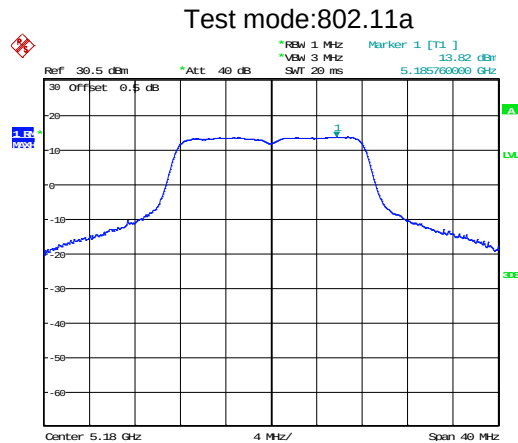


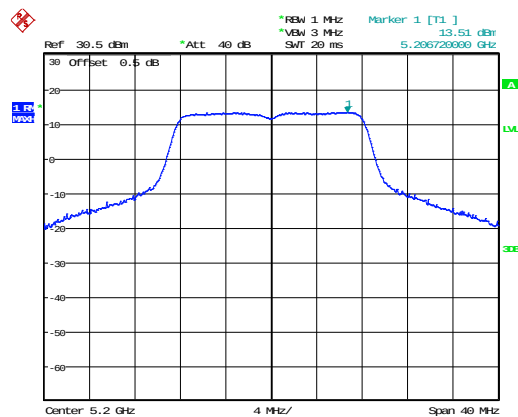
Test plot as follows:

