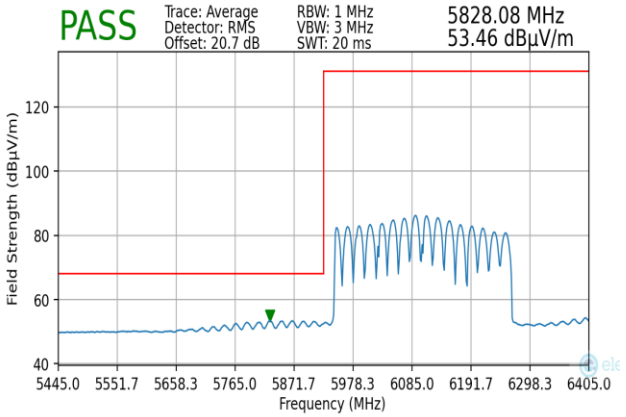
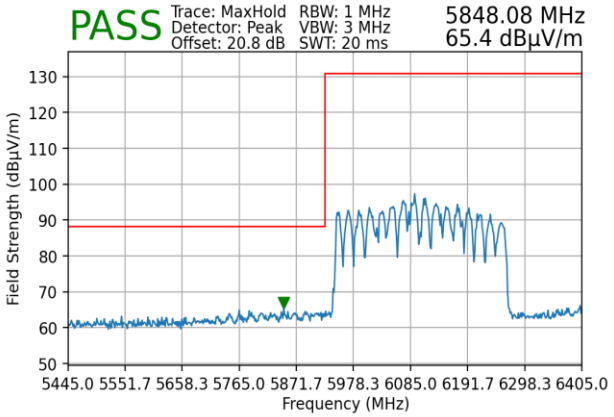
## 7.7.6 MIMO Radiated Band Edge Measurements (320MHz BW)

| | |
|---|---|
| Worst Case Mode: | 802.11be |
| Worst Case Transfer Rate: | MCS0 |
| Distance of Measurements: | 3 Meters |
| Operating Frequency: | 6105MHz |
| Channel: | 31 |

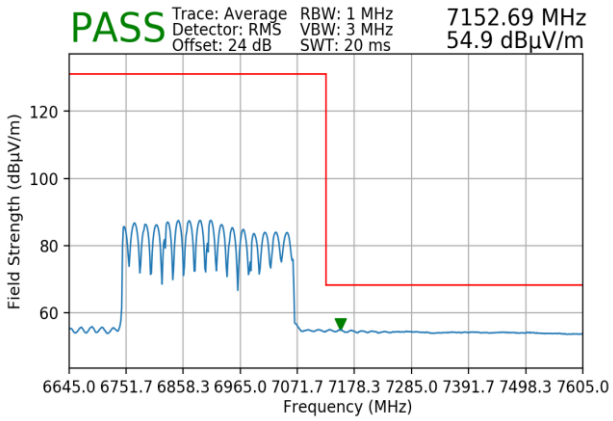



**Plot 7-212. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5)**

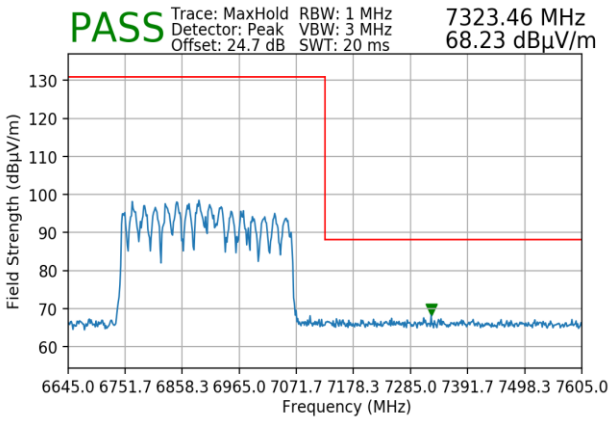



**Plot 7-213. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5)**

| | |
|---|---|
| Worst Case Mode: | 802.11be |
| Worst Case Transfer Rate: | MCS0 |
| Distance of Measurements: | 3 Meters |
| Operating Frequency: | 6905MHz |
| Channel: | 191 |




**Plot 7-214. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 8)**




**Plot 7-215. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 8)**

## 7.8 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 Section 15.207.***

| 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 7-47. 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.

