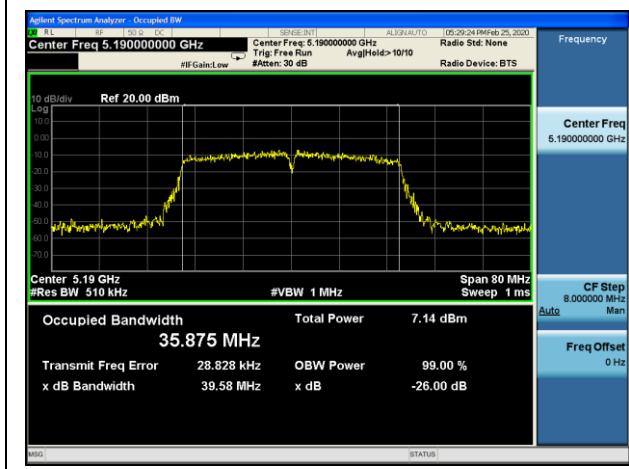
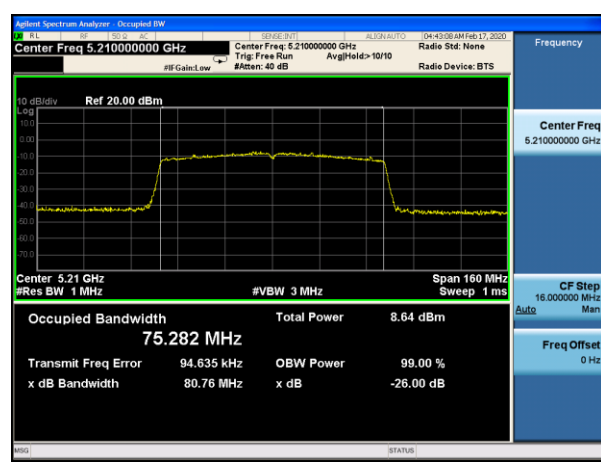




