

## Appendix B: Test Results of Radiated Spurious Emissions & Mains

### Conducted Emission Test for UFL Antenna

Ant 5, ECC Mode

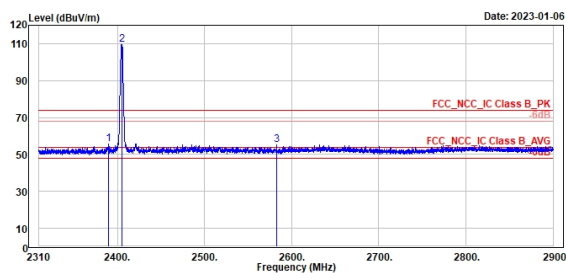
Band Edges, 2.31GHz ~ 2.9GHz

#### Zigbee\_250kHz

##### Low Channel (Horizontal) Peak



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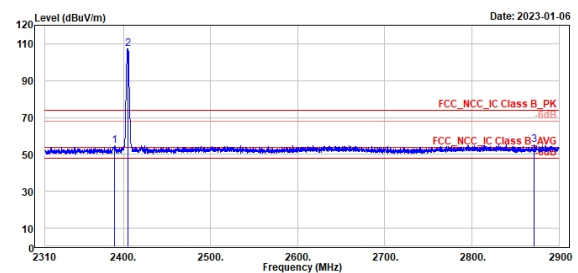


|     | Freq    | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos | Remark     | Pol/Phase | Note |
|-----|---------|--------|-------|-------|--------|--------|------|------|------|------------|-----------|------|
|     | MHz     | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     |      | cm   | deg  |            |           |      |
| 1   | 2389.89 | 55.69  | 17.77 | 37.92 | 74.00  | -18.31 | 156  | 206  | Peak | Horizontal |           |      |
| 2 * | 2405.00 | 109.47 | 71.52 | 37.95 | 74.00  | 35.47  | 156  | 206  | Peak | Horizontal |           |      |
| 3   | 2582.93 | 55.41  | 17.05 | 38.36 | 74.00  | -18.59 | 156  | 206  | Peak | Horizontal |           |      |

##### Low Channel (Vertical) Peak



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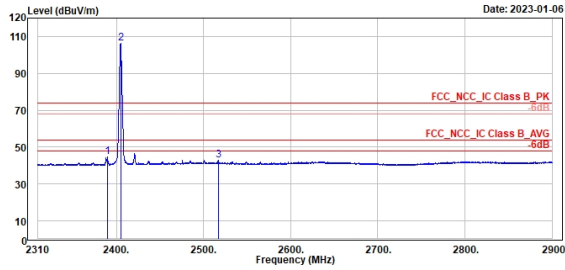
|     | Freq    | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos | Remark   | Pol/Phase | Note |
|-----|---------|--------|-------|-------|--------|--------|------|------|------|----------|-----------|------|
|     | MHz     | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     |      | cm   | deg  |          |           |      |
| 1   | 2389.65 | 54.90  | 16.98 | 37.92 | 74.00  | -19.10 | 400  | 164  | Peak | Vertical |           |      |
| 2 * | 2405.00 | 107.12 | 69.17 | 37.95 | 74.00  | 33.12  | 400  | 164  | Peak | Vertical |           |      |
| 3   | 2870.97 | 55.28  | 16.58 | 38.70 | 74.00  | -18.72 | 400  | 164  | Peak | Vertical |           |      |

**Zigbee\_250kHz**

**Low Channel (Horizontal) Average**



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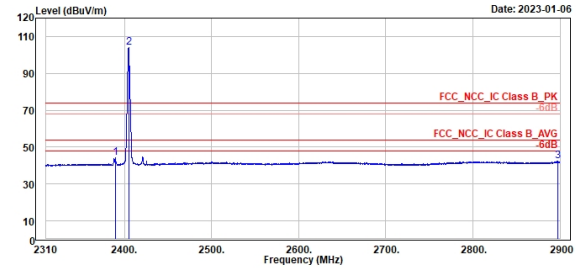


|     | Freq    | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos    | Remark     | Pol/Phase | Note |
|-----|---------|--------|-------|-------|--------|--------|------|------|---------|------------|-----------|------|
|     | MHz     | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg     |            |           |      |
| 1   | 2389.65 | 44.79  | 6.87  | 37.92 | 54.00  | -9.21  | 156  | 206  | Average | Horizontal |           |      |
| 2 * | 2405.00 | 106.44 | 68.49 | 37.95 | 54.00  | 52.44  | 156  | 206  | Average | Horizontal |           |      |
| 3   | 2516.85 | 42.85  | 4.57  | 38.28 | 54.00  | -11.15 | 156  | 206  | Average | Horizontal |           |      |

