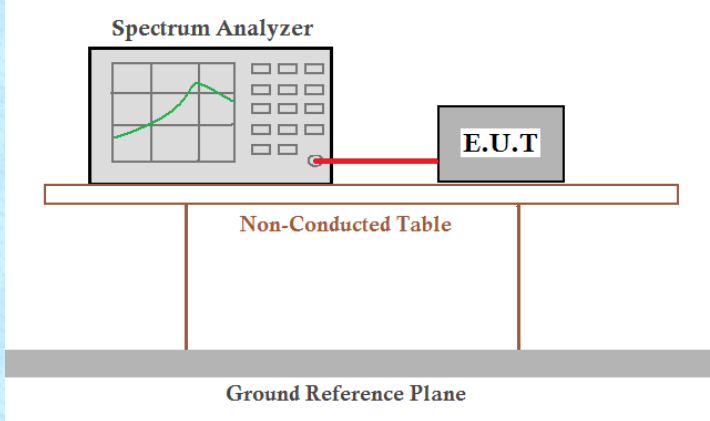


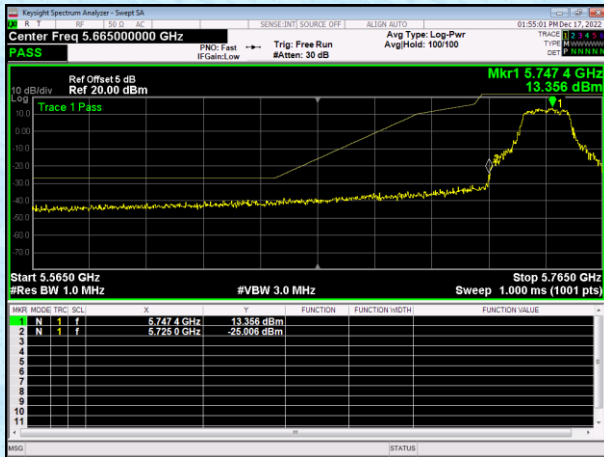
7.5 Band edge

7.5.1 Conducted Emission Method

Test Requirement:	FCC Part15 C Section 15.209 / 15.205/ 15.407(b)
Test Method:	ANSI C63.10: 2013
Limit:	All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
Test setup:	 The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T. (Equipment Under Test) via a red cable. Both the Spectrum Analyzer and the E.U.T. are placed on a Non-Conducted Table. The table is supported by a Ground Reference Plane.
Test Procedure:	1. Measure the conducted output power (in dBm) using the detector specified by the appropriate regulatory agency (see 11.12.2.3 through 11.12.2.5 for guidance regarding measurement procedures for determining quasi-peak, peak, and average conducted output power, respectively). 2. Add the maximum transmit antenna gain (in dBi) to the measured output power level to determine the EIRP (see 11.12.2.6 for guidance on determining the applicable antenna gain). 3. Add the appropriate maximum ground reflection factor to the EIRP (6 dB for frequencies ≤ 30 MHz; 4.7 dB for frequencies between 30 MHz and 1000 MHz, inclusive; and 0 dB for frequencies > 1000 MHz). 4. For MIMO devices, measure the power of each chain and sum the EIRP of all chains in linear terms (i.e., watts and mW). 5. Convert the resultant EIRP to an equivalent electric field strength using the following relationship: $E = \text{EIRP} - 20 \log d + 104.8$ Where E is the electric field strength in dBuV/m EIRP is the equivalent isotropically radiated power in dBm d is the specified measurement distance in m
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Test plot as follows Antenna 1:

Test mode: 802.11a

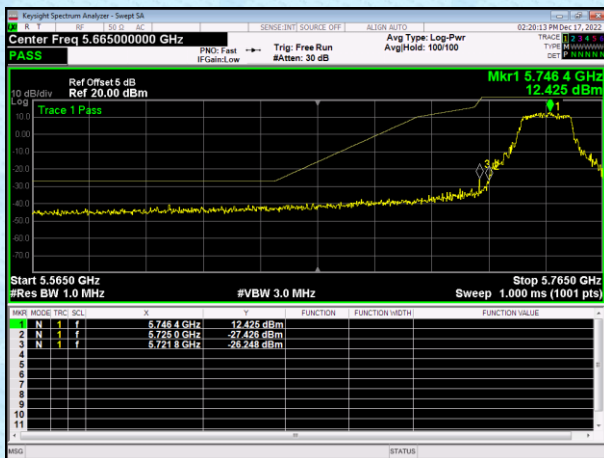


Lowest channel



Highest channel

Test mode: 802.11n(HT20)

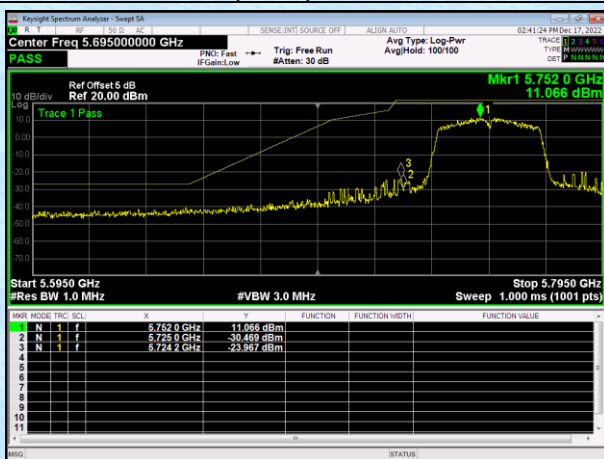


Lowest channel



Highest channel

Test mode: 802.11n(HT40)

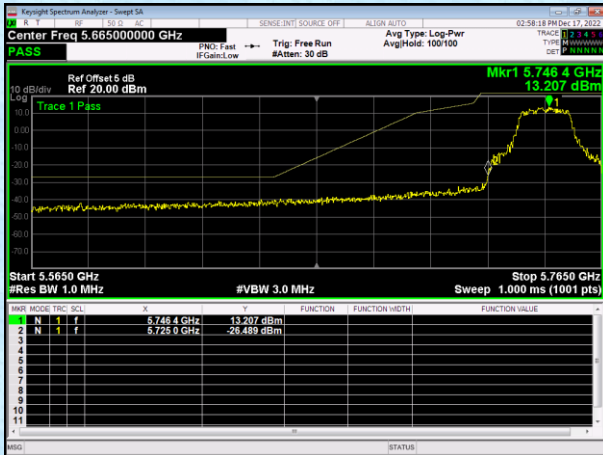


Lowest channel



Highest channel

Test mode: 802.11ac(VHT20)

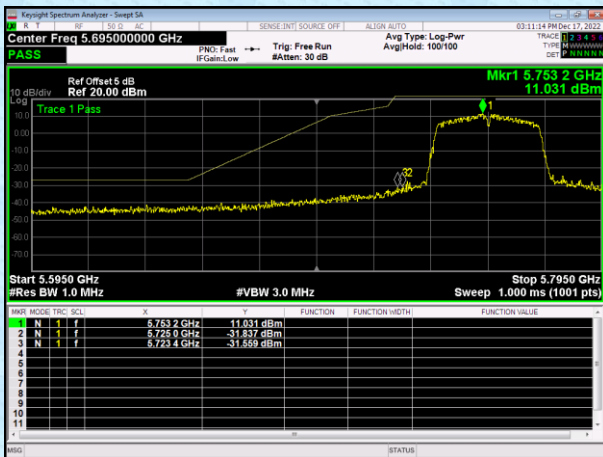


Lowest channel



Highest channel

Test mode: 802.11ac(VHT40)

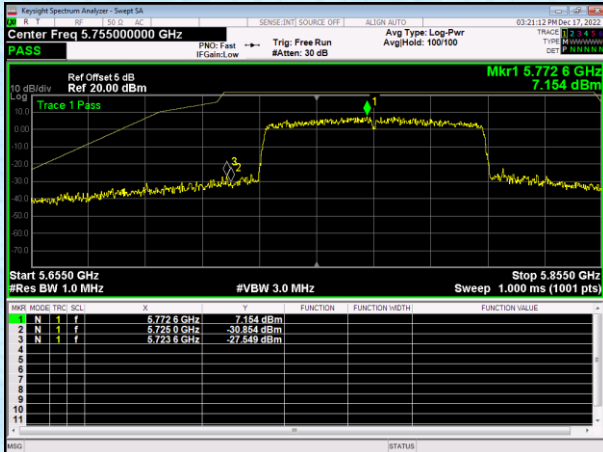


Lowest channel

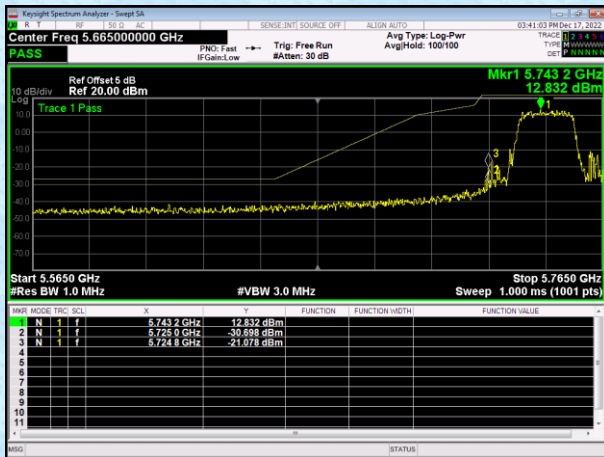


Highest channel

Test mode: 802.11ac(VHT80)



