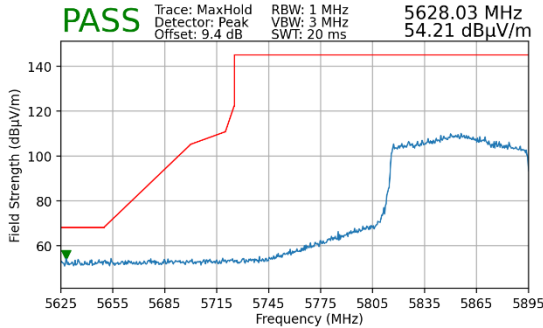
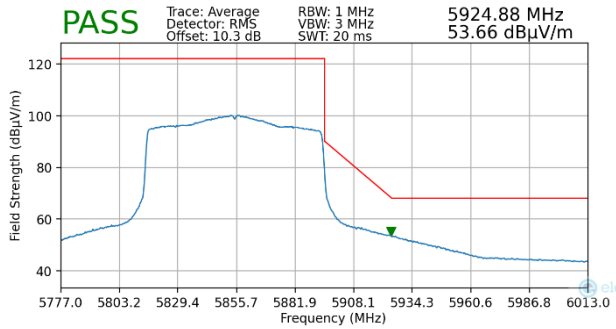


Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 Distance of Measurements: 3 Meters
 Operating Frequency: 5855MHz
 Channel: 171

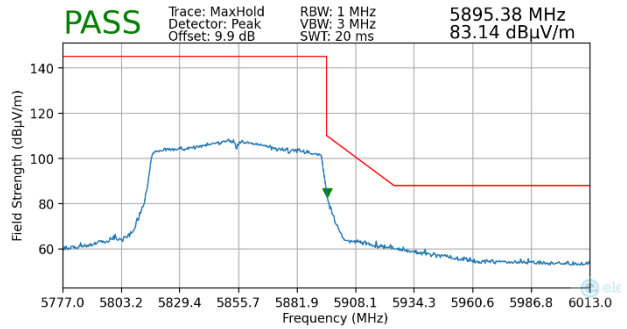


Plot 7-204. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 4)

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



Plot 7-205. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 4)

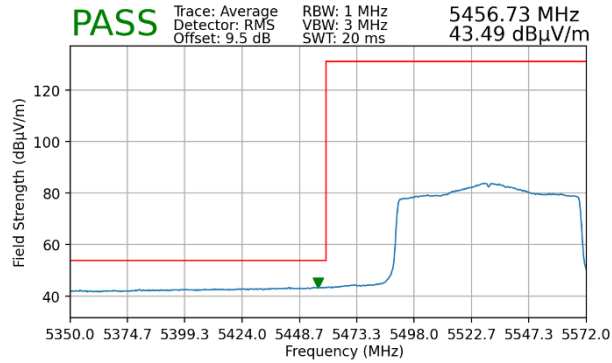


Plot 7-206. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 4)

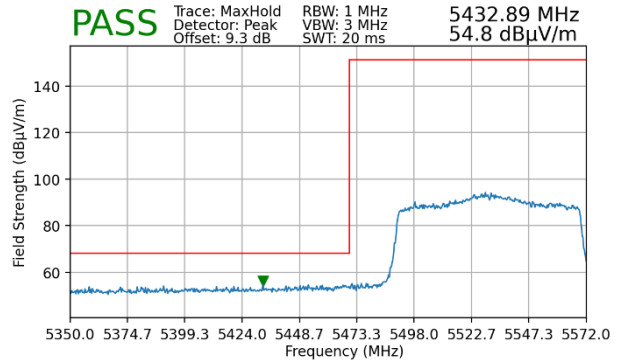
| | | | |
|--|--------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMF731JPN | MEASUREMENT REPORT | | Approved by: Technical Manager |
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Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 Distance of Measurements: 3 Meters
 Operating Frequency: 5530MHz
 Channel: 106



Plot 7-207. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C) with WCP

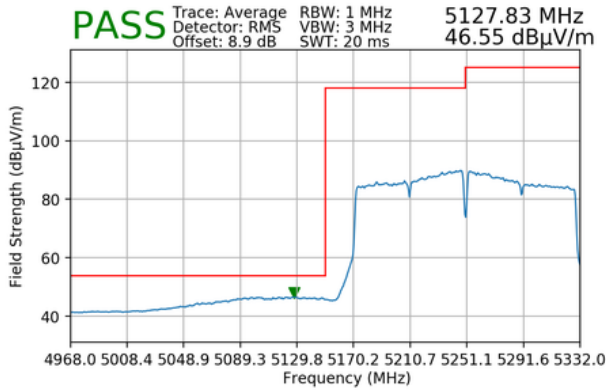


Plot 7-208. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C) with WCP

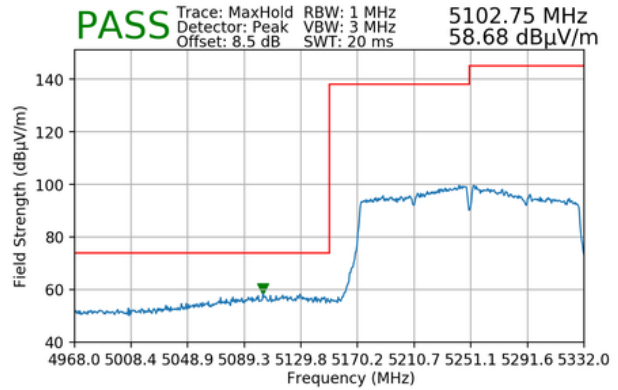
| | | | |
|---|---------------------------------------|--------------------------------------|--|
| FCC ID: A3LSMF731JPN | MEASUREMENT REPORT | | Approved by: Technical Manager |
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7.6.5 MIMO Radiated Band Edge Measurements (160MHz BW)

