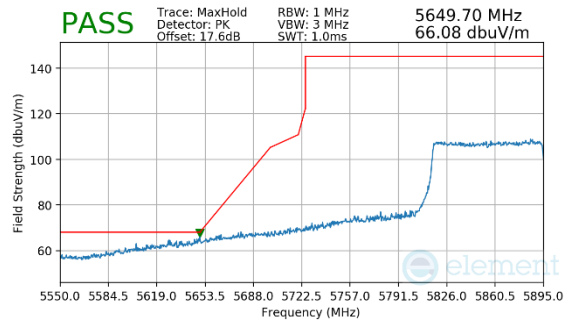
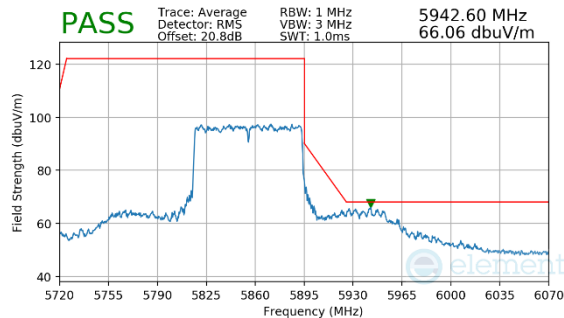


Worst Case Mode: 802.11ax
Worst Case Transfer Rate: MCS0
Distance of Measurements: 3 Meters
Operating Frequency: 5855MHz
Channel: 171

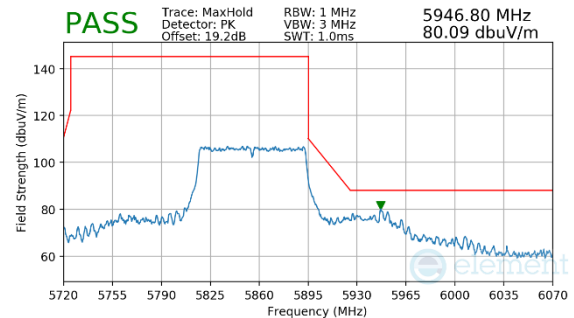


**Plot 7-161. Radiated Lower Band Edge Plot MIMO
(Peak – UNII Band 4)**

Worst Case Mode: 802.11ac
Worst Case Transfer Rate: MCS0
Distance of Measurements: 3 Meters
Operating Frequency: 5855MHz
Channel: 171



**Plot 7-162. Radiated Upper Band Edge Plot MIMO
(Average – UNII Band 4)**

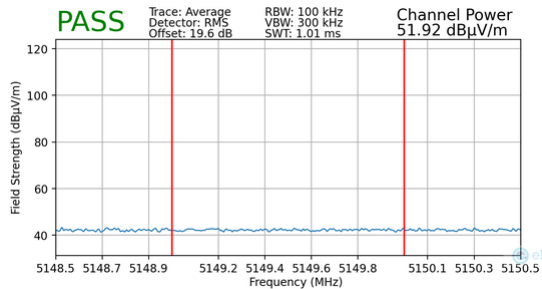


**Plot 7-163. Radiated Upper Band Edge Plot MIMO
(Peak – UNII Band 4)**

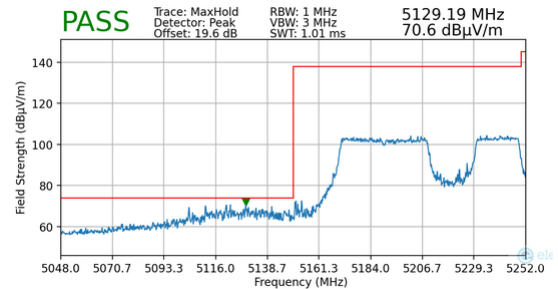
FCC ID: A3LSMS938JPN	MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260070-11.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 139 of 161

7.6.6 MIMO Radiated Band Edge Measurements (80MHz BW - Punctured)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5210MHz
Channel:	42

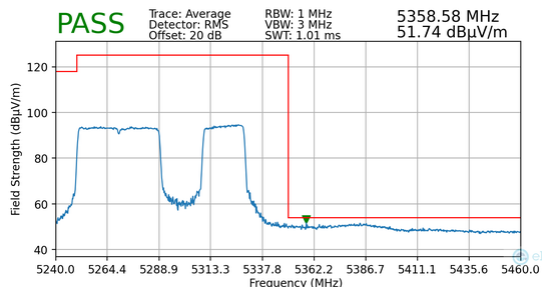


Plot 7-164. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 1)

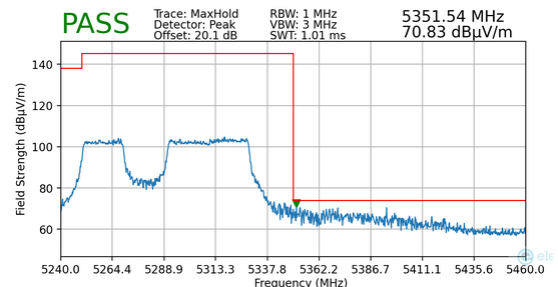


Plot 7-165. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 1)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5290MHz
Channel:	58



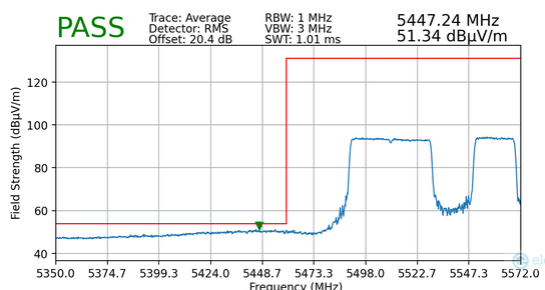
Plot 7-166. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 2A)



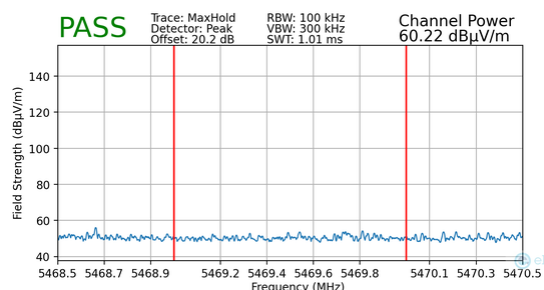
Plot 7-167. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 2A)

FCC ID: A3LSMS938JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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Worst Case Mode: 802.11be
 Worst Case Transfer Rate: MCS0
 Distance of Measurements: 3 Meters
 Operating Frequency: 5530MHz
 Channel: 106

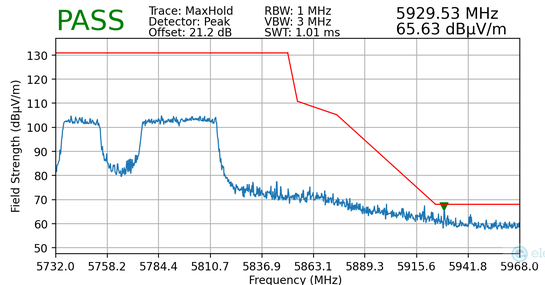


Plot 7-168. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C)



Plot 7-169. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C)

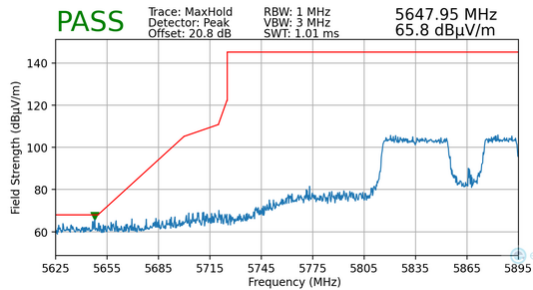
Worst Case Mode: 802.11be
 Worst Case Transfer Rate: MCS0
 Distance of Measurements: 3 Meters
 Operating Frequency: 5775MHz
 Channel: 155



Plot 7-170. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 3)

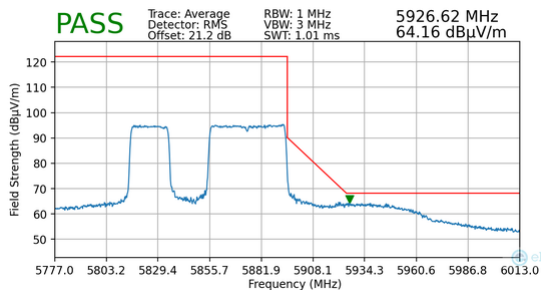
FCC ID: A3LSMS938JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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Worst Case Mode: 802.11be
Worst Case Transfer Rate: MCS0
Distance of Measurements: 3 Meters
Operating Frequency: 5855MHz
Channel: 171

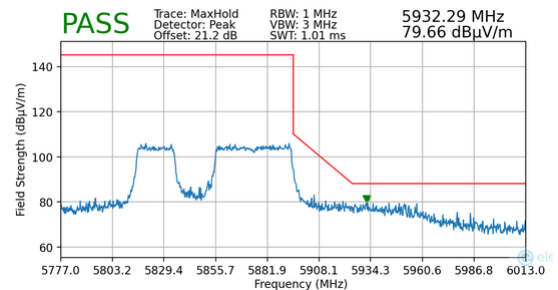


**Plot 7-171. Radiated Lower Band Edge Plot MIMO
(Peak – UNII Band 4)**

Worst Case Mode: 802.11ac
Worst Case Transfer Rate: MCS0
Distance of Measurements: 3 Meters
Operating Frequency: 5855MHz
Channel: 171



