

Figure 223 - 2442 MHz (CH7), 802.11b, Core 1, 30 MHz to 1 GHz, Vertical (Peak)

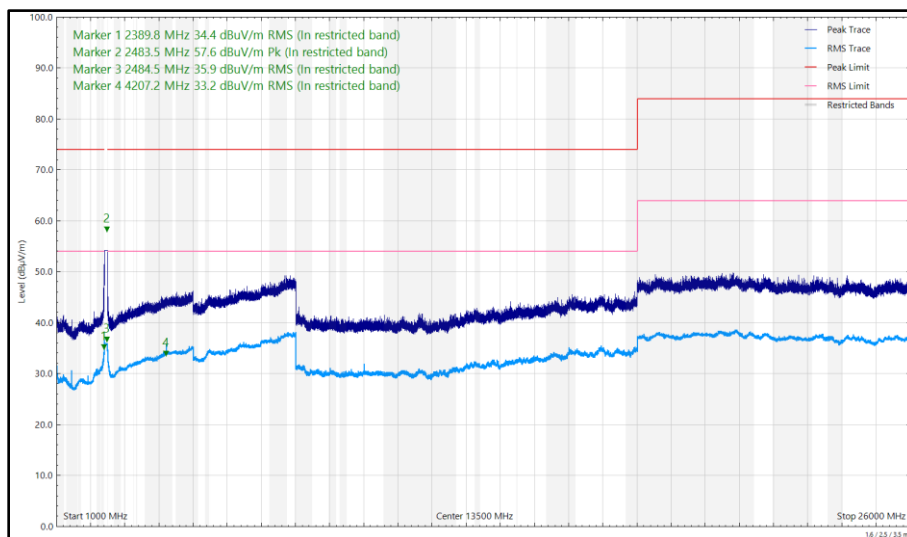


Figure 224 - 2442 MHz (CH7), 802.11b, Core 1, 1 GHz to 26 GHz, Vertical



| Frequency (MHz) | Level (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|-----------------|----------------------|----------------------|-------------|----------|-----------|-------------|--------------|
| * | | | | | | | |

Table 64 - 2472 MHz (CH13), 802.11b, Core 1, 1 GHz to 26 GHz

*No emissions found within 10 dB of the limit.

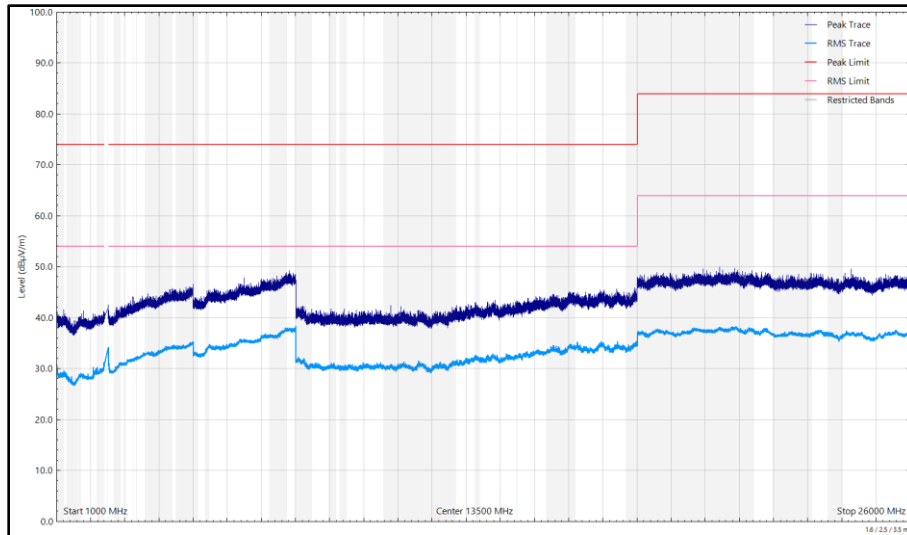


Figure 225 - 2472 MHz (CH13), 802.11b, Core 1, 1 GHz to 26 GHz, Horizontal

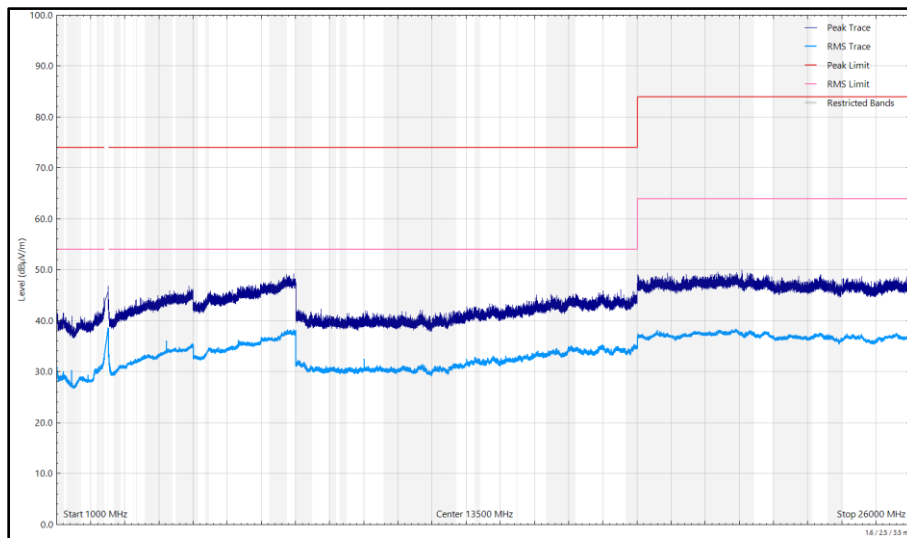


Figure 226 - 2472 MHz (CH13), 802.11b, Core 1, 1 GHz to 26 GHz, Vertical



| Frequency (MHz) | Level (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|-----------------|----------------------|----------------------|-------------|----------|-----------|-------------|--------------|
| 2354.769 | 38.65 | 54.00 | -15.35 | RMS | 350 | 383 | Vertical |
| 2483.646 | 34.00 | 54.00 | -20.00 | RMS | 338 | 278 | Vertical |
| 4205.879 | 33.17 | 54.00 | -20.83 | RMS | 188 | 116 | Vertical |

Table 65 - 2412 MHz (CH1), 802.11g, Core 0, 1 GHz to 26 GHz

No other emissions found within 10 dB of the limit.

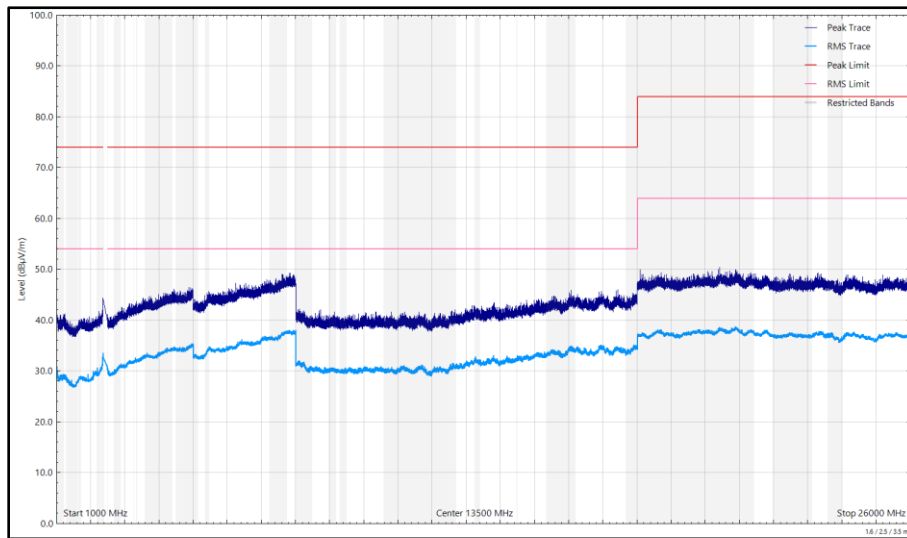


Figure 227 - 2412 MHz (CH1), 802.11g, Core 0, 1 GHz to 26 GHz, Horizontal

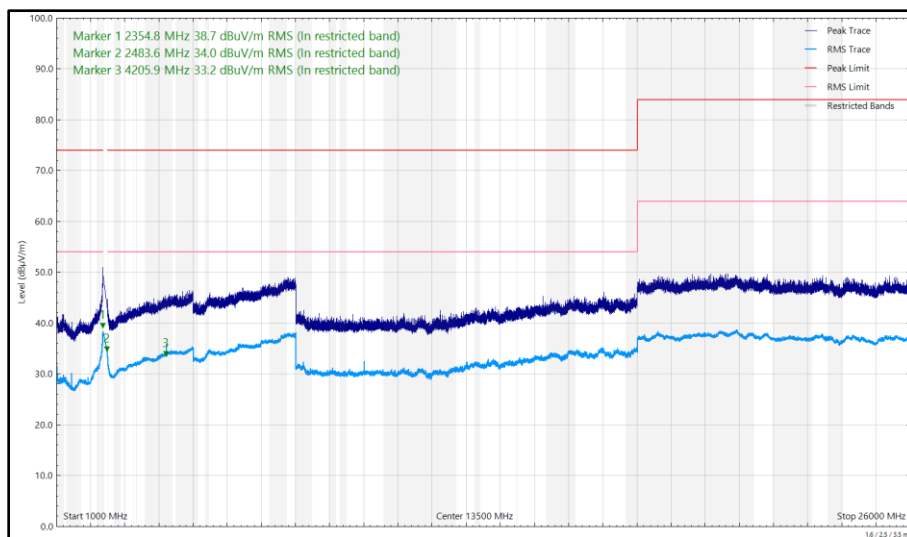


Figure 228 - 2412 MHz (CH1), 802.11g, Core 0, 1 GHz to 26 GHz, Vertical



| Frequency (MHz) | Level (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|-----------------|----------------------|----------------------|-------------|----------|-----------|-------------|--------------|
| 280.029 | 20.49 | 46.00 | -25.51 | Q-Peak | 268 | 314 | Horizontal |
| 2389.700 | 35.89 | 54.00 | -18.11 | RMS | 303 | 400 | Horizontal |
| 2389.994 | 40.42 | 54.00 | -13.58 | RMS | 0 | 301 | Vertical |
| 2483.549 | 38.26 | 54.00 | -15.74 | RMS | 300 | 373 | Horizontal |
| 2483.561 | 59.57 | 74.00 | -14.43 | Peak | 331 | 334 | Vertical |
| 2483.602 | 42.74 | 54.00 | -11.26 | RMS | 355 | 266 | Vertical |
| 4211.828 | 34.50 | 54.00 | -19.50 | RMS | 338 | 343 | Vertical |

Table 66 - 2442 MHz (CH7), 802.11g, Core 0, 30 MHz to 26 GHz

No other emissions found within 10 dB of the limit.