## Test Setup

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

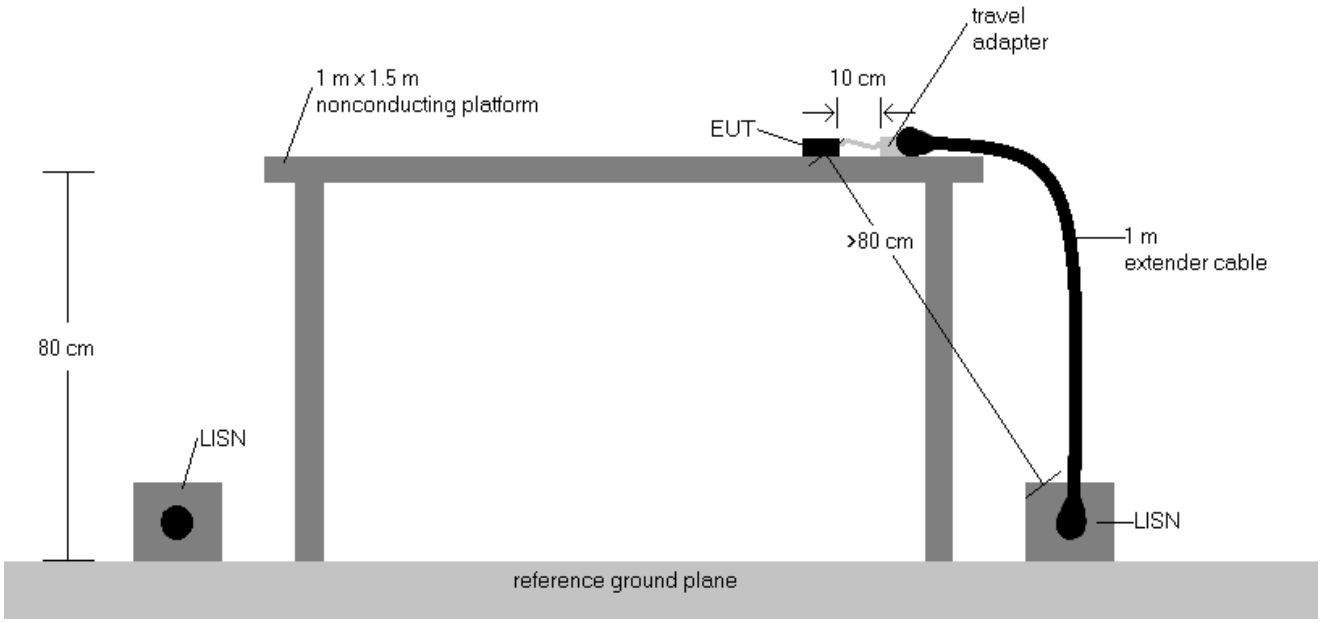
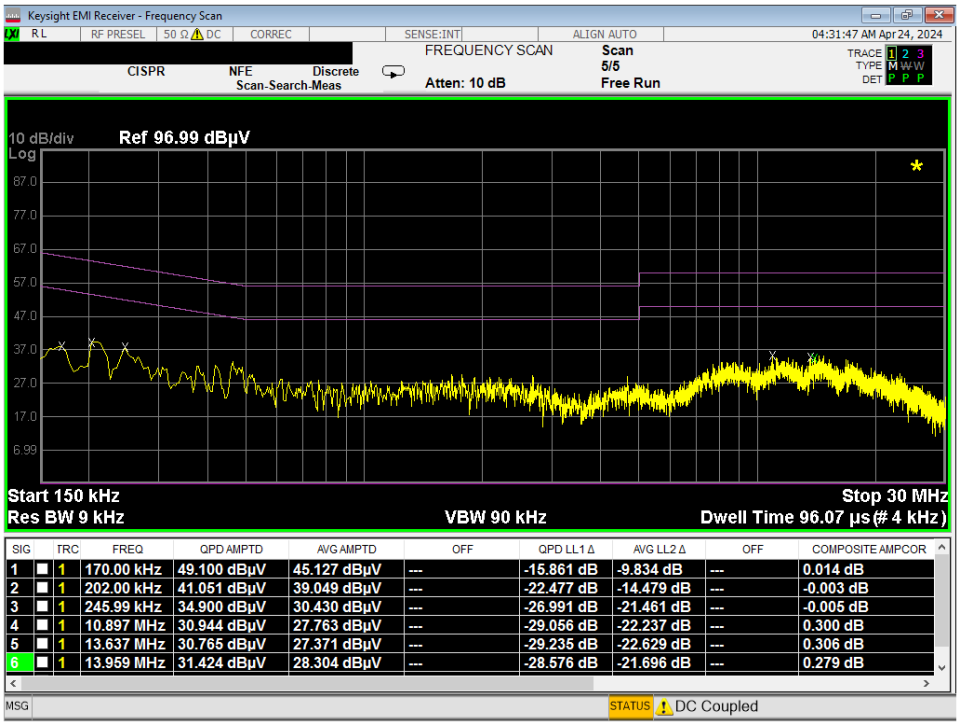


