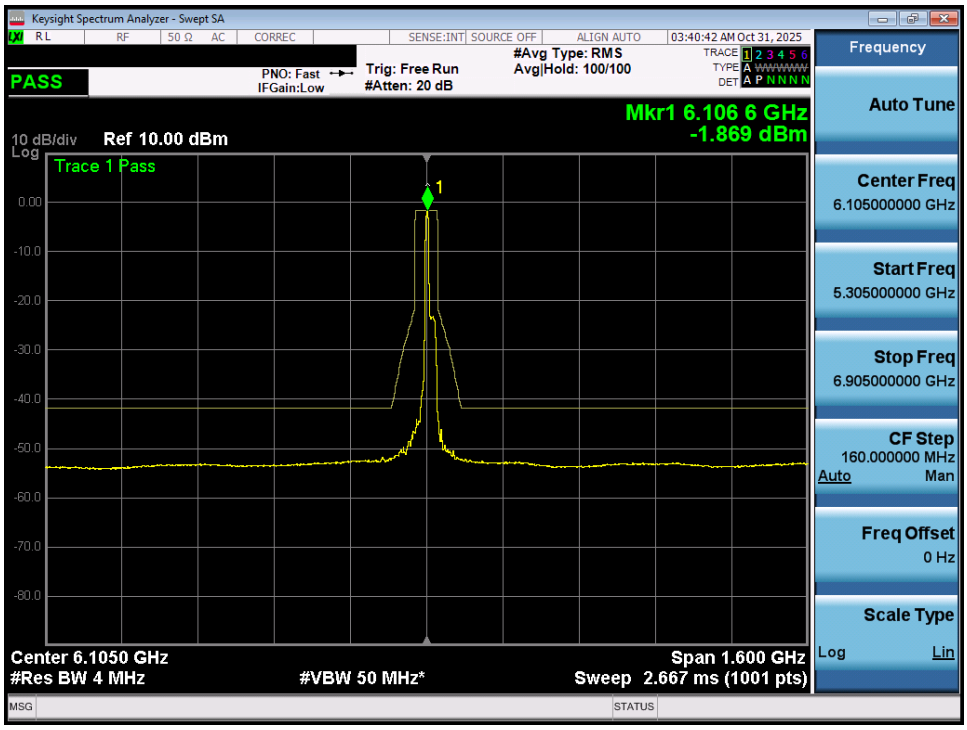
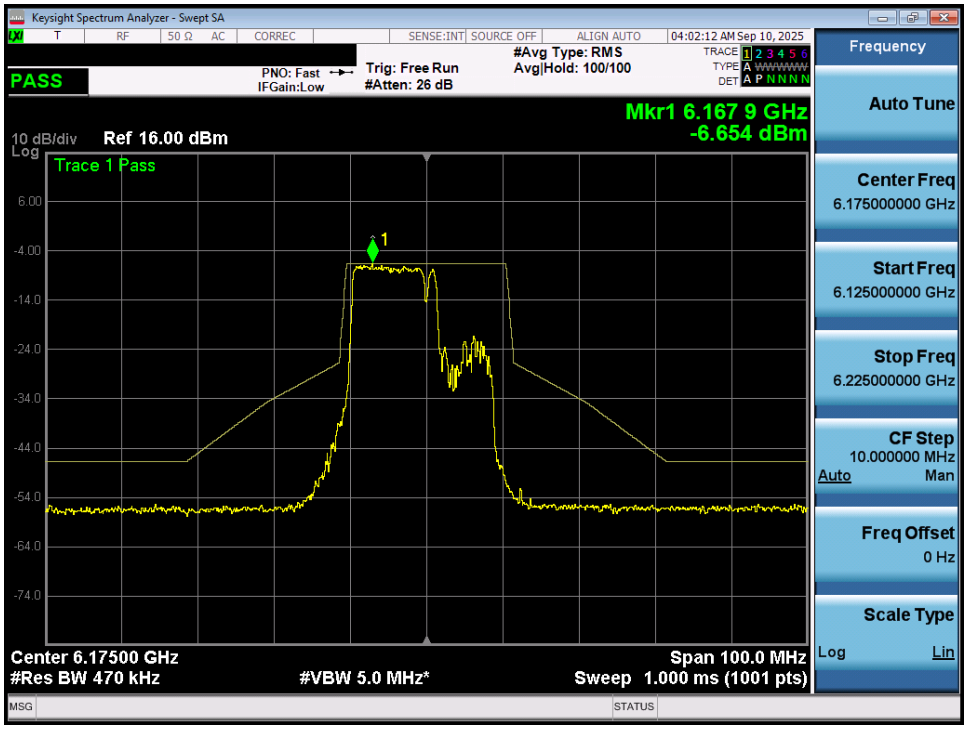
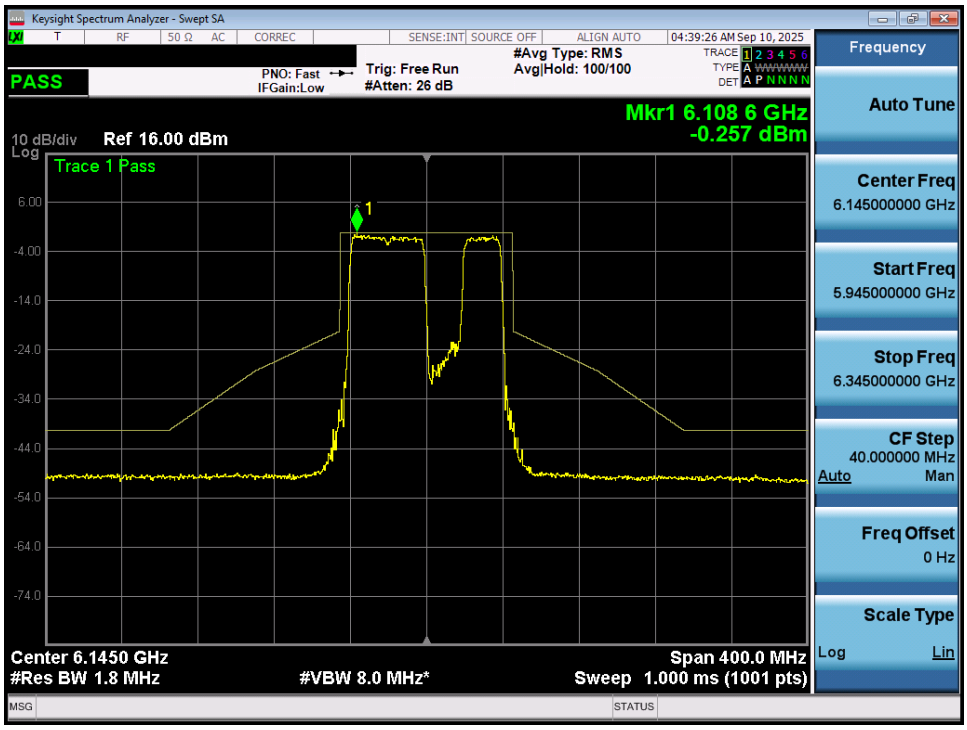


Plot 7-105. In Band Emissions Plot MIMO ANT1 (320MHz 802.11be (26 Tones) (UNII Band 5) – Ch. 31) - LPI

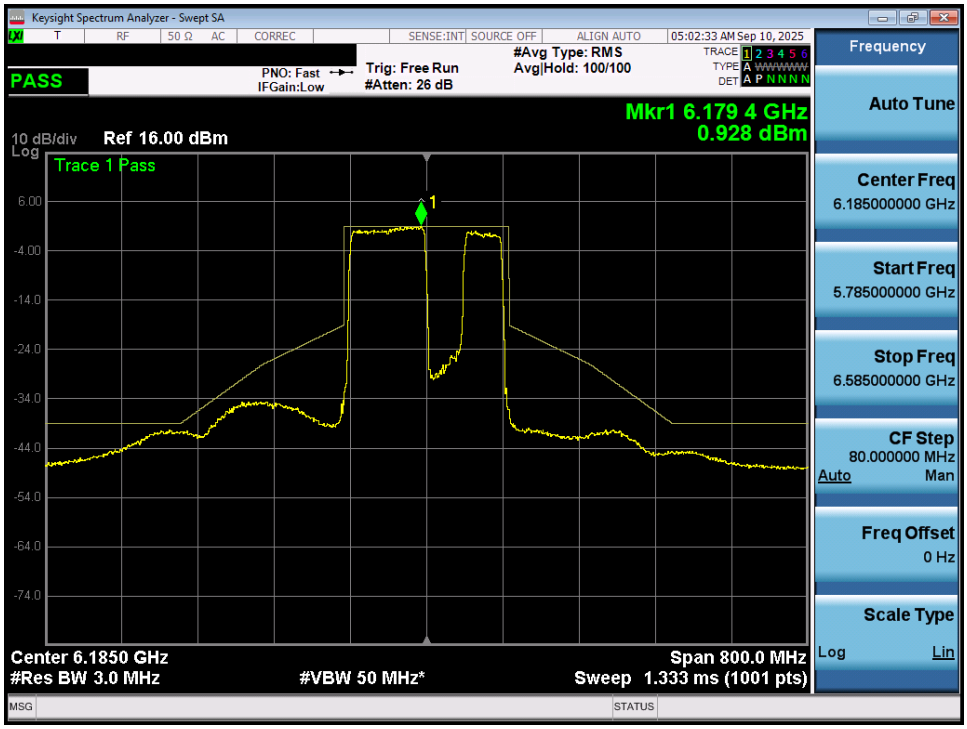


Plot 7-106. In Band Emissions Plot MIMO ANT1 (20MHz 802.11be (106+26 Tones) (UNII Band 5) – Ch. 45) - LPI

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.



Plot 7-107. In Band Emissions Plot MIMO ANT1 (80MHz 802.11be (484+242 Tones) (UNII Band 5) – Ch. 39) - LPI

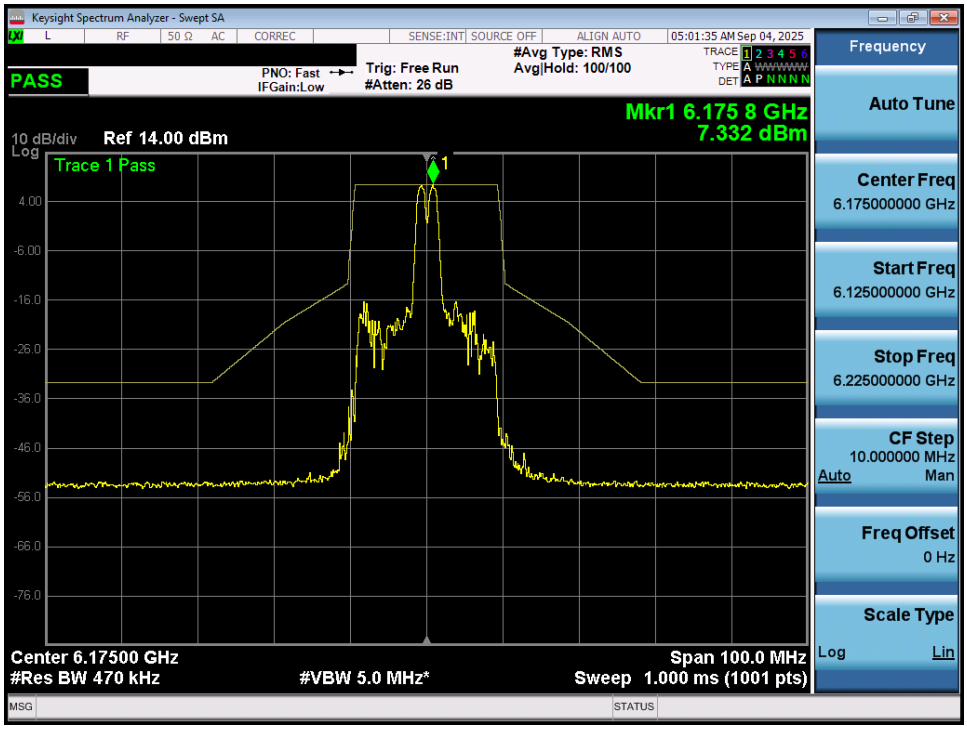


Plot 7-108. In Band Emissions Plot MIMO ANT1 (160MHz 802.11be (996+484 Tones) (UNII Band 5) – Ch. 47) - LPI

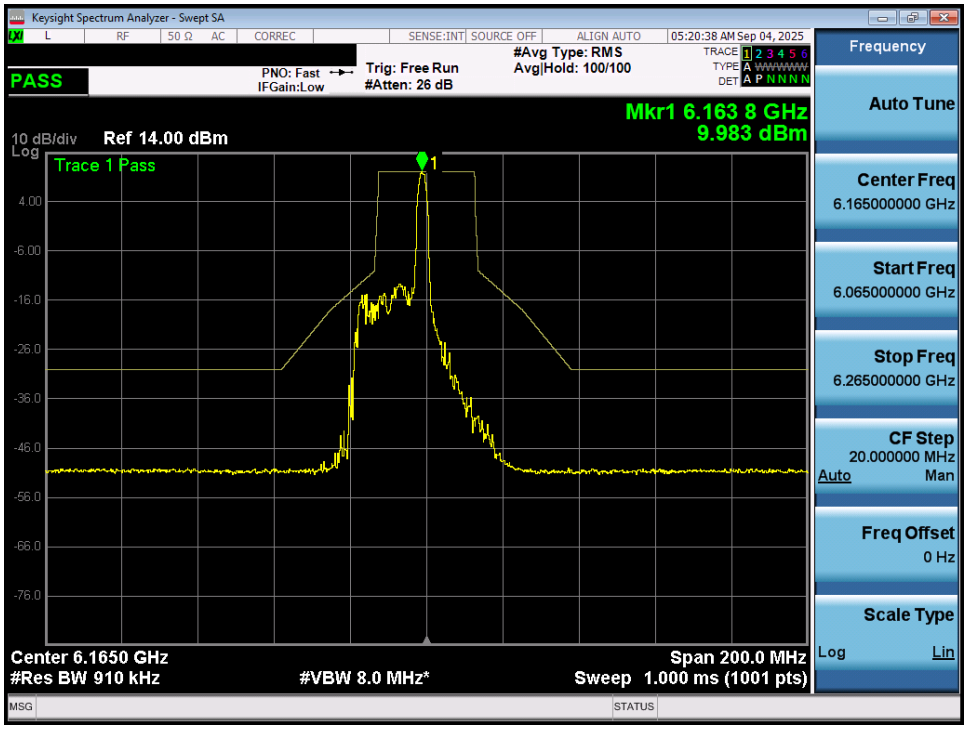
© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

Plot 7-109. In Band Emissions Plot MIMO ANT1 (320MHz 802.11be (3*996+484 Tones) (UNII Band 5) – Ch. 31) LPI/SP

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.



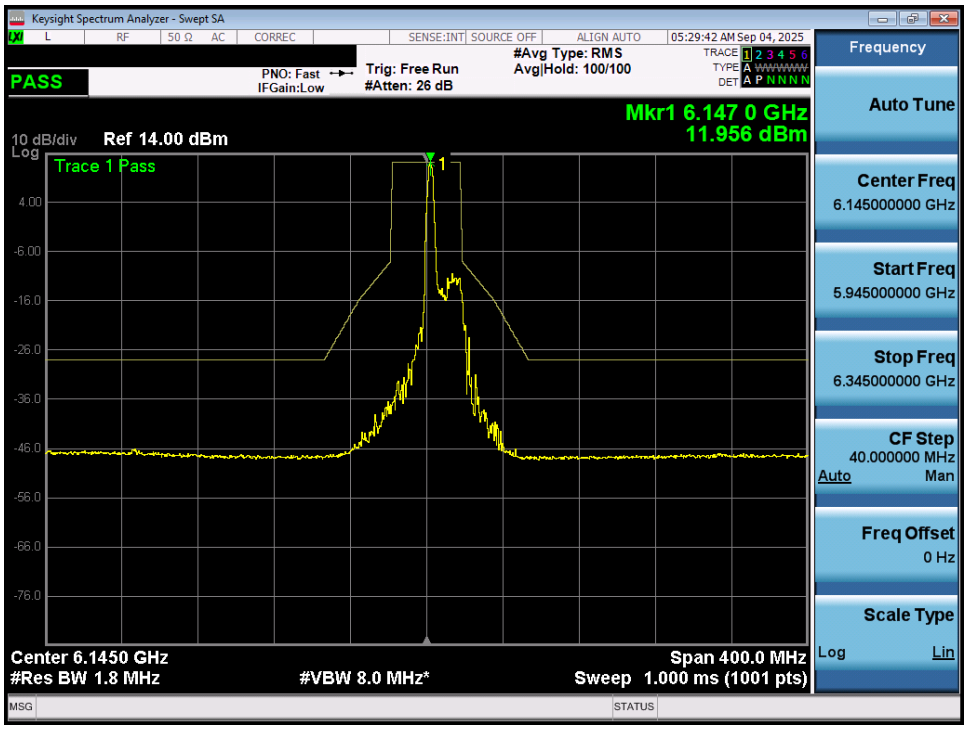
Plot 7-110. In Band Emissions Plot MIMO ANT1 (20MHz 802.11ax/be (26 Tones) (UNII Band 5) – Ch. 45) - SP



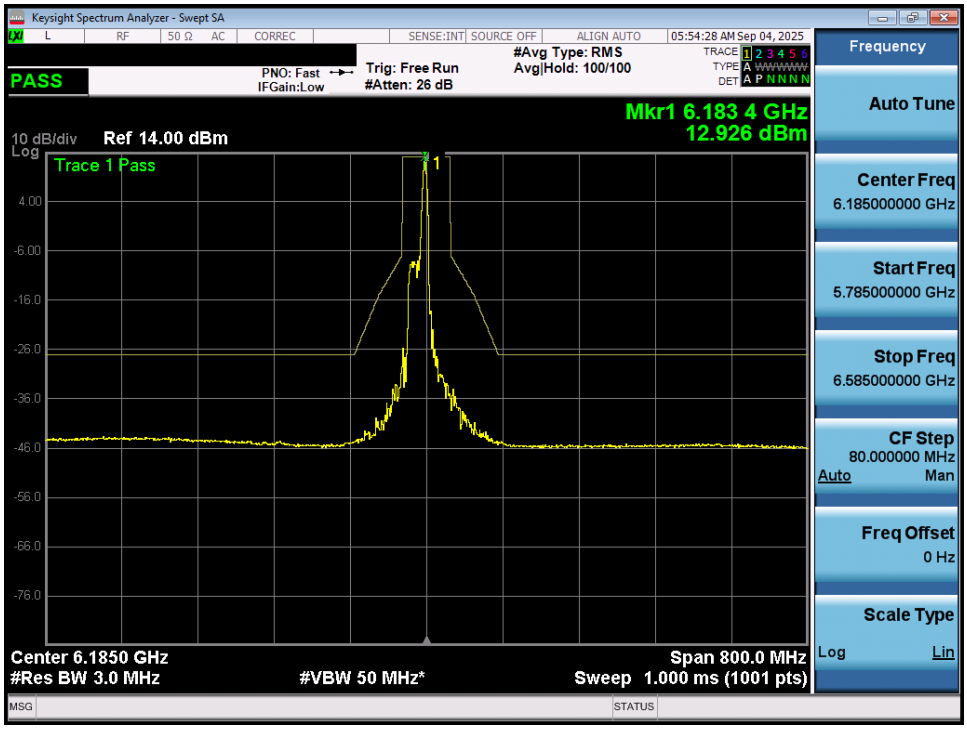
Plot 7-111. In Band Emissions Plot MIMO ANT1 (40MHz 802.11ax/be (26 Tones) (UNII Band 5) – Ch. 43) - SP

© 2025 ELEMENT V 11.3 5/14/2025

Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

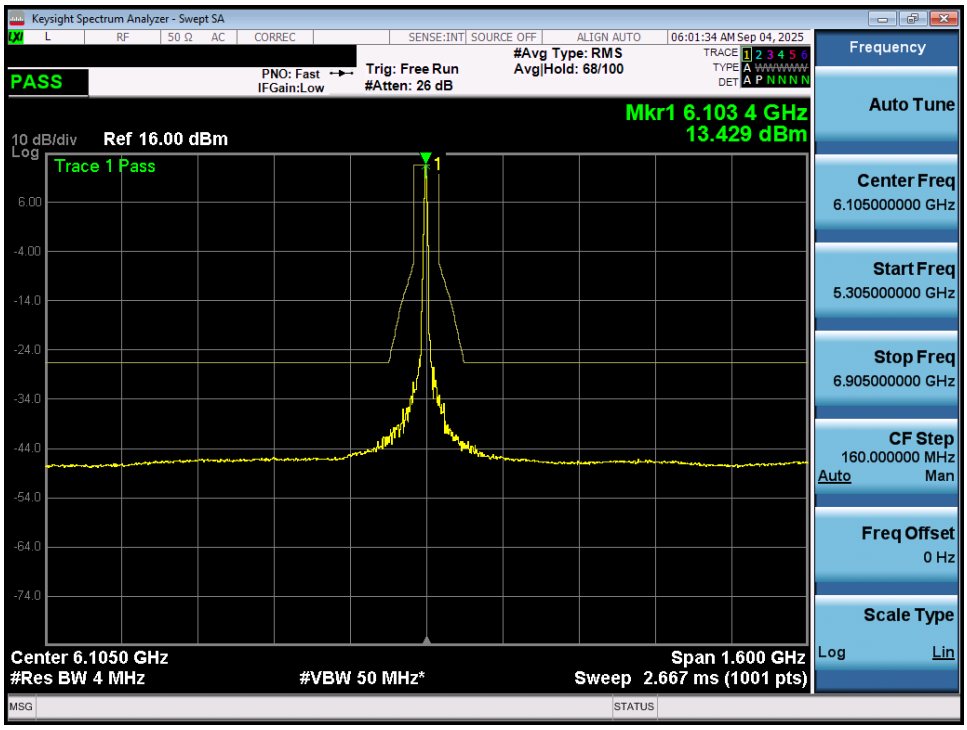


Plot 7-112. In Band Emissions Plot MIMO ANT1 (80MHz 802.11ax/be (26 Tones) (UNII Band 5) – Ch. 39) - SP

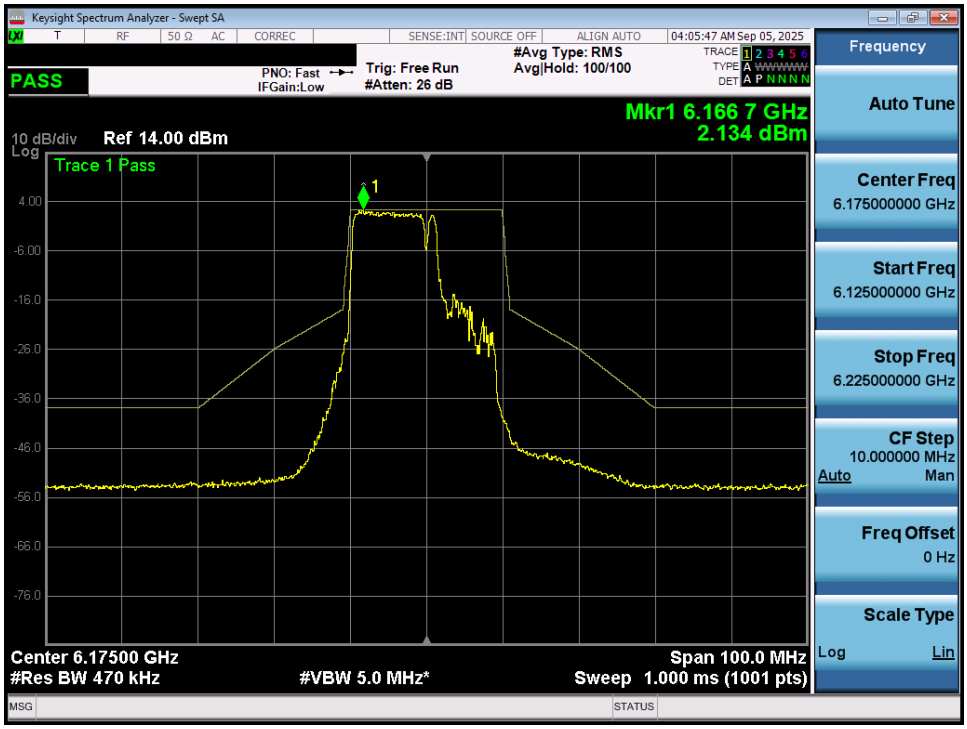


Plot 7-113. In Band Emissions Plot MIMO ANT1 (160MHz 802.11ax/be (26 Tones) (UNII Band 5) – Ch. 47) - SP