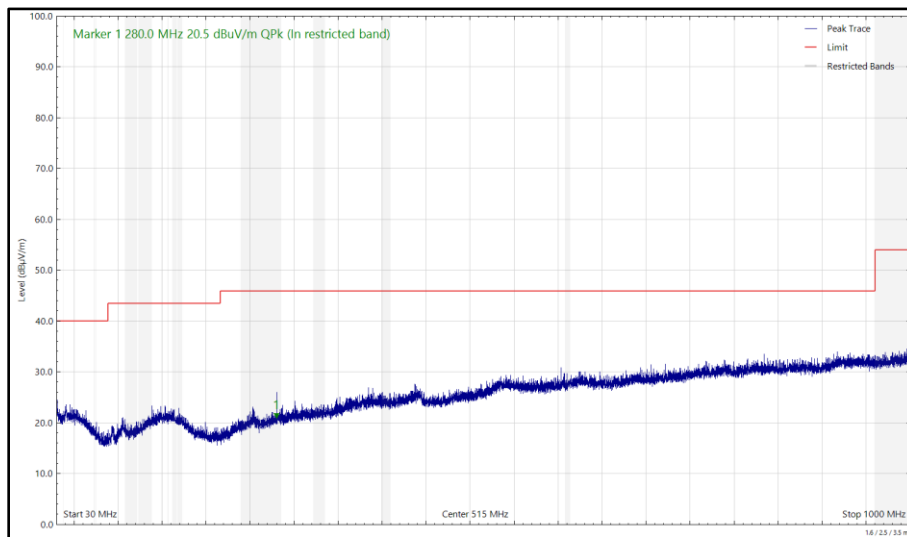


Figure 229 - 2442 MHz (CH7), 802.11g, Core 0, 30 MHz to 1 GHz, Horizontal (Peak)

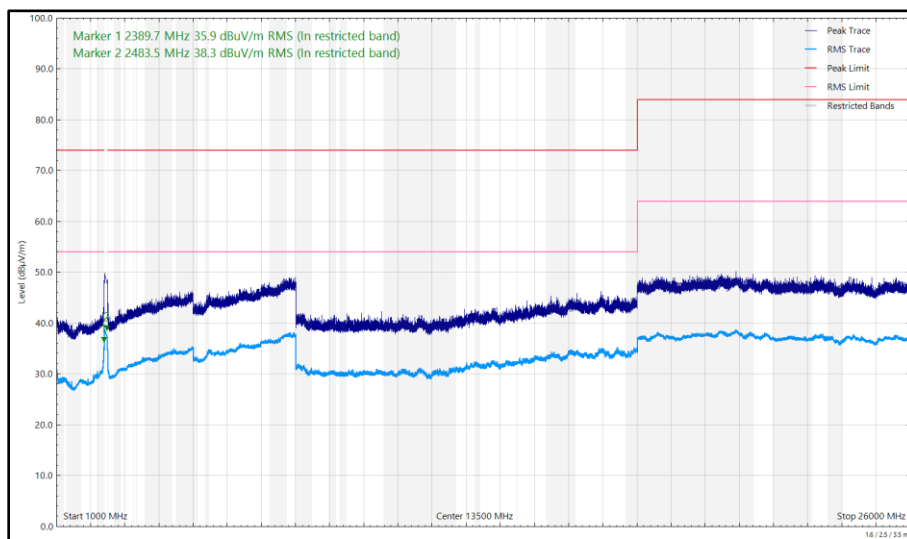


Figure 230 - 2442 MHz (CH7), 802.11g, Core 0, 1 GHz to 26 GHz, Horizontal

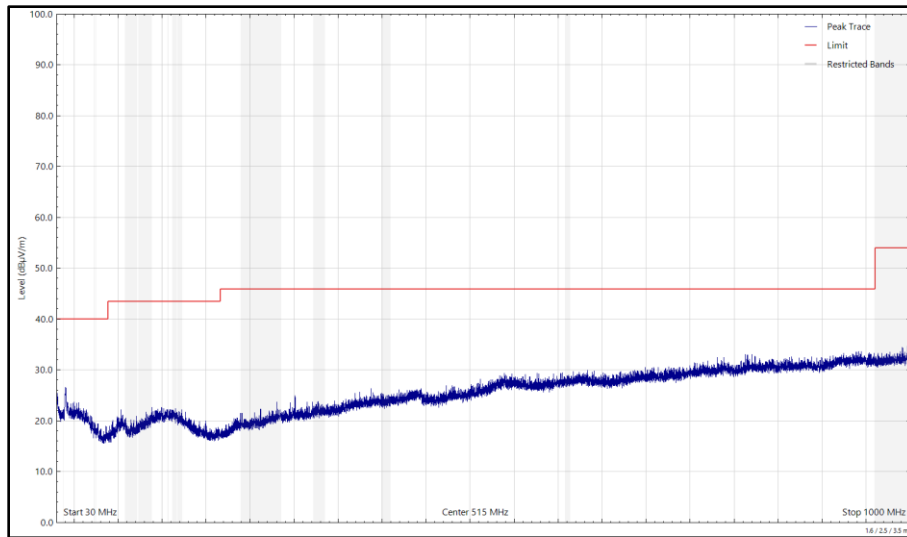


Figure 231 - 2442 MHz (CH7), 802.11g, Core 0, 30 MHz to 1 GHz, Vertical (Peak)

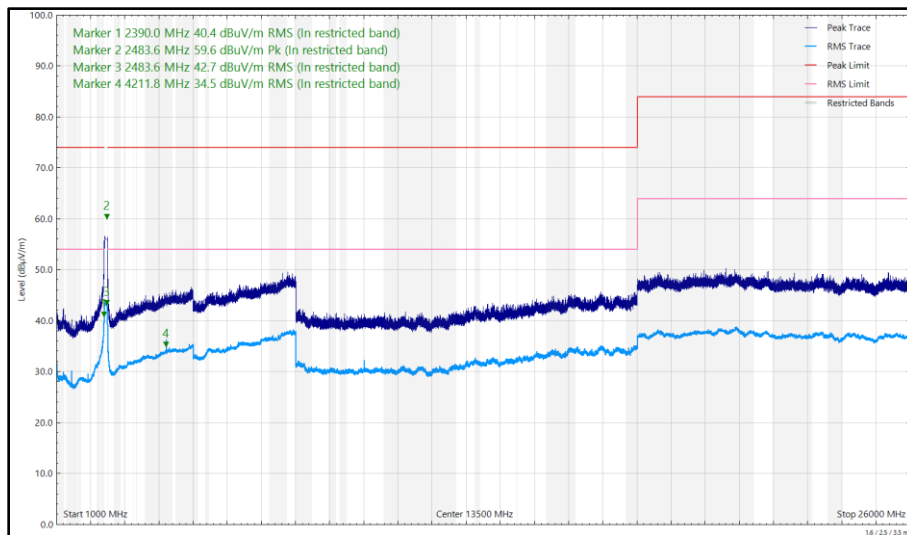


Figure 232 - 2442 MHz (CH7), 802.11g, Core 0, 1 GHz to 26 GHz, Vertical



| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|-----------------|----------------|----------------|-------------|----------|-----------|-------------|--------------|
| 2387.979 | 36.63 | 54.00 | -17.37 | RMS | 6 | 315 | Vertical |
| 2508.616 | 69.02 | 80.00 | -10.98 | Peak | 357 | 328 | Vertical |
| 4207.429 | 34.01 | 54.00 | -19.99 | RMS | 136 | 389 | Vertical |
| 4982.278 | 35.63 | 54.00 | -18.37 | RMS | 354 | 383 | Vertical |
| 4983.677 | 57.56 | 74.00 | -16.44 | Peak | 354 | 383 | Vertical |

Table 67 - 2472 MHz (CH13), 802.11g, Core 0, 1 GHz to 26 GHz

No other emissions found within 10 dB of the limit.

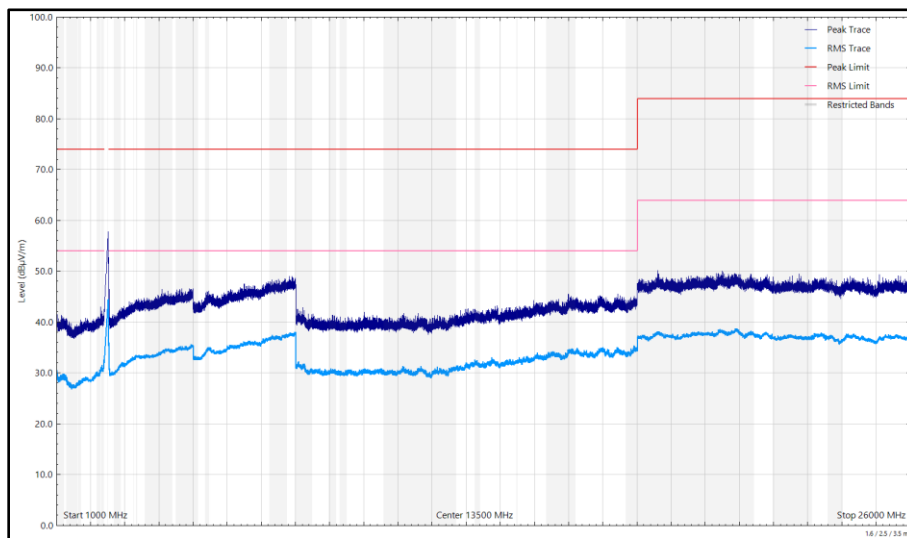


Figure 233 - 2472 MHz (CH13), 802.11g, Core 0, 1 GHz to 26 GHz, Horizontal

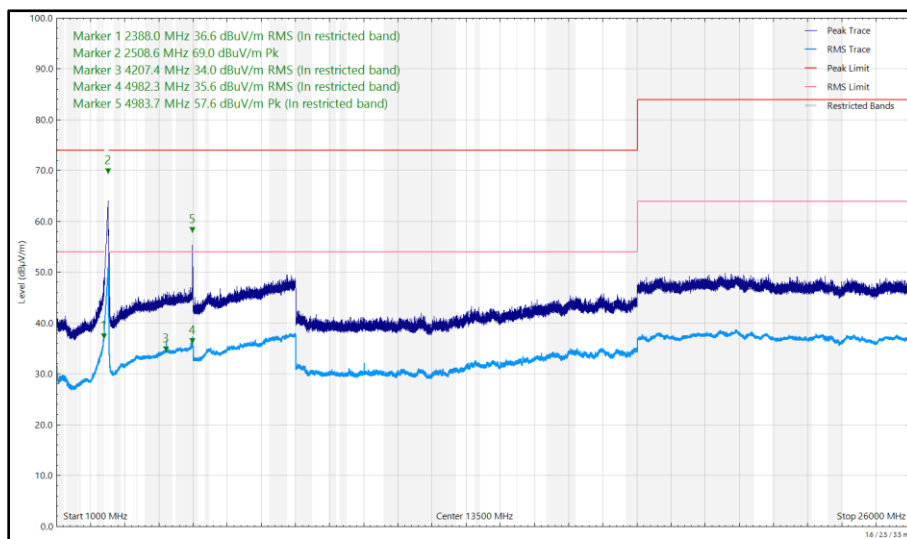


Figure 234 - 2472 MHz (CH13), 802.11g, Core 0, 1 GHz to 26 GHz, Vertical



| Frequency (MHz) | Level (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|-----------------|----------------------|----------------------|-------------|----------|-----------|-------------|--------------|
| 2354.846 | 37.63 | 54.00 | -16.37 | RMS | 46 | 392 | Vertical |
| 2483.679 | 36.30 | 54.00 | -17.70 | RMS | 46 | 389 | Vertical |
| 4208.218 | 33.17 | 54.00 | -20.83 | RMS | 210 | 379 | Vertical |

Table 68 - 2412 MHz (CH1), 802.11g, Core 1, 1 GHz to 26 GHz

No other emissions found within 10 dB of the limit.

