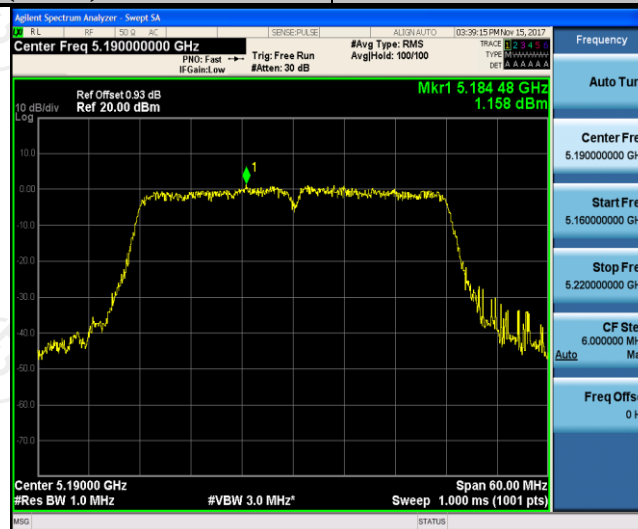


802.11n(HT40)

Antenna 0



Low



High

802.11ac(HT80)

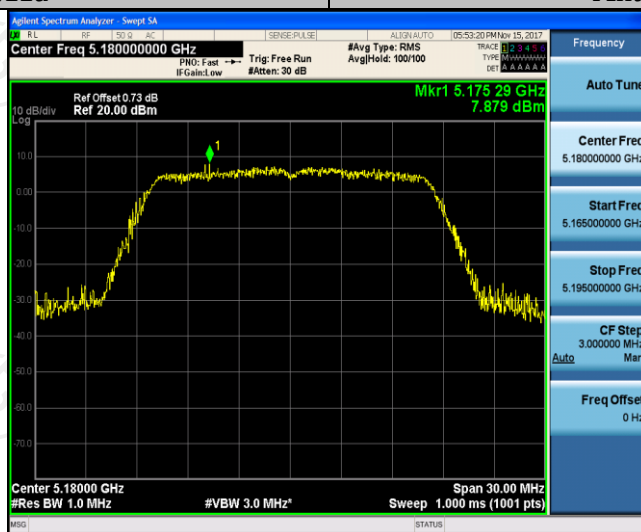
Antenna 0



Mid

802.11a

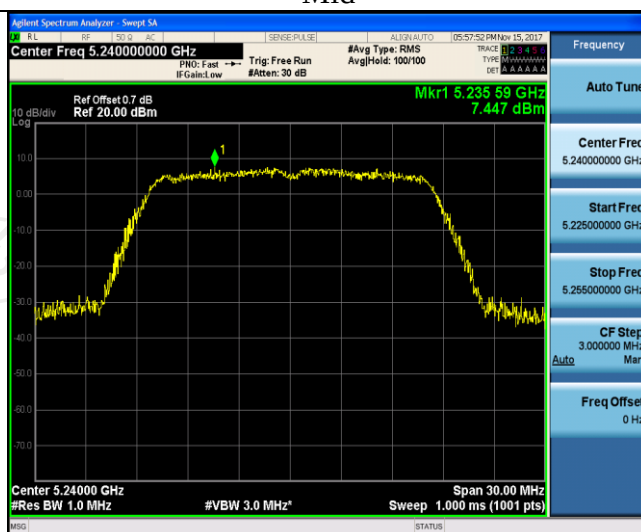
Antenna 1



Low



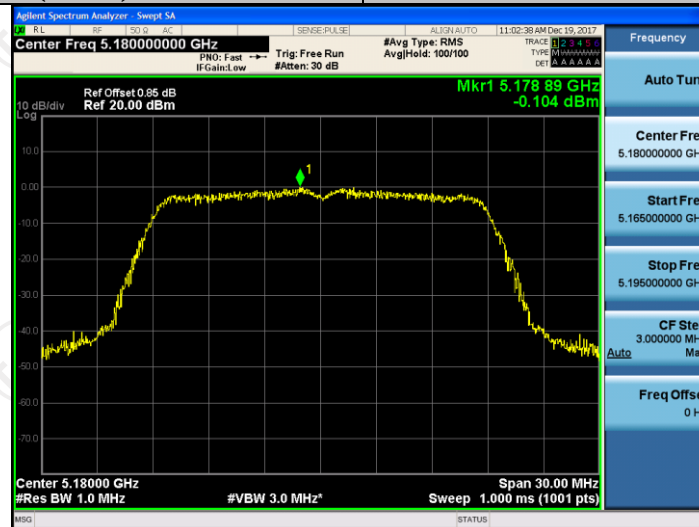
Mid



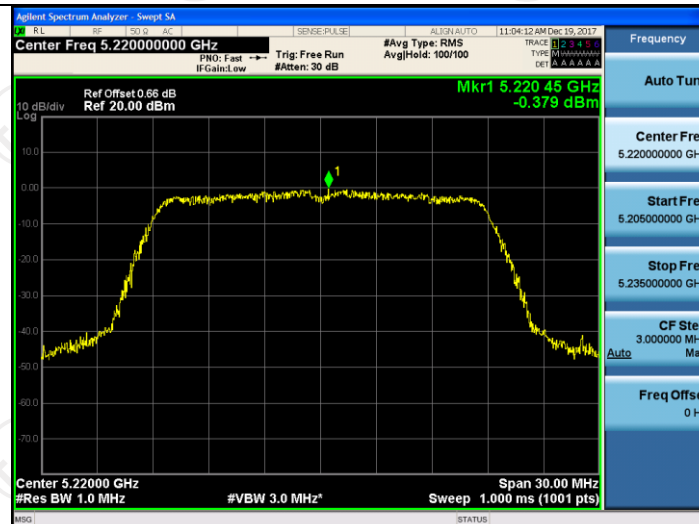
High

802.11n(HT20)

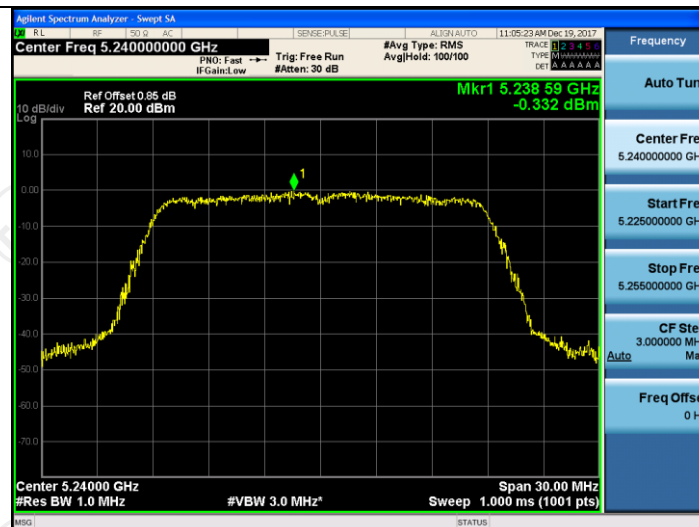
Antenna 1



Low



Mid



High

802.11n(HT40)

Antenna 1



Low



High

802.11ac(HT80)

Antenna 1

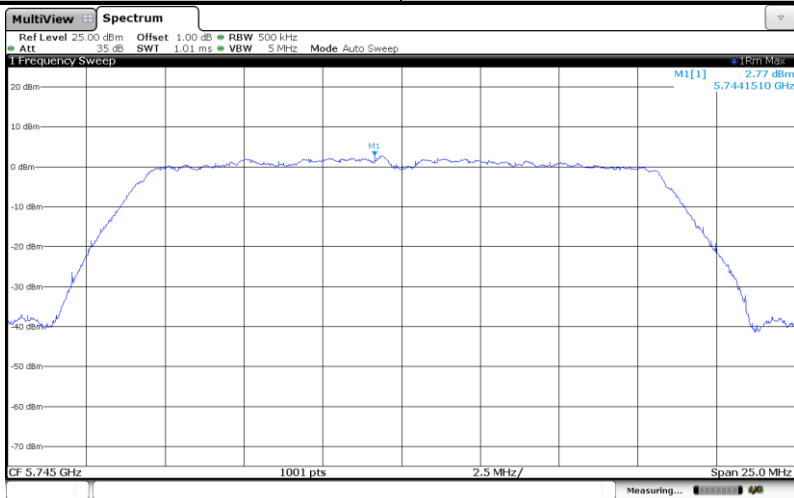


Mid

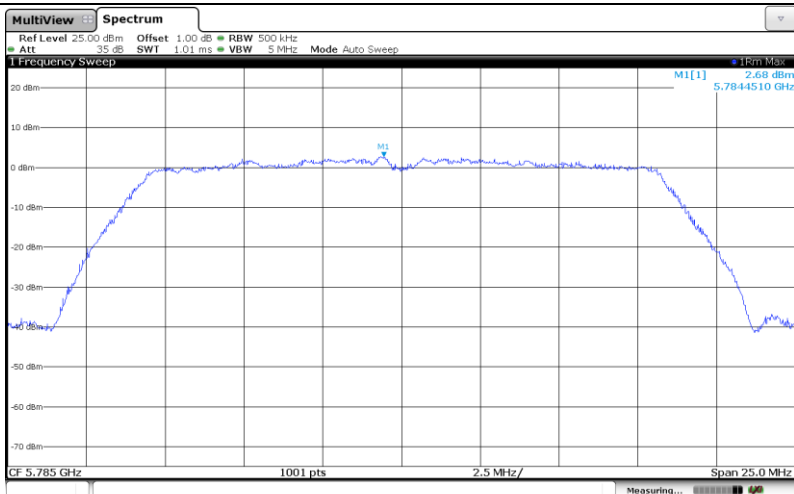
Band IV (5725 – 5850 MHz)

