



3.4 In-Band Emissions (Channel Mask)

3.4.1 Limit of Unwanted Emissions

<FCC 14-30 CFR 15.407>

(a)(6) For transmitters operating within the 5.925-7.125 GHz bands: Power spectral density must be suppressed by 20 dB at 1 MHz outside of channel edge, by 28 dB at one channel bandwidth from the channel center, and by 40 dB at one- and one-half times the channel bandwidth away from channel center. At frequencies between one megahertz outside an unlicensed device's channel edge and one channel bandwidth from the center of the channel, the limits must be linearly interpolated between 20 dB and 28 dB suppression, and at frequencies between one and one- and one-half times an unlicensed device's channel bandwidth, the limits must be linearly interpolated between 28 dB and 40 dB suppression. Emissions removed from the channel center by more than one- and one-half times the channel bandwidth must be suppressed by at least 40 dB.

3.4.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

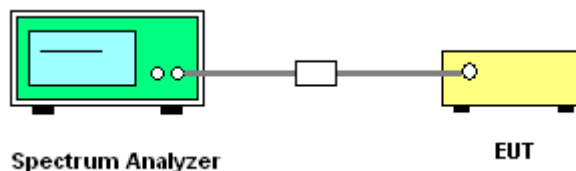
3.4.3 Test Procedures

The testing follows FCC KDB 987594 D02 U-NII 6GHz EMC Measurement v02r01.

Section J) In-Band Emissions.

1. Take nominal bandwidth as reference channel bandwidth provided that 26 dB emission bandwidth is always larger than nominal bandwidth
2. Measure the power spectral density (which will be used for emissions mask reference) using the following procedure:
 - a) Set the span to encompass the entire 26 dB EBW of the signal.
 - b) Set RBW = same RBW used for 26 dB EBW measurement.
 - c) Set VBW $\geq 3 \times$ RBW
 - d) Number of points in sweep $\geq [2 \times \text{span} / \text{RBW}]$.
 - e) Sweep time = auto.
 - f) Detector = RMS (i.e., power averaging)
 - g) Trace average at least 100 traces in power averaging (rms) mode.
 - h) Use the peak search function on the instrument to find the peak of the spectrum.
3. Using the measuring equipment limit line function, develop the emissions mask based on the following requirements. The emissions power spectral density must be reduced below the peak power spectral density (in dB) as follows:
 - a. Suppressed by 20 dB at 1 MHz outside of the channel edge.
 - b. Suppressed by 28 dB at one channel bandwidth from the channel center.
 - c. Suppressed by 40 dB at one- and one-half times the channel bandwidth from the channel center.
4. Adjust the span to encompass the entire mask as necessary.
5. Clear trace.
6. Trace average at least 100 traces in power averaging (rms) mode.
7. Adjust the reference level as necessary so that the crest of the channel touches the top of the emission mask.

3.4.4 Test Setup



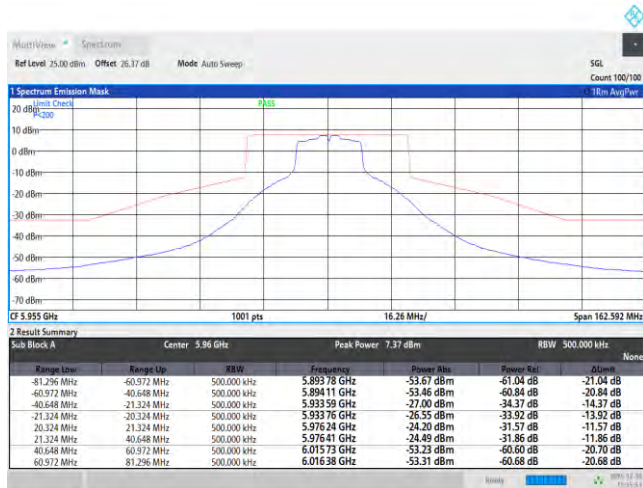


3.4.5 Test Result of In-Band Emissions (Channel Mask)

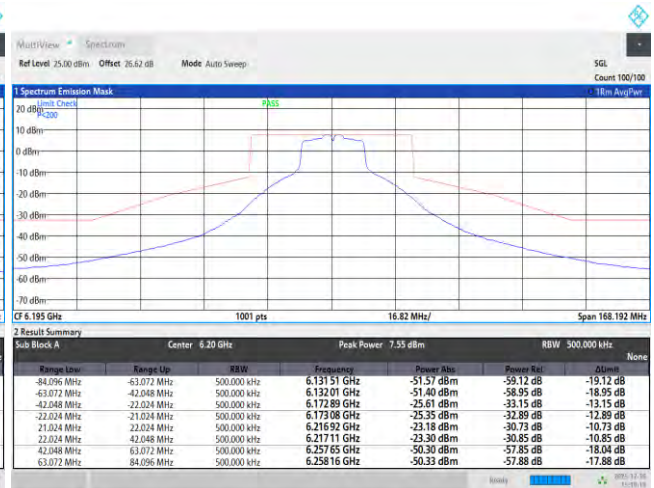
MIMO <Ant. 3+4 (3)>

EUT Mode 802.11a

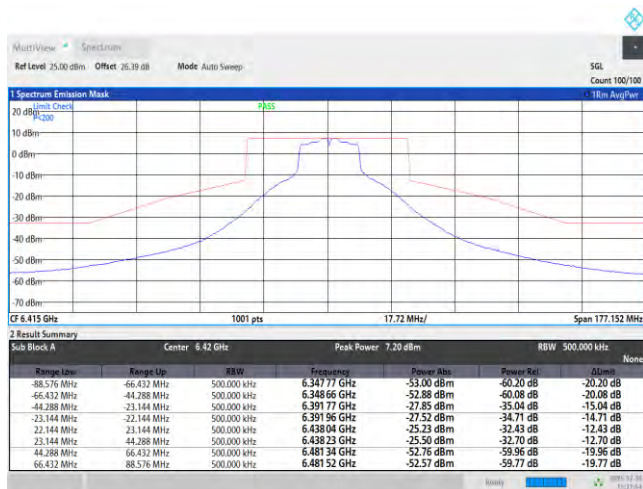
Plot on 5955 MHz



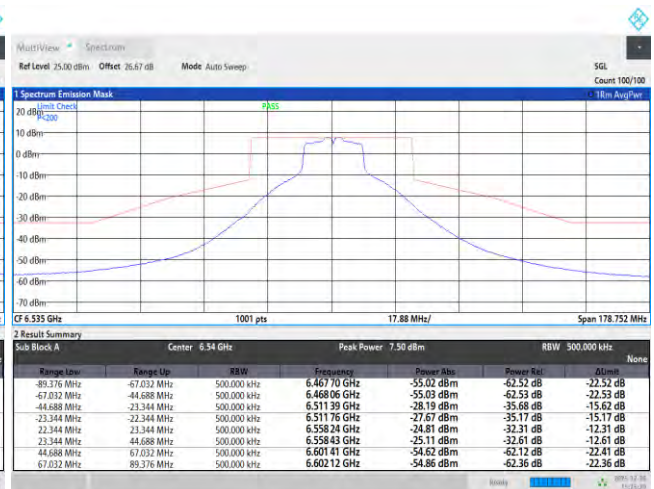
Plot on 6195 MHz



Plot on 6415 MHz

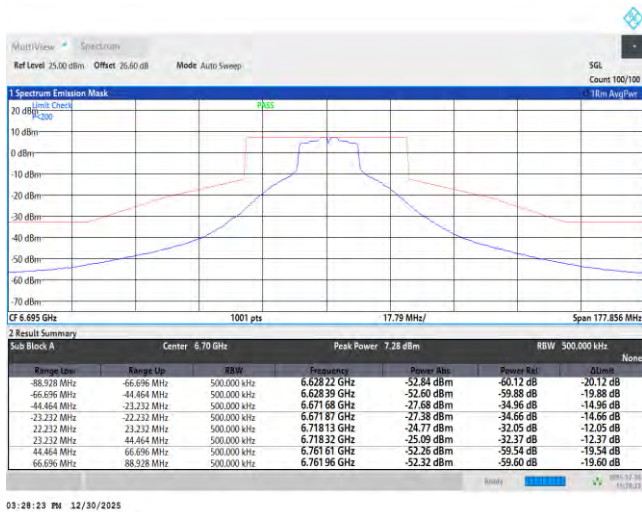


Plot on 6535 MHz

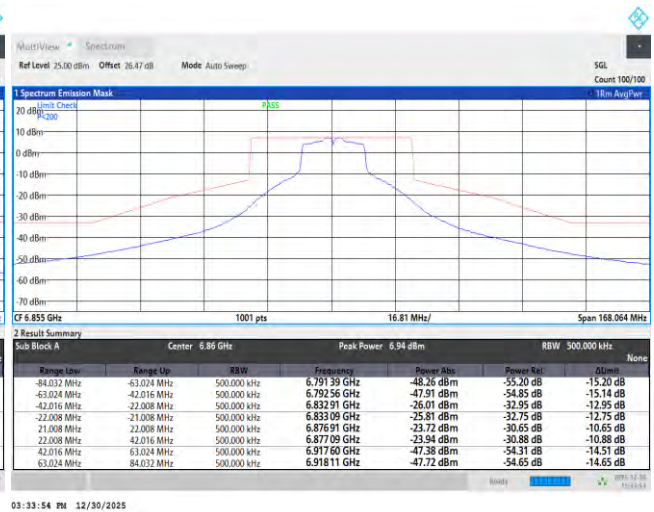


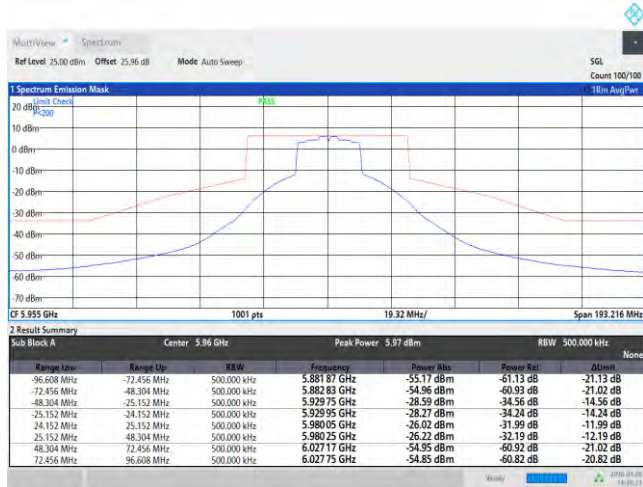


Plot on 6695 MHz

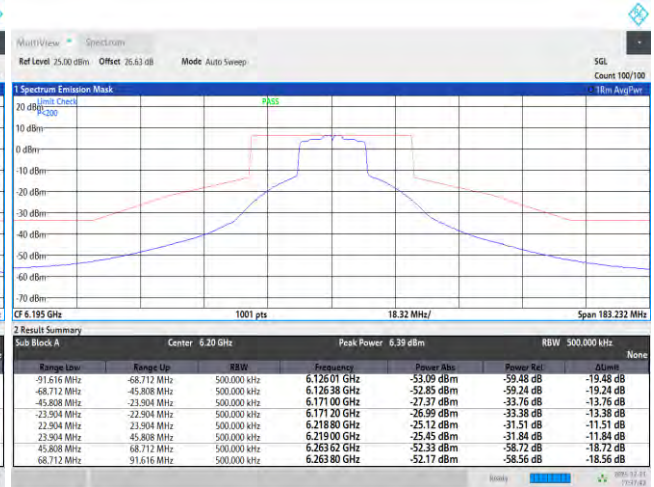


Plot on 6855 MHz

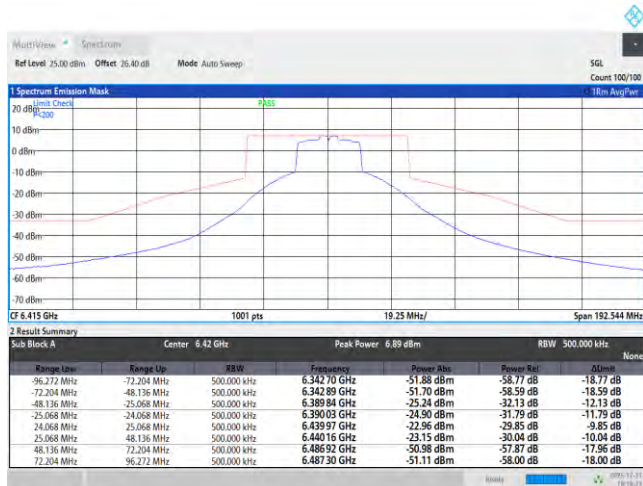


**EUT Mode****802.11ax HE20 FullRU****Plot on 5955 MHz**

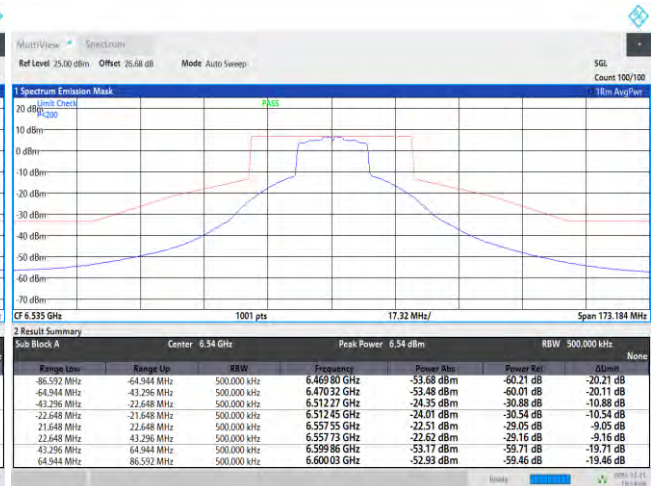
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Plot on 6195 MHz

05:37:42 PM 12/31/2025

Plot on 6415 MHz

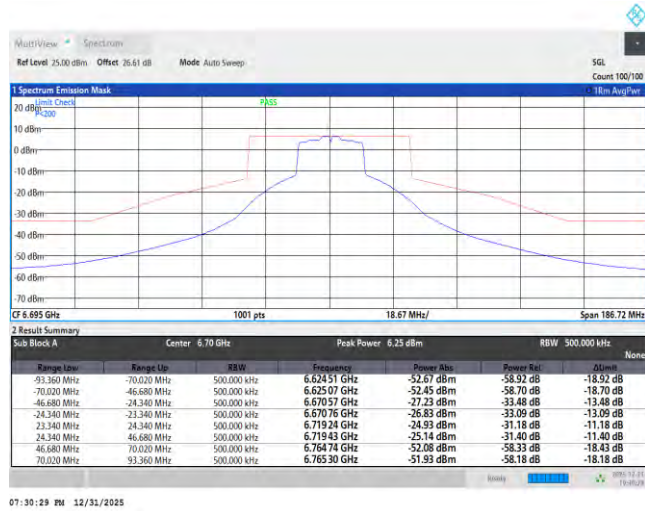
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Plot on 6535 MHz

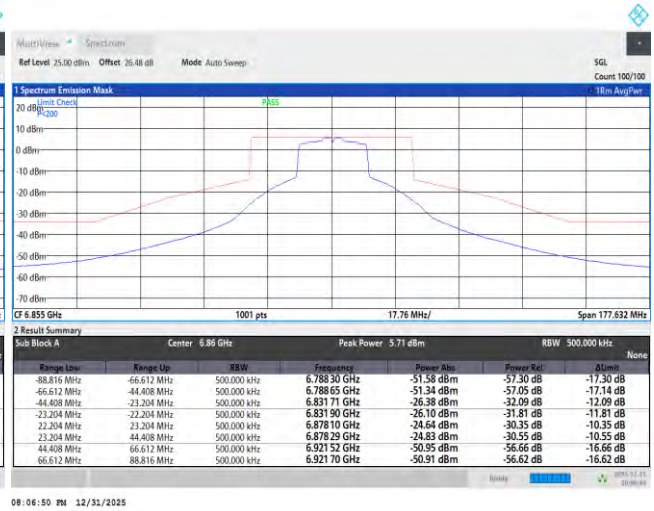
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Plot on 6695 MHz



