



8. 6dB Bandwidth & 99% Occupied Bandwidth

8.1. Test Limit

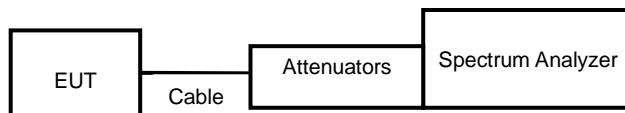
FCC §15.407

The minimum 6 dB bandwidth shall be at least 500 kHz.

8.2. Test Procedure

Reference to 789033 D02 General UNII Test Procedures New Rules v01: The transmitter output is connected to a spectrum analyzer with the RBW set to 100KHz, the VBW $\geq 3 \times$ RBW, peak detector and max hold.

8.3. Test Setup Layout





8.4. Test Result and Data

Non BeamForming

In the 5.8G Band

Modulation Type	Channel	Frequency (MHz)	6dB Bandwidth(MHz)				Minimum Limit (MHz)
			ANT A	ANT B	ANT C	ANT D	
11a	149	5745	16.41	16.38	16.38	16.38	0.50
11a	157	5785	16.38	16.38	16.38	16.38	0.50
11a	165	5825	16.38	16.38	16.38	16.38	0.50
11ax HE20	149	5745	19.08	19.08	18.96	19.08	0.50
11ax HE20	157	5785	19.08	19.08	19.08	19.11	0.50
11ax HE20	165	5825	19.05	19.08	19.05	19.11	0.50
11ax HE40	151	5755	37.56	37.32	36.00	37.50	0.50
11ax HE40	159	5795	37.32	37.02	36.54	36.96	0.50
11ax HE80	155	5775	75.84	75.00	75.00	75.12	0.50

In the 5.8G Band

Modulation Type	Channel	Frequency (MHz)	99% Bandwidth(MHz)			
			ANT A	ANT B	ANT C	ANT D
11a	149	5745	16.98	16.92	16.90	16.91
11a	157	5785	16.90	16.85	16.84	16.90
11a	165	5825	16.98	16.88	16.85	16.88
11ax HE20	149	5745	19.22	19.21	19.20	19.25
11ax HE20	157	5785	19.20	19.21	19.22	19.20
11ax HE20	165	5825	19.22	19.20	19.22	19.22
11ax HE40	151	5755	37.85	37.81	37.93	37.83
11ax HE40	159	5795	37.88	37.85	37.89	37.86
11ax HE80	155	5775	76.98	76.95	76.96	76.97



BeamForming

In the 5.8G Band

Modulation Type	Channel	Frequency (MHz)	6dB Bandwidth(MHz)				Minimum Limit (MHz)
			ANT A	ANT B	ANT C	ANT D	
11ax HE20	149	5745	18.97	18.97	18.70	19.10	0.50
11ax HE20	157	5785	18.97	18.86	18.74	17.00	0.50
11ax HE20	165	5825	18.75	18.70	18.95	18.98	0.50
11ax HE40	151	5755	37.95	37.55	37.89	36.64	0.50
11ax HE40	159	5795	37.98	37.75	37.47	37.97	0.50
11ax HE80	155	5775	77.90	77.89	77.76	76.68	0.50

In the 5.8G Band

Modulation Type	Channel	Frequency (MHz)	99% Bandwidth(MHz)			
			ANT A	ANT B	ANT C	ANT D
11ax HE20	149	5745	19.09	19.11	19.03	19.16
11ax HE20	157	5785	19.04	19.02	19.02	18.88
11ax HE20	165	5825	19.06	19.05	19.12	19.12
11ax HE40	151	5755	38.07	38.14	38.11	37.83
11ax HE40	159	5795	37.90	37.82	37.70	38.03
11ax HE80	155	5775	77.28	77.26	77.38	77.02

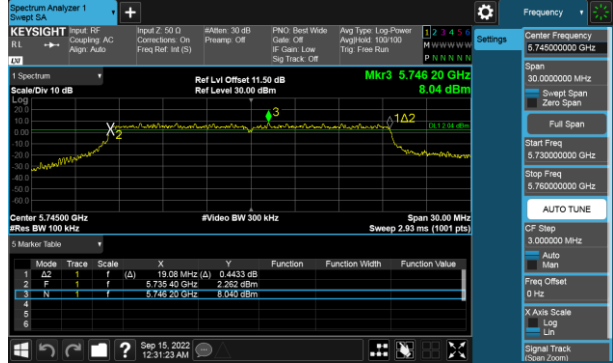
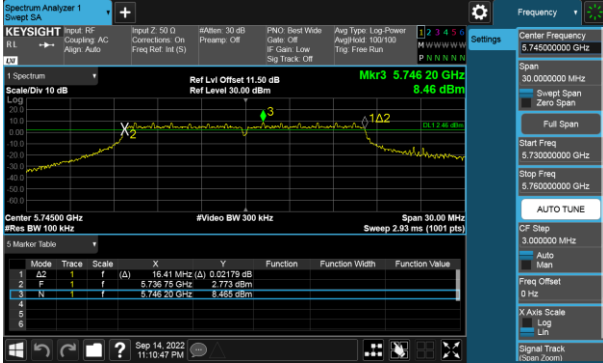


6dB Bandwidth
Non BeamForming

ANT A

Modulation Type: 802.11a (6Mbps)
CH149

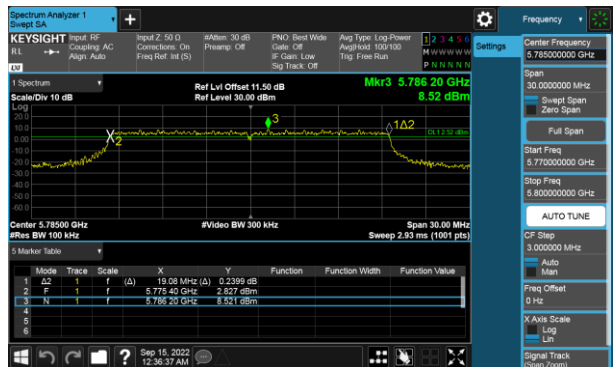
Modulation Type: 802.11ax, HE20 (7.3Mbps)
CH149



CH157



CH157



CH165



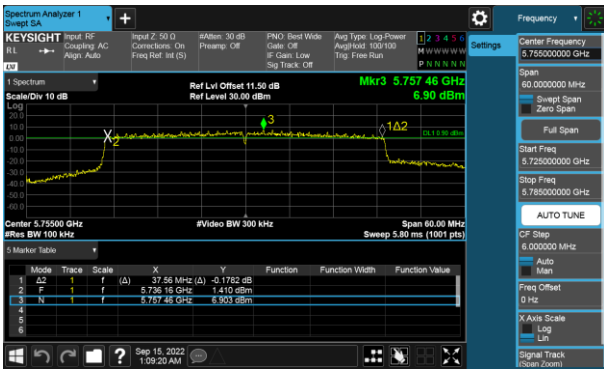
CH165



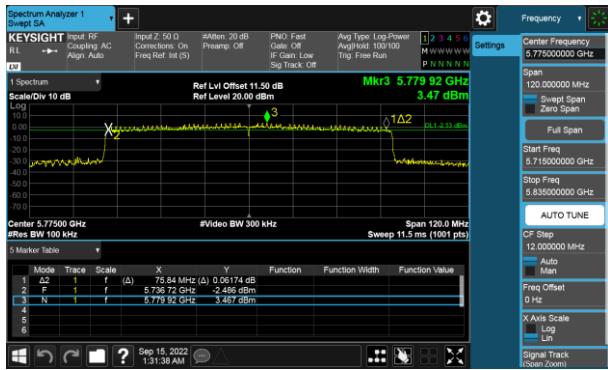


6dB Bandwidth

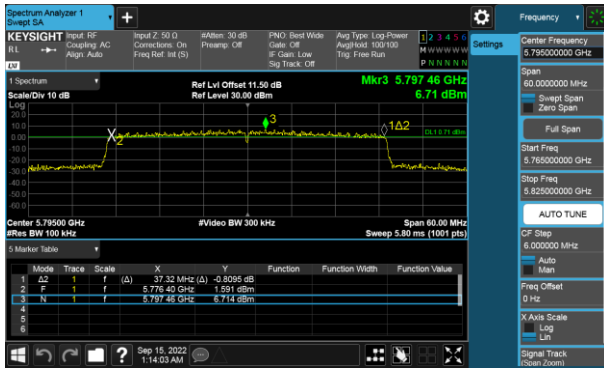
Modulation Type: 802.11ax, HE40 (14.6Mbps)
CH151



