

Test Report No.50347787 001

Appendix D: Radiated and Mains Spurious Emission Data

(File: 50347787 001Appendix D)

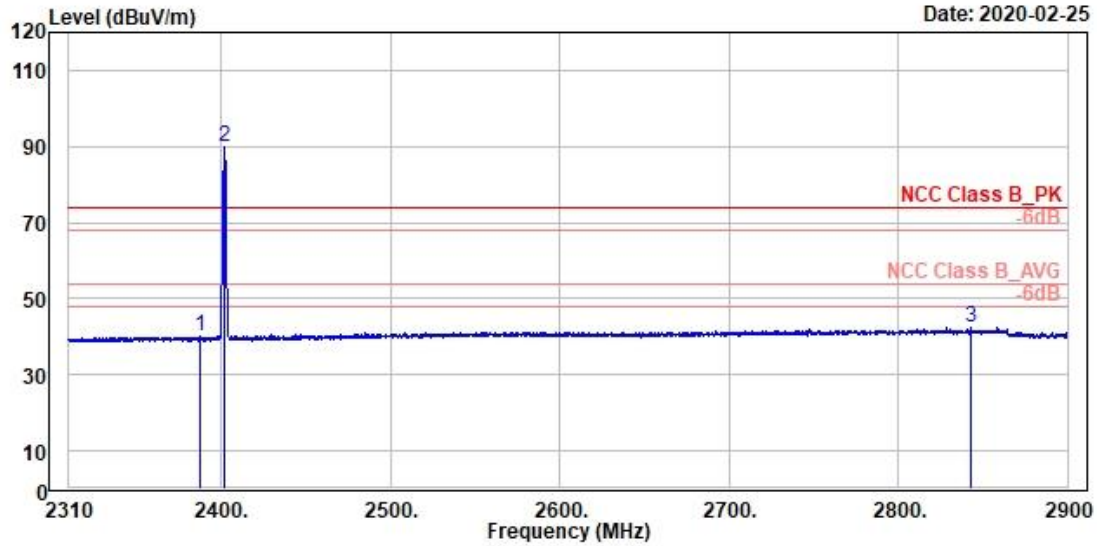
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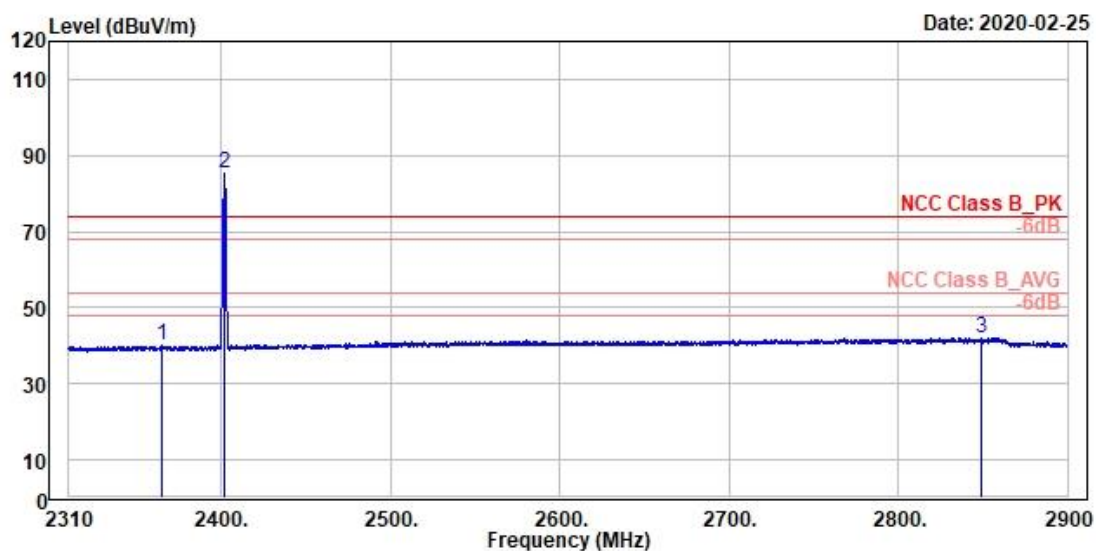
Spurious Emissions, Band Edges



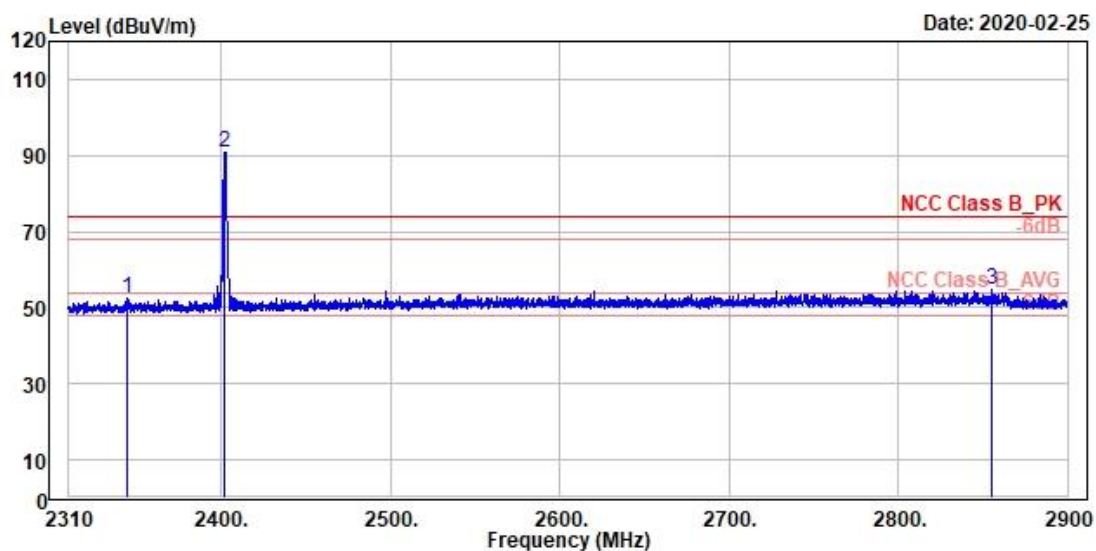
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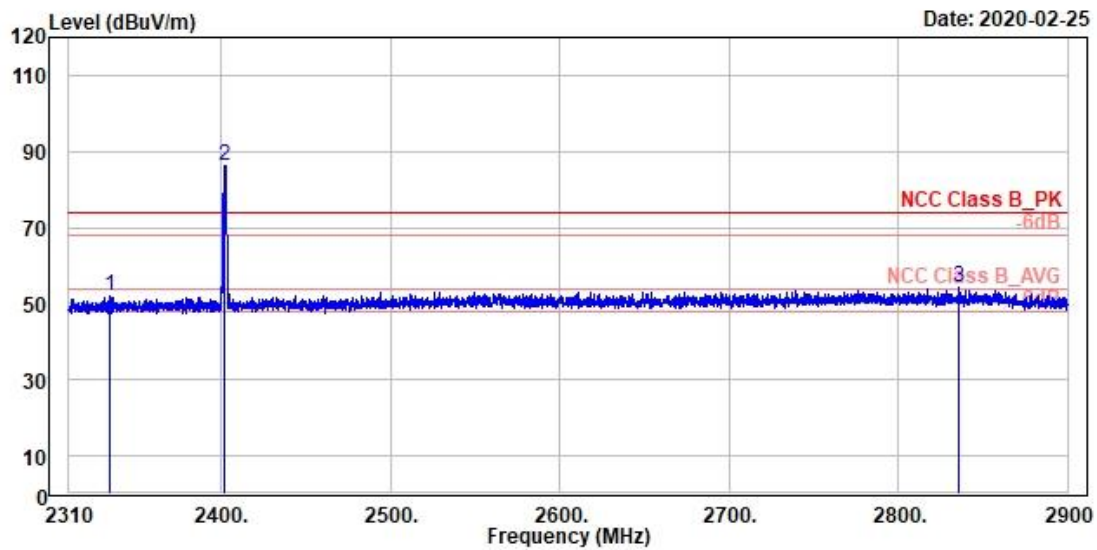
| | Freq | Level | Read Level | Factor | Limit Line | Over Limit | APos | TPos | Remark | Pol/Phase |
|-----|----------|--------|---------------|--------|---------------|---------------|------|------|---------|------------|
| | MHz | dBuV/m | dBuV | dB/m | dBuV/m | dB | cm | deg | | |
| 1 | 2387.172 | 39.96 | 2.81 | 37.15 | 54.00 | -14.04 | 277 | 302 | Average | Horizontal |
| 2 * | 2402.000 | 90.01 | 52.86 | 37.15 | 54.00 | 36.01 | 277 | 302 | Average | Horizontal |
| 3 | 2842.770 | 42.48 | 4.39 | 38.09 | 54.00 | -11.52 | 277 | 302 | Average | Horizontal |



