



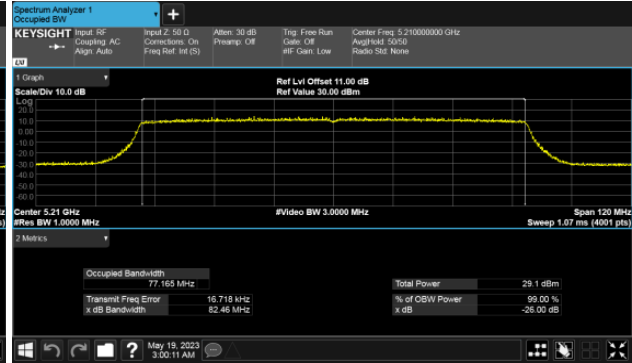
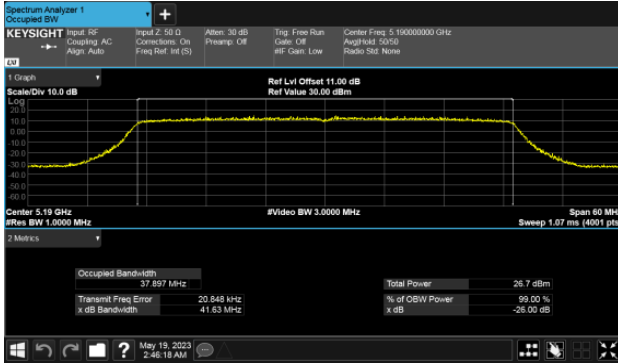
26dB Bandwidth

Non Beamforming-Omni Antenna

ANT D

Modulation Type: 802.11ax HE40 (14.6Mbps)  
CH38

Modulation Type: 802.11ax HE80 (30.6Mbps)  
CH42



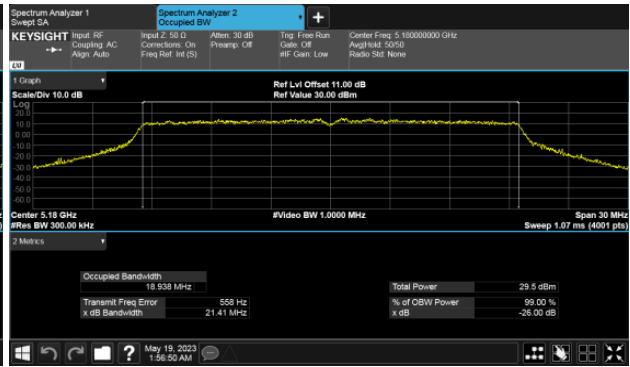
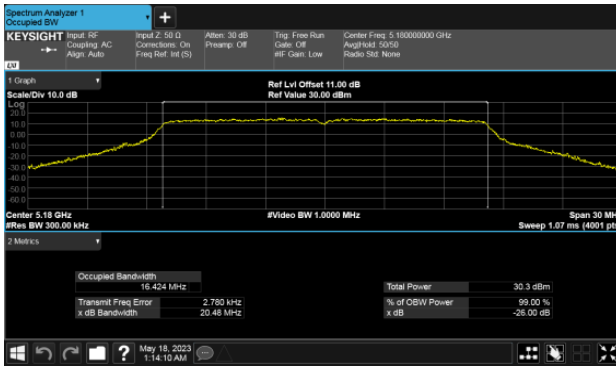
CH46



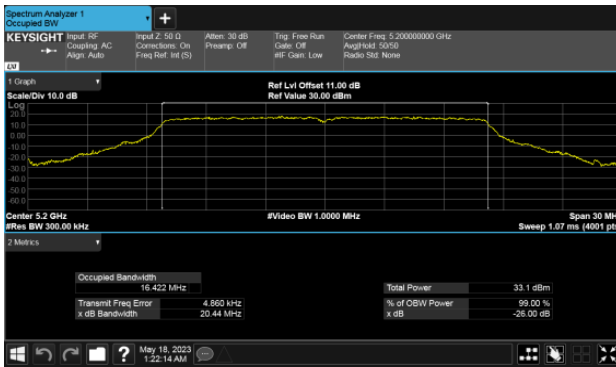


99% Occupied Bandwidth  
Non Beamforming-Omni Antenna  
ANT C  
Modulation Type: 802.11a (6Mbps)  
CH36

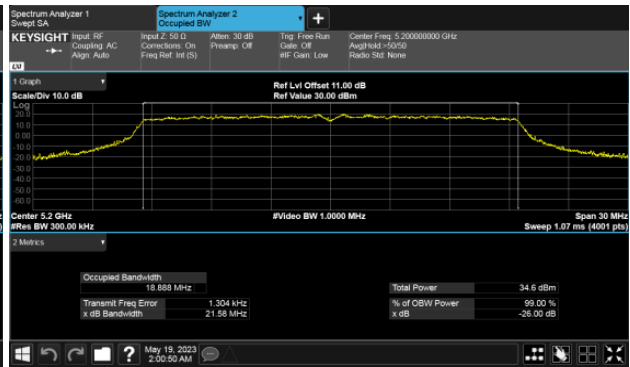
Modulation Type: 802.11ac VHT20 (6.5Mbps)  
CH36



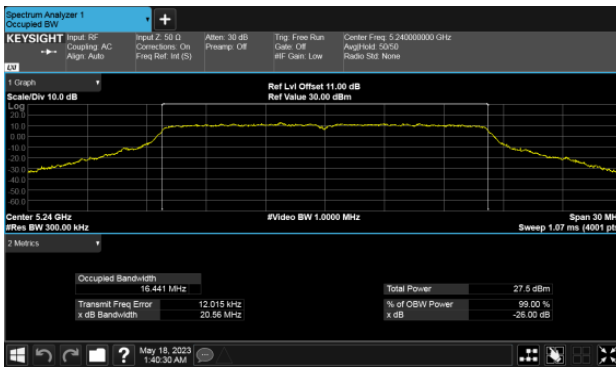
CH40



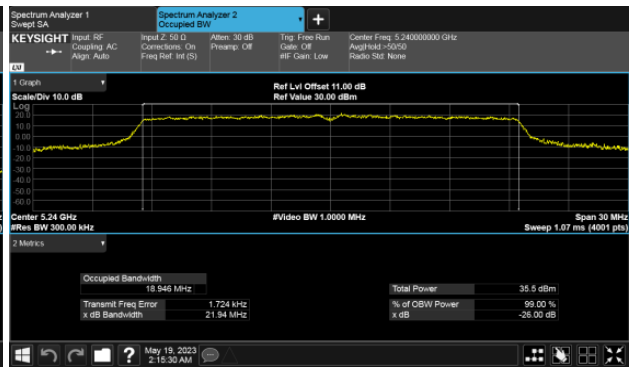
CH40



CH48



CH48





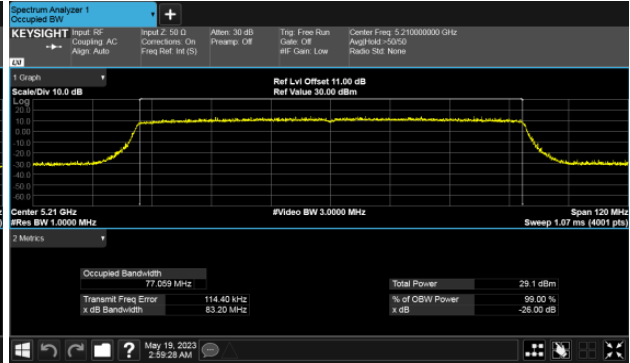
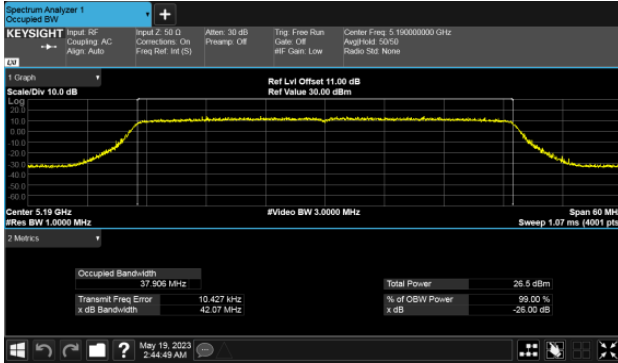
99% Occupied Bandwidth

Non Beamforming-Omni Antenna

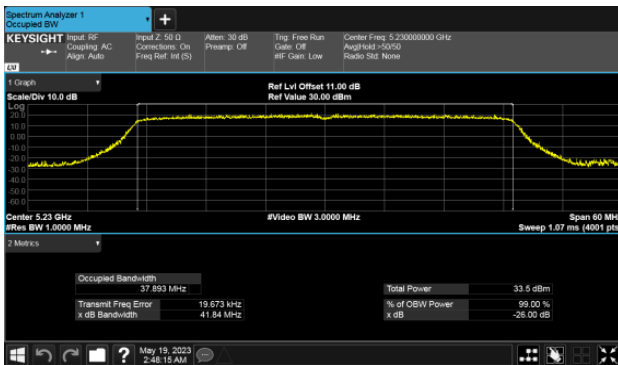
ANT C

Modulation Type: 802.11ax HE40 (14.6Mbps)  
CH38

Modulation Type: 802.11ax HE80 (30.6Mbps)  
CH42



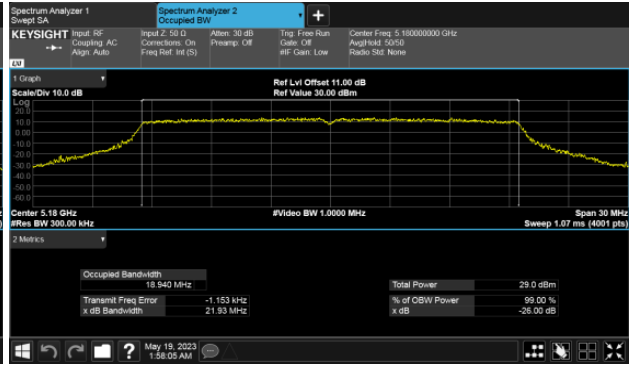
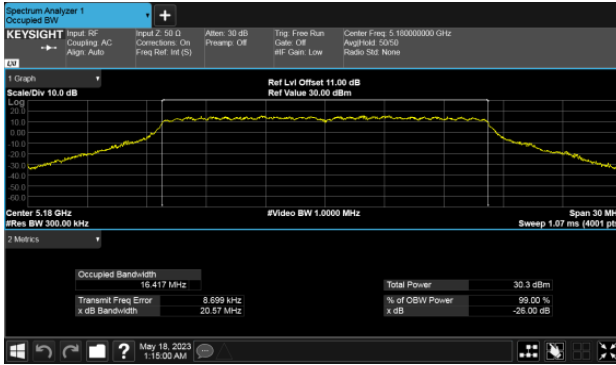
CH46



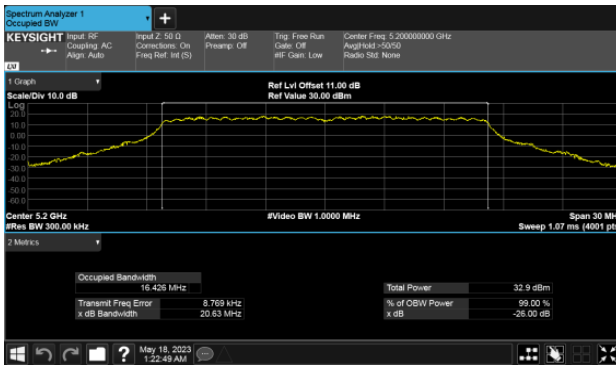


99% Occupied Bandwidth  
Non Beamforming-Omni Antenna  
ANT D  
Modulation Type: 802.11a (6Mbps)  
CH36

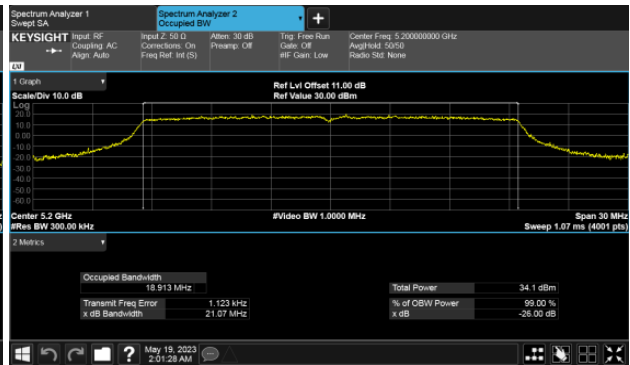
Modulation Type: 802.11ax HE20 (7.3Mbps)  
CH36