Plot on 6855 MHz

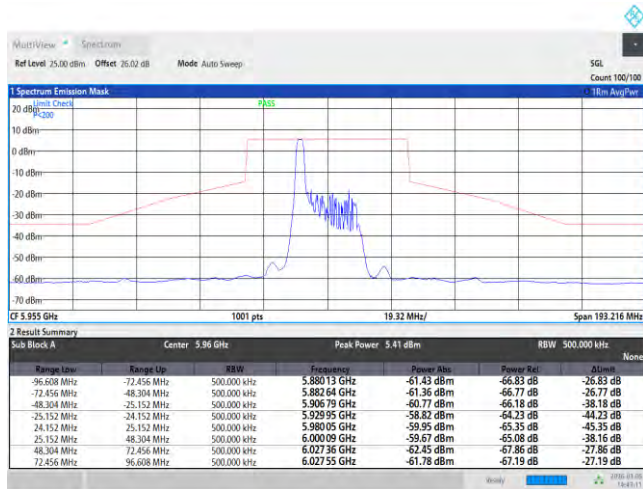




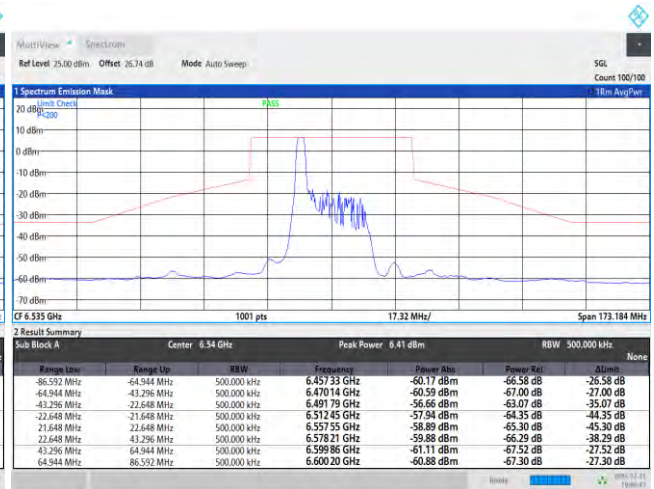
EUT Mode

802.11ax HE20 26RU0

Plot on 5955 MHz



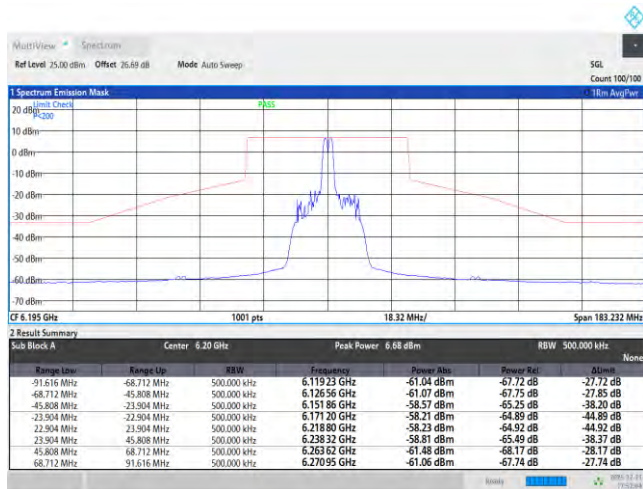
Plot on 6535 MHz



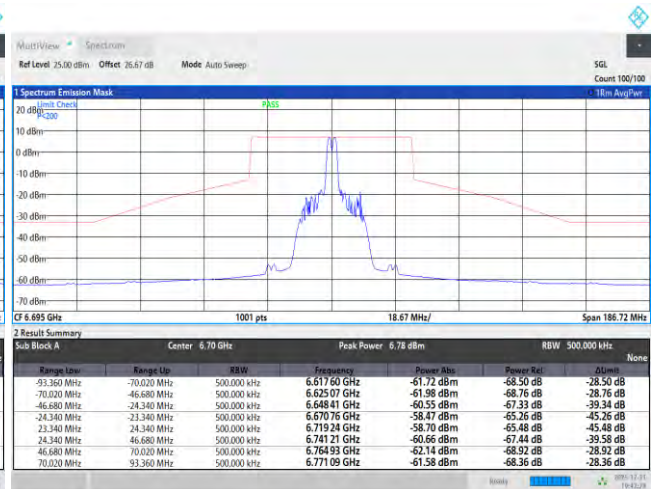
EUT Mode

802.11ax HE20 26RU4

Plot on 6195 MHz



Plot on 6695 MHz

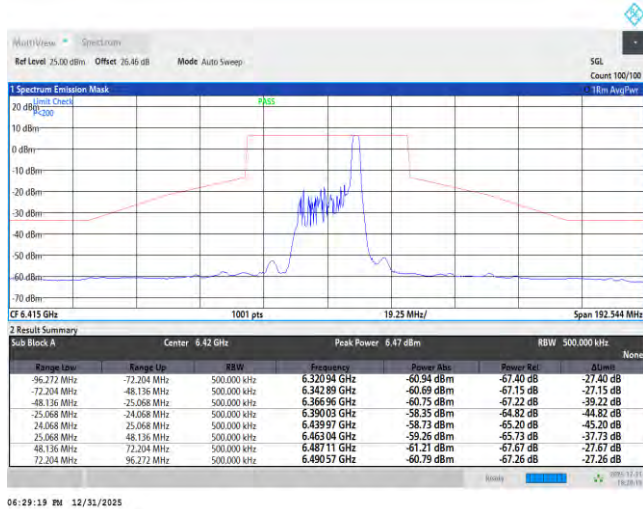




EUT Mode

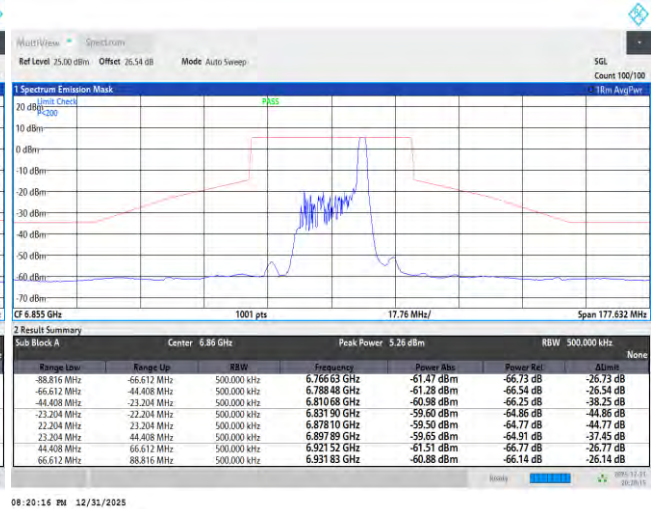
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Plot on 6415 MHz



06:29:19 PM 12/31/2025

Plot on 6855 MHz

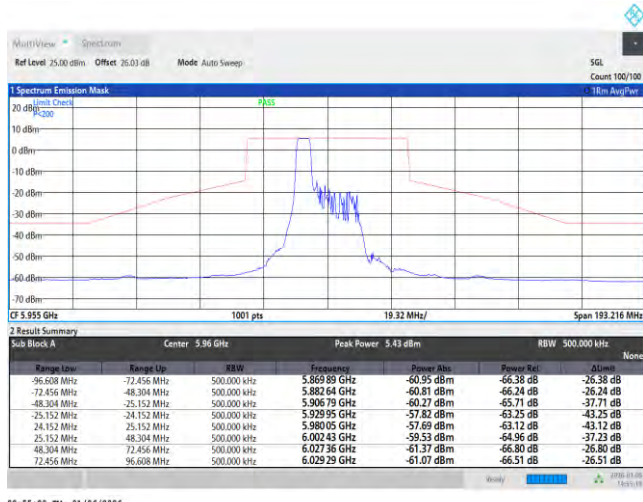


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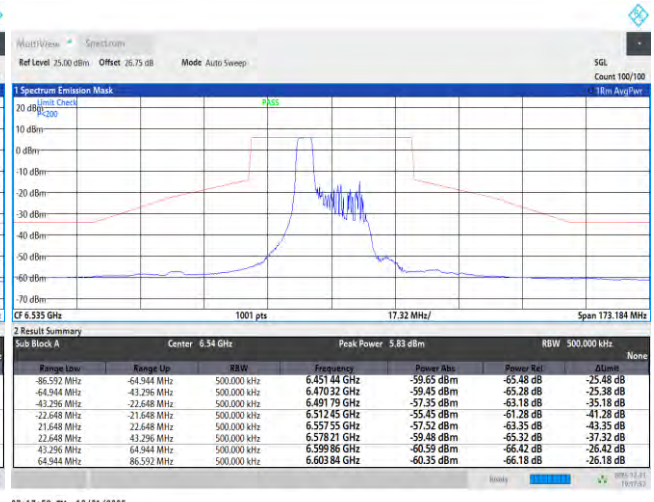
802.11ax HE20 52RU37

Plot on 5955 MHz



02:55:20 PM 01/06/2026

Plot on 6535 MHz



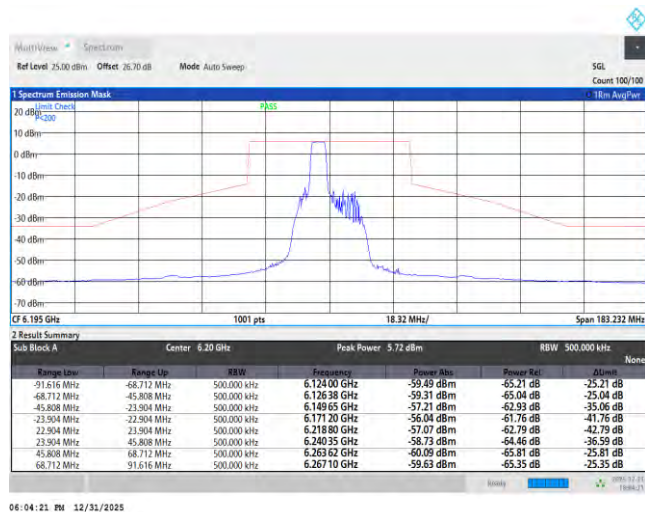
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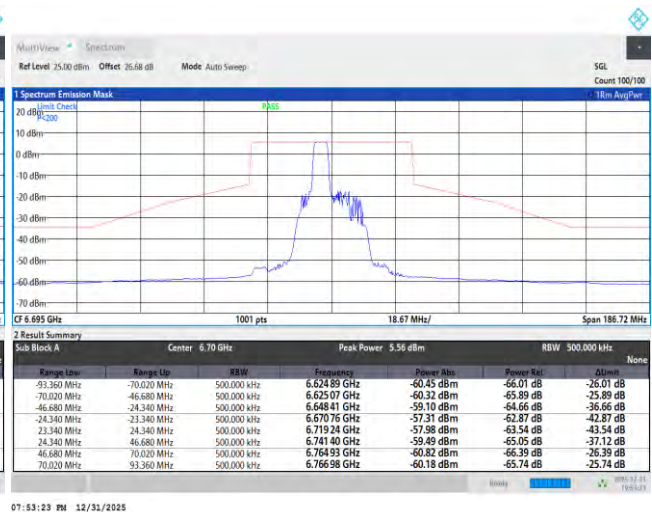
EUT Mode

802.11ax HE20 52RU38

Plot on 6195 MHz



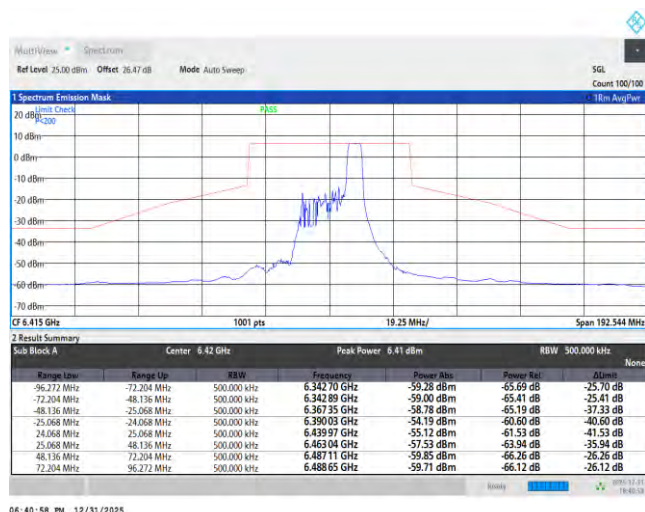
Plot on 6695 MHz



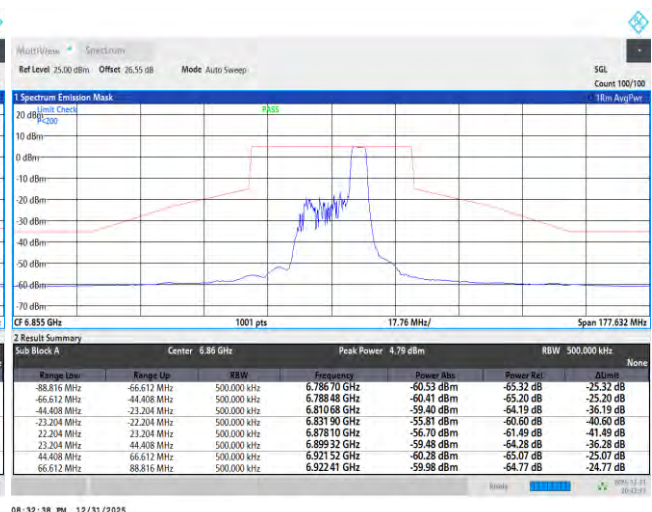
EUT Mode

802.11ax HE20 52RU40

Plot on 6415 MHz



Plot on 6855 MHz

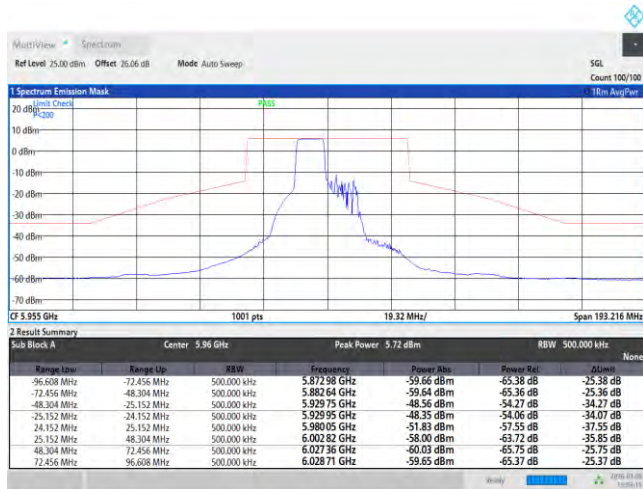




EUT Mode

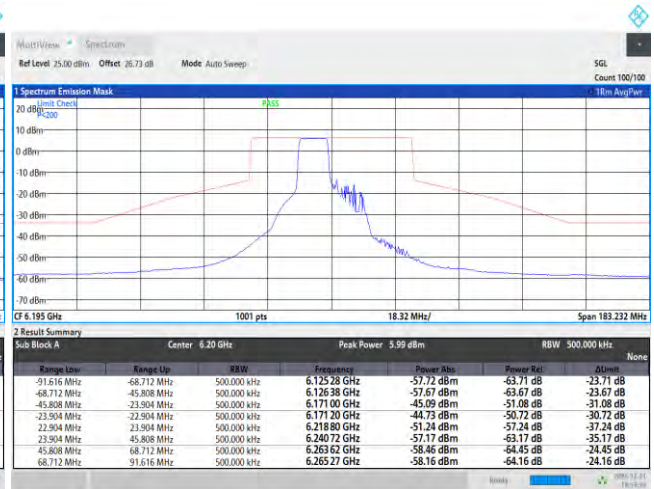
802.11ax HE20 106RU53

Plot on 5955 MHz



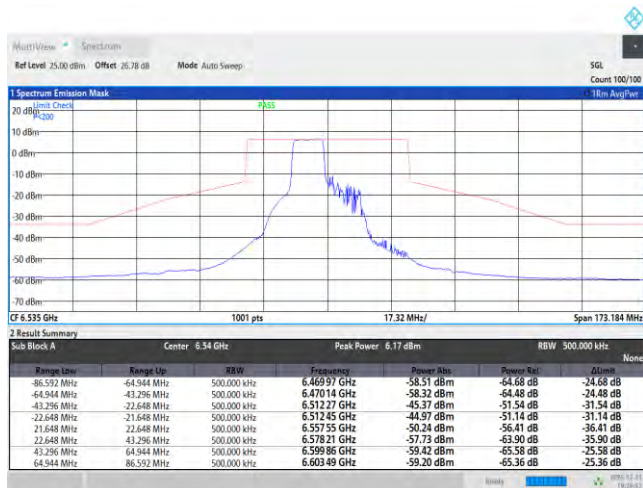
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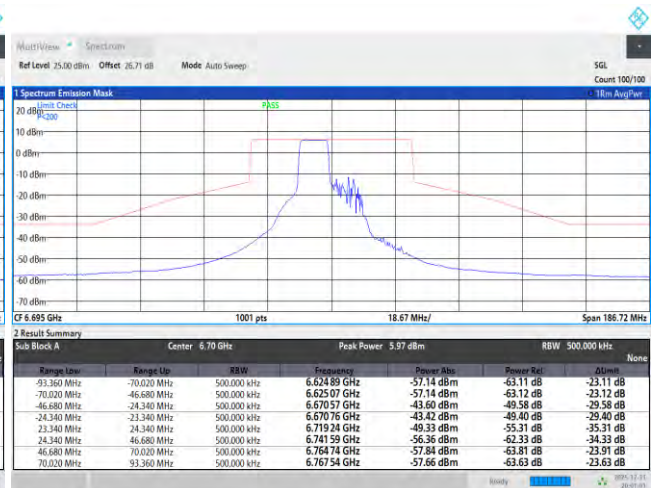
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Plot on 6535 MHz



