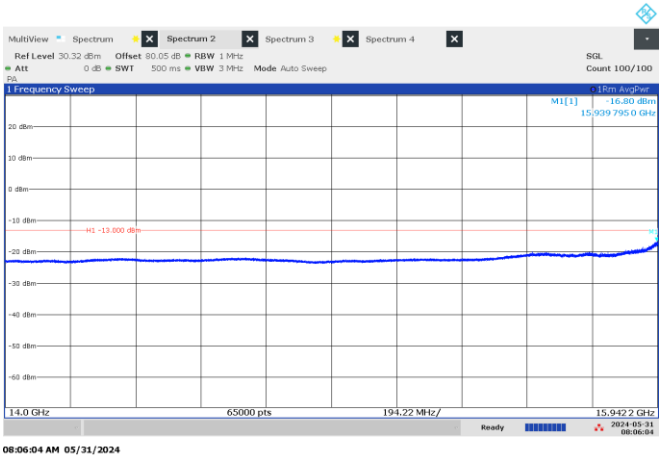

Figure 8.4-49: *Emission mask, beyond ±250% of BW (low frequency range), Middle channel: 16.15 GHz, shortest pulse. (50 MHz BW)*

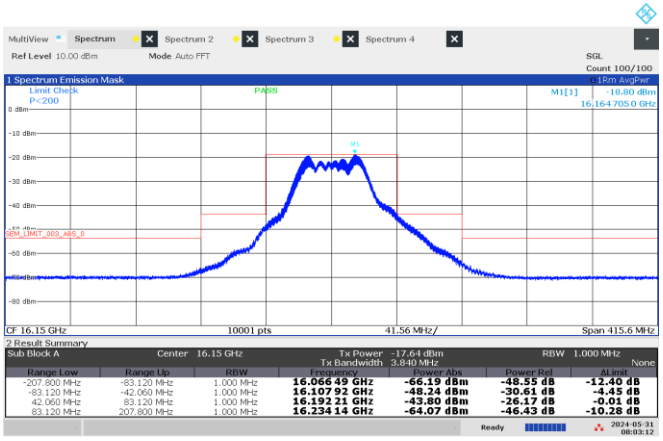

Figure 8.4-50: *Emission mask, Middle channel: 16.15 GHz, l shortest pulse. (50 MHz BW)*

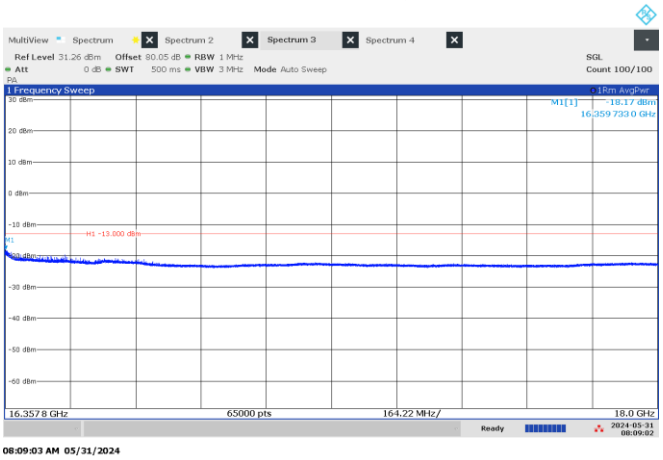

Figure 8.4-51: *Emission mask, beyond ±250% of BW (high frequency range), Middle channel: 16.15 GHz, shortest pulse. (50 MHz BW)*

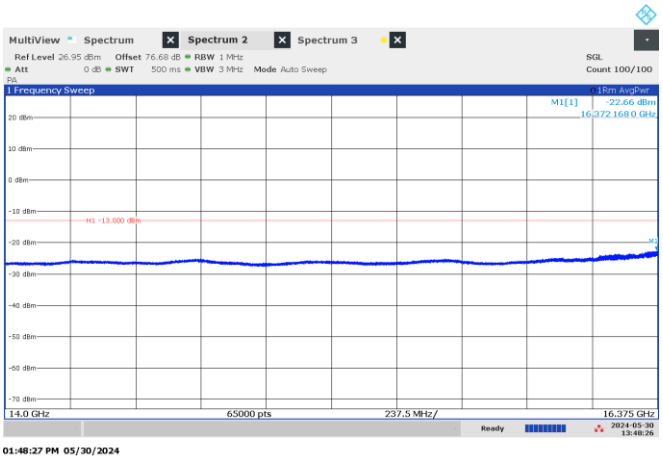

Figure 8.4-52: *Emission mask, beyond ±250% of BW (low frequency range), High channel: 16.50 GHz, shortest pulse. (50 MHz BW)*

Figure 8.4-53: *Emission mask, High channel: 16.50 GHz, shortest pulse. (50 MHz BW)*

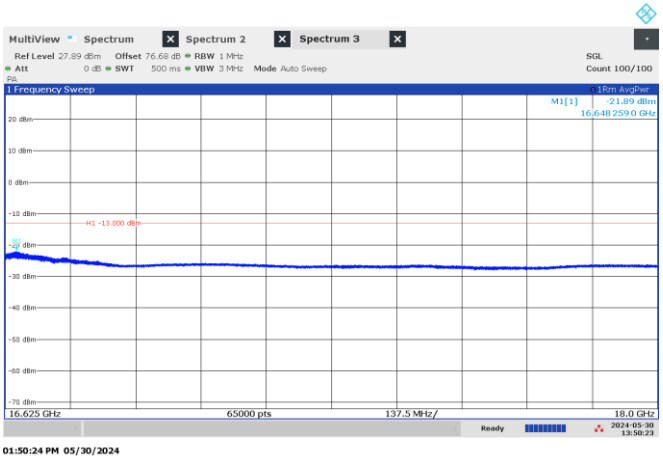

Figure 8.4-54: *Emission mask, beyond ±250% of BW (high frequency range), High channel: 16.50 GHz, shortest pulse. (50 MHz BW)*

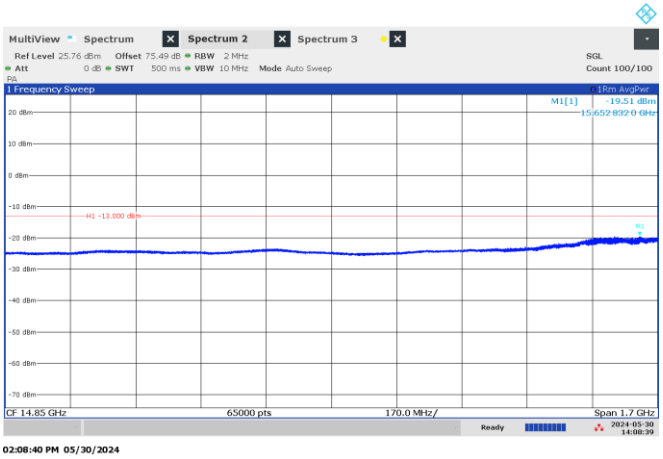

Figure 8.4-55: *Emission mask, beyond ±250% of BW (low frequency range), Low channel: 15.85 GHz, shortest pulse. (100 MHz BW)*

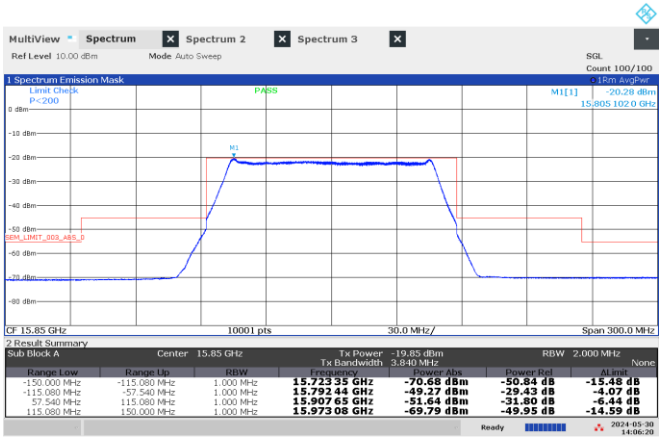

Figure 8.4-56: *Emission mask, Low channel: 15.85 GHz, shortest pulse. (100 MHz BW)*

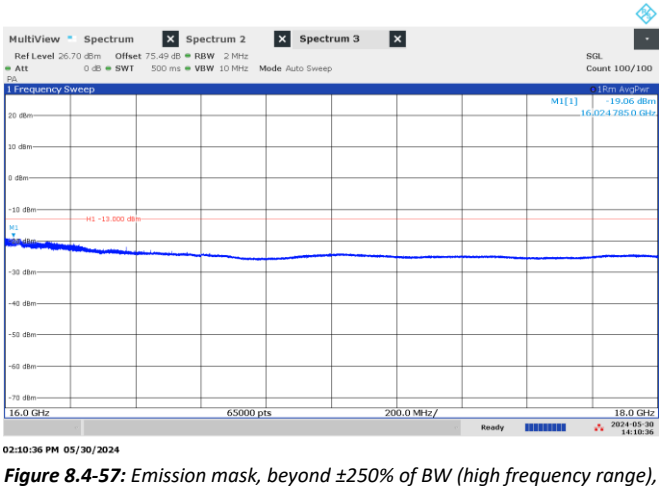

Figure 8.4-57: *Emission mask, beyond ±250% of BW (high frequency range), Low channel: 15.85 GHz, shortest pulse. (100 MHz BW)*

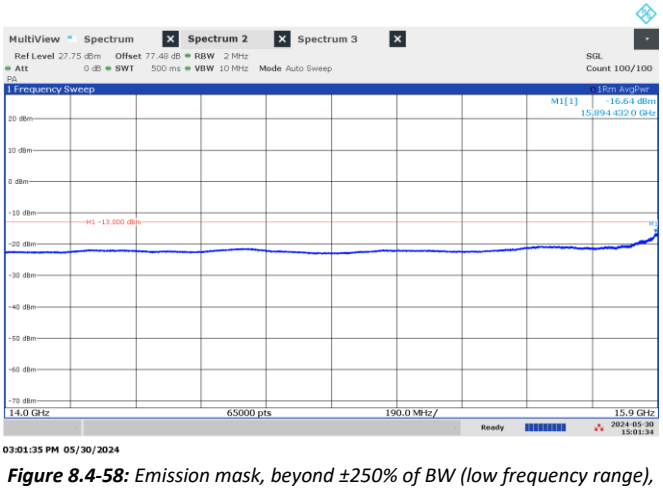

Figure 8.4-58: *Emission mask, beyond ±250% of BW (low frequency range), Middle channel: 16.15 GHz, shortest pulse. (100 MHz BW)*

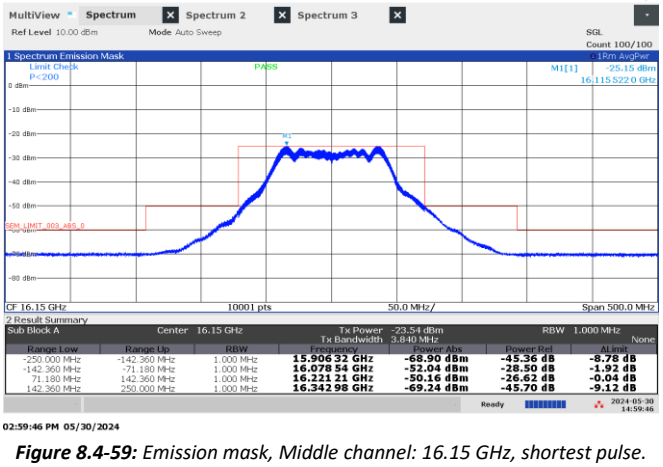

Figure 8.4-59: *Emission mask, Middle channel: 16.15 GHz, shortest pulse. (100 MHz BW)*

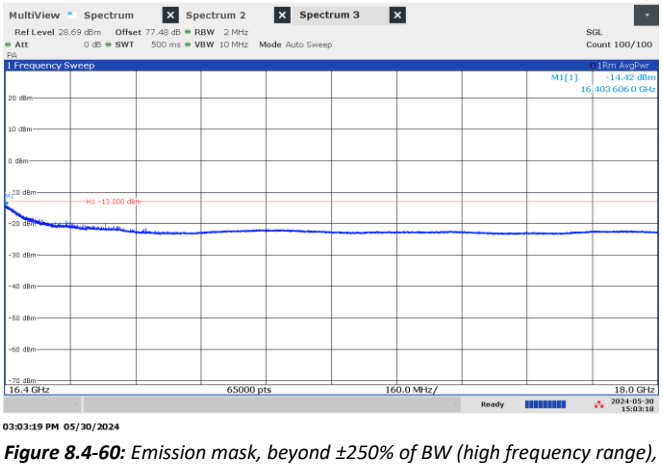

Figure 8.4-60: *Emission mask, beyond ±250% of BW (high frequency range), Middle channel: 16.15 GHz, shortest pulse. (100 MHz BW)*

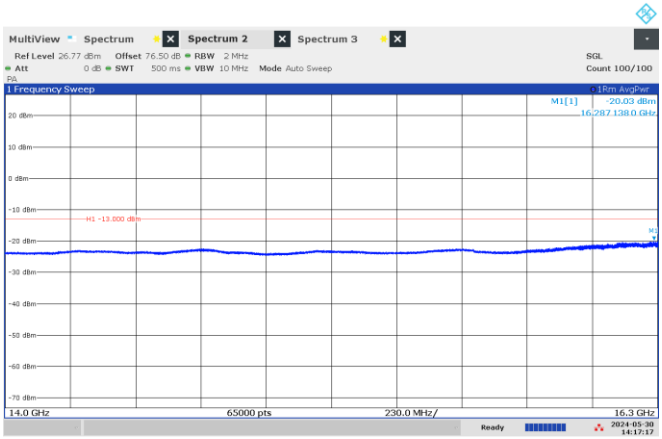

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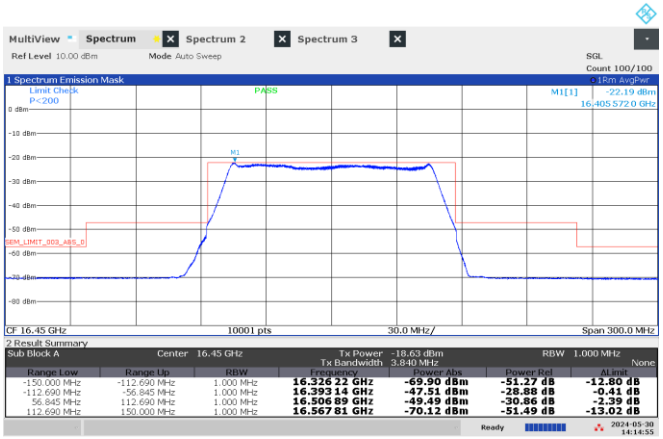
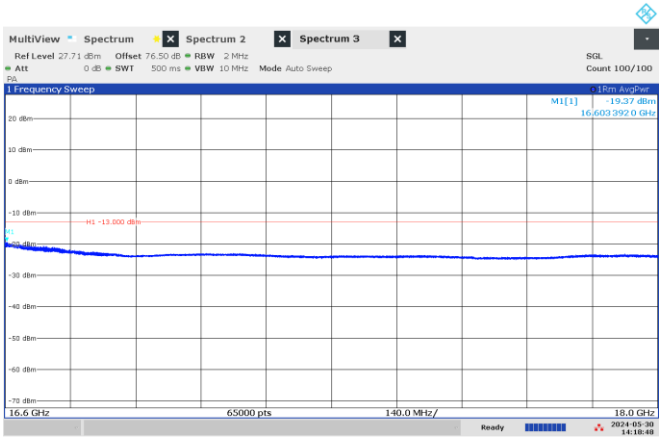
Figure 8.4-61: *Emission mask, beyond ±250% of BW (low frequency range), High channel: 16.45 GHz, shortest pulse. (100 MHz BW)*



02:14:56 PM 05/30/2024

Figure 8.4-62: *Emission mask, High channel: 16.45 GHz, shortest pulse. (100 MHz BW)*



02:18:49 PM 05/30/2024

Figure 8.4-63: *Emission mask, beyond ±250% of BW (high frequency range), High channel: 16.45 GHz, shortest pulse. (100 MHz BW)*

