

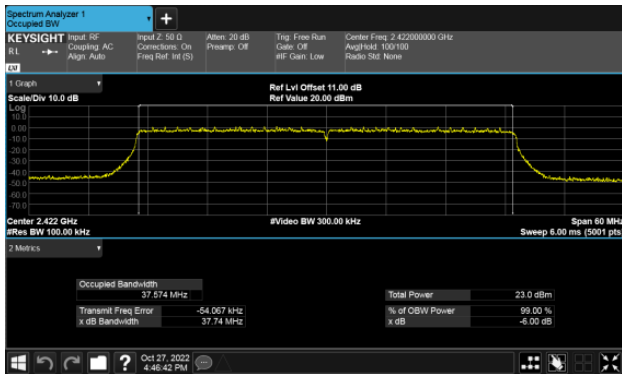


Non BeamForming

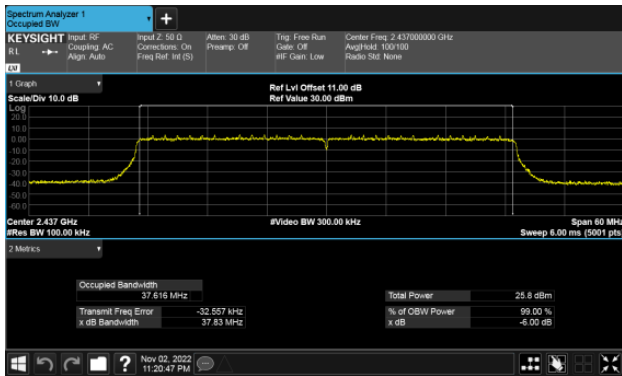
ANT B

Modulation Type: 802.11ax HE40

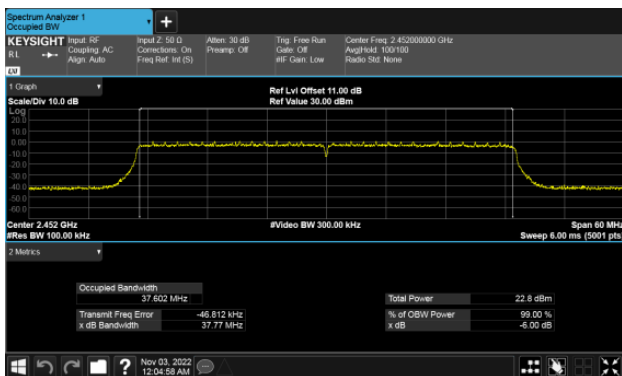
CH03



CH06

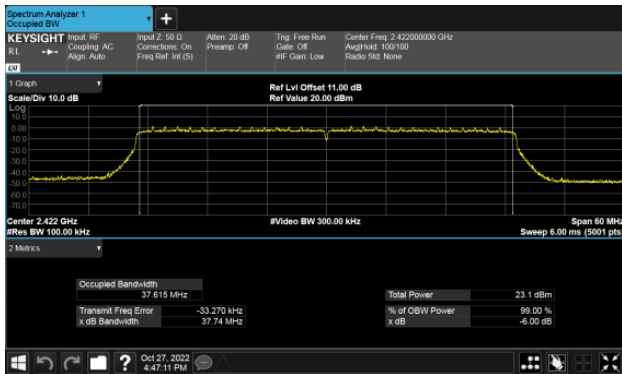


CH09

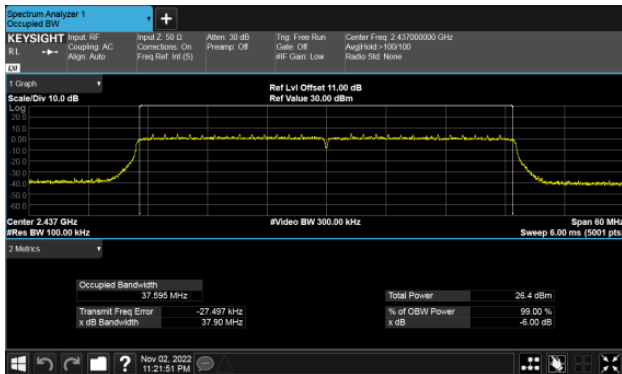




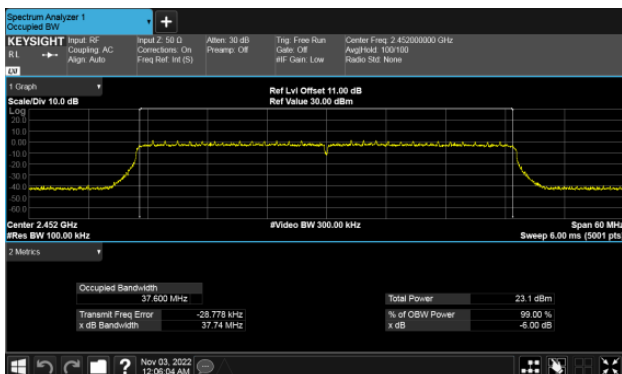
Non BeamForming
ANT C
Modulation Type: 802.11ax HE40
CH03