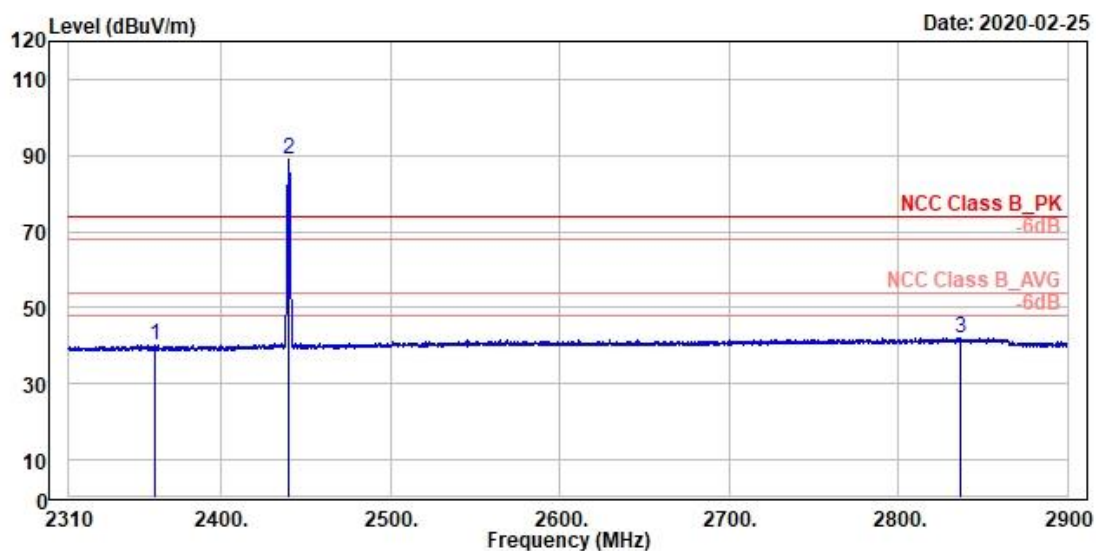
| | Freq | Level | Read Level | Factor | Limit Line | Over Limit | APos | TPos | Remark | Pol/Phase |
|-----|----------|--------|------------|--------|------------|------------|------|------|---------|-----------|
| | MHz | dBuV/m | dBuV | dB/m | dBuV/m | dB | cm | deg | | |
| 1 | 2364.870 | 40.19 | 3.03 | 37.16 | 54.00 | -13.81 | 349 | 29 | Average | Vertical |
| 2 * | 2402.000 | 85.44 | 48.29 | 37.15 | 54.00 | 31.44 | 349 | 29 | Average | Vertical |
| 3 | 2849.496 | 42.12 | 4.03 | 38.09 | 54.00 | -11.88 | 349 | 29 | Average | Vertical |



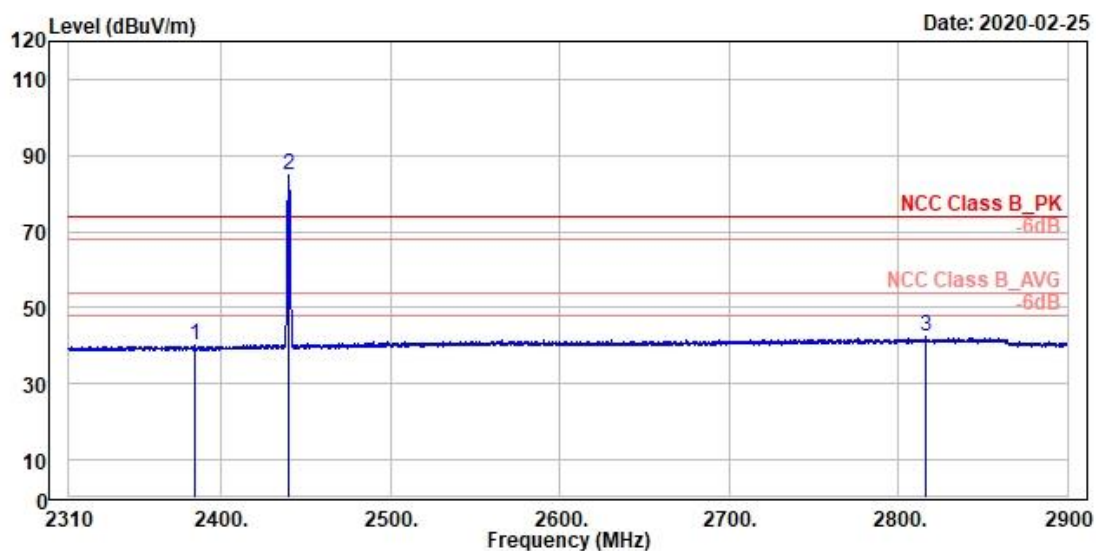
| | Freq | Level | Read Level | Factor | Limit Line | Over Limit | APos | TPos | Remark | Pol/Phase |
|-----|----------|--------|------------|--------|------------|------------|------|------|--------|------------|
| | MHz | dBuV/m | dBuV | dB/m | dBuV/m | dB | cm | deg | | |
| 1 | 2344.338 | 52.55 | 15.38 | 37.17 | 74.00 | -21.45 | 277 | 302 | Peak | Horizontal |
| 2 * | 2402.000 | 91.02 | 53.87 | 37.15 | 74.00 | 17.02 | 277 | 302 | Peak | Horizontal |
| 3 | 2855.514 | 54.54 | 16.46 | 38.08 | 74.00 | -19.46 | 277 | 302 | Peak | Horizontal |



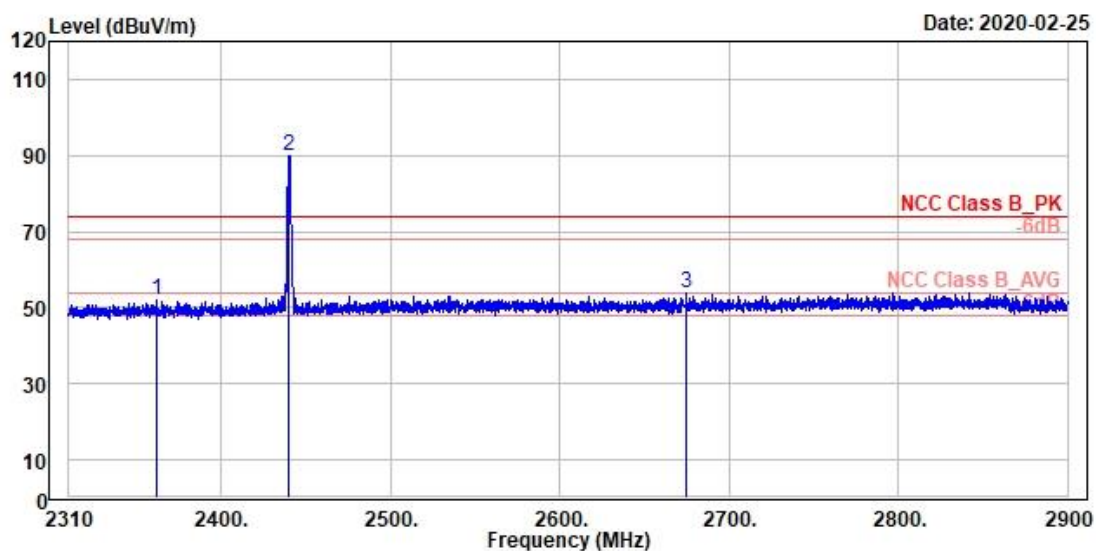
| | Freq | Level | Read Level | Factor | Limit Line | Over Limit | APos | TPos | Remark | Pol/Phase |
|-----|----------|--------|------------|--------|------------|------------|------|------|--------|-----------|
| | MHz | dBuV/m | dBuV | dB/m | dBuV/m | dB | cm | deg | | |
| 1 | 2334.190 | 52.10 | 14.95 | 37.15 | 74.00 | -21.90 | 349 | 29 | Peak | Vertical |
| 2 * | 2402.000 | 86.44 | 49.29 | 37.15 | 74.00 | 12.44 | 349 | 29 | Peak | Vertical |
| 3 | 2836.280 | 54.20 | 16.10 | 38.10 | 74.00 | -19.80 | 349 | 29 | Peak | Vertical |



