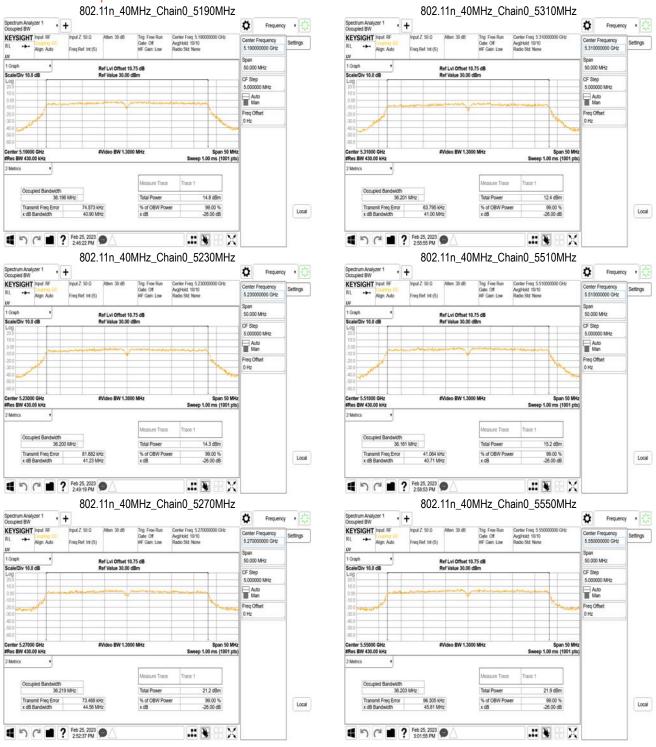


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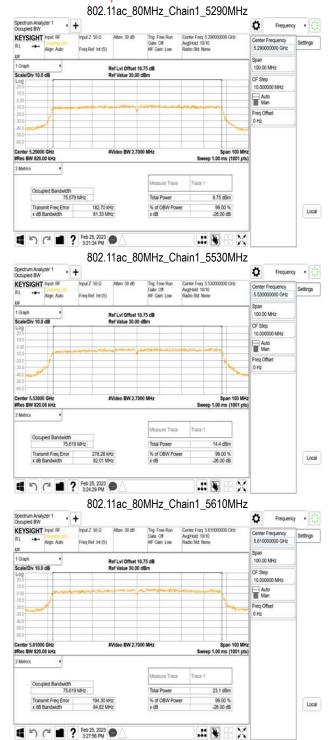
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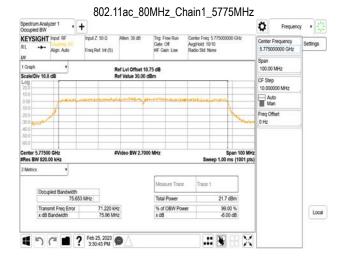
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# MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

#### 9.1 Standard Applicable

#### 9.1.1 **Duty Cycle**

Pre-analysis Check: While conducting average power measurement, duty cycle of each mode shall be checked to ensure its duty cycle in order to compensate for the loss due to insufficient ratio of duty cycle.

All duty cycle is pre-scanned, and result as obtained below shows only the most representative ones where duty cycle is conducted as the given transmission with given virtual operation that expresses the percentage.

#### 9.1.2 **Output Power**

			e-CRF Title	47 §15.407	
(	EUT CATEGORY	Conducted Output Power	EIRP	TPC	Antenna Directional Gain Requirements
	Fixed point-to- point	1 Watt(30dBm)	Not required	Not required	23dBi
	Out door AP	1 Watt(30dBm)	Elevation angle above 30 degrees 125mW (21dBm)	Not required	6dBi
	Indoor AP	1 Watt(30dBm) Not required		Not required	6dBi
٧	Other	250mW(23.98dBm)	Not required	Not required	6dBi
V	Other	250mW(23.98dBm) or 11dBm+10 log B	Not required	When EIRP >500mW At least 6dB below EIRP	6dBi
٧	Other	250mW(23.98dBm) or 11dBm+10 log B	Not required	1W (30dBm)	6dBi
٧	V Other 1 Watt(30dBm) Not required		Not required	Not required	6dBi
	Fixed point-to-point	1 Watt(30dBm)	Not required	Not required	Not required
	V V	Fixed point-to-point Out door AP Indoor AP V Other V Other V Other V Other	CATEGORY         Conducted Output Power           Fixed point-topoint         1 Watt(30dBm)           Out door AP         1 Watt(30dBm)           Indoor AP         1 Watt(30dBm)           V         Other         250mW(23.98dBm)           V         Other         250mW(23.98dBm)           V         Other         250mW(23.98dBm)           V         Other         250mW(23.98dBm)           Or 11dBm+10 log B         0r 11dBm+10 log B           V         Other         1 Watt(30dBm)	Fixed point-to-point 1 Watt(30dBm) Not required  Out door AP 1 Watt(30dBm) Not required  Indoor AP 1 Watt(30dBm) Not required  V Other 250mW(23.98dBm) Not required  V Other 250mW(23.98dBm) or 11dBm+10 log B  V Other 1 Watt(30dBm) Not required  V Other 1 Watt(30dBm) Not required  Not required  Not required  Not required	CATEGORY  Conducted Output Power  Fixed point-topoint  Out door AP  I Watt(30dBm)  Out door AP  I Watt(30dBm)  Indoor AP  I Watt(30dBm)  Indoor AP  I Watt(30dBm)  Not required  V Other  Conducted Output Power  I Watt(30dBm)  Not required  Not required  Not required  When EIRP >500mW  At least 6dB below EIRP  TPC  Ty  Other  I Watt(30dBm)  Not required  Not required  V Other  Conducted Output  I Watt(30dBm)  Not required  Not required

<sup>1.</sup> If transmitting antennas of directional gain greater than the antenna requirements column, the Maximum transmit power shall be reduced by the amount in dB that the direction-al gain of the antenna.

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<sup>2.</sup> For the 10 log B, B is the 26 dB emission bandwidth.



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FREQUENCY			RSS-247 §6	6.2.1~6.2.4	
BAND (MHz)		EUT CATEGORY	EIRP	Conducted Output Power	TPC
5150~5250		OEM devices installed in vehicles	30 mW or 1.76 + 10 log10B	N/A	At least 3dB below 30mW EIRP
	V	Other device	200 mW or 10 + 10 log10B dBm	N/A	N/A
	OEM device installed in vehi		30 mW or 1.76 + 10 log10B	N/A	At least 3dB below 30mW EIRP
5250~5350	V	Other device	1.0 W or 17 + 10 log10B dBm	250 mW or 11 +10 log10B	EIRP >500mW, at least 6dB below 1W EIRP
3233 3333		Outdoor Fixed with EIRP>200mW	-13 dBW/MHz for $0^{\circ} \le \theta < 8^{\circ}$ -13 -0.716 ( $\theta$ -8) dBW/MHz for $8^{\circ} \le \theta < 40^{\circ}$ -35.9 -1.22 ( $\theta$ -40) dBW/MHz for $40^{\circ} \le \theta \le 45^{\circ}$ -42 dBW/MHz for $\theta > 45^{\circ}$	N/A	EIRP >500mW, at least 6dB below 1W EIRP
5470-5600 and 5650-5725	V	All	1.0 W or 17 + 10 log10B dBm	250 mW or 11 +10 log10B	EIRP >500mW, at least 6dB below 1W EIRP
5725~5850	V	All	N/A	1 W	N/A

<sup>1</sup> For equipment operating in the band 5725-5850 MHz, If transmitting antennas of directional gain greater than 6 dBi are used, the Maximum transmit power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

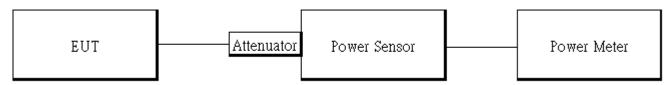
## 2. For the 10 log B, B is the 99% emission bandwidth.

#### 9.2 **Test Setup**

#### 9.2.1 **Duty Cycle**



#### 9.2.2 **Output Power**



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## Measurement Procedure

#### 9.3.1 **Duty Cycle Measurements**

- 1. Set span = Zero
- 2. RBW = 8MHz
- VBW = 8MHz.
- 4. Detector = Peak

#### 9.3.2 **Output Power Measurements**

- 1 Place the EUT on the table and set it in transmitting mode.
- The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules. 2.
- Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the power meter
- Power Meter is used as the auxiliary test equipment to conduct the output power meas-4.
- Record the max. reading and add 10 log(1/duty cycle).
- Repeat above procedures until all frequency (low, middle, and high channel) measured were complete.
- 7. MIMO mode: offset is set with "measure and add 10 Log (N)" to measurement for MIMO mode. Offset = cable loss + 10 log (N), where N is number of transmitting antenna, cable loss is specified below.

### Note:

As per section F. 2). e). (ii) of FCC KDB 662911 D01

If antenna gains are not equal and each transmit antenna is driven by only one spatial stream, directional gain may be calculated by either of the following formulas.

• Directional Gain = 
$$10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^{2}}{N_{ANT}} \right]$$

## where

Each antenna is driven by no more than one spatial stream;

NSS = the number of independent spatial streams of data;

NANT = the total number of antennas

 $g_{i,k} = /20$  10Gk if the kth antenna is being fed by spatial stream i, or zero if it is not;  $\hat{G}_k$  is the gain in dBi of the kth antenna.

The antenna gain is grater than 6 dBi in MIMO mode, therefore the the power density limit autenuation has been applied in the test results.