CH06



CH09



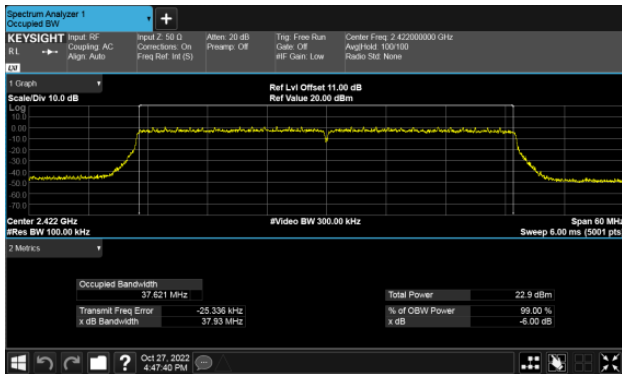


Non BeamForming

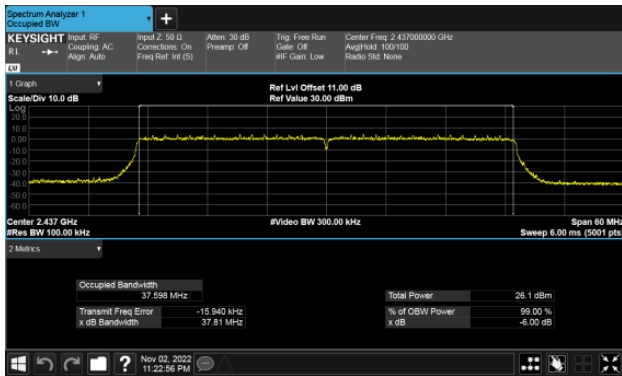
ANT D

Modulation Type: 802.11ax HE40

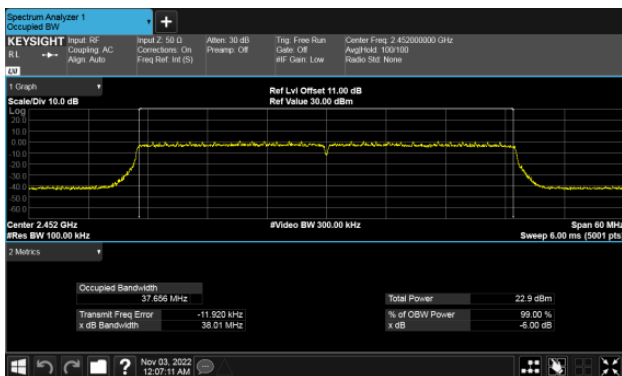
CH03



CH06



CH09



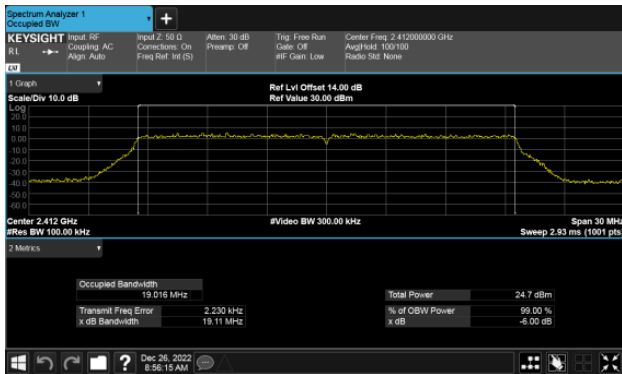


BeamForming

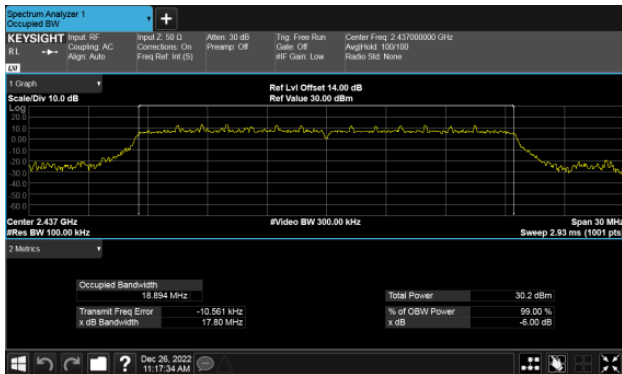
ANT A

Modulation Type: 802.11ax HE20

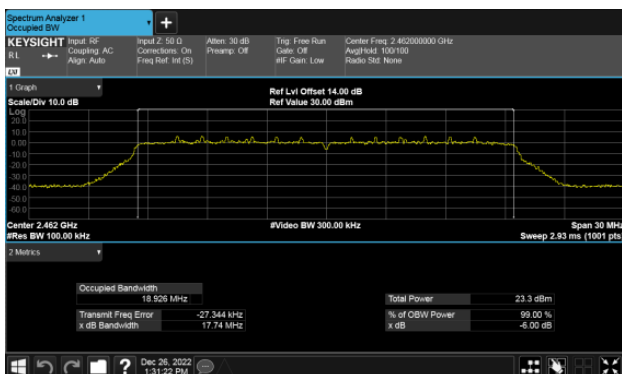
CH01



CH06



CH11



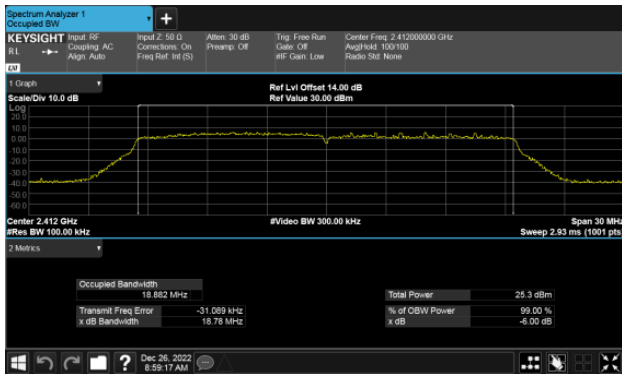


BeamForming

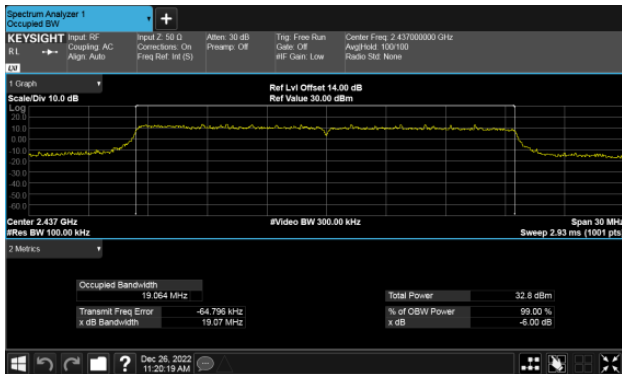
ANT B

Modulation Type: 802.11ax HE20

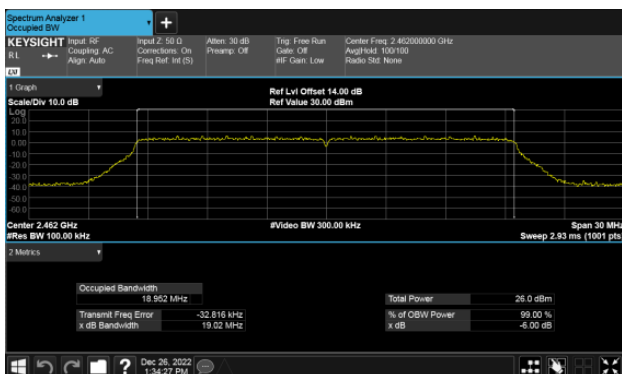
CH01



CH06

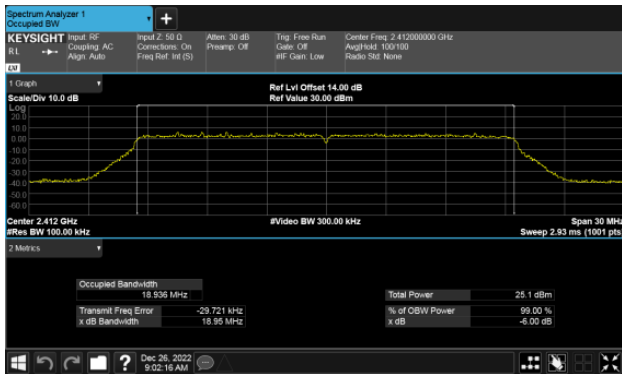


CH11

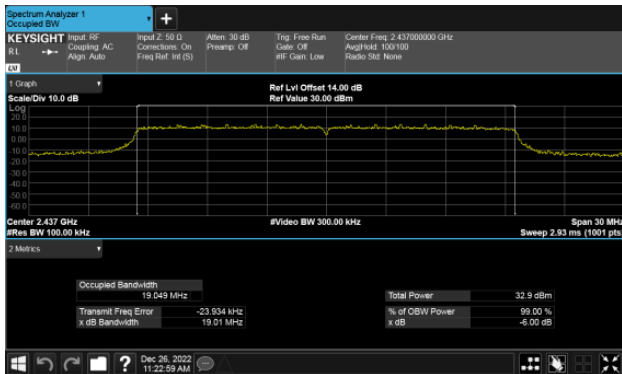




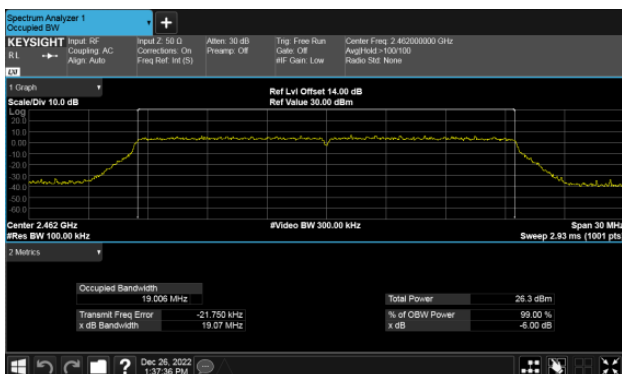
BeamForming
ANT C
Modulation Type: 802.11ax HE20
CH01