**Low Channel (Vertical) Average**



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|     | Freq    | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos    | Remark   | Pol/Phase | Note |
|-----|---------|--------|-------|-------|--------|--------|------|------|---------|----------|-----------|------|
|     | MHz     | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg     |          |           |      |
| 1   | 2389.77 | 44.30  | 6.38  | 37.92 | 54.00  | -9.70  | 400  | 164  | Average | Vertical |           |      |
| 2 * | 2405.00 | 104.13 | 66.18 | 37.95 | 54.00  | 50.13  | 400  | 164  | Average | Vertical |           |      |
| 3   | 2896.93 | 42.24  | 3.46  | 38.78 | 54.00  | -11.76 | 400  | 164  | Average | Vertical |           |      |

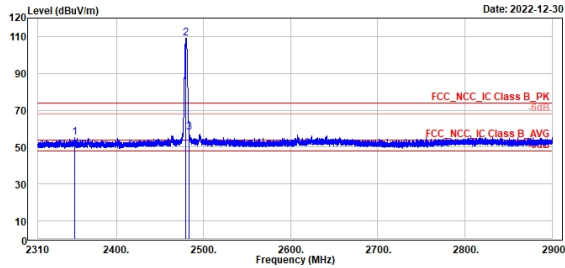
**Zigbee \_250kHz**

**High Channel (Horizontal) Peak**

**High Channel (Vertical) Peak**



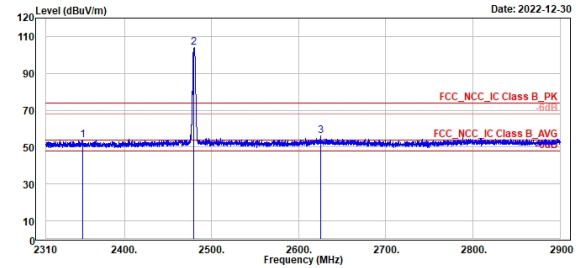
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|     | Freq    | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos | Remark | Pol/Phase  | Note |
|-----|---------|--------|-------|-------|--------|--------|------|------|------|--------|------------|------|
|     | MHz     | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg  |        |            |      |
| 1   | 2351.82 | 55.25  | 17.29 | 37.96 | 74.00  | -18.75 |      | 338  | 187  | Peak   | Horizontal |      |
| 2 * | 2480.00 | 108.91 | 70.60 | 38.31 | 74.00  | 34.91  |      | 338  | 187  | Peak   | Horizontal |      |
| 3   | 2483.70 | 57.86  | 19.55 | 38.31 | 74.00  | -16.14 |      | 338  | 187  | Peak   | Horizontal |      |



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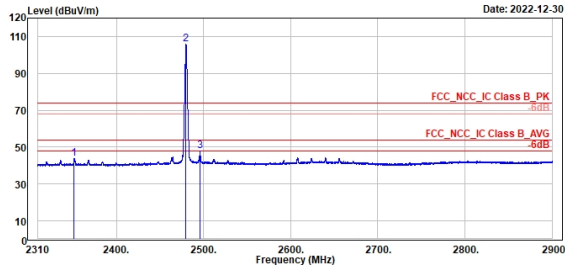
|     | Freq    | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos | Remark | Pol/Phase | Note |
|-----|---------|--------|-------|-------|--------|--------|------|------|------|--------|-----------|------|
|     | MHz     | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg  |        |           |      |
| 1   | 2352.24 | 53.84  | 15.88 | 37.96 | 74.00  | -20.16 |      | 375  | 148  | Peak   | Vertical  |      |
| 2 * | 2480.00 | 103.87 | 65.56 | 38.31 | 74.00  | 29.87  |      | 375  | 148  | Peak   | Vertical  |      |
| 3   | 2624.94 | 56.08  | 17.66 | 38.42 | 74.00  | -17.92 |      | 375  | 148  | Peak   | Vertical  |      |

Zigbee\_250kHz

High Channel (Horizontal) Average



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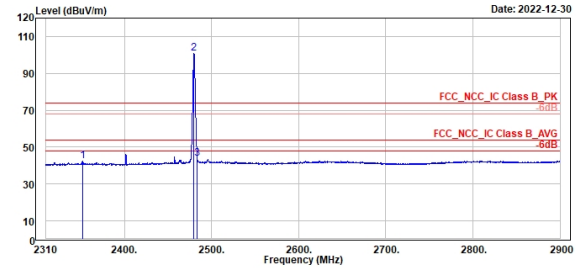


|     | Freq    | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos | Remark  | Pol/Phase  | Note |
|-----|---------|--------|-------|-------|--------|--------|------|------|------|---------|------------|------|
|     | MHz     | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg  |         |            |      |
| 1   | 2351.65 | 43.89  | 5.93  | 37.96 | 54.00  | -10.11 |      | 338  | 187  | Average | Horizontal |      |
| 2 * | 2480.00 | 105.84 | 67.53 | 38.31 | 54.00  | 51.84  |      | 338  | 187  | Average | Horizontal |      |
| 3   | 2495.95 | 47.81  | 9.48  | 38.33 | 54.00  | -6.19  |      | 338  | 187  | Average | Horizontal |      |

