11590 (Av)		40.12	68.23	-28.11
	17385 (Pk)		54.75	68.23	-13.48
	17385 (Av)		42.81	68.23	-25.42

The testing is performed for **802.11n _ HT 40MHz, 802.11n _ VHT 40MHz** MCS 0 & MCS 7 but not reported here, only the MCS 0 reported as a worst case senario

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Test Report No.:

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Modulation: 802.11ac _ VHT 20MHz
Data rate: MCS0

Channel Frequency (MHz)	Frequency (MHz)	Polarization	Emission (dBµV/m)	Limit (dBm)	Margin (dB)
5180	5180 (Pk)	Vertical	106.54	*	-
	5180 (Av)		96.58	*	-
	5150 (Pk)		63.27	74	-10.73
	5150 (Av)		51.02	54	-2.98
	10360 (Pk)		49.59	68.23	-18.64
	10360 (Av)		37.47	68.23	-30.76
	15540 (Pk)		52.06	68.23	-16.17
	15540 (Av)		40.11	68.23	-28.12
	5180 (Pk)	Horizontal	96.43	*	-
	5180 (Av)		85.54	*	-
	5150 (Pk)		54.67	74	-19.33
	5150 (Av)		41.27	54	-12.73
	10360 (Pk)		49.22	68.23	-19.01
	10360 (Av)		37.54	68.23	-30.69
	15540 (Pk)		52.62	68.23	-15.61
	15540 (Av)		40.24	68.23	-27.99
5240	5240 (Pk)	Vertical	106.21	*	-
	5240 (Av)		97.33	*	-
	5350 (Pk)		54.01	74	-19.99
	5350 (Av)		42.02	54	-11.98
	10480 (Pk)		49.86	68.23	-18.37
	10480 (Av)		37.91	68.23	-30.32
	15720 (Pk)		51.18	68.23	-17.05
	15720 (Av)		39.67	68.23	-28.56
	5240 (Pk)	Horizontal	96.96	*	-
	5240 (Av)		86.35	*	-
	5350 (Pk)		44.28	74	-29.72
	5350 (Av)		33.37	54	-20.63
	10480 (Pk)		49.58	68.23	-18.65
	10480 (Av)		37.92	68.23	-30.31
	15720 (Pk)		51.27	68.23	-16.96
	15720 (Av)		39.72	68.23	-28.51

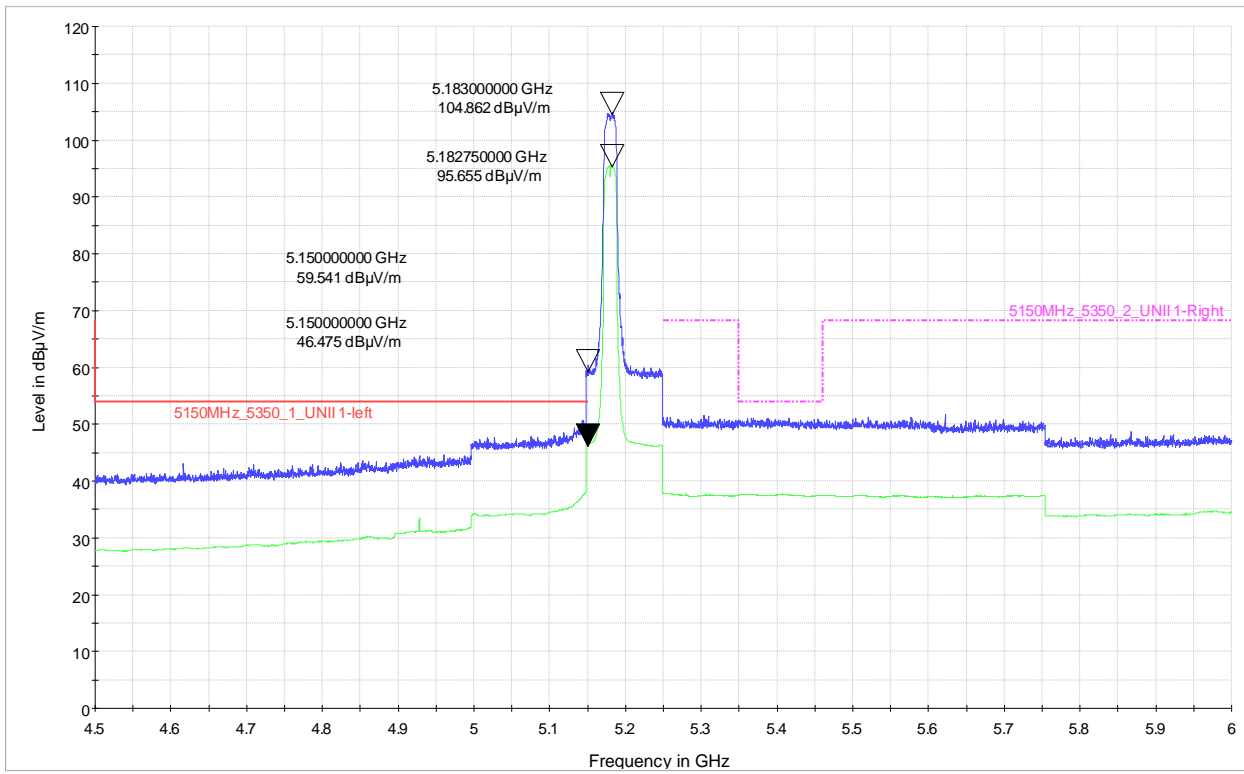
5260	5260 (Pk)	Vertical	107.16	*	-
	5260 (Av)		97.46	*	-
	5350 (Pk)		54.19	74	-19.81
	5350 (Av)		42.06	54	-11.94
	10520 (Pk)		49.73	68.23	-18.50
	10520 (Av)		37.72	68.23	-30.51
	15780 (Pk)		51.02	68.23	-17.21
	15780 (Av)		39.14	68.23	-29.09
	5260 (Pk)	Horizontal	96.42	*	-
	5260 (Av)		86.50	*	-
	5350 (Pk)		45.28	74	-28.72
	5350 (Av)		33.42	54	-20.58
	10520 (Pk)		50.93	68.23	-17.30
	10520 (Av)		37.76	68.23	-30.47
	15780 (Pk)		52.76	68.23	-15.47
	15780 (Av)		39.16	68.23	-29.07
5320	5320 (Pk)	Vertical	106.99	*	-
	5320 (Av)		97.49	*	-
	5350 (Pk)		56.77	74	-17.23
	5350 (Av)		44.66	54	-9.34
	10640 (Pk)		50.32	68.23	-17.91
	10640 (Av)		37.72	68.23	-30.51
	15960 (Pk)		51.01	68.23	-17.22
	15960 (Av)		39.12	68.23	-29.11
	5320 (Pk)	Horizontal	97.07	*	-
	5320 (Av)		86.14	*	-
	5350 (Pk)		48.97	74	-25.03
	5350 (Av)		34.89	54	-19.11
	10640 (Pk)		49.77	68.23	-18.46
	10640 (Av)		37.67	68.23	-30.56
	15960 (Pk)		52.26	68.23	-15.97
	15960 (Av)		39.80	68.23	-28.43
5500	5500 (Pk)	Vertical	106.38	*	-
	5500 (Av)		96.74	*	-
	5460 (Pk)		63.82	74	-10.18
	5460 (Av)		51.51	54	-2.49
	11000 (Pk)		49.25	68.23	-18.98
	11000 (Av)		37.37	68.23	-30.86
	16500 (Pk)		52.01	68.23	-16.22
	16500 (Av)		40.34	68.23	-27.89
	5500 (Pk)	Horizontal	95.36	*	-
	5500 (Av)		84.79	*	-
	5460 (Pk)		54.12	74	-19.88
	5460 (Av)		41.73	54	-12.27
	11000 (Pk)		49.78	68.23	-18.45
	11000 (Av)		37.51	68.23	-30.72
	16500 (Pk)		52.69	68.23	-15.54
	16500 (Av)		40.62	68.23	-27.61

