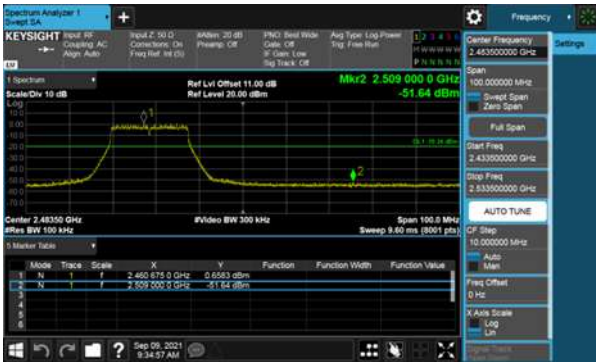




Beamforming, ANT D

Modulation Type: 802.11n HT20, CH11





Beamforming, ANT D

Modulation Type: 802.11n HT40, CH03



Modulation Type: 802.11n HT40, CH06





Beamforming, ANT D

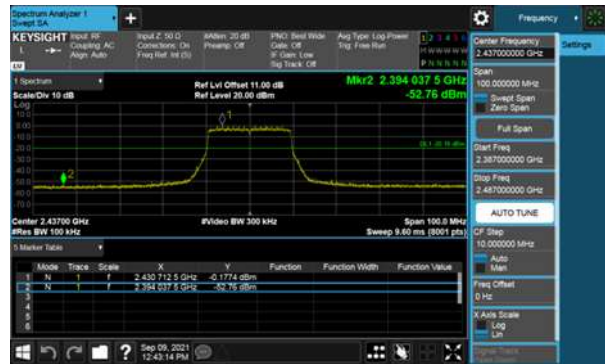
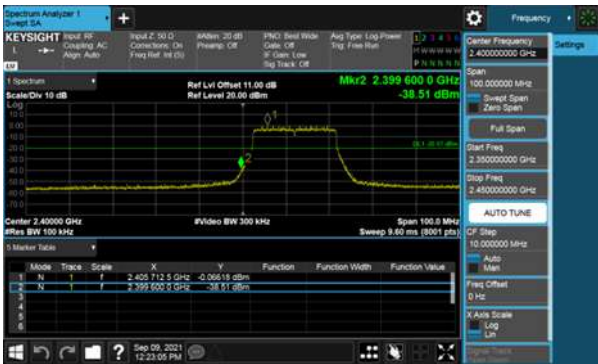
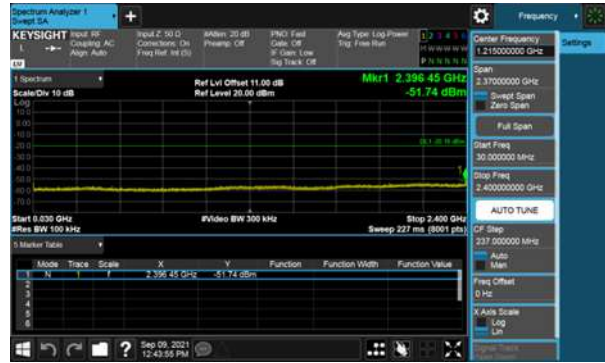
Modulation Type: 802.11n HT40, CH09