**Plot 7-172. Radiated Upper Band Edge Plot MIMO
(Average – UNII Band 4)**

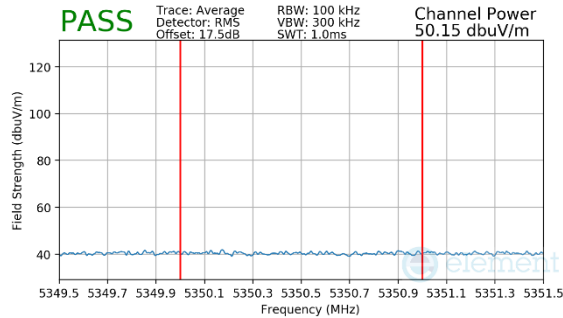


**Plot 7-173. Radiated Upper Band Edge Plot MIMO
(Peak – UNII Band 4)**

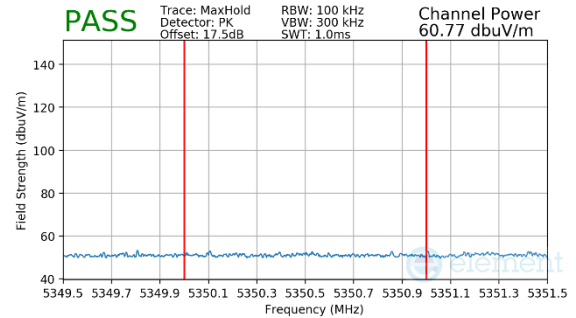
FCC ID: A3LSMS938JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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7.6.7 MIMO Radiated Band Edge Measurements (160MHz BW)

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5250MHz
Channel:	50

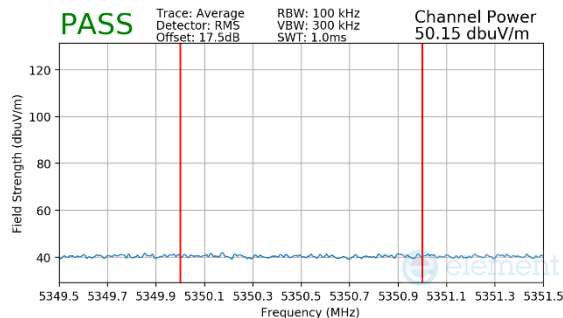


Plot 7-174. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 1)

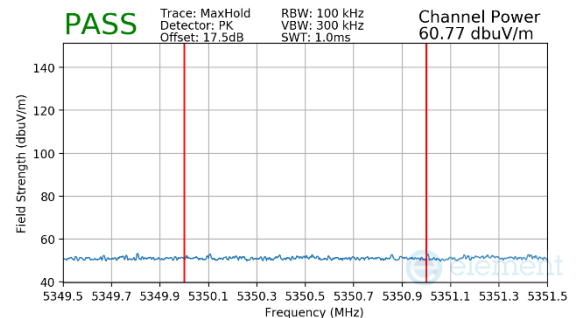


Plot 7-175. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 1)

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5250MHz
Channel:	50



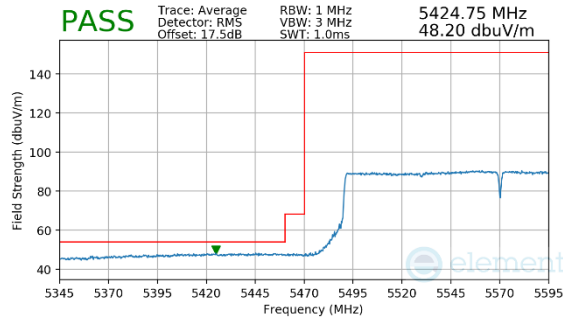
Plot 7-176. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 2A)



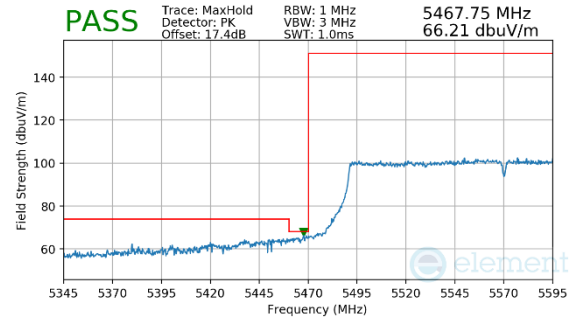
Plot 7-177. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 2A)

FCC ID: A3LSMS938JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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Worst Case Mode: 802.11ac
 Worst Case Transfer Rate: MCS0
 Distance of Measurements: 3 Meters
 Operating Frequency: 5570MHz
 Channel: 114

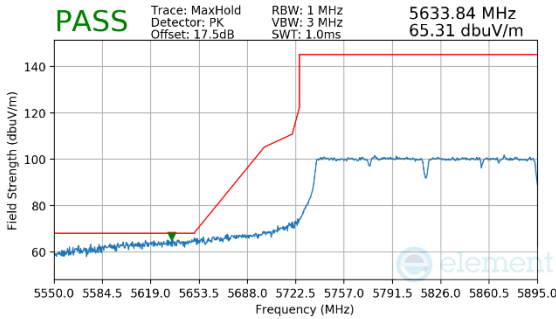


Plot 7-178. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C)



Plot 7-179. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C)

Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 Distance of Measurements: 3 Meters
 Operating Frequency: 5815MHz
 Channel: 163

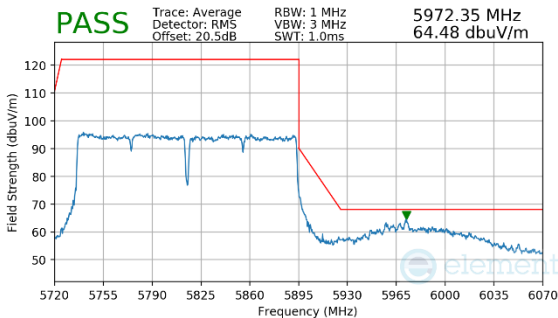


Plot 7-180. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 4)

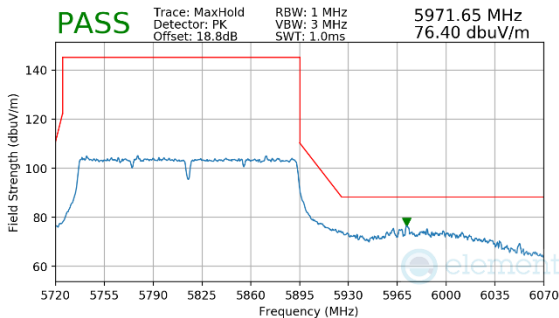
FCC ID: A3LSMS938JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5815MHz
Channel:	163



Plot 7-181. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 4)

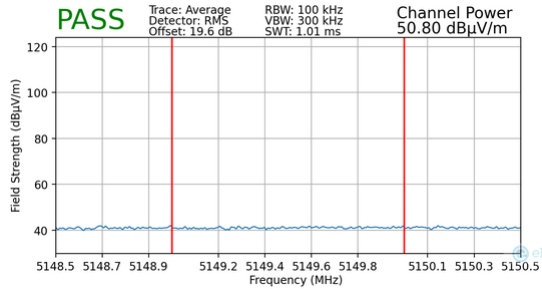


Plot 7-182. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 4)

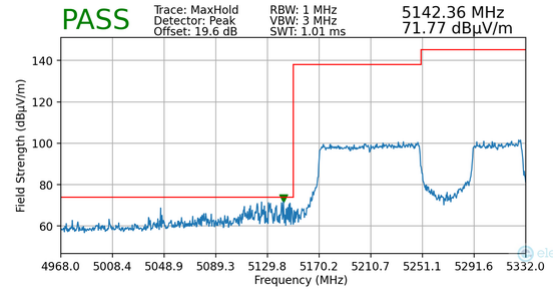
FCC ID: A3LSMS938JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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7.6.8 MIMO Radiated Band Edge Measurements (160MHz BW - Punctured)

Worst Case Mode: 802.11ax
Worst Case Transfer Rate: MCS0
Distance of Measurements: 3 Meters
Operating Frequency: 5250MHz
Channel: 50

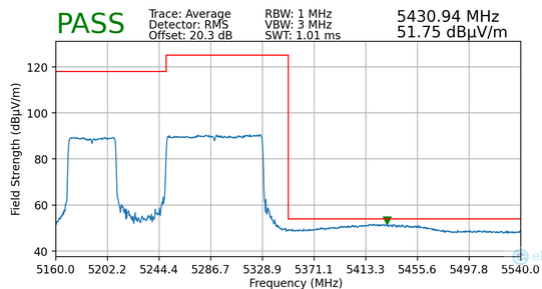


Plot 7-183. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 1)

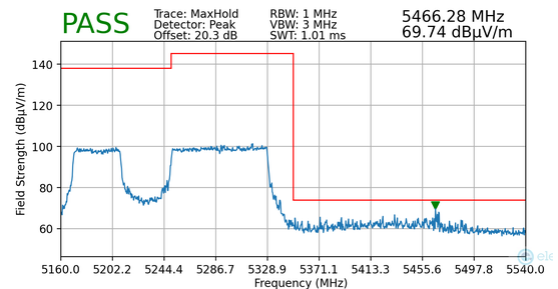


Plot 7-184. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 1)

Worst Case Mode: 802.11ax
Worst Case Transfer Rate: MCS0
Distance of Measurements: 3 Meters
Operating Frequency: 5250MHz
Channel: 50



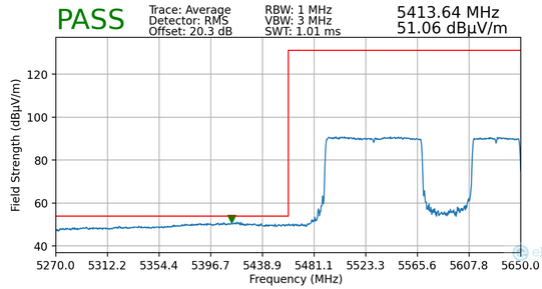
Plot 7-185. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 2A)



