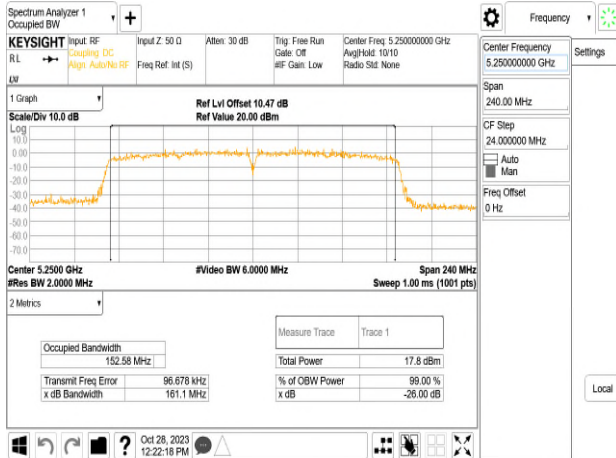
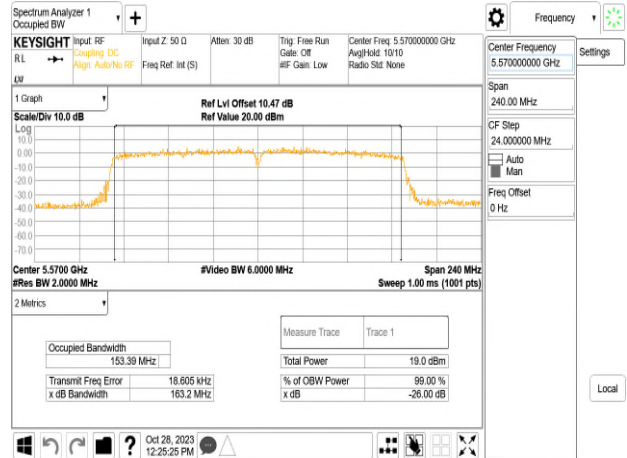


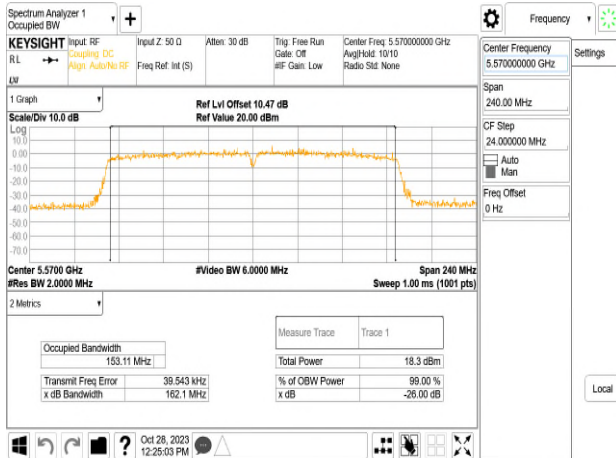
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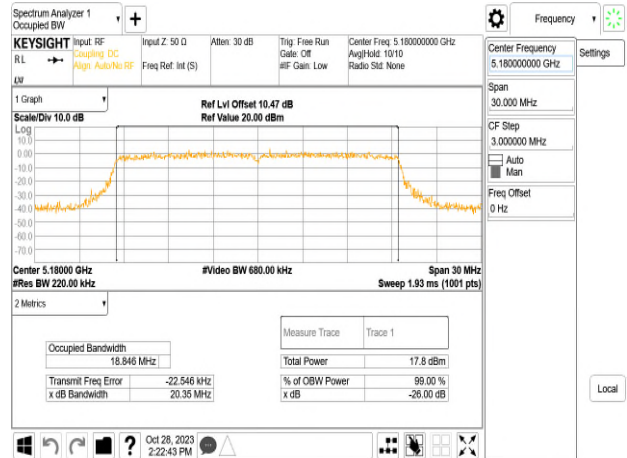
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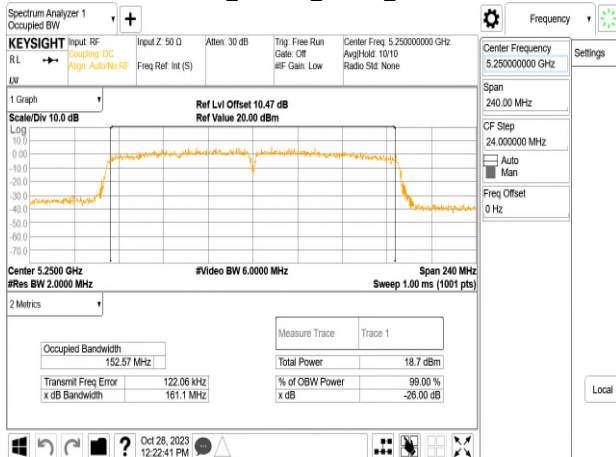
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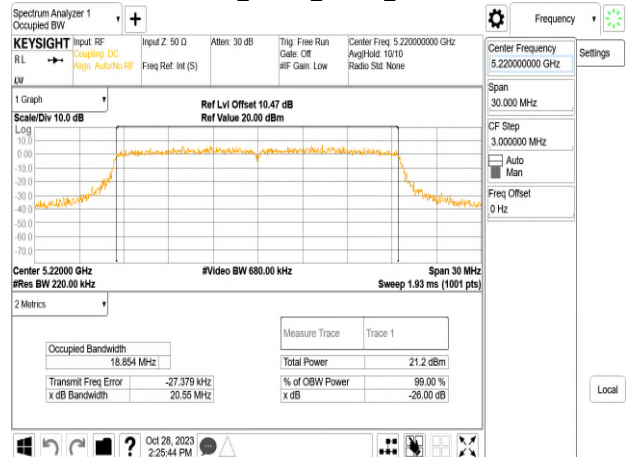
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802.11ac\_160MHz\_Chain1\_5250MHz



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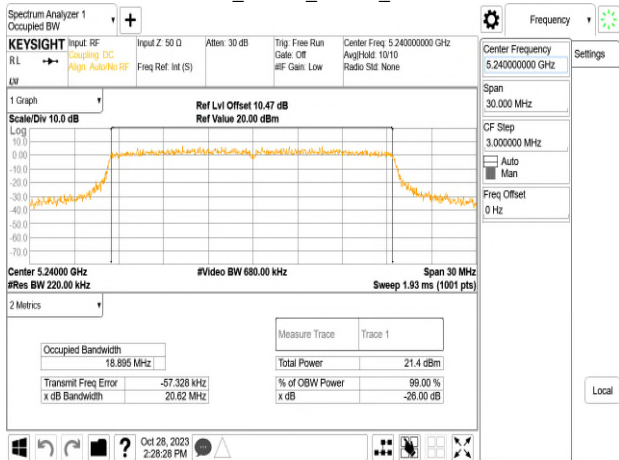


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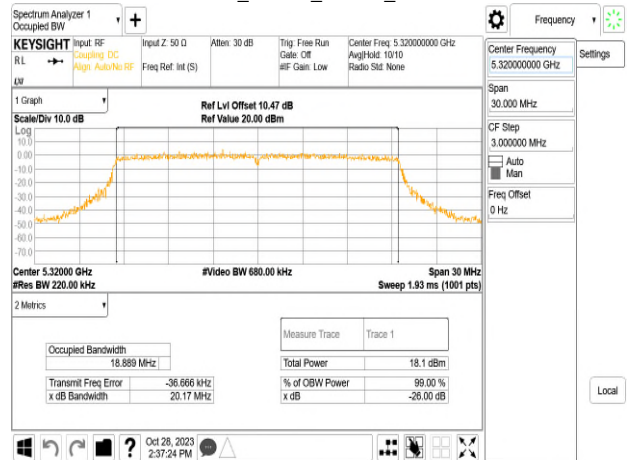
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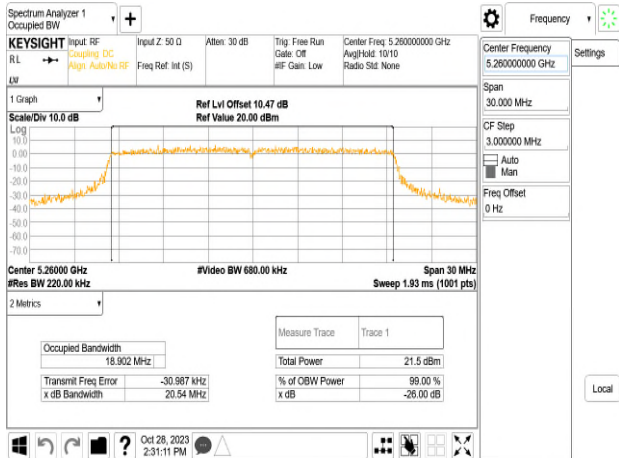
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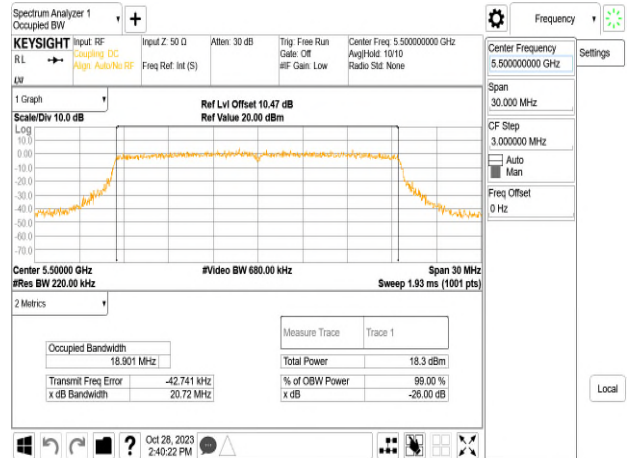
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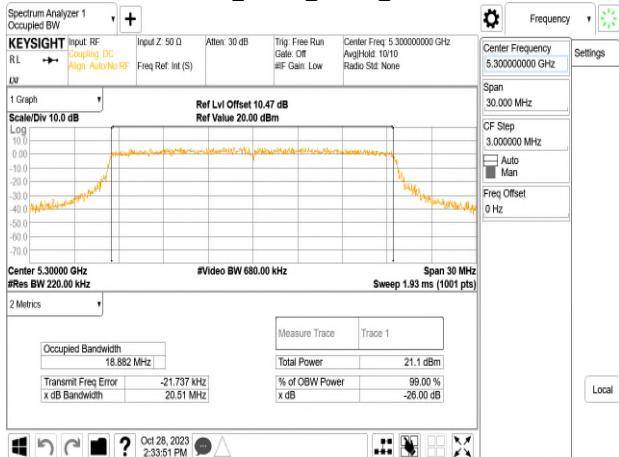
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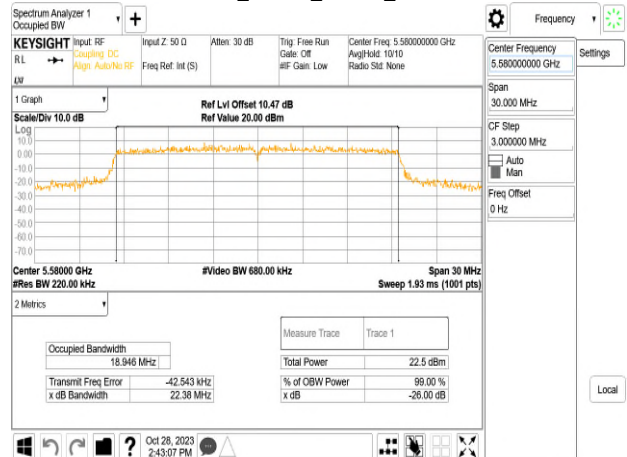
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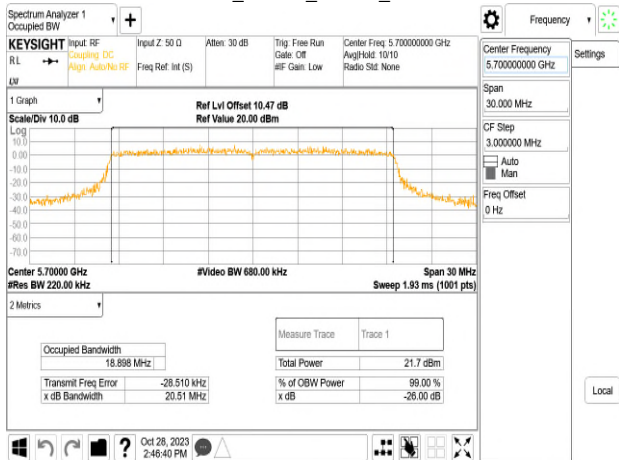


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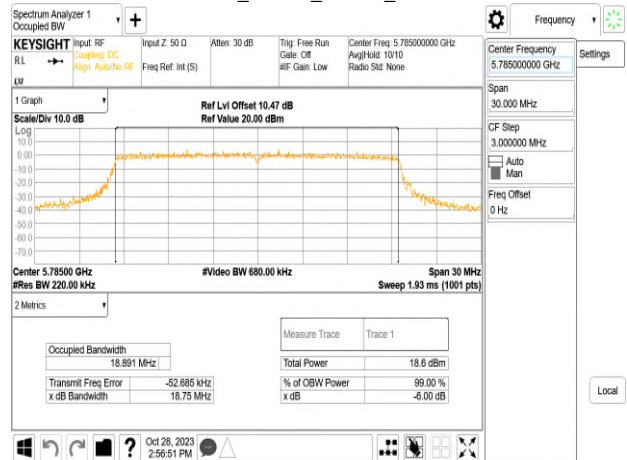
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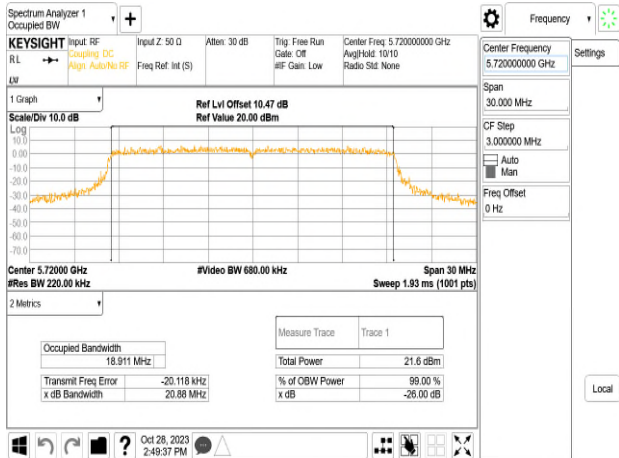
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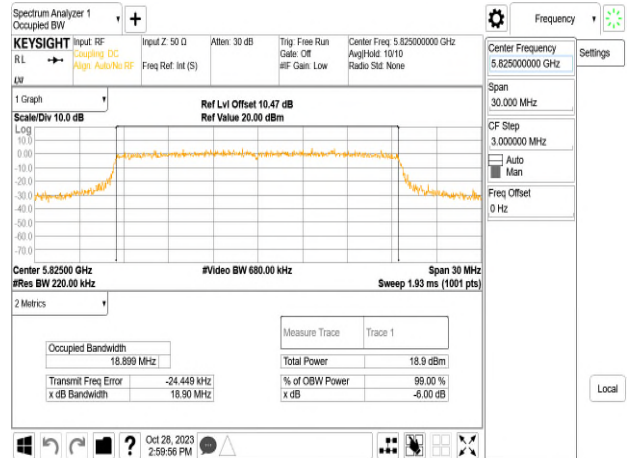
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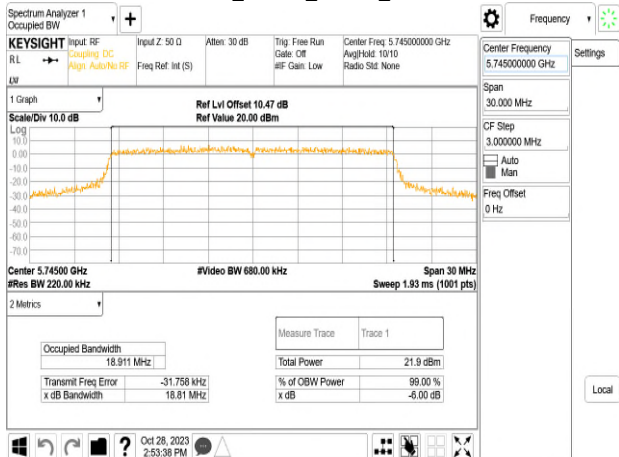
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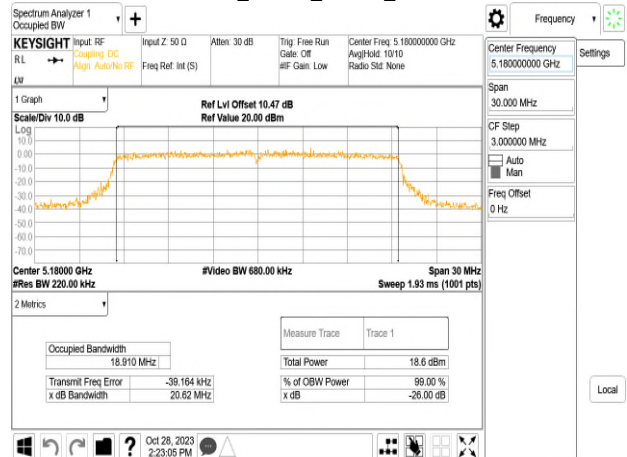
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802.11ax\_20MHz\_Chain0\_5745MHz