High Channel (Vertical) Average



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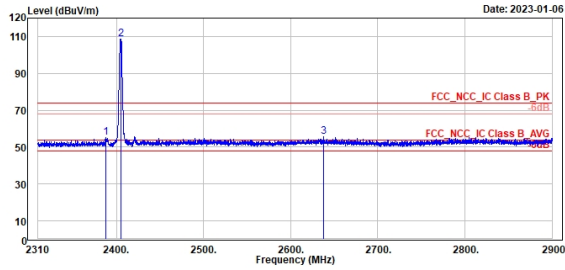
|     | Freq    | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos | Remark  | Pol/Phase | Note |
|-----|---------|--------|-------|-------|--------|--------|------|------|------|---------|-----------|------|
|     | MHz     | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg  |         |           |      |
| 1   | 2351.89 | 42.45  | 4.49  | 37.96 | 54.00  | -11.55 |      | 375  | 148  | Average | Vertical  |      |
| 2 * | 2480.00 | 100.87 | 62.56 | 38.31 | 54.00  | 46.87  |      | 375  | 148  | Average | Vertical  |      |
| 3   | 2483.46 | 43.60  | 5.29  | 38.31 | 54.00  | -10.40 |      | 375  | 148  | Average | Vertical  |      |

**Zigbee\_1Mbps**

**Low Channel (Horizontal) Peak**



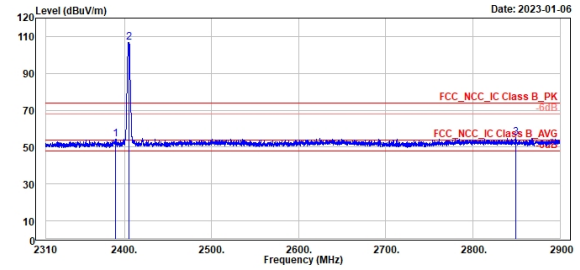
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|     | Freq    | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos | Remark     | Pol/Phase | Note |
|-----|---------|--------|-------|-------|--------|--------|------|------|------|------------|-----------|------|
|     | MHz     | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg  |            |           |      |
| 1   | 2388.23 | 55.35  | 17.43 | 37.92 | 74.00  | -18.65 | 254  | 327  | Peak | Horizontal |           |      |
| 2 * | 2405.00 | 108.69 | 70.74 | 37.95 | 74.00  | 34.69  | 254  | 327  | Peak | Horizontal |           |      |
| 3   | 2638.16 | 55.74  | 17.33 | 38.41 | 74.00  | -18.26 | 254  | 327  | Peak | Horizontal |           |      |



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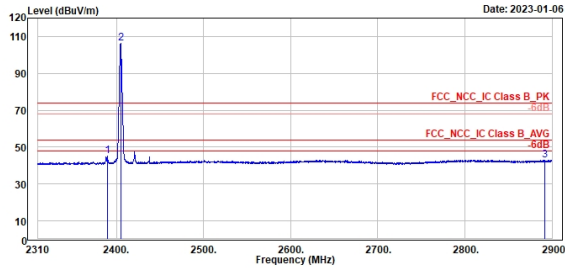
|     | Freq    | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos | Remark   | Pol/Phase | Note |
|-----|---------|--------|-------|-------|--------|--------|------|------|------|----------|-----------|------|
|     | MHz     | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg  |          |           |      |
| 1   | 2389.77 | 54.42  | 16.50 | 37.92 | 74.00  | -19.58 | 400  | 165  | Peak | Vertical |           |      |
| 2 * | 2405.00 | 106.95 | 69.00 | 37.95 | 74.00  | 32.95  | 400  | 165  | Peak | Vertical |           |      |
| 3   | 2848.67 | 55.04  | 16.41 | 38.63 | 74.00  | -18.96 | 400  | 165  | Peak | Vertical |           |      |