11ac (HT40) CH46

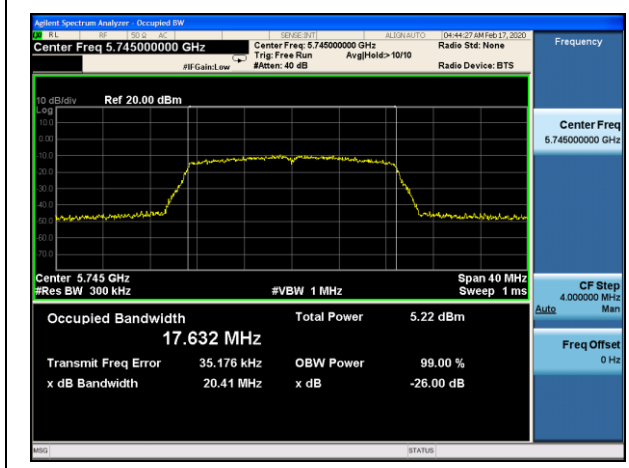


11ac (HT80) CH42

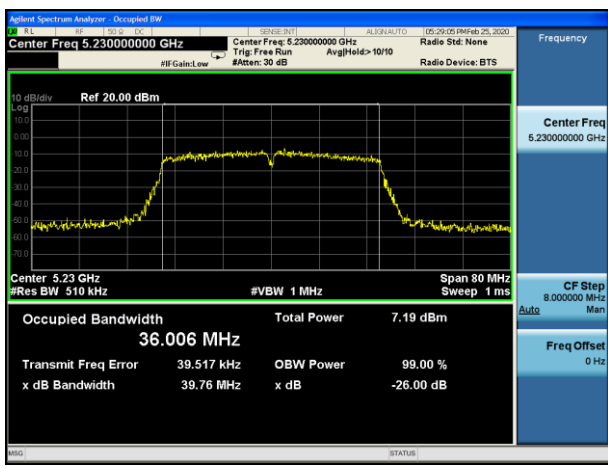


For U-NII-3

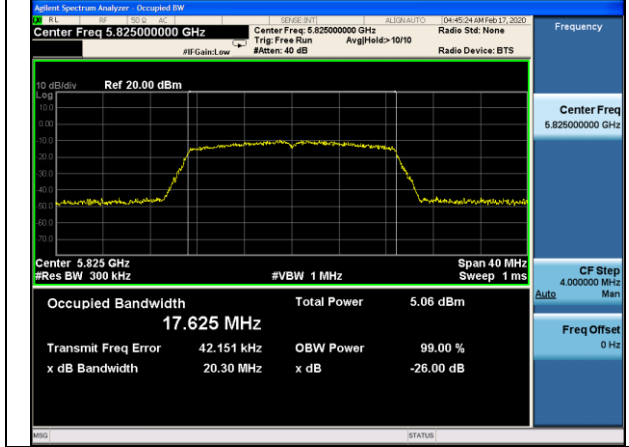
11a CH149



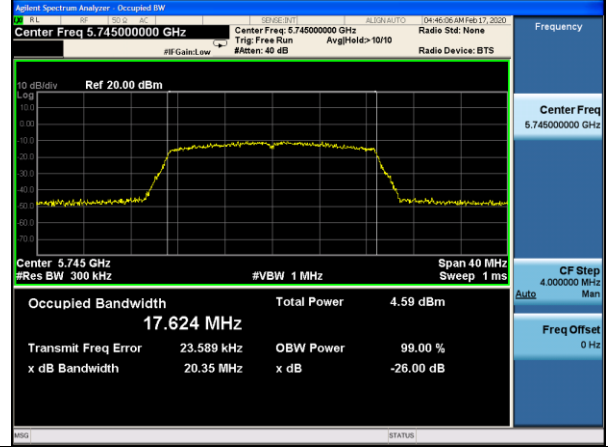
11a CH157



11a CH165

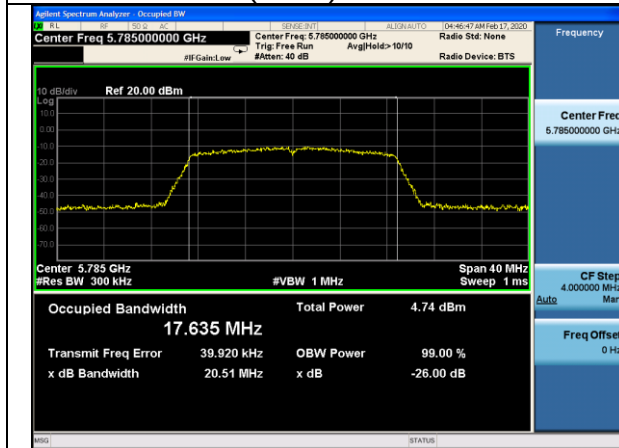


11n(HT20) CH149

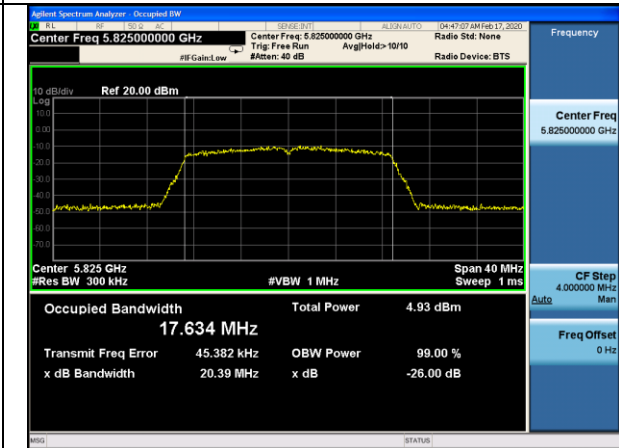




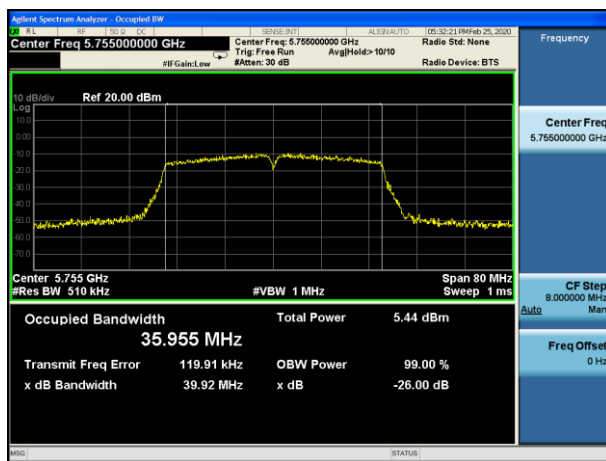
11n(HT20) CH157



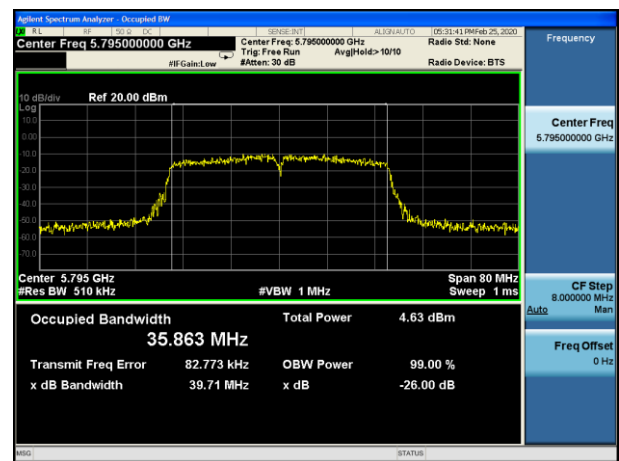
11n(HT20) CH165



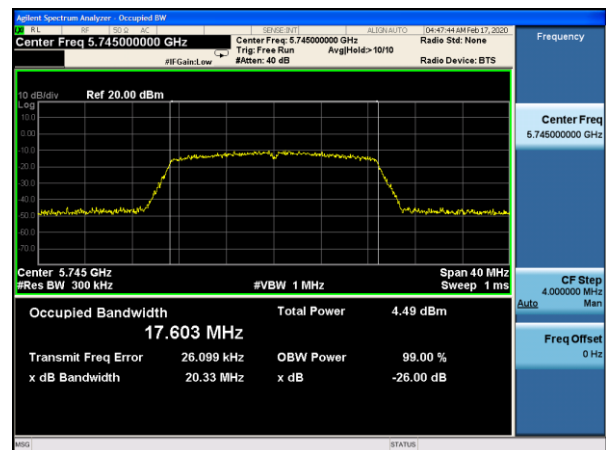
11n (HT40) CH151



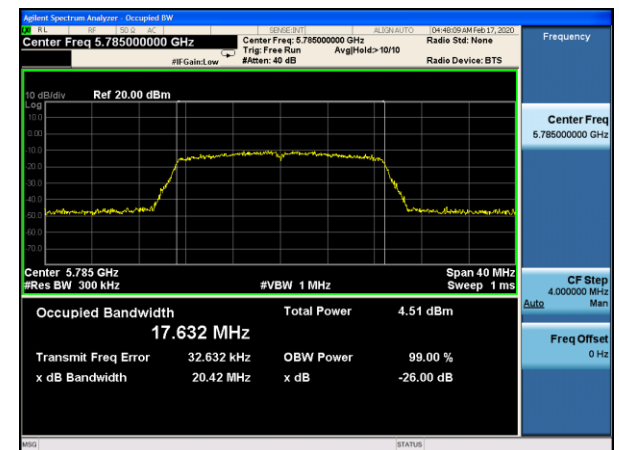
11n (HT40) CH159



11ac (HT20) CH149

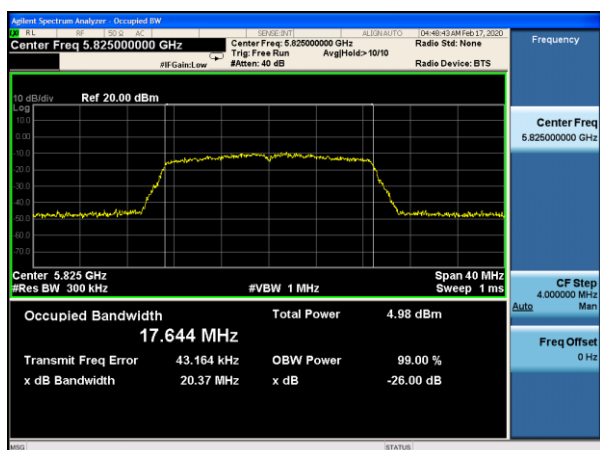


11ac (HT20) CH157

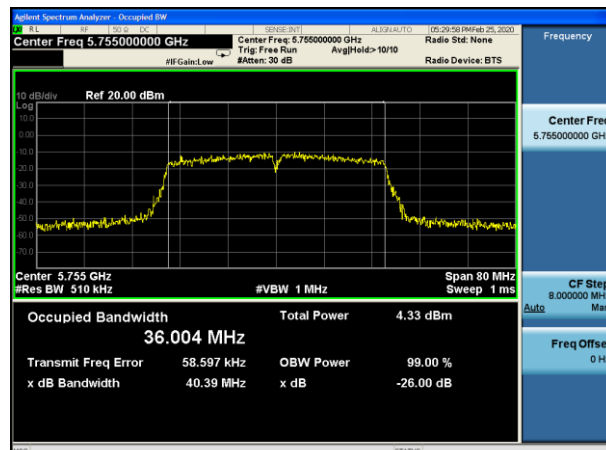




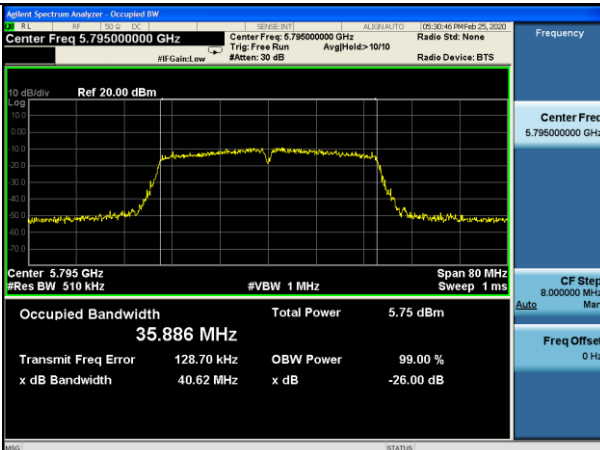
11ac(HT20) CH165



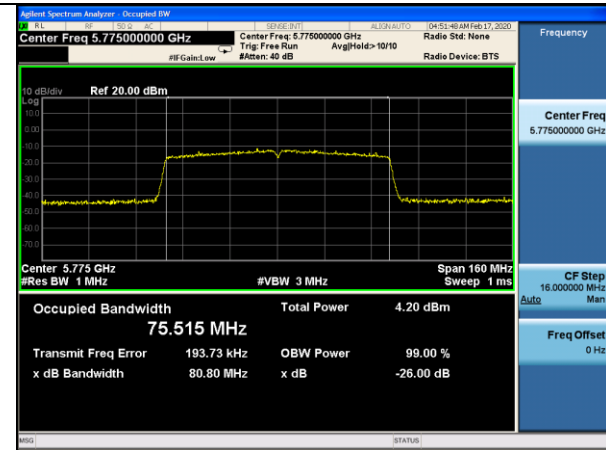
11ac(HT40) CH151



11ac(HT40) CH159



11ac (HT80) CH155



5.5 6dB Bandwidth

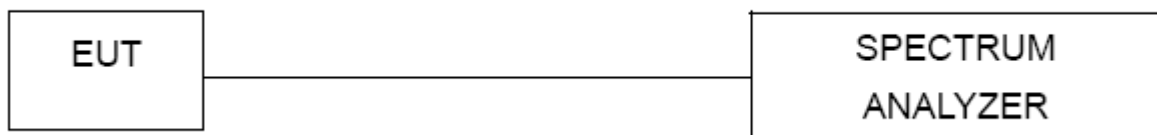
5.5.1 Limit

For purposes of this subpart the emission bandwidth shall be determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 26 dB down relative to the maximum level of the modulated carrier

5.5.2 Test procedure

1. Set RBW= 100 kHz.
2. Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 26 dB relative to the maximum level measured in the fundamental emission.

5.5.3 Test setup



5.5.4 Test results



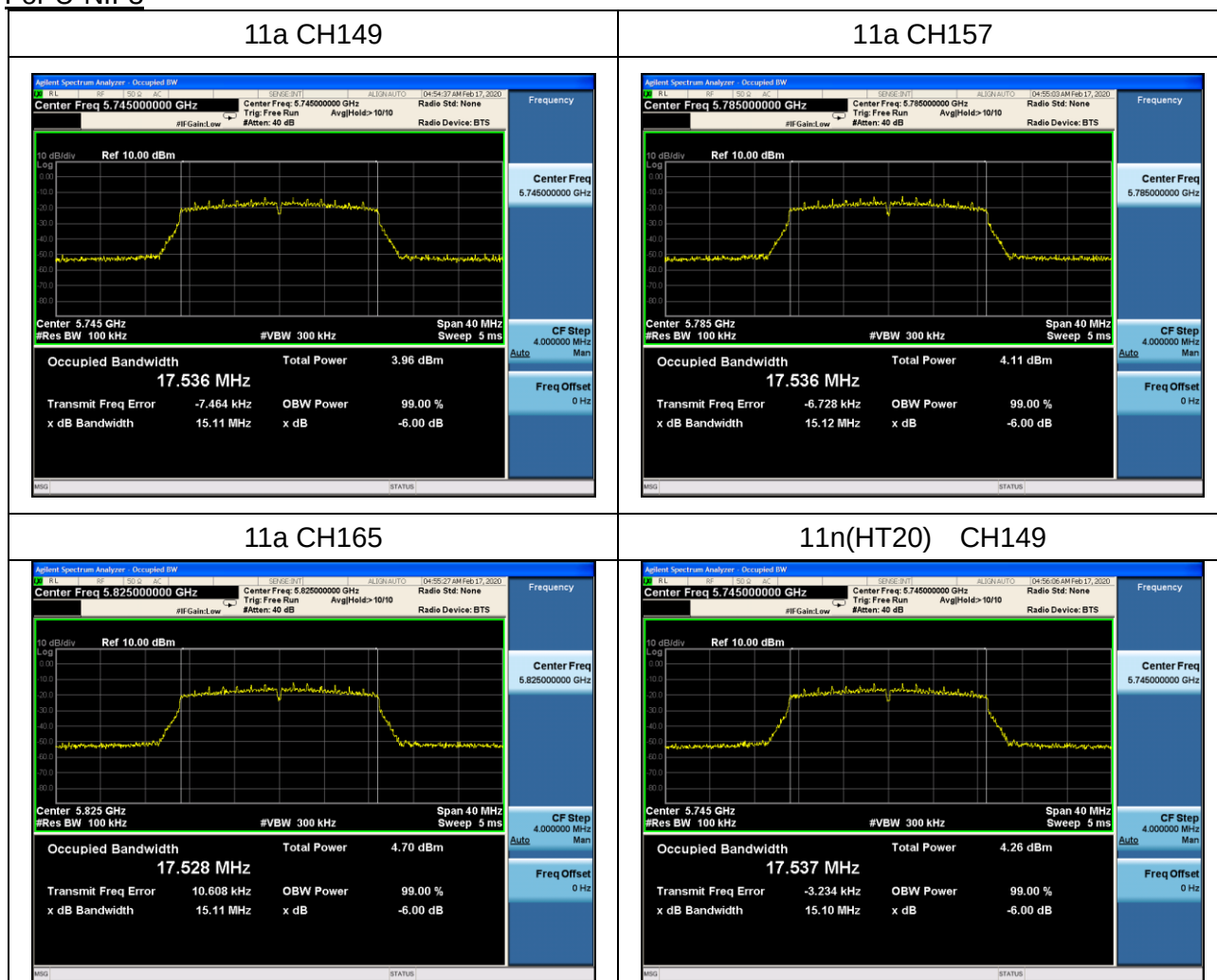
For U-NII-3

Channel	Test Channel	Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
11a	CH149	5745	15.11	500	Pass
11a	CH157	5785	15.12	500	Pass
11a	CH165	5825	15.11	500	Pass
11n (HT20)	CH149	5745	15.10	500	Pass
11n (HT20)	CH157	5785	15.06	500	Pass
11n (HT20)	CH165	5825	15.07	500	Pass
11n (HT40)	CH151	5755	35.10	500	Pass
11n (HT40)	CH159	5795	35.12	500	Pass

Channel	Test Channel	Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
11ac (HT20)	CH149	5745	15.12	500	Pass
11ac (HT20)	CH157	5785	15.06	500	Pass
11ac (HT20)	CH165	5825	15.00	500	Pass
11ac (HT40)	CH151	5755	35.09	500	Pass
11ac (HT40)	CH159	5795	35.11	500	Pass
11ac (HT80)	CH155	5775	75.22	500	Pass

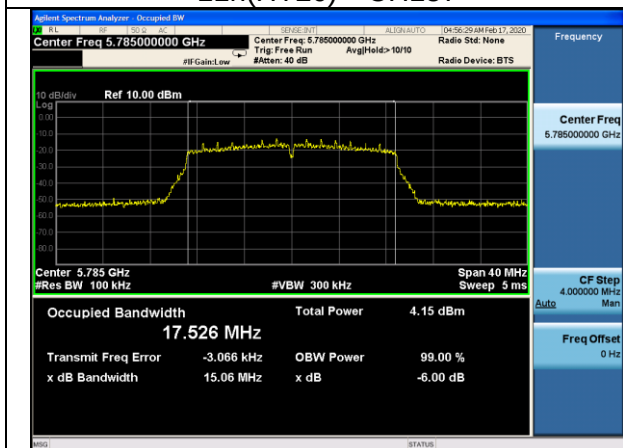
Test plots:

For U-NII-3

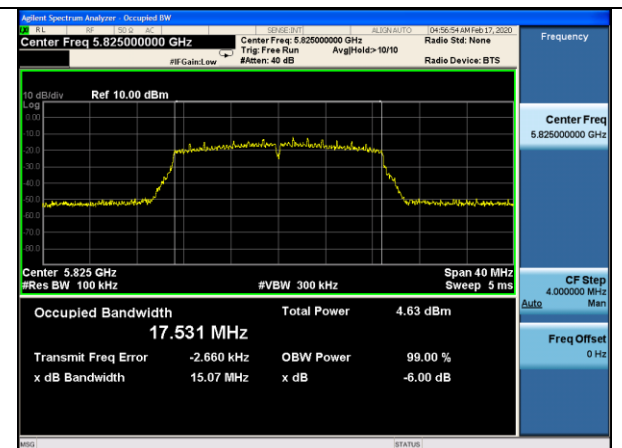




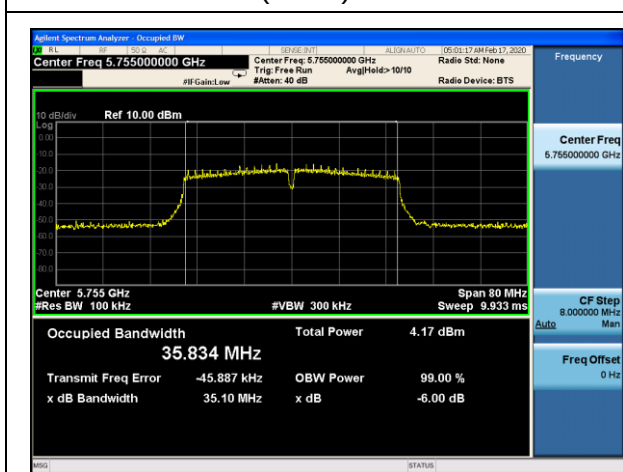
11n(HT20) CH157



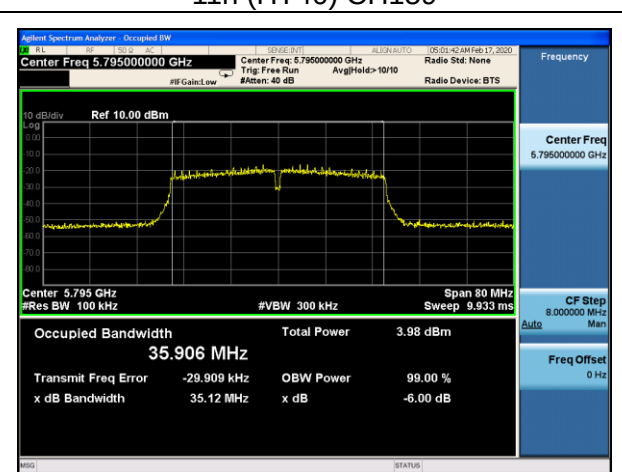
11n(HT20) CH165



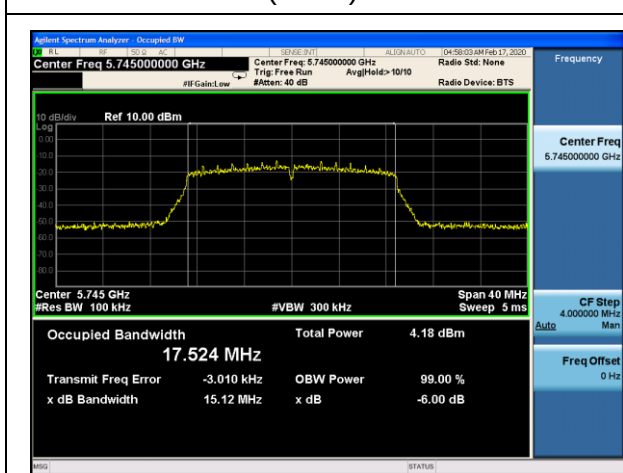
11n (HT40) CH151



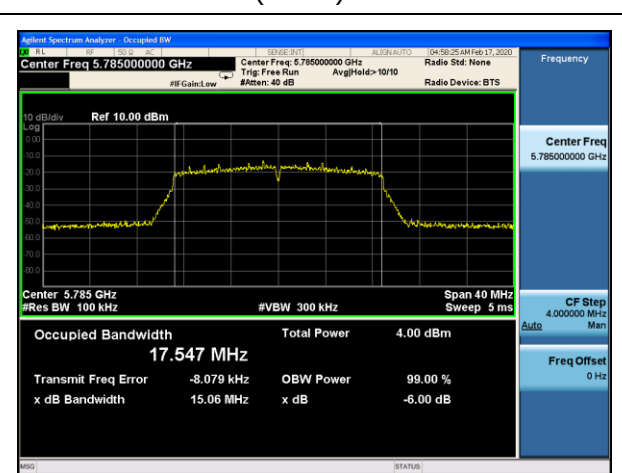
11n (HT40) CH159



11ac (HT20) CH149

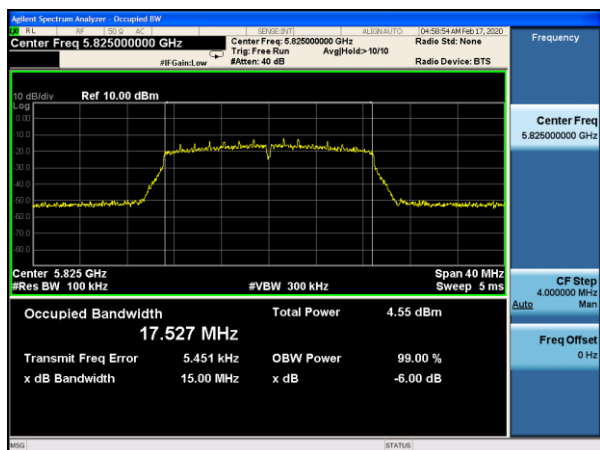


11ac (HT20) CH157

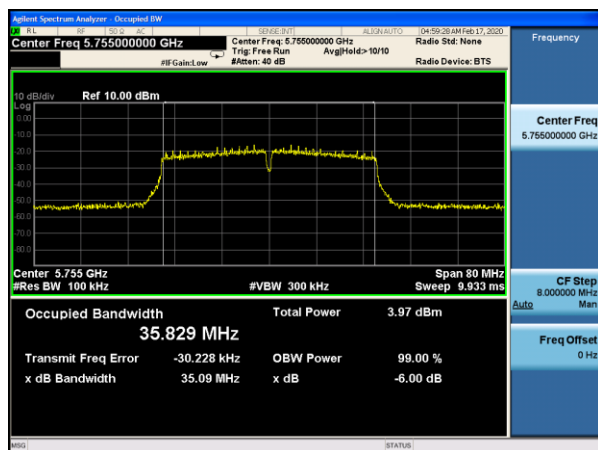




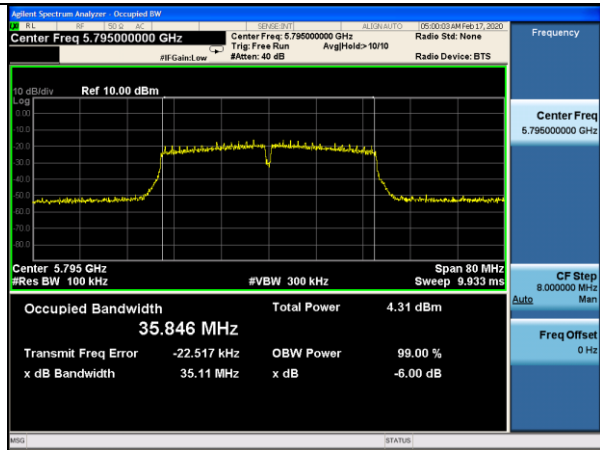
11ac(HT20) CH165



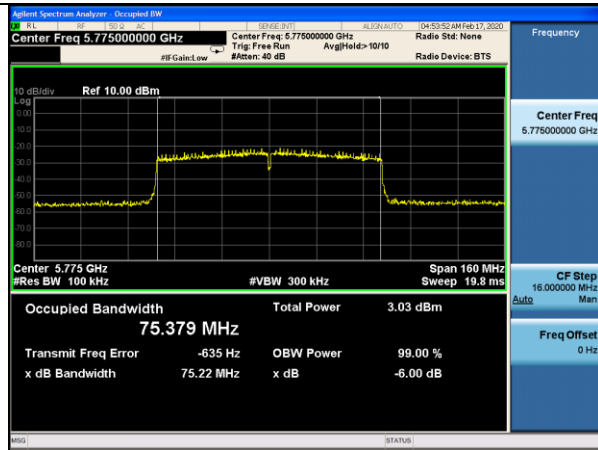
11ac(HT40) CH151



11ac(HT40) CH159



11ac(HT80) CH155





5.6 Radiated spurious emission

5.6.1 Radiated Emission Limits

1. For transmitters operating in the 5.15-5.25 GHz band:
All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
2. For transmitters operating in the 5.25-5.35 GHz band:
All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
3. For transmitters operating in the 5.47-5.725 GHz band:
All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
4. For transmitters operating in the 5.725-5.85 GHz band:

(i) 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.

(ii) Devices certified before March 2, 2017 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.



Frequencies (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

Frequency Range	RBW	VBW	Measurement
30MHz-1GHz	1MHz	3MHz	Peak
Above 1GHz	1MHz	10Hz ^{Note1}	Average
	1MHz	>1/T ^{Note2}	Average
Note1	When duty cycle is no less than 98%		
Note2	When duty cycle is less than 98%		

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

5.6.2 Test procedure

The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.

The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.

The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

For emission measurements above 1 GHz, the EUT shall be placed at a height of 1.5 m above the floor on a support that is RF transparent for the frequencies of interest. Final measurements for the EUT require a measurement antenna height scan of 1 m to 4 m.

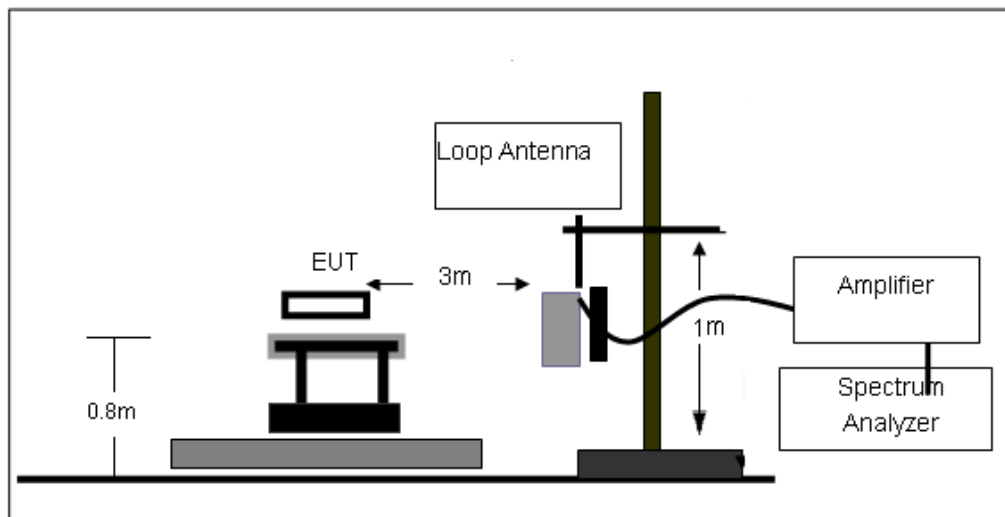
The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.

If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. For the actual test configuration, please refer to the related Item –EUT Test Photos.