07:26:57 PM 12/31/2025

Plot on 6695 MHz



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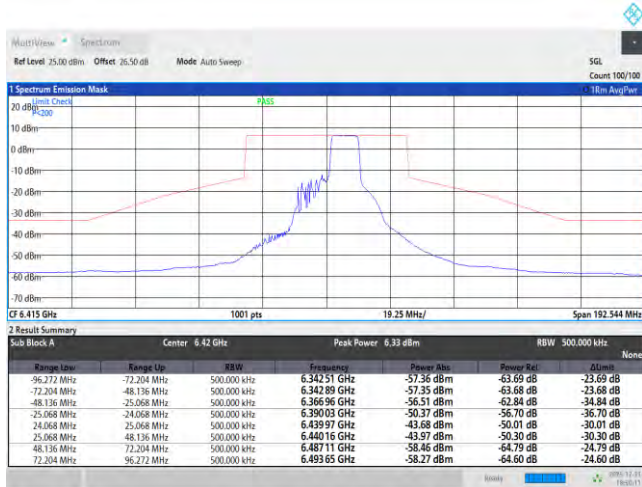


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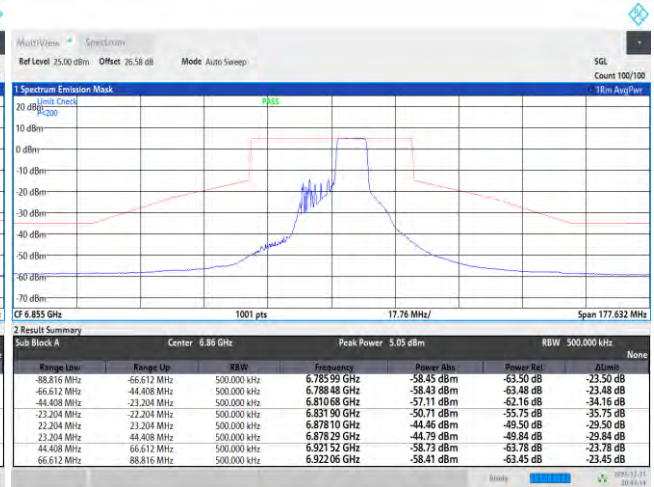
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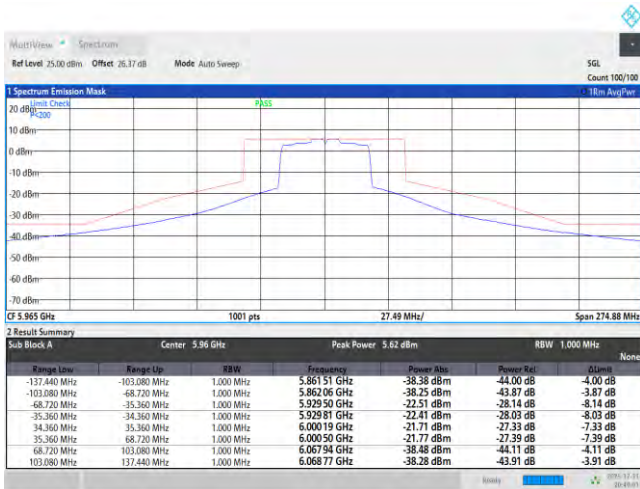
Plot on 6855 MHz



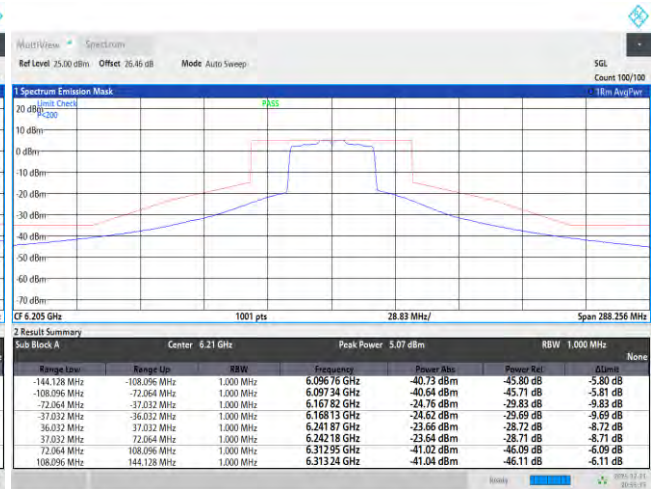
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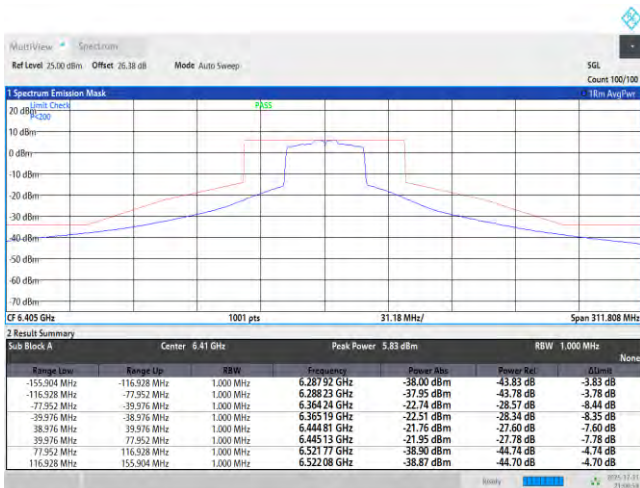
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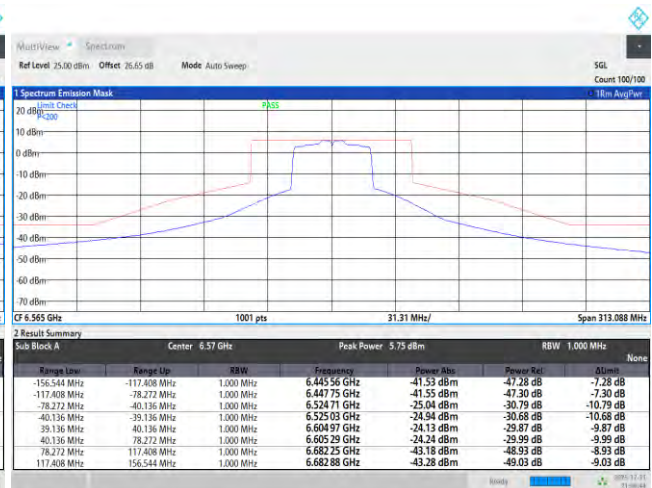
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Plot on 6205 MHz

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Plot on 6405 MHz

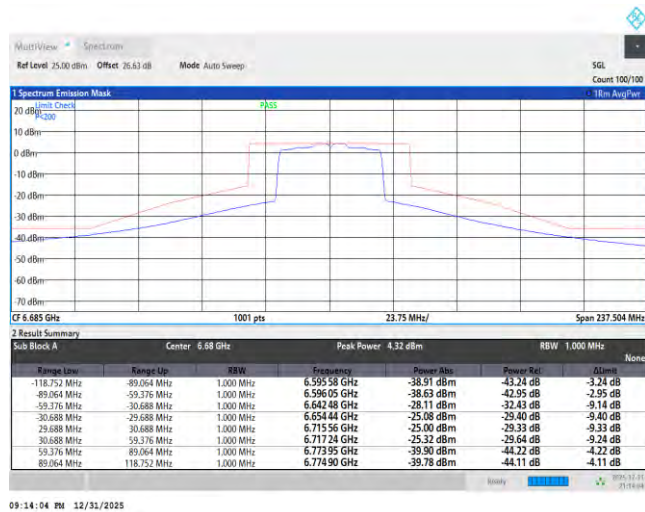
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Plot on 6565 MHz

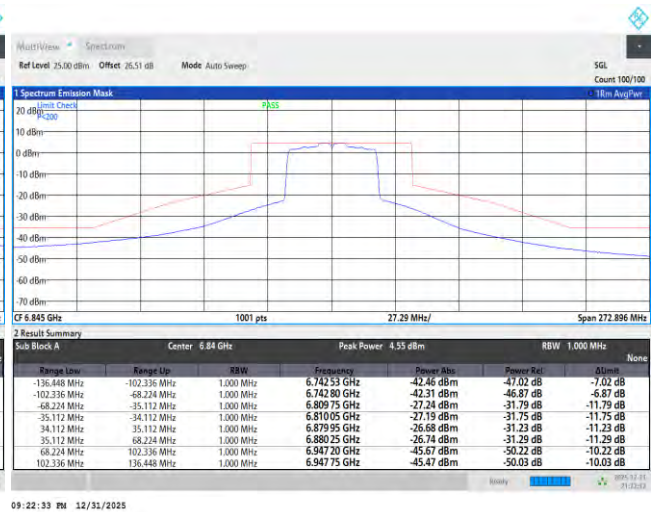
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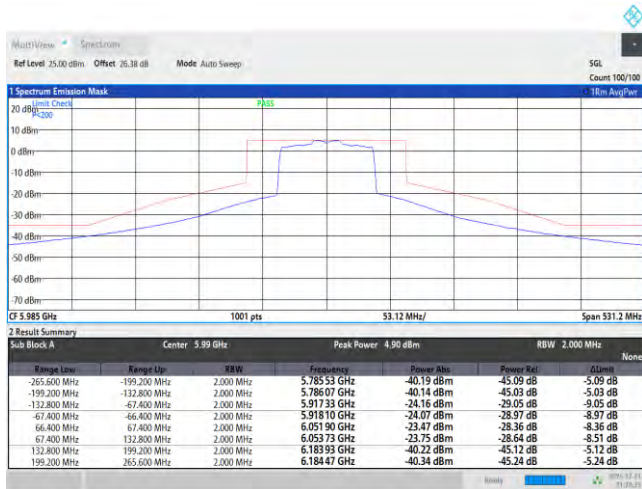


Plot on 6685 MHz

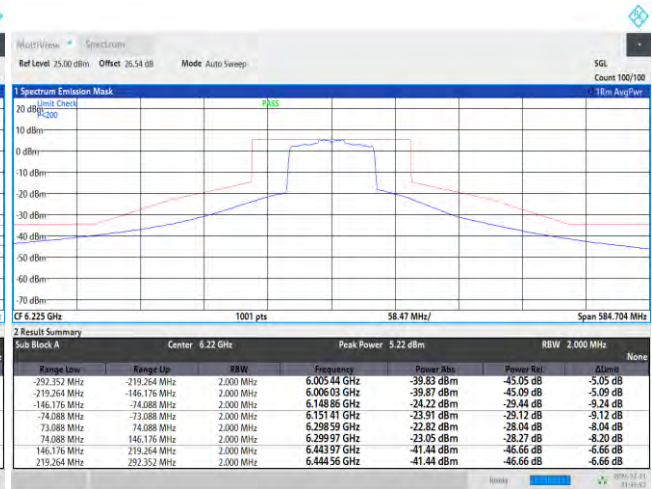


Plot on 6845 MHz

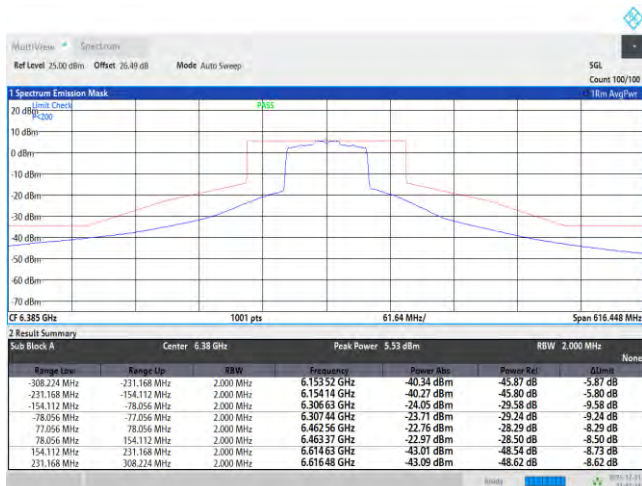


**EUT Mode****802.11ax HE80 FullIRU****Plot on 5985 MHz**

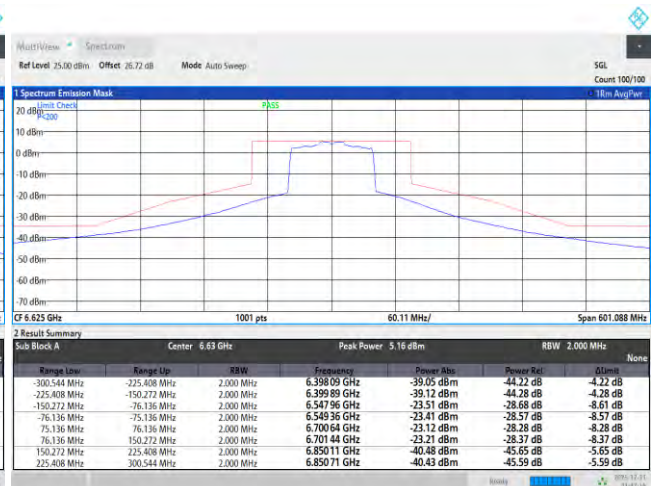
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Plot on 6225 MHz

09:35:58 PM 12/31/2025

Plot on 6385 MHz

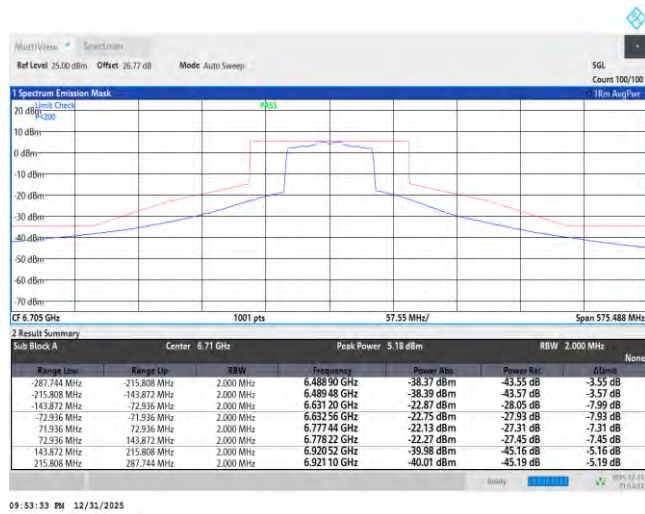
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Plot on 6625 MHz