5700	5700 (Pk)	Vertical	104.36	*	-
	5700 (Av)		94.37	*	-
	5460 (Pk)		45.34	74	-28.66
	5460 (Av)		32.31	54	-21.69
	11400 (Pk)		50.85	68.23	-17.38
	11400 (Av)		38.39	68.23	-29.84
	17100 (Pk)		54.50	68.23	-13.73
	17100 (Av)		42.84	68.23	-25.39
	5700 (Pk)	Horizontal	82.03	*	-
	5700 (Av)		84.59	*	-
	5460 (Pk)		41.56	74	-32.44
	5460 (Av)		28.99	54	-25.01
	11400 (Pk)		49.64	68.23	-18.59
	11400 (Av)		37.72	68.23	-30.51
	17100 (Pk)		55.12	68.23	-13.11
	17100 (Av)		42.84	68.23	-25.39
5720	5720 (Pk)	Vertical	103.56	*	-
	5720 (Av)		93.11	*	-
	5460 (Pk)		48.38	74	-25.62
	5460 (Av)		35.65	54	-18.35
	11440 (Pk)		51.43	68.23	-16.80
	11440 (Av)		38.85	68.23	-29.38
	17160 (Pk)		No Harmonics Found		
	17160 (Av)	No Harmonics Found			
	5720 (Pk)	Horizontal	94.05	*	-
	5720 (Av)		83.79	*	-
	5460 (Pk)		47.51	74	-26.49
	5460 (Av)		34.29	54	-19.71
	11440 (Pk)		50.22	68.23	-18.01
	11440 (Av)		38.04	68.23	-30.19
17160 (Pk)	No Harmonics Found				
17160 (Av)	No Harmonics Found				
5745	5715(Pk)	Vertical	51.73	78.2	-26.47
	5725(Pk)		54.05	78.2	-24.15
	5745 (Pk)		103.96	*	-
	5745 (Av)		94.22	*	-
	11490 (Pk)		53.61	68.23	-14.62
	11490 (Av)		39.40	68.23	-28.83
	17235 (Pk)		55.15	68.23	-13.08
	17235 (Av)		42.79	68.23	-25.44
	5715(Pk)	Horizontal	44.34	78.2	-33.86
	5725(Pk)		45.54	78.2	-32.66
	5745 (Pk)		94.44	*	-
	5745 (Av)		85.14	*	-
	11490 (Pk)		50.46	68.23	-17.77
	11490 (Av)		38.19	68.23	-30.04
	17235 (Pk)		55.45	68.23	-12.78
	17235 (Av)		42.80	68.23	-25.43

5825	5825 (Pk)	Vertical	103.88	*	-
	5825 (Av)		94.06	*	-
	5850 (Pk)		51.55	78.2	-26.65
	5860 (Pk)		48.28	78.2	-29.92
	11650 (Pk)		57.25	68.23	-10.98
	11650 (Av)		42.48	68.23	-25.75
	17475 (Pk)		55.16	68.23	-13.07
	17475 (Av)		42.94	68.23	-25.29
	5825 (Pk)	Horizontal	95.49	*	-
	5825 (Av)		86.01	*	-
	5850 (Pk)		43.79	78.2	-34.41
	5860 (Pk)		43.30	78.2	-34.90
	11650 (Pk)		51.08	68.23	-17.15
	11650 (Av)		38.29	68.23	-29.94
	17475 (Pk)		55.01	68.23	-13.22
	17475 (Av)		42.98	68.23	-25.25

