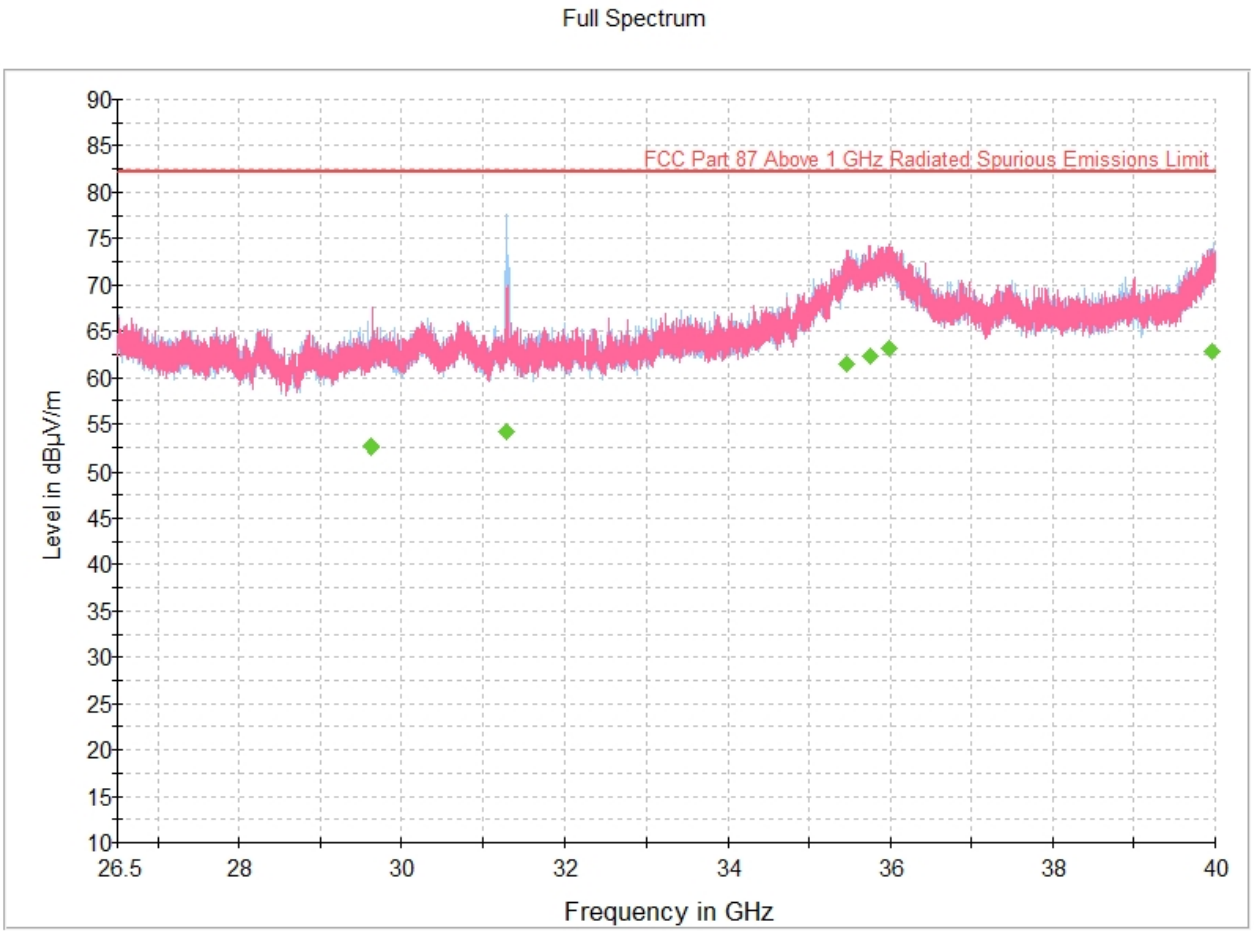



***Figure 8.5-4:*** *Radiated emissions spectral plot (26.5 GHz - 40 GHz)*

***Table 8.5-4****: Radiated emissions results*

| Frequency (MHz) | CAverage (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|---|---|---|---|---|---|---|---|---|---|
| 29628.737500 | 52.56 | 82.23 | 29.67 | 5000.0 | 1000.000 | 100.0 | V | 124.0 | 48.4 |
| 31283.387500 | 54.09 | 82.23 | 28.14 | 5000.0 | 1000.000 | 179.0 | H | 42.0 | 48.3 |
| 35466.568750 | 61.45 | 82.23 | 20.78 | 5000.0 | 1000.000 | 121.0 | V | 146.0 | 54.9 |
| 35756.743750 | 62.29 | 82.23 | 19.94 | 5000.0 | 1000.000 | 145.0 | V | 11.0 | 55.8 |
| 35994.081250 | 63.24 | 82.23 | 18.99 | 5000.0 | 1000.000 | 137.0 | V | 245.0 | 56.4 |
| 39969.812500 | 62.82 | 82.23 | 19.41 | 5000.0 | 1000.000 | 128.0 | H | 110.0 | 53.7 |

Notes:
[1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factors = antenna factor ACF (dB) + cable loss (dB)
[3] Emissions that were continuously present for a minimum of 1 second and occurred more than once for every 15 seconds observation period were considered valid emissions. The maximum value of valid emissions has been recorded.