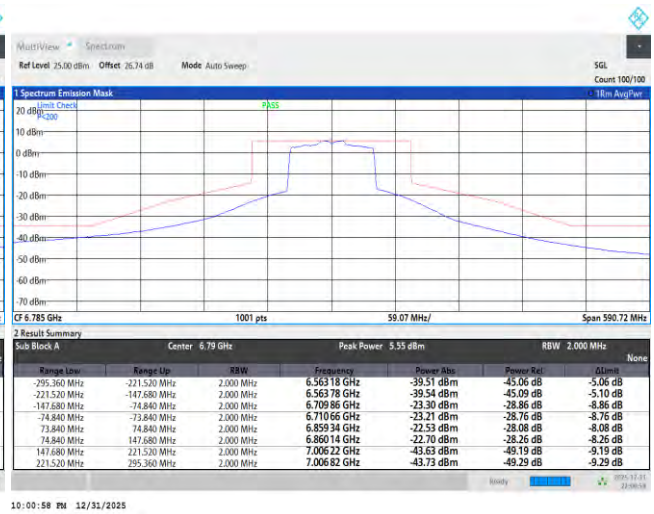
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Plot on 6705 MHz



Plot on 6785 MHz

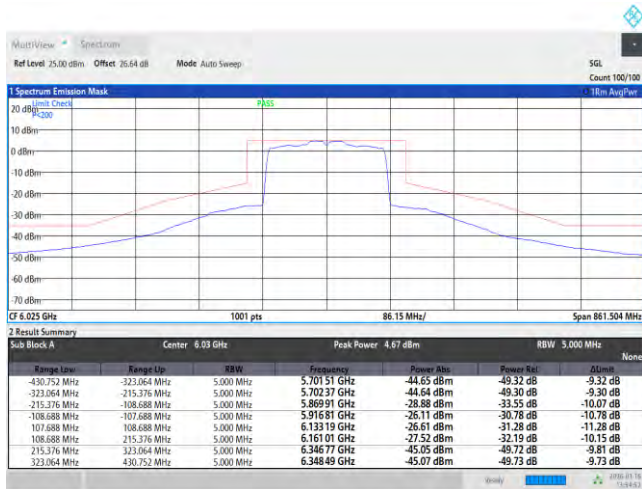




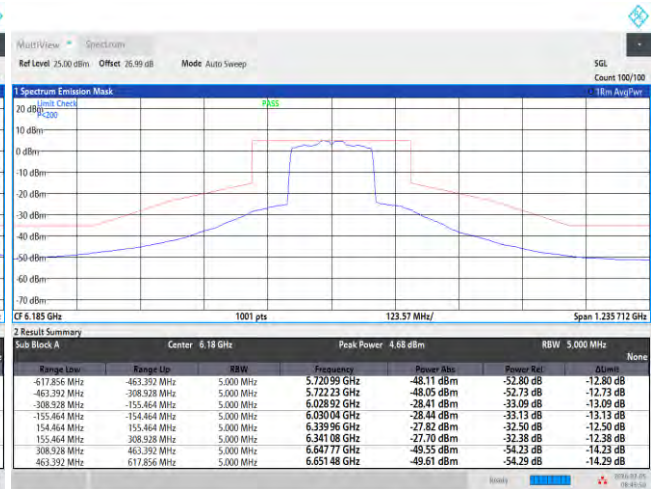
EUT Mode

802.11ax HE160 FullIRU

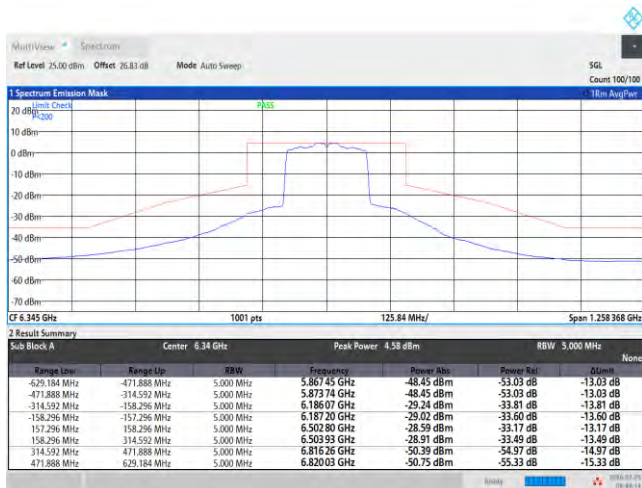
Plot on 6025 MHz



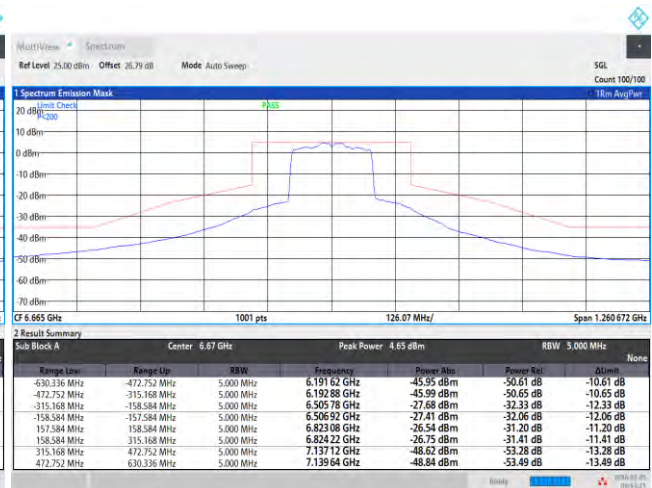
Plot on 6185 MHz

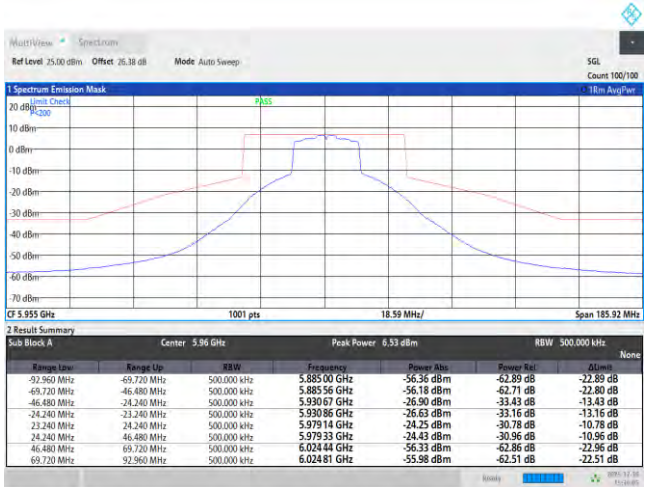


Plot on 6345 MHz

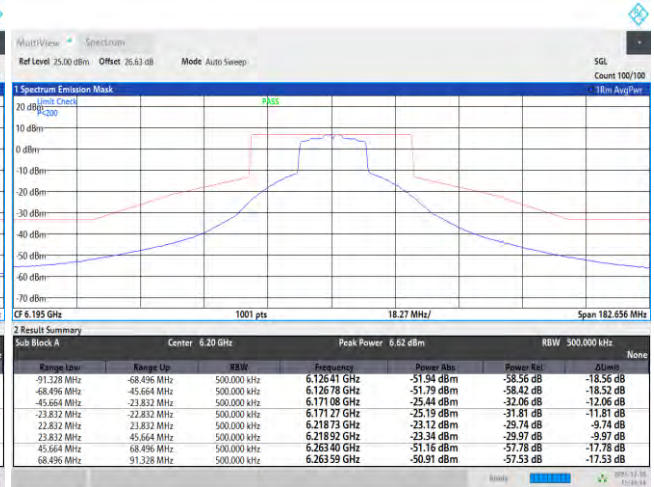


Plot on 6665 MHz

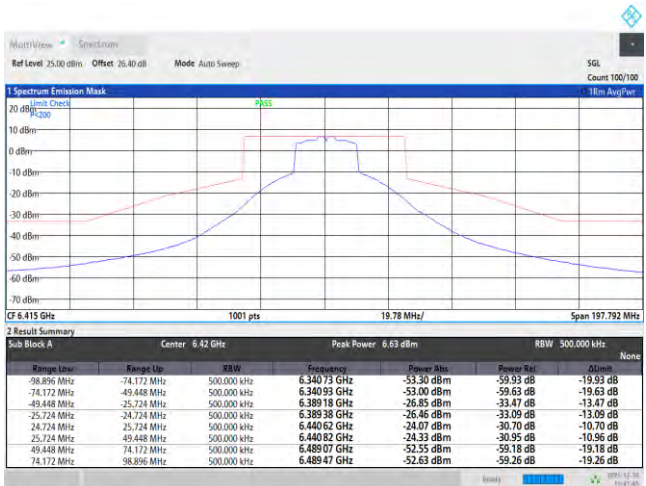


**EUT Mode****802.11be EHT20 FullRU****Plot on 5955 MHz**

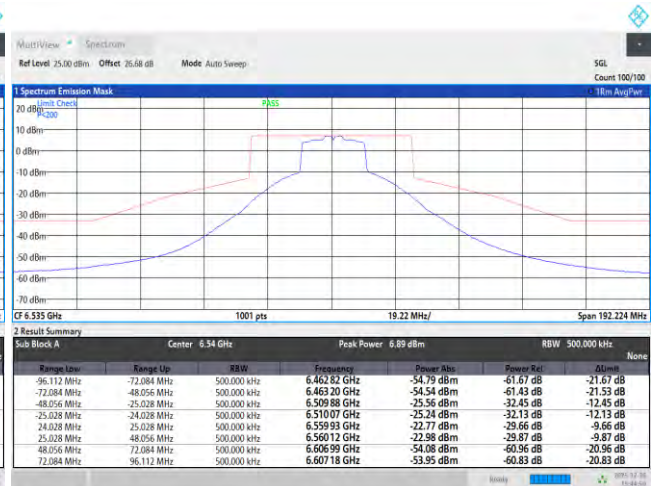
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Plot on 6195 MHz

03:39:35 PM 12/30/2025

Plot on 6415 MHz

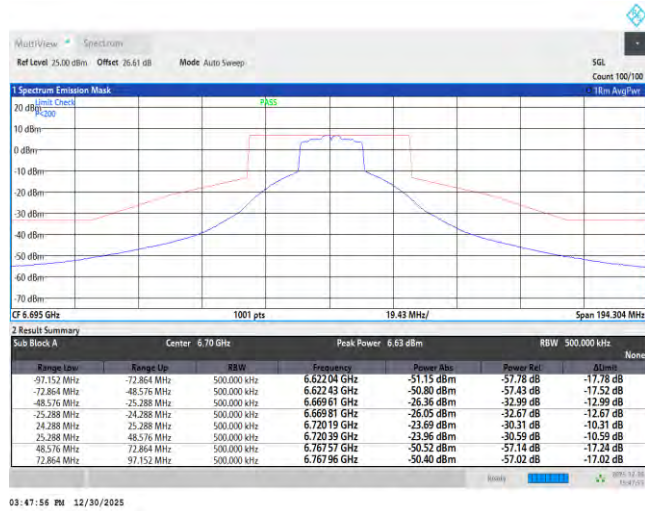
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Plot on 6535 MHz

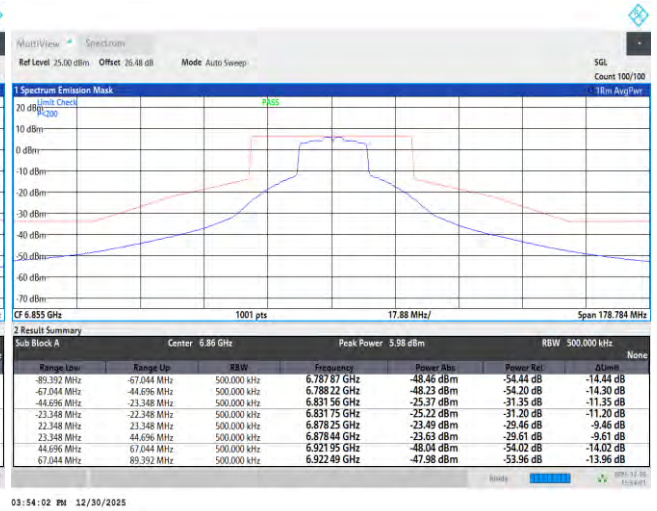
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Plot on 6695 MHz



Plot on 6855 MHz

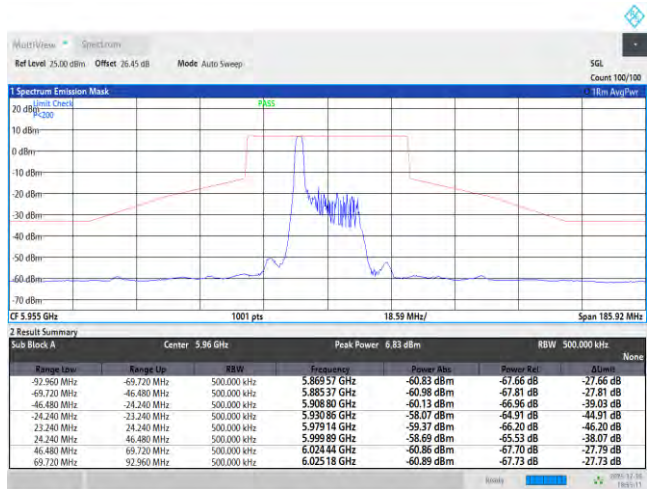




EUT Mode

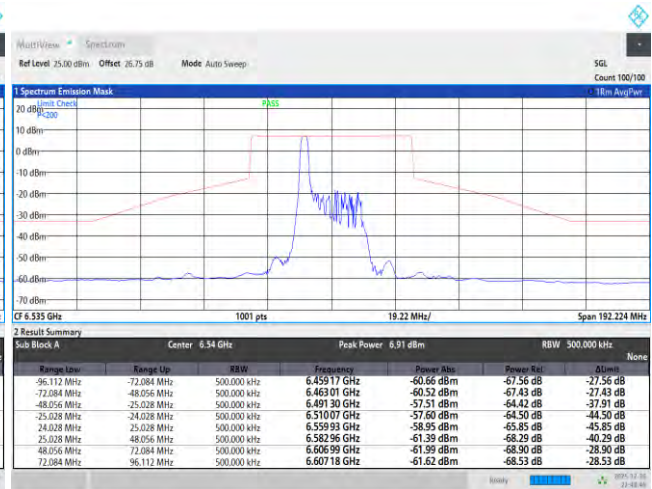
802.11be EHT20 26RU0

Plot on 5955 MHz



06:55:12 PM 12/30/2025

Plot on 6535 MHz

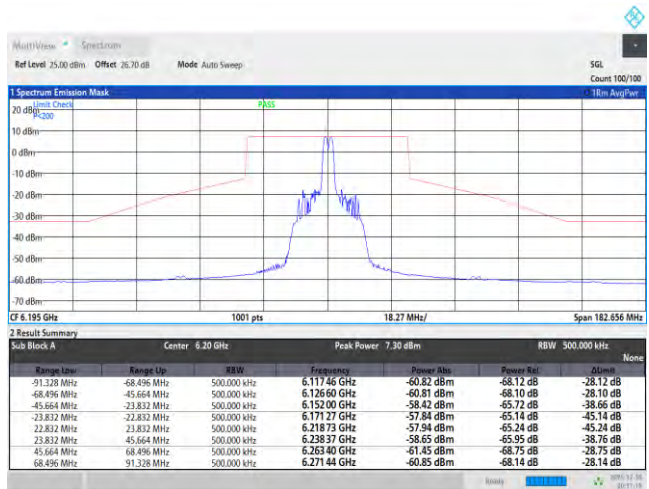


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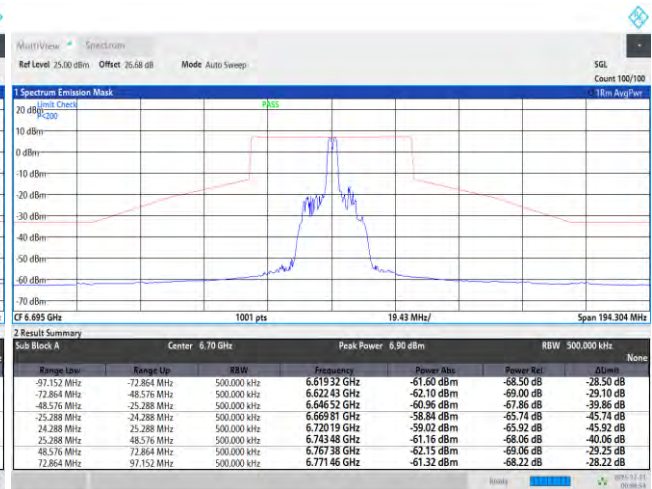
802.11be EHT20 26RU4