Beamforming, ANT D
Modulation Type: 802.11ax HE20, CH01

Modulation Type: 802.11ax HE20, CH06





Beamforming, ANT D

Modulation Type: 802.11ax HE20, CH11



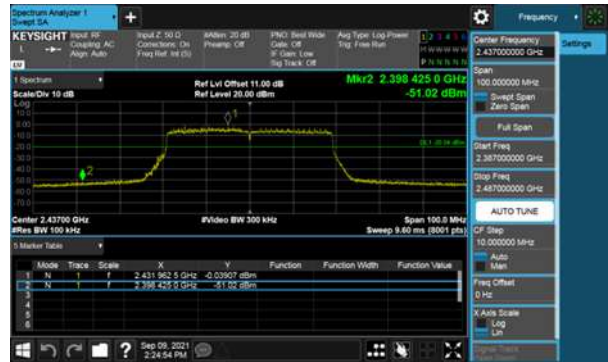


Beamforming, ANT D

Modulation Type: 802.11ax HE40, CH03



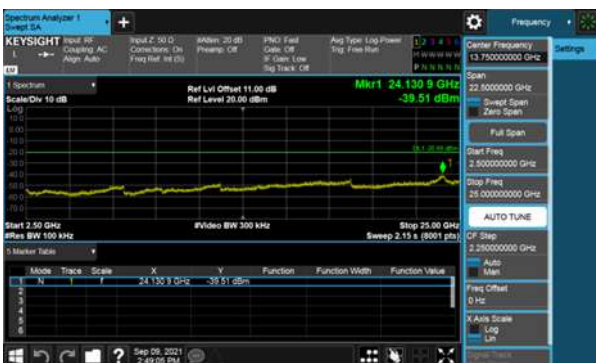
Modulation Type: 802.11ax HE40, CH06





Beamforming, ANT D

Modulation Type: 802.11ax HE40, CH09



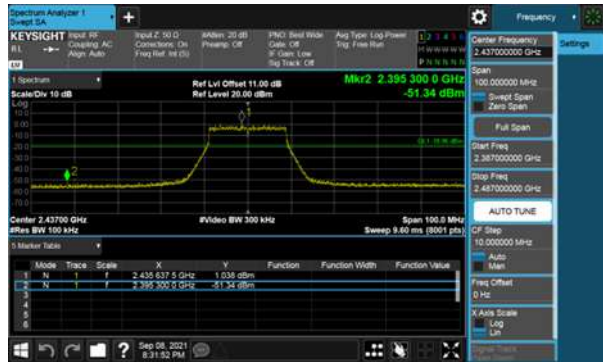


Beamforming, ANT E

Modulation Type: 802.11n HT20, CH01



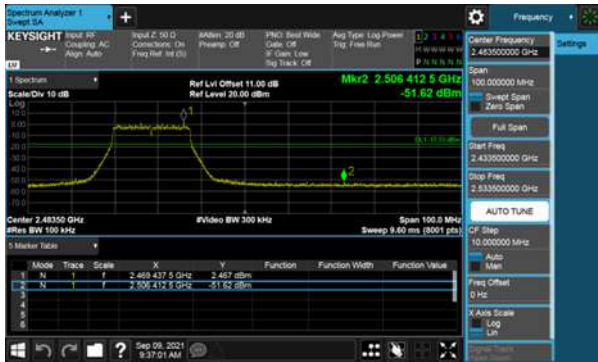
Modulation Type: 802.11n HT20, CH06





Beamforming, ANT E

Modulation Type: 802.11n HT20, CH11



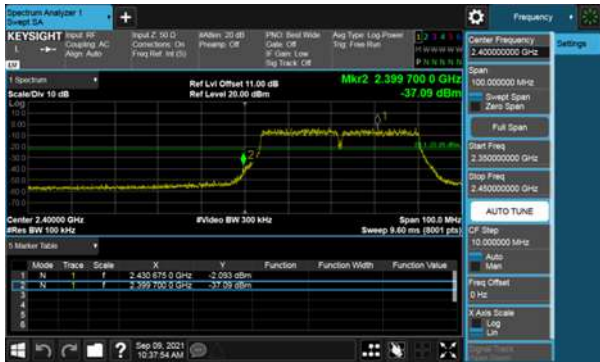


Beamforming, ANT E

Modulation Type: 802.11n HT40, CH03



Modulation Type: 802.11n HT40, CH06