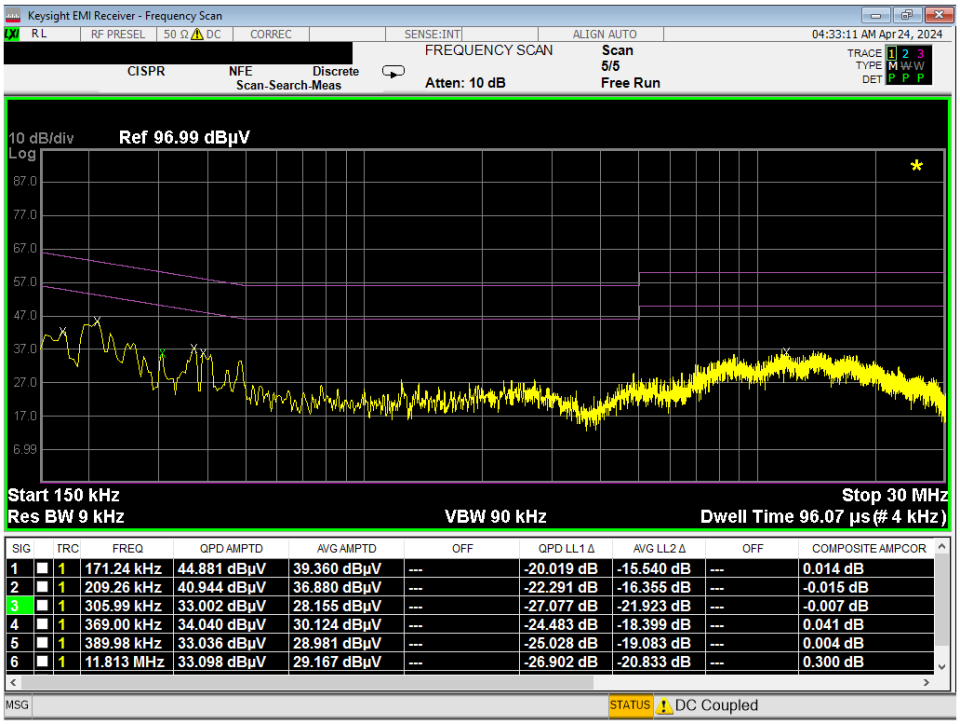

**Figure 7-9. Test Instrument & Measurement Setup**

## Test Notes

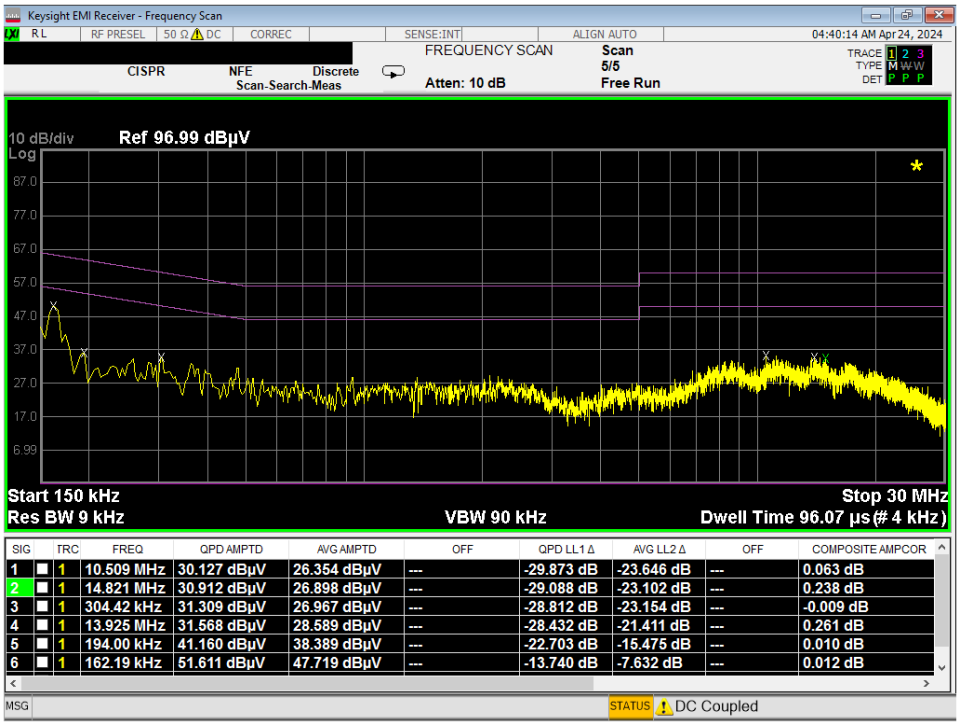
1. All modes of operation were investigated, and the worst-case emissions are reported using mid channel. The emissions found were not affected by the choice of channel used during testing.
2. The limit for an intentional radiator from 150kHz to 30MHz is specified in 15.207.
3. Corr. (dB) = Cable loss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