802.11ax\_20MHz\_Chain1\_5180MHz



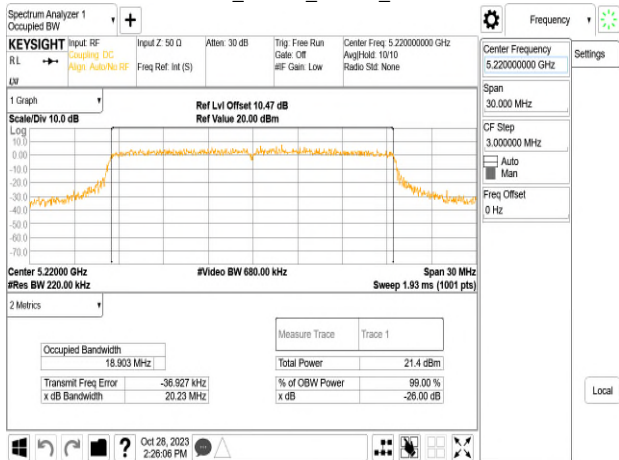
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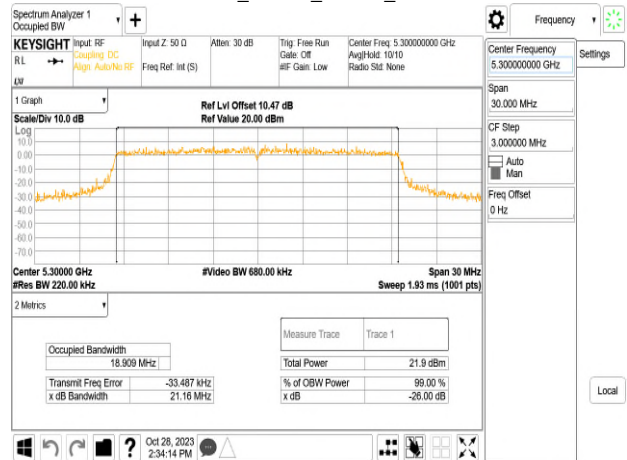
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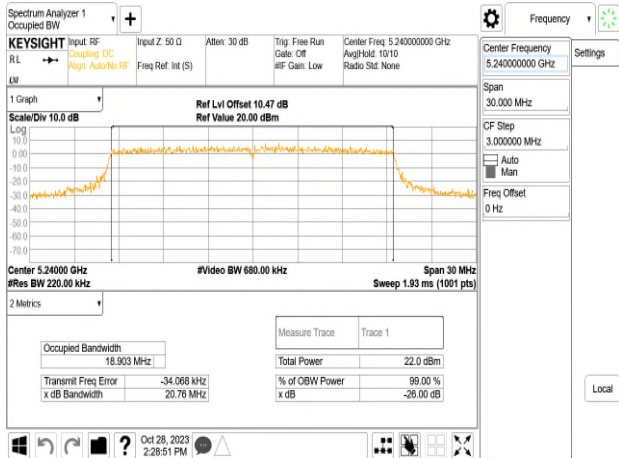
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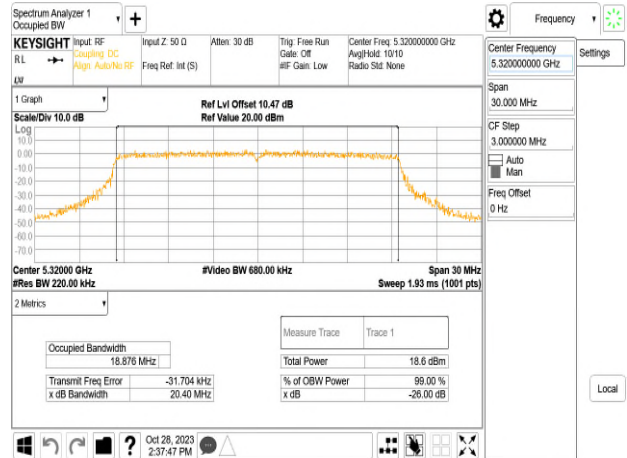
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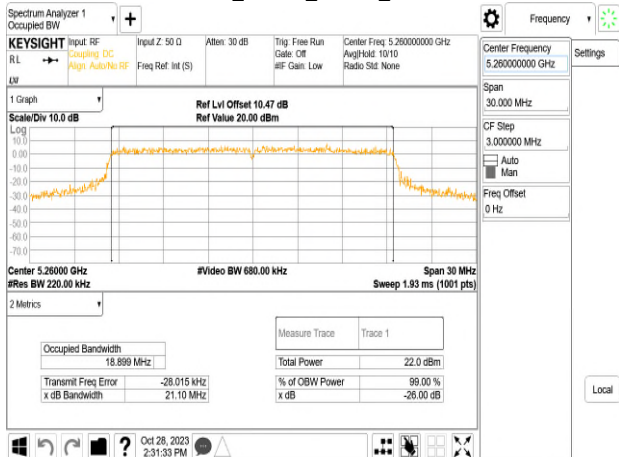
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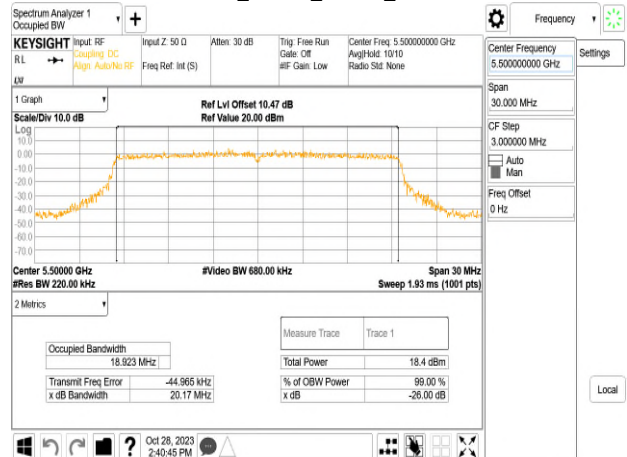
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802.11ax\_20MHz\_Chain1\_5260MHz



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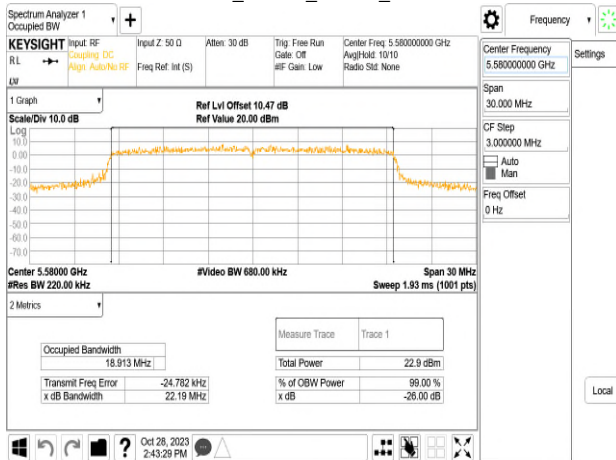


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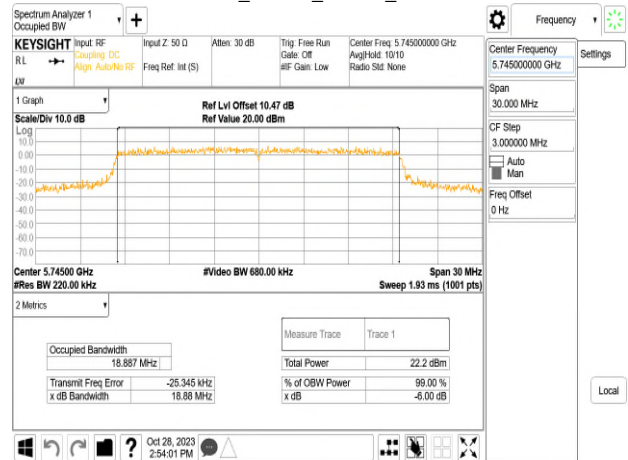
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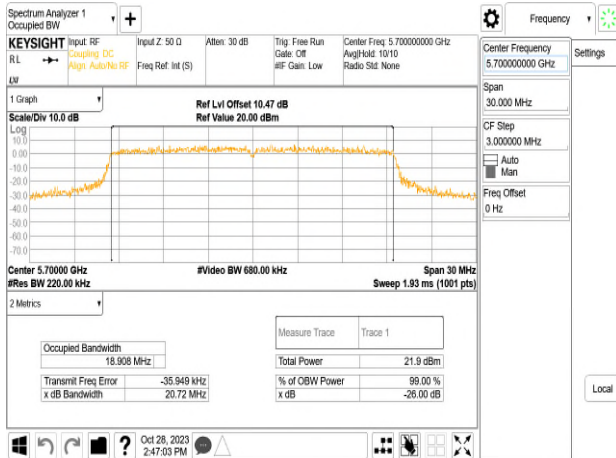
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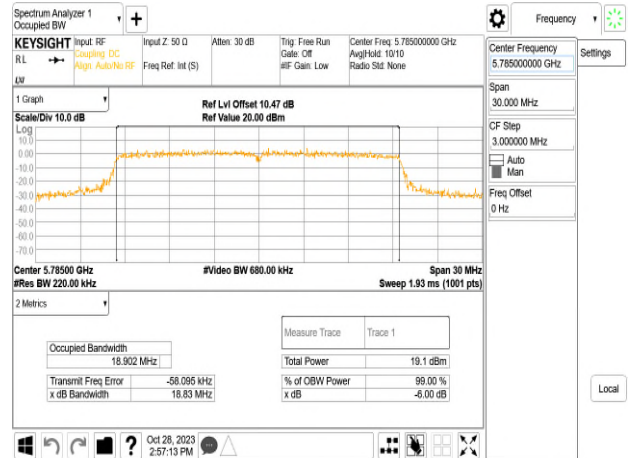
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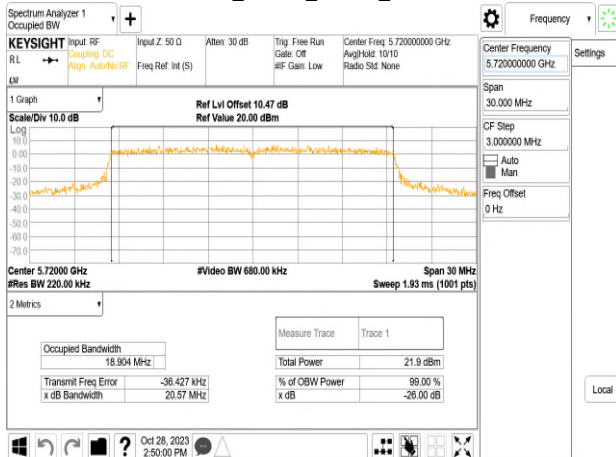
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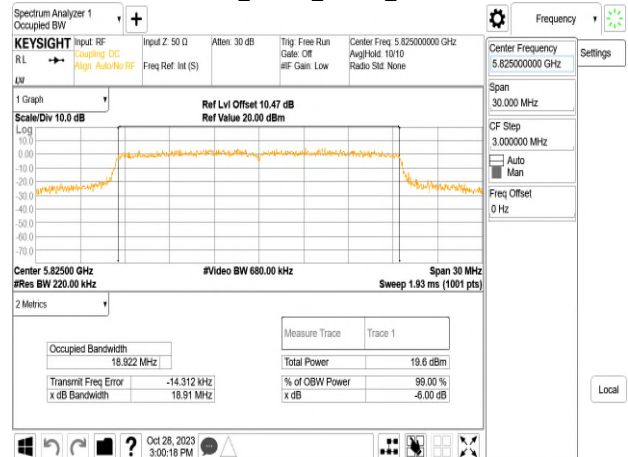
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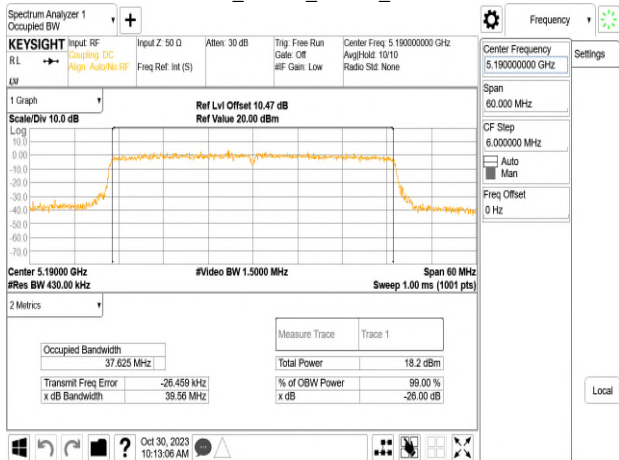


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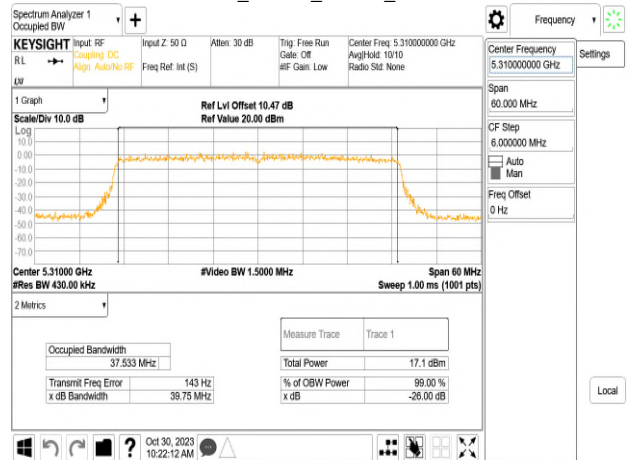
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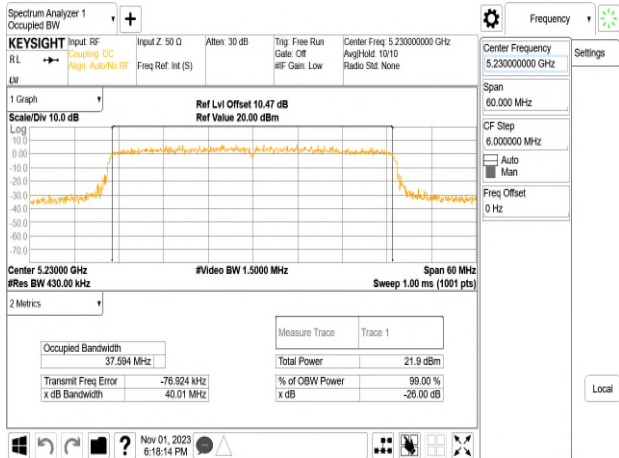
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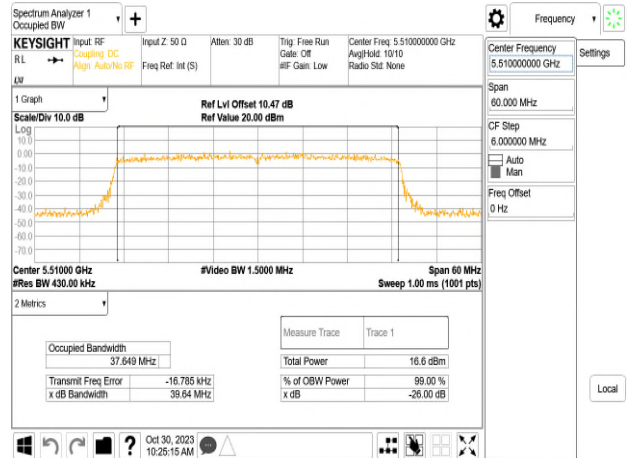
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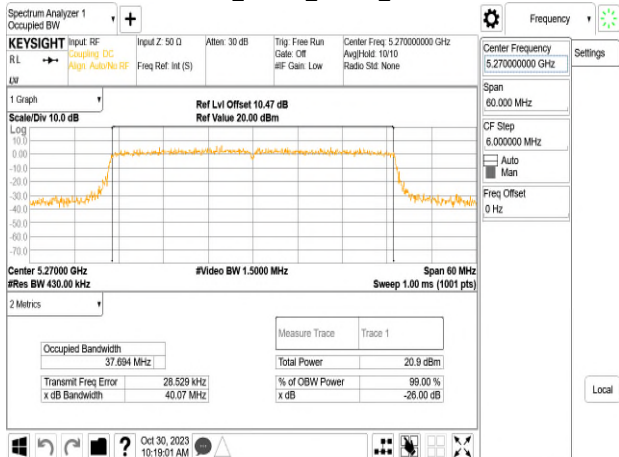
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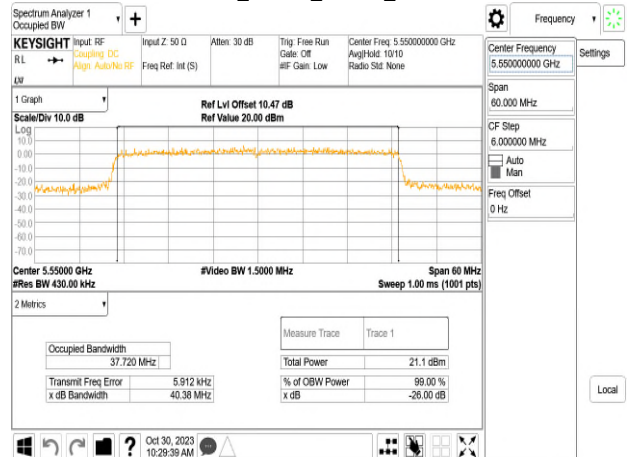
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802.11ax\_40MHz\_Chain0\_5270MHz