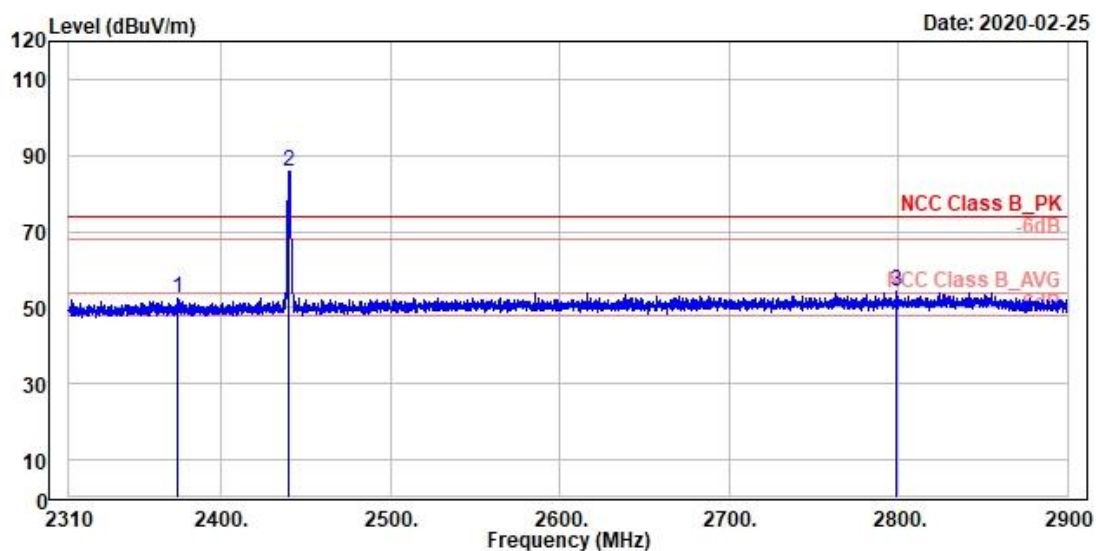
| | Freq | Level | Read Level | Factor | Limit Line | Over Limit | APos | TPos | Remark | Pol/Phase |
|-----|----------|--------|------------|--------|------------|------------|------|------|---------|------------|
| | MHz | dBuV/m | dBuV | dB/m | dBuV/m | dB | cm | deg | | |
| 1 | 2361.094 | 40.14 | 2.97 | 37.17 | 54.00 | -13.86 | 305 | 319 | Average | Horizontal |
| 2 * | 2440.000 | 89.05 | 51.70 | 37.35 | 54.00 | 35.05 | 305 | 319 | Average | Horizontal |
| 3 | 2836.870 | 42.18 | 4.08 | 38.10 | 54.00 | -11.82 | 305 | 319 | Average | Horizontal |



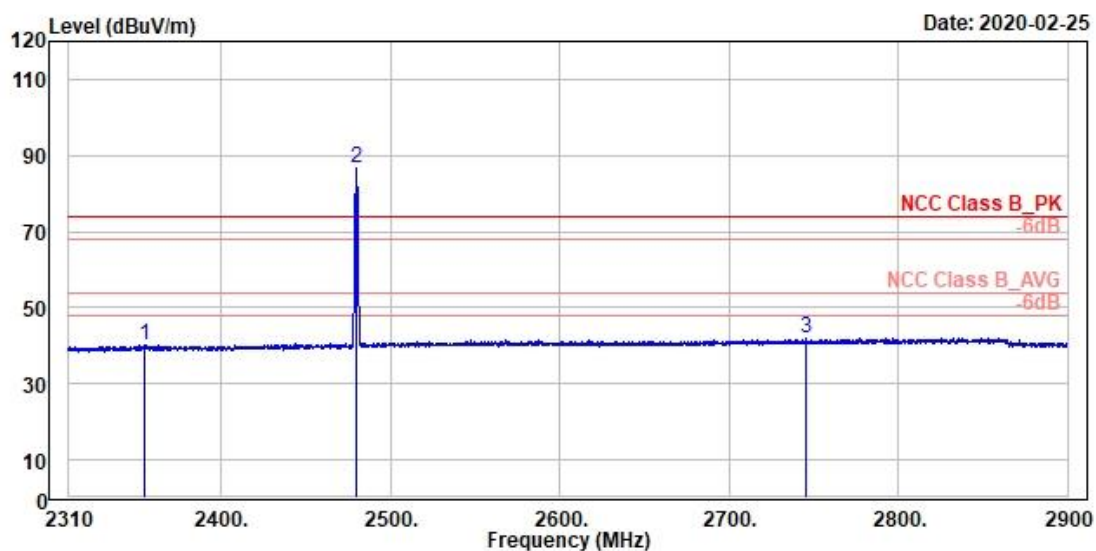
| | Freq | Level | Read Level | Factor | Limit Line | Over Limit | APos | TPos | Remark | Pol/Phase |
|-----|----------|--------|------------|--------|------------|------------|------|------|---------|-----------|
| | MHz | dBuV/m | dBuV | dB/m | dBuV/m | dB | cm | deg | | |
| 1 | 2383.986 | 40.04 | 2.89 | 37.15 | 54.00 | -13.96 | 379 | 360 | Average | Vertical |
| 2 * | 2440.000 | 84.95 | 47.60 | 37.35 | 54.00 | 30.95 | 379 | 360 | Average | Vertical |
| 3 | 2815.984 | 42.34 | 4.22 | 38.12 | 54.00 | -11.66 | 379 | 360 | Average | Vertical |



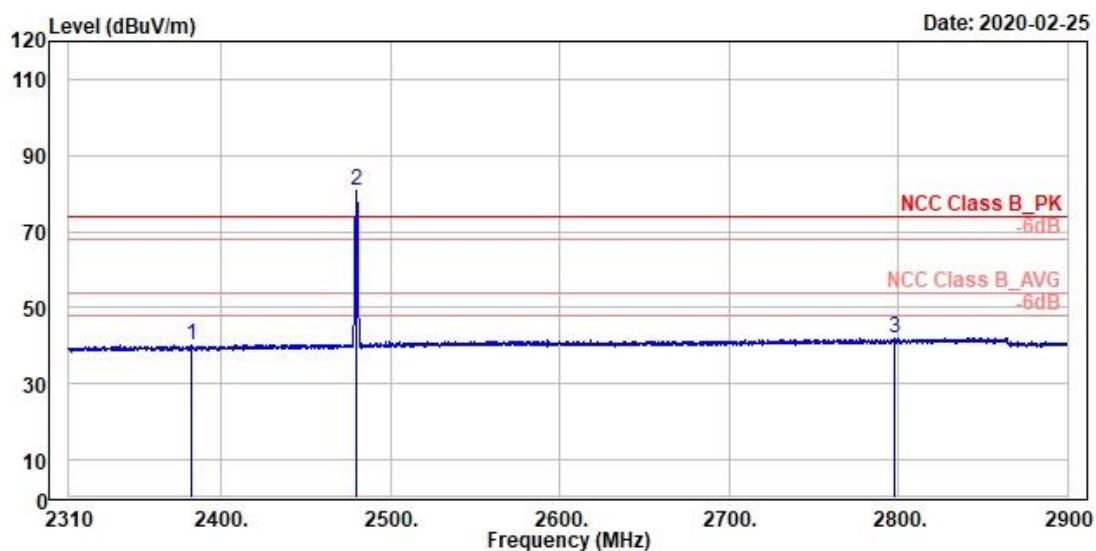
| | Freq | Level | Read Level | Factor | Limit Line | Over Limit | APos | TPos | Remark | Pol/Phase |
|-----|----------|--------|------------|--------|------------|------------|------|------|--------|------------|
| | MHz | dBuV/m | dBuV | dB/m | dBuV/m | dB | cm | deg | | |
| 1 | 2361.684 | 51.80 | 14.63 | 37.17 | 74.00 | -22.20 | 305 | 319 | Peak | Horizontal |
| 2 * | 2440.000 | 90.07 | 52.72 | 37.35 | 74.00 | 16.07 | 305 | 319 | Peak | Horizontal |
| 3 | 2675.092 | 53.93 | 16.31 | 37.62 | 74.00 | -20.07 | 305 | 319 | Peak | Horizontal |