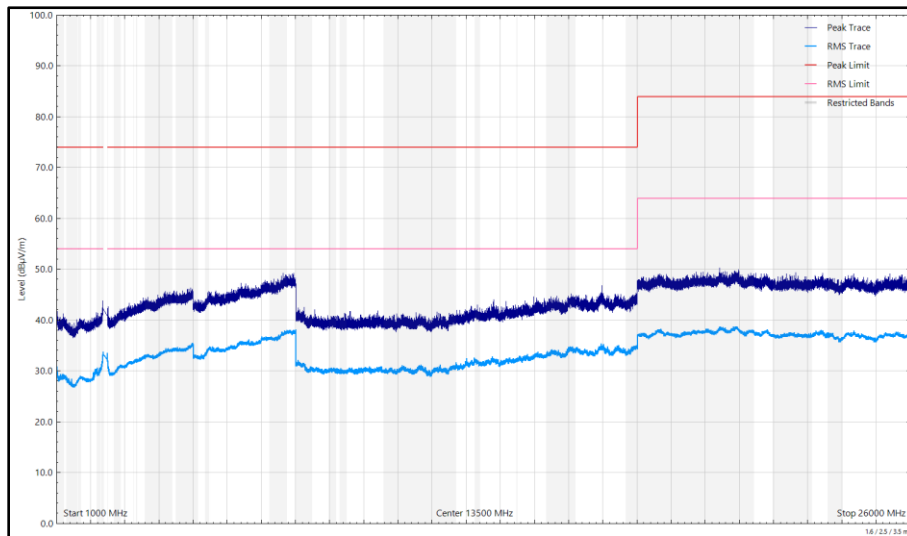


Figure 235 - 2412 MHz (CH1), 802.11g, Core 1, 1 GHz to 26 GHz, Horizontal

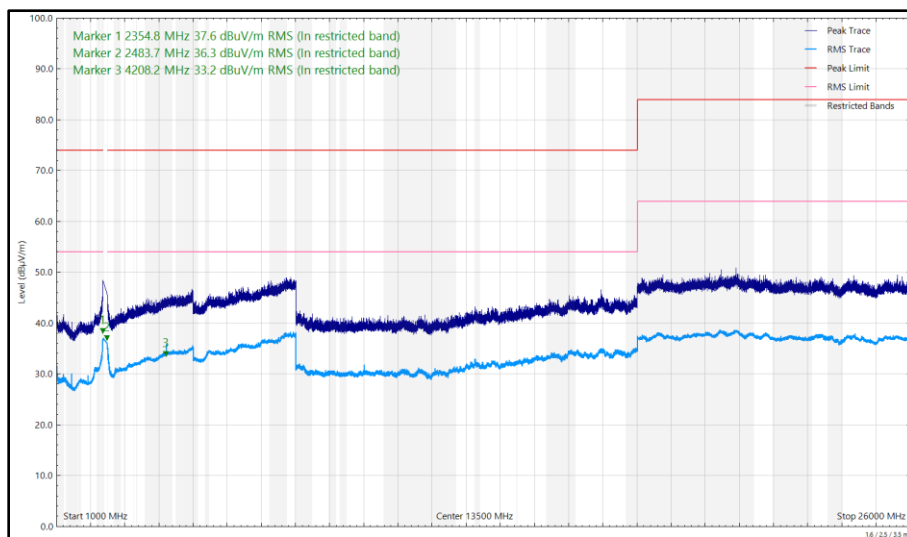


Figure 236 - 2412 MHz (CH1), 802.11g, Core 1, 1 GHz to 26 GHz, Vertical



| Frequency (MHz) | Level (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|-----------------|----------------------|----------------------|-------------|----------|-----------|-------------|--------------|
| 279.229 | 20.39 | 46.00 | -25.61 | Q-Peak | 70 | 128 | Horizontal |
| 2389.880 | 38.61 | 54.00 | -15.39 | RMS | 47 | 388 | Vertical |
| 2389.899 | 35.63 | 54.00 | -18.37 | RMS | 58 | 364 | Horizontal |
| 2483.527 | 39.02 | 54.00 | -14.98 | RMS | 57 | 376 | Horizontal |
| 2483.659 | 43.25 | 54.00 | -10.75 | RMS | 47 | 396 | Vertical |
| 2483.772 | 62.40 | 74.00 | -11.60 | Peak | 39 | 381 | Vertical |
| 4207.333 | 33.15 | 54.00 | -20.85 | RMS | 0 | 152 | Vertical |

Table 69 - 2442 MHz (CH7), 802.11g, Core 1, 30 MHz to 26 GHz

No other emissions found within 10 dB of the limit.

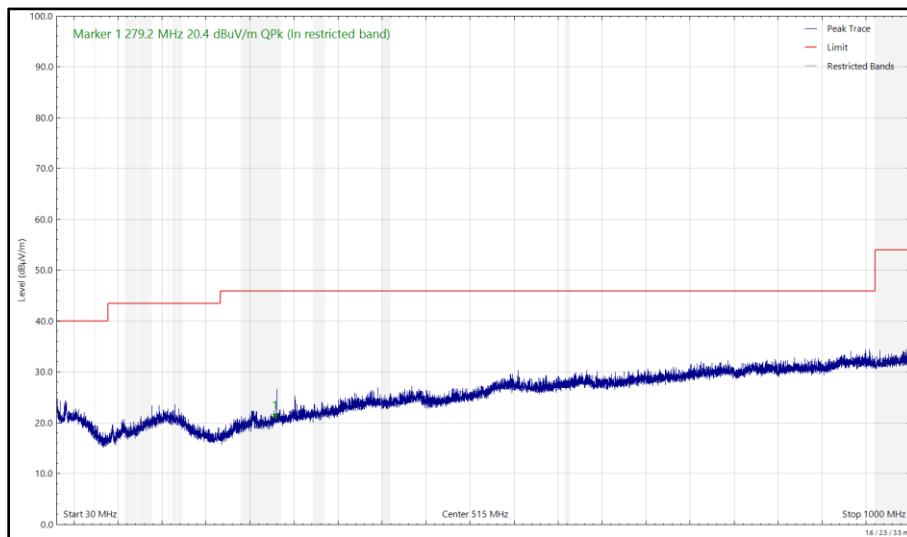


Figure 237 - 2442 MHz (CH7), 802.11g, Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

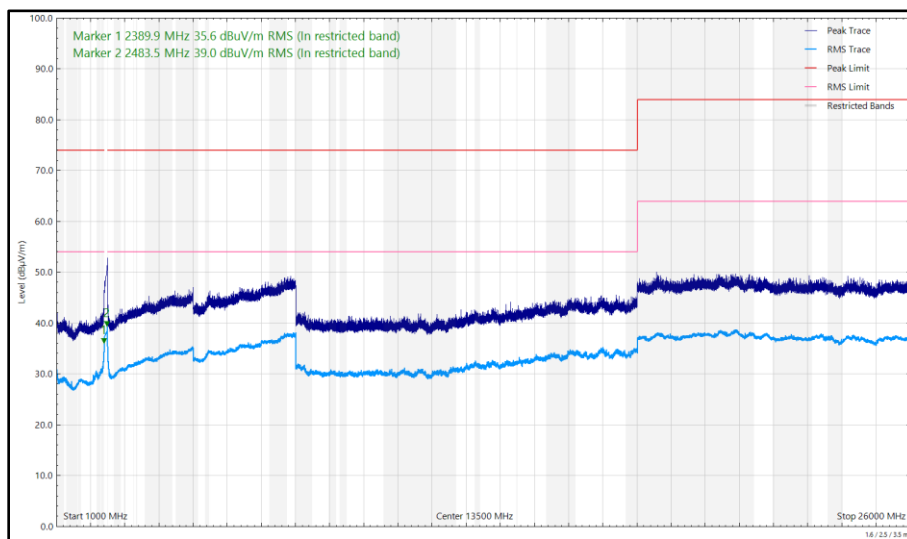


Figure 238 - 2442 MHz (CH7), 802.11g, Core 1, 1 GHz to 26 GHz, Horizontal

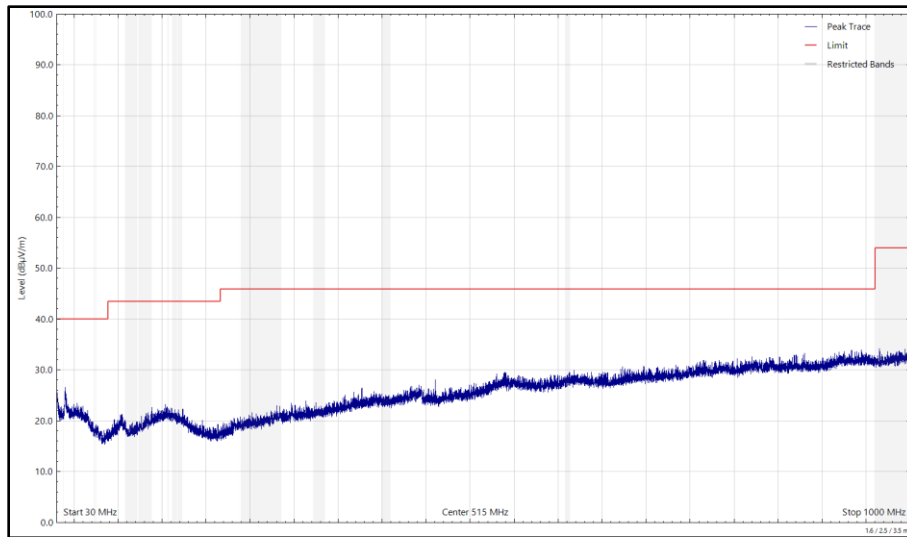


Figure 239 - 2442 MHz (CH7), 802.11g, Core 1, 30 MHz to 1 GHz, Vertical (Peak)

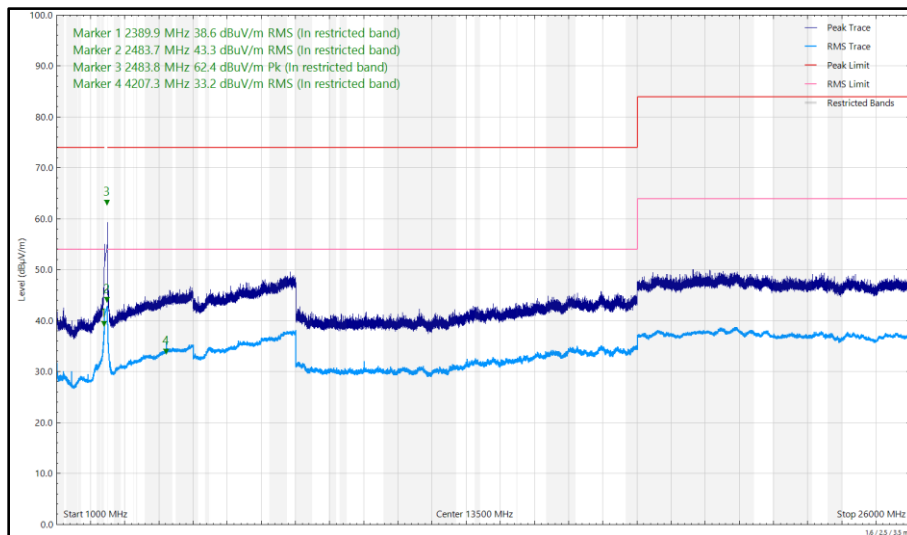


Figure 240 - 2442 MHz (CH7), 802.11g, Core 1, 1 GHz to 26 GHz, Vertical



| Frequency (MHz) | Level (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|-----------------|----------------------|----------------------|-------------|----------|-----------|-------------|--------------|
| 2389.136 | 35.42 | 54.00 | -18.58 | RMS | 37 | 389 | Vertical |
| 2513.143 | 64.06 | 80.00 | -15.94 | Peak | 52 | 382 | Vertical |
| 4200.425 | 34.00 | 54.00 | -20.00 | RMS | 185 | 138 | Vertical |

Table 70 - 2472 MHz (CH13), 802.11g, Core 1, 1 GHz to 26 GHz

No other emissions found within 10 dB of the limit.

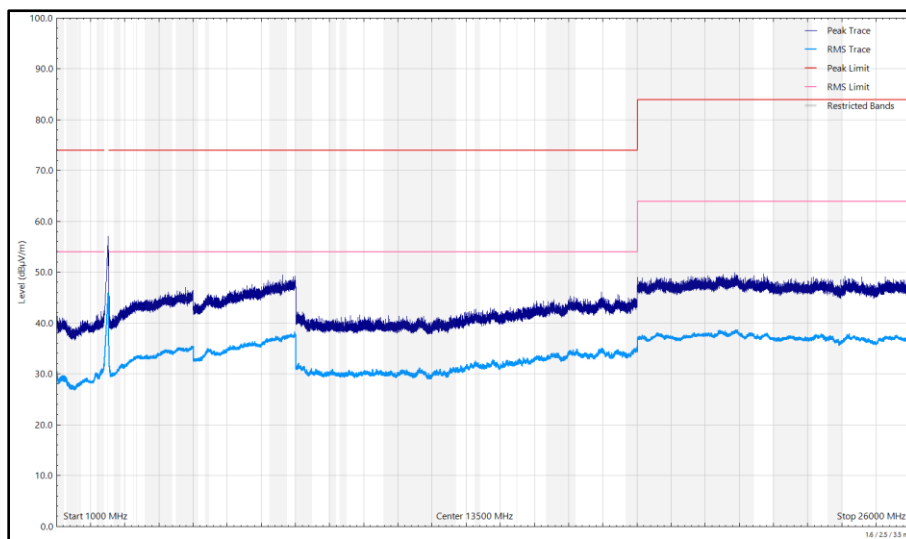


Figure 241 - 2472 MHz (CH13), 802.11g, Core 1, 1 GHz to 26 GHz, Horizontal

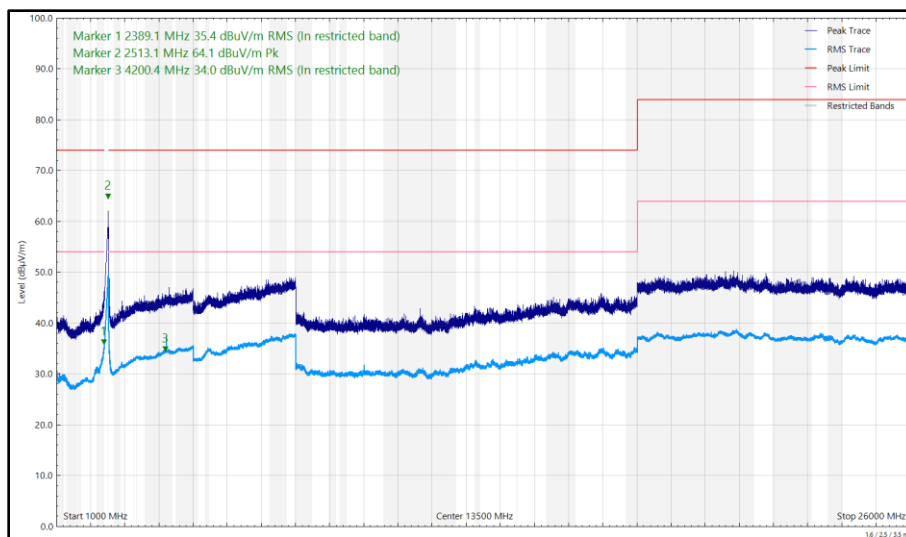


Figure 242 - 2472 MHz (CH13), 802.11g, Core 1, 1 GHz to 26 GHz, Vertical



| Frequency (MHz) | Level (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|-----------------|----------------------|----------------------|-------------|----------|-----------|-------------|--------------|
| 2354.701 | 35.69 | 54.00 | -18.31 | RMS | 52 | 396 | Horizontal |
| 2354.944 | 40.59 | 54.00 | -13.41 | RMS | 1 | 292 | Vertical |
| 2484.076 | 36.97 | 54.00 | -17.03 | RMS | 42 | 396 | Vertical |
| 4211.878 | 33.29 | 54.00 | -20.71 | RMS | 51 | 290 | Vertical |

