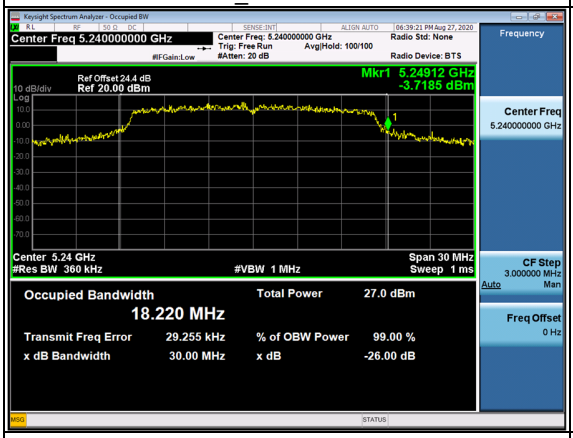
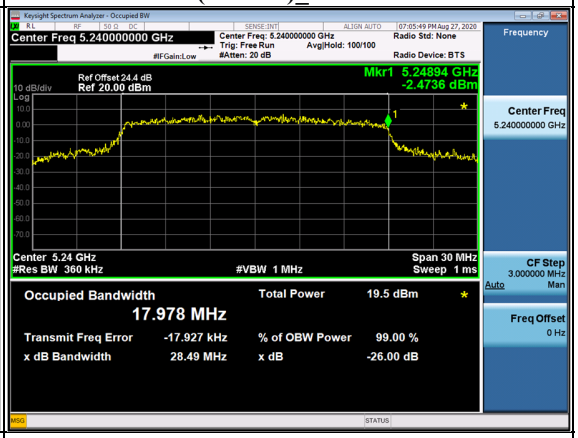
Spectrum Plot for near by DFS band (DFS is required, if 99% OCP straddle into U-NII-2A band)	
802.11a_Chain 1 / CH48	**802.11ac (VHT20)_Chain 1 / CH48**
	
802.11ac (VHT40)_Chain 1 / CH46	**802.11ac (VHT80)_Chain 1 / CH42**
	

Beamforming Mode

802.11ac (VHT20)

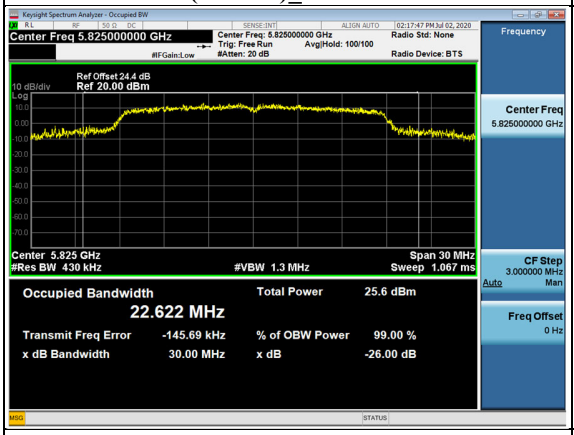
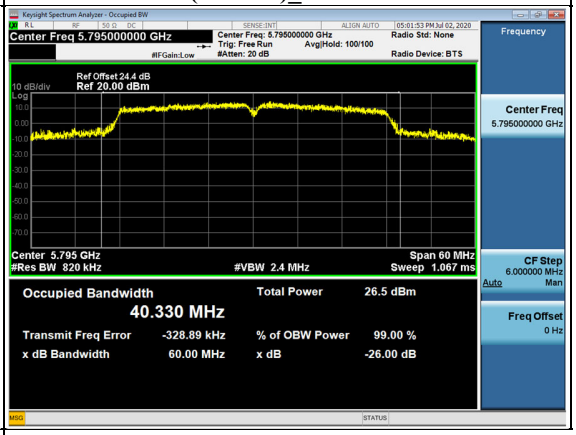
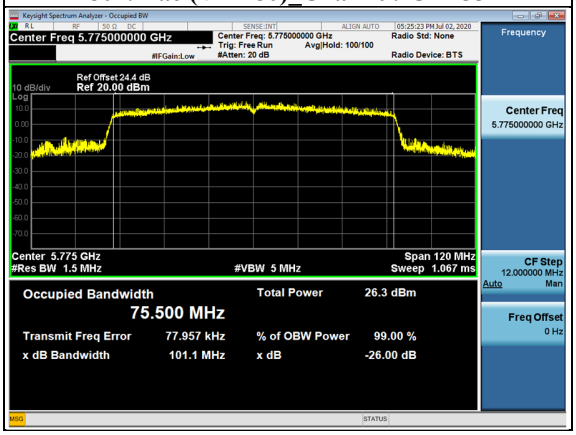
Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)	
		CHAIN 0	CHAIN 1
36	5180	17.652	17.629
44	5220	17.886	17.845
48	5240	17.812	17.737
149	5745	18.623	17.877
157	5785	22.017	18.063
165	5825	22.622	17.817

802.11ac (VHT40)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)	
		CHAIN 0	CHAIN 1
38	5190	35.973	35.992
46	5230	36.196	36.087
151	5755	36.669	36.413
159	5795	40.33	36.461

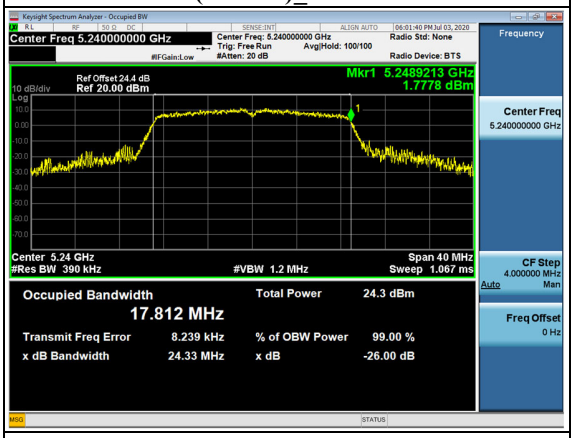
802.11ac (VHT80)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)	
		CHAIN 0	CHAIN 1
42	5210	75.247	75.113
155	5775	75.5	75.282

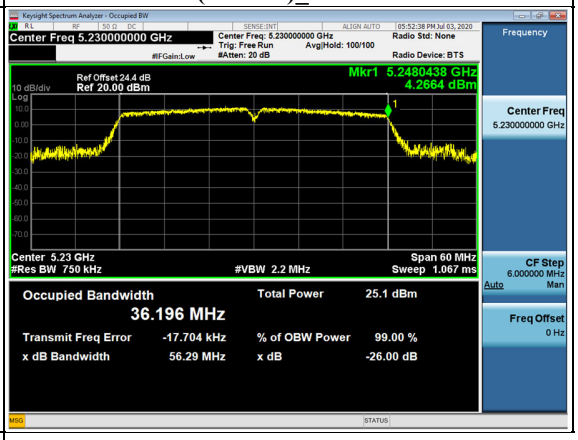
Spectrum Plot of Worst Value	
802.11ac (VHT20)_Chain 0 / CH165	**802.11ac (VHT40)_Chain 0 / CH159**
	
802.11ac (VHT80)_Chain 0 / CH155	
	

Spectrum Plot for near by DFS band
(DFS is required, if 99% OCP straddle into U-NII-2A band)

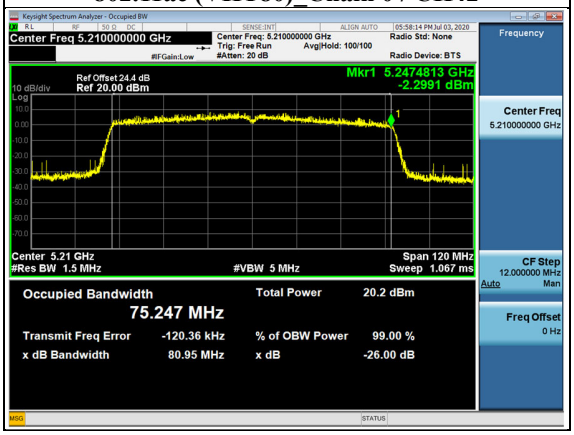
802.11ac (VHT20)_Chain 0 / CH48

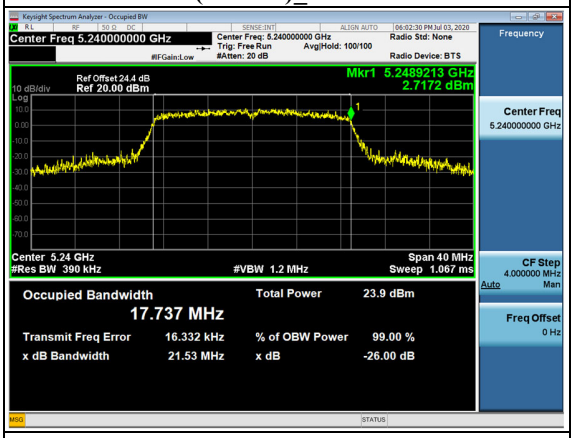
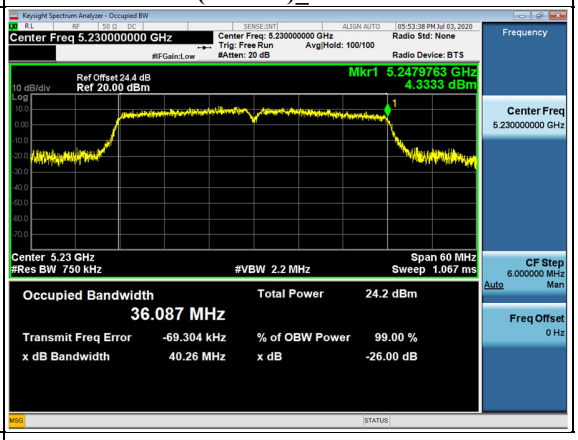
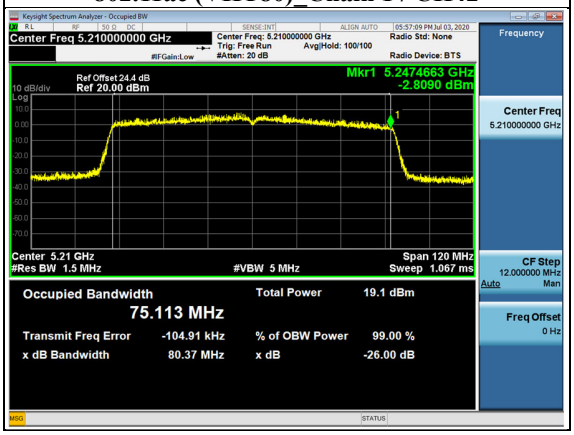