# Zigbee\_1Mbps

## Low Channel (Horizontal) Average



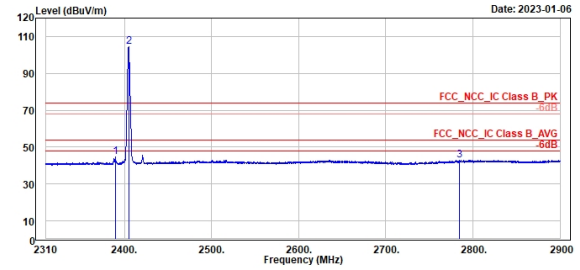
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|     | Freq    | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos    | Remark     | Pol/Phase | Note |
|-----|---------|--------|-------|-------|--------|--------|------|------|---------|------------|-----------|------|
|     | MHz     | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg     |            |           |      |
| 1   | 2389.77 | 45.18  | 7.26  | 37.92 | 54.00  | -8.82  | 254  | 327  | Average | Horizontal |           |      |
| 2 * | 2405.00 | 106.16 | 68.21 | 37.95 | 54.00  | 52.16  | 254  | 327  | Average | Horizontal |           |      |
| 3   | 2891.98 | 43.11  | 4.35  | 38.76 | 54.00  | -10.89 | 254  | 327  | Average | Horizontal |           |      |



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|     | Freq    | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos    | Remark   | Pol/Phase | Note |
|-----|---------|--------|-------|-------|--------|--------|------|------|---------|----------|-----------|------|
|     | MHz     | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg     |          |           |      |
| 1   | 2389.65 | 44.78  | 6.86  | 37.92 | 54.00  | -9.22  | 400  | 165  | Average | Vertical |           |      |
| 2 * | 2405.00 | 104.41 | 66.46 | 37.95 | 54.00  | 50.41  | 400  | 165  | Average | Vertical |           |      |
| 3   | 2784.71 | 43.11  | 4.67  | 38.44 | 54.00  | -10.89 | 400  | 165  | Average | Vertical |           |      |

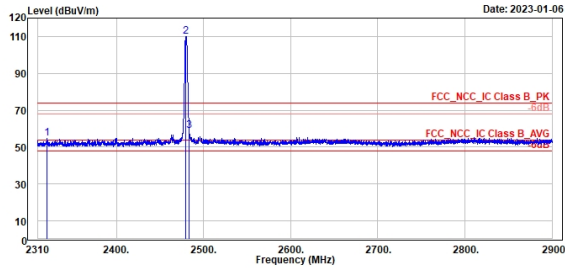
Zigbee\_1Mbps

High Channel (Horizontal) Peak

High Channel (Vertical) Peak



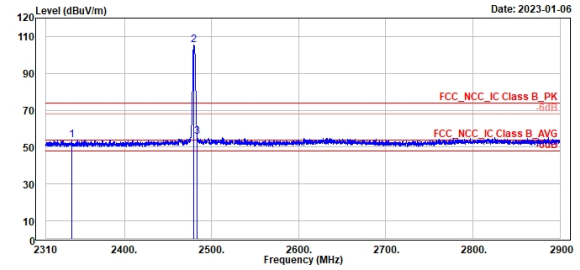
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|     | Freq    | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos | Remark     | Pol/Phase  | Note |
|-----|---------|--------|-------|-------|--------|--------|------|------|------|------------|------------|------|
|     | MHz     | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg  |            |            |      |
| 1   | 2320.03 | 54.84  | 17.16 | 37.68 | 74.00  | -19.16 |      | 100  | 203  | Peak       | Horizontal |      |
| 2 * | 2480.00 | 109.84 | 71.53 | 38.31 | 74.00  | 35.84  | 100  | 203  | Peak | Horizontal | Horizontal |      |
| 3   | 2483.46 | 59.06  | 20.75 | 38.31 | 74.00  | -14.94 |      | 100  | 203  | Peak       | Horizontal |      |



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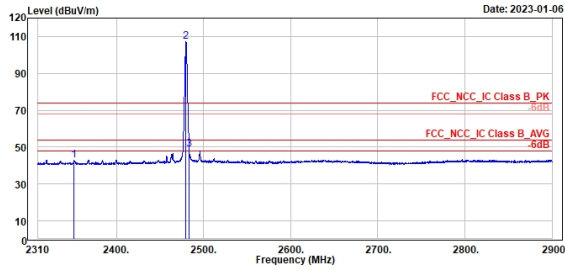
|     | Freq    | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos | Remark   | Pol/Phase | Note |
|-----|---------|--------|-------|-------|--------|--------|------|------|------|----------|-----------|------|
|     | MHz     | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg  |          |           |      |
| 1   | 2339.26 | 53.99  | 16.14 | 37.85 | 74.00  | -20.01 |      | 100  | 158  | Peak     | Vertical  |      |
| 2 * | 2480.00 | 105.20 | 66.89 | 38.31 | 74.00  | 31.20  | 100  | 158  | Peak | Vertical | Vertical  |      |
| 3   | 2483.46 | 55.60  | 17.29 | 38.31 | 74.00  | -18.40 |      | 100  | 158  | Peak     | Vertical  |      |