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

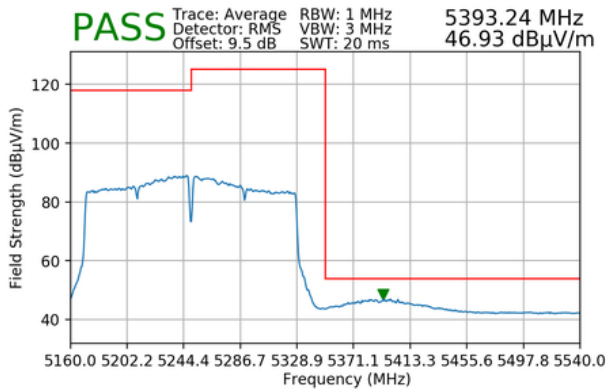


Plot 7-209. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 1)

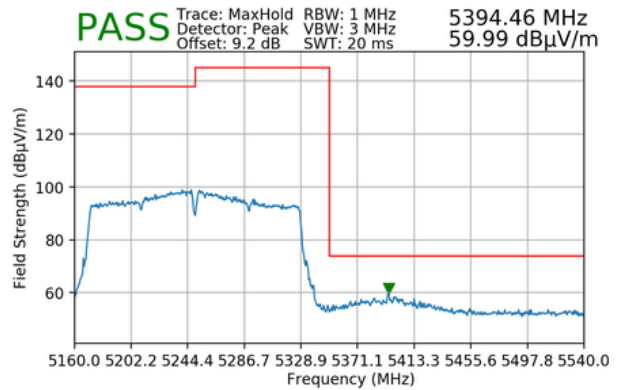


Plot 7-210. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 1)

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



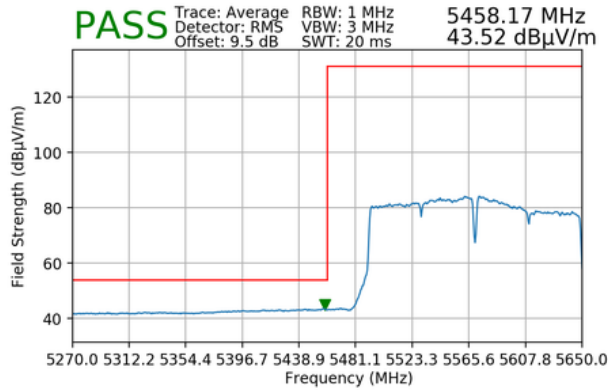
Plot 7-211. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 2A)



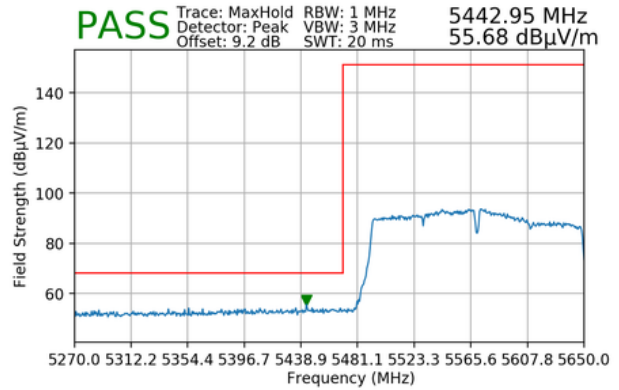
Plot 7-212. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 2A)

| | | | |
|--|--------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMF731JPN | 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

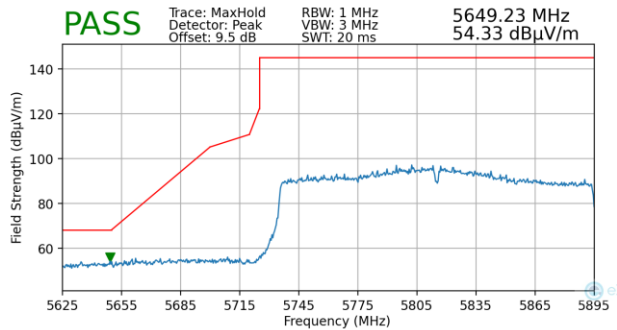


Plot 7-213. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C)



Plot 7-214. 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

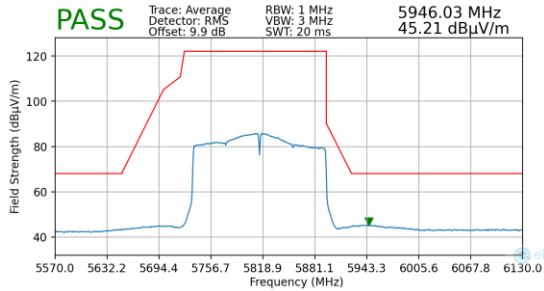


Plot 7-215. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 4)

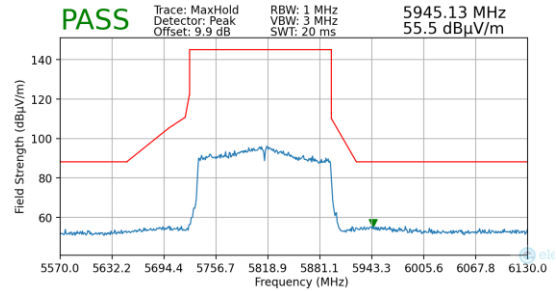
| | | | |
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| FCC ID: A3LSMF731JPN | MEASUREMENT REPORT | | Approved by: Technical Manager |
| Test Report S/N: 1M2304260059-12-R3.A3L | Test Dates: 3/4 - 5/30/2023 | EUT Type: Portable Handset | Page 142 of 152 |



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

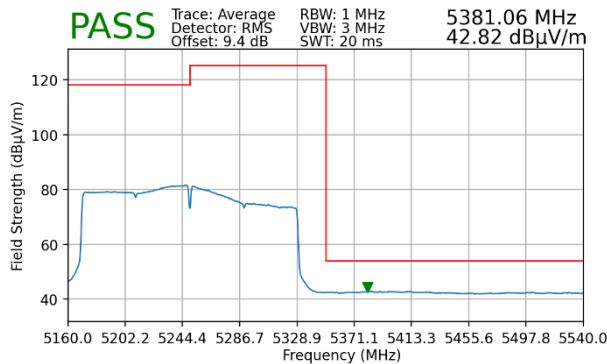


Plot 7-216. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 4)