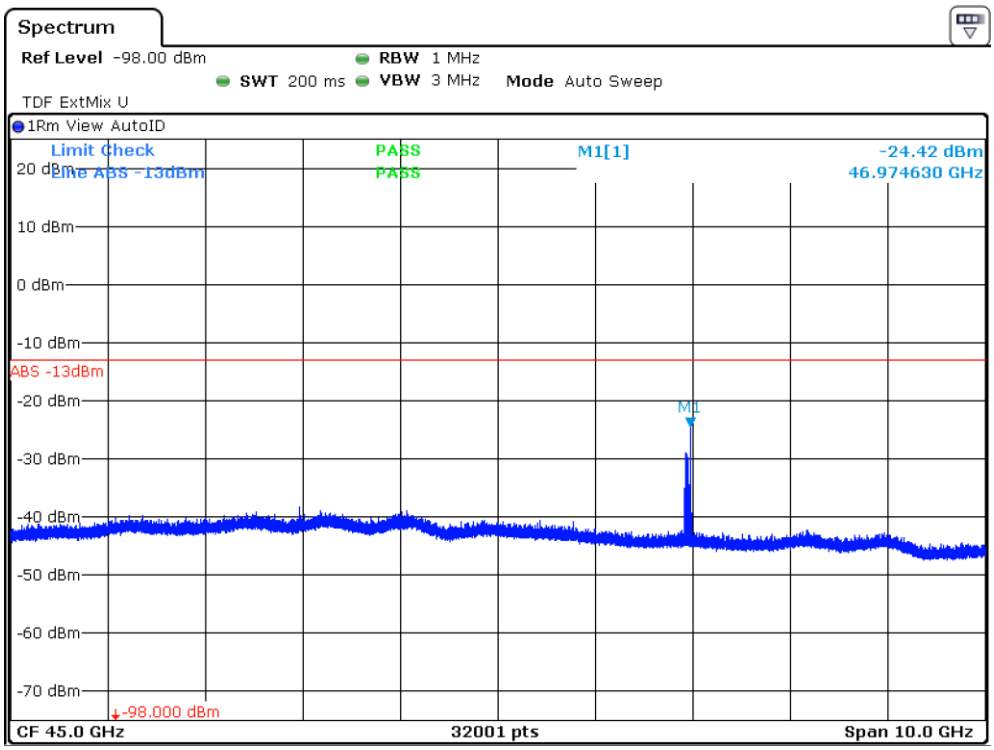



***Figure 8.5-5: Radiated emissions spectral plot (40 GHz - 50 