802.11a

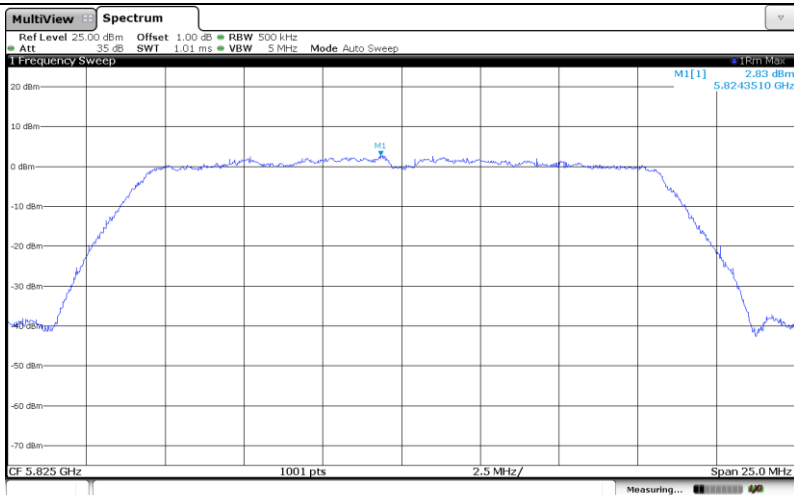
Antenna 0



Low



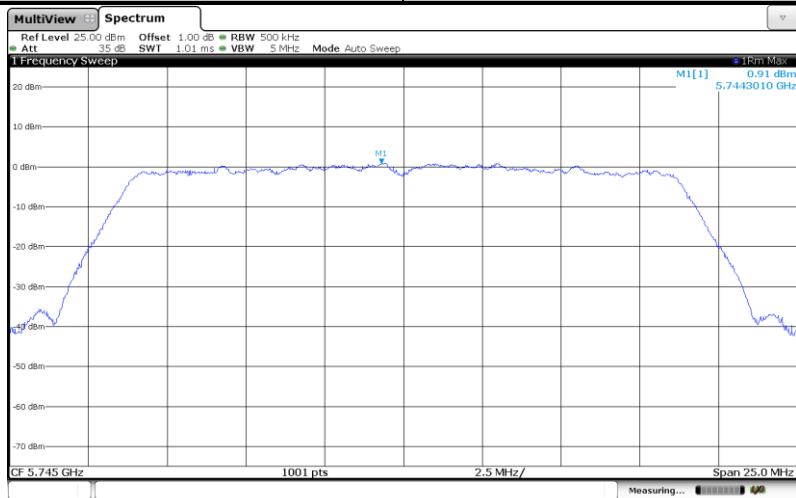
Mid



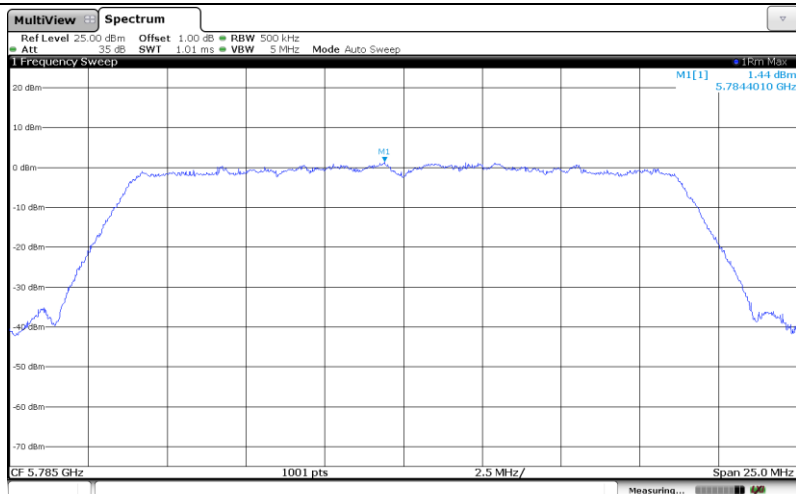
High

802.11n(HT20)

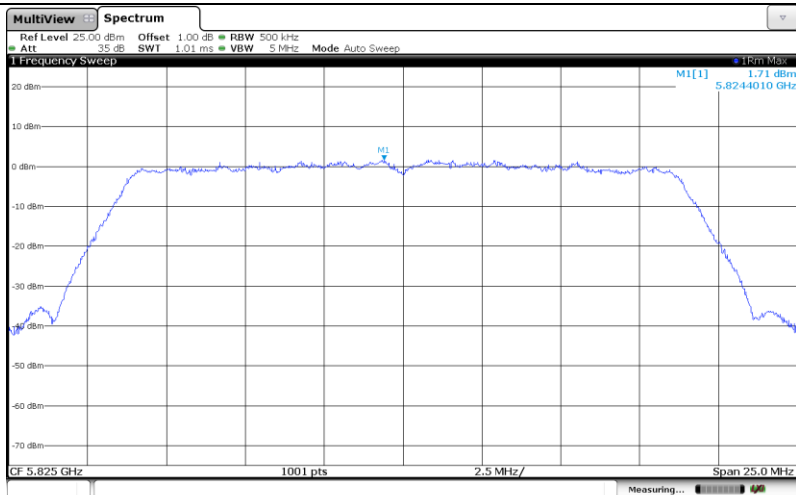
Antenna 0



Low



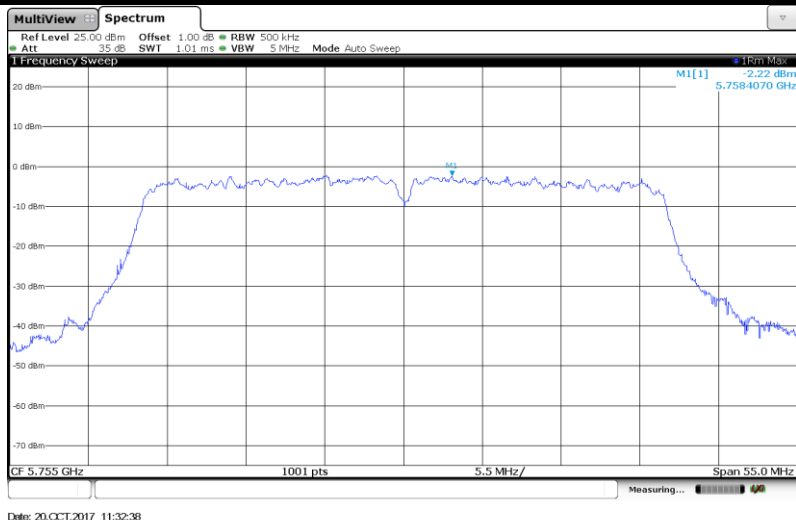
Mid



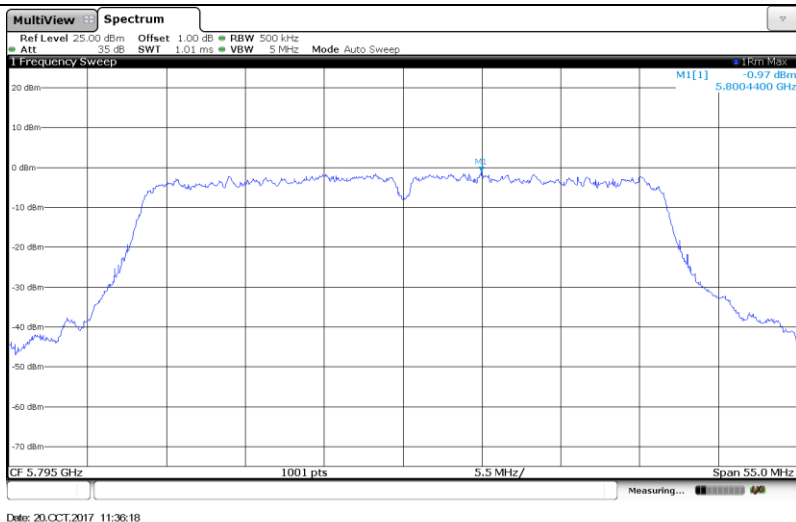
High

802.11n(HT40)

Antenna 0



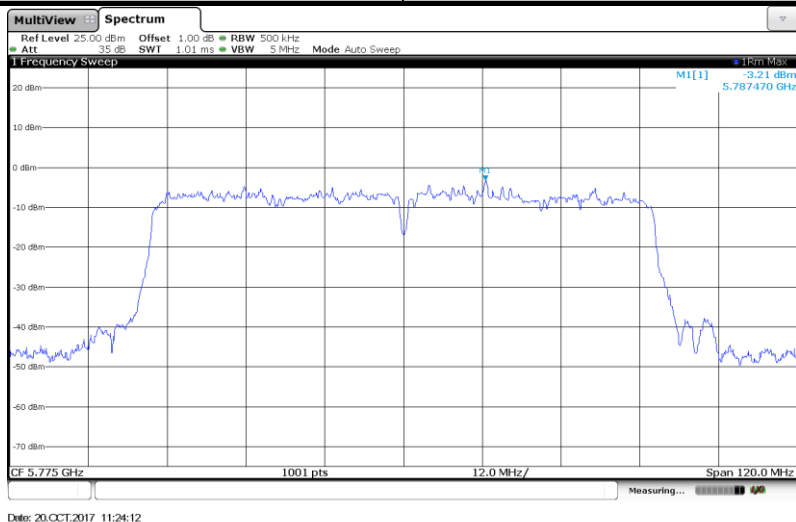
Low



High

802.11ac(HT80)