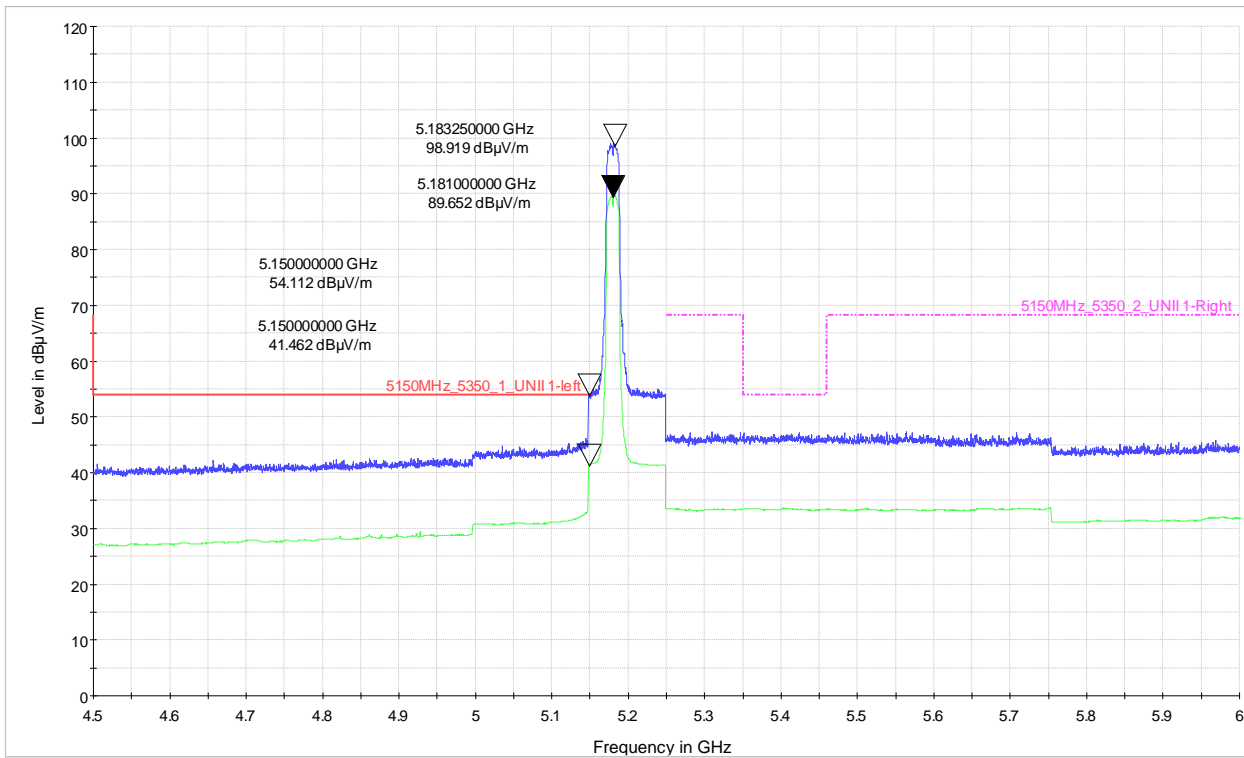
The testing is performed for **802.11ac _ VHT 20MHz**, **802.11ac _ VHT 80MHz** MCS 0 & MCS 7 but not reported here, only the MCS 0 reported as a worst case scenario