Plot on 6195 MHz



08:11:17 PM 12/30/2025

Plot on 6695 MHz



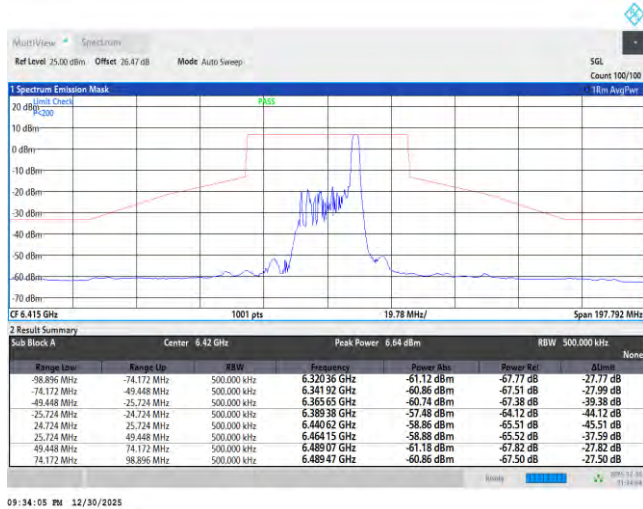
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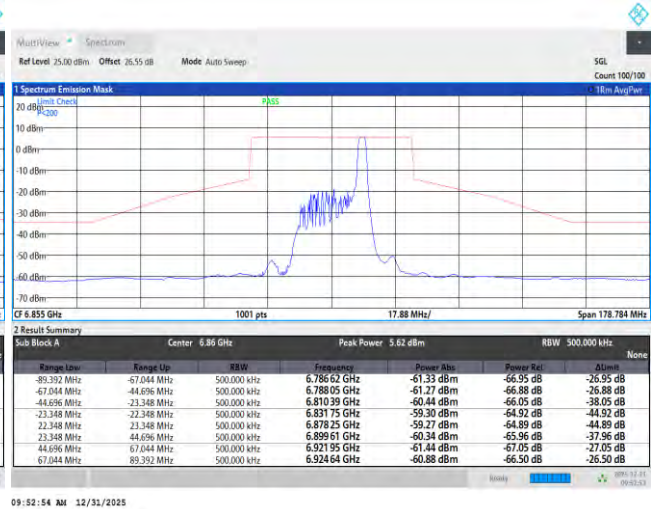
EUT Mode

802.11be EHT20 26RU8

Plot on 6415 MHz



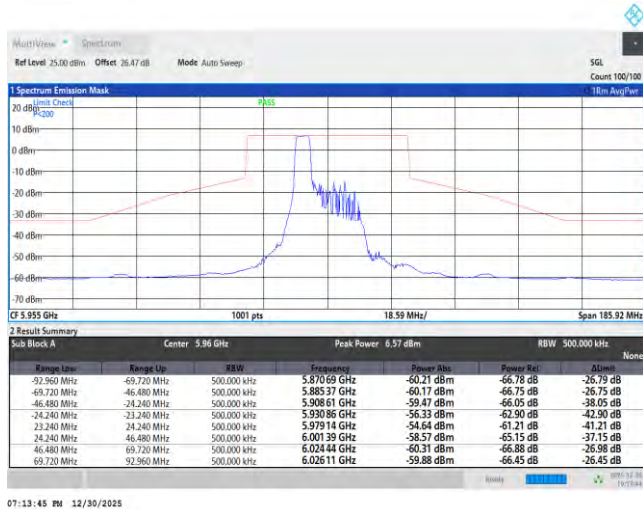
Plot on 6855 MHz



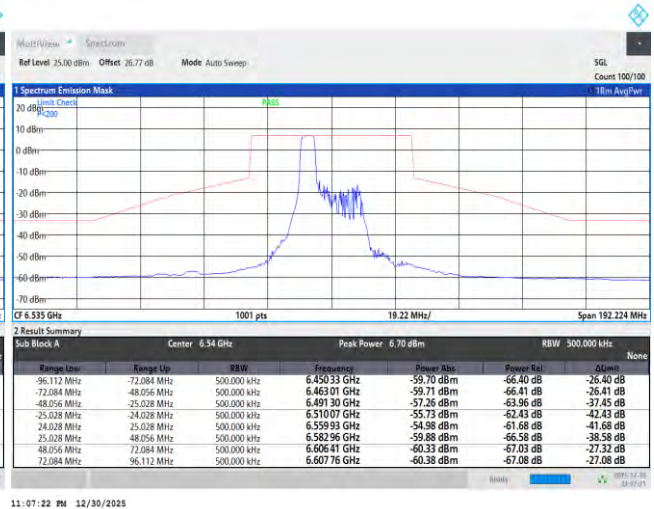
EUT Mode

802.11be EHT20 52RU37

Plot on 5955 MHz



Plot on 6535 MHz

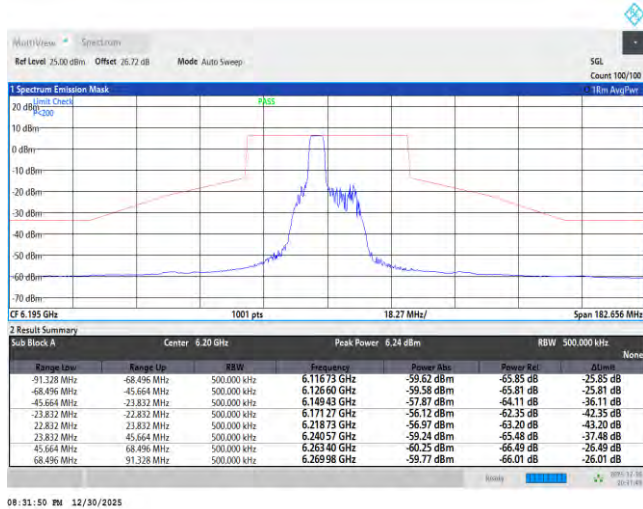




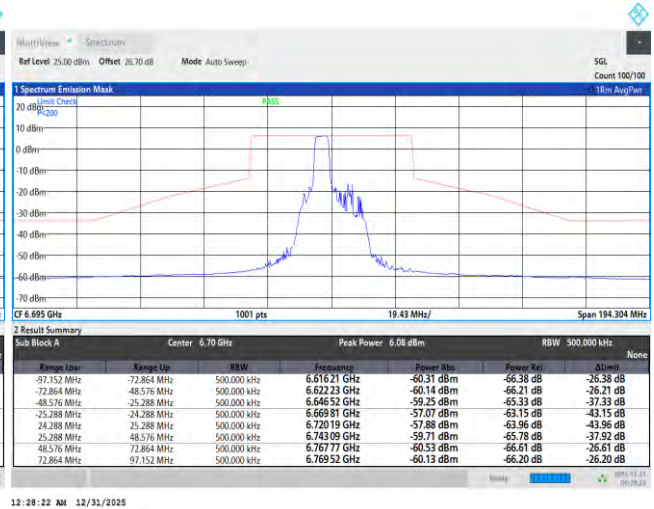
EUT Mode

802.11be EHT20 52RU38

Plot on 6195 MHz



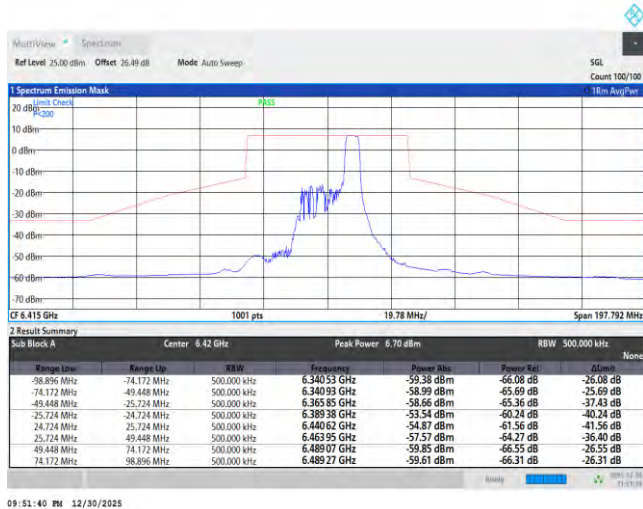
Plot on 6695 MHz



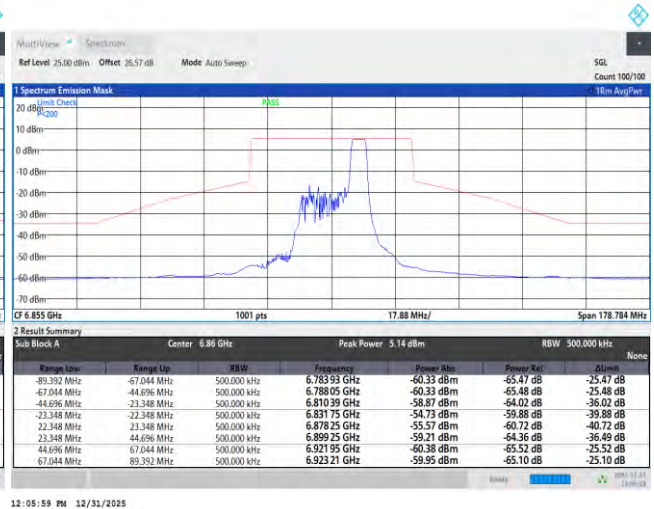
EUT Mode

802.11be EHT20 52RU40

Plot on 6415 MHz



Plot on 6855 MHz

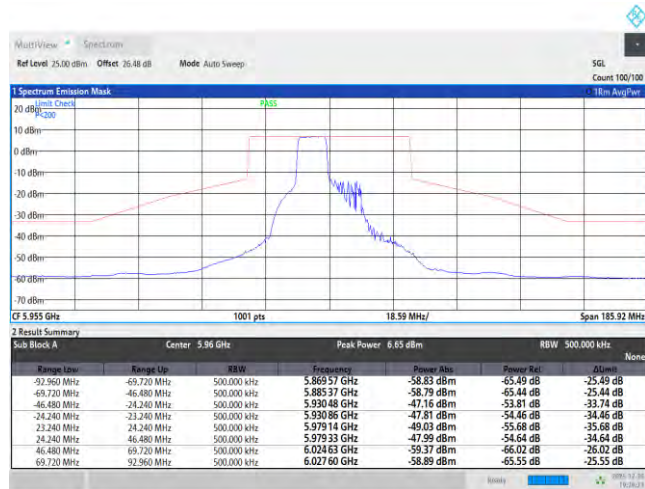




EUT Mode

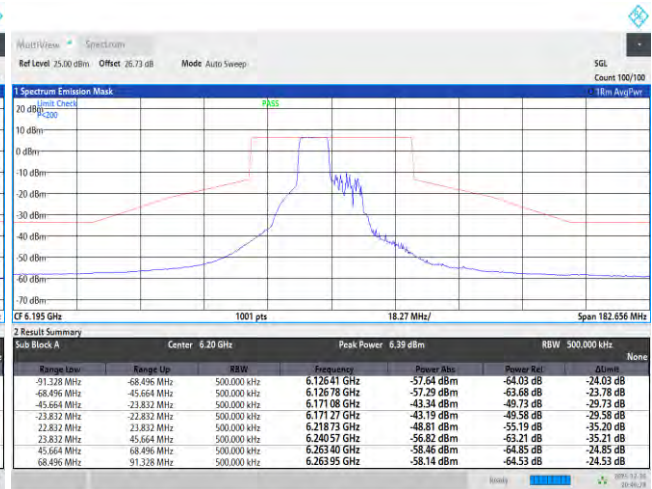
802.11be EHT20 106RU53

Plot on 5955 MHz



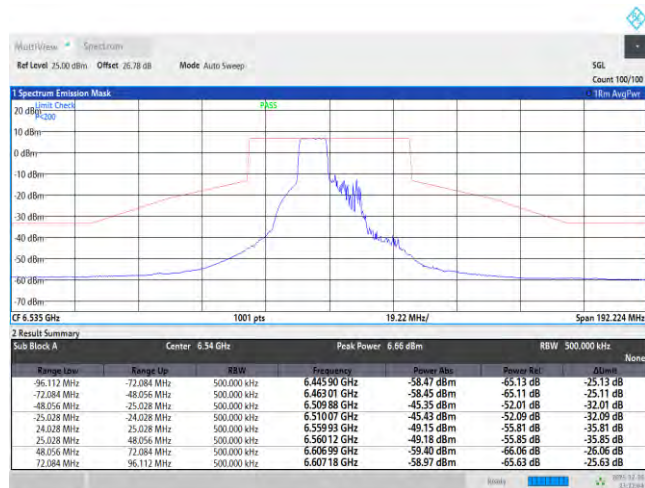
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Plot on 6195 MHz



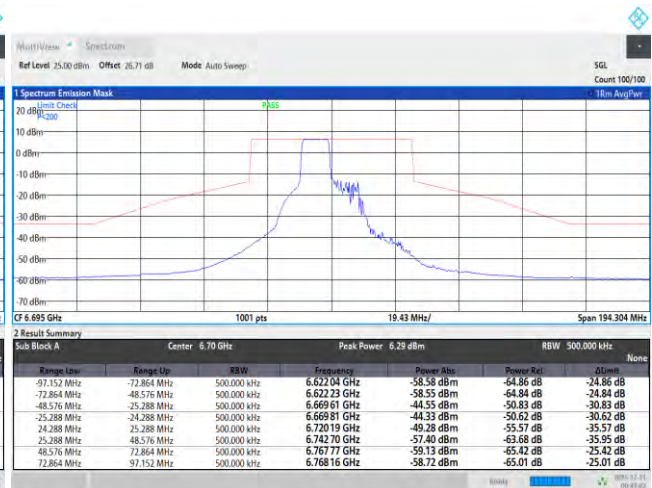
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Plot on 6535 MHz



11:22:04 PM 12/30/2025

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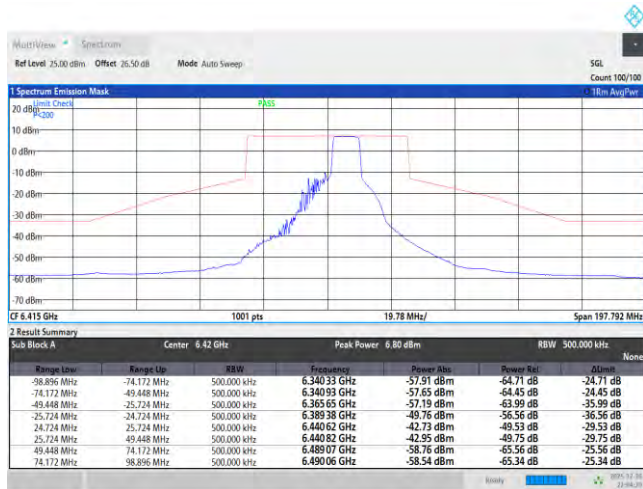
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EUT Mode