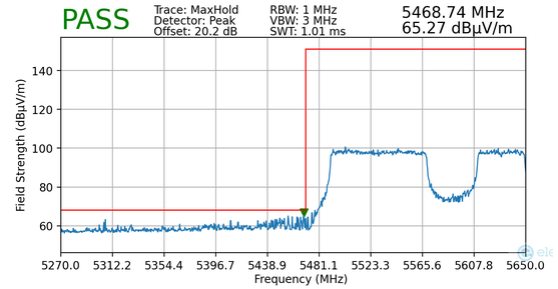
Plot 7-186. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 2A)

FCC ID: A3LSMS938JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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Worst Case Mode: 802.11ax
Worst Case Transfer Rate: MCS0
Distance of Measurements: 3 Meters
Operating Frequency: 5570MHz
Channel: 114

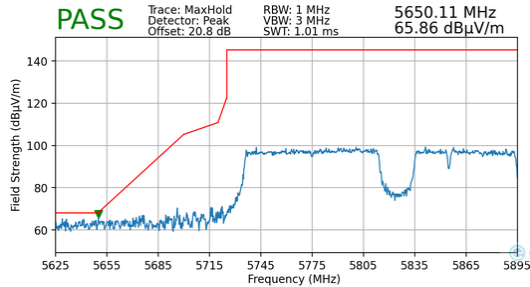


Plot 7-187. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C)



Plot 7-188. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C)

Worst Case Mode: 802.11ax
Worst Case Transfer Rate: MCS0
Distance of Measurements: 3 Meters
Operating Frequency: 5815MHz
Channel: 163

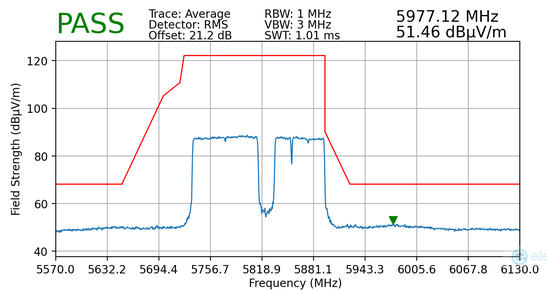


Plot 7-189. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 4)

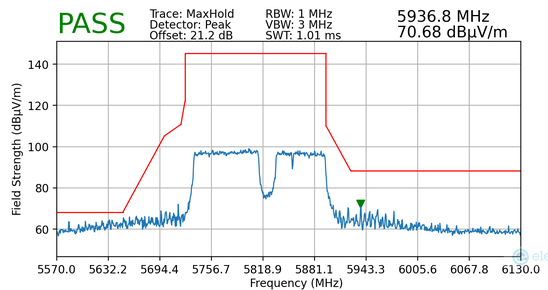
FCC ID: A3LSMS938JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5815MHz
Channel:	163



Plot 7-190. Radiated Lower Band Edge Plot MIMO
(Average – UNII Band 4)



Plot 7-191. Radiated Lower Band Edge Plot MIMO
(Peak – UNII Band 4)

FCC ID: A3LSMS938JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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7.7 Line-Conducted Test Data

Test Overview and Limit

All AC line conducted spurious emissions are measured with a receiver connected to a grounded LISN while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates and modes were investigated for conducted spurious emissions. Only the conducted emissions of the configuration that produced the worst-case emissions are reported in this section.

All conducted emissions must not exceed the limits shown in the table below per FCC §15.207 and RSS-Gen (8.8).

Frequency of emission (MHz)	Conducted Limit (dBμV)	
	Quasi-peak	Average
0.15 – 0.5	66 to 56*	56 to 46*
0.5 – 5	56	46
5 – 30	60	50

Table 7-77. Conducted Limits

*Decreases with the logarithm of the frequency.

Test Procedures Used

ANSI C63.10-2013, Section 6.2

Test Settings

Quasi-Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the spurious emission of interest
2. RBW = 9kHz (for emissions from 150kHz – 30MHz)
3. Detector = quasi-peak
4. Sweep time = auto couple
5. Trace mode = max hold
6. Trace was allowed to stabilize

Average Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the spurious emission of interest
2. RBW = 9kHz (for emissions from 150kHz – 30MHz)
3. Detector = RMS
4. Sweep time = auto couple
5. Trace mode = max hold
6. Trace was allowed to stabilize

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Test Setup

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

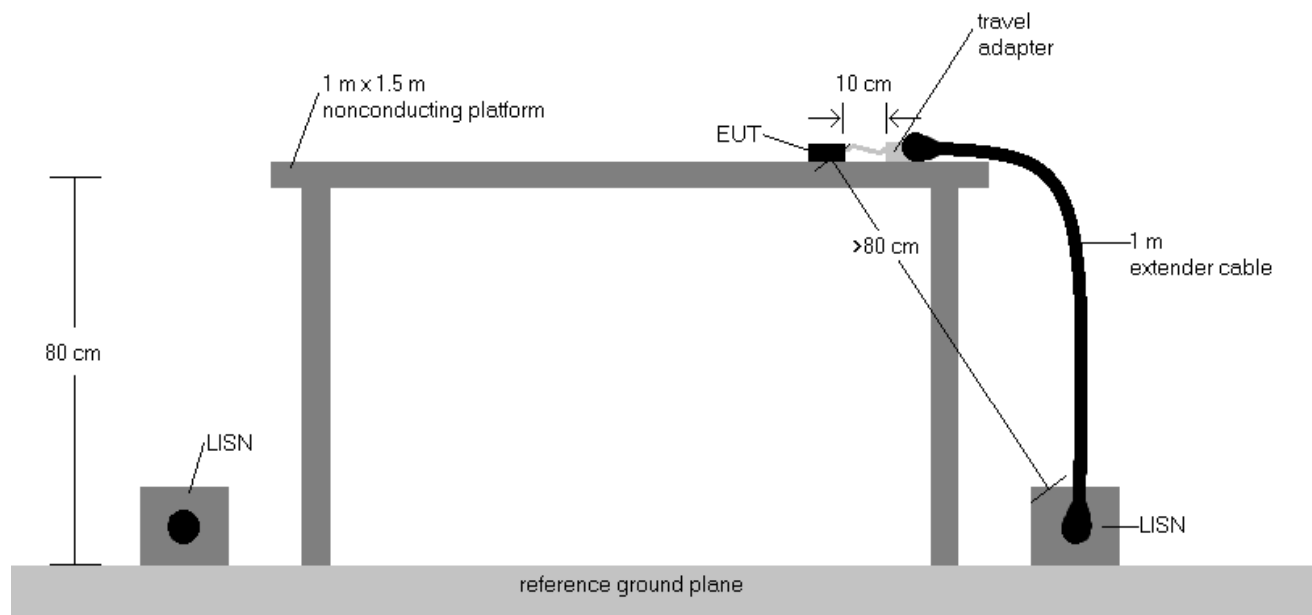
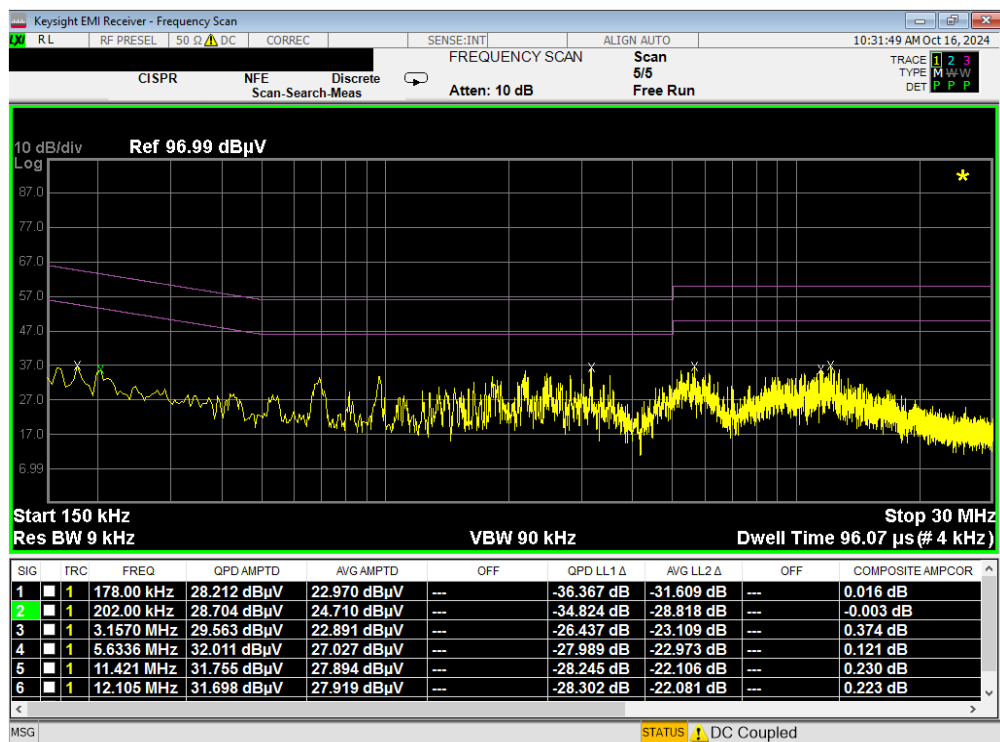