Test mode: 802.11ax(HE20)

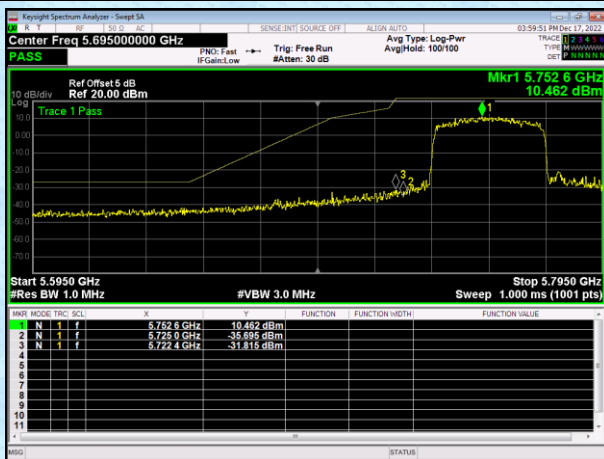


Lowest channel



Highest channel

Test mode: 802.11ax(HE40)

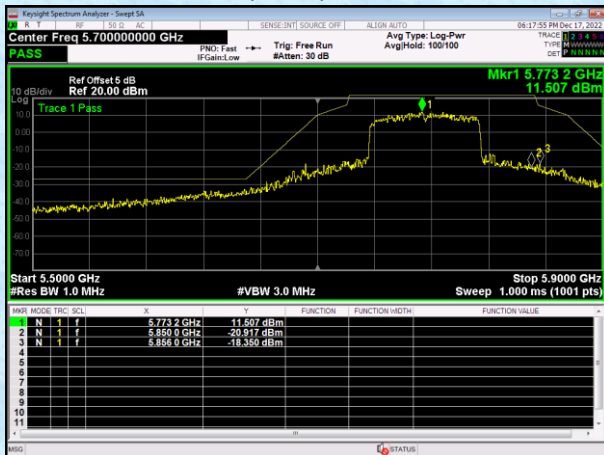


Lowest channel



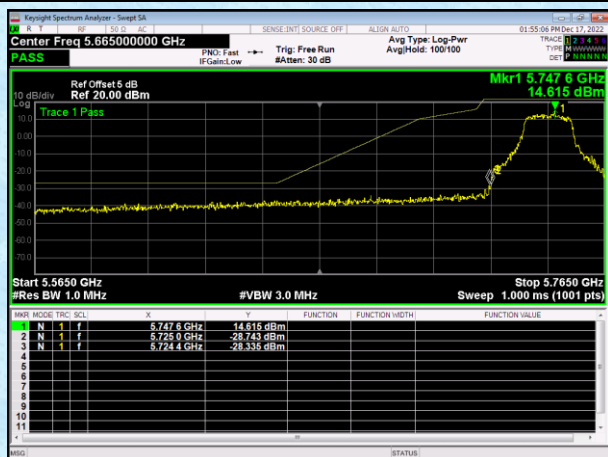
Highest channel

Test mode: 802.11ax(HE80)



Antenna 2:

Test mode: 802.11a

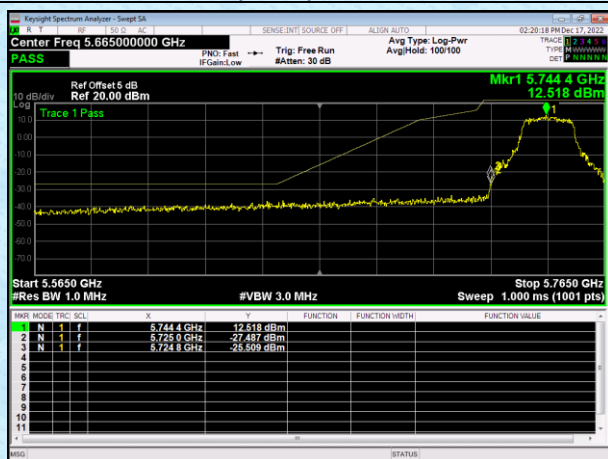


Lowest channel



Highest channel

Test mode: 802.11n(HT20)

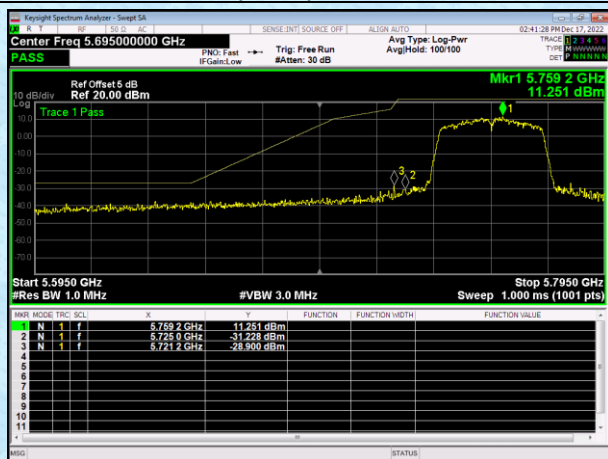


Lowest channel

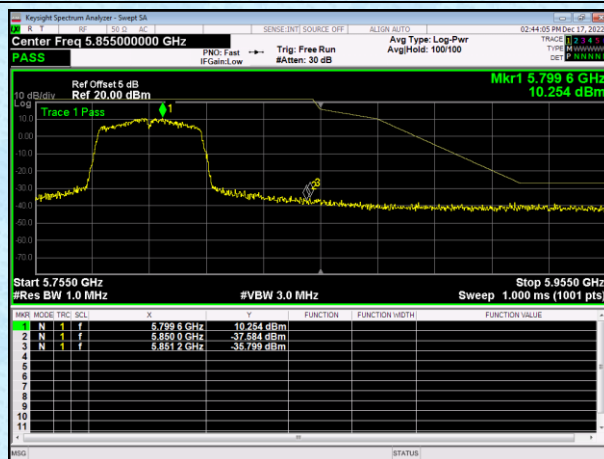


Highest channel

Test mode: 802.11n(HT40)

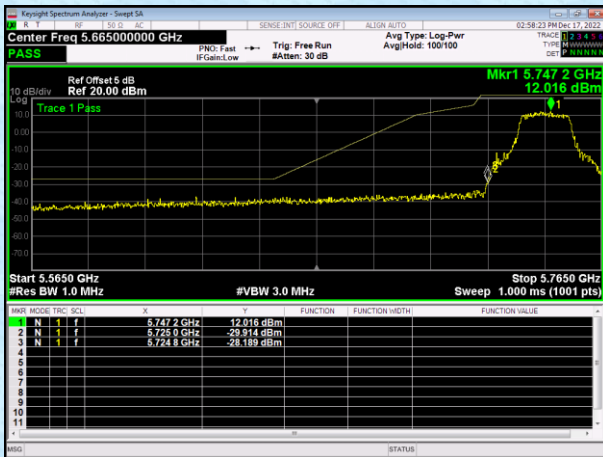


Lowest channel



Highest channel

Test mode: 802.11ac(VHT20)

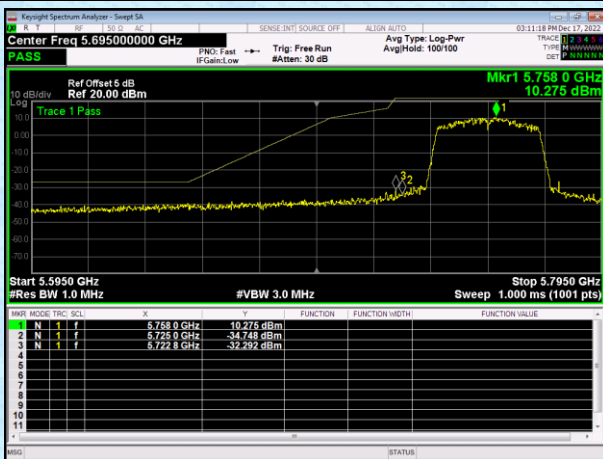


Lowest channel



Highest channel

Test mode: 802.11ac(VHT40)