802.11ax\_40MHz\_Chain0\_5550MHz



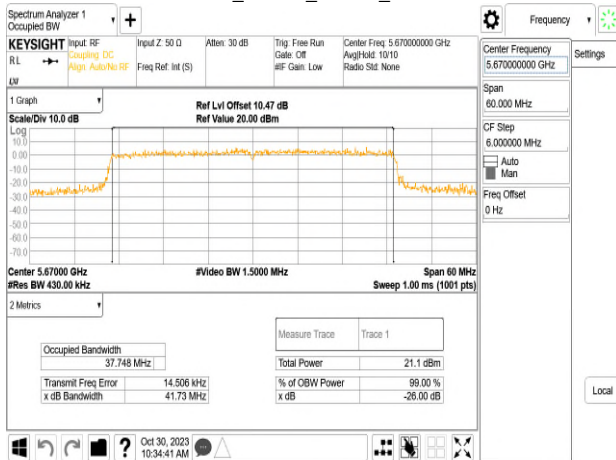
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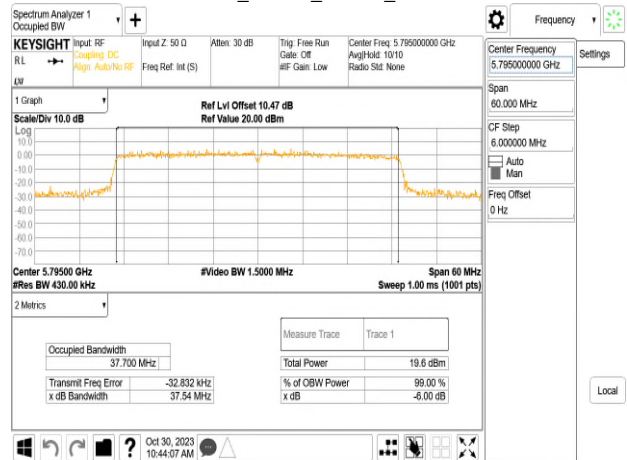
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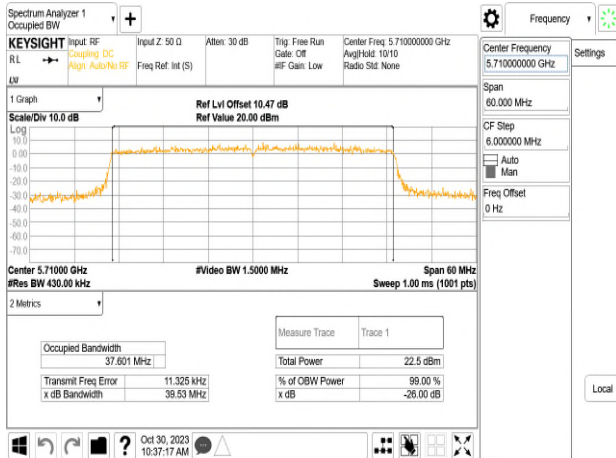
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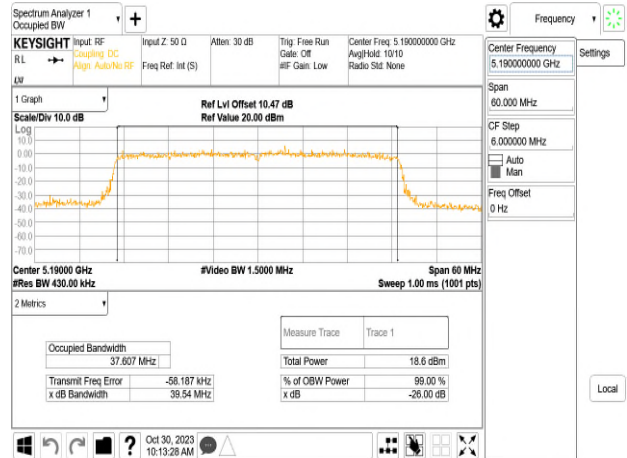
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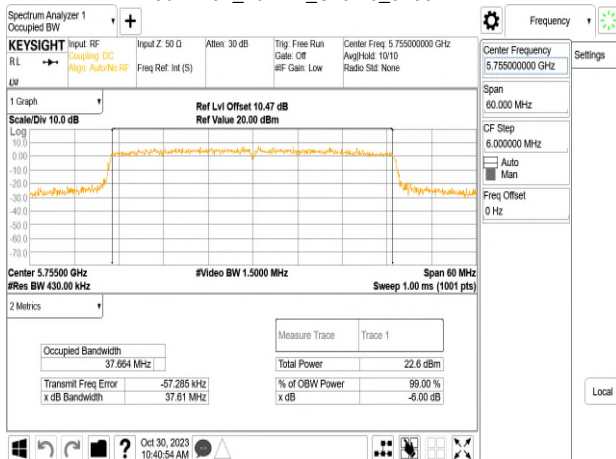
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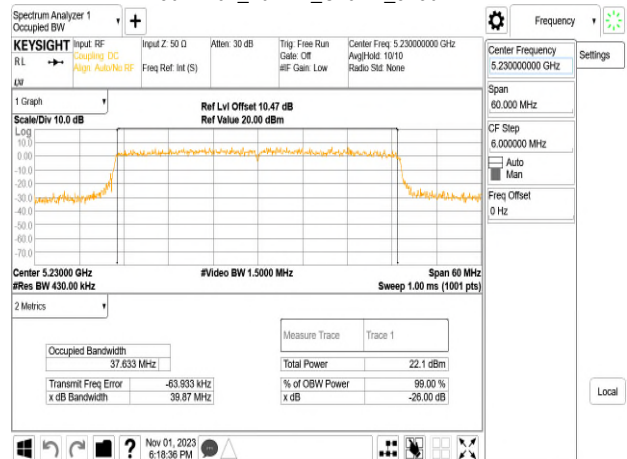
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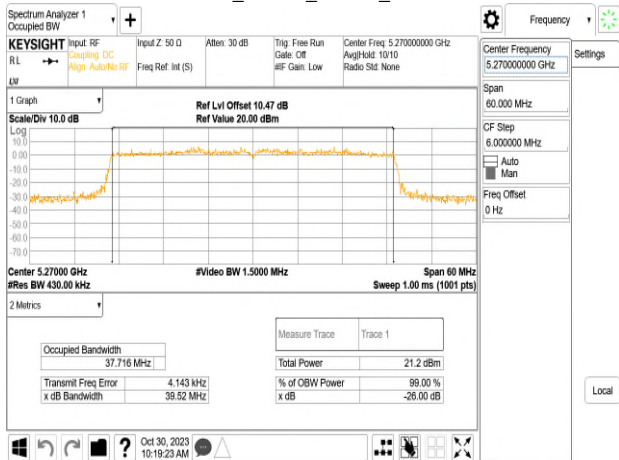


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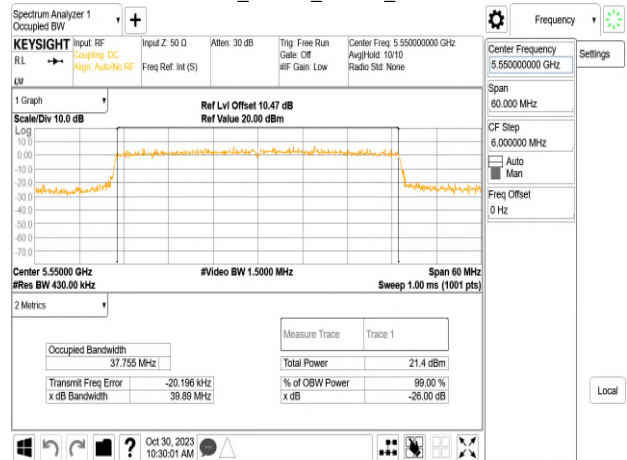
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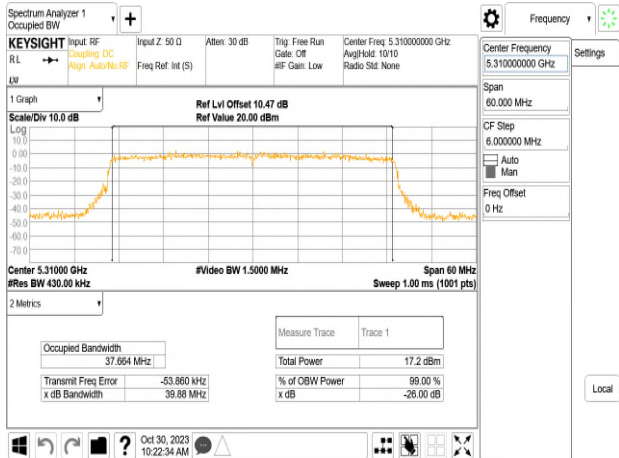
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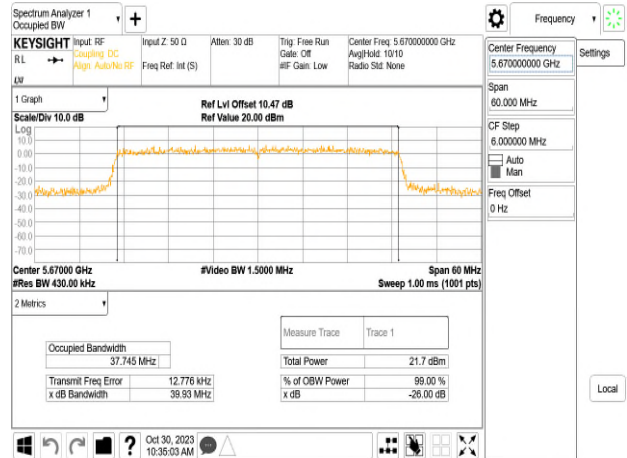
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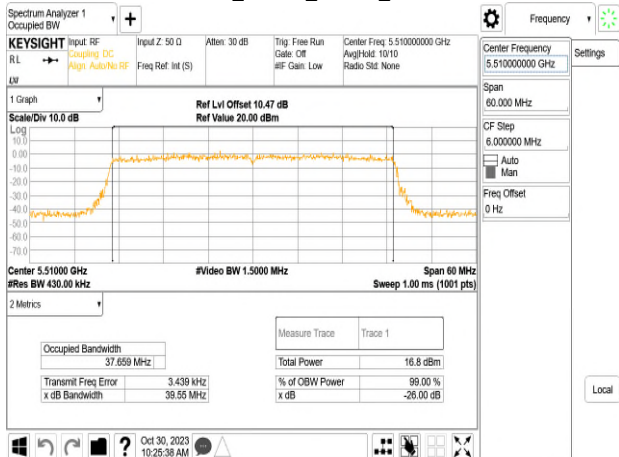
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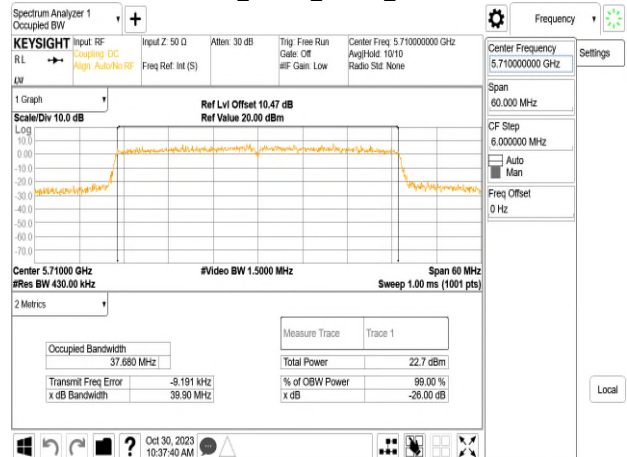
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802.11ax\_40MHz\_Chain1\_5510MHz



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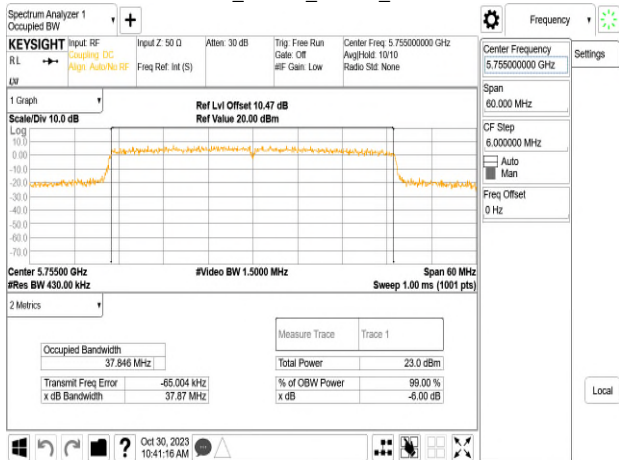
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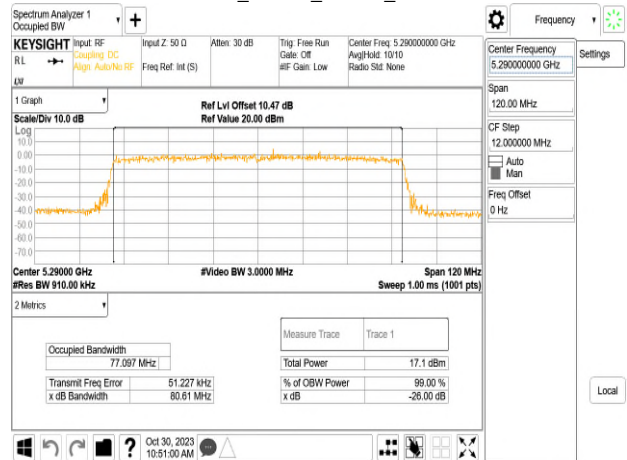
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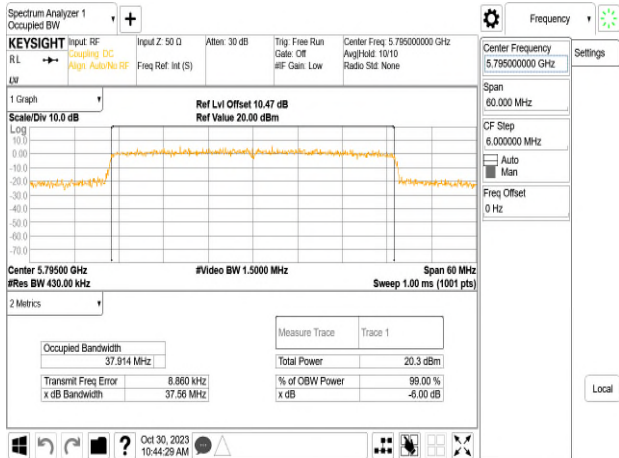
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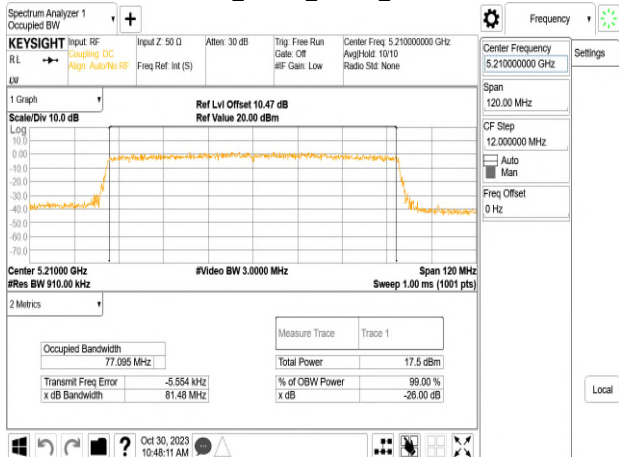
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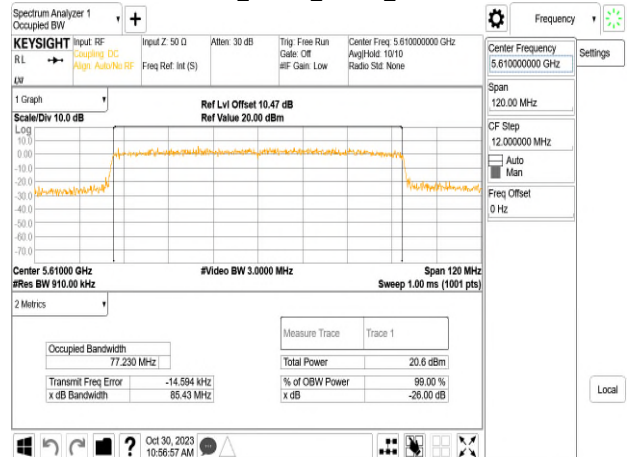
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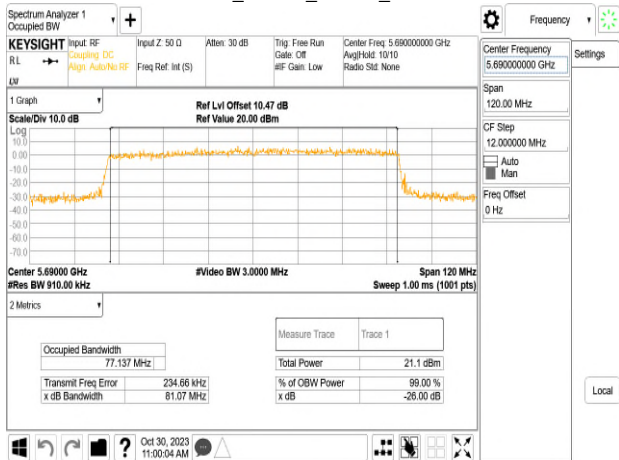