Figure 7-8. Test Instrument & Measurement Setup

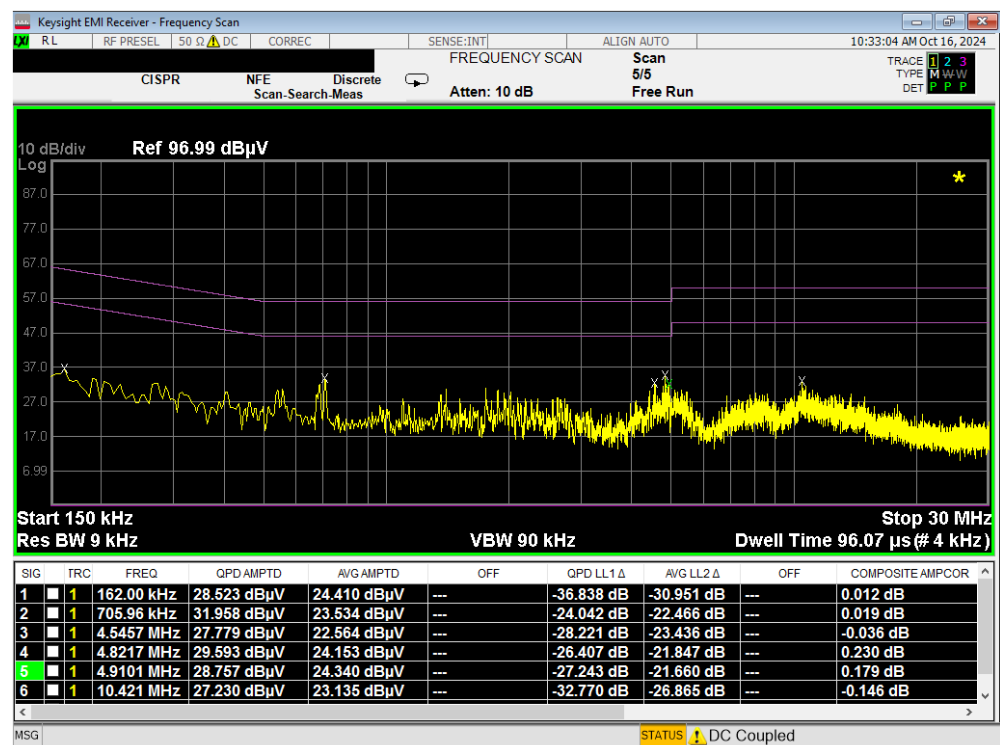
Test Notes

1. All modes of operation were investigated, and the worst-case emissions are reported using mid channel. The emissions found were not affected by the choice of channel used during testing.
2. The limit for an intentional radiator from 150kHz to 30MHz is specified in §15.207 and RSS-Gen (8.8).
3. $\text{Corr. (dB)} = \text{Cable loss (dB)} + \text{LISN insertion factor (dB)}$
4. $\text{QP/AV Level (dB}\mu\text{V)} = \text{QP/AV Analyzer/Receiver Level (dB}\mu\text{V)} + \text{Corr. (dB)}$
5. $\text{Margin (dB)} = \text{QP/AV Limit (dB}\mu\text{V)} - \text{QP/AV Level (dB}\mu\text{V)}$
6. Traces shown in plot are made using a peak detector.
7. Deviations to the Specifications: None.

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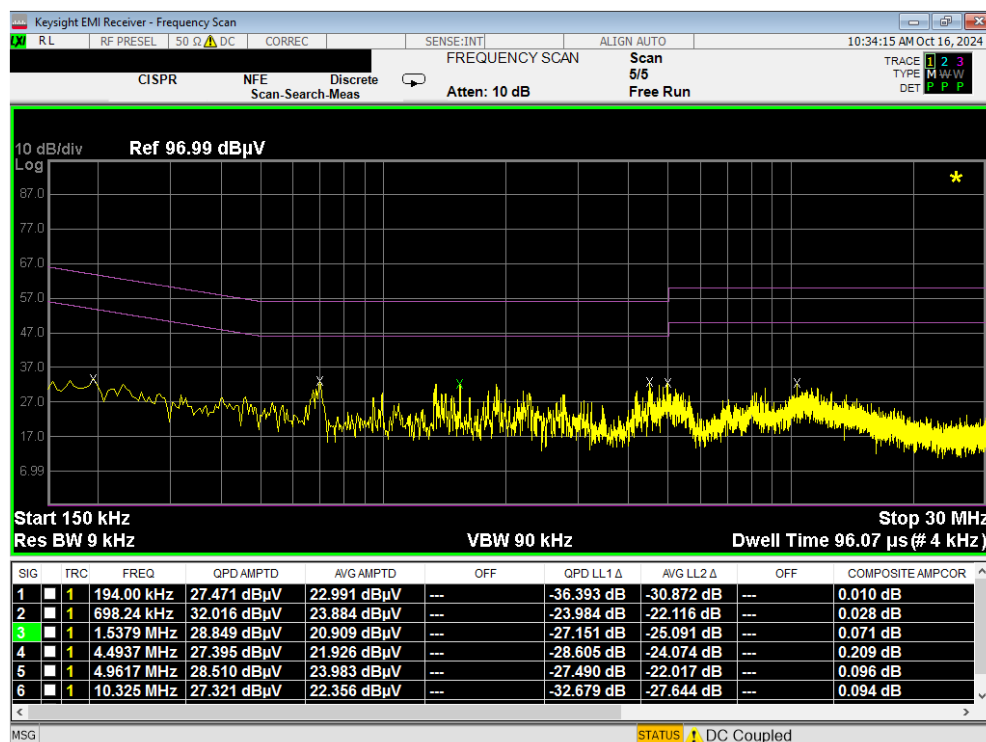


Plot 7-192. Line Conducted Plot with 802.11a UNII Band 1 (L1)

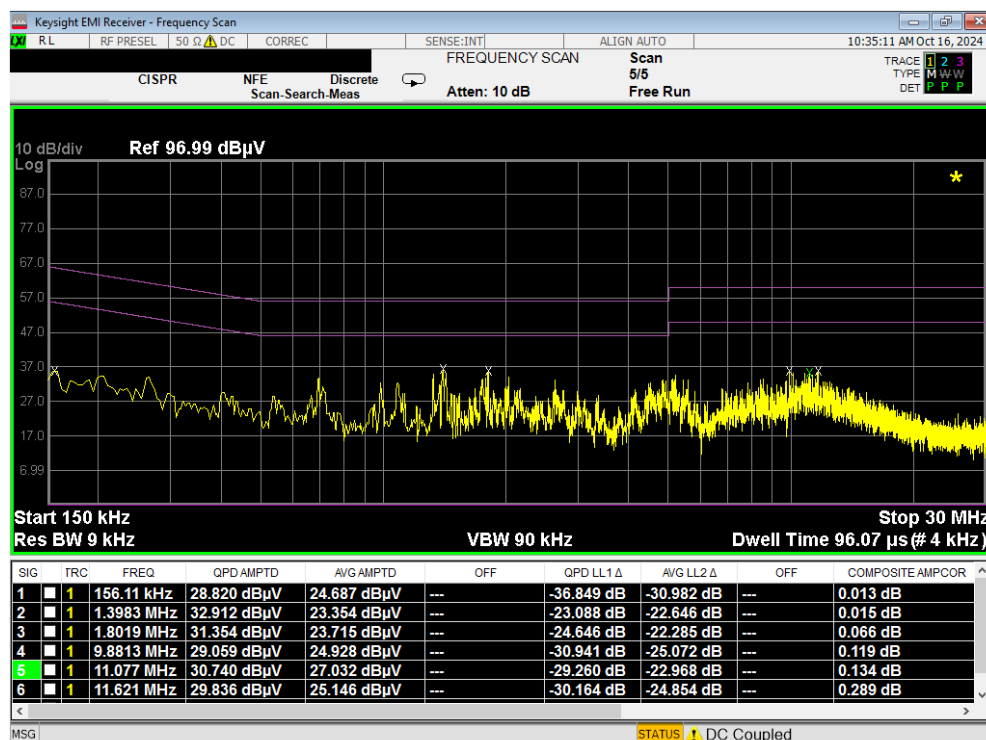


Plot 7-193. Line Conducted Plot with 802.11a UNII Band 1 (N)

FCC ID: A3LSMS938JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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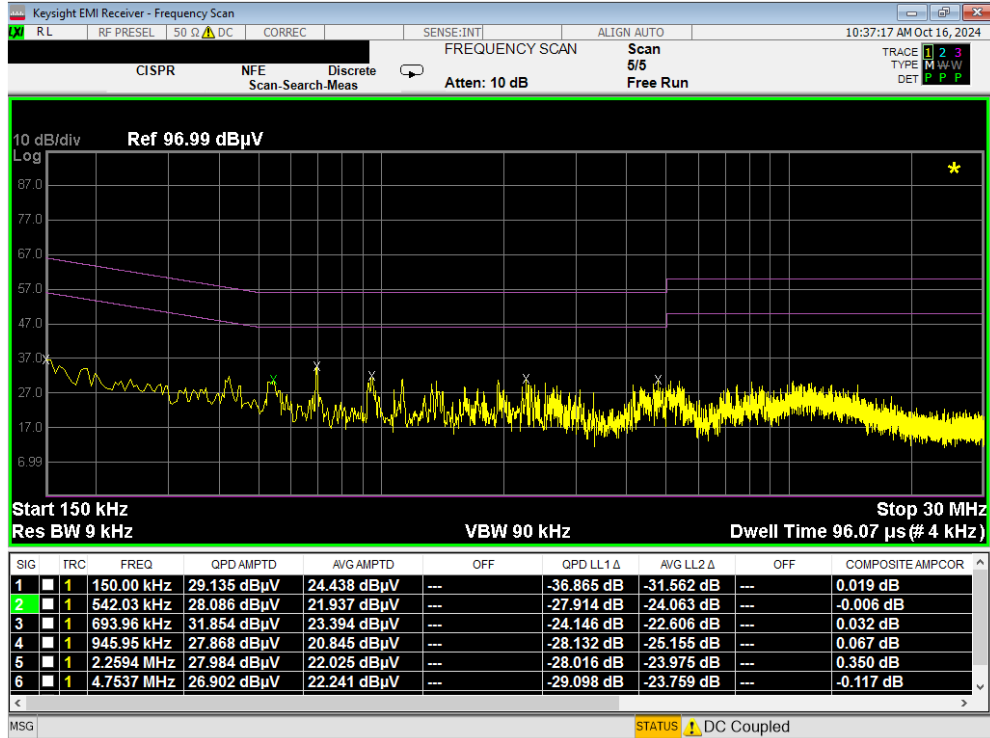