© 2025 ELEMENT
V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

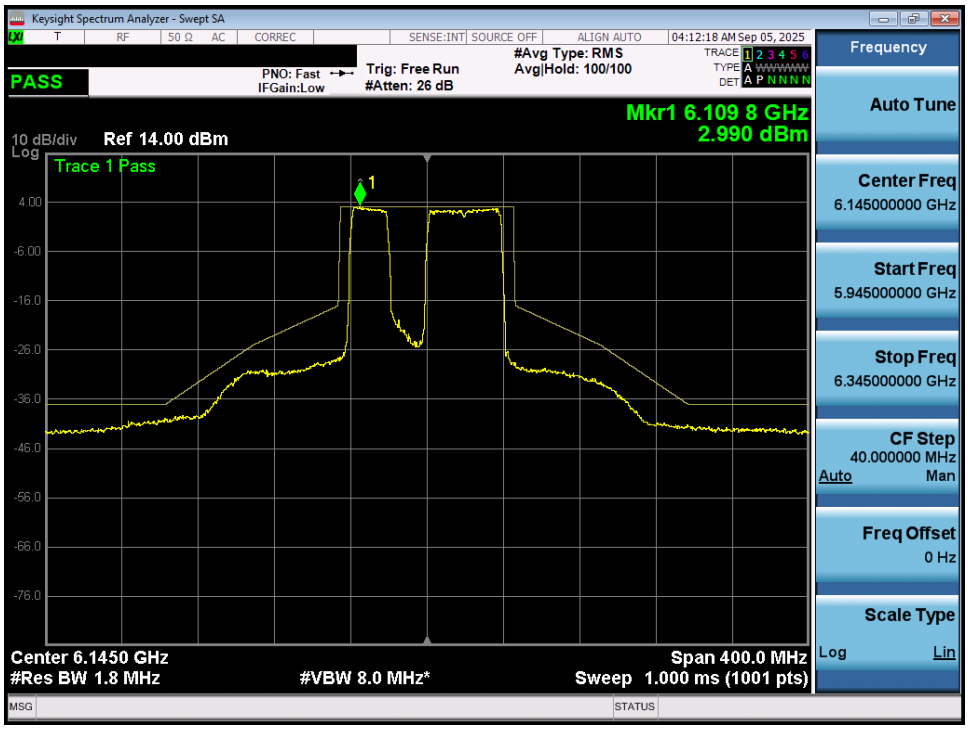


Plot 7-114. In Band Emissions Plot MIMO ANT1 (320MHz 802.11be (26 Tones) (UNII Band 5) – Ch. 31) - SP

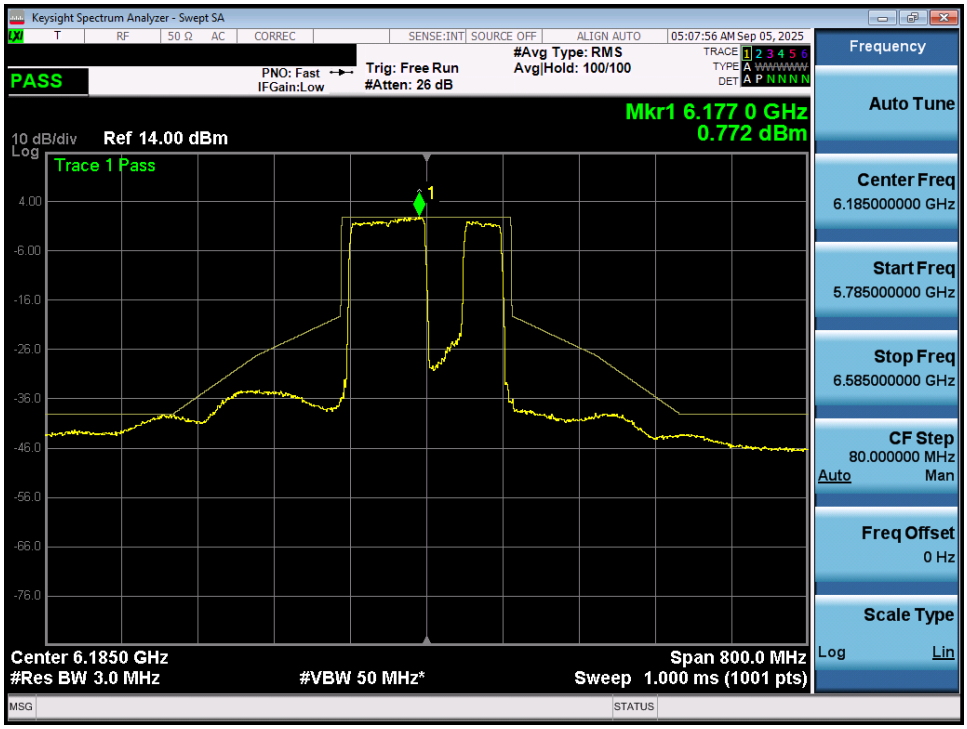


Plot 7-115. In Band Emissions Plot MIMO ANT1 (20MHz 802.11be (106+26 Tones) (UNII Band 5) – Ch. 45) - SP

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

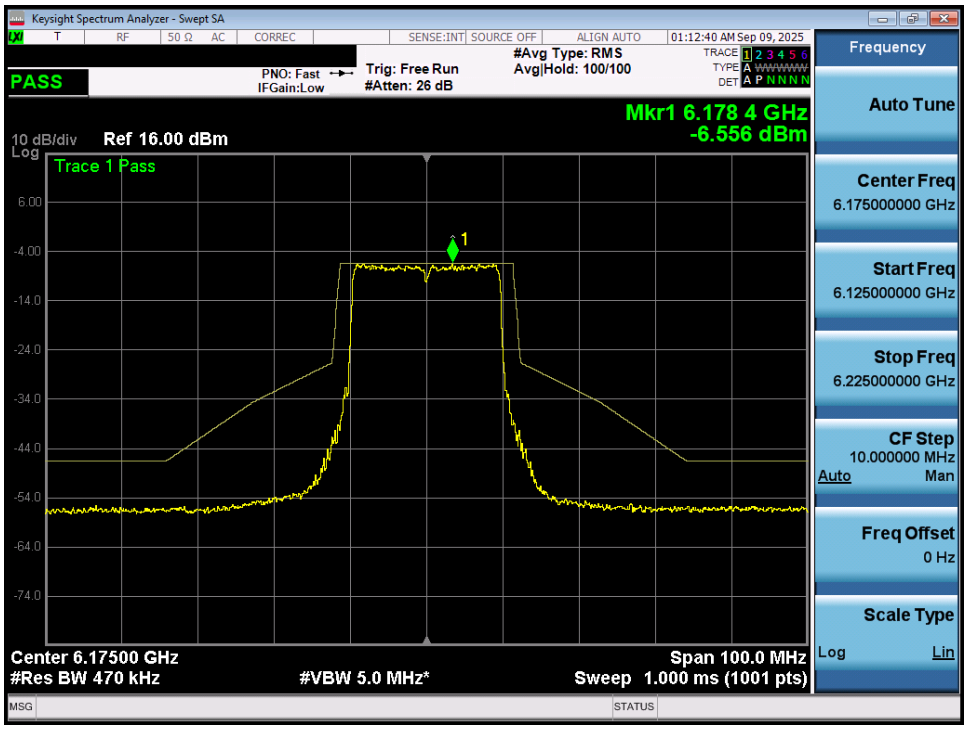


Plot 7-116. In Band Emissions Plot MIMO ANT1 (80MHz 802.11be (484+242 Tones) (UNII Band 5) – Ch. 39) - SP

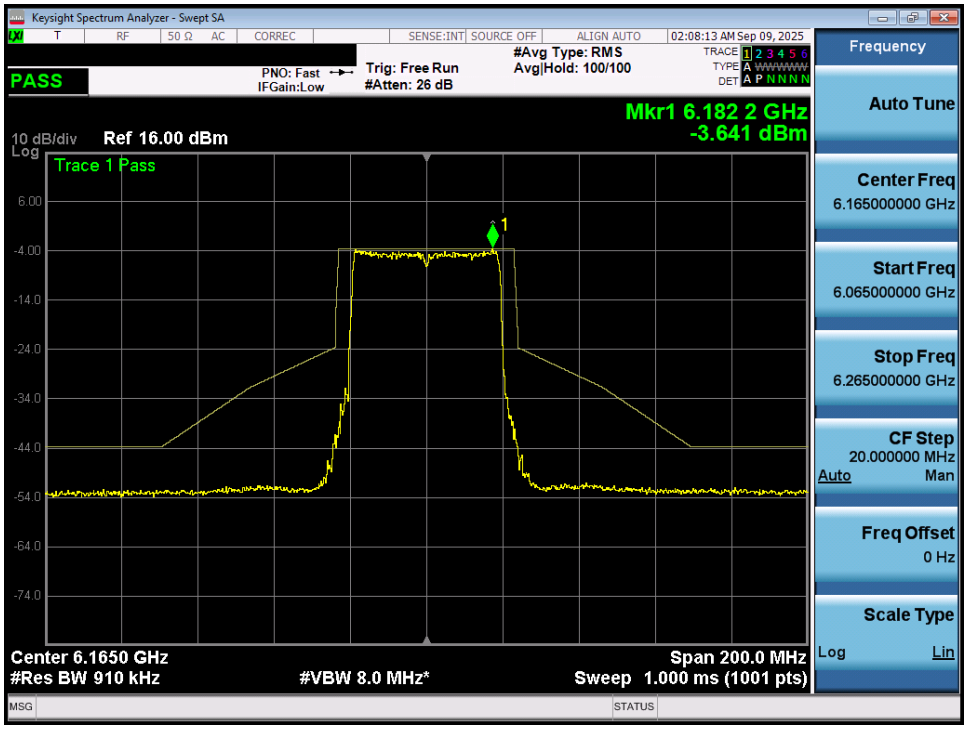


Plot 7-117. In Band Emissions Plot MIMO ANT1 (160MHz 802.11be (996+484 Tones) (UNII Band 5) – Ch. 47) - SP

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.



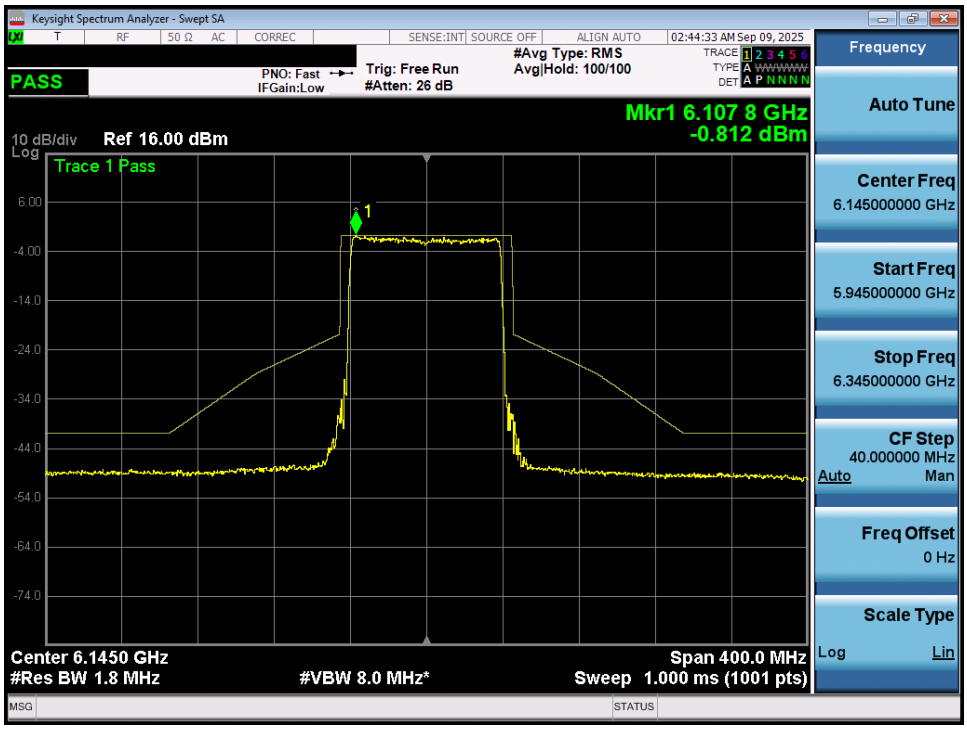
Plot 7-118. In Band Emissions Plot MIMO ANT1 (20MHz 802.11ax/be (Full Tones) (UNII Band 5) – Ch. 45) - LPI



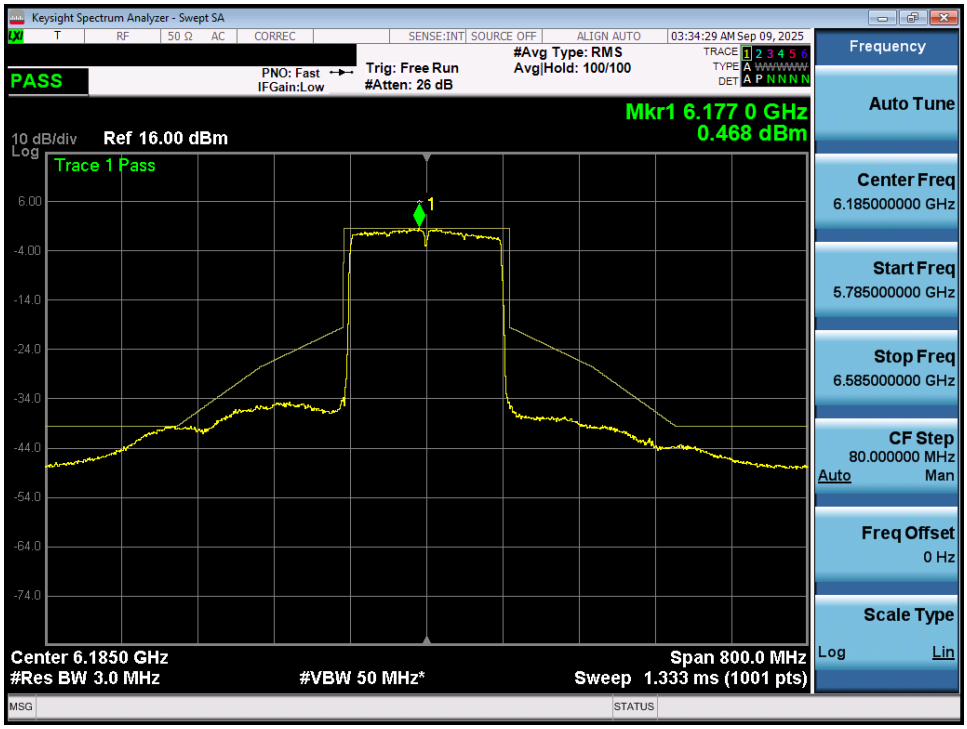
Plot 7-119. In Band Emissions Plot MIMO ANT1 (40MHz 802.11ax/be (Full Tones) (UNII Band 5) – Ch. 43) - LPI

© 2025 ELEMENT V 11.3 5/14/2025

Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.



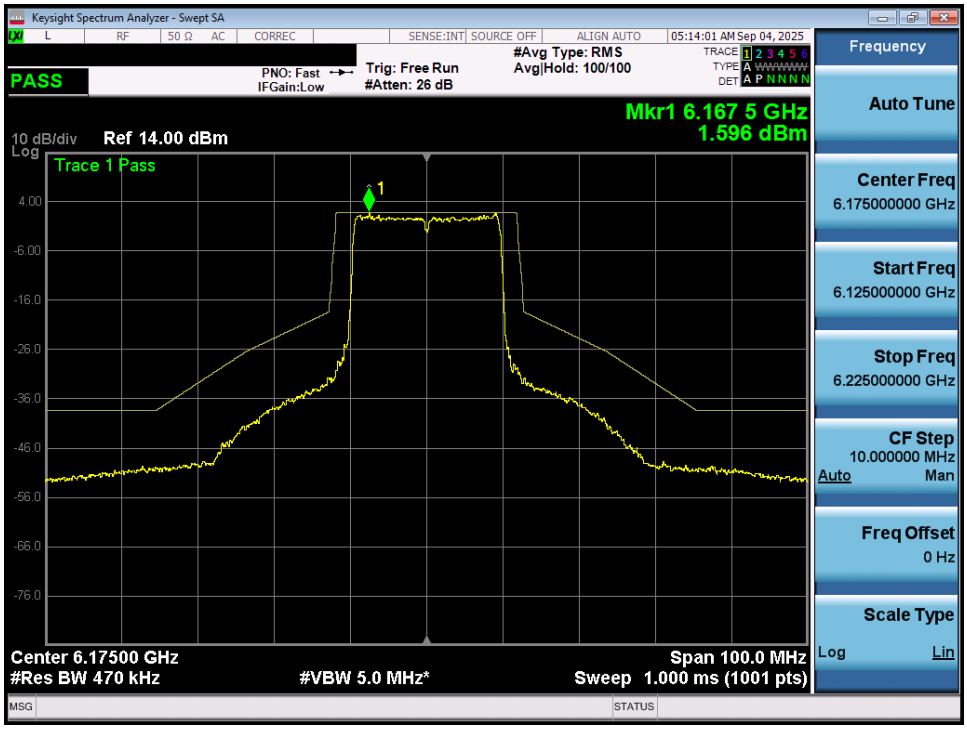
Plot 7-120. In Band Emissions Plot MIMO ANT1 (80MHz 802.11ax/be (Full Tones) (UNII Band 5) – Ch. 39) - LPI



Plot 7-121. In Band Emissions Plot MIMO ANT1 (160MHz 802.11ax/be (Full Tones) (UNII Band 5) – Ch. 47) - LPI/SP

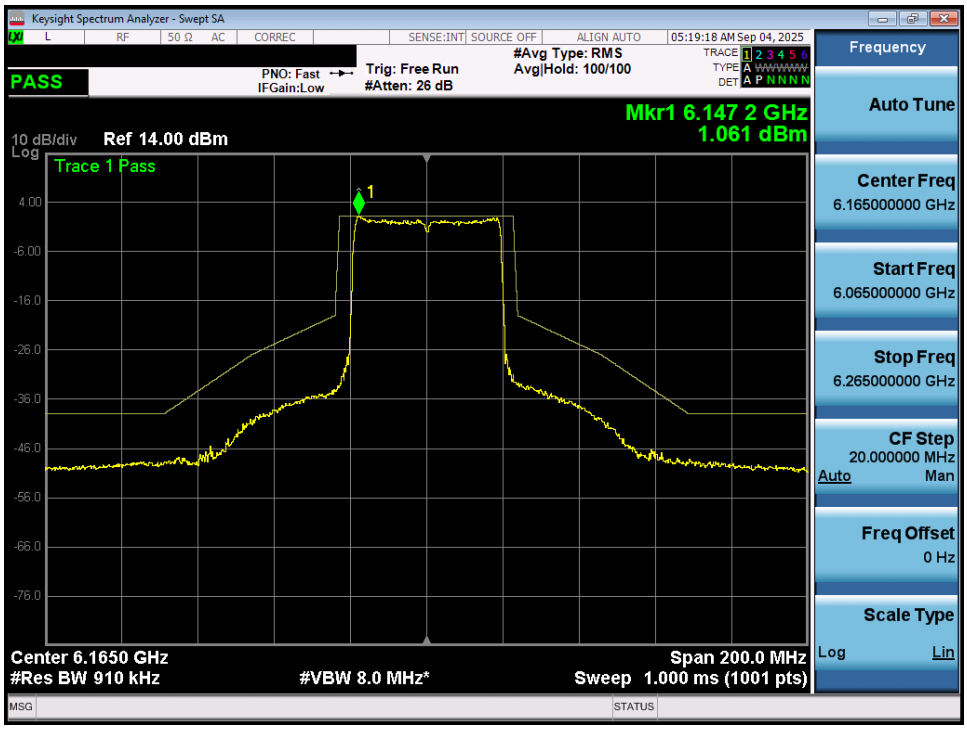
© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

Plot 7-122. In Band Emissions Plot MIMO ANT1 (320MHz 802.11be (Full Tones) (UNII Band 5) – Ch. 31) - LPI/SP

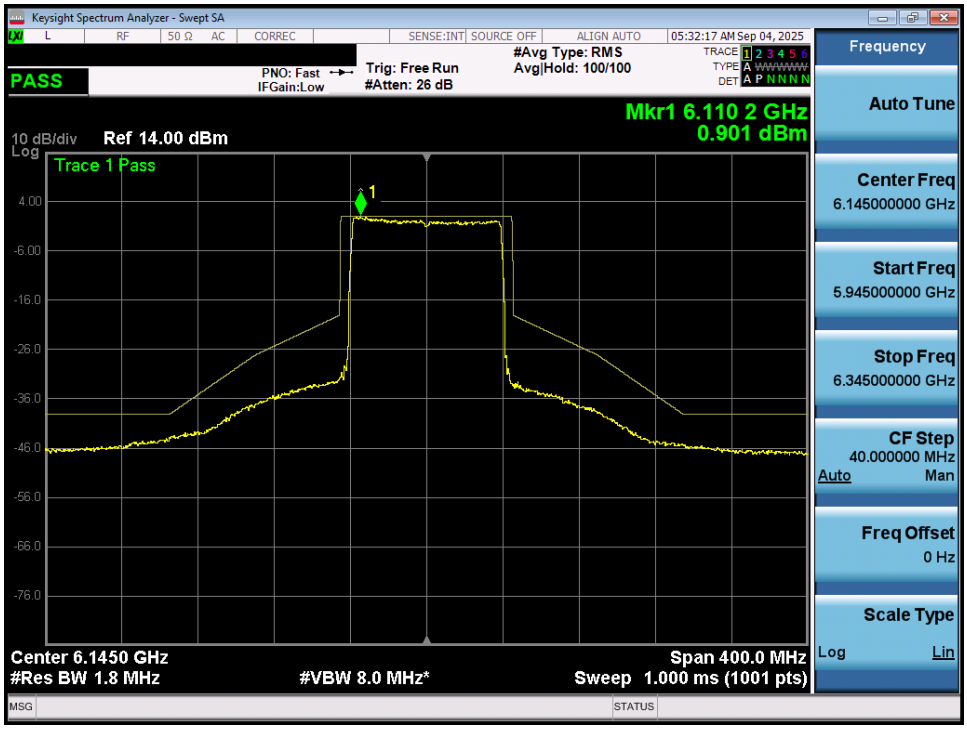


Plot 7-123. In Band Emissions Plot MIMO ANT1 (20MHz 802.11ax/be (Full Tones) (UNII Band 5) – Ch. 45) - SP

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.