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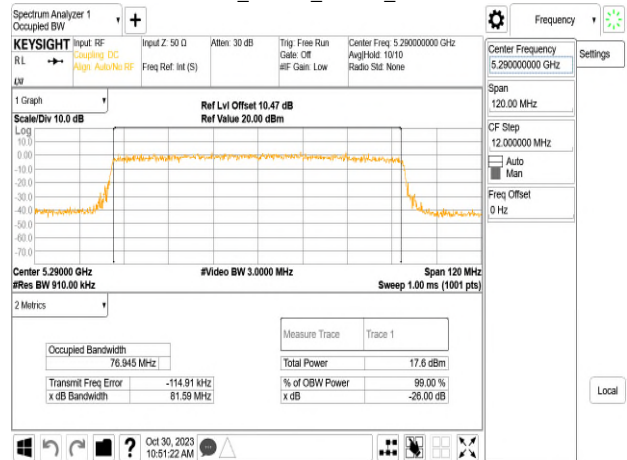
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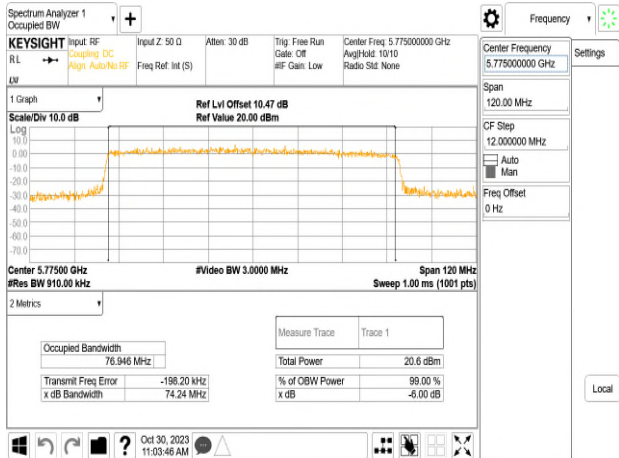
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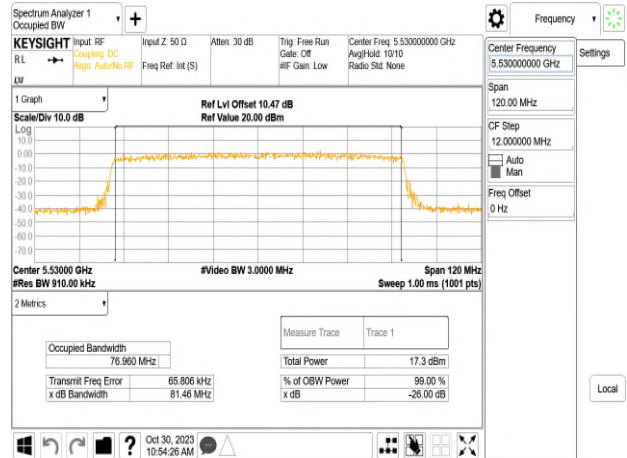
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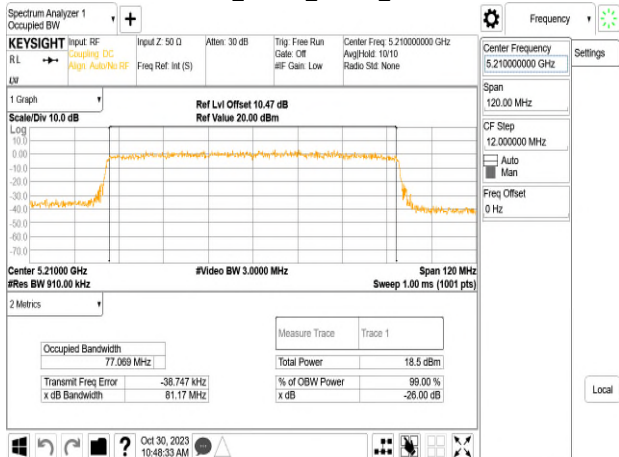
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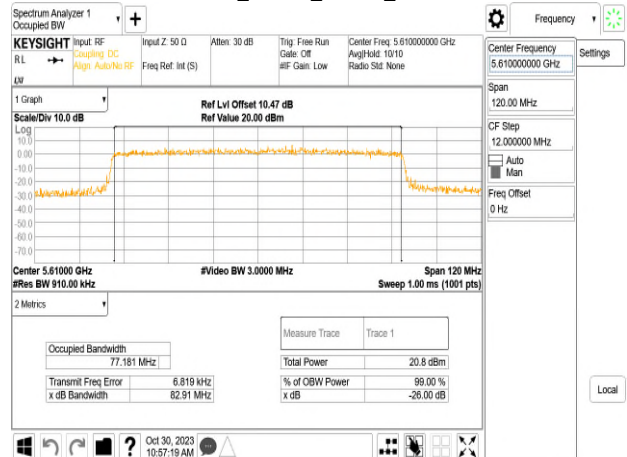
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802.11ax\_80MHz\_Chain1\_5210MHz



802.11ax\_80MHz\_Chain1\_5610MHz

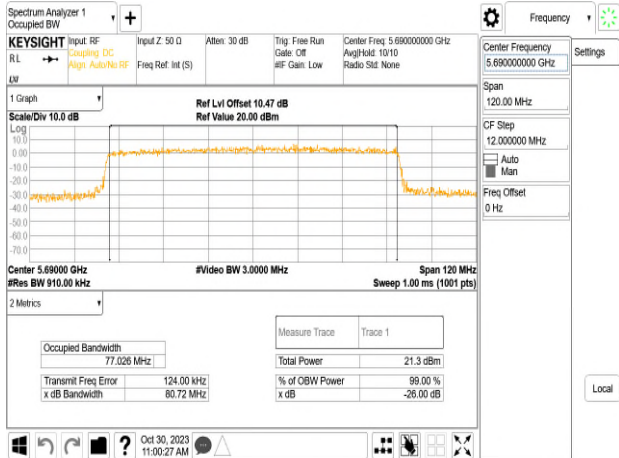


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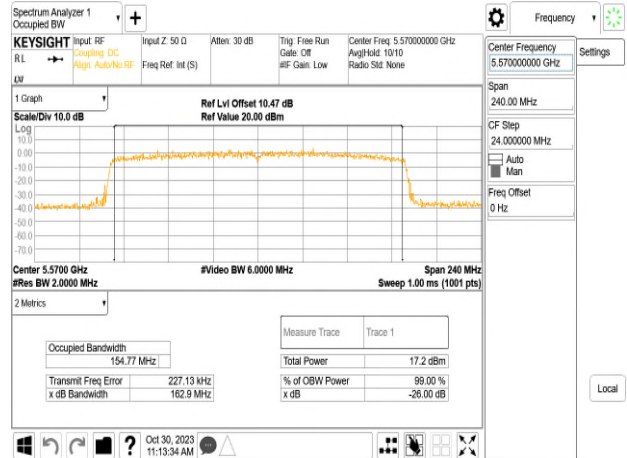
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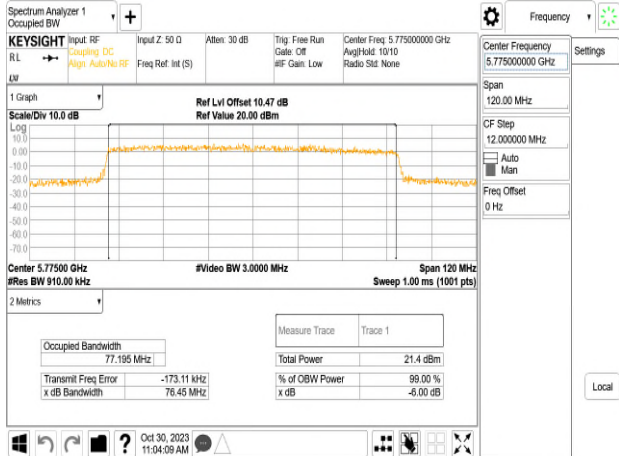
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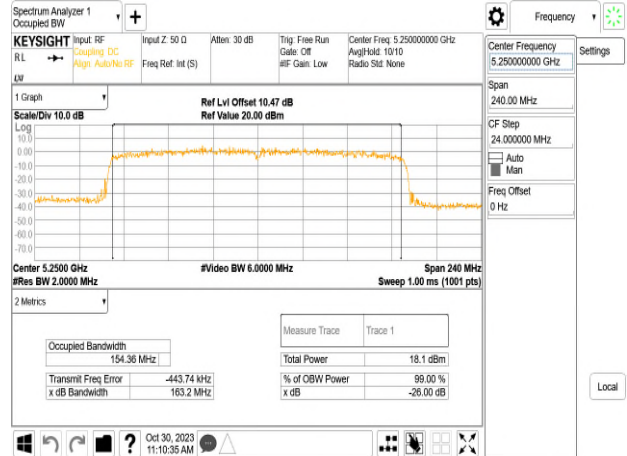
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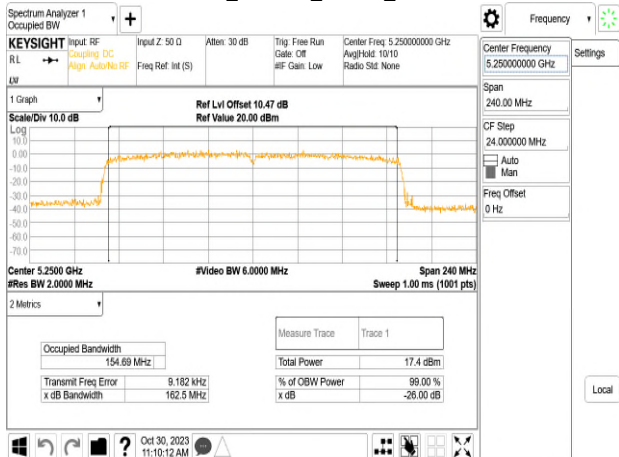
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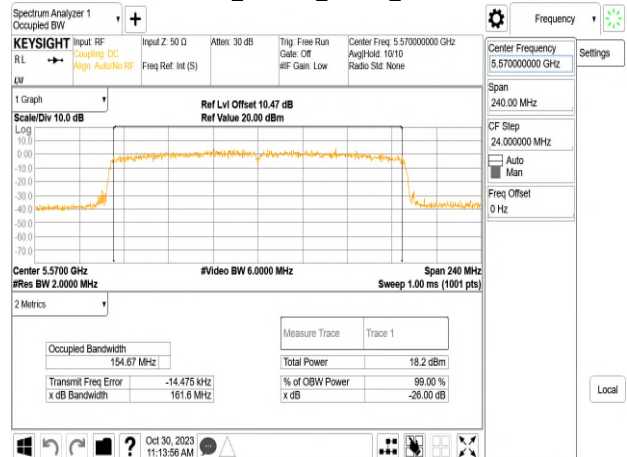
802.11ax\_160MHz\_Chain1\_5250MHz



802.11ax\_160MHz\_Chain0\_5250MHz



802.11ax\_160MHz\_Chain1\_5570MHz



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## 9 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.

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## 9.1.2 FCC

Band	EUT CATEGORY		e-CRF Title 47 §15.407			
			Conducted Output Power	EIRP	TPC	Antenna Directional Gain Requirements
U-NII-1		Fixed point-to-point	1 Watt(30dBm)	Not required	Not required	23dBi
		Outdoor AP	1 Watt(30dBm)	Elevation angle above 30 degrees 125mW (21dBm)	Not required	6dBi
	V	Indoor AP	1 Watt(30dBm)	Not required	Not required	6dBi
		Other	250mW(23.98dBm)	Not required	Not required	6dBi
U-NII-2A	V	Other	250mW(23.98dBm) or 11dBm+10 log B	Not required	When EIRP >500mW At least 6dB below EIRP 1W (30dBm)	6dBi
U-NII-2C	V	Other	250mW(23.98dBm) or 11dBm+10 log B	Not required		6dBi
U-NII-3	V	Other	1 Watt(30dBm)	Not required	Not required	6dBi
		Fixed point-to-point	1 Watt(30dBm)	Not required	Not required	Not required
U-NII-4		Indoor AP (a channel spans 5725~5850 and 5850~5895MHz)	Not required	36dBm	Not required	Not required
		indoor client (a channel spans 5725~5850 and 5850~5895MHz)	Not required	30dBm	Not required	Not required
		subordinate device	Not required	36dBm	Not required	Not required

1. 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.

2. For the 10 log B, B is the 26 dB emission bandwidth.

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### 9.1.3 ISED

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

1 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.

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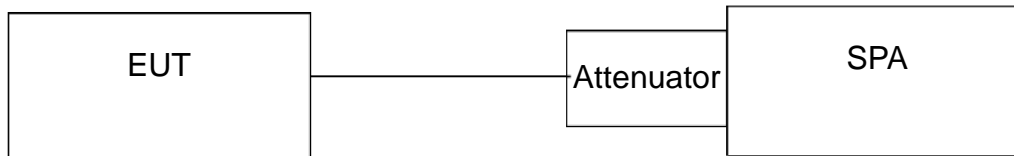
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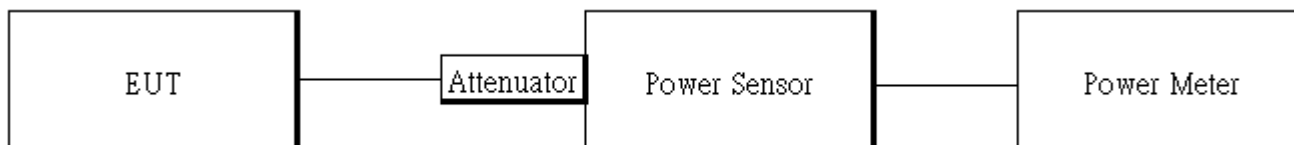


## 9.2 Test Setup

### 9.2.1 Duty Cycle



### 9.2.2 Output Power



## 9.3 Measurement Procedure

### 9.3.1 Duty Cycle Measurements

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

### 9.3.2 Output Power Measurements

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 the power meter
4. Power Meter is used as the auxiliary test equipment to conduct the output power measurement.
5. Record the max. reading and add  $10 \log(1/\text{duty cycle})$ .
6. 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.

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### 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.

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

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;

$G_k$  is the gain in dBi of the kth antenna.

The antenna gain is greater than 6 dBi, therefore the power limit has been attenuated accordingly.

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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	91.65	0.38	0.51	1.00
802.11n_20	79.87	0.98	0.18	1.00
802.11ac_20	79.45	1.00	0.18	1.00
802.11n_40	78.64	1.04	0.18	1.00
802.11ac_40	79.80	0.98	0.18	1.00
802.11ac_80	79.38	1.00	0.18	1.00
802.11ac_160	79.57	0.99	0.18	1.00
802.11ax_20	79.75	0.98	0.18	1.00
802.11ax_40	79.84	0.98	0.18	1.00
802.11ax_80	79.84	0.98	0.18	1.00
802.11ax_160	79.75	0.98	0.18	1.00

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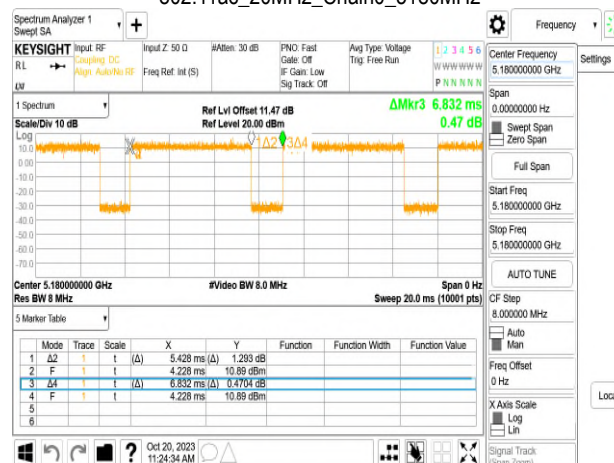
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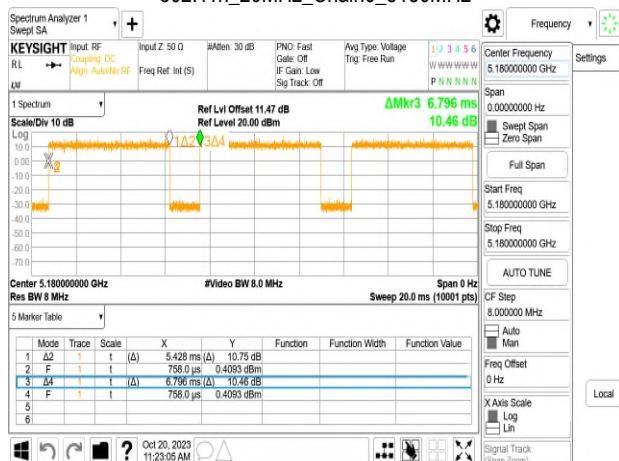
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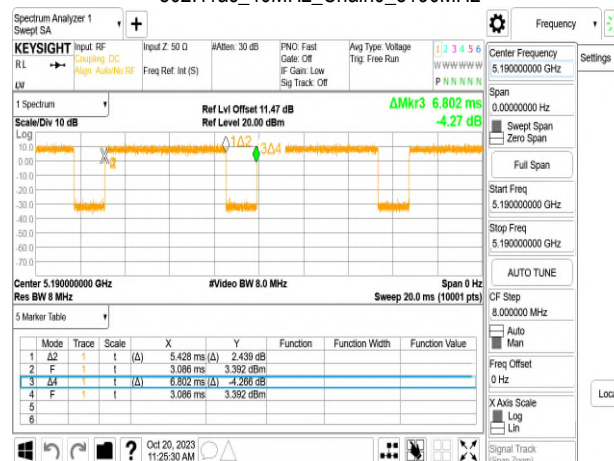
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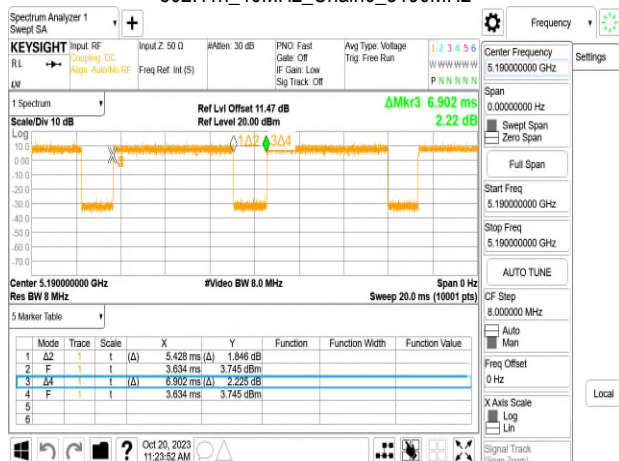
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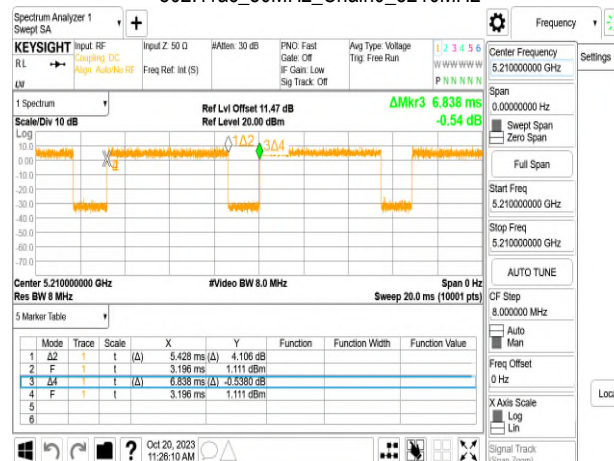
802.11ac 40MHz Chain0 5190MHz