Plot 7-194. Line Conducted Plot with 802.11a UNII Band 2A (L1)

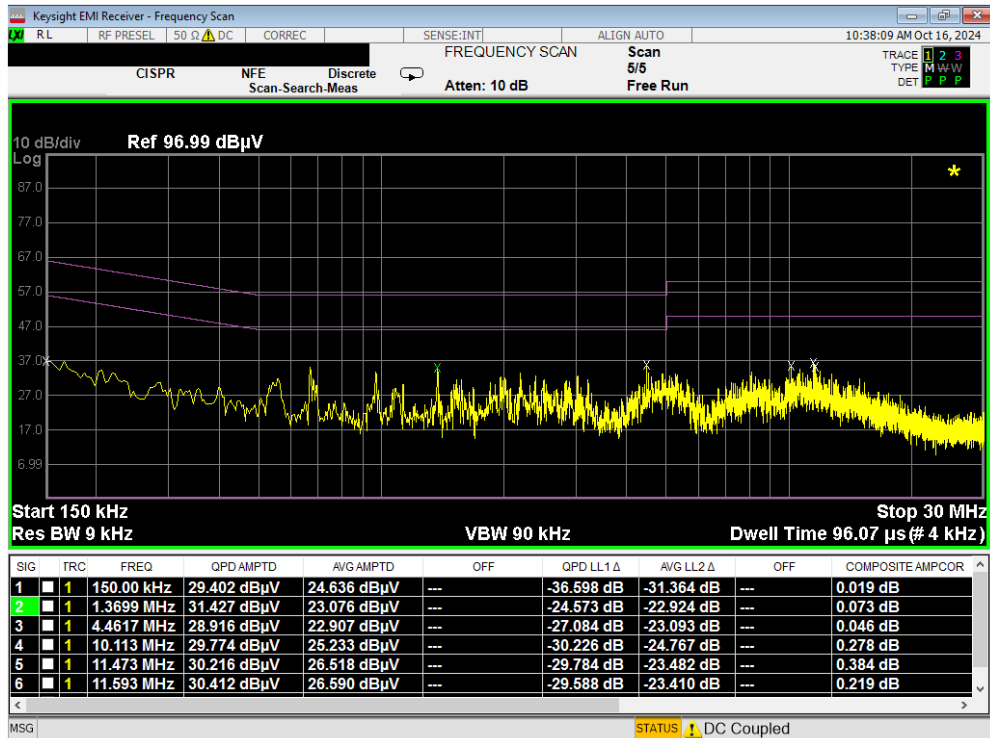


Plot 7-195. Line Conducted Plot with 802.11a UNII Band 2A (N)

FCC ID: A3LSMS938JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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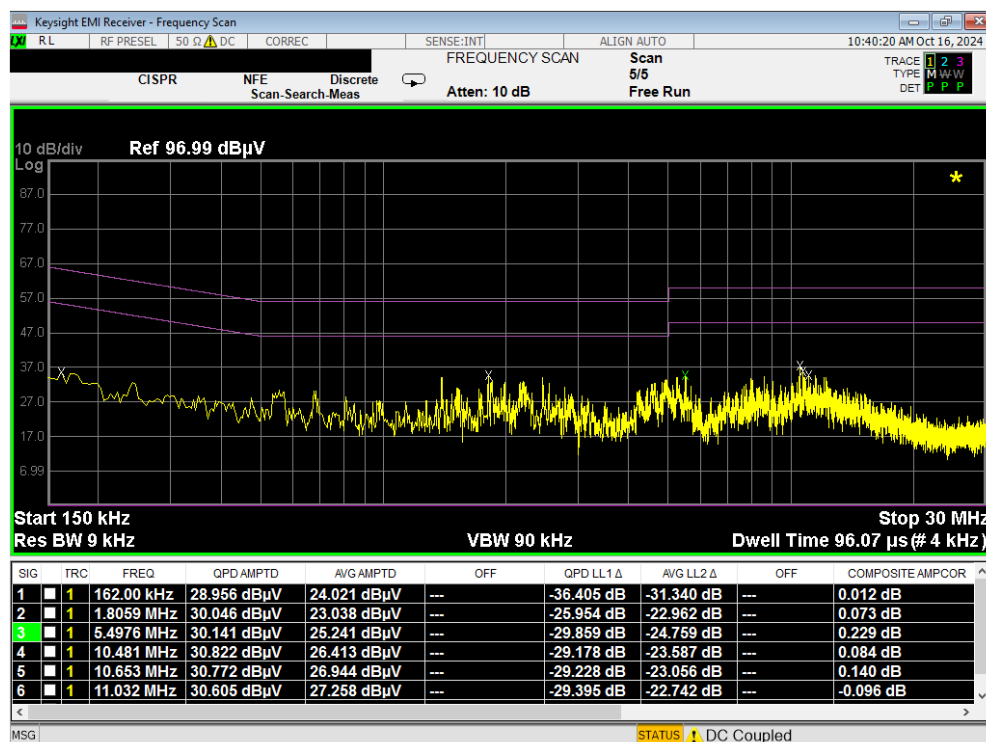


Plot 7-196. Line Conducted Plot with 802.11a UNII Band 2C (L1)

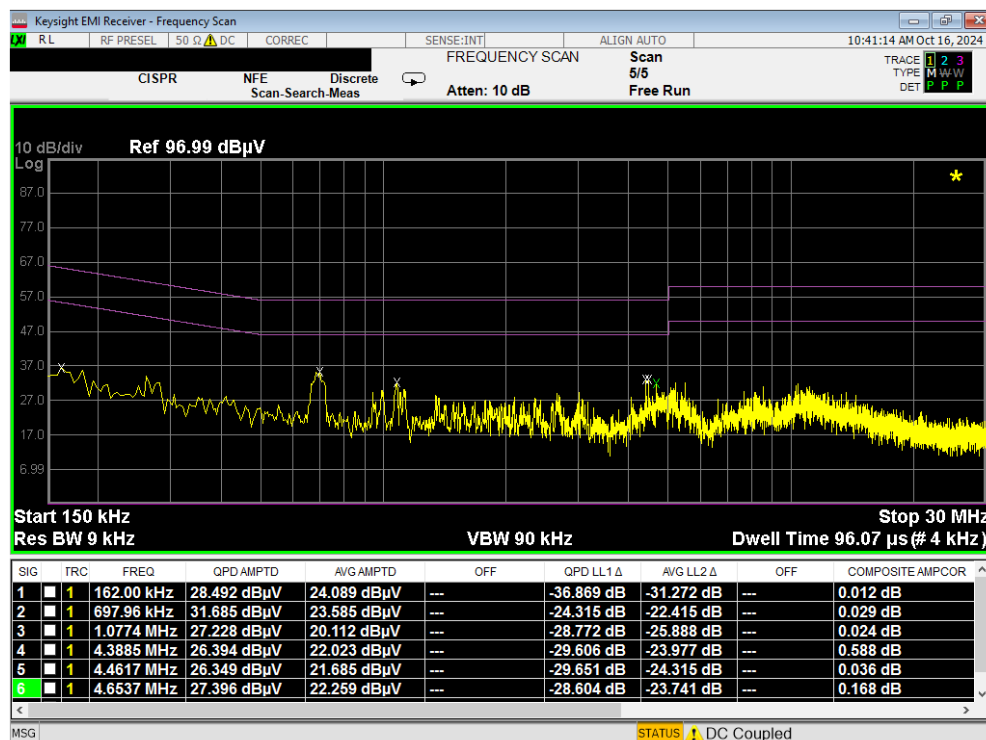


Plot 7-197. Line Conducted Plot with 802.11a UNII Band 2C (N)

FCC ID: A3LSMS938JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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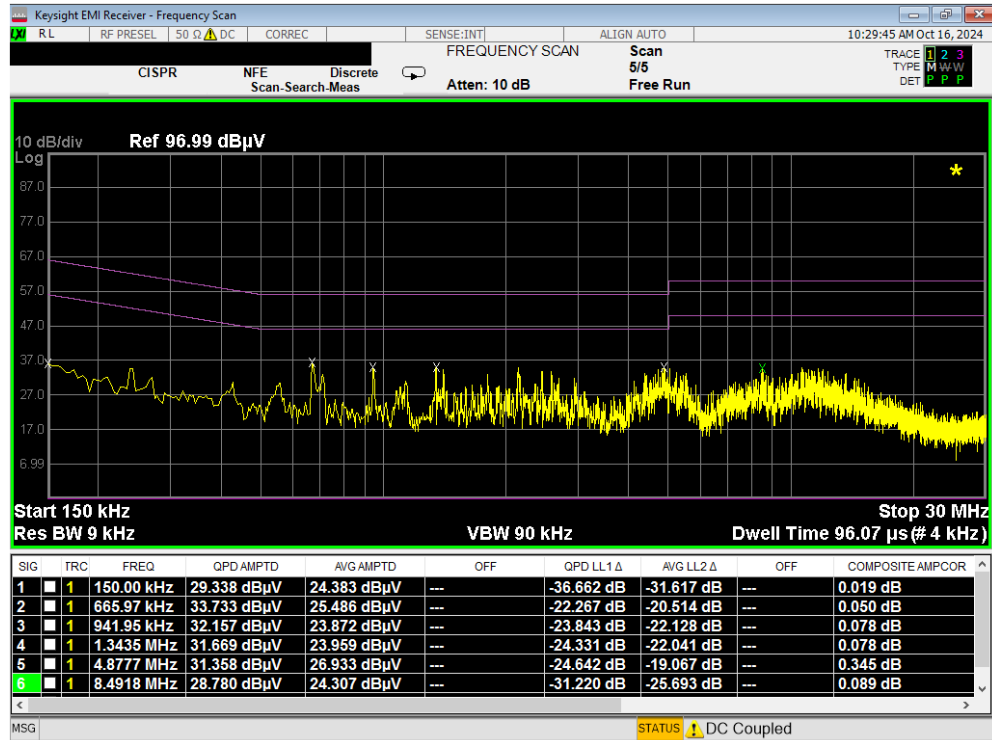