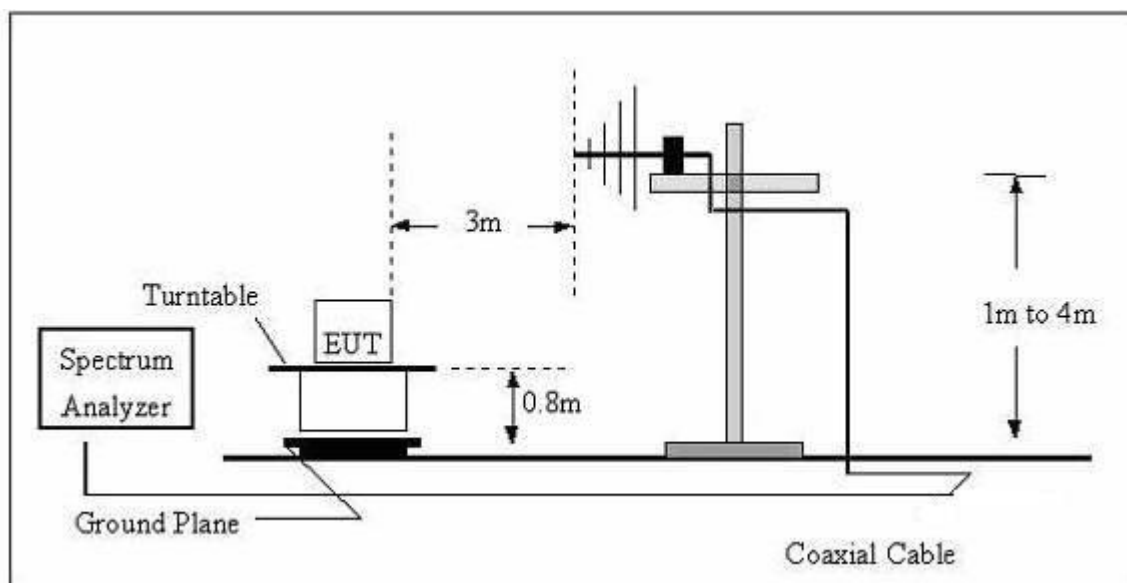
Note: Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

5.6.3 Test setup

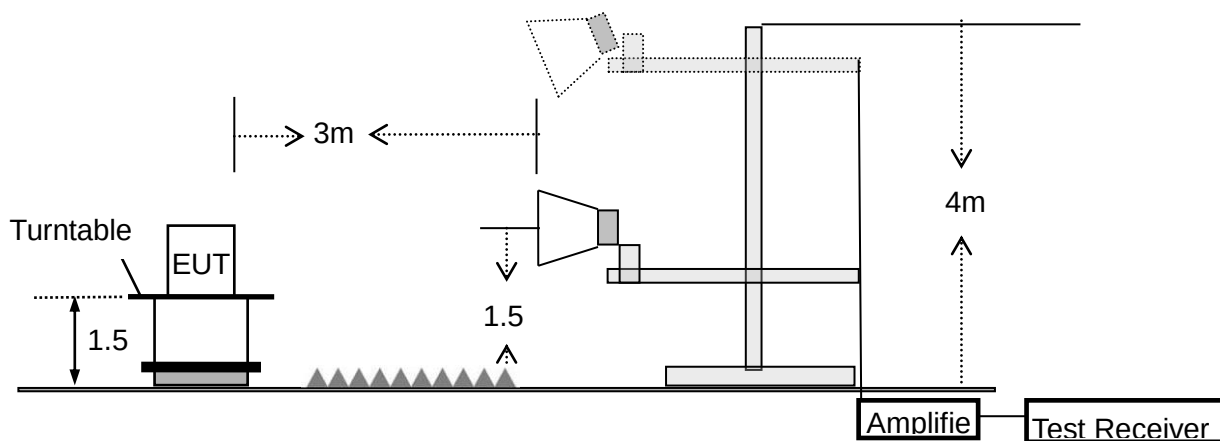
(A) Radiated Emission test-up Frequency Below 30MHz



(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



(C) Radiated Emission Test-Up Frequency Above 1GHz





5.6.4 Test results

EUT:	+iAndroid Link smart iA box	Model Name:	iA01F60AEUA
Pressure:	1010 hPa	Test Voltage:	DC 5V from adapter AC 120V/60Hz
Test Mode:	TX	Polarization:	--

Below 30MHz

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	Pass
--	--	--	--	Pass

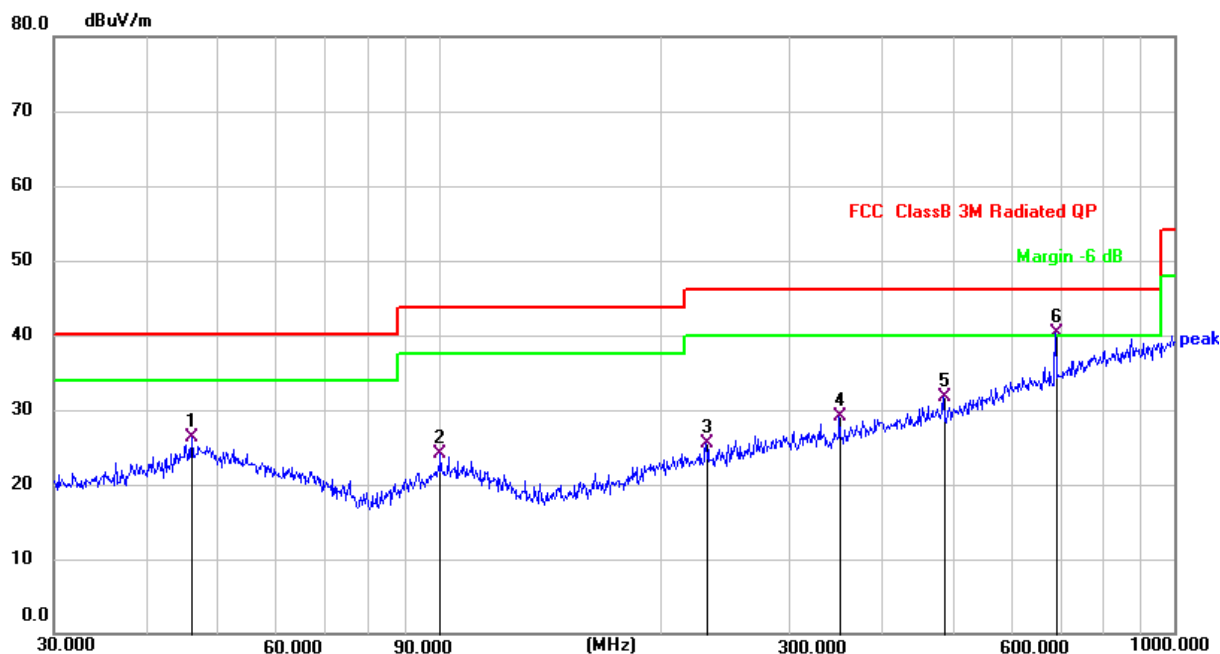
Note:

1. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
2. Distance extrapolation factor = $40 \log (\text{specific distance}/\text{test distance})$ (dB); Limit line = specific limits (dBuV) + distance extrapolation factor.

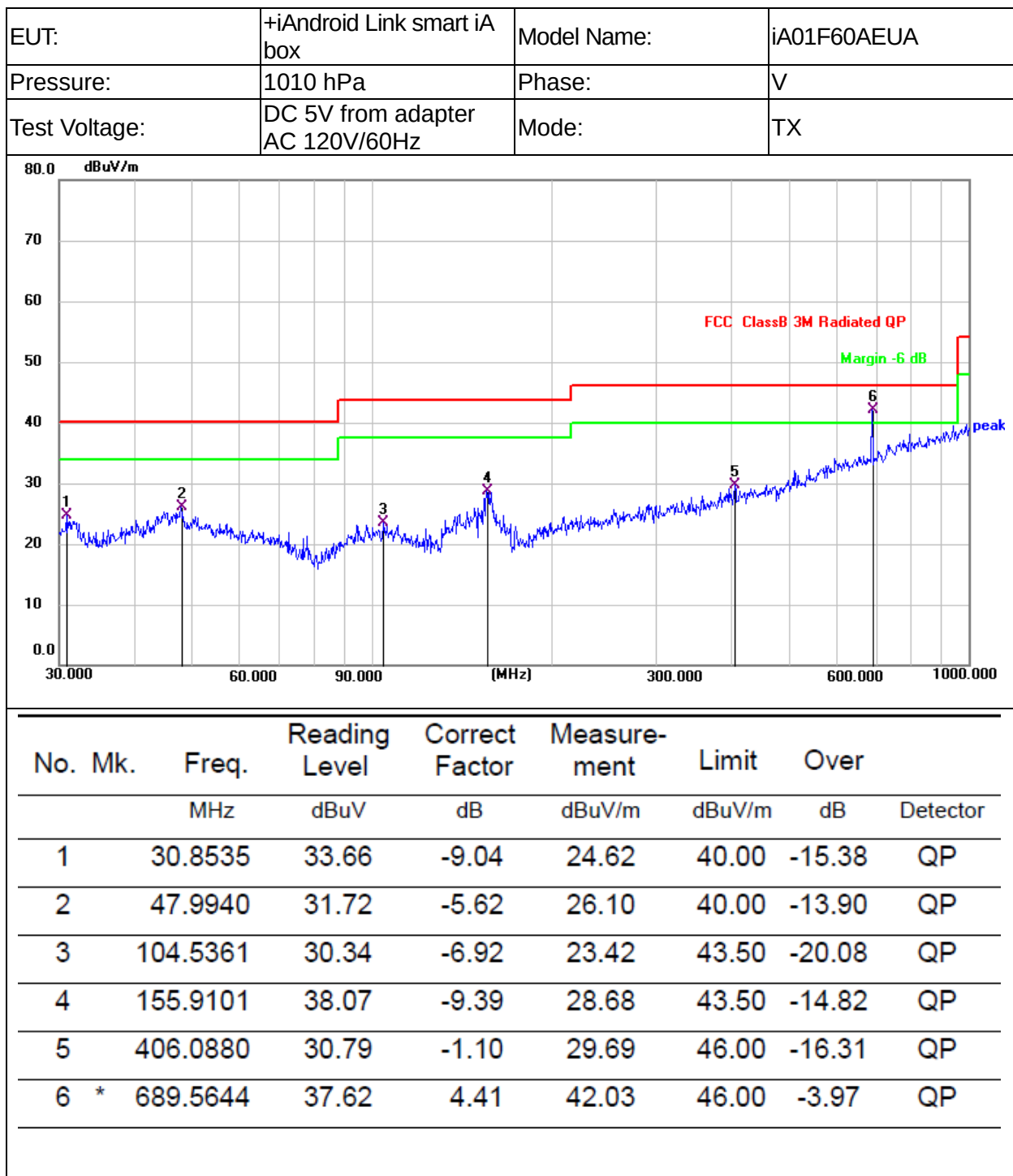


Between 30MHz – 1GHz

EUT:	+iAndroid Link smart iA box	Model Name:	iA01F60AEUA
Pressure:	1010 hPa	Phase:	H
Test Voltage:	DC 5V from adapter AC 120V/60Hz	Mode:	TX



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB Detector
1		46.1779	32.14	-5.93	26.21	40.00	-13.79 QP
2		100.5806	30.91	-6.87	24.04	43.50	-19.46 QP
3		230.9068	30.53	-4.99	25.54	46.00	-20.46 QP
4		350.4768	31.65	-2.58	29.07	46.00	-16.93 QP
5		485.6093	31.64	0.07	31.71	46.00	-14.29 QP
6	*	689.5644	36.18	4.14	40.32	46.00	-5.68 QP



Note:

1. All the mode has been tested for this test, the mode 11a CH165 is the worst mode. Just report the worst data.
2. Emission Level = Meter Reading + Factor, Margin= Emission Level- Limit, Factor = Antenna Factor + Cable Loss – Pre-amplifier.
3. The peak value is less than the AV value, AV value is not required Factor added by measurement software automatically.