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### 9.4 **Duty Cycle Measurement Result**

Mode	Duty Cycle (%) =Ton / (Ton+Toff)	Duty Factor (dB) =10*log ( 1/Duty Cycle )	1/T (kHz)	VBW setting (kHz)
802.11a	95.82	0.19	0.48	1.00
802.11n_20	95.72	0.19	0.52	1.00
802.11ac_20	92.02	0.36	1.01	2.00
802.11n_40	92.58	0.33	1.05	2.00
802.11ac_40	86.81	0.61	2.00	2.00
802.11ac_80	75.29	1.23	3.91	4.00

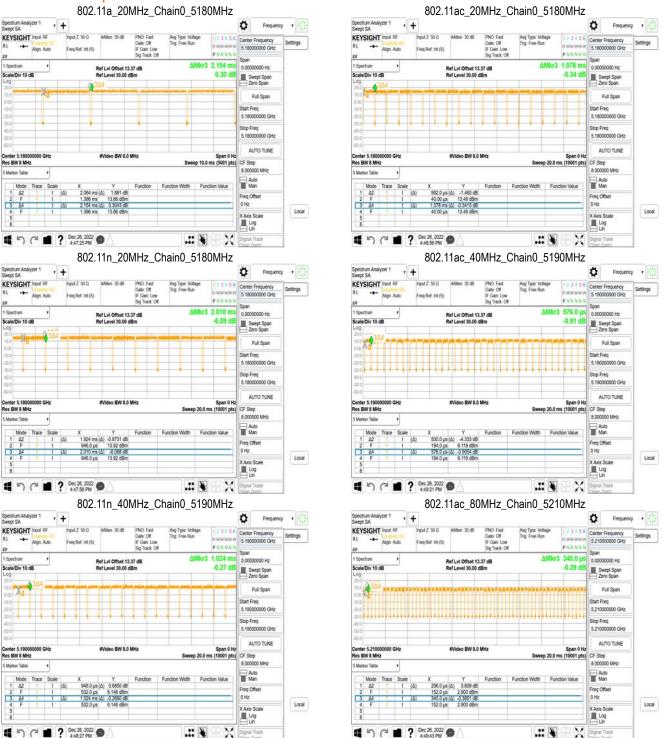
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#### 9.5 **Output Power Measurement Result**

# 9.5.1 FCC Output power

# 802 11a Ch0

802.11a_C	2110						
СН	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	6	10	9.66	9.237	23.98	PASS
44	5220	6	10	9.64	9.195	23.98	PASS
48	5240	6	10	9.51	8.924	23.98	PASS
52	5260	6	18	17.51	56.305	23.98	PASS
60	5300	6	18	17.64	58.015	23.98	PASS
64	5320	6	16	15.71	37.200	23.98	PASS
100	5500	6	14	13.37	21.704	23.98	PASS
116	5580	6	18	17.43	55.277	23.98	PASS
140	5700	6	8	8.08	6.420	23.98	PASS
149	5745	6	18	17.84	60.750	30	PASS
157	5785	6	18	17.75	59.504	30	PASS
165	5825	6	18	17.61	57.616	30	PASS

## 802.11a Ch1

СН	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	6	9	8.72	7.440	23.98	PASS
44	5220	6	9	8.81	7.595	23.98	PASS
48	5240	6	9	9.01	7.953	23.98	PASS
52	5260	6	17	16.96	49.607	23.98	PASS
60	5300	6	17	17.11	51.350	23.98	PASS
64	5320	6	15	15.22	33.231	23.98	PASS
100	5500	6	13	12.47	17.642	23.98	PASS
116	5580	6	16	15.89	38.774	23.98	PASS
140	5700	6	7	7.07	5.088	23.98	PASS
149	5745	6	16	15.97	39.495	30	PASS
157	5785	6	17	17.05	50.646	30	PASS
165	5825	6	17	17.06	50.763	30	PASS

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802.11a 2TX

	Frequency	Data	Power	Avg. POV	VER (dBm)	TOTAL	TOTAL	REQUIRED	
СН	(MHz)	Rate	set	Ch0	Ch1	POWER (dBm)	POWER (mW)	LIMIT (dBm)	RESULT
36	5180	6	10	10.95544	10.65544	13.82	24.090	21.97	PASS
44	5220	6	10	10.75544	10.80544	13.79	23.938	21.97	PASS
48	5240	6	10	10.55544	11.14544	13.87	24.382	21.97	PASS
52	5260	6	17	17.62544	18.08544	20.87	122.231	21.97	PASS
60	5300	6	17	17.49544	18.00544	20.77	119.350	21.97	PASS
64	5320	6	15	15.54544	16.35544	18.98	79.060	21.97	PASS
100	5500	6	12	12.46544	12.73544	15.61	36.415	21.97	PASS
116	5580	6	17	17.43544	18.03544	20.76	119.017	21.97	PASS
140	5700	6	7	8.115438	8.255438	11.20	13.171	21.97	PASS
149	5745	6	17	17.46544	17.84544	20.67	116.678	27.99	PASS
157	5785	6	17	17.45544	18.09544	20.80	120.158	27.99	PASS
165	5825	6	17	17.76544	18.04544	20.92	123.538	27.99	PASS

### 802.11n HT20 Ch0

СН	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	MCS0	10	9.42	8.750	23.98	PASS
44	5220	MCS0	10	9.46	8.831	23.98	PASS
48	5240	MCS0	11	10.14	10.328	23.98	PASS
52	5260	MCS0	18	17.34	54.200	23.98	PASS
60	5300	MCS0	18	17.46	55.718	23.98	PASS
64	5320	MCS0	16	15.55	35.892	23.98	PASS
100	5500	MCS0	13	12.18	16.520	23.98	PASS
116	5580	MCS0	18	17.31	53.827	23.98	PASS
140	5700	MCS0	12	11.72	14.859	23.98	PASS
149	5745	MCS0	18	17.72	59.156	30	PASS
157	5785	MCS0	18	14.58	28.708	30	PASS
165	5825	MCS0	18	17.48	55.975	30	PASS

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# 802.11n\_HT20\_Ch1

СН	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	MCS0	10	9.48	8.872	23.98	PASS
44	5220	MCS0	10	9.65	9.226	23.98	PASS
48	5240	MCS0	10	9.72	9.376	23.98	PASS
52	5260	MCS0	17	16.83	48.194	23.98	PASS
60	5300	MCS0	17	17.02	50.350	23.98	PASS
64	5320	MCS0	15	14.94	31.189	23.98	PASS
100	5500	MCS0	13	12.26	16.827	23.98	PASS
116	5580	MCS0	17	16.78	47.643	23.98	PASS
140	5700	MCS0	11	10.93	12.388	23.98	PASS
149	5745	MCS0	17	16.93	49.317	30	PASS
157	5785	MCS0	17	16.87	48.640	30	PASS
165	5825	MCS0	17	16.95	49.545	30	PASS

## 802.11n HT20 2TX

СН	Frequency	Data	Power	Avg. POV	VER (dBm)	TOTAL	TOTAL	REQUIRED	RESULT
СП	(MHz)	Rate	set	Ch0	Ch1	POWER (dBm)	POWER (mW)	LIMIT (dBm)	RESULI
36	5180	MCS0	10	9.749973	9.779973	12.78	18.947	21.97	PASS
44	5220	MCS0	10	9.659973	9.829973	12.76	18.863	21.97	PASS
48	5240	MCS0	10	9.309973	10.00997	12.68	18.554	21.97	PASS
52	5260	MCS0	17	16.56997	17.09997	19.85	96.680	21.97	PASS
60	5300	MCS0	17	16.59997	17.27997	19.96	99.165	21.97	PASS
64	5320	MCS0	15	14.61997	15.17997	17.92	61.934	21.97	PASS
100	5500	MCS0	12	11.41997	11.73997	14.59	28.795	21.97	PASS
116	5580	MCS0	17	16.55997	17.07997	19.84	96.340	21.97	PASS
140	5700	MCS0	11	10.86997	11.40997	14.16	26.053	21.97	PASS
149	5745	MCS0	17	16.76997	17.35997	20.09	101.983	27.99	PASS
157	5785	MCS0	17	16.67997	17.23997	19.98	99.524	27.99	PASS
165	5825	MCS0	17	16.64997	17.24997	19.97	99.326	27.99	PASS

# 802 11n HT40 Ch0

СН	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
38	5190	MCS0	11	11.21	13.228	23.98	PASS
46	5230	MCS0	11	11.29	13.474	23.98	PASS
54	5270	MCS0	18	18.22	66.448	23.98	PASS
62	5310	MCS0	12	12.04	16.013	23.98	PASS
102	5510	MCS0	12	12.01	15.903	23.98	PASS
110	5550	MCS0	18	18.16	65.536	23.98	PASS
134	5670	MCS0	12	12.47	17.680	23.98	PASS
151	5755	MCS0	18	18.62	72.859	30	PASS
159	5795	MCS0	18	18.57	72.025	30	PASS

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## 802.11n\_HT40\_Ch1

СН	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
38	5190	MCS0	10	10.37	10.901	23.98	PASS
46	5230	MCS0	10	10.46	11.130	23.98	PASS
54	5270	MCS0	17	17.57	57.211	23.98	PASS
62	5310	MCS0	12	12.62	18.301	23.98	PASS
102	5510	MCS0	12	12.09	16.199	23.98	PASS
110	5550	MCS0	17	17.65	58.275	23.98	PASS
134	5670	MCS0	12	12.64	18.386	23.98	PASS
151	5755	MCS0	17	17.96	62.587	30	PASS
159	5795	MCS0	17	17.77	59.908	30	PASS

802.11n HT40 2TX

СН	Frequency	Data	Power	Avg. POW	/ER (dBm)	TOTAL	TOTAL	REQUIRED LIMIT	DECI T
Сп	(MHz)	Rate	set	Ch0	Ch1	POWER (dBm)	POWER (mW)	(dBm)	RESULT
38	5190	MCS0	10	10.50483	10.55483	13.54	22.595	21.97	PASS
46	5230	MCS0	10	10.48483	10.64483	13.58	22.782	21.97	PASS
54	5270	MCS0	17	17.46483	17.91483	20.71	117.651	21.97	PASS
62	5310	MCS0	9	9.264828	9.994828	12.66	18.431	21.97	PASS
102	5510	MCS0	11	11.22483	11.60483	14.43	27.729	21.97	PASS
110	5550	MCS0	17	17.35483	18.03483	20.72	117.989	21.97	PASS
134	5670	MCS0	12	12.49483	12.81483	15.67	36.881	21.97	PASS
151	5755	MCS0	17	17.64483	18.10483	20.89	122.778	27.99	PASS
159	5795	MCS0	17	17.59483	18.14483	20.89	122.711	27.99	PASS

# 802.11ac VHT20 Ch0

СН	Frequency	Data	Power	TOTAL POWER	TOTAL POWER	REQUIRED LIMIT	RESULT
	(MHz)	Rate	set	(dBm)	(mW)	(dBm)	
36	5180	MCS0	10	9.65	9.228	23.98	PASS
44	5220	MCS0	10	9.59	9.102	23.98	PASS
48	5240	MCS0	10	9.52	8.956	23.98	PASS
52	5260	MCS0	18	17.53	56.639	23.98	PASS
60	5300	MCS0	17	16.70	46.786	23.98	PASS
64	5320	MCS0	16	15.67	36.908	23.98	PASS
100	5500	MCS0	13	12.34	17.144	23.98	PASS
116	5580	MCS0	18	17.39	54.843	23.98	PASS
140	5700	MCS0	11	10.89	12.278	23.98	PASS
149	5745	MCS0	17	16.88	48.766	30	PASS
157	5785	MCS0	18	17.75	59.582	30	PASS
165	5825	MCS0	18	17.57	57.163	30	PASS