Worst case emissions for restricted band of operation



Channel Frequency: 5180MHz

Polarization: Vertical



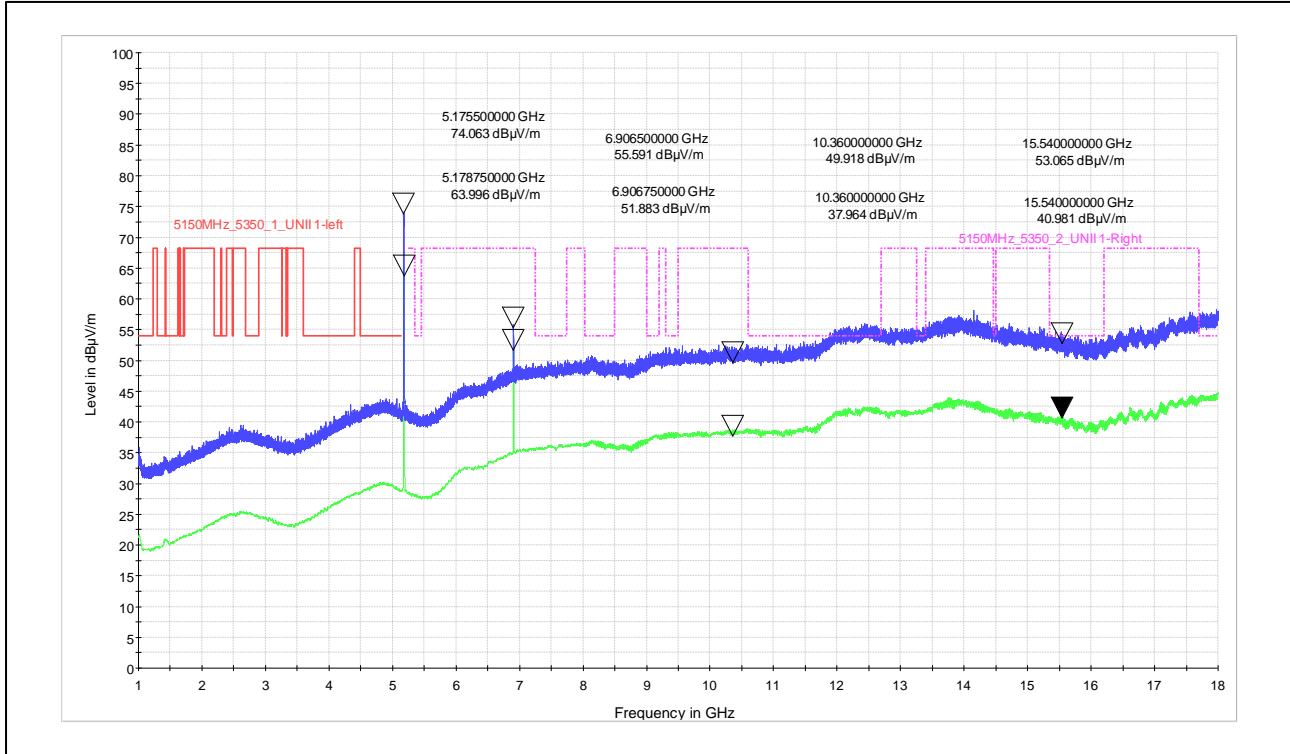
Channel Frequency: 5180MHz

Polarization: Horizontal

Worst case emissions for Spurious radiated emissions above 1GHz

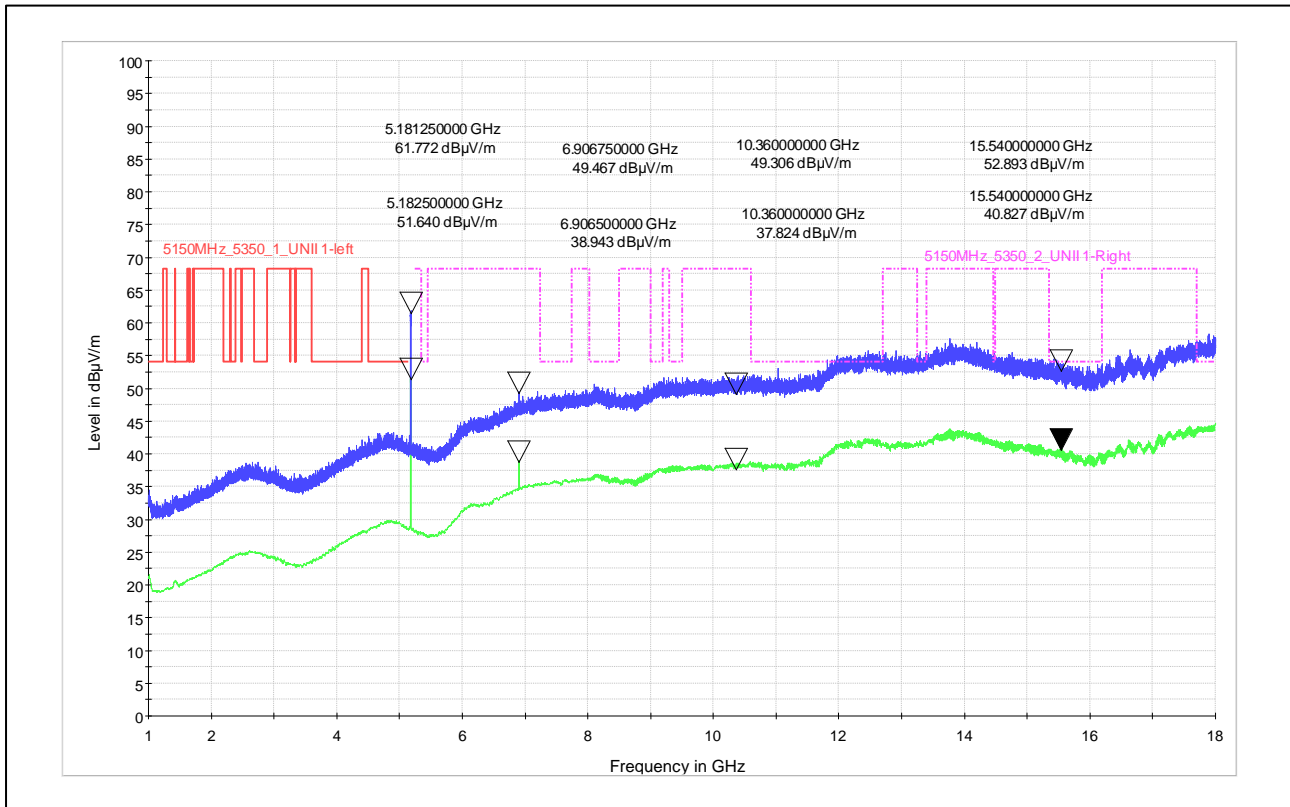
Data rate: 6Mbps

Channel Frequency: 5180MHz



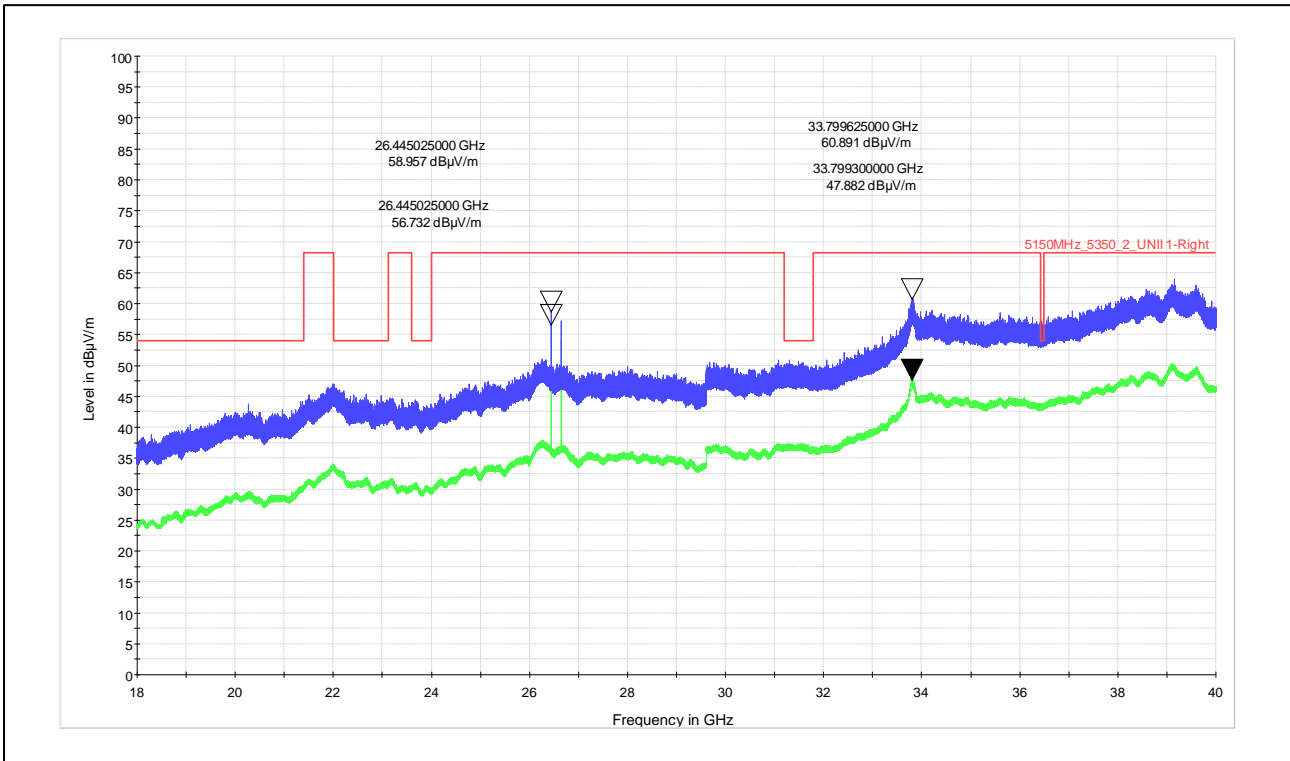
Frequency Range: 1 to 18GHz

Polarization: Vertical



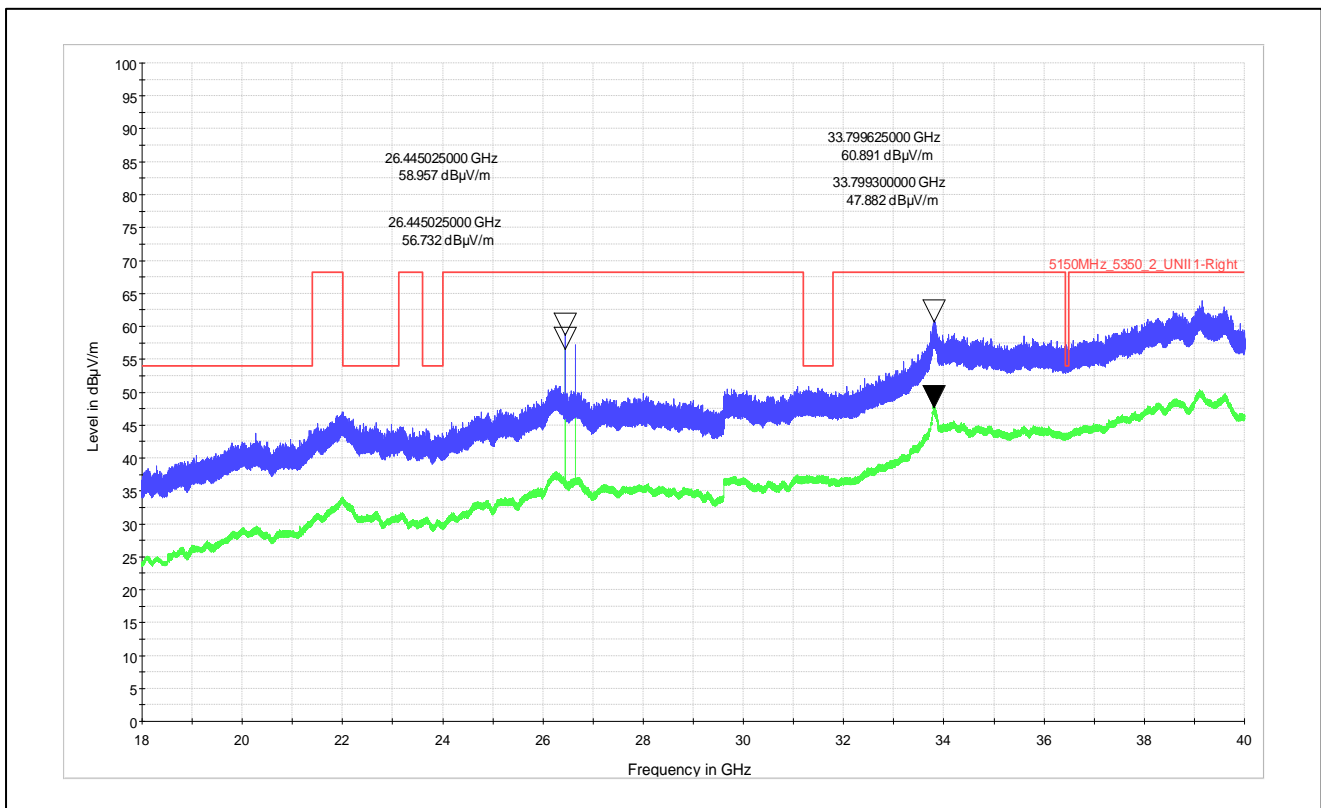
Frequency Range: 1 to 18GHz

Polarization: Horizontal



Frequency Range: 18-40GHz

Polarization: Vertical



Frequency Range: 18-40GHz

Polarization: Horizontal

8 Frequency Stability

Result

Pass

Test Specification

FCC part 15 Subpart C 15.407 (g) / RSS Gen Issue 5, Section 8.11

Test Method

Subclause 6.8.1 of ANSI C63.10