Beamforming, ANT E

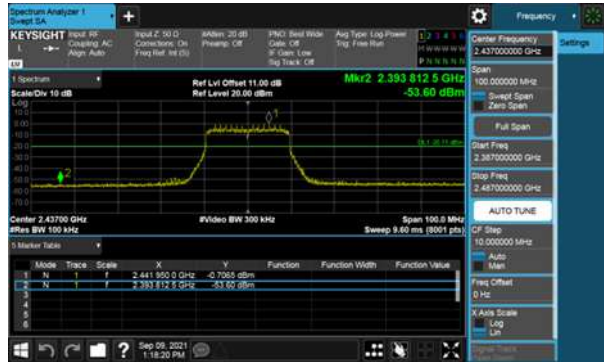
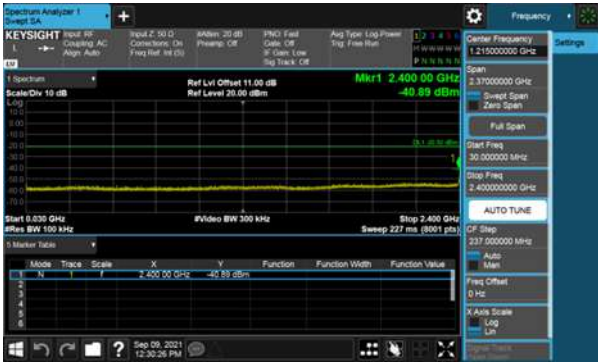
Modulation Type: 802.11n HT40, CH09





Beamforming, ANT E
Modulation Type: 802.11ax HE20, CH01

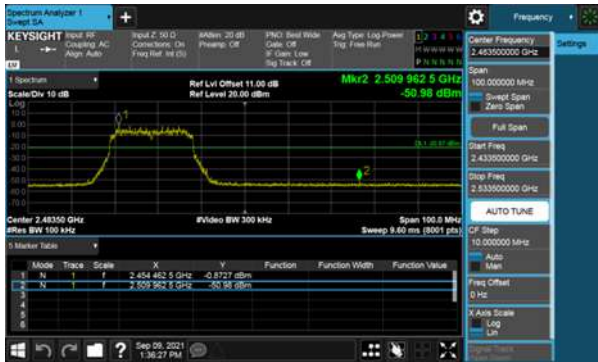
Modulation Type: 802.11ax HE20, CH06





Beamforming, ANT E

Modulation Type: 802.11ax HE20, CH11



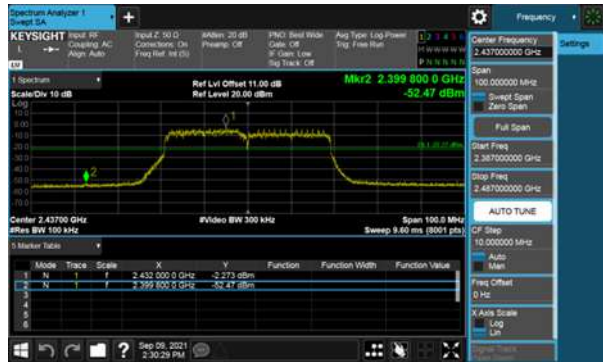
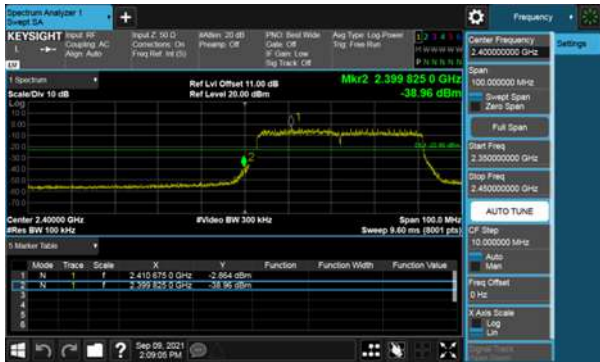


Beamforming, ANT E

Modulation Type: 802.11ax HE40, CH03



Modulation Type: 802.11ax HE40, CH06





Beamforming, ANT E

Modulation Type: 802.11ax HE40, CH09





8. On Time, Duty Cycle and Measurement methods

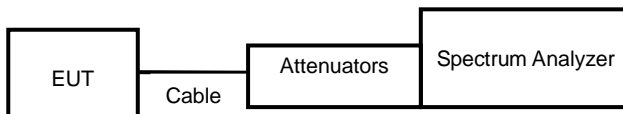
8.1 Test Limit

None; for reporting purposes only.

8.2 Test Procedure

Zero-Span Spectrum Analyzer Method.