1GHz-40GHz:

For U-NII-1

Polar	Frequency	Meter Reading	Cable loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Detector Type
(H/V)	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
802.11a – CH36 (5180 MHz) TX mode									
Vertical	4435.299	55.20	5.94	35.40	44.00	52.54	74.00	-21.46	Pk
Vertical	4435.846	44.81	5.94	35.40	44.00	42.15	54.00	-11.85	AV
Vertical	15541.305	55.71	10.12	38.80	44.10	60.53	74.00	-13.47	Pk
Vertical	15541.590	43.77	10.12	38.80	42.70	49.99	54.00	-4.01	AV
Horizontal	4435.164	58.73	5.94	35.18	44.00	55.85	74.00	-18.15	Pk
Horizontal	4435.795	42.74	5.94	35.18	44.00	39.86	54.00	-14.14	AV
Horizontal	15541.272	58.09	10.12	38.38	44.10	62.49	74.00	-11.51	Pk
Horizontal	15540.819	42.80	10.12	38.38	44.10	47.20	54.00	-6.80	AV
802.11a – CH40 (5200 MHz) TX mode									
Vertical	4592.392	57.39	6.48	36.35	44.05	56.17	74.00	-17.83	Pk
Vertical	4592.524	43.28	6.48	36.35	44.05	42.06	54.00	-11.94	AV
Vertical	15600.258	57.87	10.12	38.8	44.10	62.69	74.00	-11.31	Pk
Vertical	15601.629	41.47	10.12	38.8	42.70	47.69	54.00	-6.31	AV
Horizontal	4592.987	58.84	6.48	36.37	44.05	57.64	74.00	-16.36	Pk
Horizontal	4593.654	41.34	6.48	36.37	44.05	40.14	54.00	-13.86	AV
Horizontal	15601.995	57.98	10.12	38.38	44.10	62.38	74.00	-11.62	Pk
Horizontal	15601.405	43.58	10.12	38.38	44.10	47.98	54.00	-6.02	AV
802.11a – CH48 (5240 MHz) TX mode									
Vertical	4741.113	59.69	7.10	37.24	43.50	60.53	74.00	-13.47	Pk
Vertical	4739.464	45.77	7.10	37.24	43.50	46.61	54.00	-7.39	AV
Vertical	15721.398	58.90	10.12	38.8	44.10	63.72	74.00	-10.28	Pk
Vertical	15720.281	43.01	10.12	38.8	42.70	49.23	54.00	-4.77	AV
Horizontal	4740.385	58.91	7.10	37.24	43.50	59.75	74.00	-14.25	Pk
Horizontal	4739.503	43.91	7.10	37.24	43.50	44.75	54.00	-9.25	AV
Horizontal	15721.519	56.89	10.12	38.38	44.10	61.29	74.00	-12.71	Pk
Horizontal	15720.931	42.14	10.12	38.38	44.10	46.54	54.00	-7.46	AV

Notes:

For above 18GHz tests, the test distance is 1m.



For U-NII-3

Polar	Frequency	Meter Reading	Cable loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Detector Type
(H/V)	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
802.11a – CH149 (5745 MHz) TX mode									
Vertical	4679.573	58.51	5.94	35.40	44.00	55.85	74.00	-18.15	Pk
Vertical	4680.938	47.55	5.94	35.40	44.00	44.89	54.00	-9.11	AV
Vertical	17235.920	58.44	10.12	38.80	44.10	63.26	74.00	-10.74	Pk
Vertical	17235.853	41.36	10.12	38.80	42.70	47.58	54.00	-6.42	AV
Horizontal	4679.915	59.27	5.94	35.18	44.00	56.39	74.00	-17.61	Pk
Horizontal	4680.486	44.75	5.94	35.18	44.00	41.87	54.00	-12.13	AV
Horizontal	17237.016	59.77	10.12	38.38	44.10	64.17	74.00	-9.83	Pk
Horizontal	17235.504	42.72	10.12	38.38	44.10	47.12	54.00	-6.88	AV
802.11a – CH157 (5785 MHz) TX mode									
Vertical	4593.916	58.60	6.48	36.35	44.05	57.38	74.00	-16.62	Pk
Vertical	4594.256	44.42	6.48	36.35	44.05	43.20	54.00	-10.8	AV
Vertical	17357.133	57.89	10.12	38.8	44.10	62.71	74.00	-11.29	Pk
Vertical	17355.525	40.59	10.12	38.8	42.70	46.81	54.00	-7.19	AV
Horizontal	4592.539	60.33	6.48	36.37	44.05	59.13	74.00	-14.87	Pk
Horizontal	4593.171	45.24	6.48	36.37	44.05	44.04	54.00	-9.96	AV
Horizontal	17356.679	59.97	10.12	38.38	44.10	64.37	74.00	-9.63	Pk
Horizontal	17356.150	44.23	10.12	38.38	44.10	48.63	54.00	-5.37	AV
802.11a – CH165 (5825 MHz) TX mode									
Vertical	5041.195	60.93	7.10	37.24	43.50	61.77	74.00	-12.23	Pk
Vertical	5040.930	48.04	7.10	37.24	43.50	48.88	54.00	-5.12	AV
Vertical	17475.586	60.40	10.12	38.8	44.10	65.22	74.00	-8.78	Pk
Vertical	17476.929	40.45	10.12	38.8	42.70	46.67	54.00	-7.33	AV
Horizontal	5040.760	68.17	7.10	37.24	43.50	69.01	74.00	-4.99	Pk
Horizontal	5039.612	43.05	7.10	37.24	43.50	43.89	54.00	-10.11	AV
Horizontal	17475.742	60.93	10.12	38.38	44.10	65.33	74.00	-8.67	Pk
Horizontal	17476.646	45.86	10.12	38.38	44.10	50.26	54.00	-3.74	AV

Band edge - radiated

For U-NII-1

Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector	Polarization
(MHz)	(dBμV)	(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	Peak/AVG	H/V
802.11a – CH36 (5180 MHz) TX mode							
4500	46.37	0.91	47.28	74	-26.72	Peak	V
4500	35.8	0.91	36.71	54	-17.29	AVG	V
5150	61.62	2.41	64.03	74	-9.97	Peak	V
5150	45.3	2.41	47.71	54	-6.29	AVG	V
4500	45.98	0.91	46.89	74	-27.11	Peak	H
4500	36.51	0.91	37.42	54	-16.58	AVG	H
5150	64.21	2.41	66.62	74	-7.38	Peak	H
5150	47.4	2.41	49.81	54	-4.19	AVG	H
802.11a – CH48 (5240 MHz) TX mode							
5350	43.48	3.05	45.91	74	-28.09	Peak	V
5350	33.51	3.05	36.74	54	-17.26	AVG	V
5460	42.48	3.41	46.5	74	-27.5	Peak	V
5460	33.09	3.41	36.81	54	-17.19	AVG	V
5350	42.76	3.05	45.81	74	-28.19	Peak	H
5350	33.76	3.05	36.81	54	-17.19	AVG	H
5460	41.99	3.41	45.4	74	-28.6	Peak	H
5460	33.1	3.41	36.51	54	-17.49	AVG	H



Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector	Polarization
(MHz)	(dB μ V)	(dB/m)	(dB μ V/m)	(dB μ V/m)	(dB)	Peak/AVG	H/V
802.11n20 – CH36 (5180 MHz) TX mode							
4500	45.66	0.91	46.57	74	-27.43	Peak	V
4500	35.7	0.91	36.61	54	-17.39	AVG	V
5150	55.62	2.41	58.03	74	-15.97	Peak	V
5150	44.75	2.41	47.16	54	-6.84	AVG	V
4500	45.45	0.91	46.36	74	-27.64	Peak	H
4500	36.29	0.91	37.2	54	-16.8	AVG	H
5150	59.53	2.41	61.94	74	-12.06	Peak	H
5150	47.66	2.41	50.07	54	-3.93	AVG	H
802.11n20 – CH48 (5240 MHz) TX mode							
5350	43.73	3.05	45.91	74	-28.09	Peak	V
5350	33.77	3.05	36.74	54	-17.26	AVG	V
5460	42.82	3.41	46.5	74	-27.5	Peak	V
5460	33.54	3.41	36.81	54	-17.19	AVG	V
5350	42.94	3.05	45.99	74	-28.01	Peak	H
5350	31.92	3.05	34.97	54	-19.03	AVG	H
5460	43.67	3.41	47.08	74	-26.92	Peak	H
5460	32	3.41	35.41	54	-18.59	AVG	H



Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector	Polarization
(MHz)	(dBμV)	(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	Peak/AVG	H/V
802.11n40 – CH38 (5190 MHz) TX mode							
4500	47.31	0.91	48.22	74	-25.78	Peak	V
4500	36.15	0.91	37.06	54	-16.94	AVG	V
5150	52.49	2.41	54.9	74	-19.1	Peak	V
5150	41.35	2.41	43.76	54	-10.24	AVG	V
4500	46.71	0.91	47.62	74	-26.38	Peak	H
4500	36.65	0.91	37.56	54	-16.44	AVG	H
5150	56.16	2.41	58.57	74	-15.43	Peak	H
5150	44.04	2.41	46.45	54	-7.55	AVG	H
802.11n40 – CH46 (5230 MHz) TX mode							
5350	42.24	3.05	45.91	74	-28.09	Peak	V
5350	33.17	3.05	36.74	54	-17.26	AVG	V
5460	41.97	3.41	46.5	74	-27.5	Peak	V
5460	33.23	3.41	36.81	54	-17.19	AVG	V
5350	42.17	3.05	45.22	74	-28.78	Peak	H
5350	32.52	3.05	35.57	54	-18.43	AVG	H
5460	42.49	3.41	45.9	74	-28.1	Peak	H
5460	33.81	3.41	37.22	54	-16.78	AVG	H



Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector	Polarization
(MHz)	(dBμV)	(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	Peak/AVG	H/V
802.11ac20 – CH36 (5180 MHz) TX mode							
4500	46.84	0.91	47.75	74	-26.25	Peak	V
4500	36.62	0.91	37.53	54	-16.47	AVG	V
5150	60.11	2.41	62.52	74	-11.48	Peak	V
5150	44.98	2.41	47.39	54	-6.61	AVG	V
4500	45.85	0.91	46.76	74	-27.24	Peak	H
4500	36.74	0.91	37.65	54	-16.35	AVG	H
5150	63.6	2.41	66.01	74	-7.99	Peak	H
5150	47.99	2.41	50.4	54	-3.6	AVG	H
802.11ac20 – CH48 (5240 MHz) TX mode							
5350	42.23	3.05	45.91	74	-28.09	Peak	V
5350	32.59	3.05	36.74	54	-17.26	AVG	V
5460	42.57	3.41	46.5	74	-27.5	Peak	V
5460	32.4	3.41	36.81	54	-17.19	AVG	V
5350	43.83	3.05	46.88	74	-27.12	Peak	H
5350	31.93	3.05	34.98	54	-19.02	AVG	H
5460	41.9	3.41	45.31	74	-28.69	Peak	H
5460	32.23	3.41	35.64	54	-18.36	AVG	H



Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector	Polarization
(MHz)	(dBμV)	(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	Peak/AVG	H/V
802.11ac40 – CH38 (5190 MHz) TX mode							
4500	48.34	0.91	49.25	74	-24.75	Peak	V
4500	35.78	0.91	36.69	54	-17.31	AVG	V
5150	53.52	2.41	55.93	74	-18.07	Peak	V
5150	41.15	2.41	43.56	54	-10.44	AVG	V
4500	47.38	0.91	48.29	74	-25.71	Peak	H
4500	36.57	0.91	37.48	54	-16.52	AVG	H
5150	56.3	2.41	58.71	74	-15.29	Peak	H
5150	44.43	2.41	46.84	54	-7.16	AVG	H
802.11ac40 – CH46 (5230 MHz) TX mode							
5350	41.91	3.05	45.91	74	-28.09	Peak	V
5350	33.14	3.05	36.74	54	-17.26	AVG	V
5460	43.38	3.41	46.5	74	-27.5	Peak	V
5460	33.37	3.41	36.81	54	-17.19	AVG	V
5350	42.62	3.05	45.67	74	-28.33	Peak	H
5350	32.75	3.05	35.8	54	-18.2	AVG	H
5460	43.32	3.41	46.73	74	-27.27	Peak	H
5460	32.32	3.41	35.73	54	-18.27	AVG	H



Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector	Polarization
(MHz)	(dBμV)	(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	Peak/AVG	H/V
802.11ac80 – CH42 (5210 MHz) TX mode							
4500	44.54	0.91	45.45	74	-28.55	Peak	V
4500	36.61	0.91	37.52	54	-16.48	AVG	V
5150	56.37	2.41	58.78	74	-15.22	Peak	V
5150	44.55	2.41	46.96	54	-7.04	AVG	V
4500	45.09	0.91	46	74	-28	Peak	H
4500	36.64	0.91	37.55	54	-16.45	AVG	H
5150	60.22	2.41	62.63	74	-11.37	Peak	H
5150	47.64	2.41	50.05	54	-3.95	AVG	H
5350	43.29	3.05	45.91	74	-28.09	Peak	V
5350	32.84	3.05	36.74	54	-17.26	AVG	V
5460	42.95	3.41	46.5	74	-27.5	Peak	V
5460	33.4	3.41	36.81	54	-17.19	AVG	V
5350	42.31	3.05	45.36	74	-28.64	Peak	H
5350	33.13	3.05	36.18	54	-17.82	AVG	H
5460	42.6	3.41	46.01	74	-27.99	Peak	H
5460	32.56	3.41	35.97	54	-18.03	AVG	H



For U-NII-3

Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector	Polarization
(MHz)	(dBμV)	(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	Peak/AVG	H/V
802.11a – CH149 (5745 MHz) TX mode							
5650	48.14	2.2	50.34	68.2	-17.86	Peak	V
5700	56.12	2.36	58.48	105.2	-46.72	Peak	V
5720	62.66	2.42	65.08	110.8	-45.72	Peak	V
5725	73.01	2.43	75.44	122.2	-46.76	Peak	V
5650	48.47	2.2	50.67	68.2	-17.53	Peak	H
5700	57.29	2.36	59.65	105.2	-45.55	Peak	H
5720	63.99	2.42	66.41	110.8	-44.39	Peak	H
5725	75.19	2.43	77.62	122.2	-44.58	Peak	H
802.11a – CH165 (5825 MHz) TX mode							
5850	63.42	4.49	67.91	122.2	-54.29	Peak	V
5855	62.29	4.49	66.78	110.8	-44.02	Peak	V
5875	48.51	4.5	53.01	105.2	-52.19	Peak	V
5925	46.6	4.55	51.15	68.2	-17.05	Peak	V
5850	63.99	4.49	68.48	122.2	-53.72	Peak	H
5855	64.21	4.49	68.7	110.8	-42.1	Peak	H
5875	50.31	4.5	54.81	105.2	-50.39	Peak	H
5925	47.91	4.55	52.46	68.2	-15.74	Peak	H



Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector	Polarization
(MHz)	(dBμV)	(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	Peak/AVG	H/V
802.11n20 – CH149 (5745 MHz) TX mode							
5650	47	2.2	49.2	68.2	-19	Peak	V
5700	52.12	2.36	54.48	105.2	-50.72	Peak	V
5720	68.18	2.42	70.6	110.8	-40.2	Peak	V
5725	72.86	2.43	75.29	122.2	-46.91	Peak	V
5650	47.9	2.2	50.1	68.2	-18.1	Peak	H
5700	53.8	2.36	56.16	105.2	-49.04	Peak	H
5720	69.79	2.42	72.21	110.8	-38.59	Peak	H
5725	75.51	2.43	77.94	122.2	-44.26	Peak	H
802.11 n20 – CH165 (5825 MHz) TX mode							
5850	69.15	4.49	73.64	122.2	-48.56	Peak	V
5855	57.89	4.49	62.38	110.8	-48.42	Peak	V
5875	53.06	4.5	57.56	105.2	-47.64	Peak	V
5925	45.11	4.55	49.66	68.2	-18.54	Peak	V
5850	69.79	4.49	74.28	122.2	-47.92	Peak	H
5855	60.53	4.49	65.02	110.8	-45.78	Peak	H
5875	54.52	4.5	59.02	105.2	-46.18	Peak	H
5925	47.69	4.55	52.24	68.2	-15.96	Peak	H

Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector	Polarization
(MHz)	(dB μ V)	(dB/m)	(dB μ V/m)	(dB μ V/m)	(dB)	Peak/AVG	H/V
802.11n40 – CH151 (5755 MHz) TX mode							
5650	46.69	2.2	48.89	68.2	-19.31	Peak	V
5700	48.5	2.36	50.86	105.2	-54.34	Peak	V
5720	57.17	2.42	59.59	110.8	-51.21	Peak	V
5725	58.58	2.43	61.01	122.2	-61.19	Peak	V
5650	47.46	2.2	49.66	68.2	-18.54	Peak	H
5700	50.11	2.36	52.47	105.2	-52.73	Peak	H
5720	59.61	2.42	62.03	110.8	-48.77	Peak	H
5725	61.14	2.43	63.57	122.2	-58.63	Peak	H
802.11 n40 – CH159 (5795 MHz) TX mode							
5850	59.62	4.49	64.11	122.2	-58.09	Peak	V
5855	55	4.49	59.49	110.8	-51.31	Peak	V
5875	45.85	4.5	50.35	105.2	-54.85	Peak	V
5925	46.18	4.55	50.73	68.2	-17.47	Peak	V
5850	59.61	4.49	64.1	122.2	-58.1	Peak	H
5855	56.16	4.49	60.65	110.8	-50.15	Peak	H
5875	48.45	4.5	52.95	105.2	-52.25	Peak	H
5925	48.15	4.55	52.7	68.2	-15.5	Peak	H



Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector	Polarization
(MHz)	(dBμV)	(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	Peak/AVG	H/V
802.11ac20 – CH149 (5745 MHz) TX mode							
5650	48.59	2.2	50.79	68.2	-17.41	Peak	V
5700	54.35	2.36	56.71	105.2	-48.49	Peak	V
5720	65.26	2.42	67.68	110.8	-43.12	Peak	V
5725	73.68	2.43	76.11	122.2	-46.09	Peak	V
5650	48.76	2.2	50.96	68.2	-17.24	Peak	H
5700	55.86	2.36	58.22	105.2	-46.98	Peak	H
5720	66.83	2.42	69.25	110.8	-41.55	Peak	H
5725	76.46	2.43	78.89	122.2	-43.31	Peak	H
802.11ac20 – CH165 (5825 MHz) TX mode							
5850	66.54	4.49	71.03	122.2	-51.17	Peak	V
5855	63.15	4.49	67.64	110.8	-43.16	Peak	V
5875	53.19	4.5	57.69	105.2	-47.51	Peak	V
5925	45.59	4.55	50.14	68.2	-18.06	Peak	V
5850	66.83	4.49	71.32	122.2	-50.88	Peak	H
5855	64.6	4.49	69.09	110.8	-41.71	Peak	H
5875	54.77	4.5	59.27	105.2	-45.93	Peak	H
5925	46.7	4.55	51.25	68.2	-16.95	Peak	H



Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector	Polarization
(MHz)	(dBμV)	(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	Peak/AVG	H/V
802.11ac40 – CH151 (5755 MHz) TX mode							
5650	48.04	2.2	50.24	68.2	-17.96	Peak	V
5700	48.02	2.36	50.38	105.2	-54.82	Peak	V
5720	57.97	2.42	60.39	110.8	-50.41	Peak	V
5725	59.44	2.43	61.87	122.2	-60.33	Peak	V
5650	47.53	2.2	49.73	68.2	-18.47	Peak	H
5700	49.72	2.36	52.08	105.2	-53.12	Peak	H
5720	60.91	2.42	63.33	110.8	-47.47	Peak	H
5725	61.01	2.43	63.44	122.2	-58.76	Peak	H
802.11ac40 – CH159 (5795 MHz) TX mode							
5850	61.57	4.49	66.06	122.2	-56.14	Peak	V
5855	54.16	4.49	58.65	110.8	-52.15	Peak	V
5875	46.42	4.5	50.92	105.2	-54.28	Peak	V
5925	46.54	4.55	51.09	68.2	-17.11	Peak	V
5850	60.91	4.49	65.4	122.2	-56.8	Peak	H
5855	56.3	4.49	60.79	110.8	-50.01	Peak	H
5875	48.16	4.5	52.66	105.2	-52.54	Peak	H
5925	47.66	4.55	52.21	68.2	-15.99	Peak	H

Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector	Polarization
(MHz)	(dBμV)	(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	Peak/AVG	H/V
802.11ac80 – CH155 (5775 MHz) TX mode							
5650	47.87	2.2	50.07	68.2	-18.13	Peak	V
5700	57.62	2.36	59.98	105.2	-45.22	Peak	V
5720	63.13	2.42	65.55	110.8	-45.25	Peak	V
5725	65.28	2.43	67.71	122.2	-54.49	Peak	V
5650	47.81	2.2	50.01	68.2	-18.19	Peak	H
5700	58.96	2.36	61.32	105.2	-43.88	Peak	H
5720	64.35	2.42	66.77	110.8	-44.03	Peak	H
5725	67.08	2.43	69.51	122.2	-52.69	Peak	H
5850	63.13	4.49	67.62	122.2	-54.58	Peak	V
5855	60.22	4.49	64.71	110.8	-46.09	Peak	V
5875	55.55	4.5	60.05	105.2	-45.15	Peak	V
5925	48.42	4.55	52.97	68.2	-15.23	Peak	V
5850	63.74	4.49	68.23	122.2	-53.97	Peak	H
5855	60.26	4.49	64.75	110.8	-46.05	Peak	H
5875	56.77	4.5	61.27	105.2	-43.93	Peak	H
5925	49.28	4.55	53.83	68.2	-14.37	Peak	H



5.7 Power spectral density

5.7.1 Limit

For the band 5.15-5.25 GHz

For client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.25-5.35 GHz and 5.47-5.725 GHz

The maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz

The maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

5.7.2 Test procedure

For U-NII-1

1. Set analyzer center frequency to NII channel center frequency.
2. Set the RBW $\geq$ 1MHz.
3. Set the VBW $\geq$ 3 x RBW.
4. Detector = peak.
5. Sweep time = auto couple.
6. Trace mode = max hold.
7. Allow trace to fully stabilize.
8. Use the peak marker function to determine the maximum amplitude level.

For U-NII-3

1. Set analyzer center frequency to NII channel center frequency.
2. Set the RBW $\geq$ 510kHz.
3. Set the VBW $\geq$ 3 x RBW.
4. Detector = peak.
5. Sweep time = auto couple.
6. Trace mode = max hold.
7. Allow trace to fully stabilize.
8. Use the peak marker function to determine the maximum amplitude level.