Band 1: TX0



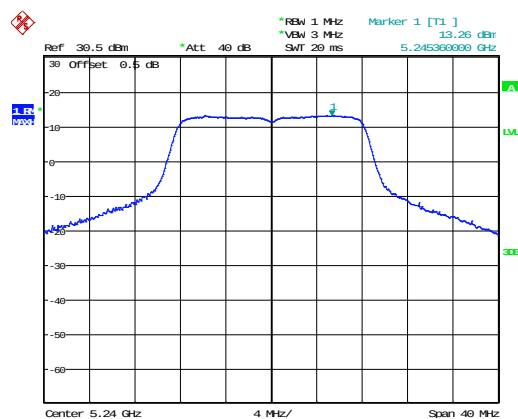
Date: 20.MAR.2016 13:08:43

Lowest channel



Date: 20.MAR.2016 13:09:09

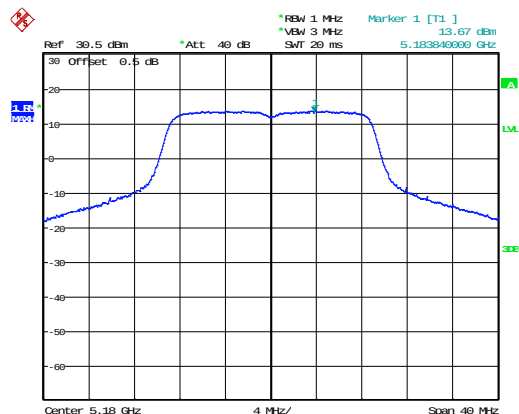
Middle channel



Date: 20.MAR.2016 13:09:47

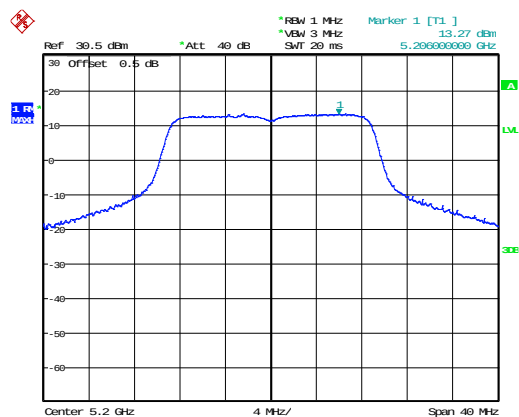
Highest channel

Test mode:802.11n20



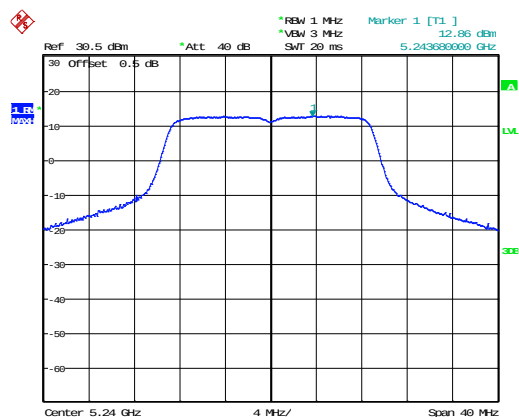
Date: 20.MAR.2016 13:59:48

Lowest channel



Date: 20.MAR.2016 14:00:07

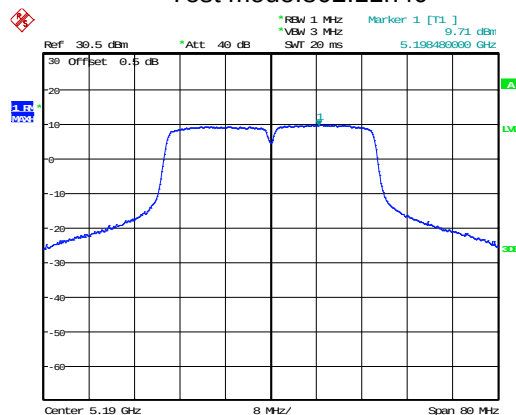
Middle channel



Date: 20.MAR.2016 14:00:28

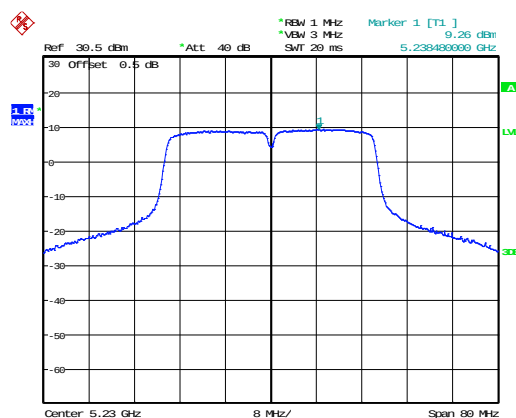
Highest channel

Test mode:802.11n40



Date: 20.MAR.2016 14:00:55

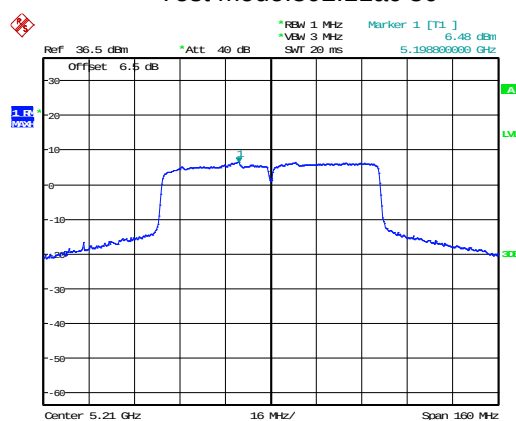
Lowest channel



Date: 20.MAR.2016 14:01:17

Highest channel

Test mode:802.11ac 80

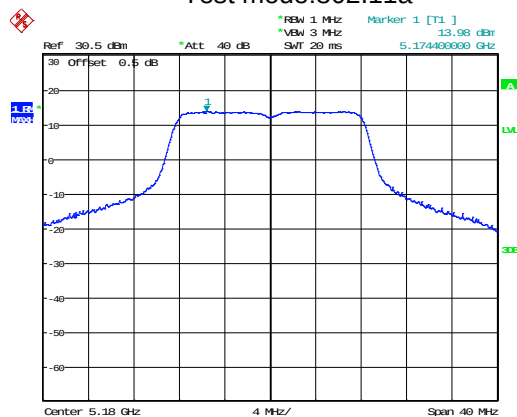


Date: 15.APR.2016 19:25:56

Middle channel

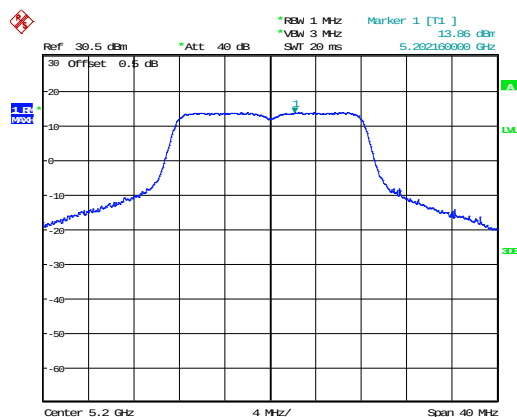
TX1

Test mode:802.11a



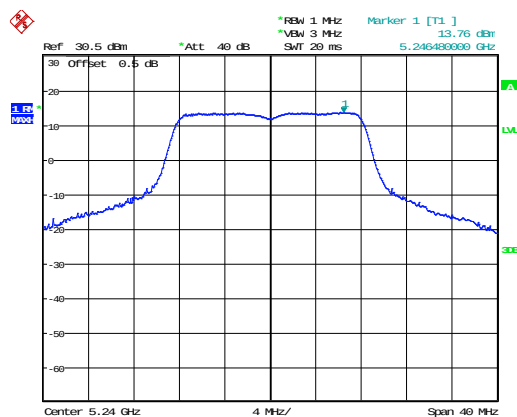
Date: 20.MAR.2016 13:57:17

Lowest channel



Date: 20.MAR.2016 13:57:39

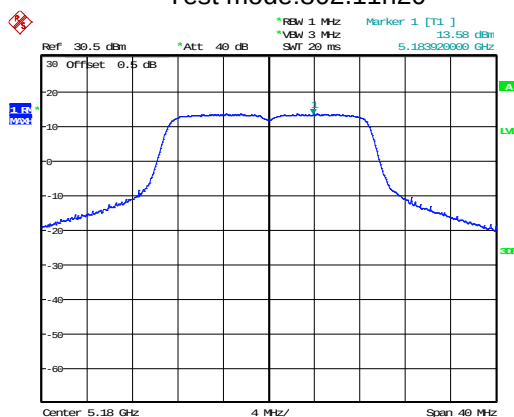
Middle channel



Date: 20.MAR.2016 13:58:08

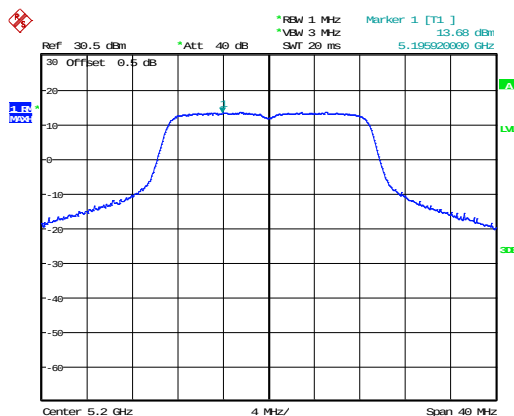
Highest channel

Test mode:802.11n20



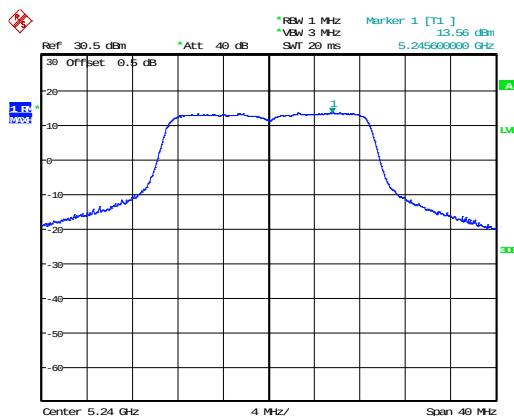
Date: 20.MAR.2016 13:56:01

Lowest channel



Date: 20.MAR.2016 13:56:26

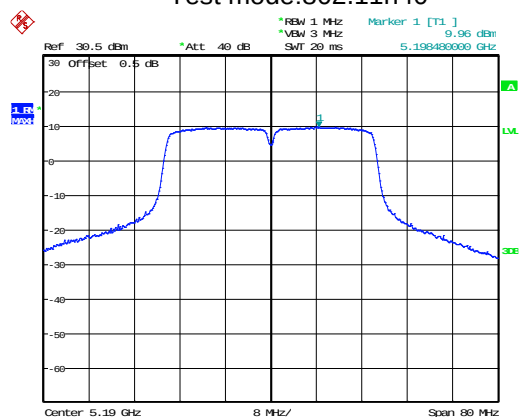
Middle channel



Date: 20.MAR.2016 13:56:47

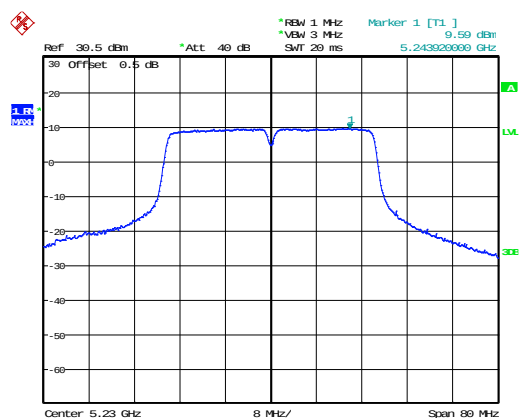
Highest channel

Test mode:802.11n40



Date: 20.MAR.2016 13:55:34

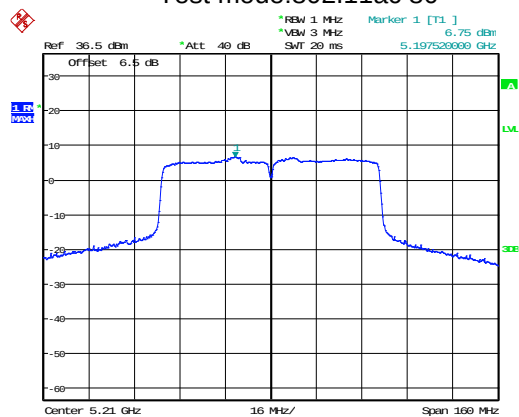
Lowest channel



Date: 20.MAR.2016 13:55:12

Highest channel

Test mode:802.11ac 80

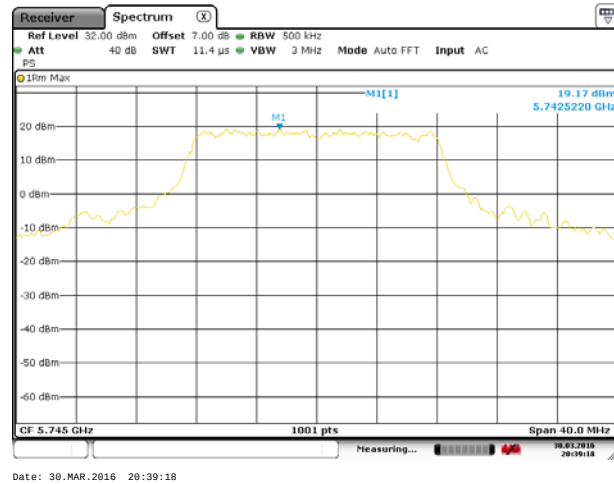


Date: 15.APR.2016 19:26:44

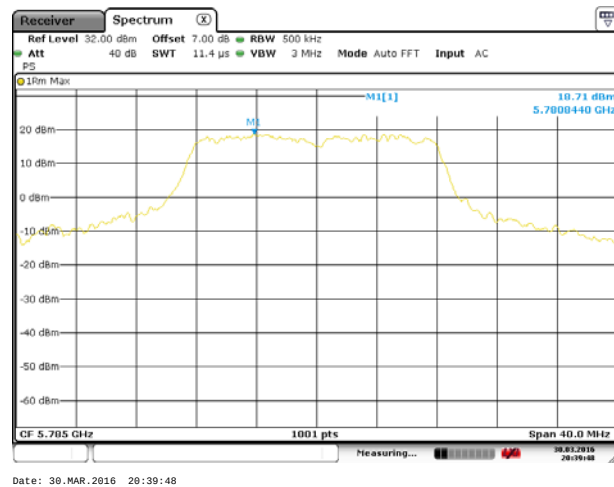
Middle channel

Band 4: TX0

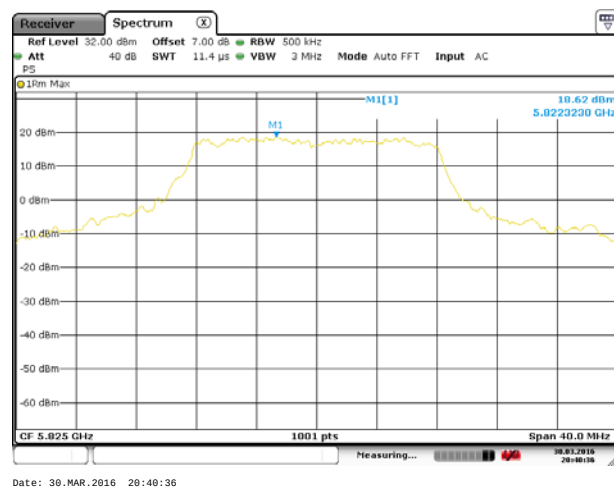
Test mode:802.11a



Lowest channel

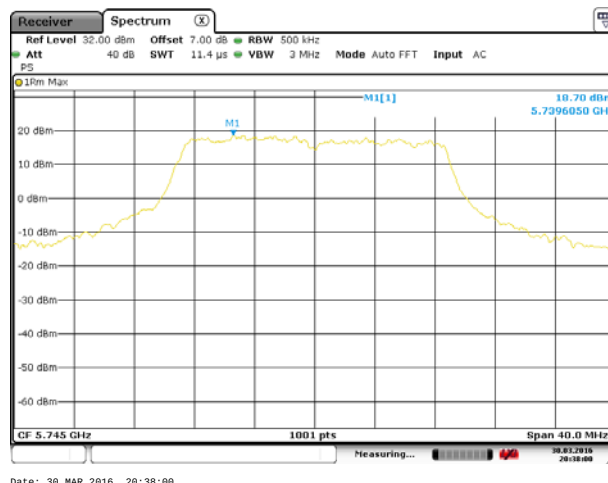


Middle channel

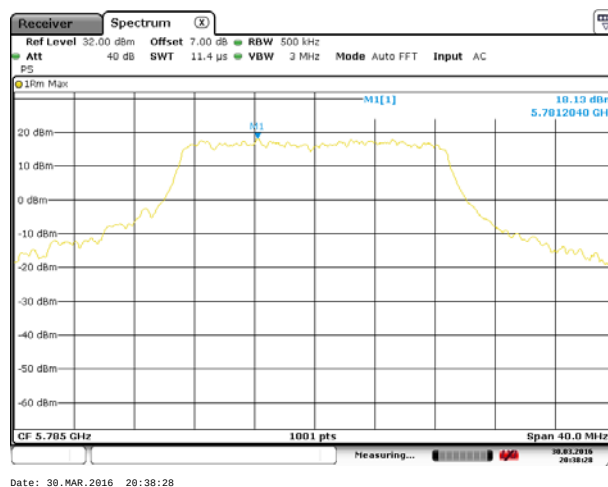


Highest channel

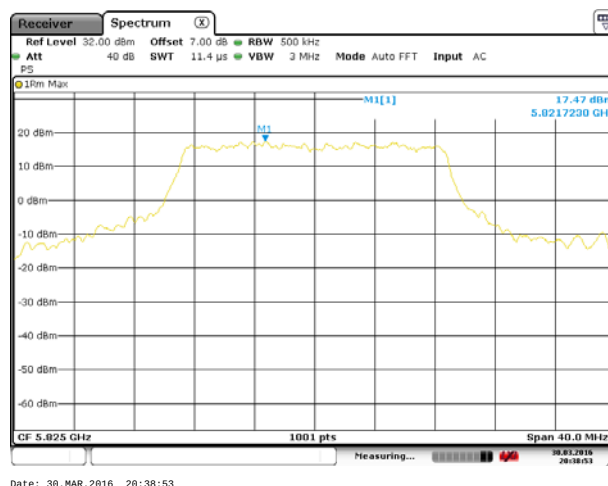
Test mode:802.11n20



Lowest channel

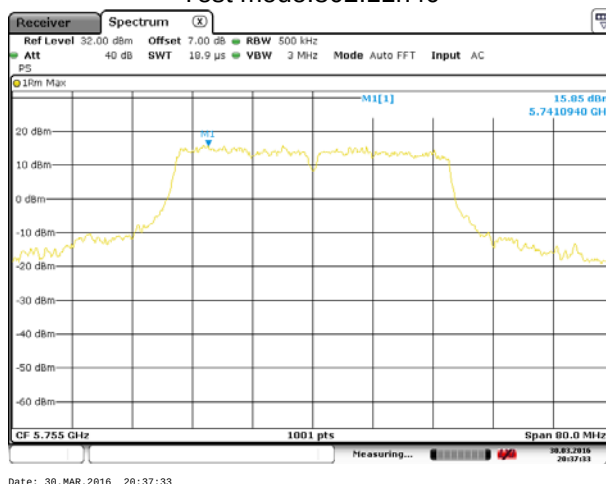


Middle channel

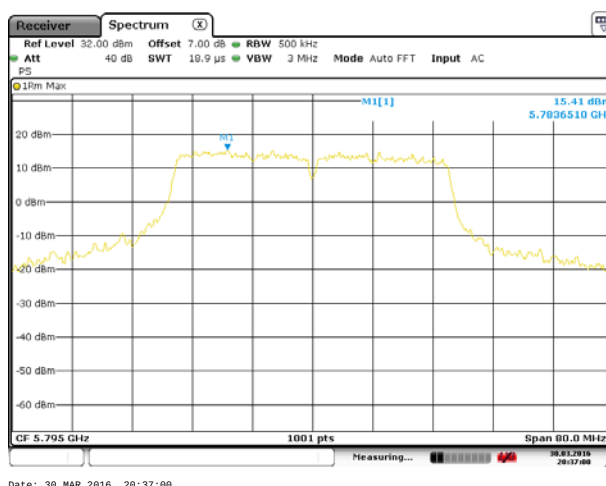


Highest channel

Test mode:802.11n40

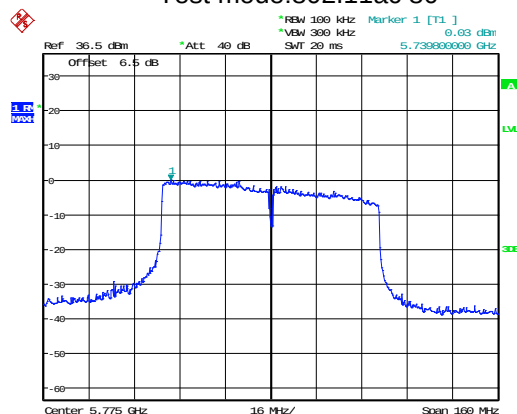


Lowest channel



Highest channel

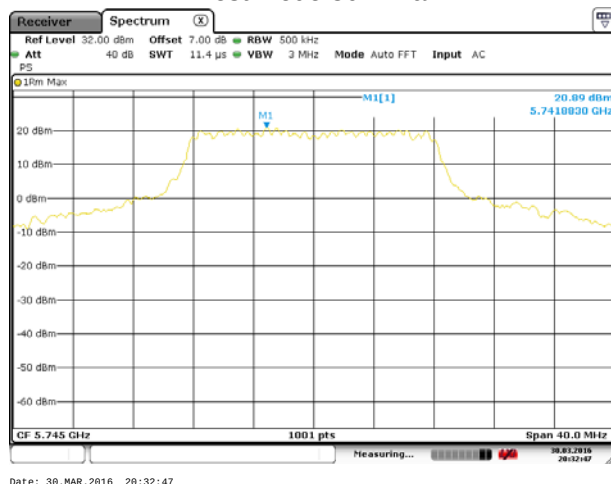
Test mode:802.11ac 80



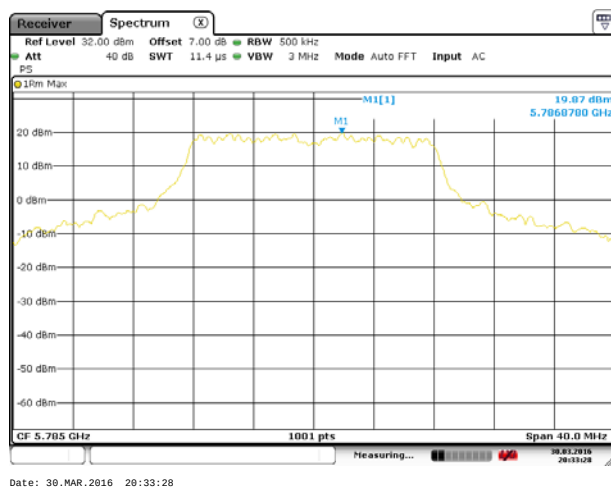
Middle channel

TX1

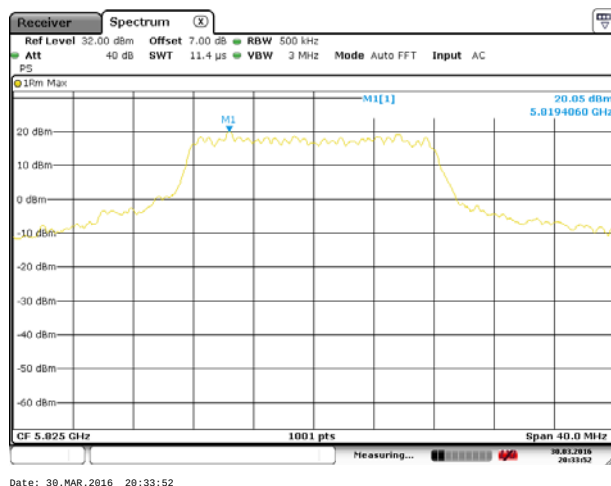
Test mode:802.11a



Lowest channel

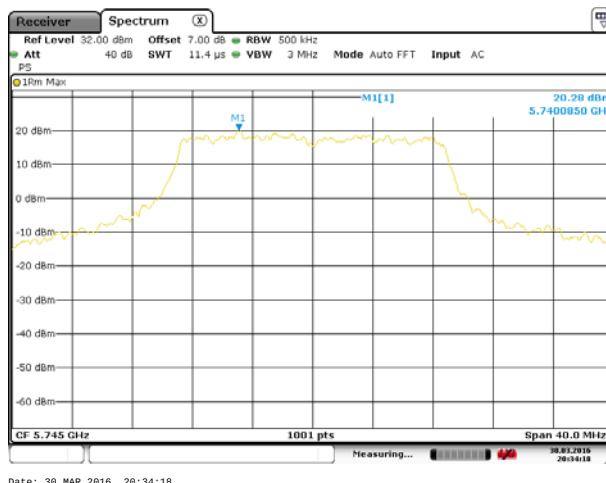


Middle channel

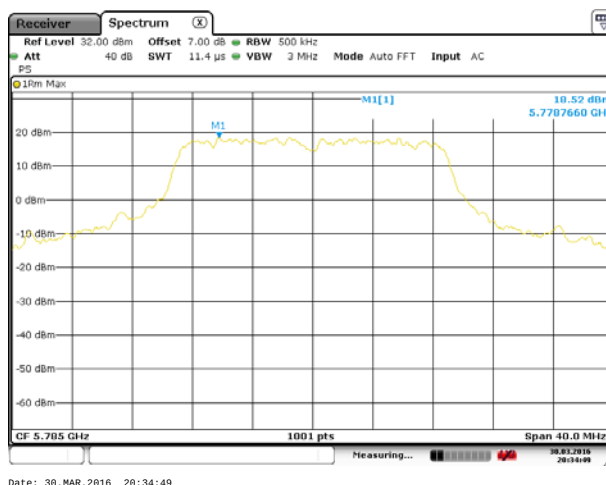


Highest channel

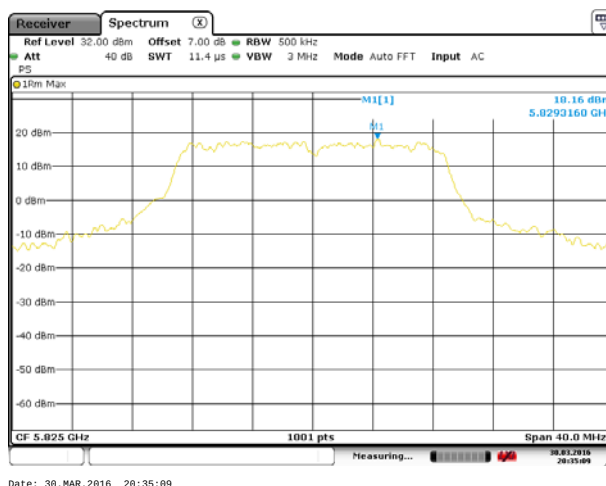
Test mode:802.11n20



Lowest channel

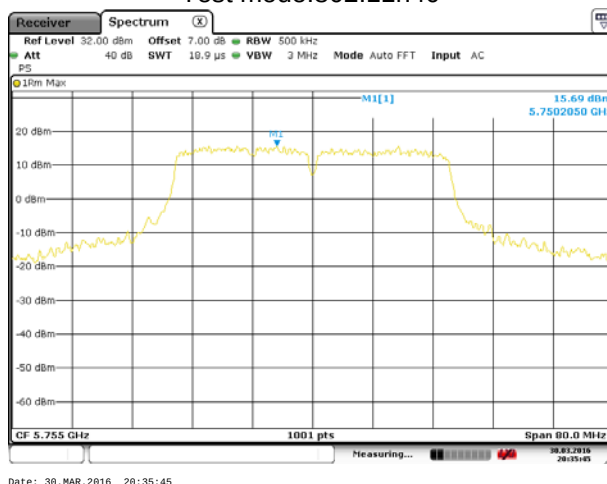


Middle channel

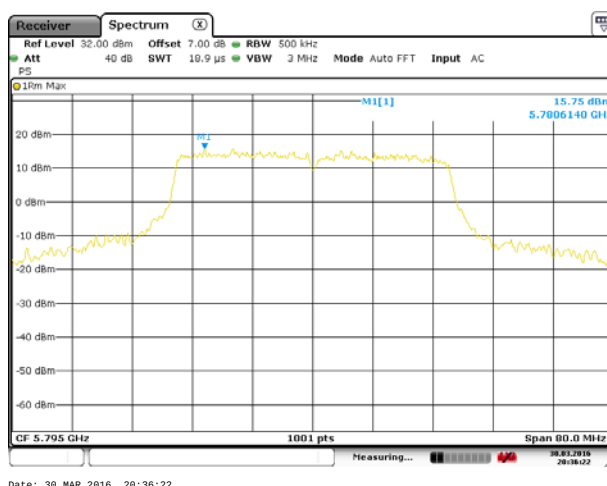


Highest channel

Test mode:802.11n40

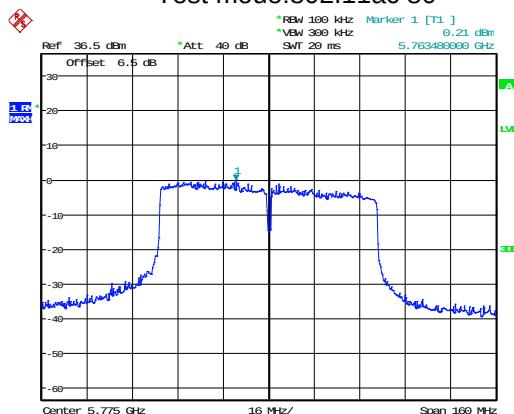


Lowest channel



Highest channel

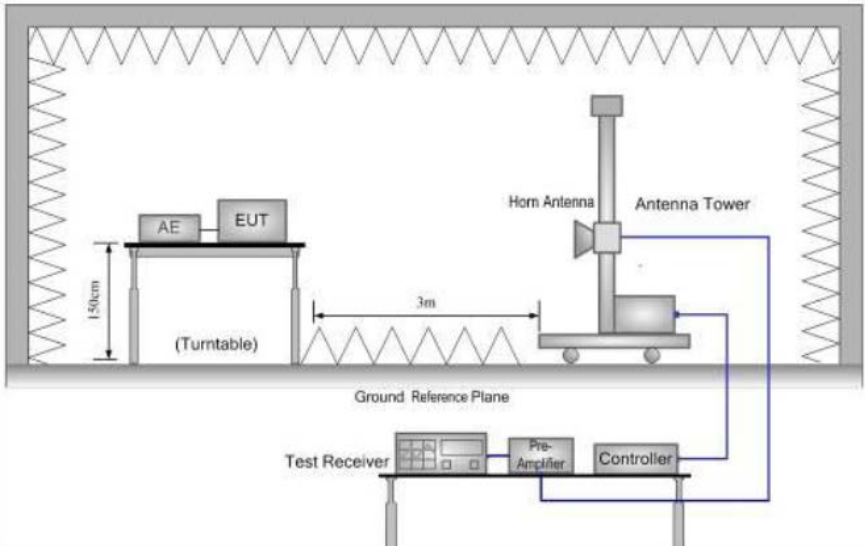
Test mode:802.11ac 80



Middle channel

6.6 Band Edge