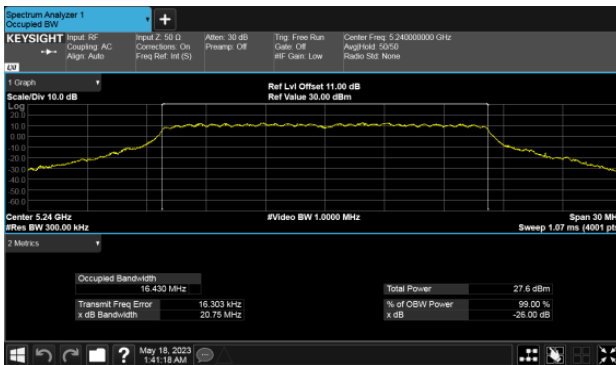
CH40



CH40



CH48



CH48





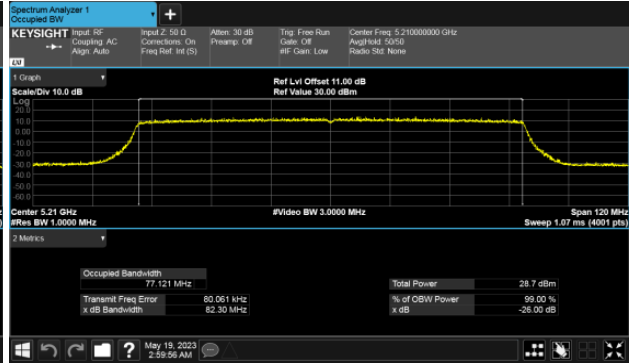
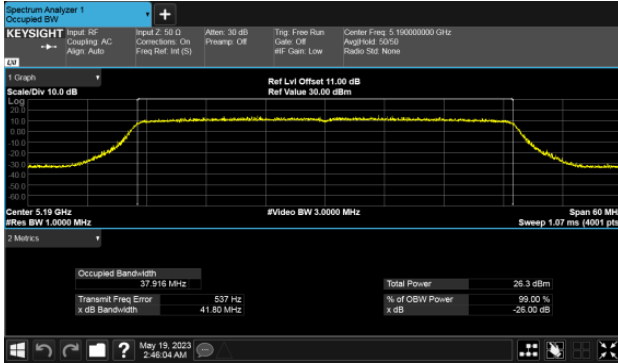
99% Occupied Bandwidth

Non Beamforming-Omni Antenna

ANT D

Modulation Type: 802.11ax HE40 (14.6Mbps)  
CH38

Modulation Type: 802.11ax HE80 (30.6Mbps)  
CH42



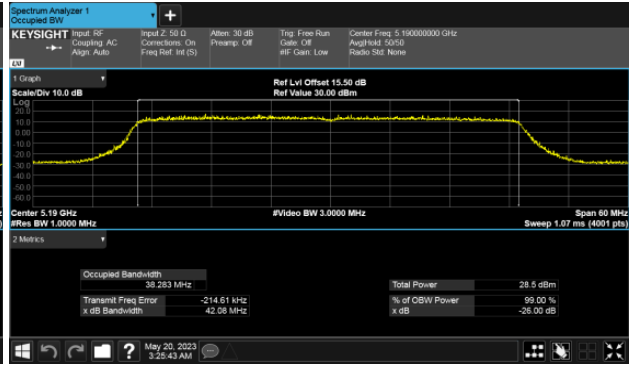
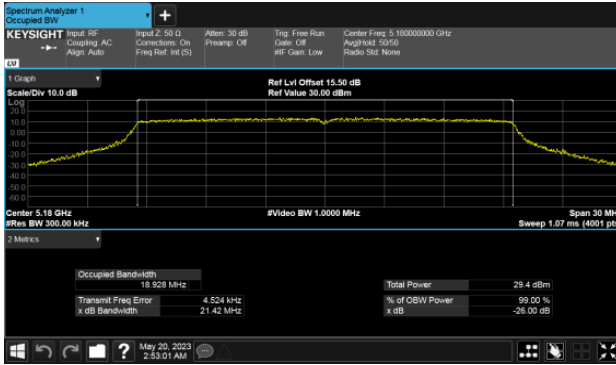
CH46



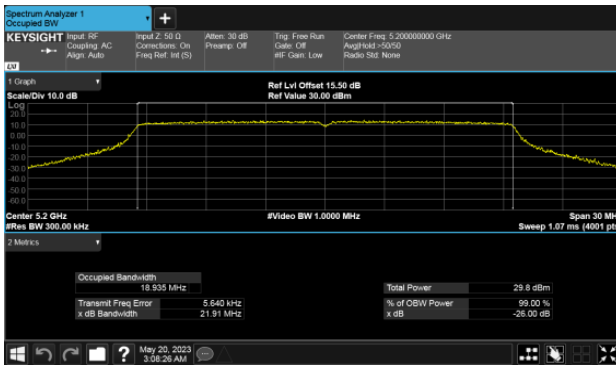


26dB Bandwidth  
 Beamforming-Omni Antenna  
 ANT C  
 Modulation Type: 802.11ax HE20 (7.3Mbps)  
 CH36

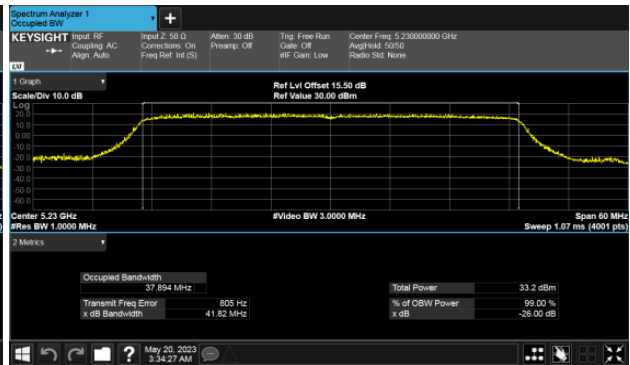
Modulation Type: 802.11ax HE40 (14.6Mbps)  
 CH38



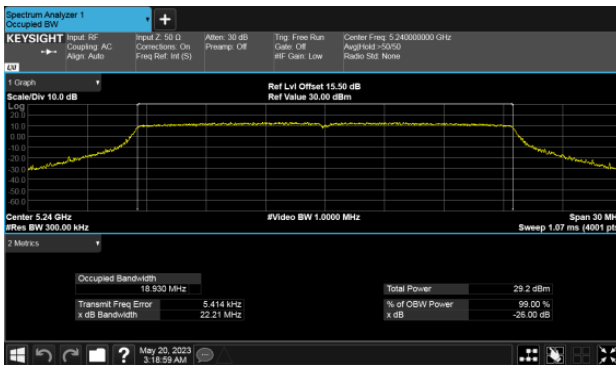
CH40



CH46

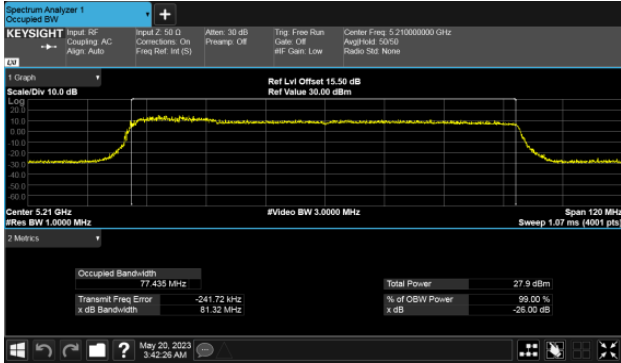


CH48





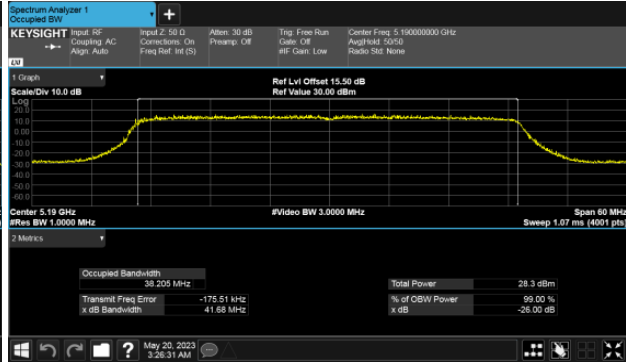
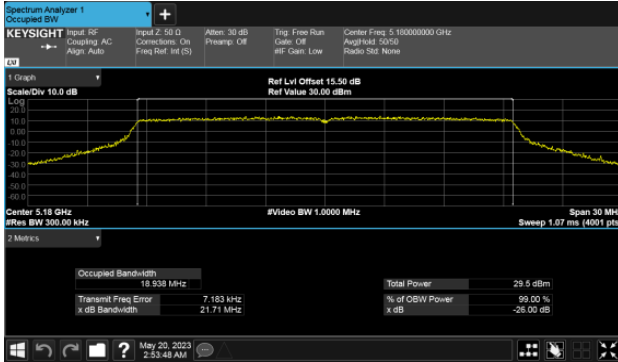
26dB Bandwidth  
Beamforming-Omni Antenna  
ANT C  
Modulation Type: 802.11ax HE80 (30.6Mbps)  
CH42



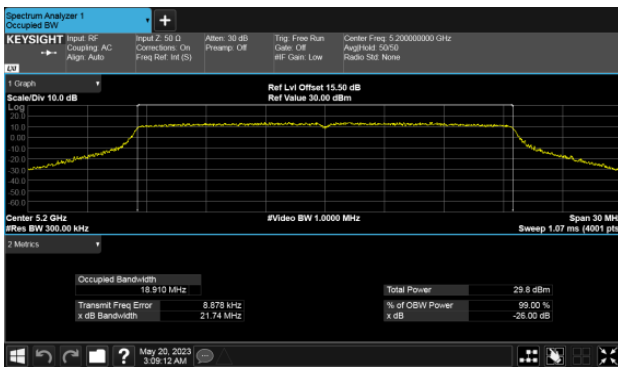


26dB Bandwidth  
Beamforming-Omni Antenna  
ANT D  
Modulation Type: 802.11ax HE20 (7.3Mbps)  
CH36

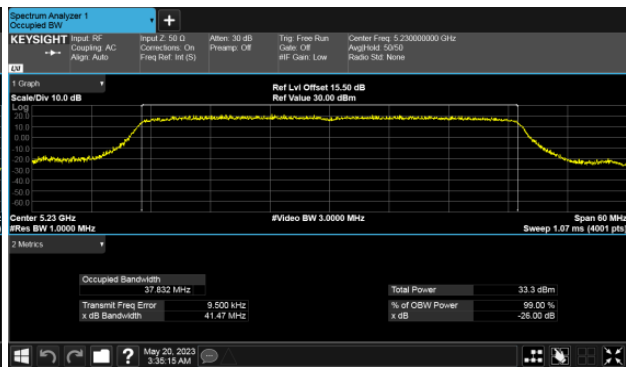
Modulation Type: 802.11ax HE40 (14.6Mbps)  
CH38