GHz) Horizontal***

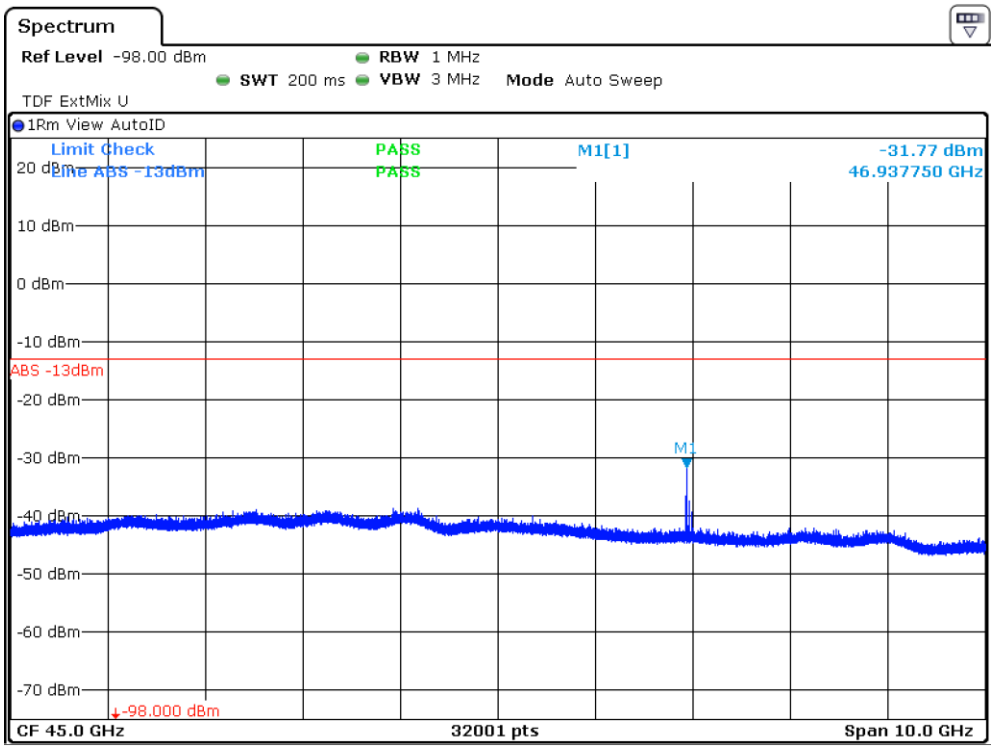
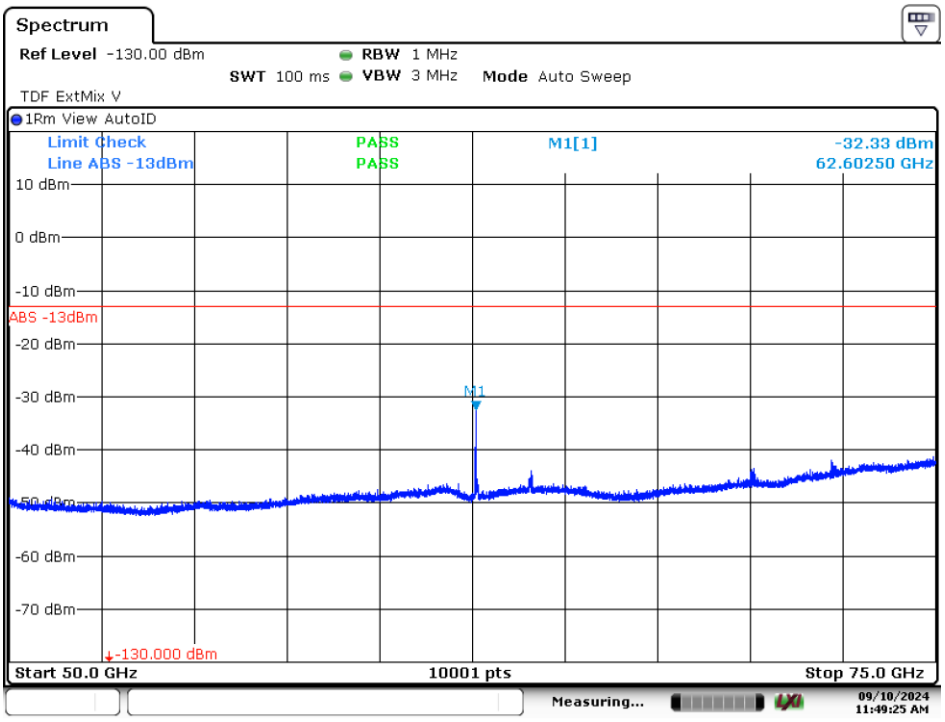