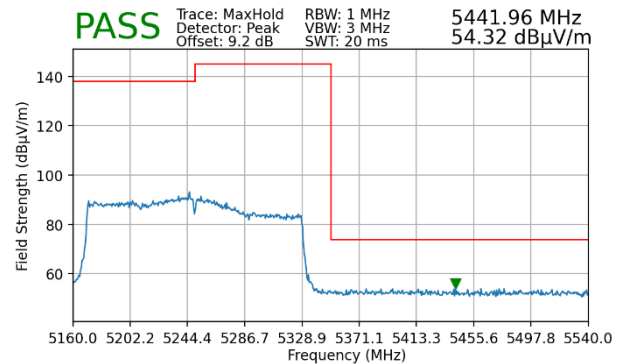


Plot 7-217. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 4)

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



Plot 7-218. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2A) with WCP



Plot 7-219. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2A) with WCP

| | | | |
|---|---------------------------------------|--------------------------------------|--|
| FCC ID: A3LSMF731JPN | 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 (dB μ V) | |
|-----------------------------|------------------------------|-----------|
| | Quasi-peak | Average |
| 0.15 – 0.5 | 66 to 56* | 56 to 46* |
| 0.5 – 5 | 56 | 46 |
| 5 – 30 | 60 | 50 |

Table 7-36. 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.

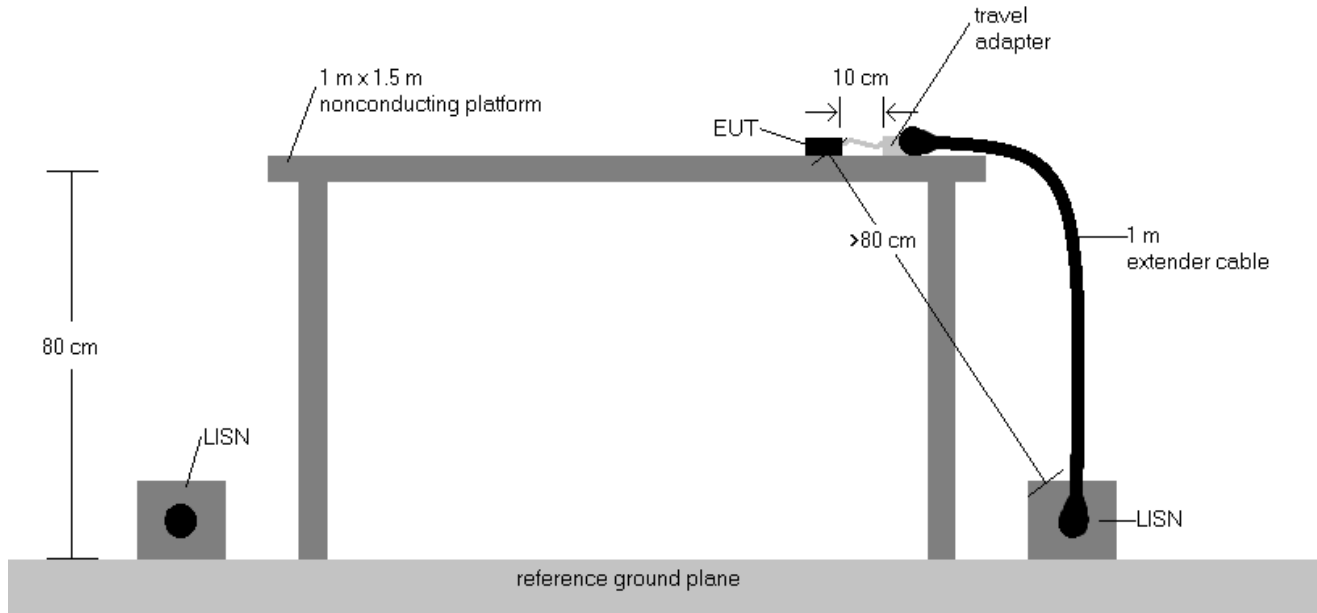
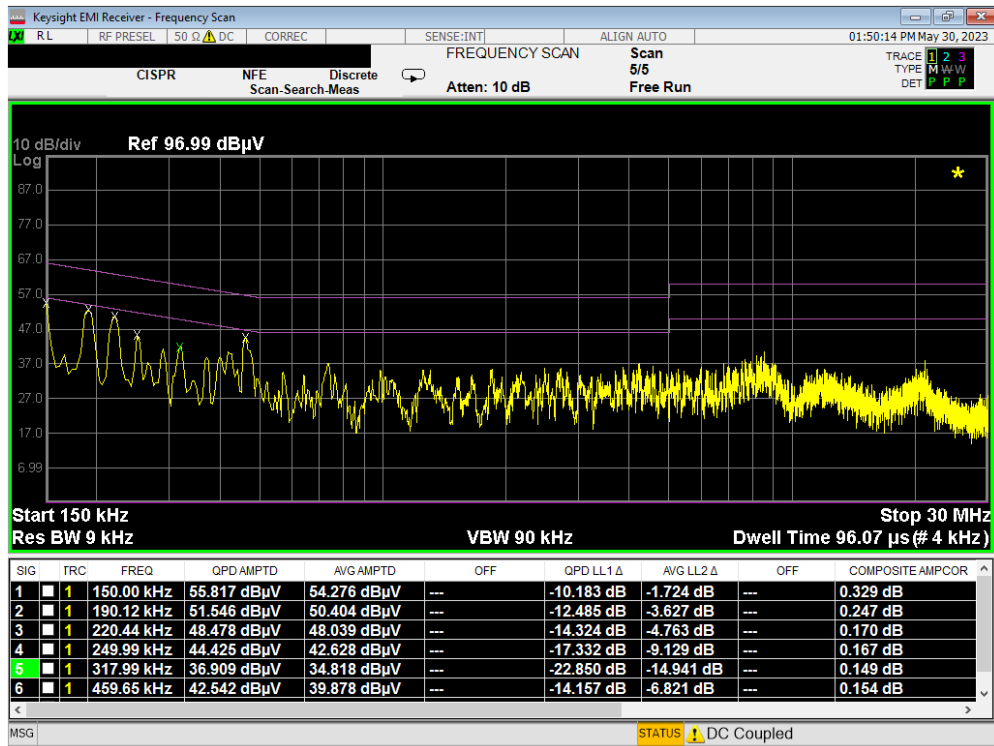