8.3 Test Setup Layout



8.4 Test Result and Data

(Non-Beamforming)

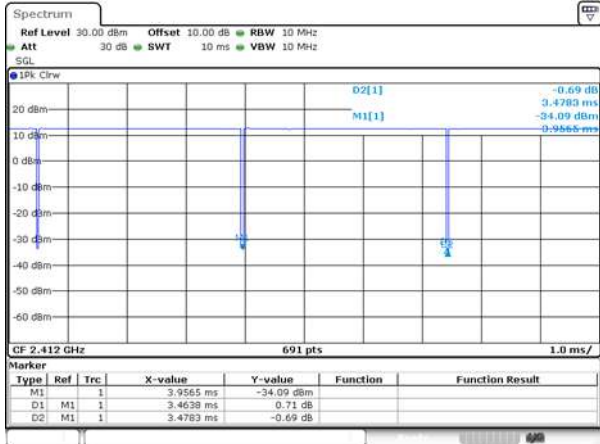
Modulation Type	On Time (ms)	Period Time (ms)	Duty Cycle (%)
11b,1M	3.46	3.48	99.58%
11g,6M	0.57	0.63	89.95%
11n HT20	5.02	5.04	99.60%
11n HT40	2.44	2.49	98.25%
11ax HT20	4.05	4.09	98.94%
11ax HT40	2.05	2.09	98.19%

(Beamforming)

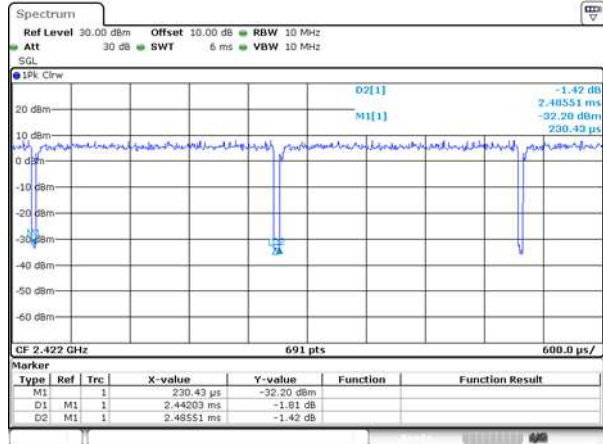
Modulation Type	On Time (ms)	Period Time (ms)	Duty Cycle (%)
11n HT20	0.42	1.60	26.42%
11n HT40	0.29	1.61	18.31%
11ax HT20	0.39	1.61	24.40%
11ax HT40	0.26	1.59	16.32%



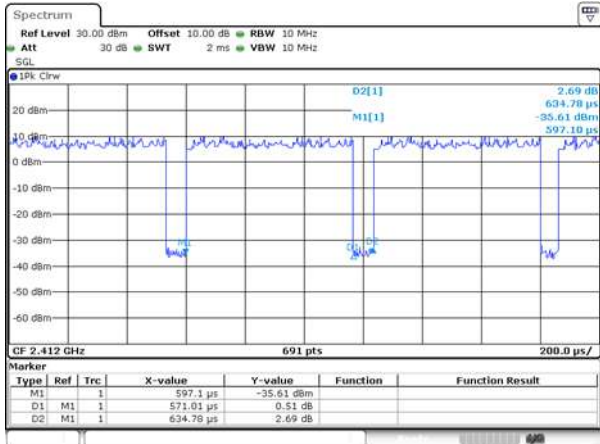
Non-Beamforming
Modulation Type: 802.11b(1Mbps)



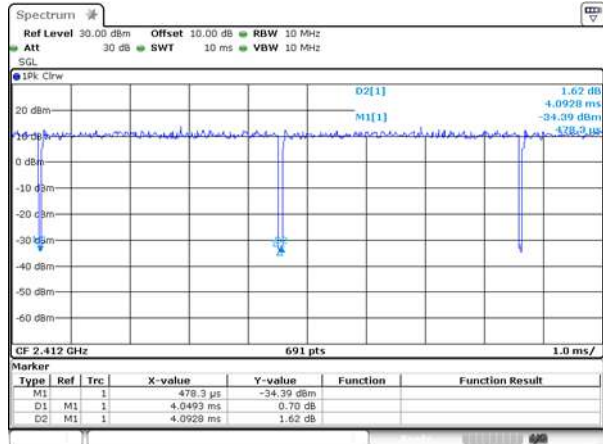
Modulation Type: 802.11n HT40(13.5Mbps)