Plot 7-198. Line Conducted Plot with 802.11a UNII Band 3 (L1)

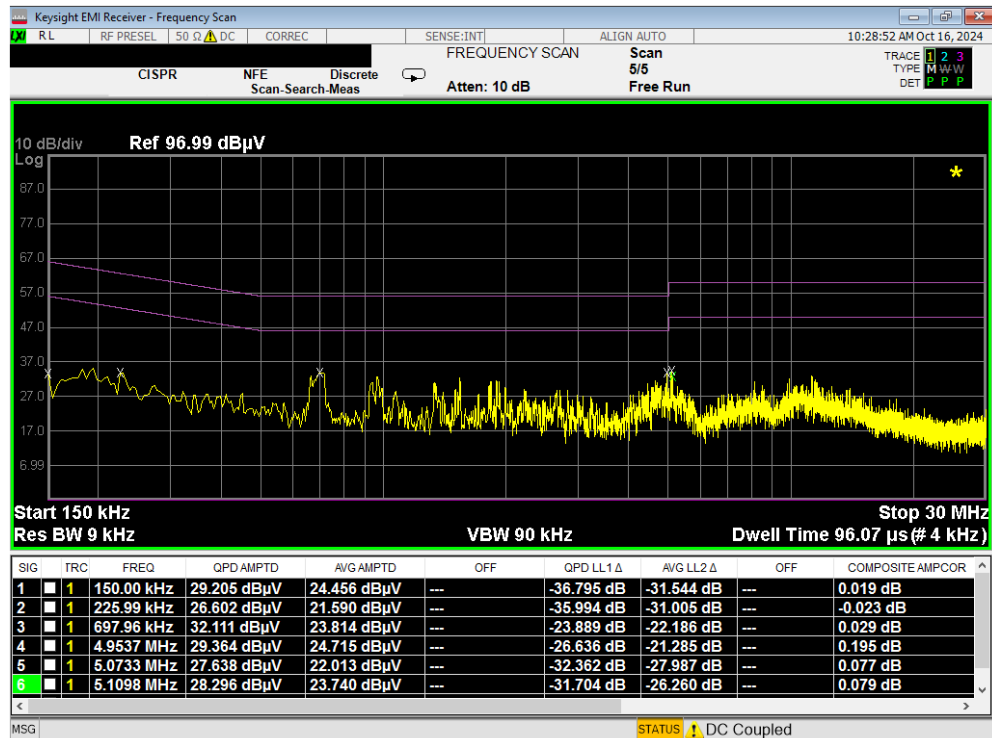


Plot 7-199. Line Conducted Plot with 802.11a UNII Band 3 (N)

FCC ID: A3LSMS938JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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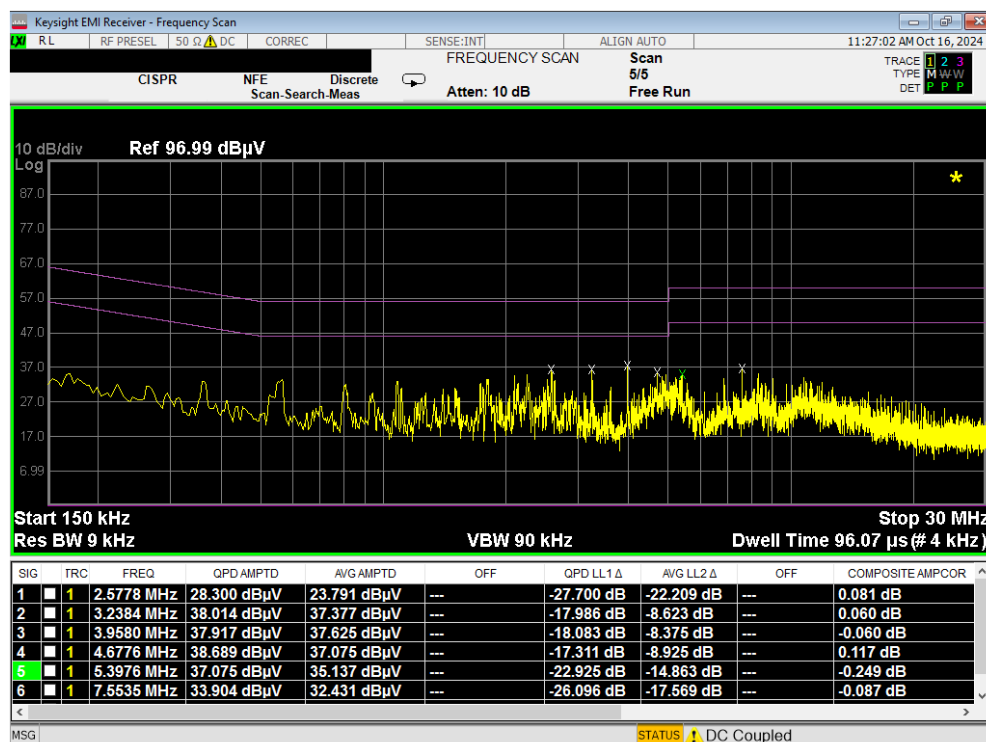


Plot 7-200. Line Conducted Plot with 802.11a UNII Band 4 (L1)

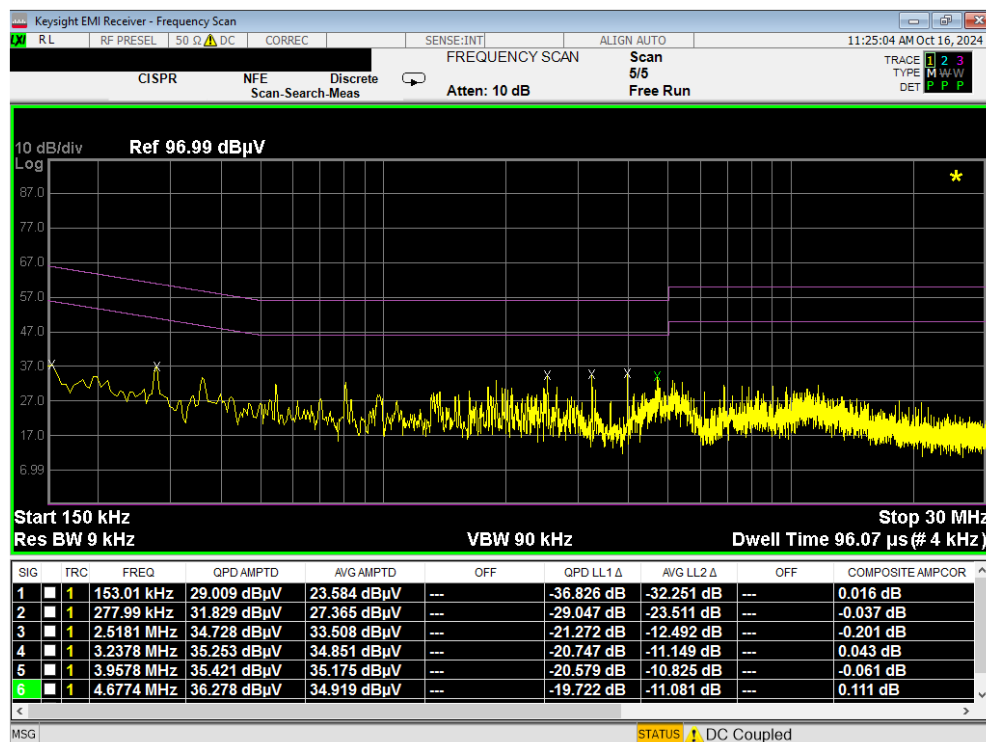


Plot 7-201. Line Conducted Plot with 802.11a UNII Band 4 (N)

FCC ID: A3LSMS938JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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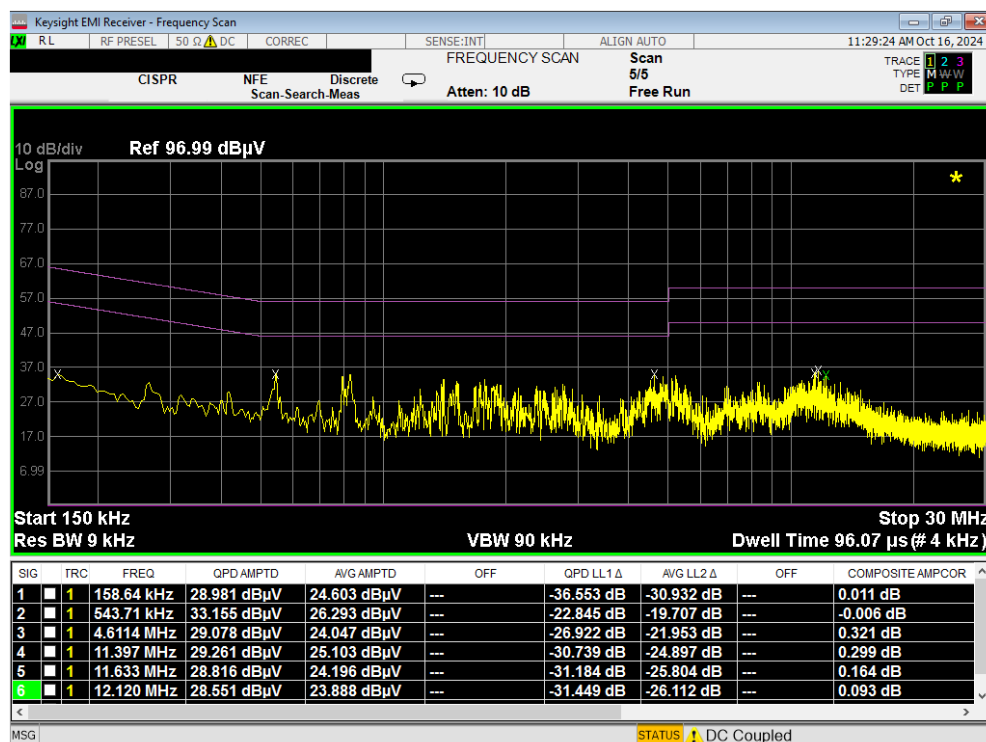