Test Requirement:	FCC Part15 E Section 15.407 (b)			
Test Method:	ANSI C63.10:2013 , KDB 789033			
Receiver setup:	Detector	RBW	VBW	Remark
	Peak	1MHz	3MHz	Peak Value
	RMS	1MHz	3MHz	Average Value
Limit:				
	Band	Limit (dBuV/m @3m)		Remark
	Band 1	68.20		Peak Value
		54.00		Average Value
	Band 4	68.20		Peak Value
		54.00		Average Value
	Remark: 1. Band 1 limit: E[dBuV/m] = EIRP[dBm] + 95.2=68.2 dBuV/m,for EIPR[dBm]=-27dBm. 2. Band 4 limit: E[dBuV/m] = EIRP[dBm] + 95.2=78.2 dBuV/m,for EIPR[dBm]=-17dBm.			
Test Procedure:	1. The EUT was placed on the top of a rotating table 0.8 meters above the groundat a 3 meter camber. The table was rotated 360 degrees todetermine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, whichwas mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 4. For each suspected emission, the EUT was arranged to its worst case and thenthe antenna was tuned to heights from 1 meter to 4 meters and the rotatablewas turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and SpecifiedBandwidth with Maximum Hold Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.			

Test setup:	
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Band 1:

802.11a								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5150.00	42.15	36.23	10.96	40.06	49.28	68.20	-18.92	Horizontal
5150.00	41.87	36.23	10.96	40.06	49.00	68.20	-19.20	Vertical
802.11a								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5150.00	32.06	36.23	10.96	40.06	39.19	54.00	-14.81	Horizontal
5150.00	31.47	36.23	10.96	40.06	38.60	54.00	-15.40	Vertical
802.11a								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	41.78	35.37	11.19	40.18	48.16	68.20	-20.04	Horizontal
5350.00	42.63	35.37	11.19	40.18	49.01	68.20	-19.19	Vertical
802.11a								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	31.47	35.37	11.19	40.18	37.85	54.00	-16.15	Horizontal
5350.00	32.52	35.37	11.19	40.18	38.90	54.00	-15.10	Vertical

802.11n-HT20								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5150.00	42.18	36.23	10.96	40.06	49.31	68.20	-18.89	Horizontal
5150.00	41.26	36.23	10.96	40.06	48.39	68.20	-19.81	Vertical
802.11n-HT20								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5150.00	32.65	36.23	10.96	40.06	39.78	54.00	-14.22	Horizontal
5150.00	31.45	36.23	10.96	40.06	38.58	54.00	-15.42	Vertical
802.11n-HT20								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	42.15	35.37	11.19	40.18	48.53	68.20	-19.67	Horizontal
5350.00	41.89	35.37	11.19	40.18	48.27	68.20	-19.93	Vertical
802.11n-HT20								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	32.67	35.37	11.19	40.18	39.05	54.00	-14.95	Horizontal
5350.00	31.47	35.37	11.19	40.18	37.85	54.00	-16.15	Vertical

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

802.11n-HT40								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5150.00	42.15	36.23	10.96	40.06	49.28	68.20	-18.92	Horizontal
5150.00	43.62	36.23	10.96	40.06	50.75	68.20	-17.45	Vertical