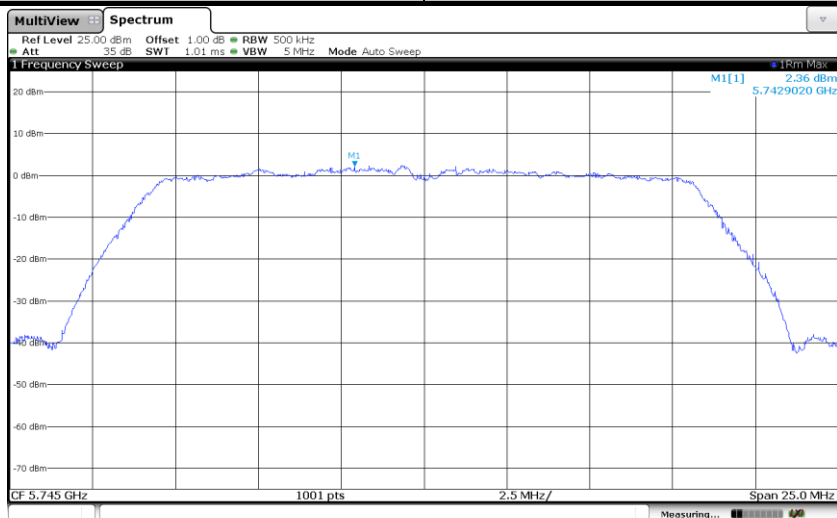
Antenna 0



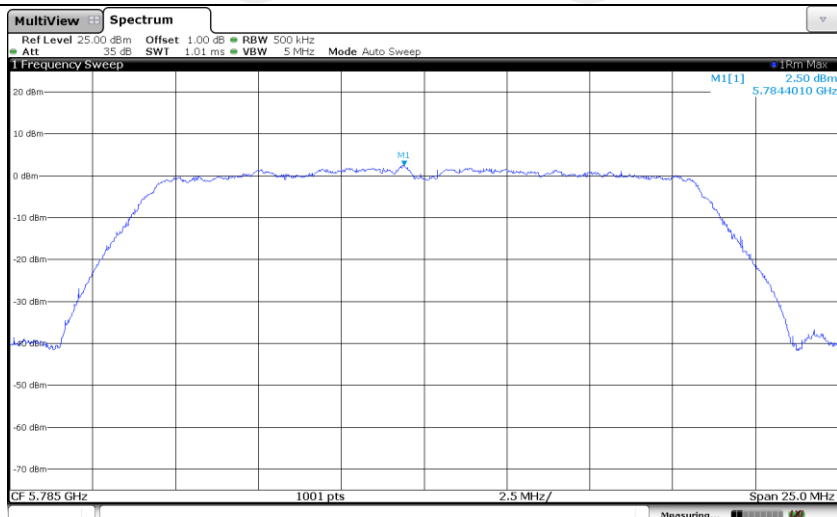
Mid

802.11a

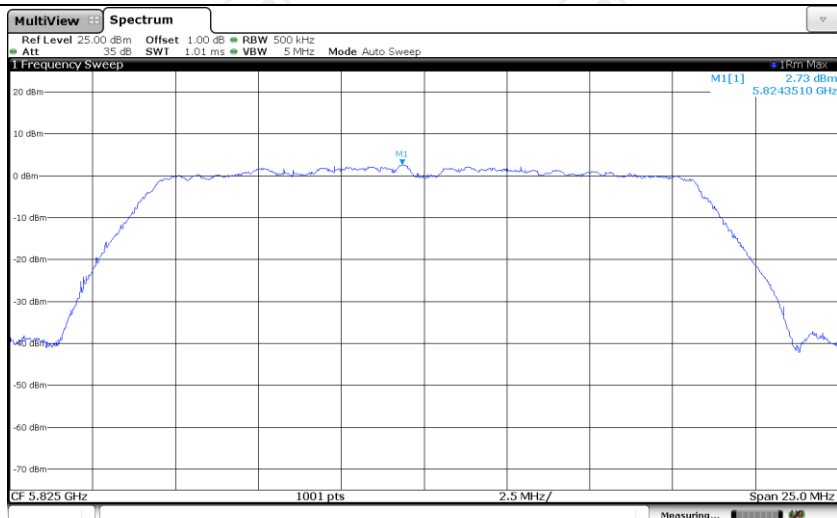
Antenna 1



Low



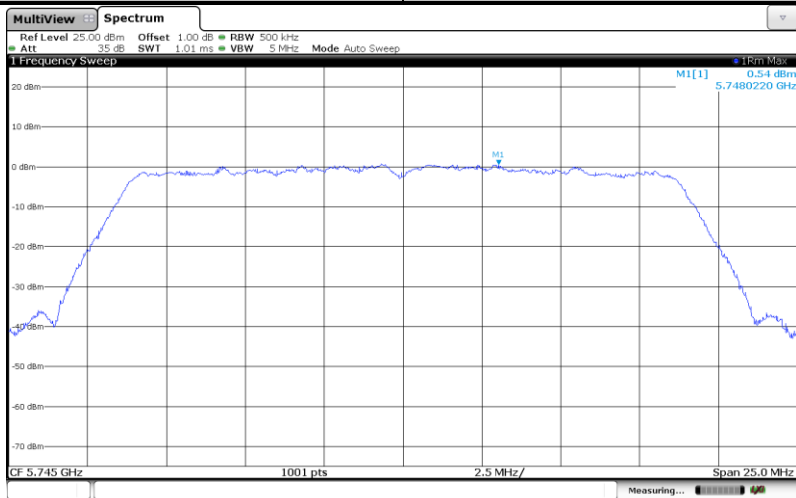
Mid



High

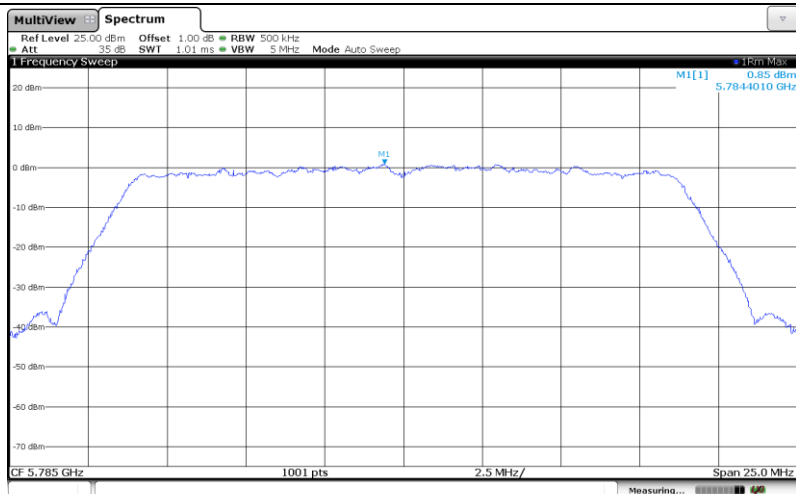
802.11n(HT20)

Antenna 1



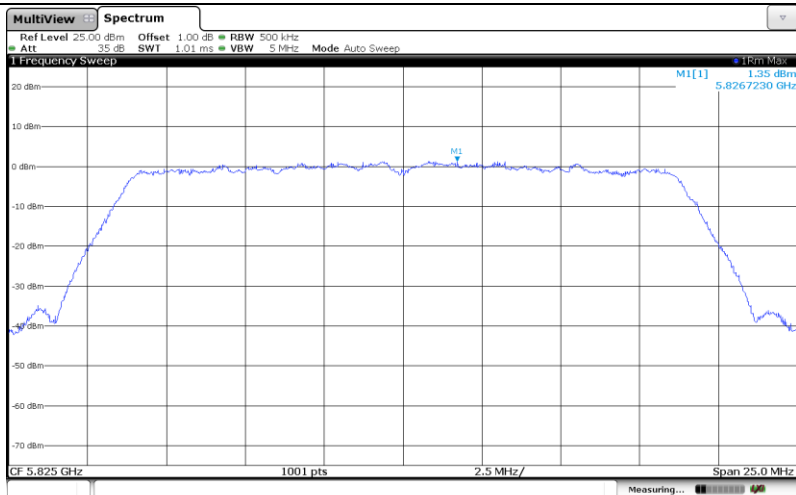
Date: 20.OCT.2017 11:27:05

Low



Date: 20.OCT.2017 11:28:53

Mid

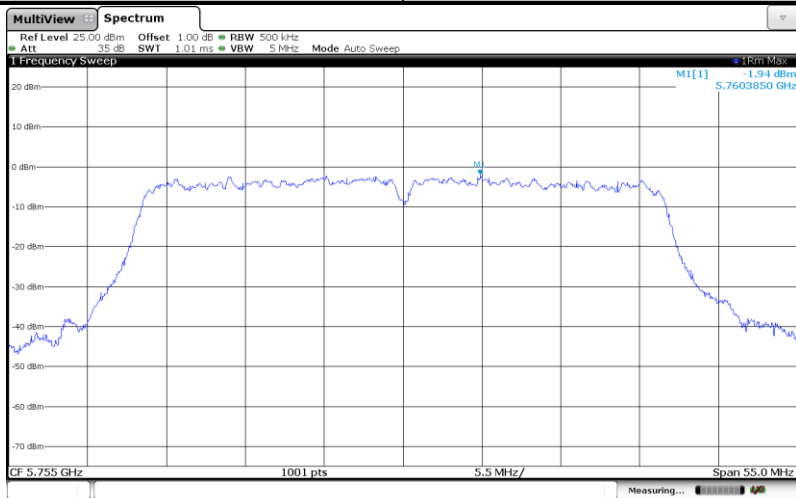


Date: 20.OCT.2017 11:31:10

High

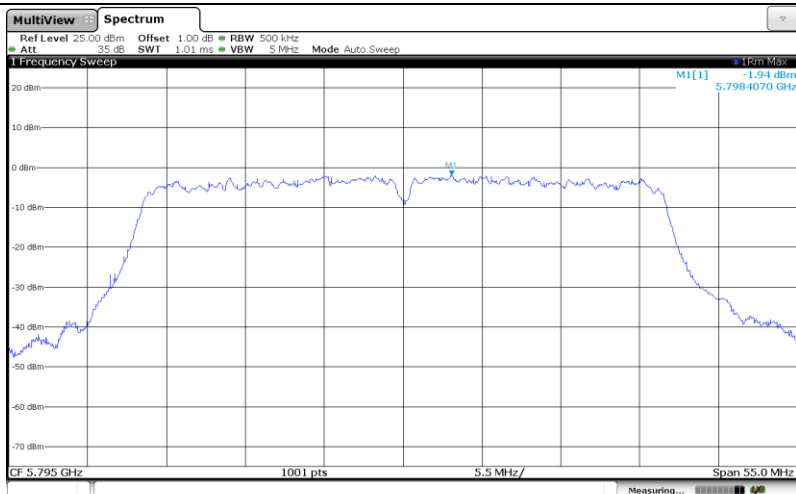
802.11n(HT40)