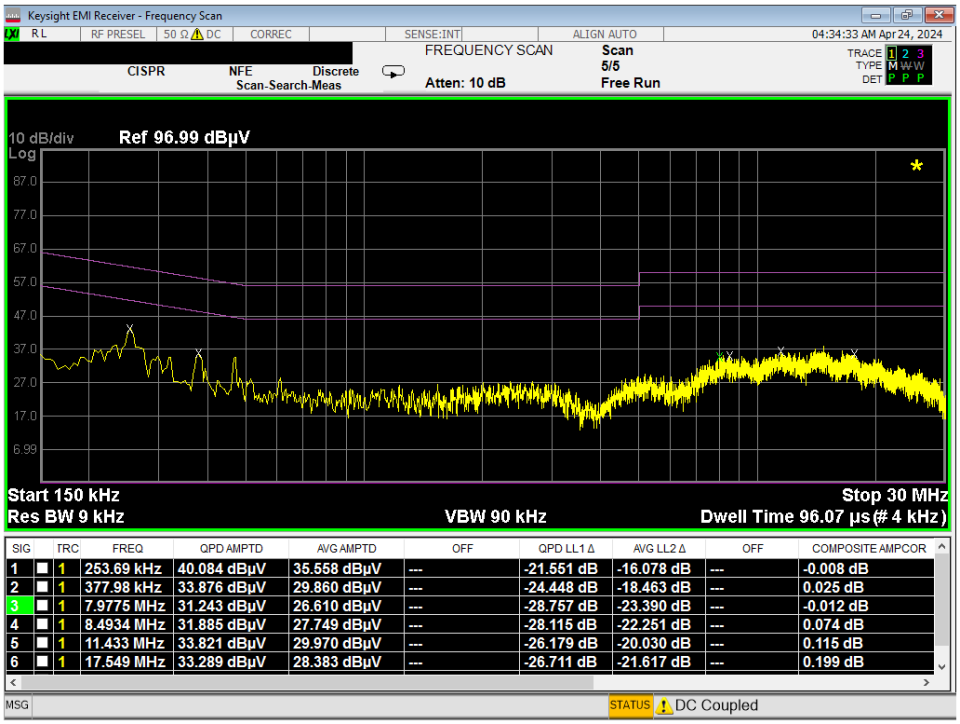

**Plot 7-216. Line Conducted Plot with 802.11a UNII Band 5 (L1)**



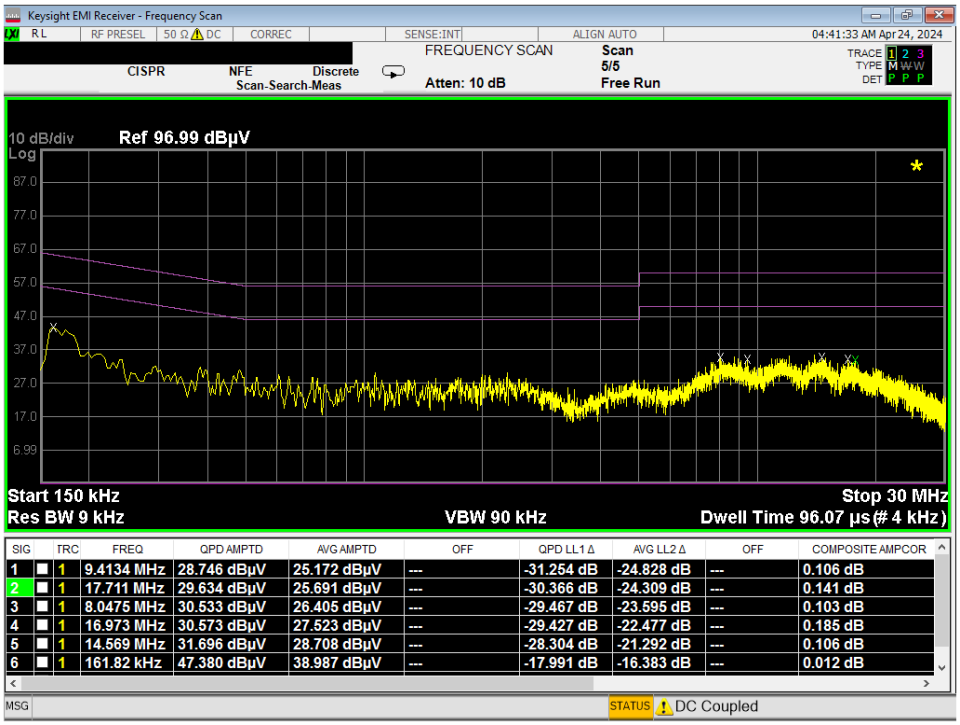

**Plot 7-217. Line Conducted Plot with 802.11a UNII Band 5 (N)**



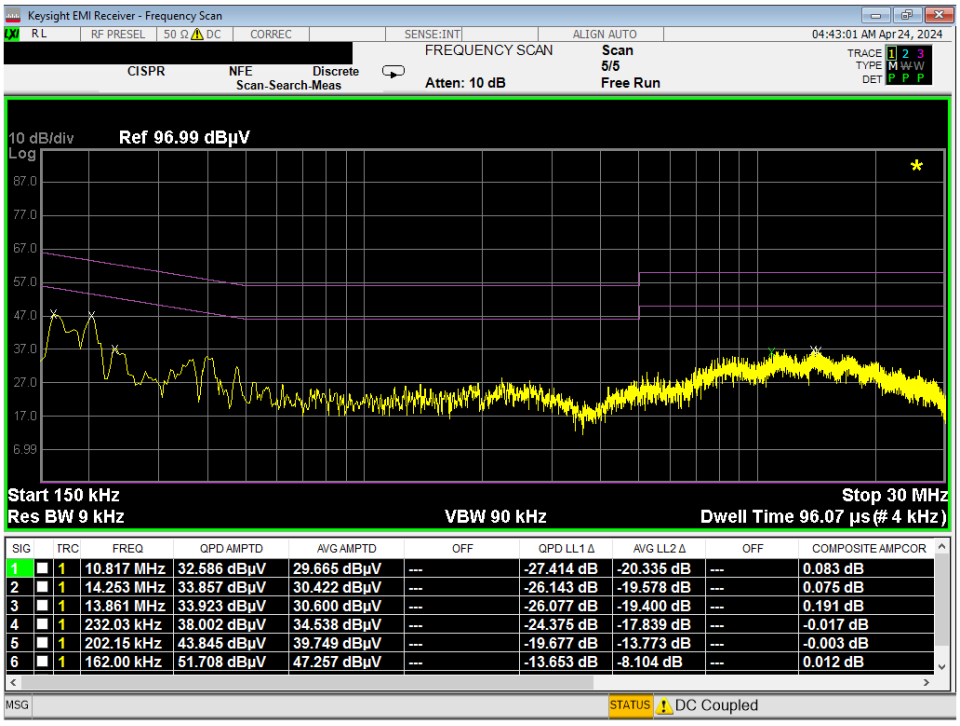

**Plot 7-218. Line Conducted Plot with 802.11a UNII