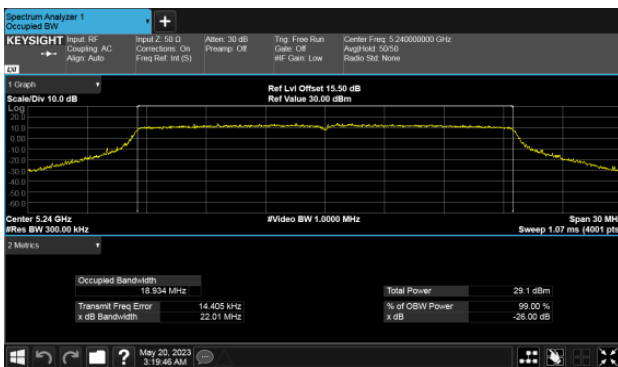
CH40



CH46



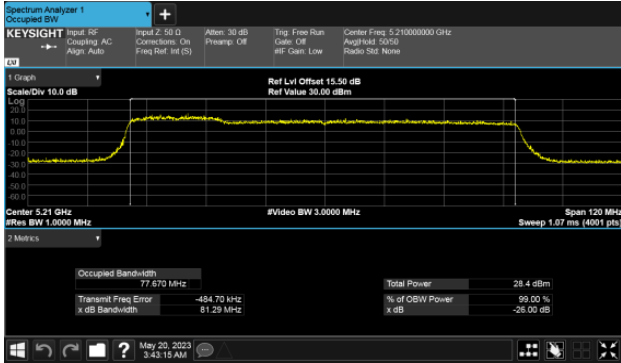
CH48







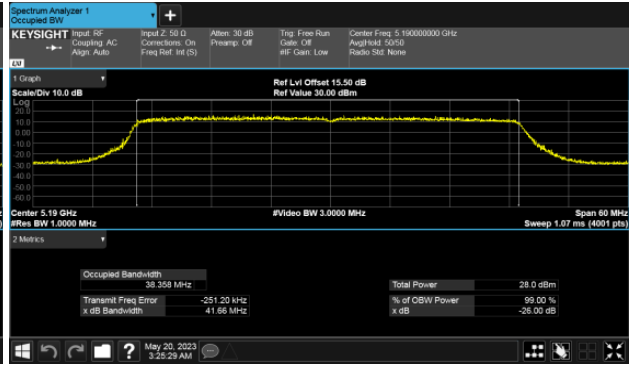
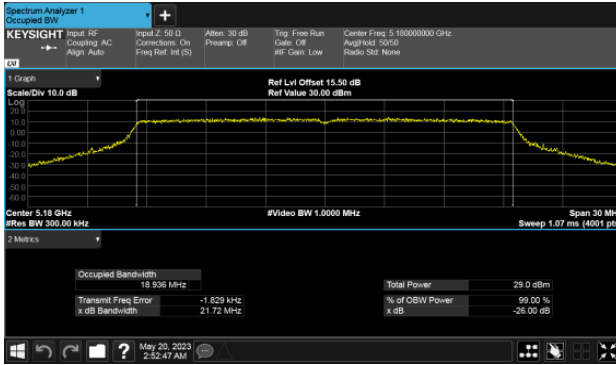
26dB Bandwidth  
Beamforming-Omni Antenna  
ANT D  
Modulation Type: 802.11ax HE80 (30.6Mbps)  
CH42



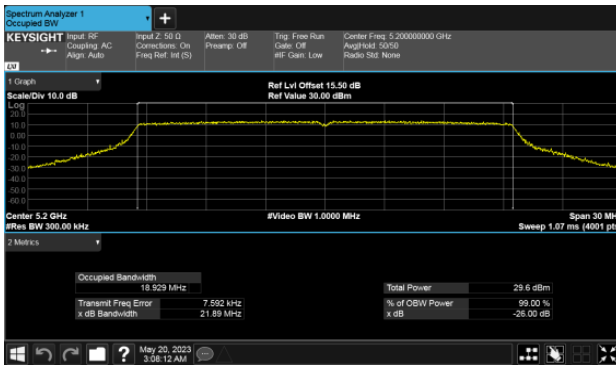


99% Occupied Bandwidth  
 Beamforming-Omni Antenna  
 ANT C  
 Modulation Type: 802.11ax HE20 (7.3Mbps)  
 CH36

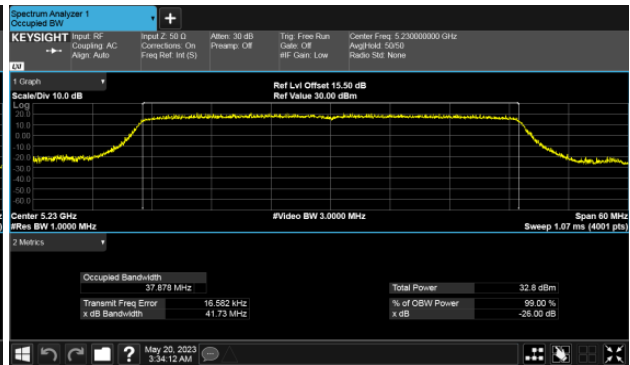
Modulation Type: 802.11ax HE40 (14.6Mbps)  
 CH38



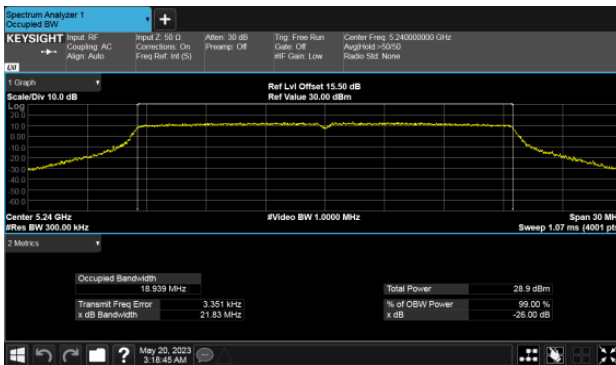
CH40



CH46

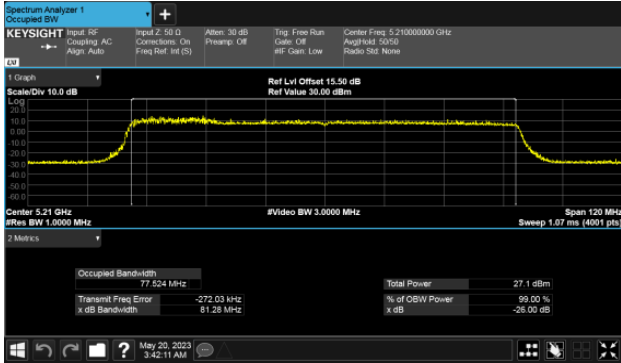


CH48





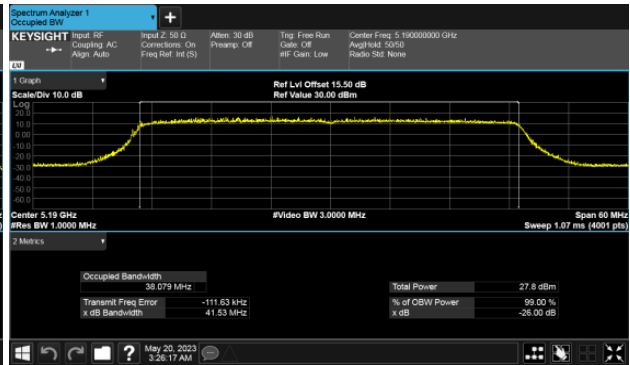
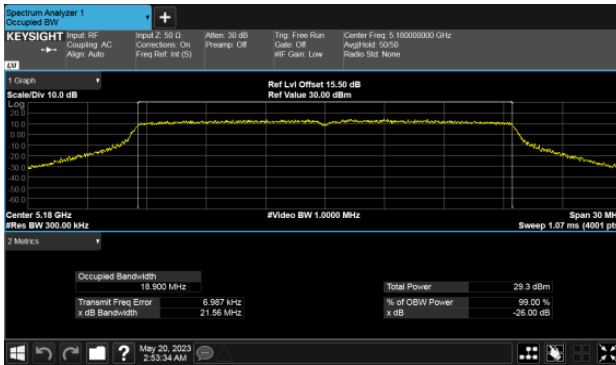
99% Occupied Bandwidth  
Beamforming-Omni Antenna  
ANT C  
Modulation Type: 802.11ax HE80 (30.6Mbps)  
CH42



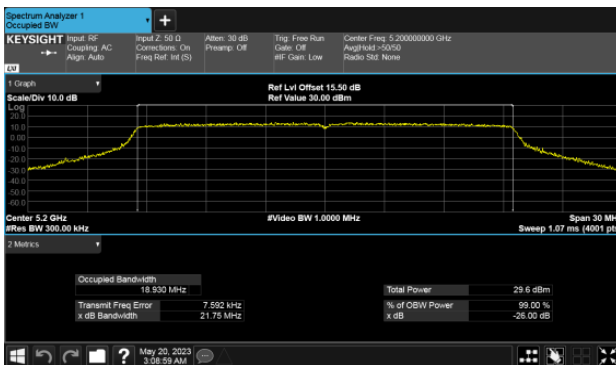


99% Occupied Bandwidth  
 Beamforming-Omni Antenna  
 ANT D  
 Modulation Type: 802.11ax HE20 (7.3Mbps)  
 CH36

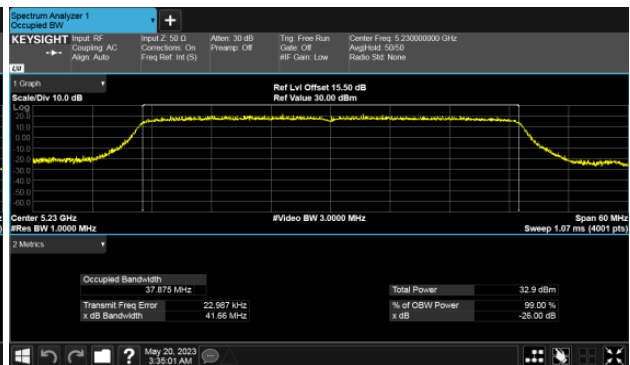
Modulation Type: 802.11ax HE40 (14.6Mbps)  
 CH38



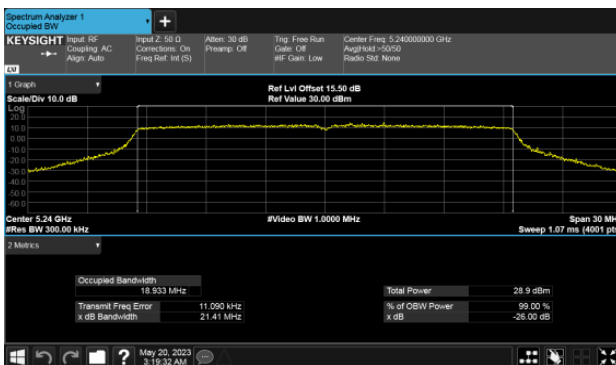
CH40



CH46

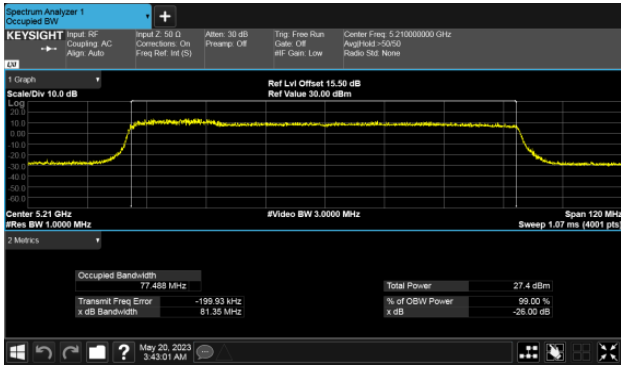


CH48





99% Occupied Bandwidth  
Beamforming-Omni Antenna  
ANT D  
Modulation Type: 802.11ax HE80 (30.6Mbps)  
CH42





## 10. Average Power

### 10.1. Test Limit

**Output Power:**

Frequency Band	Limit	
<input checked="" type="checkbox"/> 5.15~5.25GHz		
	Operating Mode	
<input checked="" type="checkbox"/>	Outdoor access point	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm) provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30degrees as measured from the horizon must not exceed 125 mW (21 dBm).
<input type="checkbox"/>	Indoor access point	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm) provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
<input type="checkbox"/>	Fixed point-to-point access points	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm). Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi.
<input type="checkbox"/>	client devices	The maximum conducted output power over the frequency band of operation shall not exceed 250 mW (24dBm) provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

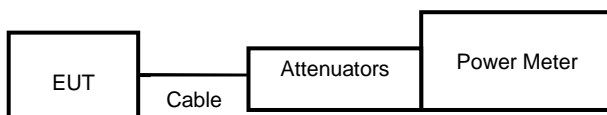


Frequency Band	Limit
<input type="checkbox"/> 5.25-5.35 GHz	The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (24dBm) or 11 dBm 10 log B, where B is the 26 dB emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
<input type="checkbox"/> 5.470-5.725 GHz	
<input checked="" type="checkbox"/> 5.725~5.85 GHz	

### 10.2. Test Procedure

According to the methods defined in ANSI C63.10-2013 Section 12.3  
The transmitter output is connected to a power meter.