Figure 7-8. Test Instrument & Measurement Setup

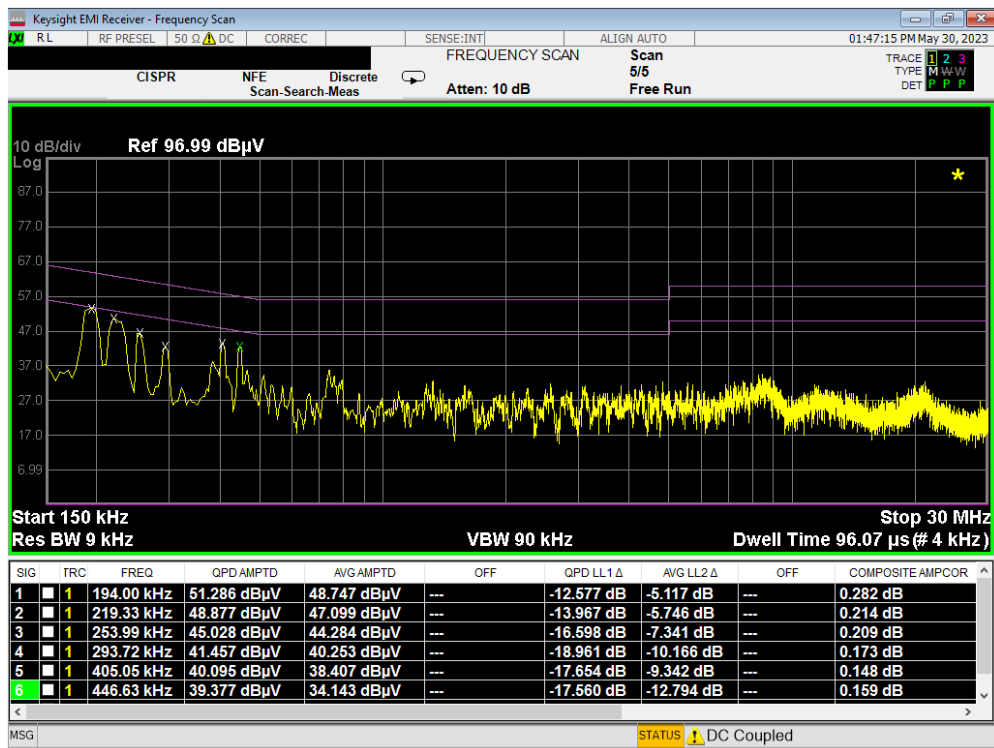
Test Notes

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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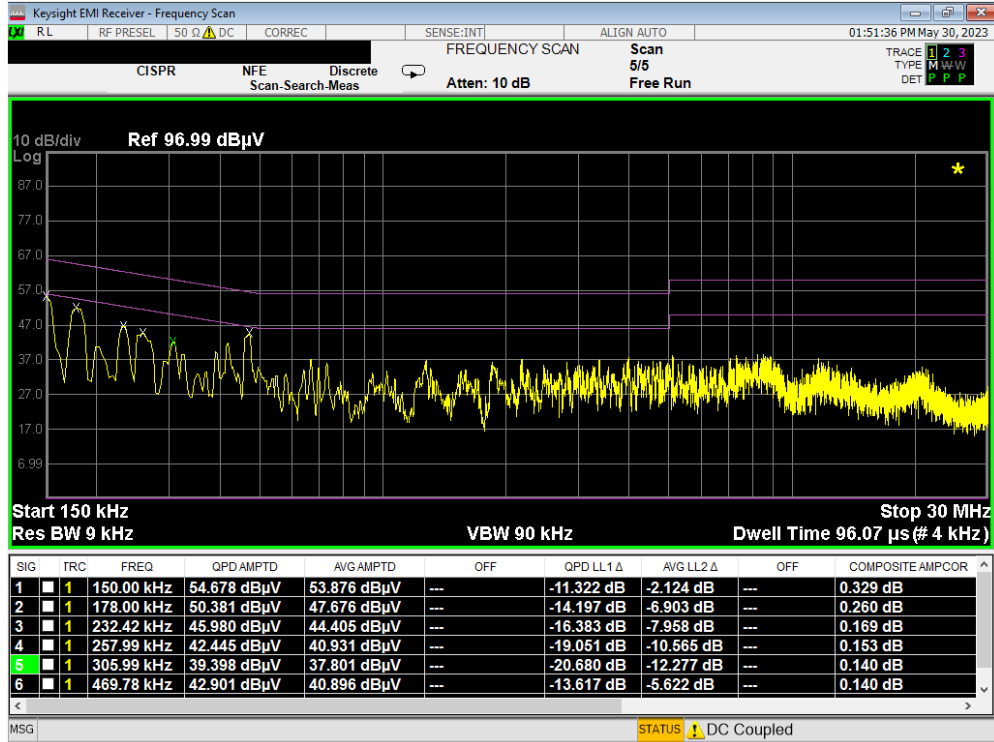


Plot 7-220. Line Conducted Plot with 802.11a UNII Band 1 (L1)