Table 71 - 2412 MHz (CH1), HT20, CDD, Core 0 + Core 1, 1 GHz to 26 GHz

No other emissions found within 10 dB of the limit.

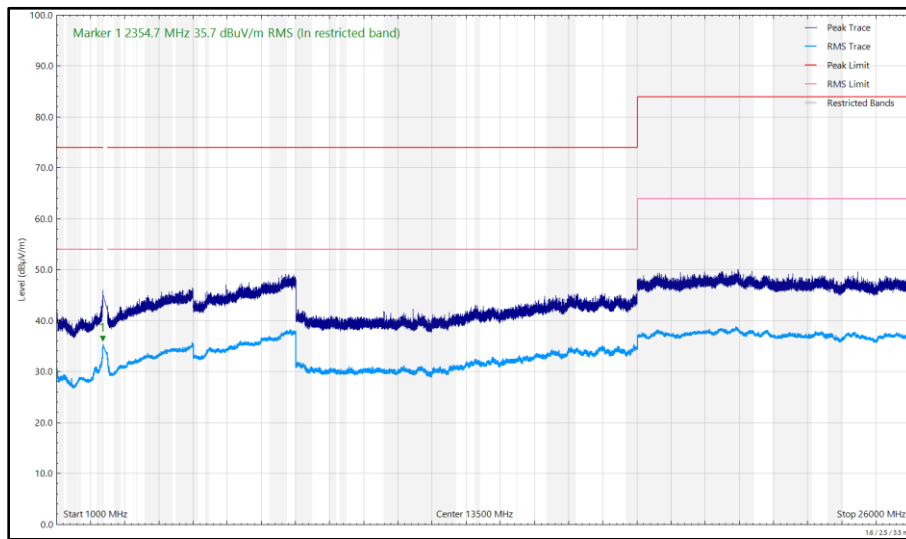


Figure 243 - 2412 MHz (CH1), HT20, CDD, Core 0 + Core 1, 1 GHz to 26 GHz, Horizontal

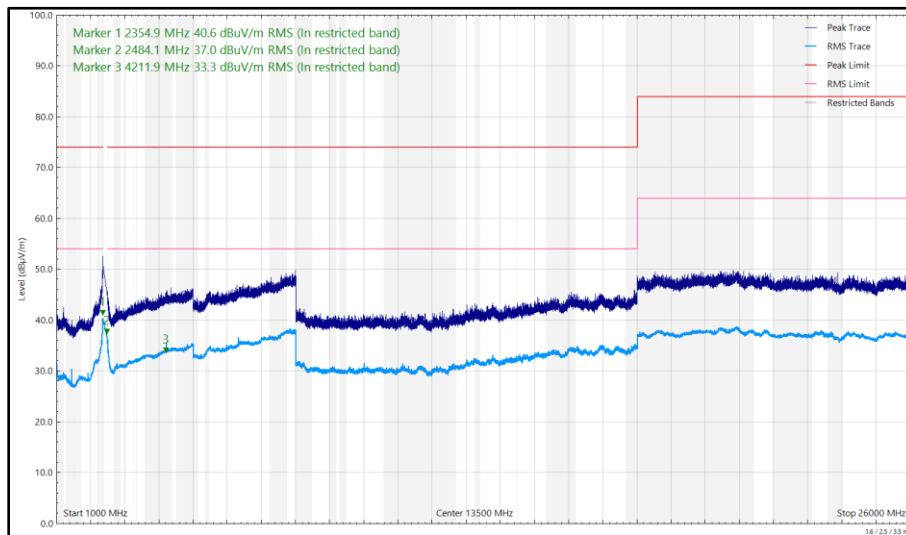


Figure 244 - 2412 MHz (CH1), HT20, CDD, Core 0 + Core 1, 1 GHz to 26 GHz, Vertical



| Frequency (MHz) | Level (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|-----------------|----------------------|----------------------|-------------|----------|-----------|-------------|--------------|
| 279.982 | 24.58 | 46.00 | -21.42 | Q-Peak | 93 | 100 | Horizontal |
| 2385.506 | 56.78 | 74.00 | -17.22 | Peak | 358 | 366 | Vertical |
| 2389.501 | 36.59 | 54.00 | -17.41 | RMS | 305 | 400 | Horizontal |
| 2389.918 | 40.43 | 54.00 | -13.57 | RMS | 360 | 397 | Vertical |
| 2483.556 | 46.72 | 54.00 | -7.28 | RMS | 46 | 385 | Vertical |
| 2483.566 | 43.01 | 54.00 | -10.99 | RMS | 56 | 390 | Horizontal |
| 2484.072 | 59.96 | 74.00 | -14.04 | Peak | 57 | 385 | Horizontal |
| 2485.395 | 62.56 | 74.00 | -11.44 | Peak | 352 | 333 | Vertical |
| 4206.614 | 33.27 | 54.00 | -20.73 | RMS | 133 | 103 | Vertical |
| 4882.648 | 36.44 | 54.00 | -17.56 | RMS | 28 | 279 | Vertical |
| 7326.125 | 37.23 | 54.00 | -16.77 | RMS | 53 | 281 | Vertical |

Table 72 - 2442 MHz (CH7), HT20, CDD, Core 0 + Core 1, 30 MHz to 26 GHz

No other emissions found within 10 dB of the limit.

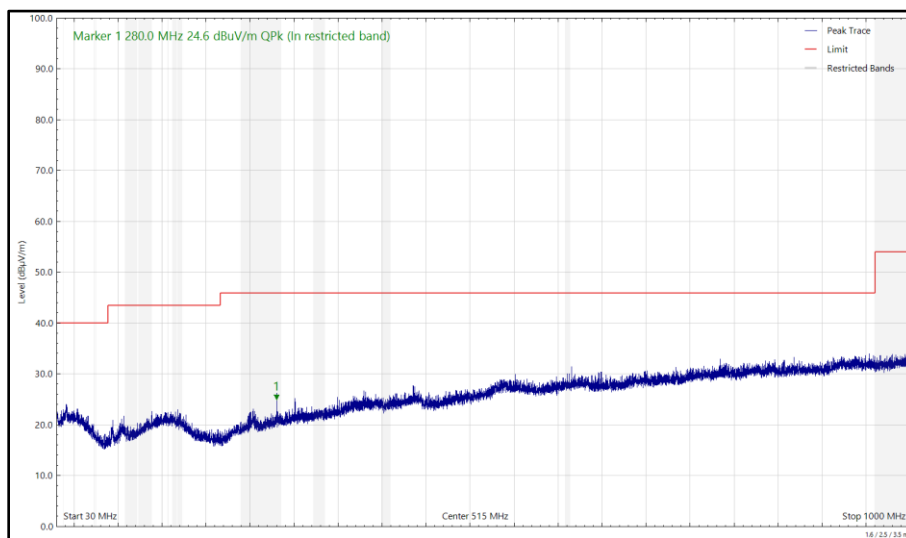


Figure 245 - 2442 MHz (CH7), HT20, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

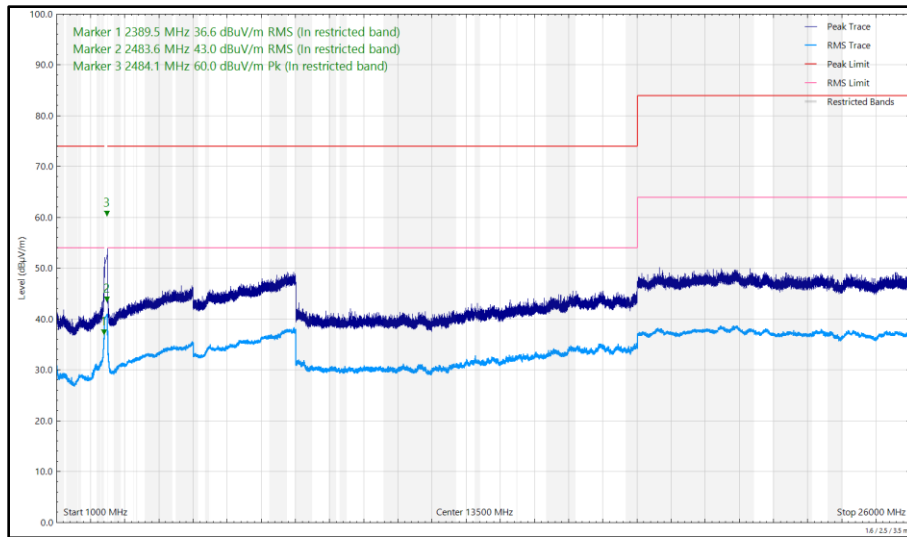


Figure 246 - 2442 MHz (CH7), HT20, CDD, Core 0 + Core 1, 1 GHz to 26 GHz, Horizontal

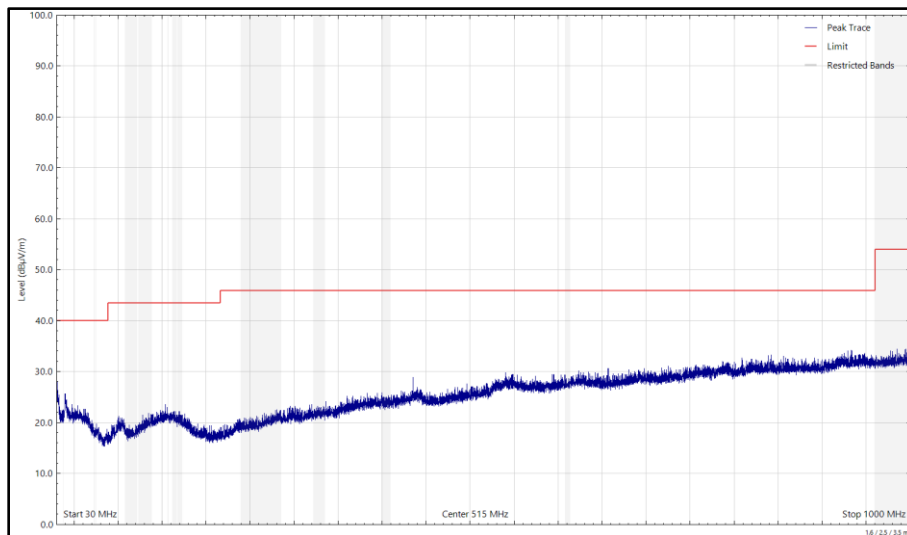


Figure 247 - 2442 MHz (CH7), HT20, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