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## 802.11ac VHT20 Ch1

СН	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	MCS0	9	9.74	9.421	23.98	PASS
44	5220	MCS0	9	9.89	9.753	23.98	PASS
48	5240	MCS0	10	10.04	10.095	23.98	PASS
52	5260	MCS0	17	18.15	65.331	23.98	PASS
60	5300	MCS0	16	17.08	51.064	23.98	PASS
64	5320	MCS0	15	16.23	41.987	23.98	PASS
100	5500	MCS0	12	12.48	17.706	23.98	PASS
116	5580	MCS0	17	18.11	64.732	23.98	PASS
140	5700	MCS0	11	11.07	12.797	23.98	PASS
149	5745	MCS0	16	17.20	52.495	30	PASS
157	5785	MCS0	17	18.17	65.632	30	PASS
165	5825	MCS0	17	18.21	66.240	30	PASS

## 802.11ac VHT20 2TX

СН	Frequency	Data	Power	Avg. POW	VER (dBm)	TOTAL POWER	TOTAL POWER	REQUIRED LIMIT	RESULT
Сп	(MHz)	Rate	set	Ch0	Ch1	(dBm)	(mW)	(dBm)	RESULI
36	5180	MCS0	10	9.581178	9.821178	12.71	18.677	21.97	PASS
44	5220	MCS0	10	9.601178	9.881178	12.75	18.853	21.97	PASS
48	5240	MCS0	9	8.581178	9.041178	11.83	15.232	21.97	PASS
52	5260	MCS0	17	16.64118	17.01118	19.84	96.392	21.97	PASS
60	5300	MCS0	17	16.61118	17.23118	19.94	98.685	21.97	PASS
64	5320	MCS0	15	14.49118	15.26118	17.90	61.710	21.97	PASS
100	5500	MCS0	12	11.45118	11.69118	14.58	28.729	21.97	PASS
116	5580	MCS0	17	16.48118	17.14118	19.83	96.250	21.97	PASS
140	5700	MCS0	11	10.92118	11.34118	14.15	25.981	21.97	PASS
149	5745	MCS0	17	16.78118	17.33118	20.08	101.746	27.99	PASS
157	5785	MCS0	17	16.69118	17.19118	19.96	99.053	27.99	PASS
165	5825	MCS0	17	16.63118	17.22118	19.95	98.775	27.99	PASS

# 802.11ac\_VHT40\_Ch0

СН	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
38	5190	MCS0	10	10.56	11.388	23.98	PASS
46	5230	MCS0	10	10.59	11.466	23.98	PASS
54	5270	MCS0	17	17.64	58.134	23.98	PASS
62	5310	MCS0	12	12.28	16.921	23.98	PASS
102	5510	MCS0	11	11.25	13.348	23.98	PASS
110	5550	MCS0	17	17.50	56.290	23.98	PASS
134	5670	MCS0	11	11.67	14.704	23.98	PASS
151	5755	MCS0	17	17.84	60.874	30	PASS
159	5795	MCS0	17	17.75	59.625	30	PASS

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## 802.11ac VHT40 Ch1

СН	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
38	5190	MCS0	9	9.59	9.108	23.98	PASS
46	5230	MCS0	9	9.78	9.515	23.98	PASS
54	5270	MCS0	17	17.97	62.723	23.98	PASS
62	5310	MCS0	11	12.08	16.160	23.98	PASS
102	5510	MCS0	11	11.59	14.435	23.98	PASS
110	5550	MCS0	16	16.93	49.366	23.98	PASS
134	5670	MCS0	11	11.97	15.755	23.98	PASS
151	5755	MCS0	16	16.95	49.594	30	PASS
159	5795	MCS0	17	18.13	65.077	30	PASS

802 11ac VHT40 2TX

CII	Frequency	Data	Power	Avg. POW	Avg. POWER (dBm)		TOTAL	REQUIRED	DECLUT
СН	(MHz)	Rate	set	Ch0	Ch1	POWER (dBm)	POWER (mW)	LIMIT (dBm)	RESULT
38	5190	MCS0	10	10.2843	10.4243	13.37	21.703	21.97	PASS
46	5230	MCS0	10	10.2743	10.5543	13.43	22.013	21.97	PASS
54	5270	MCS0	17	17.4443	17.8843	20.68	116.955	21.97	PASS
62	5310	MCS0	9	9.174302	9.964302	12.60	18.187	21.97	PASS
102	5510	MCS0	11	11.1843	11.6043	14.41	27.604	21.97	PASS
110	5550	MCS0	17	17.3443	17.9843	20.69	117.122	21.97	PASS
134	5670	MCS0	11	11.6243	12.0943	14.88	30.732	21.97	PASS
151	5755	MCS0	16	16.6743	17.0443	19.87	97.130	27.99	PASS
159	5795	MCS0	17	17.6343	18.0843	20.88	122.333	27.99	PASS

802.11ac VHT80 Ch0

002.11ac_							
СН	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
42	5210	MCS0	10	10.39	10.946	23.98	PASS
58	5290	MCS0	5	5.56	3.600	23.98	PASS
106	5530	MCS0	9	9.32	8.556	23.98	PASS
122	5610	MCS0	17	17.46	55.752	23.98	PASS
155	5775	MCS0	17	17.65	58.246	30	PASS

802.11ac VHT80 Ch1

СН	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
42	5210	MCS0	9	9.67	9.274	23.98	PASS
58	5290	MCS0	5	6.14	4.114	23.98	PASS
106	5530	MCS0	9	9.64	9.210	23.98	PASS
122	5610	MCS0	16	16.94	49.461	23.98	PASS
155	5775	MCS0	16	16.91	49.120	30	PASS

802.11ac\_VHT80\_2TX

СН	Frequency	Data	Power		Avg. POWER (dBm)		TOTAL POWER	REQUIRED LIMIT	RESULT
ОП	(MHz)	Rate	set	Ch0	Ch1	POWER (dBm)	(mW)	(dBm)	RESULT
42	5210	MCS0	8	8.152627	8.432627	11.31	13.506	21.97	PASS
58	5290	MCS0	5	5.382627	5.892627	8.66	7.337	21.97	PASS
106	5530	MCS0	9	9.182627	9.562627	12.39	17.326	21.97	PASS
122	5610	MCS0	17	17.22263	17.84263	20.55	113.605	21.97	PASS
155	5775	MCS0	16	16.24263	16.72263	19.50	89.116	27.99	PASS

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# 9.5.2 ISED Conducted output power and EIRP

802.11a\_Ch0

СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
52	5260	17.51	56.305	23.21	PASS
60	5300	17.64	58.015	23.2	PASS
64	5320	15.71	37.200	23.18	PASS
100	5500	13.37	21.704	23.18	PASS
116	5580	17.43	55.277	23.21	PASS
140	5700	8.08	6.420	23.18	PASS
149	5745	17.84	60.750	30	PASS
157	5785	17.75	59.504	30	PASS
165	5825	17.61	57.616	30	PASS

802.11a\_Ch1

<u> </u>					
СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
52	5260	16.96	49.607	23.19	PASS
60	5300	17.11	51.350	23.19	PASS
64	5320	15.22	33.231	23.18	PASS
100	5500	12.47	17.642	23.18	PASS
116	5580	15.89	38.774	23.2	PASS
140	5700	7.07	5.088	23.18	PASS
149	5745	15.97	39.495	30	PASS
157	5785	17.05	50.646	30	PASS
165	5825	17.06	50.763	30	PASS

802.11a 2TX

СН	Frequency		AVERAGE POWER (dBm)		TOTAL POWER	REQUIRED LIMIT	RESULT
On	(MHz)	Ch0 Ch1 (dB		POWER (dBm)	(mW)	(dBm)	RESOLI
52	5260	17.62544	18.08544	20.87	122.231	23.19	PASS
60	5300	17.49544	18.00544	20.77	119.350	23.19	PASS
64	5320	15.54544	16.35544	18.98	79.060	23.18	PASS
100	5500	12.46544	12.73544	15.61	36.415	23.18	PASS
116	5580	17.43544	18.03544	20.76	119.017	23.2	PASS
140	5700	8.115438	8.255438	11.20	13.171	23.18	PASS
149	5745	17.46544	17.84544	20.67	116.678	27.99	PASS
157	5785	17.45544	18.09544	20.80	120.158	27.99	PASS
165	5825	17.76544	18.04544	20.92	123.538	27.99	PASS

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# 802.11n\_HT20\_Ch0

СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
52	5260	17.34	54.200	23.5	PASS
60	5300	17.46	55.718	23.51	PASS
64	5320	15.55	35.892	23.49	PASS
100	5500	12.18	16.520	23.49	PASS
116	5580	17.31	53.827	23.5	PASS
140	5700	11.72	14.859	23.5	PASS
149	5745	17.72	59.156	30	PASS
157	5785	14.58	28.708	30	PASS
165	5825	17.48	55.975	30	PASS

# 802.11n\_HT20\_Ch1

СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
52	5260	16.83	48.194	23.49	PASS
60	5300	17.02	50.350	23.49	PASS
64	5320	14.94	31.189	23.48	PASS
100	5500	12.26	16.827	23.49	PASS
116	5580	16.78	47.643	23.5	PASS
140	5700	10.93	12.388	23.48	PASS
149	5745	16.93	49.317	30	PASS
157	5785	16.87	48.640	30	PASS
165	5825	16.95	49.545	30	PASS

## 802.11n HT20 2TX

СН	Frequency		E POWER Bm)	TOTAL POWER	TOTAL POWER	REQUIRED LIMIT	RESULT
On	(MHz)	Ch0	Ch1	(dBm)	(mW)	(dBm)	KESOLI
52	5260	16.56997	17.09997	19.85	96.680	23.49	PASS
60	5300	16.59997	17.27997	19.96	99.165	23.49	PASS
64	5320	14.61997	15.17997	17.92	61.934	23.48	PASS
100	5500	11.41997	11.73997	14.59	28.795	23.49	PASS
116	5580	16.55997	17.07997	19.84	96.340	23.5	PASS
140	5700	10.86997	11.40997	14.16	26.053	23.48	PASS
149	5745	16.76997	17.35997	20.09	101.983	27.99	PASS
157	5785	16.67997	17.23997	19.98	99.524	27.99	PASS
165	5825	16.64997	17.24997	19.97	99.326	27.99	PASS