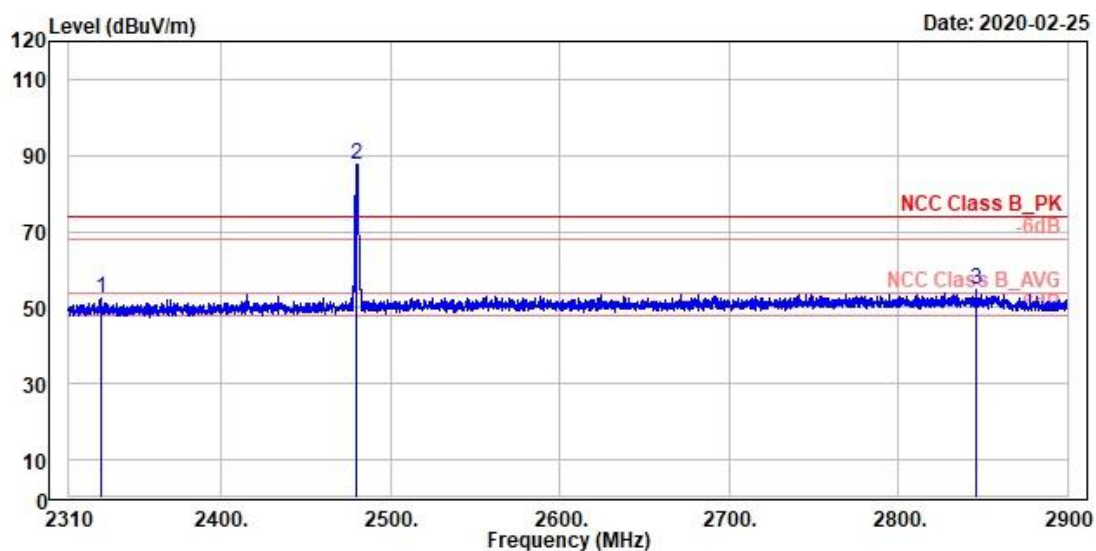
| | Freq | Level | Read Level | Factor | Limit Line | Over Limit | APos | TPos | Remark | Pol/Phase |
|-----|----------|--------|------------|--------|------------|------------|------|------|--------|-----------|
| | MHz | dBuV/m | dBuV | dB/m | dBuV/m | dB | cm | deg | | |
| 1 | 2374.074 | 52.39 | 15.24 | 37.15 | 74.00 | -21.61 | 379 | 360 | Peak | Vertical |
| 2 * | 2440.000 | 85.96 | 48.61 | 37.35 | 74.00 | 11.96 | 379 | 360 | Peak | Vertical |
| 3 | 2798.874 | 54.07 | 15.95 | 38.12 | 74.00 | -19.93 | 379 | 360 | Peak | Vertical |



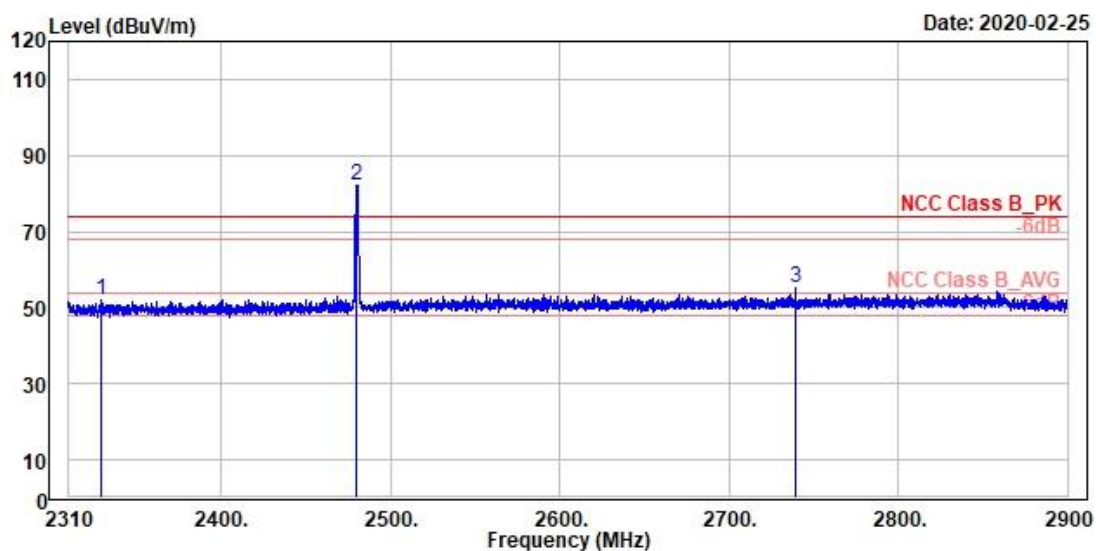
| | Freq | Level | Read Level | Factor | Limit Line | Over Limit | APos | TPos | Remark | Pol/Phase |
|-----|----------|--------|------------|--------|------------|------------|------|------|---------|------------|
| | MHz | dBuV/m | dBuV | dB/m | dBuV/m | dB | cm | deg | | |
| 1 | 2354.250 | 40.18 | 3.01 | 37.17 | 54.00 | -13.82 | 332 | 328 | Average | Horizontal |
| 2 * | 2480.000 | 86.51 | 48.95 | 37.56 | 54.00 | 32.51 | 332 | 328 | Average | Horizontal |
| 3 | 2745.538 | 42.02 | 3.99 | 38.03 | 54.00 | -11.98 | 332 | 328 | Average | Horizontal |



| | Freq | Level | Read Level | Factor | Limit Line | Over Limit | APos | TPos | Remark | Pol/Phase |
|-----|----------|--------|---------------|--------|---------------|---------------|------|------|---------|-----------|
| | MHz | dBuV/m | dBuV | dB/m | dBuV/m | dB | cm | deg | | |
| 1 | 2382.334 | 39.98 | 2.83 | 37.15 | 54.00 | -14.02 | 371 | 2 | Average | Vertical |
| 2 * | 2480.000 | 80.86 | 43.30 | 37.56 | 54.00 | 26.86 | 371 | 2 | Average | Vertical |
| 3 | 2798.166 | 41.98 | 3.86 | 38.12 | 54.00 | -12.02 | 371 | 2 | Average | Vertical |



| | Freq | Level | Read Level | Factor | Limit Line | Over Limit | APos | TPos | Remark | Pol/Phase |
|-----|----------|--------|------------|--------|------------|------------|------|------|--------|------------|
| | MHz | dBuV/m | dBuV | dB/m | dBuV/m | dB | cm | deg | | |
| 1 | 2328.526 | 52.40 | 15.25 | 37.15 | 74.00 | -21.60 | 332 | 328 | Peak | Horizontal |
| 2 * | 2480.000 | 87.54 | 49.98 | 37.56 | 74.00 | 13.54 | 332 | 328 | Peak | Horizontal |
| 3 | 2846.428 | 54.76 | 16.67 | 38.09 | 74.00 | -19.24 | 332 | 328 | Peak | Horizontal |

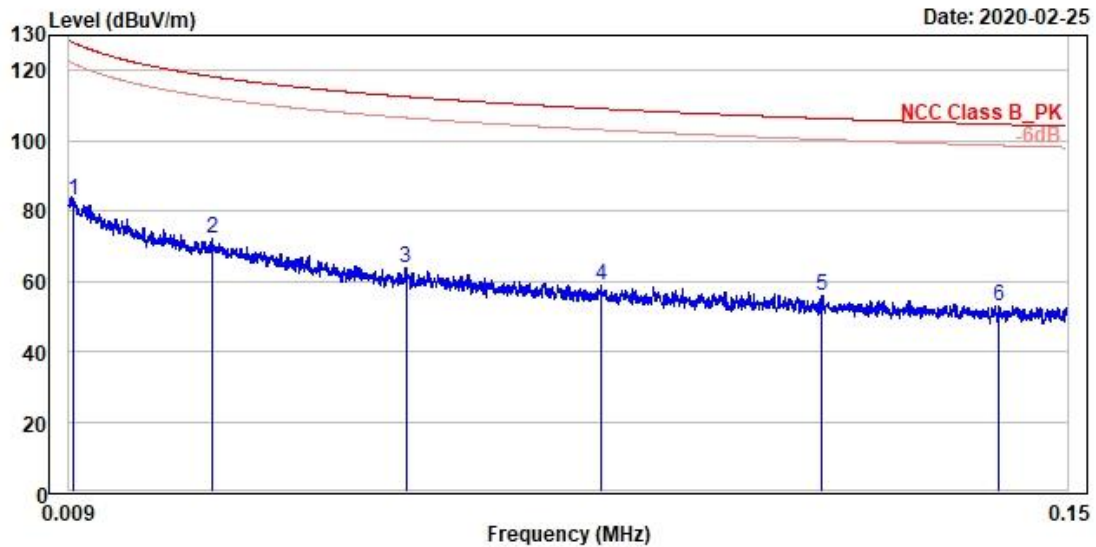


| | Freq | Level | Read Level | Factor | Limit Line | Over Limit | APos | TPos | Remark | Pol/Phase |
|-----|----------|--------|------------|--------|------------|------------|------|--------|----------|-----------|
| | MHz | dBuV/m | dBuV | dB/m | dBuV/m | dB | cm | deg | | |
| 1 | 2328.998 | 51.86 | 14.71 | 37.15 | 74.00 | -22.14 | 371 | 2 Peak | Vertical | |
| 2 * | 2480.000 | 82.06 | 44.50 | 37.56 | 74.00 | 8.06 | 371 | 2 Peak | Vertical | |
| 3 | 2739.520 | 55.13 | 17.14 | 37.99 | 74.00 | -18.87 | 371 | 2 Peak | Vertical | |