Plot 7-124. In Band Emissions Plot MIMO ANT1 (40MHz 802.11ax/be (Full Tones) (UNII Band 5) – Ch. 43) - SP

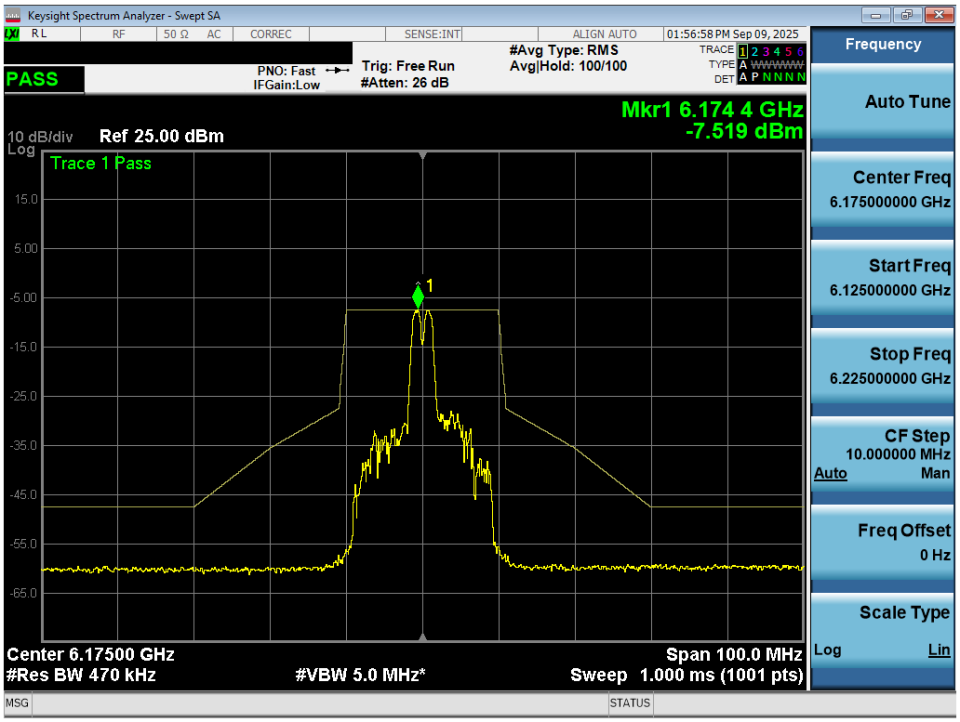


Plot 7-125. In Band Emissions Plot MIMO ANT1 (80MHz 802.11ax/be (Full Tones) (UNII Band 5) – Ch. 39) - SP

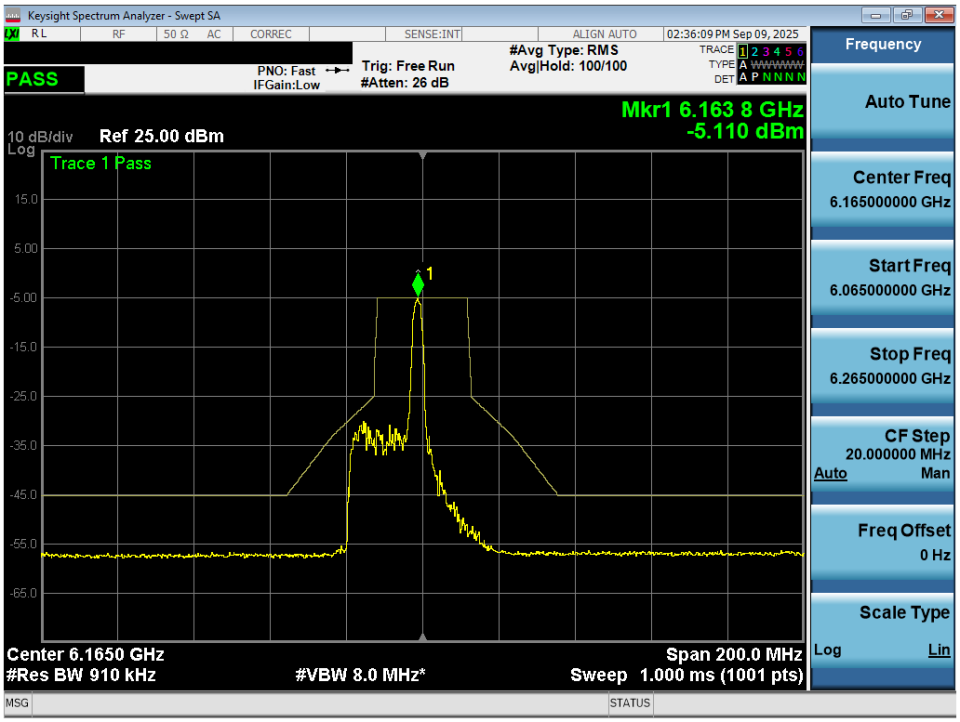
© 2025 ELEMENT V 11.3 5/14/2025

Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

7.5.2 MIMO Antenna-2 In-Band Emission Measurements



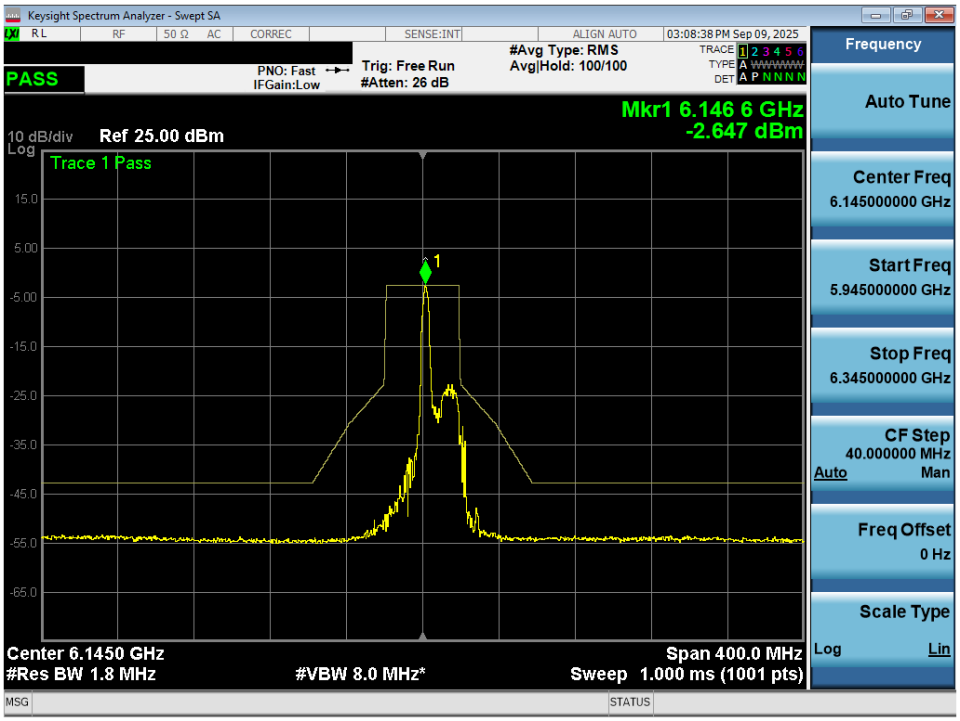
Plot 7-126. In Band Emissions Plot MIMO ANT2 (20MHz 802.11ax/be (26 Tones) (UNII Band 5) – Ch. 45) - LPI



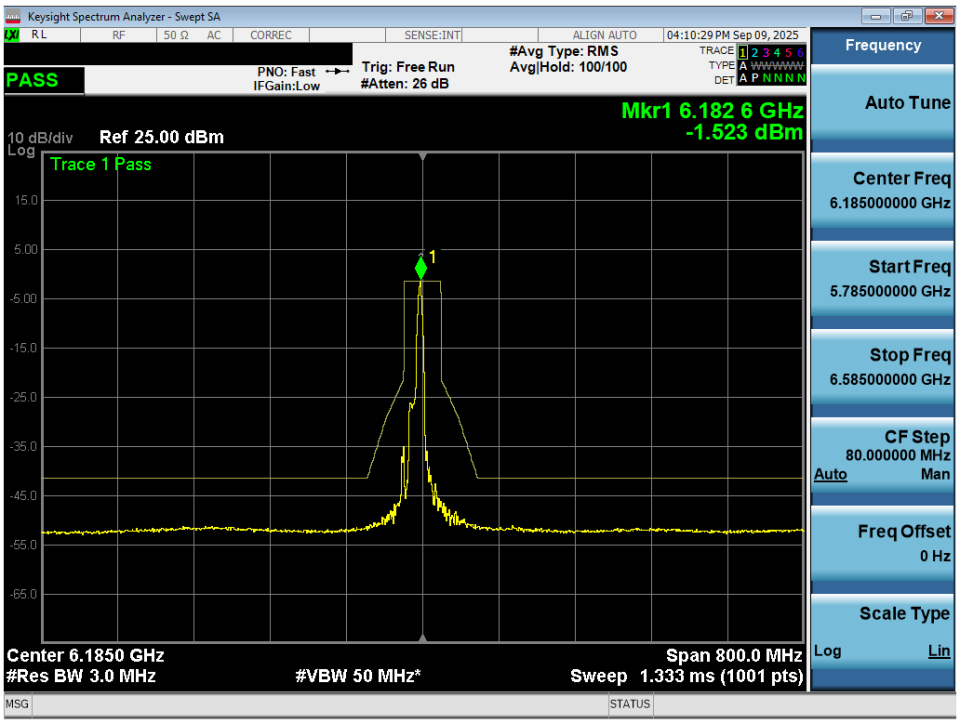
Plot 7-127. In Band Emissions Plot MIMO ANT2 (40MHz 802.11ax/be (26 Tones) (UNII Band 5) – Ch. 43) - LPI

© 2025 ELEMENT V 11.3 5/14/2025

Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

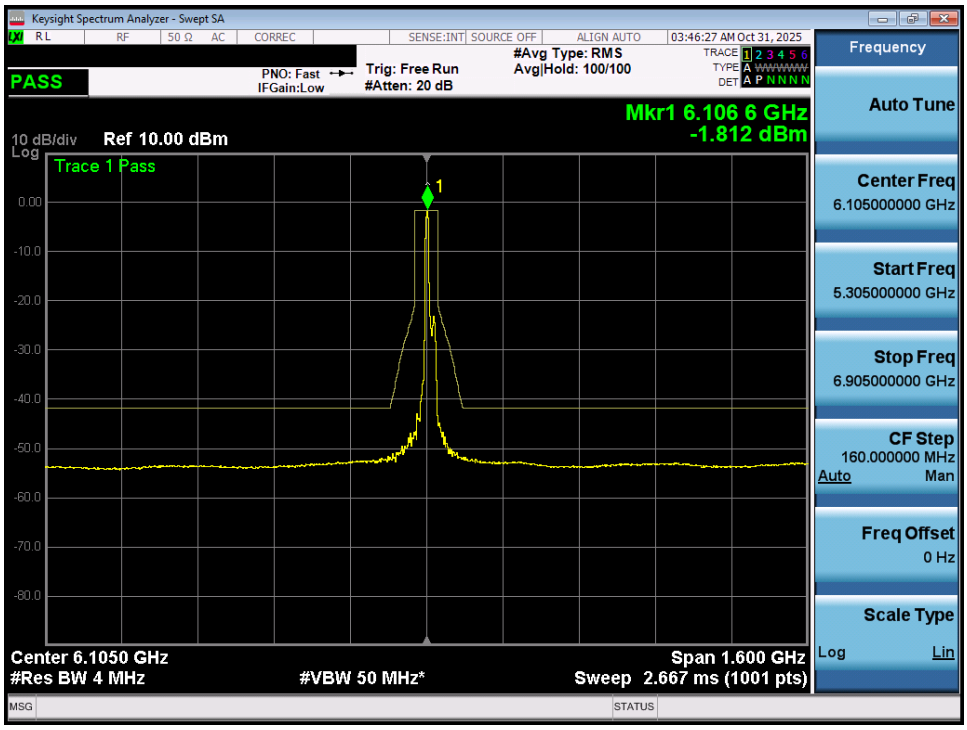


Plot 7-128. In Band Emissions Plot MIMO ANT2 (80MHz 802.11ax/be (26 Tones) (UNII Band 5) – Ch. 39) - LPI

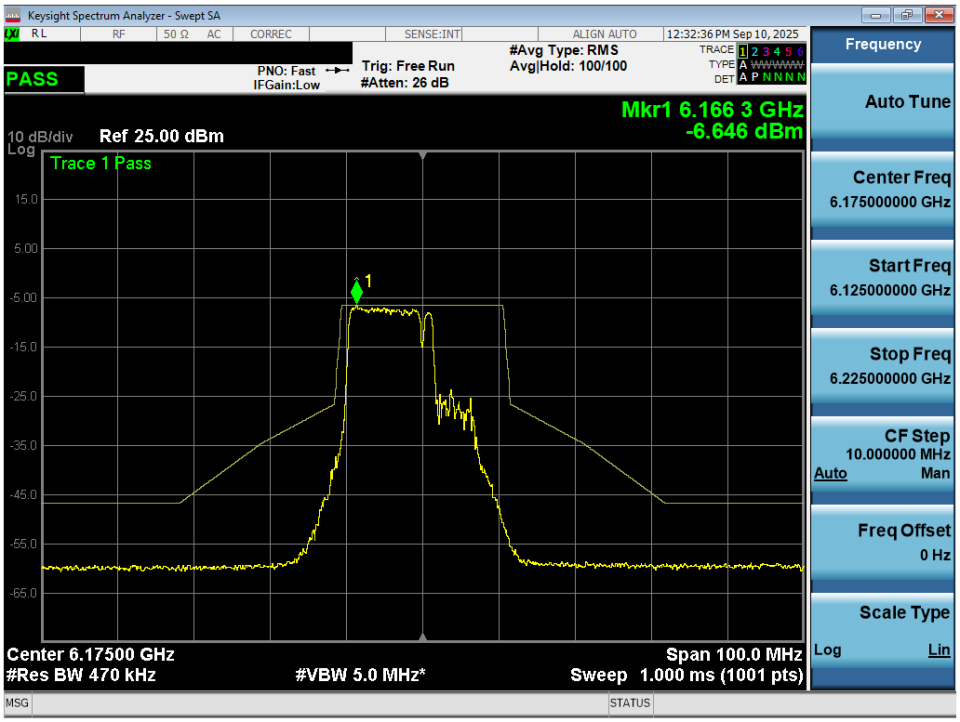


Plot 7-129. In Band Emissions Plot MIMO ANT2 (160MHz 802.11ax/be (26 Tones) (UNII Band 5) – Ch. 47) - LPI

© 2025 ELEMENT
V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

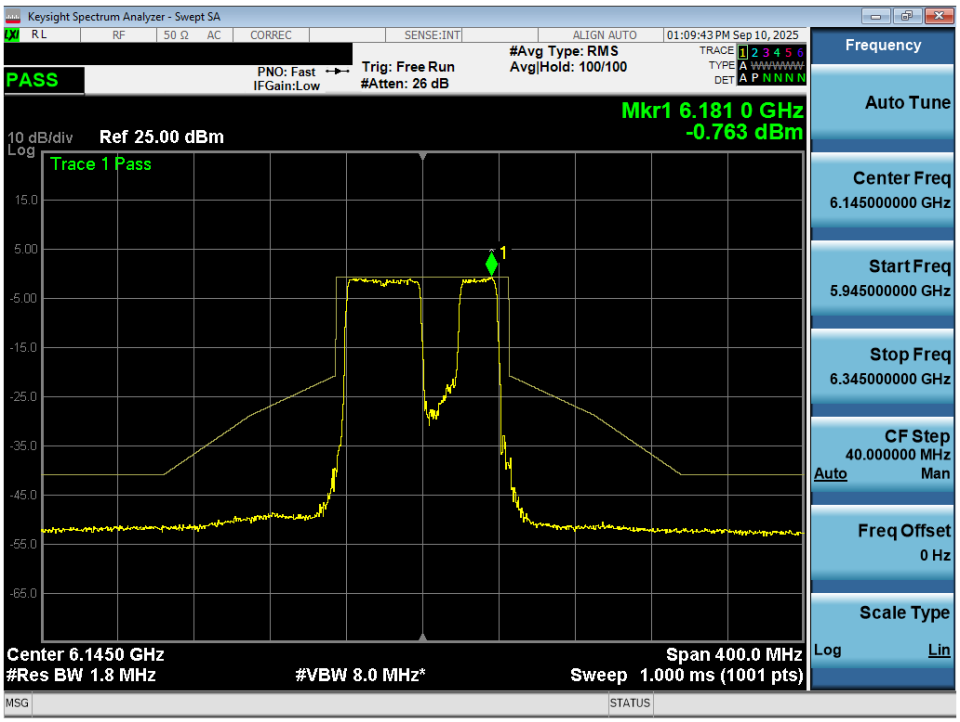


Plot 7-130. In Band Emissions Plot MIMO ANT2 (320MHz 802.11be (26 Tones) (UNII Band 5) – Ch. 31) - LPI

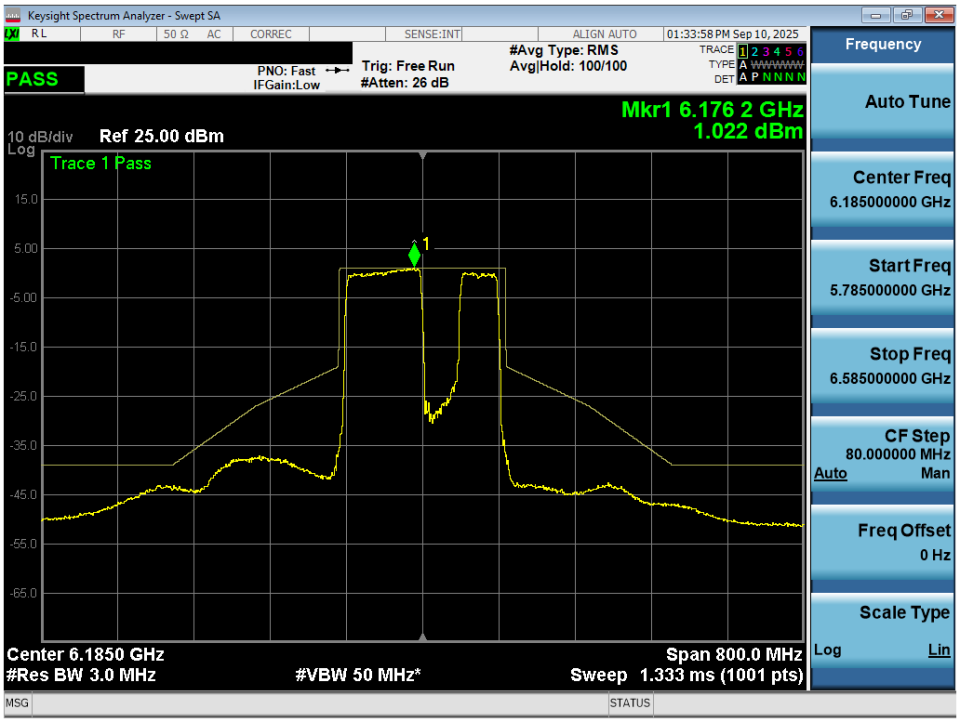


Plot 7-131. In Band Emissions Plot MIMO ANT2 (20MHz 802.11be (106+26 Tones) (UNII Band 5) – Ch. 45) - LPI/SP

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

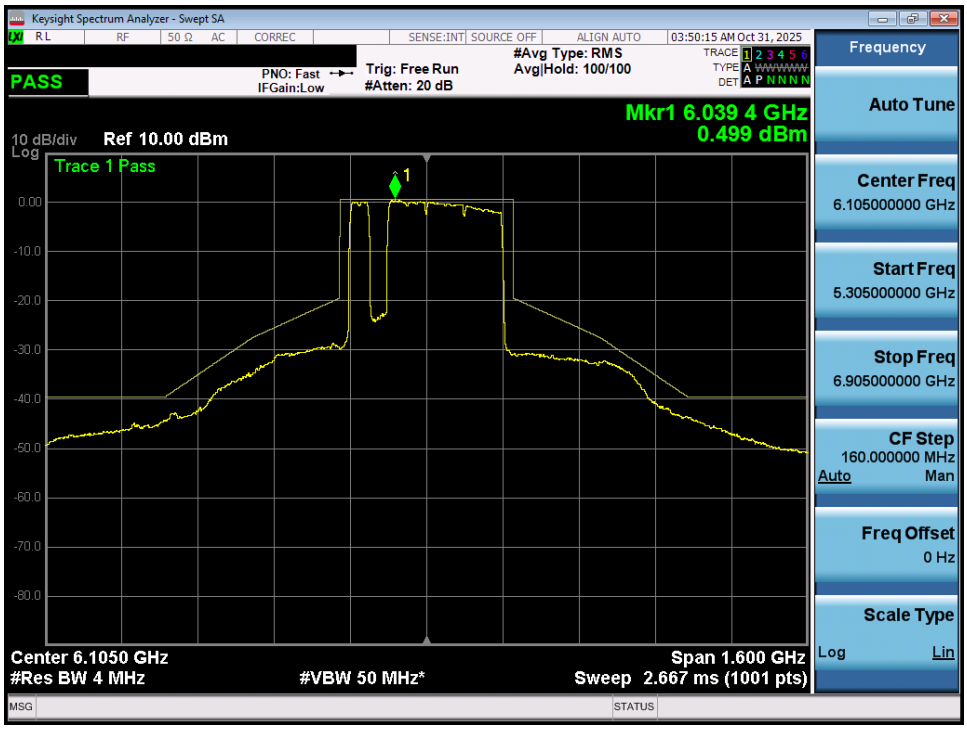


Plot 7-132. In Band Emissions Plot MIMO ANT2 (80MHz 802.11be (484+242 Tones) (UNII Band 5) – Ch. 39) - LPI



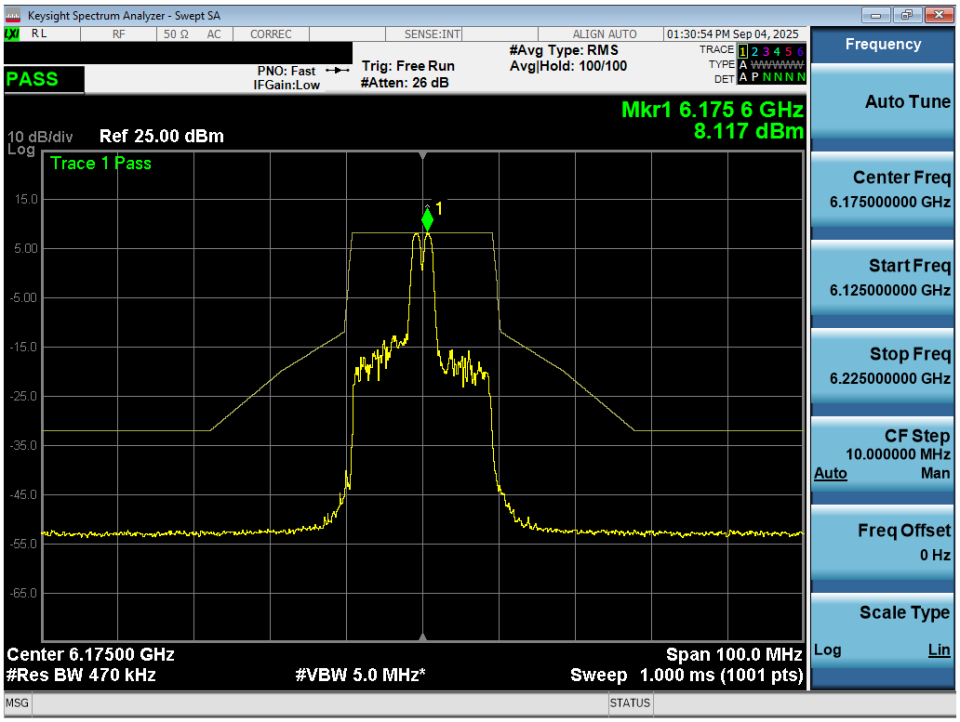
Plot 7-133. In Band Emissions Plot MIMO ANT2 (160MHz 802.11be (996+484 Tones) (UNII Band 5) – Ch. 47) - LPI

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

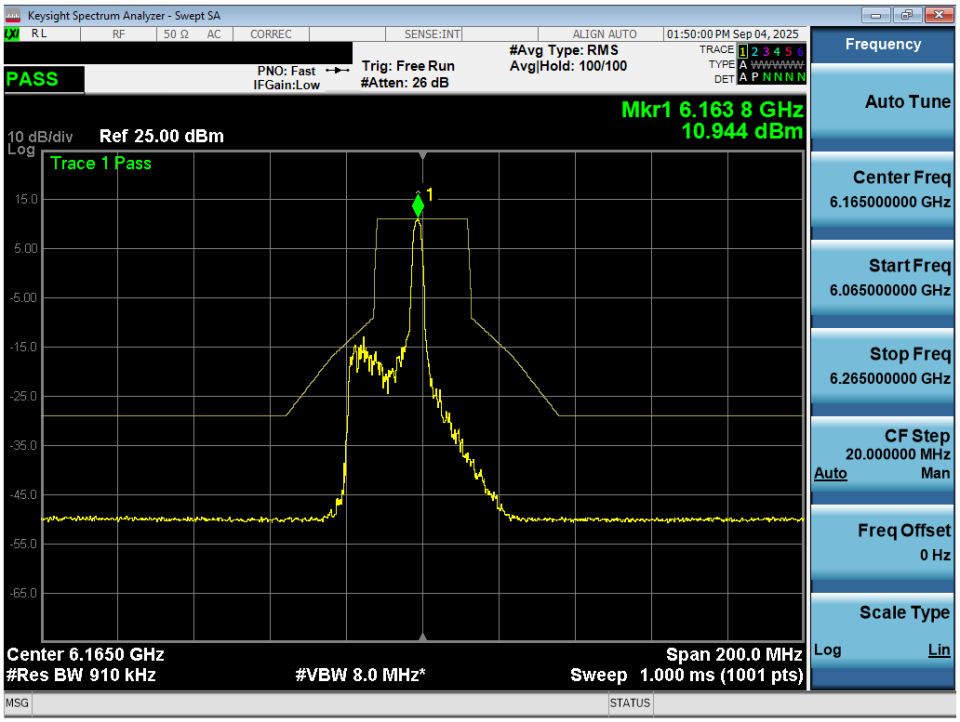


Plot 7-134. In Band Emissions Plot MIMO ANT2 (320MHz 802.11be (3*996+484 Tones) (UNII Band 5) – Ch. 31) LPI/SP