Modulation Type: 802.11ax, HE80 (30.6Mbps)
CH155



CH159

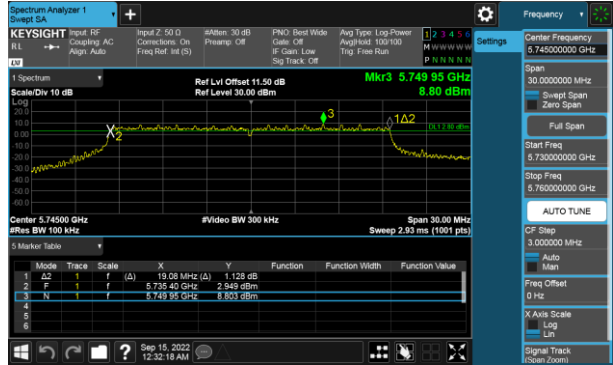




6dB Bandwidth
Non BeamForming
ANT B

Modulation Type: 802.11a (6Mbps)
CH149

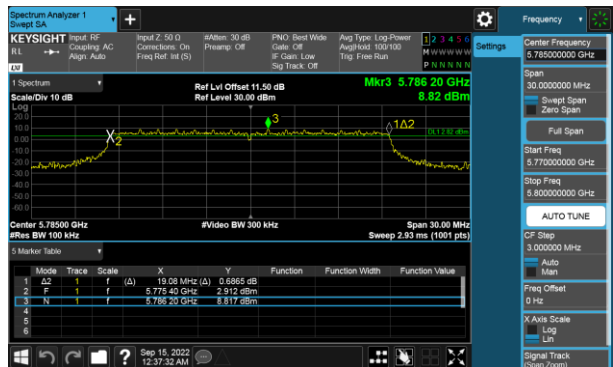
Modulation Type: 802.11ax, HE20 (7.3Mbps)
CH149



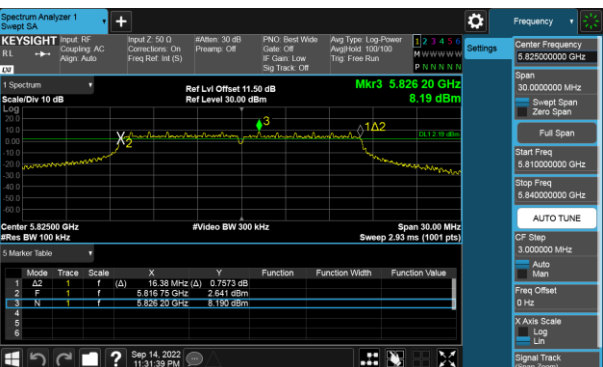
CH157



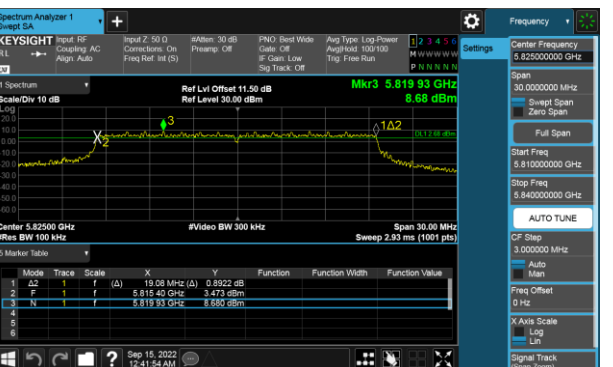
CH157



CH165



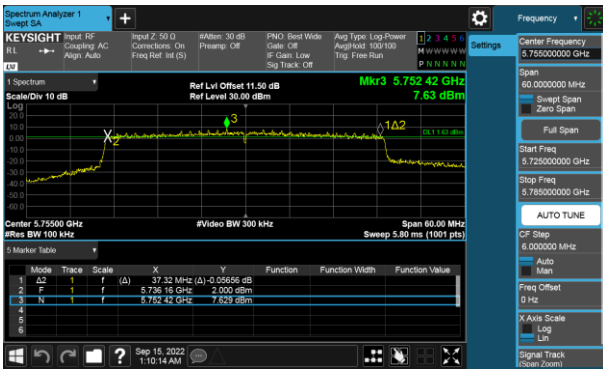
CH165



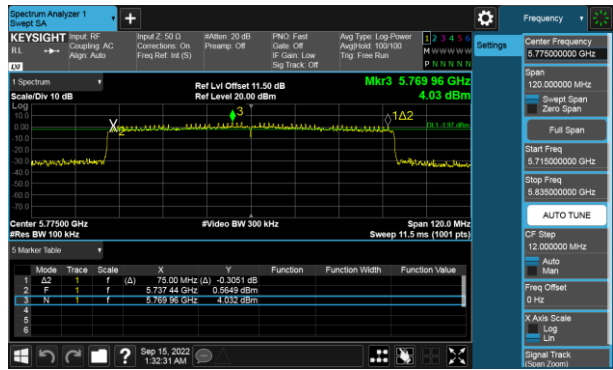


6dB Bandwidth

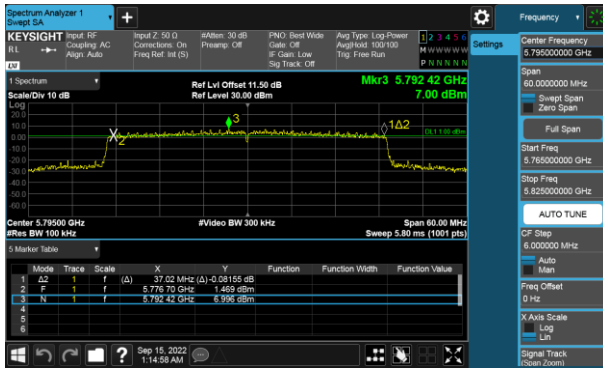
Modulation Type: 802.11ax, HE40 (14.6Mbps)
CH151