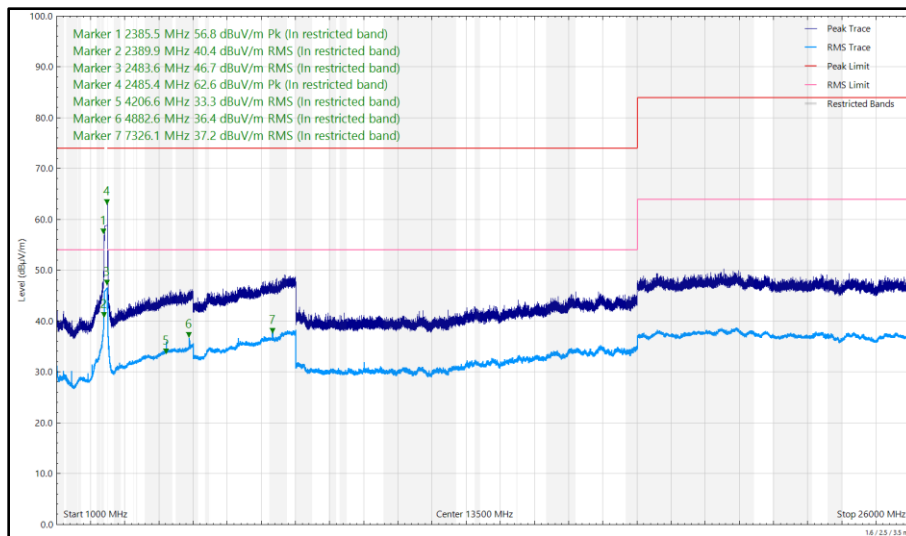


Figure 248 - 2442 MHz (CH7), HT20, CDD, Core 0 + Core 1, 1 GHz to 26 GHz, Vertical



| Frequency (MHz) | Level (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|-----------------|----------------------|----------------------|-------------|----------|-----------|-------------|--------------|
| 2387.753 | 34.82 | 54.00 | -19.18 | RMS | 56 | 371 | Horizontal |
| 2389.411 | 38.35 | 54.00 | -15.65 | RMS | 354 | 337 | Vertical |
| 2508.866 | 71.29 | 80.00 | -8.71 | Peak | 34 | 330 | Vertical |
| 4207.205 | 33.99 | 54.00 | -20.01 | RMS | 352 | 143 | Vertical |
| 4984.078 | 36.66 | 54.00 | -17.34 | RMS | 349 | 341 | Vertical |
| 4986.882 | 60.36 | 74.00 | -13.64 | Peak | 349 | 341 | Vertical |

Table 73 - 2472 MHz (CH13), HT20, CDD, Core 0 + Core 1, 1 GHz to 26 GHz

No other emissions found within 10 dB of the limit.

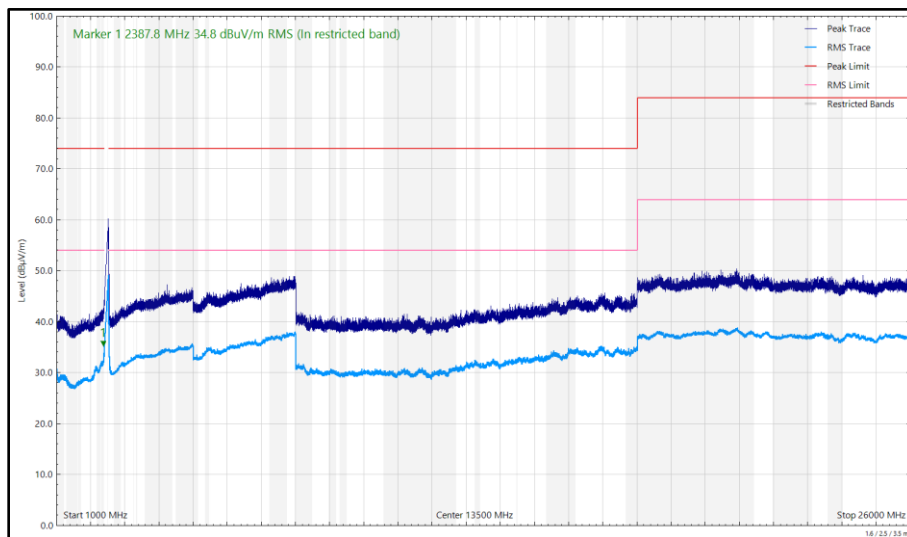


Figure 249 - 2472 MHz (CH13), HT20, CDD, Core 0 + Core 1, 1 GHz to 26 GHz, Horizontal

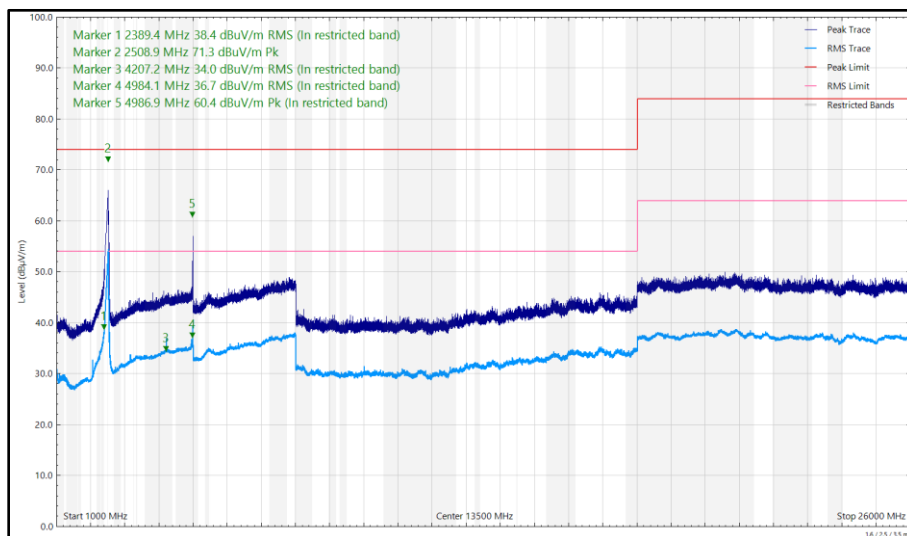


Figure 250 - 2472 MHz (CH13), HT20, CDD, Core 0 + Core 1, 1 GHz to 26 GHz, Vertical



| Frequency (MHz) | Level (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|-----------------|----------------------|----------------------|-------------|----------|-----------|-------------|--------------|
| 2354.936 | 38.89 | 54.00 | -15.11 | RMS | 359 | 303 | Vertical |
| 2354.951 | 34.85 | 54.00 | -19.15 | RMS | 61 | 381 | Horizontal |
| 2483.901 | 36.54 | 54.00 | -17.46 | RMS | 37 | 394 | Vertical |
| 4211.838 | 34.33 | 54.00 | -19.67 | RMS | 335 | 389 | Vertical |
| 4807.608 | 39.38 | 54.00 | -14.62 | RMS | 33 | 278 | Vertical |

Table 74 - 2412 MHz (CH1), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 26 GHz

No other emissions found within 10 dB of the limit.

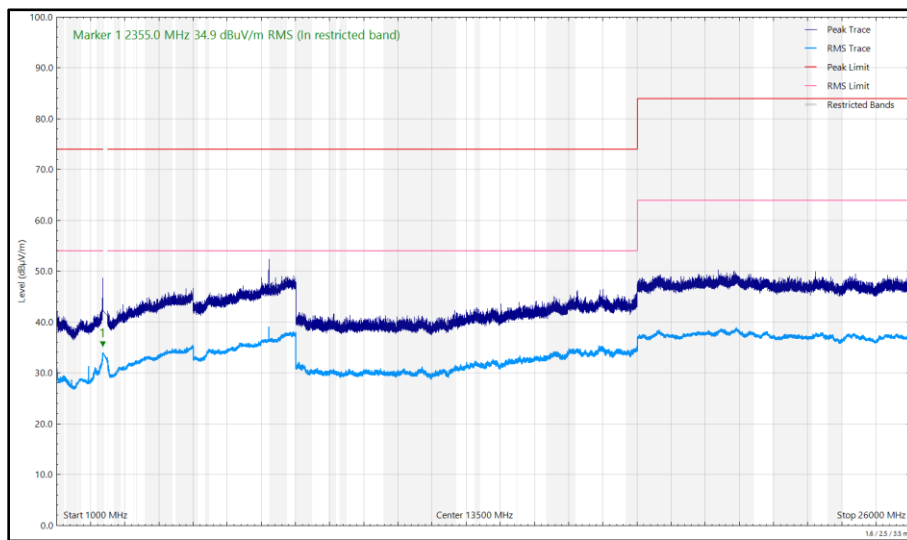


Figure 251 - 2412 MHz (CH1), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 26 GHz, Horizontal

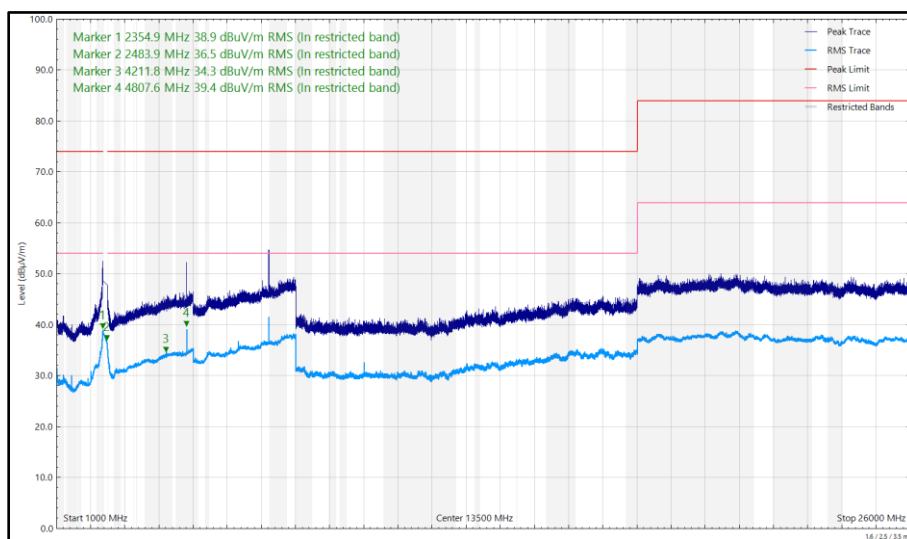


Figure 252 - 2412 MHz (CH1), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 26 GHz, Vertical



| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|-----------------|----------------|----------------|-------------|----------|-----------|-------------|--------------|
| 282.611 | 20.59 | 46.00 | -25.41 | Q-Peak | 356 | 312 | Horizontal |
| 2389.205 | 58.23 | 74.00 | -15.77 | Peak | 359 | 367 | Vertical |
| 2389.931 | 35.95 | 54.00 | -18.05 | RMS | 53 | 399 | Horizontal |
| 2389.951 | 40.21 | 54.00 | -13.79 | RMS | 357 | 300 | Vertical |
| 2483.515 | 60.15 | 74.00 | -13.85 | Peak | 39 | 383 | Vertical |
| 2483.526 | 37.57 | 54.00 | -16.43 | RMS | 53 | 376 | Horizontal |
| 2483.886 | 40.11 | 54.00 | -13.89 | RMS | 350 | 338 | Vertical |
| 4867.683 | 40.86 | 54.00 | -13.14 | RMS | 33 | 286 | Vertical |
| 7301.315 | 39.42 | 54.00 | -14.58 | RMS | 69 | 368 | Horizontal |
| 7301.415 | 42.46 | 54.00 | -11.54 | RMS | 47 | 271 | Vertical |
| 7301.605 | 58.94 | 74.00 | -15.06 | Peak | 44 | 291 | Vertical |

Table 75 - 2442 MHz (CH7), HE20, RU26-0, CDD, Core 0 + Core 1, 30 MHz to 26 GHz

No other emissions found within 10 dB of the limit.