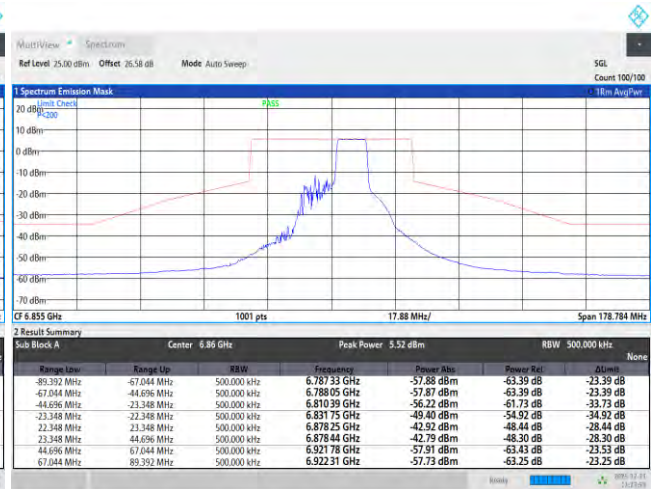
802.11be EHT20 106RU54

Plot on 6415 MHz



10:04:21 PM 12/30/2025

Plot on 6855 MHz

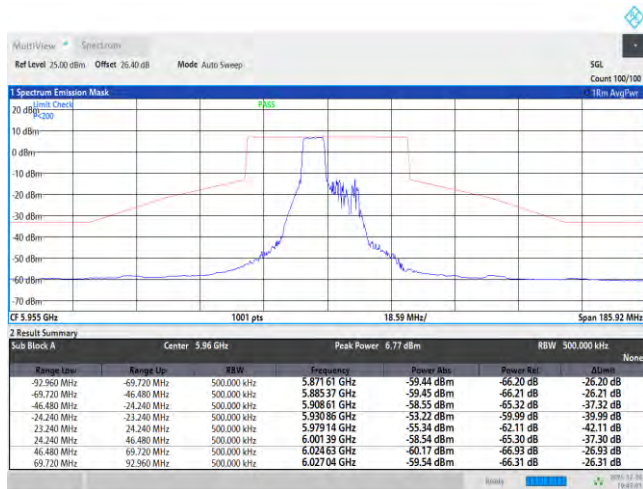


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EUT Mode

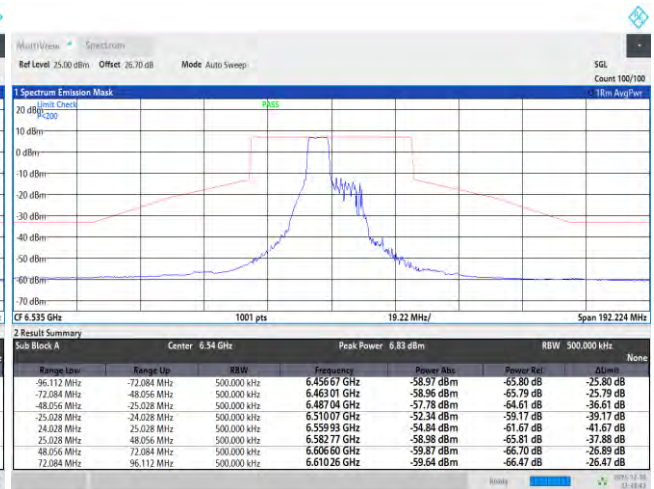
802.11be EHT20 52T+26T70

Plot on 5955 MHz



07:43:02 PM 12/30/2025

Plot on 6535 MHz



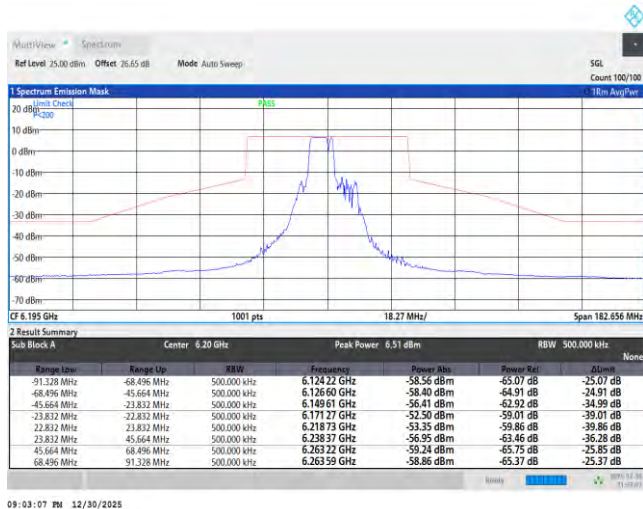
11:38:43 PM 12/30/2025



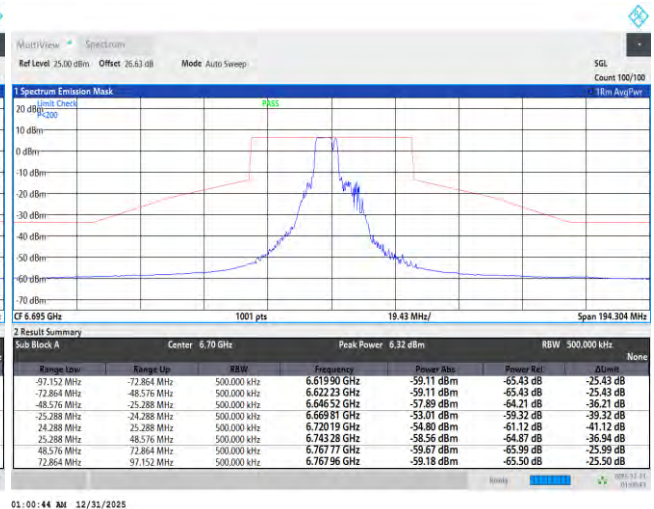
EUT Mode

802.11be EHT20 52T+26T71

Plot on 6195 MHz



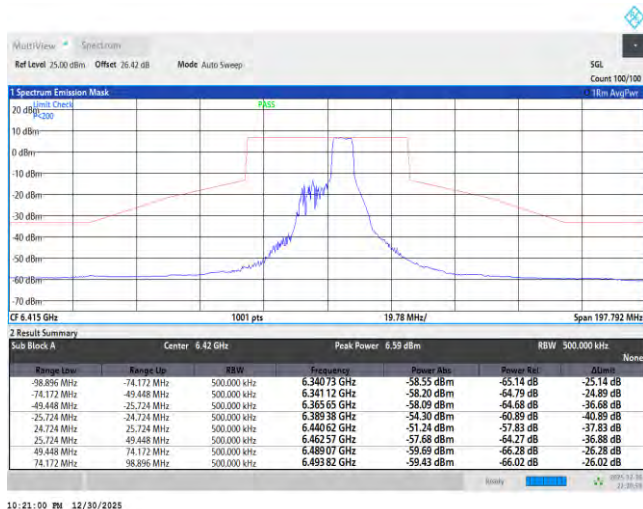
Plot on 6695 MHz



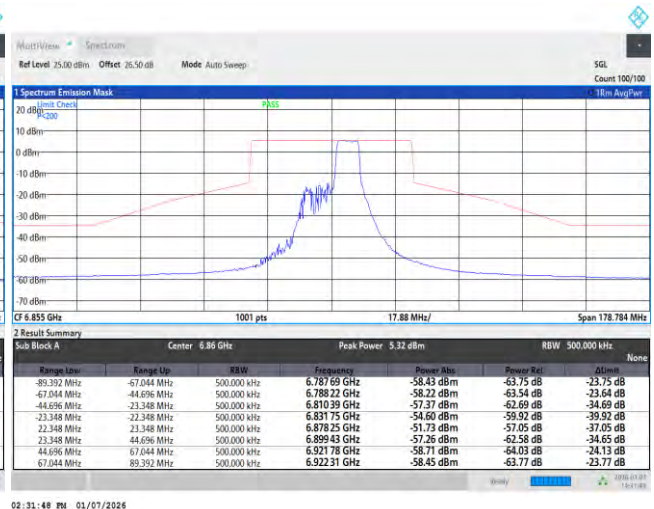
EUT Mode

802.11be EHT20 52T+26T72

Plot on 6415 MHz



Plot on 6855 MHz



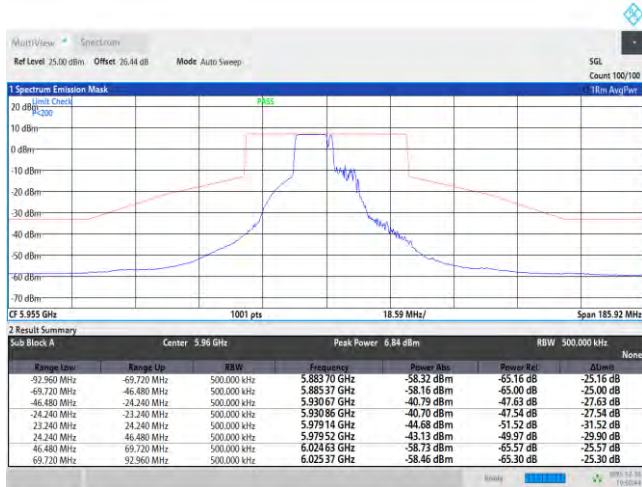


EUT Mode

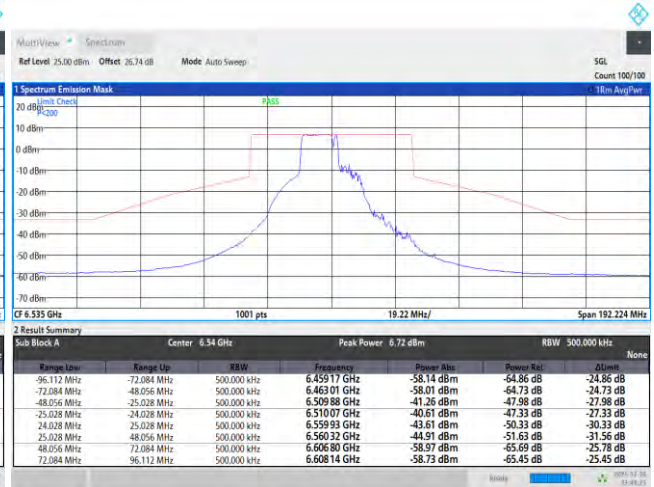
802.11be EHT20 106T+26T82

Plot on 5955 MHz

Plot on 6535 MHz



07:50:45 PM 12/30/2025



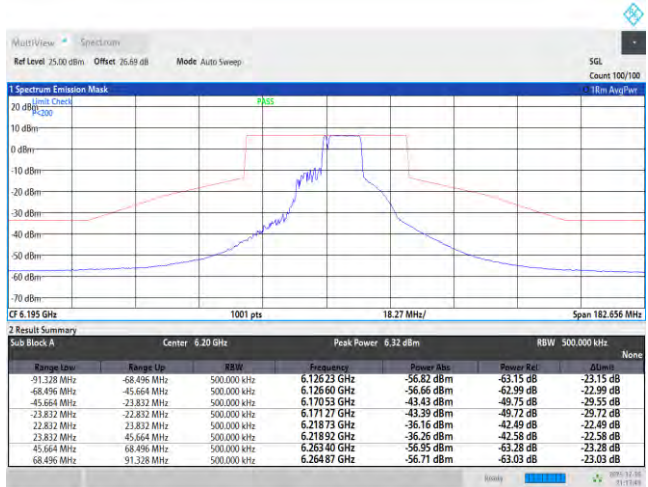
11:48:27 PM 12/30/2025



EUT Mode

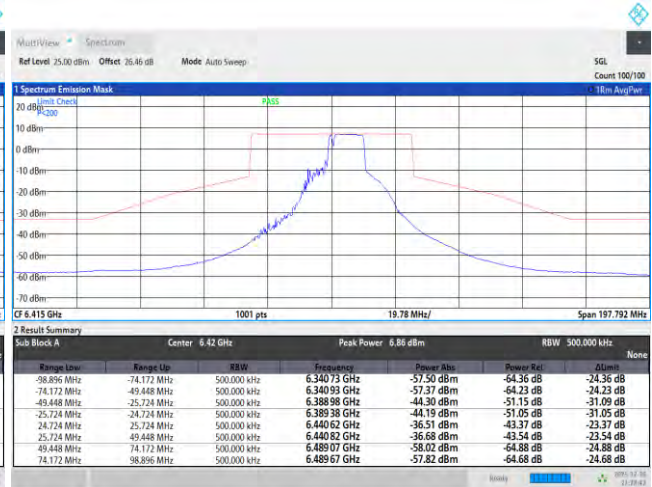
802.11be EHT20 106T+26T83

Plot on 6195 MHz



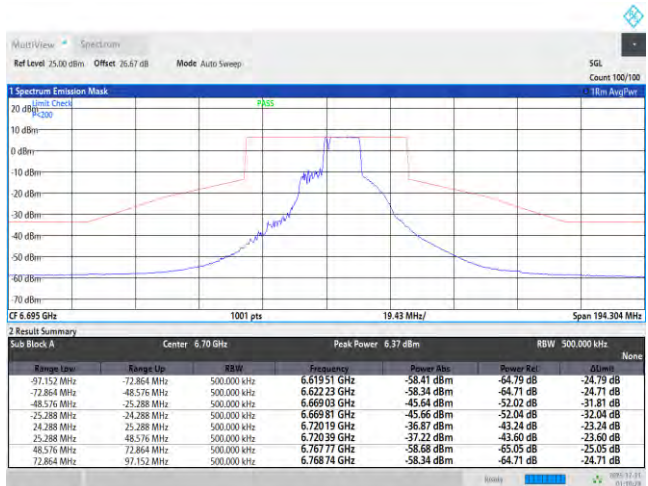
09:13:50 PM 12/30/2025

Plot on 6415 MHz



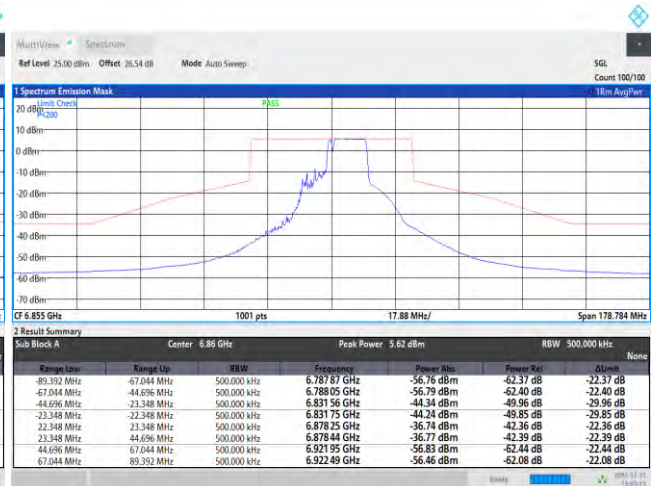
10:28:43 PM 12/30/2025

Plot on 6695 MHz



01:10:28 AM 12/31/2025

Plot on 6855 MHz



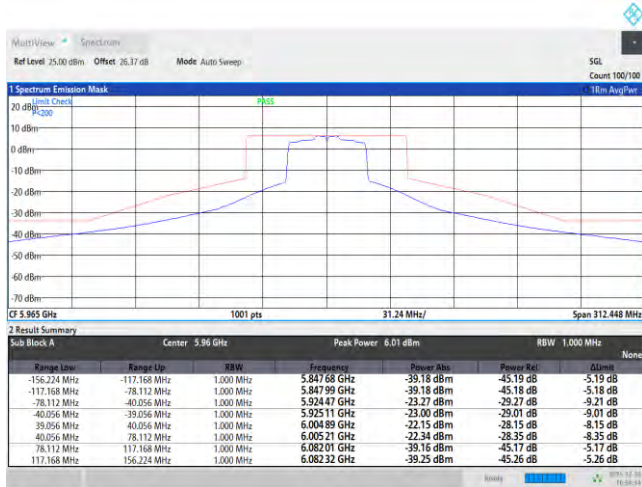
01:03:13 PM 12/31/2025



EUT Mode

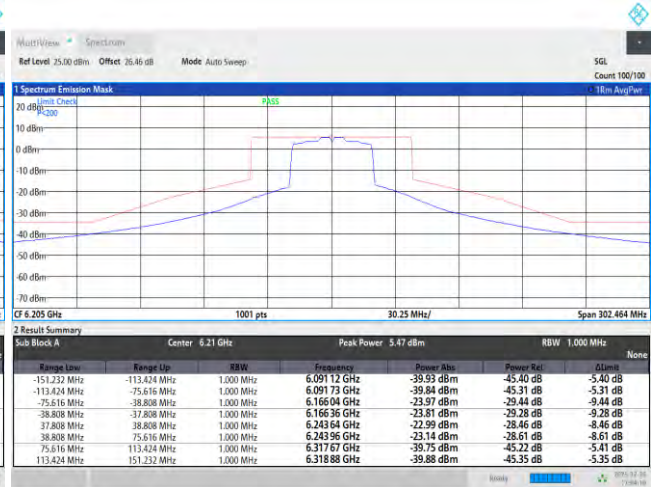