Modulation Type: 802.11ax, HE80 (30.6Mbps)
CH155



CH159



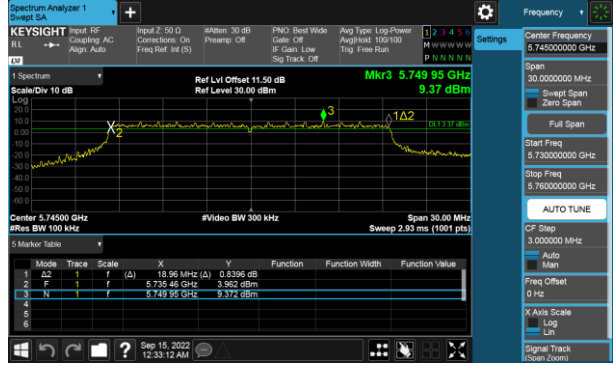


6dB Bandwidth
Non BeamForming
ANT C

Modulation Type: 802.11a (6Mbps)
CH149



Modulation Type: 802.11ax, HE20 (7.3Mbps)
CH149



CH157



CH157



CH165



CH165



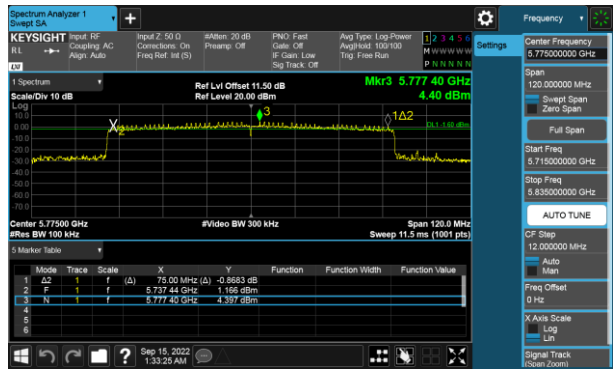


6dB Bandwidth

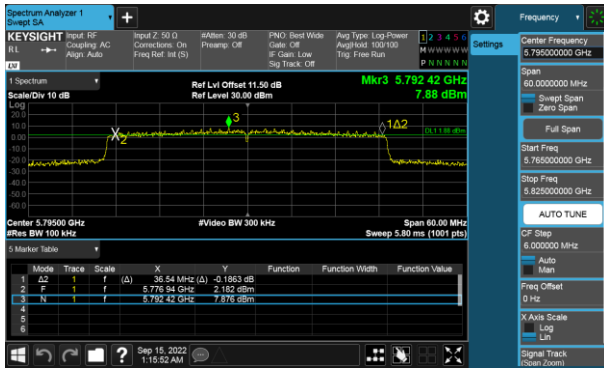
Modulation Type: 802.11ax, HE40 (14.6Mbps)
CH151



Modulation Type: 802.11ax, HE80 (30.6Mbps)
CH155



CH159

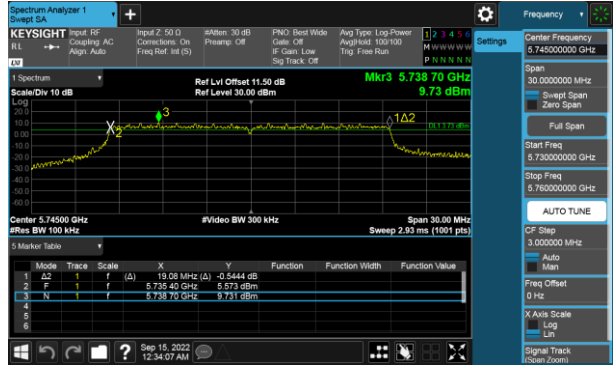
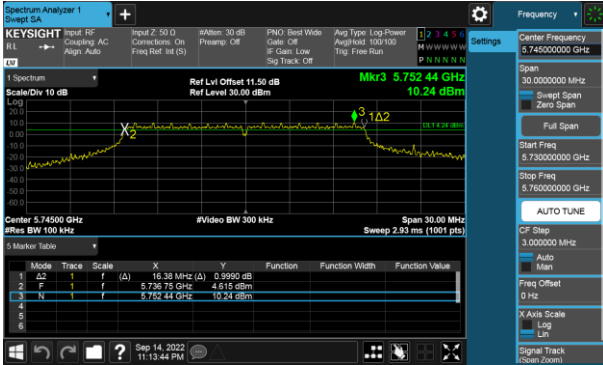




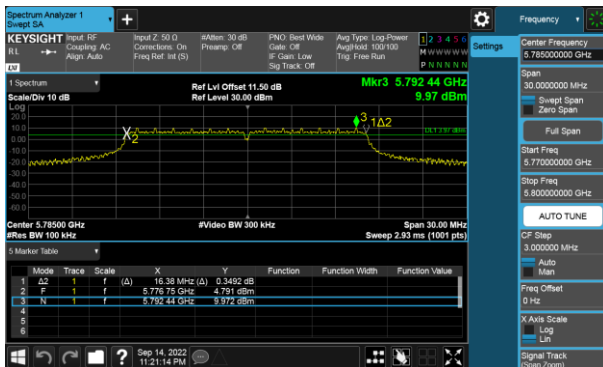
6dB Bandwidth
Non BeamForming
ANT D

Modulation Type: 802.11a (6Mbps)
CH149

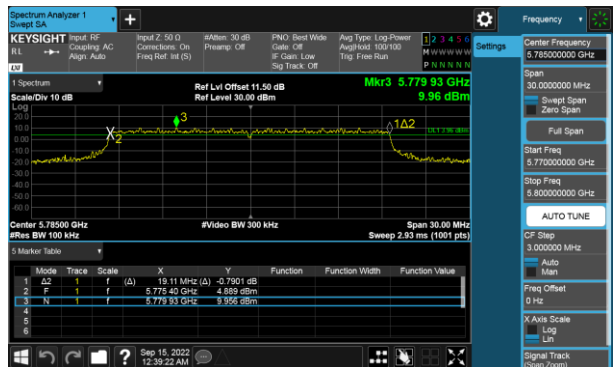
Modulation Type: 802.11ax, HE20 (7.3Mbps)
CH149



CH157



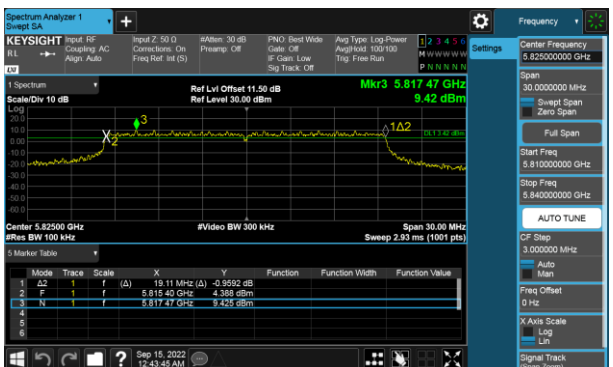
CH157



CH165



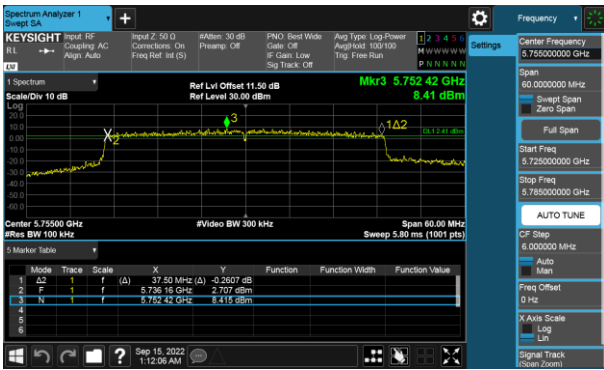
CH165





6dB Bandwidth

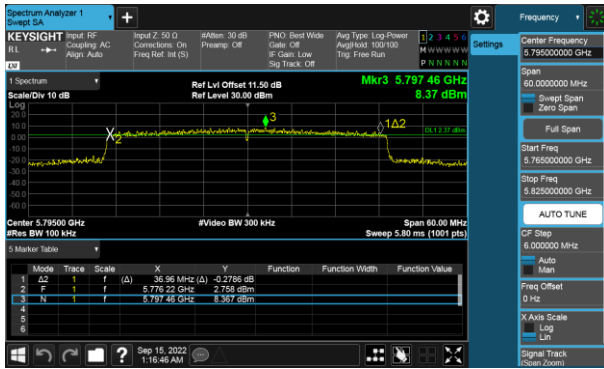
Modulation Type: 802.11ax, HE40 (14.6Mbps)
CH151