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# 802.11n HT40 Ch0

	<u>-</u>				
СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
54	5270	18.22	66.448	23.98	PASS
62	5310	12.04	16.013	23.98	PASS
102	5510	12.01	15.903	23.98	PASS
110	5550	18.16	65.536	23.98	PASS
134	5670	12.47	17.680	23.98	PASS
151	5755	18.62	72.859	30	PASS
159	5795	18.57	72.025	30	PASS

# 802.11n HT40 Ch1

СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
54	5270	17.57	57.211	23.98	PASS
62	5310	12.62	18.301	23.98	PASS
102	5510	12.09	16.199	23.98	PASS
110	5550	17.65	58.275	23.98	PASS
134	5670	12.64	18.386	23.98	PASS
151	5755	17.96	62.587	30	PASS
159	5795	17.77	59.908	30	PASS

## 802.11n HT40 2TX

СН	Frequency	_	E POWER Bm)	TOTAL POWER	TOTAL POWER	REQUIRED LIMIT	RESULT
	(MHz)	Ch0 Ch1	Ch1	(dBm)	(mW)	(dBm)	REGOET
54	5270	17.46483	17.91483	20.71	117.651	23.98	PASS
62	5310	9.264828	9.994828	12.66	18.431	23.98	PASS
102	5510	11.22483	11.60483	14.43	27.729	23.98	PASS
110	5550	17.35483	18.03483	20.72	117.989	23.98	PASS
134	5670	12.49483	12.81483	15.67	36.881	23.98	PASS
151	5755	17.64483	18.10483	20.89	122.778	27.99	PASS
159	5795	17.59483	18.14483	20.89	122.711	27.99	PASS

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# 802.11ac\_VHT20\_Ch0

СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
52	5260	17.53	56.639	23.5	PASS
60	5300	16.70	46.786	23.51	PASS
64	5320	15.67	36.908	23.49	PASS
100	5500	12.34	17.144	23.49	PASS
116	5580	17.39	54.843	23.5	PASS
140	5700	10.89	12.278	23.5	PASS
149	5745	16.88	48.766	30	PASS
157	5785	17.75	59.582	30	PASS
165	5825	17.57	57.163	30	PASS

# 802.11ac VHT20 Ch1

СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
52	5260	18.15	65.331	23.49	PASS
60	5300	17.08	51.064	23.49	PASS
64	5320	16.23	41.987	23.48	PASS
100	5500	12.48	17.706	23.49	PASS
116	5580	18.11	64.732	23.5	PASS
140	5700	11.07	12.797	23.48	PASS
149	5745	17.20	52.495	30	PASS
157	5785	18.17	65.632	30	PASS
165	5825	18.21	66.240	30	PASS

### 802.11ac VHT20 2TX

СН	Frequency	_	AVERAGE POWER (dBm)		TOTAL POWER	REQUIRED LIMIT	RESULT
011	(MHz)	Ch0	Ch1	POWER (dBm)	(mW)	(dBm)	REGUET
52	5260	16.64118	17.01118	19.84	96.392	23.49	PASS
60	5300	16.61118	17.23118	19.94	98.685	23.49	PASS
64	5320	14.49118	15.26118	17.90	61.710	23.48	PASS
100	5500	11.45118	11.69118	14.58	28.729	23.49	PASS
116	5580	16.48118	17.14118	19.83	96.250	23.5	PASS
140	5700	10.92118	11.34118	14.15	25.981	23.48	PASS
149	5745	16.78118	17.33118	20.08	101.746	27.99	PASS
157	5785	16.69118	17.19118	19.96	99.053	27.99	PASS
165	5825	16.63118	17.22118	19.95	98.775	27.99	PASS

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# 802.11ac VHT40 Ch0

002					
СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
54	5270	17.64	58.134	23.98	PASS
62	5310	12.28	16.921	23.98	PASS
102	5510	11.25	13.348	23.98	PASS
110	5550	17.50	56.290	23.98	PASS
134	5670	11.67	14.704	23.98	PASS
151	5755	17.84	60.874	30	PASS
159	5795	17.75	59.625	30	PASS

# 802.11ac VHT40 Ch1

СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
54	5270	17.97	62.723	23.98	PASS
62	5310	12.08	16.160	23.98	PASS
102	5510	11.59	14.435	23.98	PASS
110	5550	16.93	49.366	23.98	PASS
134	5670	11.97	15.755	23.98	PASS
151	5755	16.95	49.594	30	PASS
159	5795	18.13	65.077	30	PASS

### 802.11ac VHT40 2TX

СН	Frequency		E POWER 3m)	TOTAL POWER	TOTAL POWER	REQUIRED LIMIT	RESULT	
OII	(MHz)	Ch0	Ch1	(dBm)	(mW)	(dBm)	INCOULT	
54	5270	17.4443	17.8843	20.68	116.955	23.98	PASS	
62	5310	9.174302	9.964302	12.60	18.187	23.98	PASS	
102	5510	11.1843	11.6043	14.41	27.604	23.98	PASS	
110	5550	17.3443	17.9843	20.69	117.122	23.98	PASS	
134	5670	11.6243	12.0943	14.88	30.732	23.98	PASS	
151	5755	16.6743	17.0443	19.87	97.130	27.99	PASS	
159	5795	17.6343	18.0843	20.88	122.333	27.99	PASS	

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# 802.11ac VHT80 Ch0

	_*****				
СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
58	5290	5.56	3.600	23.98	PASS
106	5530	9.32	8.556	23.98	PASS
122	5610	17.46	55.752	23.98	PASS
155	5775	17.65	58.246	30	PASS

802.11ac VHT80 Ch1

СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
58	5290	6.14	4.114	23.98	PASS
106	5530	9.64	9.210	23.98	PASS
122	5610	16.94	49.461	23.98	PASS
155	5775	16.91	49.120	30	PASS

802.11ac VHT80 2TX

СН	CH Frequency		AVERAGE POWER (dBm)		TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
On	(MHz)	Ch0 Ch1	POWER (dBm)				
58	5290	5.382627	5.892627	8.66	7.337	23.98	PASS
106	5530	9.182627	9.562627	12.39	17.326	23.98	PASS
122	5610	17.22263	17.84263	20.55	113.605	23.98	PASS
155	5775	16.24263	16.72263	19.50	89.116	27.99	PASS

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### 802.11a Ch0

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	9.66	5.00	14.66	29.242	22.18	PASS
44	5220	9.64	5.00	14.64	29.107	22.18	PASS
48	5240	9.51	5.00	14.51	28.249	22.19	PASS
52	5260	17.51	5.00	22.51	178.238	29.21	PASS
60	5300	17.64	5.00	22.64	183.654	29.2	PASS
64	5320	15.71	5.00	20.71	117.761	29.18	PASS
100	5500	13.37	5.00	18.37	68.707	29.18	PASS
116	5580	17.43	5.00	22.43	174.985	29.21	PASS
140	5700	8.08	5.00	13.08	20.324	29.18	PASS

# 802.11a Ch1

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	8.72	5.000	13.72	23.550	22.19	PASS
44	5220	8.81	5.000	13.81	24.044	22.18	PASS
48	5240	9.01	5.000	14.01	25.177	22.19	PASS
52	5260	16.96	5.000	21.96	157.036	29.19	PASS
60	5300	17.11	5.000	22.11	162.555	29.19	PASS
64	5320	15.22	5.000	20.22	105.196	29.18	PASS
100	5500	12.47	5.000	17.47	55.847	29.18	PASS
116	5580	15.89	5.000	20.89	122.744	29.2	PASS
140	5700	7.07	5.000	12.07	16.106	29.18	PASS

## 802.11a\_2TX

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	13.82	8.01	21.83	152.405	22.18	PASS
44	5220	13.79	8.01	21.80	151.356	22.18	PASS
48	5240	13.87	8.01	21.88	154.170	22.19	PASS
52	5260	20.87	8.01	28.88	772.681	30	PASS
60	5300	20.77	8.01	28.78	755.092	30	PASS
64	5320	18.98	8.01	26.99	500.035	30	PASS
100	5500	15.61	8.01	23.62	230.144	29.18	PASS
116	5580	20.76	8.01	28.77	753.356	30	PASS
140	5700	11.20	8.01	19.21	83.368	30	PASS

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## 802.11n HT20 Ch0

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	9.42	5.00	14.42	27.669	22.49	PASS
44	5220	9.46	5.00	14.46	27.925	22.48	PASS
48	5240	10.14	5.00	15.14	32.659	22.49	PASS
52	5260	17.34	5.00	22.34	171.396	29.5	PASS
60	5300	17.46	5.00	22.46	176.198	29.51	PASS
64	5320	15.55	5.00	20.55	113.501	29.49	PASS
100	5500	12.18	5.00	17.18	52.240	29.49	PASS
116	5580	17.31	5.00	22.31	170.216	29.5	PASS
140	5700	11.72	5.00	16.72	46.989	29.5	PASS

## 802.11n HT20 Ch1

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	9.48	5.000	14.48	28.054	22.49	PASS
44	5220	9.65	5.000	14.65	29.174	22.49	PASS
48	5240	9.72	5.000	14.72	29.648	22.48	PASS
52	5260	16.83	5.000	21.83	152.405	29.49	PASS
60	5300	17.02	5.000	22.02	159.221	29.49	PASS
64	5320	14.94	5.000	19.94	98.628	29.48	PASS
100	5500	12.26	5.000	17.26	53.211	29.49	PASS
116	5580	16.78	5.000	21.78	150.661	29.5	PASS
140	5700	10.93	5.000	15.93	39.174	29.48	PASS

# 802.11n\_HT20\_2TX

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	12.78	8.01	20.79	119.950	22.49	PASS
44	5220	12.76	8.01	20.77	119.399	22.48	PASS
48	5240	12.68	8.01	20.69	117.220	22.48	PASS
52	5260	19.85	8.01	27.86	610.942	29.49	PASS
60	5300	19.96	8.01	27.97	626.614	29.49	PASS
64	5320	17.92	8.01	25.93	391.742	29.48	PASS
100	5500	14.59	8.01	22.60	181.970	29.49	PASS
116	5580	19.84	8.01	27.85	609.537	29.5	PASS
140	5700	14.16	8.01	22.17	164.816	29.48	PASS