CH06



CH11



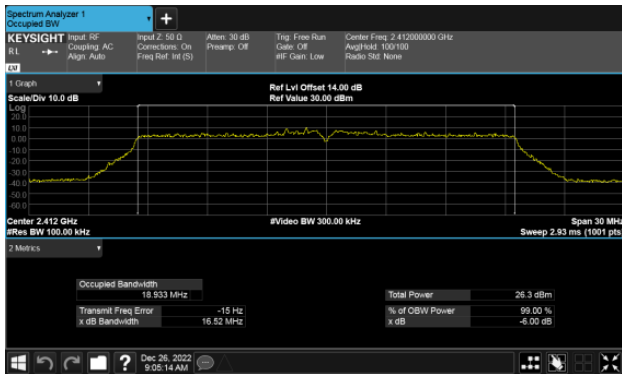


BeamForming

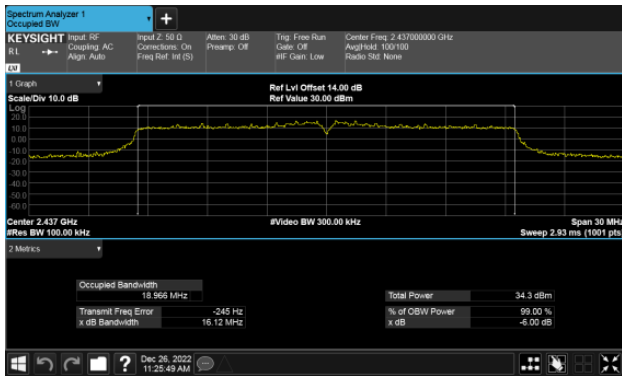
ANT D

Modulation Type: 802.11ax HE20

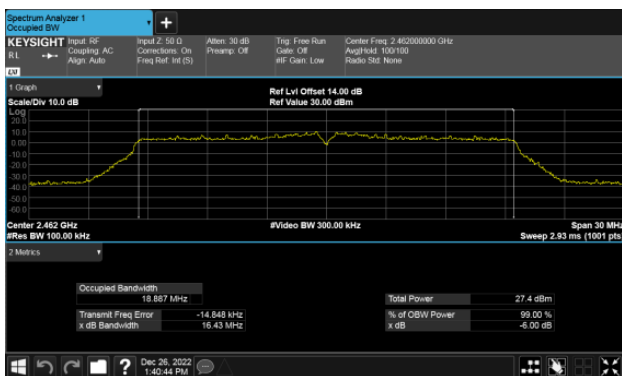
CH01



CH06



CH11



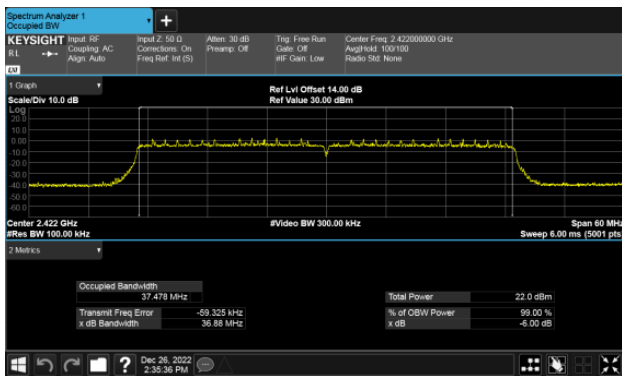


BeamForming

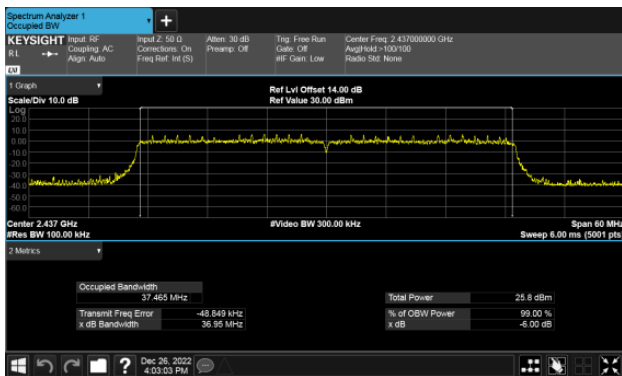
ANT A

Modulation Type: 802.11ax HE40

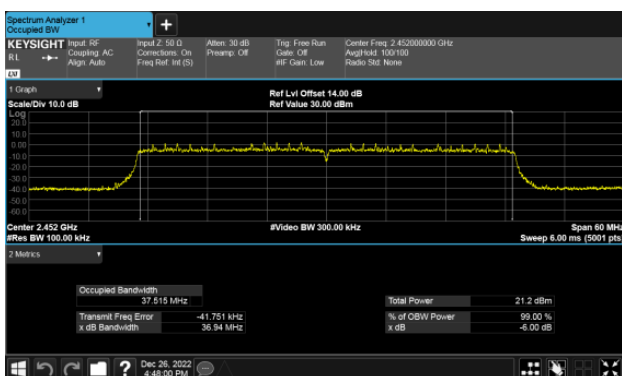
CH03



CH06



CH09



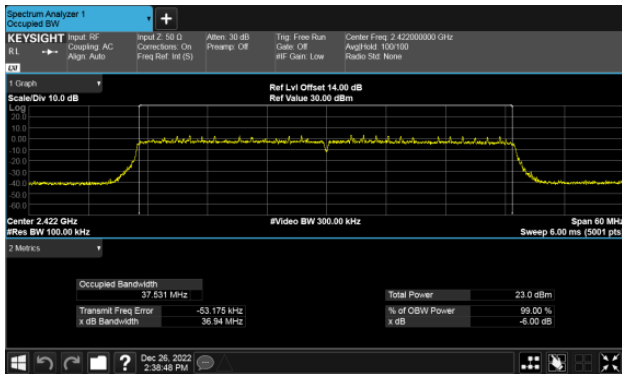


BeamForming

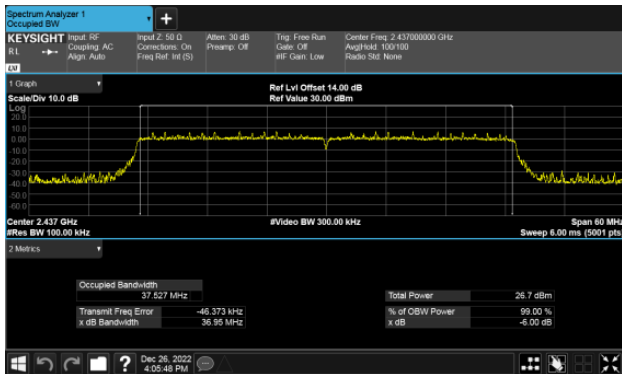
ANT B

Modulation Type: 802.11ax HE40

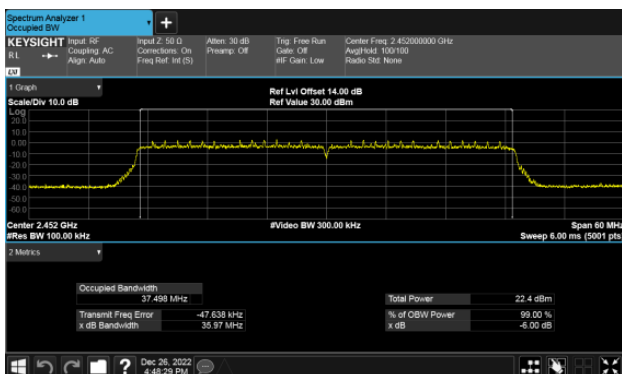
CH03



CH06



CH09



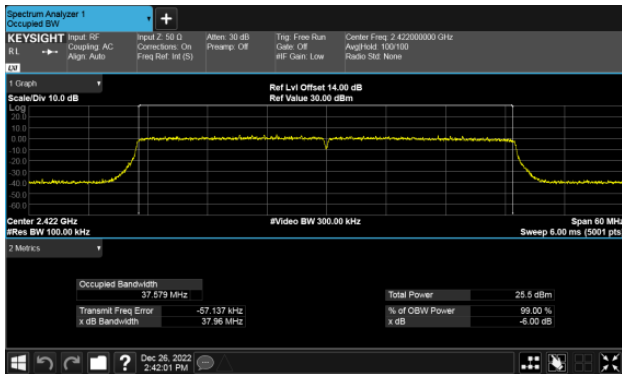


BeamForming

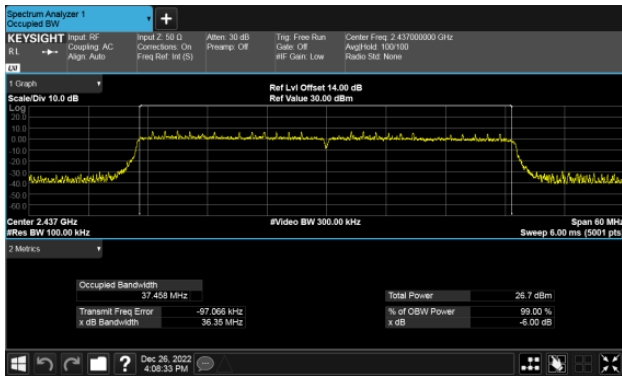
ANT C

Modulation Type: 802.11ax HE40

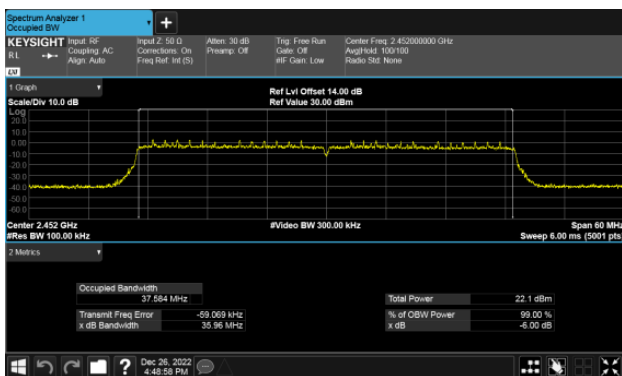
CH03



CH06

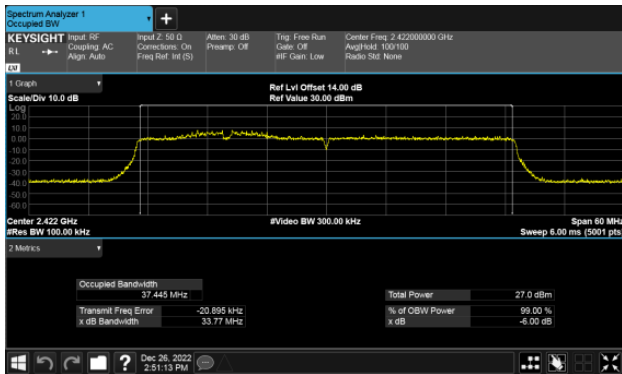


CH09

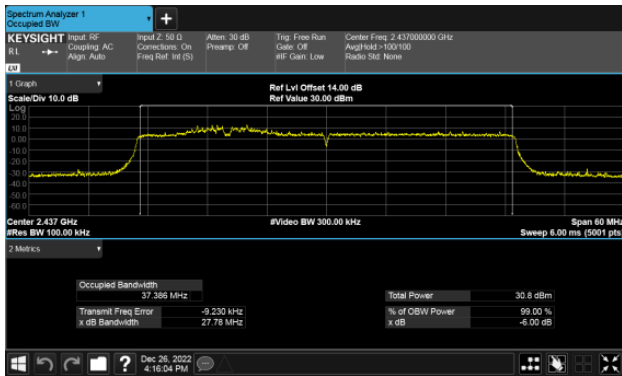




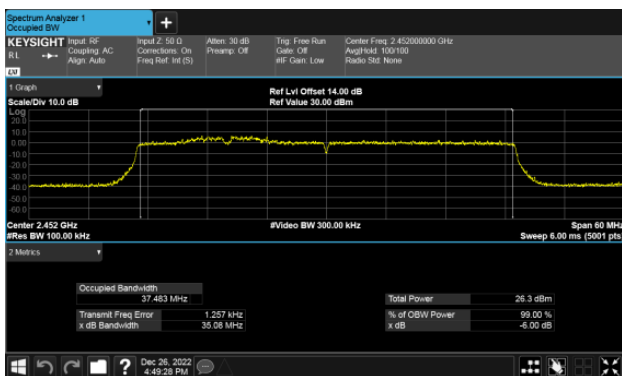
BeamForming
ANT D
Modulation Type: 802.11ax HE40
CH03



CH06



CH09





10. Maximum Average Output Power

10.1 Test Limit

The Maximum Average Output Power Measurement is 30dBm.

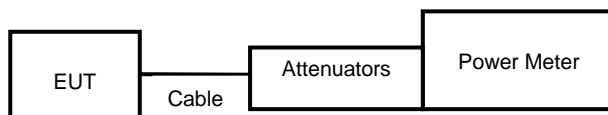
If transmitting antennas of directional gain greater than 6 dBi are used, the average output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi

10.2 Test Procedures

According to the methods defined in ANSI C63.10-2013 Section 11.9.2.3.2

The antenna port (RF output) of the EUT was connected to the input (RF input) of a power meter. Power was read directly from the meter and cable loss connection was added to the reading to obtain power at the EUT antenna terminal. The EUT Output Power was set to maximum to produce the worse case test result.

10.3 Test Setup Layout





10.4 Test Result and Data

Non Beamforming

Setting	Modulation Mode	Channel	Frequency (MHz)	Conducted(average) output power (dBm)				Total AV power (dBm)	Total AV power (mW)	Power Limit (dBm)
				ANT A	ANT B	ANT C	ANT D			
94	11b	1	2412	22.75	23.03	23.43	23.23	29.14	819.945	30.00
97		6	2437	23.72	23.91	24.27	23.79	29.95	988.174	30.00
97		11	2462	23.68	23.76	24.07	23.62	29.81	956.444	30.00
84	11g	1	2412	20.13	21.84	21.02	20.03	26.84	482.962	30.00
98		6	2437	23.41	24.09	24.55	23.62	29.96	990.975	30.00
86		11	2462	20.07	20.76	20.71	20.20	26.47	443.223	30.00
77	11ax HE20	1	2412	18.14	19.11	18.32	18.06	24.45	278.527	30.00
94		6	2437	24.12	23.48	23.85	24.13	29.92	982.552	30.00
80		11	2462	18.56	19.61	19.49	18.54	25.10	323.560	30.00
69	11ax HE40	3	2422	16.07	17.14	17.15	16.43	22.74	188.052	30.00
81		6	2437	19.21	19.97	20.03	19.62	25.74	374.995	30.00
71		9	2452	16.37	17.13	17.41	16.74	22.95	197.280	30.00

Beamforming

Setting	Modulation Mode	Channel	Frequency (MHz)	Conducted(average) output power (dBm)				Total AV power (dBm)	Total AV power (mW)	Power Limit (dBm)
				ANT A	ANT B	ANT C	ANT D			
69	11ax HE20	1	2412	16.45	17.21	15.55	17.21	22.68	185.253	30.00
96		6	2437	22.95	23.88	23.91	24.09	29.75	944.070	30.00
75		11	2462	17.32	18.11	18.14	18.30	24.00	251.436	30.00
70	11ax HE40	3	2422	16.53	17.63	17.48	17.47	23.32	214.744	30.00
86		6	2437	20.53	21.58	21.36	21.25	27.22	526.984	30.00
69		9	2452	16.06	17.17	17.08	16.94	22.85	192.966	30.00



11. Power Spectral Density

11.1 Test Limit

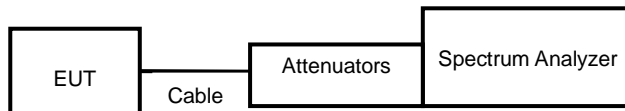
The Maximum of Power Spectral Density Measurement is 8dBm.

If transmitting antennas of directional gain greater than 6 dBi are used, the power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi

11.2 Test Procedures

According to the methods defined in ANSI C63.10-2013 Section 11.10

11.3 Test Setup Layout





11.4 Test Result and Data

Non Beamforming

Modulation Type	Channel	Frequency (MHz)	Maximum Power Density of 3KHz Bandwidth(dBm)				Sum chain (dBm)	Duty Cycle CF(dB)	Total PSD (dBm)	Limit (dBm)
			ANT A	ANT B	ANT C	ANT D				
11b	1	2412	-7.768	-7.817	-7.159	-7.452	-1.52	0.21	-1.31	8.00
	6	2437	-6.907	-6.954	-6.430	-6.362	-0.63	0.21	-0.42	8.00
	11	2462	-6.991	-7.017	-6.459	-6.907	-0.82	0.21	-0.61	8.00
11g	1	2412	-14.498	-13.655	-13.302	-13.300	-7.64	0.20	-7.44	8.00
	6	2437	-10.619	-10.062	-9.356	-10.680	-4.13	0.20	-3.93	8.00
	11	2462	-14.451	-13.582	-13.227	-13.369	-7.61	0.20	-7.41	8.00
11ax HE20	1	2412	-17.114	-14.763	-14.868	-13.843	-8.97	0.00	-8.97	8.00
	6	2437	-11.595	-10.830	-10.448	-10.718	-4.86	0.00	-4.86	8.00
	11	2462	-14.898	-14.068	-14.734	-14.459	-8.51	0.00	-8.51	8.00

Modulation Type	Channel	Frequency (MHz)	Maximum Power Density of 100KHz Bandwidth(dBm)				Sum chain (dBm)	Duty Cycle CF(dB)	Total PSD (dBm)	Limit (dBm)
			ANT A	ANT B	ANT C	ANT D				
11ax HE40	3	2422	-8.328	-7.136	-7.123	-7.439	-1.46	0.15	-1.31	8.00
	6	2437	-5.023	-4.164	-4.610	-4.869	1.37	0.15	1.52	8.00
	9	2452	-7.940	-7.095	-6.881	-7.155	-1.23	0.15	-1.08	8.00