802.11n-HT40								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5150.00	32.57	36.23	10.96	40.06	39.70	54.00	-14.30	Horizontal
5150.00	33.02	36.23	10.96	40.06	40.15	54.00	-13.85	Vertical
802.11n-HT40								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	42.15	35.37	11.19	40.18	48.53	68.20	-19.67	Horizontal
5350.00	42.69	35.37	11.19	40.18	49.07	68.20	-19.13	Vertical
802.11n-HT40								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	32.47	35.37	11.19	40.18	38.85	54.00	-15.15	Horizontal
5350.00	32.07	35.37	11.19	40.18	38.45	54.00	-15.55	Vertical

802.11ac-HT80								
Test channel		Middle			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5150.00	41.25	36.23	10.96	40.06	48.38	68.20	-19.82	Horizontal
5150.00	42.35	36.23	10.96	40.06	49.48	68.20	-18.72	Vertical
802.11ac-HT80								
Test channel		Middle			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5150.00	31.25	36.23	10.96	40.06	38.38	54.00	-15.62	Horizontal
5150.00	31.52	36.23	10.96	40.06	38.65	54.00	-15.35	Vertical
802.11ac-HT80								
Test channel		Middle			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	42.62	35.37	11.19	40.18	49.00	68.20	-19.20	Horizontal
5350.00	41.25	35.37	11.19	40.18	47.63	68.20	-20.57	Vertical
802.11ac-HT80								
Test channel		Middle			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	31.25	35.37	11.19	40.18	37.63	54.00	-16.37	Horizontal
5350.00	32.85	35.37	11.19	40.18	39.23	54.00	-14.77	Vertical

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

Band 4:

802.11a								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.00	41.58	34.65	11.62	40.54	47.31	68.20	-20.89	Horizontal
5725.00	42.68	34.65	11.62	40.54	48.41	68.20	-19.79	Vertical
802.11a								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.00	31.47	34.65	11.62	40.54	37.20	54.00	-16.80	Horizontal
5725.00	32.69	34.65	11.62	40.54	38.42	54.00	-15.58	Vertical
802.11a								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5850.00	41.57	34.63	11.75	40.69	47.26	68.20	-20.94	Horizontal
5850.00	40.69	34.63	11.75	40.69	46.38	68.20	-21.82	Vertical
802.11a								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5850.00	31.48	34.63	11.75	40.69	37.17	54.00	-16.83	Horizontal
5850.00	30.69	34.63	11.75	40.69	36.38	54.00	-17.62	Vertical

802.11n-HT20								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.00	42.51	34.65	11.62	40.54	48.24	68.20	-19.96	Horizontal
5725.00	41.57	34.65	11.62	40.54	47.30	68.20	-20.90	Vertical
802.11n-HT20								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.00	32.59	34.65	11.62	40.54	38.32	54.00	-15.68	Horizontal
5725.00	31.41	34.65	11.62	40.54	37.14	54.00	-16.86	Vertical
802.11n-HT20								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5850.00	42.18	34.63	11.75	40.69	47.87	68.20	-20.33	Horizontal
5850.00	41.27	34.63	11.75	40.69	46.96	68.20	-21.24	Vertical
802.11n-HT20								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5850.00	32.28	34.63	11.75	40.69	37.97	54.00	-16.03	Horizontal
5850.00	31.47	34.63	11.75	40.69	37.16	54.00	-16.84	Vertical