Antenna 1



Date: 20.OCT.2017 11:32:57

Low

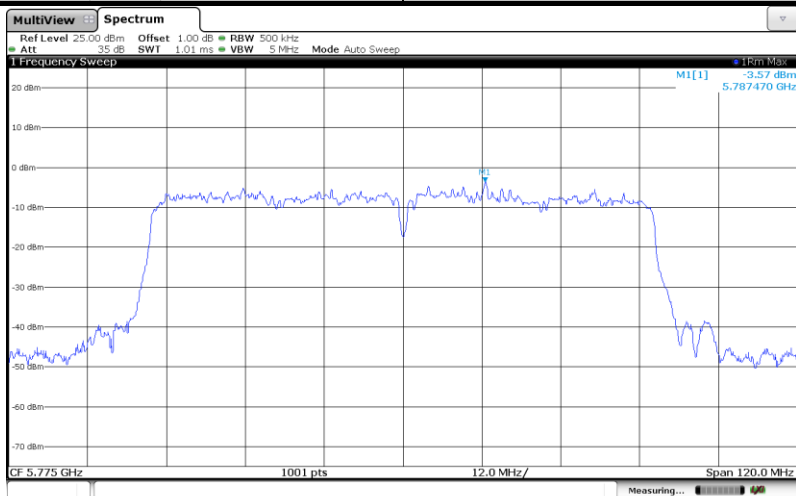


Date: 20.OCT.2017 11:36:40

High

802.11ac(HT80)

Antenna 1

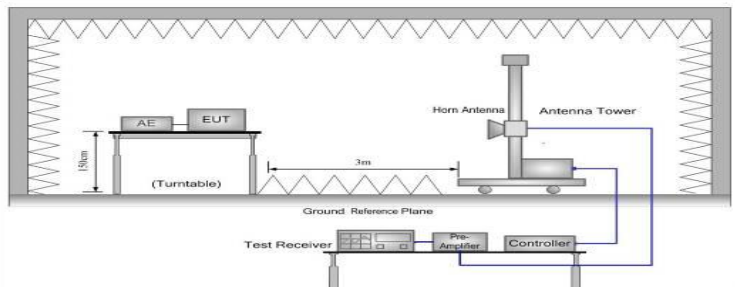


Date: 20.OCT.2017 11:24:35

Mid

6.7. Band edge

6.7.1. Test Specification

Test Requirement:	FCC CFR47 Part 15E Section 15.407
Test Method:	ANSI C63.10 2013
Limit:	For band I&II&III: $E[dB\mu V/m] = EIRP[dBm] + 95.2 = 68.2$ dB$\mu V/m$, for EIRP(dBm)= -27dBm For band IV(5715-5725MHz&5850-5860MHz): $E[dB\mu V/m] = EIRP[dBm] + 95.2 = 78.2$ dB$\mu V/m$, for EIRP(dBm)= -17dBm; For band IV(other un-restricted band): $E[dB\mu V/m] = EIRP[dBm] + 95.2 = 68.2$ dB$\mu V/m$, for EIRP(dBm)= -27dBm
Test Setup:	 The diagram illustrates the test setup. An Equipment Under Test (EUT) is placed on a turntable at a height of 1.5m. The turntable is rotated 360 degrees. A horn antenna is mounted on an antenna tower at a height of 3m. The antenna is connected to a test receiver system, which includes a pre-amplifier and a controller. The ground reference plane is indicated.
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was 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 rotatable was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth 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, quasipeak or average method as specified and then

	reported in a data sheet.
Test Result:	PASS
Remark	1. 802.11n(HT20)& (HT40)/802.11ac test mode is MIMO. 2. 802.11a test mode is SISO, only worse case antenna 0 mode is reported.

6.7.2. Test Instruments

Radiated Emission Test Site (966)				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Test Receiver	ROHDE&SCHW ARZ	ESVD	100008	Sep. 27, 2018
Spectrum Analyzer	ROHDE&SCHW ARZ	FSQ	200061	Sep. 27, 2018
Spectrum Analyzer	ROHDE&SCHW ARZ	FSP40	100056	Sep. 27, 2018
Spectrum Analyzer	Agilent	N9020A	MY49100060	Sep. 27, 2018
Pre-amplifier	EM Electronics Corporation CO.,LTD	EM30265	07032613	Sep. 27, 2018
Pre-amplifier	HP	8447D	2727A05017	Sep. 27, 2018
Loop antenna	ZHINAN	ZN30900A	12024	Sep. 27, 2018
Broadband Antenna	Schwarzbeck	VULB9163	340	Sep. 27, 2018
Horn Antenna	Schwarzbeck	BBHA 9120D	631	Sep. 27, 2018
Horn Antenna	Schwarzbeck	BBH 9170	582	Jun. 07, 2018
Coax cable (9KHz-1GHz)	TCT	RE-low-01	N/A	Sep. 27, 2018
Coax cable (9KHz-40GHz)	TCT	RE-high-02	N/A	Sep. 27, 2018
Coax cable (9KHz-1GHz)	TCT	RE-low-03	N/A	Sep. 27, 2018
Coax cable (9KHz-40GHz)	TCT	RE-high-04	N/A	Sep. 27, 2018
Antenna Mast	Keleto	CC-A-4M	N/A	N/A
EMI Test Software	Shurple Technology	EZ-EMC	N/A	N/A

Note: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

6.7.3. Test Data

Band I for Band edge emission									
Bandwidth:		20MHz		Worst mode:		802.11a		Test channel:	
								Low	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Detector
5150.00	15.35	31.56	9.79	0.00	56.70	68.20	-11.50	Horizontal	Peak
5350.00	15.64	32.04	10.06	0.00	57.74	68.20	-10.46	Horizontal	Peak
5150.00	15.68	31.56	9.79	0.00	57.03	68.20	-11.17	Vertical	Peak
5350.00	15.29	32.04	10.06	0.00	57.39	68.20	-10.81	Vertical	Peak
5150.00	4.65	31.56	9.79	0.00	46.00	54.00	-8.00	Horizontal	Average
5350.00	4.36	32.04	10.06	0.00	46.46	54.00	-7.54	Horizontal	Average
5150.00	4.38	31.56	9.79	0.00	45.73	54.00	-8.27	Vertical	Average
5350.00	5.01	32.04	10.06	0.00	47.11	54.00	-6.89	Vertical	Average

Band IV for Band edge emission									
Bandwidth:		20MHz		Worst mode:		802.11a		Test channel:	
								Low	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Detector
5725.00	21.29	31.73	10.47	0.00	63.49	68.20	-4.71	Horizontal	Peak
5850.00	16.51	32.20	10.61	0.00	59.32	68.20	-8.88	Horizontal	Peak
5725.00	17.34	31.73	10.47	0.00	59.54	68.20	-8.66	Vertical	Peak
5850.00	14.17	32.20	10.61	0.00	56.98	68.20	-11.22	Vertical	Peak
5725.00	9.97	31.73	10.47	0.00	52.17	54.00	-1.83	Horizontal	Average
5850.00	6.62	32.20	10.61	0.00	49.43	54.00	-4.57	Horizontal	Average
5725.00	9.72	31.73	10.47	0.00	51.92	54.00	-2.08	Vertical	Average
5850.00	5.91	32.20	10.61	0.00	48.72	54.00	-5.28	Vertical	Average

Band I for Band edge emission									
Bandwidth:		20MHz		Worst mode:		802.11a		Test channel:	
								High	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Detector
5150.00	15.44	31.56	9.79	0.00	56.79	68.20	-11.41	Horizontal	Peak
5350.00	15.68	32.04	10.06	0.00	57.78	68.20	-10.42	Horizontal	Peak
5150.00	15.36	31.56	9.79	0.00	56.71	68.20	-11.49	Vertical	Peak
5350.00	15.69	32.04	10.06	0.00	57.79	68.20	-10.41	Vertical	Peak
5150.00	4.65	31.56	9.79	0.00	46.00	54.00	-8.00	Horizontal	Average
5350.00	4.35	32.04	10.06	0.00	46.45	54.00	-7.55	Horizontal	Average
5150.00	4.21	31.56	9.79	0.00	45.56	54.00	-8.44	Vertical	Average
5350.00	4.67	32.04	10.06	0.00	46.77	54.00	-7.23	Vertical	Average

Band IV for Band edge emission									
Bandwidth:		20MHz		Worst mode:		802.11a		Test channel:	
								High	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Detector
5725.00	14.53	31.73	10.47	0.00	56.73	68.20	-11.47	Horizontal	Peak
5850.00	19.24	32.20	10.61	0.00	62.05	68.20	-6.15	Horizontal	Peak
5725.00	15.66	31.73	10.47	0.00	57.86	68.20	-10.34	Vertical	Peak
5850.00	19.39	32.20	10.61	0.00	62.20	68.20	-6.00	Vertical	Peak
5725.00	8.64	31.73	10.47	0.00	50.84	54.00	-3.16	Horizontal	Average
5850.00	9.48	32.20	10.61	0.00	52.29	54.00	-1.71	Horizontal	Average
5725.00	7.01	31.73	10.47	0.00	49.21	54.00	-4.79	Vertical	Average
5850.00	9.44	32.20	10.61	0.00	52.25	54.00	-1.75	Vertical	Average

Band I for Band edge emission									
Bandwidth:		20MHz		Worst mode:		802.11n		Test channel:	
								Low	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Detector
5150.00	16.25	31.56	9.79	0.00	57.60	68.20	-10.60	Horizontal	Peak
5350.00	16.24	32.04	10.06	0.00	58.34	68.20	-9.86	Horizontal	Peak
5150.00	16.01	31.56	9.79	0.00	57.36	68.20	-10.84	Vertical	Peak
5350.00	15.78	32.04	10.06	0.00	57.88	68.20	-10.32	Vertical	Peak
5150.00	4.90	31.56	9.79	0.00	46.25	54.00	-7.75	Horizontal	Average
5350.00	4.64	32.04	10.06	0.00	46.74	54.00	-7.26	Horizontal	Average
5150.00	4.89	31.56	9.79	0.00	46.24	54.00	-7.76	Vertical	Average
5350.00	4.81	32.04	10.06	0.00	46.91	54.00	-7.09	Vertical	Average