Beamforming

Modulation Type	Channel	Frequency (MHz)	Maximum Power Density of 3KHz Bandwidth(dBm)				Sum chain (dBm)	Duty Cycle CF(dB)	Total PSD (dBm)	Limit (dBm)
			ANT A	ANT B	ANT C	ANT D				
11ax HE20	1	2412	-19.271	-18.377	-17.345	-18.124	-12.20	0.19	-12.01	8.00
	6	2437	-15.621	-15.016	-14.448	-11.481	-7.80	0.19	-7.61	8.00
	11	2462	-21.321	-16.671	-17.084	-16.983	-11.64	0.19	-11.45	8.00

Modulation Type	Channel	Frequency (MHz)	Maximum Power Density of 100KHz Bandwidth(dBm)				Sum chain (dBm)	Duty Cycle CF(dB)	Total PSD (dBm)	Limit (dBm)
			ANT A	ANT B	ANT C	ANT D				
11ax HE40	3	2422	-11.118	-9.867	-7.118	-7.326	-2.52	0.16	-2.36	8.00
	6	2437	-7.925	-6.533	-5.953	-2.811	0.65	0.16	0.81	8.00
	9	2452	-11.184	-11.016	-10.918	-7.367	-3.77	0.16	-3.61	8.00

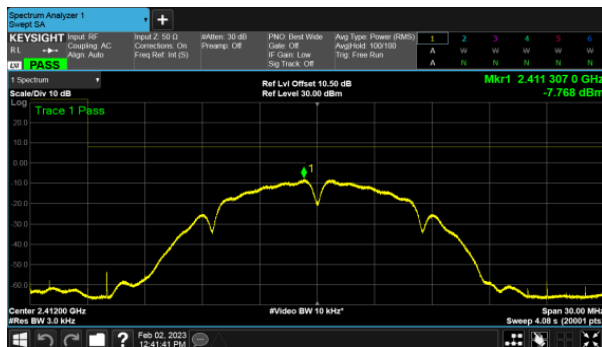


Non Beamforming

ANT A

Modulation Type: 802.11b

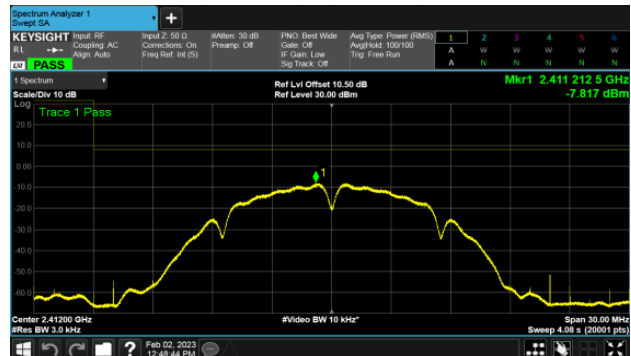
CH01



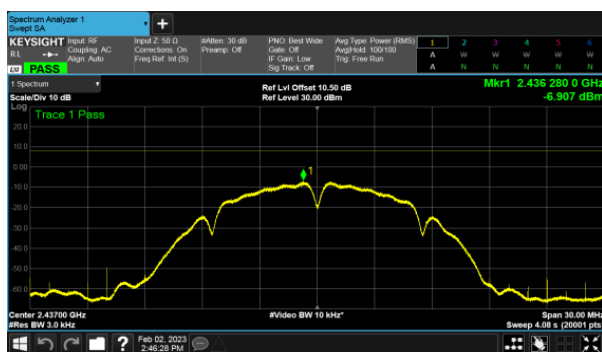
ANT B

Modulation Type: 802.11b

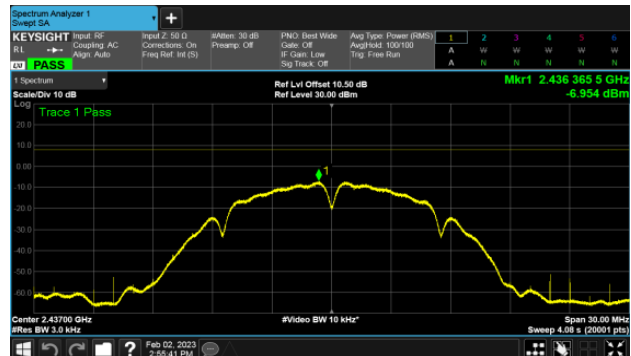
CH01



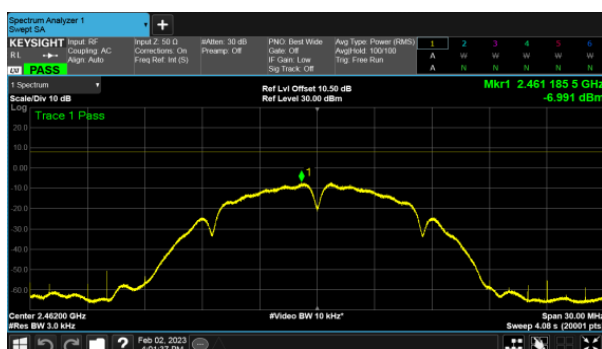
CH06



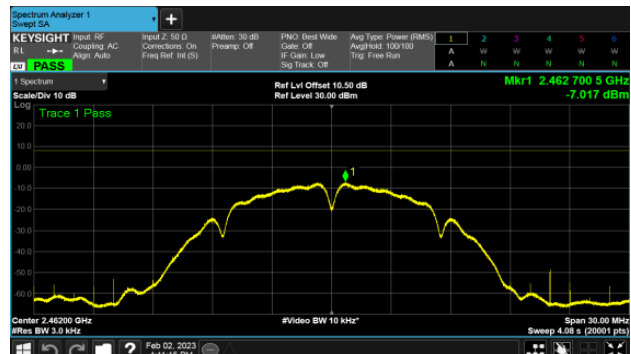
CH06



CH11

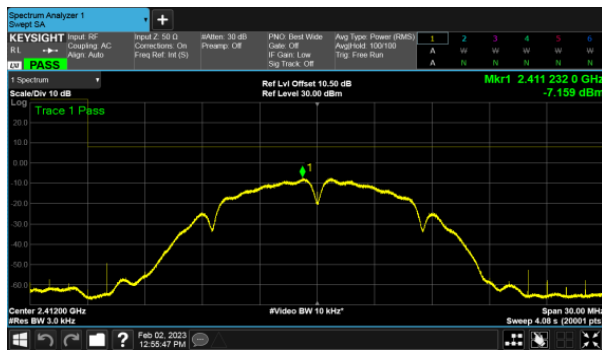


CH11

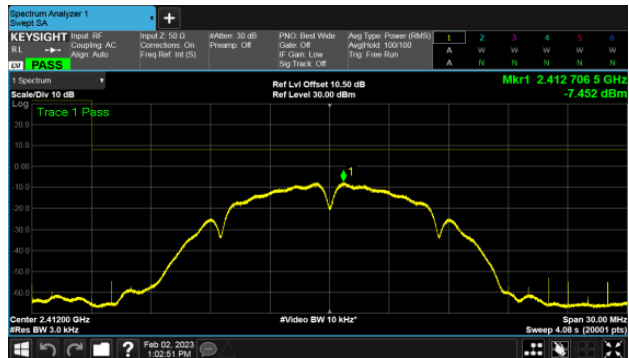




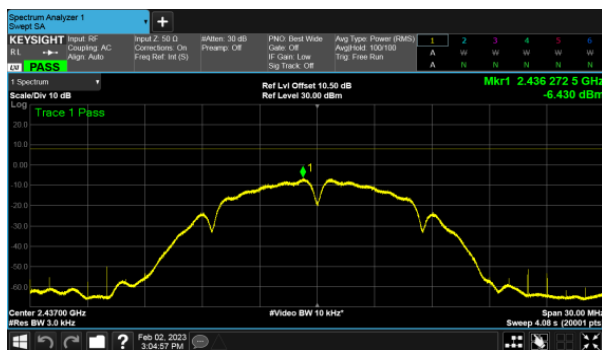
Non Beamforming
ANT C
Modulation Type: 802.11b
CH01