## 802.11n HT40 Ch0

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
38	5190	11.21	5.00	16.21	41.783	23.01	PASS
46	5230	11.29	5.00	16.29	42.560	23.01	PASS
54	5270	18.22	5.00	23.22	209.894	30	PASS
62	5310	12.04	5.00	17.04	50.582	30	PASS
102	5510	12.01	5.00	17.01	50.234	30	PASS
110	5550	18.16	5.00	23.16	207.014	30	PASS
134	5670	12.47	5.00	17.47	55.847	30	PASS

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## 802.11n HT40 Ch1

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
38	5190	10.37	5.000	15.37	34.435	23.01	PASS
46	5230	10.46	5.000	15.46	35.156	23.01	PASS
54	5270	17.57	5.000	22.57	180.717	30	PASS
62	5310	12.62	5.000	17.62	57.810	30	PASS
102	5510	12.09	5.000	17.09	51.168	30	PASS
110	5550	17.65	5.000	22.65	184.077	30	PASS
134	5670	12.64	5.000	17.64	58.076	30	PASS

### 802.11n HT40 2TX

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
38	5190	13.54	8.01	21.55	142.889	23.01	PASS
46	5230	13.58	8.01	21.59	144.212	23.01	PASS
54	5270	20.71	8.01	28.72	744.732	30	PASS
62	5310	12.66	8.01	20.67	116.681	30	PASS
102	5510	14.43	8.01	22.44	175.388	30	PASS
110	5550	20.72	8.01	28.73	746.449	30	PASS
134	5670	15.67	8.01	23.68	233.346	30	PASS

### 802.11ac VHT20 Ch0

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	9.65	5.00	14.65	29.174	22.49	PASS
44	5220	9.59	5.00	14.59	28.774	22.48	PASS
48	5240	9.52	5.00	14.52	28.314	22.49	PASS
52	5260	17.53	5.00	22.53	179.061	29.5	PASS
60	5300	16.70	5.00	21.70	147.911	29.51	PASS
64	5320	15.67	5.00	20.67	116.681	29.49	PASS
100	5500	12.34	5.00	17.34	54.200	29.49	PASS
116	5580	17.39	5.00	22.39	173.380	29.5	PASS
140	5700	10.89	5.00	15.89	38.815	29.5	PASS

# 802.11ac VHT20 Ch1

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	9.74	5.000	14.74	29.785	22.49	PASS
44	5220	9.89	5.000	14.89	30.832	22.49	PASS
48	5240	10.04	5.000	15.04	31.915	22.48	PASS
52	5260	18.15	5.000	23.15	206.538	29.49	PASS
60	5300	17.08	5.000	22.08	161.436	29.49	PASS
64	5320	16.23	5.000	21.23	132.739	29.48	PASS
100	5500	12.48	5.000	17.48	55.976	29.49	PASS
116	5580	18.11	5.000	23.11	204.644	29.5	PASS
140	5700	11.07	5.000	16.07	40.458	29.48	PASS

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## 802.11ac VHT20 2TX

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	12.71	8.01	20.72	118.032	22.49	PASS
44	5220	12.75	8.01	20.76	119.124	22.48	PASS
48	5240	11.83	8.01	19.84	96.383	22.48	PASS
52	5260	19.84	8.01	27.85	609.537	29.49	PASS
60	5300	19.94	8.01	27.95	623.735	29.49	PASS
64	5320	17.90	8.01	25.91	389.942	29.48	PASS
100	5500	14.58	8.01	22.59	181.552	29.49	PASS
116	5580	19.83	8.01	27.84	608.135	29.5	PASS
140	5700	14.15	8.01	22.16	164.437	29.48	PASS

## 802.11ac VHT40 Ch0

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
38	5190	10.56	5.00	15.56	35.975	23.01	PASS
46	5230	10.59	5.00	15.59	36.224	23.01	PASS
54	5270	17.64	5.00	22.64	183.654	30	PASS
62	5310	12.28	5.00	17.28	53.456	30	PASS
102	5510	11.25	5.00	16.25	42.170	30	PASS
110	5550	17.50	5.00	22.50	177.828	30	PASS
134	5670	11.67	5.00	16.67	46.452	30	PASS

## 802.11ac\_VHT40\_Ch1

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
38	5190	9.59	5.000	14.59	28.774	23.01	PASS
46	5230	9.78	5.000	14.78	30.061	23.01	PASS
54	5270	17.97	5.000	22.97	198.153	30	PASS
62	5310	12.08	5.000	17.08	51.050	30	PASS
102	5510	11.59	5.000	16.59	45.604	30	PASS
110	5550	16.93	5.000	21.93	155.955	30	PASS
134	5670	11.97	5.000	16.97	49.774	30	PASS

## 802.11ac\_VHT40\_2TX

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
38	5190	13.37	8.01	21.38	137.404	23.01	PASS
46	5230	13.43	8.01	21.44	139.316	23.01	PASS
54	5270	20.68	8.01	28.69	739.605	30	PASS
62	5310	12.60	8.01	20.61	115.080	30	PASS
102	5510	14.41	8.01	22.42	174.582	30	PASS
110	5550	20.69	8.01	28.70	741.310	30	PASS
134	5670	14.88	8.01	22.89	194.536	30	PASS

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## 802.11ac VHT80 Ch0

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
42	5210	10.39	5.00	15.39	34.594	23.01	PASS
58	5290	5.56	5.00	10.56	11.376	30	PASS
106	5530	9.32	5.00	14.32	27.040	30	PASS

802.11ac\_VHT80\_Ch1

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
42	5210	9.67	5.000	14.67	29.309	23.01	PASS
58	5290	6.14	5.000	11.14	13.002	30	PASS
106	5530	9.64	5.000	14.64	29.107	30	PASS

802.11ac VHT80 2TX

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
42	5210	11.31	8.01	19.32	85.507	23.01	PASS
58	5290	8.66	8.01	16.67	46.452	30	PASS
106	5530	12.39	8.01	20.40	109.648	30	PASS

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# 10 MAXIMUM POWER SPECTRAL DENSITY

### 10.1 **Standard Applicable**

Operation Bands	EU	T CATEGORY	e-CRF Title 47 §15.407 Power Spectral Density	Antenna Directional Gain Requirements
		Outdoor Access Point (Master)	1. 17dBm/ MHz 2. EIRP<=125mW(21dBm) at any elevation angle > 30°	6dBi
U-NII-1		Indoor Access Point (Master)	17dBm / MHz	6dBi
		Fixed point-to- point Access Ponit	17dBm / MHz	23dBi
	٧	Client device	11dBm / MHz	6dBi
U-NII-2A	٧	All	11dBm / MHz	6dBi
U-NII-2C	٧	All	11dBm / MHz	6dBi
U-NII-3	V All		30dBm / 500kHz	6dBi

If transmitting antennas of directional gain greater than the antenna requirements column, the Maximum transmit power shall be reduced by the amount in dB that the direction-al gain of the antenna.

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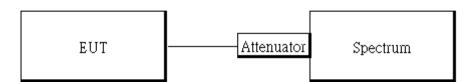


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FREQUENCY BAND (MHz)	EUT CATEGORY		RSS-247 §6.2.1~6.2.4				
(IVITIZ)			EIRP Density	Power Density			
5150~5250		OEM devices installed in vehicles	N/A	N/A			
	V	Other device	10 dBm/MHz	N/A			
5250~5350		OEM devices installed in vehicles	N/A	N/A			
3230*3330	V	Other device	N/A	11 dBm/MHz			
5725~5850	V	All	N/A	30 dBm/500kHz			

For equipment operating in the band 5725-5850 MHz, If transmitting antennas of directional gain greater than 6 dBi are used, the Maximum transmit power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### 10.2 **Test Setup**



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# **Measurement Procedure**

- 1. Place the EUT on the table and set it in transmitting mode.
- 2. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules .
- 3. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to Spectrum.
- 4. For U-NII1, U-NII-2A, U-NII-2C Band:

Set RBW=1MHz, VBW=3MHz, where span is enough to capture the entire bandwidth, Sweep time = Auto (1001 pts), Detector = power averaging (rms), if available. Otherwise, use sample detector mode, traces 100 sweeps of video averaging. (SA-2 with the omission of procedure x, the integration with 26dB EBW bandwidth)

For U-NII-3 Band:

Set RBW=300kHz, VBW=1MHz, where span is enough to capture the entire bandwidth, Sweep time = Auto, detector = RMS or sample, traces 100 sweeps of video averaging.

In addition, measurement bandwidth of Maximum PSD is specified in 500 kHz, add 10 log (500 kHz/RBW) to the measured result.

- 5. User the cursor on spectrum to peak search the highest level of trace
- 6. Record the max. reading and add 10 log(1/duty cycle).
- 7. Repeat above procedures until all default test channel (low, middle, and high) was complete.

Note: For the test of PSD at MIMO mode, the highest emission of worst case employing Measure and add 10 log (N) technical is reported after the comparison between Main Antenna at single transmitting mode and Aux that yields the higher value. The MIMO transmitting mode produces higher value of outcome.

### Note:

As per section F. 2). e). (ii) of FCC KDB 662911 D01

If antenna gains are not equal and each transmit antenna is driven by only one spatial stream, directional gain may be calculated by either of the following formulas.

• Directional Gain = 
$$10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^{2}}{N_{ANT}} \right]$$

## where

Each antenna is driven by no more than one spatial stream;

NSS = the number of independent spatial streams of data;

NANT = the total number of antennas

 $g_{j,k} = /20$  10Gk if the kth antenna is being fed by spatial stream j, or zero if it is not;

 $\hat{G}_k$  is the gain in dBi of the kth antenna.

The antenna gain is grater than 6 dBi in MIMO mode, therefore the the power density limit autenuation has been applied in the test results.