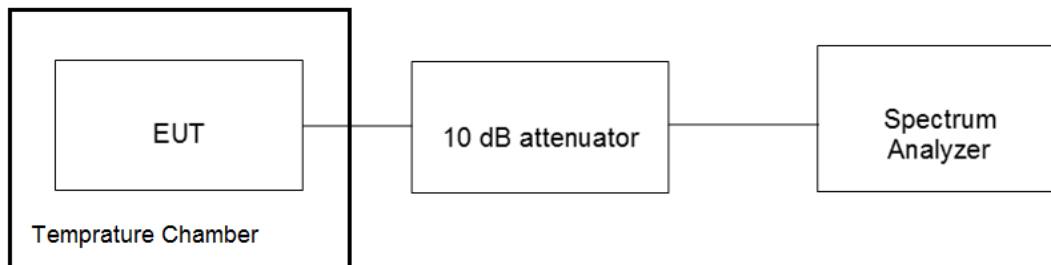
Port of testing

Antenna port

Requirement

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual

Test Method:



Test Condition:

Normal Test Condition:

Temperature (Norm) = + 25 °C

Voltage = 3.3VDC

Relative humidity: 62%

KDB Guidelines applied:

Measurements were made as per section 3 in KDB 789033 D02 General UNII Test Procedures New Rules v02r01

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Test results:

Channel Frequency (MHz)	Temperature	Frequency deviation for different time interval (MHz)				Limit
	(°C)	0Min	2Min	5Min	10Min	
5180	0	1.57	-1.50	0.06	-1.83	Emission drift measured are maintained within the authorised band
	25	-2.06	-1.47	1.89	-1.98	
	35	-1.2	2.14	-0.91	-0.43	
5240	0	-2.07	-0.47	0.88	-1.75	
	25	-1.3	2.04	-0.75	-1.43	
	35	2.57	-1.07	0.76	-0.83	