Zigbee \_1Mbps

High Channel (Horizontal) Average



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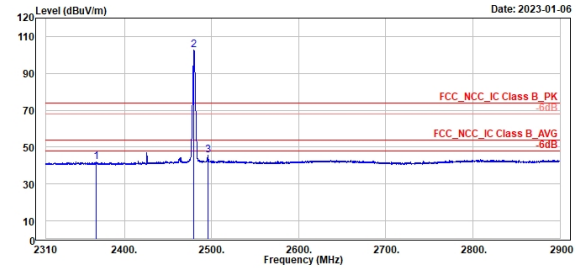


|     | Freq    | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos    | Remark     | Pol/Phase | Note |
|-----|---------|--------|-------|-------|--------|--------|------|------|---------|------------|-----------|------|
|     | MHz     | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg     |            |           |      |
| 1   | 2351.65 | 43.06  | 5.10  | 37.96 | 54.00  | -10.94 | 100  | 203  | Average | Horizontal |           |      |
| 2 * | 2480.00 | 107.21 | 60.90 | 38.31 | 54.00  | 53.21  | 100  | 203  | Average | Horizontal |           |      |
| 3 ! | 2483.46 | 48.78  | 10.47 | 38.31 | 54.00  | -5.22  | 100  | 203  | Average | Horizontal |           |      |

High Channel (Vertical) Average



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|     | Freq    | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos    | Remark   | Pol/Phase | Note |
|-----|---------|--------|-------|-------|--------|--------|------|------|---------|----------|-----------|------|
|     | MHz     | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg     |          |           |      |
| 1   | 2367.94 | 41.95  | 4.01  | 37.94 | 54.00  | -12.05 | 100  | 158  | Average | Vertical |           |      |
| 2 * | 2480.00 | 102.61 | 64.30 | 38.31 | 54.00  | 48.61  | 100  | 158  | Average | Vertical |           |      |
| 3   | 2495.97 | 45.63  | 7.30  | 38.33 | 54.00  | -8.37  | 100  | 158  | Average | Vertical |           |      |



## Spurious Emissions, Tx Mode, 9kHz ~ 30MHz

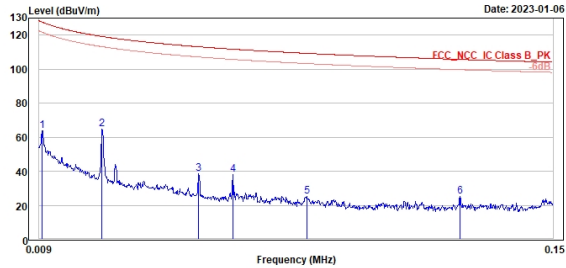
### Zigbee\_1Mbps

#### High Channel (Open) 9kHz~150kHz

#### High Channel (Open) 150kHz~30MHz



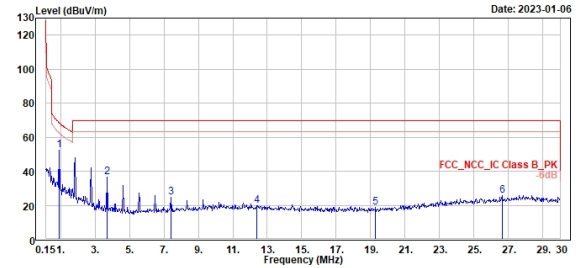
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|   | Freq | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos | Remark | Pol/Phase | Note |
|---|------|--------|-------|-------|--------|--------|------|------|------|--------|-----------|------|
|   | MHz  | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg  |        |           |      |
| 1 | 0.01 | 63.96  | 35.12 | 28.84 | 127.72 | -63.76 | 100  | 224  | QP   | Open   |           |      |
| 2 | 0.03 | 64.56  | 42.01 | 22.55 | 119.18 | -54.62 | 100  | 34   | QP   | Open   |           |      |
| 3 | 0.05 | 38.70  | 22.68 | 16.02 | 113.13 | -74.43 | 100  | 67   | QP   | Open   |           |      |
| 4 | 0.06 | 38.25  | 23.52 | 14.73 | 111.72 | -73.47 | 100  | 232  | QP   | Open   |           |      |
| 5 | 0.08 | 25.35  | 13.34 | 12.01 | 109.27 | -83.92 | 100  | 197  | QP   | Open   |           |      |
| 6 | 0.12 | 25.35  | 16.83 | 8.52  | 105.70 | -88.35 | 100  | 221  | QP   | Open   |           |      |