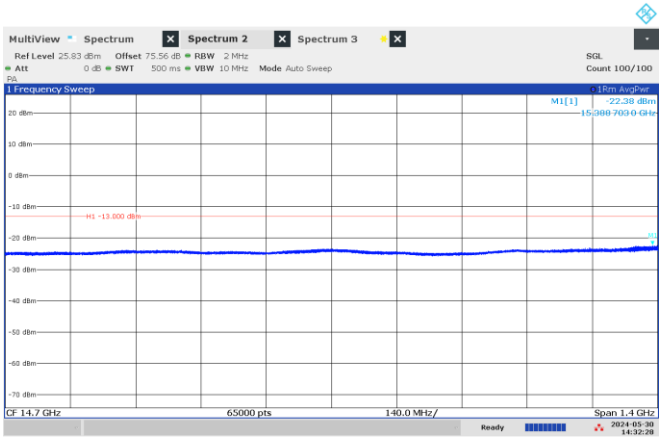


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Figure 8.4-64: *Emission mask, beyond ±250% of BW (low frequency range), Low channel: 15.90 GHz, shortest pulse. (200 MHz BW)*

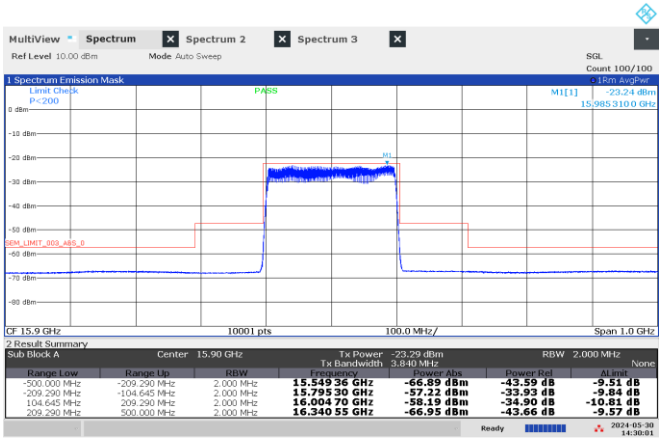

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Figure 8.4-65: *Emission mask, Low channel: 15.90 GHz, shortest pulse. (200 MHz BW)*

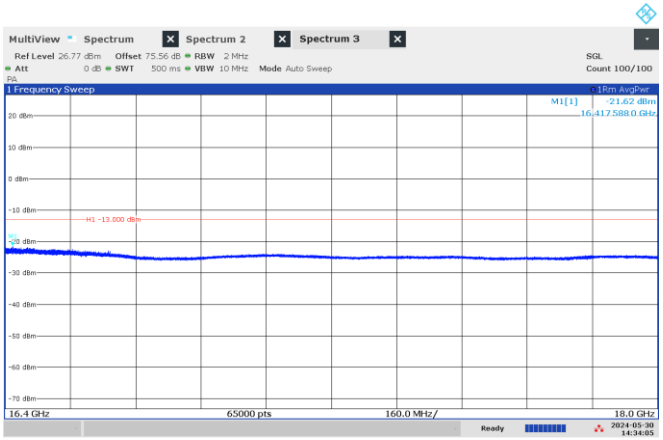

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Figure 8.4-66: *Emission mask, beyond ±250% of BW (high frequency range), Low channel: 15.90 GHz, shortest pulse. (200 MHz BW)*

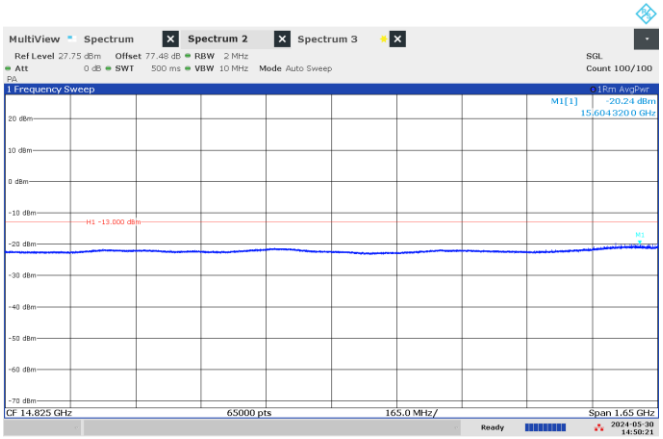

Figure 8.4-67: *Emission mask, beyond ±250% of BW (low frequency range), Middle channel: 16.15 GHz, shortest pulse. (200 MHz BW)*

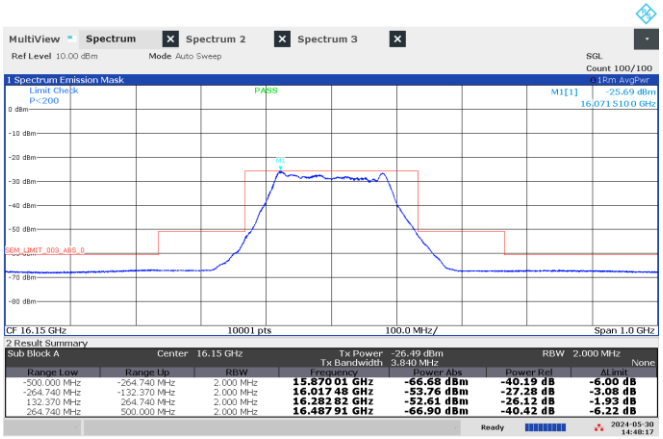

Figure 8.4-68: *Emission mask, Middle channel: 16.15 GHz, shortest pulse. (200 MHz BW)*

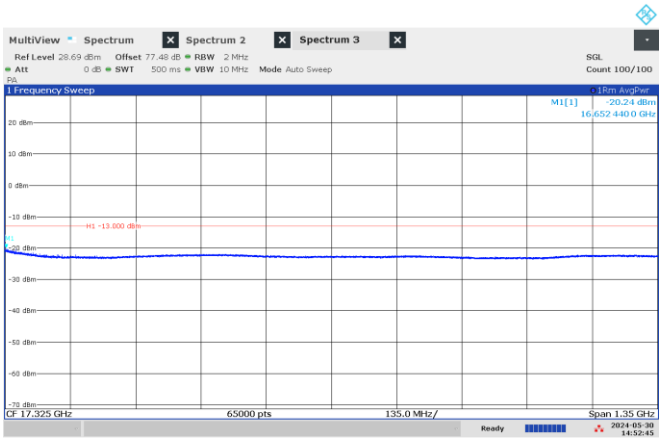

Figure 8.4-69: *Emission mask, beyond ±250% of BW (high frequency range), Middle channel: 16.15 GHz, shortest pulse. (200 MHz BW)*

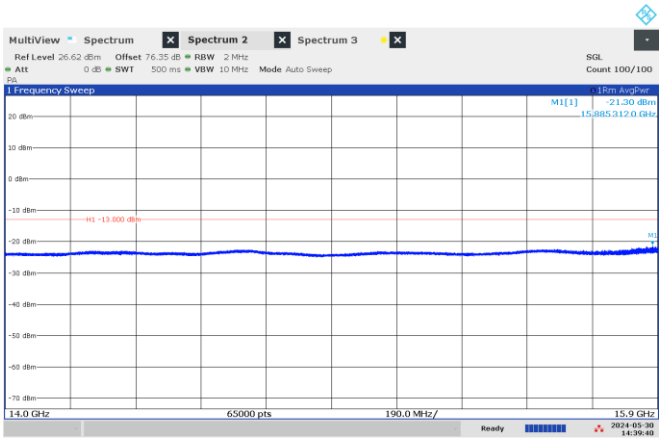

Figure 8.4-70: *Emission mask, beyond ±250% of BW (low frequency range), High channel: 16.40 GHz, shortest pulse. (200 MHz BW)*

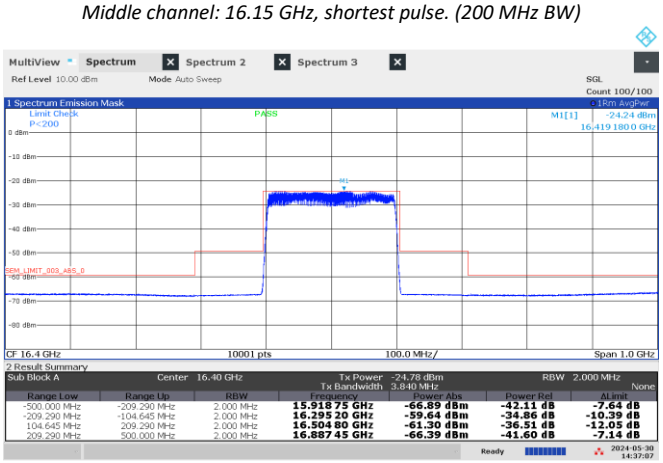

Figure 8.4-71: *Emission mask, High channel: 16.40 GHz, shortest pulse. (200 MHz BW)*

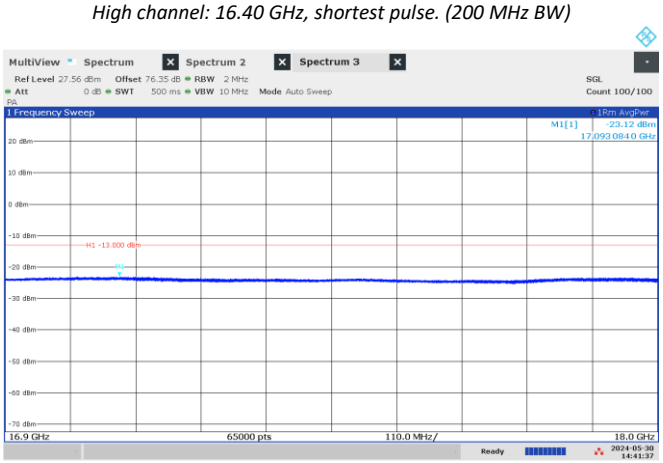

Figure 8.4-72: *Emission mask, beyond ±250% of BW (high frequency range), High channel: 16.40 GHz, shortest pulse. (200 MHz BW)*

8.5 Transmitter spurious emissions

8.5.1 References and limits

- FCC 47 CFR Part 90: §90.210
- Test method: ANSI C63.26-2014 (5.5)

(a) Except for ELTs and when using single sideband (R3E, H3E, J3E), or frequency modulation (F9) or digital modulation (F9Y) for telemetry or telecommand in the 1435–1525 MHz, 2345–2395 MHz, or 5091–5150 MHz band or digital modulation (G7D) for differential GPS, the mean power of any emissions must be attenuated below the mean power of the transmitter (pY) as follows:

(3) On any frequency removed from the assigned frequency by more than 250 percent of the authorized bandwidth: At least 43 + 10 log (P) dB.

- FCC 47 CFR Part 2: §2.1057

(a) In all of the measurements set forth in §§ 2.1051 and 2.1053, the spectrum shall be investigated from the lowest radio frequency signal generated in the equipment, without going below 9 kHz, up to at least the frequency shown below:

(2) If the equipment operates at or above 10 GHz and below 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.

8.5.2 Test summary

Verdict	Pass		
Test date	May 31, 2024; June 3, 2024; June 4, 2024	Temperature	20°C; 18°C 20°C
Test engineer	Chenhao Ma, Wireless Test Technician	Air pressure	1002mbar; 1001mbar; 1001mbar
Test location	☐ Wireless bench ☒ Other: 3M Chamber	Relative humidity	59%; 56%;58%

8.5.3 Notes

Testing was performed with the transmitter operating on a fixed channel at full power. Max power found it in table 8.3-2 was selected as the representative case for this testing (wors case). Low, middle, and high channels were tested using the longest pulse and the 100 MHz declared bandwidth.

Due to the high power emitted by the EUT, several considerations were made to execute accuracy testing but avoiding the damage of the receiver system:

1) In the range from 1-18 GHz two low-pass filters in cascade were inserted between the receiving antenna a power amplifier with the purpose of attenuating the signal and maintaining the linearity of the power amplifier. The 1 dB cut frequency of these filters is at 14 GHz gaining attenuation at the interest frequencies around 100 dB and preserving an insertion loss of 2 dB average in the frequency range under investigation. The suppressed frequencies in this section were investigated previously in section 8.4.5 where the filter was not aggregated (frequency range from 14-18 GHz).
2) In the range from 18-26.5 GHz two high-pass filters in cascade were inserted between the receiving antenna a power amplifier with the purpose of attenuating the signal and maintaining the linearity of the power amplifier. The cut frequency of these filters is at 18 GHz, attenuating the interest frequencies signals with around 87 dB (minimum) and preserving an insertion loss of 2.5 dB average in the frequency range under investigation.
3) In the range above 26.5 GHz ranges no filters or amplifiers were used. Waveguide antennas provide enough carrier attenuation.

8.5.4 Setup details

EUT power input during test	28 V DC
EUT setup configuration	☒ Table-top (Above 1 GHz: 1.5 m) ☐ Floor standing ☒ Other: Tripod mounted (Below 1 GHz: 80 cm)
Antenna height variation	1–4 m
Turn table position	0–360°
Measurement details	A preview measurement was generated with receiver in continuous scan or sweep mode while the EUT was rotated, and antenna adjusted to maximize radiated emission. Emissions detected within 6 dB or above limit were re-measured with the appropriate detector against the correlating limit and recorded as the final measurement.

Receiver settings (below 1 GHz):

Resolution bandwidth	120 kHz
Video bandwidth	300 kHz
Detector mode	Peak (preview measurements) Quasi-peak (final measurements)
Trace mode	Max Hold
Measurement time	5000 ms (final measurements)

Receiver settings (from 1 -40 GHz):

Resolution bandwidth	1 MHz
Video bandwidth	3 MHz
Detector mode	Peak (preview measurements) Peak and average (final measurements)
Trace mode	Max Hold
Measurement time	5000 ms (final measurements)

Spectrum analyzer settings (above 40 GHz):

Resolution bandwidth	1 MHz
Video bandwidth	3 MHz
Detector mode	Average
Trace mode	Max Hold

8.5.5 Test data

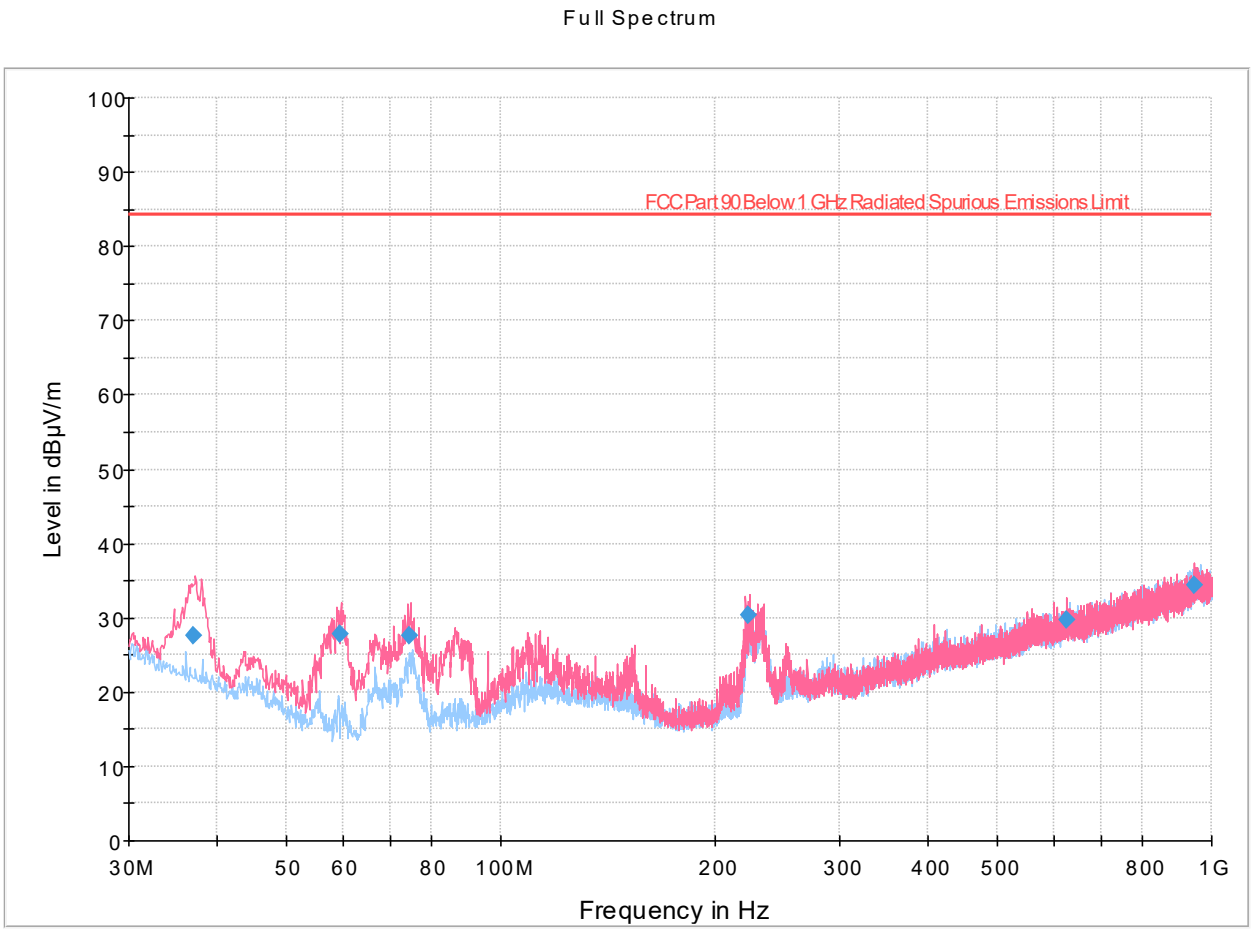

Figure 8.5-1: *Radiated emissions spectral plot (30 MHz - 1 GHz) low channel*

Table 8.5-1*: Radiated emissions results*

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
37.058000	27.59	84.38	56.79	5000.0	120.000	101.0	V	127.0	22.8
59.562000	27.90	84.38	56.48	5000.0	120.000	149.0	V	328.0	12.8
74.420000	27.59	84.38	56.79	5000.0	120.000	158.0	V	158.0	14.4
223.388000	30.37	84.38	54.01	5000.0	120.000	109.0	V	122.0	18.4
625.649000	29.71	84.38	54.67	5000.0	120.000	328.0	V	250.0	30.0
945.479000	34.50	84.38	49.88	5000.0	120.000	204.0	V	19.0	34.7

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.