***Figure 8.5-6: Radiated emissions spectral plot (40 GHz - 50 GHz) Vertical***




Date: 10.SEP.2024 11:49:25

***Figure 8.5-7: Radiated emissions spectral plot (50 GHz - 75 GHz) Horizontal***

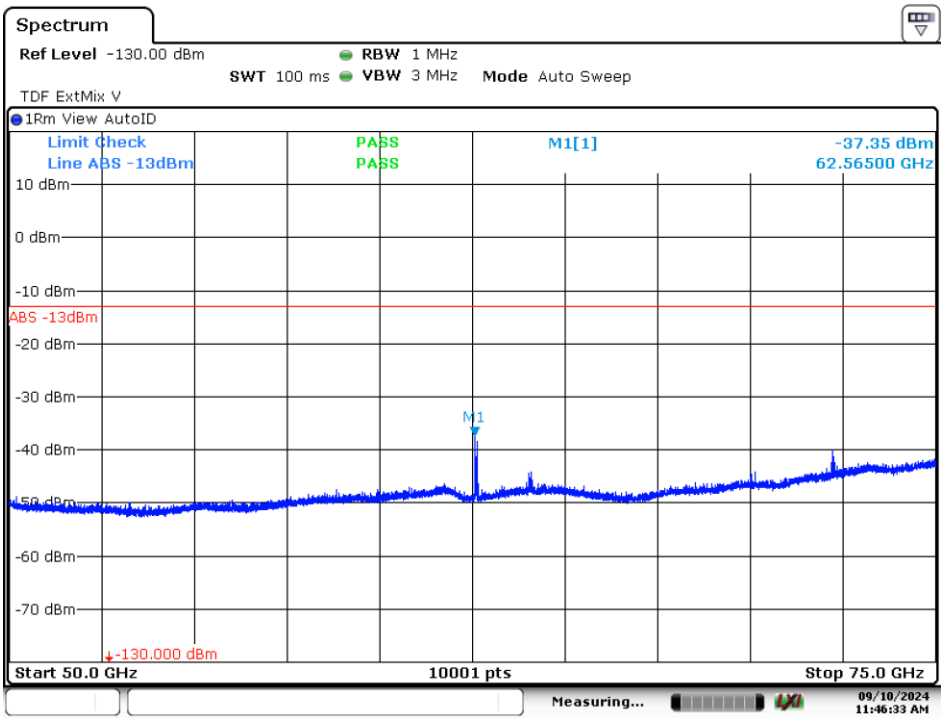