### 10.3. Test Setup Layout





**10.4. Test Result and Data**

Non Beamforming-Omni Antenna  
In the 5.2G Band

Modulation Type	Data Rate	Conducted Setting	Channel	Frequency (MHz)	Measured value of each antenna port (dBm)		Total power (dBm)	Total power (mW)	FCC Limit (dBm)
					ANT C	ANT D			
11a	6 Mbps	17.5	36	5180	17.63	17.42	20.54	113.151	30.00
11a	6 Mbps	17.5	40	5200	17.64	17.51	20.59	114.440	30.00
11a	6 Mbps	17	48	5240	17.20	17.03	20.13	102.947	30.00
11ax HE20	NSS1-MCS0	18	36	5180	17.28	17.16	20.23	105.456	30.00
11ax HE20	NSS1-MCS0	18	40	5200	17.39	17.29	20.35	108.407	30.00
11ax HE20	NSS1-MCS0	18	48	5240	17.51	17.35	20.44	110.689	30.00
11ax HE40	NSS1-MCS0	17	38	5190	17.31	16.97	20.15	103.601	30.00
11ax HE40	NSS1-MCS0	17.5	46	5230	17.52	17.39	20.47	111.321	30.00
11ax HE80	NSS1-MCS0	18	42	5210	17.50	17.42	20.47	111.442	30.00

B1 E.I.R.P Power above 30°

Modulation Type	Data Rate	Channel (MHz)	Frequency (MHz)	Measured value of each antenna port (dBm)		Gain above 30° (dB)	E.I.R.P Power above 30° (dBm)	Total E.I.R.P above 30° (dBm)	Total E.I.R.P above 30° (mW)	E.I.R.P Limit (dBm)
				Chain 0	Chain 1					
11a	6 Mbps	36	5180	Chain 0	17.63	0.38	18.01	20.92	123.50	21
				Chain 1	17.42					
11a	6 Mbps	40	5200	Chain 0	17.64	0.38	18.02	20.97	124.90	21
				Chain 1	17.51					
11a	6 Mbps	48	5240	Chain 0	17.2	0.38	17.58	20.51	112.36	21
				Chain 1	17.03					
11aX HE20	NSS1-MCS0	36	5180	Chain 0	17.28	0.38	17.66	20.61	115.10	21
				Chain 1	17.16					
11aX HE20	NSS1-MCS0	40	5200	Chain 0	17.39	0.38	17.77	20.73	118.32	21
				Chain 1	17.29					
11ax HE20	NSS1-MCS0	48	5240	Chain 0	17.51	0.38	17.89	20.82	120.81	21
				Chain 1	17.35					
11ax HE40	NSS1-MCS0	38	5190	Chain 0	17.31	0.38	17.69	20.53	113.07	21
				Chain 1	16.97					
11ax HE40	NSS1-MCS0	46	5230	Chain 0	17.52	0.38	17.9	20.85	121.50	21
				Chain 1	17.39					
11ax HE80	NSS1-MCS0	42	5210	Chain 0	17.5	0.38	17.88	20.85	121.63	21
				Chain 1	17.42					





In the 5.8G Band

Modulation Type	Data Rate	Conducted Setting	Channel	Frequency (MHz)	Measured value of each antenna port (dBm)		Total power (dBm)	Total power (mW)	FCC Limit (dBm)
					ANT C	ANT D			
11a	6 Mbps	25	149	5745	24.85	24.73	27.80	602.659	30.00
11a	6 Mbps	24.5	157	5785	24.54	24.37	27.47	557.973	30.00
11a	6 Mbps	24.5	165	5825	24.57	24.29	27.44	554.952	30.00
11ax HE20	NSS1-MCS0	25.5	149	5745	24.37	24.67	27.53	566.616	30.00
11ax HE20	NSS1-MCS0	25.5	157	5785	24.87	24.67	27.78	599.992	30.00
11ax HE20	NSS1-MCS0	25.5	165	5825	24.86	24.57	27.73	592.614	30.00
11ax HE40	NSS1-MCS0	23	151	5755	22.75	22.86	25.82	381.562	30.00
11ax HE40	NSS1-MCS0	23	159	5795	23.11	22.83	25.98	396.511	30.00
11ax HE80	NSS1-MCS0	21	155	5775	20.61	20.48	23.56	226.766	30.00



Beamforming-Omni Antenna  
In the 5.2G Band

Modulation Type	Data Rate	Conducted Setting	Channel	Frequency (MHz)	Measured value of each antenna port (dBm)		Total power (dBm)	Total power (mW)	FCC Limit (dBm)
					ANT C	ANT D			
11ax HE20	NSS1-MCS0	17	36	5180	14.46	14.11	17.30	53.689	27.76
11ax HE20	NSS1-MCS0	17	40	5200	14.46	14.15	17.32	53.927	27.76
11ax HE20	NSS1-MCS0	17	48	5240	14.72	14.35	17.55	56.875	27.76
11ax HE40	NSS1-MCS0	16	38	5190	13.92	13.79	16.87	48.594	27.76
11ax HE40	NSS1-MCS0	16	46	5230	14.03	13.93	16.99	50.010	27.76
11ax HE80	NSS1-MCS0	16	42	5210	13.81	13.70	16.77	47.486	27.76

B1 E.I.R.P Power above 30°

Modulation Type	Data Rate	Channel (MHz)	Frequency (MHz)	Measured value of each antenna port (dBm)		Gain above 30° (dB)	E.I.R.P Power above 30° (dBm)	Total E.I.R.P above 30° (dBm)	Total E.I.R.P above 30° (mW)	E.I.R.P Limit (dBm)
				Chain 0	Chain 1					
11ax HE20	NSS1-MCS0	36	5180	Chain 0	14.46	3.39	17.85	20.69	117.19	21
				Chain 1	14.11					
11ax HE20	NSS1-MCS0	40	5200	Chain 0	14.46	3.39	17.85	20.71	117.71	21
				Chain 1	14.15					
11ax HE20	NSS1-MCS0	48	5240	Chain 0	14.72	3.39	18.11	20.94	124.14	21
				Chain 1	14.35					
11ax HE40	NSS1-MCS0	38	5190	Chain 0	13.92	3.39	17.31	20.26	106.07	21
				Chain 1	13.79					
11ax HE40	NSS1-MCS0	46	5230	Chain 0	14.03	3.39	17.42	20.38	109.16	21
				Chain 1	13.93					
11ax HE80	NSS1-MCS0	42	5210	Chain 0	13.81	3.39	17.2	20.16	103.65	21
				Chain 1	13.7					

In the 5.8G Band

Modulation Type	Data Rate	Conducted Setting	Channel	Frequency (MHz)	Measured value of each antenna port (dBm)		Total power (dBm)	Total power (mW)	FCC Limit (dBm)
					ANT C	ANT D			
11ax HE20	NSS1-MCS0	27	149	5745	24.59	24.21	27.41	551.373	27.76
11ax HE20	NSS1-MCS0	27	157	5785	24.81	24.50	27.67	584.530	27.76
11ax HE20	NSS1-MCS0	27	165	5825	24.62	24.51	27.58	572.222	27.76
11ax HE40	NSS1-MCS0	24	151	5755	22.12	21.74	24.94	312.209	27.76
11ax HE40	NSS1-MCS0	23	159	5795	21.22	21.01	24.13	258.617	27.76
11ax HE80	NSS1-MCS0	20	155	5775	18.27	17.92	21.11	129.087	27.76



Non Beamforming-Sector Antenna  
In the 5.2G Band

Modulation Type	Data Rate	Conducted Setting	Channel	Frequency (MHz)	Measured value of each antenna port (dBm)		Total power (dBm)	Total power (mW)	FCC Limit (dBm)
					ANT C	ANT D			
11a	6 Mbps	14	36	5180	14.08	13.69	16.90	48.974	24.89
11a	6 Mbps	14.5	40	5200	14.66	14.19	17.44	55.484	24.89
11a	6 Mbps	13.5	48	5240	13.94	13.62	16.79	47.789	24.89
11ax HE20	NSS1-MCS0	14.5	36	5180	13.99	13.82	16.92	49.160	24.89
11ax HE20	NSS1-MCS0	15	40	5200	14.55	14.23	17.40	54.995	24.89
11ax HE20	NSS1-MCS0	14.5	48	5240	14.19	13.79	17.00	50.175	24.89
11ax HE40	NSS1-MCS0	13.5	38	5190	13.40	13.53	16.48	44.420	24.89
11ax HE40	NSS1-MCS0	17.5	46	5230	17.43	17.20	20.33	107.816	24.89
11ax HE80	NSS1-MCS0	13	42	5210	12.54	12.87	15.72	37.312	24.89

B1 E.I.R.P Power above 30°

Modulation Type	Data Rate	Channel (MHz)	Frequency (MHz)	Measured value of each antenna port (dBm)		Gain above 30° (dB)	E.I.R.P Power above 30° (dBm)	Total E.I.R.P above 30° (dBm)	Total E.I.R.P above 30° (mW)	E.I.R.P Limit (dBm)
				Chain 0	Chain 1					
11a	6 Mbps	36	5180	Chain 0	14.08	-0.96	13.12	15.94	39.26	21
				Chain 1	13.69					
11a	6 Mbps	40	5200	Chain 0	14.66	-0.96	13.7	16.48	44.48	21
				Chain 1	14.19					
11a	6 Mbps	48	5240	Chain 0	13.94	-0.96	12.98	15.83	38.31	21
				Chain 1	13.62					
11aX HE20	NSS1-MCS0	36	5180	Chain 0	13.99	-0.96	13.03	15.96	39.41	21
				Chain 1	13.82					
11aX HE20	NSS1-MCS0	40	5200	Chain 0	14.55	-0.96	13.59	16.44	44.09	21
				Chain 1	14.23					
11ax HE20	NSS1-MCS0	48	5240	Chain 0	14.19	-0.96	13.23	16.04	40.22	21
				Chain 1	13.79					
11ax HE40	NSS1-MCS0	38	5190	Chain 0	13.4	-0.96	12.44	15.52	35.61	21
				Chain 1	13.53					
11ax HE40	NSS1-MCS0	46	5230	Chain 0	17.43	-0.96	16.47	19.37	86.43	21
				Chain 1	17.2					
11ax HE80	NSS1-MCS0	42	5210	Chain 0	12.54	-0.96	11.58	14.76	29.91	21
				Chain 1	12.87					



In the 5.8G Band

Modulation Type	Data Rate	Conducted Setting	Channel	Frequency (MHz)	Measured value of each antenna port (dBm)		Total power (dBm)	Total power (mW)	FCC Limit (dBm)
					ANT C	ANT D			
11a	6 Mbps	18.5	149	5745	18.51	18.69	21.61	144.918	24.89
11a	6 Mbps	18.5	157	5785	18.59	18.65	21.63	145.559	24.89
11a	6 Mbps	18.5	165	5825	18.43	18.49	21.47	140.294	24.89
11ax HE20	NSS1-MCS0	19	149	5745	18.11	18.29	21.21	132.167	24.89
11ax HE20	NSS1-MCS0	19	157	5785	18.39	18.55	21.48	140.638	24.89
11ax HE20	NSS1-MCS0	19	165	5825	18.39	18.45	21.43	139.008	24.89
11ax HE40	NSS1-MCS0	18.5	151	5755	18.56	18.62	21.60	144.557	24.89
11ax HE40	NSS1-MCS0	18.5	159	5795	18.68	18.66	21.68	147.242	24.89
11ax HE80	NSS1-MCS0	16	155	5775	15.77	15.88	18.84	76.483	24.89



Beamforming-Sector Antenna  
In the 5.2G Band

Modulation Type	Data Rate	Conducted Setting	Channel	Frequency (MHz)	Measured value of each antenna port (dBm)		Total power (dBm)	Total power (mW)	FCC Limit (dBm)
					ANT C	ANT D			
11ax HE20	NSS1-MCS0	17	36	5180	14.40	14.48	17.45	55.597	21.91
11ax HE20	NSS1-MCS0	17	40	5200	14.40	14.37	17.40	54.895	21.91
11ax HE20	NSS1-MCS0	16	48	5240	13.72	13.74	16.74	47.210	21.91
11ax HE40	NSS1-MCS0	17	38	5190	15.02	14.64	17.84	60.876	21.91
11ax HE40	NSS1-MCS0	17	46	5230	15.01	14.89	17.96	62.528	21.91
11ax HE80	NSS1-MCS0	17	42	5210	14.79	14.63	17.72	59.170	21.91

B1 E.I.R.P Power above 30°

Modulation Type	Data Rate	Channel (MHz)	Frequency (MHz)	Measured value of each antenna port (dBm)		Gain above 30° (dB)	E.I.R.P Power above 30° (dBm)	Total E.I.R.P above 30° (dBm)	Total E.I.R.P above 30° (mW)	E.I.R.P Limit (dBm)
				Chain 0	Chain 1					
11ax HE20	NSS1-MCS0	36	5180	Chain 0	14.4	2.05	16.45	19.50	89.14	21
				Chain 1	14.48					
11ax HE20	NSS1-MCS0	40	5200	Chain 0	14.4	2.05	16.45	19.45	88.01	21
				Chain 1	14.37					
11ax HE20	NSS1-MCS0	48	5240	Chain 0	13.72	2.05	15.77	18.79	75.69	21
				Chain 1	13.74					
11ax HE40	NSS1-MCS0	38	5190	Chain 0	15.02	2.05	17.07	19.89	97.60	21
				Chain 1	14.64					
11ax HE40	NSS1-MCS0	46	5230	Chain 0	15.01	2.05	17.06	20.01	100.25	21
				Chain 1	14.89					
11ax HE80	NSS1-MCS0	42	5210	Chain 0	14.79	2.05	16.84	19.77	94.86	21
				Chain 1	14.63					