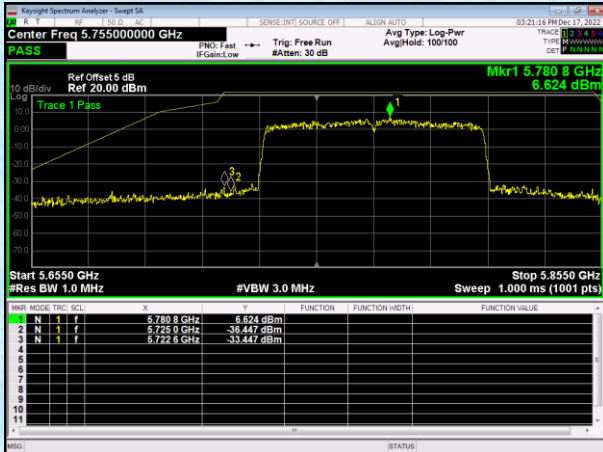


Lowest channel

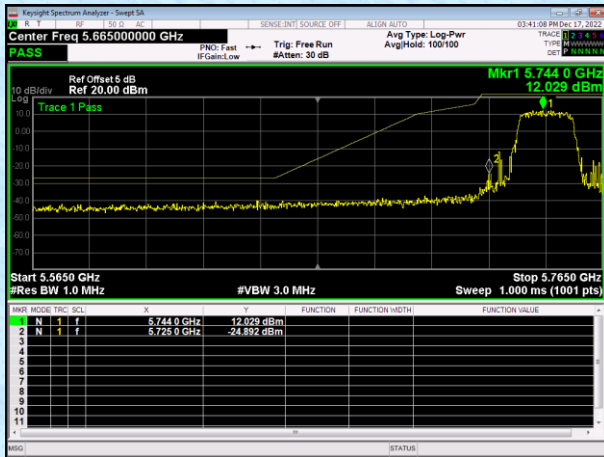


Highest channel

Test mode: 802.11ac(VHT80)



Test mode: 802.11ax(HE20)

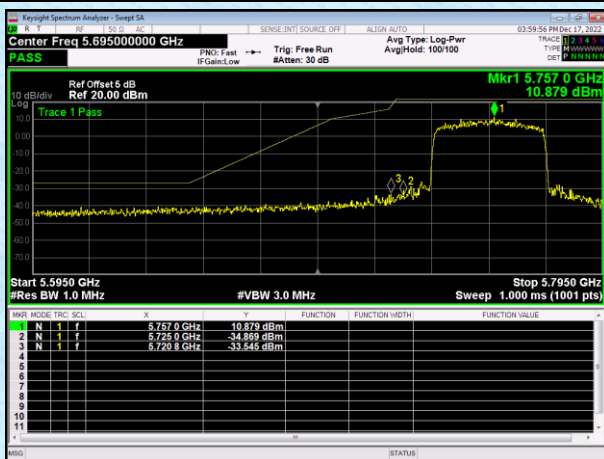


Lowest channel



Highest channel

Test mode: 802.11ax(HE40)

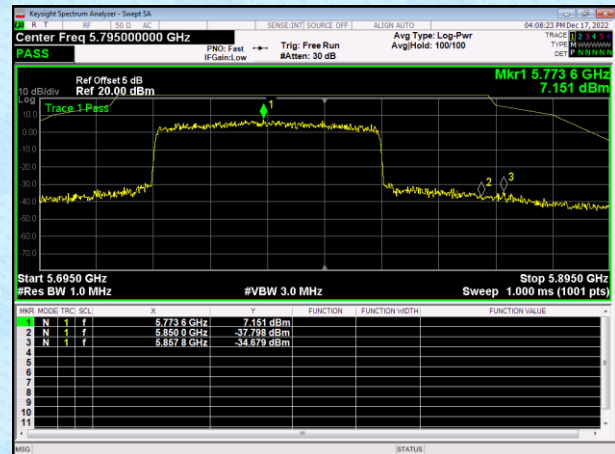


Lowest channel

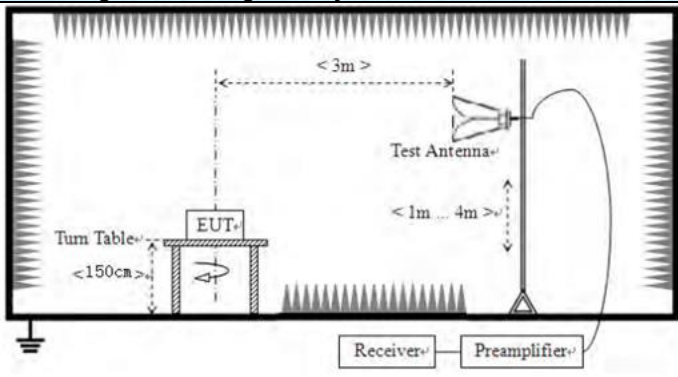


Highest channel

Test mode: 802.11ax(HE80)



7.5.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209 and 15.205				
Test Method:	ANSI C63.10: 2013				
Test Frequency Range:	9kHz to 40GHz, only worse case is reported				
Test site:	Measurement Distance: 3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Value
	Above 1GHz	Peak	1MHz	3MHz	Peak
		RMS	1MHz	3MHz	RMS
Limit:	All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.				
Test setup:					
Test Procedure:	- 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. - The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. - 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. - 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 rota table was turned from 0 degrees to 360 degrees to find the maximum reading. - The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. - 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. - The radiation measurements are performed in X, Y, Z axis positioning. And found the X axis positioning which it is worse case, only the test worst case mode is recorded in the report.				
Test Instruments:	Refer to section 6.0 for details				

Test mode:	Refer to section 5.2 for details
Test results:	Pass

Remarks:

1. We tested all the modes and only recorded the worst case (Beamforming) in the report
2. Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. The pre-test were performed on lowest, middle and highest frequencies, only the worst case's (lowest and highest frequencies) data was showed.
5. According to KDB 789033 D02v02r01 section G) 1) d),for measurements above 1000 MHz @3m distance, the limit of field strength is computed as follows:
 $E[\text{dBuV/m}] = \text{EIRP}[\text{dBm}] + 95.2;$
 $E[\text{dBuV/m}] = -27 + 95.2 = 68.2\text{dBuV/m}.$
 $E[\text{dBuV/m}] = 10 + 95.2 = 105.2\text{dBuV/m}.$
 $E[\text{dBuV/m}] = 15.6 + 95.2 = 110.8\text{dBuV/m}.$
 $E[\text{dBuV/m}] = 27 + 95.2 = 122.2\text{dBuV/m}.$

Measurement data:

IEEE 802.11a								
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
5650	28.82	32.36	9.72	23.83	47.07	68.2	-21.13	Horizontal
5700	29.84	32.5	9.79	23.84	48.29	105.2	-56.91	Horizontal
5720	32.61	32.53	9.81	23.85	51.1	110.8	-59.7	Horizontal
5725	34.66	32.53	9.83	23.86	53.16	122.2	-69.04	Horizontal
5850	30.25	32.7	9.99	23.87	49.07	122.2	-73.13	Horizontal
5855	29.02	32.72	9.99	23.88	47.85	110.8	-62.95	Horizontal
5875	27.72	32.74	10.04	23.89	46.61	105.2	-58.59	Horizontal
5925	27.79	32.8	10.11	23.9	46.8	68.2	-21.4	Horizontal
5650	27.86	32.36	9.72	23.83	46.11	68.2	-22.09	Vertical
5700	28.21	32.5	9.79	23.84	46.66	105.2	-58.54	Vertical
5720	31.15	32.53	9.81	23.85	49.64	110.8	-61.16	Vertical
5725	31.42	32.53	9.83	23.86	49.92	122.2	-72.28	Vertical
5850	31.55	32.7	9.99	23.87	50.37	122.2	-71.83	Vertical
5855	28.6	32.72	9.99	23.88	47.43	110.8	-63.37	Vertical
5875	25.41	32.74	10.04	23.89	44.3	105.2	-60.9	Vertical
5925	25.81	32.8	10.11	23.9	44.82	68.2	-23.38	Vertical

IEEE 802.11n HT20								
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
5650	28.82	32.36	9.72	23.83	47.07	68.2	-21.13	Horizontal
5700	29.84	32.5	9.79	23.84	48.29	105.2	-56.91	Horizontal
5720	32.61	32.53	9.81	23.85	51.1	110.8	-59.7	Horizontal
5725	34.66	32.53	9.83	23.86	53.16	122.2	-69.04	Horizontal
5850	30.25	32.7	9.99	23.87	49.07	122.2	-73.13	Horizontal
5855	29.02	32.72	9.99	23.88	47.85	110.8	-62.95	Horizontal
5875	27.72	32.74	10.04	23.89	46.61	105.2	-58.59	Horizontal
5925	27.79	32.8	10.11	23.9	46.8	68.2	-21.4	Horizontal
5650	27.86	32.36	9.72	23.83	46.11	68.2	-22.09	Vertical
5700	28.21	32.5	9.79	23.84	46.66	105.2	-58.54	Vertical
5720	31.15	32.53	9.81	23.85	49.64	110.8	-61.16	Vertical
5725	31.42	32.53	9.83	23.86	49.92	122.2	-72.28	Vertical
5850	31.55	32.7	9.99	23.87	50.37	122.2	-71.83	Vertical
5855	28.6	32.72	9.99	23.88	47.43	110.8	-63.37	Vertical
5875	25.41	32.74	10.04	23.89	44.3	105.2	-60.9	Vertical
5925	25.81	32.8	10.11	23.9	44.82	68.2	-23.38	Vertical