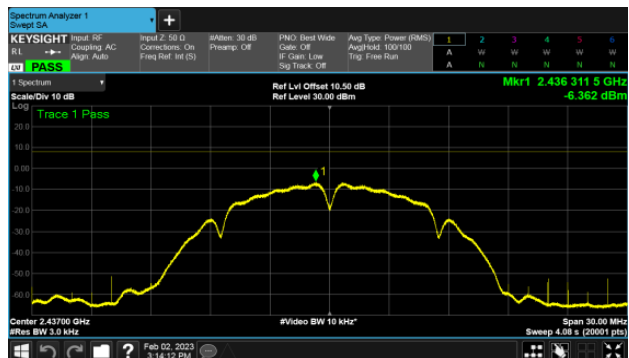
ANT D
Modulation Type: 802.11b
CH01



CH06



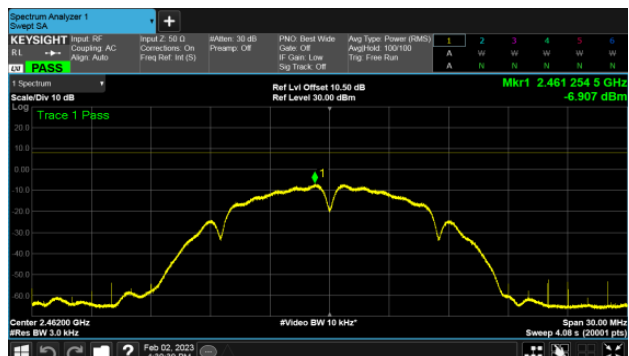
CH06



CH11



CH11



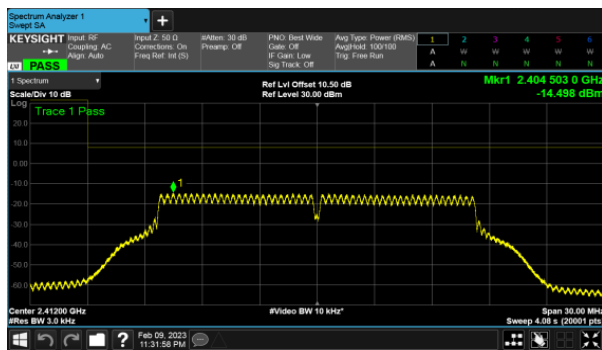


Non Beamforming

ANT A

Modulation Type: 802.11g

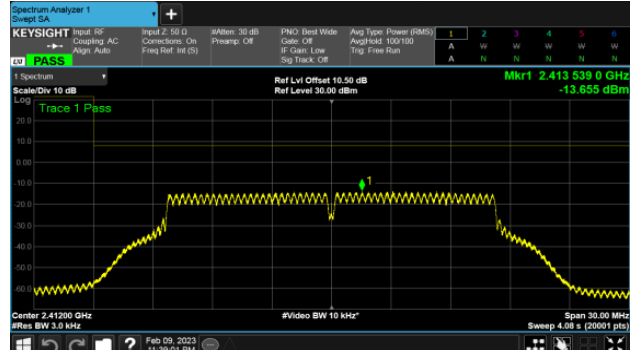
CH01



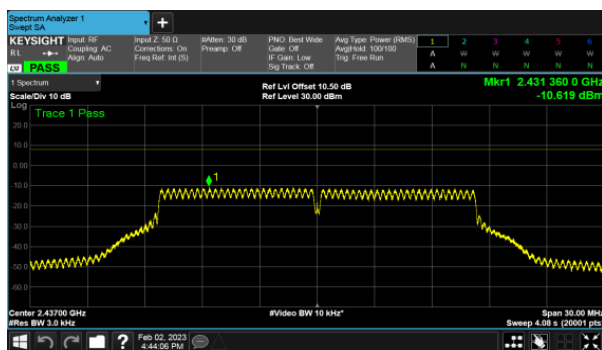
ANT B

Modulation Type: 802.11g

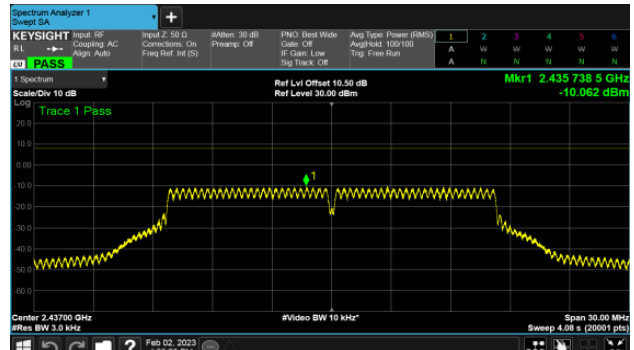
CH01



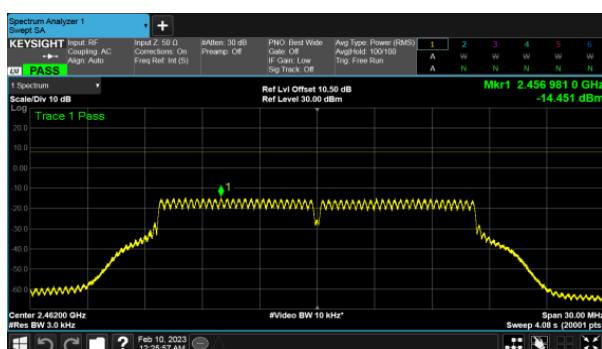
CH06



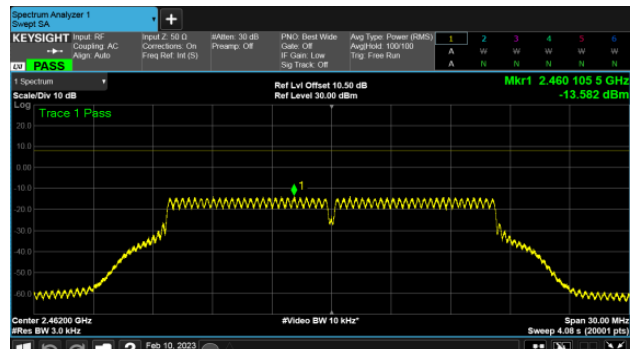
CH06



CH11

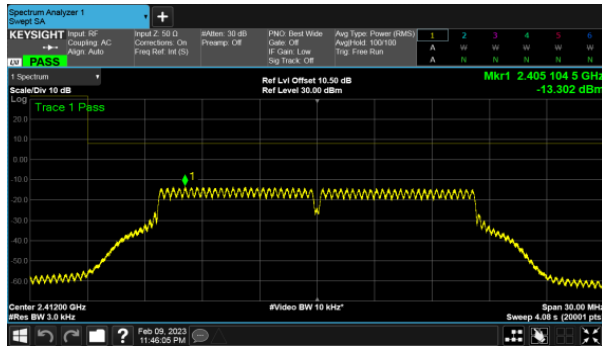


CH11

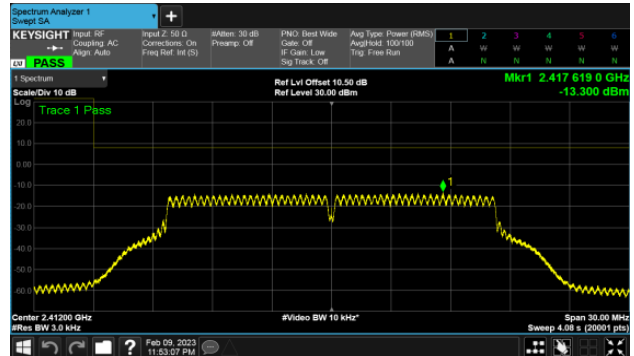




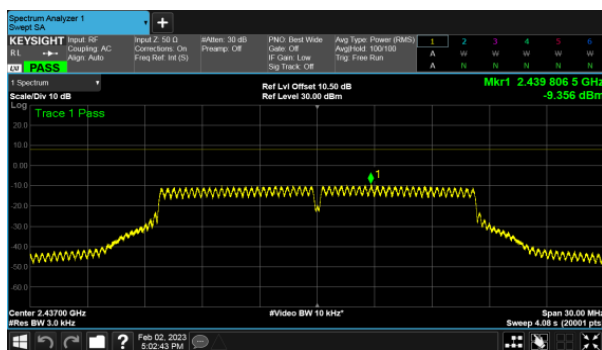
Non Beamforming
ANT C
Modulation Type: 802.11g
CH01