Band IV for Band edge emission									
Bandwidth:		20MHz		Worst mode:		802.11n		Test channel:	
								Low	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Detector
5725.00	19.87	31.73	10.47	0.00	62.07	68.20	-6.13	Horizontal	Peak
5850.00	16.80	32.20	10.61	0.00	59.61	68.20	-8.59	Horizontal	Peak
5725.00	17.68	31.73	10.47	0.00	59.88	68.20	-8.32	Vertical	Peak
5850.00	15.02	32.20	10.61	0.00	57.83	68.20	-10.37	Vertical	Peak
5725.00	8.69	31.73	10.47	0.00	50.89	54.00	-3.11	Horizontal	Average
5850.00	7.87	32.20	10.61	0.00	50.68	54.00	-3.32	Horizontal	Average
5725.00	8.99	31.73	10.47	0.00	51.19	54.00	-2.81	Vertical	Average
5850.00	4.81	32.20	10.61	0.00	47.62	54.00	-6.38	Vertical	Average

Band I for Band edge emission									
Bandwidth:		20MHz		Worst mode:		802.11n		Test channel:	
								High	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Detector
5150.00	15.98	31.56	9.79	0.00	57.33	68.20	-10.87	Horizontal	Peak
5350.00	16.78	32.04	10.06	0.00	58.88	68.20	-9.32	Horizontal	Peak
5150.00	16.01	31.56	9.79	0.00	57.36	68.20	-10.84	Vertical	Peak
5350.00	16.24	32.04	10.06	0.00	58.34	68.20	-9.86	Vertical	Peak
5150.00	4.36	31.56	9.79	0.00	45.71	54.00	-8.29	Horizontal	Average
5350.00	4.25	32.04	10.06	0.00	46.35	54.00	-7.65	Horizontal	Average
5150.00	4.40	31.56	9.79	0.00	45.75	54.00	-8.25	Vertical	Average
5350.00	4.55	32.04	10.06	0.00	46.65	54.00	-7.35	Vertical	Average

Band IV for Band edge emission									
Bandwidth:		20MHz		Worst mode:		802.11n		Test channel:	
								High	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Detector
5725.00	16.35	31.73	10.47	0.00	58.55	68.20	-9.65	Horizontal	Peak
5850.00	19.27	32.20	10.61	0.00	62.08	68.20	-6.12	Horizontal	Peak
5725.00	17.46	31.73	10.47	0.00	59.66	68.20	-8.54	Vertical	Peak
5850.00	17.87	32.20	10.61	0.00	60.68	68.20	-7.52	Vertical	Peak
5725.00	8.64	31.73	10.47	0.00	50.84	54.00	-3.16	Horizontal	Average
5850.00	9.15	32.20	10.61	0.00	51.96	54.00	-2.04	Horizontal	Average
5725.00	7.68	31.73	10.47	0.00	49.88	54.00	-4.12	Vertical	Average
5850.00	9.66	32.20	10.61	0.00	52.47	54.00	-1.53	Vertical	Average

Band I for Band edge emission									
Bandwidth:		40MHz		Worst mode:		802.11n		Test channel:	
								Low	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Detector
5150.00	15.67	31.56	9.79	0.00	57.02	68.20	-11.18	Horizontal	Peak
5350.00	16.04	32.04	10.06	0.00	58.14	68.20	-10.06	Horizontal	Peak
5150.00	16.37	31.56	9.79	0.00	57.72	68.20	-10.48	Vertical	Peak
5350.00	15.65	32.04	10.06	0.00	57.75	68.20	-10.45	Vertical	Peak
5150.00	4.65	31.56	9.79	0.00	46.00	54.00	-8.00	Horizontal	Average
5350.00	4.87	32.04	10.06	0.00	46.97	54.00	-7.03	Horizontal	Average
5150.00	4.68	31.56	9.79	0.00	46.03	54.00	-7.97	Vertical	Average
5350.00	4.35	32.04	10.06	0.00	46.45	54.00	-7.55	Vertical	Average

Band IV for Band edge emission									
Bandwidth:		40MHz		Worst mode:		802.11n		Test channel:	
								Low	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Detector
5725.00	19.13	31.73	10.47	0.00	61.33	68.20	-6.87	Horizontal	Peak
5850.00	15.43	32.20	10.61	0.00	58.24	68.20	-9.96	Horizontal	Peak
5725.00	18.26	31.73	10.47	0.00	60.46	68.20	-7.74	Vertical	Peak
5850.00	13.27	32.20	10.61	0.00	56.08	68.20	-12.12	Vertical	Peak
5725.00	10.16	31.73	10.47	0.00	52.36	54.00	-1.64	Horizontal	Average
5850.00	6.72	32.20	10.61	0.00	49.53	54.00	-4.47	Horizontal	Average
5725.00	9.34	31.73	10.47	0.00	51.54	54.00	-2.46	Vertical	Average
5850.00	5.92	32.20	10.61	0.00	48.73	54.00	-5.27	Vertical	Average

Band I for Band edge emission									
Bandwidth:		40MHz		Worst mode:		802.11n		Test channel:	
								High	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Detector
5150.00	15.98	31.56	9.79	0.00	57.33	68.20	-10.87	Horizontal	Peak
5350.00	15.78	32.04	10.06	0.00	57.88	68.20	-10.32	Horizontal	Peak
5150.00	15.64	31.56	9.79	0.00	56.99	68.20	-11.21	Vertical	Peak
5350.00	14.54	32.04	10.06	0.00	56.64	68.20	-11.56	Vertical	Peak
5150.00	4.65	31.56	9.79	0.00	46.00	54.00	-8.00	Horizontal	Average
5350.00	4.92	32.04	10.06	0.00	47.02	54.00	-6.98	Horizontal	Average
5150.00	4.87	31.56	9.79	0.00	46.22	54.00	-7.78	Vertical	Average
5350.00	4.81	32.04	10.06	0.00	46.91	54.00	-7.09	Vertical	Average

Band IV for Band edge emission									
Bandwidth:		40MHz		Worst mode:		802.11n		Test channel:	
								High	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Detector
5725.00	13.42	31.73	10.47	0.00	55.62	68.20	-12.58	Horizontal	Peak
5850.00	18.83	32.20	10.61	0.00	61.64	68.20	-6.56	Horizontal	Peak
5725.00	12.97	31.73	10.47	0.00	55.17	68.20	-13.03	Vertical	Peak
5850.00	17.74	32.20	10.61	0.00	60.55	68.20	-7.65	Vertical	Peak
5725.00	8.70	31.73	10.47	0.00	50.90	54.00	-3.10	Horizontal	Average
5850.00	9.13	32.20	10.61	0.00	51.94	54.00	-2.06	Horizontal	Average
5725.00	6.99	31.73	10.47	0.00	49.19	54.00	-4.81	Vertical	Average
5850.00	9.30	32.20	10.61	0.00	52.11	54.00	-1.89	Vertical	Average

Band I for Band edge emission

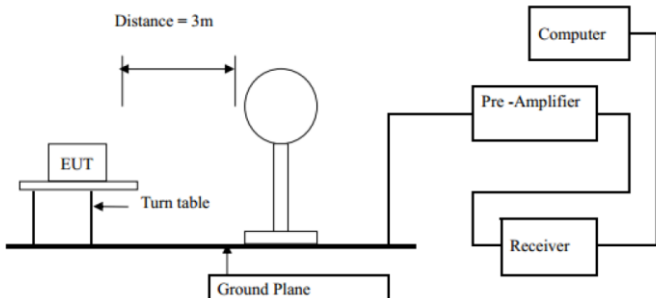
Bandwidth: 80MHz		Worst mode: 802.11ac		Test channel: Mid					
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Detector
5150.00	15.68	31.56	9.79	0.00	57.03	68.20	-11.17	Horizontal	Peak
5350.00	15.67	32.04	10.06	0.00	57.77	68.20	-10.43	Horizontal	Peak
5150.00	15.85	31.56	9.79	0.00	57.20	68.20	-11.00	Vertical	Peak
5350.00	15.48	32.04	10.06	0.00	57.58	68.20	-10.62	Vertical	Peak
5150.00	5.49	31.56	9.79	0.00	46.84	54.00	-7.16	Horizontal	Average
5350.00	4.79	32.04	10.06	0.00	46.89	54.00	-7.11	Horizontal	Average
5150.00	4.68	31.56	9.79	0.00	46.03	54.00	-7.97	Vertical	Average
5350.00	4.89	32.04	10.06	0.00	46.99	54.00	-7.01	Vertical	Average

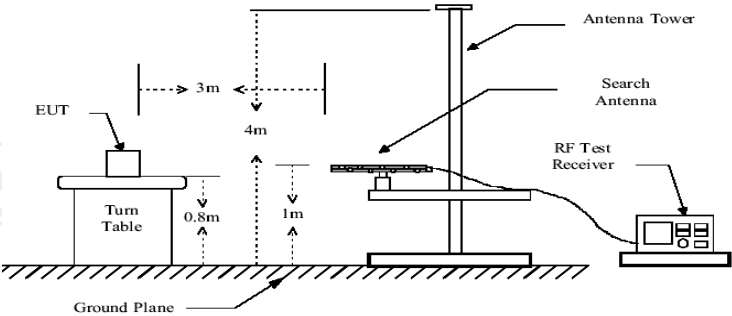
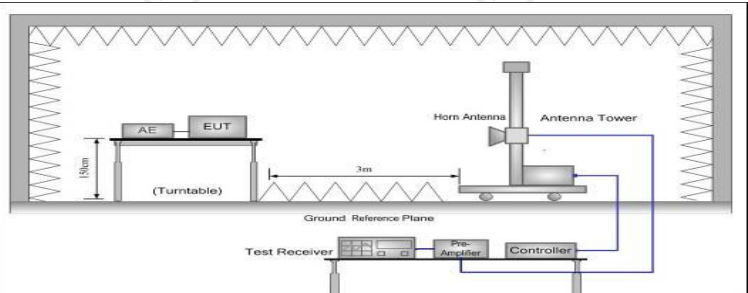
Band IV for Band edge emission