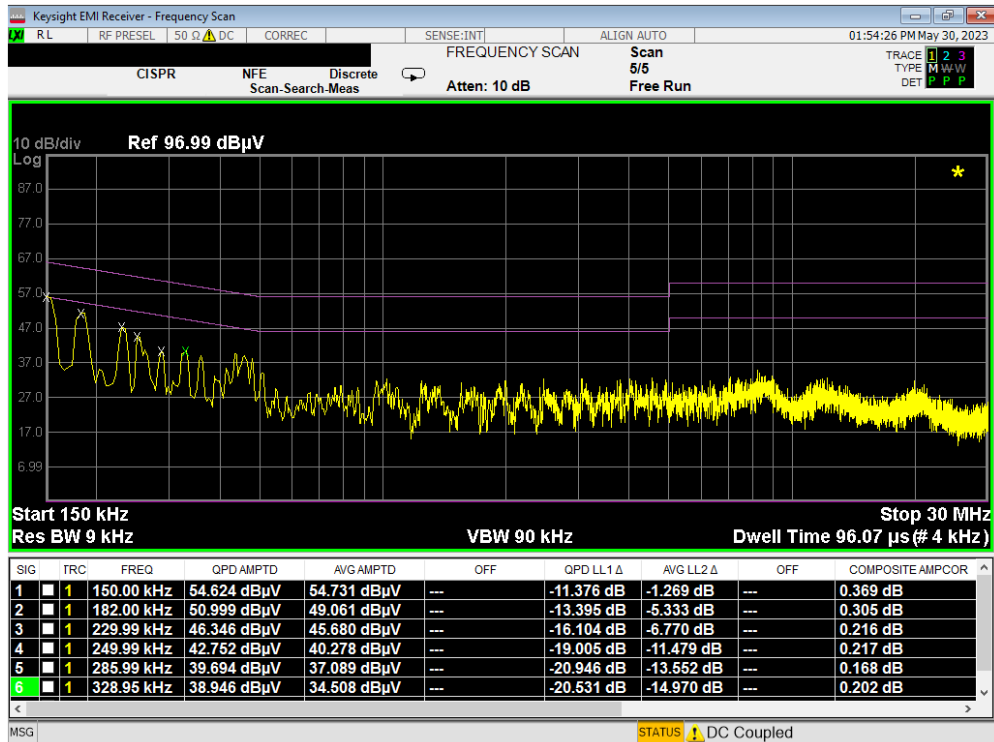


Plot 7-221. Line Conducted Plot with 802.11a UNII Band 1 (N)

| | | | |
|--|--------------------------------|-------------------------------|-----------------------------------|
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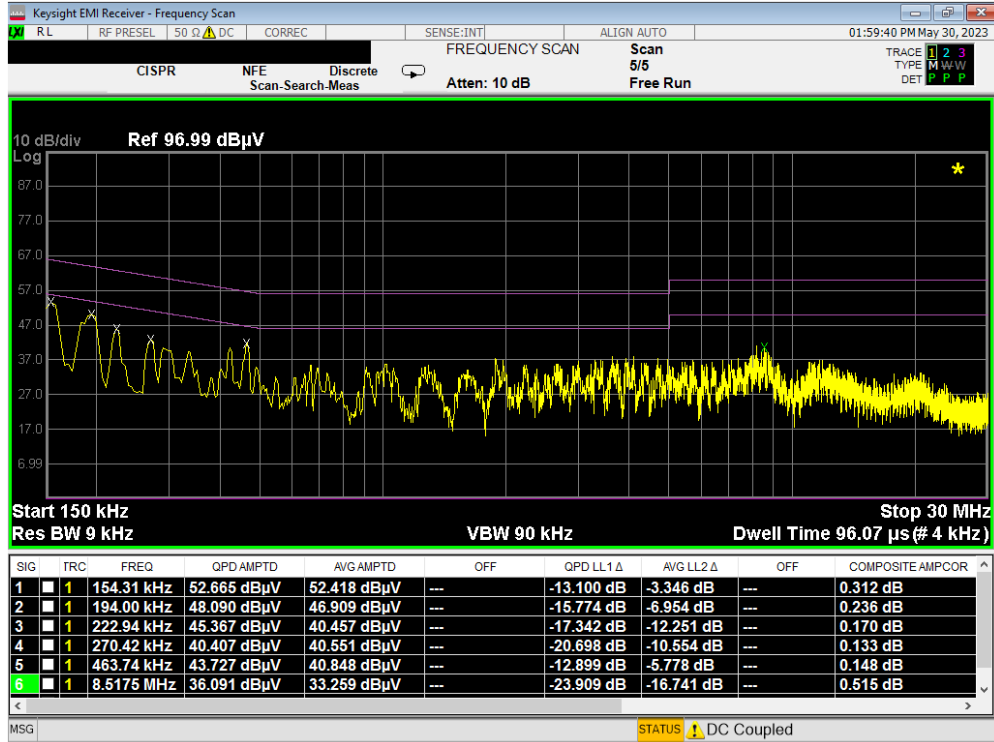


Plot 7-222. Line Conducted Plot with 802.11a UNII Band 2A (L1)