Modulation Type: 802.11ax, HE80 (30.6Mbps)
CH155



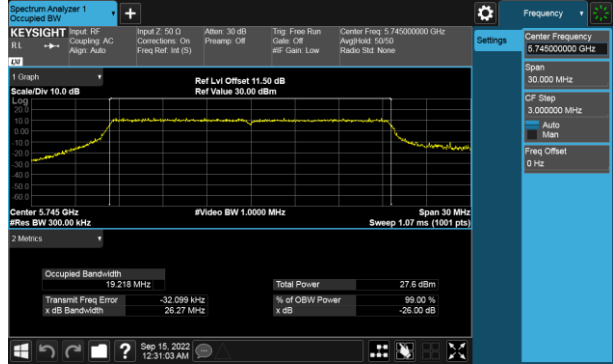
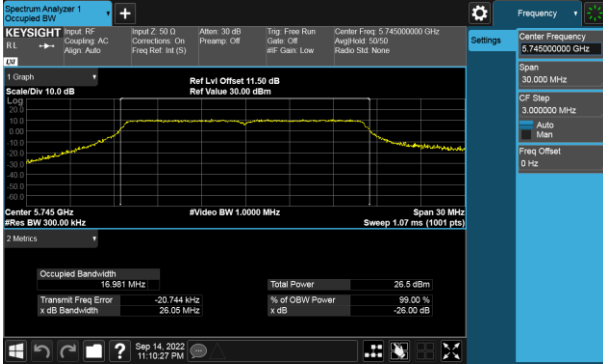
CH159



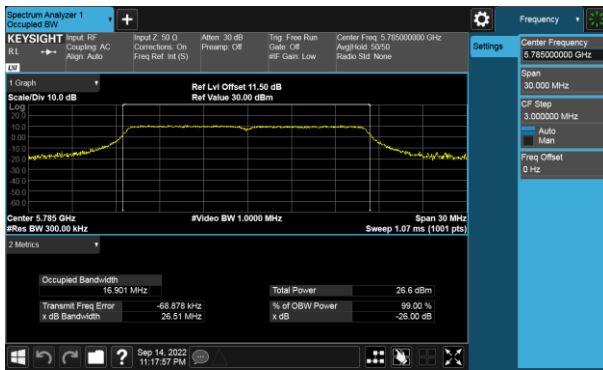


99% Occupied Bandwidth
Non BeamForming
ANT A
Modulation Type: 802.11a (6Mbps)
CH149

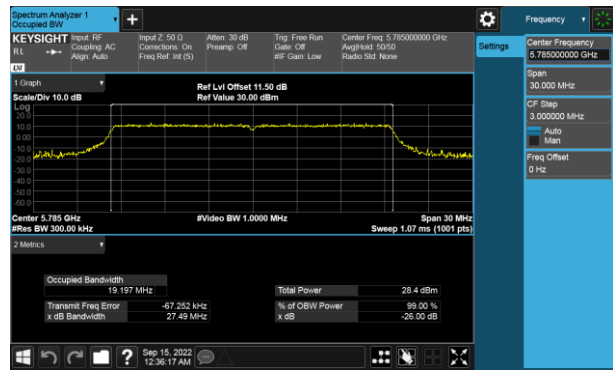
Modulation Type: 802.11ax HE20 (7.3Mbps)
CH149



CH157



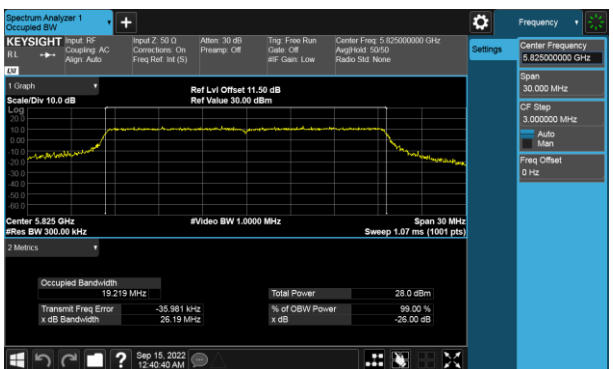
CH157



CH165



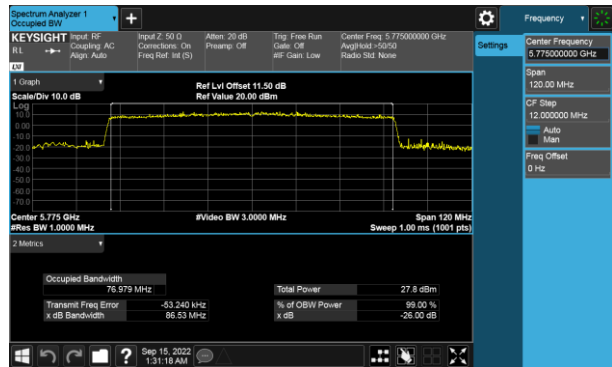
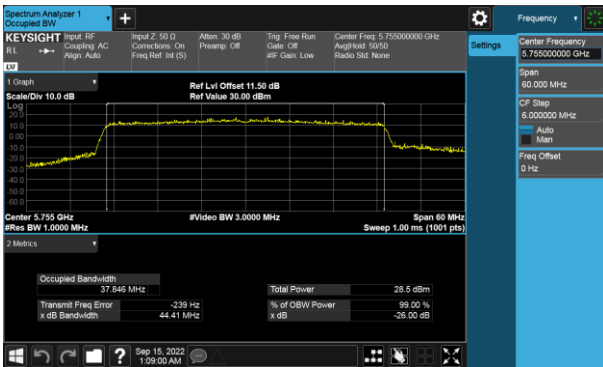
CH165



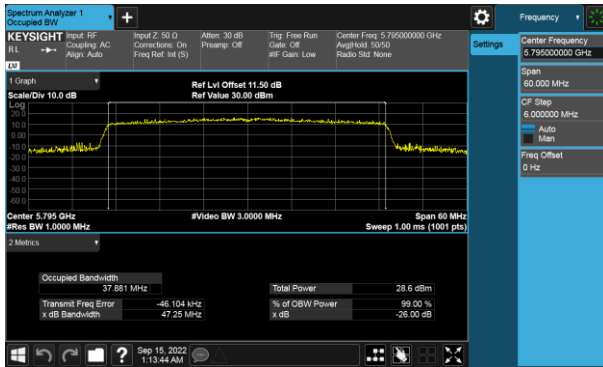


99% Occupied Bandwidth
Modulation Type: 802.11ax HE40 (14.6Mbps)
CH151

Modulation Type: 802.11ax HE80 (30.6Mbps)
CH155



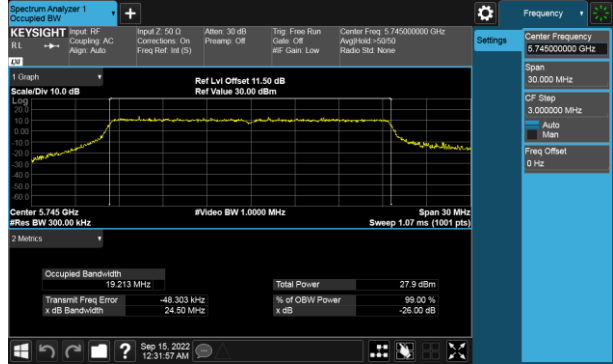
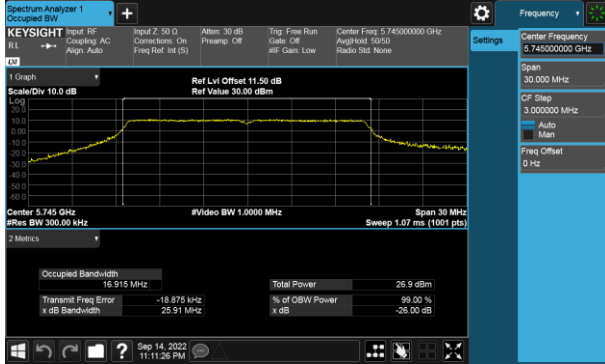
CH159