5745	0	2.5	-0.80	-1.98	-1.29	
	25	-1.97	-1.62	-1.95	1.70	
	35	1.13	-1.59	-0.82	-1.35	
5825	0	1.5	-0.90	2.97	-0.28	
	25	-1.68	-1.56	-2.05	1.87	
	35	1.49	-2.55	-1.83	-1.04	

9 Conducted Spurious Emission test on AC Power Line

Result

Pass

Test Specification : FCC Part 15 Section 15.207 / RSS Gen Issue 5 Section 8.8
 Test Method : ANSI C 63.10-2013
 Testing Location : Screened room
 Measurement Bandwidth : 9kHz
 Frequency Range : 150kHz – 30MHz
 Supply Voltage : 110VAC,60Hz
 Test Method : Refer TEST METHODOLOGY

***Note: The product has tested with AC to DC adapter and Wireless Qi charger**

Limits of section 15.207

Frequency of emission (MHz)	QP Limit (dBµV)	AV Limit (dBµV/m)
0.15 – 0.5	66 – 56*	56 – 46*
0.5 – 5	56	46
5 – 30	60	50

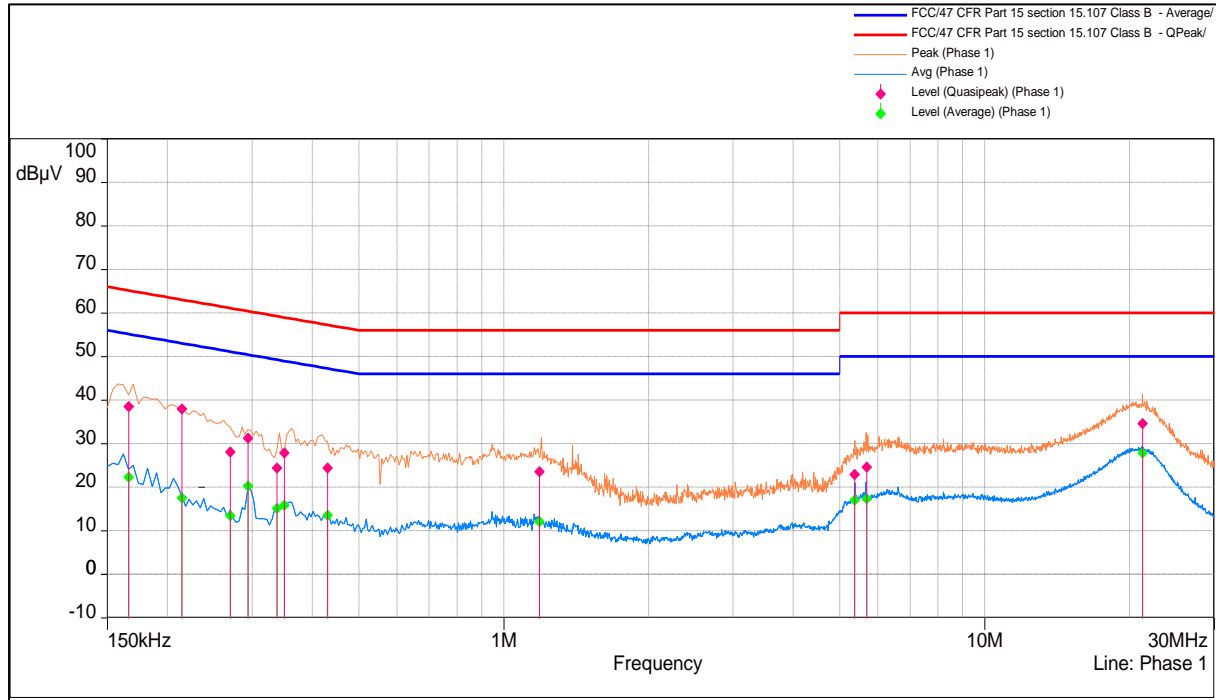
* Decreases with the logarithm of the frequency