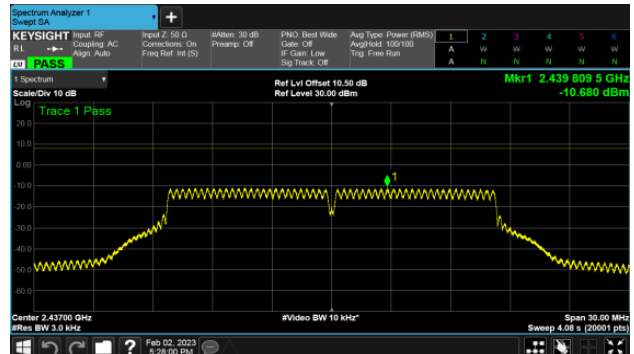
ANT D
Modulation Type: 802.11g
CH01



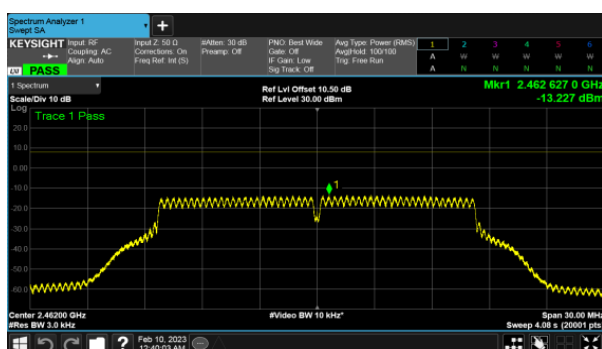
CH06



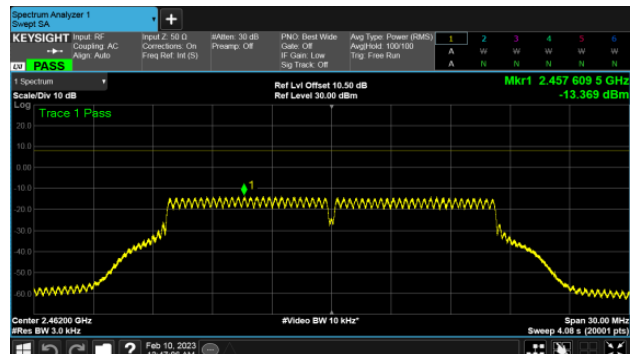
CH06



CH11



CH11



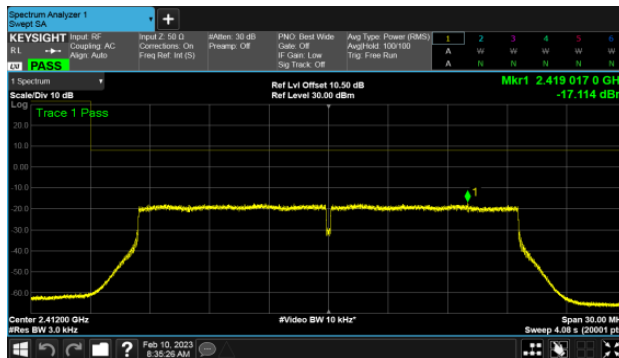


Non Beamforming

ANT A

Modulation Type: 802.11ax HE20

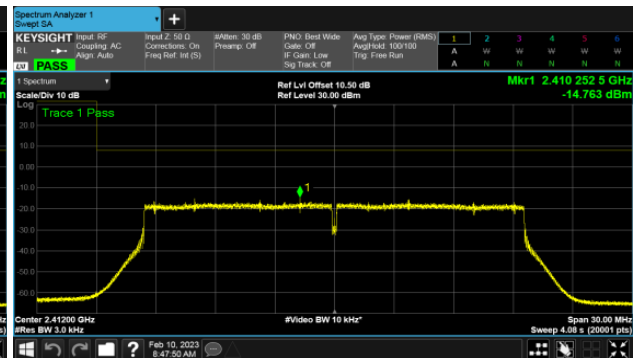
CH01



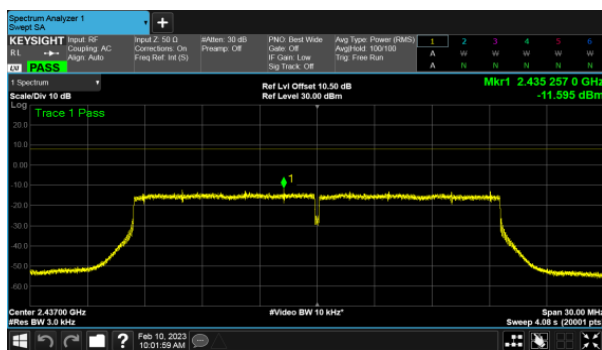
ANT B

Modulation Type: 802.11ax HE20

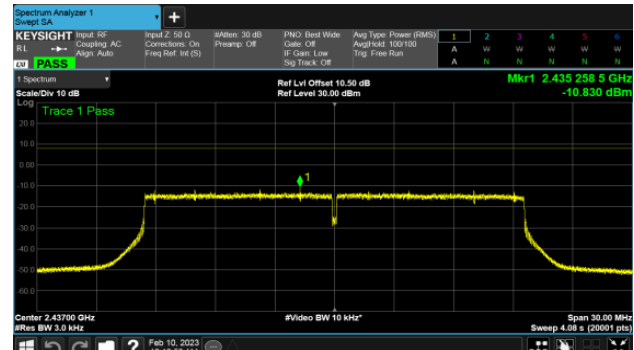
CH01



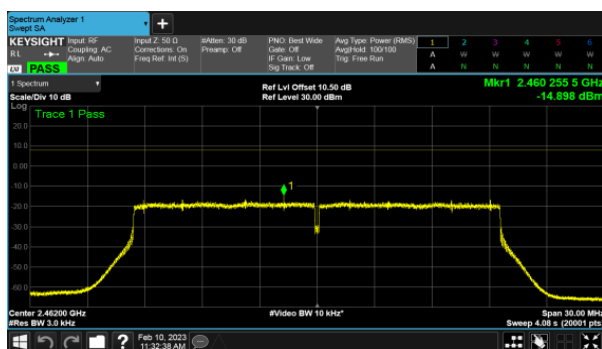
CH06



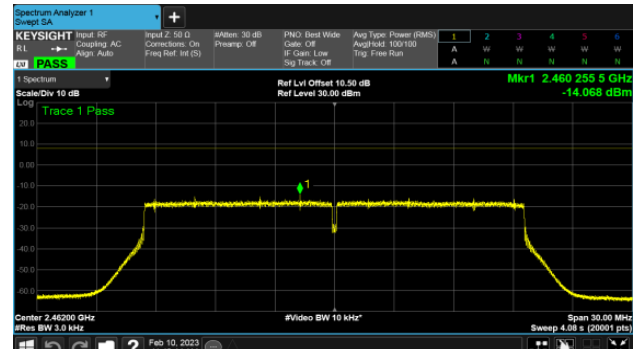
CH06



CH11



CH11



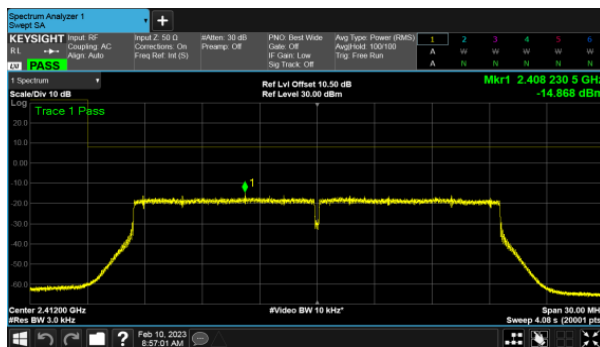


Non Beamforming

ANT C

Modulation Type: 802.11ax HE20

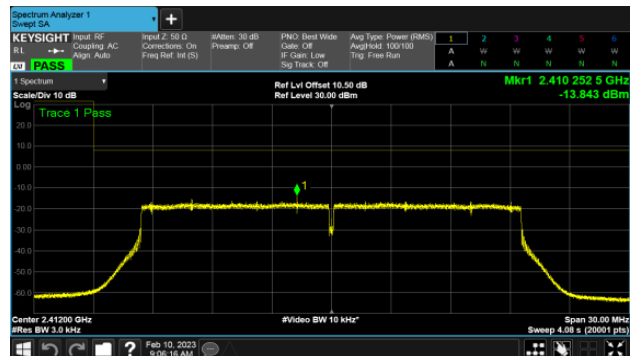
CH01



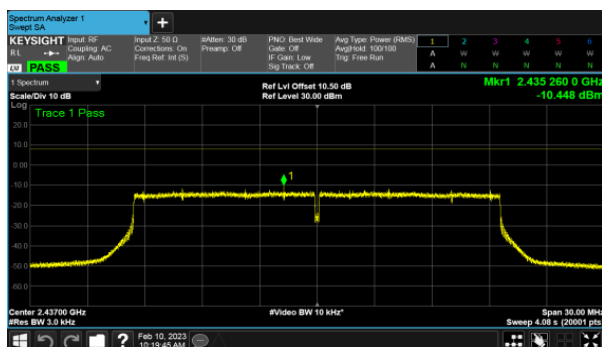
ANT D

Modulation Type: 802.11ax HE20

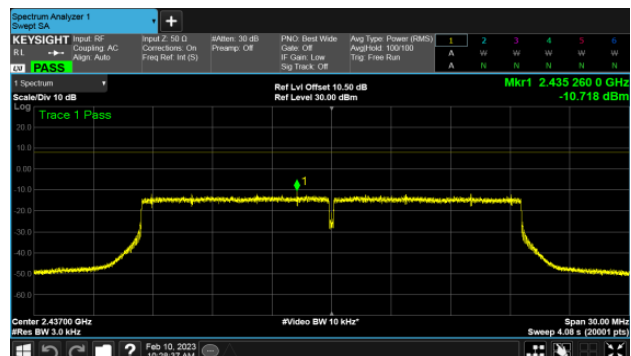
CH01



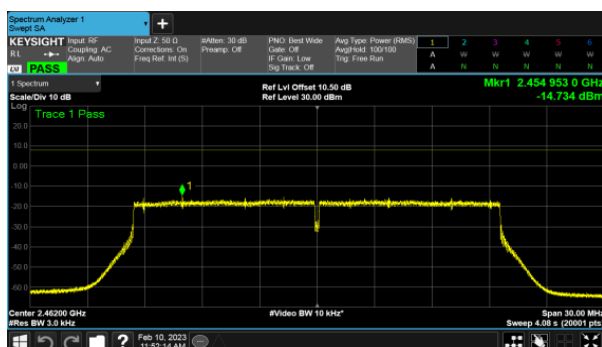
CH06



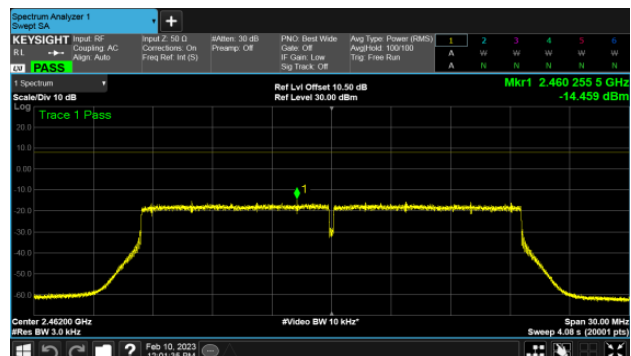
CH06



CH11



CH11



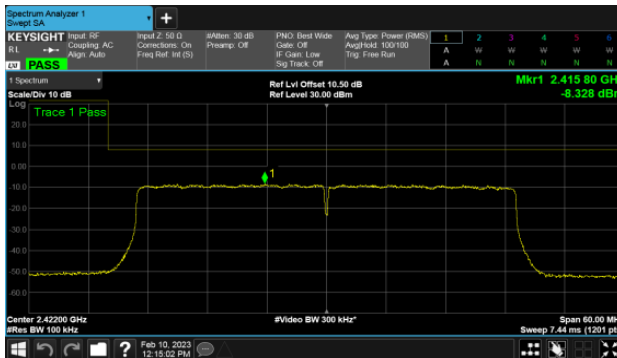


Non Beamforming

ANT A

Modulation Type: 802.11ax HE40