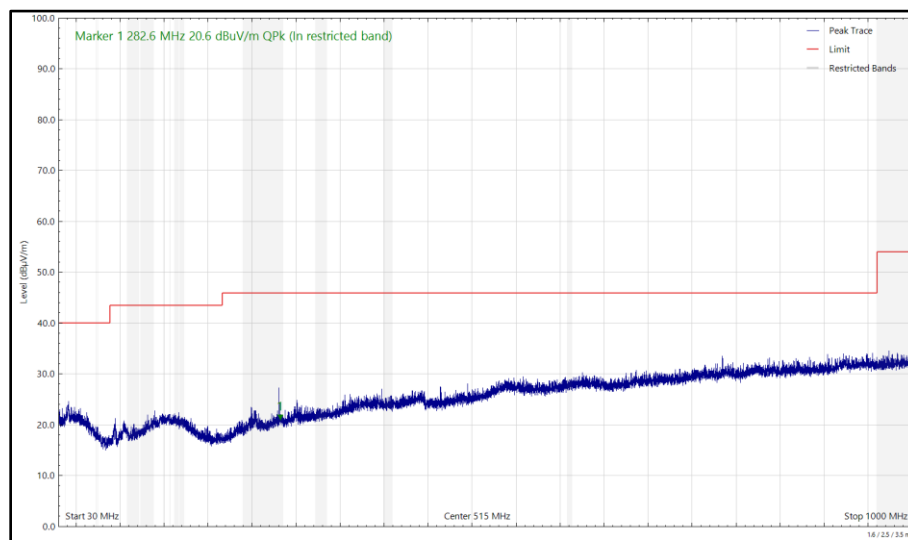


Figure 253 - 2442 MHz (CH7), HE20, RU26-0, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

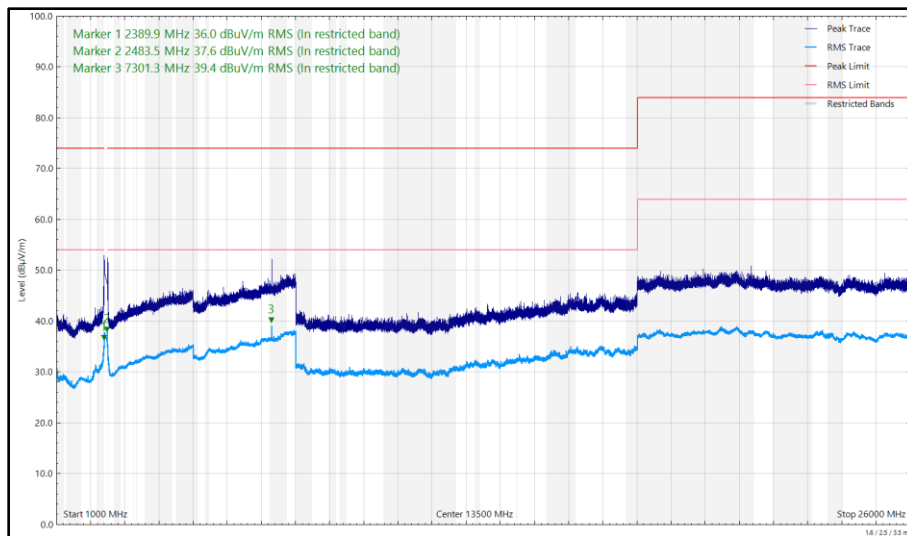


Figure 254 - 2442 MHz (CH7), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 26 GHz, Horizontal

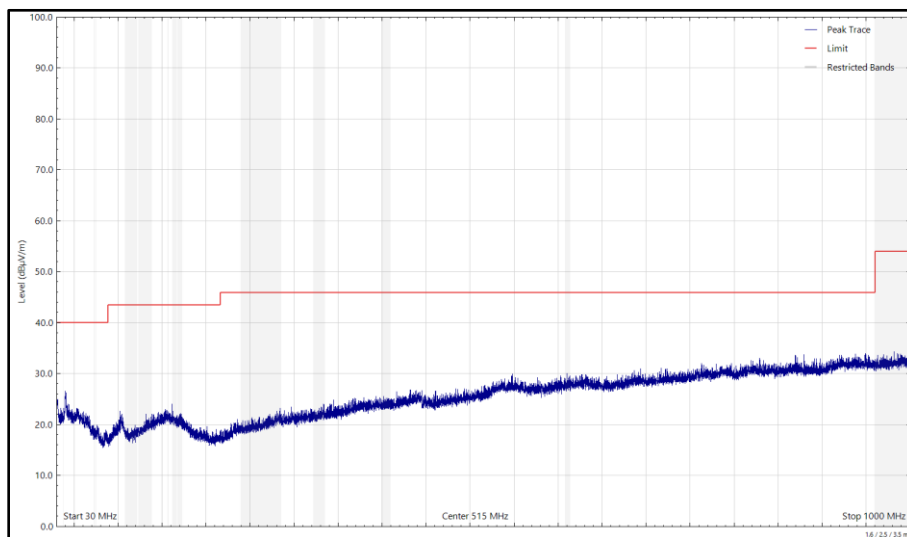


Figure 255 - 2442 MHz (CH7), HE20, RU26-0, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

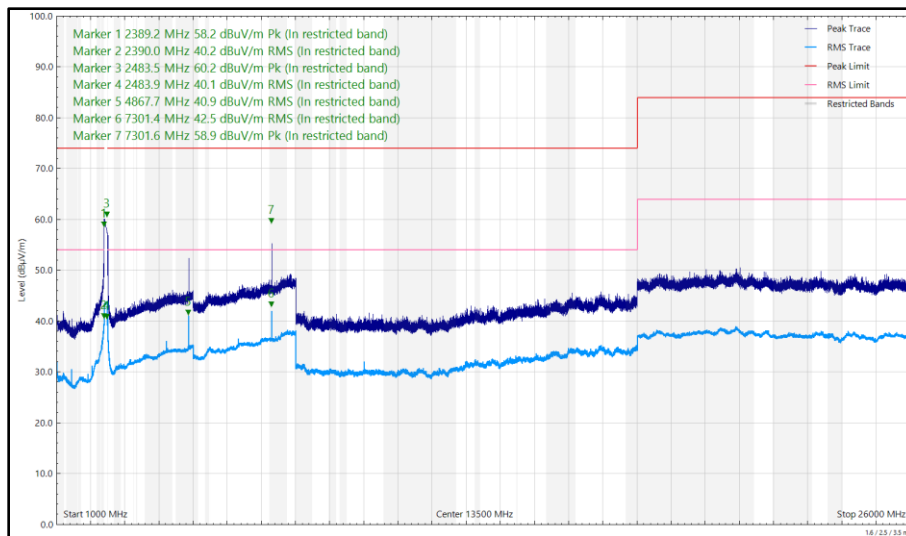


Figure 256 - 2442 MHz (CH7), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 26 GHz, Vertical



| Frequency (MHz) | Level (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|-----------------|----------------------|----------------------|-------------|----------|-----------|-------------|--------------|
| 2389.531 | 37.61 | 54.00 | -16.39 | RMS | 350 | 298 | Vertical |
| 4205.689 | 33.23 | 54.00 | -20.77 | RMS | 77 | 400 | Vertical |
| 4927.183 | 40.84 | 54.00 | -13.16 | RMS | 336 | 257 | Vertical |
| 4927.503 | 37.35 | 54.00 | -16.65 | RMS | 295 | 390 | Horizontal |
| 7389.570 | 58.93 | 74.00 | -15.07 | Peak | 46 | 278 | Vertical |
| 7390.100 | 42.13 | 54.00 | -11.87 | RMS | 46 | 249 | Vertical |
| 7390.185 | 40.62 | 54.00 | -13.38 | RMS | 74 | 384 | Horizontal |

Table 76 - 2472 MHz (CH13), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 26 GHz

No other emissions found within 10 dB of the limit.

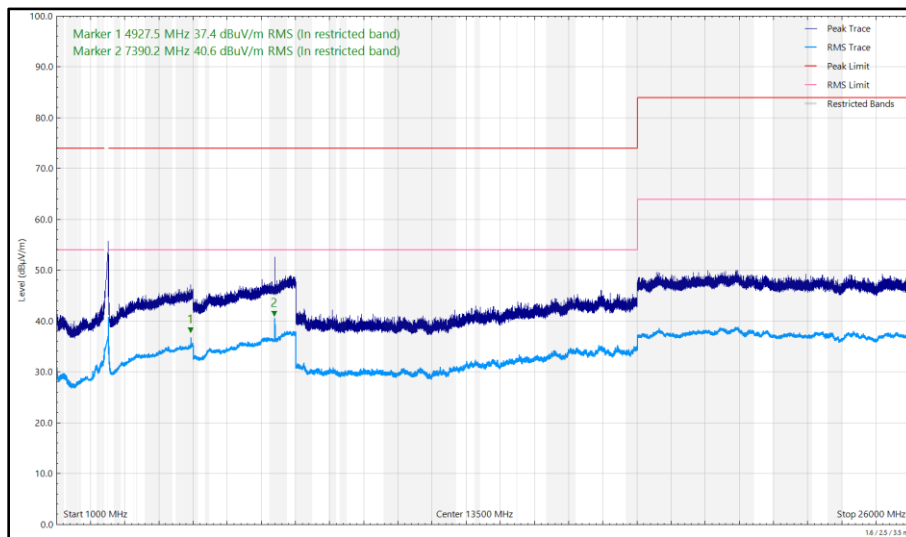


Figure 257 - 2472 MHz (CH13), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 26 GHz, Horizontal

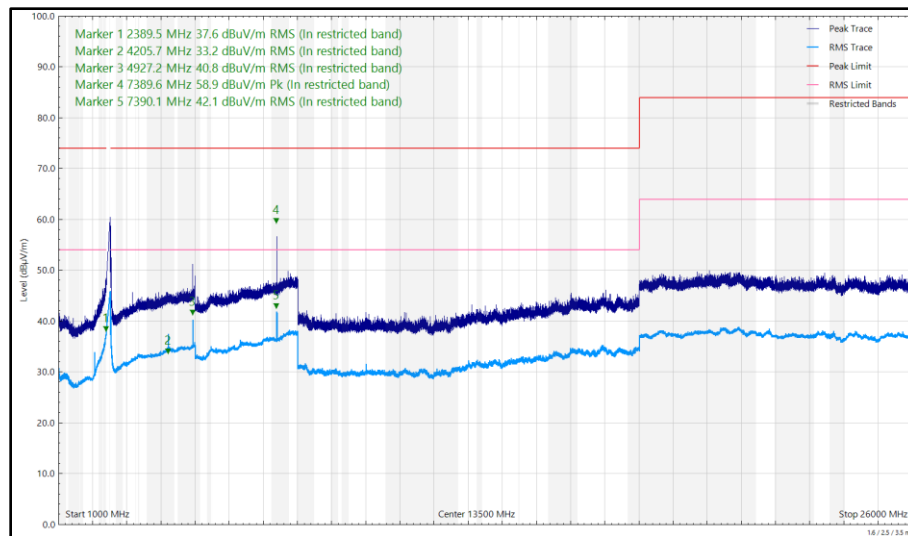


Figure 258 - 2472 MHz (CH13), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 26 GHz, Vertical

FCC 47 CFR Part 15, Limit Clause 15.247 (d)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in 15.209(a)

ISED RSS-247, Limit Clause 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

In addition, radiated emissions which fall in the restricted bands, as defined in RSS-GEN, clause 8.10, must also comply with the radiated emission limits specified in RSS-GEN clause 8.9.