In the 5.8G Band

Modulation Type	Data Rate	Conducted Setting	Channel	Frequency (MHz)	Measured value of each antenna port (dBm)		Total power (dBm)	Total power (mW)	FCC Limit (dBm)
					ANT C	ANT D			
11ax HE20	NSS1-MCS0	20	149	5745	17.65	17.59	20.63	115.622	21.91
11ax HE20	NSS1-MCS0	20	157	5785	17.92	17.72	20.83	121.100	21.91
11ax HE20	NSS1-MCS0	20	165	5825	17.79	17.64	20.73	118.194	21.91
11ax HE40	NSS1-MCS0	17	151	5755	15.36	14.63	18.02	63.396	21.91
11ax HE40	NSS1-MCS0	17	159	5795	15.53	14.94	18.26	66.916	21.91
11ax HE80	NSS1-MCS0	17	155	5775	15.27	14.57	17.94	62.293	21.91



Non Beamforming-ALI22 Antenna  
In the 5.2G Band

Modulation Type	Data Rate	Conducted Setting	Channel	Frequency (MHz)	Measured value of each antenna port (dBm)		Total power (dBm)	Total power (mW)	FCC Limit (dBm)
					ANT C	ANT D			
11a	6 Mbps	13	36	5180	13.15	12.83	16.00	39.840	23.76
11a	6 Mbps	13	40	5200	12.81	13.05	15.94	39.282	23.76
11a	6 Mbps	12.5	48	5240	12.52	12.91	15.73	37.408	23.76
11ax HE20	NSS1-MCS0	13.5	36	5180	13.06	12.78	15.93	39.197	23.76
11ax HE20	NSS1-MCS0	12.5	40	5200	11.58	12.03	14.82	30.347	23.76
11ax HE20	NSS1-MCS0	12.5	48	5240	11.90	12.26	15.09	32.315	23.76
11ax HE40	NSS1-MCS0	15	38	5190	14.91	14.99	17.96	62.524	23.76
11ax HE40	NSS1-MCS0	16	46	5230	15.85	16.12	19.00	79.385	23.76
11ax HE80	NSS1-MCS0	15	42	5210	14.38	14.64	17.52	56.523	23.76

B1 E.I.R.P Power above 30°

Modulation Type	Data Rate	Channel (MHz)	Frequency (MHz)	Measured value of each antenna port (dBm)		Gain above 30° (dB)	E.I.R.P Power above 30° (dBm)	Total E.I.R.P above 30° (dBm)	Total E.I.R.P above 30° (mW)	E.I.R.P Limit (dBm)
				Chain 0	Chain 1					
11a	6 Mbps	36	5180	Chain 0	13.15	1.32	14.47	17.32	53.99	21
				Chain 1	12.83					
11a	6 Mbps	40	5200	Chain 0	12.81	1.32	14.13	17.26	53.23	21
				Chain 1	13.05					
11a	6 Mbps	48	5240	Chain 0	12.52	1.32	13.84	17.05	50.70	21
				Chain 1	12.91					
11aX HE20	NSS1-MCS0	36	5180	Chain 0	13.06	1.32	14.38	17.25	53.12	21
				Chain 1	12.78					
11aX HE20	NSS1-MCS0	40	5200	Chain 0	11.58	1.32	12.9	16.14	41.13	21
				Chain 1	12.03					
11ax HE20	NSS1-MCS0	48	5240	Chain 0	11.9	1.32	13.22	16.41	43.79	21
				Chain 1	12.26					
11ax HE40	NSS1-MCS0	38	5190	Chain 0	14.91	1.32	16.23	19.28	84.73	21
				Chain 1	14.99					
11ax HE40	NSS1-MCS0	46	5230	Chain 0	15.85	1.32	17.17	20.32	107.58	21
				Chain 1	16.12					
11ax HE80	NSS1-MCS0	42	5210	Chain 0	14.38	1.32	15.7	18.84	76.60	21
				Chain 1	14.64					



In the 5.8G Band

Modulation Type	Data Rate	Conducted Setting	Channel	Frequency (MHz)	Measured value of each antenna port (dBm)		Total power (dBm)	Total power (mW)	FCC Limit (dBm)
					ANT C	ANT D			
11a	6 Mbps	18	149	5745	17.67	17.99	20.84	121.430	23.76
11a	6 Mbps	18	157	5785	17.83	18.05	20.95	124.500	23.76
11a	6 Mbps	18	165	5825	17.83	17.89	20.87	122.191	23.76
11ax HE20	NSS1-MCS0	18.5	149	5745	17.63	17.84	20.75	118.756	23.76
11ax HE20	NSS1-MCS0	18.5	157	5785	17.71	17.97	20.85	121.681	23.76
11ax HE20	NSS1-MCS0	18.5	165	5825	17.88	17.84	20.87	122.190	23.76
11ax HE40	NSS1-MCS0	18	151	5755	17.80	17.93	20.88	122.343	23.76
11ax HE40	NSS1-MCS0	18	159	5795	17.89	18.01	20.96	124.759	23.76
11ax HE80	NSS1-MCS0	18	155	5775	17.59	17.72	20.67	116.568	23.76



Beamforming-ALI22 Antenna  
In the 5.2G Band

Modulation Type	Data Rate	Conducted Setting	Channel	Frequency (MHz)	Measured value of each antenna port (dBm)		Total power (dBm)	Total power (mW)	FCC Limit (dBm)
					ANT C	ANT D			
11ax HE20	NSS1-MCS0	13	36	5180	9.75	10.21	13.00	19.936	20.86
11ax HE20	NSS1-MCS0	14	40	5200	11.48	11.02	14.27	26.708	20.86
11ax HE20	NSS1-MCS0	13	48	5240	10.03	9.62	12.84	19.232	20.86
11ax HE40	NSS1-MCS0	13	38	5190	10.31	10.63	13.48	22.301	20.86
11ax HE40	NSS1-MCS0	13	46	5230	10.18	10.07	13.14	20.586	20.86
11ax HE80	NSS1-MCS0	13	42	5210	9.96	9.76	12.87	19.371	20.86

B1 E.I.R.P Power above 30°

Modulation Type	Data Rate	Channel (MHz)	Frequency (MHz)	Measured value of each antenna port (dBm)		Gain above 30° (dB)	E.I.R.P Power above 30° (dBm)	Total E.I.R.P above 30° (dBm)	Total E.I.R.P above 30° (mW)	E.I.R.P Limit (dBm)
				Chain 0	Chain 1					
11aX HE20	NSS1-MCS0	36	5180	Chain 0	9.75	4.33	14.08	17.33	54.03	21
				Chain 1	10.21					
11aX HE20	NSS1-MCS0	40	5200	Chain 0	11.48	4.33	15.81	18.60	72.38	21
				Chain 1	11.02					
11ax HE20	NSS1-MCS0	48	5240	Chain 0	10.03	4.33	14.36	17.17	52.12	21
				Chain 1	9.62					
11ax HE40	NSS1-MCS0	38	5190	Chain 0	10.31	4.33	14.64	17.81	60.44	21
				Chain 1	10.63					
11ax HE40	NSS1-MCS0	46	5230	Chain 0	10.18	4.33	14.51	17.47	55.79	21
				Chain 1	10.07					
11ax HE80	NSS1-MCS0	42	5210	Chain 0	9.96	4.33	14.29	17.20	52.50	21
				Chain 1	9.76					

In the 5.8G Band

Modulation Type	Data Rate	Conducted Setting	Channel	Frequency (MHz)	Measured value of each antenna port (dBm)		Total power (dBm)	Total power (mW)	FCC Limit (dBm)
					ANT C	ANT D			
11ax HE20	NSS1-MCS0	20	149	5745	17.73	17.46	20.61	115.011	20.86
11ax HE20	NSS1-MCS0	20	157	5785	17.90	17.72	20.82	120.816	20.86
11ax HE20	NSS1-MCS0	20	165	5825	17.69	17.57	20.64	115.897	20.86
11ax HE40	NSS1-MCS0	16	151	5755	14.23	13.98	17.12	51.488	20.86
11ax HE40	NSS1-MCS0	16	159	5795	14.52	14.14	17.34	54.256	20.86
11ax HE80	NSS1-MCS0	16	155	5775	14.27	13.88	17.09	51.164	20.86





### 11. Power Spectral Density

#### 11.1. Test Limit

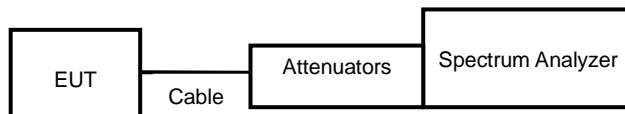
PSD:

Frequency Band		Limit
<input checked="" type="checkbox"/>	5.15~5.25GHz	
	Operating Mode	
<input checked="" type="checkbox"/>	Outdoor access point	17 dBm/MHz
<input type="checkbox"/>	Indoor access point	17 dBm/MHz
<input type="checkbox"/>	Fixed point-to-point access points	17 dBm/MHz
<input type="checkbox"/>	Mobile and portable client devices	11 dBm/MHz
<input type="checkbox"/>	5.725~5.85 GHz	11 dBm/MHz
<input type="checkbox"/>	5.470-5.725 GHz	11 dBm/MHz
<input checked="" type="checkbox"/>	5.725~5.85 GHz	30 dBm/500kHz

#### 11.2. Test Procedure

Reference to KDB789033 D02 General UNII Test Procedures New Rules v02r01

#### 11.3. Test Setup Layout



**11.4. Test Result and Data**

Non Beamforming-Omni Antenna  
In the 5.2G Band

Modulation Type	Channel	Frequency (MHz)	Meas PSD (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	Total Corr'd PSD (dBm/MHz)	PSD Limit (dBm/MHz)
			ANT C	ANT D				
11a	36	5180	8.95	8.71	11.84	0.12	11.96	14.76
11a	40	5200	8.87	8.61	11.75	0.12	11.87	14.76
11a	48	5240	8.49	8.40	11.45	0.12	11.57	14.76
11ax HE20	36	5180	8.29	7.79	11.06	0.57	11.63	14.76
11ax HE20	40	5200	8.25	7.71	11.00	0.57	11.57	14.76
11ax HE20	48	5240	8.18	7.97	11.09	0.57	11.66	14.76
11ax HE40	38	5190	2.64	2.44	5.55	0.22	5.77	14.76
11ax HE40	46	5230	8.94	8.48	11.73	0.22	11.95	14.76
11ax HE80	42	5210	2.28	1.75	5.03	0.25	5.28	14.76

In the 5.8G Band

Modulation Type	Channel (MHz)	Frequency (MHz)	Meas PSD (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	10log(500KHz/RBW) CF (dB)	Total Corr'd PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)
			ANT C	ANT D					
11a	149	5745	13.65	13.44	16.55	0.12	-3.01	13.66	27.76
11a	157	5785	12.75	12.62	15.69	0.12	-3.01	12.80	27.76
11a	165	5825	12.95	12.48	15.73	0.12	-3.01	12.84	27.76
11ax HE20	149	5745	12.88	12.95	15.93	0.57	-3.01	13.49	27.76
11ax HE20	157	5785	12.71	12.59	15.66	0.57	-3.01	13.22	27.76
11ax HE20	165	5825	12.96	12.59	15.79	0.57	-3.01	13.35	27.76
11ax HE40	151	5755	8.01	8.07	11.05	0.22	-3.01	8.26	27.76
11ax HE40	159	5795	8.06	7.72	10.90	0.22	-3.01	8.11	27.76
11ax HE80	155	5775	2.97	2.79	5.89	0.25	-3.01	3.13	27.76