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|   | Freq  | Level  | Read  | Level  | Factor | Limit  | Over | APos | TPos | Remark | Pol/Phase | Note |
|---|-------|--------|-------|--------|--------|--------|------|------|------|--------|-----------|------|
|   | MHz   | dBuV/m | dBuV  | dB/m   | dBuV/m | dB     | dB   | cm   | deg  |        |           |      |
| 1 | 0.93  | 52.52  | 58.64 | -6.12  | 68.27  | -15.75 | 100  | 136  | QP   | Open   |           |      |
| 2 | 3.70  | 36.48  | 47.65 | -11.25 | 69.50  | -33.10 | 100  | 136  | QP   | Open   |           |      |
| 3 | 7.43  | 24.67  | 35.70 | -11.03 | 69.50  | -44.83 | 100  | 153  | QP   | Open   |           |      |
| 4 | 12.39 | 19.92  | 30.28 | -10.36 | 69.50  | -49.58 | 100  | 21   | QP   | Open   |           |      |
| 5 | 19.28 | 18.74  | 29.86 | -11.12 | 69.50  | -50.76 | 100  | 203  | QP   | Open   |           |      |
| 6 | 26.63 | 25.98  | 33.89 | -7.99  | 69.50  | -43.60 | 100  | 64   | QP   | Open   |           |      |

## Spurious Emissions, Tx Mode, 30MHz ~ 1GHz

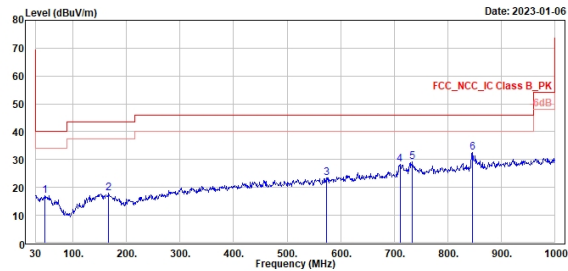
### Zigbee\_1Mbps

#### High Channel (Horizontal)

#### High Channel (Vertical)



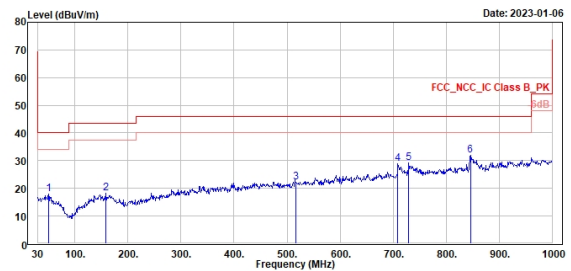
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|   | Freq   | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos | Remark | Pol/Phase  | Note |
|---|--------|--------|-------|-------|--------|--------|------|------|------|--------|------------|------|
|   | MHz    | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg  |        |            |      |
| 1 | 46.49  | 17.12  | 22.94 | -5.82 | 40.00  | -22.88 |      | 400  | 307  | QP     | Horizontal |      |
| 2 | 166.77 | 17.80  | 23.69 | -5.89 | 43.50  | -25.70 |      | 213  | 360  | QP     | Horizontal |      |
| 3 | 573.20 | 23.54  | 23.87 | -0.33 | 46.00  | -22.46 |      | 300  | 208  | QP     | Horizontal |      |
| 4 | 710.94 | 28.38  | 26.54 | 1.84  | 46.00  | -17.62 |      | 400  | 1    | QP     | Horizontal |      |
| 5 | 734.22 | 29.13  | 26.06 | 2.27  | 46.00  | -16.87 |      | 100  | 351  | QP     | Horizontal |      |
| 6 | 846.74 | 32.61  | 28.57 | 4.04  | 46.00  | -13.39 |      | 100  | 360  | QP     | Horizontal |      |



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|   | Freq   | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos | Remark | Pol/Phase | Note |
|---|--------|--------|-------|-------|--------|--------|------|------|------|--------|-----------|------|
|   | MHz    | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg  |        |           |      |
| 1 | 50.37  | 18.00  | 23.92 | -5.92 | 40.00  | -22.00 |      | 300  | 127  | QP     | Vertical  |      |
| 2 | 158.04 | 18.10  | 23.97 | -5.87 | 43.50  | -25.40 |      | 400  | 236  | QP     | Vertical  |      |
| 3 | 516.94 | 22.21  | 23.39 | -1.18 | 46.00  | -23.79 |      | 200  | 320  | QP     | Vertical  |      |
| 4 | 709.00 | 28.00  | 26.98 | 1.02  | 46.00  | -17.20 |      | 200  | 300  | QP     | Vertical  |      |
| 5 | 729.37 | 29.14  | 27.07 | 2.07  | 46.00  | -16.06 |      | 100  | 242  | QP     | Vertical  |      |
| 6 | 845.77 | 31.84  | 27.81 | 4.03  | 46.00  | -14.16 |      | 300  | 253  | QP     | Vertical  |      |