5.7.3 Test setup



5.7.4 Test results

For U-NII-1

Mode	Channel	Frequency(MHz)	Measurement PSD (dBm/MHz)	Limit (dBm/MHz)	Result
11a	CH36	5180	5.643	11	Pass
11a	CH44	5220	5.444	11	Pass
11a	CH48	5240	5.586	11	Pass
11n(HT20)	CH36	5180	2.981	11	Pass
11n(HT20)	CH44	5220	3.405	11	Pass
11n(HT20)	CH48	5240	2.816	11	Pass
11n(HT40)	CH38	5190	0.247	11	Pass
11n(HT40)	CH46	5230	0.159	11	Pass
11ac(HT20)	CH36	5180	1.578	11	Pass
11ac (HT20)	CH40	5200	1.651	11	Pass
11ac (HT20)	CH48	5240	0.906	11	Pass
11ac (HT40)	CH38	5190	-2.327	11	Pass
11ac (HT40)	CH46	5230	-2.835	11	Pass
11ac (HT80)	CH42	5210	-6.885	11	Pass



For U-NII-3

Mode	Channel	Frequency (MHz)	PSD (dBm/510kHz)	PSD (dBm/500kHz)	Limit (dBm/500kHz)	Result
11a	CH149	5745	9.908	9.598	30	Pass
11a	CH157	5785	3.115	2.009	30	Pass
11a	CH165	5825	8.479	6.907	30	Pass
11n20	CH149	5745	0.676	1.146	30	Pass
11n20	CH157	5785	0.843	1.190	30	Pass
11n20	CH165	5825	1.705	1.452	30	Pass
11n40	CH151	5755	-2.095	0.605	30	Pass
11n40	CH159	5795	-2.350	0.571	30	Pass
11ac20	CH149	5745	-1.957	0.625	30	Pass
11ac20	CH157	5785	-0.928	0.792	30	Pass
11ac20	CH165	5825	-1.083	0.764	30	Pass
11ac40	CH151	5755	-5.589	0.271	30	Pass
11ac40	CH159	5795	-5.725	0.262	30	Pass
11ac80	CH155	5775	-8.493	0.139	30	Pass

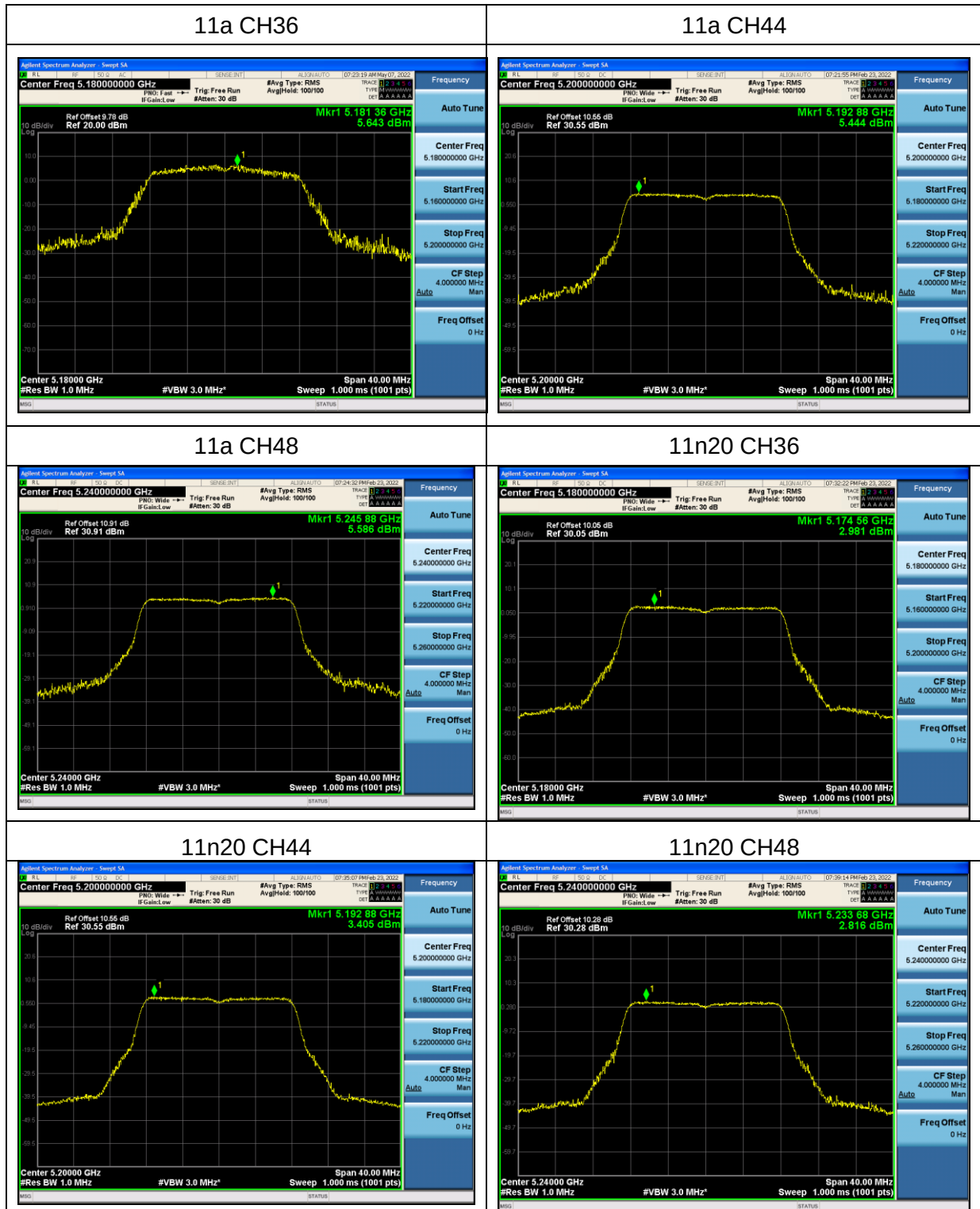
Note: If the measurement is X dBm/510kHz, thus X dBm/510kHz =

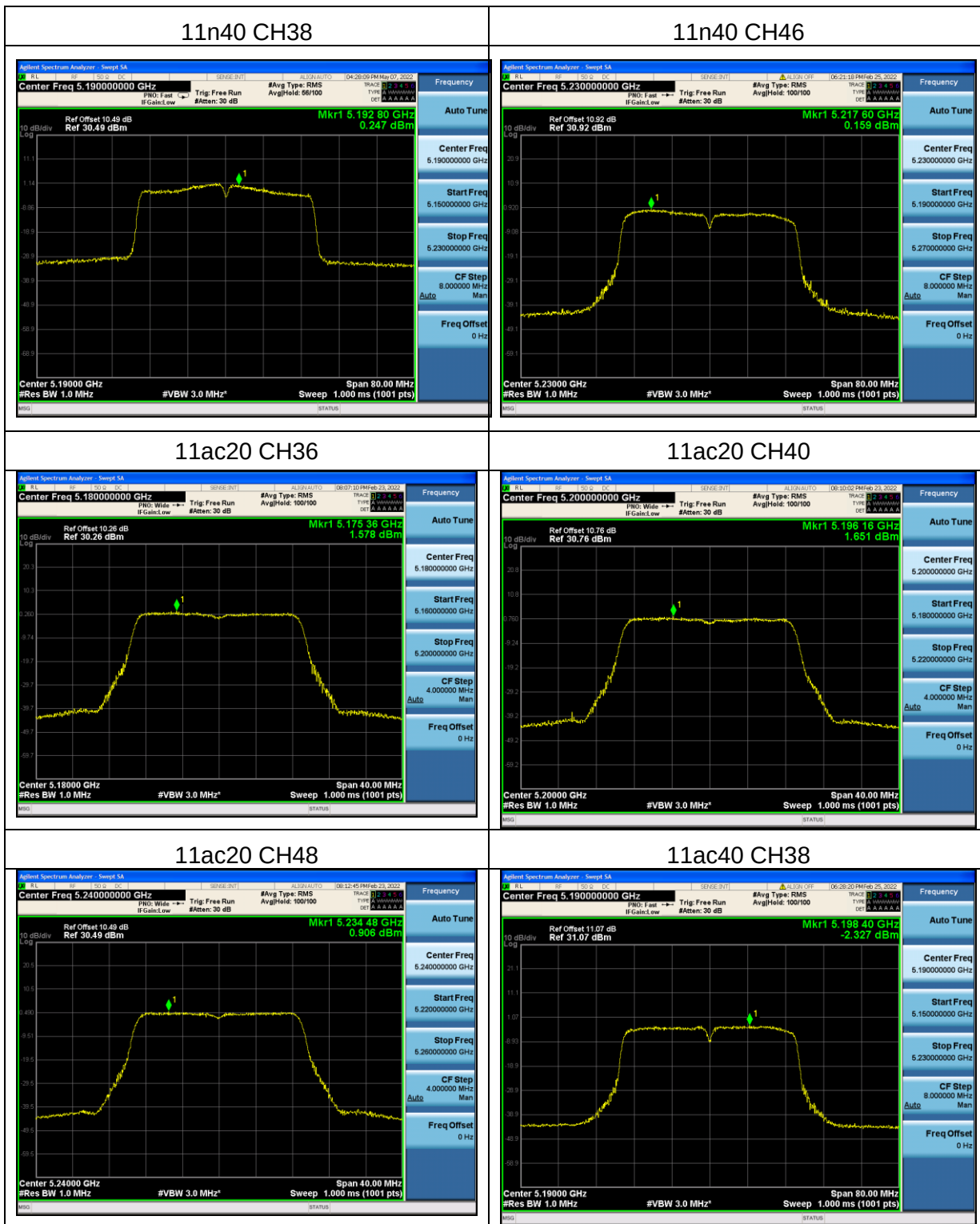
$$(10^{X/10}) \cdot (500 / 510) \text{ mW/500kHz} = 10 \cdot \lg 10 \{ (10^{X/10}) \cdot (500 / 510) \} \text{ dBm/500kHz}$$