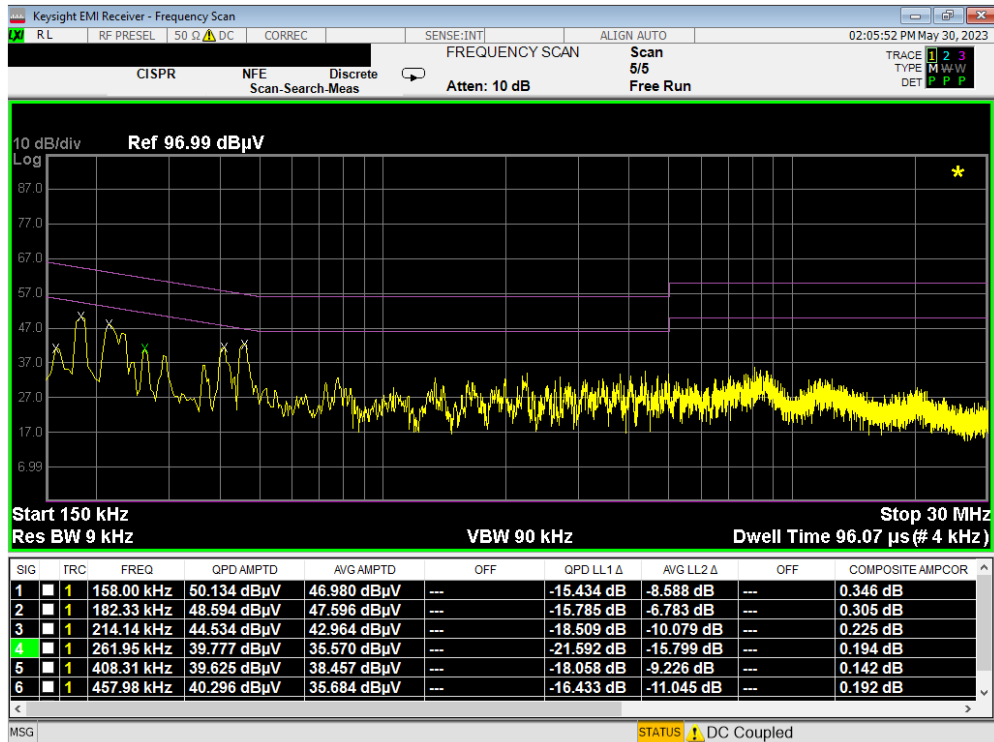


Plot 7-223. Line Conducted Plot with 802.11a UNII Band 2A (N)

| | | | |
|--|--------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMF731JPN | MEASUREMENT REPORT | | Approved by: Technical Manager |
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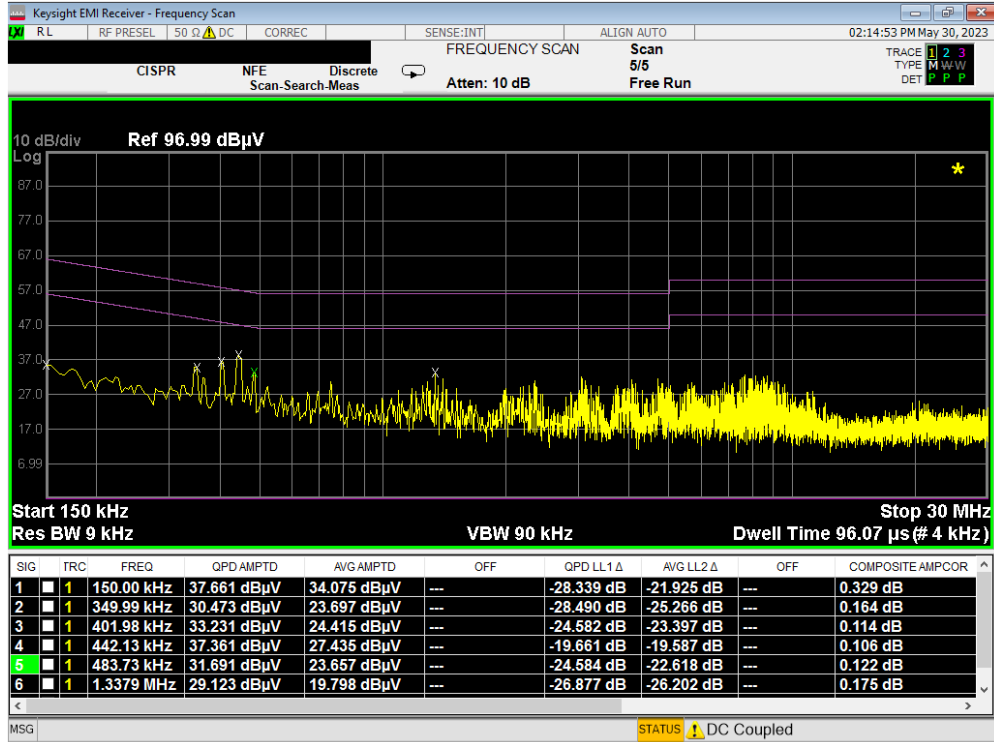


Plot 7-224. Line Conducted Plot with 802.11a UNII Band 2C (L1)

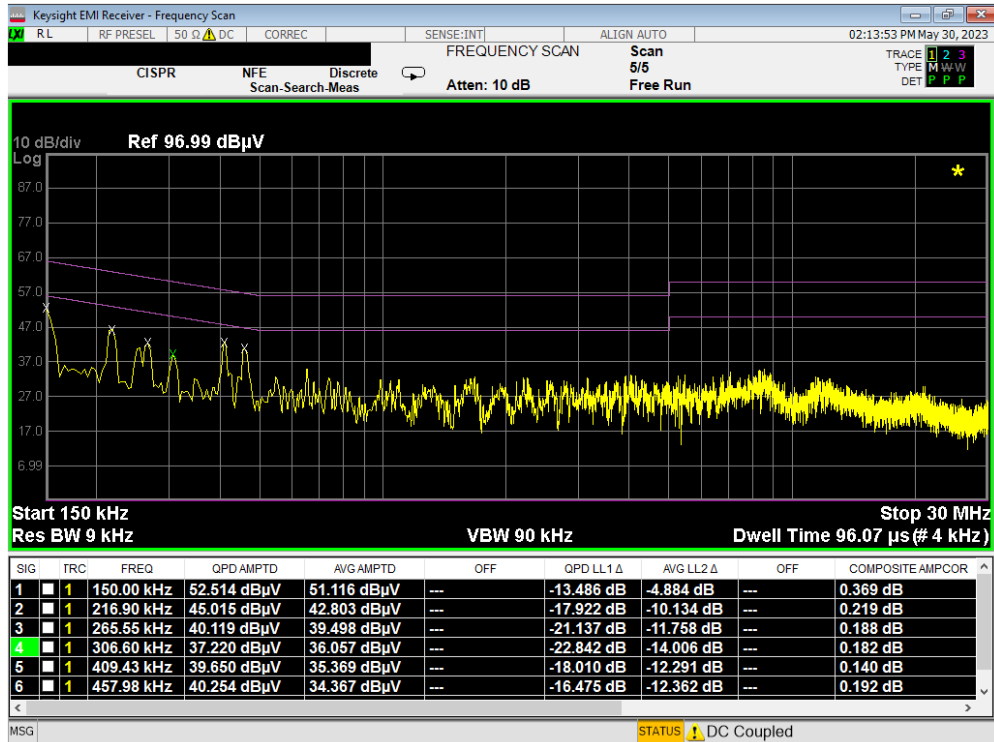


Plot 7-225. Line Conducted Plot with 802.11a UNII Band 2C (N)