2.5.8 Test Location and Test Equipment Used

This test was carried out in RF Chamber 16 and RF Chamber 17.

| Instrument | Manufacturer | Type No. | TE No. | Calibration Period (months) | Calibration Expiry Date |
|--|--------------------|---------------------------|--------|-----------------------------|-------------------------|
| Emissions Software | TUV SUD | EmX V3.2.0 | 5125 | - | Software |
| Cable 2.92m | Junkosha | MWX241-01000KMS | 5413 | 12 | 23-May-2025 |
| EMI Test Receiver | Rohde & Schwarz | ESW44 | 5911 | 12 | 11-Sep-2024 |
| DRG Horn Antenna (7.5-18GHz) | Schwarzbeck | HWRD750 | 5939 | 12 | 05-May-2025 |
| TRILOG Super Broadband Test Antenna | Schwarzbeck | VULB 9168 | 5943 | 24 | 24-May-2026 |
| 1500W (300V 12A) AC Power Supply | iTech | IT7324 | 5957 | - | O/P Mon |
| 3m Semi-Anechoic Chamber, Chamber16 | Albatross Projects | RF Chamber 16 | 5972 | 36 | 24-May-2025 |
| Mast & Turntable Controller | Maturo Gmbh | FCU3.0 | 5973 | - | TU |
| Tilt Antenna Mast | Maturo Gmbh | BAM4.5-P | 5974 | - | TU |
| Turntable | Maturo Gmbh | TT1.5SI | 5975 | - | TU |
| Cable (SMA to SMA 3m) | Junkosha | MWX221-03000AMSAMS/A | 6021 | 12 | 14-Sep-2024 |
| Horn Antenna (1-10 GHz) | Schwarzbeck | BBHA9120B | 6142 | 12 | 05-May-2025 |
| Digital Multimeter | Fluke | 115 | 6145 | 12 | 06-Jun-2025 |
| Digital Multimeter | Fluke | 115 | 6146 | 12 | 06-Jun-2025 |
| Double Ridge Active Horn Antenna (18-40 GHz) | Com-Power | AHA-840 | 6189 | 24 | 31-Aug-2024 |
| EMI Test Receiver | Rohde & Schwarz | ESW44 | 6294 | 12 | 06-Jan-2025 |
| USB Spectrum Analyser | Signal Hound | SA124B | 6295 | - | TU |
| Cable (SMA to SMA 8m) | Junkosha | MWX221-08000AMSAMS/B | 6319 | 12 | 04-Feb-2025 |
| Cable (K Type 2m) | Junkosha | MWX241-02000KMSKMS/B | 6324 | 12 | 04-Feb-2025 |
| SAC Switch Unit | TUV SUD | TUV_SSU_004 PLC | 6349 | 12 | 07-May-2025 |
| USB Spectrum Analyser | Signal Hound | SA124B | 6383 | - | TU |
| 8 GHz High Pass Filter | Wainwright | WHKX 7150 8000 18000 50SS | 6427 | 12 | 23-Apr-2025 |
| Humidity and Temperature Meter | R.S Components | 1364 | 6486 | 12 | 04-Jun-2025 |
| SAC Switch Unit | TUV SUD | TUV_SSU_001 PLC | 6144 | 12 | 11-Dec-2024 |
| Coax cable sma to sma with N-Type adapter | TUV SUD | N/A | 6637 | 12 | 23-Apr-2025 |
| AC Power Supply | iTech | IT7324 | 6657 | - | O/P Mon |
| 3m Semi-Anechoic Chamber | Albatross Projects | RF Chamber 17 | 6658 | 36 | 28-Jan-2026 |



| Instrument | Manufacturer | Type No. | TE No. | Calibration Period (months) | Calibration Expiry Date |
|-------------------------------|---------------------|----------------------|--------|-----------------------------|-------------------------|
| Mast and Turntable Controller | Maturo Gmbh | FCU3.0 | 6659 | - | TU |
| Tilt Antenna Mast | Maturo Gmbh | BAM4.5-P | 6660 | - | TU |
| Turntable | Maturo Gmbh | TT1.5SI | 6661 | - | TU |
| 8m Cable | Junkosha | MWX221-08000AMSAMS/B | 6748 | 12 | 01-Feb-2025 |
| Pre Amp 8 - 18 GHz | Wright Technologies | APS06-0061 | 6783 | 12 | 23-Apr-2025 |
| AC Programmable Power Supply | iTech | IT7324 | 6812 | - | O/P Mon |

Table 77

TU - Traceability Unscheduled

O/P Mon - Output Monitored using calibrated equipment



2.6 Power Spectral Density

2.6.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (e)
ISED RSS-247, Clause 5.2
ISED RSS-GEN, Clause 6.12

2.6.2 Equipment Under Test and Modification State

A3112, S/N: DQHQ6Q99MH - Modification State 0

2.6.3 Date of Test

08-July-2024

2.6.4 Test Method

This test was performed in accordance with ANSI C63.10, clause 11.10 5.

Where the EUT duty cycle was < 98 % and repeatable within 2 %, the spectrum analyser was set to trace (power) averaging and a duty cycle correction was added as calculated in the result tables below (Method AVGPSD-2).

MIMO output port summing was performed in accordance with KDB 662911 D01 E)2)b).

2.6.5 Environmental Conditions

| | |
|---------------------|---------|
| Ambient Temperature | 22.0 °C |
| Relative Humidity | 53.6 % |



2.6.6 Test Results

2.4 GHz WLAN

SISO

| Test Configuration | | | |
|--------------------------|---|-----------------|----------------|
| Frequency Range: | 2400-2483.5 MHz | Band: | 2.4 GHz |
| Limit Clause(s): | 15.247 (e) RSS-247 5.2 b) | Test Method(s): | C63.10 11.10.5 |
| Additional Reference(s): | - | | |
| Note(s): | DCCF was added to the spectrum analyser reference level offset. | | |

| DUT Configuration | | | |
|------------------------|------------|--------------------------|------|
| Mode: | 802.11b | Duty Cycle (%): | 99.4 |
| Data Rate: | 1 Mbps | DCCF (dB): | 0.03 |
| Antenna Configuration: | SISO | Peak Antenna Gain (dBi): | - |
| Active Port(s): | A (Core 0) | Active Chain(s): | 0 |

| Test Frequency (MHz) | RBW (kHz) | PSD (dBm/RBW) | | | | | Limit (dBm/3 kHz) | Margin (dB) |
|----------------------|-----------|---------------|---|---|---|-------|-------------------|-------------|
| | | A | B | C | D | Σ | | |
| 2412 | 100.0 | 2.11 | - | - | - | 2.11 | 8.00 | -5.89 |
| 2442 | 100.0 | 2.38 | - | - | - | 2.38 | 8.00 | -5.63 |
| 2472 | 100.0 | -2.00 | - | - | - | -2.00 | 8.00 | -10.00 |

Table 78 - Maximum Power Spectral Density Results



| Test Configuration | | | |
|--------------------------|---|-----------------|----------------|
| Frequency Range: | 2400-2483.5 MHz | Band: | 2.4 GHz |
| Limit Clause(s): | 15.247 (e) RSS-247 5.2 b) | Test Method(s): | C63.10 11.10.5 |
| Additional Reference(s): | - | | |
| Note(s): | DCCF was added to the spectrum analyser reference level offset. | | |

| DUT Configuration | | | |
|------------------------|------------|--------------------------|------|
| Mode: | 802.11g | Duty Cycle (%): | 97.7 |
| Data Rate: | 12 Mbps | DCCF (dB): | 0.10 |
| Antenna Configuration: | SISO | Peak Antenna Gain (dBi): | - |
| Active Port(s): | A (Core 0) | Active Chain(s): | 0 |

| Test Frequency (MHz) | RBW (kHz) | PSD (dBm/RBW) | | | | | Limit (dBm/3 kHz) | Margin (dB) |
|----------------------|-----------|---------------|---|---|---|--------|-------------------|-------------|
| | | A | B | C | D | Σ | | |
| 2412 | 100.0 | -1.19 | - | - | - | -1.19 | 8.00 | -9.19 |
| 2442 | 100.0 | 4.02 | - | - | - | 4.02 | 8.00 | -3.98 |
| 2472 | 100.0 | -10.99 | - | - | - | -10.99 | 8.00 | -18.99 |

Table 79 - Maximum Power Spectral Density Results

| Test Configuration | | | |
|--------------------------|---|-----------------|----------------|
| Frequency Range: | 2400-2483.5 MHz | Band: | 2.4 GHz |
| Limit Clause(s): | 15.247 (e) RSS-247 5.2 b) | Test Method(s): | C63.10 11.10.5 |
| Additional Reference(s): | - | | |
| Note(s): | DCCF was added to the spectrum analyser reference level offset. | | |

| DUT Configuration | | | |
|---------------------------|--------------|--------------------------|------|
| Mode: | 802.11n HT20 | Duty Cycle (%): | 96.7 |
| Modulation Coding Scheme: | MCS2 | DCCF (dB): | 0.15 |
| Antenna Configuration: | SISO | Peak Antenna Gain (dBi): | - |
| Active Port(s): | A (Core 0) | Active Chain(s): | 0 |

| Test Frequency (MHz) | RBW (kHz) | PSD (dBm/RBW) | | | | | Limit (dBm/3 kHz) | Margin (dB) |
|----------------------|-----------|---------------|---|---|---|--------|-------------------|-------------|
| | | A | B | C | D | Σ | | |
| 2412 | 100.0 | -2.77 | - | - | - | -2.77 | 8.00 | -10.77 |
| 2442 | 100.0 | 3.62 | - | - | - | 3.62 | 8.00 | -4.38 |
| 2472 | 100.0 | -11.95 | - | - | - | -11.95 | 8.00 | -19.95 |

Table 80 - Maximum Power Spectral Density Results



| Test Configuration | | | |
|--------------------------|---|-----------------|----------------|
| Frequency Range: | 2400-2483.5 MHz | Band: | 2.4 GHz |
| Limit Clause(s): | 15.247 (e) RSS-247 5.2 b) | Test Method(s): | C63.10 11.10.5 |
| Additional Reference(s): | - | | |
| Note(s): | DCCF was added to the spectrum analyser reference level offset. | | |

| DUT Configuration | | | |
|---------------------------|------------------|--------------------------|------|
| Mode: | 802.11ax HE20 SU | Duty Cycle (%): | 95.7 |
| Modulation Coding Scheme: | MCS2x1 | DCCF (dB): | 0.19 |
| Antenna Configuration: | SISO | Peak Antenna Gain (dBi): | - |
| Active Port(s): | A (Core 0) | Active Chain(s): | 0 |

| Test Frequency (MHz) | RBW (kHz) | PSD (dBm/RBW) | | | | | Limit (dBm/3 kHz) | Margin (dB) |
|----------------------|-----------|---------------|---|---|---|--------|-------------------|-------------|
| | | A | B | C | D | Σ | | |
| 2412 | 100.0 | -4.41 | - | - | - | -4.41 | 8.00 | -12.41 |
| 2442 | 100.0 | 2.58 | - | - | - | 2.58 | 8.00 | -5.42 |
| 2472 | 100.0 | -12.68 | - | - | - | -12.68 | 8.00 | -20.68 |

Table 81 - Maximum Power Spectral Density Results

| Test Configuration | | | |
|--------------------------|---|-----------------|----------------|
| Frequency Range: | 2400-2483.5 MHz | Band: | 2.4 GHz |
| Limit Clause(s): | 15.247 (e) RSS-247 5.2 b) | Test Method(s): | C63.10 11.10.5 |
| Additional Reference(s): | - | | |
| Note(s): | DCCF was added to the spectrum analyser reference level offset. | | |

| DUT Configuration | | | |
|---------------------------|--------------------|--------------------------|------|
| Mode: | 802.11ax HE20 RU26 | Duty Cycle (%): | 96.5 |
| Modulation Coding Scheme: | MCS2x1 | DCCF (dB): | 0.16 |
| Antenna Configuration: | SISO | Peak Antenna Gain (dBi): | - |
| Active Port(s): | A (Core 0) | Active Chain(s): | 0 |

| Test Frequency (MHz) | RBW (kHz) | PSD (dBm/RBW) | | | | | Limit (dBm/3 kHz) | Margin (dB) |
|----------------------|-----------|---------------|---|---|---|--------|-------------------|-------------|
| | | A | B | C | D | Σ | | |
| 2412 | 100.0 | 1.94 | - | - | - | 1.94 | 8.00 | -6.06 |
| 2442 | 100.0 | 2.18 | - | - | - | 2.18 | 8.00 | -5.82 |
| 2472 | 100.0 | -16.61 | - | - | - | -16.61 | 8.00 | -24.61 |

Table 82 - Maximum Power Spectral Density Results



| Test Configuration | | | |
|--------------------------|---|-----------------|----------------|
| Frequency Range: | 2400-2483.5 MHz | Band: | 2.4 GHz |
| Limit Clause(s): | 15.247 (e) RSS-247 5.2 b) | Test Method(s): | C63.10 11.10.5 |
| Additional Reference(s): | - | | |
| Note(s): | DCCF was added to the spectrum analyser reference level offset. | | |

| DUT Configuration | | | |
|---------------------------|--------------------|--------------------------|------|
| Mode: | 802.11ax HE20 RU52 | Duty Cycle (%): | 96.4 |
| Modulation Coding Scheme: | MCS2x1 | DCCF (dB): | 0.16 |
| Antenna Configuration: | SISO | Peak Antenna Gain (dBi): | - |
| Active Port(s): | A (Core 0) | Active Chain(s): | 0 |

| Test Frequency (MHz) | RBW (kHz) | PSD (dBm/RBW) | | | | | Limit (dBm/3 kHz) | Margin (dB) |
|----------------------|-----------|---------------|---|---|---|--------|-------------------|-------------|
| | | A | B | C | D | Σ | | |
| 2412 | 100.0 | 2.31 | - | - | - | 2.31 | 8.00 | -5.69 |
| 2442 | 100.0 | 1.95 | - | - | - | 1.95 | 8.00 | -6.05 |
| 2472 | 100.0 | -17.65 | - | - | - | -17.65 | 8.00 | -25.65 |