Plot 7-202. Line Conducted Plot with 802.11a UNII Band 1 (L1) – WCP

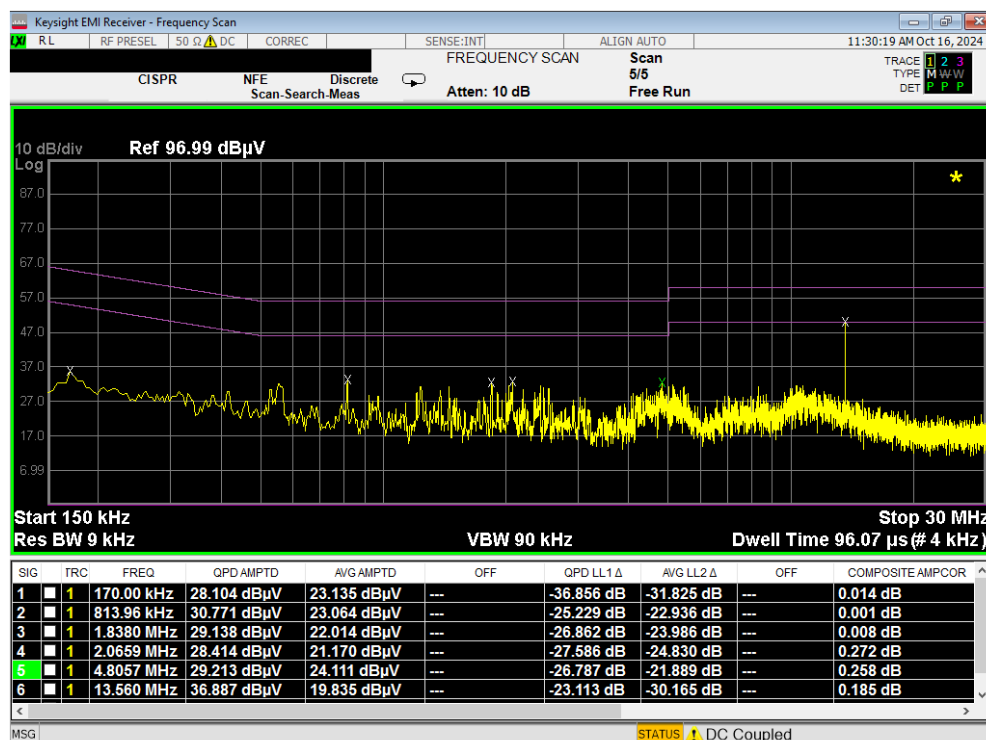


Plot 7-203. Line Conducted Plot with 802.11a UNII Band 1 (N) – WCP

FCC ID: A3LSMS938JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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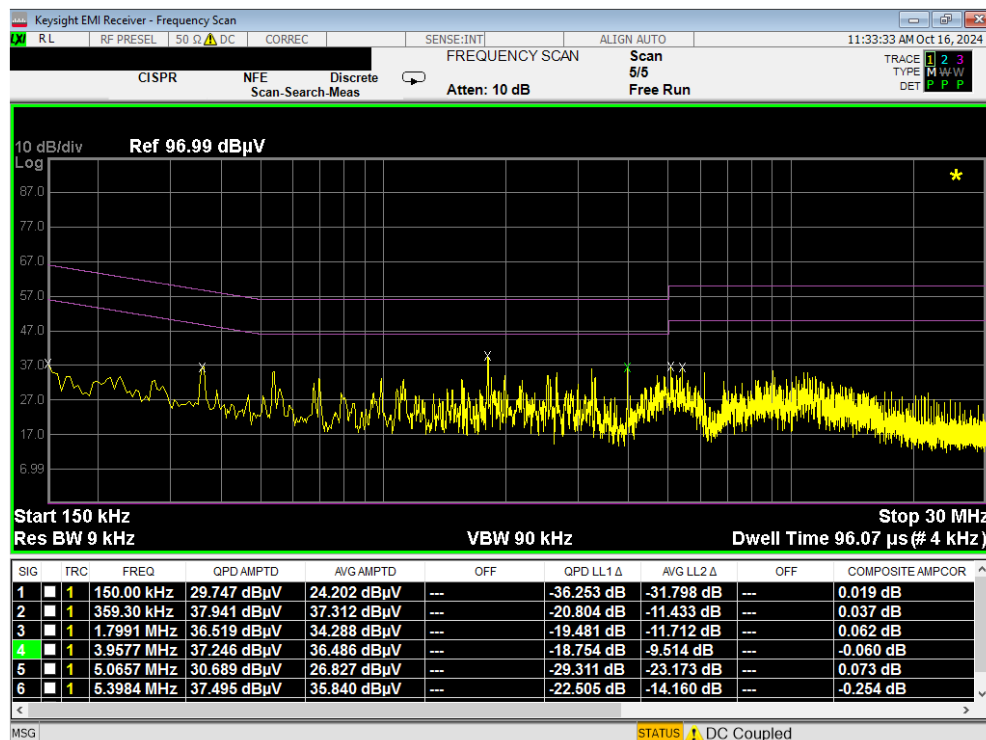


Plot 7-204. Line Conducted Plot with 802.11a UNII Band 2A (L1) – WCP

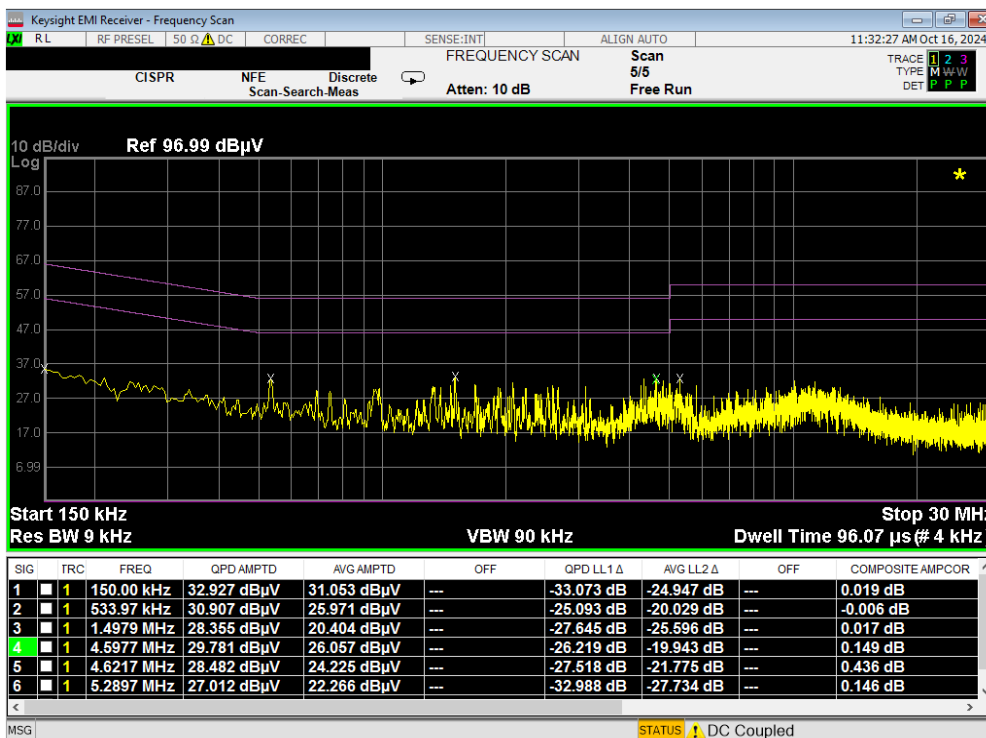


Plot 7-205. Line Conducted Plot with 802.11a UNII Band 2A (N) – WCP

FCC ID: A3LSMS938JPN	MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260070-11.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 157 of 161