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

802.11n-HT40								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.00	41.57	34.65	11.62	40.54	47.30	68.20	-20.90	Horizontal
5725.00	42.18	34.65	11.62	40.54	47.91	68.20	-20.29	Vertical
802.11n-HT40								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.00	32.57	34.65	11.62	40.54	38.30	54.00	-15.70	Horizontal
5725.00	31.74	34.65	11.62	40.54	37.47	54.00	-16.53	Vertical
802.11n-HT40								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5850.00	41.57	34.63	11.75	40.69	47.26	68.20	-20.94	Horizontal
5850.00	40.68	34.63	11.75	40.69	46.37	68.20	-21.83	Vertical
802.11n-HT40								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5850.00	31.49	34.63	11.75	40.69	37.18	54.00	-16.82	Horizontal
5850.00	30.20	34.63	11.75	40.69	35.89	54.00	-18.11	Vertical

802.11ac-HT80								
Test channel		Middle			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.00	41.74	34.65	11.62	40.54	47.47	68.20	-20.73	Horizontal
5725.00	41.69	34.65	11.62	40.54	47.42	68.20	-20.78	Vertical
802.11ac-HT80								
Test channel		Middle			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.00	31.65	34.65	11.62	40.54	37.38	54.00	-16.62	Horizontal
5725.00	31.98	34.65	11.62	40.54	37.71	54.00	-16.29	Vertical
802.11ac-HT80								
Test channel		Middle			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5850.00	41.65	34.63	11.75	40.69	47.34	68.20	-20.86	Horizontal
5850.00	41.98	34.63	11.75	40.69	47.67	68.20	-20.53	Vertical
802.11ac-HT80								
Test channel		Middle			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5850.00	31.05	34.63	11.75	40.69	36.74	54.00	-17.26	Horizontal
5850.00	31.87	34.63	11.75	40.69	37.56	54.00	-16.44	Vertical

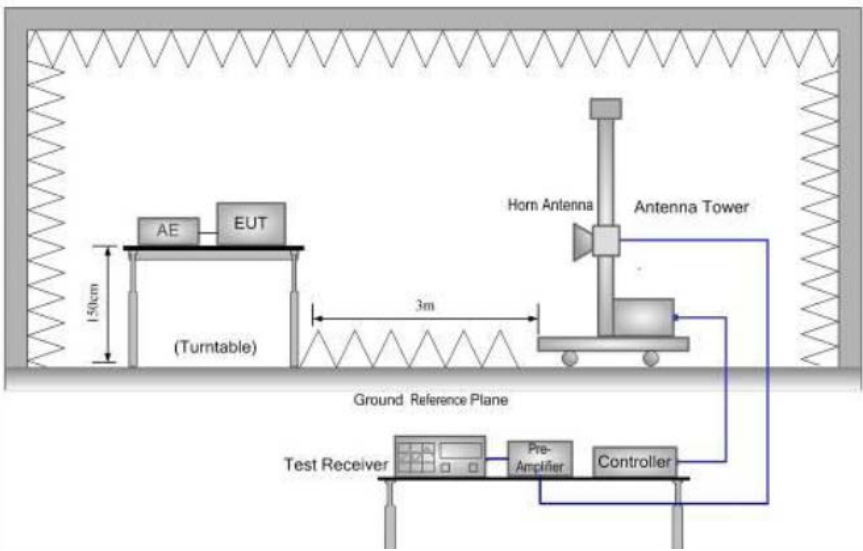
Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

6.7 Spurious Emission

6.7.1 Restricted Band

Test Requirement:	FCC Part15 E Section 15.407(b)				
Test Method:	ANSI C63.10: 2013				
TestFrequencyRange:	Band 1: 4.5 GHz to 5.15 GHz and 5.35GHz to 5.46GHz Band 4: 5.35 GHz to 5.46 GHz				
Test site:	Measurement Distance: 3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Remark
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
		RMS	1MHz	3MHz	Average Value
Limit:					
	Frequency		Limit (dBuV/m @3m)		Remark
	Above 1GHz	74.00		Peak Value	
		54.00		Average Value	
Test Procedure:	1. The EUT was placed on the top of a rotating table 0.8 meters above the groundat a 3 meter camber. The table was rotated 360 degrees todetermine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, whichwas mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 4. For each suspected emission, the EUT was arranged to its worst case and thenthe antenna was tuned to heights from 1 meter to 4 meters and the rotatablewas turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and SpecifiedBandwidth with Maximum Hold Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limitspecified, then testing could be stopped and the peak values of the EUT wouldbe reported. Otherwise the emissions that did not have 10dB margin would bere-tested one by one using peak, quasi-peak or average method as specified andthen reported in a data sheet.				

Test setup:	
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Band 1:

802.11a

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4500.00	43.21	34.50	10.22	40.67	47.26	74.00	-26.74	Horizontal
4500.00	42.18	34.50	10.22	40.67	46.23	74.00	-27.77	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4500.00	32.59	34.50	10.22	40.67	36.64	54.00	-17.36	Horizontal
4500.00	31.07	34.50	10.22	40.67	35.12	54.00	-18.88	Vertical
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	41.58	34.90	11.32	40.23	47.57	74.00	-26.43	Horizontal
5460.00	42.95	34.90	11.32	40.23	48.94	74.00	-25.06	Vertical
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	31.47	34.90	11.32	40.23	37.46	54.00	-16.54	Horizontal
5460.00	32.61	34.90	11.32	40.23	38.60	54.00	-15.40	Vertical

802.11n-HT20

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4500.00	41.59	34.50	10.22	40.67	45.64	74.00	-28.36	Horizontal
4500.00	42.36	34.50	10.22	40.67	46.41	74.00	-27.59	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4500.00	31.02	34.50	10.22	40.67	35.07	54.00	-18.93	Horizontal
4500.00	32.65	34.50	10.22	40.67	36.70	54.00	-17.30	Vertical
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	41.57	34.90	11.32	40.23	47.56	74.00	-26.44	Horizontal
5460.00	42.15	34.90	11.32	40.23	48.14	74.00	-25.86	Vertical
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	31.26	34.90	11.32	40.23	37.25	54.00	-16.75	Horizontal
5460.00	32.57	34.90	11.32	40.23	38.56	54.00	-15.44	Vertical

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

802.11n-HT40

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4500.00	42.18	34.50	10.22	40.67	46.23	74.00	-27.77	Horizontal
4500.00	41.56	34.50	10.22	40.67	45.61	74.00	-28.39	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4500.00	32.58	34.50	10.22	40.67	36.63	54.00	-17.37	Horizontal
4500.00	31.46	34.50	10.22	40.67	35.51	54.00	-18.49	Vertical
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	41.57	34.90	11.32	40.23	47.56	74.00	-26.44	Horizontal
5460.00	42.63	34.90	11.32	40.23	48.62	74.00	-25.38	Vertical
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	31.25	34.90	11.32	40.23	37.24	54.00	-16.76	Horizontal
5460.00	33.29	34.90	11.32	40.23	39.28	54.00	-14.72	Vertical

802.11ac-HT80

Test channel		Middle			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4500.00	41.25	34.50	10.22	40.67	45.30	74.00	-28.70	Horizontal
4500.00	41.55	34.50	10.22	40.67	45.60	74.00	-28.40	Vertical
Test channel		Middle			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4500.00	31.25	34.50	10.22	40.67	35.30	54.00	-18.70	Horizontal
4500.00	31.59	34.50	10.22	40.67	35.64	54.00	-18.37	Vertical
Test channel		Middle			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	41.25	34.90	11.32	40.23	47.24	74.00	-26.76	Horizontal
5460.00	41.96	34.90	11.32	40.23	47.95	74.00	-26.05	Vertical
Test channel		Middle			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	31.84	34.90	11.32	40.23	37.83	54.00	-16.17	Horizontal
5460.00	31.98	34.90	11.32	40.23	37.97	54.00	-16.03	Vertical

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

Band 4:

802.11a

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	42.18	35.37	11.19	40.18	48.56	74.00	-25.44	Horizontal
5350.00	41.96	35.37	11.19	40.18	48.34	74.00	-25.66	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	32.05	35.37	11.19	40.18	38.43	54.00	-15.57	Horizontal
5350.00	31.96	35.37	11.19	40.18	38.34	54.00	-15.66	Vertical
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	42.87	34.90	11.32	40.23	48.86	74.00	-25.14	Horizontal
5460.00	41.35	34.90	11.32	40.23	47.34	74.00	-26.66	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	33.26	34.90	11.32	40.23	39.25	54.00	-14.75	Horizontal
5460.00	32.08	34.90	11.32	40.23	38.07	54.00	-15.93	Vertical

802.11n-HT20

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	42.18	35.37	11.19	40.18	48.56	74.00	-25.44	Horizontal
5350.00	41.26	35.37	11.19	40.18	47.64	74.00	-26.36	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	32.69	35.37	11.19	40.18	39.07	54.00	-14.93	Horizontal
5350.00	31.40	35.37	11.19	40.18	37.78	54.00	-16.22	Vertical
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	42.59	34.90	11.32	40.23	48.58	74.00	-25.42	Horizontal
5460.00	43.51	34.90	11.32	40.23	49.50	74.00	-24.50	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	32.57	34.90	11.32	40.23	38.56	54.00	-15.44	Horizontal
5460.00	32.65	34.90	11.32	40.23	38.64	54.00	-15.36	Vertical

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

802.11n-HT40

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	42.18	35.37	11.19	40.18	48.56	74.00	-25.44	Horizontal
5350.00	43.51	35.37	11.19	40.18	49.89	74.00	-24.11	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	32.65	35.37	11.19	40.18	39.03	54.00	-14.97	Horizontal
5350.00	33.17	35.37	11.19	40.18	39.55	54.00	-14.45	Vertical
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	42.17	34.90	11.32	40.23	48.16	74.00	-25.84	Horizontal
5460.00	41.55	34.90	11.32	40.23	47.54	74.00	-26.46	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	32.57	34.90	11.32	40.23	38.56	54.00	-15.44	Horizontal
5460.00	31.62	34.90	11.32	40.23	37.61	54.00	-16.39	Vertical