802.11ac (VHT40)_Chain 0 / CH46



802.11ac (VHT80)_Chain 0 / CH42



Spectrum Plot for near by DFS band (DFS is required, if 99% OCP straddle into U-NII-2A band)	
802.11ac (VHT20)_Chain 1 / CH48	**802.11ac (VHT40)_Chain 1 / CH46**
	
802.11ac (VHT80)_Chain 1 / CH42	
	

9.4. Conducted output power

Requirements

Operation Band	EUT Category		Limit
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) Max. e.i.r.p ≦ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6)
		Fixed point-to-point Access Point	1 Watt (30 dBm) If G_{TX} > 23 dBi, then P_{Out} = 30 – (G_{TX} – 23)
	√	Indoor Access Point	1 Watt (30 dBm) If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6)
		Client device	250mW (24 dBm) If G_{TX} > 6 dBi, then P_{Out} = 24 – (G_{TX} – 6)
U-NII-3	---		For Point-to-multipoint systems (P2M): 1 Watt (30 dBm). If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6) For Point-to-point systems (P2P): 1 Watt (30 dBm)

Note:
1. P_{Out} = maximum conducted output power in dBm,
2. G_{TX} = the maximum transmitting antenna directional gain in dBi.
3. Directional Gain = 10 log[($10^{G1/20}$ + $10^{G2/20}$ +...+$10^{Gn/20}$)^2 / Nant] dBi.

   Nant: Number of Transmit Antennas
   G1, G2,..., Gn: Gain of Individual Antennas
4. B is the 26 dB emission bandwidth in megahertz

Per KDB 662911 Method of conducted output power measurement on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

For power measurements on all other devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

Test Procedure

Test method PM-G

For 802.11a, 802.11ac (VHT20), 802.11ac (VHT40)

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst and set the detector to AVERAGE. Duty factor is not added to measured value.

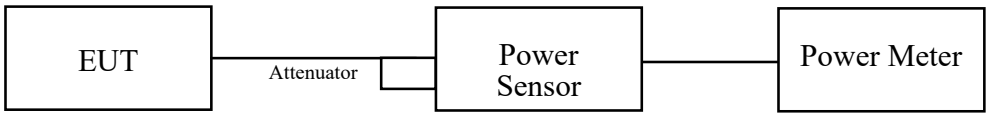
Test method SA-1

For 802.11ac (VHT80)

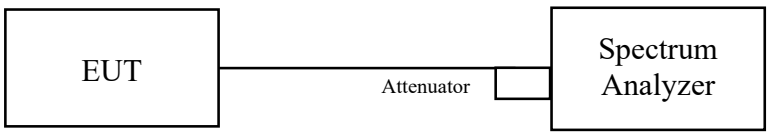
a. Set span to encompass the entire 26 dB EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
b. Set sweep trigger*.
c. Set RBW = 1 MHz.
d. Set VBW ≥ 3 MHz
e. Number of points in sweep ≥ 2 Span / RBW.
f. Sweep time ≤ (number of points in sweep) * T
g. Using emission bandwidth to determine the frequency span for integration the channel bandwidth.
h. Detector = RMS.
i. Trace mode = max hold.
j. Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.

* If transmit duty cycle < 98%, use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle ≥ 98%, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run."

Test Setup



The loss between RF output port of the EUT and the input port of the Power Meter has been taken into consideration.



The loss between RF output port of the EUT and the input port of the Spectrum Analyzer has been taken into consideration.

Test Data

Non-Beamforming Mode

802.11a

CHAN.	FREQ. (MHz)	MAXIMUM CONDUCTED POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		chain 0	chain 1				
36	5180	17.55	17.44	112.348	20.51	30	PASS
44	5220	21.9	22.01	313.737	24.97	30	PASS
48	5240	22.62	22.51	361.048	25.58	30	PASS
149	5745	20.57	21.39	251.746	24.01	30	PASS
157	5785	20.55	21.51	255.08	24.07	30	PASS
165	5825	20.53	21.51	254.559	24.06	30	PASS

NOTE: Directional gain = 3.9 dBi < 6 dBi, so the limit no need to reduced.

802.11ac (VHT20)

CHAN.	FREQ. (MHz)	MAXIMUM CONDUCTED POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		chain 0	chain 1				
36	5180	15.48	15.53	71.045	18.52	30	PASS
44	5220	21.62	21.79	296.219	24.72	30	PASS
48	5240	22.01	21.89	313.38	24.96	30	PASS
149	5745	20.74	21.3	253.473	24.04	30	PASS
157	5785	21.24	22.03	292.633	24.66	30	PASS
165	5825	20.66	21.45	256.05	24.08	30	PASS

NOTE: Directional gain = 3.9 dBi < 6 dBi, so the limit no need to reduced.

802.11ac (VHT40)

CHAN.	FREQ. (MHz)	MAXIMUM CONDUCTED POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		chain 0	chain 1				
38	5190	13.87	14.39	51.857	17.15	30	PASS
46	5230	20.03	19.96	199.776	23.01	30	PASS
151	5755	20.28	20.85	228.279	23.58	30	PASS
159	5795	20.53	21.17	243.898	23.87	30	PASS

NOTE: Directional gain = 3.9 dBi < 6 dBi, so the limit no need to reduced.

802.11ac (VHT80)

CHAN.	CHAN. FREQ. (MHz)	MAXIMUM CONDUCTED POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		chain 0	chain 1				
42	5210	13.00	12.69	38.531	15.86	30	PASS
155	5775	19.46	19.02	168.107	22.26	30	PASS

NOTE: Directional gain = 3.9 dBi < 6 dBi, so the limit no need to reduced.

Beamforming Mode

802.11ac (VHT20)

CHAN.	FREQ. (MHz)	MAXIMUM CONDUCTED POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		chain 0	chain 1				
36	5180	14.9	14.64	60.01	17.78	29.09	PASS
44	5220	18.29	18.22	133.827	21.27	29.09	PASS
48	5240	12.51	13.41	39.752	15.99	29.09	PASS
149	5745	20.77	20.18	223.631	23.50	29.09	PASS
157	5785	19.22	18.68	157.35	21.97	29.09	PASS
165	5825	19.24	18.72	158.419	22.00	29.09	PASS

NOTE: Directional gain = 6.91 dBi > 6 dBi, so the limit shall be reduced.

802.11ac (VHT40)

CHAN.	FREQ. (MHz)	MAXIMUM CONDUCTED POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		chain 0	chain 1				
38	5190	12.26	11.60	31.281	14.95	29.09	PASS
46	5230	17.19	18.15	117.673	20.71	29.09	PASS
151	5755	20.03	20.72	218.725	23.40	29.09	PASS
159	5795	19.93	20.79	218.351	23.39	29.09	PASS

NOTE: Directional gain = 6.91 dBi > 6 dBi, so the limit shall be reduced.

802.11ac (VHT80)

CHAN.	CHAN. FREQ. (MHz)	MAXIMUM CONDUCTED POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		chain 0	chain 1				
42	5210	11.05	11.18	25.857	14.13	29.09	PASS
155	5775	19.57	18.15	155.886	21.93	29.09	PASS

NOTE: Directional gain = 6.91 dBi > 6 dBi, so the limit shall be reduced.

9.5. Power Spectral Density

Requirements

Operation Band	EUT Category		Limit
U-NII-1		Outdoor Access Point	17dBm/ MHz If G_{TX} > 6 dBi, then PSD = 17 – (G_{TX} – 6)
		Fixed point-to-point Access Point	17dBm/ MHz If G_{TX} > 23 dBi, then PSD = 17 – (G_{TX} – 23)
	√	Indoor Access Point	17dBm/ MHz If G_{TX} > 6 dBi, then PSD = 17 – (G_{TX} – 6)
		Client device	11dBm/ MHz If G_{TX} > 6 dBi, then PSD = 11 – (G_{TX} – 6)
U-NII-3	---		For Point-to-multipoint systems (P2M): 30dBm/ 500kHz. If G_{TX} > 6 dBi, then PSD = 30 – (G_{TX} – 6) For Point-to-point systems (P2P): 30dBm/ 500kHz

Note:
1. PSD = power spectral density that he same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz
2. G_{TX} = the maximum transmitting antenna directional gain in dBi.
3. Directional Gain = 10 log[($10^{G1/20}$ + $10^{G2/20}$ +...+$10^{Gn/20}$)^2 / Nant] dBi.

   Nant: Number of Transmit Antennas
   G1, G2,..., Gn: Gain of Individual Antennas

Test procedure

For U-NII-1 band:

Non-Beamforming Mode

Using method SA-2_with Duty cycle <98 %

a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
b. Set RBW = 1 MHz, Set VBW ≥ 3 RBW, Detector = RMS
c. Sweep time = auto, trigger set to “free run”.
d. Trace average at least 100 traces in power averaging mode.
e. Record the max value and add 10 log (1/duty cycle)

Beamforming Mode

Using method SA-2_with Duty cycle <98 %

a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
b. Set RBW = 1 MHz, Set VBW ≥ 3 RBW, Detector = RMS
c. Sweep time = auto, trigger set to “free run”.
d. Trace average at least 100 traces in power averaging mode.
e. Record the max value and add 10 log (1/duty cycle)

For U-NII-3 band:

Non-Beamforming Mode

with Duty cycle <98 %

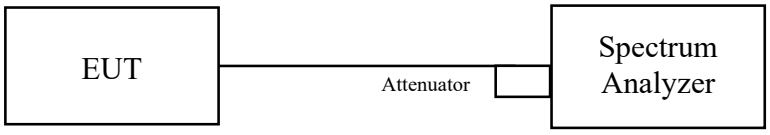
a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
b. Set RBW = 300 kHz, Set VBW ≥ 1 MHz, Detector = RMS
c. Use the peak marker function to determine the maximum power level in any 300 kHz band segment within the fundamental EBW.
d. Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(500 kHz/300kHz)
e. Sweep time = auto, trigger set to "free run".
f. Trace average at least 100 traces in power averaging mode.
g. Record the max value and add 10 log (1/duty cycle)

Beamforming Mode

with Duty cycle <98 %

a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
b. Set RBW = 300 kHz, Set VBW ≥ 1 MHz, Detector = RMS
c. Use the peak marker function to determine the maximum power level in any 300 kHz band segment within the fundamental EBW.
d. Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(500 kHz/300kHz)
e. Sweep time = auto, trigger set to "free run".
f. Trace average at least 100 traces in power averaging mode.
g. Record the max value and add 10 log (1/duty cycle)

Test Setup



The loss between RF output port of the EUT and the input port of the Spectrum Analyzer has been taken into consideration.