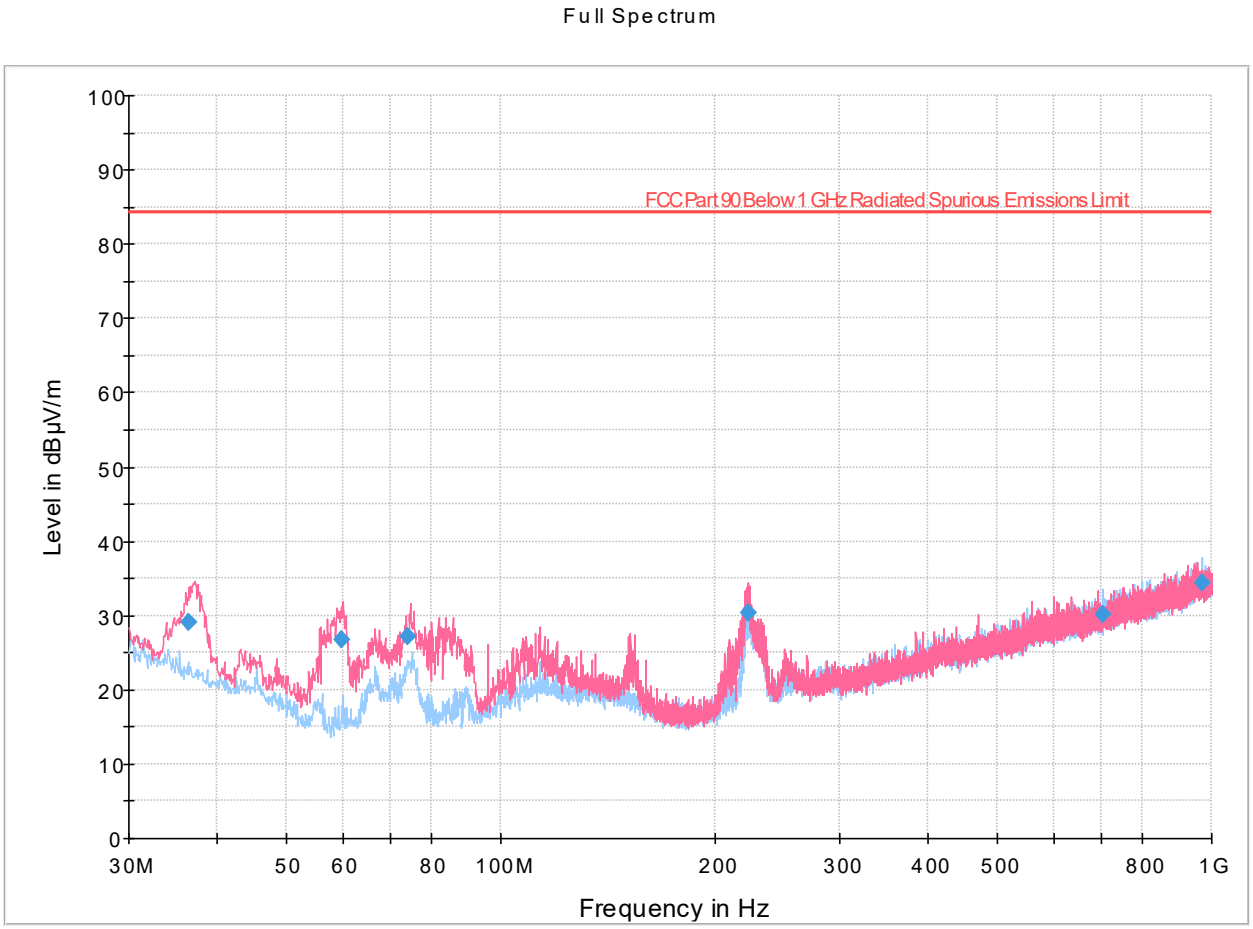

Figure 8.5-2: *Radiated emissions spectral plot (30 MHz - 1 GHz) mid channel*

Table 8.5-2*: Radiated emissions results*

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
36.458000	29.03	84.38	55.35	5000.0	120.000	135.0	V	134.0	23.1
59.750000	26.86	84.38	57.52	5000.0	120.000	142.0	V	348.0	12.8
73.980000	27.09	84.38	57.29	5000.0	120.000	186.0	V	184.0	14.4
222.836000	30.45	84.38	53.93	5000.0	120.000	108.0	V	121.0	18.4
702.690000	30.19	84.38	54.19	5000.0	120.000	238.0	H	356.0	30.5
967.870000	34.48	84.38	49.90	5000.0	120.000	332.0	H	257.0	34.7

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.

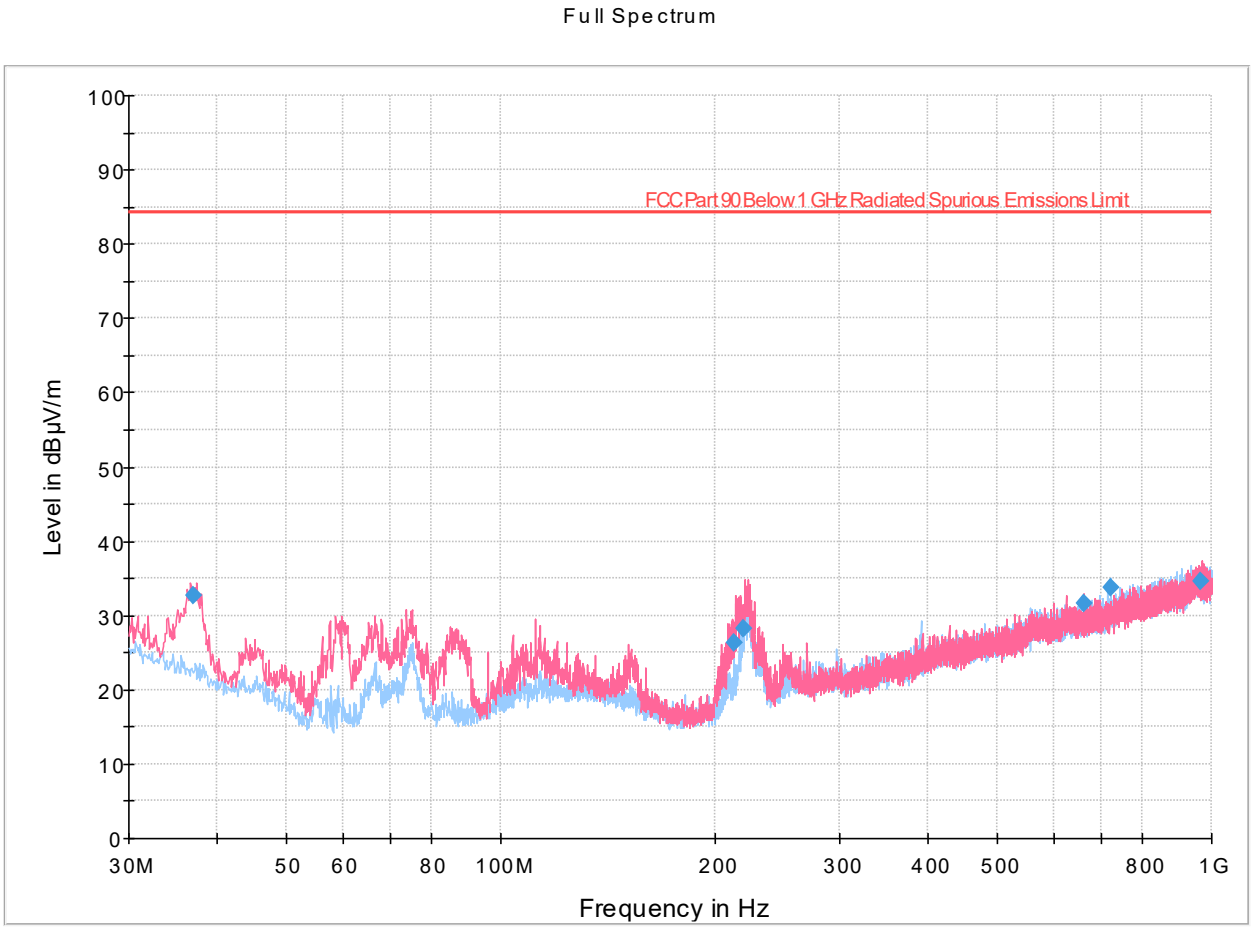

Figure 8.5-3: *Radiated emissions spectral plot (30 MHz - 1 GHz) high channel*

Table 8.5-3*: Radiated emissions results*

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
37.013000	32.63	84.38	51.75	5000.0	120.000	105.0	V	100.0	22.9
213.318000	26.29	84.38	58.09	5000.0	120.000	128.0	V	134.0	17.9
219.274000	28.33	84.38	56.05	5000.0	120.000	104.0	V	122.0	18.1
660.015000	31.62	84.38	52.76	5000.0	120.000	264.0	V	89.0	29.9
719.978000	33.67	84.38	50.71	5000.0	120.000	164.0	H	20.0	30.8
967.105000	34.59	84.38	49.79	5000.0	120.000	144.0	V	11.0	34.8

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.

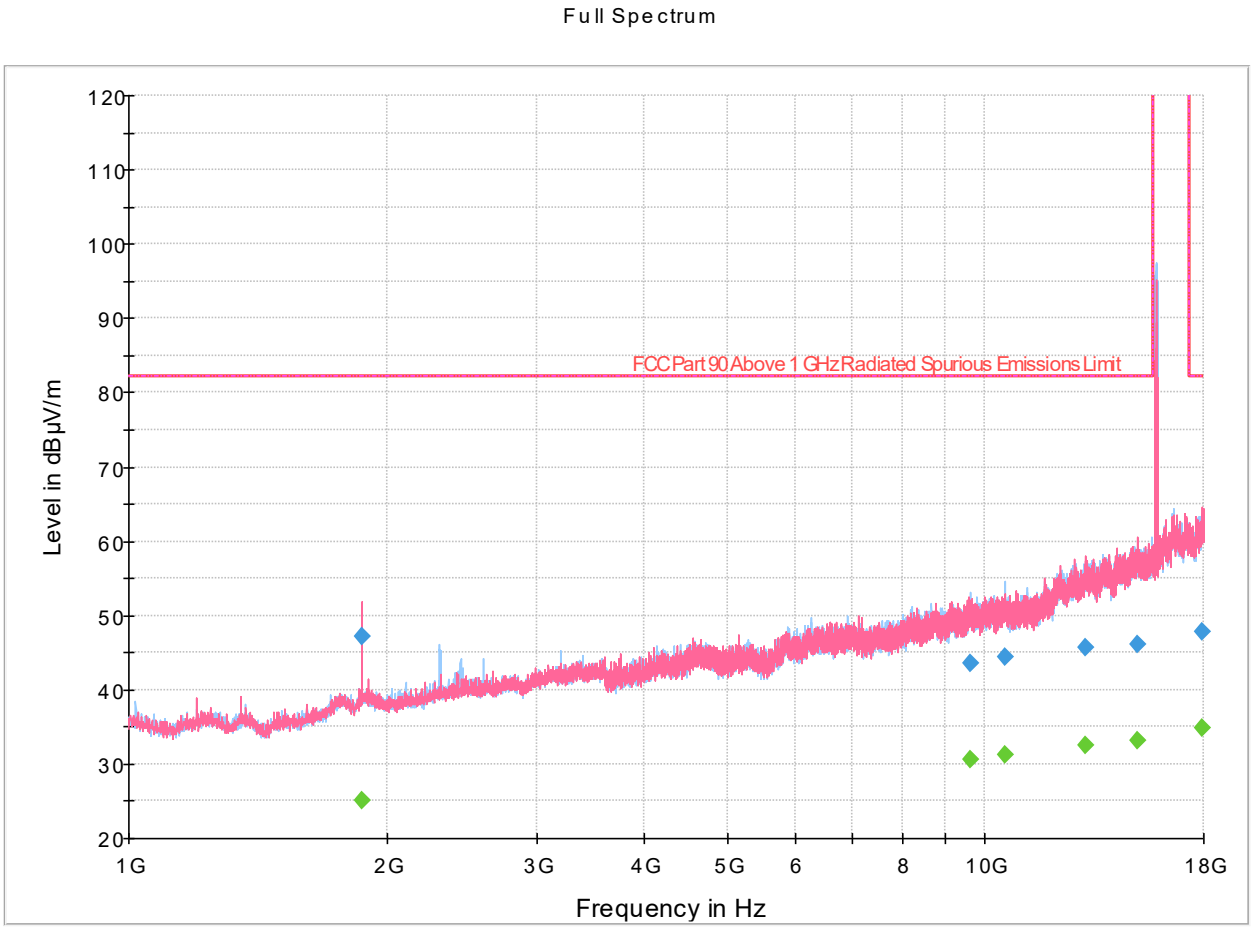

Figure 8.5-4: *Radiated emissions spectral plot (1 GHz - 18 GHz) low channel*

Table 8.5-4*: Radiated emissions results*

Frequency (MHz)	MaxPeak (dBµV/m)	CAverage (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1872.122222	47.26	---	82.23	34.97	5000.0	1000.000	267.0	V	327.0	-10.6
1872.122222	---	25.18	82.23	57.05	5000.0	1000.000	267.0	V	327.0	-10.6
9620.088889	43.67	---	82.23	38.56	5000.0	1000.000	292.0	H	165.0	4.9
9620.088889	---	30.62	82.23	51.61	5000.0	1000.000	292.0	H	165.0	4.9
10532.566667	---	31.36	82.23	50.87	5000.0	1000.000	389.0	H	350.0	5.8
10532.566667	44.42	---	82.23	37.81	5000.0	1000.000	389.0	H	350.0	5.8
13075.011111	---	32.57	82.23	49.66	5000.0	1000.000	331.0	V	345.0	9.9
13075.011111	45.74	---	82.23	36.49	5000.0	1000.000	331.0	V	345.0	9.9
15088.133333	---	33.22	82.23	49.01	5000.0	1000.000	297.0	V	147.0	12.2
15088.133333	46.13	---	82.23	36.10	5000.0	1000.000	297.0	V	147.0	12.2
17925.455556	---	34.78	82.23	47.45	5000.0	1000.000	163.0	V	190.0	17.0
17925.455556	47.77	---	82.23	34.46	5000.0	1000.000	163.0	V	190.0	17.0

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.