Beamforming-Omni Antenna  
In the 5.2G Band

Modulation Type	Channel	Frequency (MHz)	Meas PSD (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	Total Corr'd PSD (dBm/MHz)	PSD Limit (dBm/MHz)
			ANT C	ANT D				
11ax HE20	36	5180	7.96	7.85	10.91	0.30	11.21	14.76
11ax HE20	40	5200	7.94	7.79	10.88	0.30	11.18	14.76
11ax HE20	48	5240	8.32	8.03	11.19	0.30	11.49	14.76
11ax HE40	38	5190	3.78	3.45	6.63	0.30	6.93	14.76
11ax HE40	46	5230	8.63	8.55	11.60	0.30	11.90	14.76
11ax HE80	42	5210	-0.41	-0.61	2.50	0.28	2.78	14.76

In the 5.8G Band

Modulation Type	Channel (MHz)	Frequency (MHz)	Meas PSD (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	10log(500KHz/RBW) CF (dB)	Total Corr'd PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)
			ANT C	ANT D					
11ax HE20	149	5745	12.81	12.29	15.57	0.30	-3.01	12.86	27.76
11ax HE20	157	5785	13.24	12.85	16.06	0.30	-3.01	13.35	27.76
11ax HE20	165	5825	13.06	12.86	15.97	0.30	-3.01	13.26	27.76
11ax HE40	151	5755	9.47	8.99	12.25	0.30	-3.01	9.54	27.76
11ax HE40	159	5795	9.97	9.60	12.80	0.30	-3.01	10.09	27.76
11ax HE80	155	5775	-0.31	-0.82	2.46	0.28	-3.01	-0.27	27.76



Non Beamforming-Sector Antenna  
In the 5.2G Band

Modulation Type	Channel	Frequency (MHz)	Meas PSD (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	Total Corr'd PSD (dBm/MHz)	PSD Limit (dBm/MHz)
			ANT C	ANT D				
11a	36	5180	1.90	1.61	4.77	0.12	4.89	8.91
11a	40	5200	2.04	1.89	4.98	0.12	5.10	8.91
11a	48	5240	2.17	2.21	5.20	0.12	5.32	8.91
11ax HE20	36	5180	1.29	1.04	4.17	0.57	4.74	8.91
11ax HE20	40	5200	1.86	1.47	4.68	0.57	5.25	8.91
11ax HE20	48	5240	1.53	1.28	4.42	0.57	4.99	8.91
11ax HE40	38	5190	-0.81	-1.18	2.02	0.22	2.24	8.91
11ax HE40	46	5230	1.91	1.91	4.92	0.22	5.14	8.91
11ax HE80	42	5210	-4.58	-4.84	-1.70	0.25	-1.45	8.91

In the 5.8G Band

Modulation Type	Channel (MHz)	Frequency (MHz)	Meas PSD (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	10log(500KHz/RBW) CF (dB)	Total Corr'd PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)
			ANT C	ANT D					
11a	149	5745	13.65	13.44	16.55	0.12	-3.01	13.66	21.91
11a	157	5785	12.75	12.62	15.69	0.12	-3.01	12.80	21.91
11a	165	5825	12.95	12.48	15.73	0.12	-3.01	12.84	21.91
11ax HE20	149	5745	12.88	12.95	15.93	0.57	-3.01	13.49	21.91
11ax HE20	157	5785	12.71	12.59	15.66	0.57	-3.01	13.22	21.91
11ax HE20	165	5825	12.96	12.59	15.79	0.57	-3.01	13.35	21.91
11ax HE40	151	5755	8.01	8.07	11.05	0.22	-3.01	8.26	21.91
11ax HE40	159	5795	8.06	7.72	10.90	0.22	-3.01	8.11	21.91
11ax HE80	155	5775	2.97	2.79	5.89	0.25	-3.01	3.13	21.91



Beamforming-Sector Antenna  
In the 5.2G Band

Modulation Type	Channel	Frequency (MHz)	Meas PSD (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	Total Corr'd PSD (dBm/MHz)	PSD Limit (dBm/MHz)
			ANT C	ANT D				
11ax HE20	36	5180	2.03	1.99	5.02	0.30	5.32	8.91
11ax HE20	40	5200	2.00	1.86	4.94	0.30	5.24	8.91
11ax HE20	48	5240	1.47	1.40	4.45	0.30	4.75	8.91
11ax HE40	38	5190	-0.24	-0.41	2.69	0.30	2.99	8.91
11ax HE40	46	5230	-0.18	-0.28	2.78	0.30	3.08	8.91
11ax HE80	42	5210	-0.41	-0.61	2.50	0.28	2.78	8.91

In the 5.8G Band

Modulation Type	Channel (MHz)	Frequency (MHz)	Meas PSD (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	10log(500KHz/RBW) CF (dB)	Total Corr'd PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)
			ANT C	ANT D					
11ax HE20	149	5745	12.81	12.29	15.57	0.30	-3.01	12.86	21.91
11ax HE20	157	5785	13.24	12.85	16.06	0.30	-3.01	13.35	21.91
11ax HE20	165	5825	13.06	12.86	15.97	0.30	-3.01	13.26	21.91
11ax HE40	151	5755	9.47	8.99	12.25	0.30	-3.01	9.54	21.91
11ax HE40	159	5795	9.97	9.60	12.80	0.30	-3.01	10.09	21.91
11ax HE80	155	5775	-0.31	-0.82	2.46	0.28	-3.01	-0.27	21.91



Non Beamforming-ALI22 Antenna  
In the 5.2G Band

Modulation Type	Channel	Frequency (MHz)	Meas PSD (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	Total Corr'd PSD (dBm/MHz)	PSD Limit (dBm/MHz)
			ANT C	ANT D				
11a	36	5180	1.90	1.61	4.77	0.12	4.89	7.86
11a	40	5200	1.80	1.44	4.64	0.12	4.76	7.86
11a	48	5240	1.43	1.42	4.44	0.12	4.56	7.86
11ax HE20	36	5180	1.29	1.04	4.17	0.57	4.74	7.86
11ax HE20	40	5200	1.34	0.87	4.12	0.57	4.69	7.86
11ax HE20	48	5240	1.38	1.08	4.24	0.57	4.81	7.86
11ax HE40	38	5190	0.52	0.09	3.32	0.22	3.54	7.86
11ax HE40	46	5230	1.30	1.24	4.28	0.22	4.50	7.86
11ax HE80	42	5210	-2.92	-3.03	0.04	0.25	0.29	7.86

In the 5.8G Band

Modulation Type	Channel (MHz)	Frequency (MHz)	Meas PSD (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	10log(500KHz/RBW) CF (dB)	Total Corr'd PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)
			ANT C	ANT D					
11a	149	5745	13.65	13.44	16.55	0.12	-3.01	13.66	20.86
11a	157	5785	12.75	12.62	15.69	0.12	-3.01	12.80	20.86
11a	165	5825	12.95	12.48	15.73	0.12	-3.01	12.84	20.86
11ax HE20	149	5745	12.88	12.95	15.93	0.57	-3.01	13.49	20.86
11ax HE20	157	5785	12.71	12.59	15.66	0.57	-3.01	13.22	20.86
11ax HE20	165	5825	12.96	12.59	15.79	0.57	-3.01	13.35	20.86
11ax HE40	151	5755	8.01	8.07	11.05	0.22	-3.01	8.26	20.86
11ax HE40	159	5795	8.06	7.72	10.90	0.22	-3.01	8.11	20.86
11ax HE80	155	5775	2.97	2.79	5.89	0.25	-3.01	3.13	20.86



Beamforming-ALI22 Antenna  
In the 5.2G Band

Modulation Type	Channel	Frequency (MHz)	Meas PSD (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	Total Corr'd PSD (dBm/MHz)	PSD Limit (dBm/MHz)
			ANT C	ANT D				
11ax HE20	36	5180	-2.46	-1.81	0.89	0.30	1.19	7.86
11ax HE20	40	5200	-0.77	-1.09	2.08	0.30	2.38	7.86
11ax HE20	48	5240	1.47	1.40	4.45	0.30	4.75	7.86
11ax HE40	38	5190	-0.24	-0.41	2.69	0.30	2.99	7.86
11ax HE40	46	5230	-0.18	-0.28	2.78	0.30	3.08	7.86
11ax HE80	42	5210	-0.41	-0.61	2.50	0.28	2.78	7.86

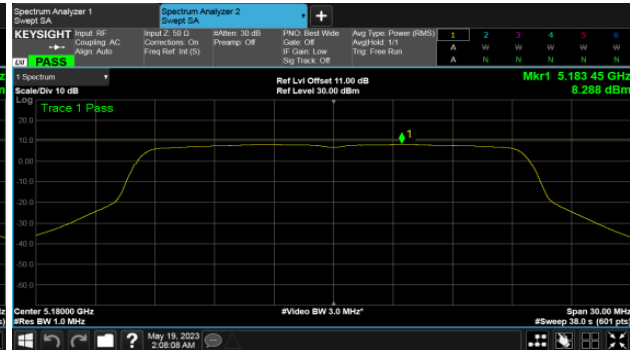
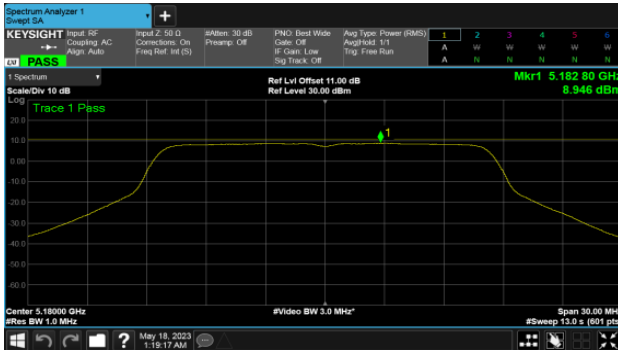
In the 5.8G Band

Modulation Type	Channel (MHz)	Frequency (MHz)	Meas PSD (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	10log(500KHz/RBW) CF (dB)	Total Corr'd PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)
			ANT C	ANT D					
11ax HE20	149	5745	12.81	12.29	15.57	0.30	-3.01	12.86	20.86
11ax HE20	157	5785	13.24	12.85	16.06	0.30	-3.01	13.35	20.86
11ax HE20	165	5825	13.06	12.86	15.97	0.30	-3.01	13.26	20.86
11ax HE40	151	5755	9.47	8.99	12.25	0.30	-3.01	9.54	20.86
11ax HE40	159	5795	9.97	9.60	12.80	0.30	-3.01	10.09	20.86
11ax HE80	155	5775	-0.31	-0.82	2.46	0.28	-3.01	-0.27	20.86



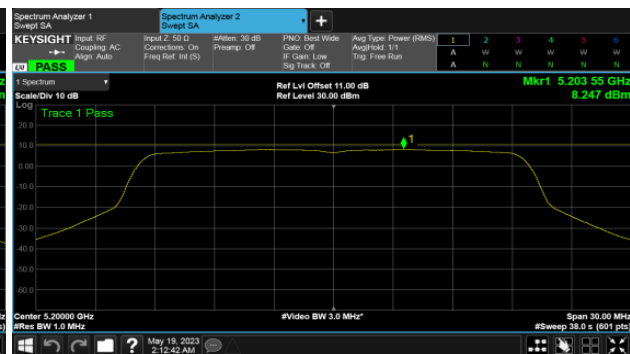
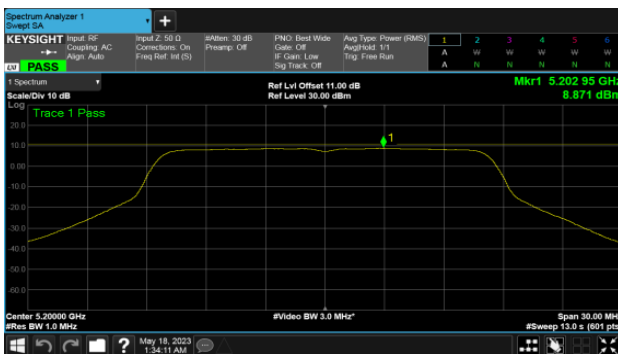
Non BeamForming-Omni Antenna  
ANT C  
Modulation Type: 802.11a (6Mbps)  
CH36