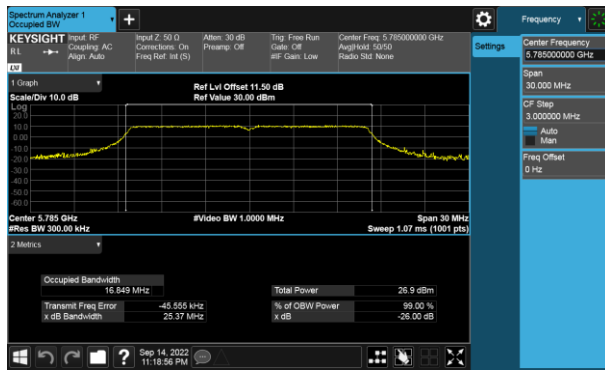


99% Occupied Bandwidth
Non BeamForming
ANT B
Modulation Type: 802.11a (6Mbps)
CH149

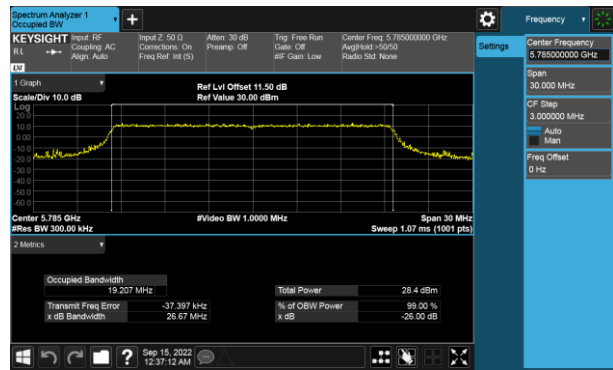
Modulation Type: 802.11ax HE20 (7.3Mbps)
CH149



CH157



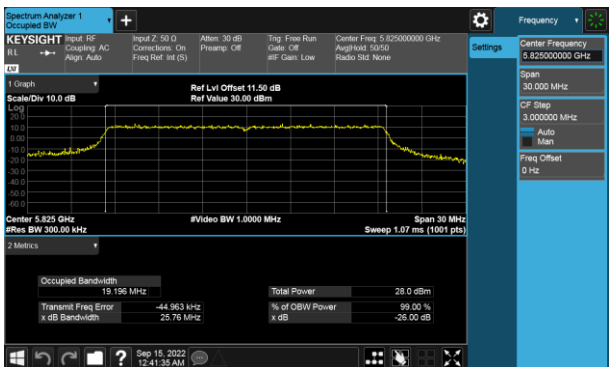
CH157



CH165

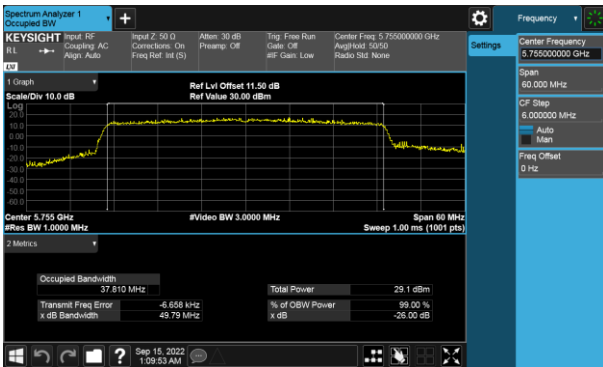


CH165

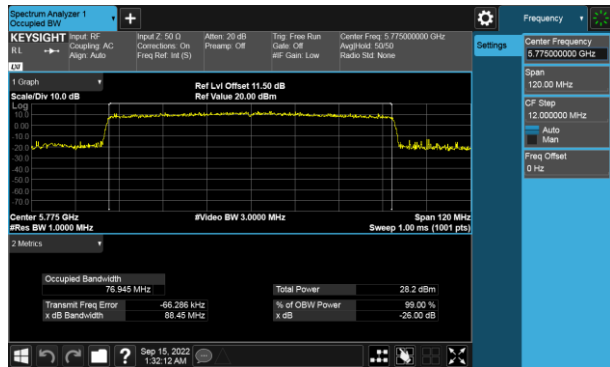




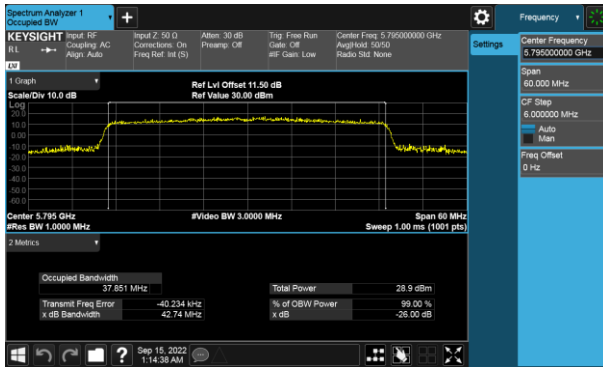
99% Occupied Bandwidth
Modulation Type: 802.11ax HE40 (14.6Mbps)
CH151



Modulation Type: 802.11ax HE80 (30.6Mbps)
CH155



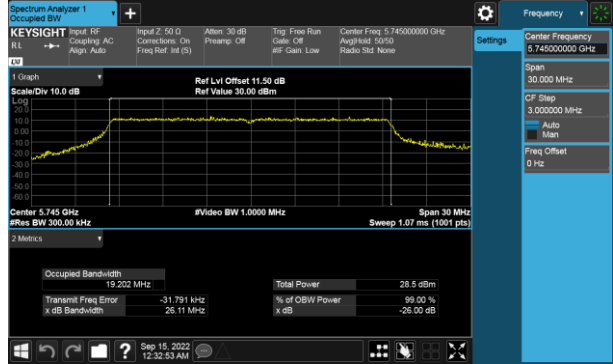
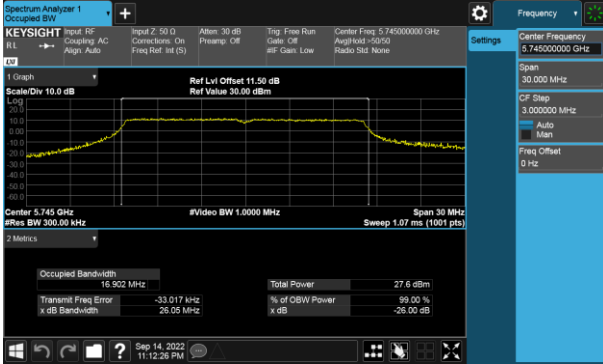
CH159



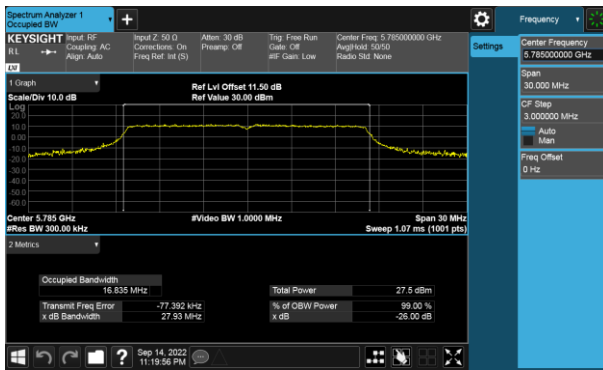


99% Occupied Bandwidth
Non BeamForming
ANT C
Modulation Type: 802.11a (6Mbps)
CH149