Test Data

For U-NII-1 band

Non-Beamforming Mode

802.11a

CHAN.	FREQ. (MHz)	PSD (dBm)		TOTAL PSD with duty factor (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
36	5180	7.705	7.609	10.82	16.09	PASS
44	5220	9.615	11.292	13.70	16.09	PASS
48	5240	8.978	9.638	12.49	16.09	PASS

Note:

1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 6.91 dBi > 6 dBi , so the limit shall be reduced.
3. Refer to section 6.6 for duty cycle spectrum plot.

802.11ac (VHT20)

CHAN.	FREQ. (MHz)	PSD (dBm)		TOTAL PSD with duty factor (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
36	5180	4.248	4.43	7.67	16.09	PASS
44	5220	9.182	11.273	13.68	16.09	PASS
48	5240	4.688	4.805	8.08	16.09	PASS

Note:

1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 6.91 dBi > 6 dBi , so the limit shall be reduced.
3. Refer to section 6.6 for duty cycle spectrum plot.

802.11ac (VHT40)

CHAN.	FREQ. (MHz)	PSD (dBm)		TOTAL PSD with duty factor (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
38	5190	1.134	1.239	4.79	16.09	PASS
46	5230	5.781	6.786	9.91	16.09	PASS

Note:

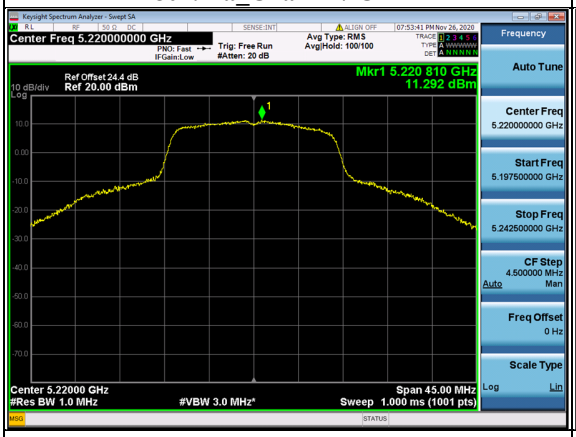
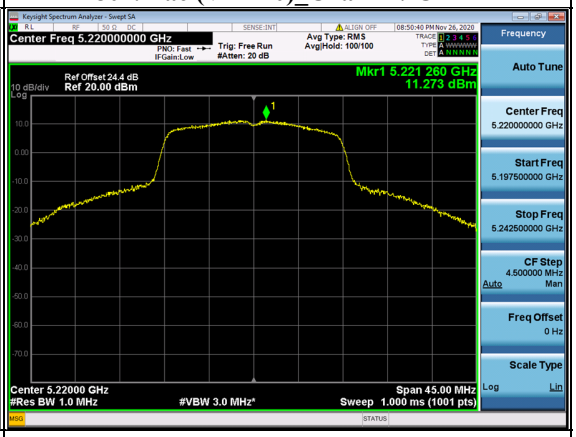
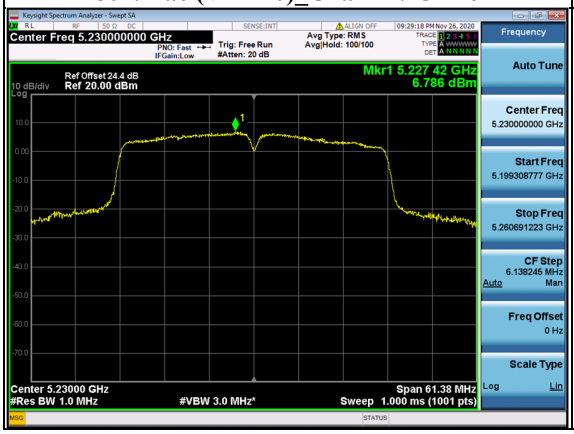
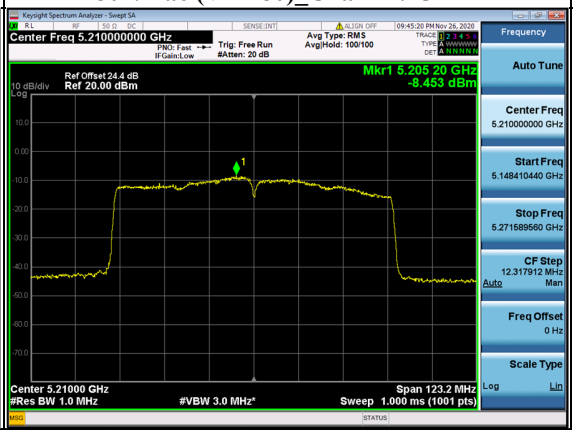
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 6.91 dBi > 6 dBi , so the limit shall be reduced.
3. Refer to section 6.6 for duty cycle spectrum plot.

802.11ac (VHT80)

CHAN.	FREQ. (MHz)	PSD (dBm)		TOTAL PSD with duty factor (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
42	5210	-9.601	-8.453	-4.94	16.09	PASS

Note:

1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 6.91 dBi > 6 dBi , so the limit shall be reduced.
3. Refer to section 6.6 for duty cycle spectrum plot.

Spectrum Plot of Worst Value	
802.11a_Chain 1 / CH44	**802.11ac (VHT20)_Chain 1 / CH44**
	
802.11ac (VHT40)_Chain 1 / CH46	**802.11ac (VHT80)_Chain 1 / CH42**
	

Beamforming Mode

802.11ac (VHT20)

CHAN.	FREQ. (MHz)	PSD (dBm)		TOTAL PSD with duty factor (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
36	5180	6.683	6.334	9.84	16.09	PASS
44	5220	8.675	9.012	12.17	16.09	PASS
48	5240	5.858	5.956	9.23	16.09	PASS

Note:

1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 6.91 dBi > 6 dBi , so the limit shall be reduced.
3. Refer to section 6.6 for duty cycle spectrum plot.

802.11ac (VHT40)

CHAN.	FREQ. (MHz)	PSD (dBm)		TOTAL PSD with duty factor (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
38	5190	-1.170	-1.523	2.26	16.09	PASS
46	5230	2.619	2.419	6.13	16.09	PASS

Note:

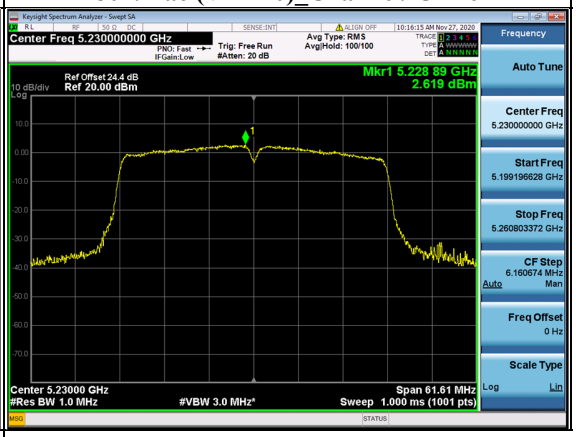
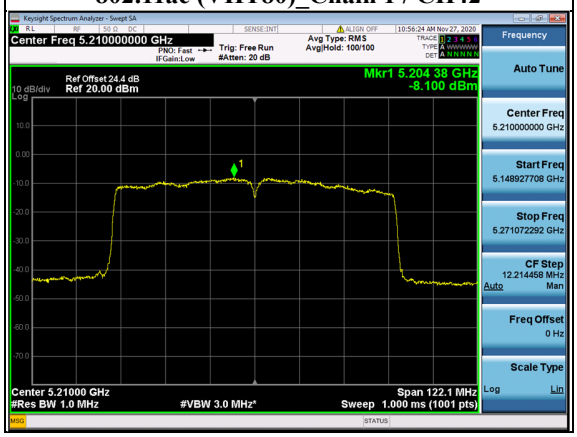
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 6.91 dBi > 6 dBi , so the limit shall be reduced.
3. Refer to section 6.6 for duty cycle spectrum plot.

802.11ac (VHT80)

CHAN.	FREQ. (MHz)	PSD (dBm)		TOTAL PSD with duty factor (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
42	5210	-8.304	-8.100	-4.16	16.09	PASS

Note:

1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 6.91 dBi > 6 dBi , so the limit shall be reduced.
3. Refer to section 6.6 for duty cycle spectrum plot.