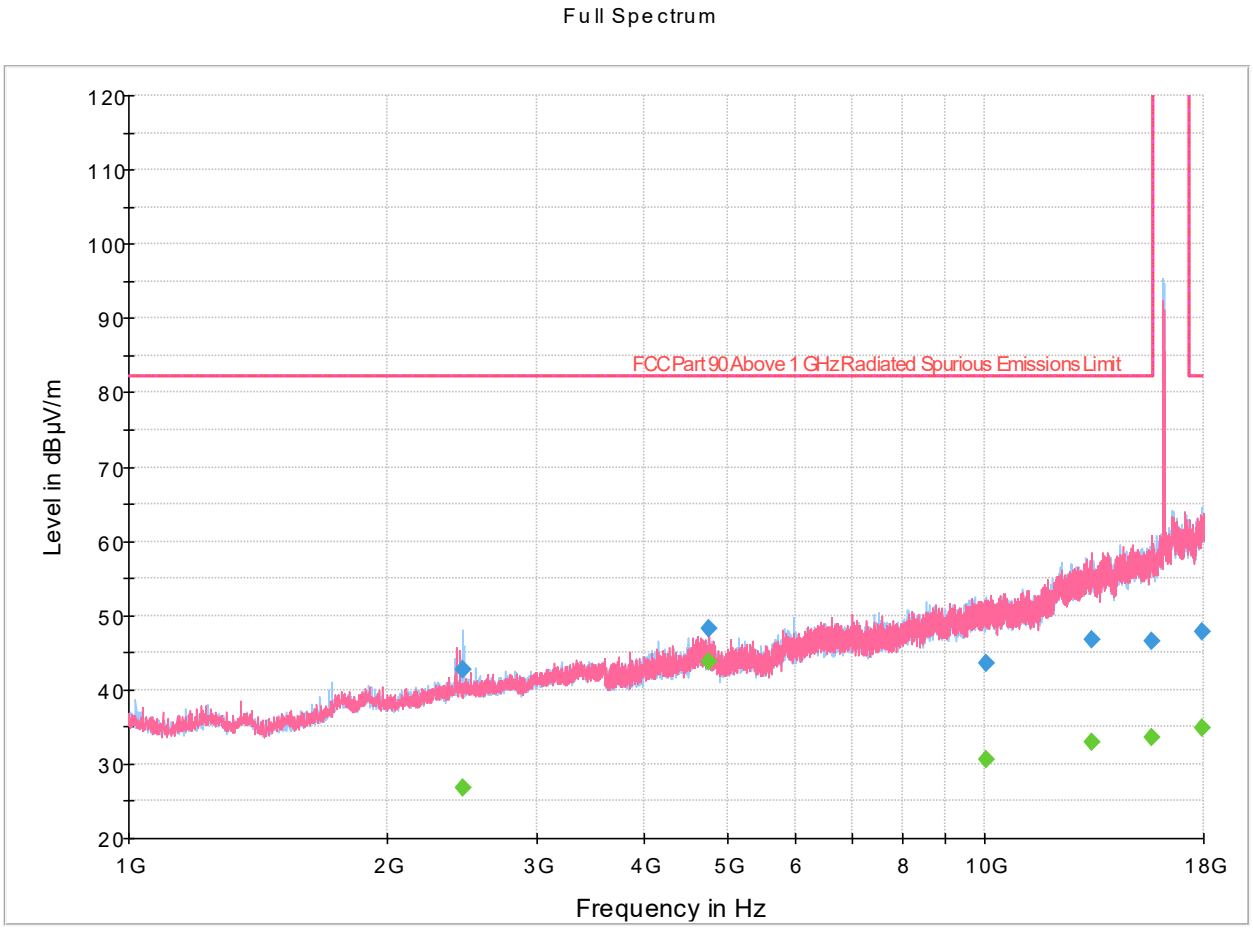

Figure 8.5-5: *Radiated emissions spectral plot (1 GHz - 18 GHz) mid channel*

Table 8.5-5*: Radiated emissions results*

Frequency (MHz)	MaxPeak (dBµV/m)	CAverage (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2456.333333	---	26.75	82.23	55.48	5000.0	1000.000	304.0	H	202.0	-8.5
2456.333333	42.64	---	82.23	39.59	5000.0	1000.000	304.0	H	202.0	-8.5
4766.844444	---	43.82	82.23	38.41	5000.0	1000.000	290.0	V	157.0	-1.1
4766.844444	48.23	---	82.23	34.00	5000.0	1000.000	290.0	V	157.0	-1.1
10024.211111	43.62	---	82.23	38.61	5000.0	1000.000	205.0	H	223.0	5.0
10024.211111	---	30.55	82.23	51.68	5000.0	1000.000	205.0	H	223.0	5.0
13319.477778	46.84	---	82.23	35.39	5000.0	1000.000	387.0	V	20.0	10.7
13319.477778	---	32.95	82.23	49.28	5000.0	1000.000	387.0	V	20.0	10.7
15653.166667	46.62	---	82.23	35.61	5000.0	1000.000	378.0	V	357.0	12.9
15653.166667	---	33.63	82.23	48.60	5000.0	1000.000	378.0	V	357.0	12.9
17901.733333	47.87	---	82.23	34.36	5000.0	1000.000	280.0	H	166.0	17.0
17901.733333	---	34.96	82.23	47.27	5000.0	1000.000	280.0	H	166.0	17.0

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.

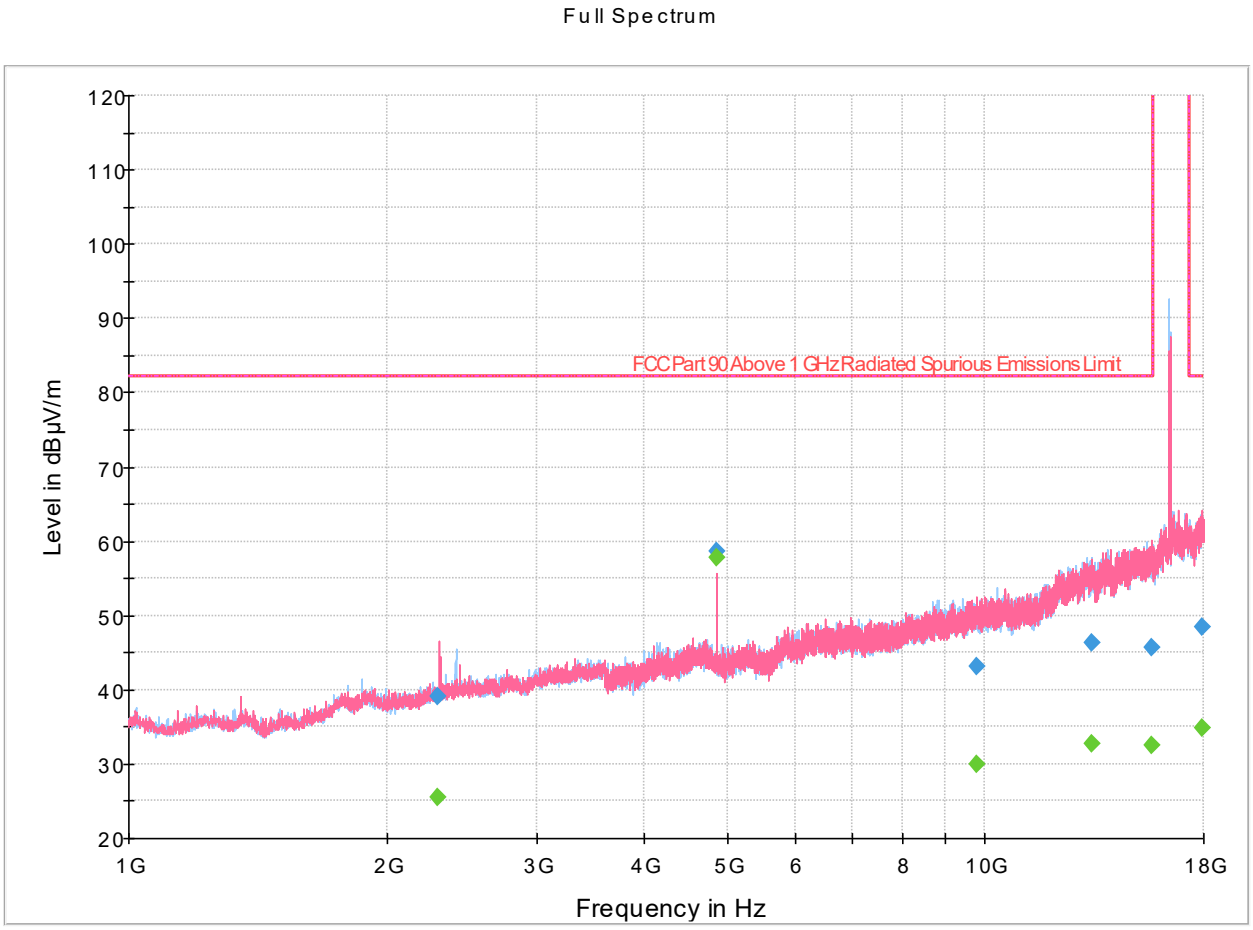

Figure 8.5-6: *Radiated emissions spectral plot (1 GHz - 18 GHz) high channel*

Table 8.5-6*: Radiated emissions results*

Frequency (MHz)	MaxPeak (dBµV/m)	CAverage (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2299.366667	39.03	---	82.23	43.20	5000.0	1000.000	277.0	V	158.0	-9.2
2299.366667	---	25.52	82.23	56.71	5000.0	1000.000	277.0	V	158.0	-9.2
4866.555556	58.71	---	82.23	23.52	5000.0	1000.000	223.0	V	242.0	-1.6
4866.555556	---	57.75	82.23	24.48	5000.0	1000.000	223.0	V	242.0	-1.6
9794.522222	---	29.99	82.23	52.24	5000.0	1000.000	194.0	V	278.0	5.0
9794.522222	43.15	---	82.23	39.08	5000.0	1000.000	194.0	V	278.0	5.0
13329.066667	---	32.83	82.23	49.40	5000.0	1000.000	230.0	H	0.0	10.7
13329.066667	46.27	---	82.23	35.96	5000.0	1000.000	230.0	H	0.0	10.7
15639.722222	---	32.62	82.23	49.61	5000.0	1000.000	393.0	V	269.0	12.8
15639.722222	45.65	---	82.23	36.58	5000.0	1000.000	393.0	V	269.0	12.8
17949.833333	---	34.92	82.23	47.31	5000.0	1000.000	157.0	V	169.0	17.0
17949.833333	48.47	---	82.23	33.76	5000.0	1000.000	157.0	V	169.0	17.0

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.

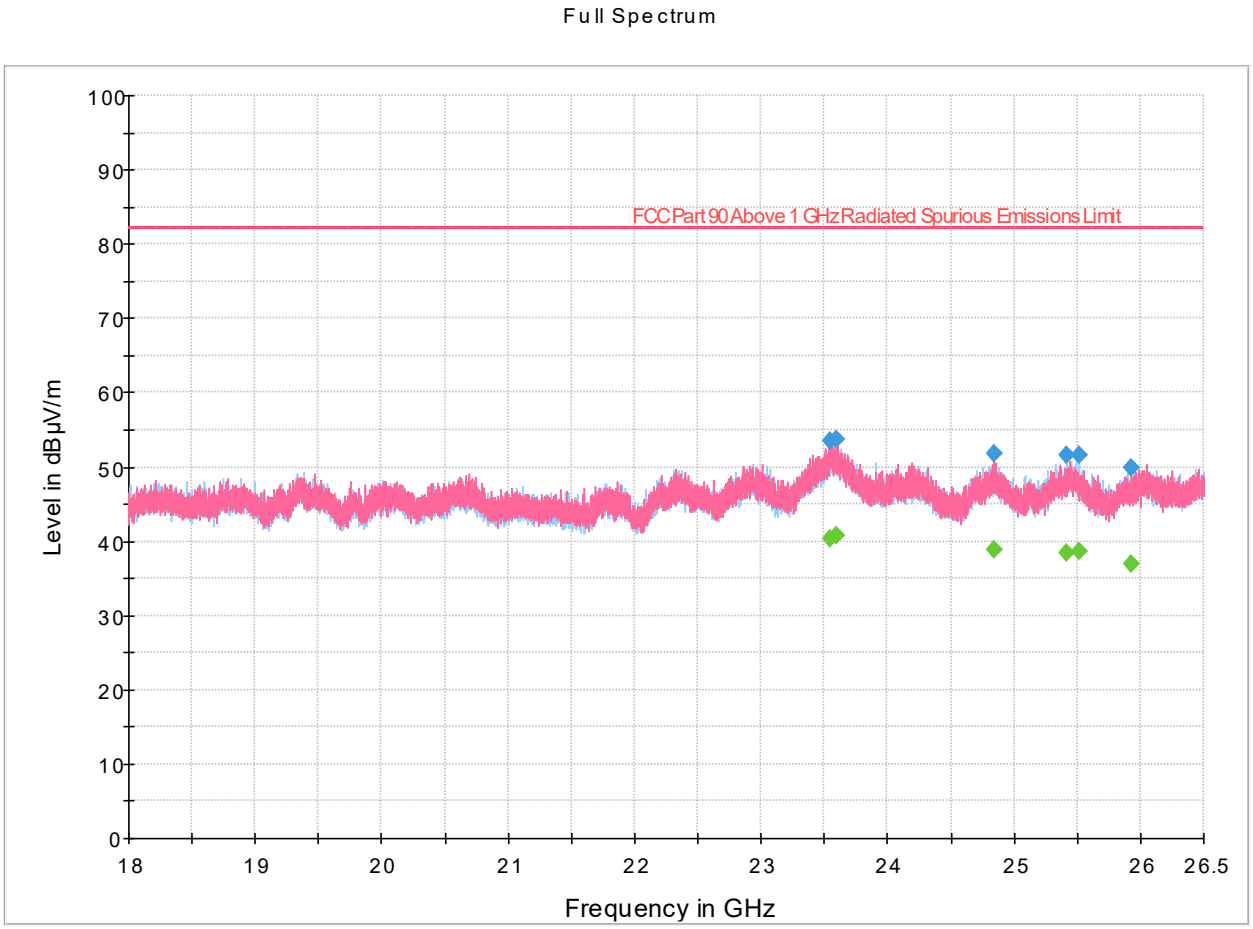

Figure 8.5-7: *Radiated emissions spectral plot (18 GHz - 26.5 GHz) low channel*

Table 8.5-7*: Radiated emissions results*

Frequency (MHz)	MaxPeak (dBµV/m)	CAverage (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
23551.806250	---	40.43	82.23	41.80	5000.0	1000.000	107.0	H	169.0	33.0
23551.806250	53.56	---	82.23	28.67	5000.0	1000.000	107.0	H	169.0	33.0
23600.912500	---	40.74	82.23	41.49	5000.0	1000.000	385.0	H	11.0	32.9
23600.912500	53.63	---	82.23	28.60	5000.0	1000.000	385.0	H	11.0	32.9
24840.843750	51.86	---	82.23	30.37	5000.0	1000.000	225.0	V	327.0	30.3
24840.843750	---	38.85	82.23	43.38	5000.0	1000.000	225.0	V	327.0	30.3
25415.506250	---	38.44	82.23	43.79	5000.0	1000.000	358.0	H	318.0	30.0
25415.506250	51.54	---	82.23	30.69	5000.0	1000.000	358.0	H	318.0	30.0
25516.081250	51.57	---	82.23	30.66	5000.0	1000.000	107.0	H	123.0	30.5
25516.081250	---	38.57	82.23	43.66	5000.0	1000.000	107.0	H	123.0	30.5
25931.493750	---	36.96	82.23	45.27	5000.0	1000.000	347.0	V	238.0	29.8
25931.493750	49.94	---	82.23	32.29	5000.0	1000.000	347.0	V	238.0	29.8

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.