Band 6 (L1)**



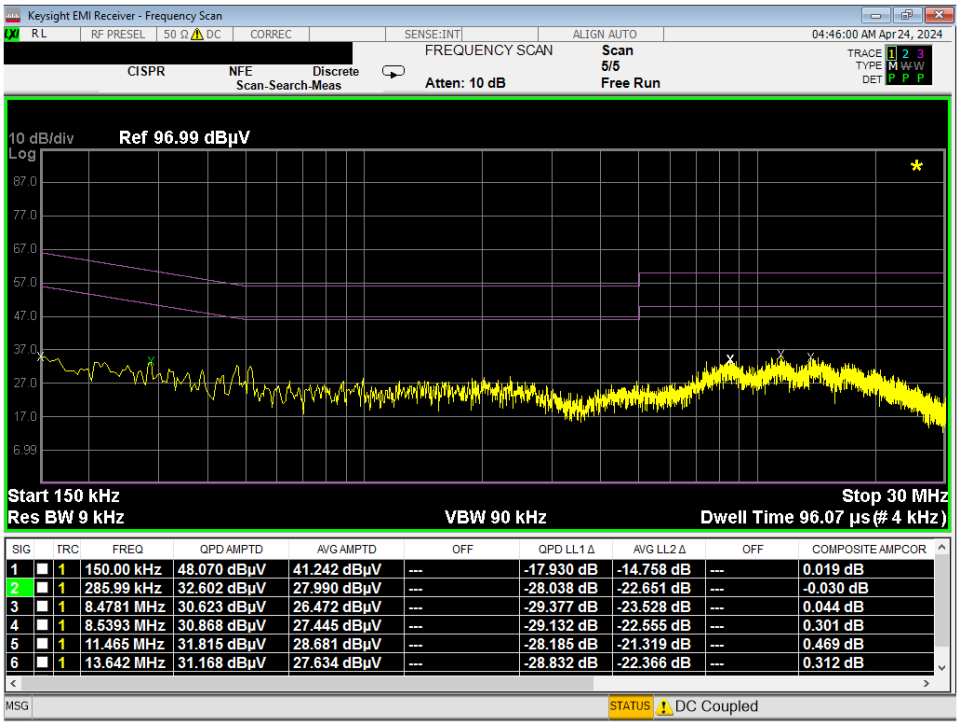

**Plot 7-219. Line Conducted Plot with 802.11a UNII Band 6 (N)**



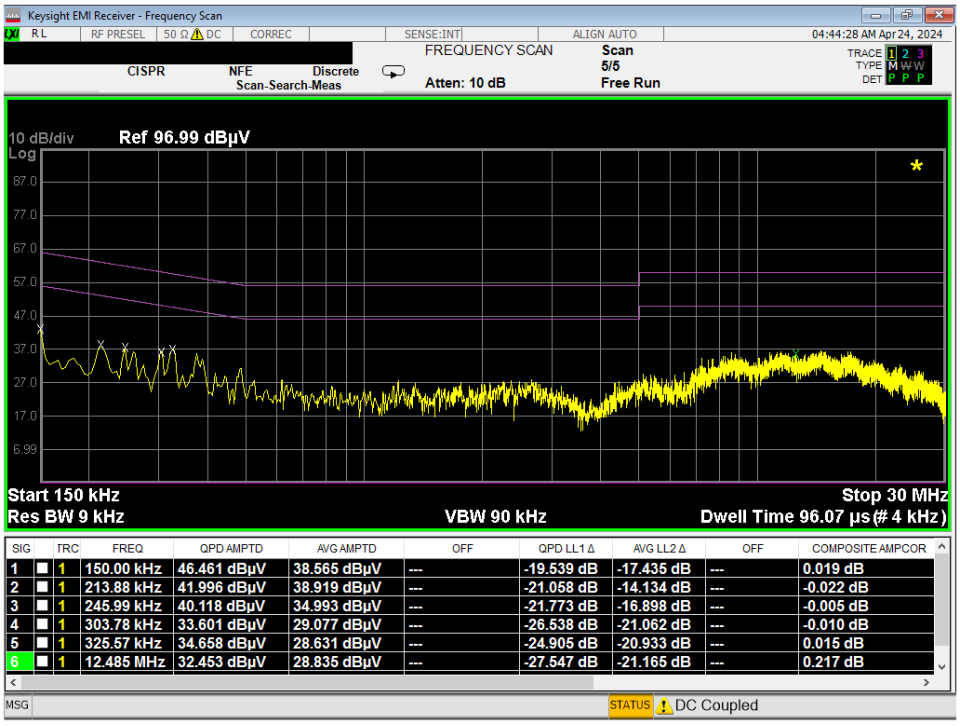

**Plot 7-220. Line Conducted Plot with 802.11a UNII Band 7 (L1)**




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




**Plot 7-222. Line Conducted Plot with 802.11a UNII Band 8 (L1)**




**Plot 7-223. Line Conducted Plot with 802.11a UNII Band 8 (N)**

# 8.0 CONCLUSION

The data collected relate only the item(s) tested and show that the **Samsung Portable Computing Device FCC ID: A3LNP940XMA** is in compliance with Part 15.407 of the FCC rules.