802.11n 40MHz Chain0 5190MHz



802.11ac 80MHz Chain0 5210MHz



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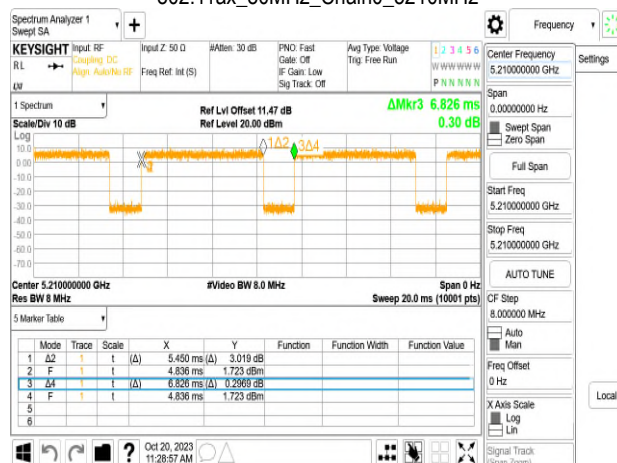
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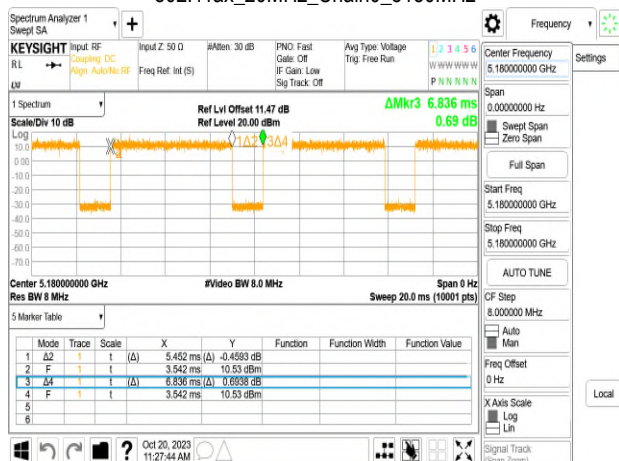
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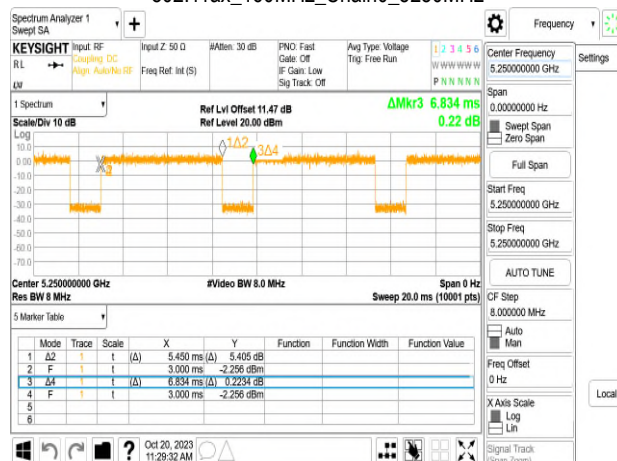
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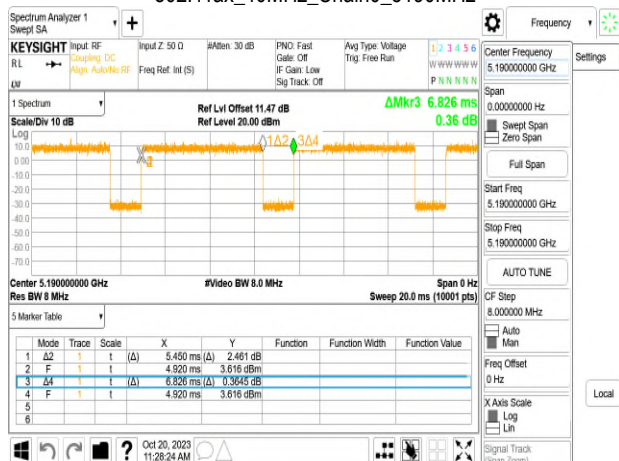
802.11ax\_20MHz\_Chain0\_5180MHz



802.11ax\_160MHz\_Chain0\_5250MHz



802.11ax\_40MHz\_Chain0\_5190MHz



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## 9.5 Output Power Measurement Result

### 9.5.1 FCC Output power

#### 802.11a\_2TX

CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				Ch0	Ch1				
36	5180	6	12.5	13.09	13.16	16.13	41.059	29.77	PASS
44	5220	6	16.5	16.41	16.16	19.30	85.031	29.77	PASS
48	5240	6	16.5	16.57	16.24	19.42	87.440	29.77	PASS
52	5260	6	16.5	16.60	16.20	19.41	87.369	23.06	PASS
60	5300	6	16.5	16.25	16.42	19.34	85.996	23.06	PASS
64	5320	6	13	13.31	13.09	16.21	41.787	23.06	PASS
100	5500	6	13	13.60	13.24	16.43	43.982	22.69	PASS
116	5580	6	16.5	16.38	16.32	19.36	86.280	22.69	PASS
140	5700	6	14.5	15.10	14.70	17.91	61.853	22.69	PASS
144	5720(U-NII 2C)	6	16.5	15.35	14.76	18.08	64.200	22.6	PASS
144	5720 (U-NII 3)	6	16.5	10.24	9.92	13.09	20.367	29.07	PASS
149	5745	6	16.5	16.26	16.04	19.16	82.421	29.07	PASS
157	5785	6	14	14.19	14.03	17.12	51.519	29.07	PASS
165	5825	6	13.5	13.82	13.47	16.66	46.318	29.07	PASS

#### 802.11n\_HT20\_2TX

CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				Ch0	Ch1				
36	5180	MCS0	13.5	13.55	13.38	16.47	44.384	29.77	PASS
44	5220	MCS0	17	16.29	16.02	19.16	82.481	29.77	PASS
48	5240	MCS0	17	16.26	15.89	19.09	81.010	29.77	PASS
52	5260	MCS0	17	16.26	15.87	19.08	80.832	23.06	PASS
60	5300	MCS0	17	16.40	15.64	19.04	80.224	23.06	PASS
64	5320	MCS0	13.5	13.50	13.00	16.26	42.302	23.06	PASS
100	5500	MCS0	13.5	13.51	12.92	16.23	41.990	22.69	PASS
116	5580	MCS0	17.5	16.69	16.26	19.49	88.854	22.69	PASS
140	5700	MCS0	14.5	14.32	14.22	17.28	53.416	22.69	PASS
144	5720(U-NII 2C)	MCS0	17	15.18	14.62	17.92	61.928	22.69	PASS
144	5720 (U-NII 3)	MCS0	17	10.56	10.11	13.35	21.623	29.07	PASS
149	5745	MCS0	17	16.55	15.84	19.22	83.483	29.07	PASS
157	5785	MCS0	14	13.92	13.29	16.62	45.950	29.07	PASS
165	5825	MCS0	14.5	14.17	13.66	16.93	49.305	29.07	PASS

#### 802.11ac\_VHT20\_2TX

CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				Ch0	Ch1				
36	5180	MCS0	13.5	13.52	13.29	16.42	43.812	29.77	PASS
44	5220	MCS0	17	16.27	15.96	19.13	81.792	29.77	PASS
48	5240	MCS0	17	16.21	15.83	19.03	80.048	29.77	PASS
52	5260	MCS0	17	16.22	15.85	19.05	80.321	23.06	PASS
60	5300	MCS0	17	16.39	15.61	19.03	79.925	23.06	PASS
64	5320	MCS0	13.5	13.44	12.96	16.22	41.841	23.06	PASS
100	5500	MCS0	13.5	13.43	12.89	16.18	41.474	22.69	PASS
116	5580	MCS0	17.5	16.58	16.24	19.42	87.553	22.69	PASS
140	5700	MCS0	14.5	14.28	14.15	17.22	52.782	22.69	PASS
144	5720(U-NII 2C)	MCS0	17	15.13	14.55	17.86	61.129	22.69	PASS
144	5720 (U-NII 3)	MCS0	17	10.51	10.04	13.29	21.343	29.07	PASS
149	5745	MCS0	17	16.55	15.83	19.21	83.450	29.07	PASS
157	5785	MCS0	14	13.90	13.26	16.60	45.721	29.07	PASS
165	5825	MCS0	14.5	14.07	13.56	16.83	48.215	29.07	PASS

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## 802.11n\_HT40\_2TX

CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				Ch0	Ch1				
38	5190	MCS0	9	8.58	8.30	11.46	13.983	29.77	PASS
46	5230	MCS0	16.5	16.21	16.15	19.19	83.061	29.77	PASS
54	5270	MCS0	16.5	16.55	16.09	19.34	85.900	23.06	PASS
62	5310	MCS0	12	12.29	12.19	15.25	33.529	23.06	PASS
102	5510	MCS0	12	12.42	12.10	15.28	33.704	22.69	PASS
110	5550	MCS0	16.5	16.68	15.95	19.34	85.984	22.69	PASS
134	5670	MCS0	15	15.23	14.84	18.05	63.874	22.69	PASS
142	5710(U-NII 2C)	MCS0	16.5	15.74	15.57	18.67	73.564	29.07	PASS
142	5710 (U-NII 3)	MCS0	16.5	7.00	7.21	10.12	10.271	29.07	PASS
151	5755	MCS0	16.5	16.24	16.12	19.19	83.067	29.07	PASS
159	5795	MCS0	15	15.07	14.61	17.86	61.094	29.07	PASS

## 802.11ac\_VHT40\_2TX

CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				Ch0	Ch1				
38	5190	MCS0	9	8.46	8.20	11.34	13.621	29.77	PASS
46	5230	MCS0	16.5	16.08	16.03	19.07	80.637	29.77	PASS
54	5270	MCS0	16.5	16.41	15.89	19.17	82.567	23.06	PASS
62	5310	MCS0	12	12.15	12.04	15.11	32.401	23.06	PASS
102	5510	MCS0	12	12.25	11.97	15.12	32.528	22.69	PASS
110	5550	MCS0	16.5	16.56	15.83	19.22	83.572	22.69	PASS
134	5670	MCS0	15	15.09	14.73	17.92	62.001	22.69	PASS
142	5710(U-NII 2C)	MCS0	16.5	15.61	15.37	18.50	70.776	22.69	PASS
142	5710 (U-NII 3)	MCS0	16.5	6.86	7.01	9.95	9.878	29.07	PASS
151	5755	MCS0	16.5	16.09	15.95	19.03	79.999	29.07	PASS
159	5795	MCS0	15	14.87	14.50	17.70	58.874	29.07	PASS

## 802.11ac\_VHT80\_2TX

CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				Ch0	Ch1				
42	5210	MCS0	8	8.00	6.99	10.54	11.317	29.77	PASS
58	5290	MCS0	12.5	12.60	12.33	15.48	35.321	23.06	PASS
106	5530	MCS0	12	12.22	11.86	15.06	32.040	22.69	PASS
122	5610	MCS0	15	14.97	15.28	18.14	65.177	22.69	PASS
138	5690(U-NII 2C)	MCS0	14.5	14.16	14.05	17.12	51.469	22.69	PASS
138	5690 (U-NII 3)	MCS0	14.5	2.88	2.80	5.85	3.847	29.07	PASS
155	5775	MCS0	14	14.47	14.00	17.25	53.144	29.07	PASS

## 802.11ac\_VHT160\_2TX

CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				Ch0	Ch1				
50	5250	MCS0	9.5	9.37	8.57	12.00	15.853	23.06	PASS
114	5570	MCS0	12	12.11	11.52	14.84	30.464	22.69	PASS

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## 802.11ax\_HE20\_2TX

CH	Frequency (MHz)	Data Rate	RU config.	Power set	Avg. POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
					Ch0	Ch1				
36	5180	MCS0	full	13	13.38	13.55	16.48	44.451	29.77	PASS
44	5220	MCS0	full	16.5	16.30	16.00	19.17	82.520	29.77	PASS
48	5240	MCS0	full	16.5	16.53	16.15	19.36	86.241	29.77	PASS
52	5260	MCS0	full	16.5	16.53	16.03	19.30	85.117	23.06	PASS
60	5300	MCS0	full	16.5	16.24	16.33	19.30	85.079	23.06	PASS
64	5320	MCS0	full	13	13.31	13.04	16.19	41.592	23.06	PASS
100	5500	MCS0	full	13	13.58	13.16	16.39	43.532	22.69	PASS
116	5580	MCS0	full	16.5	16.39	16.18	19.30	85.099	22.69	PASS
140	5700	MCS0	full	14	14.29	13.91	17.12	51.489	22.69	PASS
144	5720(U-NII 2C)	MCS0	full	16.5	15.14	14.58	17.88	61.364	22.69	PASS
144	5720 (U-NII 3)	MCS0	full	16.5	10.66	10.01	13.36	21.672	29.07	PASS
149	5745	MCS0	full	16.5	16.21	16.04	19.14	82.013	29.07	PASS
157	5785	MCS0	full	13.5	13.90	14.02	16.97	49.813	29.07	PASS
165	5825	MCS0	full	14	14.04	13.80	16.93	49.370	29.07	PASS

## 802.11ax\_HE40\_2TX

CH	Frequency (MHz)	Data Rate	RU config.	Power set	Avg. POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
					Ch0	Ch1				
38	5190	MCS0	full	8.5	8.67	7.91	11.31	13.535	29.77	PASS
46	5230	MCS0	full	16.5	16.43	16.15	19.30	85.121	29.77	PASS
54	5270	MCS0	full	16.5	16.69	16.25	19.48	88.790	23.06	PASS
62	5310	MCS0	full	12	12.57	12.21	15.40	34.688	23.06	PASS
102	5510	MCS0	full	12	12.54	12.20	15.38	34.526	22.69	PASS
110	5550	MCS0	full	16.5	16.74	16.01	19.40	34.526	22.69	PASS
134	5670	MCS0	full	14	14.62	14.23	17.44	55.430	22.69	PASS
142	5710(U-NII 2C)	MCS0	full	16.5	15.84	15.57	18.72	74.482	22.69	PASS
142	5710 (U-NII 3)	MCS0	full	16.5	7.34	7.25	10.31	10.728	29.07	PASS
151	5755	MCS0	full	16.5	16.30	16.25	19.28	84.785	29.07	PASS
159	5795	MCS0	full	15	15.07	14.84	17.96	62.584	29.07	PASS

## 802.11ax\_HE80\_2TX

CH	Frequency (MHz)	Data Rate	RU config.	Power set	Avg. POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
					Ch0	Ch1				
42	5210	MCS0	full	8	8.41	7.30	10.90	12.298	29.77	PASS
58	5290	MCS0	full	12	12.38	11.99	15.20	33.094	23.06	PASS
106	5530	MCS0	full	12	12.66	12.21	15.45	35.066	22.69	PASS
122	5610	MCS0	full	15	15.08	15.24	18.17	65.597	22.69	PASS
138	5690(U-NII 2C)	MCS0	full	14	13.91	13.82	16.88	48.709	22.69	PASS
138	5690 (U-NII 3)	MCS0	full	14	2.52	2.52	5.53	3.570	29.07	PASS
155	5775	MCS0	full	14	14.64	14.19	17.43	55.321	29.07	PASS

## 802.11ax\_HE160\_2TX

CH	Frequency (MHz)	Data Rate	RU config.	Power set	Avg. POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
					Ch0	Ch1				
50	5250	MCS0	full	9.5	9.51	8.64	12.11	16.255	23.06	PASS
114	5570	MCS0	full	12	12.01	11.82	14.93	31.110	22.69	PASS