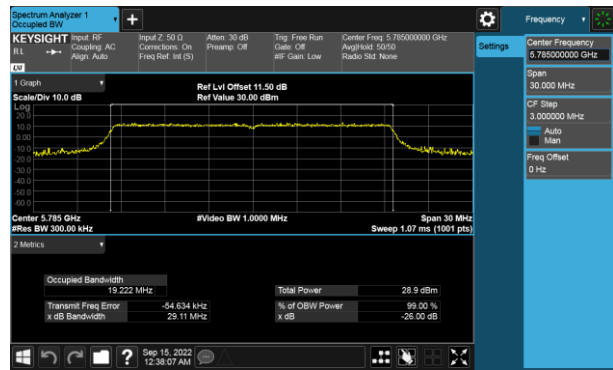
Modulation Type: 802.11ax HE20 (7.3Mbps)
CH149



CH157



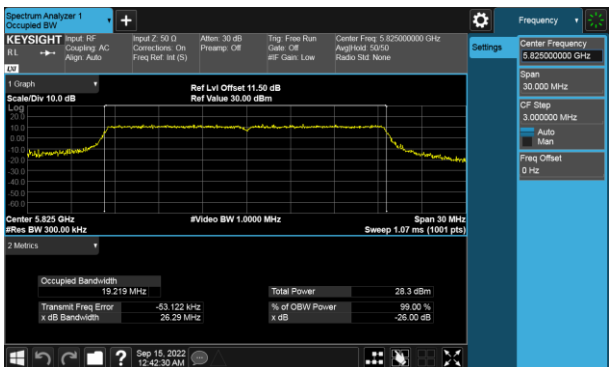
CH157



CH165



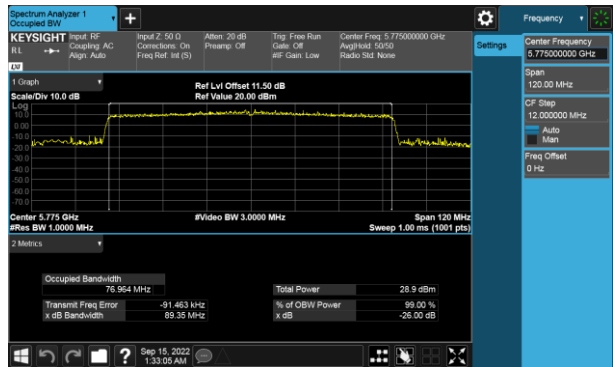
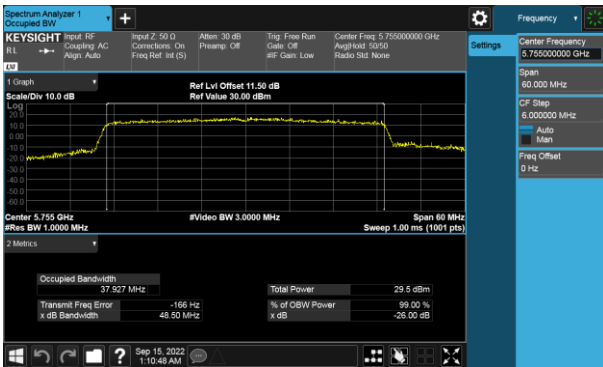
CH165



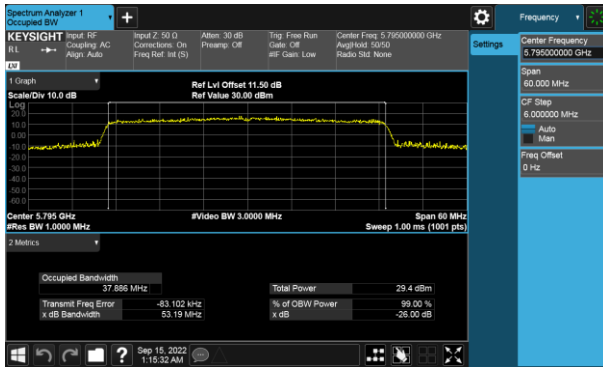


99% Occupied Bandwidth
Modulation Type: 802.11ax HE40 (14.6Mbps)
CH151

Modulation Type: 802.11ax HE80 (30.6Mbps)
CH155



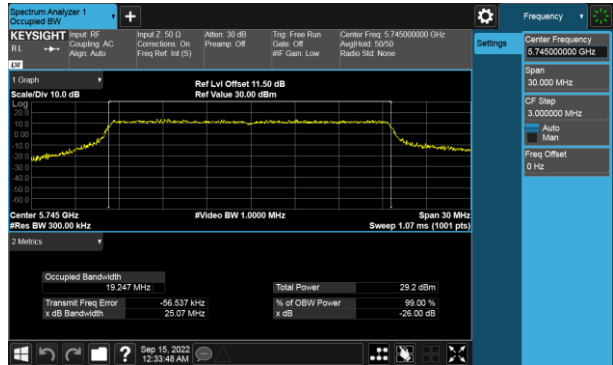
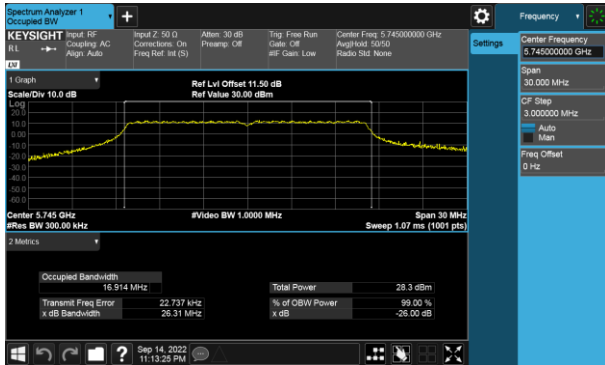
CH159



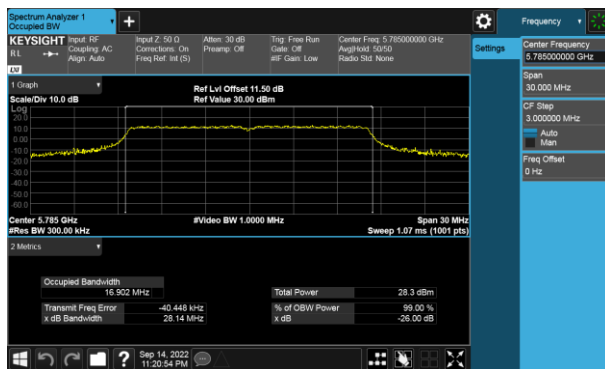


99% Occupied Bandwidth
Non BeamForming
ANT D
Modulation Type: 802.11a (6Mbps)
CH149

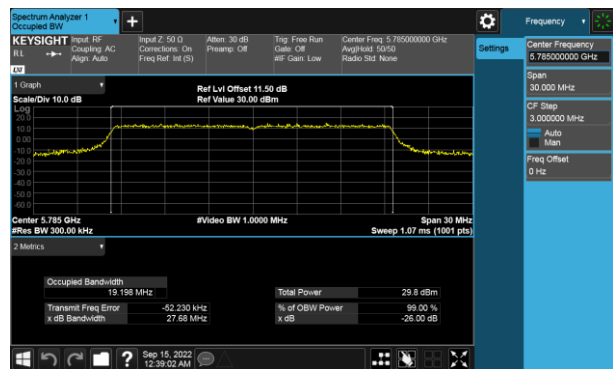
Modulation Type: 802.11ax HE20 (7.3Mbps)
CH149