IEEE 802.11ac HT20								
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
5650	31.87	32.36	9.72	23.83	50.12	68.2	-18.08	Horizontal
5700	32.83	32.5	9.79	23.84	51.28	105.2	-53.92	Horizontal
5720	33.31	32.53	9.81	23.85	51.8	110.8	-59	Horizontal
5725	34.34	32.53	9.83	23.86	52.84	122.2	-69.36	Horizontal
5850	32.35	32.7	9.99	23.87	51.17	122.2	-71.03	Horizontal
5855	32.49	32.72	9.99	23.88	51.32	110.8	-59.48	Horizontal
5875	34.48	32.74	10.04	23.89	53.37	105.2	-51.83	Horizontal
5925	31.79	32.8	10.11	23.9	50.8	68.2	-17.4	Horizontal
5650	31.75	32.36	9.72	23.83	50	68.2	-18.2	Vertical
5700	29.93	32.5	9.79	23.84	48.38	105.2	-56.82	Vertical
5720	30.45	32.53	9.81	23.85	48.94	110.8	-61.86	Vertical
5725	33.32	32.53	9.83	23.86	51.82	122.2	-70.38	Vertical
5850	29.41	32.7	9.99	23.87	48.23	122.2	-73.97	Vertical
5855	29.05	32.72	9.99	23.88	47.88	110.8	-62.92	Vertical
5875	34.87	32.74	10.04	23.89	53.76	105.2	-51.44	Vertical
5925	33.28	32.8	10.11	23.9	52.29	68.2	-15.91	Vertical

IEEE 802.11ax HE20								
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
5650	31.32	32.36	9.72	23.83	49.57	68.2	-18.63	Horizontal
5700	31.86	32.5	9.79	23.84	50.31	105.2	-54.89	Horizontal
5720	32.43	32.53	9.81	23.85	50.92	110.8	-59.88	Horizontal
5725	34.12	32.53	9.83	23.86	52.62	122.2	-69.58	Horizontal
5850	31.82	32.7	9.99	23.87	50.64	122.2	-71.56	Horizontal
5855	32.36	32.72	9.99	23.88	51.19	110.8	-59.61	Horizontal
5875	33.94	32.74	10.04	23.89	52.83	105.2	-52.37	Horizontal
5925	30.8	32.8	10.11	23.9	49.81	68.2	-18.39	Horizontal
5650	31.34	32.36	9.72	23.83	49.59	68.2	-18.61	Vertical
5700	29.32	32.5	9.79	23.84	47.77	105.2	-57.43	Vertical
5720	30.41	32.53	9.81	23.85	48.9	110.8	-61.9	Vertical
5725	33	32.53	9.83	23.86	51.5	122.2	-70.7	Vertical
5850	28.48	32.7	9.99	23.87	47.3	122.2	-74.9	Vertical
5855	28.43	32.72	9.99	23.88	47.26	110.8	-63.54	Vertical
5875	34.09	32.74	10.04	23.89	52.98	105.2	-52.22	Vertical
5925	32.51	32.8	10.11	23.9	51.52	68.2	-16.68	Vertical

IEEE 802.11n HT40								
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
5650	35.7	32.36	9.72	23.83	53.95	68.2	-14.25	Horizontal
5700	37.93	32.5	9.79	23.84	56.38	105.2	-48.82	Horizontal
5720	37.65	32.53	9.81	23.85	56.14	110.8	-54.66	Horizontal
5725	36.92	32.53	9.83	23.86	55.42	122.2	-66.78	Horizontal
5850	33.38	32.7	9.99	23.87	52.2	122.2	-70	Horizontal
5855	37.17	32.72	9.99	23.88	56	110.8	-54.8	Horizontal
5875	34.64	32.74	10.04	23.89	53.53	105.2	-51.67	Horizontal
5925	34.06	32.8	10.11	23.9	53.07	68.2	-15.13	Horizontal
5650	36.48	32.36	9.72	23.83	54.73	68.2	-13.47	Vertical
5700	36.42	32.5	9.79	23.84	54.87	105.2	-50.33	Vertical
5720	35.63	32.53	9.81	23.85	54.12	110.8	-56.68	Vertical
5725	37.45	32.53	9.83	23.86	55.95	122.2	-66.25	Vertical
5850	39.02	32.7	9.99	23.87	57.84	122.2	-64.36	Vertical
5855	35.01	32.72	9.99	23.88	53.84	110.8	-56.96	Vertical
5875	34.77	32.74	10.04	23.89	53.66	105.2	-51.54	Vertical
5925	38.06	32.8	10.11	23.9	57.07	68.2	-11.13	Vertical

IEEE 802.11ac HT40								
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
5650	30.67	32.36	9.72	23.83	48.92	68.2	-19.28	Horizontal
5700	31.45	32.5	9.79	23.84	49.9	105.2	-55.3	Horizontal
5720	30.31	32.53	9.81	23.85	48.8	110.8	-62	Horizontal
5725	26.11	32.53	9.83	23.86	44.61	122.2	-77.59	Horizontal
5850	31.27	32.7	9.99	23.87	50.09	122.2	-72.11	Horizontal
5855	28.14	32.72	9.99	23.88	46.97	110.8	-63.83	Horizontal
5875	25.89	32.74	10.04	23.89	44.78	105.2	-60.42	Horizontal
5925	27.44	32.8	10.11	23.9	46.45	68.2	-21.75	Horizontal
5650	24.67	32.36	9.72	23.83	42.92	68.2	-25.28	Vertical
5700	30.2	32.5	9.79	23.84	48.65	105.2	-56.55	Vertical
5720	27.12	32.53	9.81	23.85	45.61	110.8	-65.19	Vertical
5725	29.34	32.53	9.83	23.86	47.84	122.2	-74.36	Vertical
5850	25.61	32.7	9.99	23.87	44.43	122.2	-77.77	Vertical
5855	31.7	32.72	9.99	23.88	50.53	110.8	-60.27	Vertical
5875	28.67	32.74	10.04	23.89	47.56	105.2	-57.64	Vertical
5925	27.59	32.8	10.11	23.9	46.6	68.2	-21.6	Vertical

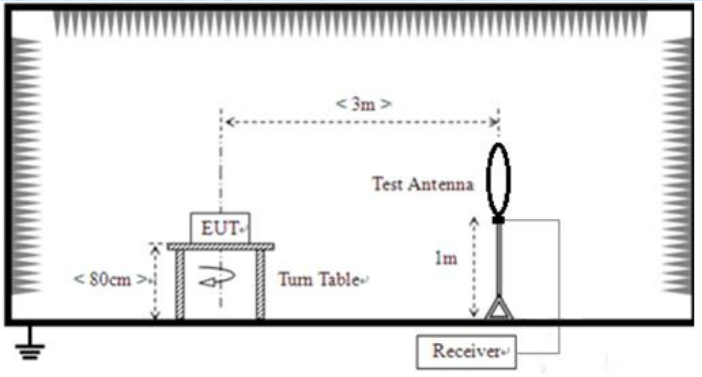
IEEE 802.11ax HE40								
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5650	30.27	32.36	9.72	23.83	48.52	68.2	-19.68	Horizontal
5700	31.33	32.5	9.79	23.84	49.78	105.2	-55.42	Horizontal
5720	29.53	32.53	9.81	23.85	48.02	110.8	-62.78	Horizontal
5725	26.06	32.53	9.83	23.86	44.56	122.2	-77.64	Horizontal
5850	30.41	32.7	9.99	23.87	49.23	122.2	-72.97	Horizontal
5855	27.47	32.72	9.99	23.88	46.3	110.8	-64.5	Horizontal
5875	25.35	32.74	10.04	23.89	44.24	105.2	-60.96	Horizontal
5925	26.86	32.8	10.11	23.9	45.87	68.2	-22.33	Horizontal
5650	23.67	32.36	9.72	23.83	41.92	68.2	-26.28	Vertical
5700	29.42	32.5	9.79	23.84	47.87	105.2	-57.33	Vertical
5720	26.62	32.53	9.81	23.85	45.11	110.8	-65.69	Vertical
5725	28.81	32.53	9.83	23.86	47.31	122.2	-74.89	Vertical
5850	24.82	32.7	9.99	23.87	43.64	122.2	-78.56	Vertical
5855	30.83	32.72	9.99	23.88	49.66	110.8	-61.14	Vertical
5875	27.67	32.74	10.04	23.89	46.56	105.2	-58.64	Vertical
5925	26.61	32.8	10.11	23.9	45.62	68.2	-22.58	Vertical