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#### Measurement Result 10.4

		PO	WER DENSITY 802	2.11a MODE			
Frequency (MHz)	Ch0 meas PSD (dBm/MHz)	Ch1 meas PSD (dBm/MHz)	Duty Factor (dB)	Total Corr'd F	SD(dBm/MHz)	Limit	Margin (dB)
5180	-1.644	-1.875	0.19	1	14	8.99 dBm/MHz	-7.55
5220	-1.577	-1.748	0.19	1.	54	8.99 dBm/MHz	-7.45
5240	-2.232	-2.325	0.19	0.	92	8.99 dBm/MHz	-8.07
5260	5.211	5.097	0.19	8.3	35	8.99 dBm/MHz	-0.64
5300	4.497	4.262	0.19	7.	58	8.99 dBm/MHz	-1.41
5320	2.441	3.023	0.19	5.	94	8.99 dBm/MHz	-3.05
5500	0.413	0.160	0.19	3.	49	8.99 dBm/MHz	-5.50
5580	5.417	5.788	0.19	8.81		8.99 dBm/MHz	-0.18
5700	-3.563	-3.036	0.19	-0.09		8.99 dBm/MHz	-9.08
Frequency (MHz)	Ch0 meas PSD (dBm/300kHz)	Ch1 meas PSD (dBm/300kHz)	Duty Factor (dB)	10log (500kHz/RBW) Factor(dB)	Total Corr'd PSD (dBm/500kHz)	Limit	Margin (dB)
5745	1.616	1.991	0.19	2.22	7.23	27.99 dBm/500kHz	-20.76
5785	0.988	0.951	0.19	2.22	6.39	27.99 dBm/500kHz	-21.60
5825	0.206	0.564	0.19	2.22	5.81	27.99 dBm/500kHz	-22.18
		POWE	R DENSITY 802.1	1n HT20 MODE			<u> </u>
Frequency (MHz)	Ch0 meas PSD (dBm/MHz)	Ch1 meas PSD (dBm/MHz)	Duty Factor (dB)	Total Corr'd F	SD(dBm/MHz)	Limit	Margin (dB)
5180	-2.242	-1.956	0.19	1.	10	8.99 dBm/MHz	-7.89
5220	-1.879	-2.060	0.19	1.:	23	8.99 dBm/MHz	-7.76
5240	-2.701	-2.452	0.19	0.	63	8.99 dBm/MHz	-8.36
5260	4.816	4.647	0.19	7.5	93	8.99 dBm/MHz	-1.06
5300				7.93 7.39			
	3.879	4.482	0.19	7.	39	8.99 dBm/MHz	-1.60
5320	3.879 1.960	4.482 2.463	0.19 0.19	7. 5.		8.99 dBm/MHz 8.99 dBm/MHz	-1.60 -3.57
5320 5500					12		
	1.960	2.463	0.19	5.	42 66	8.99 dBm/MHz	-3.57
5500	1.960 -0.703	2.463	0.19 0.19	5.· 2.·	42 66 14	8.99 dBm/MHz 8.99 dBm/MHz	-3.57 -6.33
5500 5580	1.960 -0.703 4.781	2.463 -0.381 5.092	0.19 0.19 0.19	5 2 8.	42 66 14	8.99 dBm/MHz 8.99 dBm/MHz 8.99 dBm/MHz	-3.57 -6.33 -0.85
5500 5580 5700 <b>Frequency</b>	1.960 -0.703 4.781 -0.493 Ch0 meas PSD	2.463 -0.381 5.092 0.786 Ch1 meas PSD	0.19 0.19 0.19 0.19 Duty Factor	5. 2. 8. 3. 10log (500kHz/RBW)	42 66 14 39 Total Corr'd PSD	8.99 dBm/MHz 8.99 dBm/MHz 8.99 dBm/MHz 8.99 dBm/MHz	-3.57 -6.33 -0.85 -5.60 <b>Margin</b>
5500 5580 5700 Frequency (MHz)	1.960 -0.703 4.781 -0.493 Ch0 meas PSD (dBm/300kHz)	2.463 -0.381 5.092 0.786 Ch1 meas PSD (dBm/300kHz)	0.19 0.19 0.19 0.19 0.19 Duty Factor (dB)	5. 2. 8. 3. 10log (500kHz/RBW) Factor(dB)	142 144 39 Total Corr'd PSD (dBm/500kHz)	8.99 dBm/MHz 8.99 dBm/MHz 8.99 dBm/MHz 8.99 dBm/MHz	-3.57 -6.33 -0.85 -5.60 <b>Margin</b> (dB)

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		POWI	ER DENSITY 802.1	1n HT40 MODE			
Frequency (MHz)	Ch0 meas PSD (dBm/MHz)	Ch1 meas PSD (dBm/MHz)	Duty Factor (dB)	Total Corr'd PSD(dBm/MHz)		Limit	Margii (dB)
5190	-4.386	-4.176	0.33	-0.94		8.99 dBm/MHz	-9.93
5230	-4.430	-4.893	0.33	-1.32		8.99 dBm/MHz	-10.31
5270	2.183	2.449	0.33	5.66		8.99 dBm/MHz	-3.33
5310	-6.515	-5.702	0.33	-2.75		8.99 dBm/MHz	-11.74
5510	-3.804	-2.902	0.33	0.01		8.99 dBm/MHz	-8.98
5550	2.838	3.210	0.33	6.37		8.99 dBm/MHz	-2.62
5670	-1.584	-1.879	0.33	1.61		8.99 dBm/MHz	-7.38
Frequency (MHz)	Ch0 meas PSD (dBm/300kHz)	Ch1 meas PSD (dBm/300kHz)	Duty Factor (dB)	10log (500kHz/RBW) Factor(dB)	Total Corr'd PSD (dBm/500kHz)	Limit	Margii (dB)
5755	-1.173	-1.036	0.33	2.22	4.46	27.99 dBm/500kHz	-23.53
5795	-1.794	-1.586	0.33	2.22	3.87	27.99 dBm/500kHz	-24.12
		POWE	R DENSITY 802.11a	ac VHT80 MODE			
Frequency (MHz)	Ch0 meas PSD (dBm/MHz)	Ch1 meas PSD (dBm/MHz)	Duty Factor (dB)	Total Corr'd PSD(dBm/MHz)		Limit	Margi (dB)
5210	-10.970	-9.422	1.23	-5.89		8.99 dBm/MHz	-14.88
5290	-14.480	-13.450	1.23	-9.69		8.99 dBm/MHz	-18.68
5530	-9.942	-9.389	1.23	-5.42		8.99 dBm/MHz	-14.41
5610	-0.574	-0.028	1.23	3.95		8.99 dBm/MHz	-5.04
Frequency (MHz)	Ch0 meas PSD (dBm/300kHz)	Ch1 meas PSD (dBm/300kHz)	Duty Factor (dB)	10log (500kHz/RBW) Factor(dB)	Total Corr'd PSD (dBm/500kHz)	Limit	Margi (dB)
5775	-6.401	-6.269	1.23	2.22	0.13	27.99 dBm/500kHz	-27.86

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EIRP spectral density 802.11a MODE										
Freq. (MHz)	PSD (dBm)	Ant. Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)	Margin (dB)					
5180	1.44	8.01	9.45	10	-0.55					
5220	1.54	8.01	9.55	10	-0.45					
5240	0.92	8.01	8.93	10	-1.07					
EIRP spectral density 802.11n HT20 MODE										
Freq. (MHz)	PSD (dBm)	Ant. Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)	Margin (dB)					
5180	1.10	8.01	9.11	10	-0.89					
5220	1.23	8.01	9.24	10	-0.76					
5240	0.63	8.01	8.64	10	-1.36					
EIRP spectral density 802.11n HT40 MODE										
Freq. (MHz)	PSD (dBm)	Ant. Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)	Margin (dB)					
5190	-0.94	8.01	7.07	10	-2.93					
5230	-1.32	8.01	6.69	10	-3.31					
EIRP spectral density 802.11ac VHT80 MODE										
Freq. (MHz)	PSD (dBm)	Ant. Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)	Margin (dB)					
5210	-5.89	8.01	2.12	10	-7.88					