Table 83 - Maximum Power Spectral Density Results

| Test Configuration | | | |
|--------------------------|---|-----------------|----------------|
| Frequency Range: | 2400-2483.5 MHz | Band: | 2.4 GHz |
| Limit Clause(s): | 15.247 (e) RSS-247 5.2 b) | Test Method(s): | C63.10 11.10.5 |
| Additional Reference(s): | - | | |
| Note(s): | DCCF was added to the spectrum analyser reference level offset. | | |

| DUT Configuration | | | |
|---------------------------|---------------------|--------------------------|------|
| Mode: | 802.11ax HE20 RU106 | Duty Cycle (%): | 97.9 |
| Modulation Coding Scheme: | MCS2x1 | DCCF (dB): | 0.09 |
| Antenna Configuration: | SISO | Peak Antenna Gain (dBi): | - |
| Active Port(s): | A (Core 0) | Active Chain(s): | 0 |

| Test Frequency (MHz) | RBW (kHz) | PSD (dBm/RBW) | | | | | Limit (dBm/3 kHz) | Margin (dB) |
|----------------------|-----------|---------------|---|---|---|--------|-------------------|-------------|
| | | A | B | C | D | Σ | | |
| 2412 | 100.0 | 0.01 | - | - | - | 0.01 | 8.00 | -7.99 |
| 2442 | 100.0 | 2.19 | - | - | - | 2.19 | 8.00 | -5.81 |
| 2472 | 100.0 | -19.80 | - | - | - | -19.80 | 8.00 | -27.80 |

Table 84 - Maximum Power Spectral Density Results



MIMO CDD

| Test Configuration | | | |
|--------------------------|---|-----------------|----------------|
| Frequency Range: | 2400-2483.5 MHz | Band: | 2.4 GHz |
| Limit Clause(s): | 15.247 (e) RSS-247 5.2 b) | Test Method(s): | C63.10 11.10.5 |
| Additional Reference(s): | 662911 D01 v02r01 E)2)b) | | |
| Note(s): | DCCF was added to the spectrum analyser reference level offset. | | |

| DUT Configuration | | | |
|---------------------------|-----------------------|--------------------------|------|
| Mode: | 802.11n HT20 | Duty Cycle (%): | 96.8 |
| Modulation Coding Scheme: | MCS2 | DCCF (dB): | 0.14 |
| Antenna Configuration: | MIMO CDD | Peak Antenna Gain (dBi): | - |
| Active Port(s): | A+B (Core 0 + Core 1) | Active Chain(s): | 0+1 |

| Test Frequency (MHz) | RBW (kHz) | PSD (dBm/RBW) | | | | | Limit (dBm/3 kHz) | Margin (dB) |
|----------------------|-----------|---------------|--------|---|---|--------|-------------------|-------------|
| | | A | B | C | D | Σ | | |
| 2412 | 100.0 | -3.09 | -3.26 | - | - | -0.16 | 8.00 | -8.16 |
| 2442 | 51.0 | 1.46 | 1.57 | - | - | 4.52 | 8.00 | -3.48 |
| 2472 | 100.0 | -13.18 | -12.93 | - | - | -10.04 | 8.00 | -18.04 |

Table 85 - Maximum Power Spectral Density Results

| Test Configuration | | | |
|--------------------------|---|-----------------|----------------|
| Frequency Range: | 2400-2483.5 MHz | Band: | 2.4 GHz |
| Limit Clause(s): | 15.247 (e) RSS-247 5.2 b) | Test Method(s): | C63.10 11.10.5 |
| Additional Reference(s): | 662911 D01 v02r01 E)2)b) | | |
| Note(s): | DCCF was added to the spectrum analyser reference level offset. | | |

| DUT Configuration | | | |
|---------------------------|-----------------------|--------------------------|------|
| Mode: | 802.11ax HE20 SU | Duty Cycle (%): | 95.9 |
| Modulation Coding Scheme: | MCS2x1 | DCCF (dB): | 0.18 |
| Antenna Configuration: | MIMO CDD | Peak Antenna Gain (dBi): | - |
| Active Port(s): | A+B (Core 0 + Core 1) | Active Chain(s): | 0+1 |

| Test Frequency (MHz) | RBW (kHz) | PSD (dBm/RBW) | | | | | Limit (dBm/3 kHz) | Margin (dB) |
|----------------------|-----------|---------------|--------|---|---|--------|-------------------|-------------|
| | | A | B | C | D | Σ | | |
| 2412 | 100.0 | -5.09 | -4.87 | - | - | -1.97 | 8.00 | -9.97 |
| 2437 | 51.0 | -0.03 | -0.01 | - | - | 2.99 | 8.00 | -5.01 |
| 2472 | 100.0 | -14.54 | -14.82 | - | - | -11.66 | 8.00 | -19.66 |

Table 86 - Maximum Power Spectral Density Results



| Test Configuration | | | |
|--------------------------|---|-----------------|----------------|
| Frequency Range: | 2400-2483.5 MHz | Band: | 2.4 GHz |
| Limit Clause(s): | 15.247 (e) RSS-247 5.2 b) | Test Method(s): | C63.10 11.10.5 |
| Additional Reference(s): | 662911 D01 v02r01 E)2)b) | | |
| Note(s): | DCCF was added to the spectrum analyser reference level offset. | | |

| DUT Configuration | | | |
|---------------------------|-----------------------|--------------------------|------|
| Mode: | 802.11ax HE20 RU26 | Duty Cycle (%): | 96.4 |
| Modulation Coding Scheme: | MCS2x1 | DCCF (dB): | 0.16 |
| Antenna Configuration: | MIMO CDD | Peak Antenna Gain (dBi): | - |
| Active Port(s): | A+B (Core 0 + Core 1) | Active Chain(s): | 0+1 |

| Test Frequency (MHz) | RBW (kHz) | PSD (dBm/RBW) | | | | | Limit (dBm/3 kHz) | Margin (dB) |
|----------------------|-----------|---------------|--------|---|---|--------|-------------------|-------------|
| | | A | B | C | D | Σ | | |
| 2412 | 100.0 | 1.96 | 1.78 | - | - | 4.88 | 8.00 | -3.12 |
| 2442 | 100.0 | 1.80 | 1.67 | - | - | 4.75 | 8.00 | -3.25 |
| 2472 | 100.0 | -20.22 | -20.55 | - | - | -17.38 | 8.00 | -25.38 |

Table 87 - Maximum Power Spectral Density Results

| Test Configuration | | | |
|--------------------------|---|-----------------|----------------|
| Frequency Range: | 2400-2483.5 MHz | Band: | 2.4 GHz |
| Limit Clause(s): | 15.247 (e) RSS-247 5.2 b) | Test Method(s): | C63.10 11.10.5 |
| Additional Reference(s): | 662911 D01 v02r01 E)2)b) | | |
| Note(s): | DCCF was added to the spectrum analyser reference level offset. | | |

| DUT Configuration | | | |
|---------------------------|-----------------------|--------------------------|------|
| Mode: | 802.11ax HE20 RU52 | Duty Cycle (%): | 96.4 |
| Modulation Coding Scheme: | MCS2x1 | DCCF (dB): | 0.16 |
| Antenna Configuration: | MIMO CDD | Peak Antenna Gain (dBi): | - |
| Active Port(s): | A+B (Core 0 + Core 1) | Active Chain(s): | 0+1 |

| Test Frequency (MHz) | RBW (kHz) | PSD (dBm/RBW) | | | | | Limit (dBm/3 kHz) | Margin (dB) |
|----------------------|-----------|---------------|--------|---|---|--------|-------------------|-------------|
| | | A | B | C | D | Σ | | |
| 2412 | 51.0 | -0.76 | -0.40 | - | - | 2.43 | 8.00 | -5.57 |
| 2442 | 51.0 | -0.79 | -0.84 | - | - | 2.19 | 8.00 | -5.81 |
| 2472 | 100.0 | -18.95 | -19.72 | - | - | -16.31 | 8.00 | -24.31 |

Table 88 - Maximum Power Spectral Density Results



| Test Configuration | | | |
|--------------------------|---|-----------------|----------------|
| Frequency Range: | 2400-2483.5 MHz | Band: | 2.4 GHz |
| Limit Clause(s): | 15.247 (e) RSS-247 5.2 b) | Test Method(s): | C63.10 11.10.5 |
| Additional Reference(s): | 662911 D01 v02r01 E)2)b) | | |
| Note(s): | DCCF was added to the spectrum analyser reference level offset. | | |

| DUT Configuration | | | |
|---------------------------|-----------------------|--------------------------|------|
| Mode: | 802.11ax HE20 RU106 | Duty Cycle (%): | 97.9 |
| Modulation Coding Scheme: | MCS2x1 | DCCF (dB): | 0.09 |
| Antenna Configuration: | MIMO CDD | Peak Antenna Gain (dBi): | - |
| Active Port(s): | A+B (Core 0 + Core 1) | Active Chain(s): | 0+1 |

| Test Frequency (MHz) | RBW (kHz) | PSD (dBm/RBW) | | | | | Limit (dBm/3 kHz) | Margin (dB) |
|----------------------|-----------|---------------|--------|---|---|--------|-------------------|-------------|
| | | A | B | C | D | Σ | | |
| 2412 | 100.0 | 0.86 | 0.47 | - | - | 3.68 | 8.00 | -4.32 |
| 2442 | 51.0 | -0.41 | -0.94 | - | - | 2.34 | 8.00 | -5.66 |
| 2472 | 100.0 | -19.30 | -20.14 | - | - | -16.69 | 8.00 | -24.69 |

Table 89 - Maximum Power Spectral Density Results

FCC 47 CFR Part 15, Limit Clause 15.247 (e)

The power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

ISED RSS-247, Limit Clause 5.2(b)

The transmitter power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.



2.6.7 Test Location and Test Equipment Used

This test was carried out in RF Chamber 18.

| Instrument | Manufacturer | Type No. | TE No. | Calibration Period (months) | Calibration Expiry Date |
|------------------------------|-----------------------|-----------------|--------|-----------------------------|-------------------------|
| Hygrometer | Rotronic | I-1000 | 3068 | 12 | 07-Nov-2024 |
| AC Programmable Power Supply | iTech | IT7324 | 5225 | - | O/P Mon |
| MXA Signal Analyser | Keysight Technologies | N9020B | 5529 | 24 | 13-Dec-2024 |
| USB Power Sensor | Boonton | RTP5008 | 5820 | 12 | 07-Feb-2025 |
| USB Power Sensor | Boonton | RTP5008 | 5821 | 12 | 07-Feb-2025 |
| Digital Multimeter | Fluke | 115 | 6145 | 12 | 06-Jun-2025 |
| Signal Conditioning Unit | TUV SUD | SPECTRUM_SCU001 | 6426 | 12 | 07-Feb-2025 |
| SCU Cable Assembly | TUV SUD | SPECTRUM_SCU_CA | 6752 | 12 | 06-Feb-2025 |
| SCU Cable Assembly | TUV SUD | SPECTRUM_SCU_CA | 6753 | 12 | 06-Feb-2025 |

Table 90

O/P Mon - Output Monitored using calibrated equipment.



3 Measurement Uncertainty

For a 95% confidence level, the measurement uncertainties for defined systems are:

| Test Name | Measurement Uncertainty |
|--------------------------------|--|
| Restricted Band Edges | 30 MHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB |
| Emission Bandwidth | ± 545.65 kHz |
| Maximum Conducted Output Power | ± 1.38 dB |
| Authorised Band Edges | 30 MHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB |
| Spurious Radiated Emissions | 30 MHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB |
| Power Spectral Density | ± 1.49 dB |

Table 91

Measurement Uncertainty Decision Rule – Accuracy Method

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115:2021, Clause 4.4.3 (Procedure 2). The measurement results are directly compared with the test limit to determine conformance with the requirements of the standard.

Risk: The uncertainty of measurement about the measured result is negligible with regard to the final pass/fail decision. The measurement result can be directly compared with the test limit to determine conformance with the requirement (compare IEC Guide 115). The level of risk to falsely accept and falsely reject items is further described in ILAC-G8.