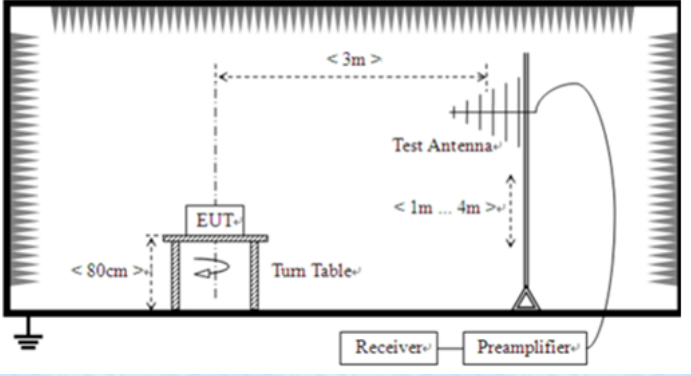
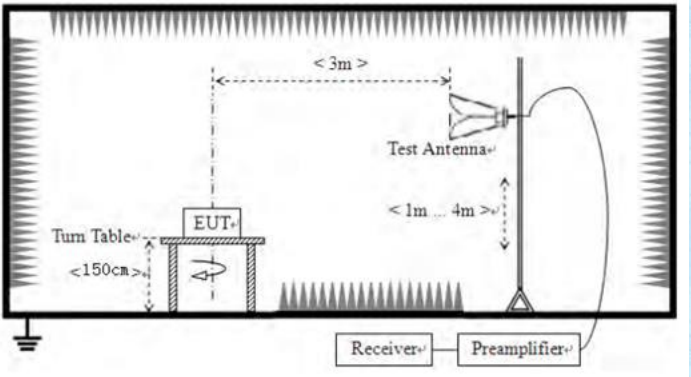
IEEE 802.11ac HT80								
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5650	35.93	32.36	9.72	23.83	54.18	68.2	-14.02	Horizontal
5700	29.83	32.5	9.79	23.84	48.28	105.2	-56.92	Horizontal
5720	35.59	32.53	9.81	23.85	54.08	110.8	-56.72	Horizontal
5725	29.21	32.53	9.83	23.86	47.71	122.2	-74.49	Horizontal
5850	34.13	32.7	9.99	23.87	52.95	122.2	-69.25	Horizontal
5855	30.66	32.72	9.99	23.88	49.49	110.8	-61.31	Horizontal
5875	29.6	32.74	10.04	23.89	48.49	105.2	-56.71	Horizontal
5925	33.66	32.8	10.11	23.9	52.67	68.2	-15.53	Horizontal
5650	29.29	32.36	9.72	23.83	47.54	68.2	-20.66	Vertical
5700	33.61	32.5	9.79	23.84	52.06	105.2	-53.14	Vertical
5720	36.06	32.53	9.81	23.85	54.55	110.8	-56.25	Vertical
5725	33.6	32.53	9.83	23.86	52.1	122.2	-70.1	Vertical
5850	34.52	32.7	9.99	23.87	53.34	122.2	-68.86	Vertical
5855	32.09	32.72	9.99	23.88	50.92	110.8	-59.88	Vertical
5875	31.22	32.74	10.04	23.89	50.11	105.2	-55.09	Vertical
5925	30.25	32.8	10.11	23.9	49.26	68.2	-18.94	Vertical

IEEE 802.11ax HE80								
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
5650	35.28	32.36	9.72	23.83	53.53	68.2	-14.67	Horizontal
5700	29.49	32.5	9.79	23.84	47.94	105.2	-57.26	Horizontal
5720	35.22	32.53	9.81	23.85	53.71	110.8	-57.09	Horizontal
5725	28.37	32.53	9.83	23.86	46.87	122.2	-75.33	Horizontal
5850	33.87	32.7	9.99	23.87	52.69	122.2	-69.51	Horizontal
5855	30.43	32.72	9.99	23.88	49.26	110.8	-61.54	Horizontal
5875	29.09	32.74	10.04	23.89	47.98	105.2	-57.22	Horizontal
5925	33.44	32.8	10.11	23.9	52.45	68.2	-15.75	Horizontal
5650	28.44	32.36	9.72	23.83	46.69	68.2	-21.51	Vertical
5700	33.24	32.5	9.79	23.84	51.69	105.2	-53.51	Vertical
5720	35.81	32.53	9.81	23.85	54.3	110.8	-56.5	Vertical
5725	33.27	32.53	9.83	23.86	51.77	122.2	-70.43	Vertical
5850	34.48	32.7	9.99	23.87	53.3	122.2	-68.9	Vertical
5855	31.32	32.72	9.99	23.88	50.15	110.8	-60.65	Vertical
5875	30.88	32.74	10.04	23.89	49.77	105.2	-55.43	Vertical
5925	30.13	32.8	10.11	23.9	49.14	68.2	-19.06	Vertical

7.6 Spurious Emission

7.6.1 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209, 15.205, Part 15E Section 15.407(b)(4)				
Test Method:	ANSI C63.10:2013				
Test Frequency Range:	9kHz to 40GHz				
Test site:	Measurement Distance: 3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Value
	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
		AV	1MHz	3MHz	Average Value
Limit:	Frequency		Limit (uV/m)	Value	Measurement Distance
	0.009MHz-0.490MHz		2400/F(KHz)	QP	300m
	0.490MHz-1.705MHz		24000/F(KHz)	QP	300m
	1.705MHz-30MHz		30	QP	30m
	30MHz-88MHz		100	QP	3m
	88MHz-216MHz		150	QP	
	216MHz-960MHz		200	QP	
	960MHz-1GHz		500	QP	
	Frequency		Limit (dBuV/m)	Remark	
	Above 1GHz		68.20	Peak Value	
			54.00	Average Value	
Test setup:	For radiated emissions from 9kHz to 30MHz				
					
	For radiated emissions from 30MHz to1GHz				

	 For radiated emissions above 1GHz 
Test Procedure:	1. The EUT was placed on the top of a rotating table (0.8m for below 1GHz and 1.5 meters for above 1GHz) 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 rota table 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. 7. The radiation measurements are performed in X, Y, Z axis positioning.

	And found the X axis positioning which it is worse case, only the test worst case mode is recorded in the report.					
Test Instruments:	Refer to section 6.0 for details					
Test mode:	Refer to section 5.2 for details					
Test environment:	Temp.:	25 °C	Humid.:	52%	Press.:	1012mbar
Test voltage:	DC 3.3V					
Test results:	Pass					

Remarks:

1. Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis which it is worse case.
2. all were test, For 802.11a/n/ac/ax only the Beamforming test result recorded in the report.

Measurement Data:

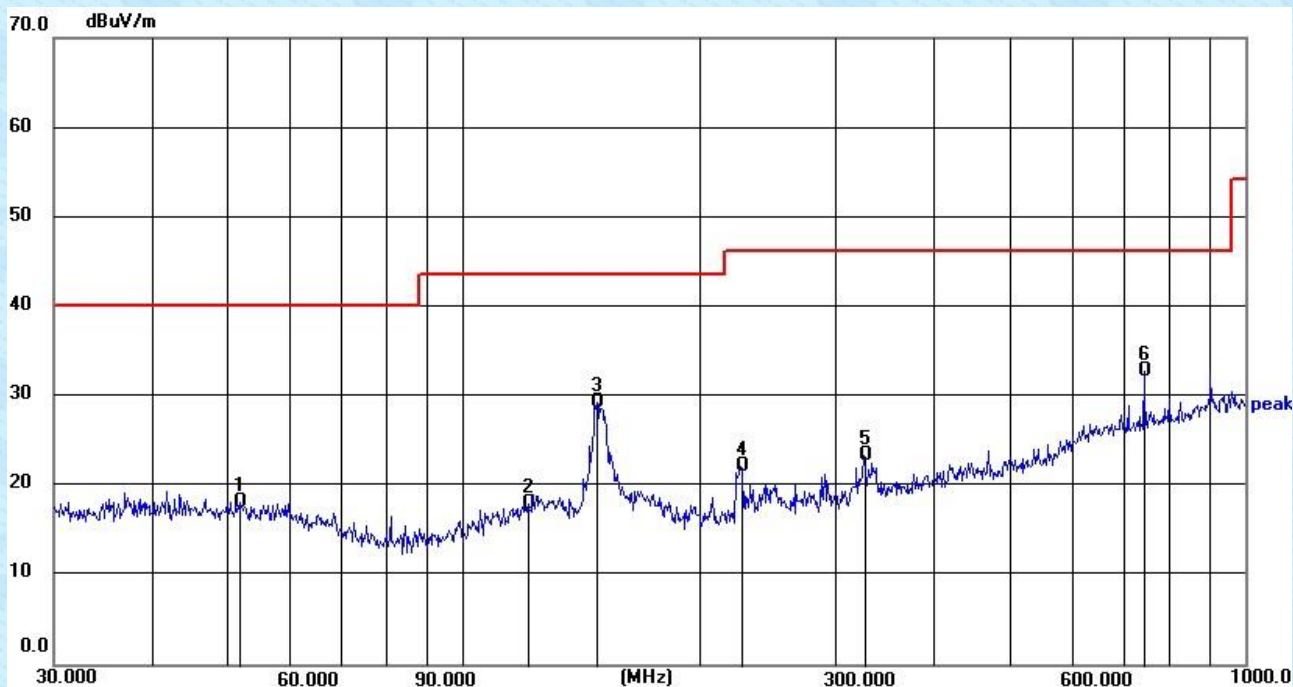
9 kHz ~ 30 MHz

The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

Below 1GHz

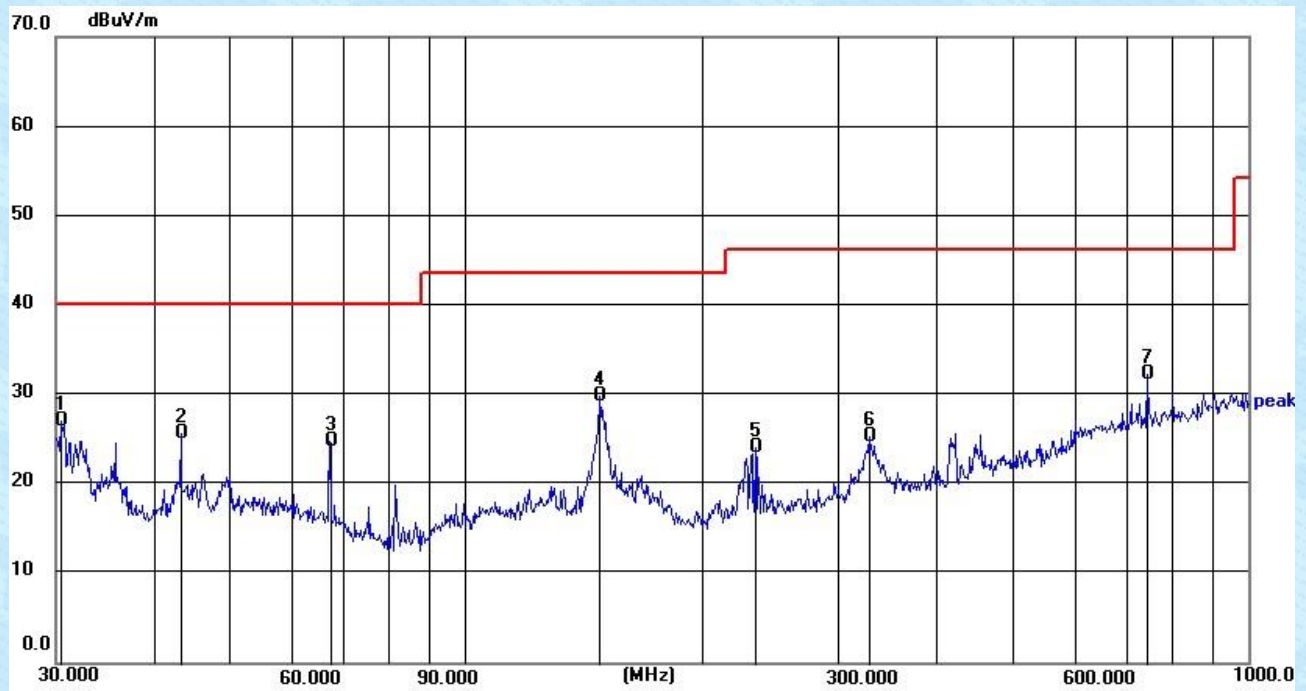
Pre-scan all test modes, found worst case at 802.11n(HT20) 5745MHz of Beamforming, and so only show the test result of 802.11n(HT20) 5745MHz of Beamforming.

Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	51.8430	3.83	14.42	18.25	40.00	21.75	QP
2	121.1231	3.88	14.12	18.00	43.50	25.50	QP
3	148.4410	13.64	15.66	29.30	43.50	14.20	QP
4	226.8936	9.41	12.82	22.23	46.00	23.77	QP
5	325.5958	8.01	15.42	23.43	46.00	22.57	QP
6	742.2587	10.33	22.47	32.80	46.00	13.20	QP

Vertical:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.4238	14.19	12.89	27.08	40.00	12.92	QP
2	43.3534	11.28	14.34	25.62	40.00	14.38	QP
3	67.2022	12.24	12.64	24.88	40.00	15.12	QP
4	148.4410	14.23	15.66	29.89	43.50	13.61	QP
5	234.9909	10.98	13.15	24.13	46.00	21.87	QP
6	327.8873	9.92	15.46	25.38	46.00	20.62	QP
7	742.2587	9.83	22.47	32.30	46.00	13.70	QP

Above 1GHz:

802.11a					Test Frequency: 5745MHz			
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
11490	58.74	39.4	8.73	36.3	46.91	68.2	-21.29	Horizontal
17235	62.99	41	11.37	36.28	46.9	68.2	-21.3	Horizontal
11490	56.21	39.4	8.73	36.3	44.38	68.2	-23.82	Vertical
17235	60.15	41	11.37	36.28	44.06	68.2	-24.14	Vertical

802.11a					Test Frequency: 5785MHz			
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
11570	57.56	39.28	8.77	36.29	45.8	68.2	-22.4	Horizontal
17355	64.87	41.52	11.48	36.26	48.13	68.2	-20.07	Horizontal
11570	55	39.28	8.77	36.29	43.24	68.2	-24.96	Vertical
17355	61.77	41.52	11.48	36.26	45.03	68.2	-23.17	Vertical

802.11a					Test Frequency: 5825MHz			
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
11650	57.46	39.16	8.79	36.27	45.78	68.2	-22.42	Horizontal
17475	64.61	42.3	11.58	36.25	46.98	68.2	-21.22	Horizontal
11650	54.91	39.16	8.79	36.27	43.23	68.2	-24.97	Vertical
17475	62.23	42.3	11.58	36.25	44.6	68.2	-23.6	Vertical

802.11n(HT20)					Test Frequency: 5745MHz			
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
11490	57.82	39.4	8.73	36.3	45.99	68.2	-22.21	Horizontal
17235	64	41	11.37	36.28	47.91	68.2	-20.29	Horizontal
11490	55.52	39.4	8.73	36.3	43.69	68.2	-24.51	Vertical
17235	61.49	41	11.37	36.28	45.4	68.2	-22.8	Vertical

802.11n(HT20)					Test Frequency: 5785MHz			
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	57.84	39.28	8.77	36.29	46.08	68.2	-22.12	Horizontal
17355	64.5	41.52	11.48	36.26	47.76	68.2	-20.44	Horizontal
11570	55.35	39.28	8.77	36.29	43.59	68.2	-24.61	Vertical
17355	61.9	41.52	11.48	36.26	45.16	68.2	-23.04	Vertical

802.11n(HT20)					Test Frequency: 5825MHz			
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	58.57	39.16	8.79	36.27	46.89	68.2	-21.31	Horizontal
17475	64.71	42.3	11.58	36.25	47.08	68.2	-21.12	Horizontal
11650	57.25	39.16	8.79	36.27	45.57	68.2	-22.63	Vertical
17475	63.24	42.3	11.58	36.25	45.61	68.2	-22.59	Vertical

802.11n(HT40)					Test Frequency: 5755MHz			
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
11510	53.15	39.4	8.74	36.3	41.31	68.2	-26.89	Horizontal
17265	62.02	41.26	11.4	36.27	45.63	68.2	-22.57	Horizontal
11510	56.55	39.4	8.74	36.3	44.71	68.2	-23.49	Vertical
17265	59.92	41.26	11.4	36.27	43.53	68.2	-24.67	Vertical

802.11n(HT40)					Test Frequency: 5795MHz			
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
11590	56.52	39.22	8.77	36.28	44.81	68.2	-23.39	Horizontal
17385	63.72	41.78	11.51	36.26	46.69	68.2	-21.51	Horizontal
11590	55.75	39.22	8.77	36.28	44.04	68.2	-24.16	Vertical
17385	64.73	41.78	11.51	36.26	47.7	68.2	-20.5	Vertical

802.11ac(HT20)					Test Frequency: 5745MHz			
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	53.31	39.4	8.73	36.3	41.48	68.2	-26.72	Horizontal
17235	58.83	41	11.37	36.28	42.74	68.2	-25.46	Horizontal
11490	54.03	39.4	8.73	36.3	42.2	68.2	-26	Vertical
17235	62.12	41	11.37	36.28	46.03	68.2	-22.17	Vertical

802.11ac(HT20)					Test Frequency: 5785MHz			
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	52.6	39.28	8.77	36.29	40.84	68.2	-27.36	Horizontal
17355	59.83	41.52	11.48	36.26	43.09	68.2	-25.11	Horizontal
11570	50.98	39.28	8.77	36.29	39.22	68.2	-28.98	Vertical
17355	62.53	41.52	11.48	36.26	45.79	68.2	-22.41	Vertical

802.11ac(HT20)					Test Frequency: 5825MHz			
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	55.99	39.16	8.79	36.27	44.31	68.2	-23.89	Horizontal
17475	65.59	42.3	11.58	36.25	47.96	68.2	-20.24	Horizontal
11650	52.73	39.16	8.79	36.27	41.05	68.2	-27.15	Vertical
17475	64.26	42.3	11.58	36.25	46.63	68.2	-21.57	Vertical