802.11ac-HT80

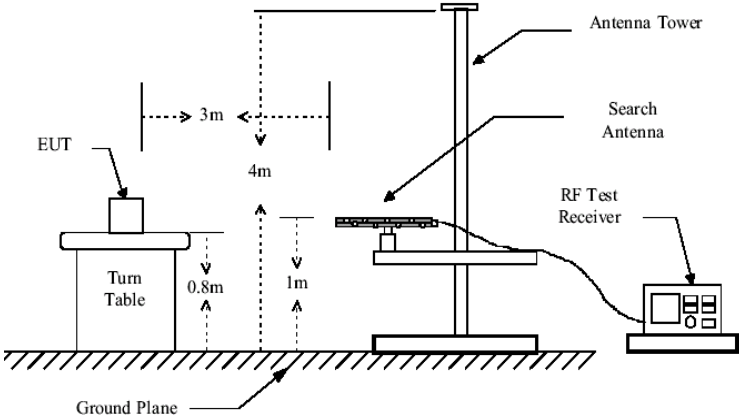
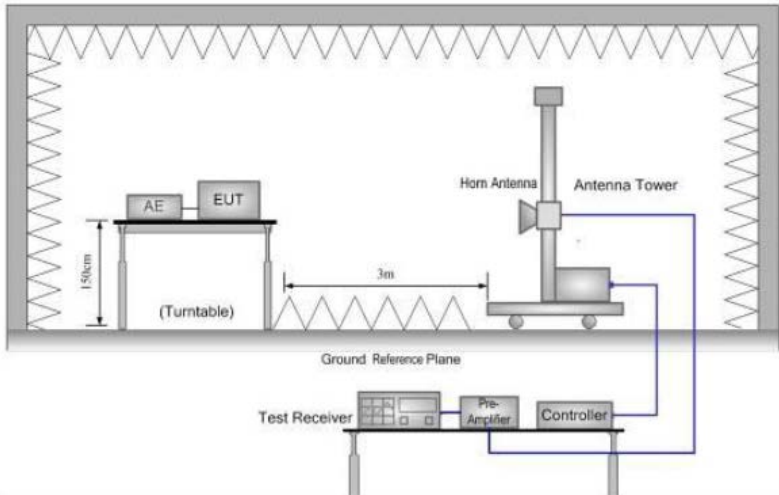
Test channel		Middle			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	41.54	35.37	11.19	40.18	47.92	74.00	-26.08	Horizontal
5350.00	41.65	35.37	11.19	40.18	48.03	74.00	-25.97	Vertical
Test channel		Middle			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	31.85	35.37	11.19	40.18	38.23	54.00	-15.77	Horizontal
5350.00	31.25	35.37	11.19	40.18	37.63	54.00	-16.37	Vertical
Test channel		Middle			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	41.65	34.90	11.32	40.23	47.64	74.00	-26.36	Horizontal
5460.00	41.50	34.90	11.32	40.23	47.49	74.00	-26.51	Vertical
Test channel		Middle			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	31.05	34.90	11.32	40.23	37.04	54.00	-16.96	Horizontal
5460.00	31.88	34.90	11.32	40.23	37.87	54.00	-16.13	Vertical

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

6.7.2 Unwanted Emissions out of the Restricted Bands

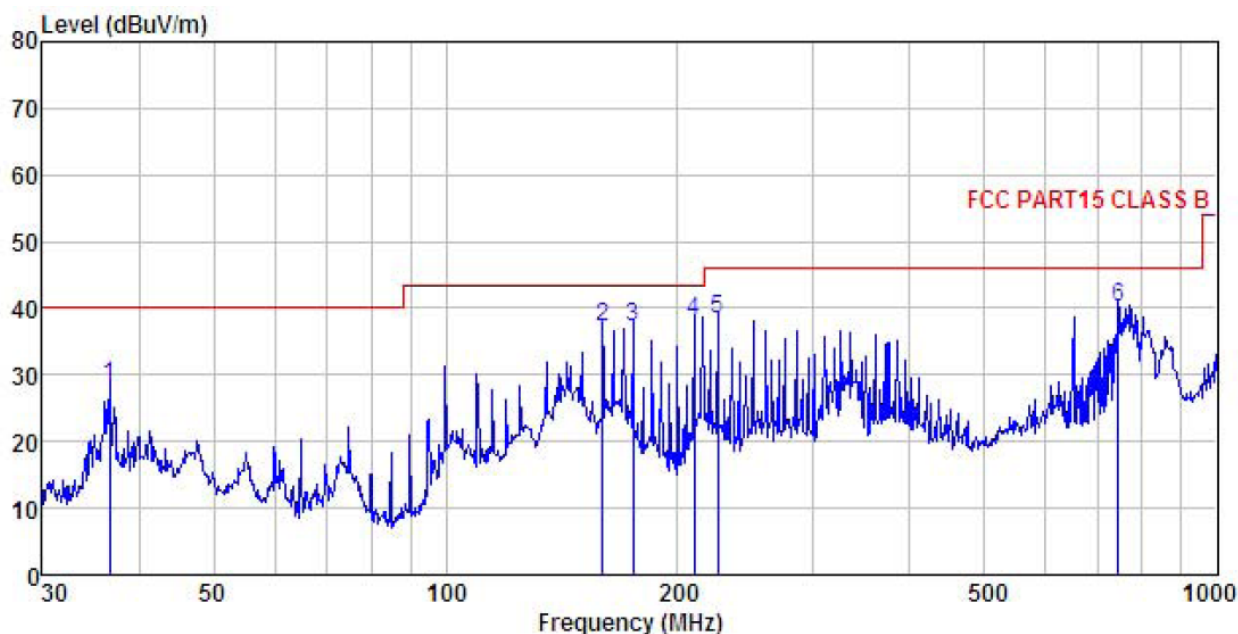
Test Requirement:	FCC Part15 C Section 15.209 and 15.205				
Test Method:	ANSI C63.10:2013				
TestFrequencyRange:	30MHz to 40GHz				
Test site:	Measurement Distance: 3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Remark
	30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak Value
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
	Above 1GHz	RMS	1MHz	3MHz	AV value
Limit:					
	Frequency		Limit (dBuV/m @3m)		Remark
	30MHz-88MHz		40.0		Quasi-peak Value
	88MHz-216MHz		43.5		Quasi-peak Value
	216MHz-960MHz		46.0		Quasi-peak Value
	960MHz-1GHz		54.0		Quasi-peak Value
	Frequency		Limit (dBm/MHz)		Remark
	Above 1GHz		68.20		Peak Value
			54.00		Average Value
	Remark:				
	1. Above 1GHz limit: E[dBμV/m] = EIRP[dBm] + 95.2=68.2 dBuV/m,for EIPR[dBm]=-27dBm.				
Test Procedure:	1. The EUT was placed on the top of a rotating table 0.8 meters above the groundat a 3 meter camber. The table was rotated 360 degrees todetermine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, whichwas mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatablewas turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and SpecifiedBandwidth with Maximum Hold Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limitspecified, then testing could be stopped and the peak values of the EUT wouldbe reported. Otherwise the emissions that did not have 10dB margin would bere-tested one by one using peak, quasi-peak or average method as specified andthen reported in a data sheet.				

Test setup:	Below 1GHz  Above 1GHz 
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Adapter (1)

Below 1GHz

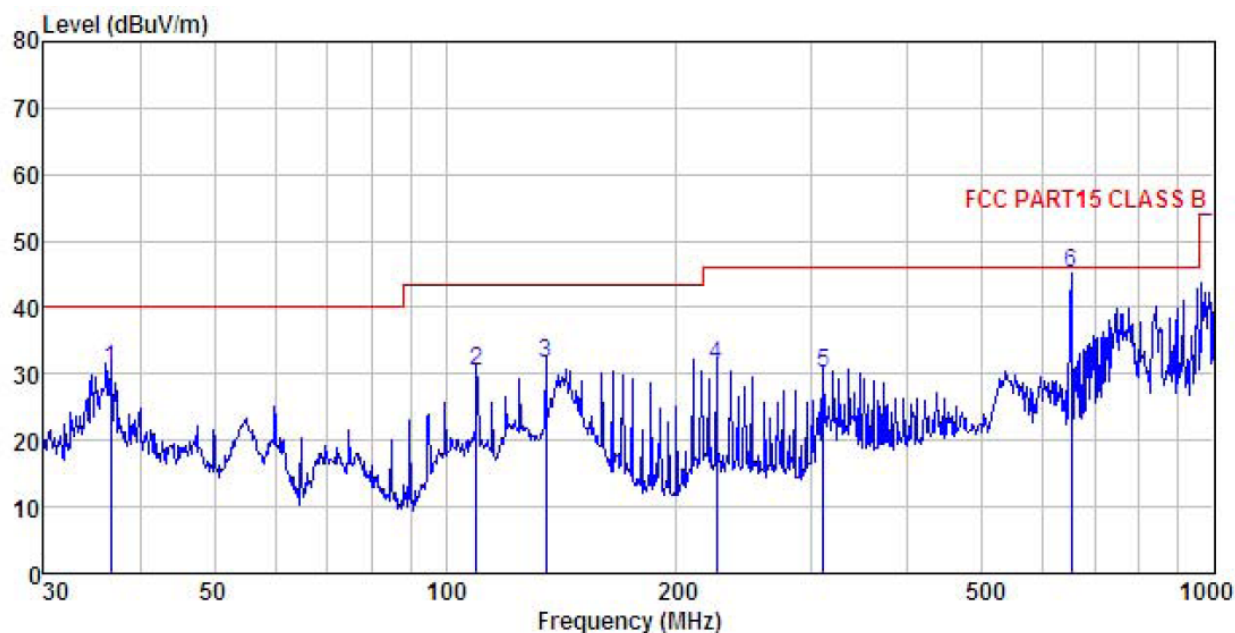
Horizontal:



Site : 3m chamber
 Condition : FCC PART15 CLASS B 3m VULB9163(30M3G) HORIZONTAL
 EUT : Broadband Digital Transmission System
 Model : LigoDLB 5-20ac
 Test mode : 5Gwifi mode
 Power Rating : AC120V/60Hz
 Environment : Temp:25.5°C Humi:55% 101KPa
 Test Engineer: YT
 REMARK : G0720-240-050