Modulation Type: 802.11ax HE20 (7.3Mbps)  
CH36



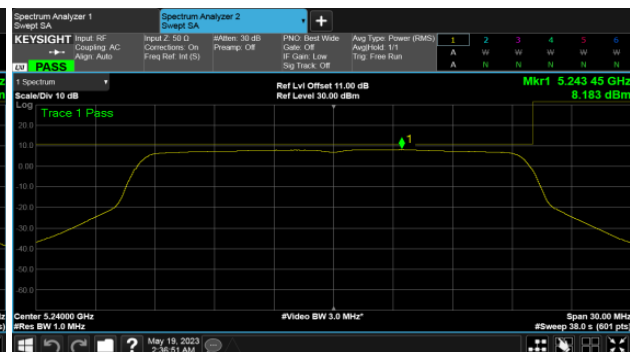
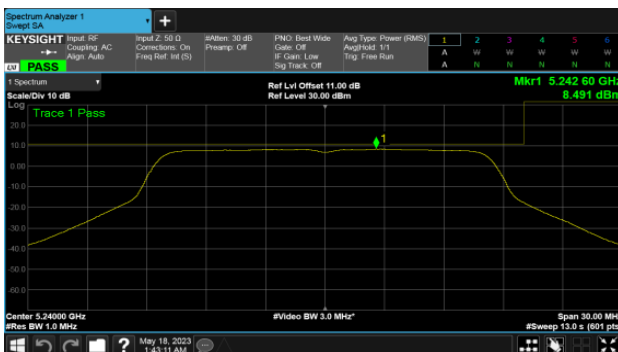
CH40

CH40



CH48

CH48

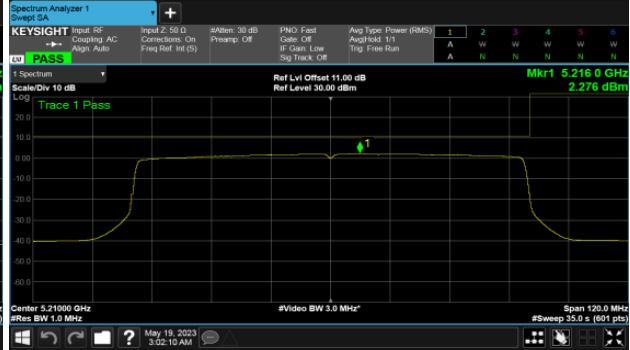
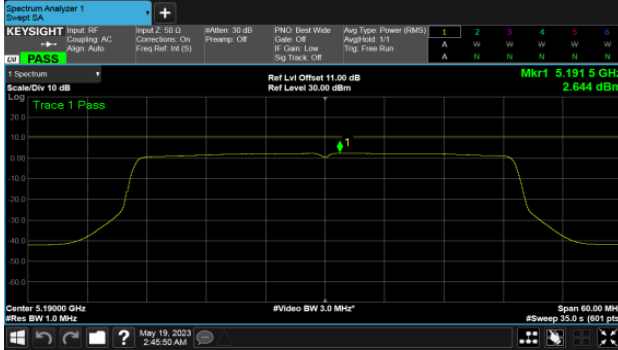




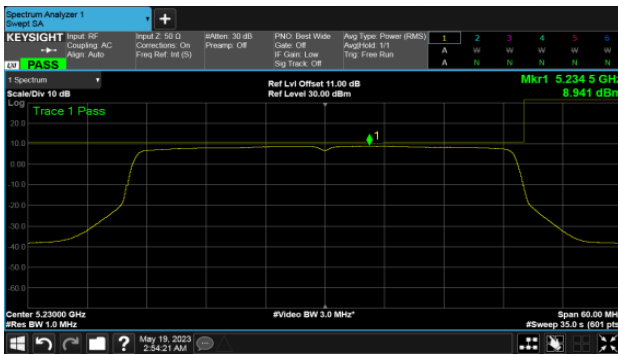


Non BeamForming-Omni Antenna  
ANT C  
Modulation Type: 8802.11ax HE40 (14.6Mbps)  
CH38

Modulation Type: 802.11ax HE80 (30.6Mbps)  
CH42



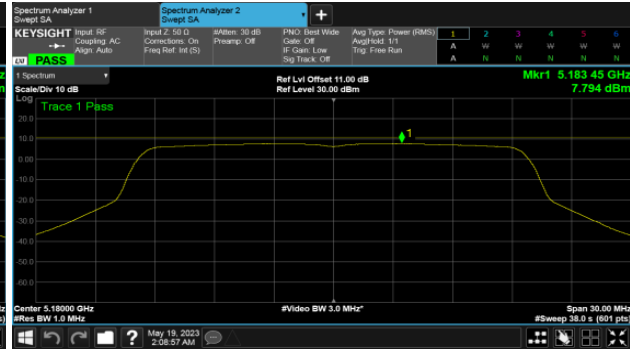
CH46





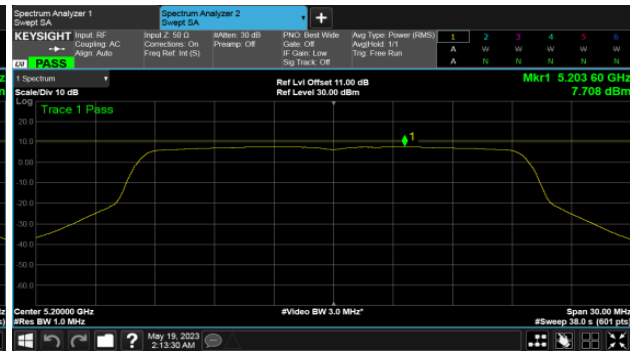
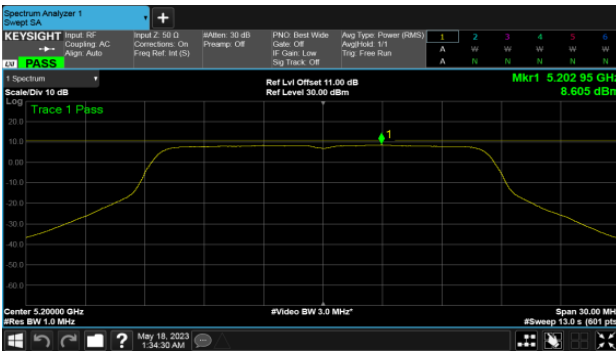
Non BeamForming-Omni Antenna  
ANT D  
Modulation Type: 802.11a (6Mbps)  
CH36

Modulation Type: 802.11ax HE20 (7.3Mbps)  
CH36



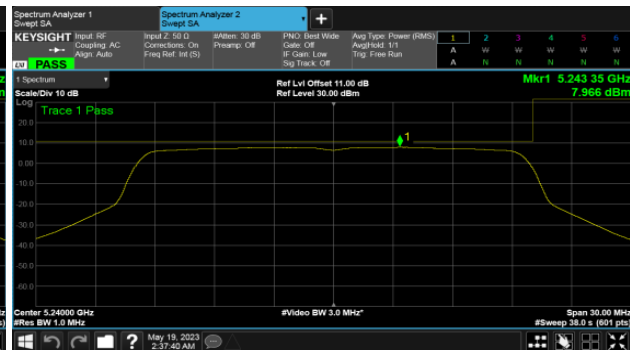
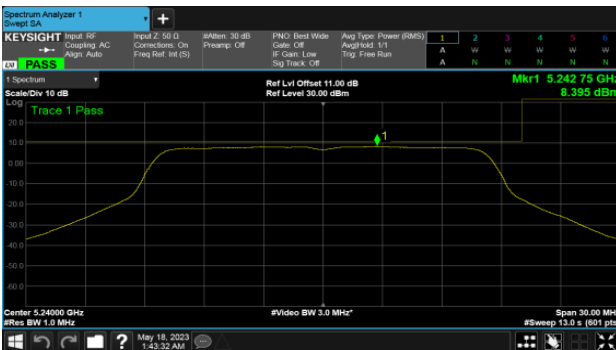
CH40

CH40



CH48

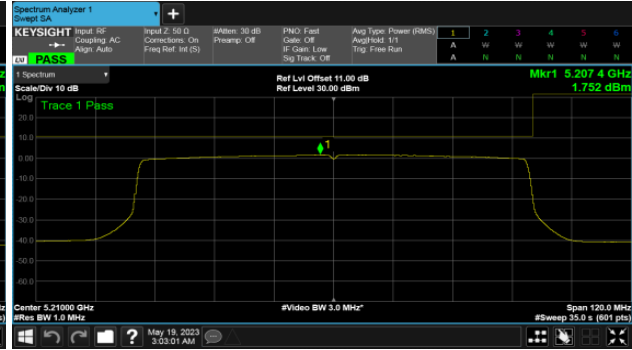
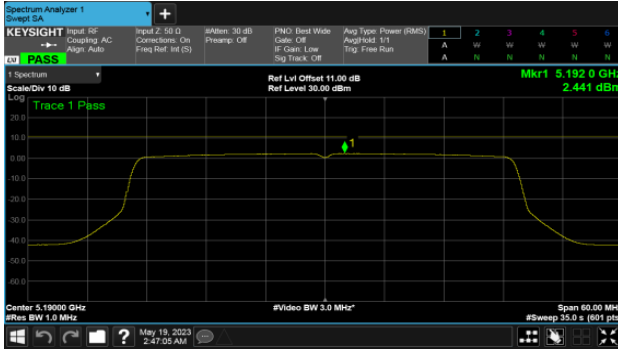
CH48



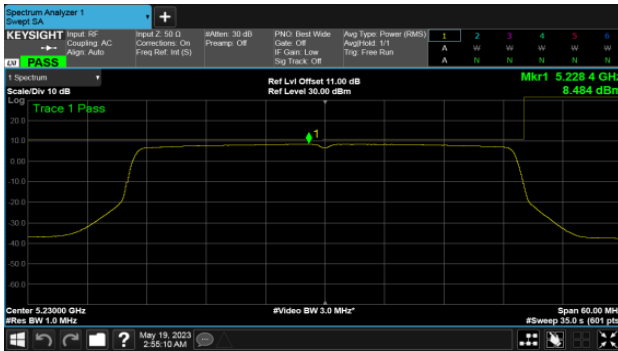


Non BeamForming-Omni Antenna  
ANT D  
Modulation Type: 802.11ax HE40 (14.6Mbps)  
CH38

Modulation Type: 802.11ax HE80 (30.6Mbps)  
CH42



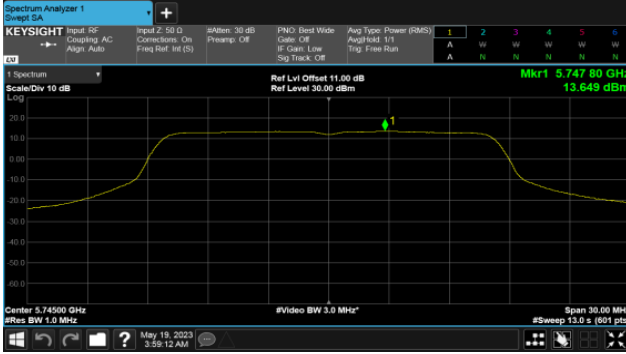
CH46





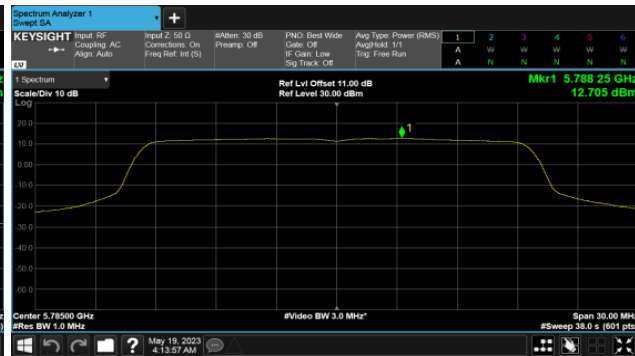
Non BeamForming-Omni Antenna  
ANT C  
Modulation Type: 802.11a (6Mbps)  
CH149