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

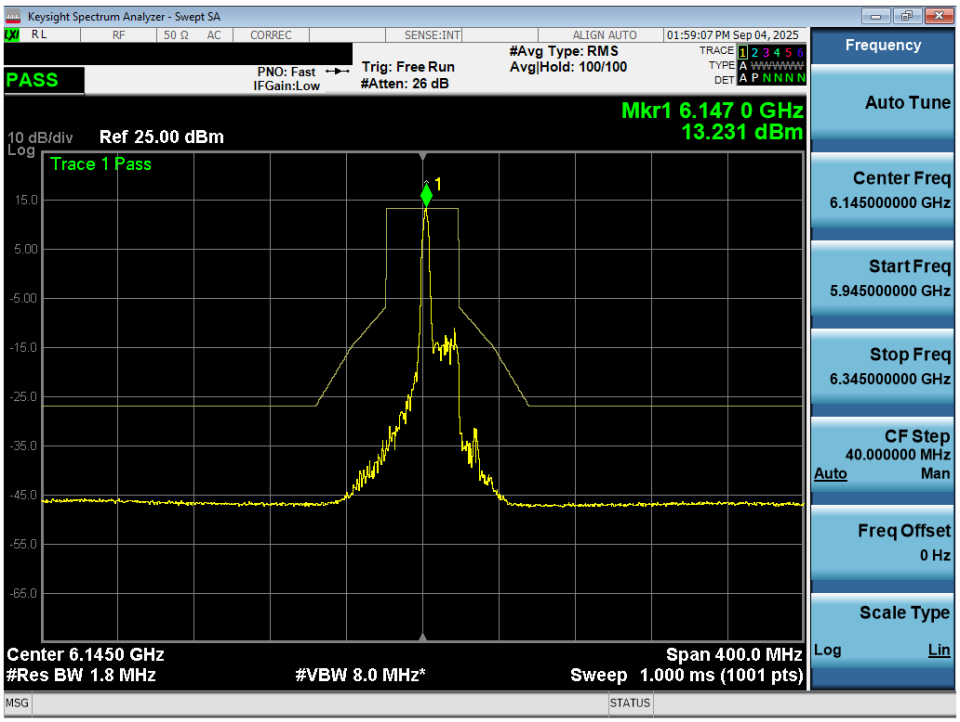


Plot 7-135. In Band Emissions Plot MIMO ANT2 (20MHz 802.11ax/be (26 Tones) (UNII Band 5) – Ch. 45) - SP

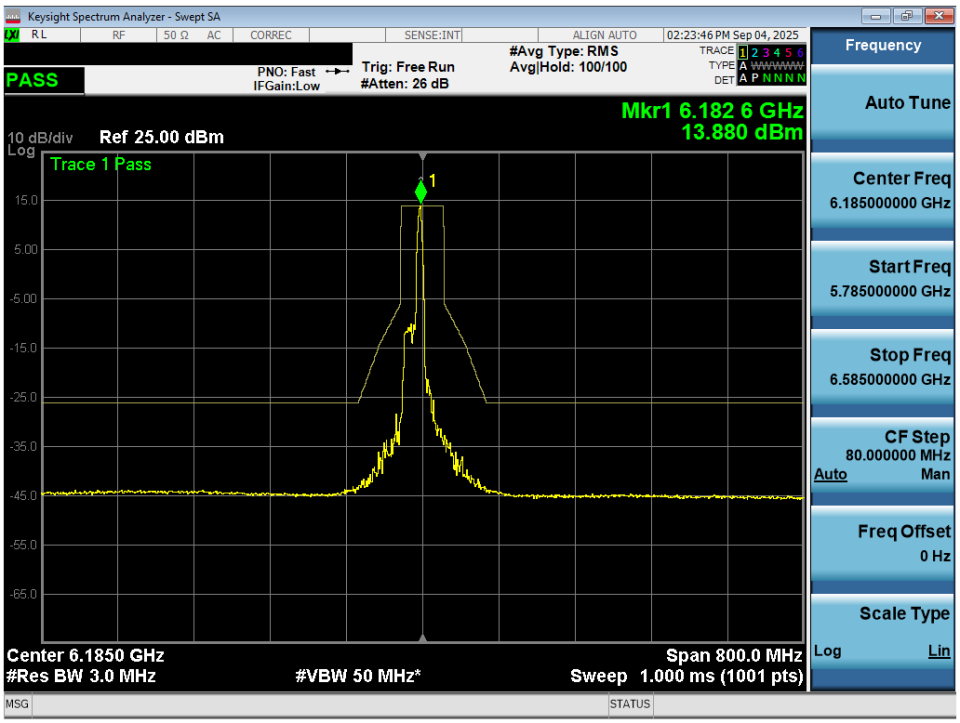


Plot 7-136. In Band Emissions Plot MIMO ANT2 (40MHz 802.11ax/be (26 Tones) (UNII Band 5) – Ch. 43) - SP

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

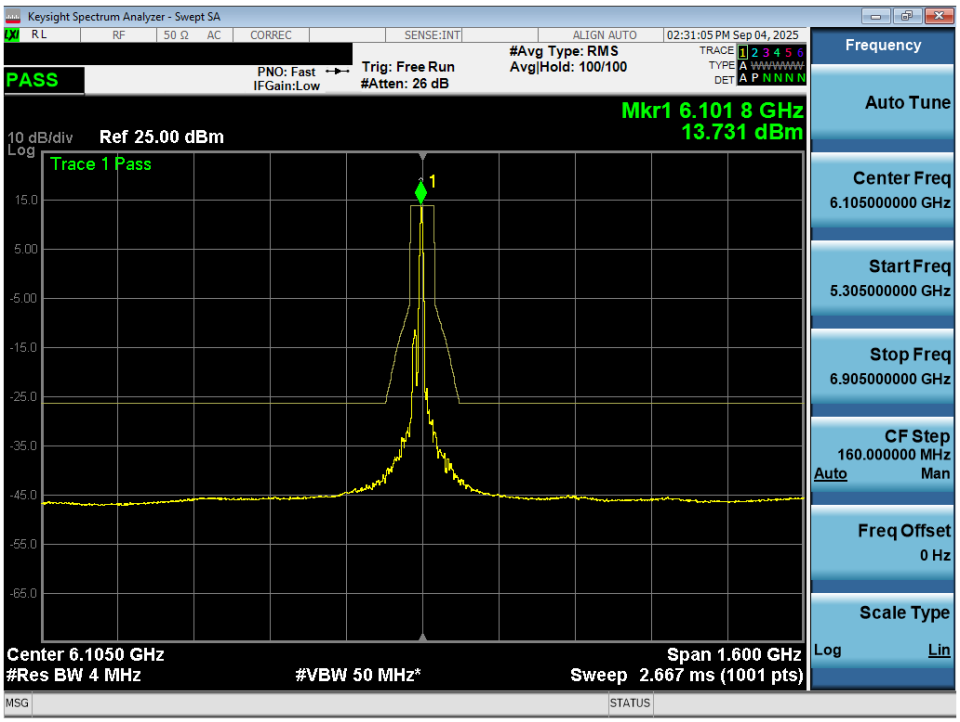


Plot 7-137. In Band Emissions Plot MIMO ANT2 (80MHz 802.11ax/be (26 Tones) (UNII Band 5) – Ch. 39) - SP

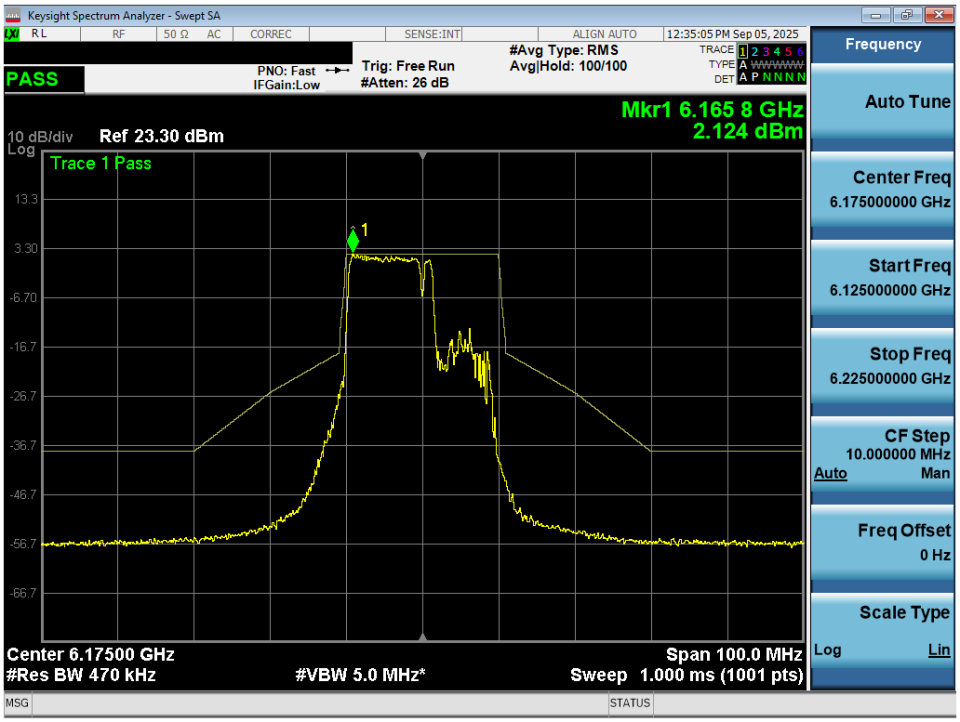


Plot 7-138. In Band Emissions Plot MIMO ANT2 (160MHz 802.11ax/be (26 Tones) (UNII Band 5) – Ch. 47) - SP

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

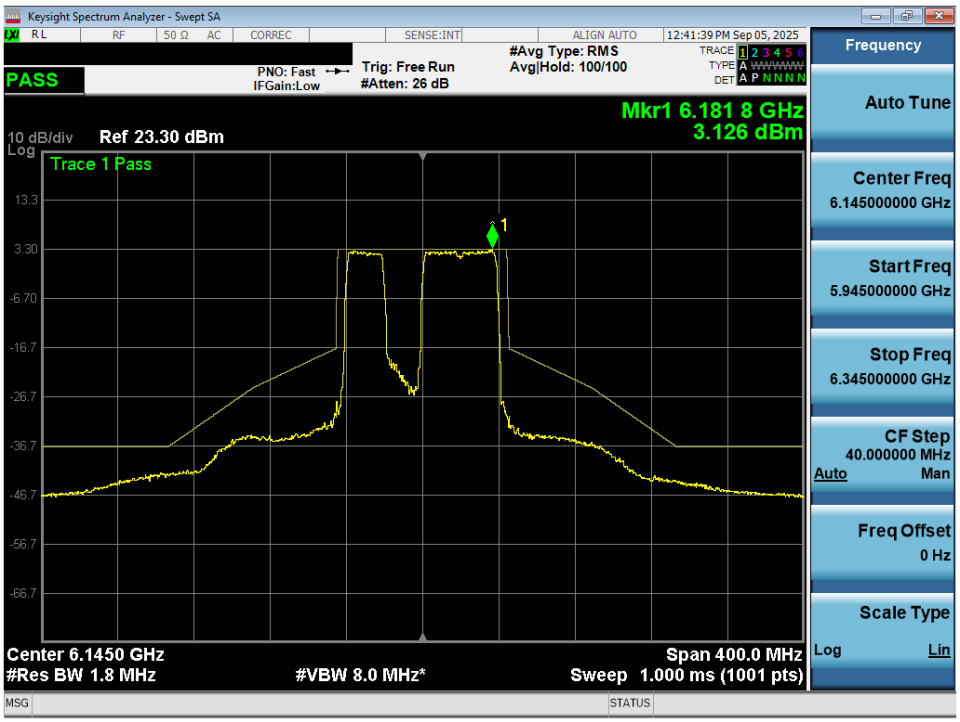


Plot 7-139. In Band Emissions Plot MIMO ANT2 (320MHz 802.11be (26 Tones) (UNII Band 5) – Ch. 31) - SP

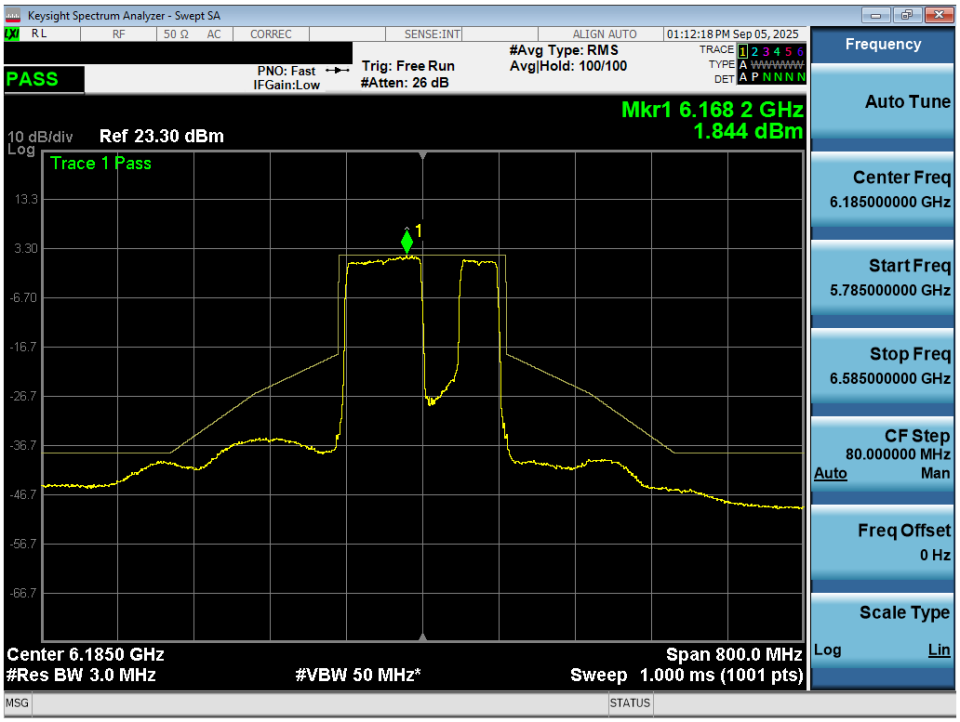


Plot 7-140. In Band Emissions Plot MIMO ANT2 (20MHz 802.11be (106+26 Tones) (UNII Band 5) – Ch. 45) - SP

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

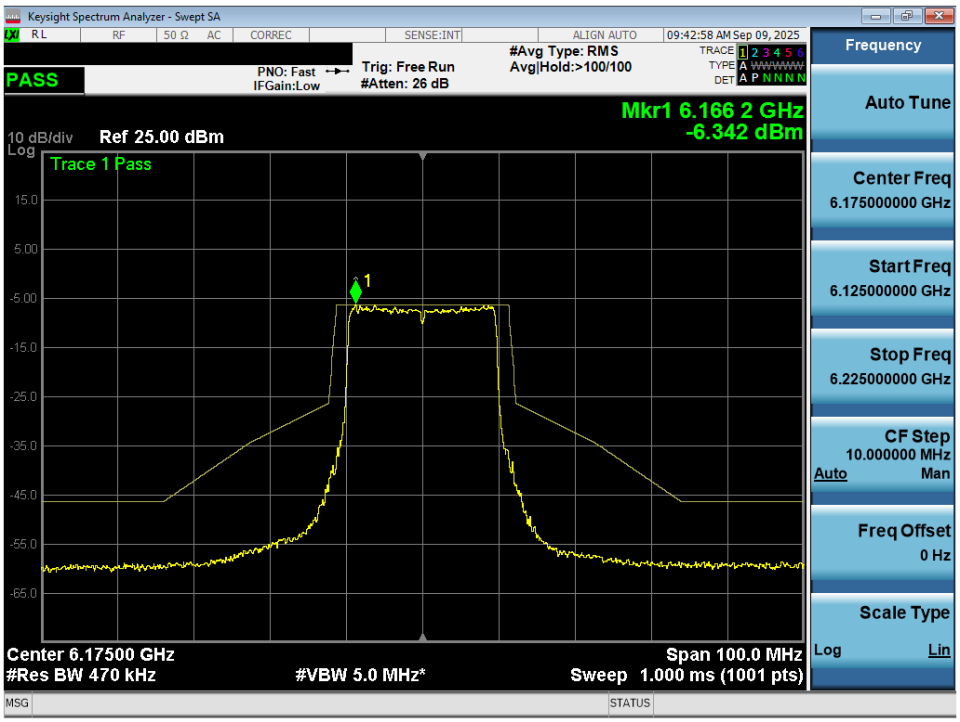


Plot 7-141. In Band Emissions Plot MIMO ANT2 (80MHz 802.11be (484+242 Tones) (UNII Band 5) – Ch. 39) - SP

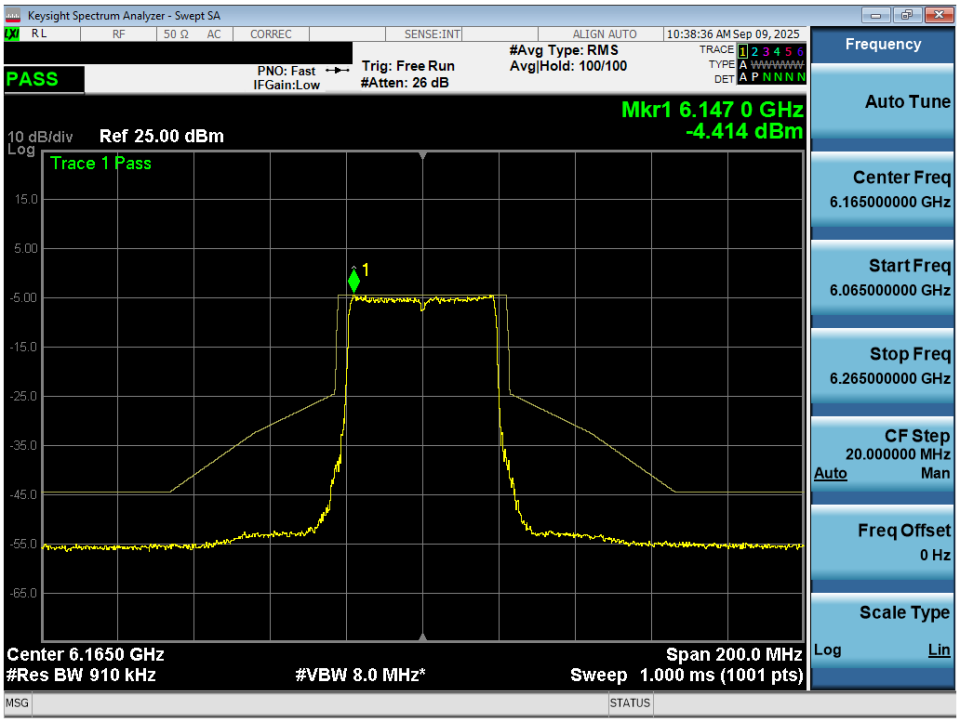


Plot 7-142. In Band Emissions Plot MIMO ANT2 (160MHz 802.11be (996+484 Tones) (UNII Band 5) – Ch. 47) - SP

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

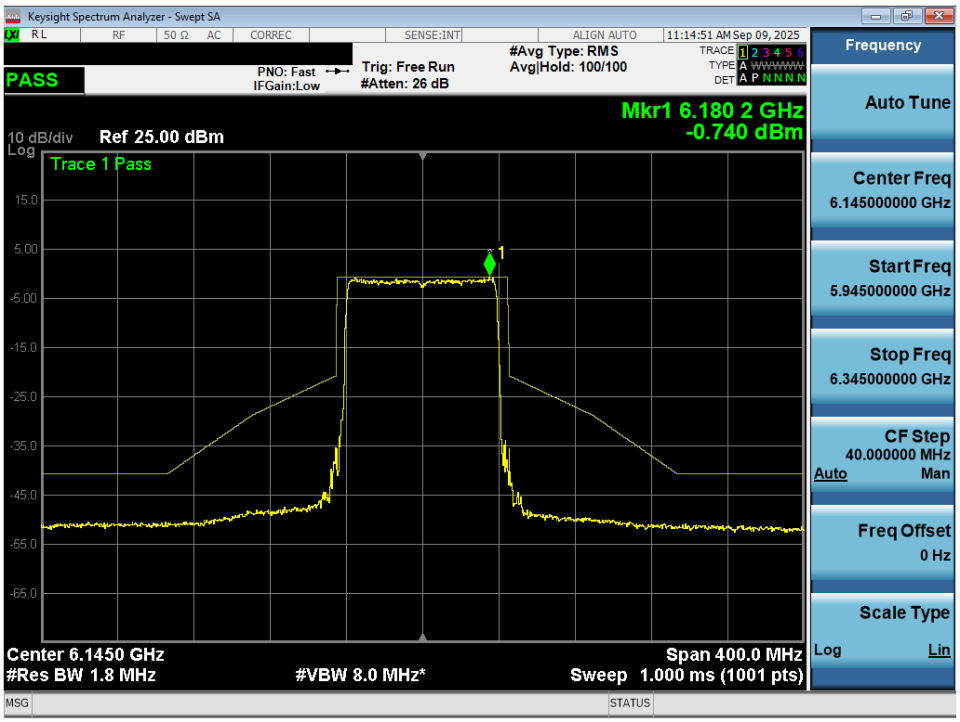


Plot 7-143. In Band Emissions Plot MIMO ANT2 (20MHz 802.11ax/be (Full Tones) (UNII Band 5) – Ch. 45) - LPI

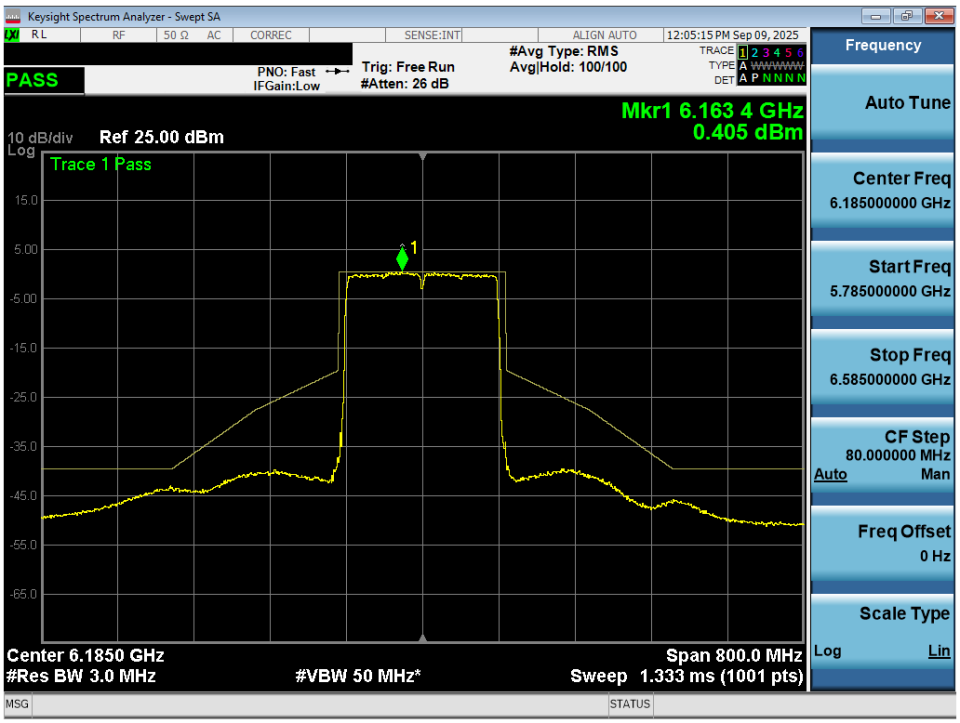


Plot 7-144. In Band Emissions Plot MIMO ANT2 (40MHz 802.11ax/be (Full Tones) (UNII Band 5) – Ch. 43) - LPI