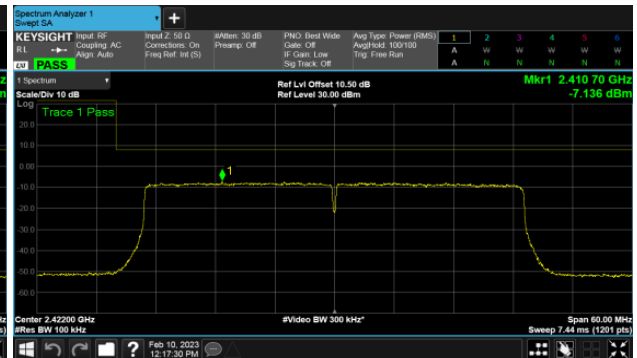
CH03



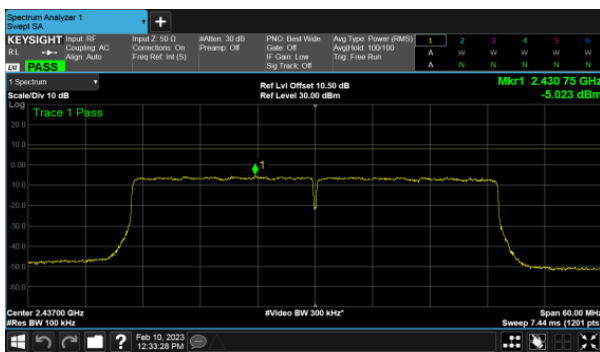
ANT B

Modulation Type: 802.11ax HE40

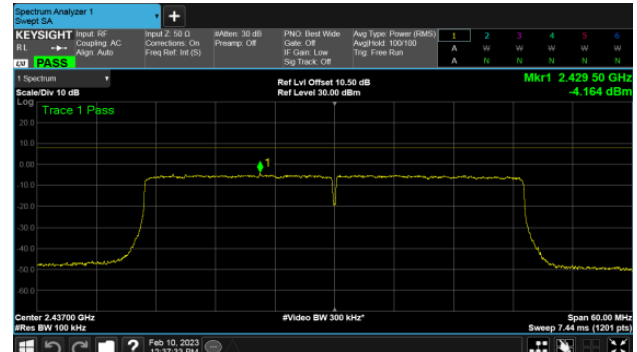
CH03



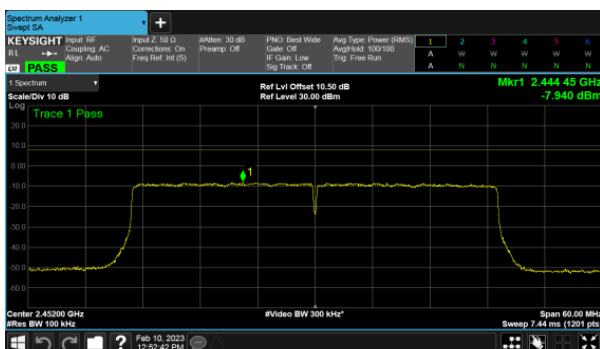
CH06



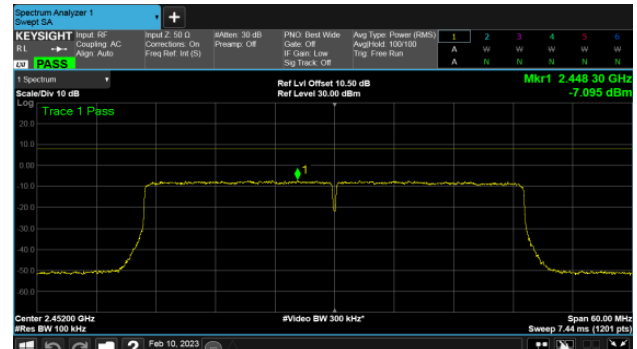
CH06



CH09



CH09



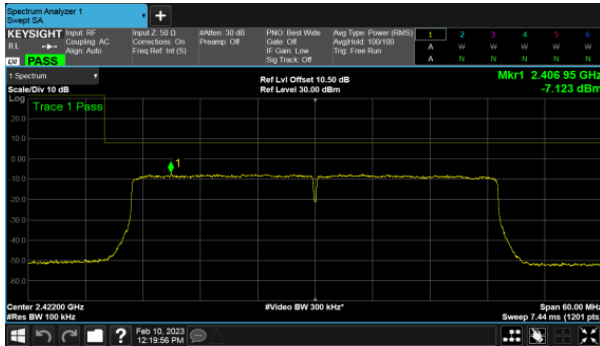


Non Beamforming

ANT C

Modulation Type: 802.11ax HE40

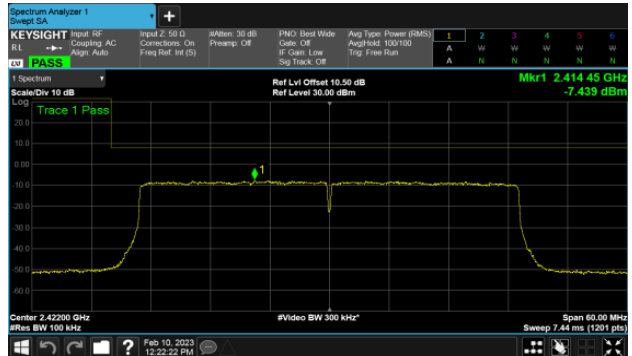
CH03



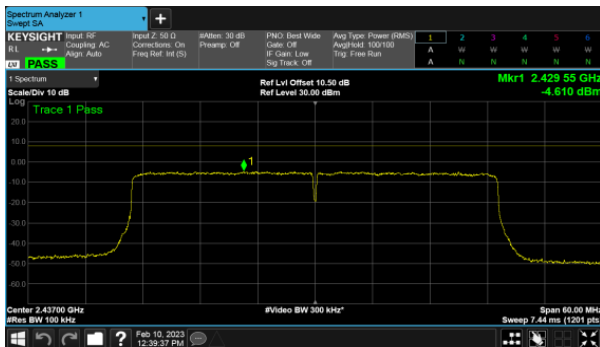
ANT D

Modulation Type: 802.11ax HE40

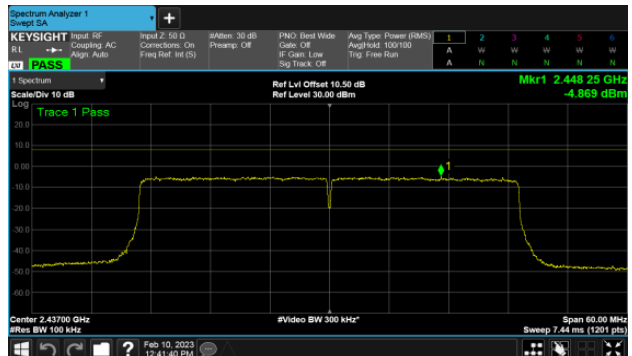
CH03



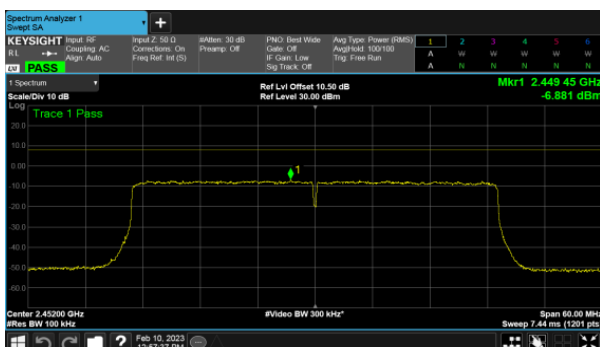
CH06



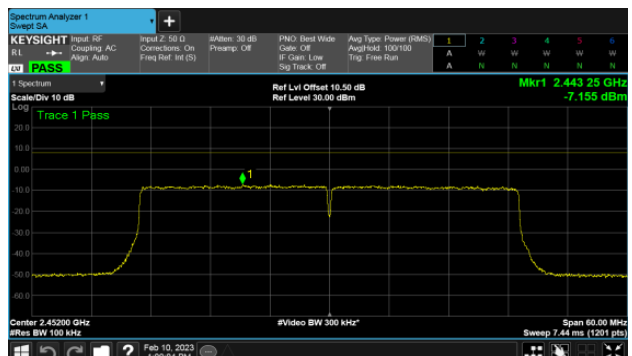
CH06



CH09



CH09



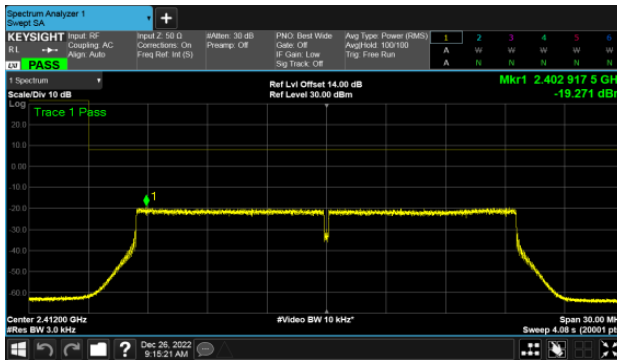


Beamforming

ANT A

Modulation Type: 802.11ax HE20

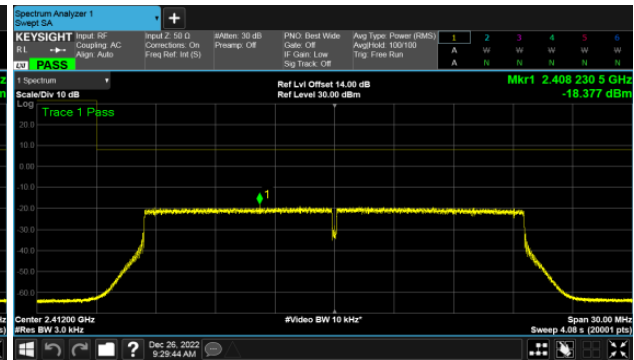
CH01



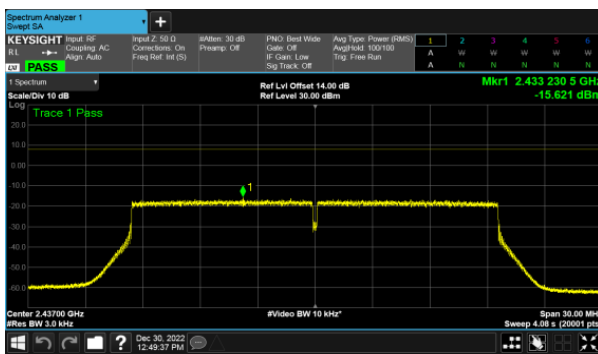
ANT B

Modulation Type: 802.11ax HE20

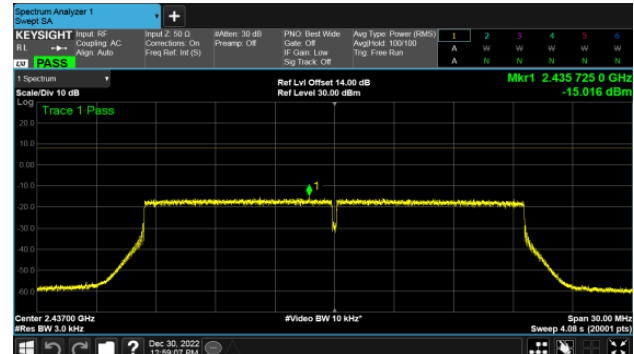
CH01



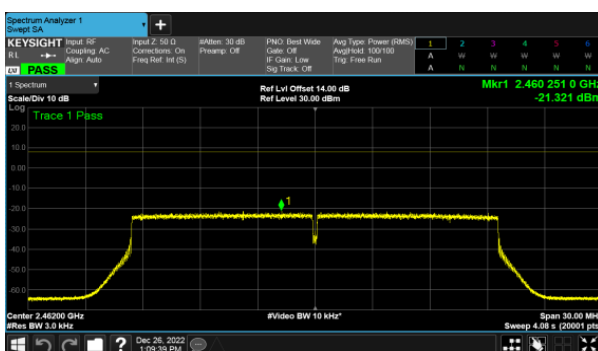
CH06



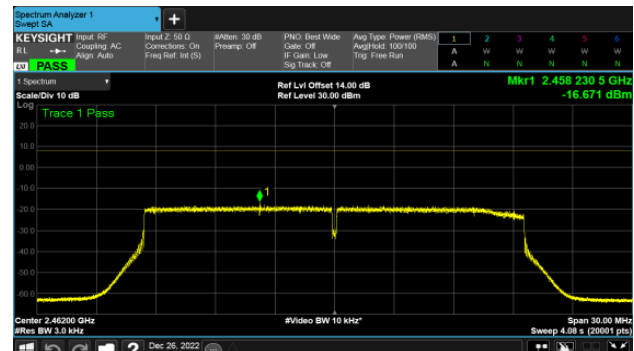
CH06



CH11



CH11



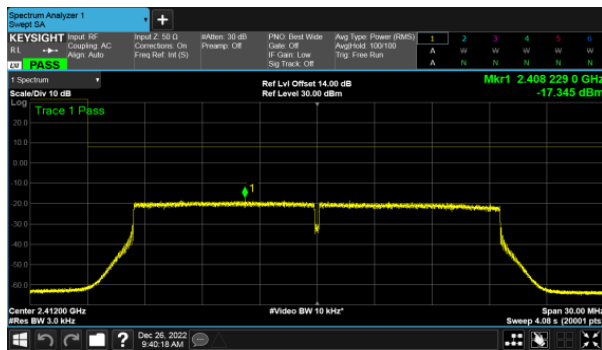