	ReadAntenna	Cable	Preamp		Limit	Over	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	36.637	41.55	15.52	1.11	29.93	28.25	40.00
2	159.784	53.82	9.90	2.59	29.13	37.18	43.50
3	175.037	54.13	9.50	2.69	29.01	37.31	43.50
4	210.048	53.23	10.70	2.86	28.77	38.02	43.50
5	225.308	52.70	11.56	2.84	28.68	38.42	46.00
6	744.866	43.97	20.24	4.34	28.50	40.05	46.00

Vertical:



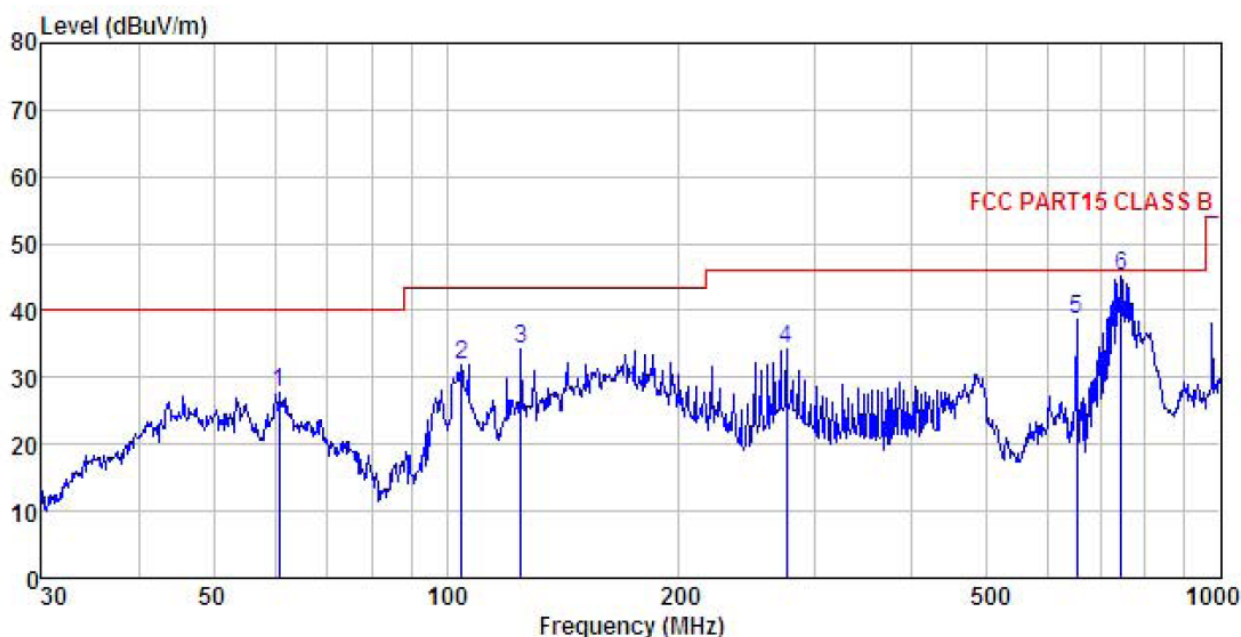
Site : 3m chamber
 Condition : FCC PART15 CLASS B 3m VULB9163(30M3G) VERTICAL
 EUT : Broadband Digital Transmission System
 Model : LigoDLB 5-20ac
 Test mode : 5Gwifi mode
 Power Rating : AC120V/60Hz
 Environment : Temp:25.5°C Humi:55% 101KPa
 Test Engineer: YT
 REMARK : G0720-240-050

	Freq	Level	Antenna Factor	Cable Loss	Preamplifier	Level	Limit	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	36.637	44.08	15.52	1.11	29.93	30.78	40.00	-9.22	QP
2	109.796	47.60	10.30	2.05	29.46	30.49	43.50	-13.01	QP
3	135.032	46.63	11.98	2.34	29.30	31.65	43.50	-11.85	QP
4	225.308	45.68	11.56	2.84	28.68	31.40	46.00	-14.60	QP
5	309.998	42.71	13.00	2.97	28.47	30.21	46.00	-15.79	QP
6	651.942	51.17	18.82	3.87	28.77	45.09	46.00	-0.91	QP

Adapter (2)

Below 1GHz

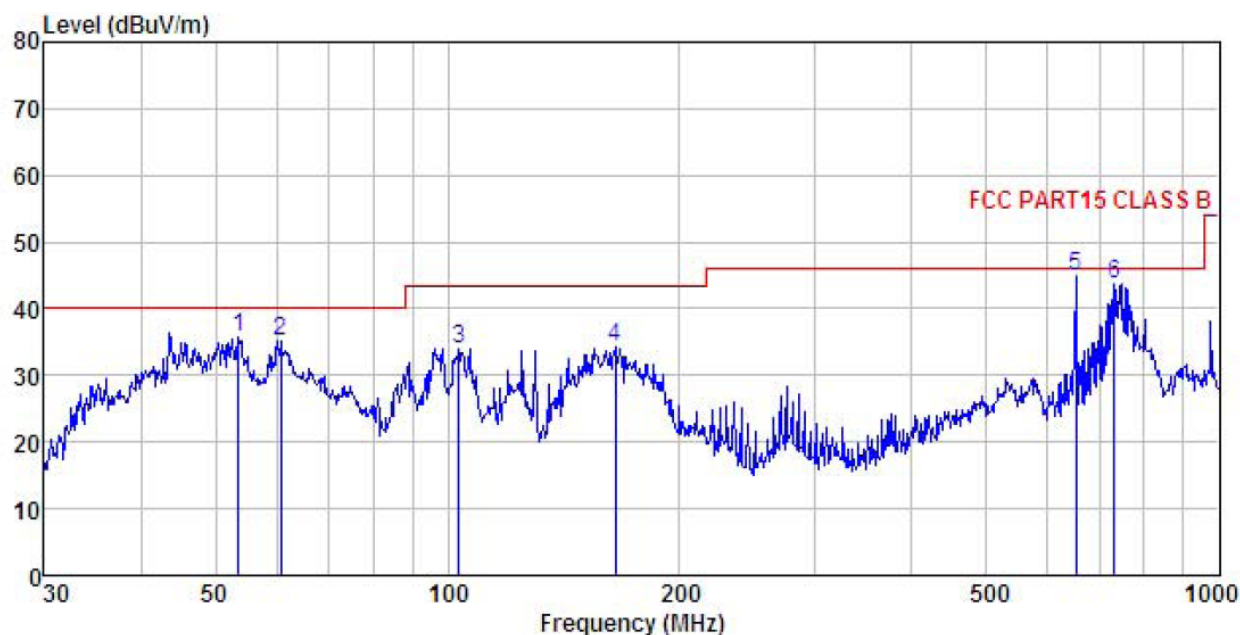
Horizontal:



Site : 3m chamber
 Condition : FCC PART15 CLASS B 3m VULB9163(30M3G) HORIZONTAL
 EUT : Broadband Digital Transmission System
 Model : LigoDLB 5-20ac
 Test mode : 5Gwifi mode
 Power Rating : AC120V/60Hz
 Environment : Temp:25.5°C Humi:55% 101KPa
 Test Engineer: YT
 REMARK : GRT-POE20-240100A

	Freq	ReadAntenna	Cable	Preamp		Limit	Over	
		Level	Factor	Loss	Factor	Level	Line	Limit
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	60.704	46.23	9.99	1.38	29.77	27.83	40.00	-12.17 QP
2	104.536	48.84	10.62	1.99	29.50	31.95	43.50	-11.55 QP
3	125.007	49.28	12.06	2.22	29.36	34.20	43.50	-9.30 QP
4	275.157	47.65	12.15	2.87	28.49	34.18	46.00	-11.82 QP
5	651.942	44.73	18.82	3.87	28.77	38.65	46.00	-7.35 QP
6	744.866	49.11	20.24	4.34	28.50	45.19	46.00	-0.81 QP

Vertical:



Site : 3m chamber
 Condition : FCC PART15 CLASS B 3m VULB9163(30M3G) VERTICAL
 EUT : Broadband Digital Transmission System
 Model : LigoDLB 5-20ac
 Test mode : 5Gwifi mode
 Power Rating : AC120V/60Hz
 Environment : Temp:25.5°C Humi:55% 101KPa
 Test Engineer: YT
 REMARK : GRT-POE20-240100A

	Freq	ReadAntenna	Cable	Preamp	Limit	Over	
	Level	Factor	Loss	Factor	Line	Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m
1	53.505	50.85	13.24	1.32	29.81	35.60	40.00
2	60.704	53.52	9.99	1.38	29.77	35.12	40.00
3	103.442	51.17	10.45	1.97	29.50	34.09	43.50
4	164.908	50.96	9.85	2.62	29.09	34.34	43.50
5	651.942	50.92	18.82	3.87	28.77	44.84	46.00
6	731.920	48.01	20.00	4.29	28.55	43.75	46.00

Above 1GHz:**Band 1:**

802.11a mode Lowest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10360.00	41.58	40.10	15.37	41.34	55.71	68.20	-12.49	Vertical
10360.00	42.25	40.10	15.37	41.34	56.38	68.20	-11.82	Horizontal
802.11a mode Lowest channel (AverageValue)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10360.00	31.65	40.10	15.37	41.34	45.78	54.00	-8.22	Vertical
10360.00	32.15	40.10	15.37	41.34	46.28	54.00	-7.72	Horizontal
802.11a mode Middle channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10400.00	41.31	40.00	15.42	41.27	55.46	68.20	-12.74	Vertical
10400.00	41.03	40.00	15.42	41.27	55.18	68.20	-13.02	Horizontal
802.11a mode Middle channel (AverageValue)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10400.00	31.59	40.00	15.42	41.27	45.74	54.00	-8.26	Vertical
10400.00	31.28	40.00	15.42	41.27	45.43	54.00	-8.57	Horizontal
802.11a mode Highest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10480.00	40.36	39.70	15.55	41.10	54.51	68.20	-13.69	Vertical
10480.00	40.28	39.70	15.55	41.10	54.43	68.20	-13.77	Horizontal
802.11a mode Highest channel (AverageValue)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10480.00	30.59	39.70	15.55	41.10	44.74	54.00	-9.26	Vertical
10480.00	30.60	39.70	15.55	41.10	44.75	54.00	-9.25	Horizontal