| FCC ID: A3LSMF731JPN | MEASUREMENT REPORT | | Approved by: Technical Manager |
|--|--------------------------------|-------------------------------|-----------------------------------|
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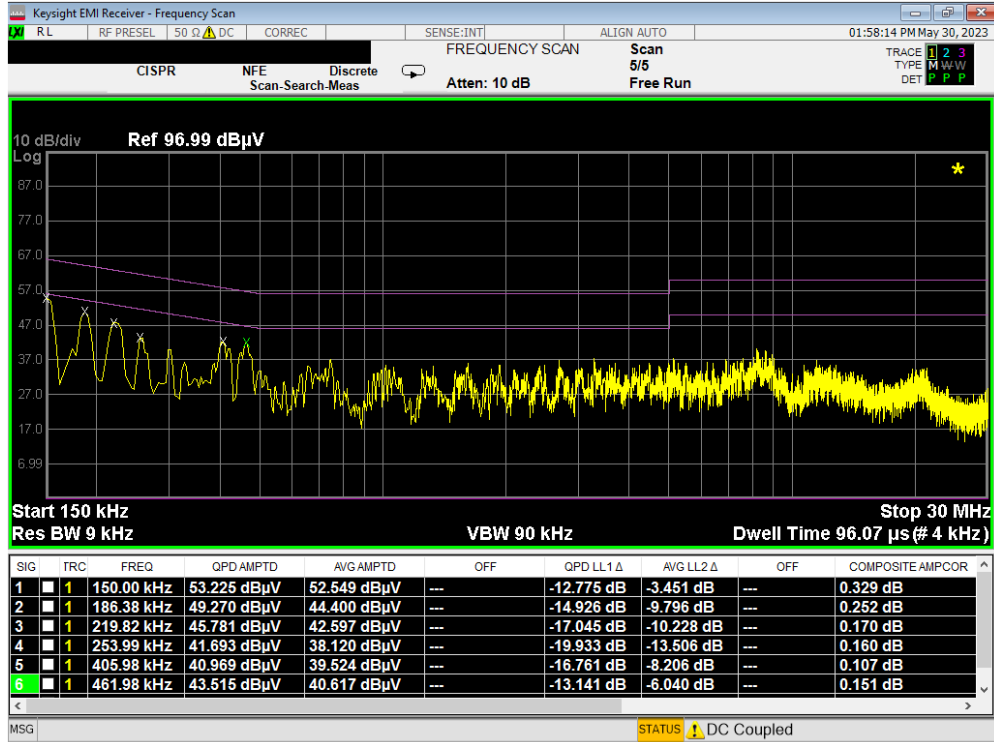


Plot 7-226. Line Conducted Plot with 802.11a UNII Band 3 (L1)

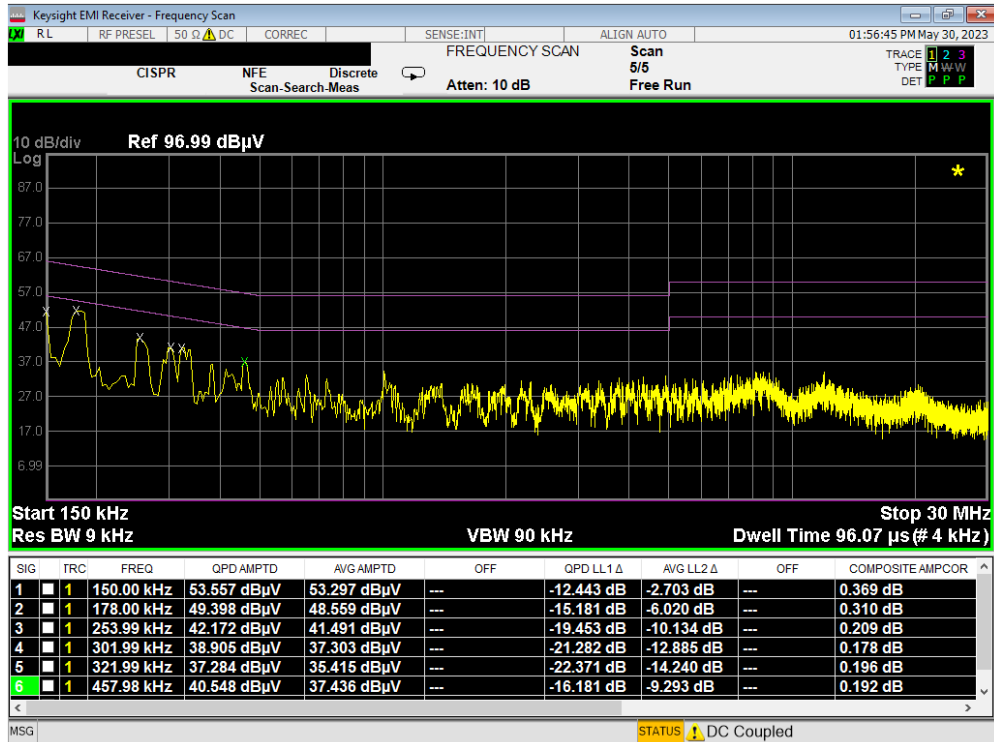


Plot 7-227. Line Conducted Plot with 802.11a UNII Band 3 (N)