Spectrum Plot of Worst Value	
802.11ac (VHT20)_Chain 1 / CH44	**802.11ac (VHT40)_Chain 0 / CH46**
	
802.11ac (VHT80)_Chain 1 / CH42	
	

For U-NII-3 Band

Non-Beamforming Mode

802.11a

TX Chain	Channel	Frequency (MHz)	PSD w/o BWCF (dBm/300 kHz)	10 * Log (500kHz/300 kHz)	PSD with BWCF (dBm/500 kHz)	10 log (N=2) dB	Total PSD with Duty Factor (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	149	5745	5.731	2.22	7.95	3.01	11.12	29.09	Pass
	157	5785	4.441	2.22	6.66	3.01	9.83	29.09	Pass
	165	5825	4.109	2.22	6.33	3.01	9.5	29.09	Pass
1	149	5745	5.108	2.22	7.33	3.01	10.5	29.09	Pass
	157	5785	5.208	2.22	7.43	3.01	10.6	29.09	Pass
	165	5825	5.283	2.22	7.50	3.01	10.67	29.09	Pass

Note:

1. Directional gain = 6.91 dBi > 6 dBi , so the limit shall be reduced.
2. Refer to section 6.6 for duty cycle spectrum plot.
3. Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(500 kHz/300kHz).
4. PSD with BWCF (dBm/500 kHz) = PSD with BWCF (dBm/300 kHz) + 10*Log (500/300)

802.11ac (VHT20)

TX Chain	Channel	Frequency (MHz)	PSD w/o BWCF (dBm/300 kHz)	10 * Log (500kHz/300 kHz)	PSD with BWCF (dBm/500 kHz)	10 log (N=2) dB	Total PSD with Duty Factor (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	149	5745	5.449	2.22	7.67	3.01	11.00	29.09	Pass
	157	5785	4.673	2.22	6.89	3.01	10.22	29.09	Pass
	165	5825	3.805	2.22	6.03	3.01	9.36	29.09	Pass
1	149	5745	5.569	2.22	7.79	3.01	11.12	29.09	Pass
	157	5785	5.355	2.22	7.58	3.01	10.91	29.09	Pass
	165	5825	4.939	2.22	7.16	3.01	10.49	29.09	Pass

Note:

1. Directional gain = 6.91 dBi > 6 dBi , so the limit shall be reduced.
2. Refer to section 6.6 for duty cycle spectrum plot.
3. Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(500 kHz/300kHz).

802.11ac (VHT40)

TX Chain	Channel	Frequency (MHz)	PSD w/o BWCF (dBm/300 kHz)	10 * Log (500kHz/300 kHz)	PSD with BWCF (dBm/500 kHz)	10 log (N=2) dB	Total PSD with Duty Factor (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	151	5755	1.508	2.22	3.73	3.01	7.33	29.09	Pass
	159	5795	1.17	2.22	3.39	3.01	6.99	29.09	Pass
1	151	5755	2.021	2.22	4.24	3.01	7.84	29.09	Pass
	159	5795	1.793	2.22	4.01	3.01	7.61	29.09	Pass

Note:

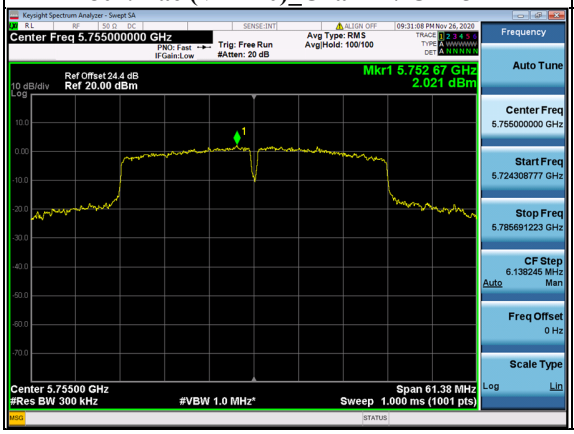
1. Directional gain = 6.91 dBi > 6 dBi , so the limit shall be reduced.
2. Refer to section 6.6 for duty cycle spectrum plot.
3. Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(500 kHz/300kHz).

802.11ac (VHT80)

TX Chain	Channel	Frequency (MHz)	PSD w/o BWCF (dBm/300 kHz)	10 * Log (500kHz/300 kHz)	PSD with BWCF (dBm/500 kHz)	10 log (N=2) dB	Total PSD with Duty Factor (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	155	5775	-1.957	2.22	0.26	3.01	4.31	29.09	Pass
1	155	5775	-1.21	2.22	1.01	3.01	5.06	29.09	Pass

Note:

1. Directional gain = 6.91 dBi > 6 dBi , so the limit shall be reduced.
2. Refer to section 6.6 for duty cycle spectrum plot.
3. Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(500 kHz/300kHz).

Spectrum Plot of Worst Value	
802.11a_Chain 0 / CH149	**802.11ac (VHT20)_Chain 1 / CH149**
	
802.11ac (VHT40)_Chain 1 / CH151	**802.11ac (VHT80)_Chain 1 / CH155**
	

Beamforming Mode

802.11ac (VHT20)

TX Chain	Channel	Frequency (MHz)	PSD w/o BWCF (dBm/300 kHz)	10 * Log (500kHz/300 kHz)	PSD with BWCF (dBm/500 kHz)	10 log (N=2) dB	Total PSD with Duty Factor (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	149	5745	5.453	2.22	7.67	3.01	11.00	29.09	Pass
	157	5785	5.398	2.22	7.62	3.01	10.95	29.09	Pass
	165	5825	3.798	2.22	6.02	3.01	9.35	29.09	Pass
1	149	5745	5.970	2.22	8.19	3.01	11.52	29.09	Pass
	157	5785	5.367	2.22	7.59	3.01	10.92	29.09	Pass
	165	5825	4.289	2.22	6.51	3.01	9.84	29.09	Pass

Note:

1. Directional gain = 6.91 dBi > 6 dBi , so the limit shall be reduced.
2. Refer to section 6.6 for duty cycle spectrum plot.
3. Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(500 kHz/300kHz).

802.11ac (VHT40)

TX Chain	Channel	Frequency (MHz)	PSD w/o BWCF (dBm/300 kHz)	10 * Log (500kHz/300 kHz)	PSD with BWCF (dBm/500 kHz)	10 log (N=2) dB	Total PSD with Duty Factor (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	151	5755	-0.790	2.22	1.43	3.01	5.03	29.09	Pass
	159	5795	-0.475	2.22	1.75	3.01	5.35	29.09	Pass
1	151	5755	-0.572	2.22	1.65	3.01	5.25	29.09	Pass
	159	5795	1.809	2.22	4.03	3.01	7.63	29.09	Pass

Note:

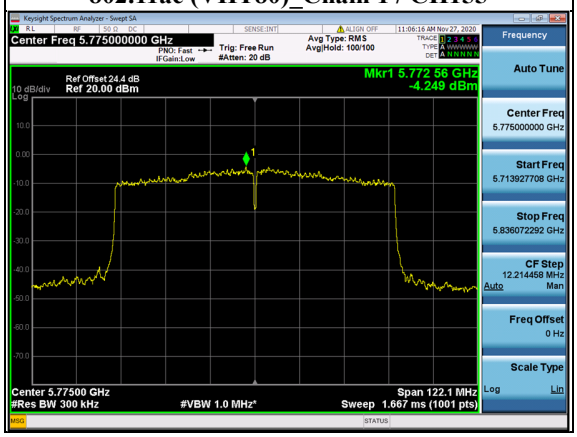
1. Directional gain = 6.91 dBi > 6 dBi , so the limit shall be reduced.
2. Refer to section 6.6 for duty cycle spectrum plot.
3. Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(500 kHz/300kHz).

802.11ac (VHT80)

TX Chain	Channel	Frequency (MHz)	PSD w/o BWCF (dBm/300 kHz)	10 * Log (500kHz/300 kHz)	PSD with BWCF (dBm/500 kHz)	10 log (N=2) dB	Total PSD with Duty Factor (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	155	5775	-4.658	2.22	-2.44	3.01	1.60	29.09	Pass
1	155	5775	-4.249	2.22	-2.03	3.01	2.01	29.09	Pass

Note:

1. Directional gain = 6.91 dBi > 6 dBi , so the limit shall be reduced.
2. Refer to section 6.6 for duty cycle spectrum plot.
3. Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(500 kHz/300kHz).

Spectrum Plot of Worst Value	
802.11ac (VHT20)_Chain 1 / CH149	**802.11ac (VHT40)_Chain 1 / CH159**
	
802.11ac (VHT80)_Chain 1 / CH155	
	

9.6. Frequency Stability

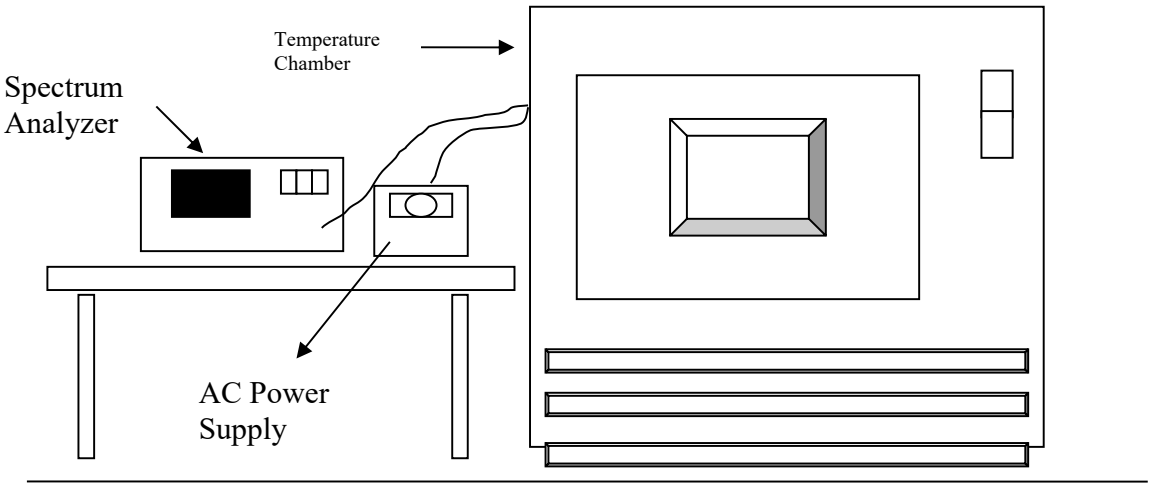
Requirements

The frequency of the carrier signal shall be maintained within band of operation.