© 2025 ELEMENT
V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

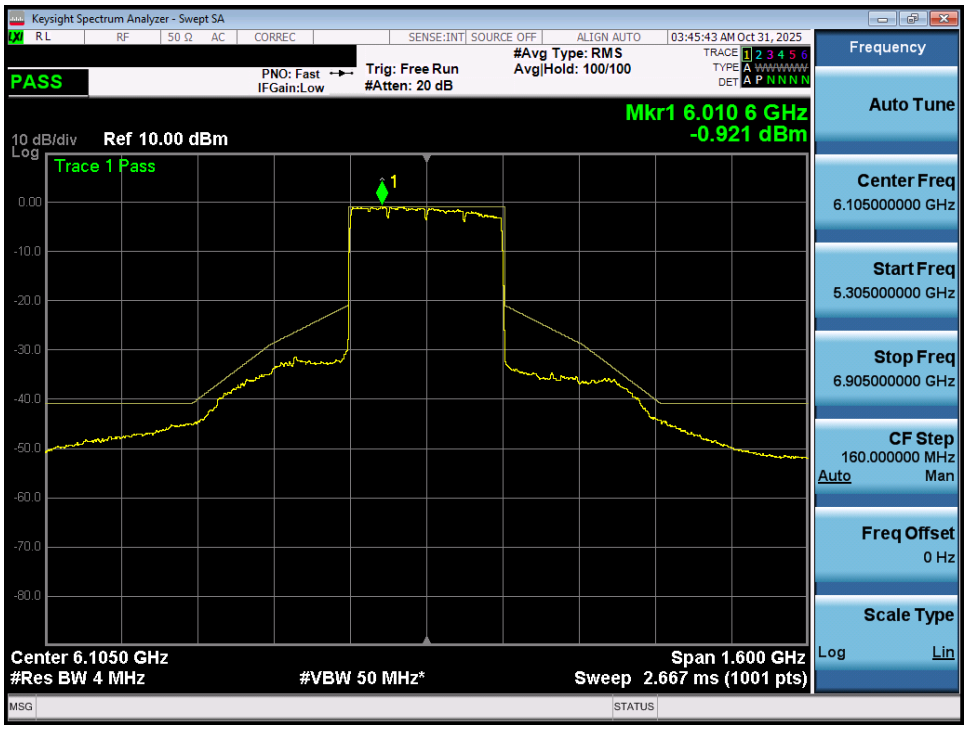


Plot 7-145. In Band Emissions Plot MIMO ANT2 (80MHz 802.11ax/be (Full Tones) (UNII Band 5) – Ch. 39) - LPI

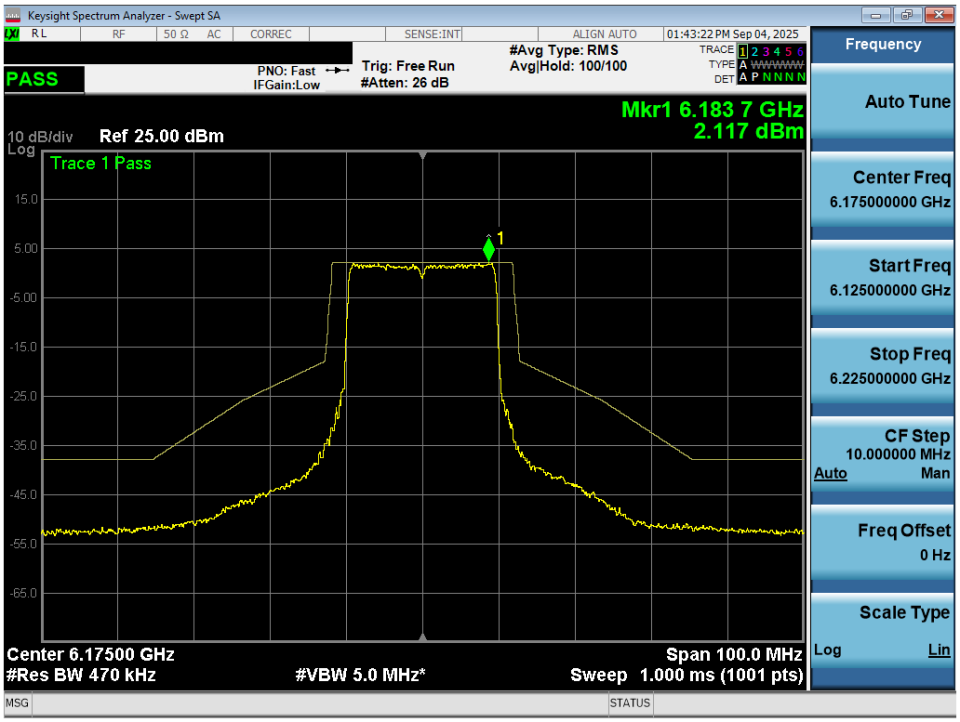


Plot 7-146. In Band Emissions Plot MIMO ANT2 (160MHz 802.11ax/be (Full Tones) (UNII Band 5) – Ch. 47) - LPI/SP

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

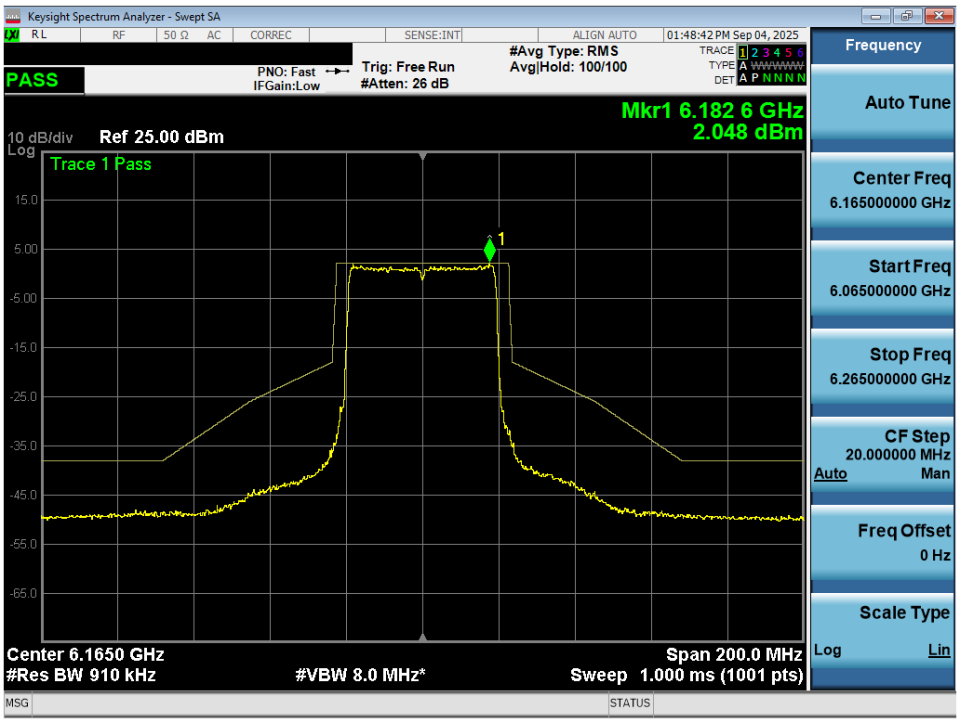


Plot 7-147. In Band Emissions Plot MIMO ANT2 (320MHz 802.11be (Full Tones) (UNII Band 5) – Ch. 31) - LPI/SP

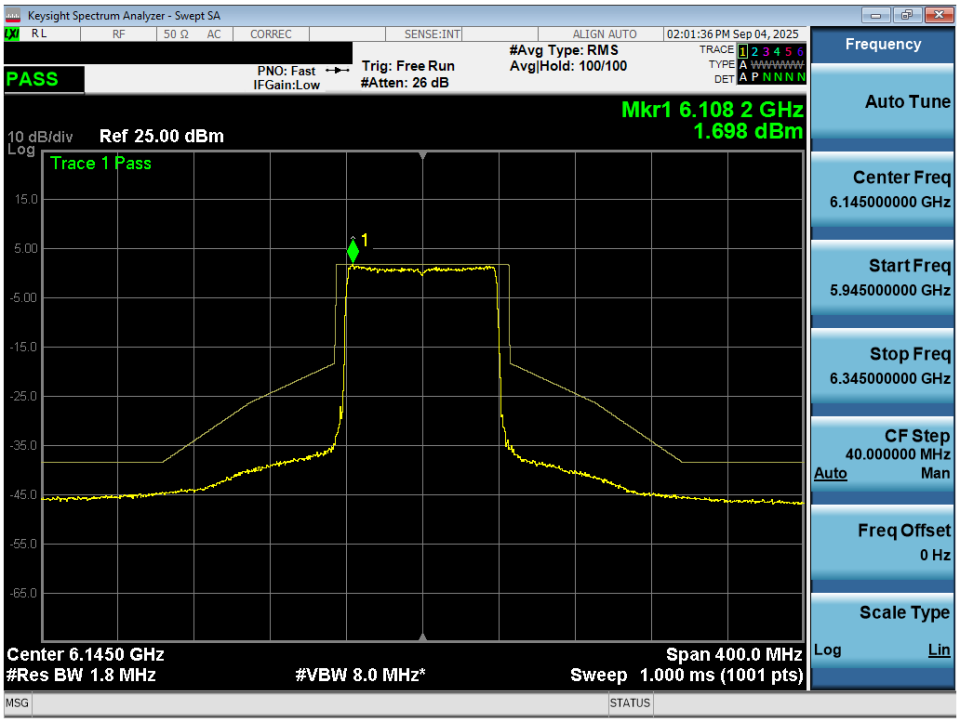


Plot 7-148. In Band Emissions Plot MIMO ANT2 (20MHz 802.11ax/be (Full Tones) (UNII Band 5) – Ch. 45) - SP

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.



Plot 7-149. In Band Emissions Plot MIMO ANT2 (40MHz 802.11ax/be (Full Tones) (UNII Band 5) – Ch. 43) - SP



Plot 7-150. In Band Emissions Plot MIMO ANT2 (80MHz 802.11ax/be (Full Tones) (UNII Band 5) – Ch. 39) - SP

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

7.6 Radiated Emission Measurements

Test Overview and Limit

All out of band radiated spurious emissions are measured with a spectrum analyzer connected to a receive antenna while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10:2020, and at the appropriate frequencies. All channels, modes (e.g. 802.11ax, 802.11be (20/40/80/160/320MHz), and modulations/data rates were investigated among all UNII bands. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

For transmitters operating within the 5.925-7.125 GHz band: Any emissions outside of the 5.925-7.125 GHz band must not exceed an e.i.r.p. of −27 dBm/MHz. Emissions found in a restricted band are subject to the limits of 15.209 as shown in the table below.

Frequency	Field Strength [µV/m]	Measured Distance [Meters]
0.009 – 0.490 MHz	2400/F (kHz)	300
0.490 – 1.705 MHz	24000/F (kHz)	30
1.705 – 30.00 MHz	30	30
30.00 – 88.00 MHz	100	3
88.00 – 216.0 MHz	150	3
216.0 – 960.0 MHz	200	3
Above 960.0 MHz	500	3

Table 7-45. Radiated Limits

Test Procedures Used

ANSI C63.10:2020 – Sections 12.7.7.2, 12.7.6, 12.7.5

Test Settings – Above 1GHz

Average Field Strength Measurements (Method AD – Average Detection)

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest.
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = power average (RMS)
5. Number of measurement points = 1001 (Number of points must be ≥ 2 x span/RBW)
6. Sweep time = auto
7. Trace (RMS) averaging was performed over at least 100 traces.

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest.
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize.

Test Settings – Below 1GHz

Quasi-Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest.
2. RBW = 120kHz (for emissions from 30MHz – 1GHz)
3. Detector = quasi-peak
4. Sweep time = auto couple
5. Trace mode = max hold
6. Trace was allowed to stabilize.

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

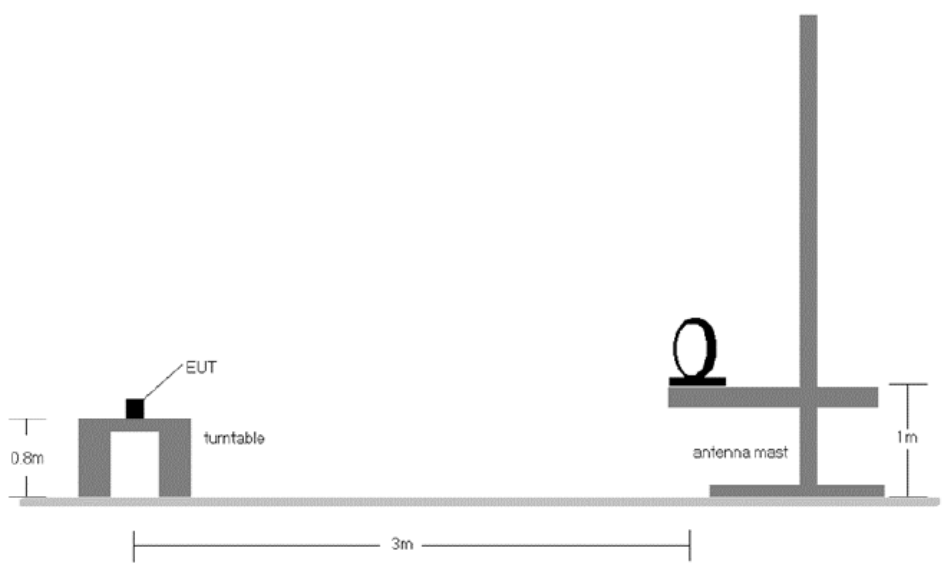


Figure 7-5. Radiated Test Setup < 30MHz

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

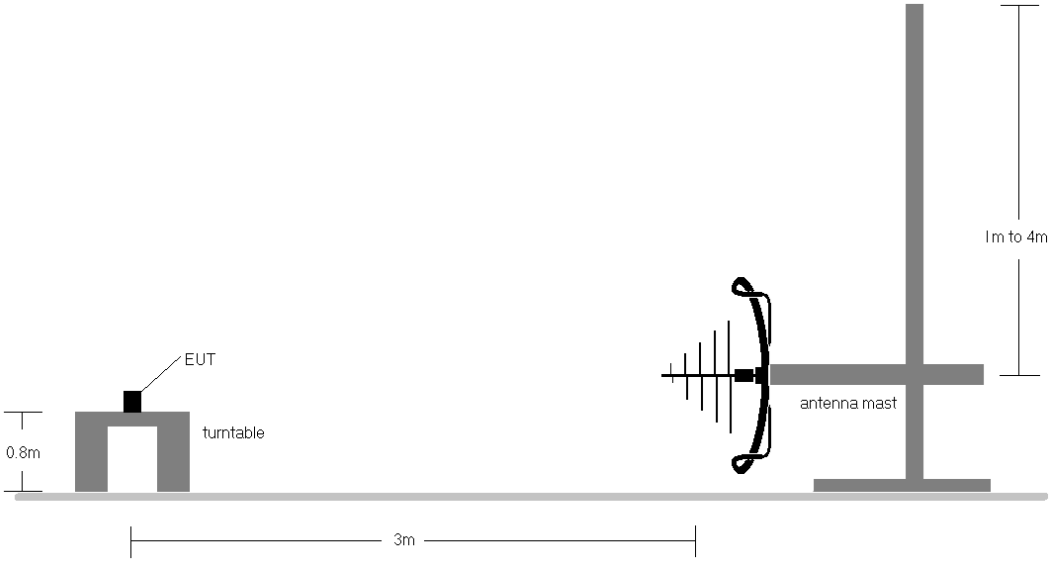


Figure 7-6. Radiated Test Setup < 1GHz

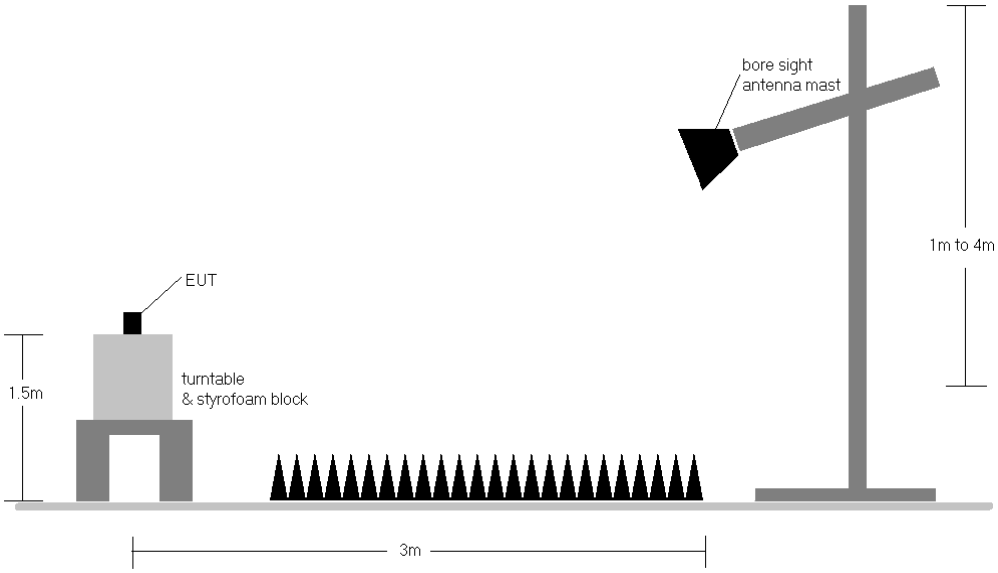


Figure 7-7. Radiated Test Setup > 1GHz

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

Test Notes

1. All spurious emissions lying in restricted bands specified in §15.205 are below the limit shown in §15.209. All spurious emissions that do not lie in a restricted band are subject to an average limit of -27dBm/MHz. At 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions of 68.2dBμV/m.
2. All spurious emissions that do not lie in a restricted band are subject to a peak limit not to exceed 20dB of the average limit [68.2dBμV/m]. If a peak measurement passes the average limit, it was determined no further investigation is necessary.
3. The antenna is manipulated through typical positions, polarity, and length during the tests. The EUT is manipulated through three orthogonal planes.
4. This unit was tested with its standard battery.
5. The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter using CISPR quasi peak detector below 1GHz. Above 1 GHz, average and peak measurements were taken using linearly polarized horn antennas. The worst-case emissions are reported, however emissions whose levels were not within 20dB of the respective limits were not reported.
6. Emissions below 18GHz were measured at a 3-meter test distance while emissions above 18GHz were measured at a 1-meter test distance with the application of a distance correction factor.
7. The wide spectrum spurious emissions plots shown on the following pages are used only for the purpose of emission identification. Any emissions found to be within 20dB of the limit are fully investigated and the results are shown in this section.
8. The "-" shown in the following RSE tables are used to denote a noise floor measurement.
9. For radiated measurements, emissions were investigated for the fully-loaded RU configuration and for all of the partially-loaded RU configurations. Among all of the available partially-loaded RU configurations, only the configuration with the worst case emissions is reported.

Sample Calculations

Determining Spurious Emissions Levels

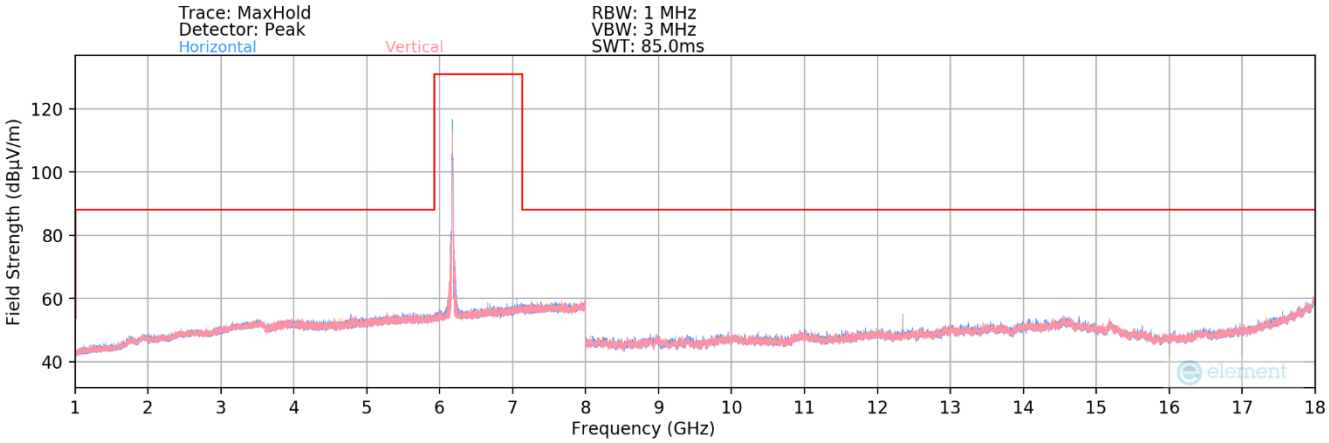
- Field Strength Level $_{[dB\mu V/m]}$ = Analyzer Level $_{[dBm]}$ + 107 + AFCL $_{[dB/m]}$
- AFCL $_{[dB/m]}$ = Antenna Factor $_{[dB/m]}$ + Cable Loss $_{[dB]}$
- Margin $_{[dB]}$ = Field Strength Level $_{[dB\mu V/m]}$ – Limit $_{[dB\mu V/m]}$

Radiated Band Edge Measurement Offset

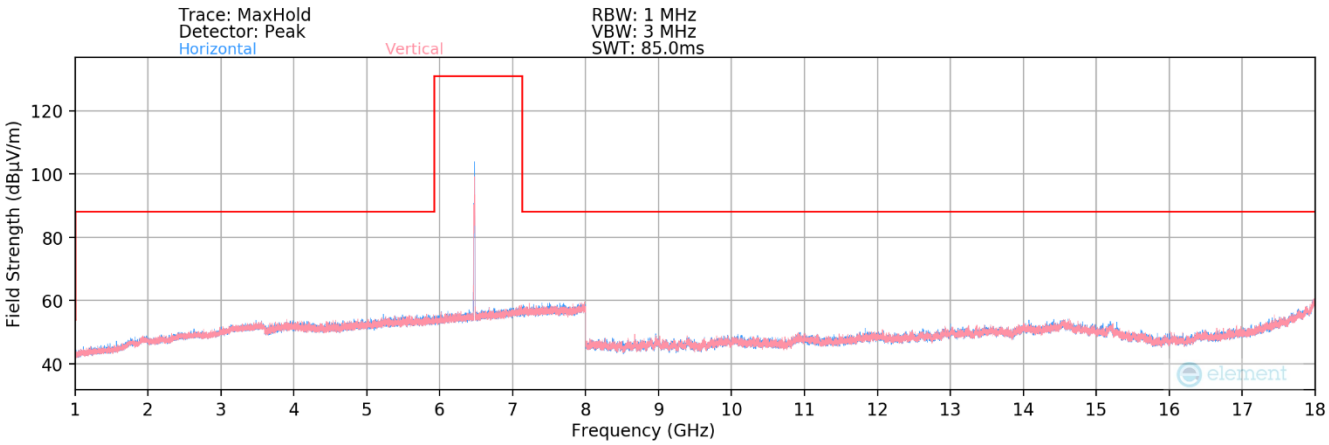
- The amplitude offset shown in the radiated restricted band edge plots was calculated using the formula: Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) – Preamplifier Gain