802.11be EHT40 FullRU

Plot on 5965 MHz



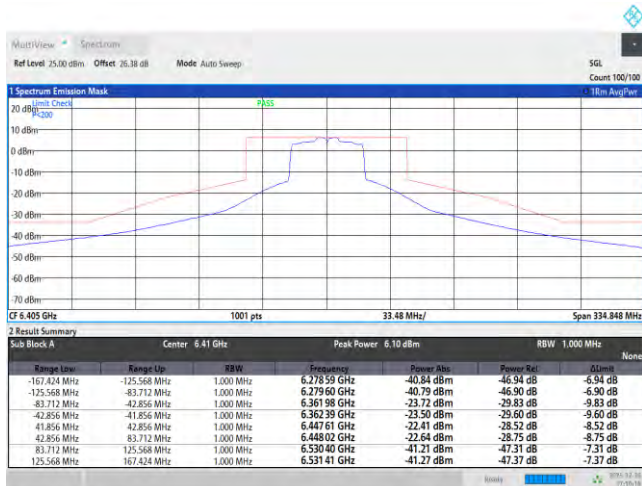
04:56:35 PM 12/30/2025

Plot on 6205 MHz



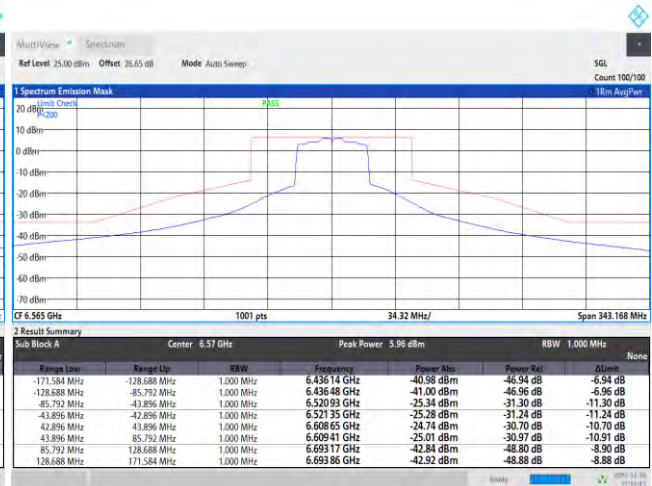
05:04:11 PM 12/30/2025

Plot on 6405 MHz



05:10:17 PM 12/30/2025

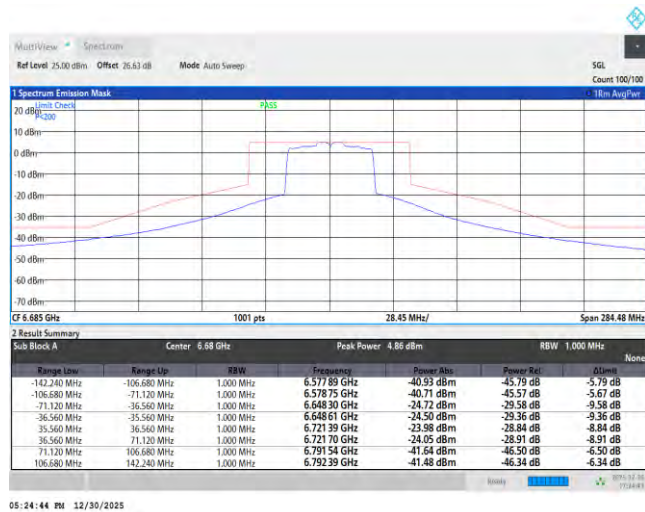
Plot on 6565 MHz



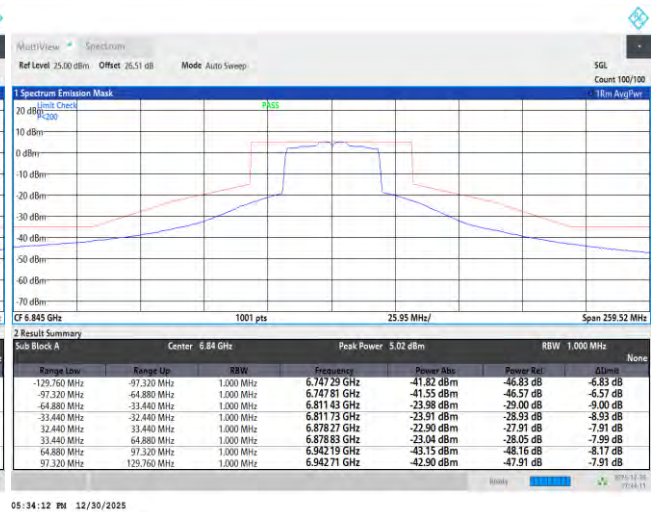
05:16:48 PM 12/30/2025

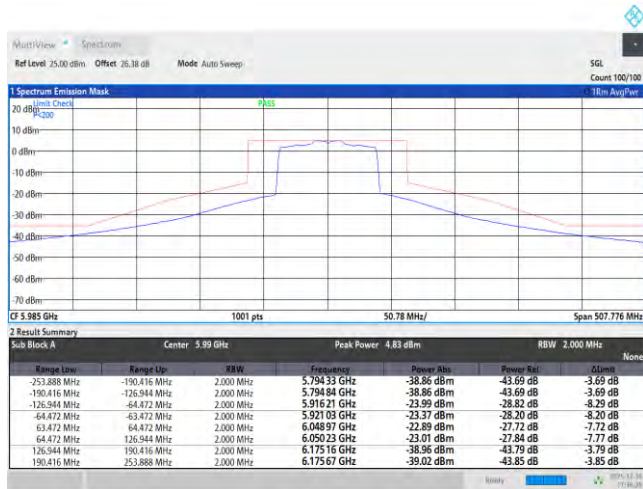


Plot on 6685 MHz

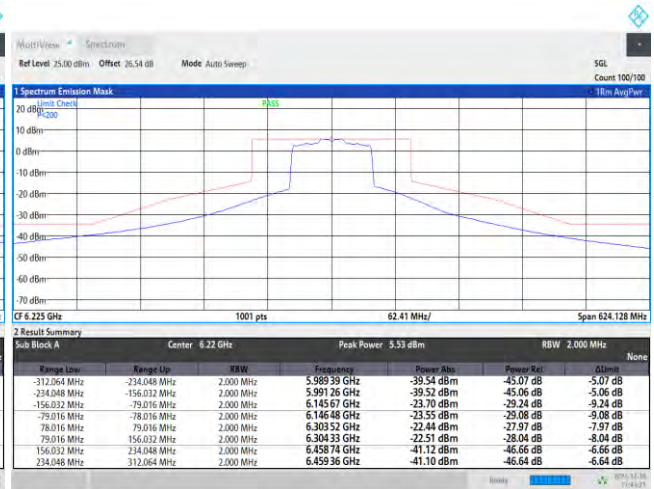


Plot on 6845 MHz

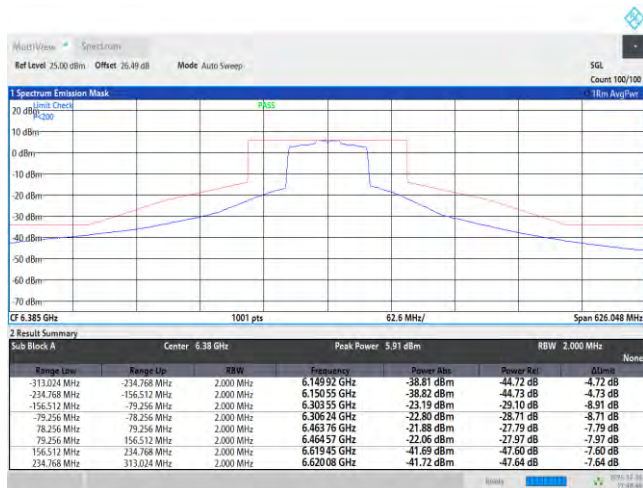


**EUT Mode****802.11be EHT80 FullRU****Plot on 5985 MHz**

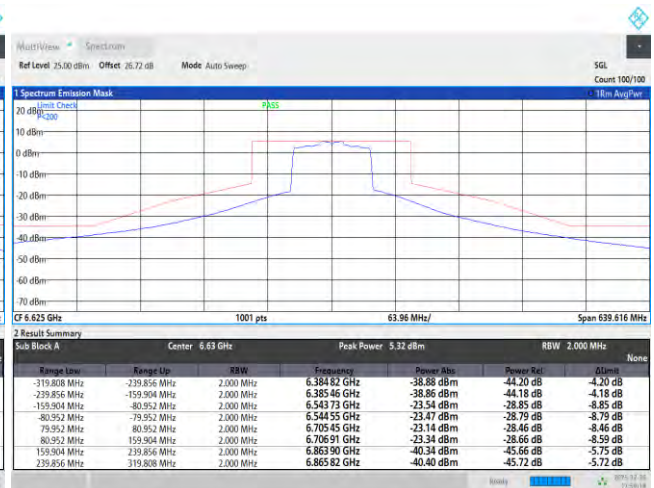
05:36:27 PM 12/30/2025

Plot on 6225 MHz

05:43:21 PM 12/30/2025

Plot on 6385 MHz

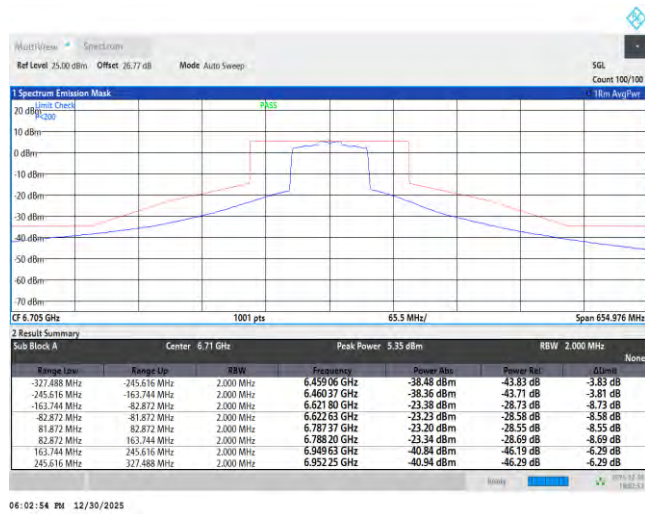
05:49:47 PM 12/30/2025

Plot on 6625 MHz

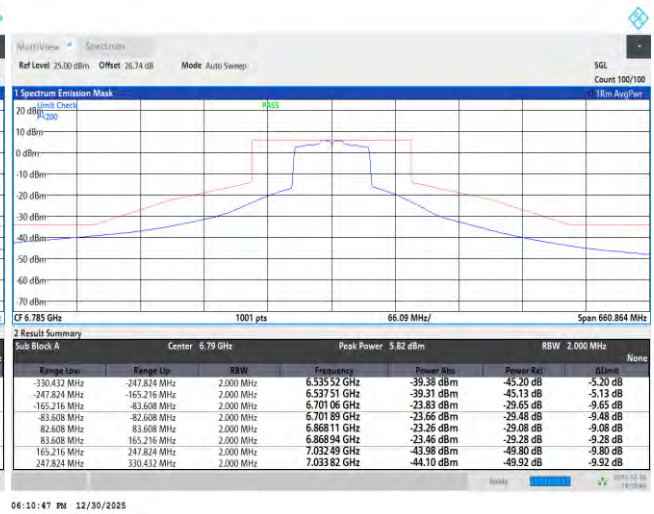
05:56:19 PM 12/30/2025



Plot on 6705 MHz



Plot on 6785 MHz



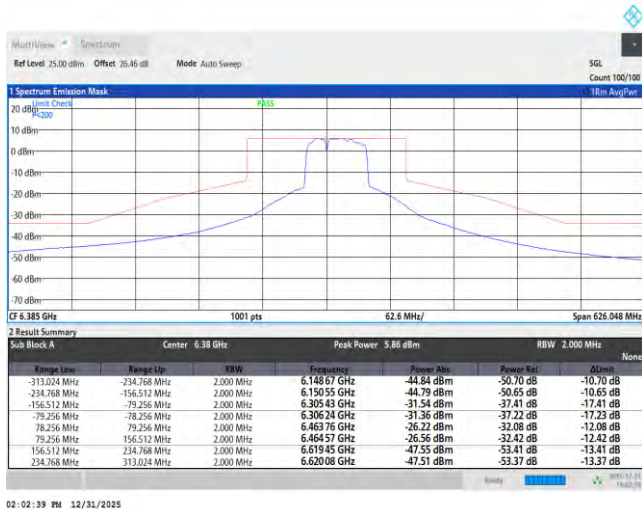


EUT Mode

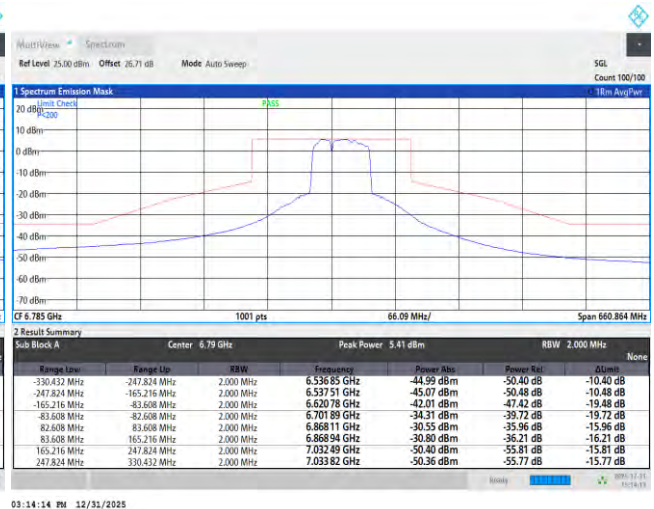
802.11be EHT80 Puncture20 1

Plot on 6385 MHz

Plot on 6785 MHz



02:02:39 PM 12/31/2025



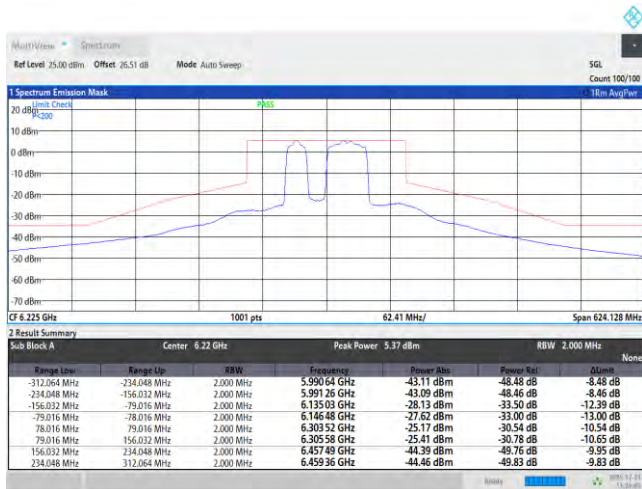
03:14:14 PM 12/31/2025

EUT Mode

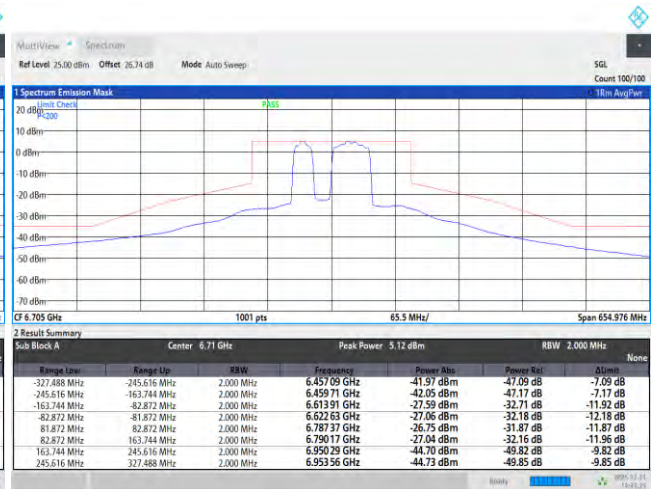
802.11be EHT80 Puncture20 2

Plot on 6225 MHz

Plot on 6705 MHz



01:26:09 PM 12/31/2025



02:33:26 PM 12/31/2025

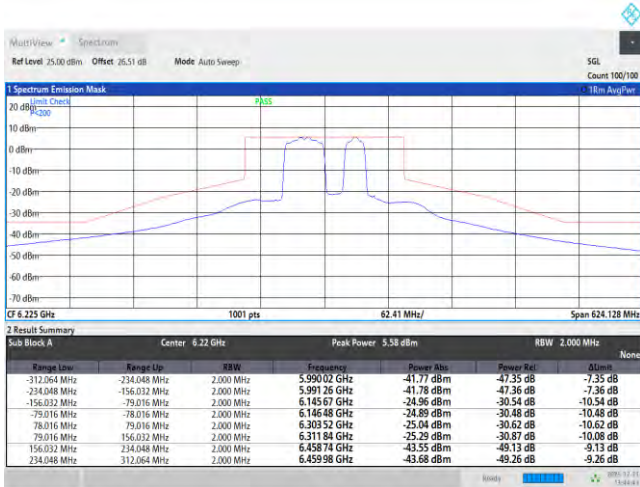


EUT Mode