Test procedure

a. The EUT was placed inside the environmental test chamber and powered by nominal AC 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, turn the EUT on and measure the operating frequency after 2, 5, and 10 Minutes.
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 Setup



Test Data

Non-Beamforming Mode

Frequency Stability Versus Temp.									
Operating Frequency: 5180 MHz									
TEMP. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Freq. Drift (ppm)	Measured Frequency (MHz)	Freq. Drift (ppm)	Measured Frequency (MHz)	Freq. Drift (ppm)	Measured Frequency (MHz)	Freq. Drift (ppm)
50	120	5180.022	4.25	5180.015	2.90	5180.001	0.19	5179.98	-3.86
40	120	5180.006	1.16	5179.985	-2.90	5179.996	-0.77	5179.989	-2.12
30	120	5180.012	2.32	5180.017	3.28	5180.005	0.97	5179.987	-2.51
20	120	5179.996	-0.77	5180.015	2.90	5179.994	-1.16	5179.984	-3.09
10	120	5180.015	2.90	5179.99	-1.93	5179.991	-1.74	5179.987	-2.51
0	120	5180.011	2.12	5179.995	-0.97	5179.996	-0.77	5180.023	4.44
-10	120	5180.01	1.93	5179.995	-0.97	5179.978	-4.25	5180.025	4.83
-20	120	5180.008	1.54	5180.004	0.77	5179.986	-2.70	5180.025	4.83
-30	120	5179.976	-4.63	5179.981	-3.67	5180.006	1.16	5180.012	2.32
TEMP. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Freq. Drift (ppm)	Measured Frequency (MHz)	Freq. Drift (ppm)	Measured Frequency (MHz)	Freq. Drift (ppm)	Measured Frequency (MHz)	Freq. Drift (ppm)
20	102	5180.001	0.19	5180.009	1.74	5179.986	-2.70	5179.994	-1.16
20	138	5179.999	-0.19	5180.019	3.67	5179.977	-4.44	5180.004	0.77

Beamforming Mode

Frequency Stability Versus Temp.									
Operating Frequency: 5180 MHz									
TEMP. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Freq. Drift (ppm)	Measured Frequency (MHz)	Freq. Drift (ppm)	Measured Frequency (MHz)	Freq. Drift (ppm)	Measured Frequency (MHz)	Freq. Drift (ppm)
50	120	5180.016	3.09	5179.993	-1.35	5179.99	-1.93	5180.073	14.06
40	120	5180.001	0.19	5180.017	3.28	5179.983	-3.28	5180.074	14.27
30	120	5179.98	-3.86	5180.014	2.70	5180.003	0.58	5179.983	-3.36
20	120	5180.011	2.12	5179.995	-0.97	5180.023	4.44	5180.051	9.81
10	120	5180.021	4.05	5179.992	-1.54	5179.981	-3.67	5180.008	1.47
0	120	5179.999	-0.19	5179.975	-4.83	5180.006	1.16	5179.922	-15.05
-10	120	5180.011	2.12	5180.016	3.09	5179.982	-3.47	5180.035	6.84
-20	120	5180.003	0.58	5179.979	-4.05	5179.998	-0.39	5179.921	-15.30
-30	120	5180.024	4.63	5180.006	1.16	5180.021	4.05	5179.958	-8.15
TEMP. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Freq. Drift (ppm)	Measured Frequency (MHz)	Freq. Drift (ppm)	Measured Frequency (MHz)	Freq. Drift (ppm)	Measured Frequency (MHz)	Freq. Drift (ppm)
20	102	5180.015	2.90	5180.012	2.32	5179.998	-0.39	5179.938	-11.89
20	138	5179.999	-0.19	5179.993	-1.35	5180.021	4.05	5179.972	-5.39

9.7. Radiated Spurious Emission

Requirements

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

Frequency(MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

NOTE:
1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

Limits of unwanted emission out of the restricted bands

Applicable To		Limit	
789033 D02 General UNII Test Procedure New Rules v02r01		Field Strength at 3m	
		PK:74 (dBμV/m)	AV:54 (dBμV/m)
Frequency Band	**Applicable To**	**EIRP Limit**	**Equivalent Field Strength at 3m**
5150~5250 MHz	15.407(b)(1)	PK:-27 (dBm/MHz)	PK:68.2(dBμV/m)
5725~5850 MHz	15.407(b)(4)(i)	PK:-27 (dBm/MHz) *1 PK:10 (dBm/MHz) *2 PK:15.6 (dBm/MHz) *3 PK:27 (dBm/MHz) *4	PK: 68.2(dBμV/m) *1 PK:105.2 (dBμV/m) *2 PK: 110.8(dBμV/m) *3 PK:122.2 (dBμV/m) *4
*1 beyond 75 MHz or more above of the band edge. *2 below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above. *3 below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above. *4 from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.			

Note:
The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$E = \frac{1000000\sqrt{30P}}{3}$ μV/m, where P is the eirp (Watts).

Test Procedures

[For 9 kHz ~ 30 MHz]

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
e. For measurement below 30MHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

NOTE:
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

[For above 30 MHz]

a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. The height of antenna 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.
d. 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 table was turned from 0 degrees to 360 degrees to find the maximum reading.
e. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
f. The test-receiver system was set to peak and average detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

a. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.

b. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.

c. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz.

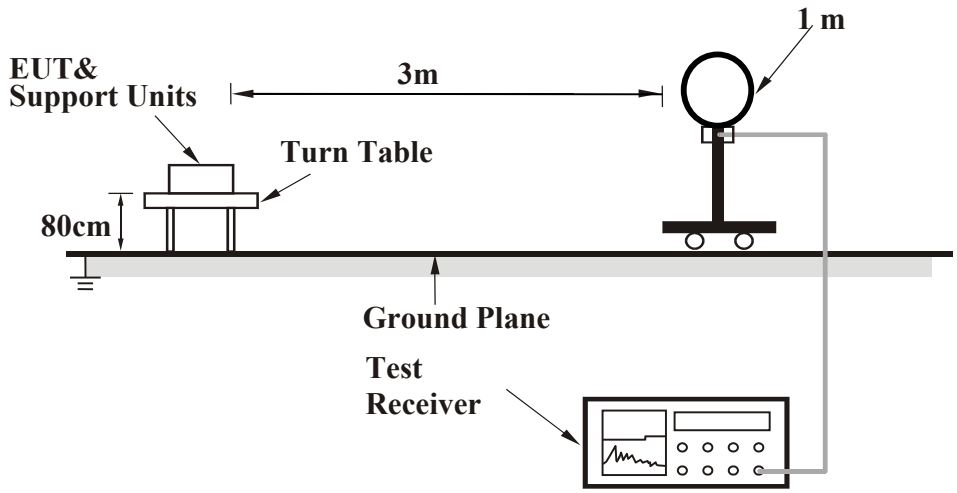
Configuration	Non-Beamforming Mode		Beamforming Mode	
	Average		Average	
	RBW	VBW	RBW	VBW
802.11a	1MHz	1 kHz	1MHz	-
802.11ac (VHT20)		2 kHz		2 kHz
802.11ac (VHT40)		3 kHz		3 kHz
802.11ac (VHT80)		6 kHz		6 kHz

Note: Refer to section 6.6 for duty cycle.

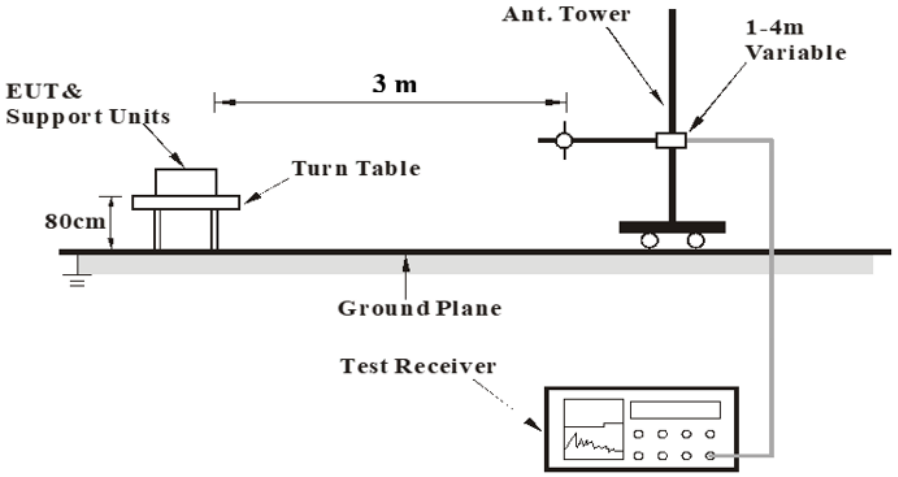
d. All modes of operation were investigated (includes all external accessories) and the worst-case emissions are reported.

Test Setup

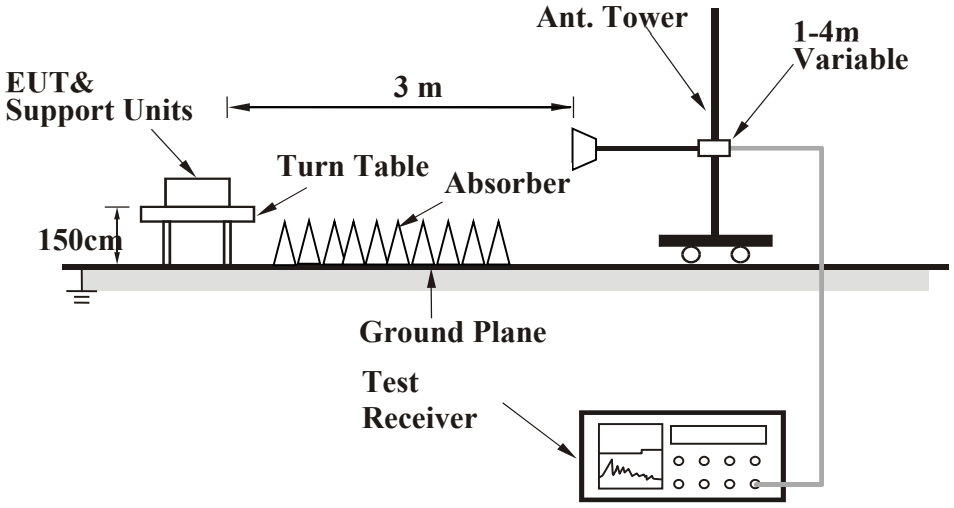
<Frequency Range 9 kHz ~ 30 MHz>



<Frequency Range 30 MHz ~ 1 GHz >



<Frequency Range above 1 GHz>



For the actual test configuration, please refer to the Setup Configurations.