Test Conditions:

Normal Temperature = +24°C Voltage (V norm) = 110V AC (Through AC to DC Adapter)
 RH = 64 %

Test result:

Power: 110V 60HZ_LINE



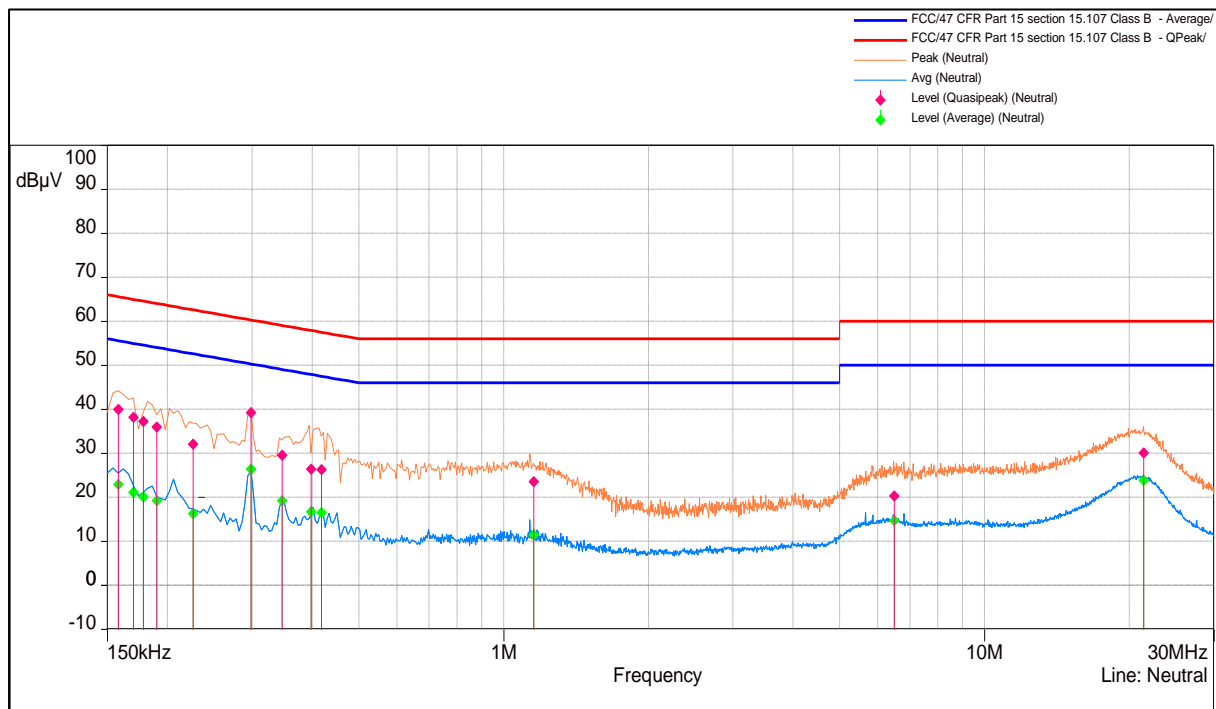
Line Graph

Quasipeak (23)										
Frequency (MHz)	SR	Level (dBµV)	Limit (dBµV)	Margin (dB)	Pos	Measuring time	RBW	Meas.Time	Comments	Correction (dB)
0.215	1	38.06	63.05	-24.99	Phase 1	1	9k	0.02	Pass	20.16
21.26465	1	34.62	60	-25.38	Phase 1	1	9k	0.02	Pass	20.14
0.1653	1	38.56	65.16	-26.6	Phase 1	1	9k	0.02	Pass	20.22
0.29535	1	31.3	60.41	-29.11	Phase 1	1	9k	0.02	Pass	20.06
0.3503	1	27.85	58.96	-31.11	Phase 1	1	9k	0.02	Pass	20.07
1.1863	1	23.61	56	-32.39	Phase 1	1	9k	0.02	Pass	20.43
0.4315	1	24.4	57.25	-32.85	Phase 1	1	9k	0.02	Pass	20.08
0.2715	1	28.12	61.12	-33	Phase 1	1	9k	0.02	Pass	20.09
0.33795	1	24.46	59.25	-34.79	Phase 1	1	9k	0.02	Pass	20.06
5.68075	1	24.6	60	-35.4	Phase 1	1	9k	0.02	Pass	20.54
5.3592	1	23	60	-37	Phase 1	1	9k	0.02	Pass	20.54