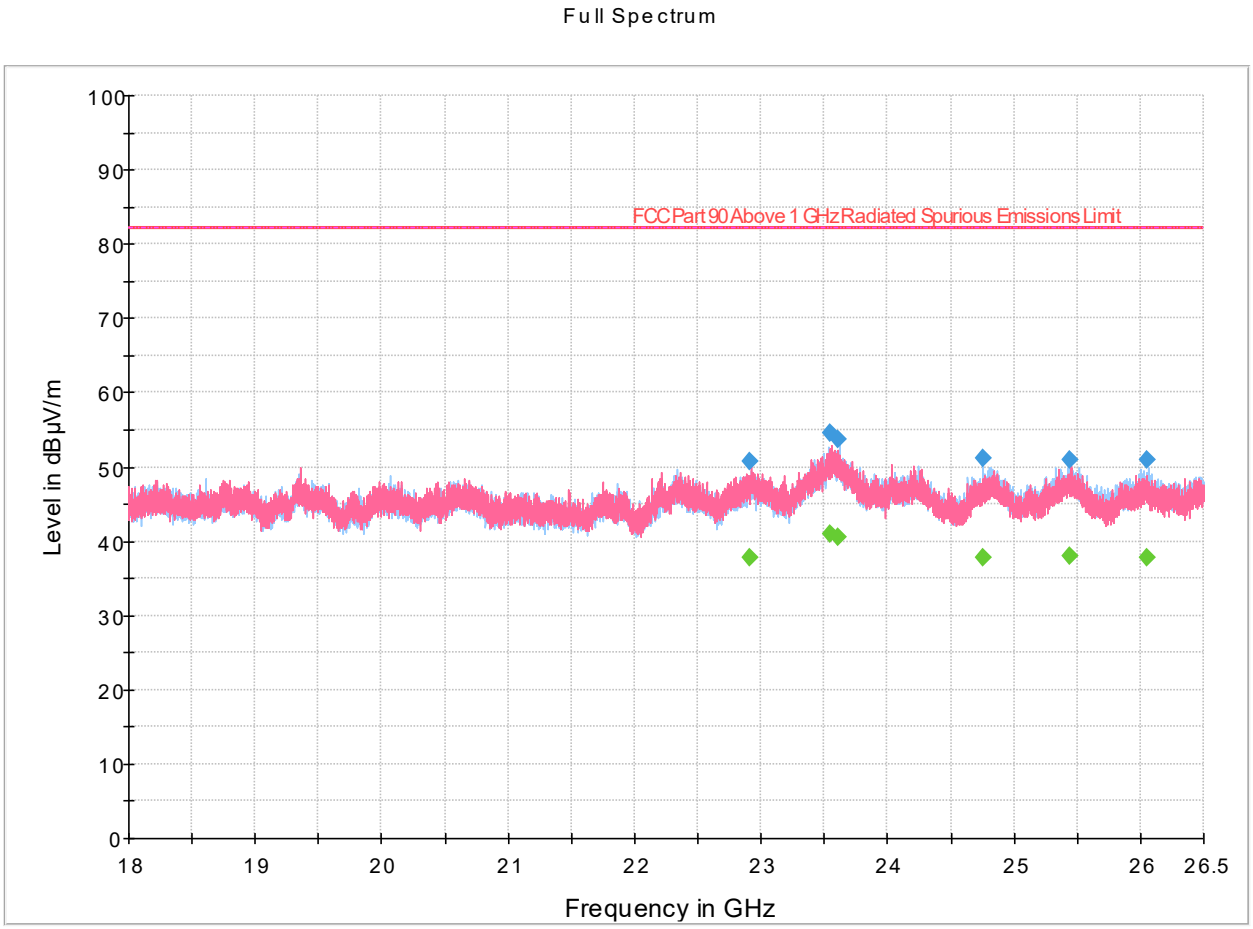

Figure 8.5-8: *Radiated emissions spectral plot (18 GHz - 26.5 GHz)mid channel*

Table 8.5-8*: Radiated emissions results*

Frequency (MHz)	MaxPeak (dBµV/m)	CAverage (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
22913.568750	50.74	---	82.23	31.49	5000.0	1000.000	335.0	V	0.0	29.5
22913.568750	---	37.70	82.23	44.53	5000.0	1000.000	335.0	V	0.0	29.5
23544.156250	---	40.96	82.23	41.27	5000.0	1000.000	254.0	V	43.0	32.9
23544.156250	54.63	---	82.23	27.60	5000.0	1000.000	254.0	V	43.0	32.9
23610.418750	53.74	---	82.23	28.49	5000.0	1000.000	275.0	H	124.0	32.9
23610.418750	---	40.57	82.23	41.66	5000.0	1000.000	275.0	H	124.0	32.9
24754.381250	---	37.82	82.23	44.41	5000.0	1000.000	325.0	H	78.0	30.1
24754.381250	51.22	---	82.23	31.01	5000.0	1000.000	325.0	H	78.0	30.1
25443.693750	51.02	---	82.23	31.21	5000.0	1000.000	346.0	H	76.0	30.1
25443.693750	---	38.07	82.23	44.16	5000.0	1000.000	346.0	H	76.0	30.1
26052.731250	51.06	---	82.23	31.17	5000.0	1000.000	242.0	H	76.0	30.1
26052.731250	---	37.73	82.23	44.50	5000.0	1000.000	242.0	H	76.0	30.1

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.

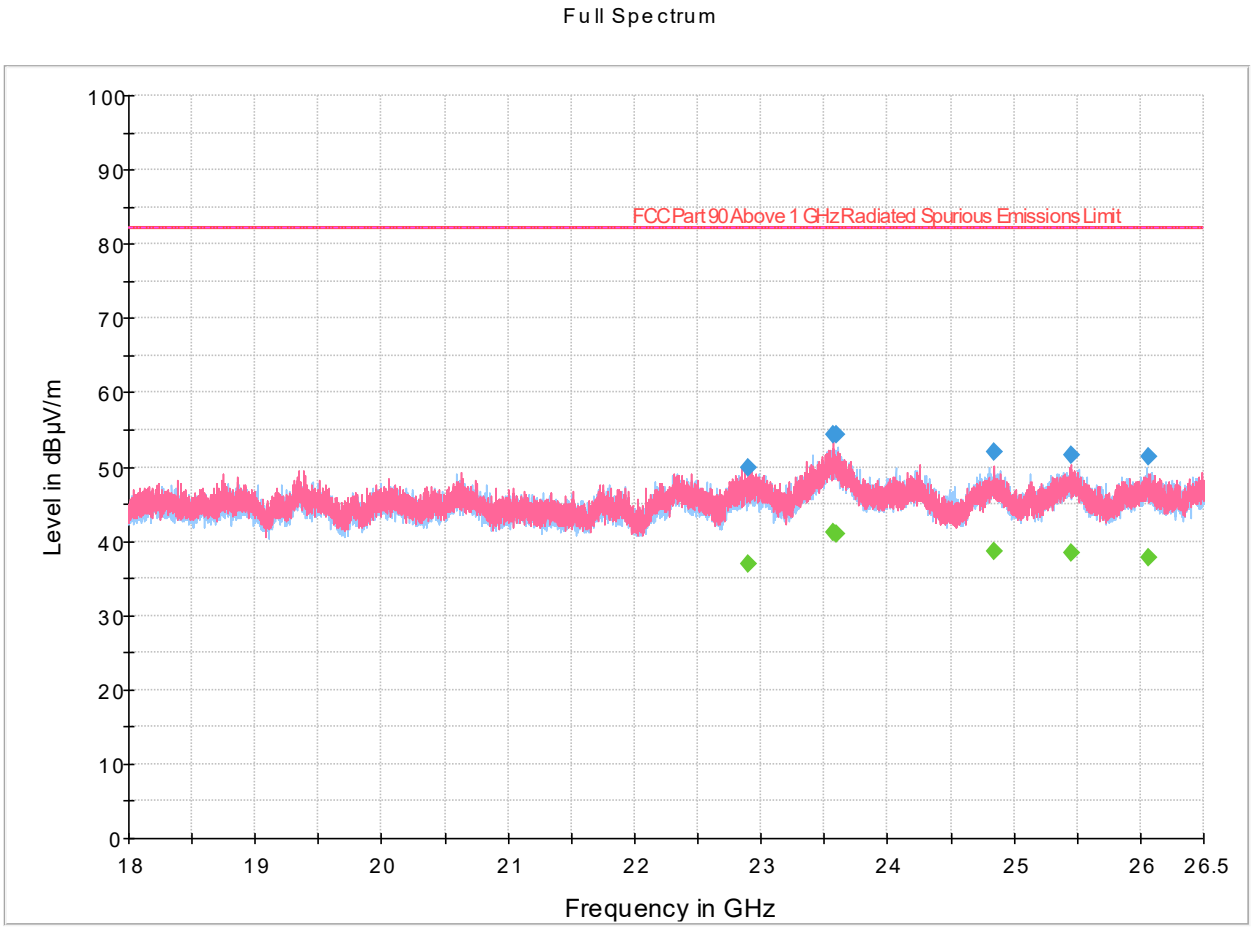

Figure 8.5-9: *Radiated emissions spectral plot (18 GHz - 26.5 GHz) high channel*

Table 8.5-9*: Radiated emissions results*

Frequency (MHz)	MaxPeak (dBµV/m)	CAverage (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
22900.475000	---	36.93	82.23	45.30	5000.0	1000.000	250.0	H	281.0	29.6
22900.475000	49.88	---	82.23	32.35	5000.0	1000.000	250.0	H	281.0	29.6
23568.206250	---	41.12	82.23	41.11	5000.0	1000.000	160.0	V	282.0	33.1
23568.206250	54.29	---	82.23	27.94	5000.0	1000.000	160.0	V	282.0	33.1
23601.950000	54.34	---	82.23	27.89	5000.0	1000.000	126.0	H	11.0	32.9
23601.950000	---	40.93	82.23	41.30	5000.0	1000.000	126.0	H	11.0	32.9
24839.637500	---	38.55	82.23	43.68	5000.0	1000.000	363.0	V	0.0	30.3
24839.637500	52.07	---	82.23	30.16	5000.0	1000.000	363.0	V	0.0	30.3
25447.662500	---	38.53	82.23	43.70	5000.0	1000.000	389.0	V	146.0	30.1
25447.662500	51.70	---	82.23	30.53	5000.0	1000.000	389.0	V	146.0	30.1
26057.693750	51.31	---	82.23	30.92	5000.0	1000.000	294.0	H	0.0	30.1
26057.693750	---	37.76	82.23	44.47	5000.0	1000.000	294.0	H	0.0	30.1

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.

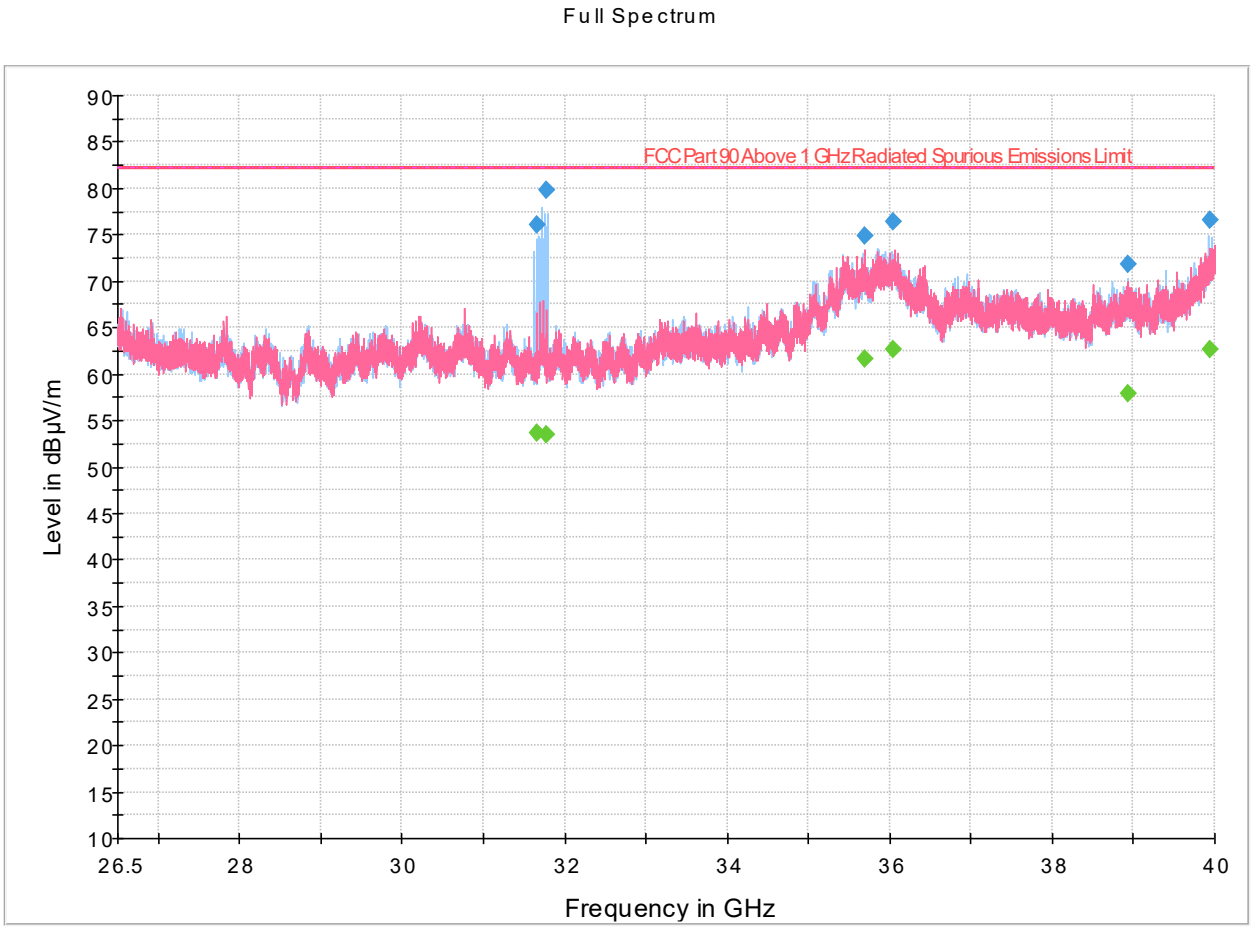

Figure 8.5-10: *Radiated emissions spectral plot (26.5 GHz - 40 GHz) low channel*

Table 8.5-10*: Radiated emissions results*

Frequency (MHz)	MaxPeak (dBµV/m)	CAverage (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
31655.593750	---	53.72	82.23	28.51	5000.0	1000.000	158.0	H	146.0	48.3
31655.593750	76.09	---	82.23	6.14	5000.0	1000.000	158.0	H	146.0	48.3
31767.906250	---	53.55	82.23	28.69	5000.0	1000.000	164.0	H	158.0	48.4
31767.906250	79.86	---	82.23	2.37	5000.0	1000.000	164.0	H	158.0	48.4
35696.406250	74.95	---	82.23	7.28	5000.0	1000.000	151.0	V	142.0	55.6
35696.406250	---	61.71	82.23	20.52	5000.0	1000.000	151.0	V	142.0	55.6
36048.212500	76.45	---	82.23	5.78	5000.0	1000.000	173.0	V	175.0	56.0
36048.212500	---	62.73	82.23	19.50	5000.0	1000.000	173.0	V	175.0	56.0
38939.650000	71.81	---	82.23	10.42	5000.0	1000.000	102.0	V	53.0	50.1
38939.650000	---	57.98	82.23	24.25	5000.0	1000.000	102.0	V	53.0	50.1
39949.018750	76.61	---	82.23	5.62	5000.0	1000.000	225.0	H	0.0	53.5
39949.018750	---	62.71	82.23	19.52	5000.0	1000.000	225.0	H	0.0	53.5

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.