Test Data

Above 1GHz Data

Non-Beamforming Mode

802.11a

EUT Test Condition		Measurement Detail	
Channel	Channel 36	Frequency Range	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
-	5144.6	47.84	10.15	57.99	74	-16.01	Peak
@	5180	96.51	10.11	106.62	-	-	Peak
-	5149.7	36.25	10.16	46.41	54	-7.59	Average
@	5180	88.6	10.11	98.71	-	-	Average
-	10360	39.01	12.16	51.17	68.2	-17.03	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
-	5147.6	58.12	10.16	68.28	74	-5.72	Peak
@	5180	104.8	10.11	114.91	-	-	Peak
-	5149.7	43.37	10.16	53.53	54	-0.47	Average
@	5180	97.16	10.11	107.27	-	-	Average
-	10360	46.08	12.16	58.24	68.2	-9.96	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 44	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5124.8	46.87	10.1	56.97	74	-17.03	Peak
@	5220	99.59	9.9	109.49	-		Peak
-	5120.6	37.65	10.09	47.74	54	-6.26	Average
@	5220	92.62	9.9	102.52	-	-	Average
-	10440	39.47	12.46	51.93	68.2	-16.27	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5091.5	53.65	10	63.65	74	-10.35	Peak
@	5220	108.04	9.9	117.94	-	-	Peak
-	5143.4	43.34	10.15	53.49	54	-0.51	Average
@	5220	99.83	9.9	109.73	-	-	Average
-	10440	45.98	12.46	58.44	68.2	-9.76	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 48	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5102.9	46.71	10.05	56.76	74	-17.24	Peak
@	5240	99.32	9.7	109.02	-	-	Peak
-	5125.1	37.32	10.1	47.42	54	-6.58	Average
@	5240	92.02	9.7	101.72	-	-	Average
-	10480	36.73	12.6	49.33	68.2	-18.87	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5116.7	54	10.07	64.07	74	-9.93	Peak
@	5240	107.58	9.7	117.28	-	-	Peak
-	5122.7	43.57	10.1	53.67	54	-0.33	Average
@	5240	99.72	9.7	109.42	-	-	Average
-	10480	30.13	12.6	42.73	54	-11.27	Average
-	10480	44.79	12.6	57.39	68.2	-10.81	Peak
*	15720	33.71	16.67	50.38	74	-23.62	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. " * ": The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
6. The other emission levels were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 149	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5631	49.11	10.34	59.45	68.2	-8.75	Peak
-	5724	65.88	10.56	76.44	119.92	-43.48	Peak
@	5745	85.36	10.72	96.08	-	-	Average
@	5745	98.64	10.72	109.36	-	-	Peak
-	11490	38.04	13.54	51.58	54	-2.42	Average
-	11490	43.26	13.54	56.8	74	-17.2	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5645	55.33	10.35	65.68	68.2	-2.52	Peak
-	5723.5	77.59	10.56	88.15	118.78	-30.63	Peak
@	5745	97.61	10.72	108.33	-	-	Average
@	5745	107.8	10.72	118.52	-	-	Peak
-	11490	34.53	13.54	48.07	54	-5.93	Average
-	11490	52.41	13.54	65.95	74	-8.05	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 157	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5640	47.75	10.34	58.09	68.2	-10.11	Peak
-	5720.5	54	10.54	64.54	111.94	-47.4	Peak
@	5785	91.01	10.78	101.79	-	-	Average
@	5785	99.13	10.78	109.91	-	-	Peak
-	5855	48.21	11.07	59.28	110.8	-51.52	Peak
-	5932	44.31	11.4	55.71	68.2	-12.49	Peak
-	11570	31.95	13.33	45.28	54	-8.72	Average
-	11570	50.07	13.33	63.4	74	-10.6	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5647	53.61	10.35	63.96	68.2	-4.24	Peak
-	5723	61.15	10.56	71.71	117.64	-45.93	Peak
@	5785	99.15	10.78	109.93	-	-	Average
@	5785	107.14	10.78	117.92	-	-	Peak
-	5865.5	55.87	11.13	67	107.86	-40.86	Peak
-	5931.5	49.03	11.4	60.43	68.2	-7.77	Peak
-	6015	49.8	1.35	51.15	68.2	-17.05	Peak
-	11570	37.48	13.33	50.81	54	-3.19	Average
-	11570	55.5	13.33	68.83	74	-5.17	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 165	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
@	5825	90.05	10.91	100.96	-	-	Average
@	5825	98.82	10.91	109.73	-	-	Peak
-	5853	58	11.06	69.06	115.36	-46.3	Peak
-	5930.5	45.12	11.4	56.52	68.2	-11.68	Peak
-	11650	34.62	13.09	47.71	54	-6.29	Average
-	11650	45.61	13.09	58.7	74	-15.3	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
@	5825	98.15	10.91	109.06	-	-	Average
@	5825	106.94	10.91	117.85	-	-	Peak
-	5850	75.54	11.04	86.58	122.2	-35.62	Peak
-	5937.5	50.97	11.41	62.38	68.2	-5.82	Peak
-	6066	50.16	1.42	51.58	68.2	-16.62	Peak
-	11650	40.2	13.09	53.29	54	-0.71	Average
-	11650	54.63	13.09	67.72	74	-6.28	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

802.11ac (VHT20)

EUT Test Condition		Measurement Detail	
Channel	Channel 36	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5043.2	44.94	9.79	54.73	74	-19.27	Peak
@	5180	93.8	10.11	103.91	-	-	Peak
-	5135.3	34.37	10.13	44.5	54	-9.5	Average
@	5180	85.91	10.11	96.02	-	-	Average
-	10360	36.34	12.16	48.5	68.2	-19.7	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5146.7	53.85	10.15	64	74	-10	Peak
@	5180	104.22	10.11	114.33	-	-	Peak
-	5149.4	43.5	10.16	53.66	54	-0.34	Average
@	5180	96.02	10.11	106.13	-	-	Average
-	10360	42.46	12.16	54.62	68.2	-13.58	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 44	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5147	47.6	10.15	57.75	74	-16.25	Peak
@	5220	97.79	9.9	107.69	-	-	Peak
-	5118.8	37.69	10.09	47.78	54	-6.22	Average
@	5220	89.55	9.9	99.45	-	-	Average
	10440	35.57	12.46	48.03	68.2	-20.17	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5104.4	54.68	10.05	64.73	74	-9.27	Peak
@	5220	106.56	9.9	116.46	-	-	Peak
-	5126.9	43.33	10.1	53.43	54	-0.57	Average
@	5220	96.32	9.9	106.22	-	-	Average
-	10440	44.23	12.46	56.69	68.2	-11.51	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 48	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5094.8	46.25	10.02	56.27	74	-17.73	Peak
@	5240	98.73	9.7	108.43	-	-	Peak
-	5127.8	37.26	10.11	47.37	54	-6.63	Average
@	5240	90.72	9.7	100.42	-	-	Average
	10480	35.76	12.6	48.36	68.2	-19.84	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5120.9	52.8	10.09	62.89	74	-11.11	Peak
@	5240	106.35	9.7	116.05	-	-	Peak
-	5128.1	42.96	10.11	53.07	54	-0.93	Average
@	5240	96.38	9.7	106.08	-	-	Average
-	10480	43.75	12.6	56.35	68.2	-11.85	Peak
*	15720	33.22	16.67	49.89	74	-24.11	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. " * ": The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
6. The other emission levels were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 149	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5624	48.55	10.34	58.89	68.2	-9.31	Peak
-	5724	67.88	10.56	78.44	119.92	-41.48	Peak
@	5745	87.79	10.72	98.51	-	-	Average
@	5745	97.12	10.72	107.84	-	-	Peak
-	11490	34.84	13.54	48.38	54	-5.62	Average
-	11490	47.56	13.54	61.1	74	-12.9	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5643.5	54.52	10.35	64.87	68.2	-3.33	Peak
-	5723	79.15	10.56	89.71	117.64	-27.93	Peak
@	5745	96.87	10.72	107.59	-	-	Average
@	5745	107.05	10.72	117.77	-	-	Peak
-	11490	33.92	13.54	47.46	54	-6.54	Average
-	11490	51.57	13.54	65.11	74	-8.89	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 157	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5643.5	45.15	10.35	55.5	68.2	-12.7	Peak
-	5724.5	52.27	10.57	62.84	121.06	-58.22	Peak
@	5785	85.88	10.78	96.66	-	-	Average
@	5785	97.52	10.78	108.3	-	-	Peak
-	5860	46.18	11.11	57.29	109.4	-52.11	Peak
-	5946.5	42.38	11.42	53.8	68.2	-14.4	Peak
-	11570	29.38	13.33	42.71	54	-11.29	Average
-	11570	45.4	13.33	58.73	74	-15.27	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5639	52.89	10.34	63.23	68.2	-4.97	Peak
-	5723	60.61	10.56	71.17	117.64	-46.47	Peak
@	5785	95.9	10.78	106.68	-	-	Average
@	5785	105.79	10.78	116.57	-	-	Peak
-	5857.5	53.55	11.08	64.63	110.1	-45.47	Peak
-	5950	47.19	11.42	58.61	68.2	-9.59	Peak
-	11570	36.4	13.33	49.73	54	-4.27	Average
-	11570	52.65	13.33	65.98	74	-8.02	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 165	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
@	5825	82.88	10.91	93.79	-	-	Average
@	5825	96.97	10.91	107.88	-	-	Peak
-	5850	57.54	11.04	68.58	122.2	-53.62	Peak
-	5929	45.28	11.4	56.68	68.2	-11.52	Peak
-	11650	28.01	13.09	41.1	54	-12.9	Average
-	11650	42.58	13.09	55.67	74	-18.33	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
@	5825	96.65	10.91	107.56	-	-	Average
@	5825	106.45	10.91	117.36	-	-	Peak
-	5850	68.79	11.04	79.83	122.2	-42.37	Peak
-	5930.5	51.44	11.4	62.84	68.2	-5.36	Peak
-	11650	35.19	13.09	48.28	54	-5.72	Average
-	11650	48.99	13.09	62.08	74	-11.92	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