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

802.11n20 mode Lowest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10360.00	41.35	40.10	15.37	41.34	55.48	68.20	-12.72	Vertical
10360.00	40.59	40.10	15.37	41.34	54.72	68.20	-13.48	Horizontal
802.11n20 mode Lowest channel (AverageValue)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10360.00	31.69	40.10	15.37	41.34	45.82	54.00	-8.18	Vertical
10360.00	30.47	40.10	15.37	41.34	44.60	54.00	-9.40	Horizontal
802.11n20 mode Middle channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10400.00	42.51	40.00	15.42	41.27	56.66	68.20	-11.54	Vertical
10400.00	40.65	40.00	15.42	41.27	54.80	68.20	-13.40	Horizontal
802.11n20 mode Middle channel (AverageValue)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10400.00	32.52	40.00	15.42	41.27	46.67	54.00	-7.33	Vertical
10400.00	30.17	40.00	15.42	41.27	44.32	54.00	-9.68	Horizontal
802.11n20 mode Highest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10480.00	41.07	39.70	15.55	41.10	55.22	68.20	-12.98	Vertical
10480.00	42.61	39.70	15.55	41.10	56.76	68.20	-11.44	Horizontal
802.11n20 mode Highest channel (AverageValue)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10480.00	31.51	39.70	15.55	41.10	45.66	54.00	-8.34	Vertical
10480.00	32.50	39.70	15.55	41.10	46.65	54.00	-7.35	Horizontal

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

802.11n40 mode Lowest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10380.00	41.05	40.00	15.42	41.31	55.16	68.20	-13.04	Vertical
10380.00	40.63	40.00	15.42	41.31	54.74	68.20	-13.46	Horizontal
802.11n40 mode Lowest channel (AverageValue)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10380.00	31.48	40.00	15.42	41.31	45.59	54.00	-8.41	Vertical
10380.00	30.29	40.00	15.42	41.31	44.40	54.00	-9.60	Horizontal
802.11n40 mode Highest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10460.00	40.18	39.80	15.51	41.17	54.32	68.20	-13.88	Vertical
10460.00	41.51	39.80	15.51	41.17	55.65	68.20	-12.55	Horizontal
802.11n40 mode Highest channel (AverageValue)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10460.00	30.14	39.80	15.51	41.17	44.28	54.00	-9.72	Vertical
10460.00	31.52	39.80	15.51	41.17	45.66	54.00	-8.34	Horizontal

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

802.11ac80 mode Middle channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10420.00	42.15	39.90	15.46	41.24	56.27	68.20	-11.93	Vertical
10420.00	41.23	39.90	15.46	41.24	55.35	68.20	-12.85	Horizontal
802.11ac80 mode Middle channel (AverageValue)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10420.00	32.65	39.90	15.46	41.24	46.77	54.00	-7.23	Vertical
10420.00	30.28	39.90	15.46	41.24	44.40	54.00	-9.60	Horizontal

Remark:

1. *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

Band 4:

802.11a mode Lowest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11490.00	41.26	41.50	16.83	40.75	58.84	68.20	/	Vertical
11490.00	41.84	41.50	16.83	40.75	59.42	68.20	/	Horizontal
802.11a mode Lowest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11490.00	31.35	41.50	16.83	40.75	48.93	54.00	-5.07	Vertical
11490.00	32.98	41.50	16.83	40.75	50.56	54.00	-3.44	Horizontal
802.11a mode Middle channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11570.00	40.46	41.38	16.90	40.91	57.83	68.20	/	Vertical
11570.00	40.28	41.38	16.90	40.91	57.65	68.20	/	Horizontal
802.11a mode Middle channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11570.00	31.55	41.38	16.90	40.91	48.92	54.00	-5.08	Vertical
11570.00	31.26	41.38	16.90	40.91	48.63	54.00	-5.37	Horizontal
802.11a mode Highest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11650.00	40.83	41.26	16.97	41.06	58.00	68.20	/	Vertical
11650.00	40.41	41.26	16.97	41.06	57.58	68.20	/	Horizontal
802.11a mode Highest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11650.00	31.24	41.26	16.97	41.06	48.41	54.00	-5.59	Vertical
11650.00	30.29	41.26	16.97	41.06	47.46	54.00	-6.54	Horizontal

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

802.11n20 mode Lowest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11490.00	40.25	41.50	16.83	40.75	57.83	68.20	/	Vertical
11490.00	39.56	41.50	16.83	40.75	57.14	68.20	/	Horizontal
802.11n20 mode Lowest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11490.00	30.21	41.50	16.83	40.75	47.79	54.00	-6.21	Vertical
11490.00	29.48	41.50	16.83	40.75	47.06	54.00	-6.94	Horizontal
802.11n20 mode Middle channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11570.00	41.83	41.38	16.90	40.91	59.20	68.20	/	Vertical
11570.00	42.07	41.38	16.90	40.91	59.44	68.20	/	Horizontal
802.11n20 mode Middle channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11570.00	31.59	41.38	16.90	40.91	48.96	54.00	-5.04	Vertical
11570.00	32.51	41.38	16.90	40.91	49.88	54.00	-4.12	Horizontal
802.11n20 mode Highest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11650.00	40.52	41.26	16.97	41.06	57.69	68.20	/	Vertical
11650.00	41.20	41.26	16.97	41.06	58.37	68.20	/	Horizontal
802.11n20 mode Highest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11650.00	30.56	41.26	16.97	41.06	47.73	54.00	-6.27	Vertical
11650.00	31.41	41.26	16.97	41.06	48.58	54.00	-5.42	Horizontal

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

802.11n40 mode Lowest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11510.00	40.15	41.50	16.83	40.77	57.71	68.20	/	Vertical
11510.00	39.51	41.50	16.83	40.77	57.07	68.20	/	Horizontal
802.11n40 mode Lowest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11510.00	30.65	41.50	16.83	40.77	48.21	54.00	-5.79	Vertical
11510.00	29.58	41.50	16.83	40.77	47.14	54.00	-6.86	Horizontal
802.11n40 mode Highest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11590.00	41.02	41.32	16.93	40.95	58.32	68.20	/	Vertical
11590.00	40.15	41.32	16.93	40.95	57.45	68.20	/	Horizontal
802.11n40 mode Highest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11590.00	31.56	41.32	16.93	40.95	48.86	54.00	-5.14	Vertical
11590.00	30.27	41.32	16.93	40.95	47.57	54.00	-6.43	Horizontal

Remark:

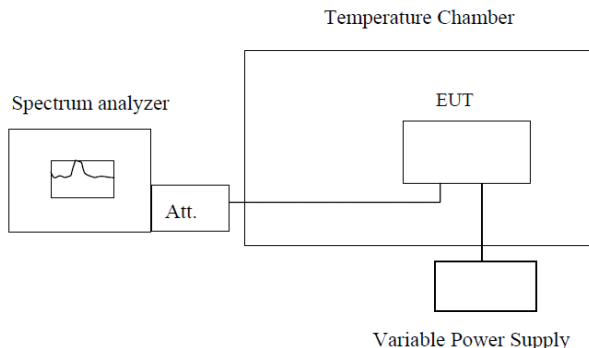
1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

802.11ac80 mode Middle channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11550.00	42.13	41.44	16.86	40.88	59.55	68.20	/	Vertical
11550.00	41.74	41.44	16.86	40.88	59.16	68.20	/	Horizontal
802.11ac80 mode Middle channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11550.00	31.54	41.44	16.86	40.88	48.96	54.00	-5.04	Vertical
11550.00	31.65	41.44	16.86	40.88	49.07	54.00	-4.93	Horizontal

Remark:

1. *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

6.8 Frequency stability

Test Requirement:	FCC Part15 E Section 15.407 (g)
Limit:	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 user's manual.
Test setup:	 Note : Measurement setup for testing on Antenna connector
Test procedure:	1. The EUT is installed in an environment test chamber with external power source. 2. Set the chamber to operate at 50 centigrade and external power source to output at nominal voltage of EUT. 3. A sufficient stabilization period at each temperature is used prior to each frequency measurement. 4. When temperature is stabled, measure the frequency stability. 5. The test shall be performed under -30 to 50 centigrade and 85 to 115 percent of the nominal voltage. Change setting of chamber and external power source to complete all conditions.
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details, and all channels have been tested, only shows the worst channel data in this report.
Test results:	Passed

Measurement Data (the worst channel):

Band 1:

Voltage vs. Frequency Stability (Lowest channel=5180MHz)

Test conditions		Frequency(MHz)	Max. Deviation (ppm)
Temp(°C)	Voltage(AC /60Hz)		
20	138	5179.984500	2.99
	120	5179.987800	2.36
	102	5179.987400	2.43

Temperature vs. Frequency Stability (Lowest channel=5180MHz)

Test conditions		Frequency(MHz)	Max. Deviation (ppm)
Voltage(AC /60Hz)	Temp(°C)		
120	-20	5179.985100	2.88
	-10	5179.987400	2.43
	0	5179.988200	2.28
	10	5179.988400	2.24
	20	5179.988700	2.18
	30	5179.986800	2.55
	40	5179.984700	2.95
	50	5179.983500	3.19

Band 4:

Voltage vs. Frequency Stability (Lowest channel=5745MHz)

Test conditions		Frequency(MHz)	Max. Deviation (ppm)
Temp(°C)	Voltage(AC /60Hz)		
20	138	5744.986584	2.34
	120	5744.988745	1.96
	102	5744.987548	2.17

Temperature vs. Frequency Stability (Lowest channel=5745MHz)

Test conditions		Frequency(MHz)	Max. Deviation (ppm)
Voltage(AC /60Hz)	Temp(°C)		
120	-30	5744.996285	0.65
	-20	5744.993550	1.12
	-10	5744.998471	0.27
	0	5744.989878	1.76
	10	5744.997884	0.37
	20	5744.988875	1.94
	30	5744.998541	0.25
	40	5744.986784	2.30
	50	5744.990247	1.70