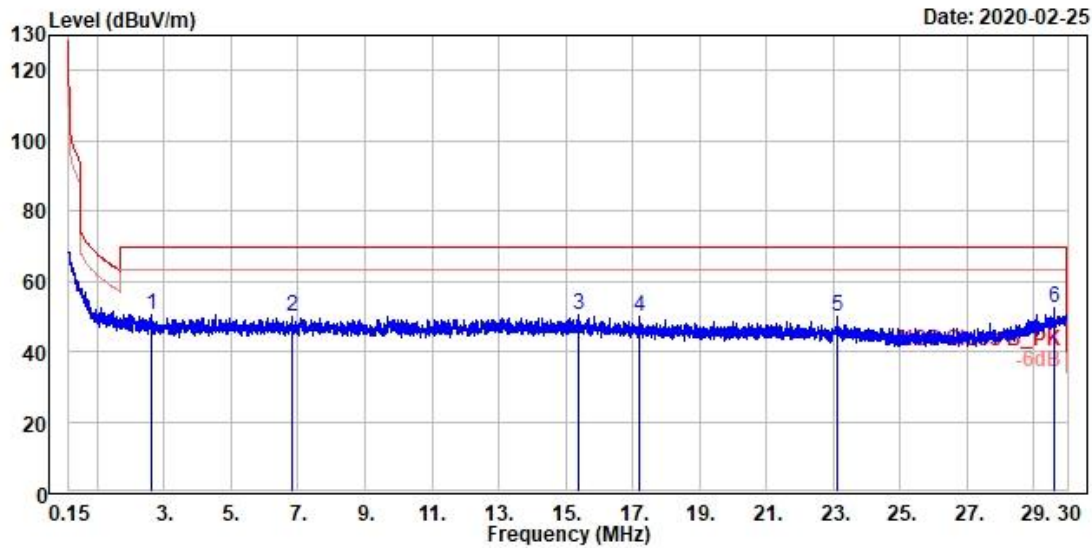
Spurious Emissions, TX Mode, 9kHz-30MHz



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| | Freq | Level | Read Level | Factor | Limit Line | Over Limit | APos | TPos | Remark | Pol/Phase |
|---|-------|--------|---------------|--------|---------------|---------------|------|------|--------|-----------|
| | MHz | dBuV/m | dBuV | dB/m | dBuV/m | dB | cm | deg | | |
| 1 | 0.010 | 83.04 | 3.81 | 79.23 | 127.90 | -44.86 | 100 | 253 | QP | vertical |
| 2 | 0.029 | 72.16 | 1.29 | 70.87 | 118.26 | -46.10 | 100 | 183 | QP | vertical |
| 3 | 0.057 | 63.99 | -0.14 | 64.13 | 112.54 | -48.55 | 100 | 140 | QP | vertical |
| 4 | 0.084 | 58.65 | -2.27 | 60.92 | 109.10 | -50.45 | 100 | 64 | QP | vertical |
| 5 | 0.115 | 56.01 | -2.35 | 58.36 | 106.35 | -50.34 | 100 | 276 | QP | vertical |
| 6 | 0.140 | 53.01 | -3.90 | 56.91 | 104.66 | -51.65 | 100 | 299 | QP | vertical |

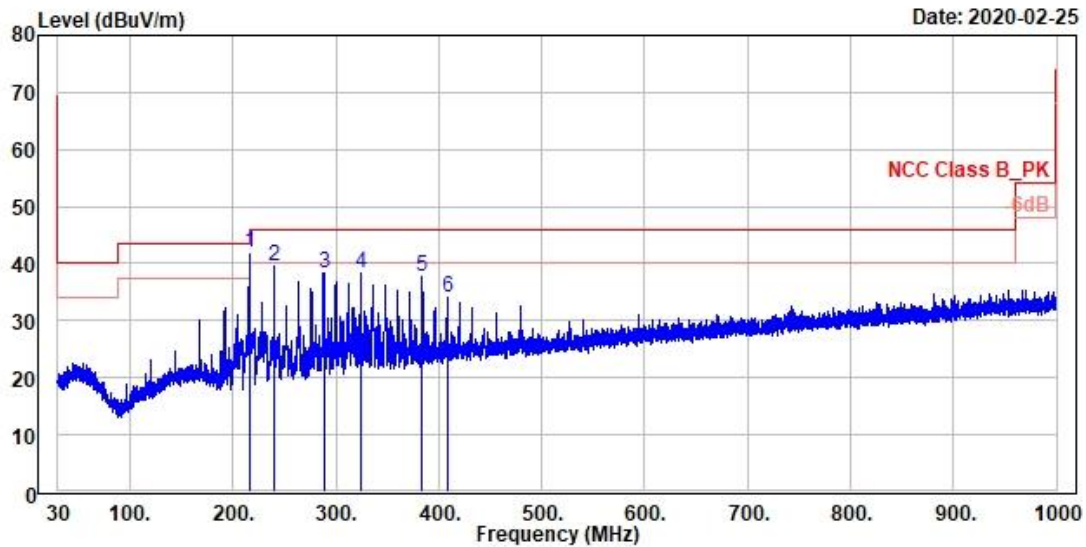


| | Freq | Level | Read Level | Factor | Limit Line | Over Limit | APos | TPos | Remark | Pol/Phase |
|---|--------|--------|------------|--------|------------|------------|------|------|--------|-----------|
| | MHz | dBuV/m | dBuV | dB/m | dBuV/m | dB | cm | deg | | |
| 1 | 2.601 | 50.60 | 12.19 | 38.41 | 69.50 | -18.90 | 100 | 143 | QP | vertical |
| 2 | 6.807 | 49.90 | 11.54 | 38.36 | 69.50 | -19.60 | 100 | 0 | QP | vertical |
| 3 | 15.397 | 50.47 | 12.82 | 37.65 | 69.50 | -19.03 | 100 | 180 | QP | vertical |
| 4 | 17.197 | 50.02 | 12.94 | 37.08 | 69.50 | -19.48 | 100 | 108 | QP | vertical |
| 5 | 23.123 | 50.06 | 14.57 | 35.49 | 69.50 | -19.44 | 100 | 340 | QP | vertical |
| 6 | 29.603 | 52.37 | 13.58 | 38.79 | 69.50 | -17.13 | 100 | 84 | QP | vertical |