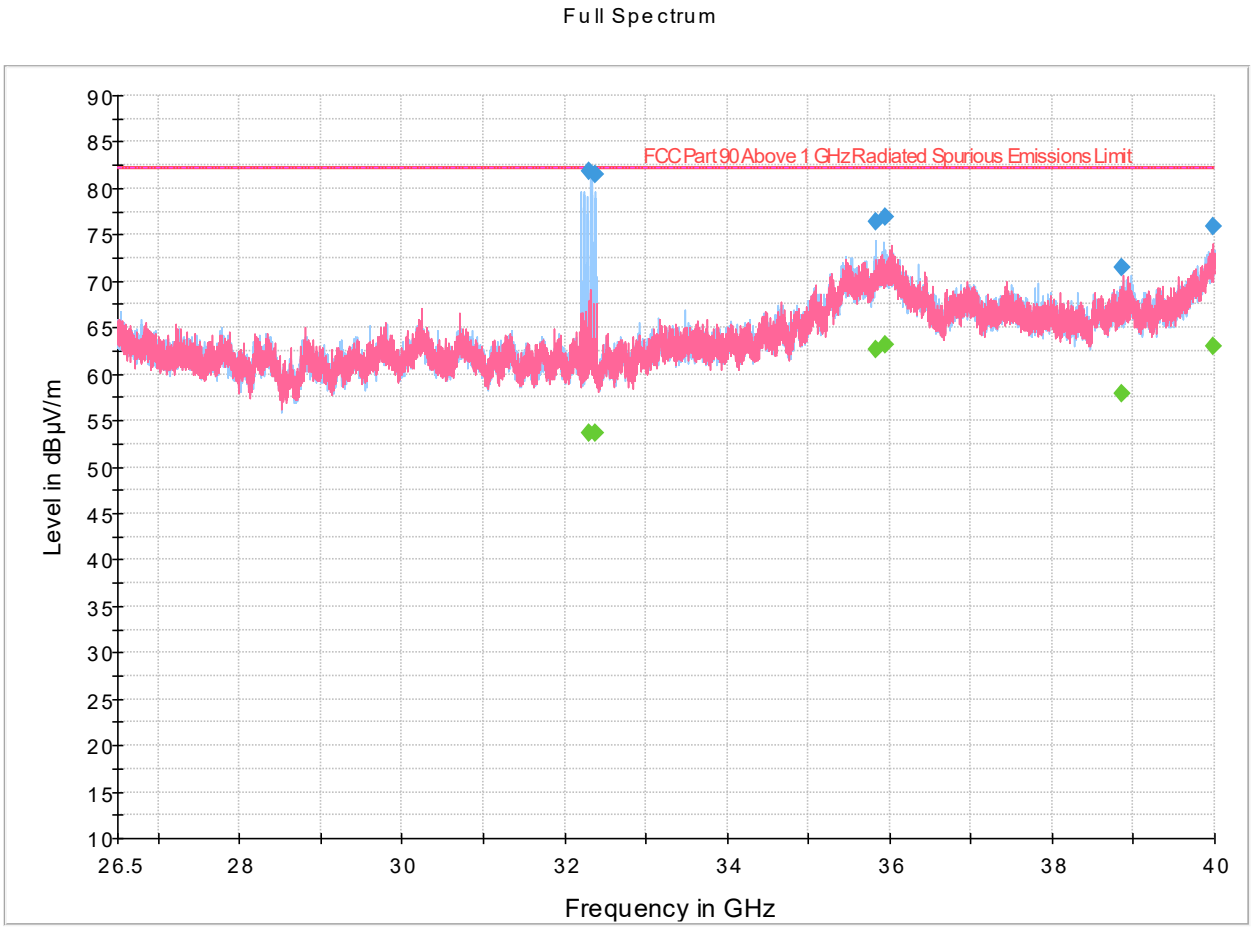

Figure 8.5-11: *Radiated emissions spectral plot (26.5 GHz - 40 GHz) mid channel*

Table 8.5-11*: Radiated emissions results*

Frequency (MHz)	MaxPeak (dBµV/m)	CAverage (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
32307.193750	---	53.69	82.23	28.54	5000.0	1000.000	145.0	H	198.0	48.4
32307.193750	81.82	---	82.23	0.41	5000.0	1000.000	145.0	H	198.0	48.4
32374.993750	81.56	---	82.23	0.67	5000.0	1000.000	157.0	H	146.0	48.3
32374.993750	---	53.65	82.23	28.58	5000.0	1000.000	157.0	H	146.0	48.3
35828.612500	76.48	---	82.23	5.75	5000.0	1000.000	99.0	H	140.0	56.0
35828.612500	---	62.64	82.23	19.59	5000.0	1000.000	99.0	H	140.0	56.0
35938.237500	76.96	---	82.23	5.27	5000.0	1000.000	120.0	H	149.0	56.2
35938.237500	---	63.22	82.23	19.01	5000.0	1000.000	120.0	H	149.0	56.2
38862.231250	---	57.98	82.23	24.25	5000.0	1000.000	100.0	V	154.0	50.1
38862.231250	71.47	---	82.23	10.76	5000.0	1000.000	100.0	V	154.0	50.1
39978.362500	---	63.02	82.23	19.21	5000.0	1000.000	131.0	V	11.0	53.7
39978.362500	75.94	---	82.23	6.29	5000.0	1000.000	131.0	V	11.0	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.

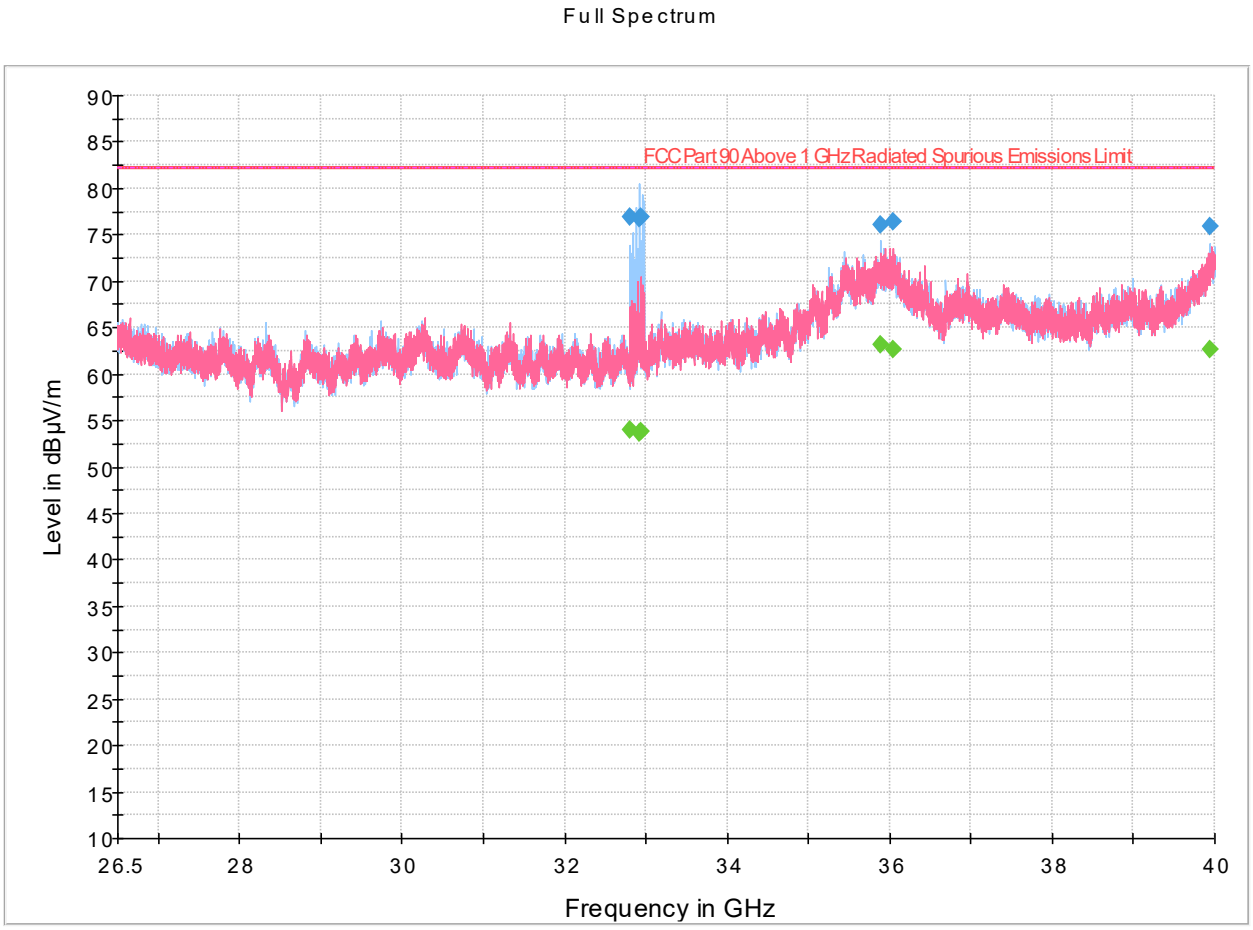

Figure 8.5-12: *Radiated emissions spectral plot (26.5 GHz - 40 GHz) high channel*

Table 8.5-12*: Radiated emissions results*

Frequency (MHz)	MaxPeak (dBµV/m)	CAverage (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
32809.543750	---	54.05	82.23	28.18	5000.0	1000.000	179.0	H	268.0	48.2
32809.543750	76.98	---	82.23	5.25	5000.0	1000.000	179.0	H	268.0	48.2
32920.168750	---	53.70	82.23	28.53	5000.0	1000.000	125.0	H	224.0	48.2
32920.168750	76.79	---	82.23	5.44	5000.0	1000.000	125.0	H	224.0	48.2
32935.862500	---	53.81	82.23	28.42	5000.0	1000.000	125.0	H	218.0	48.1
32935.862500	76.88	---	82.23	5.35	5000.0	1000.000	125.0	H	218.0	48.1
35894.050000	---	63.17	82.23	19.06	5000.0	1000.000	211.0	H	129.0	56.1
35894.050000	76.14	---	82.23	6.09	5000.0	1000.000	211.0	H	129.0	56.1
36046.231250	76.34	---	82.23	5.89	5000.0	1000.000	125.0	H	258.0	56.0
36046.231250	---	62.72	82.23	19.51	5000.0	1000.000	125.0	H	258.0	56.0
39945.118750	---	62.60	82.23	19.63	5000.0	1000.000	115.0	H	270.0	53.5
39945.118750	75.87	---	82.23	6.36	5000.0	1000.000	115.0	H	270.0	53.5

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.

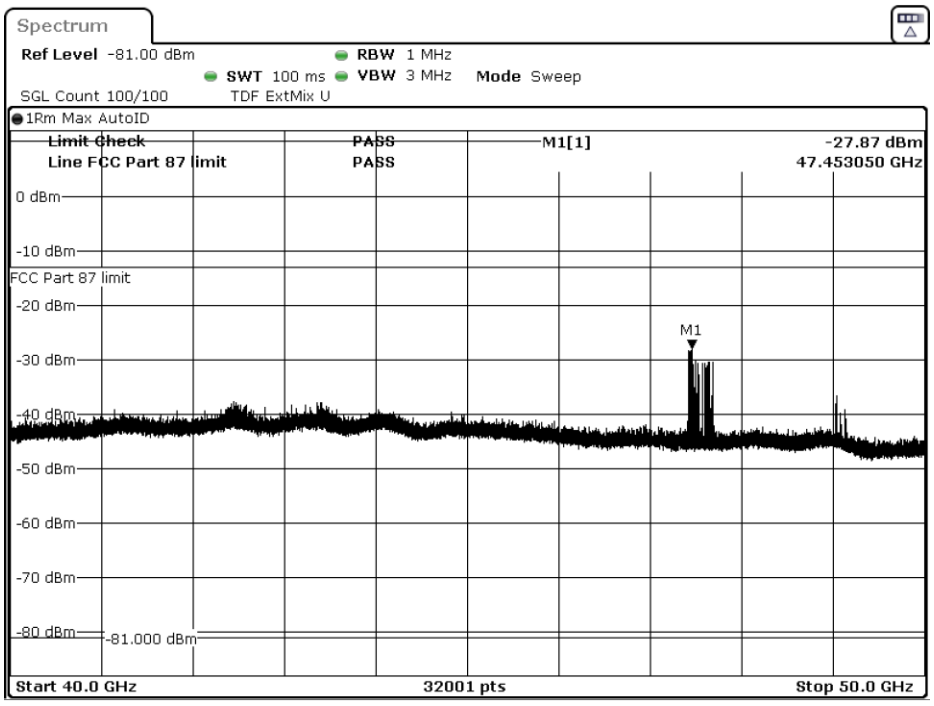

Figure 8.5-13: *Radiated emissions spectral plot (40 GHz - 50 GHz) low channel horizontal*

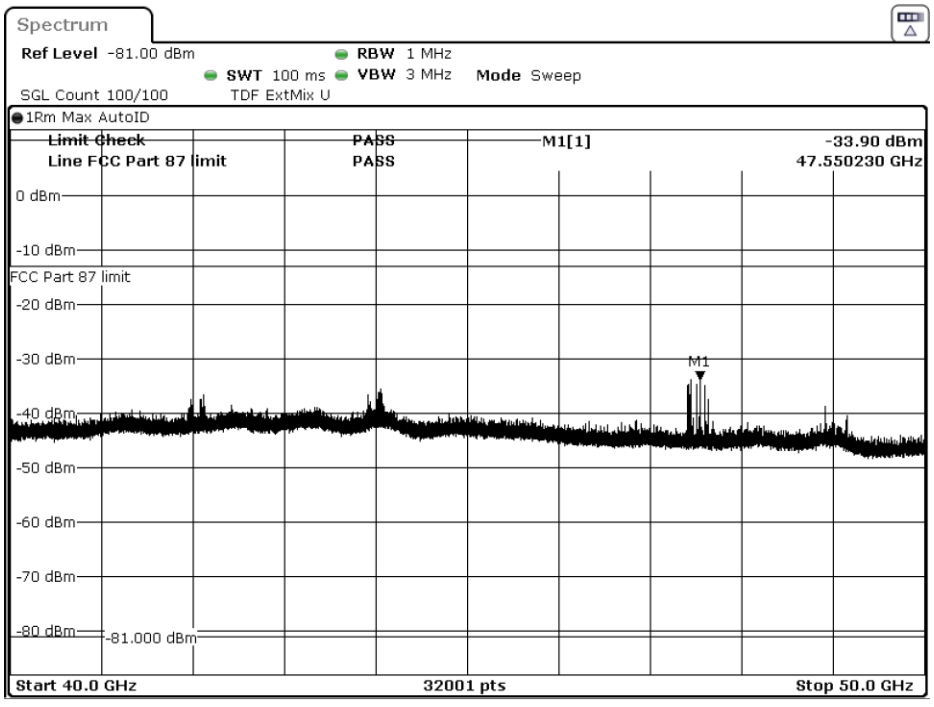

Figure 8.5-14: *Radiated emissions spectral plot (40 GHz - 50 GHz) low channel vertical*

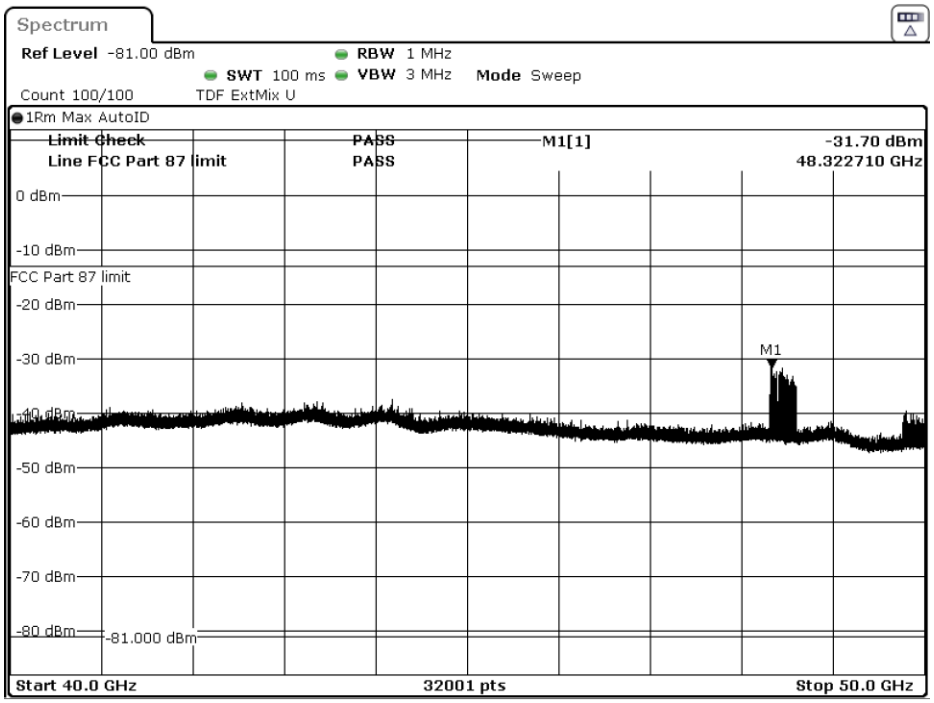

Figure 8.5-15: *Radiated emissions spectral plot (40 GHz - 50 GHz) mid channel horizontal*

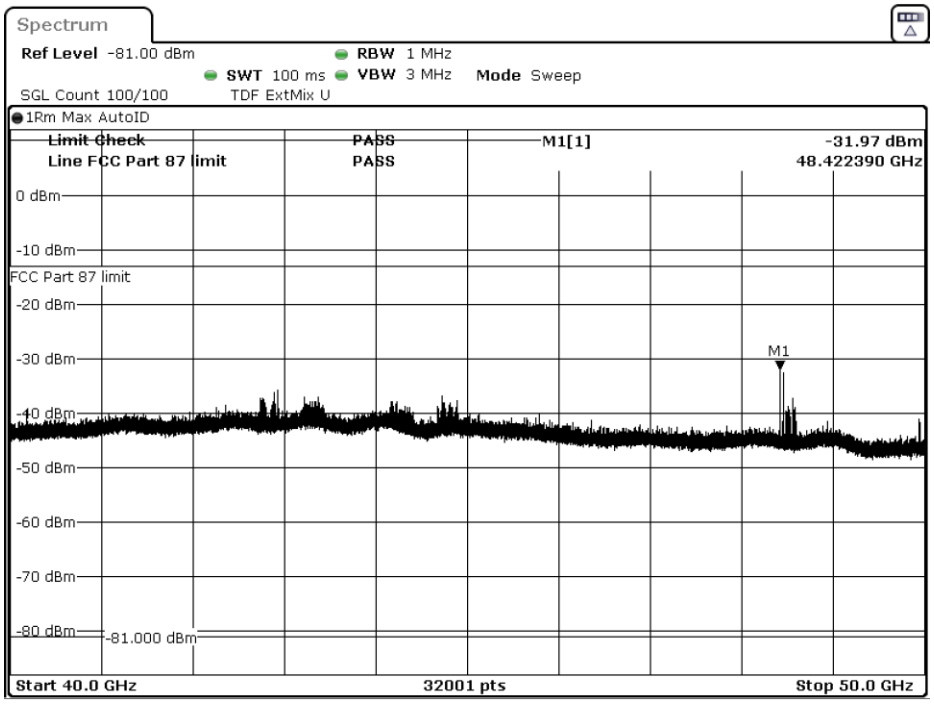

Figure 8.5-16: *Radiated emissions spectral plot (40 GHz - 50 GHz) mid channel vertical*