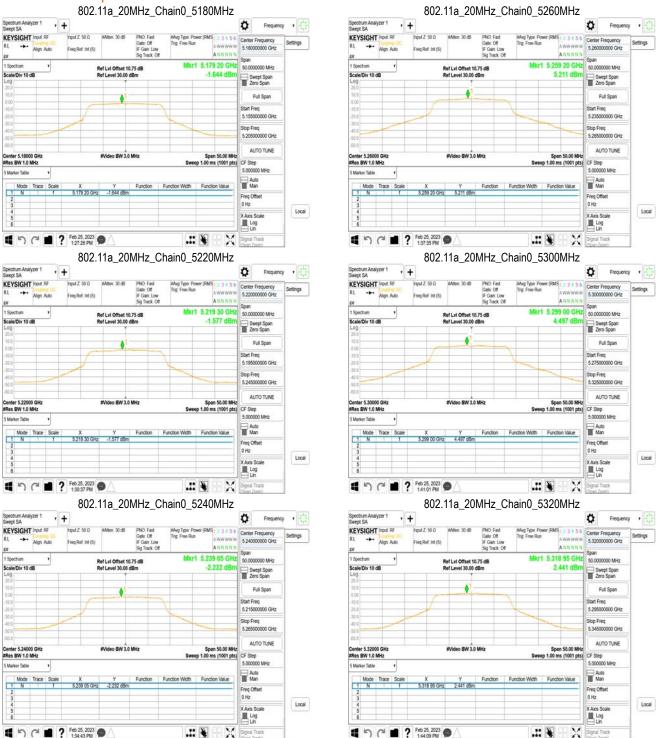
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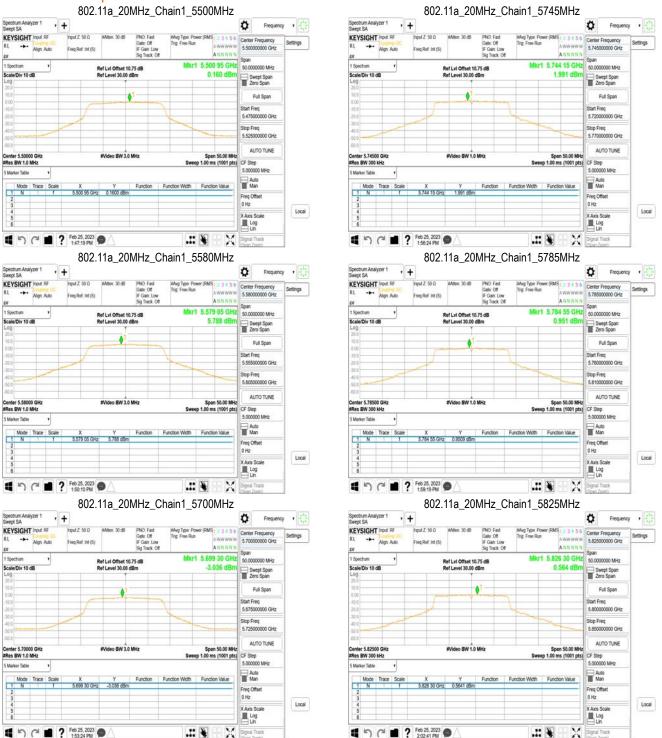
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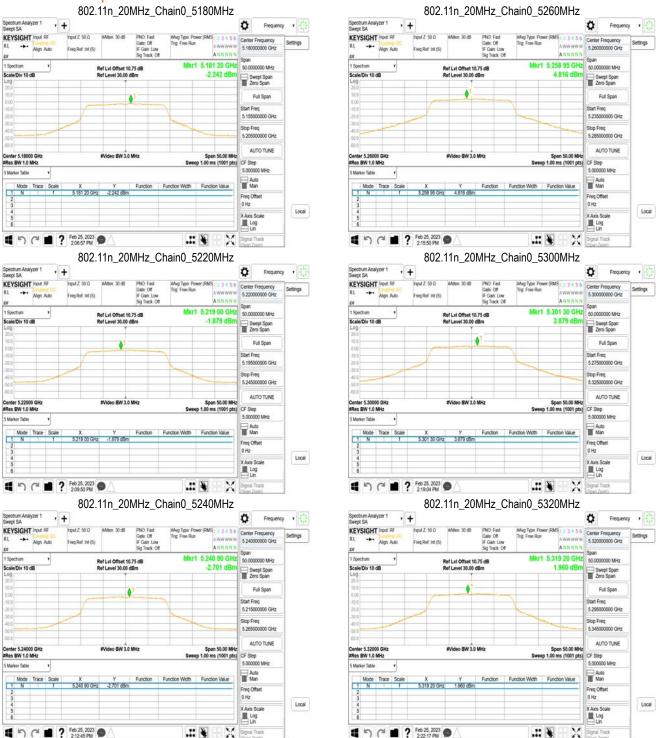
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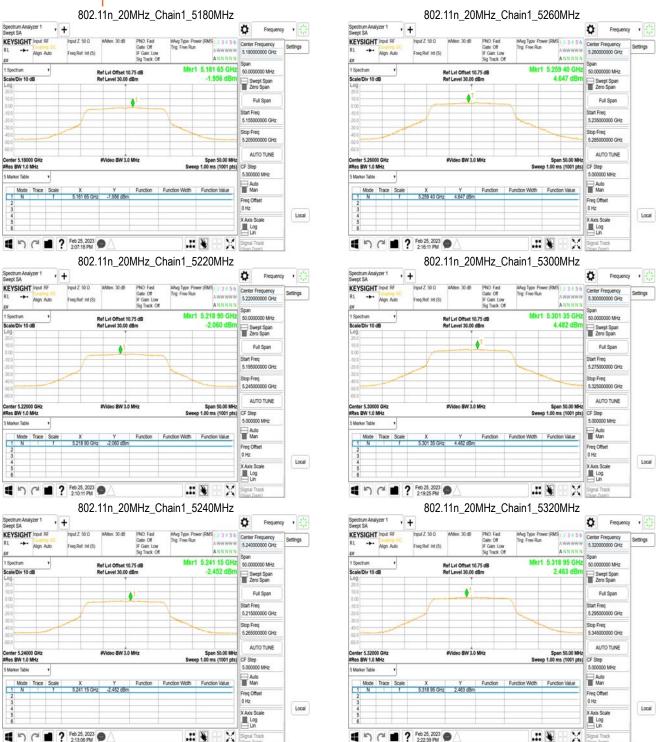
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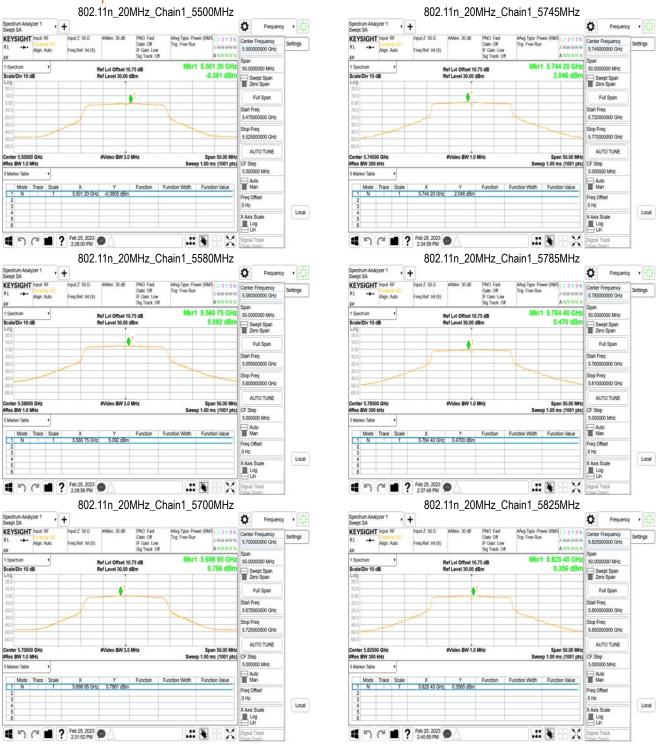
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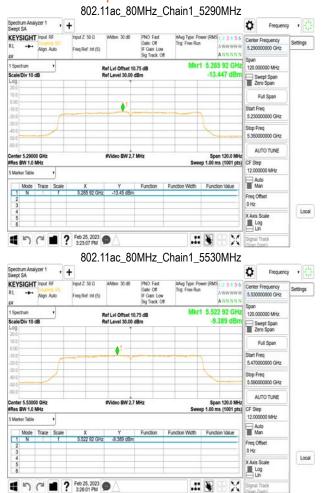
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## 11 UNDESIRABLE RADIATED EMISSION MEASUREMENT

# Standard Applicable

 $EIRP = ((E*d)^2) / 30$ , where E is the field strength in V/m, d is the measurement distance (3m), EIRP is the equivalent isotropically radiated power in Watts.

#### 11.1.1 5150~5850 MHz

Applicable	Operation	EIRP		Field Strength	
to	Freq. (MHz)	Freq. (MHz)	Limits (dBm/MHz)	@ 3m	
15.407(b)(1) RSS-247 §6.2.1.2	5150~5250	f ≤ 5150			
15.407(b)(2) RSS-247 §6.2.2.2	5250~5350	f ≥ 5350	PK: -27	PK: 68.2	
15.407(b)(3) RSS-247 §6.2.3.2	5475~5725	f ≤ 5470 f ≥ 5725			
_		at 75 MHz or more above or be- low the band edge	PK:-27	PK: 68.2	
15.407(b)(4)(i) RSS-247 §6.2.4.2	5725~5850	increasing linearly from 75~25MHz above or below the band edge		PK: 68.2~105.2	
KSS-247 90.2.4.2		increasing linearly from 25~5MHz above or below the band edge	PK:10~15.6	PK: 105.2~110.8	
		increasing linearly from 5~0 MHz above or below the band edge	PK: 15.6~27	PK:110.8~122.2	

#### 11.1.2 **Spurious Emission**

Unwanted spurious emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table:

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

### Note:

The lower limit shall apply at the transition frequencies.

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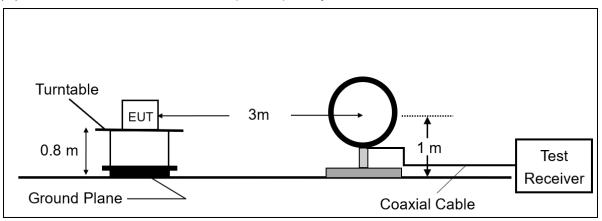


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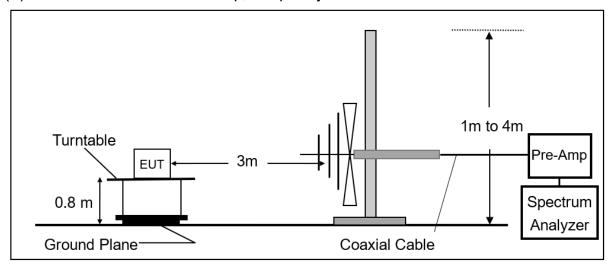


### 11.2 Test Setup

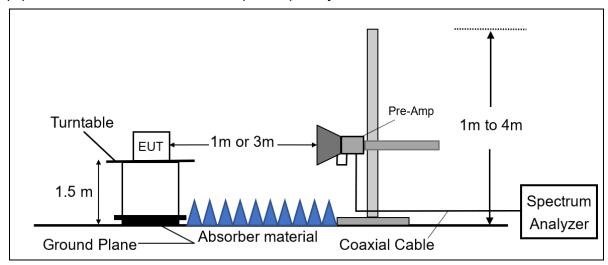
(A) Radiated Emission Test Set-Up, Frequency Below 30MHz.



(B) Radiated Emission Test Set-Up, Frequency From 30MHz to 1000MHz



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



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#### **Measurement Procedure**

- The testing follows FCC KDB 789033 D02. 1.
- The EUT was placed on a turn table with 0.8m for frequency< 1GHz and 1.5m for frequency> 1GHz above ground plane.
- The turn table shall rotate 360 degrees to determine the position of maximum emission
- EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emissions.
- Set the spectrum analyzer as RBW=100 kHz and VBW=300 kHz for Peak Detector (PK) at frequency between 30MHz and 1 GHz
- Use receiver mode as RBW=120 kHz for Quasi-peak (QP) at frequency between 30MHz and 1 GHz.
- Set the spectrum analyzer as RBW=1 MHz, VBW=3 MHz for Maximum Emission Measurements at frequency above 1 GHz.
- 8. Set the spectrum analyzer as RBW=1 MHz, VBW=10 Hz (Duty cycle > 98%) or VBW ≥ 1/T (Duty cycle < 98%) for Average Emission Measurements at frequency above 1 GHz.
- When measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made "while keeping the antenna in the 'cone of radiation' from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response." is still within the 3dB illumination BW of the measurement antenna.
- 10. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- **11.** And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- **12.** Repeat above procedures until all frequency measured were complete.

### 11.4 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

## FS = RA + AF + CL - AG

**Where** FS = Field Strength

CL = Cable Attenuation Factor (Cable Loss)

RA = Reading Amplitude

AG = Amplifier Gain

AF = Antenna Factor

The limit of the emission level is expressed in dBuV/m, which converts 20\*log(uV/m)

Actual  $FS(dB\mu V/m) = SPA$ . Reading level(dB $\mu V$ ) + Factor(dB)  $Factor(dB) = Antenna\ Factor(dB\mu V/m) + Cable\ Loss(dB) - Pre\_Amplifier\ Gain(dB)$ 

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Test Mode

Report No.: TERF2212002706ER

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Antenna Pol. :VERTICAL

# 11.5 Test Results of Radiated Spurious Emissions from 9 kHz to 30 MHz

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit per 15.31(o) & RSS-GEN §6.13.2 was not reported.