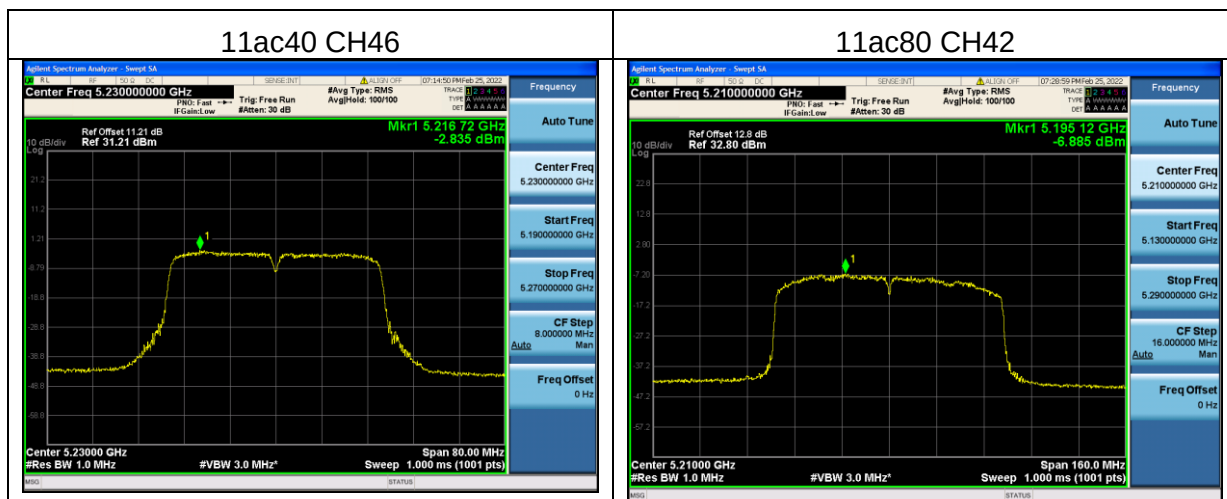


Test plots

For U-NII-1



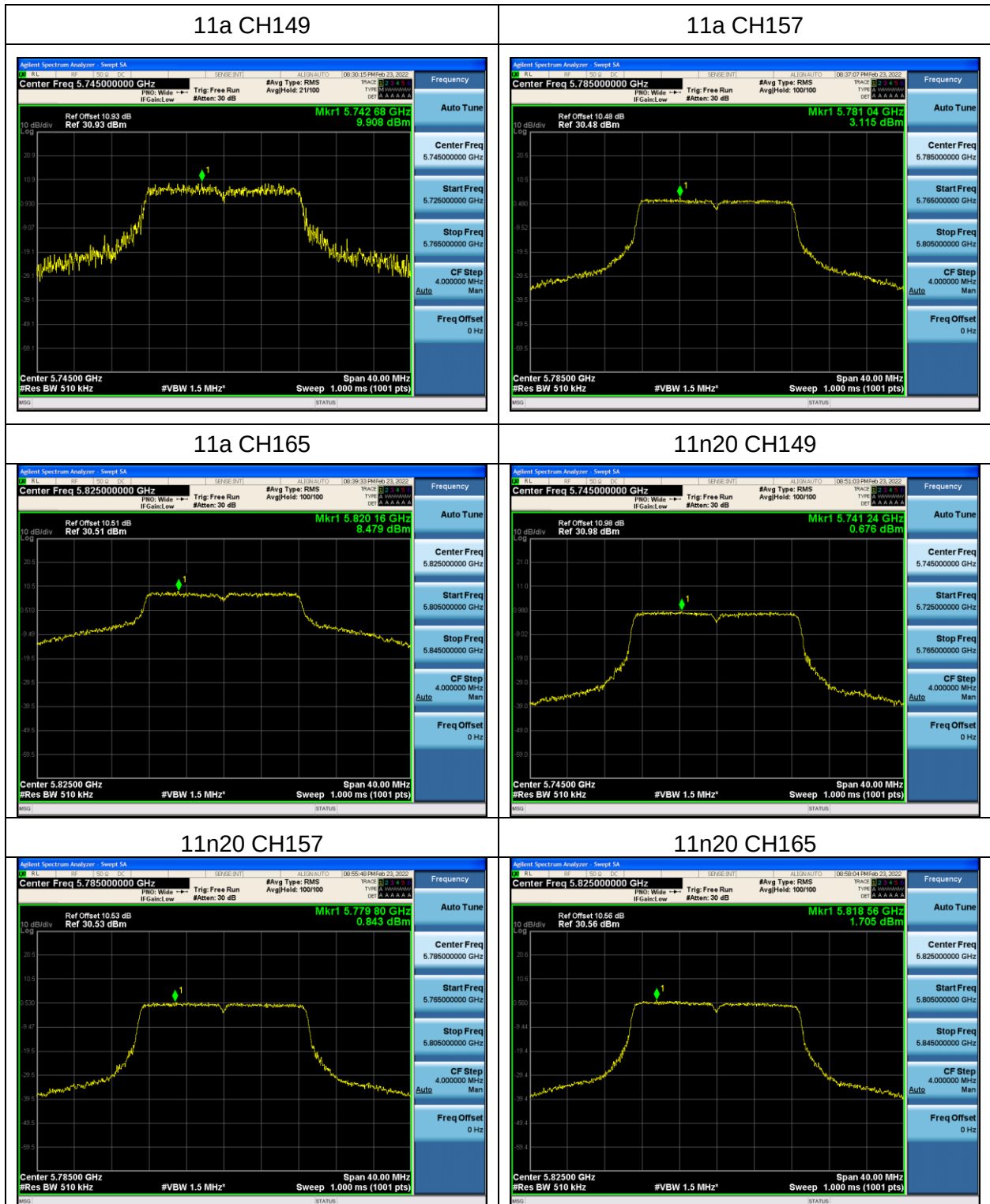






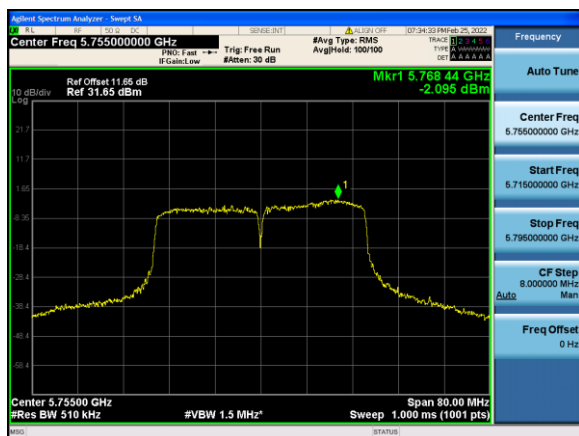
Test plots

For U-NII-3

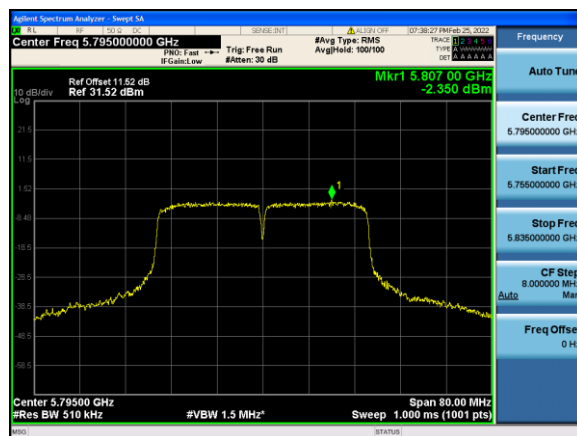




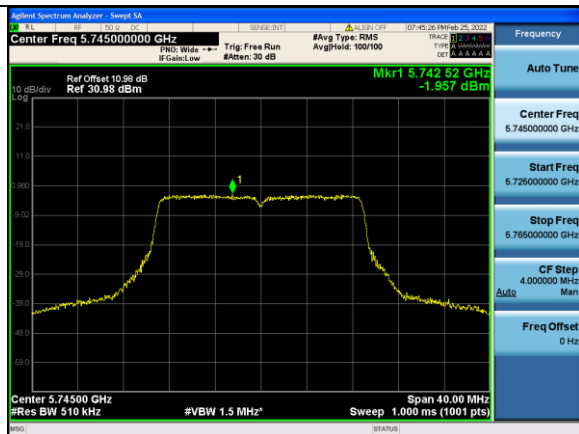
11n40 CH151



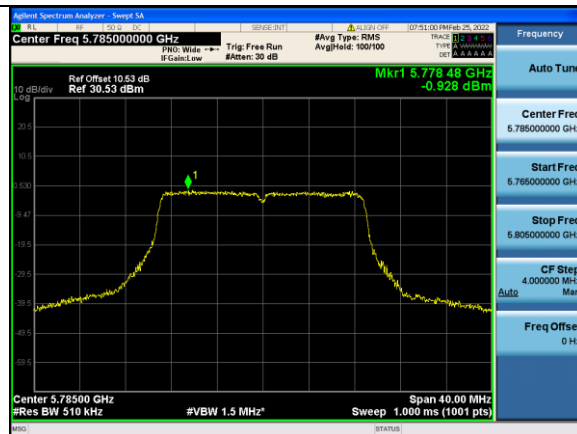
11n40 CH159



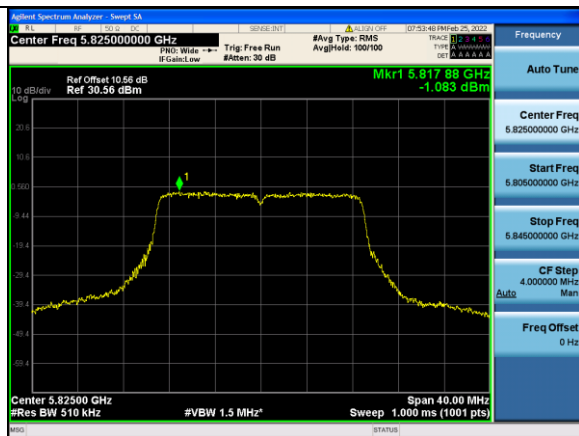
11ac20 CH149



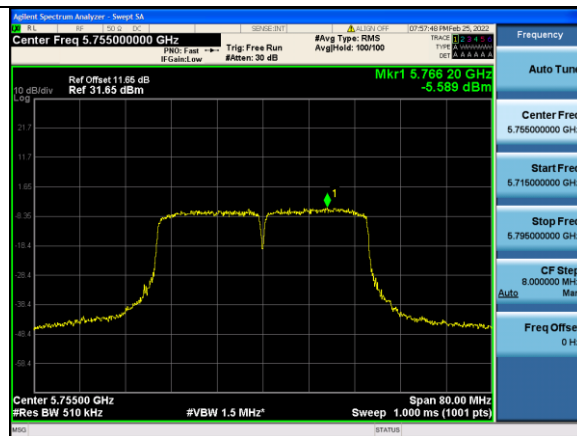
11ac20 CH157

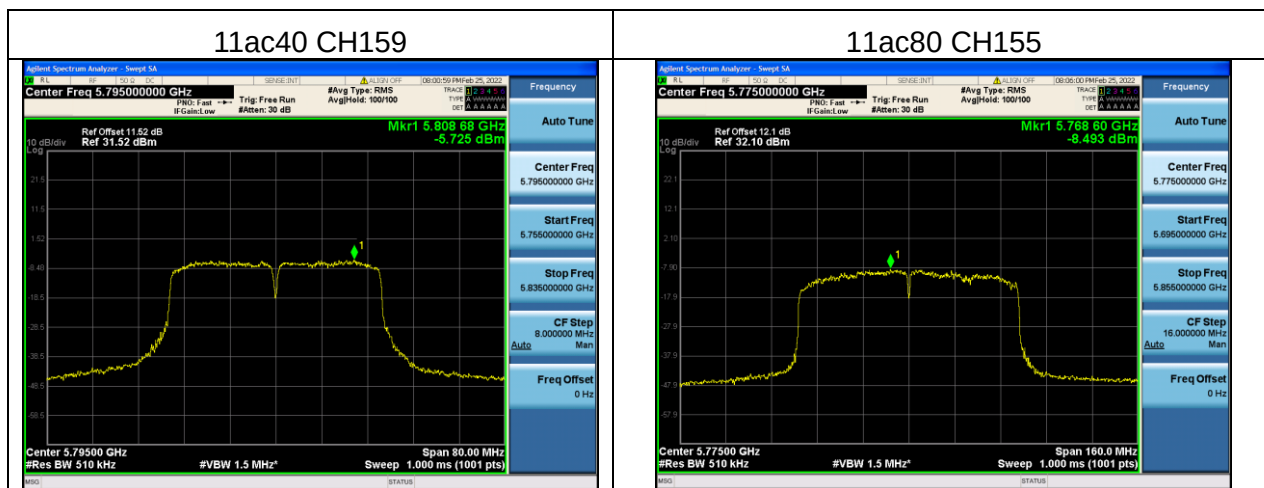


11ac20 CH165



11ac40 CH151







5.8 Frequency Stability Measurement

5.8.1 Limits

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 in the user's manual.

5.8.2 Test Procedures

ANSI C63.10-2013 Clause 6.8.

5.8.3 Test results

Note: the extreme temperature is $-20^{\circ}\text{C} \sim 70^{\circ}\text{C}$, which is declared by manufacture