## Spurious Emissions, Tx Mode, 1GHz ~ 26.5GHz

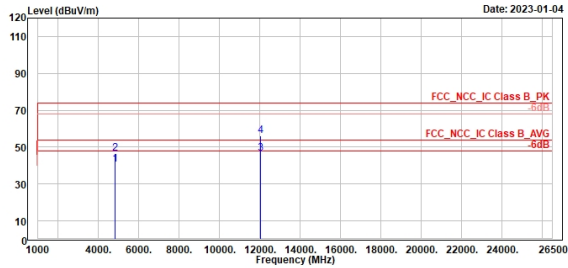
### Zigbee \_250kHz

#### Low Channel (Horizontal)

#### Low Channel (Vertical)



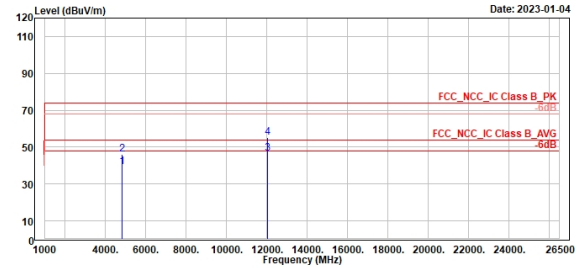
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|   | Freq     | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos    | Remark     | Pol/Phase | Note |
|---|----------|--------|-------|-------|--------|--------|------|------|---------|------------|-----------|------|
|   | MHz      | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg     |            |           |      |
| 1 | 4810.00  | 40.40  | 48.92 | -8.52 | 54.00  | -13.60 | 326  | 360  | Average | Horizontal |           |      |
| 2 | 4810.00  | 46.65  | 55.17 | -8.52 | 74.00  | -27.35 | 326  | 360  | Peak    | Horizontal |           |      |
| 3 | 12025.00 | 46.61  | 45.69 | 0.92  | 54.00  | -7.39  | 103  | 360  | Average | Horizontal |           |      |
| 4 | 12025.00 | 55.93  | 55.01 | 0.92  | 74.00  | -18.07 | 103  | 360  | Peak    | Horizontal |           |      |

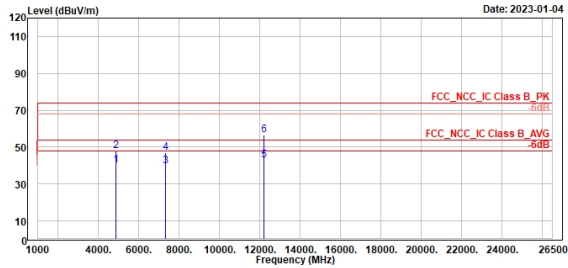
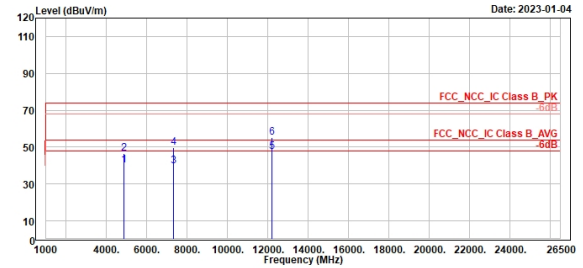


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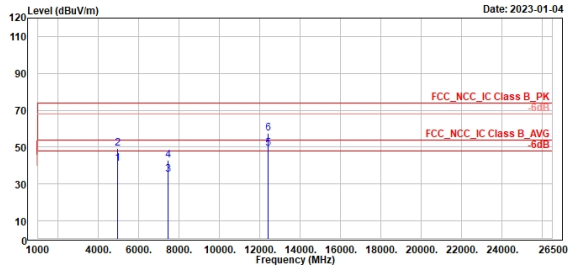


|   | Freq     | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos    | Remark   | Pol/Phase | Note |
|---|----------|--------|-------|-------|--------|--------|------|------|---------|----------|-----------|------|
|   | MHz      | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg     |          |           |      |
| 1 | 4810.00  | 39.03  | 47.55 | -8.52 | 54.00  | -14.97 | 400  | 270  | Average | Vertical |           |      |
| 2 | 4810.00  | 45.92  | 54.44 | -8.52 | 74.00  | -28.08 | 400  | 270  | Peak    | Vertical |           |      |
| 3 | 12025.00 | 46.71  | 45.79 | 0.92  | 54.00  | -7.29  | 400  | 95   | Average | Vertical |           |      |
| 4 | 12025.00 | 55.11  | 54.19 | 0.92  | 74.00  | -18.89 | 400  | 95   | Peak    | Vertical |           |      |