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## 9.5.2 ISD Conducted output power and EIRP

## 802.11a\_2TX

CH	Frequency (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
		Ch0	Ch1				
52	5260	16.60	16.20	<b>19.41</b>	<b>87.369</b>	23.14	PASS
60	5300	16.25	16.42	19.34	85.996	23.14	PASS
64	5320	13.31	13.09	16.21	41.787	23.13	PASS
100	5500	13.60	13.24	16.43	43.982	23.13	PASS
116	5580	16.38	16.32	<b>19.36</b>	<b>86.280</b>	23.15	PASS
140	5700	15.10	14.70	17.91	61.853	23.14	PASS
144	5720(U-NII 2C)	15.35	14.76	18.08	64.200	22.2	PASS
144	5720 (U-NII 3)	10.24	9.92	13.09	20.367	29.07	PASS
149	5745	16.26	16.04	<b>19.16</b>	<b>82.421</b>	29.07	PASS
157	5785	14.19	14.03	17.12	51.519	29.07	PASS
165	5825	13.82	13.47	16.66	46.318	29.07	PASS

## 802.11n\_HT20\_2TX

CH	Frequency (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
		Ch0	Ch1				
52	5260	16.26	15.87	<b>19.08</b>	<b>80.832</b>	23.44	PASS
60	5300	16.40	15.64	19.04	80.224	23.44	PASS
64	5320	13.50	13.00	16.26	42.302	23.44	PASS
100	5500	13.51	12.92	16.23	41.990	23.44	PASS
116	5580	16.69	16.26	<b>19.49</b>	<b>88.854</b>	23.46	PASS
140	5700	14.32	14.22	17.28	53.416	23.45	PASS
144	5720(U-NII 2C)	15.18	14.62	17.92	61.928	22.39	PASS
144	5720 (U-NII 3)	10.56	10.11	13.35	21.623	29.07	PASS
149	5745	16.55	15.84	<b>19.22</b>	<b>83.483</b>	29.07	PASS
157	5785	13.92	13.29	16.62	45.950	29.07	PASS
165	5825	14.17	13.66	16.93	49.305	29.07	PASS

## 802.11n\_HT40\_2TX

CH	Frequency (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
		Ch0	Ch1				
54	5270	16.55	16.09	<b>19.34</b>	<b>85.900</b>	23.98	PASS
62	5310	12.29	12.19	15.25	33.529	23.98	PASS
102	5510	12.42	12.10	15.28	33.704	23.98	PASS
110	5550	16.68	15.95	<b>19.34</b>	<b>85.984</b>	23.98	PASS
134	5670	15.23	14.84	18.05	63.874	23.98	PASS
142	5710(U-NII 2C)	15.74	15.57	18.67	73.564	23.98	PASS
142	5710 (U-NII 3)	7.00	7.21	10.12	10.271	29.07	PASS
151	5755	16.24	16.12	<b>19.19</b>	<b>83.067</b>	29.07	PASS
159	5795	15.07	14.61	17.86	61.094	29.07	PASS

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## 802.11ac\_VHT20\_2TX

CH	Frequency (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
		Ch0	Ch1				
52	5260	16.22	15.85	<b>19.05</b>	<b>80.321</b>	23.44	PASS
60	5300	16.39	15.61	19.03	79.925	23.44	PASS
64	5320	13.44	12.96	16.22	41.841	23.44	PASS
100	5500	13.43	12.89	16.18	41.474	23.44	PASS
116	5580	16.58	16.24	<b>19.42</b>	<b>87.553</b>	23.46	PASS
140	5700	14.28	14.15	17.22	52.782	23.45	PASS
144	5720(U-NII 2C)	15.13	14.55	17.86	61.129	22.39	PASS
144	5720 (U-NII 3)	10.51	10.04	13.29	21.343	29.07	PASS
149	5745	16.55	15.83	<b>19.21</b>	<b>83.450</b>	29.07	PASS
157	5785	13.90	13.26	16.60	45.721	29.07	PASS
165	5825	14.07	13.56	16.83	48.215	29.07	PASS

## 802.11ac\_VHT40\_2TX

CH	Frequency (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
		Ch0	Ch1				
54	5270	16.41	15.89	<b>19.17</b>	<b>82.567</b>	23.98	PASS
62	5310	12.15	12.04	15.11	32.401	23.98	PASS
102	5510	12.25	11.97	15.12	32.528	23.98	PASS
110	5550	16.56	15.83	<b>19.22</b>	<b>83.572</b>	23.98	PASS
134	5670	15.09	14.73	17.92	62.001	23.98	PASS
142	5710(U-NII 2C)	15.61	15.37	18.50	70.776	23.98	PASS
142	5710 (U-NII 3)	6.86	7.01	9.95	9.878	29.07	PASS
151	5755	16.09	15.95	<b>19.03</b>	<b>79.999</b>	29.07	PASS
159	5795	14.87	14.50	17.70	58.874	29.07	PASS

## 802.11ac\_VHT80\_2TX

CH	Frequency (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
		Ch0	Ch1				
58	5290	12.60	12.33	<b>15.48</b>	<b>35.321</b>	23.98	PASS
106	5530	12.22	11.86	15.06	32.040	23.98	PASS
138	5710(U-NII 2C)	14.16	14.05	17.12	51.469	23.98	PASS
138	5690 (U-NII 3)	2.88	2.80	5.85	3.847	29.07	PASS
155	5775	14.47	14.00	<b>17.25</b>	<b>53.144</b>	29.07	PASS

## 802.11ac\_VHT160\_2TX

CH	Frequency (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
		Ch0	Ch1				
50	5250	9.37	8.57	<b>12.00</b>	<b>15.853</b>	23.98	PASS

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## 802.11ax HE20\_2TX

CH	Frequency (MHz)	RU config.	AVERAGE POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
			Ch0	Ch1				
52	5260	full	16.53	16.03	19.30	85.117	23.76	PASS
60	5300	full	16.24	16.33	19.30	85.079	23.76	PASS
64	5320	full	13.31	13.04	16.19	41.592	23.76	PASS
100	5500	full	13.58	13.16	16.39	43.532	23.76	PASS
116	5580	full	16.39	16.18	19.30	85.099	23.77	PASS
140	5700	full	14.29	13.91	17.12	51.489	23.76	PASS
144	5720(U-NII)	full	15.14	14.58	17.88	61.364	22.6	PASS
144	5720 (U-NII 3)	full	10.66	10.01	13.36	21.672	29.07	PASS
149	5745	full	16.21	16.04	19.14	82.013	29.07	PASS
157	5785	full	13.90	14.02	16.97	49.813	29.07	PASS
165	5825	full	14.04	13.80	16.93	49.370	29.07	PASS

## 802.11ax HE40\_2TX

CH	Frequency (MHz)	RU config.	AVERAGE POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
			Ch0	Ch1				
54	5270	full	16.69	16.25	19.48	88.790	23.98	PASS
62	5310	full	12.57	12.21	15.40	34.688	23.98	PASS
102	5510	full	12.54	12.20	15.38	34.526	23.98	PASS
110	5550	full	16.74	16.01	19.40	87.065	23.98	PASS
134	5670	full	14.62	14.23	17.44	55.430	23.98	PASS
142	5710(U-NII)	full	15.84	15.57	18.72	74.482	23.98	PASS
142	5710 (U-NII 3)	full	7.34	7.25	10.31	10.728	29.07	PASS
151	5755	full	16.30	16.25	19.28	84.785	29.07	PASS
159	5795	full	15.07	14.84	17.96	62.584	29.07	PASS

## 802.11ax HE80\_2TX

CH	Frequency (MHz)	RU config.	AVERAGE POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
			Ch0	Ch1				
58	5290	full	12.38	11.99	15.20	33.094	23.98	PASS
106	5530	full	12.66	12.21	15.45	35.066	23.98	PASS
138	5690(U-NII)	full	13.91	13.82	16.88	48.709	23.98	PASS
138	5690 (U-NII 3)	full	2.52	2.52	5.53	3.570	29.07	PASS
155	5775	full	14.64	14.19	17.43	55.321	29.07	PASS

## 802.11ax HE160\_2TX

CH	Frequency (MHz)	RU config.	AVERAGE POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
			Ch0	Ch1				
50	5250	full	9.51	8.64	12.11	16.255	23.98	PASS
		996/67	0.98	0.98	0.00	1.000	23.98	PASS
		996/S67	0.98	0.98	0.00	1.000	23.98	PASS

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# EIRP

## 802.11a\_2TX

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
52	5260	19.41	3.91	23.32	214.783	29.14	PASS
60	5300	19.34	3.91	23.25	211.349	29.14	PASS
64	5320	16.21	3.91	20.12	102.802	29.13	PASS
100	5500	16.43	4.275	20.71	117.761	29.13	PASS
116	5580	19.36	4.275	23.63	230.675	29.15	PASS
140	5700	17.91	4.275	22.19	165.577	29.14	PASS

## 802.11n\_HT20\_2TX

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
52	5260	19.08	3.91	22.99	199.067	29.44	PASS
60	5300	19.04	3.91	22.95	197.242	29.44	PASS
64	5320	16.26	3.91	20.17	103.992	29.44	PASS
100	5500	16.23	4.275	20.51	112.460	29.44	PASS
116	5580	19.49	4.275	23.76	237.684	29.46	PASS
140	5700	17.28	4.275	21.55	142.889	29.45	PASS

## 802.11ac\_VHT20\_2TX

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
52	5260	19.05	3.91	22.96	197.697	29.44	PASS
60	5300	19.03	3.91	22.94	196.789	29.44	PASS
64	5320	16.22	3.91	20.13	103.039	29.44	PASS
100	5500	16.18	4.275	20.45	110.917	29.44	PASS
116	5580	19.42	4.275	23.70	234.423	29.46	PASS
140	5700	17.22	4.275	21.50	141.254	29.45	PASS

## 802.11n\_HT40\_2TX

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
54	5270	19.34	3.91	23.25	211.349	30	PASS
62	5310	15.25	3.91	19.16	82.414	30	PASS
102	5510	15.28	4.275	19.55	90.157	30	PASS
110	5550	19.34	4.275	23.62	230.144	30	PASS
134	5670	18.05	4.275	22.33	171.002	30	PASS

## 802.11ac\_VHT40\_2TX

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
54	5270	19.17	3.91	23.08	203.236	30	PASS
62	5310	15.11	3.91	19.02	79.799	30	PASS
102	5510	15.12	4.275	19.40	87.096	30	PASS
110	5550	19.22	4.275	23.50	223.872	30	PASS
134	5670	17.92	4.275	22.20	165.959	30	PASS

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## 802.11ac\_VHT80\_2TX

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
58	5290	15.48	3.91	19.39	86.896	30	PASS
106	5530	15.06	4.275	19.33	85.704	30	PASS

## 802.11ax\_HE20\_2TX

CH	Frequency (MHz)	RU config.	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
52	5260	full	19.30	3.91	23.21	209.411	29.76	PASS
60	5300	full	19.30	3.91	23.21	209.411	29.76	PASS
64	5320	full	16.19	3.91	20.10	102.329	29.76	PASS
100	5500	full	16.39	4.275	20.66	116.413	29.76	PASS
116	5580	full	19.30	4.275	23.57	227.510	29.77	PASS
140	5700	full	17.12	4.275	21.39	137.721	29.76	PASS

## 802.11ax\_HE40\_2TX

CH	Frequency (MHz)	RU config.	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
54	5270	full	19.48	3.91	23.39	218.273	30	PASS
62	5310	full	15.40	3.91	19.31	85.310	30	PASS
102	5510	full	15.38	4.275	19.66	92.470	30	PASS
110	5550	full	19.40	4.275	23.67	232.809	30	PASS
134	5670	full	17.44	4.275	21.71	148.252	30	PASS

## 802.11ax\_HE80\_2TX

CH	Frequency (MHz)	RU config.	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
58	5290	full	15.20	3.91	19.11	81.470	30	PASS
106	5530	full	15.45	4.275	19.72	93.756	30	PASS

## 802.11a\_2TX

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	14.19	3.22	17.41	55.081	22.14	PASS
44	5220	14.02	3.22	17.24	52.966	22.14	PASS
48	5240	14.49	3.22	17.71	59.020	22.14	PASS

## 802.11n\_HT20\_2TX

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	14.33	3.22	17.55	56.885	22.44	PASS
44	5220	14.09	3.22	17.31	53.827	22.44	PASS
48	5240	14.08	3.22	17.30	53.703	22.44	PASS

## 802.11ac\_VHT20\_2TX

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	14.30	3.22	17.52	56.494	22.44	PASS
44	5220	14.02	3.22	17.24	52.966	22.44	PASS
48	5240	14.06	3.22	17.28	53.456	22.44	PASS

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## 802.11n\_HT40\_2TX

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
38	5190	11.40	3.22	14.62	28.973	23.01	PASS
46	5230	17.89	3.22	21.11	129.122	23.01	PASS

## 802.11ac\_VHT40\_2TX

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
38	5190	11.27	3.22	14.49	28.119	23.01	PASS
46	5230	17.79	3.22	21.01	126.183	23.01	PASS

## 802.11ac\_VHT80\_2TX

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
42	5210	10.54	3.22	13.76	23.768	23.01	PASS

## 802.11ac\_VHT160\_2TX

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
50	5250	12.00	3.22	15.22	33.266	23.01	PASS

## 802.11ax\_HE20\_2TX

CH	Frequency (MHz)	RU config.	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	full	14.06	3.22	17.28	53.456	22.75	PASS
44	5220	full	14.47	3.22	17.69	58.749	22.75	PASS
48	5240	full	14.39	3.22	17.61	57.677	22.76	PASS

## 802.11ax\_HE40\_2TX

CH	Frequency (MHz)	RU config.	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
38	5190	full	11.31	3.22	14.53	28.379	23.01	PASS
46	5230	full	18.04	3.22	21.26	133.660	23.01	PASS

## 802.11ax\_HE80\_2TX

CH	Frequency (MHz)	RU config.	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
42	5210	full	10.90	3.22	14.12	25.823	23.01	PASS

## 802.11ax\_HE160\_2TX

CH	Frequency (MHz)	RU config.	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
50	5250	full	12.11	3.22	15.33	34.119	23.01	PASS

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## 10 MAXIMUM POWER SPECTRAL DENSITY

### 10.1 FCC Standard

Operation Bands	EUT CATEGORY		e-CRF Title 47 §15.407 Power Spectral Density	Antenna Directional Gain Requirements
U-NII-1		Outdoor Access Point (Master)	1. 17dBm / MHz 2. EIRP ≤ 125mW (21dBm) at any elevation angle > 30°	6dBi
	V	Indoor Access Point (Master)	17dBm / MHz	6dBi
		Fixed point-to-point Access Point	17dBm / MHz	23dBi
		Client device	11dBm / MHz	6dBi
U-NII-2A	V	All	11dBm / MHz	6dBi
U-NII-2C	V	All	11dBm / MHz	6dBi
U-NII-3	V	All	30dBm / 500kHz	6dBi
U-NII-4		Indoor AP	20dBm / MHz e.i.r.p.	Not required
		indoor client	14dBm / MHz e.i.r.p.	Not required
		subordinate device	20dBm / MHz e.i.r.p.	Not required
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 directional gain of the antenna.				

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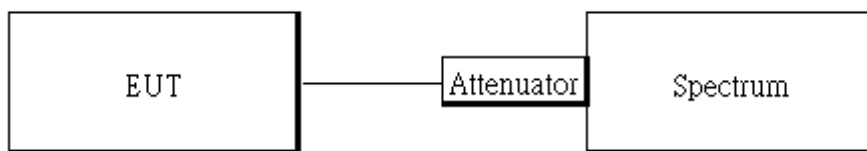


## 10.2 ISED Standard

FREQUENCY BAND (MHz)	EUT CATEGORY		RSS-247 §6.2.1~6.2.4	
			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
	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.

## 10.3 Test Setup



## 10.4 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. Use the cursor on spectrum to peak search the highest level of trace

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6. (1) Duty cycle  $\geq 98\%$  : Record the max. reading.  
(2) Duty cycle  $< 98\%$  : Record the max. reading and add  $10 \log(1/\text{duty cycle})$ .
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.

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

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

$g_{j,k} = 1/20 \log G_k$  if the kth antenna is being fed by spatial stream j, or zero if it is not;

$G_k$  is the gain in dBi of the kth antenna.

The antenna gain is greater than 6 dBi, therefore the power limit has been attenuated accordingly.