Bandwidth: 80MHz		Worst mode: 802.11ac		Test channel: Mid					
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Detector
5725.00	15.95	31.73	10.47	0.00	58.15	68.20	-10.05	Horizontal	Peak
5850.00	16.31	32.20	10.61	0.00	59.12	68.20	-9.08	Horizontal	Peak
5725.00	17.30	31.73	10.47	0.00	59.50	68.20	-8.70	Vertical	Peak
5850.00	18.36	32.20	10.61	0.00	61.17	68.20	-7.03	Vertical	Peak
5725.00	9.07	31.73	10.47	0.00	51.27	54.00	-2.73	Horizontal	Average
5850.00	9.82	32.20	10.61	0.00	52.63	54.00	-1.37	Horizontal	Average
5725.00	10.15	31.73	10.47	0.00	52.35	54.00	-1.65	Vertical	Average
5850.00	10.08	32.20	10.61	0.00	52.89	54.00	-1.11	Vertical	Average

6.8. Spurious Emission

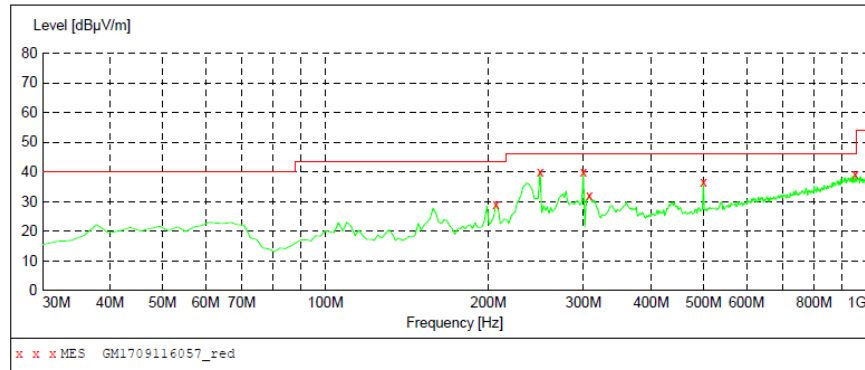
6.8.1.1. Test Specification

Test Requirement:	FCC CFR47 Part 15 Section 15.407 & 15.209 & 15.205				
Test Method:	KDB 789033 D02 v01r04				
Frequency Range:	9kHz to 40GHz				
Measurement Distance:	3 m				
Antenna Polarization:	Horizontal & Vertical				
Operation mode:	Transmitting mode with modulation				
Receiver Setup:	Frequency	Detector	RBW	VBW	Remark
	9kHz- 150kHz	Quasi-peak	200Hz	1kHz	Quasi-peak Value
	150kHz- 30MHz	Quasi-peak	9kHz	30kHz	Quasi-peak Value
	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
Peak		1MHz	10Hz	Average Value	
Limit:	Unwanted spurious emissions fallen in restricted bands per FCC Part15.205 shall comply with the general field strength limits set forth in § 15.209 as below table,				
	Frequency		Field Strength (microvolts/meter)		Measurement Distance (meters)
	0.009-0.490		2400/F(KHz)		300
	0.490-1.705		24000/F(KHz)		30
	1.705-30		30		30
	30-88		100		3
	88-216		150		3
	216-960		200		3
	Above 960		500		3
	Frequency		Limit (dBuV/m @3m)		Detector
	Above 1G		74.0		Peak
			54.0		Average
Test setup:	For radiated emissions below 30MHz				
					

	30MHz to 1GHz  Above 1GHz 
Test Procedure:	1. The EUT was placed on the top of a rotating table 0.8/1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was 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 rotatable was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth 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 results:	PASS

6.8.2. Test Data

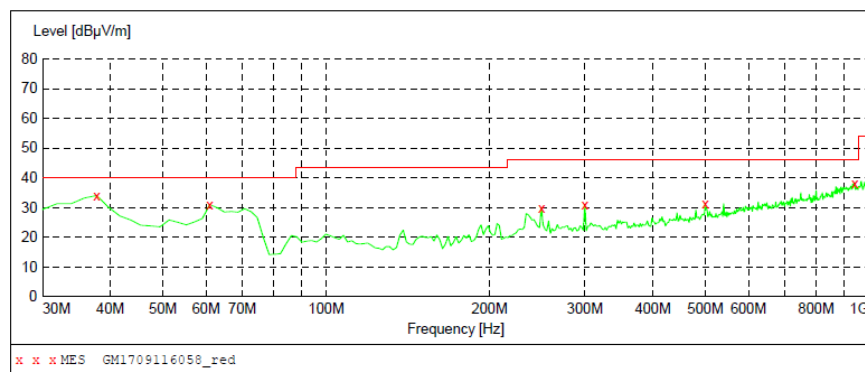
Please refer to following diagram for individual
Below 1GHz



MEASUREMENT RESULT: "GM1709116057_red"

9/11/2017 2:33PM

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
206.540000	29.00	-10.5	43.5	14.5	QP	100.0	74.00	HORIZONTAL
249.220000	40.20	-8.4	46.0	5.8	QP	100.0	153.00	HORIZONTAL
299.660000	40.00	-7.3	46.0	6.0	QP	100.0	33.00	HORIZONTAL
307.420000	32.10	-7.1	46.0	13.9	QP	100.0	33.00	HORIZONTAL
499.480000	36.80	-1.8	46.0	9.2	QP	100.0	0.00	HORIZONTAL
953.440000	39.30	7.3	46.0	6.7	QP	300.0	354.00	HORIZONTAL



MEASUREMENT RESULT: "GM1709116058_red"

9/11/2017 2:36PM

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
37.760000	34.10	-10.8	40.0	5.9	QP	100.0	359.00	VERTICAL
61.040000	31.00	-10.3	40.0	9.0	QP	100.0	73.00	VERTICAL
249.220000	29.80	-8.4	46.0	16.2	QP	100.0	141.00	VERTICAL
299.660000	30.90	-7.3	46.0	15.1	QP	100.0	141.00	VERTICAL
499.480000	31.30	-1.8	46.0	14.7	QP	100.0	192.00	VERTICAL
941.800000	38.30	7.2	46.0	7.7	QP	100.0	261.00	VERTICAL

Remark:

1. Transd = Cable lose + Antenna factor - Pre-amplifier; Margin = Limit – Level
2. The low frequency, which started from 9KHz~30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported
3. The 802.11a,802.11n,802.11ac Test mode, found that 802.11a and band 1 mode for low channel was the worst mode, and the report showed only the test results of the worst mode.

Above 1GHz

Band I for Low									
Bandwidth: 20MHz				Worst mode: 802.11a					
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1360.42	32.01	26.02	4.93	36.48	26.48	74.00	-47.52	Horizontal	Peak
4046.68	32.59	29.79	8.82	38.00	33.20	74.00	-40.80	Horizontal	Peak
6437.58	29.62	33.56	11.06	35.32	38.92	74.00	-35.08	Horizontal	Peak
9385.83	29.24	39.03	13.68	35.34	46.61	74.00	-27.39	Horizontal	Peak
1503.55	30.20	25.77	5.30	36.59	24.68	74.00	-49.32	Vertical	Peak
2186.52	31.81	27.39	6.43	37.34	28.29	74.00	-45.71	Vertical	Peak
5379.56	29.13	31.46	10.10	36.74	33.95	74.00	-40.05	Vertical	Peak
8939.39	29.78	37.84	13.25	34.37	46.50	74.00	-27.50	Vertical	Peak

Band I for Mid									
Bandwidth: 20MHz				Worst mode: 802.11a					
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1218.35	32.37	26.28	4.69	36.56	26.78	74.00	-47.22	Horizontal	Peak
3442.87	31.42	28.55	8.03	38.49	29.51	74.00	-44.49	Horizontal	Peak
6037.74	28.90	32.50	10.73	35.42	36.71	74.00	-37.29	Horizontal	Peak
12834.34	27.61	39.01	14.64	32.41	48.85	74.00	-25.15	Horizontal	Peak
1578.64	32.85	25.09	5.51	36.69	26.76	74.00	-47.24	Vertical	Peak
4867.47	30.52	31.46	9.58	36.77	34.79	74.00	-39.21	Vertical	Peak
7024.20	29.33	35.37	11.85	34.83	41.72	74.00	-32.28	Vertical	Peak
9829.32	31.11	39.10	13.63	35.32	48.52	74.00	-25.48	Vertical	Peak

Band I for High									
Bandwidth: 20MHz				Worst mode: 802.11a					
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1461.72	31.09	25.84	5.18	36.54	25.57	74.00	-48.43	Horizontal	Peak
4067.50	31.66	29.84	8.83	37.95	32.38	74.00	-41.62	Horizontal	Peak
6470.69	28.76	33.80	11.12	35.33	38.35	74.00	-35.65	Horizontal	Peak
9124.71	29.42	38.30	13.43	35.31	45.84	74.00	-28.16	Horizontal	Peak
1269.40	33.94	26.23	4.78	36.53	28.42	74.00	-45.58	Vertical	Peak
3737.38	33.27	29.41	8.43	38.24	32.87	74.00	-41.13	Vertical	Peak
5576.25	29.49	31.82	10.25	35.98	35.58	74.00	-38.42	Vertical	Peak
7903.84	30.10	36.72	12.76	34.79	44.79	74.00	-29.21	Vertical	Peak

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.
3. Measuring frequencies from 1 GHz to 40GHz of highest fundamental frequency.
4. The 802.11a test mode is SISO, only worse ANT 0 mode is reported.