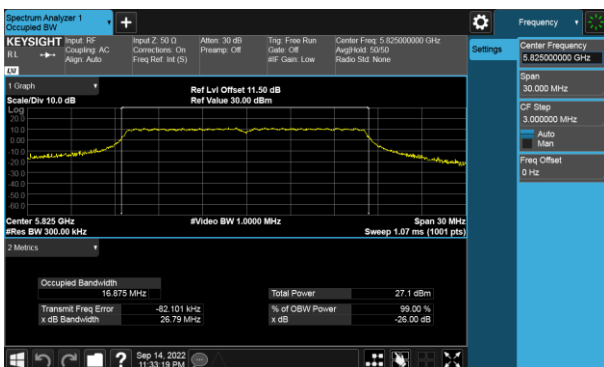
CH157



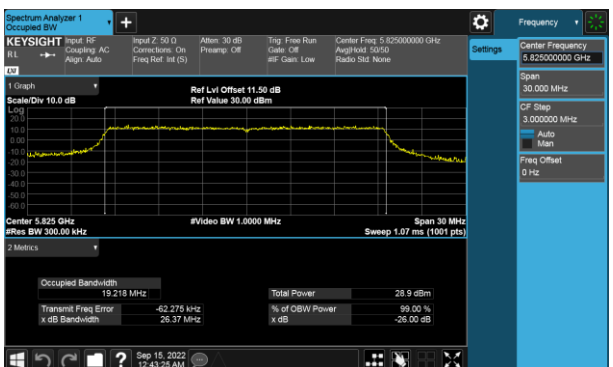
CH157



CH165



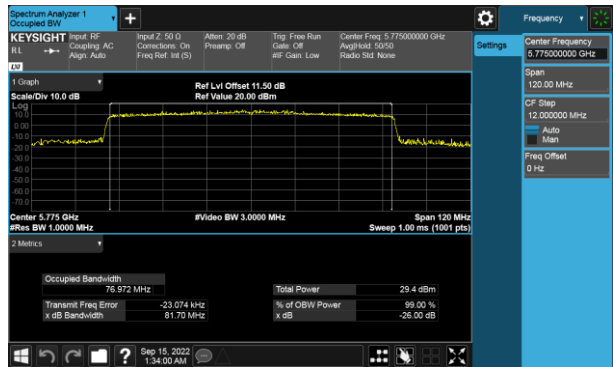
CH165





99% Occupied Bandwidth
Modulation Type: 802.11ax HE40 (14.6Mbps)
CH151

Modulation Type: 802.11ax HE80 (30.6Mbps)
CH155



CH159





6dB Bandwidth

BeamForming

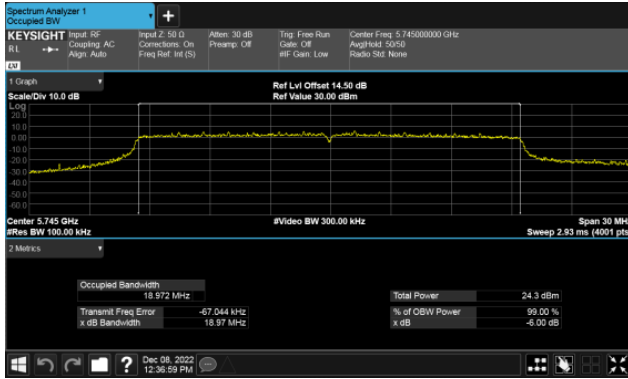
ANT A

Modulation Type: 802.11ax HE20 (7.3Mbps)

CH149

Modulation Type: 802.11ax HE40 (14.6Mbps)

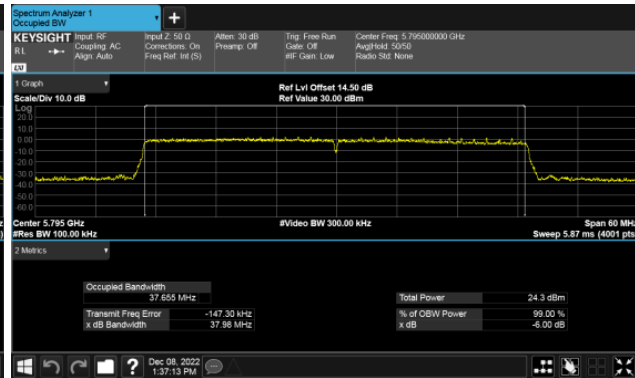
CH151



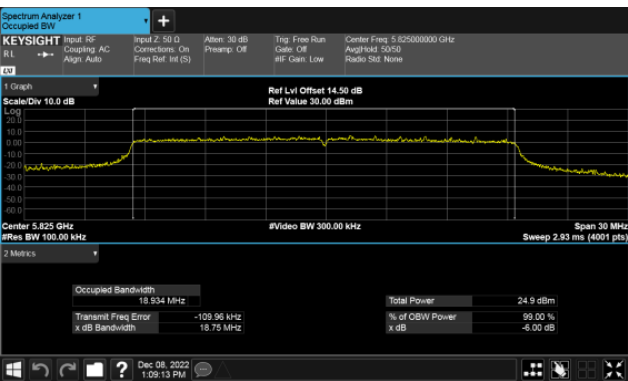
CH157



CH159



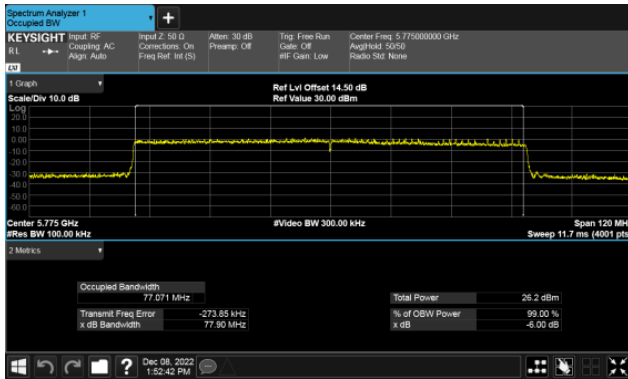
CH165





6dB Bandwidth

Modulation Type: 802.11ax HE80 (30.6Mbps)
CH155





6dB Bandwidth

BeamForming

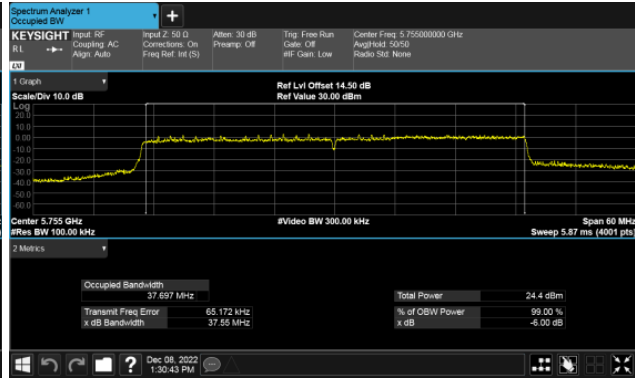
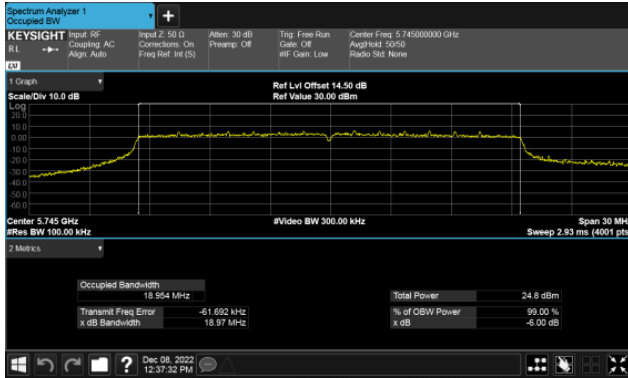
ANT B

Modulation Type: 802.11ax HE20 (7.3Mbps)