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## 10.5 Measurement Result

POWER DENSITY 802.11a MODE							
Frequency (MHz)	Ch0 meas PSD (dBm/MHz)	Ch1 meas PSD (dBm/MHz)	Duty Factor (dB)	Total Corr'd PSD(dBm/MHz)		Limit	Margin (dB)
5180	1.597	2.420	0.38	5.42		10.77 dBm/MHz	-5.35
5220	3.457	3.090	0.38	6.67		10.77 dBm/MHz	-4.10
5240	3.355	3.546	0.38	6.84		10.77 dBm/MHz	-3.93
5260	4.634	4.927	0.38	8.17		10.08 dBm/MHz	-1.91
5300	4.461	4.620	0.38	7.93		10.08 dBm/MHz	-2.15
5320	0.624	1.313	0.38	4.37		10.08 dBm/MHz	-5.71
5500	1.433	1.320	0.38	4.77		9.71 dBm/MHz	-4.94
5580	5.944	6.127	0.38	9.43		9.71 dBm/MHz	-0.28
5700	5.773	6.059	0.38	9.31		9.71 dBm/MHz	-0.40
5720 (U-NII 2C)	5.390	5.820	0.38	9.00		9.71 dBm/MHz	-0.71
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)
5720 (U-NII 3)	-0.290	0.070	0.38	2.22	5.50	29.07 dBm/500kHz	-23.57
5745	0.602	0.715	0.38	2.22	6.27	29.07 dBm/500kHz	-22.80
5785	-1.602	-1.860	0.38	2.22	3.88	29.07 dBm/500kHz	-25.19
5825	-2.143	-3.285	0.38	2.22	2.93	29.07 dBm/500kHz	-26.14
POWER DENSITY 802.11n HT20 MODE							
Frequency (MHz)	Ch0 meas PSD (dBm/MHz)	Ch1 meas PSD (dBm/MHz)	Duty Factor (dB)	Total Corr'd PSD(dBm/MHz)		Limit	Margin (dB)
5180	0.825	2.163	0.98	5.54		10.77 dBm/MHz	-5.23
5220	3.245	2.442	0.98	6.85		10.77 dBm/MHz	-3.92
5240	3.097	2.617	0.98	6.85		10.77 dBm/MHz	-3.92
5260	3.594	4.591	0.98	8.11		10.08 dBm/MHz	-1.97
5300	3.315	4.509	0.98	7.94		10.08 dBm/MHz	-2.14
5320	0.564	0.712	0.98	4.63		10.08 dBm/MHz	-5.45
5500	0.627	1.260	0.98	4.95		9.71 dBm/MHz	-4.76
5580	5.605	5.591	0.98	9.59		9.71 dBm/MHz	-0.12
5700	4.534	5.656	0.98	9.12		9.71 dBm/MHz	-0.59
5720 (U-NII 2C)	5.490	4.530	0.98	9.03		9.71 dBm/MHz	-0.68
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)
5720 (U-NII 3)	-1.400	-0.760	0.98	2.22	5.14	29.07 dBm/500kHz	-23.93
5745	0.196	0.386	0.98	2.22	6.50	29.07 dBm/500kHz	-22.57
5785	-2.699	-2.127	0.98	2.22	3.81	29.07 dBm/500kHz	-25.26
5825	-2.539	-3.293	0.98	2.22	3.31	29.07 dBm/500kHz	-25.76

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POWER DENSITY 802.11n HT40 MODE							
Frequency (MHz)	Ch0 meas PSD (dBm/MHz)	Ch1 meas PSD (dBm/MHz)	Duty Factor (dB)	Total Corr'd PSD(dBm/MHz)		Limit	Margin (dB)
5190	-2.991	-2.468	1.04	1.33		10.77 dBm/MHz	-9.44
5230	0.902	1.423	1.04	5.22		10.77 dBm/MHz	-5.55
5270	0.562	0.914	1.04	4.79		10.08 dBm/MHz	-5.29
5310	-3.807	-2.949	1.04	0.69		10.08 dBm/MHz	-9.39
5510	-3.021	-2.921	1.04	1.08		9.71 dBm/MHz	-8.63
5550	1.430	1.680	1.04	5.61		9.71 dBm/MHz	-4.10
5670	1.914	2.122	1.04	6.07		9.71 dBm/MHz	-3.64
5710 (U-NII 2C)	1.580	2.410	1.04	6.07		9.71 dBm/MHz	-3.64
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)
5710 (U-NII 3)	-5.870	-5.250	1.04	2.22	0.72	29.07 dBm/500kHz	-28.35
5755	-2.902	-2.731	1.04	2.22	3.45	29.07 dBm/500kHz	-25.62
5795	-5.924	-5.309	1.04	2.22	0.66	29.07 dBm/500kHz	-28.41
POWER DENSITY 802.11ac VHT80 MODE							
Frequency (MHz)	Ch0 meas PSD (dBm/MHz)	Ch1 meas PSD (dBm/MHz)	Duty Factor (dB)	Total Corr'd PSD(dBm/MHz)		Limit	Margin (dB)
5210	-6.323	-6.569	1.00	-2.43		10.77 dBm/MHz	-13.20
5290	-6.458	-5.884	1.00	-2.15		10.08 dBm/MHz	-12.23
5530	-6.277	-5.934	1.00	-2.09		9.71 dBm/MHz	-11.80
5610	-1.601	-1.705	1.00	2.36		9.71 dBm/MHz	-7.35
5690 (U-NII 2C)	-1.480	-1.280	1.00	2.63		9.71 dBm/MHz	-7.08
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)
5690 (U-NII 3)	-9.580	-9.530	1.00	2.22	-3.32	29.07 dBm/500kHz	-32.39
5775	-7.002	-6.499	1.00	2.22	-0.51	29.07 dBm/500kHz	-29.58
POWER DENSITY 802.11ac VHT160 MODE							
Frequency (MHz)	Ch0 meas PSD (dBm/MHz)	Ch1 meas PSD (dBm/MHz)	Duty Factor (dB)	Total Corr'd PSD(dBm/MHz)		Limit	Margin (dB)
5250	-9.191	-8.025	0.99	-4.57		10.08 dBm/MHz	-14.65
5570	-8.325	-7.523	0.99	-3.91		9.71 dBm/MHz	-13.62

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POWER DENSITY 802.11ax HE20 MODE								
Frequency (MHz)	RU config.	Ch0 meas PSD (dBm/MHz)	Ch1 meas PSD (dBm/MHz)	Duty Factor (dB)	Total Corr'd PSD(dBm/MHz)		Limit	Margin (dB)
5180	full	0.804	1.055	0.98	4.92		10.77 dBm/MHz	-5.85
5220	full	2.957	2.493	0.98	6.72		10.77 dBm/MHz	-4.05
5240	full	3.117	2.691	0.98	6.90		10.77 dBm/MHz	-3.87
5260	full	4.085	4.465	0.98	8.27		10.08 dBm/MHz	-1.81
5300	full	3.265	4.016	0.98	7.65		10.08 dBm/MHz	-2.43
5320	full	-0.086	1.212	0.98	4.60		10.08 dBm/MHz	-5.48
5500	full	1.051	0.958	0.98	5.00		9.71 dBm/MHz	-4.71
5580	full	5.210	5.642	0.98	9.42		9.71 dBm/MHz	-0.29
5700	full	5.070	5.090	0.98	9.07		9.71 dBm/MHz	-0.64
5720 (U-NII 2C)	full	4.320	4.760	0.98	8.54		9.71 dBm/MHz	-1.17
Frequency (MHz)	RU config.	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)
5720 (U-NII 3)	full	-1.360	-0.710	0.98	2.22	5.19	29.07 dBm/500kHz	-23.88
5745	full	-0.468	-0.052	0.98	2.22	5.96	29.07 dBm/500kHz	-23.11
5785	full	-3.538	-3.133	0.98	2.22	2.88	29.07 dBm/500kHz	-26.19
5825	full	-2.552	-4.109	0.98	2.22	2.95	29.07 dBm/500kHz	-26.12
POWER DENSITY 802.11ax HE40 MODE								
Frequency (MHz)	RU config.	Ch0 meas PSD (dBm/MHz)	Ch1 meas PSD (dBm/MHz)	Duty Factor (dB)	Total Corr'd PSD(dBm/MHz)		Limit	Margin (dB)
5190	full	-2.378	-1.703	0.98	1.96		10.77 dBm/MHz	-8.81
5230	full	1.007	1.213	0.98	5.10		10.77 dBm/MHz	-5.67
5270	full	0.695	0.535	0.98	4.61		10.08 dBm/MHz	-5.47
5310	full	-3.805	-3.051	0.98	0.58		10.08 dBm/MHz	-9.50
5510	full	-4.530	-4.581	0.98	-0.57		9.71 dBm/MHz	-10.28
5550	full	0.798	0.696	0.98	4.74		9.71 dBm/MHz	-4.97
5670	full	0.384	1.031	0.98	4.71		9.71 dBm/MHz	-5.00
5710 (U-NII 2C)	full	1.710	2.310	0.98	6.01		9.71 dBm/MHz	-3.70
Frequency (MHz)	RU config.	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)
5710 (U-NII 3)	full	-4.910	-5.000	0.98	2.22	1.26	29.07 dBm/500kHz	-27.81
5755	full	-3.169	-2.980	0.98	2.22	3.14	29.07 dBm/500kHz	-25.93
5795	full	-5.706	-5.034	0.98	2.22	0.85	29.07 dBm/500kHz	-28.22
POWER DENSITY 802.11ax HE80 MODE								
Frequency (MHz)	RU config.	Ch0 meas PSD (dBm/MHz)	Ch1 meas PSD (dBm/MHz)	Duty Factor (dB)	Total Corr'd PSD(dBm/MHz)		Limit	Margin (dB)
5210	full	-6.389	-5.297	0.98	-1.82		10.77 dBm/MHz	-12.59
5290	full	-7.055	-6.333	0.98	-2.69		10.08 dBm/MHz	-12.77
5530	full	-6.573	-6.808	0.98	-2.70		9.71 dBm/MHz	-12.41
5610	full	-3.746	-3.310	0.98	0.47		9.71 dBm/MHz	-9.24
5690 (U-NII 2C)	full	-2.940	-2.340	0.98	1.36		9.71 dBm/MHz	-8.35
Frequency (MHz)	RU config.	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)
5690 (U-NII 3)	full	-9.310	-9.200	0.98	2.22	-3.04	29.07 dBm/500kHz	-32.11
5775	full	-8.323	-7.097	0.98	2.22	-1.46	29.07 dBm/500kHz	-30.53

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台灣檢驗科技股份有限公司

t (886-2) 2299-3279

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POWER DENSITY 802.11ax HE160 MODE							
Frequency (MHz)	RU config.	Ch0 meas PSD (dBm/MHz)	Ch1 meas PSD (dBm/MHz)	Duty Factor (dB)	Total Corr'd PSD(dBm/MHz)	Limit	Margin (dB)
5250	full	-9.785	-8.841	0.98	-5.29	11.00 dBm/MHz	-16.29
5570	full	-10.470	-9.609	0.98	-6.03	11.00 dBm/MHz	-17.03

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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	3.436	6.23	9.67	10	-0.33
5220	3.529	6.23	9.76	10	-0.24
5240	3.236	6.23	9.47	10	-0.53
EIRP spectral density 802.11n HT20 MODE					
Freq. (MHz)	PSD (dBm)	Ant. Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)	Margin (dB)
5180	3.589	6.23	9.82	10	-0.18
5220	3.583	6.23	9.81	10	-0.19
5240	3.469	6.23	9.70	10	-0.30
EIRP spectral density 802.11n HT40 MODE					
Freq. (MHz)	PSD (dBm)	Ant. Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)	Margin (dB)
5190	1.329	6.23	7.56	10	-2.44
5230	3.511	6.23	9.74	10	-0.26
EIRP spectral density 802.11ac VHT80 MODE					
Freq. (MHz)	PSD (dBm)	Ant. Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)	Margin (dB)
5210	-2.434	6.23	3.80	10	-6.20
EIRP spectral density 802.11ac VHT160 MODE					
Freq. (MHz)	PSD (dBm)	Ant. Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)	Margin (dB)
5250	-4.569	6.23	1.66	10	-8.34

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EIRP spectral density 802.11ax HE20 MODE						
Freq. (MHz)	RU config.	PSD (dBm)	Ant. Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)	Margin (dB)
5180	full	3.304	6.23	9.53	10	-0.47
5220	full	3.168	6.23	9.40	10	-0.60
5240	full	3.479	6.23	9.71	10	-0.29
EIRP spectral density 802.11ax HE40 MODE						
Freq. (MHz)	RU config.	PSD (dBm)	Ant. Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)	Margin (dB)
5190	full	1.963	6.23	8.19	10	-1.81
5230	full	3.649	6.23	9.88	10	-0.12
EIRP spectral density 802.11ax HE80 MODE						
Freq. (MHz)	RU config.	PSD (dBm)	Ant. Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)	Margin (dB)
5210	full	-1.818	6.23	4.41	10	-5.59
EIRP spectral density 802.11ax HE160 MODE						
Freq. (MHz)	RU config.	PSD (dBm)	Ant. Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)	Margin (dB)
5250	full	-5.294	3.22	-2.07	10	-12.07

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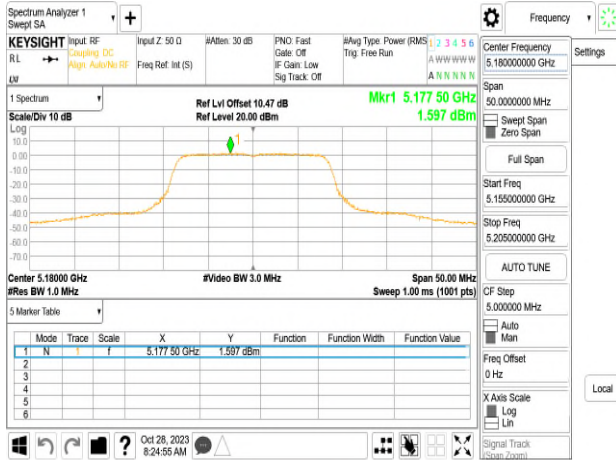
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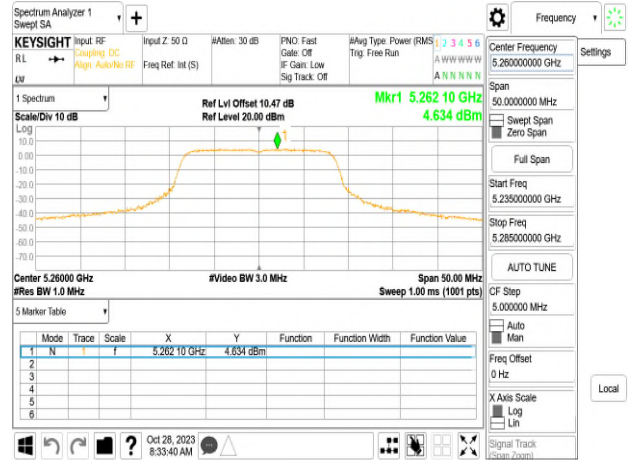
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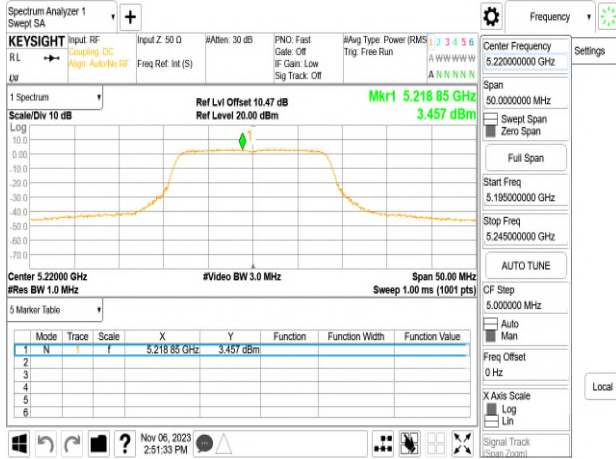
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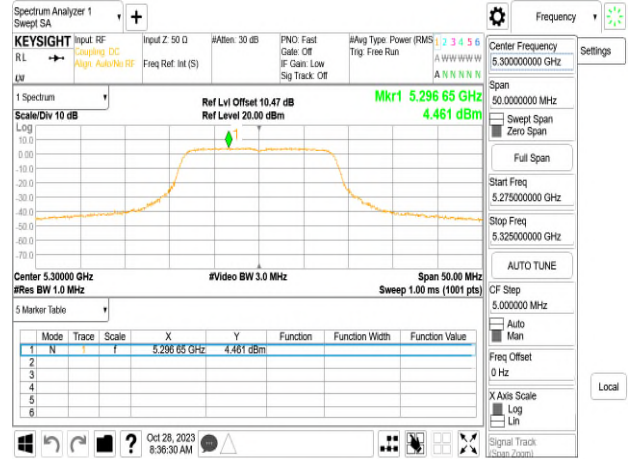
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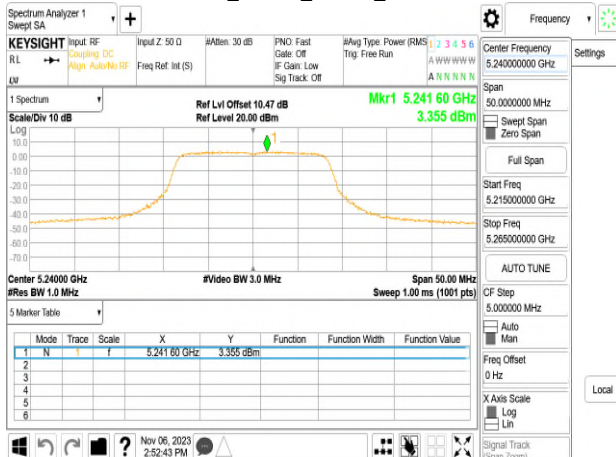
802.11a\_20MHz\_Chain0\_5220MHz