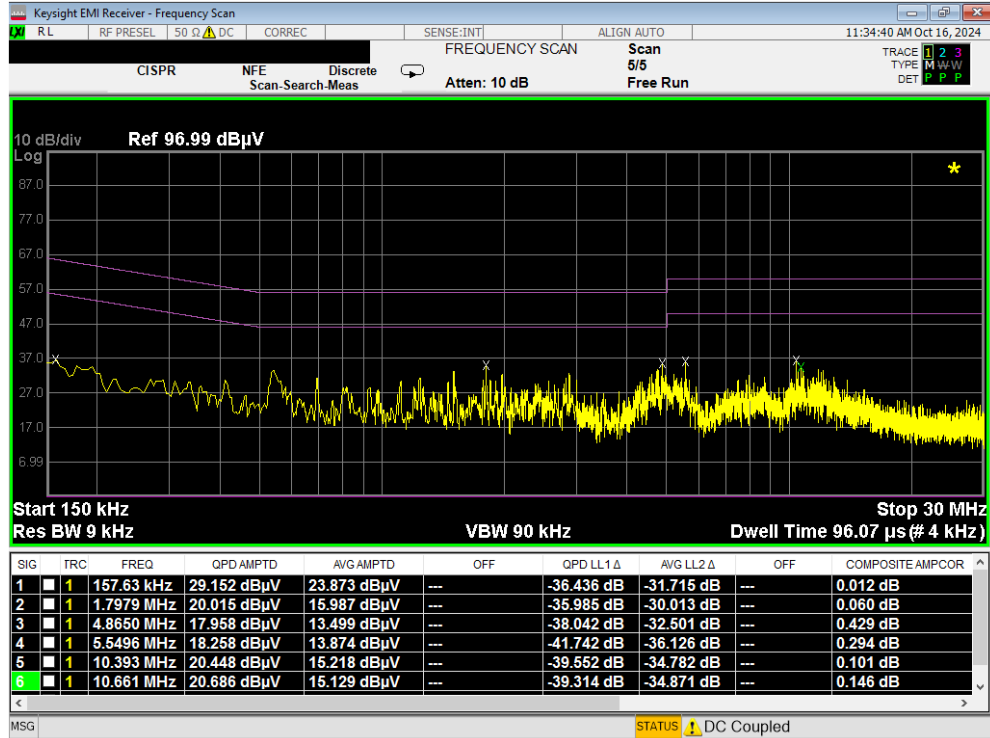


Plot 7-206. Line Conducted Plot with 802.11a UNII Band 2C (L1) – WCP

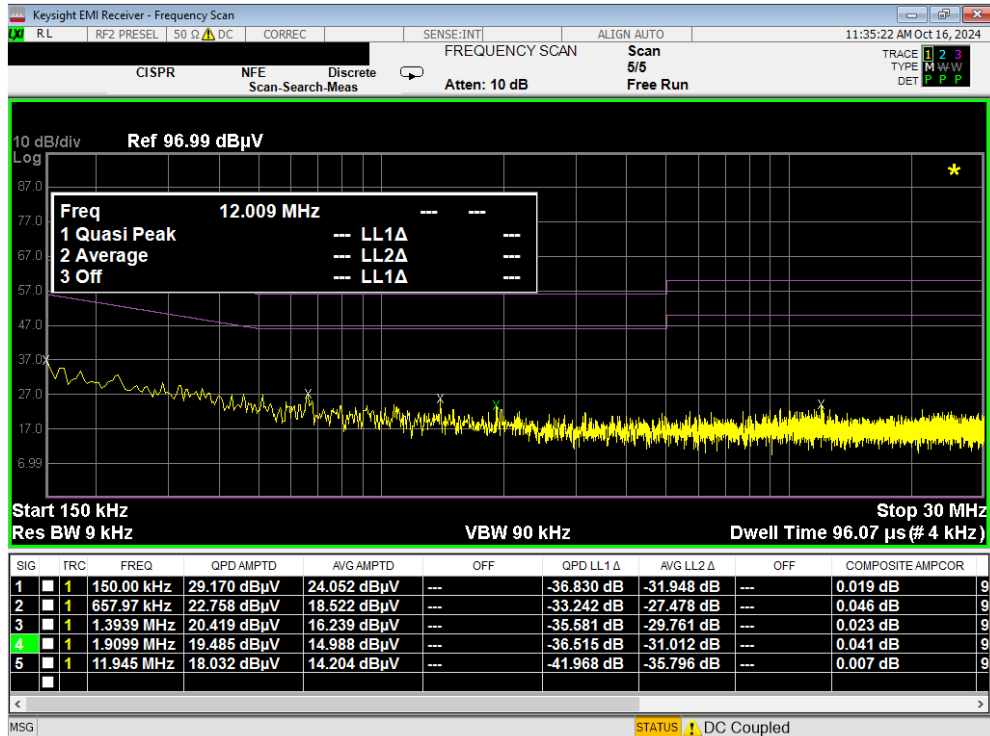


Plot 7-207. Line Conducted Plot with 802.11a UNII Band 2C (N) – WCP

FCC ID: A3LSMS938JPN	MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260070-11.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 158 of 161

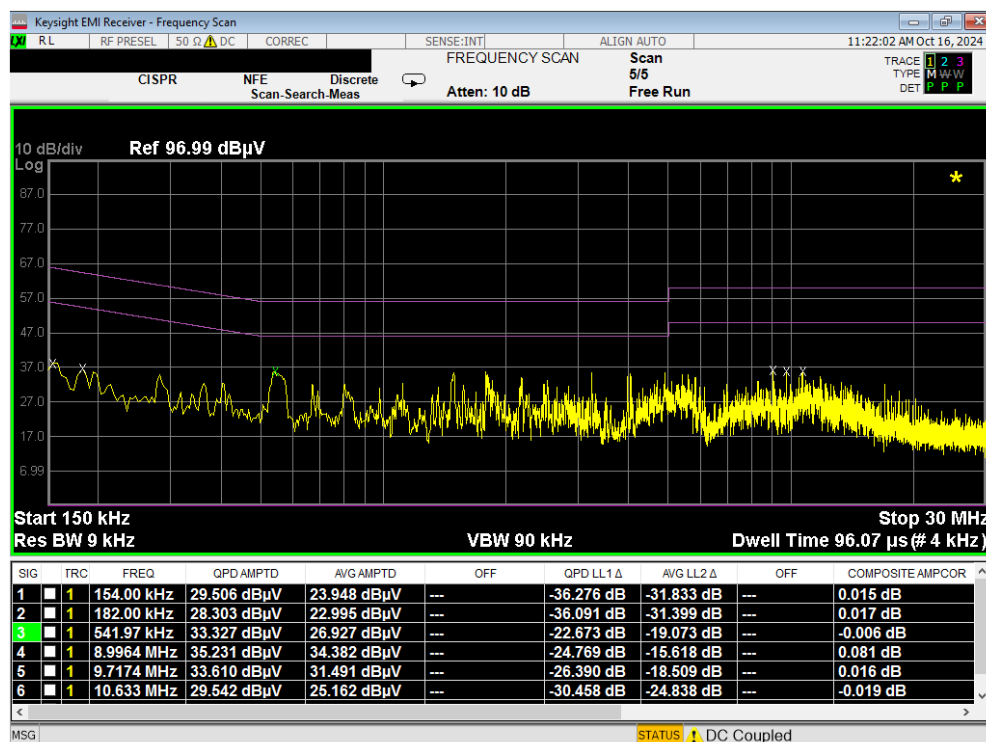


Plot 7-208. Line Conducted Plot with 802.11a UNII Band 3 (L1) – WCP

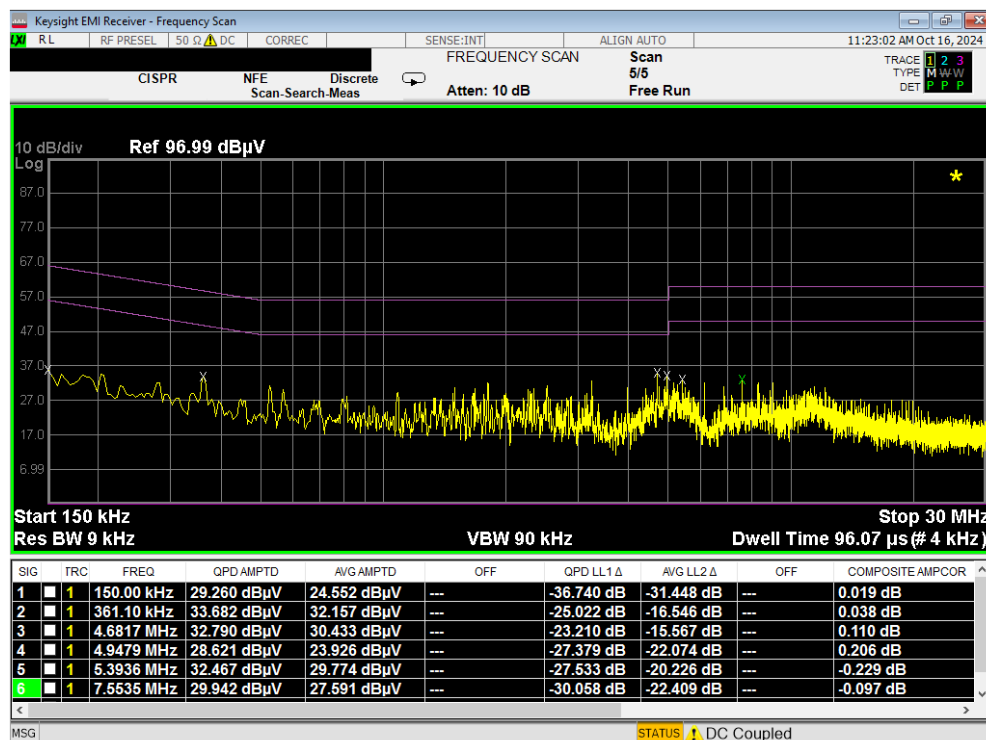


Plot 7-209. Line Conducted Plot with 802.11a UNII Band 3 (N) – WCP

FCC ID: A3LSMS938JPN	MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260070-11.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 159 of 161



Plot 7-210. Line Conducted Plot with 802.11a UNII Band 4 (L1) – WCP



Plot 7-211. Line Conducted Plot with 802.11a UNII Band 4 (N) – WCP

FCC ID: A3LSMS938JPN	MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260070-11.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 160 of 161

8.0 CONCLUSION

The data collected relate only the item(s) tested and show that the **Samsung Portable Handset** **FCC ID: A3LSMS938JPN** is in compliance with Part 15 Subpart E (15.407) of the FCC Rules.

FCC ID: A3LSMS938JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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