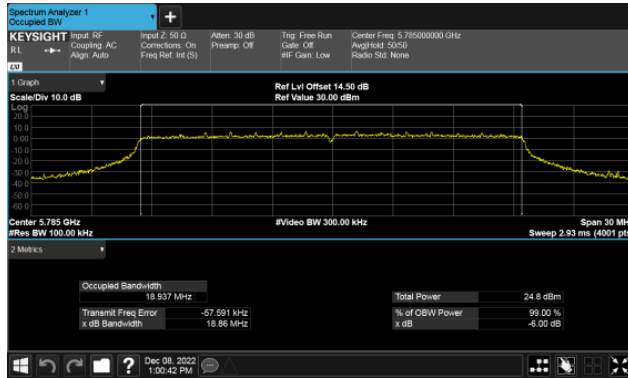
CH149

Modulation Type: 802.11ax HE40 (14.6Mbps)

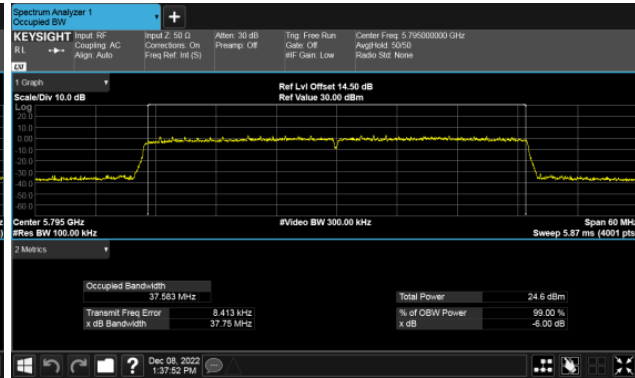
CH151



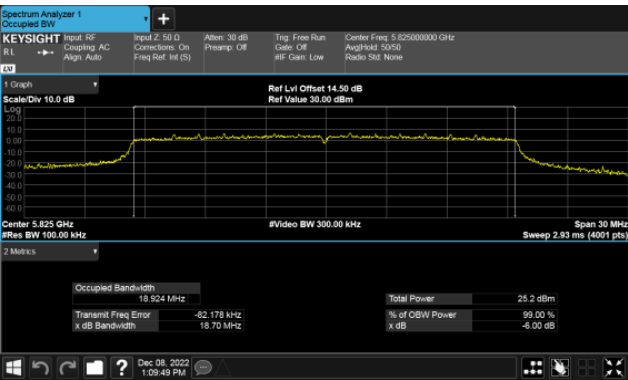
CH157



CH159



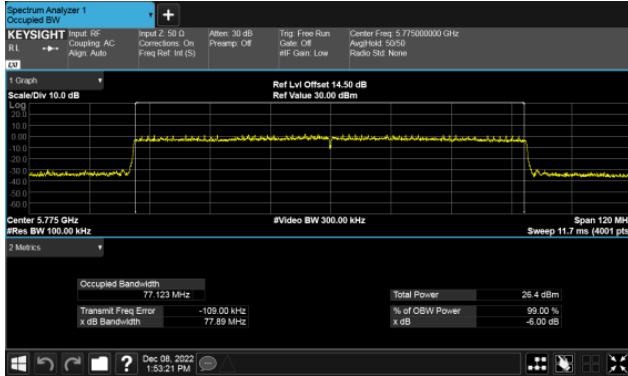
CH165





6dB Bandwidth

Modulation Type: 802.11ax HE80 (30.6Mbps)
CH155





6dB Bandwidth

BeamForming

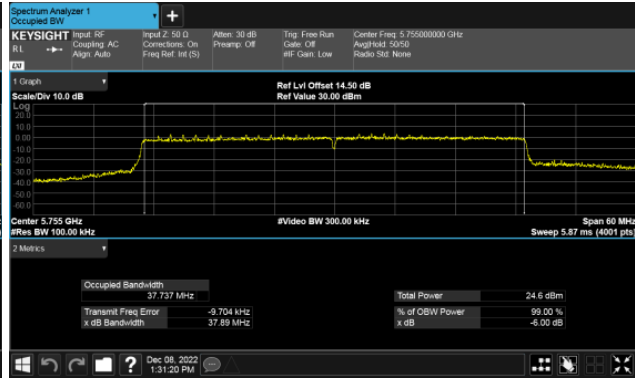
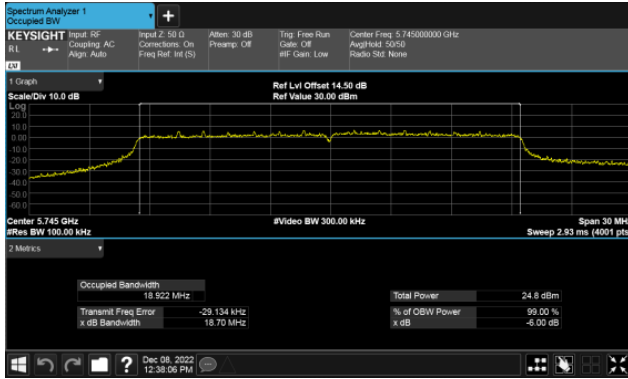
ANT C

Modulation Type: 802.11ax HE20 (7.3Mbps)

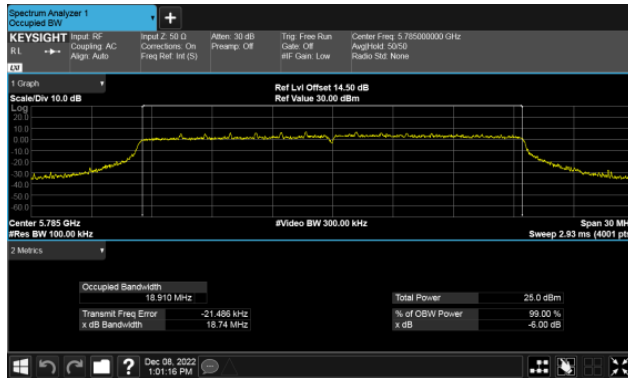
CH149

Modulation Type: 802.11ax HE40 (14.6Mbps)

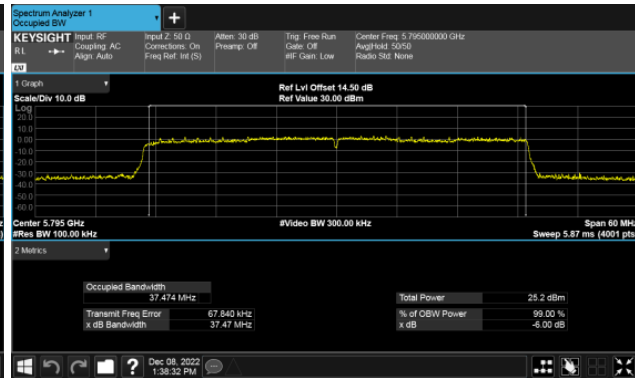
CH151



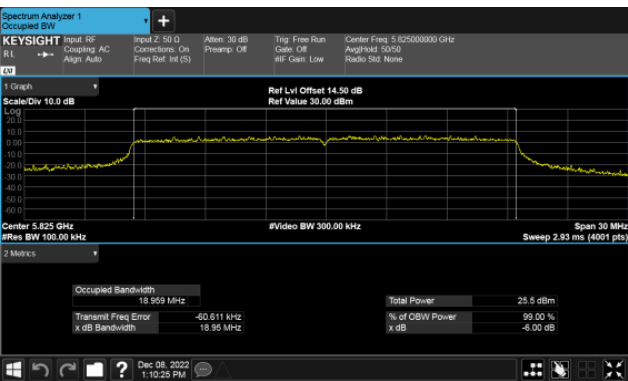
CH157



CH159



CH165





6dB Bandwidth

Modulation Type: 802.11ax HE80 (30.6Mbps)
CH155