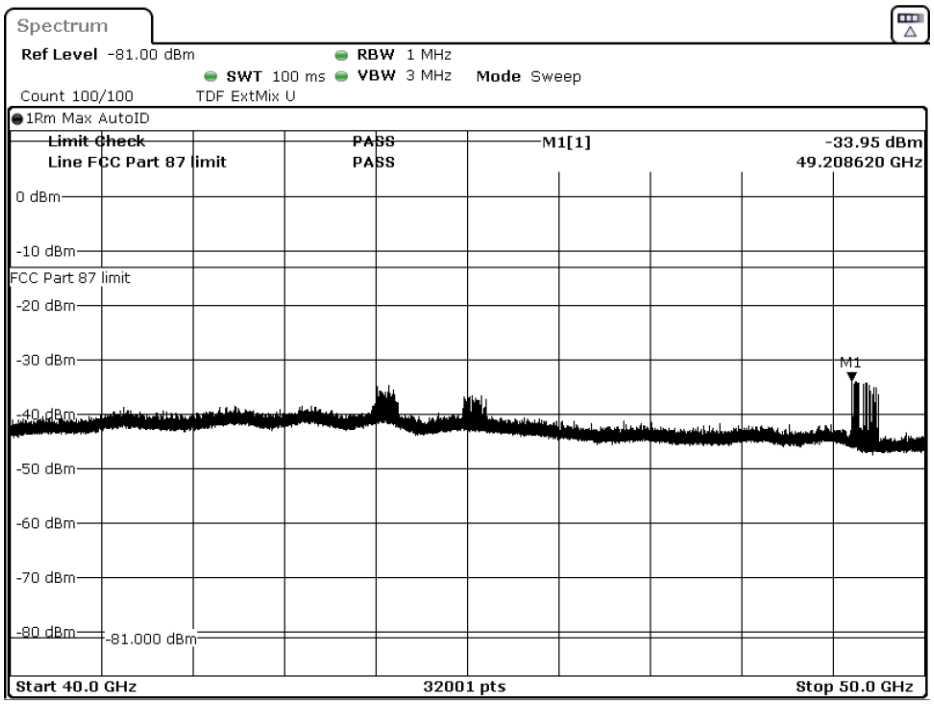

Figure 8.5-17: *Radiated emissions spectral plot (40 GHz - 50 GHz) high channel horizontal*

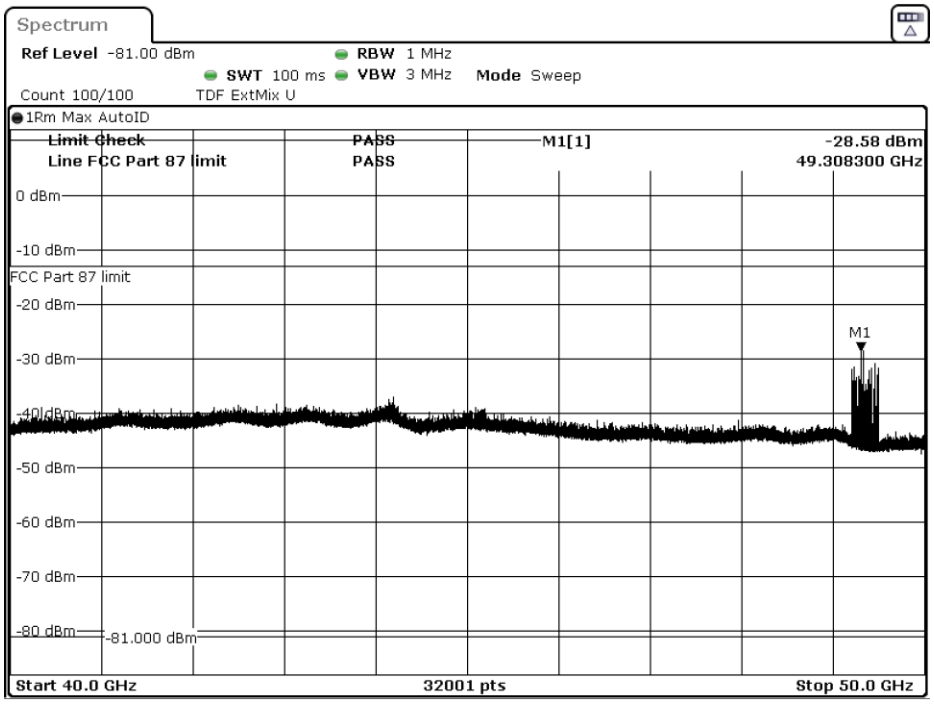

Figure 8.5-18: *Radiated emissions spectral plot (40 GHz - 50 GHz) high channel vertical*

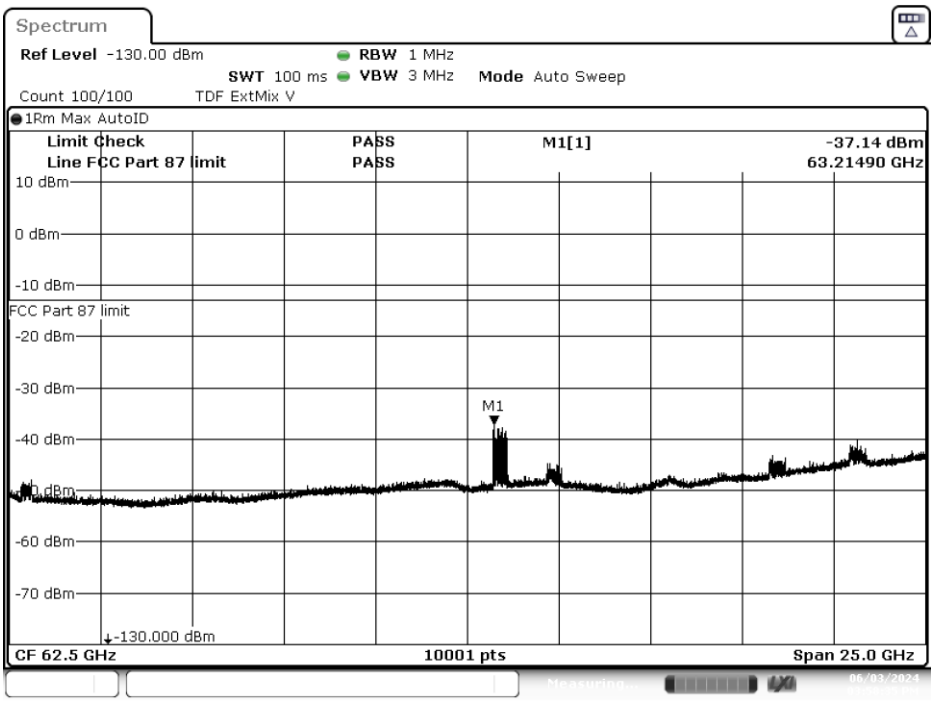

Figure 8.5-19: *Radiated emissions spectral plot (50 GHz - 75 GHz) low channel horizontal*

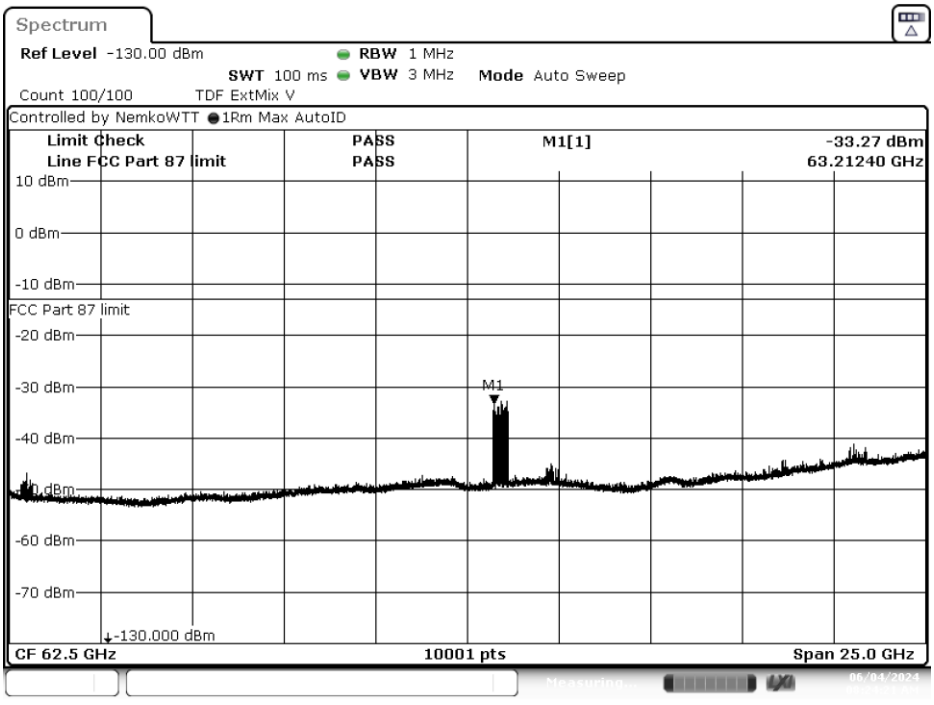

Figure 8.5-20: *Radiated emissions spectral plot (50 GHz - 75 GHz) low channel vertical*

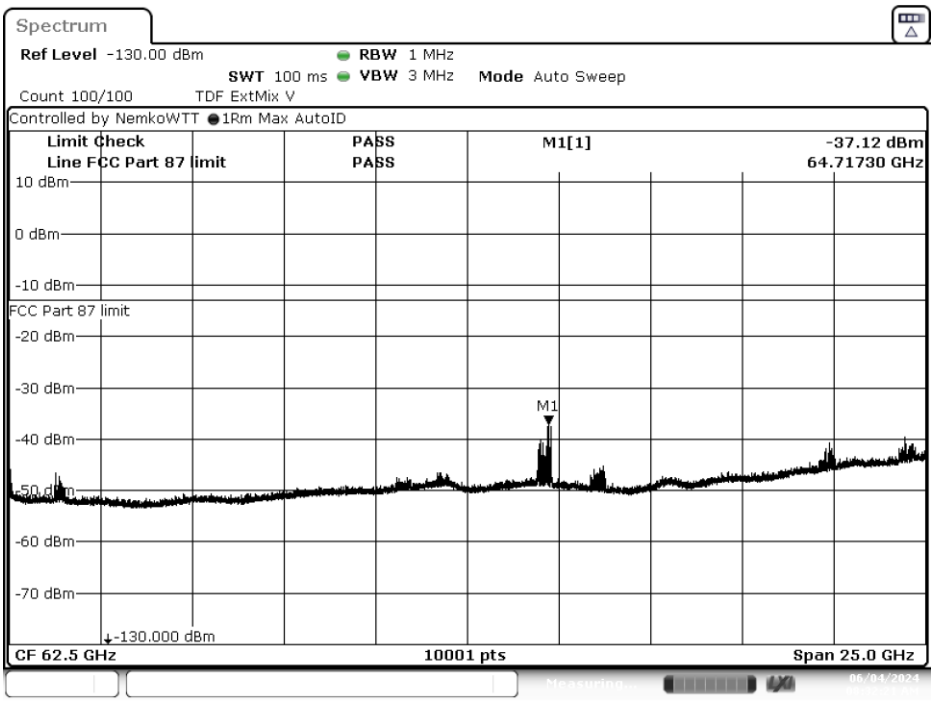

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Figure 8.5-21: *Radiated emissions spectral plot (50 GHz - 75 GHz) mid channel horizontal*

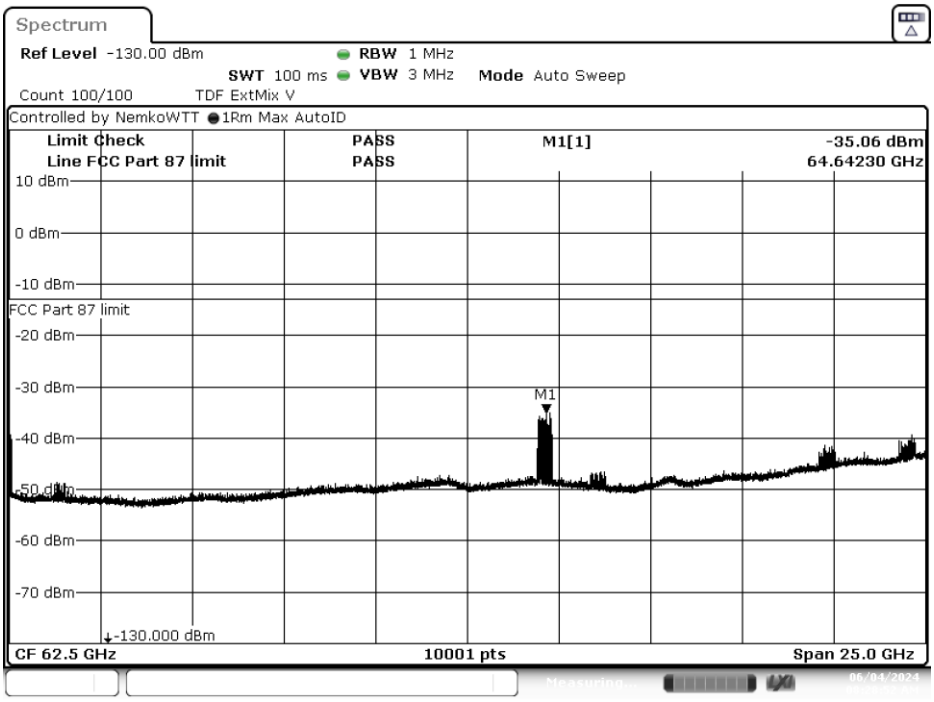

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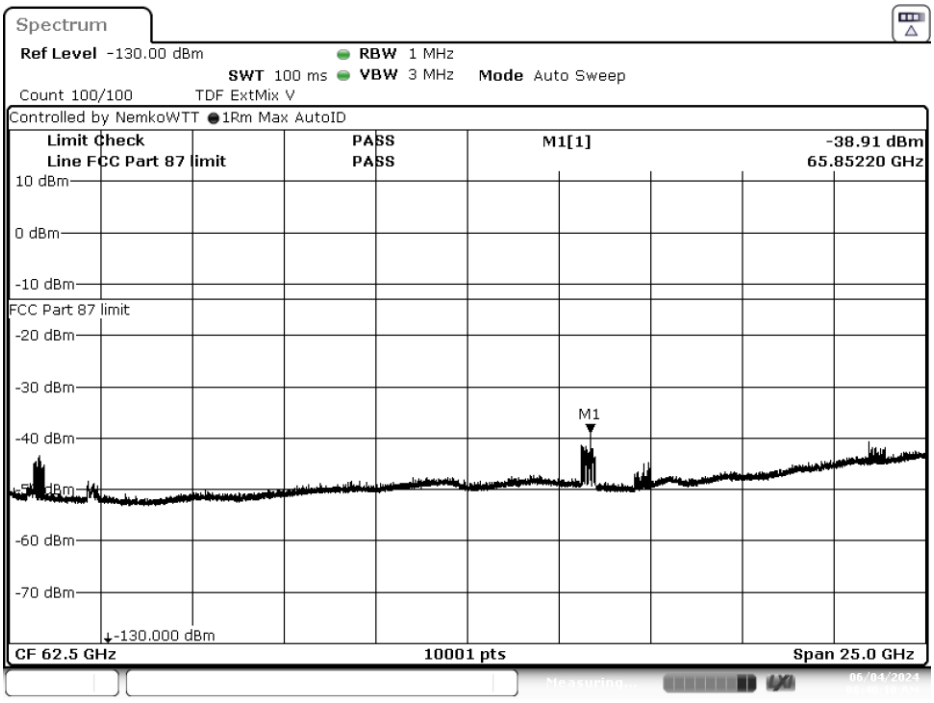
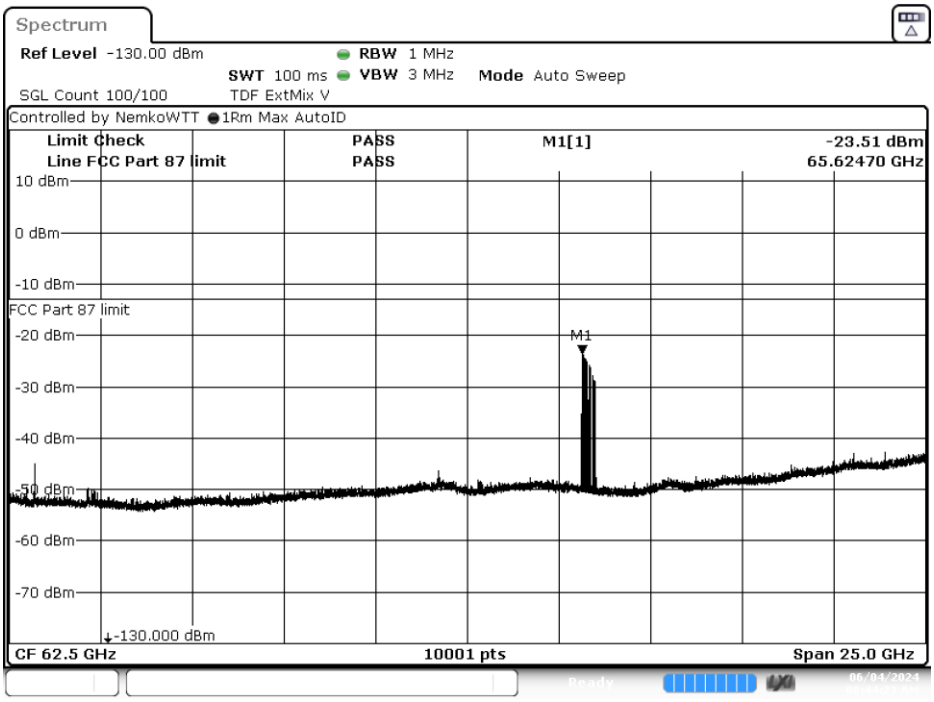
Figure 8.5-22: *Radiated emissions spectral plot (50 GHz - 75 GHz) mid channel vertical*