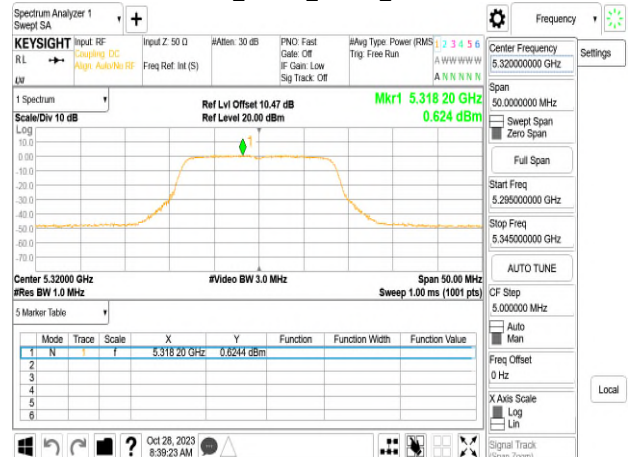
802.11a\_20MHz\_Chain0\_5300MHz



802.11a\_20MHz\_Chain0\_5240MHz



802.11a\_20MHz\_Chain0\_5320MHz

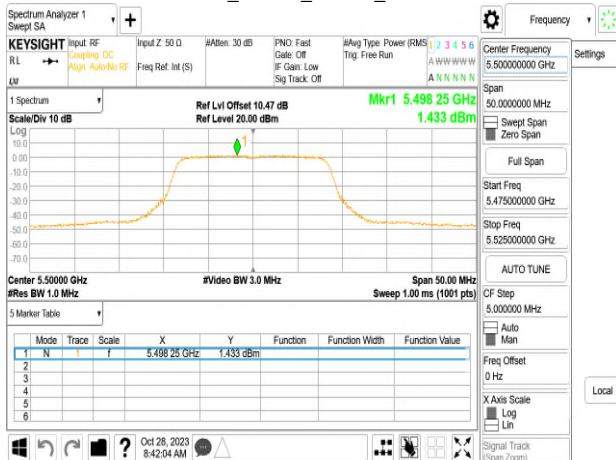


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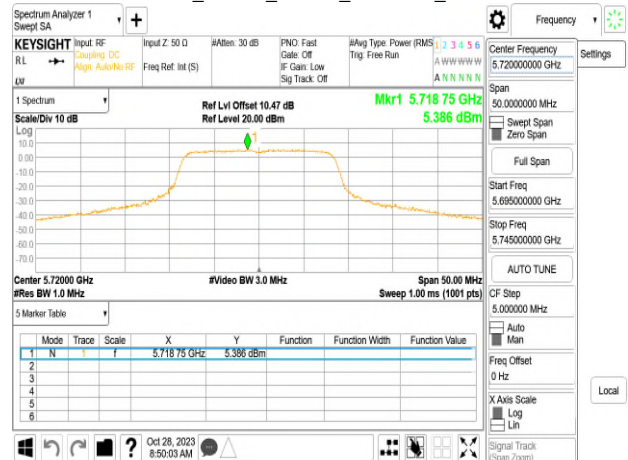
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802.11a\_20MHz\_Chain0\_5500MHz



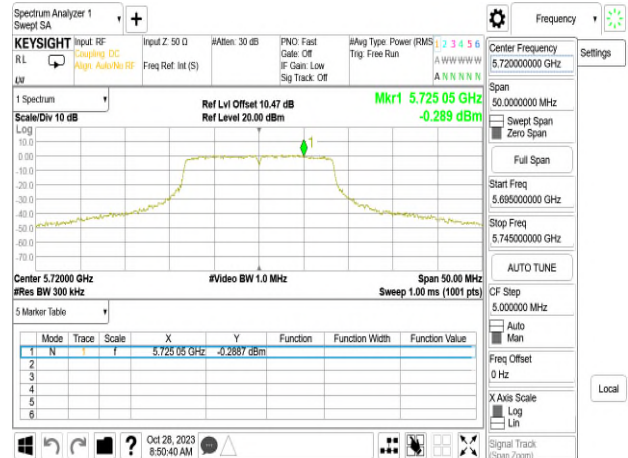
802.11a\_20MHz\_Chain0\_5720MHz\_UNII 2C



802.11a\_20MHz\_Chain0\_5580MHz



802.11a\_20MHz\_Chain0\_5720MHz\_UNII 3



802.11a\_20MHz\_Chain0\_5700MHz



802.11a\_20MHz\_Chain0\_5745MHz



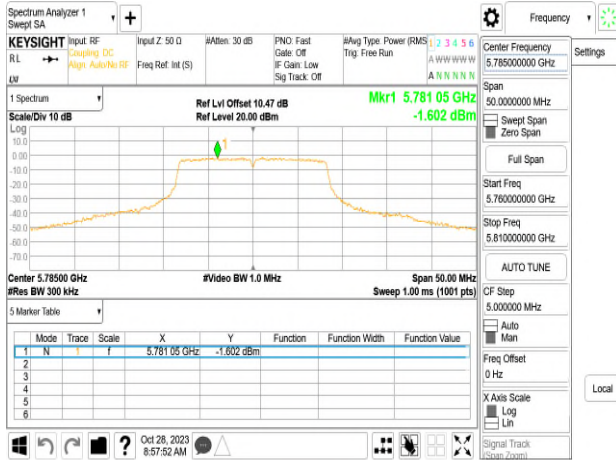
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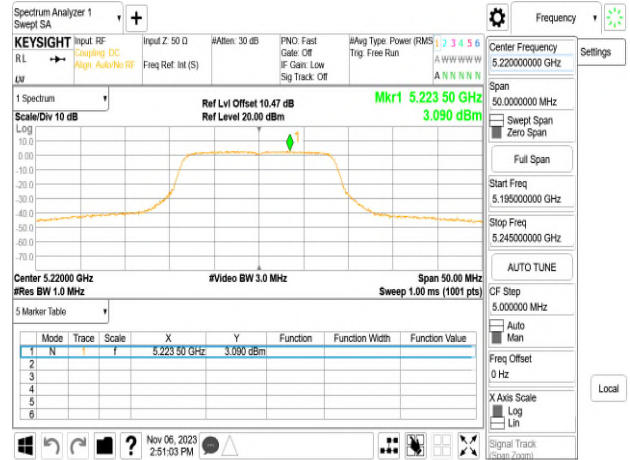
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802.11a\_20MHz\_Chain0\_5785MHz



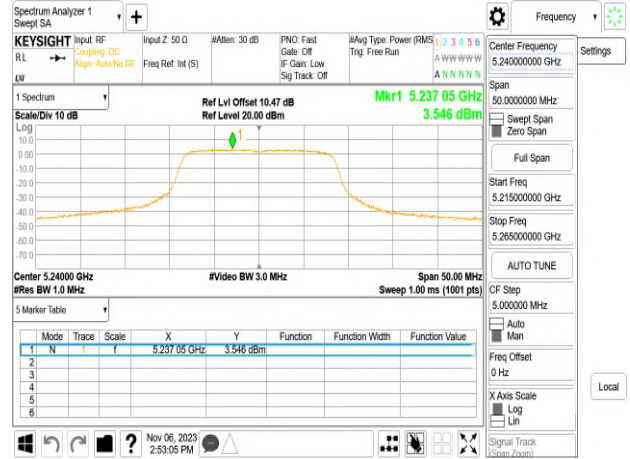
802.11a\_20MHz\_Chain1\_5220MHz



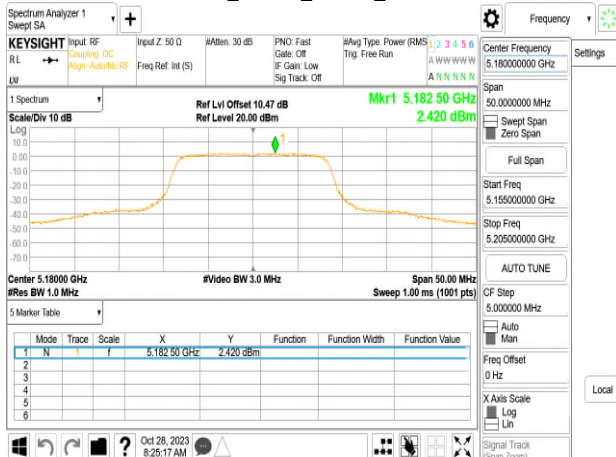
802.11a\_20MHz\_Chain0\_5825MHz



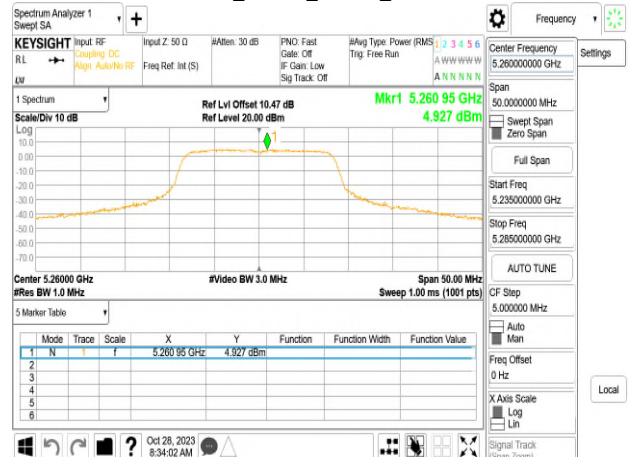
802.11a\_20MHz\_Chain1\_5240MHz



802.11a\_20MHz\_Chain1\_5180MHz



802.11a\_20MHz\_Chain1\_5260MHz

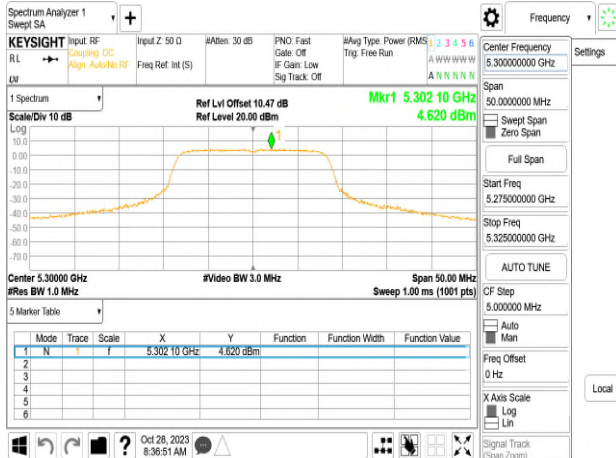


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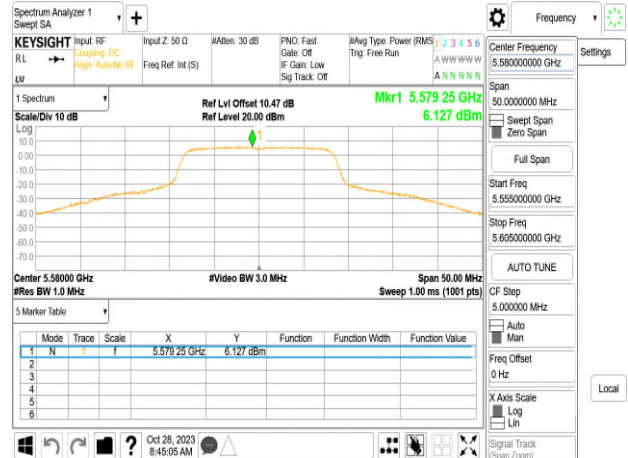
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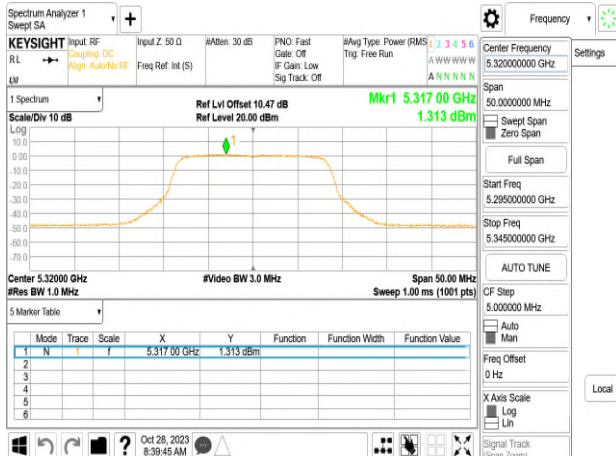
802.11a\_20MHz\_Chain1\_5300MHz



802.11a\_20MHz\_Chain1\_5580MHz



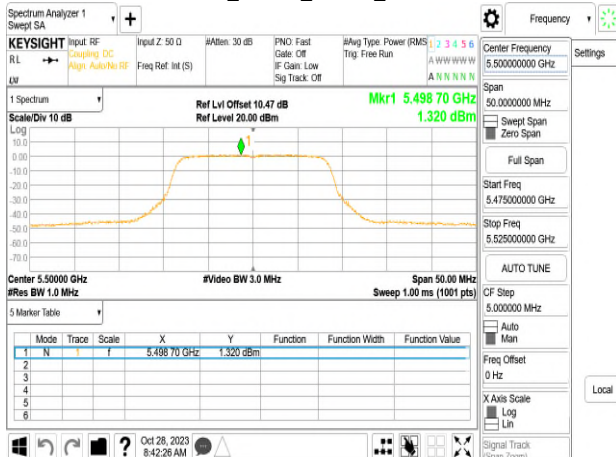
802.11a\_20MHz\_Chain1\_5320MHz



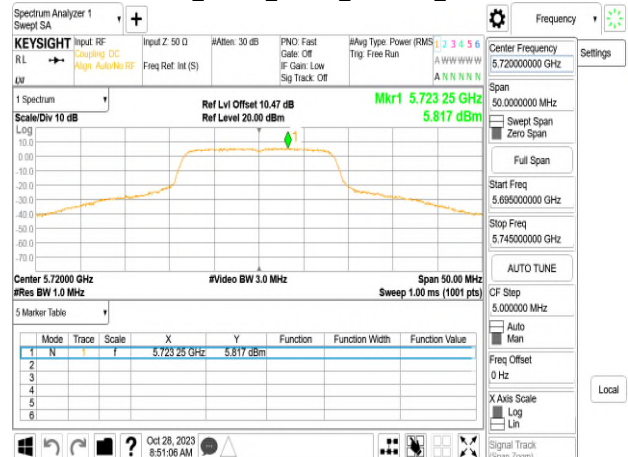
802.11a\_20MHz\_Chain1\_5700MHz



802.11a\_20MHz\_Chain1\_5500MHz



802.11a\_20MHz\_Chain1\_5720MHz\_UNII 2C



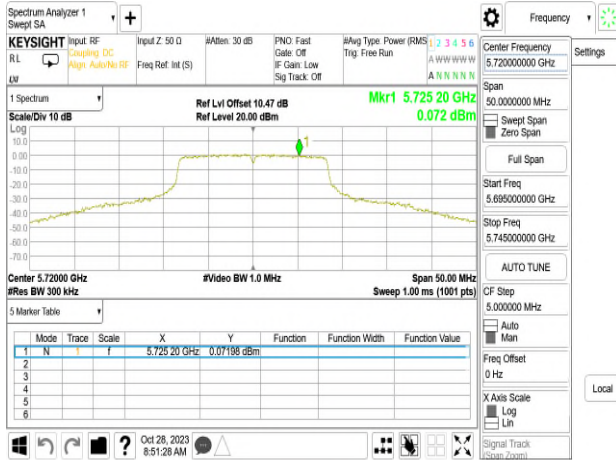
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802.11a\_20MHz\_Chain1\_5720MHz\_UNI13



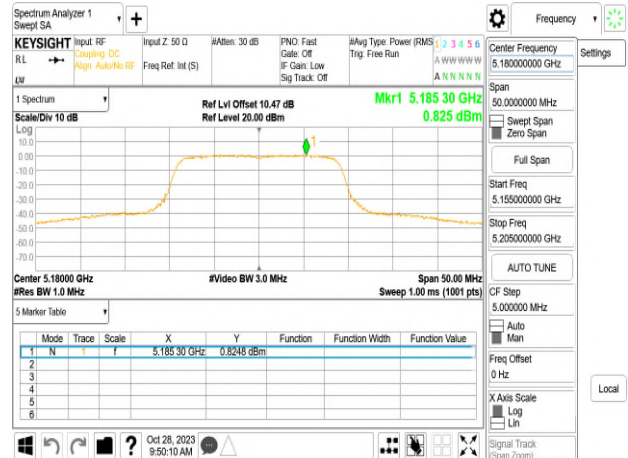
802.11a\_20MHz\_Chain1\_5825MHz



802.11a\_20MHz\_Chain1\_5745MHz



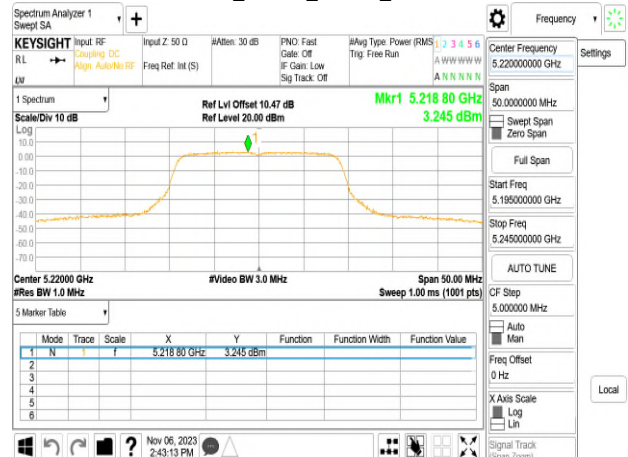
802.11n\_20MHz\_Chain0\_5180MHz



802.11a\_20MHz\_Chain1\_5785MHz



802.11n\_20MHz\_Chain0\_5220MHz



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