Band I for Low									
Bandwidth:		20MHz			Worst mode:			802.11n	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1323.14	34.00	26.13	4.87	36.50	28.50	74.00	-45.50	Horizontal	Peak
3049.39	34.71	28.70	7.54	38.22	32.73	74.00	-41.27	Horizontal	Peak
5257.66	31.92	31.38	9.92	36.37	36.85	74.00	-37.15	Horizontal	Peak
9298.80	31.70	39.19	13.59	35.58	48.90	74.00	-25.10	Horizontal	Peak
1150.28	34.84	25.91	4.55	36.59	28.71	74.00	-45.29	Vertical	Peak
2162.57	33.38	27.20	6.41	37.33	29.66	74.00	-44.34	Vertical	Peak
3151.99	37.27	28.80	7.66	38.21	35.52	74.00	-38.48	Vertical	Peak
5504.17	32.50	31.90	10.20	36.32	38.28	74.00	-35.72	Vertical	Peak

Band I for Mid									
Bandwidth:		20MHz			Worst mode:			802.11n	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1483.73	33.02	25.82	5.24	36.57	27.51	74.00	-46.49	Horizontal	Peak
2664.54	31.63	27.99	7.06	38.01	28.67	74.00	-45.33	Horizontal	Peak
3738.13	35.04	29.42	8.43	38.24	34.65	74.00	-39.35	Horizontal	Peak
6125.24	31.06	32.60	10.88	35.35	39.19	74.00	-34.81	Horizontal	Peak
1251.08	35.12	26.25	4.75	36.54	29.58	74.00	-44.42	Vertical	Peak
2322.33	31.28	27.99	6.64	37.68	28.23	74.00	-45.77	Vertical	Peak
3308.19	36.17	28.20	7.85	38.39	33.83	74.00	-40.17	Vertical	Peak
5244.30	31.95	31.41	9.90	36.33	36.93	74.00	-37.07	Vertical	Peak

Band I for High									
Bandwidth:		20MHz			Worst mode:			802.11n	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1569.19	33.10	25.17	5.48	36.68	27.07	74.00	-46.93	Horizontal	Peak
2287.13	32.45	28.02	6.58	37.58	29.47	74.00	-44.53	Horizontal	Peak
3588.94	36.90	29.27	8.25	38.29	36.13	74.00	-37.87	Horizontal	Peak
5325.01	31.92	31.35	10.02	36.58	36.71	74.00	-37.29	Horizontal	Peak
1232.12	34.07	26.27	4.71	36.55	28.50	74.00	-45.50	Vertical	Peak
2604.19	32.49	27.81	6.92	37.85	29.37	74.00	-44.63	Vertical	Peak
3690.85	35.18	29.30	8.37	38.25	34.60	74.00	-39.40	Vertical	Peak
6315.23	32.18	33.13	11.00	35.30	41.01	74.00	-32.99	Vertical	Peak

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.
3. Measuring frequencies from 1 GHz to 40GHz of highest fundamental frequency.
4. The 802.11n(HT20), 802.11n(HT40) and 802.11ac all test at MIMO mode.

Band I for Low									
Bandwidth:		40MHz			Worst mode:			802.11n	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1136.83	33.35	25.80	4.52	36.60	27.07	74.00	-46.93	Horizontal	Peak
2158.65	31.50	27.17	6.40	37.33	27.74	74.00	-46.26	Horizontal	Peak
5216.50	29.92	31.47	9.85	36.25	34.99	74.00	-39.01	Horizontal	Peak
9458.33	30.29	39.02	13.70	35.26	47.75	74.00	-26.25	Horizontal	Peak
1562.52	33.71	25.23	5.46	36.67	27.73	74.00	-46.27	Vertical	Peak
6178.74	29.11	32.82	10.97	35.31	37.59	74.00	-36.41	Vertical	Peak
7863.40	31.00	36.48	12.96	34.90	45.54	74.00	-28.46	Vertical	Peak
11003.66	29.76	40.44	13.57	33.90	49.87	74.00	-24.13	Vertical	Peak

Band I for High									
Bandwidth:		40MHz			Worst mode:			802.11n	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1803.88	32.39	25.40	5.97	37.14	26.62	74.00	-47.38	Horizontal	Peak
4659.79	30.21	31.08	9.48	37.15	33.62	74.00	-40.38	Horizontal	Peak
7924.14	28.67	36.80	12.66	34.73	43.40	74.00	-30.60	Horizontal	Peak
12037.19	29.32	39.68	14.64	33.25	50.39	74.00	-23.61	Horizontal	Peak
1762.71	33.87	25.33	5.89	37.06	28.03	74.00	-45.97	Vertical	Peak
6388.24	28.83	33.28	10.99	35.31	37.79	74.00	-36.21	Vertical	Peak
7903.84	30.10	36.72	12.76	34.79	44.79	74.00	-29.21	Vertical	Peak
10947.35	29.60	40.53	13.57	34.10	49.60	74.00	-24.40	Vertical	Peak

Band I for Mid									
Bandwidth:		80MHz			Worst mode:			802.11ac	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1495.85	34.57	25.80	5.27	36.58	29.06	74.00	-44.94	Horizontal	Peak
3766.25	32.11	29.50	8.46	38.24	31.83	74.00	-42.17	Horizontal	Peak
5750.55	28.80	31.85	10.51	35.46	35.70	74.00	-38.30	Horizontal	Peak
11762.50	28.08	39.97	14.05	33.53	48.57	74.00	-25.43	Horizontal	Peak
1322.57	33.37	26.13	4.87	36.50	27.87	74.00	-46.13	Vertical	Peak
7096.64	29.95	35.59	11.85	34.93	42.46	74.00	-31.54	Vertical	Peak
8916.49	29.94	37.82	13.22	34.36	46.62	74.00	-27.38	Vertical	Peak
11702.31	29.11	40.10	13.90	33.39	49.72	74.00	-24.28	Vertical	Peak

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.
3. Measuring frequencies from 1 GHz to 40GHz of highest fundamental frequency.
4. The 802.11n(HT20), 802.11n(HT40) and 802.11ac all test at MIMO mode.

Band IV for Low									
Bandwidth: 20MHz				Worst mode: 802.11a					
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1775.22	37.19	25.35	5.91	37.09	31.36	74.00	-42.64	Horizontal	Peak
3847.71	36.77	29.65	8.57	38.20	36.79	74.00	-37.21	Horizontal	Peak
5767.72	33.22	31.94	10.54	35.41	40.29	74.00	-33.71	Horizontal	Peak
10703.42	33.28	39.91	13.58	33.95	52.82	74.00	-21.18	Horizontal	Peak
1390.88	36.10	25.93	4.98	36.47	30.54	74.00	-43.46	Vertical	Peak
1775.22	37.19	25.35	5.91	37.09	31.36	74.00	-42.64	Vertical	Peak
4078.39	35.90	29.86	8.84	37.93	36.67	74.00	-37.33	Vertical	Peak
10014.37	32.47	39.10	13.54	33.28	51.83	74.00	-22.17	Vertical	Peak

Band IV for Mid									
Bandwidth: 20MHz				Worst mode: 802.11a					
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1524.15	35.94	25.58	5.35	36.62	30.25	74.00	-43.75	Horizontal	Peak
3222.10	37.59	28.67	7.75	38.24	35.77	74.00	-38.23	Horizontal	Peak
6164.57	33.55	32.76	10.95	35.32	41.94	74.00	-32.06	Horizontal	Peak
10703.42	33.28	39.91	13.58	33.95	52.82	74.00	-21.18	Horizontal	Peak
1323.17	36.37	26.13	4.87	36.50	30.87	74.00	-43.13	Vertical	Peak
3133.99	37.60	28.80	7.64	38.21	35.83	74.00	-38.17	Vertical	Peak
6516.06	32.93	34.03	11.20	35.34	42.82	74.00	-31.18	Vertical	Peak
11004.33	32.59	40.44	13.57	33.90	52.70	74.00	-21.30	Vertical	Peak

Band IV for High									
Bandwidth: 20MHz				Worst mode: 802.11a					
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1364.15	36.55	26.01	4.94	36.48	31.02	74.00	-42.98	Horizontal	Peak
3491.87	36.81	28.94	8.10	38.42	35.43	74.00	-38.57	Horizontal	Peak
5767.72	33.22	31.94	10.54	35.41	40.29	74.00	-33.71	Horizontal	Peak
9447.94	33.61	39.02	13.70	35.27	51.06	74.00	-22.94	Horizontal	Peak
1269.27	36.56	26.23	4.78	36.53	31.04	74.00	-42.96	Vertical	Peak
3222.10	37.59	28.67	7.75	38.24	35.77	74.00	-38.23	Vertical	Peak
5625.57	33.20	31.75	10.31	35.80	39.46	74.00	-34.54	Vertical	Peak
10014.37	32.47	39.10	13.54	33.28	51.83	74.00	-22.17	Vertical	Peak

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.
3. Measuring frequencies from 1 GHz to 40GHz of highest fundamental frequency.
4. The 802.11a test mode is SISO, only worse ANT 0 mode is reported.

Band IV for Low									
Bandwidth:		20MHz			Worst mode:			802.11n	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1350.36	33.26	26.05	4.92	36.49	27.74	74.00	-46.26	Horizontal	Peak
2235.33	33.90	27.72	6.50	37.44	30.68	74.00	-43.32	Horizontal	Peak
3225.04	38.10	28.65	7.75	38.24	36.26	74.00	-37.74	Horizontal	Peak
8484.55	31.78	36.85	12.87	34.37	47.13	74.00	-26.87	Horizontal	Peak
1210.36	35.18	26.29	4.68	36.56	29.59	74.00	-44.41	Vertical	Peak
2846.85	33.73	28.29	7.40	38.33	31.09	74.00	-42.91	Vertical	Peak
4065.71	34.97	29.83	8.83	37.96	35.67	74.00	-38.33	Vertical	Peak
6527.71	30.69	34.06	11.23	35.34	40.64	74.00	-33.36	Vertical	Peak

Band IV for Mid									
Bandwidth:		20MHz			Worst mode:			802.11n	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1638.59	33.58	25.02	5.65	36.80	27.45	74.00	-46.55	Horizontal	Peak
3200.50	37.17	28.80	7.72	38.20	35.49	74.00	-38.51	Horizontal	Peak
4410.75	33.19	30.52	9.15	37.54	35.32	74.00	-38.68	Horizontal	Peak
6219.51	31.48	32.94	11.01	35.29	40.14	74.00	-33.86	Horizontal	Peak
1210.36	35.18	26.29	4.68	36.56	29.59	74.00	-44.41	Vertical	Peak
2108.21	33.04	26.77	6.36	37.32	28.85	74.00	-45.15	Vertical	Peak
3120.06	38.15	28.80	7.62	38.21	36.36	74.00	-37.64	Vertical	Peak
5164.81	33.13	31.64	9.80	36.24	38.33	74.00	-35.67	Vertical	Peak

Band IV for High									
Bandwidth:		20MHz			Worst mode:			802.11n	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1668.04	34.37	25.11	5.70	36.86	28.32	74.00	-45.68	Horizontal	Peak
3120.06	38.15	28.80	7.62	38.21	36.36	74.00	-37.64	Horizontal	Peak
4170.53	33.23	29.97	8.92	37.72	34.40	74.00	-39.60	Horizontal	Peak
5244.30	31.95	31.41	9.90	36.33	36.93	74.00	-37.07	Horizontal	Peak
1545.41	32.85	25.38	5.41	36.65	26.99	74.00	-47.01	Vertical	Peak
2551.69	34.19	27.51	6.88	37.85	30.73	74.00	-43.27	Vertical	Peak
3308.19	36.17	28.20	7.85	38.39	33.83	74.00	-40.17	Vertical	Peak
5420.74	31.94	31.58	10.14	36.70	36.96	74.00	-37.04	Vertical	Peak

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.
3. Measuring frequencies from 1 GHz to 40GHz of highest fundamental frequency.
4. The 802.11n(HT20), 802.11n(HT40) and 802.11ac all test at MIMO mode.