802.11ac(HT40)					Test Frequency: 5755MHz			
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
11510	52.01	39.4	8.74	36.3	40.17	68.2	-28.03	Horizontal
17265	64.58	41.26	11.4	36.27	48.19	68.2	-20.01	Horizontal
11510	58.68	39.4	8.74	36.3	46.84	68.2	-21.36	Vertical
17265	63.72	41.26	11.4	36.27	47.33	68.2	-20.87	Vertical

802.11ac(HT40)					Test Frequency: 5795MHz			
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
11590	59.25	39.22	8.77	36.28	47.54	68.2	-20.66	Horizontal
17385	61.4	41.78	11.51	36.26	44.37	68.2	-23.83	Horizontal
11590	55.52	39.22	8.77	36.28	43.81	68.2	-24.39	Vertical
17385	62.89	41.78	11.51	36.26	45.86	68.2	-22.34	Vertical

802.11ac(HT80)					Test Frequency: 5775MHz			
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
11550	53.34	39.34	8.76	36.29	41.53	68.2	-26.67	Horizontal
17325	64.39	41.52	11.45	36.26	47.68	68.2	-20.52	Horizontal
11550	53.92	39.34	8.76	36.29	42.11	68.2	-26.09	Vertical
17325	61.11	41.52	11.45	36.26	44.4	68.2	-23.8	Vertical

802.11ax(HE20)					Test Frequency: 5745MHz			
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	52.56	39.4	8.73	36.3	40.73	68.2	-27.47	Horizontal
17235	58.29	41	11.37	36.28	42.2	68.2	-26	Horizontal
11490	53.49	39.4	8.73	36.3	41.66	68.2	-26.54	Vertical
17235	61.23	41	11.37	36.28	45.14	68.2	-23.06	Vertical

802.11ax(HE20)					Test Frequency: 5785MHz			
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	52.45	39.28	8.77	36.29	40.69	68.2	-27.51	Horizontal
17355	59.17	41.52	11.48	36.26	42.43	68.2	-25.77	Horizontal
11570	50.62	39.28	8.77	36.29	38.86	68.2	-29.34	Vertical
17355	61.96	41.52	11.48	36.26	45.22	68.2	-22.98	Vertical

802.11ax(HE20)					Test Frequency: 5825MHz			
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	56.79	39.16	8.79	36.27	45.11	68.2	-23.09	Horizontal
17475	64.96	42.3	11.58	36.25	47.33	68.2	-20.87	Horizontal
11650	53.28	39.16	8.79	36.27	41.6	68.2	-26.6	Vertical
17475	64.46	42.3	11.58	36.25	46.83	68.2	-21.37	Vertical

802.11ax(HE40)					Test Frequency: 5755MHz			
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
11510	52.66	39.4	8.74	36.3	40.82	68.2	-27.38	Horizontal
17265	63.76	41.26	11.4	36.27	47.37	68.2	-20.83	Horizontal
11510	59.07	39.4	8.74	36.3	47.23	68.2	-20.97	Vertical
17265	63.91	41.26	11.4	36.27	47.52	68.2	-20.68	Vertical

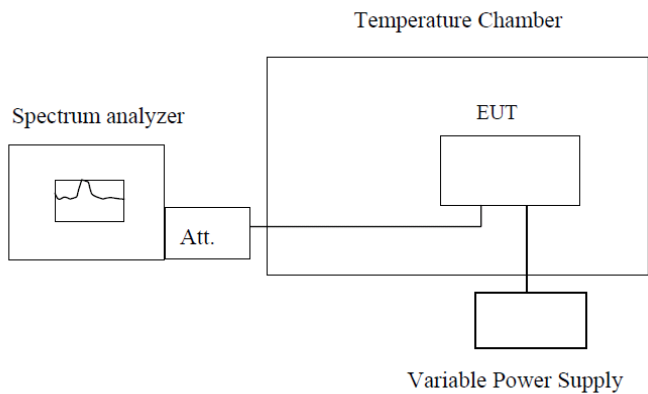
802.11ax(HE40)					Test Frequency: 5795MHz			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
11590	59.8	39.22	8.77	36.28	48.09	68.2	-20.11	Horizontal
17385	61.41	41.78	11.51	36.26	44.38	68.2	-23.82	Horizontal
11590	55.75	39.22	8.77	36.28	44.04	68.2	-24.16	Vertical
17385	63.21	41.78	11.51	36.26	46.18	68.2	-22.02	Vertical

802.11ax(HE80)					Test Frequency: 5775MHz			
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
11550	53.37	39.34	8.76	36.29	41.56	68.2	-26.64	Horizontal
17325	64.85	41.52	11.45	36.26	48.14	68.2	-20.06	Horizontal
11550	54.88	39.34	8.76	36.29	43.07	68.2	-25.13	Vertical
17325	61.25	41.52	11.45	36.26	44.54	68.2	-23.66	Vertical

Notes:

1. Level = Read Level + Antenna Factor+ Cable loss- Preamp Factor.
2. The test trace is same as the ambient noise (the test frequency range: 18GHz~40GHz), therefore no data appear in the report.
3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

7.7 Frequency stability

Test Requirement:	FCC Part15 C Section 15.407(g)
Test Method:	ANSI C63.10:2013, FCC Part 2.1055
Limit:	Manufactures 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
Test Procedure:	The EUT was setup to ANSI C63.4, 2003; tested to 2.1055 for compliance to FCC Part 15.407(g) requirements.
Test setup:	 Note : Measurement setup for testing on Antenna connector
Test Instruments:	Refer to section 5.10 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement data:

Frequency stability versus Temp.													
Worst Case Operating Frequency: 5745MHz													
Temp. (°C)	Power Supply(VDC)	0 minute			2 minute			5 minute			10 minute		
		Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F
-30	3.3	5745.0082	1.43	P	5745.0176	3.06	P	5745.0151	2.63	P	5745.0084	1.46	P
-20	3.3	5744.9935	-1.13	P	5744.9895	-1.83	P	5744.984	-2.79	P	5744.9883	-2.04	P
-10	3.3	5744.9824	-3.06	P	5744.973	-4.7	P	5744.9731	-4.68	P	5744.9808	-3.34	P
0	3.3	5745.0208	3.62	P	5745.021	3.66	P	5745.0213	3.71	P	5745.0283	4.93	P
10	3.3	5744.9539	-8.02	P	5744.9493	-8.83	P	5744.9545	-7.92	P	5744.9512	-8.49	P
20	3.3	5744.9454	-9.5	P	5744.9444	-9.68	P	5744.9461	-9.38	P	5744.9453	-9.52	P
30	3.3	5745.0191	3.32	P	5745.0244	4.25	P	5745.0209	3.64	P	5745.0256	4.46	P
40	3.3	5745.0104	1.81	P	5745.0047	0.82	P	5745.0045	0.78	P	5745.0036	0.63	P
50	3.3	5744.9798	-3.52	P	5744.9804	-3.41	P	5744.9813	-3.26	P	5744.9732	-4.66	P
Frequency stability versus Voltage.													
Worst Case Operating Frequency: 5745MHz													
Temp. (°C)	Power Supply(VDC)	0 minute			2 minute			5 minute			10 minute		
		Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F
25	2.805	5745.0155	2.7	P	5745.0203	3.53	P	5745.0178	3.1	P	5745.0156	2.72	P
25	3.3	5744.9926	-1.29	P	5744.9926	-1.29	P	5744.9939	-1.06	P	5744.9856	-2.51	P
25	3.795	5744.9763	-4.13	P	5744.9737	-4.58	P	5744.9787	-3.71	P	5744.9794	-3.59	P

Frequency stability versus Temp.

Worst Case Operating Frequency: 5785MHz

Temp. (°C)	Power Supply(VDC)	0 minute			2 minute			5 minute			10 minute		
		Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F
-30	3.3	5785.0061	1.05	P	5785.0116	2.01	P	5785.0081	1.4	P	5785.0171	2.96	P
-20	3.3	5784.991	-1.56	P	5784.9879	-2.09	P	5784.9855	-2.51	P	5784.994	-1.04	P
-10	3.3	5784.9789	-3.65	P	5784.9726	-4.74	P	5784.9782	-3.77	P	5784.9739	-4.51	P
0	3.3	5785.0189	3.27	P	5785.0286	4.94	P	5785.019	3.28	P	5785.018	3.11	P
10	3.3	5784.9544	-7.88	P	5784.9568	-7.47	P	5784.9538	-7.99	P	5784.9526	-8.19	P
20	3.3	5784.9466	-9.23	P	5784.9437	-9.73	P	5784.9424	-9.96	P	5784.9443	-9.63	P
30	3.3	5785.0278	4.81	P	5785.0239	4.13	P	5785.0275	4.75	P	5785.0268	4.63	P
40	3.3	5785.0019	0.33	P	5784.9975	-0.43	P	5784.9959	-0.71	P	5785.0038	0.66	P
50	3.3	5784.9778	-3.84	P	5784.9795	-3.54	P	5784.9755	-4.24	P	5784.9811	-3.27	P

Frequency stability versus Voltage.