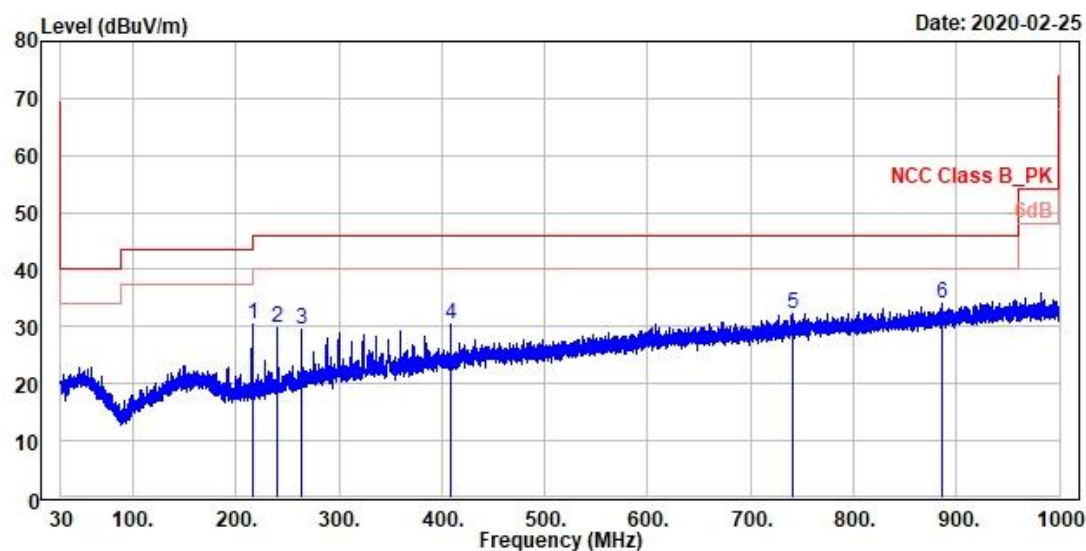
Spurious Emissions, TX Mode, 30MHz-1GHz



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| | Freq | Level | Read | Factor | Limit | Over | APos | TPos | Remark | Pol/Phase |
|-----|---------|--------|-------|--------|--------|--------|------|------|--------|------------|
| | MHz | dBuV/m | dBuV | dB/m | dBuV/m | dB | cm | deg | | |
| 1 ! | 216.046 | 41.91 | 50.30 | -8.39 | 46.00 | -4.09 | 150 | 344 | QP | horizontal |
| 2 | 239.714 | 39.52 | 46.39 | -6.87 | 46.00 | -6.48 | 100 | 191 | QP | horizontal |
| 3 | 288.408 | 38.45 | 43.52 | -5.07 | 46.00 | -7.55 | 100 | 5 | QP | horizontal |
| 4 | 324.007 | 38.30 | 42.52 | -4.22 | 46.00 | -7.70 | 100 | 317 | QP | horizontal |
| 5 | 383.759 | 37.70 | 41.09 | -3.39 | 46.00 | -8.30 | 100 | 298 | QP | horizontal |
| 6 | 408.397 | 34.08 | 37.10 | -3.02 | 46.00 | -11.92 | 100 | 311 | QP | horizontal |

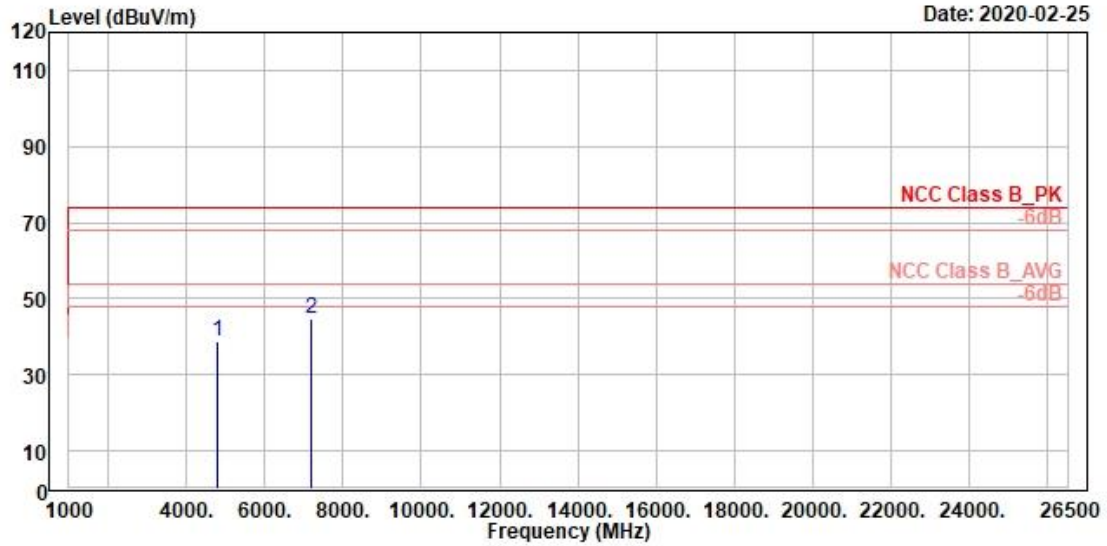


| | Freq | Level | Read Level | Factor | Limit Line | Over Limit | APos | TPos | Remark | Pol/Phase |
|---|---------|--------|------------|--------|------------|------------|------|--------|--------|-----------|
| | MHz | dBuV/m | dBuV | dB/m | dBuV/m | dB | cm | deg | | |
| 1 | 216.046 | 30.51 | 38.90 | -8.39 | 46.00 | -15.49 | 200 | 238 QP | | vertical |
| 2 | 240.102 | 29.87 | 36.73 | -6.86 | 46.00 | -16.13 | 200 | 241 QP | | vertical |
| 3 | 264.061 | 29.43 | 35.65 | -6.22 | 46.00 | -16.57 | 100 | 245 QP | | vertical |
| 4 | 408.009 | 30.39 | 33.42 | -3.03 | 46.00 | -15.61 | 200 | 238 QP | | vertical |
| 5 | 740.913 | 32.23 | 30.04 | 2.19 | 46.00 | -13.77 | 400 | 195 QP | | vertical |
| 6 | 886.413 | 33.92 | 30.08 | 3.84 | 46.00 | -12.08 | 256 | 0 QP | | vertical |

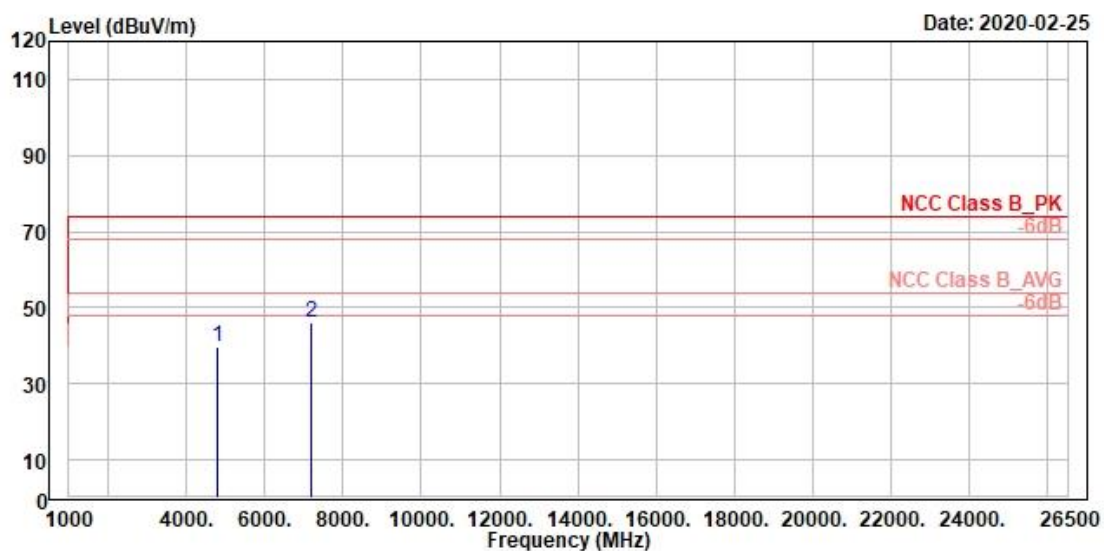
Spurious Emissions, TX Mode, 1GHz-26.5GHz