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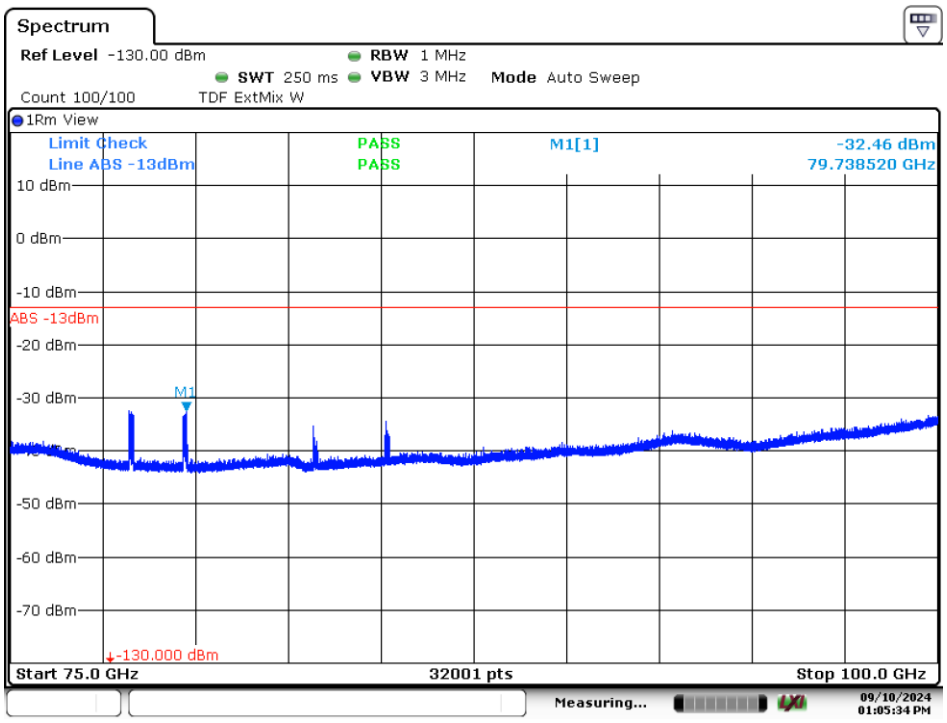
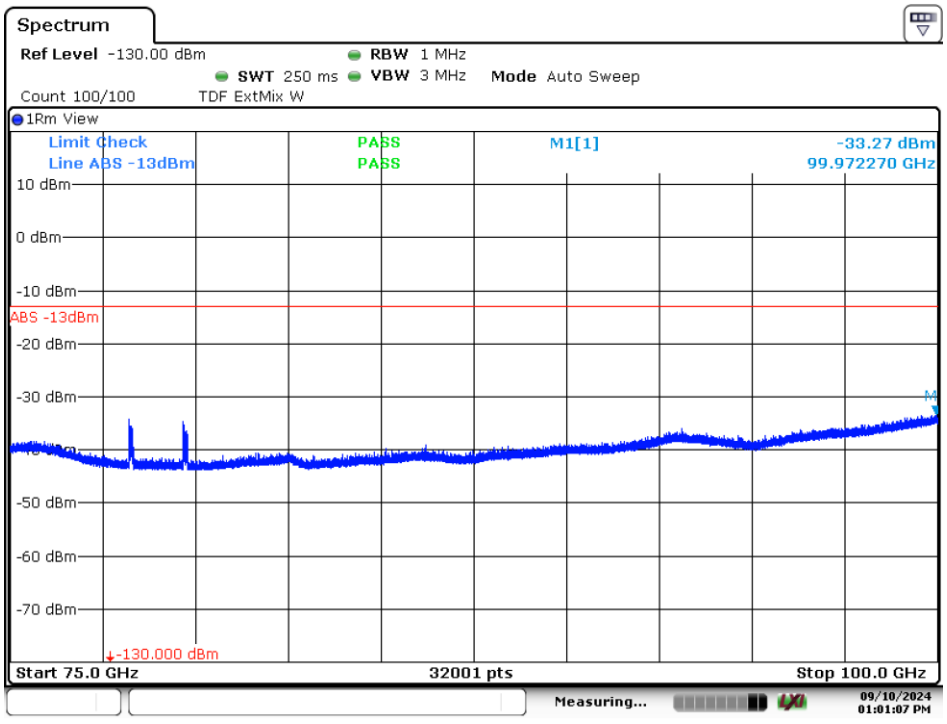
***Figure 8.5-8: Radiated emissions spectra l plot (50 GHz - 75 GHz) Vertical***