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

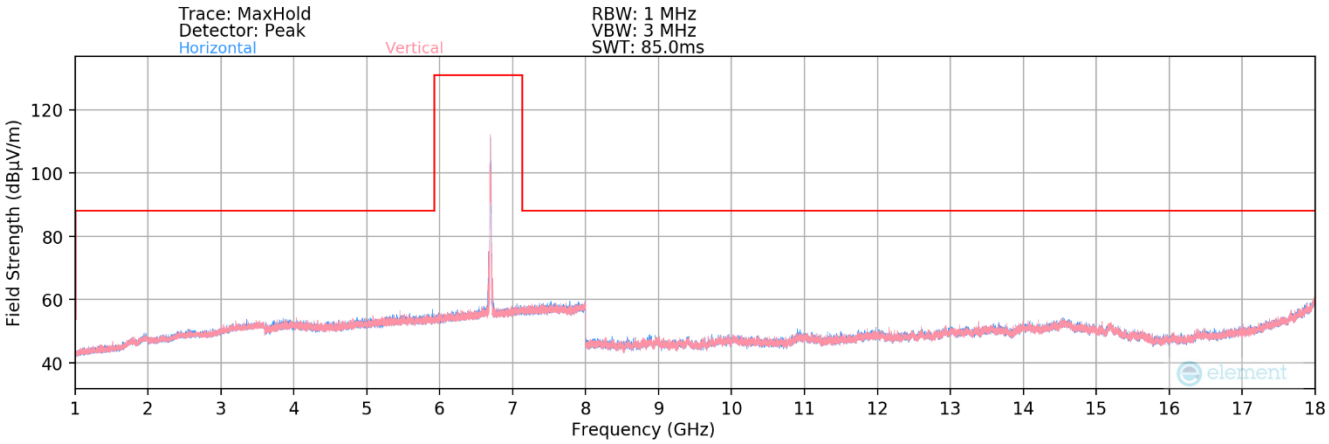
7.6.1 MIMO Radiated Spurious Emission Measurements (26 Tones)



Plot 7-151. Radiated Spurious Plot 1GHz – 18GHz MIMO (802.11ax – UNII Band 5 Ch. 45)

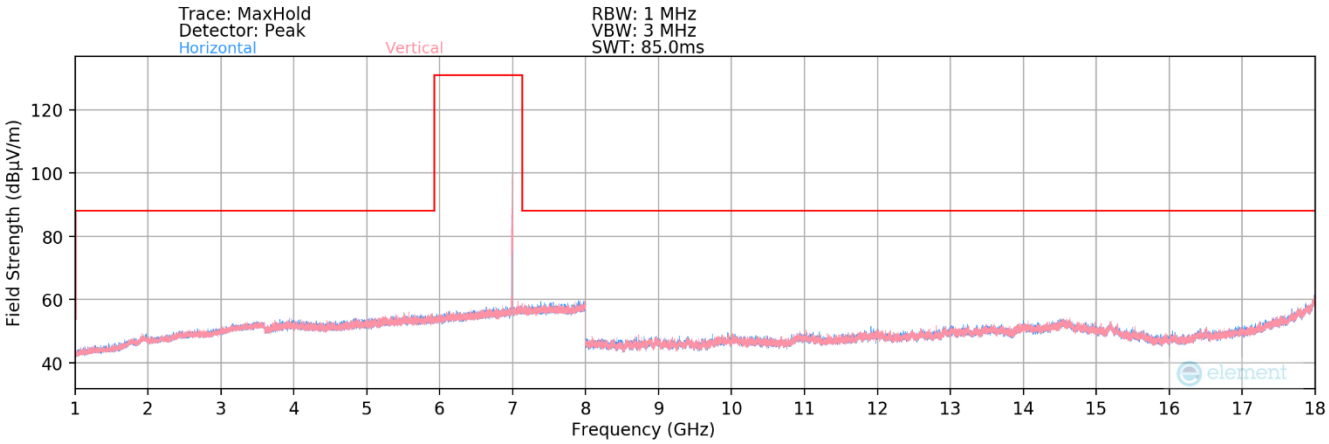


Plot 7-152. Radiated Spurious Plot 1GHz – 18GHz MIMO (802.11ax – UNII Band 6 Ch. 105)

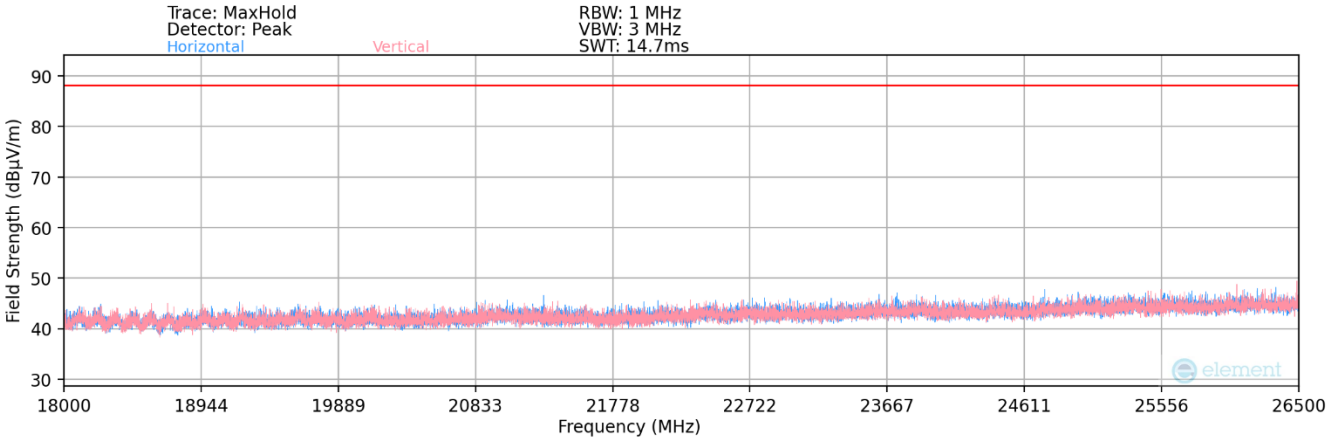


Plot 7-153. Radiated Spurious Plot 1GHz – 18GHz MIMO (802.11ax – UNII Band 7 Ch. 149)

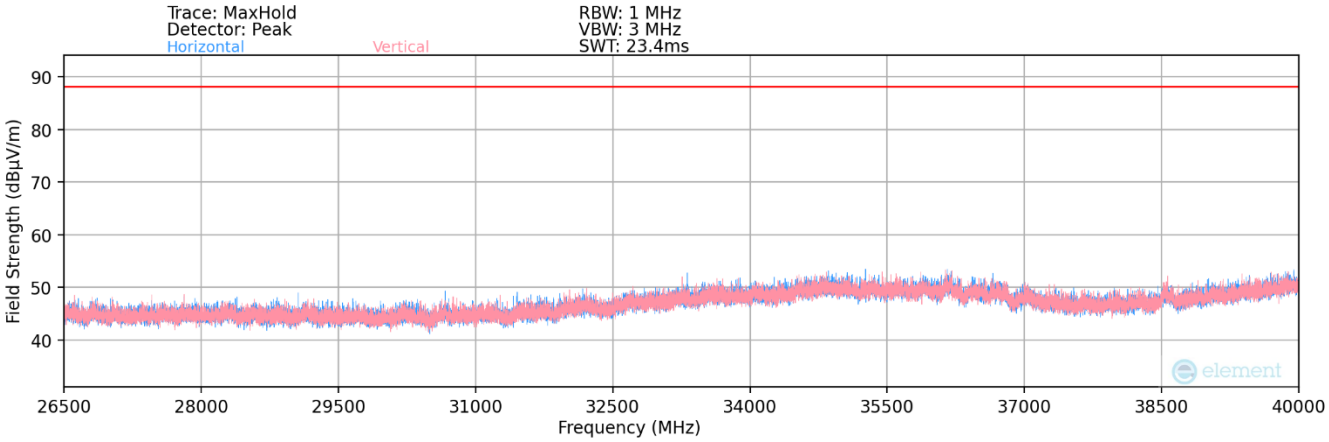
© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.



Plot 7-154. Radiated Spurious Plot 1GHz – 18GHz MIMO (802.11ax – U Band 8 Ch. 209)



Plot 7-155. Radiated Spurious Plot 18GHz - 26.5GHz (802.11ax) – Ch.149



Plot 7-156. Radiated Spurious Plot 26.5GHz - 40GHz (802.11ax) – Ch.149

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

7.6.1.1 MIMO Radiated Spurious Emission Measurements (26 Tones) – UNII Band 5

Mode	Antenna	UNII Band	Channel	Test Channel Freq. [MHz]	Restricted	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
802.11a	MIMO	5	2	5935	*	11870.00	Average	V	-	-	-77.19	9.41	0.00	39.22	53.98	-14.76
					*	11870.00	Peak	V	-	-	-65.61	9.41	0.00	50.80	73.98	-23.18
					*	17805.00	Average	V	-	-	-77.74	16.76	0.00	46.02	53.98	-7.96
					*	17805.00	Peak	V	-	-	-66.11	16.76	0.00	57.65	73.98	-16.33
					*	23740.00	Average	V	-	-	-63.58	4.02	-9.54	37.90	53.98	-16.08
					*	23740.00	Peak	V	-	-	-51.18	4.02	-9.54	50.30	73.98	-23.68
						29675.00	Peak	V	-	-	-52.12	5.01	-9.54	50.35	68.20	-17.85
			45	6175	*	12350.00	Average	V	107	88	-71.10	9.78	0.00	45.68	53.98	-8.30
					*	12350.00	Peak	V	107	88	-60.02	9.78	0.00	56.76	73.98	-17.22
					*	18525.00	Average	V	-	-	-62.17	1.00	-9.54	36.29	53.98	-17.69
					*	18525.00	Peak	V	-	-	-50.11	1.00	-9.54	48.35	73.98	-25.63
						24700.00	Peak	V	-	-	-50.89	4.23	-9.54	50.81	68.20	-17.39
						30875.00	Peak	V	-	-	-51.39	5.66	-9.54	51.73	68.20	-16.47
			93	6415		12830.00	Peak	V	-	-	-66.30	10.40	0.00	51.10	68.20	-17.10
					*	19245.00	Average	V	-	-	-62.11	1.74	-9.54	37.09	53.98	-16.89
					*	19245.00	Peak	V	-	-	-49.95	1.74	-9.54	49.25	73.98	-24.73
						25660.00	Peak	V	-	-	-51.15	4.69	-9.54	51.01	68.20	-17.19
						32075.00	Peak	V	-	-	-52.11	6.47	-9.54	51.82	68.20	-16.38

Table 7-46. Radiated Measurements MIMO (26 Tones)

7.6.1.2 MIMO Radiated Spurious Emission Measurements (26 Tones) – UNII Band 6

Mode	Antenna	UNII Band	Channel	Test Channel Freq. [MHz]	RU Index	Restricted	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
802.11ax	MIMO	6	97	6435	4		12870.00	Peak	V	-	-	-66.84	10.56	0.00	50.72	68.20	-17.48
						*	19305.00	Average	V	-	-	-62.58	1.65	-9.54	36.53	53.98	-17.45
						*	19305.00	Peak	V	-	-	-50.35	1.65	-9.54	48.76	73.98	-25.22
							25740.00	Peak	V	-	-	-50.83	4.71	-9.54	51.34	68.20	-16.86
							32175.00	Peak	V	-	-	-52.22	6.76	-9.54	51.99	68.20	-16.21
			105	6475	4		12950.00	Peak	V	-	-	-67.34	10.59	0.00	50.25	68.20	-17.95
						*	19425.00	Average	V	-	-	-63.15	1.76	-9.54	36.07	53.98	-17.91
						*	19425.00	Peak	V	-	-	-50.45	1.76	-9.54	48.77	73.98	-25.21
							25900.00	Peak	V	-	-	-51.52	4.78	-9.54	50.72	68.20	-17.48
							32375.00	Peak	V	-	-	-52.02	6.56	-9.54	52.00	68.20	-16.20
			113	6515	4		13030.00	Peak	V	-	-	-65.82	10.85	0.00	52.03	68.20	-16.17
						*	19545.00	Average	V	-	-	-62.13	1.89	-9.54	37.22	53.98	-16.76
						*	19545.00	Peak	V	-	-	-50.68	1.89	-9.54	48.67	73.98	-25.31
							26060.00	Peak	V	-	-	-50.60	4.92	-9.54	51.78	68.20	-16.42
							32575.00	Peak	V	-	-	-52.18	6.76	-9.54	52.04	68.20	-16.16

Table 7-47. Radiated Measurements MIMO (26 Tones)

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

7.6.1.3 MIMO Radiated Spurious Emission Measurements (26 Tones) – UNII Band 7

Mode	Antenna	UNII Band	Channel	Test Channel Freq. [MHz]	RU Index	Restricted	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
802.11ax	MIMO	7	117	6535	4		13070.00	Peak	V	-	-	-66.53	10.74	0.00	51.21	68.20	-16.99
						*	19605.00	Average	V	-	-	-62.29	2.20	-9.54	37.37	53.98	-16.61
						*	19605.00	Peak	V	-	-	-50.41	2.20	-9.54	49.25	73.98	-24.73
							26140.00	Peak	V	-	-	-51.29	4.98	-9.54	51.15	68.20	-17.05
							32675.00	Peak	V	-	-	-51.97	7.14	-9.54	52.63	68.20	-15.57
			149	6695	4	*	13390.00	Average	V	-	-	-77.98	11.04	0.00	40.06	53.98	-13.92
						*	13390.00	Peak	V	-	-	-66.14	11.04	0.00	51.90	73.98	-22.08
						*	20085.00	Average	V	-	-	-63.27	2.07	-9.54	36.26	53.98	-17.72
						*	20085.00	Peak	V	-	-	-50.63	2.07	-9.54	48.90	73.98	-25.08
							26780.00	Peak	V	-	-	-51.86	5.18	-9.54	50.78	68.20	-17.42
							33475.00	Peak	V	-	-	-52.29	8.48	-9.54	53.66	68.20	-14.54
			185	6875	4		13750.00	Peak	V	-	-	-66.72	11.51	0.00	51.79	68.20	-16.41
						*	20625.00	Average	V	-	-	-62.97	2.36	-9.54	36.85	53.98	-17.13
						*	20625.00	Peak	V	-	-	-51.02	2.36	-9.54	48.80	73.98	-25.18
							27500.00	Peak	V	-	-	-51.64	5.00	-9.54	50.82	68.20	-17.38
							34375.00	Peak	V	-	-	-51.97	9.46	-9.54	54.96	68.20	-13.24

Table 7-48. Radiated Measurements MIMO (26 Tones)

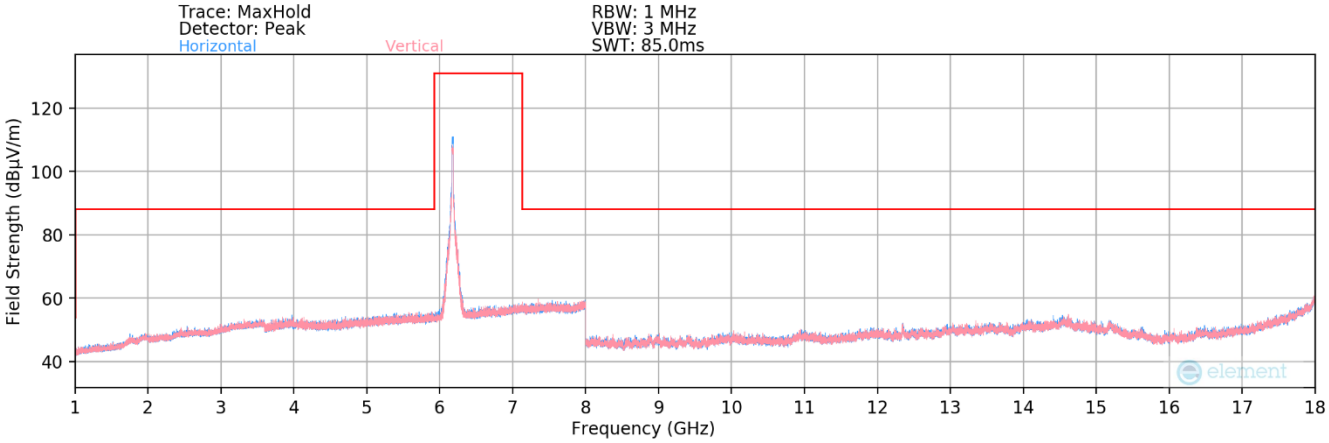
7.6.1.4 MIMO Radiated Spurious Emission Measurements (26 Tones) – UNII Band 8

Mode	Antenna	UNII Band	Channel	Test Channel Freq. [MHz]	RU Index	Restricted	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
802.11ax	MIMO	8	189	6895	4		13790.00	Peak	V	-	-	-66.57	11.38	0.00	51.81	68.20	-16.39
						*	20685.00	Average	V	-	-	-62.37	2.33	-9.54	37.42	53.98	-16.56
						*	20685.00	Peak	V	-	-	-51.24	2.33	-9.54	48.55	73.98	-25.43
							27580.00	Peak	V	-	-	-52.24	5.33	-9.54	50.55	68.20	-17.65
							34475.00	Peak	V	-	-	-51.98	9.33	-9.54	54.81	68.20	-13.39
			209	6995	4		13990.00	Peak	V	-	-	-66.48	11.63	0.00	52.15	68.20	-16.05
						*	20985.00	Average	V	-	-	-63.15	2.83	-9.54	37.14	53.98	-16.84
						*	20985.00	Peak	V	-	-	-51.38	2.83	-9.54	48.91	73.98	-25.07
							27980.00	Peak	V	-	-	-51.46	5.30	-9.54	51.30	68.20	-16.90
							34975.00	Peak	V	-	-	-52.30	9.79	-9.54	54.94	68.20	-13.26
			233	7115	4		14230.00	Peak	V	-	-	-65.73	12.35	0.00	53.62	68.20	-14.58
						*	21345.00	Average	V	-	-	-63.19	2.85	-9.54	37.12	53.98	-16.86
						*	21345.00	Peak	V	-	-	-50.23	2.85	-9.54	50.08	73.98	-23.90
							28460.00	Peak	V	-	-	-52.01	5.34	-9.54	50.79	68.20	-17.41
							35575.00	Peak	V	-	-	-51.18	9.53	-9.54	55.81	68.20	-12.39

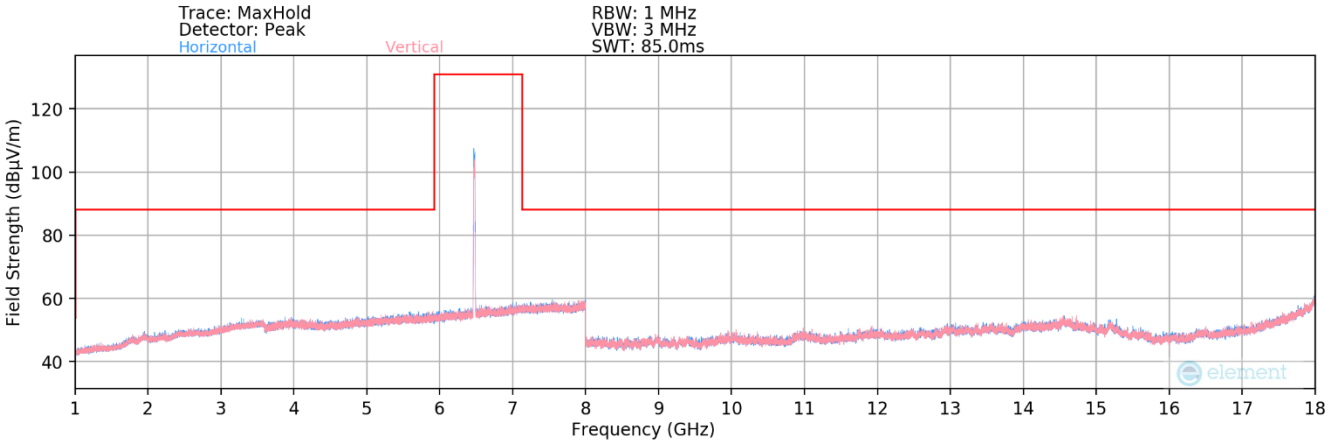
Table 7-49. Radiated Measurements MIMO (26 Tones)

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

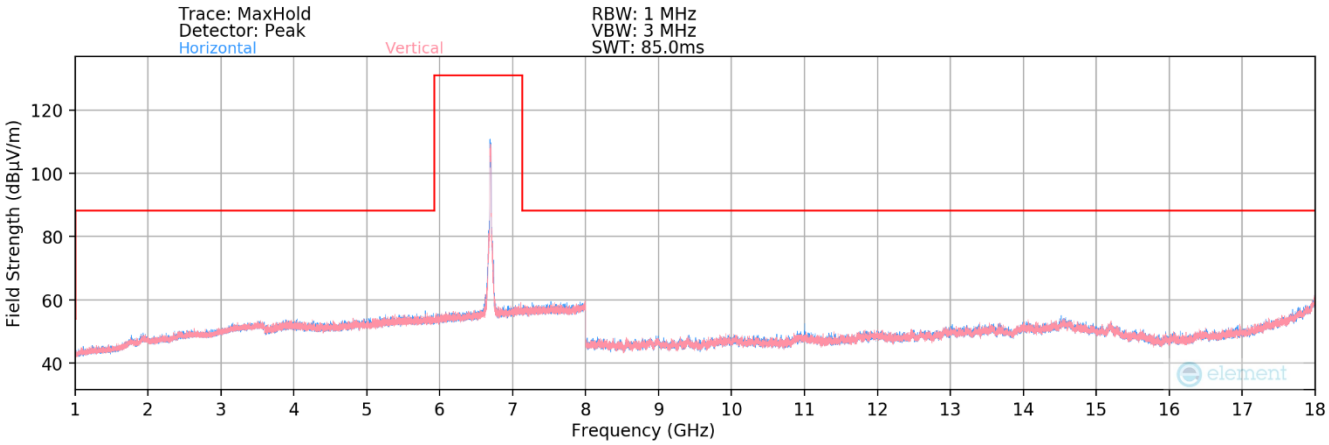
7.6.2 MIMO Radiated Spurious Emission Measurements (242 Tones)



Plot 7-157. Radiated Spurious Plot 1GHz – 18GHz MIMO (802.11ax – UNII Band 5 Ch. 45)

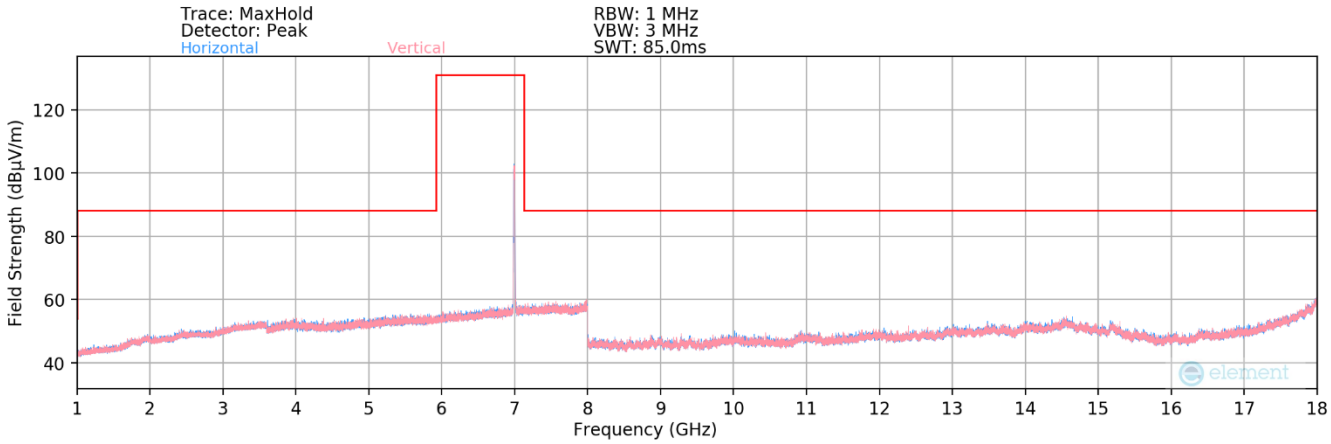


Plot 7-158. Radiated Spurious Plot 1GHz – 18GHz MIMO (802.11ax – UNII Band 6 Ch. 105)