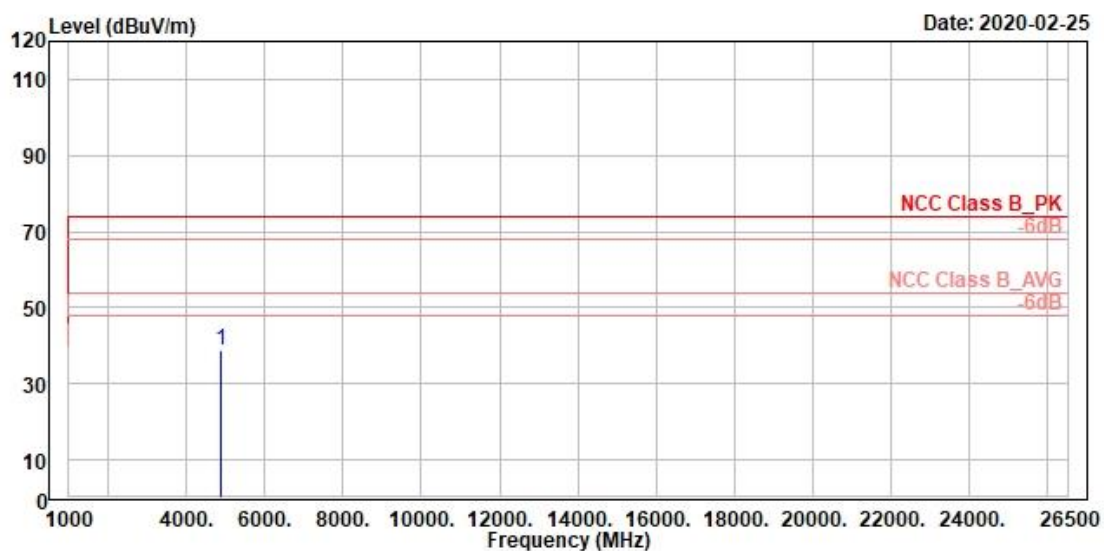
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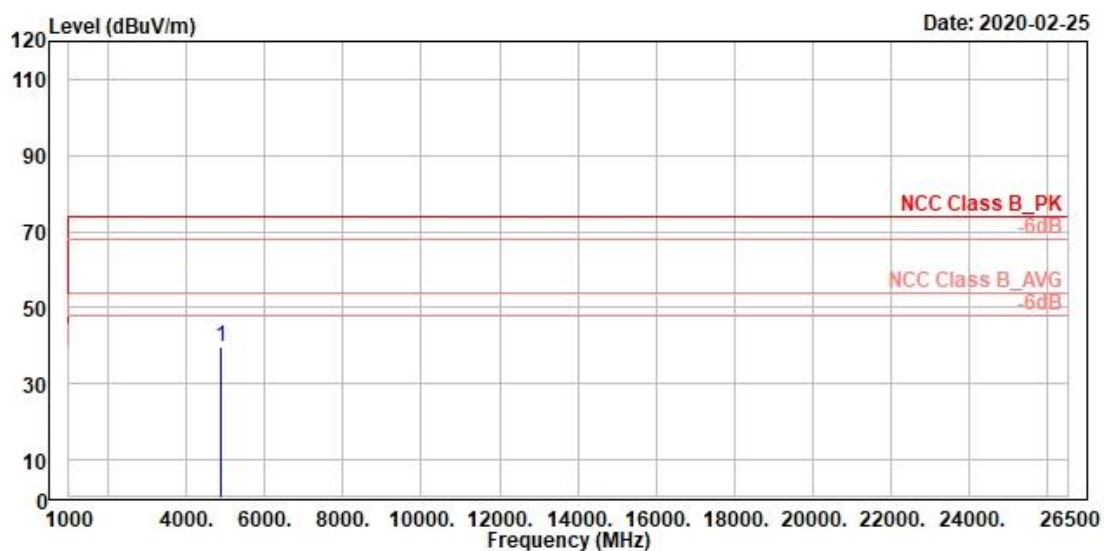
| | Freq | Level | Read Level | Factor | Limit Line | Over Limit | APos | TPos | Remark | Pol/Phase |
|---|----------|--------|---------------|--------|---------------|---------------|------|------|--------|------------|
| | MHz | dBuV/m | dBuV | dB/m | dBuV/m | dB | cm | deg | | |
| 1 | 4804.000 | 38.68 | 48.12 | -9.44 | 74.00 | -35.32 | 100 | 131 | Peak | horizontal |
| 2 | 7206.000 | 44.70 | 51.52 | -6.82 | 74.00 | -29.30 | 100 | 190 | Peak | horizontal |



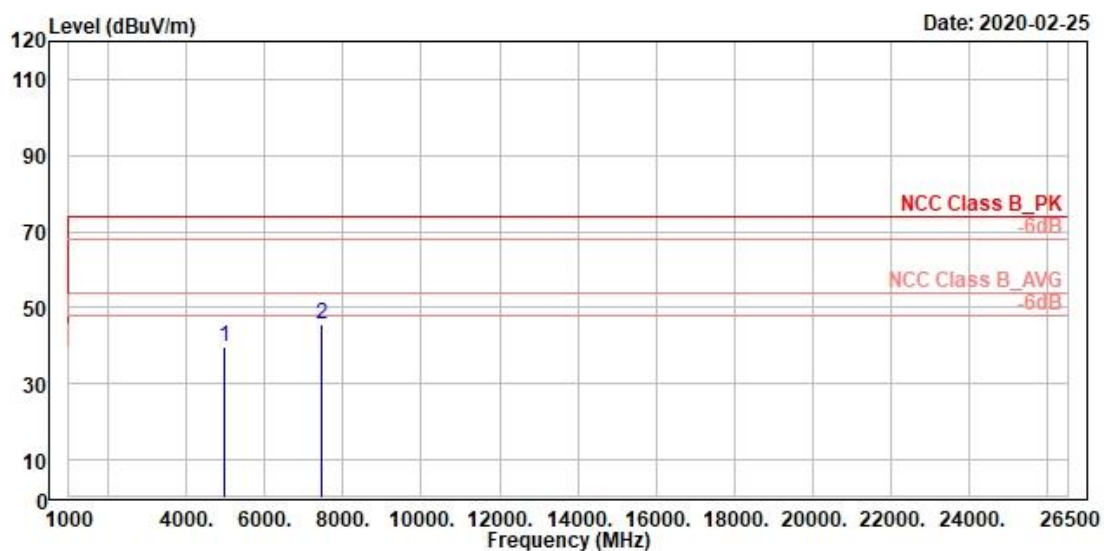
| | Freq | Level | Read Level | Factor | Limit Line | Over Limit | APos | TPos | Remark | Pol/Phase |
|---|----------|--------|------------|--------|------------|------------|------|------|--------|-----------|
| | MHz | dBuV/m | dBuV | dB/m | dBuV/m | dB | cm | deg | | |
| 1 | 4804.000 | 39.51 | 48.95 | -9.44 | 74.00 | -34.49 | 100 | 14 | Peak | vertical |
| 2 | 7206.000 | 46.09 | 52.91 | -6.82 | 74.00 | -27.91 | 100 | 170 | Peak | vertical |



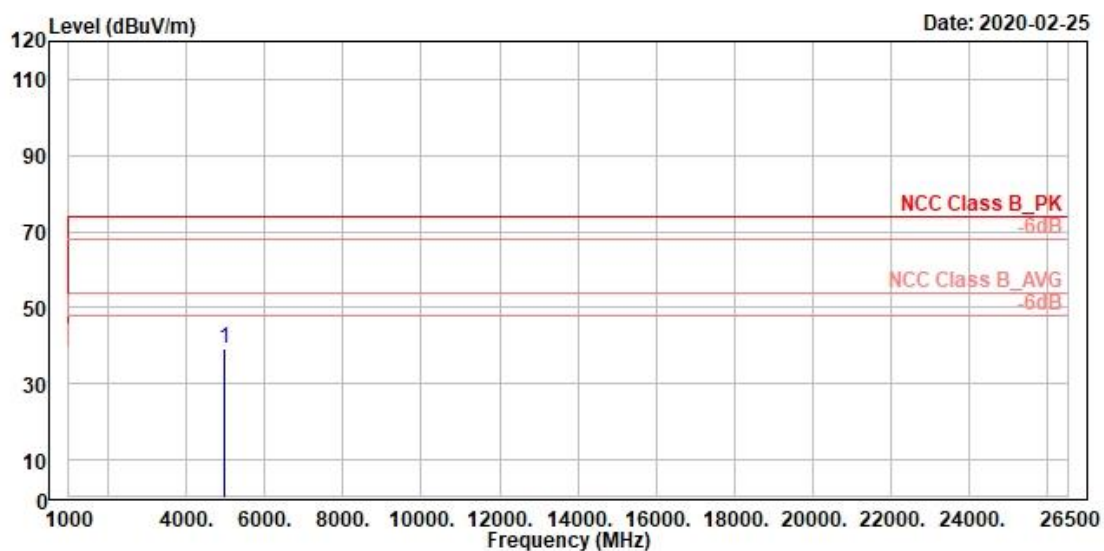
| | Freq | Level | Read Level | Factor | Limit Line | Over Limit | APos | TPos | Remark | Pol/Phase |
|---|----------|--------|---------------|--------|---------------|---------------|------|------|--------|------------|
| | MHz | dBuV/m | dBuV | dB/m | dBuV/m | dB | cm | deg | | |
| 1 | 4880.000 | 38.59 | 47.90 | -9.31 | 74.00 | -35.41 | 200 | 248 | Peak | horizontal |



| | Freq | Level | Read Level | Factor | Limit Line | Over Limit | APos | TPos | Remark | Pol/Phase |
|---|----------|--------|---------------|--------|---------------|---------------|------|------|--------|-----------|
| | MHz | dBuV/m | dBuV | dB/m | dBuV/m | dB | cm | deg | | |
| 1 | 4880.000 | 39.70 | 49.01 | -9.31 | 74.00 | -34.30 | 147 | 360 | Peak | vertical |



| | Freq | Level | Read Level | Factor | Limit Line | Over Limit | APos | TPos | Remark | Pol/Phase |
|---|----------|--------|------------|--------|------------|------------|------|------|--------|------------|
| | MHz | dBuV/m | dBuV | dB/m | dBuV/m | dB | cm | deg | | |
| 1 | 4960.000 | 39.55 | 48.68 | -9.13 | 74.00 | -34.45 | 196 | 360 | Peak | horizontal |
| 2 | 7440.000 | 45.78 | 52.48 | -6.70 | 74.00 | -28.22 | 100 | 175 | Peak | horizontal |