Band IV for Low									
Bandwidth: 40MHz				Worst mode: 802.11n					
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1294.15	36.57	26.21	4.82	36.52	31.08	74.00	-42.92	Horizontal	Peak
3133.99	37.60	28.80	7.64	38.21	35.83	74.00	-38.17	Horizontal	Peak
5091.18	34.37	31.87	9.74	36.31	39.67	74.00	-34.33	Horizontal	Peak
11958.79	32.00	39.70	14.56	33.41	52.85	74.00	-21.15	Horizontal	Peak
1151.89	37.29	25.92	4.55	36.59	31.17	74.00	-42.83	Vertical	Peak
1775.22	37.19	25.35	5.91	37.09	31.36	74.00	-42.64	Vertical	Peak
3847.71	36.77	29.65	8.57	38.20	36.79	74.00	-37.21	Vertical	Peak
10585.37	32.23	39.96	13.59	33.39	52.39	74.00	-21.61	Vertical	Peak

Band IV for High									
Bandwidth: 40MHz				Worst mode: 802.11n					
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1294.15	36.57	26.21	4.82	36.52	31.08	74.00	-42.92	Horizontal	Peak
3453.36	36.94	28.63	8.04	38.48	35.13	74.00	-38.87	Horizontal	Peak
5091.18	34.37	31.87	9.74	36.31	39.67	74.00	-34.33	Horizontal	Peak
10070.06	32.53	39.10	13.55	33.78	51.40	74.00	-22.60	Horizontal	Peak
1524.15	35.94	25.58	5.35	36.62	30.25	74.00	-43.75	Vertical	Peak
3133.99	37.60	28.80	7.64	38.21	35.83	74.00	-38.17	Vertical	Peak
4829.92	35.02	31.54	9.56	36.88	39.24	74.00	-34.76	Vertical	Peak
9088.23	33.25	38.16	13.39	35.05	49.75	74.00	-24.25	Vertical	Peak

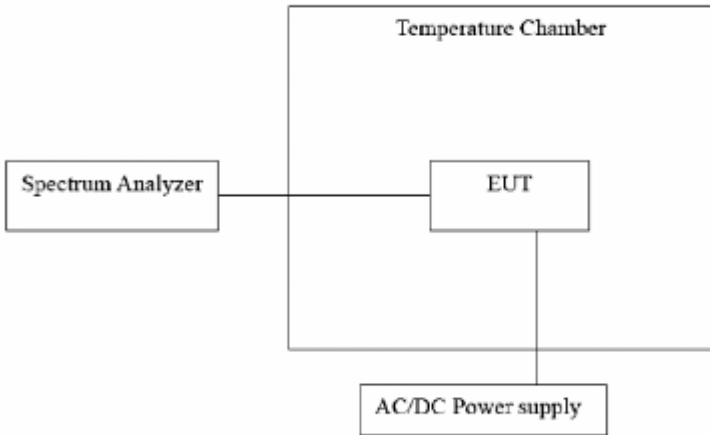
Band IV for Mid									
Bandwidth: 80MHz				Worst mode: 802.11ac					
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1390.88	36.10	25.93	4.98	36.47	30.54	74.00	-43.46	Horizontal	Peak
2924.12	37.17	28.52	7.44	38.28	34.85	74.00	-39.15	Horizontal	Peak
5351.71	33.68	31.40	10.06	36.66	38.48	74.00	-35.52	Horizontal	Peak
11004.33	32.59	40.44	13.57	33.90	52.70	74.00	-21.30	Horizontal	Peak
1269.27	36.56	26.23	4.78	36.53	31.04	74.00	-42.96	Vertical	Peak
2228.39	37.27	27.67	6.49	37.42	34.01	74.00	-39.99	Vertical	Peak
4346.94	35.55	30.34	9.08	37.58	37.39	74.00	-36.61	Vertical	Peak
10585.37	32.23	39.96	13.59	33.39	52.39	74.00	-21.61	Vertical	Peak

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.
3. Measuring frequencies from 1 GHz to 40GHz of highest fundamental frequency.
4. The 802.11n(HT20), 802.11n(HT40) and 802.11ac all test at MIMO mode.

6.9. Frequency Stability Measurement

6.9.1. Test Specification

Test Requirement:	FCC Part15 Section 15.407(g) &Part2 J Section 2.1055
Test Method:	ANSI C63.10: 2013
Limit:	The frequency tolerance shall be maintained within the band of operation frequency over a temperature variation of -30 degrees to 50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.
Test Setup:	 <pre> graph LR SA[Spectrum Analyzer] --- EUT[EUT] subgraph TC [Temperature Chamber] EUT end EUT --- P[AC/DC Power supply] </pre>
Test Procedure:	The EUT was placed inside the environmental test chamber and powered by nominal AC/DC voltage. b. Turn the EUT on and couple its output to a spectrum analyzer. c. Turn the EUT off and set the chamber to the highest temperature specified. d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize. e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature. f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.
Test Result:	PASS
Remark:	Pre-scan was performed at Low/ Mid /High channel, the worst case was found. Only the test data of Low channel was shown in this report.

Test plots as follows:

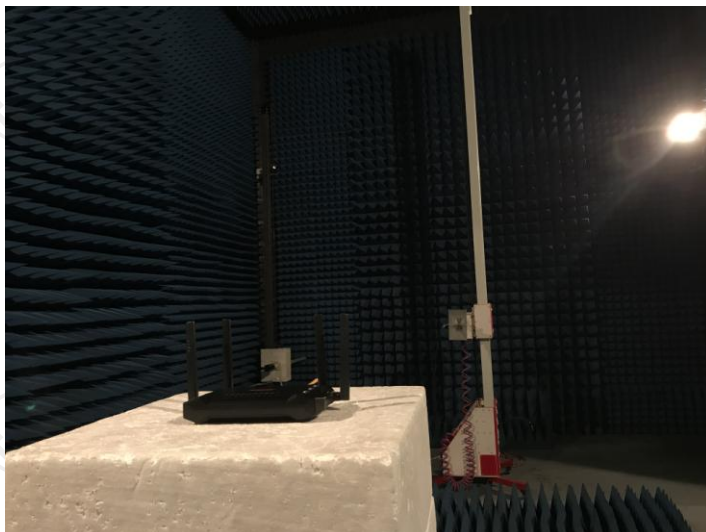
Band I for 802.11a Low					
Antenna 0 (Worst mode)					
Voltage(%)	Power(VDC)	TEMP(°C)	Test Frequency (MHz)	Freq.Dev (Hz)	Deviation (ppm)
100%	12.0	-30	5180	63000.00	12.16
100%		-20	5180	63000.00	12.16
100%		-10	5180	63000.00	12.16
100%		0	5180	63000.00	12.16
100%		10	5180	63000.00	12.16
100%		20	5180	63000.00	12.16
100%		30	5180	63000.00	12.16
100%		40	5180	63000.00	12.16
100%		50	5180	63000.00	12.16
85%	10.2	20	5180	63000.00	12.16
115%	13.8	20	5180	63000.00	12.16

Band IV for 802.11a Low					
Antenna 1 (Worst mode)					
Voltage(%)	Power(VDC)	TEMP(°C)	Test Frequency (MHz)	Freq.Dev (Hz)	Deviation (ppm)
100%	12.0	-30	5745	66000.00	12.74
100%		-20	5745	66000.00	12.74
100%		-10	5745	66000.00	12.74
100%		0	5745	67000.00	12.93
100%		10	5745	67000.00	12.93
100%		20	5745	67000.00	12.93
100%		30	5745	67000.00	12.93
100%		40	5745	67000.00	12.93
100%		50	5745	67000.00	12.93
85%	10.2	20	5745	65000.00	12.55
115%	13.8	20	5745	65000.00	12.55

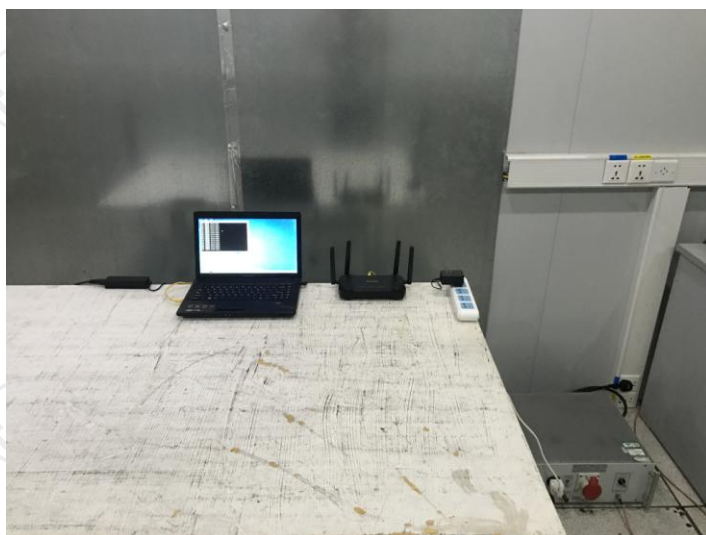
Appendix A: Photographs of Test Setup

Radiated Emission





CE



Appendix B: Photographs of EUT

Refer to the test report No.: TRE1708023401.

*******END OF REPORT*******