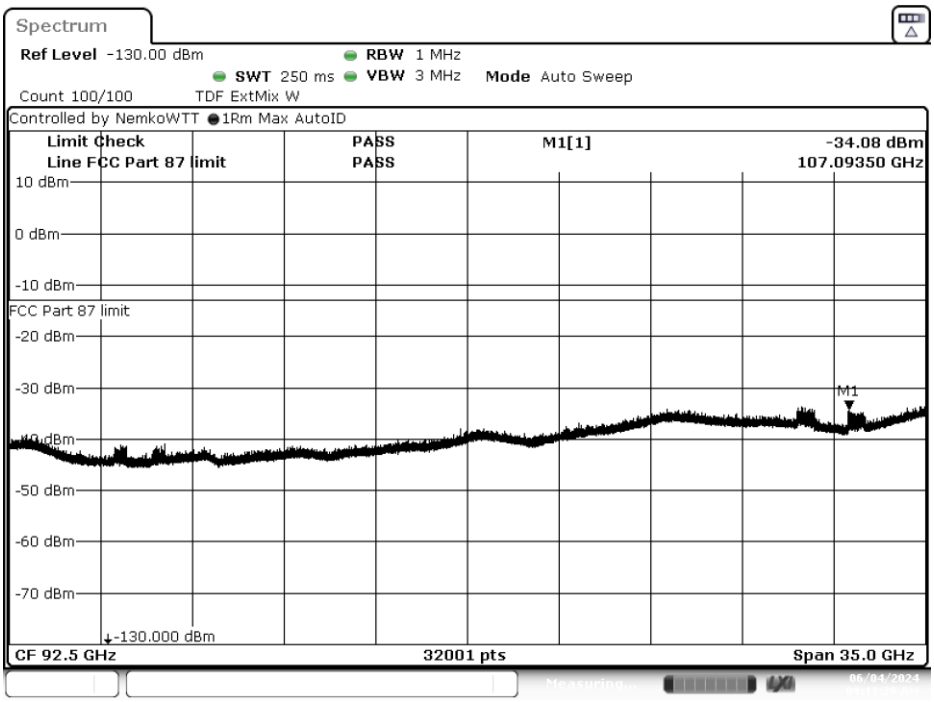
Date: 4.JUN.2024 08:40:10

Figure 8.5-23: *Radiated emissions spectral plot (50 GHz - 75 GHz) high channel horizontal*



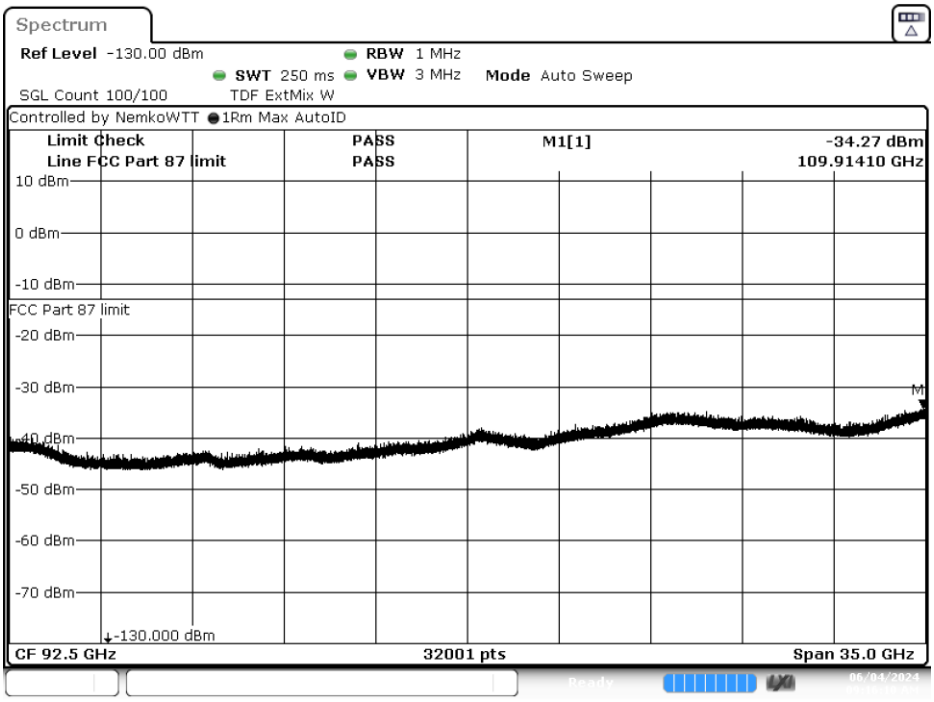
Date: 4.JUN.2024 08:44:23

Figure 8.5-24: *Radiated emissions spectral plot (50 GHz - 75 GHz) high channel vertical*



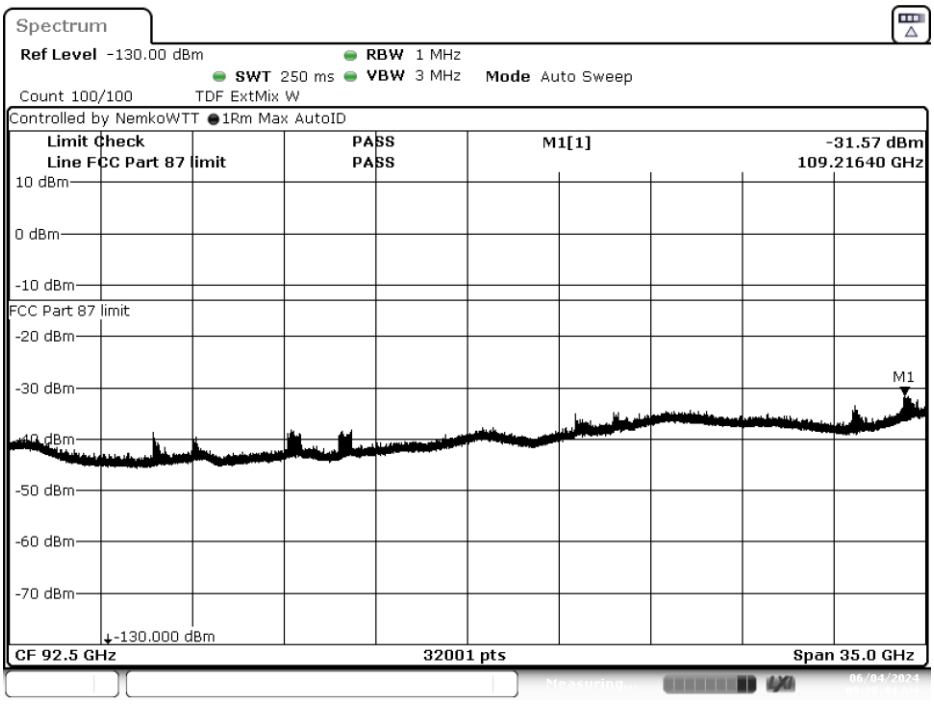
Date: 4.JUN.2024 09:11:21

Figure 8.5-25: *Radiated emissions spectral plot (75 GHz - 100 GHz) low channel horizontal*



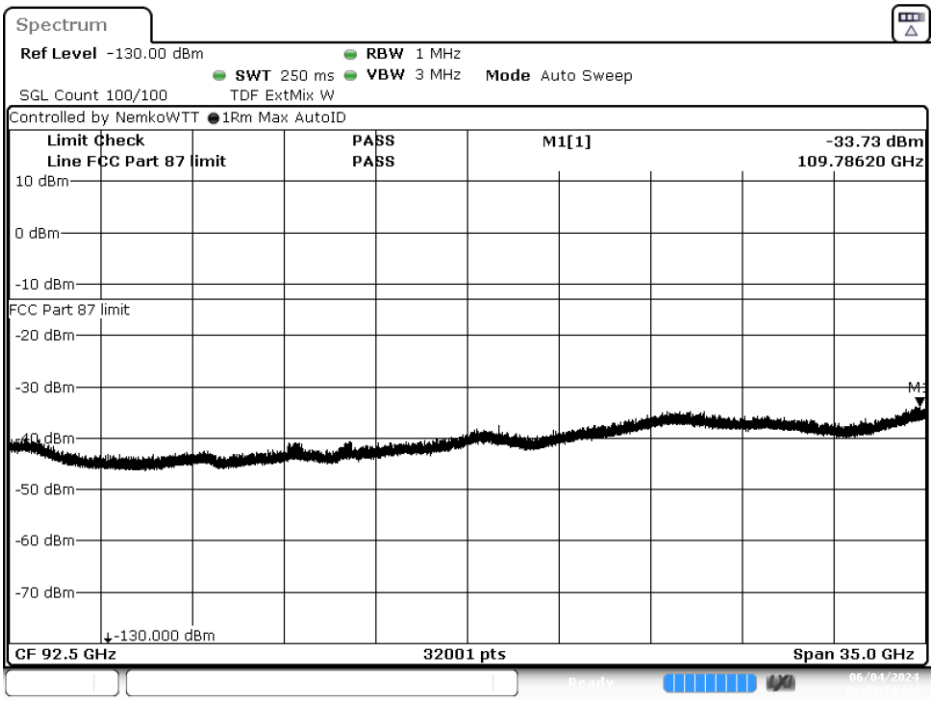
Date: 4.JUN.2024 09:16:09

Figure 8.5-26: *Radiated emissions spectral plot (75 GHz - 100 GHz) low channel vertical*



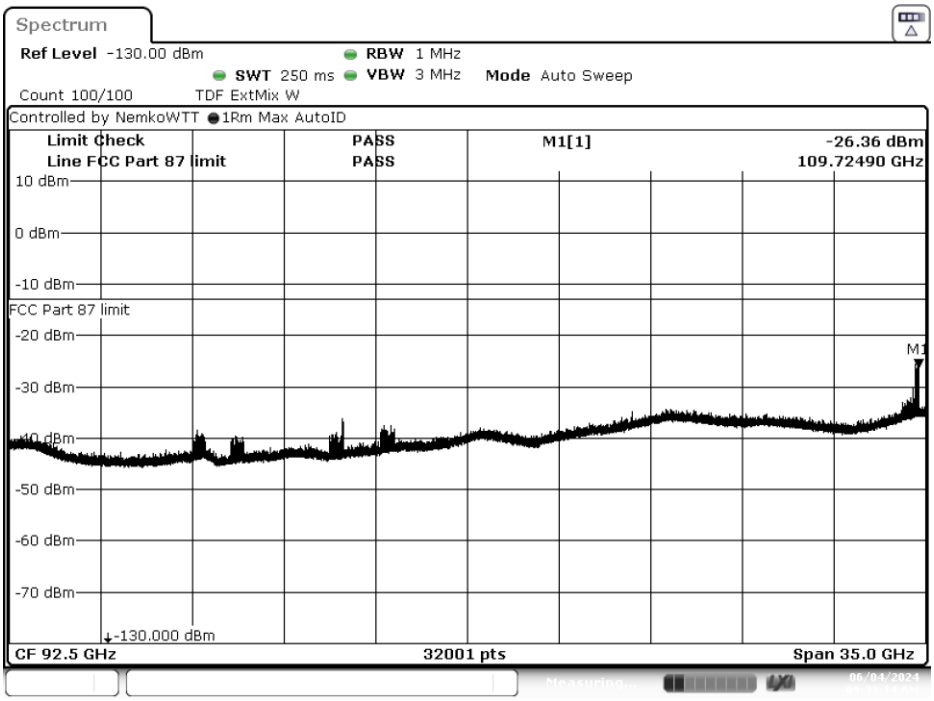
Date: 4.JUN.2024 09:28:44

Figure 8.5-27: *Radiated emissions spectral plot (75 GHz - 100 GHz) mid channel horizontal*



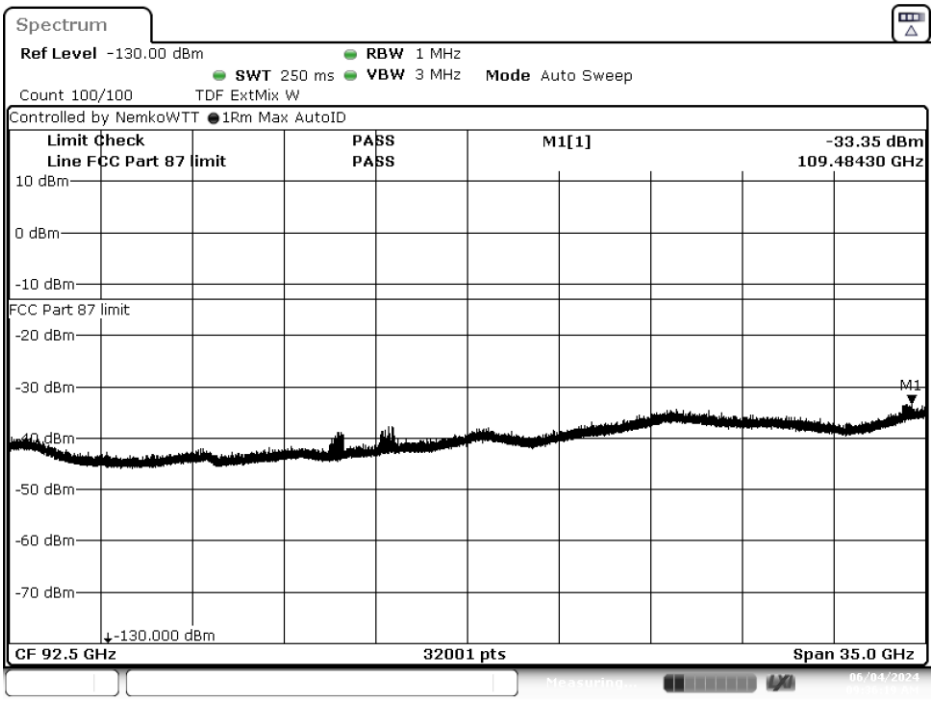
Date: 4.JUN.2024 09:23:14

Figure 8.5-28: *Radiated emissions spectral plot (75 GHz - 100 GHz) mid channel vertical*



Date: 4.JUN.2024 09:33:13

Figure 8.5-29: *Radiated emissions spectral plot (75 GHz - 100 GHz) high channel horizontal*



Date: 4.JUN.2024 09:36:20

Figure 8.5-30: *Radiated emissions spectral plot (75 GHz - 100 GHz) low channel vertical*

End of test report