| | | | |
|--|--------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMF731JPN | MEASUREMENT REPORT | | Approved by: Technical Manager |
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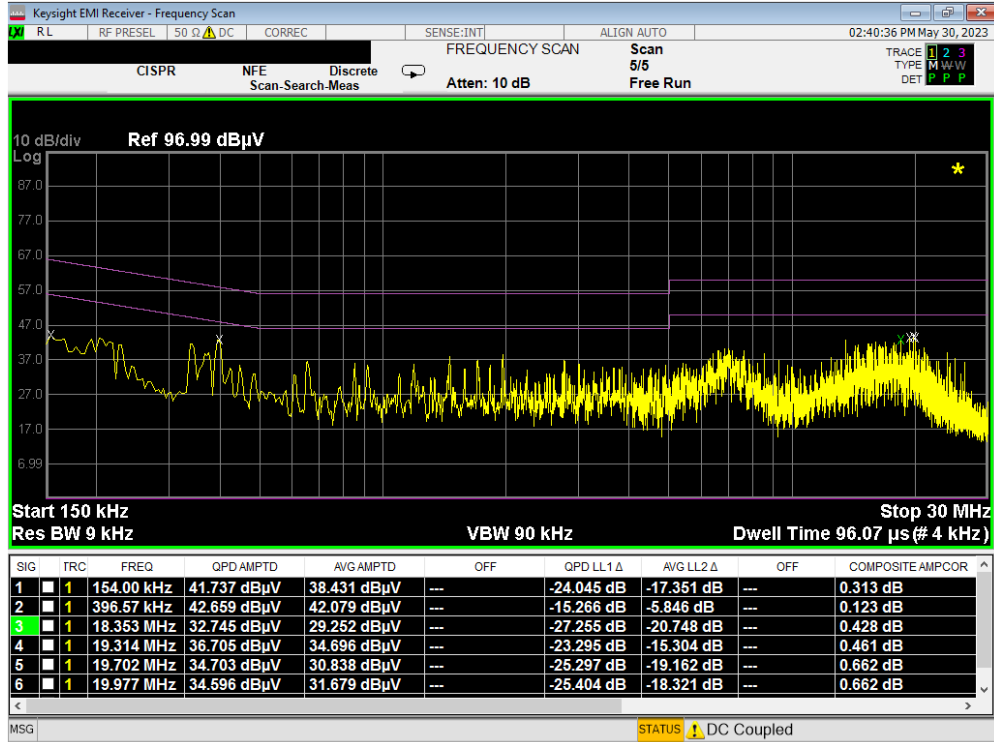


Plot 7-228. Line Conducted Plot with 802.11a UNII Band 4 (L1)

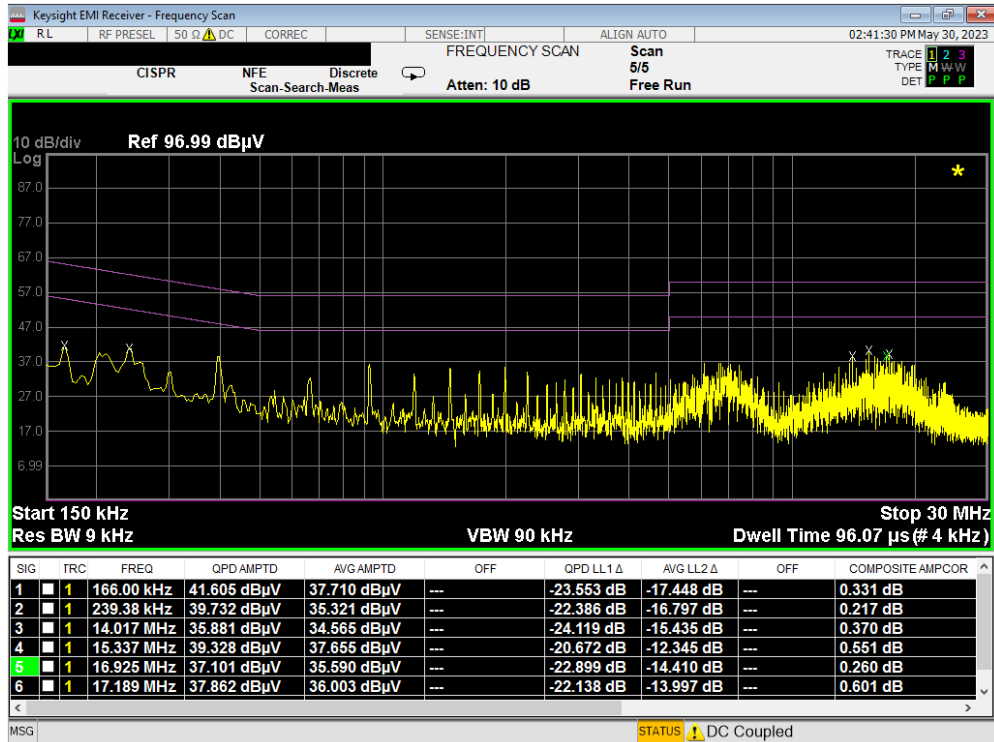


Plot 7-229. Line Conducted Plot with 802.11a UNII Band 4 (N)

| | | | |
|--|--------------------------------|-------------------------------|-----------------------------------|
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Plot 7-230. Line Conducted Plot with 802.11a UNII Band 1 (L1) with WCP



Plot 7-231. Line Conducted Plot with 802.11a UNII Band 1 (N) with WCP

| | | | |
|--|--------------------------------|-------------------------------|-----------------------------------|
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8.0 CONCLUSION

The data collected relate only the item(s) tested and show that the **Samsung Portable Handset FCC ID: A3LSMF731JPN** is in compliance with Part 15 Subpart E (15.407) of the FCC Rules.

| | | | |
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