Beamforming

ANT C

Modulation Type: 802.11ax HE20

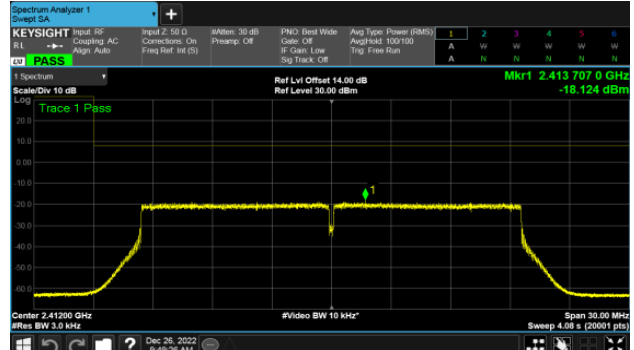
CH01



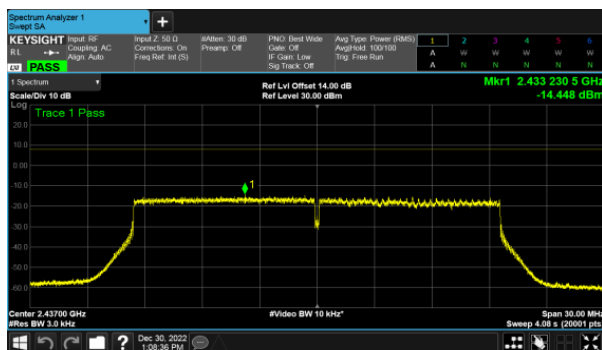
ANT D

Modulation Type: 802.11ax HE20

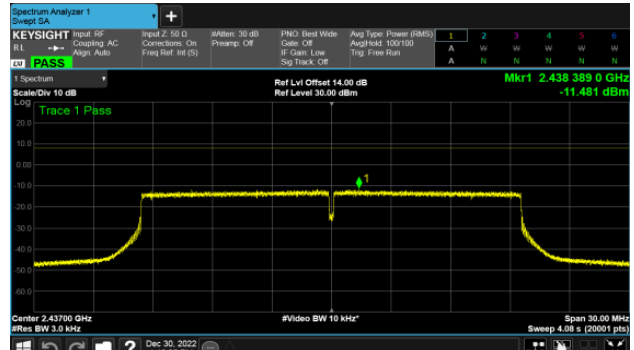
CH01



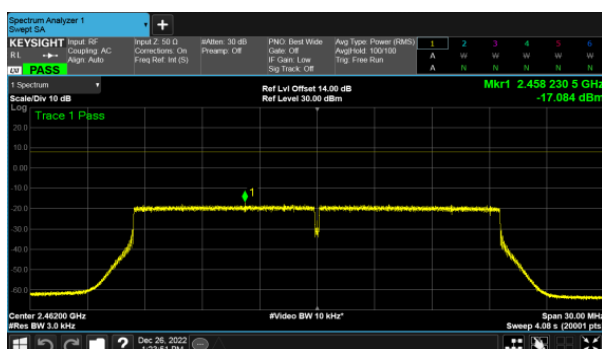
CH06



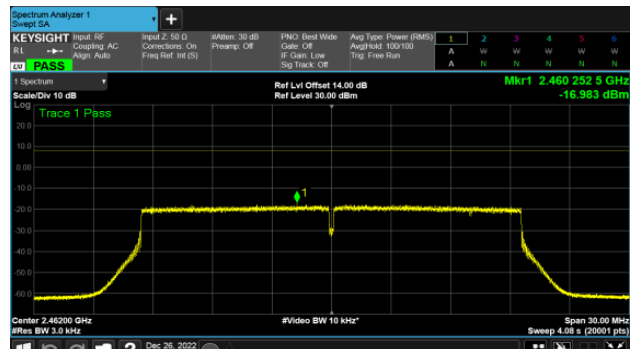
CH06



CH11



CH11



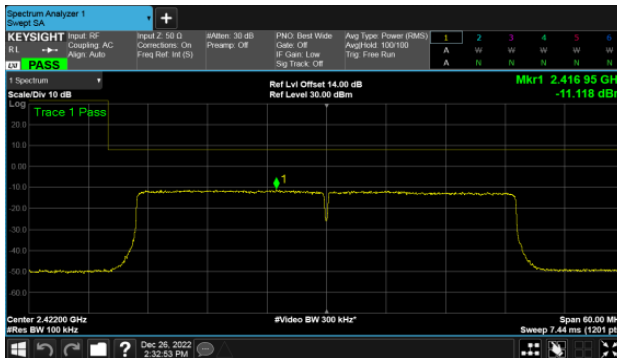


Beamforming

ANT A

Modulation Type: 802.11ax HE40

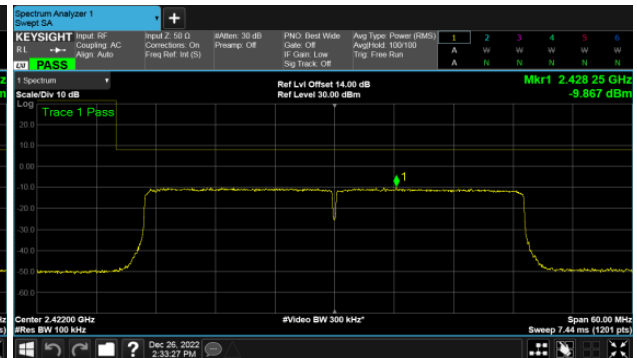
CH03



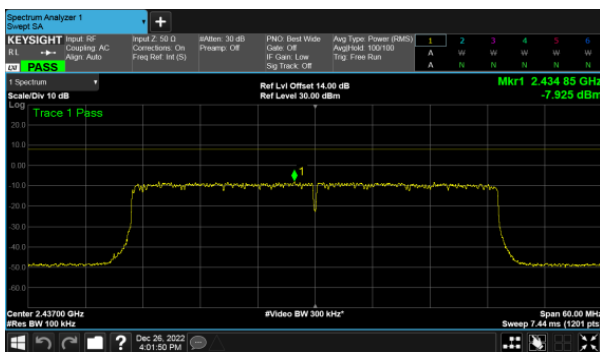
ANT B

Modulation Type: 802.11ax HE40

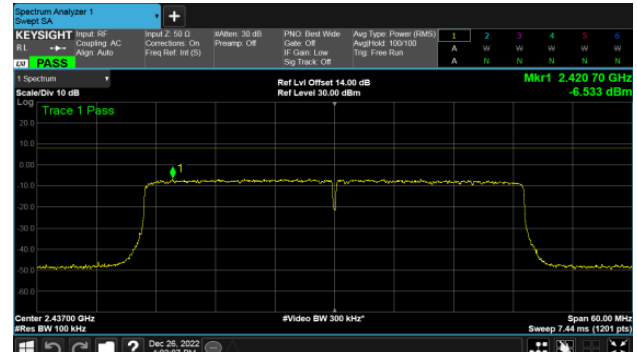
CH03



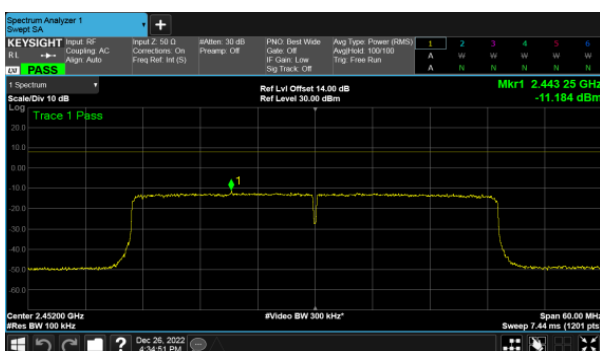
CH06



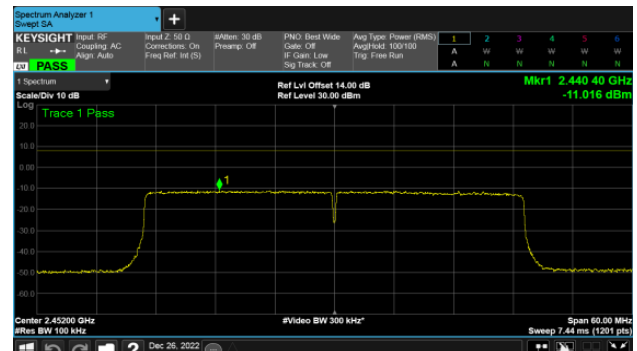
CH06



CH09



CH09



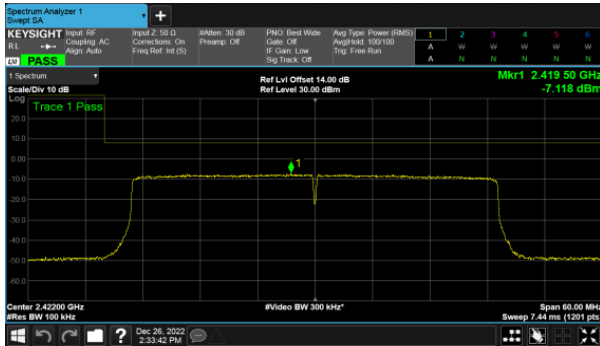


Beamforming

ANT C

Modulation Type: 802.11ax HE40

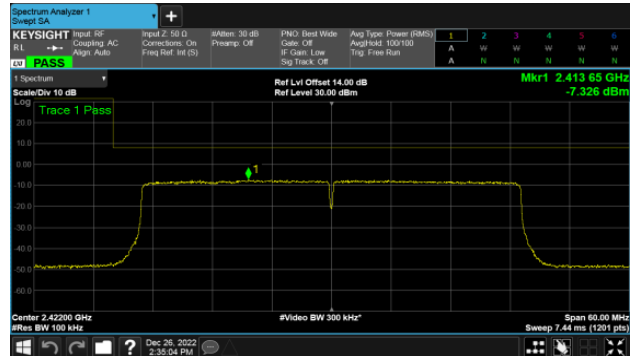
CH03



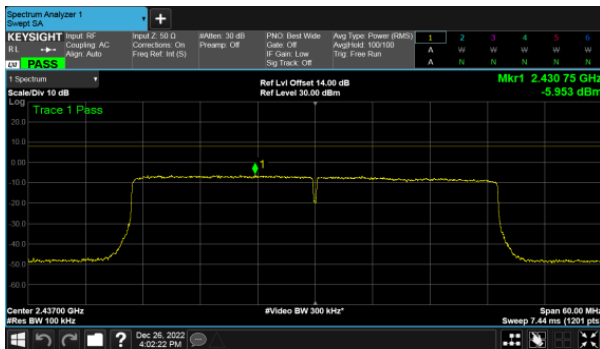
ANT D

Modulation Type: 802.11ax HE40

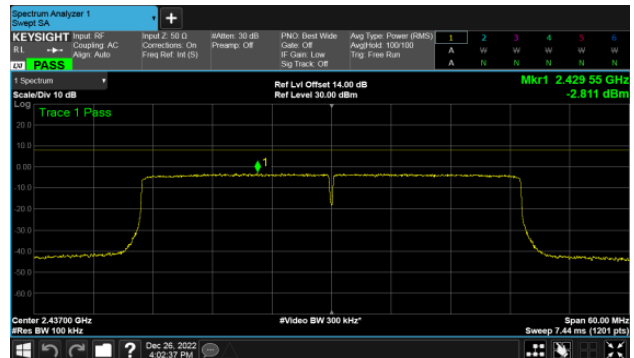
CH03



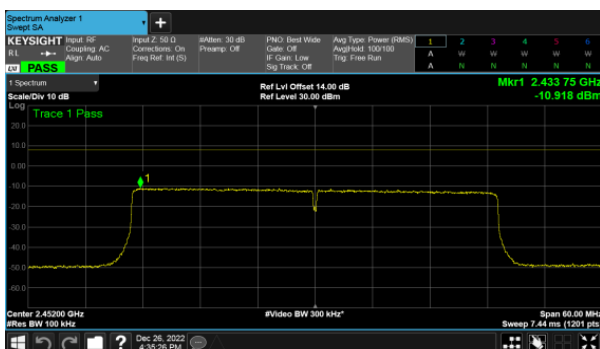
CH06



CH06



CH09



CH09