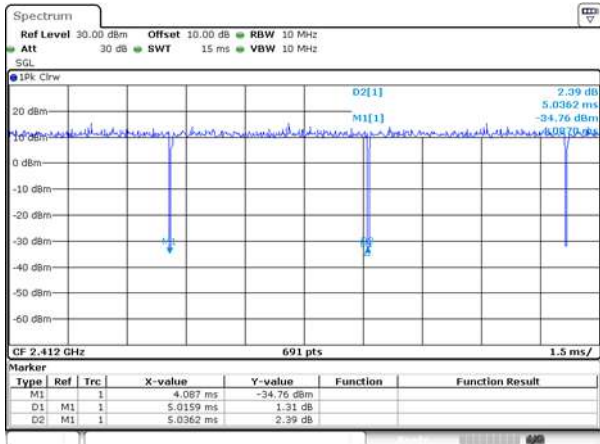
Modulation Type: 802.11g(6Mbps)



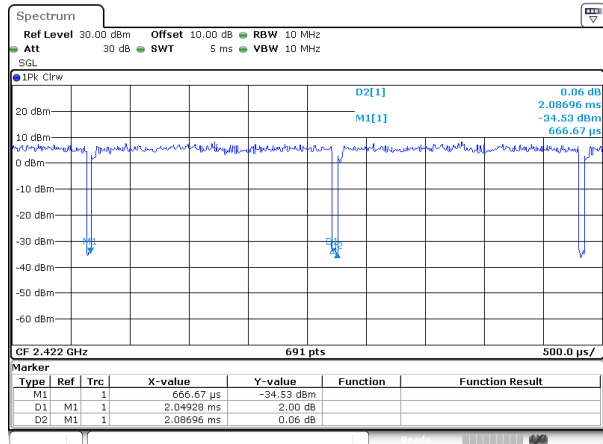
Modulation Type: 802.11ax HE20 (7.3Mbps)



Modulation Type: 802.11n HT20(6.5Mbps)



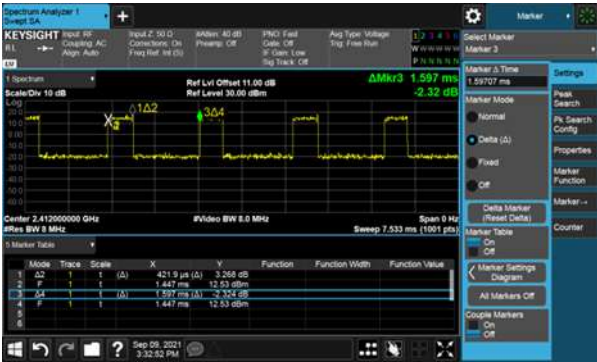
Modulation Type: 802.11ax HE40 (14.6Mbps)





Beamforming

Modulation Type: 802.11n HT20(6.5Mbps)



Modulation Type: 802.11ax HE40(14.6Mbps)



Modulation Type: 802.11n HT40(13.5Mbps)



Modulation Type: 802.11ax HE20(7.3Mbps)





9. 6dB Bandwidth Measurement Data

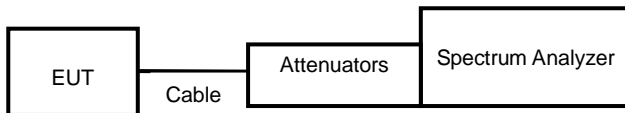
9.1 Test Limit

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

9.2 Test Procedures

- a. The transmitter output was connected to the spectrum analyzer.
- b. Set RBW of spectrum analyzer to 100 KHz and VBW to 300 KHz.
- c. The 6 dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6 dB.
- d. The 6dB Bandwidth was measured and recorded.