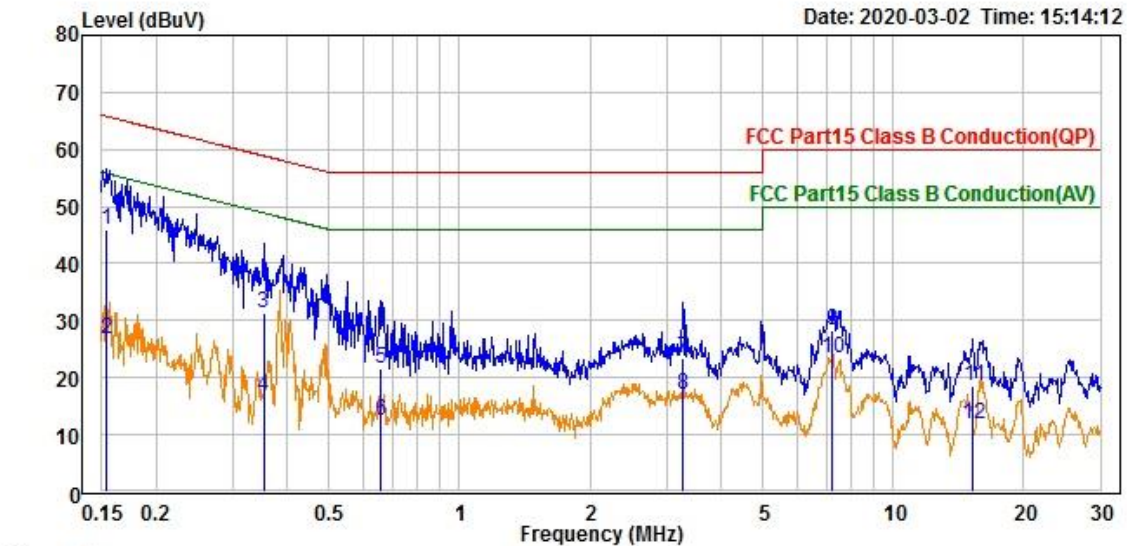


| | Freq | Level | Read Level | Factor | Limit Line | Over Limit | APos | TPos | Remark | Pol/Phase |
|---|----------|--------|---------------|--------|---------------|---------------|------|------|--------|-----------|
| | MHz | dBuV/m | dBuV | dB/m | dBuV/m | dB | cm | deg | | |
| 1 | 4960.000 | 39.02 | 48.15 | -9.13 | 74.00 | -34.98 | 100 | 220 | Peak | vertical |

Spurious Emissions, AC Mains

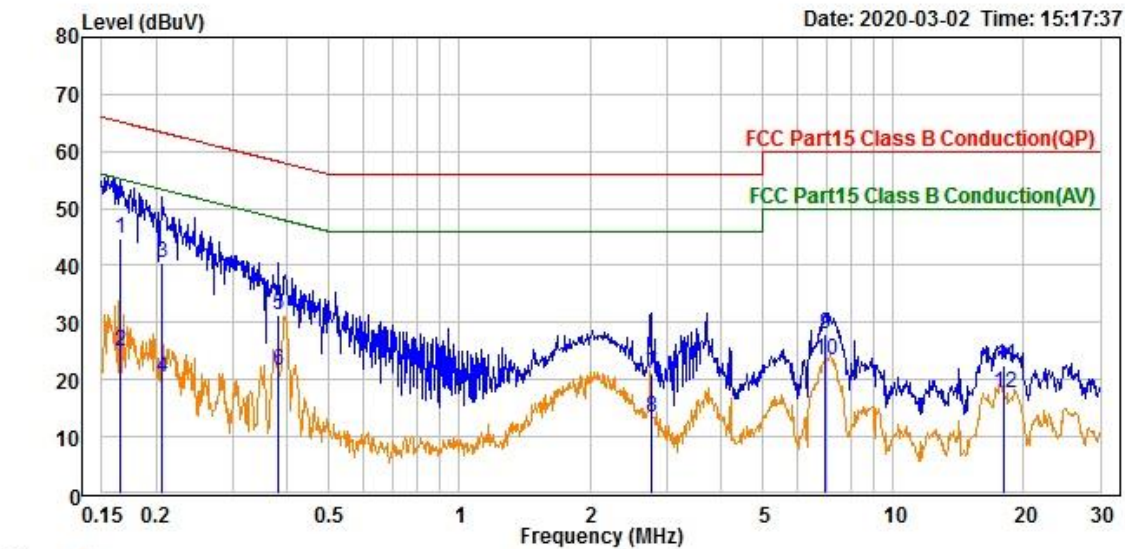


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Trace: 1

| | Freq | Read Level | Factor | Level | Limit Line | Over Limit | Remark | Note |
|----|--------|------------|--------|-------|------------|------------|---------|------|
| | MHz | dBuV | dB | dBuV | dBuV | dB | | |
| 1 | 0.154 | 36.42 | 9.62 | 46.04 | 65.79 | -19.75 | QP | |
| 2 | 0.154 | 17.27 | 9.62 | 26.89 | 55.79 | -28.90 | Average | |
| 3 | 0.354 | 21.63 | 9.63 | 31.26 | 58.88 | -27.62 | QP | |
| 4 | 0.354 | 6.96 | 9.63 | 16.59 | 48.88 | -32.29 | Average | |
| 5 | 0.659 | 11.90 | 9.63 | 21.53 | 56.00 | -34.47 | QP | |
| 6 | 0.659 | 2.82 | 9.63 | 12.45 | 46.00 | -33.55 | Average | |
| 7 | 3.281 | 13.79 | 9.66 | 23.45 | 56.00 | -32.55 | QP | |
| 8 | 3.281 | 7.28 | 9.66 | 16.94 | 46.00 | -29.06 | Average | |
| 9 | 7.248 | 18.56 | 9.71 | 28.27 | 60.00 | -31.73 | QP | |
| 10 | 7.248 | 13.65 | 9.71 | 23.36 | 50.00 | -26.64 | Average | |
| 11 | 15.307 | 8.67 | 9.80 | 18.47 | 60.00 | -41.53 | QP | |
| 12 | 15.307 | 2.01 | 9.80 | 11.81 | 50.00 | -38.19 | Average | |



Trace: 1

| | Freq | Read Level | Factor | Level | Limit Line | Over Limit | Remark | Note |
|----|--------|------------|--------|-------|------------|------------|---------|------|
| | MHz | dBuV | dB | dBuV | dBuV | dB | | |
| 1 | 0.166 | 35.14 | 9.61 | 44.75 | 65.17 | -20.42 | QP | |
| 2 | 0.166 | 15.38 | 9.61 | 24.99 | 55.17 | -30.18 | Average | |
| 3 | 0.206 | 30.88 | 9.61 | 40.49 | 63.35 | -22.86 | QP | |
| 4 | 0.206 | 10.90 | 9.61 | 20.51 | 53.35 | -32.84 | Average | |
| 5 | 0.383 | 21.63 | 9.62 | 31.25 | 58.22 | -26.97 | QP | |
| 6 | 0.383 | 11.85 | 9.62 | 21.47 | 48.22 | -26.75 | Average | |
| 7 | 2.770 | 11.20 | 9.65 | 20.85 | 56.00 | -35.15 | QP | |
| 8 | 2.770 | 3.87 | 9.65 | 13.52 | 46.00 | -32.48 | Average | |
| 9 | 6.964 | 18.35 | 9.70 | 28.05 | 60.00 | -31.95 | QP | |
| 10 | 6.964 | 13.57 | 9.70 | 23.27 | 50.00 | -26.73 | Average | |
| 11 | 18.044 | 12.73 | 9.78 | 22.51 | 60.00 | -37.49 | QP | |
| 12 | 18.044 | 7.97 | 9.78 | 17.75 | 50.00 | -32.25 | Average | |