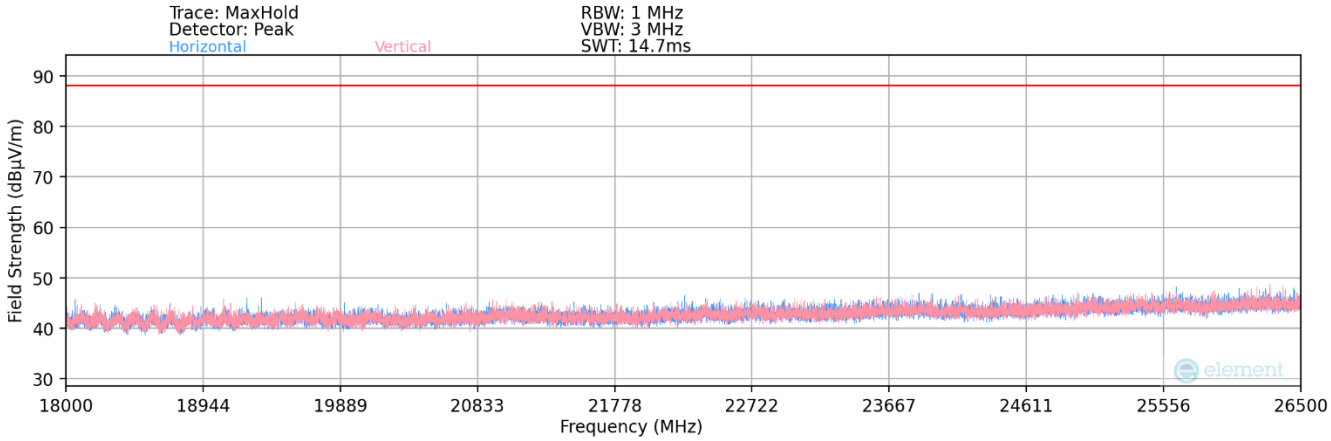


Plot 7-159. Radiated Spurious Plot 1GHz – 18GHz MIMO (802.11ax – UNII Band 7 Ch. 149)

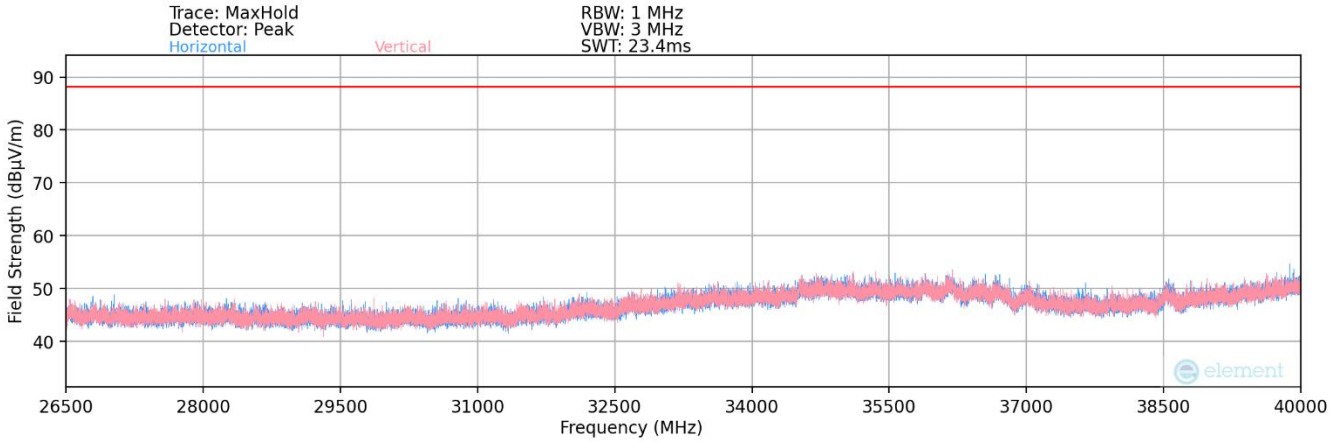
© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.



Plot 7-160. Radiated Spurious Plot 1GHz – 18GHz MIMO (802.11ax – U Band 8 Ch. 209)



Plot 7-161. Radiated Spurious Plot 18GHz - 26.5GHz (802.11ax) – Ch.149



Plot 7-162. Radiated Spurious Plot 26.5GHz - 40GHz (802.11ax) – Ch.149

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

7.6.2.1 MIMO Radiated Spurious Emission Measurements (242 Tones) – UNII Band 5

Mode	Antenna	UNII Band	Channel	Test Channel Freq. [MHz]	RU Index	Restricted	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
802.11ax	MIMO	5	2	5935	61	*	11870.00	Average	V	-	-	-78.21	9.41	0.00	38.20	53.98	-15.78
						*	11870.00	Peak	V	-	-	-66.44	9.41	0.00	49.97	73.98	-24.01
						*	17805.00	Average	V	-	-	-77.78	16.76	0.00	45.98	53.98	-8.00
						*	17805.00	Peak	V	-	-	-66.14	16.76	0.00	57.62	73.98	-16.36
						*	23740.00	Average	V	-	-	-62.67	4.02	-9.54	38.81	53.98	-15.17
						*	23740.00	Peak	V	-	-	-52.36	4.02	-9.54	49.13	73.98	-24.85
							29675.00	Peak	V	-	-	-51.77	5.01	-9.54	50.70	68.20	-17.50
			45	6175	61	*	12350.00	Average	V	-	-	-76.16	9.78	0.00	40.62	53.98	-13.36
						*	12350.00	Peak	V	-	-	-63.68	9.78	0.00	53.10	73.98	-20.88
						*	18525.00	Average	V	-	-	-62.13	1.00	-9.54	36.33	53.98	-17.65
						*	18525.00	Peak	V	-	-	-50.15	1.00	-9.54	48.30	73.98	-25.68
							24700.00	Peak	V	-	-	-51.09	4.23	-9.54	50.60	68.20	-17.60
							30875.00	Peak	V	-	-	-51.84	5.66	-9.54	51.28	68.20	-16.92
			93	6415	61		12830.00	Peak	V	-	-	-64.62	10.40	0.00	52.78	68.20	-15.42
						*	19245.00	Average	V	-	-	-63.12	1.74	-9.54	36.08	53.98	-17.90
						*	19245.00	Peak	V	-	-	-50.73	1.74	-9.54	48.47	73.98	-25.51
							25660.00	Peak	V	-	-	-50.86	4.69	-9.54	51.29	68.20	-16.91
							32075.00	Peak	V	-	-	-52.27	6.47	-9.54	51.66	68.20	-16.54

Table 7-50. Radiated Measurements MIMO (242 Tones)

7.6.2.2 MIMO Radiated Spurious Emission Measurements (242 Tones) – UNII Band 6

Mode	Antenna	UNII Band	Channel	Test Channel Freq. [MHz]	RU Index	Restricted	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
802.11ax	MIMO	6	97	6435	61		12870.00	Peak	V	-	-	-67.13	10.56	0.00	50.43	68.20	-17.77
						*	19305.00	Average	V	-	-	-62.66	1.65	-9.54	36.45	53.98	-17.53
						*	19305.00	Peak	V	-	-	-50.27	1.65	-9.54	48.84	73.98	-25.14
							25740.00	Peak	V	-	-	-51.09	4.71	-9.54	51.08	68.20	-17.12
							32175.00	Peak	V	-	-	-52.19	6.76	-9.54	52.03	68.20	-16.17
			105	6475	61		12950.00	Peak	V	-	-	-66.50	10.59	0.00	51.09	68.20	-17.11
						*	19425.00	Average	V	-	-	-63.11	1.76	-9.54	36.11	53.98	-17.87
						*	19425.00	Peak	V	-	-	-49.30	1.76	-9.54	49.92	73.98	-24.06
							25900.00	Peak	V	-	-	-50.83	4.78	-9.54	51.41	68.20	-16.79
							32375.00	Peak	V	-	-	-52.02	6.56	-9.54	52.01	68.20	-16.19
			113	6515	61		13030.00	Peak	V	-	-	-65.88	10.85	0.00	51.97	68.20	-16.23
						*	19545.00	Average	V	-	-	-62.81	1.89	-9.54	36.54	53.98	-17.44
						*	19545.00	Peak	V	-	-	-50.66	1.89	-9.54	48.69	73.98	-25.29
							26060.00	Peak	V	-	-	-51.67	4.92	-9.54	50.71	68.20	-17.49
							32575.00	Peak	V	-	-	-51.99	6.76	-9.54	52.23	68.20	-15.97

Table 7-51. Radiated Measurements MIMO (242 Tones)

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

7.6.2.3 MIMO Radiated Spurious Emission Measurements (242 Tones) – UNII Band 7

Mode	Antenna	UNII Band	Channel	Test Channel Freq. [MHz]	RU Index	Restricted	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
802.11ax	MIMO	7	117	6535	61		13070.00	Peak	V	-	-	-66.92	10.74	0.00	50.82	68.20	-17.38
						*	19605.00	Average	V	-	-	-62.92	2.20	-9.54	36.74	53.98	-17.24
						*	19605.00	Peak	V	-	-	-50.31	2.20	-9.54	49.35	73.98	-24.63
							26140.00	Peak	V	-	-	-51.89	4.98	-9.54	50.55	68.20	-17.65
							32675.00	Peak	V	-	-	-52.16	7.14	-9.54	52.44	68.20	-15.76
			149	6695	61	*	13390.00	Average	V	-	-	-78.19	11.04	0.00	39.85	53.98	-14.13
						*	13390.00	Peak	V	-	-	-65.23	11.04	0.00	52.81	73.98	-21.17
						*	20085.00	Average	V	-	-	-63.61	2.07	-9.54	35.92	53.98	-18.06
						*	20085.00	Peak	V	-	-	-50.83	2.07	-9.54	48.70	73.98	-25.28
							26780.00	Peak	V	-	-	-50.83	5.18	-9.54	51.81	68.20	-16.39
							33475.00	Peak	V	-	-	-52.31	8.48	-9.54	53.63	68.20	-14.57
			185	6875	61		13750.00	Peak	V	-	-	-66.57	11.51	0.00	51.94	68.20	-16.26
						*	20625.00	Average	V	-	-	-62.10	2.36	-9.54	37.72	53.98	-16.26
						*	20625.00	Peak	V	-	-	-50.16	2.36	-9.54	49.66	73.98	-24.32
							27500.00	Peak	V	-	-	-51.51	5.00	-9.54	50.96	68.20	-17.24
							34375.00	Peak	V	-	-	-52.62	9.46	-9.54	54.30	68.20	-13.90

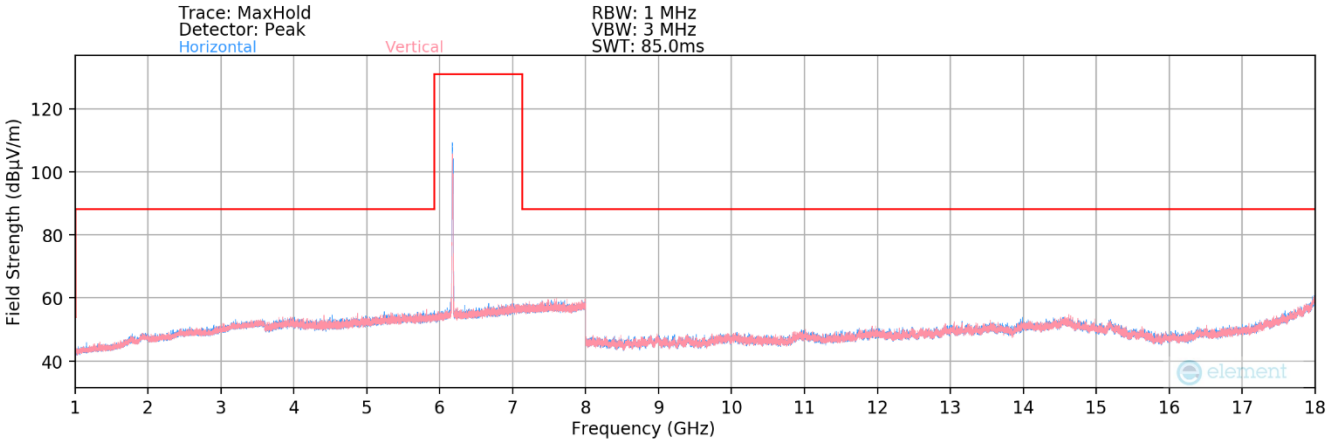
Table 7-52. Radiated Measurements MIMO (242 Tones)

7.6.2.4 MIMO Radiated Spurious Emission Measurements (242 Tones) – UNII Band 8

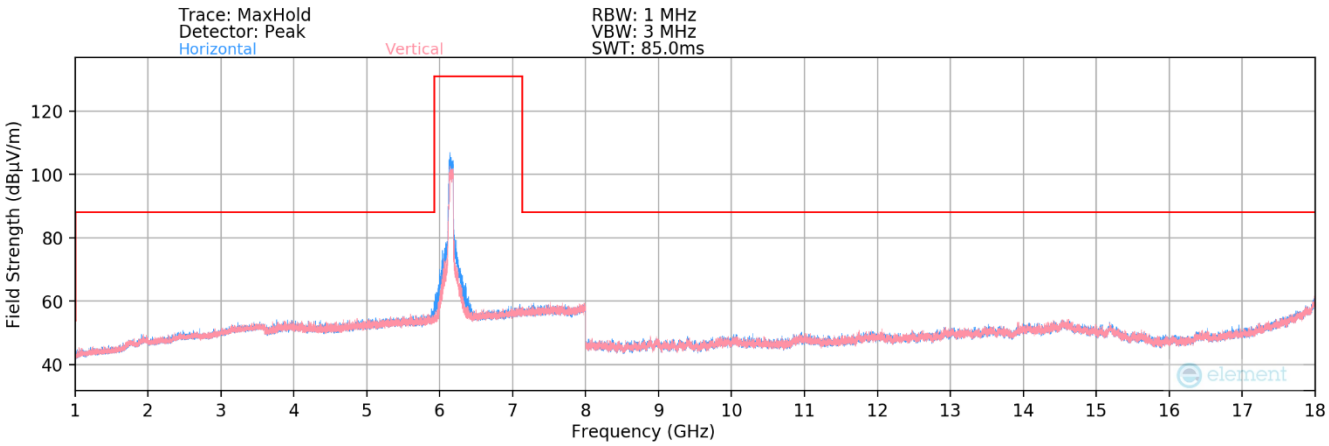
Mode	Antenna	UNII Band	Channel	Test Channel Freq. [MHz]	RU Index	Restricted	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
802.11ax	MIMO	8	189	6895	61		13790.00	Peak	V	-	-	-65.62	11.38	0.00	52.76	68.20	-15.44
						*	20685.00	Average	V	-	-	-63.47	2.33	-9.54	36.32	53.98	-17.66
						*	20685.00	Peak	V	-	-	-51.25	2.33	-9.54	48.54	73.98	-25.44
							27580.00	Peak	V	-	-	-52.13	5.33	-9.54	50.66	68.20	-17.54
							34475.00	Peak	V	-	-	-52.14	9.33	-9.54	54.65	68.20	-13.55
			209	6995	61		13990.00	Peak	V	-	-	-66.68	11.63	0.00	51.95	68.20	-16.25
						*	20985.00	Average	V	-	-	-64.14	2.83	-9.54	36.15	53.98	-17.83
						*	20985.00	Peak	V	-	-	-52.21	2.83	-9.54	48.08	73.98	-25.90
							27980.00	Peak	V	-	-	-51.31	5.30	-9.54	51.45	68.20	-16.75
							34975.00	Peak	V	-	-	-52.32	9.79	-9.54	54.93	68.20	-13.27
			233	7115	61		14230.00	Peak	V	-	-	-66.65	12.35	0.00	52.70	68.20	-15.50
						*	21345.00	Average	V	-	-	-61.16	2.85	-9.54	39.15	53.98	-14.83
						*	21345.00	Peak	V	-	-	-53.32	2.85	-9.54	46.99	73.98	-26.99
							28460.00	Peak	V	-	-	-51.74	5.34	-9.54	51.06	68.20	-17.14
							35575.00	Peak	V	-	-	-52.71	9.53	-9.54	54.28	68.20	-13.92

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

7.6.3 MIMO Radiated Spurious Emission Measurements (MRU)



Plot 7-163. Radiated Spurious Plot 1GHz – 18GHz MIMO (802.11be – UNII Band 5 Ch. 45) – 52+26 Tones

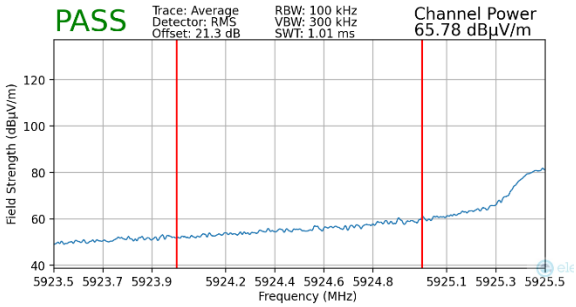


Plot 7-164. Radiated Spurious Plot 1GHz – 18GHz MIMO (802.11be – UNII Band 5 Ch. 39) – 484+242 Tones

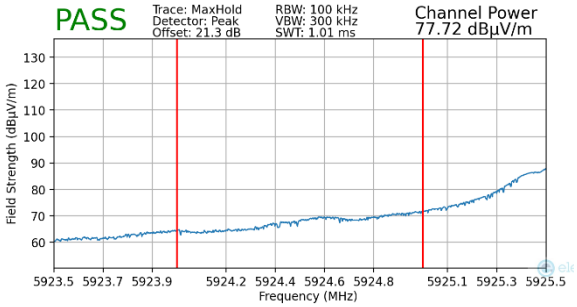
© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

7.6.4 MIMO Radiated Band Edge Measurements (20MHz BW – Partial Tone – 106T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	53
Distance of Measurements:	3 Meters
Operating Frequency:	5935MHz
Channel:	2

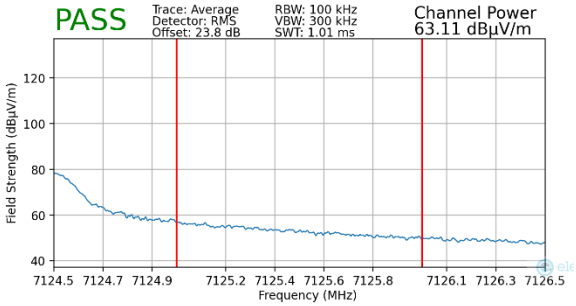


Plot 7-165. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5 – 106T)

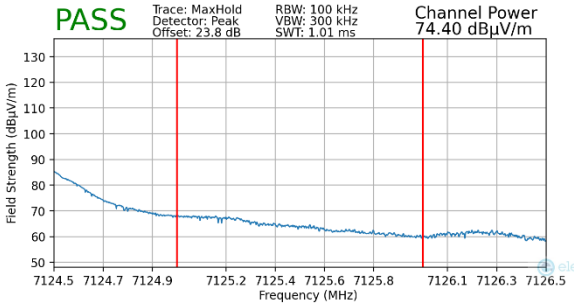


Plot 7-166. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5 – 106T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	54
Distance of Measurements:	3 Meters
Operating Frequency:	7115MHz
Channel:	233



Plot 7-167. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 8 – 106T)

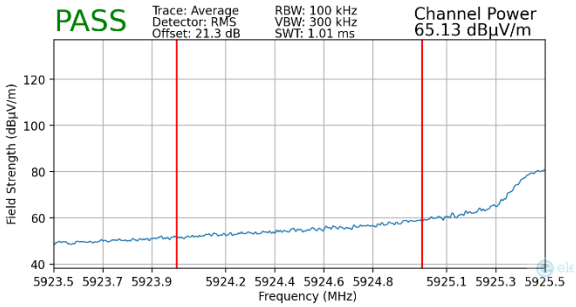


Plot 7-168. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 8 – 106T)

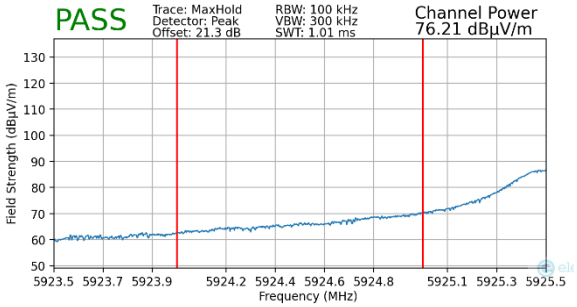
© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

7.6.5 MIMO Radiated Band Edge Measurements (20MHz BW – MRU – 106+26T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	82
Distance of Measurements:	3 Meters
Operating Frequency:	5935MHz
Channel:	2

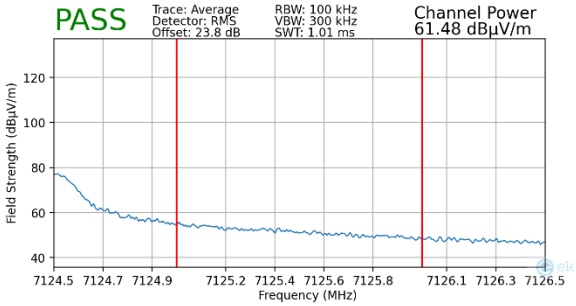


Plot 7-169. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5 – 106+26T)

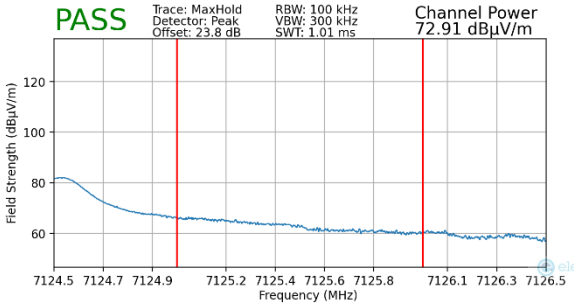


Plot 7-170. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5 – 106+26T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	83
Distance of Measurements:	3 Meters
Operating Frequency:	7115MHz
Channel:	233



Plot 7-171. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 8 – 106+26T)

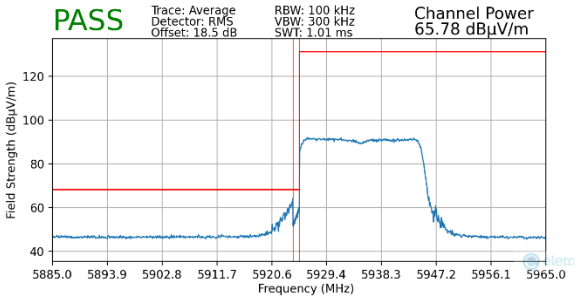


Plot 7-172. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 8 – 106+26T)

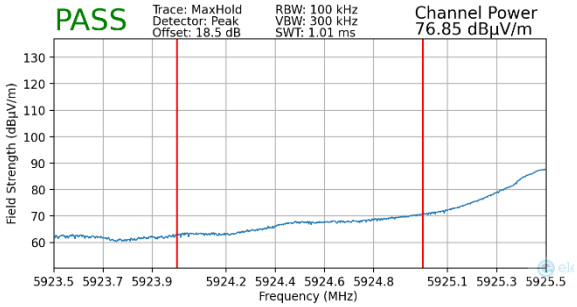
© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

7.6.6 MIMO Radiated Band Edge Measurements (20MHz BW – Full Tone – 242T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	61
Distance of Measurements:	3 Meters
Operating Frequency:	5935MHz
Channel:	2

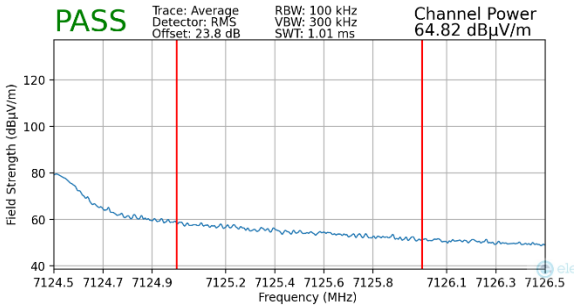


Plot 7-173. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5 – 242T)

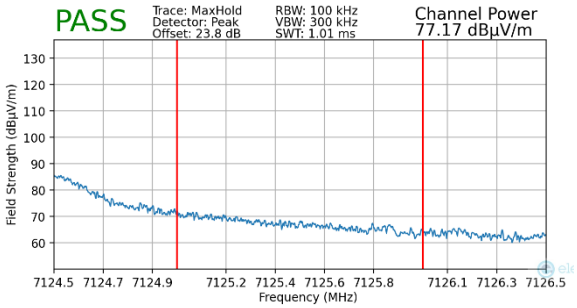


Plot 7-174. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5 – 242T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	61
Distance of Measurements:	3 Meters
Operating Frequency:	7115MHz
Channel:	233