Date: 10.SEP.2024 13:05:35

***Figure 8.5-9: Radiated emissions spectral plot (75 GHz - 100 GHz) Horizontal***




Date: 10.SEP.2024 13:01:06

***Figure 8.5-10: Radiated emissions spectral plot (75 GHz - 100 GHz) Vertical***

## 8.6 Frequency stability

### 8.6.1 References and limits

- FCC 47 CFR Part 87: §87.133
- Test method: ANSI C63.26 (5.6.3)
  (a) Except as provided in paragraphs (c), (d), (f), and (g) of this section, the carrier frequency of each station must be maintained within these tolerances:

| Frequency band (lower limit exclusive, upper limit inclusive), and categories of stations | Tolerance[1] | Tolerance[2] |
|---|---|---|
| Radionavigation stations | 5000 | 5000 |

### 8.6.2 Test summary

| | | | |
|---|---|---|---|
| Verdict | Pass | | |
| Test date | September 13, 2024 | Temperature | 18°C |
| Test engineer | Chenhao Ma, Wireless Test Technician | Air pressure | 1006mbar |
| Test location | ☐ Wireless bench<br>☐ 10 m semi-anechoic chamber<br>☐ 3 m semi-anechoic chamber<br>☒ Other: Environmental chamber | Relative humidity | 51 % |

### 8.6.3 Notes

Testing was performed with the transmitter operating on a fixed channel at full power. An unmodulated signal with a frequency center in the middle channel was selected for this test (15.55 GHz).

### 8.6.4 Setup details

| | |
|---|---|
| EUT power input during test | 28 V DC |
| EUT setup configuration | ☐ Table-top<br>☐ Floor standing<br>☒ Other: Mounted on a fixture provided by client |

Spectrum analyzer settings:

| | |
|---|---|
| Resolution bandwidth | 30 kHz |
| Video bandwidth | 3 MHz |
| Detector mode | Peak |
| Trace mode | Max Hold |

### 8.6.5 Test data

***Table 8.6-1:*** *Frequency stability results.*

| *Voltage* | *Temperature* | *Channel frequency (Hz)* | *Measured frequency (Hz)* | *ppm* | *Limit (ppm)* | *Result* |
|---|---|---|---|---|---|---|
| 28 V | -40°C | 15550000000 | 15550000000 | 0.0000 | 5000 | Pass |
| 28 V | -30°C | 15550000000 | 15550000000 | 0.0000 | 5000 | Pass |
| 28 V | -20°C | 15550000000 | 15550000000 | 0.0000 | 5000 | Pass |
| 28 V | -10°C | 15550000000 | 15550000000 | 0.0000 | 5000 | Pass |
| 28 V | 0°C | 15550000000 | 15550000000 | 0.0000 | 5000 | Pass |
| 28 V | +10°C | 15550000000 | 15550000000 | 0.0000 | 5000 | Pass |
| 28 V | +20°C | 15550000000 | 15550000000 | 0.0000 | 5000 | Pass |
| 23.8 V (-15%) | +20°C | 15550000000 | 15550000000 | 0.0000 | 5000 | Pass |
| 32.2 V (+15%) | +20°C | 15550000000 | 15550000000 | 0.0000 | 5000 | Pass |
| 28 V | +30°C | 15550000000 | 15549992800 | -0.463 | 5000 | Pass |
| 28 V | +40°C | 15550000000 | 15550000000 | 0.0000 | 5000 | Pass |
| 28 V | +50°C | 15550000000 | 15550000000 | 0.0000 | 5000 | Pass |
| 28 V | +60°C | 15550000000 | 15549992800 | -0.463 | 5000 | Pass |
| 28 V | +65°C | 15550000000 | 15549992800 | -0.463 | 5000 | Pass |

**End of test report**