802.11ac (VHT40)

EUT Test Condition		Measurement Detail	
Channel	Channel 38	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5148.5	44.07	10.16	54.23	74	-19.77	Peak
@	5190	88.16	10.1	98.26	-	-	Peak
-	5147.6	34.53	10.16	44.69	54	-9.31	Average
@	5190	79.98	10.1	90.08	-	-	Average
-	10380	32.74	12.24	44.98	68.2	-23.22	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5147	58.43	10.15	68.58	74	-5.42	Peak
@	5190	98.49	10.1	108.59	-	-	Peak
-	5150	42.35	10.16	52.51	54	-1.49	Average
@	5190	87.74	10.1	97.84	-	-	Average
-	10380	36.22	12.24	48.46	68.2	-19.74	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 46	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5139.8	48.96	10.14	59.1	74	-14.9	Peak
@	5230	95.04	9.8	104.84	-	-	Peak
-	5149.7	36.61	10.16	46.77	54	-7.23	Average
@	5230	85.34	9.8	95.14	-	-	Average
-	10460	35.62	12.53	48.15	68.2	-20.05	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5143.1	58.88	10.15	69.03	74	-4.97	Peak
@	5230	103.49	9.8	113.29	-	-	Peak
-	5147.9	43.51	10.16	53.67	54	-0.33	Average
@	5230	92.77	9.8	102.57	-	-	Average
-	10460	43.45	12.53	55.98	68.2	-12.22	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 151	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5647	48.62	10.35	58.97	68.2	-9.23	Peak
-	5724.5	71.73	10.57	82.3	121.06	-38.76	Peak
@	5755	86.7	10.75	97.45	-	-	Average
@	5755	96.9	10.75	107.65	-	-	Peak
-	11510	28.43	13.54	41.97	54	-12.03	Average
-	11510	41.84	13.54	55.38	74	-18.62	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5645.5	54.94	10.35	65.29	68.2	-2.91	Peak
-	5721.5	84.94	10.55	95.49	114.22	-18.73	Peak
@	5755	93.83	10.75	104.58	-	-	Average
@	5755	103.71	10.75	114.46	-	-	Peak
-	6032	47.03	1.34	48.37	68.2	-19.83	Peak
-	11510	31.72	13.54	45.26	54	-8.74	Average
-	11510	48.09	13.54	61.63	74	-12.37	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 159	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
@	5795	85.44	10.79	96.23	-	-	Average
@	5795	95.09	10.79	105.88	-	-	Peak
-	5850	53.26	11.04	64.3	122.2	-57.9	Peak
-	5946	43.49	11.41	54.9	68.2	-13.3	Peak
-	11590	30.45	13.25	43.7	54	-10.3	Average
-	11590	42.42	13.25	55.67	74	-18.33	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
@	5795	91.16	10.79	101.95	-	-	Average
@	5795	102.69	10.79	113.48	-	-	Peak
-	5860	65.07	11.11	76.18	109.4	-33.22	Peak
-	5937	48.84	11.41	60.25	68.2	-7.95	Peak
-	11590	35.6	13.25	48.85	54	-5.15	Average
-	11590	49.47	13.25	62.72	74	-11.28	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

802.11ac (VHT80)

EUT Test Condition		Measurement Detail	
Channel	Channel 42	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5147.6	44.86	10.16	55.02	74	-18.98	Peak
@	5210	85.43	9.99	95.42	-	-	Peak
-	5149.4	35.62	10.16	45.78	54	-8.22	Average
@	5210	76.77	9.99	86.76	-	-	Average
-	10420	33.88	12.39	46.27	68.2	-21.93	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5138.6	60.93	10.14	71.07	74	-2.93	Peak
@	5210	96.46	9.99	106.45	-	-	Peak
-	5150	43.68	10.16	53.84	54	-0.16	Average
@	5210	85.42	9.99	95.41	-	-	Average
-	10420	35.61	12.39	48	68.2	-20.2	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 155	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5648.5	48.11	10.35	58.46	68.2	-9.74	Peak
-	5724.5	65.76	10.57	76.33	121.06	-44.73	Peak
@	5775	78.93	10.77	89.7	-	-	Average
@	5775	91.94	10.77	102.71	-	-	Peak
-	5851	55.99	11.05	67.04	119.92	-52.88	Peak
-	5930.5	42.49	11.4	53.89	68.2	-14.31	Peak
*	11550	35.35	13.39	48.74	74	-25.26	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5648	57.41	10.35	67.76	68.2	-0.44	Peak
-	5724.5	79.73	10.57	90.3	121.06	-30.76	Peak
@	5775	88.91	10.77	99.68	-	-	Average
@	5775	99.53	10.77	110.3	-	-	Peak
-	5851.5	71.5	11.05	82.55	118.78	-36.23	Peak
-	5925.5	50.8	11.39	62.19	68.2	-6.01	Peak
-	11550	25.87	13.39	39.26	54	-14.74	Average
-	11550	44.2	13.39	57.59	74	-16.41	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. " * ": The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
6. The other emission levels were very low against the limit.

Beamforming Mode

802.11ac (VHT20)

EUT Test Condition		Measurement Detail	
Channel	Channel 36	Frequency Range	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
-	5078	44.95	9.94	54.89	74	-19.11	Peak
@	5180	93.39	10.11	103.5	-	-	Peak
-	5148.5	34.52	10.16	44.68	54	-9.32	Peak
@	5180	86.15	10.11	96.26	-	-	Average
-	10360	36.35	12.16	48.51	68.2	-19.69	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
-	5147.3	60.07	10.15	70.22	74	-3.78	Peak
@	5180	104.27	10.11	114.38	-	-	Peak
-	5150	43.1	10.16	53.26	54	-0.74	Average
@	5180	96.13	10.11	106.24	-	-	Average
-	10360	40.98	12.16	53.14	68.2	-15.06	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 44	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5132.3	45.48	10.12	55.6	74	-18.4	Peak
@	5221.1	95.78	9.89	105.67	-	-	Peak
-	5127.8	35.22	10.11	45.33	54	-8.67	Average
@	5217.8	85.71	9.91	95.62	-	-	Average
-	10440	39.61	12.46	52.07	68.2	-16.13	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5052.5	52.86	9.82	62.68	74	-11.32	Peak
@	5222.3	105.96	9.88	115.84	-	-	Peak
-	5090.6	42.42	9.99	52.41	54	-1.59	Average
@	5216.9	96.71	9.92	106.63	-	-	Average
-	10440	45.25	12.46	57.71	68.2	-10.49	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 48	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5145.8	47.57	10.15	57.72	74	-16.28	Peak
@	5240	91.91	9.7	101.61	-	-	Peak
-	5136.8	36.42	10.13	46.55	54	-7.45	Average
@	5240	84.7	9.7	94.4	-	-	Average
-	10480	40.65	12.6	53.25	68.2	-14.95	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5147.9	54.51	10.16	64.67	74	-9.33	Peak
@	5240	104.3	9.7	114	-	-	Peak
-	5138.6	43.61	10.14	53.75	54	-0.25	Average
@	5240	95.35	9.7	105.05	-	-	Average
-	10480	45.27	12.6	57.87	68.2	-10.33	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 149	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5645	42.87	10.35	53.22	68.2	-14.98	Peak
-	5724	61.89	10.56	72.45	119.92	-47.47	Peak
@	5745	86.21	10.72	96.93	-	-	Average
@	5745	94.82	10.72	105.54	-	-	Peak
-	11490	26.82	13.54	40.36	54	-13.64	Average
-	11490	44.74	13.54	58.28	74	-15.72	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5637.5	49.1	10.35	59.45	68.2	-8.75	Peak
-	5724	70.97	10.56	81.53	119.92	-38.39	Peak
@	5745	92.05	10.72	102.77	-	-	Average
@	5745	103.25	10.72	113.97	-	-	Peak
-	11490	39.37	13.54	52.91	54	-1.09	Average
-	11490	53.02	13.54	66.56	74	-7.44	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 157	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5623	46.25	10.33	56.58	68.2	-11.62	Peak
-	5724	52.37	10.56	62.93	119.92	-56.99	Peak
@	5785	86.23	10.78	97.01	-	-	Average
@	5785	96.41	10.78	107.19	-	-	Peak
-	5855.5	47.3	11.07	58.37	110.66	-52.29	Peak
-	5960.5	42.73	11.41	54.14	68.2	-14.06	Peak
-	11570	29.55	13.33	42.88	54	-11.12	Average
-	11570	40.08	13.33	53.41	74	-20.59	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5650	51.62	10.35	61.97	68.2	-6.23	Peak
-	5725	60.8	10.57	71.37	122.2	-50.83	Peak
@	5785	92.22	10.78	103	-	-	Average
@	5785	104.19	10.78	114.97	-	-	Peak
-	5850	54.16	11.04	65.2	122.2	-57	Peak
-	5929	46.95	11.4	58.35	68.2	-9.85	Peak
-	11570	39	13.33	52.33	54	-1.67	Average
-	11570	48.3	13.33	61.63	74	-12.37	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 165	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
@	5825	84.49	10.91	95.4	-	-	Average
@	5825	96.19	10.91	107.1	-	-	Peak
-	5850.5	58.5	11.04	69.54	121.06	-51.52	Peak
-	5934	44.13	11.4	55.53	68.2	-12.67	Peak
-	11650	27.42	13.09	40.51	54	-13.49	Average
-	11650	43.5	13.09	56.59	74	-17.41	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
@	5825	91.93	10.91	102.84	-	-	Average
@	5825	103.58	10.91	114.49	-	-	Peak
-	5850.5	68.6	11.04	79.64	121.06	-41.42	Peak
-	5925	51.82	11.39	63.21	68.2	-4.99	Peak
-	11650	40.23	13.09	53.32	54	-0.68	Average
-	11650	50.71	13.09	63.8	74	-10.2	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