Plot 7-175. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 8 – 242T)

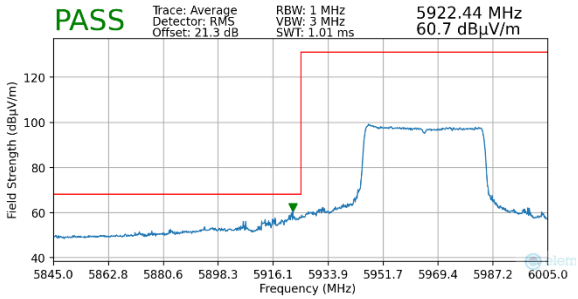


Plot 7-176. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 8 – 242T)

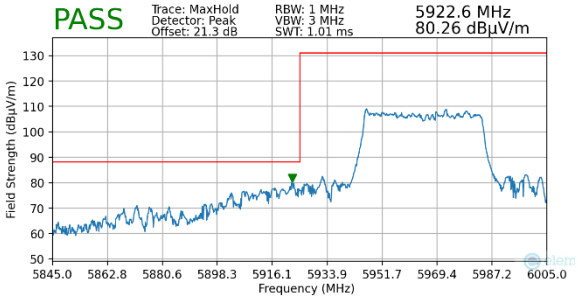
© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

7.6.7 MIMO Radiated Band Edge Measurements (40MHz BW – Full Tone – 484T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	65
Distance of Measurements:	3 Meters
Operating Frequency:	5965MHz
Channel:	3

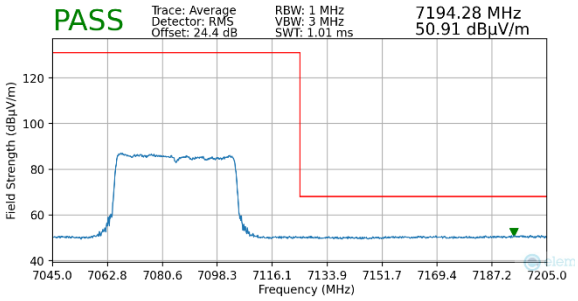


Plot 7-177. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5 – 484T)

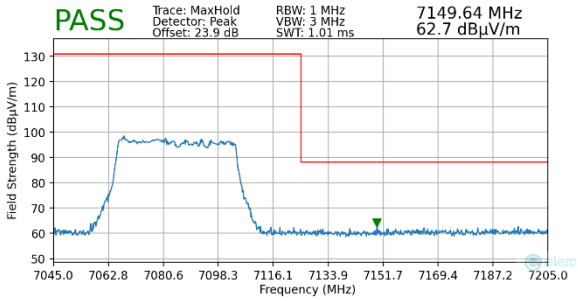


Plot 7-178. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5 – 484T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	65
Distance of Measurements:	3 Meters
Operating Frequency:	7085MHz
Channel:	227



Plot 7-179. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 8 – 484T)

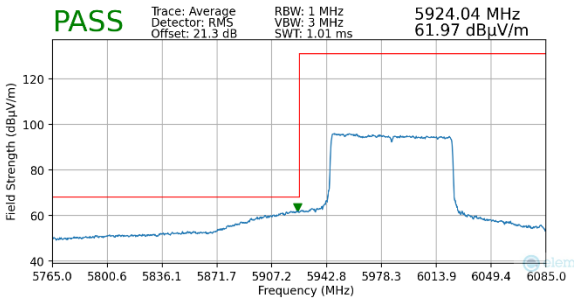


Plot 7-180. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 8 – 484T)

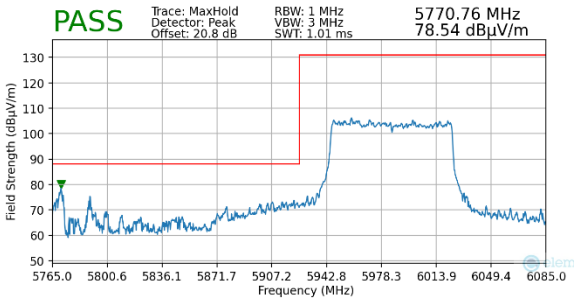
© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

7.6.8 MIMO Radiated Band Edge Measurements (80MHz BW – Full Tone – 996T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	67
Distance of Measurements:	3 Meters
Operating Frequency:	5985MHz
Channel:	7

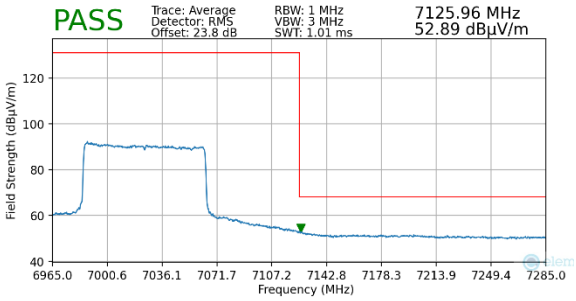


Plot 7-181. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5 – 996T)

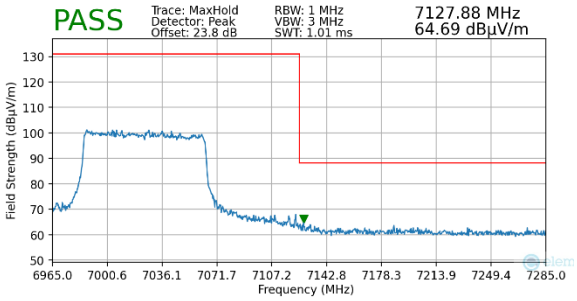


Plot 7-182. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5 – 996T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	67
Distance of Measurements:	3 Meters
Operating Frequency:	7025MHz
Channel:	215



Plot 7-183. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 8 – 996T)

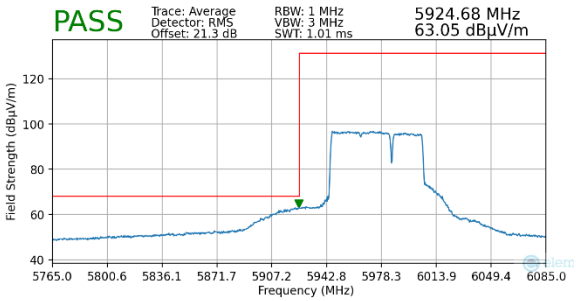


Plot 7-184. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 8 – 996T)

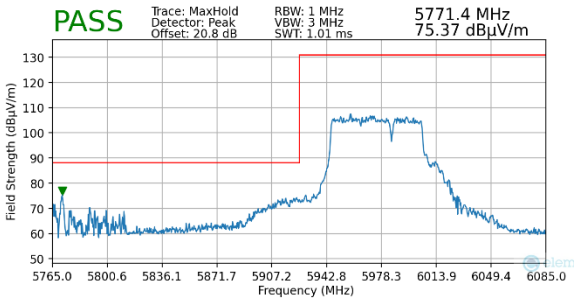
© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

7.6.9 MIMO Radiated Band Edge Measurements (80MHz BW – MRU – 484+242T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	93
Distance of Measurements:	3 Meters
Operating Frequency:	5985MHz
Channel:	7

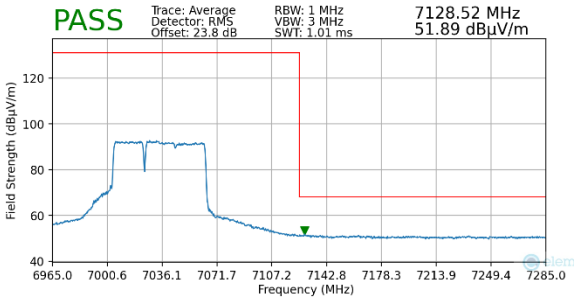


Plot 7-185. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5 – 484+242T)

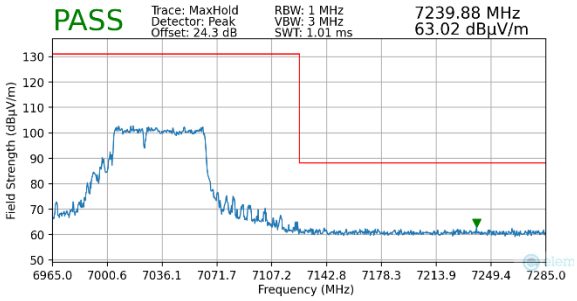


Plot 7-186. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5 – 484+242T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	90
Distance of Measurements:	3 Meters
Operating Frequency:	7025MHz
Channel:	215



Plot 7-187. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 8 – 484+242T)

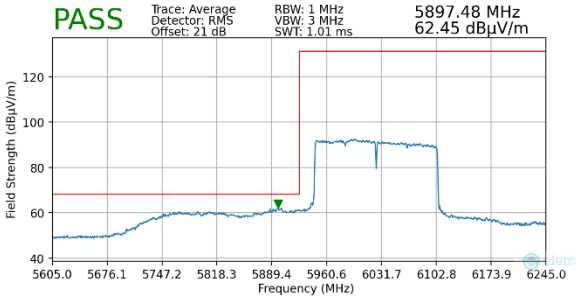


Plot 7-188. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 8 – 484+242T)

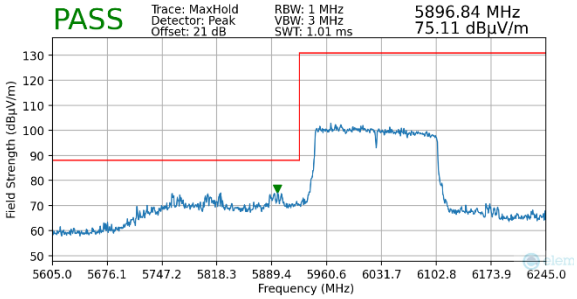
© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

7.6.10 MIMO Radiated Band Edge Measurements (160MHz BW – Full Tone – 2x996T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	68
Distance of Measurements:	3 Meters
Operating Frequency:	6025MHz
Channel:	15

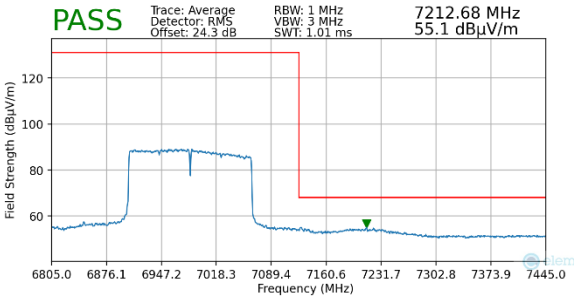


Plot 7-189. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5 – 2x996T)

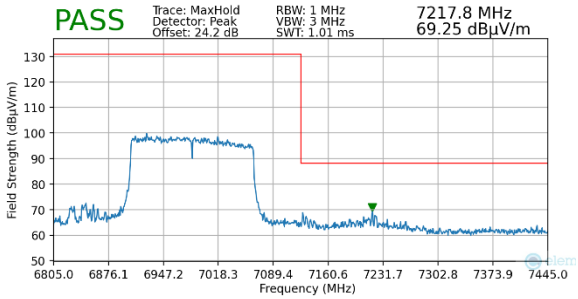


Plot 7-190. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5 – 2x996T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	68
Distance of Measurements:	3 Meters
Operating Frequency:	6985MHz
Channel:	207



Plot 7-191. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 8 – 2x996T)

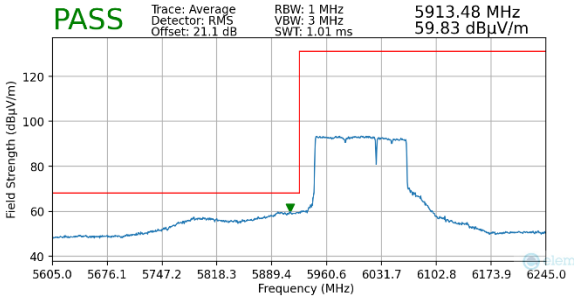


Plot 7-192. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 8 – 2x996T)

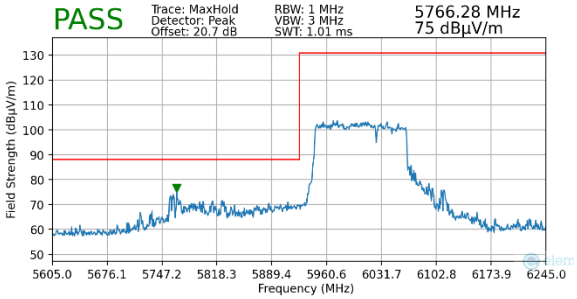
© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

7.6.11 MIMO Radiated Band Edge Measurements (160MHz BW – MRU – 996+484T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	1095
Distance of Measurements:	3 Meters
Operating Frequency:	6025MHz
Channel:	15

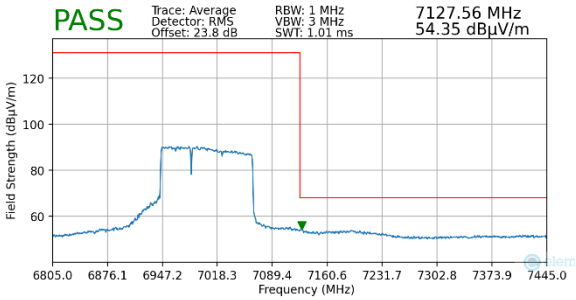


Plot 7-193. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5 – 996+484T)

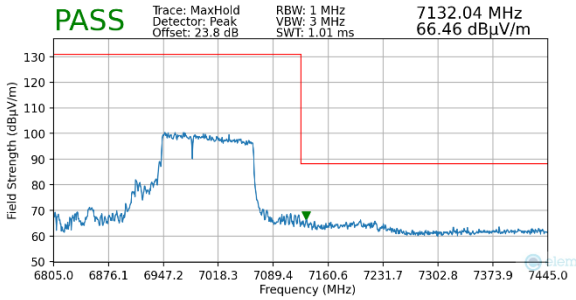


Plot 7-194. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5 – 996+484T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	94
Distance of Measurements:	3 Meters
Operating Frequency:	6985MHz
Channel:	207



Plot 7-195. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 8 – 996+484T)

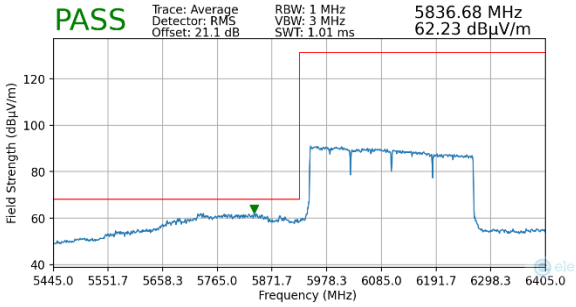


Plot 7-196. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 8 – 996+484T)

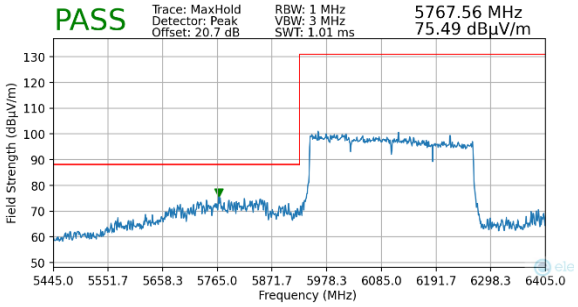
© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

7.6.12 MIMO Radiated Band Edge Measurements (320MHz BW – Full Tone – 4*996T)

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index	69
Distance of Measurements:	3 Meters
Operating Frequency:	6025MHz
Channel:	15

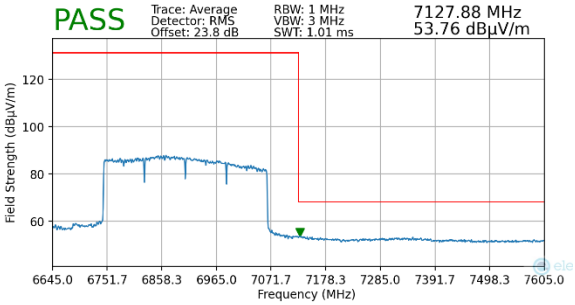


Plot 7-197. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5 – 4*996T)

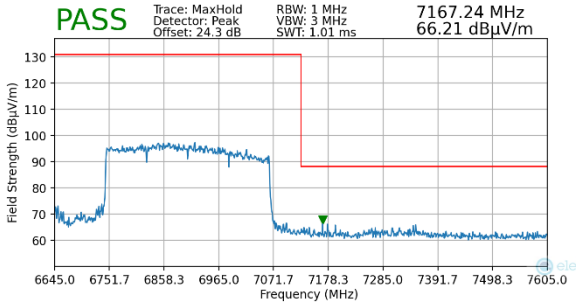


Plot 7-198. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5 – 4*996T)

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index	69
Distance of Measurements:	3 Meters
Operating Frequency:	6985MHz
Channel:	207



Plot 7-199. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 8 – 4*996T)

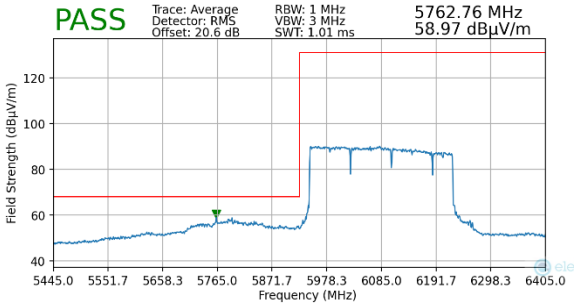


Plot 7-200. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 8 – 4*996T)

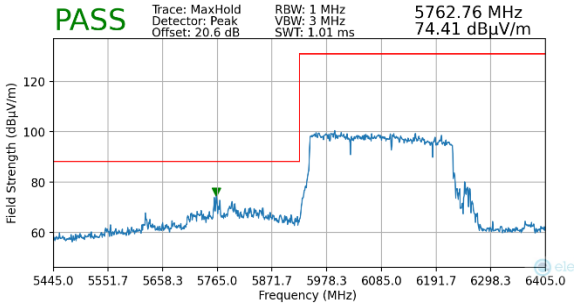
© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

7.6.13 MIMO Radiated Band Edge Measurements (320MHz BW – MRU – 3*996+484T)

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index	11106
Distance of Measurements:	3 Meters
Operating Frequency:	6025MHz
Channel:	15

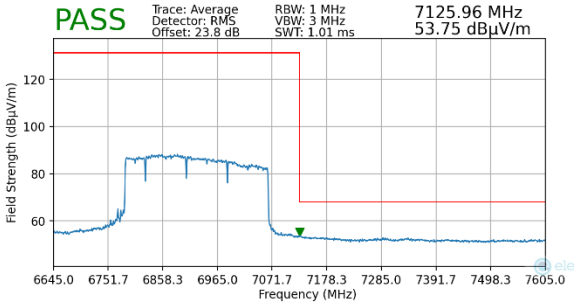


Plot 7-201. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5 – 3*996+484T)

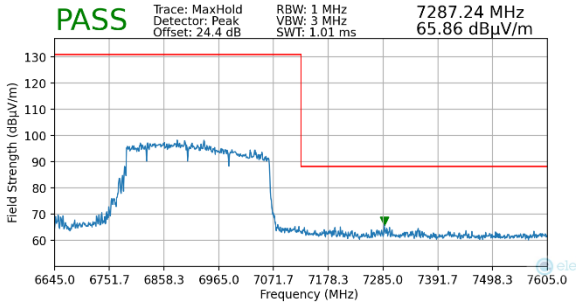


Plot 7-202. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5 – 3*996+484T)

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index	105
Distance of Measurements:	3 Meters
Operating Frequency:	6985MHz
Channel:	207



Plot 7-203. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 8 – 3*996+484T)



Plot 7-204. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 8 – 3*996+484T)

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

8 CONCLUSION

The data collected relate only the item(s) tested and show that the **Samsung Portable Handset FCC ID: A3LSMS948JPN** is in compliance with FCC Part Subpart E (15.407) of the FCC rules for operation as a Dual Client Device. The data referenced from **FCC ID: A3LSMS948U** (Model SM-S948U) included in this report have been reviewed and are deemed acceptable to support the compliance of **FCC ID: A3LSMS948JPN**.

© 2025 ELEMENT V 11.3 5/14/2025

Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

9 APPENDIX A – DATA REFERENCING SPOT-CHECKS

Overview

The spot-check data presented in this section was measured on the variant model following the guidance of the FCC's Data Referencing guidance in KDB 484596 D01 v03. Each spot-check test on the EUT was performed using the same procedure and setting that were used to perform the test on the corresponding reference device. For the worst-case RSE data, the measurement is determined by an actual emission and not by noise floor.

All test cases were performed to verify the variant EUT is still in compliance with the spot-checked results to the reference device and was performed using the guidance of ANSI C63.10:2020.

Notes

Each spot check test on the EUT was performed using the same procedure and setting that were used to perform the test on the corresponding reference device.

Conducted Spot-Checks – Model: SC-53G

	Band	Freq [MHz]	Channel	Tones	Average Conducted Power (dBm) RU Index 61			Dir. Ant. Gain [dBi]	Max e.i.r.p [dBm]	e.i.r.p Limit [dBm]	e.i.r.p Margin [dB]
					ANT1	ANT2	MIMO				
20MHz BW	5	6175	45	242T	9.15	9.43	12.30	-1.90	10.40	24.00	-13.60
	6	6475	105	242T	9.27	9.58	12.44	-2.22	10.22	24.00	-13.78
	7	6695	149	242T	9.29	9.59	12.45	-2.22	10.23	24.00	-13.77
	8	6995	209	242T	9.91	9.99	12.96	-2.14	10.82	24.00	-13.18

Table 9-1. Conducted Output Power Measurements (Spot-check)

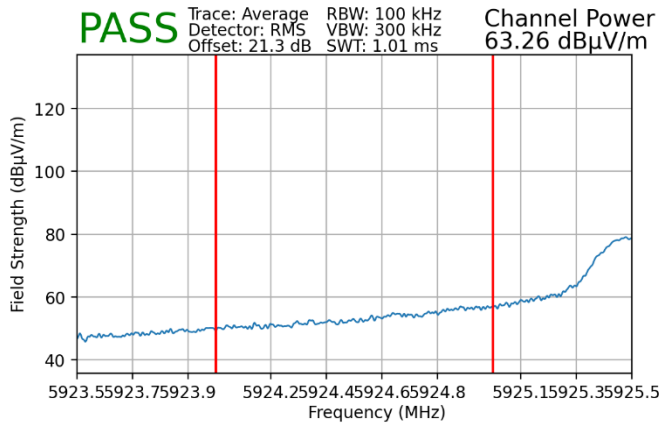
© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

Radiated Spot-Checks – Model: SC-53G

Mode	Antenna	UNII Band	Channel	Test Channel Freq. [MHz]	RU Index	Restricted	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
802.11ax	MIMO	5	45	6175	4	*	12350.00	Average	V	-	-	-82.96	22.86	46.90	53.98	-7.08
						*	12350.00	Peak	V	-	-	-71.49	22.86	58.37	73.98	-15.61

Table 9-2. RSE Measurements (Spot-check)

Worst Case Mode:	802.11be
RU index:	61
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5935MHz
Channel:	2



Plot 9-1. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5)

Results

FCC Rules	Test Item	Test Case	Units	Limit	Reference Model: SM-S948U	Variant Model: SM-S948D	Deviation (dB)	Max Deviation (dB)	Pass/Fail
2.1046, 15.407(a)(8)	Conducted Output Power	Mid Channel Each UNII Band - 802.11be 242T	dBm	N/A	12.37	12.30	-0.07	1	PASS
					12.99	12.44	-0.55	1	PASS
					12.91	12.45	-0.46	1	PASS
					12.82	12.96	0.14	1	PASS
15.209	Radiated Spurious Emissions	802.11ax/be MIMO 26 Tone - Ch.45 - Average - 12350 MHz	dBuV/m	53.98	46.85	46.9	0.05	3	PASS
15.209	Radiated Band Edge Emissions	802.11ax MIMO 242 Tone Ch.2 - Average	dBuV/m	68.2	66.03	63.26	-2.77	3	PASS

Table 9-3. Summary of Spot-checks

- END OF TEST REPORT -

© 2025 ELEMENT V 11.3 5/14/2025
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.