Modulation Type: 802.11ax HE20 (7.3Mbps)  
CH149



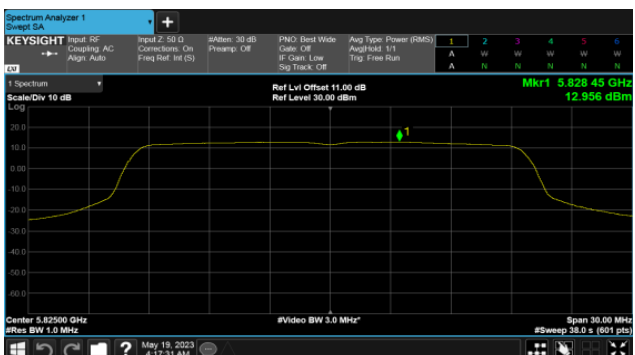
CH157

CH157



CH165

CH165

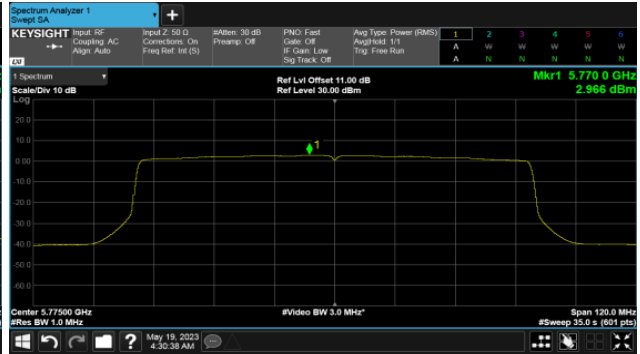
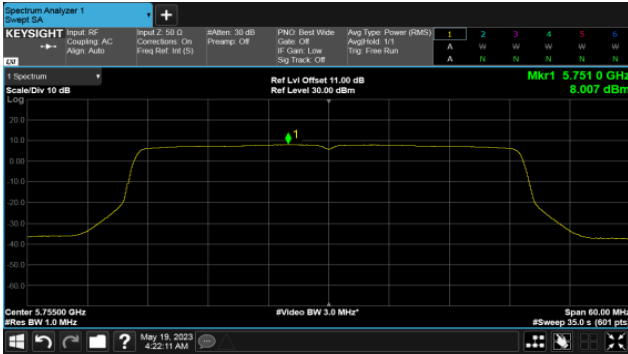




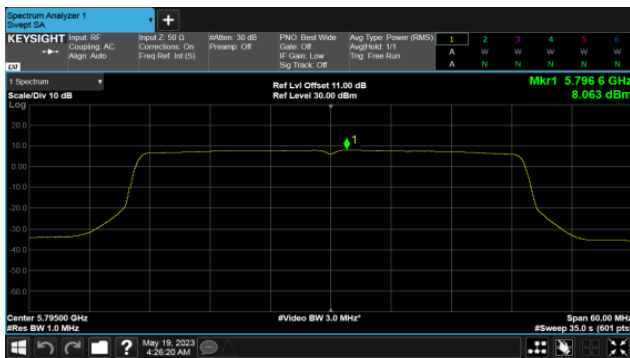
Non BeamForming-Omni Antenna  
ANT C

Modulation Type: 802.11ax HE40 (14.6Mbps)  
CH151

Modulation Type: 802.11ax HE80 (30.6Mbps)  
CH155



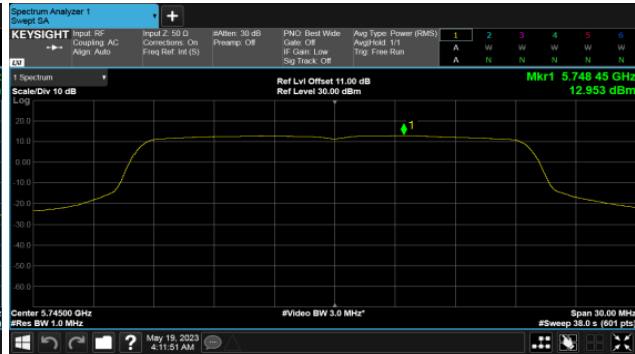
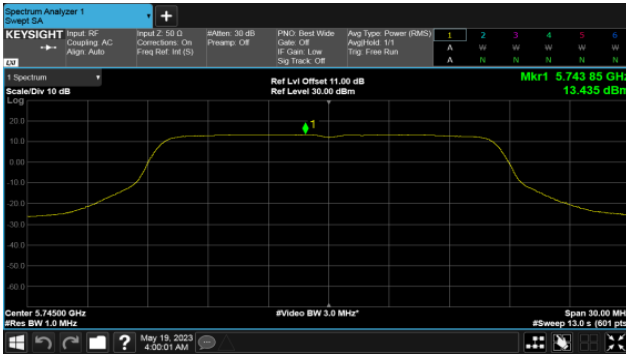
CH159





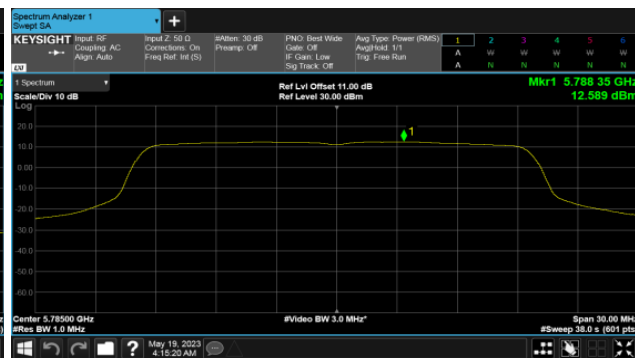
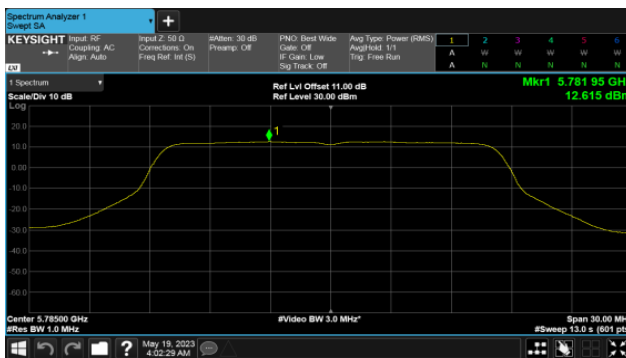
Non BeamForming-Omni Antenna  
ANT D  
Modulation Type: 802.11a (6Mbps)  
CH149

Modulation Type: 802.11ax HE20 (7.3Mbps)  
CH149



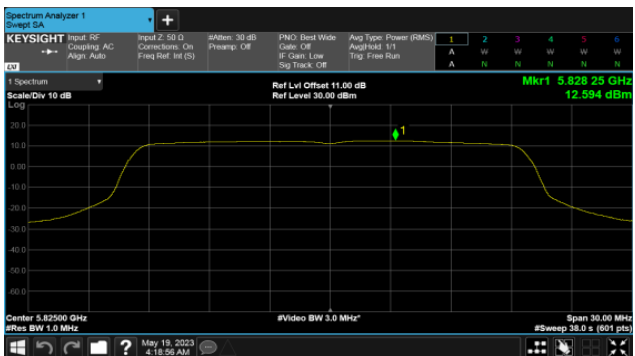
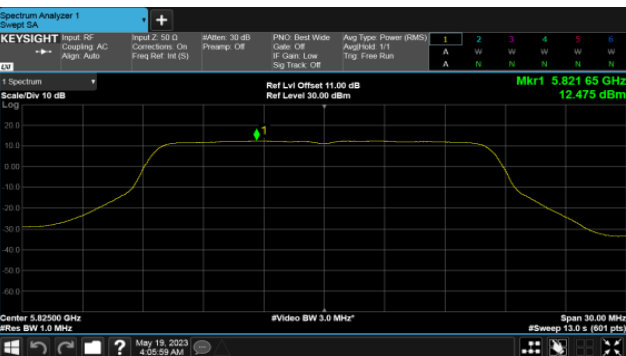
CH157

CH157



CH165

CH165



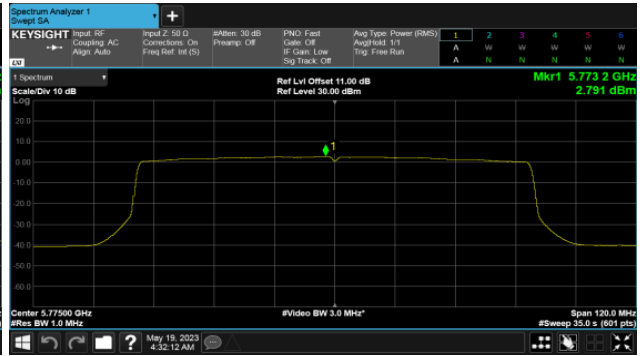
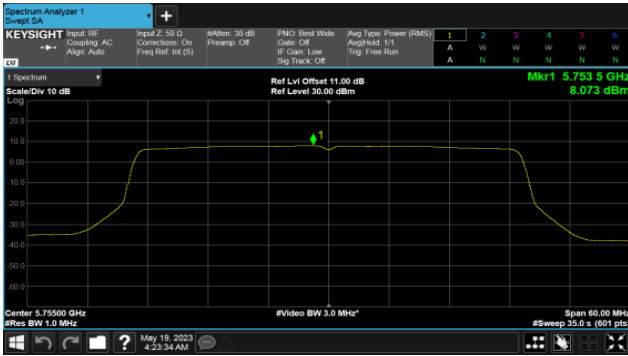


Non BeamForming-Omni Antenna

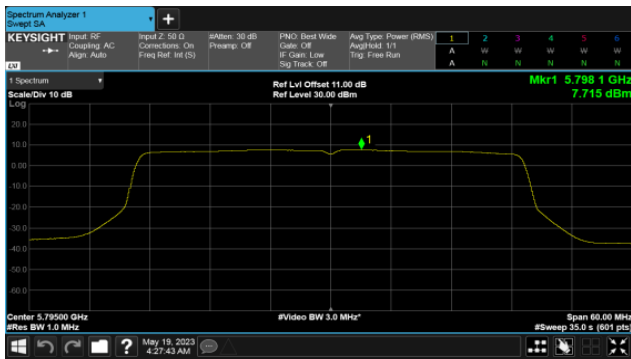
ANT D

Modulation Type: 802.11ax HE40 (14.6Mbps)  
CH151

Modulation Type: 802.11ax HE80 (30.6Mbps)  
CH155



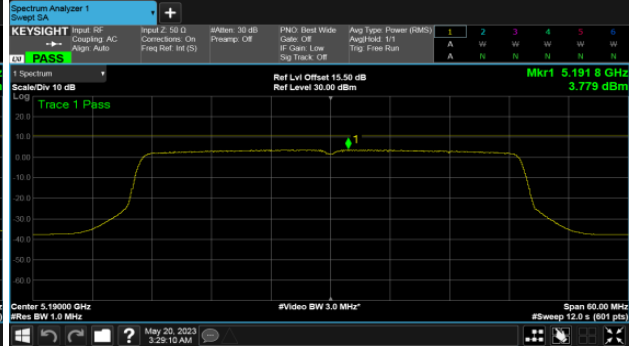
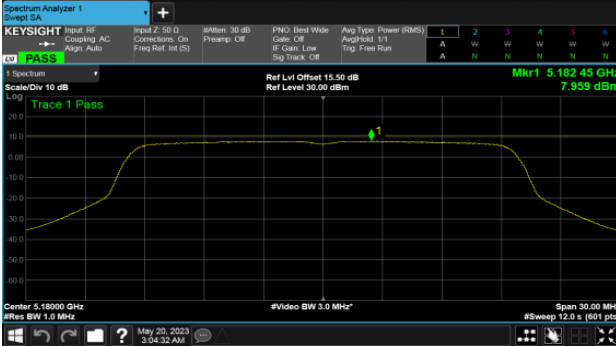
CH159



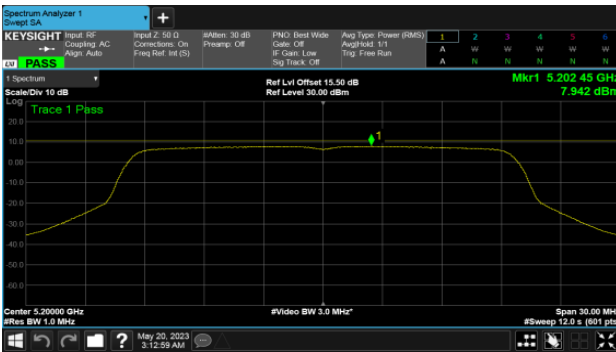


BeamForming-Omni Antenna  
ANT C  
Modulation Type: 802.11ax HE20 (7.3Mbps)  
CH36

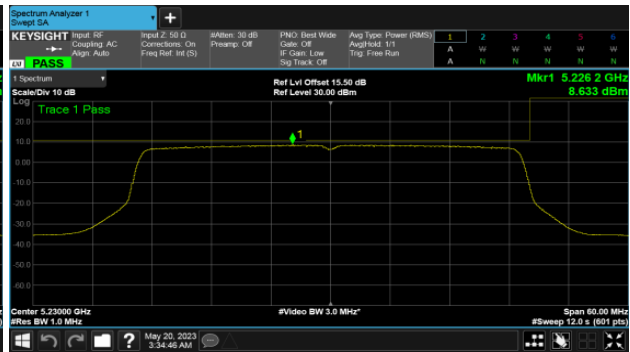
Modulation Type: 802.11ax HE40 (14.6Mbps)  
CH38



CH40



CH46



CH48