Average (23)										
Frequency (MHz)	SR	Level (dBµV)	Limit (dBµV)	Margin (dB)	Pos	Measuring time	RBW	Meas. Time	Comments	Correction (dB)
0.1653	1	22.29	55.16	-32.87	Phase 1	1	9k	0.02	Pass	20.22
0.215	1	17.61	53.05	-35.44	Phase 1	1	9k	0.02	Pass	20.16
0.2715	1	13.51	51.12	-37.61	Phase 1	1	9k	0.02	Pass	20.09
0.29535	1	20.33	50.41	-30.08	Phase 1	1	9k	0.02	Pass	20.06
0.33795	1	15.19	49.25	-34.06	Phase 1	1	9k	0.02	Pass	20.06
0.3503	1	15.93	48.96	-33.03	Phase 1	1	9k	0.02	Pass	20.07
0.4315	1	13.57	47.25	-33.68	Phase 1	1	9k	0.02	Pass	20.08
1.1863	1	12.09	46	-33.91	Phase 1	1	9k	0.02	Pass	20.43
5.3592	1	17.01	50	-32.99	Phase 1	1	9k	0.02	Pass	20.54
5.68075	1	17.42	50	-32.58	Phase 1	1	9k	0.02	Pass	20.54
21.26465	1	27.9	50	-22.1	Phase 1	1	9k	0.02	Pass	20.14

Line Table

Power: 110V60HZ_NEUTRAL



Neutral Graph

Quasipeak (23)										
Frequency (MHz)	SR	Level (dBµV)	Limit (dBµV)	Margin (dB)	Pos	Measuring time	RBW	Meas.Time	Comments	Correction (dB)
0.29665	2	39.24	60.3	-21.06	Neutral	1	9k	0.02	Pass	19.96
0.15675	2	39.99	65.57	-25.58	Neutral	1	9k	0.02	Pass	20.3
0.16805	2	38.24	64.96	-26.72	Neutral	1	9k	0.02	Pass	20.27
0.1795	2	37.25	64.58	-27.33	Neutral	1	9k	0.02	Pass	20.24
0.1916	2	36.02	64.04	-28.01	Neutral	1	9k	0.02	Pass	20.21
0.3442	2	29.58	59.06	-29.47	Neutral	1	9k	0.02	Pass	20.01
21.4065	2	30.08	60	-29.92	Neutral	1	9k	0.02	Pass	20.43
0.2262	2	32.15	62.6	-30.45	Neutral	1	9k	0.02	Pass	20.13
0.41605	2	26.37	57.49	-31.12	Neutral	1	9k	0.02	Pass	20.12
0.39895	2	26.43	57.9	-31.47	Neutral	1	9k	0.02	Pass	20.09
1.15335	2	23.55	56	-32.45	Neutral	1	9k	0.02	Pass	20.51
6.4893	2	20.28	60	-39.72	Neutral	1	9k	0.02	Pass	20.69

Average (23)										
Frequency (MHz)	SR	Level (dBµV)	Limit (dBµV)	Margin (dB)	Pos	Measuring time	RBW	Meas.Time	Comments	Correction (dB)
0.29665	2	26.41	50.3	-23.89	Neutral	1	9k	0.02	Pass	19.96
21.4065	2	23.85	50	-26.15	Neutral	1	9k	0.02	Pass	20.43
0.3442	2	19.24	49.06	-29.82	Neutral	1	9k	0.02	Pass	20.01
0.41605	2	16.58	47.49	-30.91	Neutral	1	9k	0.02	Pass	20.12
0.39895	2	16.71	47.9	-31.19	Neutral	1	9k	0.02	Pass	20.09
0.15675	2	22.95	55.57	-32.62	Neutral	1	9k	0.02	Pass	20.3
0.16805	2	21.18	54.96	-33.78	Neutral	1	9k	0.02	Pass	20.27
0.1795	2	20.11	54.58	-34.47	Neutral	1	9k	0.02	Pass	20.24
1.15335	2	11.44	46	-34.56	Neutral	1	9k	0.02	Pass	20.51
0.1916	2	19.27	54.04	-34.76	Neutral	1	9k	0.02	Pass	20.21
6.4893	2	14.7	50	-35.3	Neutral	1	9k	0.02	Pass	20.69
0.2262	2	16.31	52.6	-36.29	Neutral	1	9k	0.02	Pass	20.13

Neutral Table

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11 Power level used for testing

6Mbps		HT20_MCS0		VHT40_MCS0	
5180	17	5180	16	5190	15
5240	17	5240	16	5230	15
5260	17	5260	16	5270	15
5320	17	5320	16	5510	15
5500	17	5500	16	5590	15
5700	17	5700	16	5670	15
5745	17	5745	16	5755	15
5825	17	5825	16	5795	15
54Mbps		HT20_MCS7		VHT40_MCS9	
5180	17	5180	16	5190	15
5240	17	5240	16	5230	15
5260	17	5260	16	5270	15
5320	17	5320	16	5510	15
5500	17	5500	16	5590	15
5700	17	5700	16	5670	15
5745	16	5745	16	5755	15
5825	16	5825	16	5795	15
VHT20_MCS0		HT40_MCS0		ac_VHT80_MCS0	
5180	16	5190	15	5210	14
5240	16	5230	15	5290	14
5260	16	5270	15	5530	14
5320	16	5510	15	5690	14
5500	16	5590	15	5755	14
5700	16	5670	15	ac_VHT80_MCS9	
5745	16	5755	15	5210	14
5825	16	5795	15	5290	14
VHT20_MCS8		HT40_MCS7		5530	14
5180	15	5190	15	5690	14
5240	15	5230	15	5755	14
5260	15	5270	15	ac_VHT80_MCS9	
5320	15	5510	15	5210	14
5500	15	5590	15	5290	14
5700	15	5670	15	5530	14
5745	15	5755	15	5690	14
5825	15	5795	15	5755	14

END OF TEST REPORT