Worst Case Operating Frequency: 5785MHz

Temp. (°C)	Power Supply(VDC)	0 minute			2 minute			5 minute			10 minute		
		Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F
25	2.805	5784.9744	-4.43	P	5784.9712	-4.98	P	5784.9711	-5	P	5784.9736	-4.56	P
25	3.3	5785.0253	4.37	P	5785.0224	3.87	P	5785.0187	3.23	P	5785.0182	3.15	P
25	3.795	5785.0038	0.66	P	5785.0049	0.85	P	5784.9969	-0.54	P	5785.0048	0.83	P

Frequency stability versus Temp.

Worst Case Operating Frequency: 5825MHz

Temp. (°C)	Power Supply(VDC)	0 minute			2 minute			5 minute			10 minute		
		Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F
-30	3.3	5825.0154	2.64	P	5825.0255	4.38	P	5825.0252	4.33	P	5825.0233	4	P
-20	3.3	5824.9882	-2.03	P	5824.9917	-1.42	P	5824.9887	-1.94	P	5824.9883	-2.01	P
-10	3.3	5824.9726	-4.7	P	5824.9818	-3.12	P	5824.9729	-4.65	P	5824.9729	-4.65	P
0	3.3	5825.0286	4.91	P	5825.0278	4.77	P	5825.025	4.29	P	5825.0228	3.91	P
10	3.3	5824.95	-8.58	P	5824.9579	-7.23	P	5824.9519	-8.26	P	5824.959	-7.04	P
20	3.3	5824.9434	-9.72	P	5824.9443	-9.56	P	5824.9426	-9.85	P	5824.9427	-9.84	P
30	3.3	5825.0183	3.14	P	5825.0276	4.74	P	5825.0176	3.02	P	5825.018	3.09	P
40	3.3	5825.0096	1.65	P	5824.998	-0.34	P	5825.0073	1.25	P	5824.998	-0.34	P
50	3.3	5824.9766	-4.02	P	5824.9819	-3.11	P	5824.9747	-4.34	P	5824.9733	-4.58	P

Frequency stability versus Voltage.

Worst Case Operating Frequency: 5825MHz

Temp. (°C)	Power Supply(VDC)	0 minute			2 minute			5 minute			10 minute		
		Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F
25	2.805	5824.9853	-2.52	P	5824.9747	-4.34	P	5824.9811	-3.24	P	5824.9869	-2.25	P
25	3.3	5825.0248	4.26	P	5825.0262	4.5	P	5825.0232	3.98	P	5825.0279	4.79	P
25	3.795	5824.9967	-0.57	P	5824.9948	-0.89	P	5825.0017	0.29	P	5824.999	-0.17	P

Frequency stability versus Temp.

Worst Case Operating Frequency: 5755MHz

Temp. (°C)	Power Supply(VDC)	0 minute			2 minute			5 minute			10 minute		
		Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F
-30	3.3	5755.0208	3.61	P	5755.0232	4.03	P	5755.0169	2.94	P	5755.0285	4.95	P
-20	3.3	5754.9847	-2.66	P	5754.9845	-2.69	P	5754.9892	-1.88	P	5754.988	-2.09	P
-10	3.3	5754.9759	-4.19	P	5754.9788	-3.68	P	5754.9715	-4.95	P	5754.9774	-3.93	P
0	3.3	5755.0175	3.04	P	5755.0174	3.02	P	5755.0223	3.87	P	5755.0244	4.24	P
10	3.3	5754.9582	-7.26	P	5754.9596	-7.02	P	5754.9493	-8.81	P	5754.9559	-7.66	P
20	3.3	5754.9449	-9.57	P	5754.9452	-9.52	P	5754.9466	-9.28	P	5754.9425	-9.99	P
30	3.3	5755.0194	3.37	P	5755.025	4.34	P	5755.0239	4.15	P	5755.0224	3.89	P
40	3.3	5754.9993	-0.12	P	5754.9993	-0.12	P	5755.0025	0.43	P	5754.9981	-0.33	P
50	3.3	5754.9807	-3.35	P	5754.9785	-3.74	P	5754.979	-3.65	P	5754.9814	-3.23	P

Frequency stability versus Voltage.

Worst Case Operating Frequency: 5755MHz

Temp. (°C)	Power Supply(VDC)	0 minute			2 minute			5 minute			10 minute		
		Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F
25	2.805	5754.9774	-3.93	P	5754.9817	-3.18	P	5754.9744	-4.45	P	5754.9793	-3.6	P
25	3.3	5755.019	3.3	P	5755.0242	4.21	P	5755.021	3.65	P	5755.0265	4.6	P
25	3.795	5755.0075	1.3	P	5754.996	-0.7	P	5754.9974	-0.45	P	5755.002	0.35	P

Frequency stability versus Temp.

Worst Case Operating Frequency: 5795MHz

Temp. (°C)	Power Supply(VDC)	0 minute			2 minute			5 minute			10 minute		
		Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F
-30	3.3	5795.0173	2.99	P	5795.0234	4.04	P	5795.015	2.59	P	5795.0162	2.8	P
-20	3.3	5794.9867	-2.3	P	5794.9881	-2.05	P	5794.9924	-1.31	P	5794.9882	-2.04	P
-10	3.3	5794.9717	-4.88	P	5794.9795	-3.54	P	5794.9804	-3.38	P	5794.9777	-3.85	P
0	3.3	5795.0255	4.4	P	5795.0177	3.05	P	5795.0246	4.25	P	5795.0194	3.35	P
10	3.3	5794.9592	-7.04	P	5794.9578	-7.28	P	5794.9567	-7.47	P	5794.9487	-8.85	P
20	3.3	5794.9448	-9.53	P	5794.9452	-9.46	P	5794.9473	-9.09	P	5794.9445	-9.58	P
30	3.3	5795.0187	3.23	P	5795.0257	4.43	P	5795.0283	4.88	P	5795.0283	4.88	P
40	3.3	5795.0096	1.66	P	5795.0013	0.22	P	5795.0076	1.31	P	5794.9968	-0.55	P
50	3.3	5794.9756	-4.21	P	5794.9769	-3.99	P	5794.9783	-3.74	P	5794.9737	-4.54	P

Frequency stability versus Voltage.

Worst Case Operating Frequency: 5795MHz

Temp. (°C)	Power Supply(VDC)	0 minute			2 minute			5 minute			10 minute		
		Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F
25	2.805	5794.9748	-4.35	P	5794.9843	-2.71	P	5794.9777	-3.85	P	5794.9713	-4.95	P
25	3.3	5795.0241	4.16	P	5795.0217	3.74	P	5795.0196	3.38	P	5795.0249	4.3	P
25	3.795	5794.9997	-0.05	P	5795.0037	0.64	P	5795.0058	1	P	5795.0061	1.05	P

Frequency stability versus Temp.

Worst Case Operating Frequency: 5775MHz

Temp. (°C)	Power Supply(VDC)	0 minute			2 minute			5 minute			10 minute		
		Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F
-30	3.3	5775.0198	3.43	P	5775.0273	4.73	P	5775.0215	3.72	P	5775.0134	2.32	P
-20	3.3	5774.9831	-2.93	P	5774.9855	-2.51	P	5774.9894	-1.84	P	5774.9895	-1.82	P
-10	3.3	5774.9784	-3.74	P	5774.9721	-4.83	P	5774.9786	-3.71	P	5774.9823	-3.06	P
0	3.3	5775.0186	3.22	P	5775.0178	3.08	P	5775.0225	3.9	P	5775.022	3.81	P
10	3.3	5774.9588	-7.13	P	5774.9563	-7.57	P	5774.9543	-7.91	P	5774.9594	-7.03	P
20	3.3	5774.9467	-9.23	P	5774.9479	-9.02	P	5774.9469	-9.19	P	5774.9427	-9.92	P
30	3.3	5775.0234	4.05	P	5775.0278	4.81	P	5775.0184	3.19	P	5775.0218	3.77	P
40	3.3	5775.0049	0.85	P	5774.9975	-0.43	P	5775.0005	0.09	P	5774.9949	-0.88	P
50	3.3	5774.9813	-3.24	P	5774.972	-4.85	P	5774.9738	-4.54	P	5774.9772	-3.95	P

Frequency stability versus Voltage.

Worst Case Operating Frequency: 5775MHz

Temp. (°C)	Power Supply(VDC)	0 minute			2 minute			5 minute			10 minute		
		Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F
25	2.805	5774.9717	-4.9	P	5774.9738	-4.54	P	5774.9725	-4.76	P	5774.9712	-4.99	P
25	3.3	5775.0203	3.52	P	5775.0215	3.72	P	5775.0265	4.59	P	5775.0185	3.2	P
25	3.795	5774.9987	-0.23	P	5775.0105	1.82	P	5775.0067	1.16	P	5774.9971	-0.5	P

Note: P for PASS and F for Fail.

8 Test Setup Photo

Reference to the **appendix I** for details.

9 EUT Constructional Details

Reference to the **appendix II** for details.

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