9.3 Test Setup Layout



**9.4 Test Result and Data**

(Non-Beamforming)

Modulation Type	Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Limit (MHz)
			ANT B	ANT C	ANT D	ANT E	
11b	1	2412	10.17	10.20	10.20	10.17	0.5
	6	2437	10.20	10.17	10.23	10.20	0.5
	11	2462	10.23	10.23	10.23	10.23	0.5
11g	1	2412	16.35	16.38	16.41	16.38	0.5
	6	2437	16.35	16.38	16.38	16.35	0.5
	11	2462	16.38	16.38	16.38	16.41	0.5
11n HT20	1	2412	17.58	17.61	17.61	17.61	0.5
	6	2437	17.61	17.61	17.61	17.61	0.5
	11	2462	17.58	17.61	17.61	17.58	0.5
11n HT40	3	2422	36.36	36.30	36.30	36.30	0.5
	6	2437	36.30	36.30	36.12	36.30	0.5
	9	2452	36.30	36.30	36.30	36.30	0.5
11ax HE20	1	2412	19.02	18.99	19.02	18.99	0.5
	6	2437	18.96	18.99	19.02	18.99	0.5
	11	2462	18.99	18.99	18.99	18.96	0.5
11ax HE40	3	2422	37.98	37.98	37.80	37.98	0.5
	6	2437	38.10	38.10	38.04	38.04	0.5
	9	2452	38.04	37.98	37.92	38.04	0.5

(Beamforming)

Modulation Type	Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Limit (MHz)
			ANT B	ANT C	ANT D	ANT E	
11n HT20	1	2412	17.49	17.46	17.19	17.43	0.5
	6	2437	17.70	17.01	17.73	17.67	0.5
	11	2462	17.49	17.76	17.73	17.70	0.5
11n HT40	3	2422	36.30	36.18	36.30	36.30	0.5
	6	2437	36.36	36.06	36.48	36.48	0.5
	9	2452	36.30	36.48	36.42	36.24	0.5
11ax HE20	1	2412	18.99	19.02	19.02	19.11	0.5
	6	2437	19.05	19.02	19.02	19.02	0.5
	11	2462	19.02	18.99	19.05	18.90	0.5
11ax HE40	3	2422	38.10	37.86	37.86	37.56	0.5
	6	2437	37.98	37.26	37.68	37.38	0.5
	9	2452	37.38	37.98	37.80	37.62	0.5



Non-Beamforming, ANT B
Modulation Type: 802.11b
CH01

Modulation Type: 802.11g
CH01



CH06

CH06



CH11

CH11





Non-Beamforming, ANT B
Modulation Type: 802.11n HT20
CH01



Modulation Type: 802.11n HT40
CH03



CH06



CH06



CH11



CH09





Non-Beamforming, ANT B
Modulation Type: 802.11ax HE20
CH01

Modulation Type: 802.11ax HE40
CH03



CH06

CH06



CH11

CH09





Non-Beamforming, ANT C
Modulation Type: 802.11b
CH01

Modulation Type: 802.11g
CH01



CH06

CH06



CH11

CH11





Non-Beamforming, ANT C
Modulation Type: 802.11n HT20
CH01

Modulation Type: 802.11n HT40
CH03



CH06

CH06



CH11

CH09





Non-Beamforming, ANT C
Modulation Type: 802.11ax HE20
CH01

Modulation Type: 802.11ax HE40
CH03



CH06

CH06



CH11

CH09





Non-Beamforming, ANT D
Modulation Type: 802.11b
CH01

Modulation Type: 802.11g
CH01



CH06

CH06



CH11

CH11





Non-Beamforming, ANT D
Modulation Type: 802.11n HT20
CH01



Modulation Type: 802.11n HT40
CH03



CH06



CH06



CH11



CH09





Non-Beamforming, ANT D
Modulation Type: 802.11ax HE20
CH01

Modulation Type: 802.11ax HE40
CH03



CH06

CH06



CH11

CH09





Non-Beamforming, ANT E
Modulation Type: 802.11b
CH01

Modulation Type: 802.11g
CH01



CH06

CH06



CH11

CH11





Non-Beamforming, ANT E
Modulation Type: 802.11n HT20
CH01

Modulation Type: 802.11n HT40
CH03



CH06

CH06



CH11

CH09





Non-Beamforming, ANT E
Modulation Type: 802.11ax HE20
CH01

Modulation Type: 802.11ax HE40
CH03



CH06

CH06



CH11

CH09