802.11ac (VHT40)

EUT Test Condition		Measurement Detail	
Channel	Channel 38	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5098.1	43.92	10.03	53.95	74	-20.05	Peak
@	5190	83.54	10.1	93.64	-	-	Peak
-	5129.9	32.9	10.11	43.01	54	-10.99	Average
@	5190	75.54	10.1	85.64	-	-	Average
-	10380	36.57	12.24	48.81	68.2	-19.39	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5148.5	46.78	10.16	56.94	74	-17.06	Peak
@	5190	94.31	10.1	104.41	-	-	Peak
-	5139.2	37.83	10.14	47.97	54	-6.03	Average
@	5190	86.78	10.1	96.88	-	-	Average
-	10380	41.32	12.24	53.56	68.2	-14.64	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 46	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5144.6	46.75	10.15	56.9	74	-17.1	Peak
@	5230	89.39	9.8	99.19	-	-	Peak
-	5120.3	34.81	10.09	44.9	54	-9.1	Average
@	5230	81.83	9.8	91.63	-	-	Average
-	10460	39.07	12.53	51.6	68.2	-16.6	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5129.9	55.77	10.11	65.88	74	-8.12	Peak
@	5230	100.04	9.8	109.84	-	-	Peak
-	5137.7	41.38	10.14	51.52	54	-2.48	Average
@	5230	92.33	9.8	102.13	-	-	Average
-	10460	41.3	12.53	53.83	68.2	-14.37	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 151	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5585.5	44.15	10.29	54.44	68.2	-13.76	Peak
-	5724	66.61	10.56	77.17	119.92	-42.75	Peak
@	5755	81.2	10.75	91.95	-	-	Average
@	5755	91.19	10.75	101.94	-	-	Peak
-	11510	29.96	13.54	43.5	54	-10.5	Average
-	11510	46.76	13.54	60.3	74	-13.7	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5625.5	47.97	10.34	58.31	68.2	-9.89	Peak
-	5720	75.06	10.54	85.6	110.8	-25.2	Peak
@	5755	89.47	10.75	100.22	-	-	Average
@	5755	100	10.75	110.75	-	-	Peak
-	11510	39.5	13.54	53.04	54	-0.96	Average
-	11510	52.34	13.54	65.88	74	-8.12	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 159	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
@	5795	80.5	10.79	91.29	-	-	Average
@	5795	90.41	10.79	101.2	-	-	Peak
-	5855	52.53	11.07	63.6	110.8	-47.2	Peak
-	5931	42.92	11.4	54.32	68.2	-13.88	Peak
-	11590	24.55	13.25	37.8	54	-16.2	Average
-	11590	45.33	13.25	58.58	74	-15.42	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
@	5795	93.08	10.79	103.87	-	-	Average
@	5795	100.37	10.79	111.16	-	-	Peak
-	5855	59.48	11.07	70.55	110.8	-40.25	Peak
-	5930.5	48.44	11.4	59.84	68.2	-8.36	Peak
-	11590	40.5	13.25	53.75	54	-0.25	Average
-	11590	53.7	13.25	66.95	74	-7.05	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

802.11ac (VHT80)

EUT Test Condition		Measurement Detail	
Channel	Channel 42	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5141	43.28	10.13	53.41	74	-20.59	Peak
@	5210	81.28	9.99	91.27	-	-	Peak
-	5150	34.44	10.16	44.6	54	-9.4	Average
@	5210	73.62	9.99	83.61	-	-	Average
-	10420	31.81	12.39	44.2	68.2	-24	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5146.4	50.27	10.15	60.42	74	-13.58	Peak
@	5210	92.02	9.99	102.01	-	-	Peak
-	5145.2	41.6	10.15	51.75	54	-2.25	Average
@	5210	85.4	9.99	95.39	-	-	Average
-	10420	36.82	12.39	49.21	68.2	-18.99	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 155	**Frequency Range**	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5644.5	45.44	10.35	55.79	68.2	-12.41	Peak
-	5723.5	61.73	10.56	72.29	118.78	-46.49	Peak
@	5775	80.31	10.77	91.08	-	-	Average
@	5775	87.61	10.77	98.38	-	-	Peak
-	5850.5	52.27	11.04	63.31	121.06	-57.75	Peak
-	5942.5	42.81	11.41	54.22	68.2	-13.98	Peak
-	11550	30.68	13.39	44.07	54	-9.93	Average
-	11550	42.28	13.39	55.67	74	-18.33	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	5633	54.15	10.35	64.5	68.2	-3.7	Peak
-	5720	73.31	10.54	83.85	110.8	-26.95	Peak
@	5775	88.2	10.77	98.97	-	-	Average
@	5775	96.79	10.77	107.56	-	-	Peak
-	5850	63.8	11.04	74.84	122.2	-47.36	Peak
-	5984.5	48.46	11.37	59.83	68.2	-8.37	Peak
-	11550	39.56	13.39	52.95	54	-1.05	Average
-	11550	51.41	13.39	64.8	74	-9.2	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. The other emission levels were very low against the limit.

Co-Location Mode

802.11n (HT20) + 802.11a

EUT Test Condition		Measurement Detail	
Channel	Channel 6 + Channel 157	Frequency Range	1 GHz ~ 40 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
*	4874	50.57	-0.58	49.99	74	-24.01	Peak
-	11570	35.36	13.33	48.69	54	-5.31	Average
-	11570	52.1	13.33	65.43	74	-8.57	Peak
-	17355	23.99	21.57	45.56	54	-8.44	Average
-	17355	33.89	21.57	55.46	74	-18.54	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
-	4874	47.14	-0.58	46.56	54	-7.44	Average
-	4874	58.86	-0.58	58.28	74	-15.72	Peak
-	11570	40.6	13.33	53.93	54	-0.07	Average
-	11570	56.38	13.33	69.71	74	-4.29	Peak
-	17355	32.41	21.57	53.98	54	-0.02	Average
-	17355	40.37	21.57	61.94	74	-12.06	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. " * ": The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

9 kHz ~ 30 MHz Data

For 9 kHz to 30 MHz radiated emission have performed all modes of operation were investigated. The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

No non-compliance noted:

KDB 414788 D01 OATS and Chamber Correlation Justification

- Base on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

- OATs and chamber correlation testing had been performed and chamber measured test results is the worst case test result.

Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30m open area test site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.

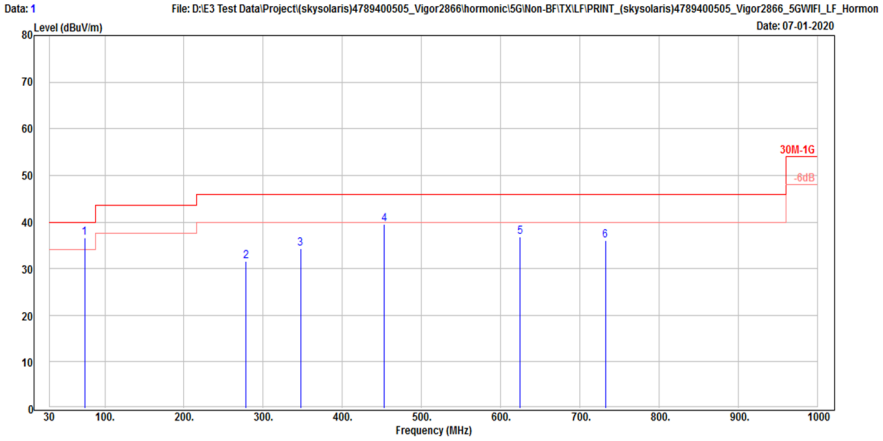
30 MHz ~ 1 GHz Data

Non-Beamforming Mode

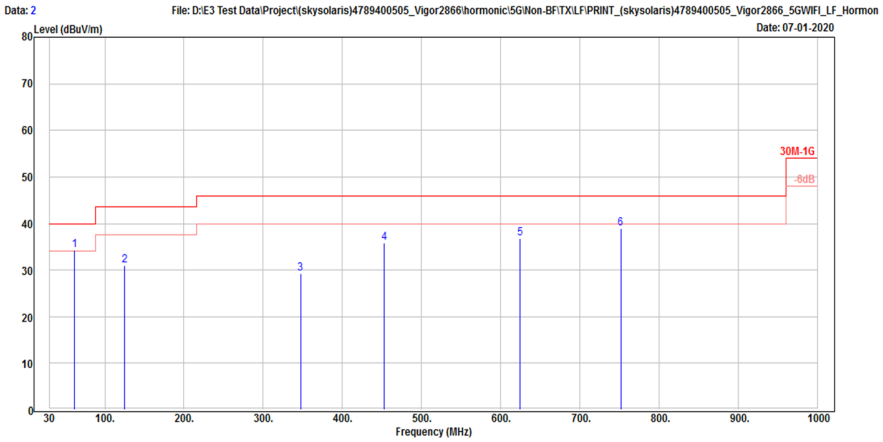
802.11a

EUT Test Condition		Measurement Detail	
Channel	Channel 157	**Frequency Range**	30 MHz ~ 1 GHz

Horizontal



Vertical



Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	74.62	55.32	-18.64	36.68	40	-3.32	Peak
-	278.32	10.79	20.71	31.5	46	-14.5	Peak
-	347.19	11.9	22.36	34.26	46	-11.74	Peak
-	452.92	49.45	-9.85	39.6	46	-6.4	Peak
-	624.61	7.78	28.95	36.73	46	-9.27	Peak
-	732.28	5.74	30.36	36.1	46	-9.9	Peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV/m)**	**dB/m**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
-	62.01	14.86	19.41	34.27	40	-5.73	Peak
-	125.06	12.96	18.09	31.05	43.5	-12.45	Peak
-	347.19	6.87	22.36	29.23	46	-16.77	Peak
-	452.92	45.69	-9.85	35.84	46	-10.16	Peak
-	624.61	7.9	28.95	36.85	46	-9.15	Peak
-	751.68	8.2	30.77	38.97	46	-7.03	Peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. The peak result complies with QP limit, QP result is deemed to comply with QP limit.
5. The other emission levels were very low against the limit.