## 11.6 Radiated Spurious Emission Measurement Result

# 11.6.1 Spurious Emission

:Tx

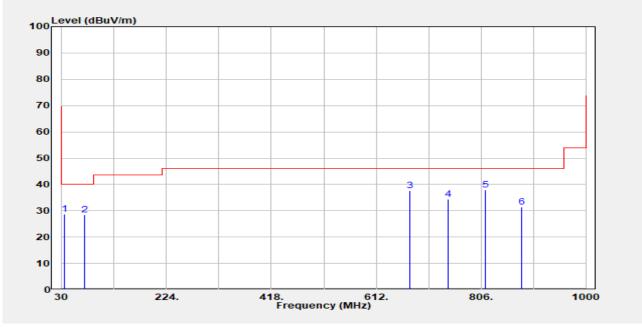
## Internal Antenna (Type: Printed antenna, Model no: N/A)

Report Number :TERF2212002706ER Test Site :SAC 1

Operation Mode :802.11a Test Date :2023-02-13

Test Frequency :5220 MHz Temp./Humi. :22.9/54

EUT Pol :H Plane Engineer :GN Lin



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
34.85	Peak	36.57	-7.87	28.71	40.00	-11.29
72.68	Peak	46.31	-17.94	28.37	40.00	-11.63
675.05	Peak	39.99	-2.38	37.61	46.00	-8.39
745.86	Peak	36.88	-2.45	34.44	46.00	-11.56
813.76	Peak	39.27	-1.31	37.96	46.00	-8.04
881.66	Peak	32.30	-0.98	31.32	46.00	-14.68

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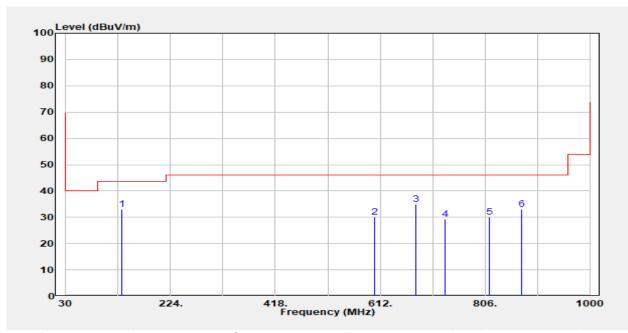
Report Number :TERF2212002706ER Test Site :SAC 1

Operation Mode :802.11a Test Date :2023-02-13

Test Frequency :5220 MHz Temp./Humi. :22.9/54

Test Mode :Tx Antenna Pol. :HORIZONTAL

EUT Pol :H Plane Engineer :GN Lin



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
133.79	Peak	44.98	-11.93	33.06	43.50	-10.44
602.30	Peak	33.52	-3.33	30.19	46.00	-15.81
678.93	Peak	37.71	-2.63	35.09	46.00	-10.91
732.28	Peak	32.65	-3.26	29.40	46.00	-16.60
813.76	Peak	31.33	-1.31	30.02	46.00	-15.98
874.87	Peak	33.74	-0.81	32.93	46.00	-13.07

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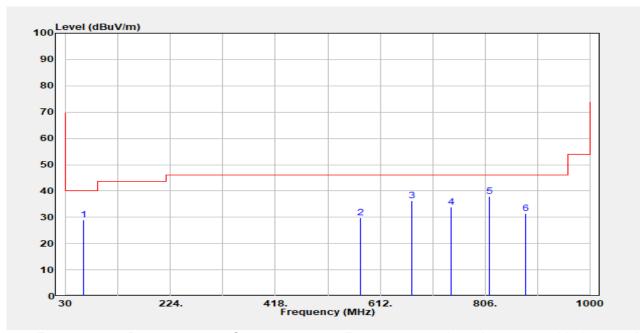
Report Number :TERF2212002706ER Test Site :SAC 1

**Operation Mode** :802.11a Test Date :2023-02-13

**Test Frequency** :5300 MHz Temp./Humi. :22.9/54

:VERTICAL Test Mode :Tx Antenna Pol.

**EUT Pol** :H Plane Engineer :GN Lin



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
62.01	Peak	47.22	-18.25	28.97	40.00	-11.03
576.11	Peak	34.43	-4.63	29.80	46.00	-16.20
671.17	Peak	39.63	-3.22	36.41	46.00	-9.59
743.92	Peak	36.53	-2.56	33.97	46.00	-12.03
813.76	Peak	39.17	-1.31	37.85	46.00	-8.15
881.66	Peak	32.42	-0.98	31.43	46.00	-14.57

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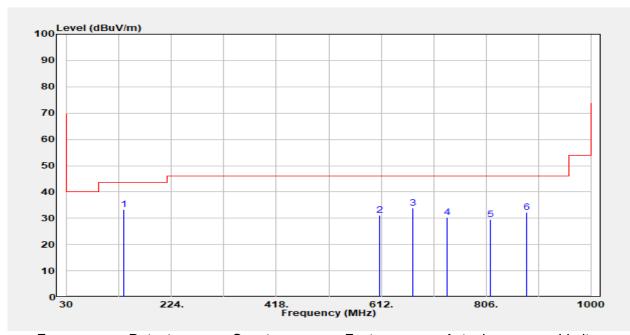
Report Number :TERF2212002706ER Test Site :SAC 1

**Operation Mode** :802.11a Test Date :2023-02-13

**Test Frequency** :5300 MHz Temp./Humi. :22.9/54

:HORIZONTAL Test Mode :Tx Antenna Pol.

**EUT Pol** :H Plane Engineer :GN Lin



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
135.73	Peak	45.30	-12.04	33.26	43.50	-10.24
610.06	Peak	34.47	-3.18	31.29	46.00	-14.71
670.20	Peak	37.24	-3.43	33.81	46.00	-12.19
734.22	Peak	33.35	-3.06	30.29	46.00	-15.71
813.76	Peak	30.86	-1.31	29.55	46.00	-16.45
880.69	Peak	33.26	-1.08	32.18	46.00	-13.82

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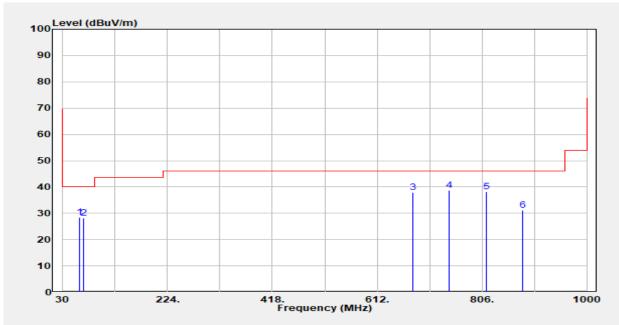
Report Number :TERF2212002706ER Test Site :SAC 1

Operation Mode :802.11a Test Date :2023-02-13

Test Frequency :5580 MHz Temp./Humi. :22.9/54

Test Mode :Tx Antenna Pol. :VERTICAL

EUT Pol :H Plane Engineer :GN Lin



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
61.04	Peak	46.49	-18.14	28.34	40.00	-11.66
68.80	Peak	46.46	-18.17	28.29	40.00	-11.71
677.96	Peak	40.52	-2.56	37.95	46.00	-8.05
744.89	Peak	41.26	-2.51	38.74	46.00	-7.26
813.76	Peak	39.55	-1.31	38.23	46.00	-7.77
881.66	Peak	32.15	-0.98	31.17	46.00	-14.83

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 No.134,Wu Kung Ro

 台灣檢驗科技股份有限公司
 t (886-2) 2299-3279



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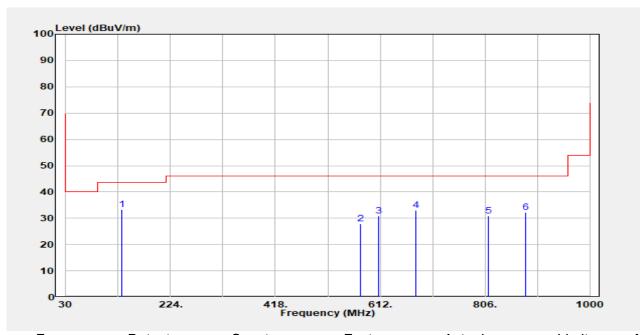
Report Number :TERF2212002706ER Test Site :SAC 1

Operation Mode :802.11a Test Date :2023-02-13

Test Frequency :5580 MHz Temp./Humi. :22.9/54

Test Mode :Tx Antenna Pol. :HORIZONTAL

EUT Pol :H Plane Engineer :GN Lin



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
133.79	Peak	45.19	-11.93	33.26	43.50	-10.24
576.11	Peak	32.46	-4.63	27.83	46.00	-18.17
610.06	Peak	34.03	-3.18	30.85	46.00	-15.15
677.96	Peak	35.66	-2.56	33.09	46.00	-12.91
812.79	Peak	32.24	-1.33	30.91	46.00	-15.09
881.66	Peak	33.12	-0.98	32.14	46.00	-13.86

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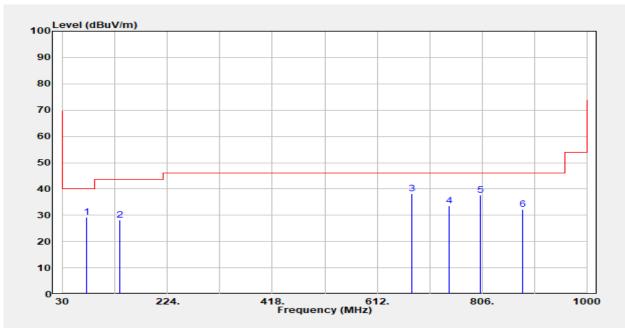
Report Number :TERF2212002706ER Test Site :SAC 1

Operation Mode :802.11a Test Date :2023-02-13

Test Frequency :5785 MHz Temp./Humi. :22.9/54

Antenna Pol. :VERTICAL Test Mode :Tx

**EUT Pol** :H Plane Engineer :GN Lin



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
73.65	Peak	47.09	-17.94	29.15	40.00	-10.85
135.73	Peak	40.09	-12.04	28.05	43.50	-15.45
676.99	Peak	40.68	-2.50	38.18	46.00	-7.82
744.89	Peak	36.13	-2.51	33.62	46.00	-12.38
803.09	Peak	39.43	-1.69	37.74	46.00	-8.26
881.66	Peak	33.12	-0.98	32.14	46.00	-13.86

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