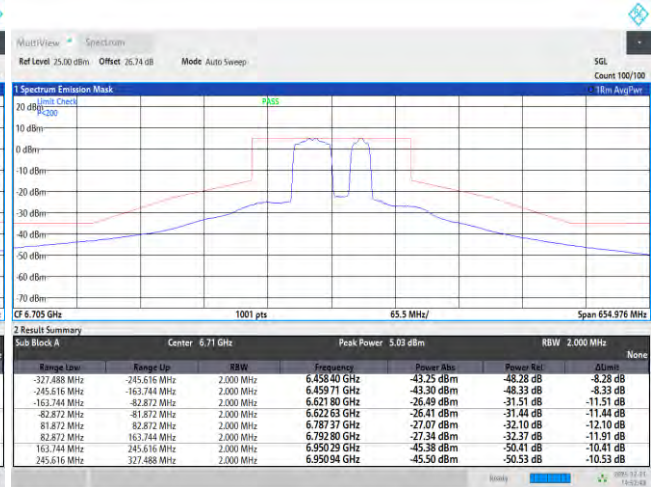
802.11be EHT80 Puncture20 4

Plot on 6225 MHz

Plot on 6705 MHz



01:44:43 PM 12/31/2025



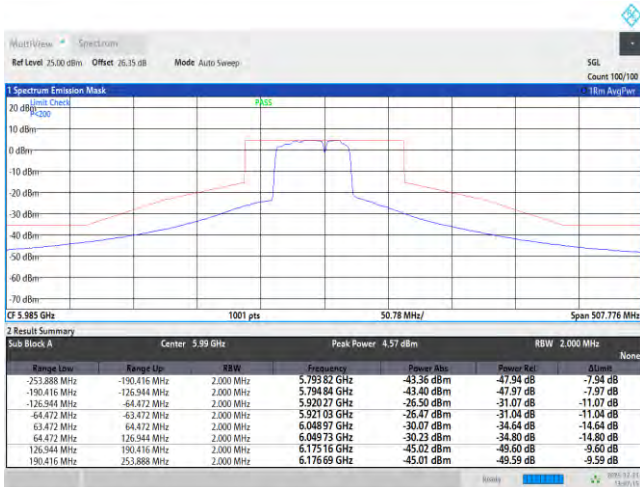
02:52:48 PM 12/31/2025

EUT Mode

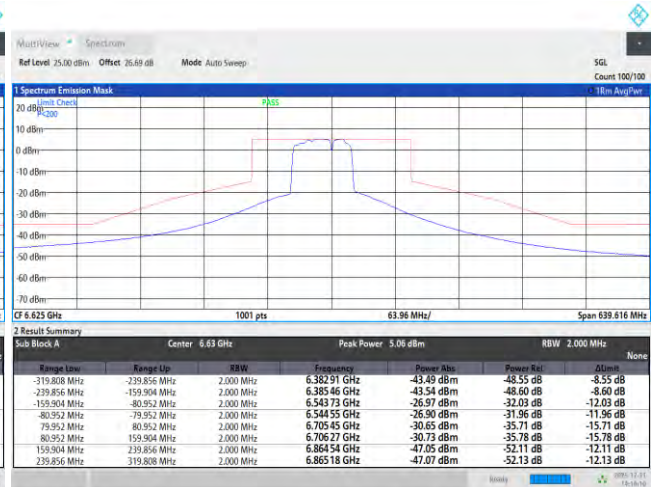
802.11be EHT80 Puncture20 8

Plot on 5985 MHz

Plot on 6625 MHz



01:07:15 PM 12/31/2025



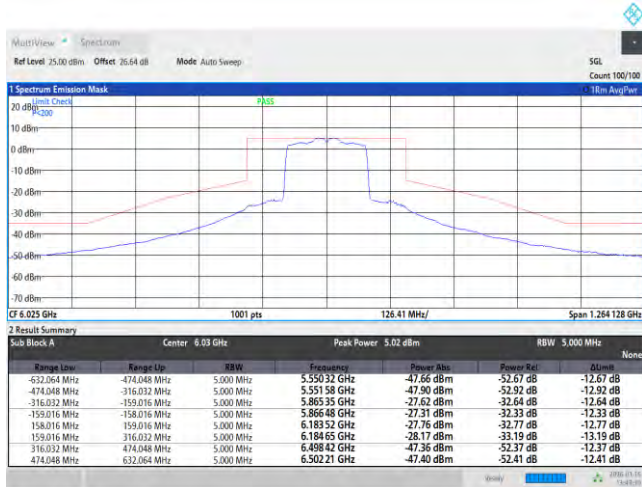
02:16:11 PM 12/31/2025



EUT Mode

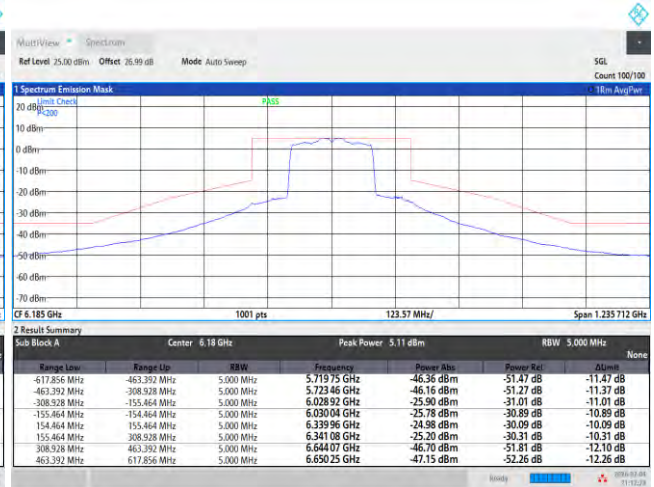
802.11be EHT160 FullIRU

Plot on 6025 MHz



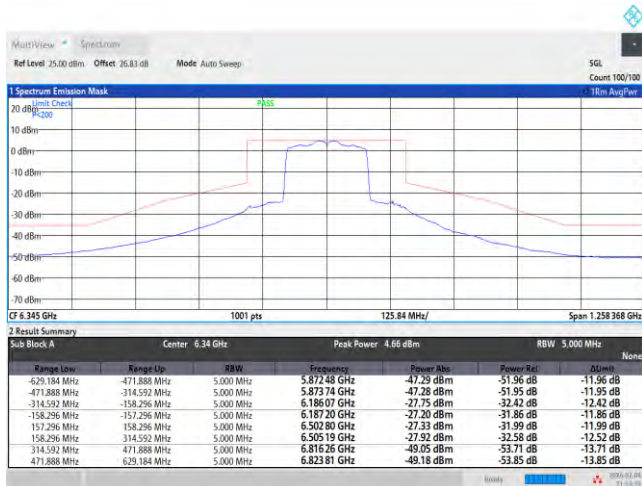
01:43:30 PM 01/16/2026

Plot on 6185 MHz



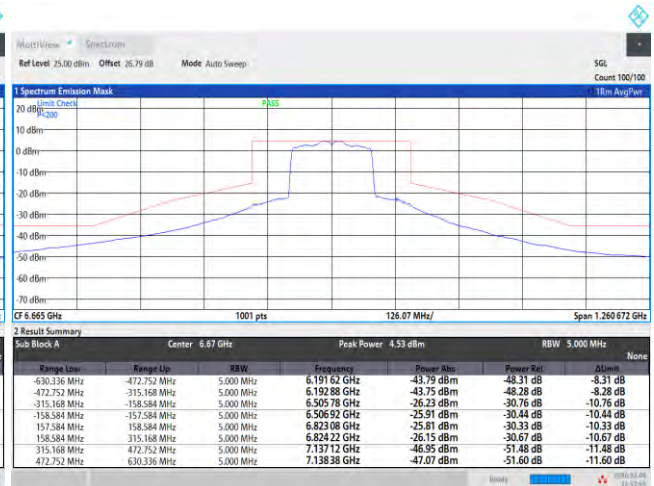
09:12:29 PM 02/04/2026

Plot on 6345 MHz



09:53:36 PM 02/04/2026

Plot on 6665 MHz



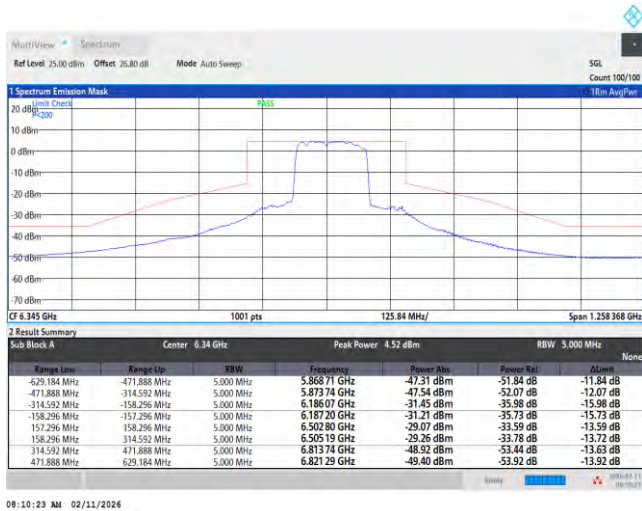
10:52:56 PM 02/04/2026



EUT Mode

802.11be EHT160 Puncture20 1

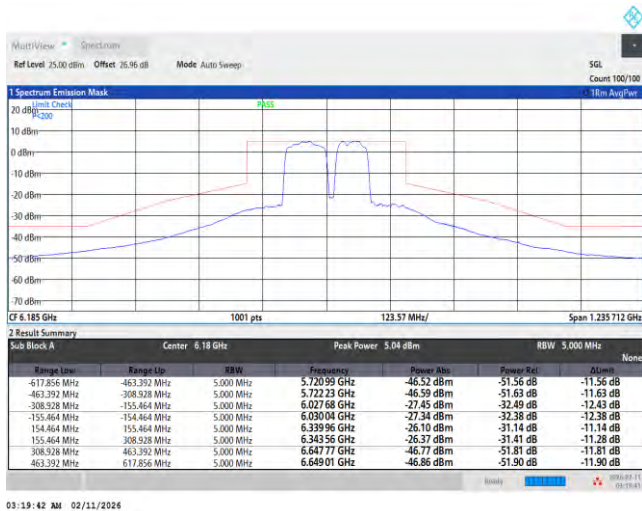
Plot on 6345 MHz

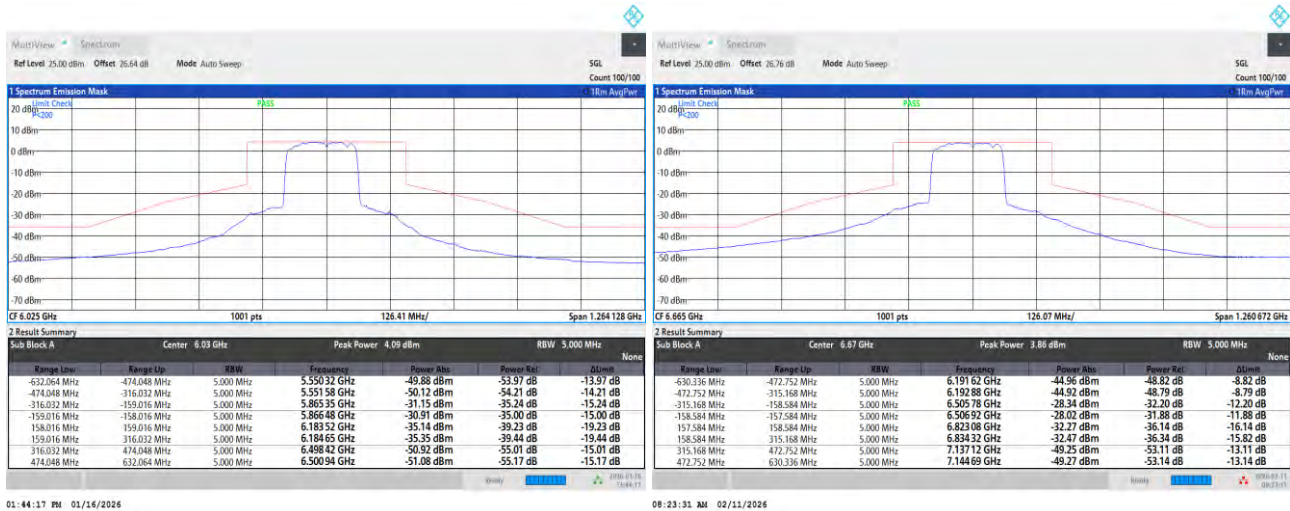
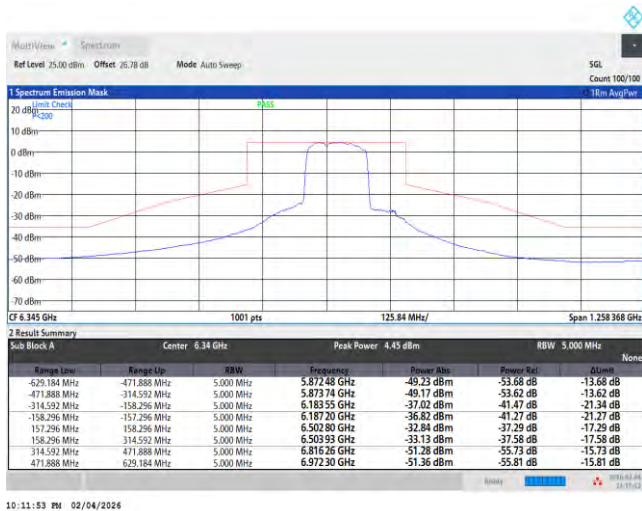


EUT Mode

802.11be EHT160 Puncture20 16

Plot on 6185 MHz



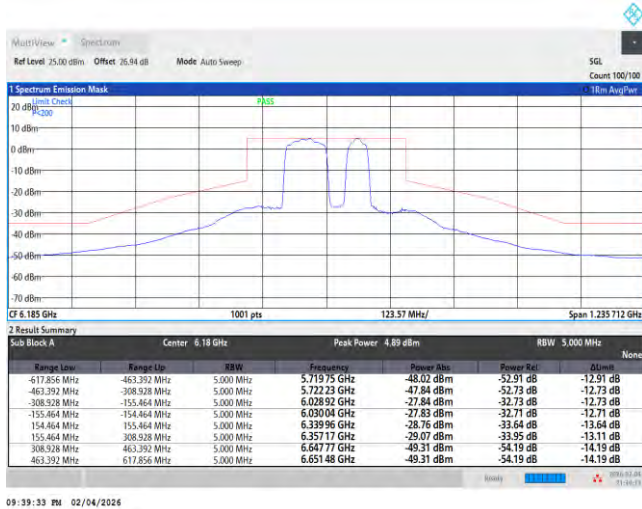
**EUT Mode****802.11be EHT160 Puncture20 128****Plot on 6025 MHz****Plot on 6665 MHz****EUT Mode****802.11be EHT160 Puncture40 3****Plot on 6345 MHz**



EUT Mode

802.11be EHT160 Puncture40 48

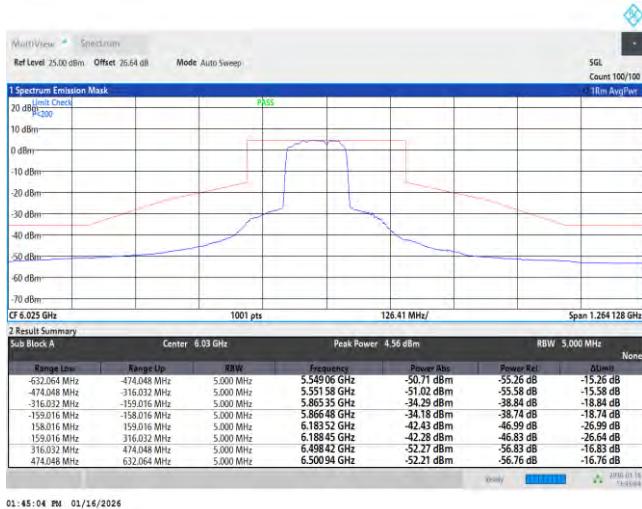
Plot on 6185 MHz



EUT Mode

802.11be EHT160 Puncture40 192

Plot on 6025 MHz



Plot on 6665 MHz