**Zigbee \_250kHz**
**Middle Channel (Horizontal)**

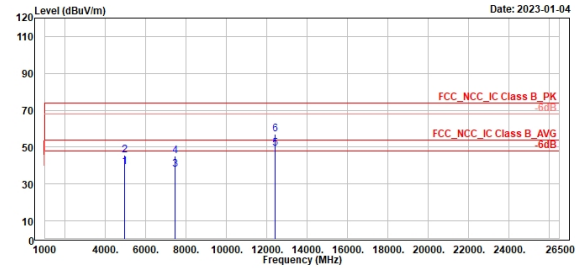
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**Zigbee \_250kHz**
**High Channel (Horizontal)**

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|   | Freq     | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos    | Remark     | Pol/Phase | Note |
|---|----------|--------|-------|-------|--------|--------|------|------|---------|------------|-----------|------|
|   | MHz      | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg     |            |           |      |
| 1 | 4960.00  | 41.21  | 49.60 | -8.39 | 54.00  | -12.79 | 291  | 360  | Average | Horizontal |           |      |
| 2 | 4960.00  | 49.22  | 57.61 | -8.39 | 74.00  | -24.78 | 291  | 360  | Peak    | Horizontal |           |      |
| 3 | 7440.00  | 35.30  | 41.61 | -6.31 | 54.00  | -18.70 | 400  | 294  | Average | Horizontal |           |      |
| 4 | 7440.00  | 43.62  | 49.33 | -6.31 | 74.00  | -30.98 | 400  | 294  | Peak    | Horizontal |           |      |
| 5 | 12400.00 | 49.28  | 47.70 | 1.58  | 54.00  | -4.72  | 100  | 360  | Average | Horizontal |           |      |
| 6 | 12400.00 | 57.38  | 55.80 | 1.58  | 74.00  | -16.62 | 100  | 360  | Peak    | Horizontal |           |      |

**High Channel (Vertical)**

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|   | Freq     | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos    | Remark   | Pol/Phase | Note |
|---|----------|--------|-------|-------|--------|--------|------|------|---------|----------|-----------|------|
|   | MHz      | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg     |          |           |      |
| 1 | 4960.00  | 39.43  | 47.82 | -8.39 | 54.00  | -14.57 | 400  | 49   | Average | Vertical |           |      |
| 2 | 4960.00  | 45.62  | 54.01 | -8.39 | 74.00  | -28.38 | 400  | 49   | Peak    | Vertical |           |      |
| 3 | 7440.00  | 37.78  | 44.09 | -6.31 | 54.00  | -16.22 | 366  | 360  | Average | Vertical |           |      |
| 4 | 7440.00  | 45.05  | 51.36 | -6.31 | 74.00  | -28.95 | 366  | 360  | Peak    | Vertical |           |      |
| 5 | 12400.00 | 49.40  | 47.82 | 1.58  | 54.00  | -4.60  | 100  | 30   | Average | Vertical |           |      |
| 6 | 12400.00 | 56.89  | 55.31 | 1.58  | 74.00  | -17.11 | 100  | 30   | Peak    | Vertical |           |      |

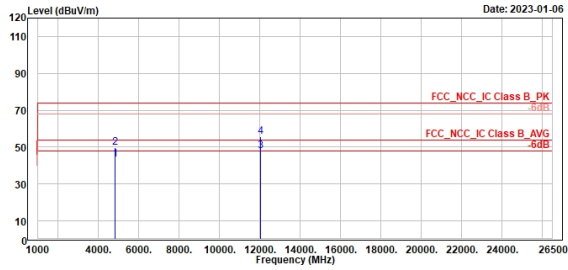
**Zigbee \_1Mbps**

**Low Channel (Horizontal)**

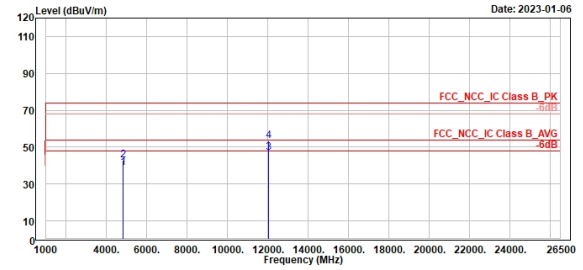
**Low Channel (Vertical)**



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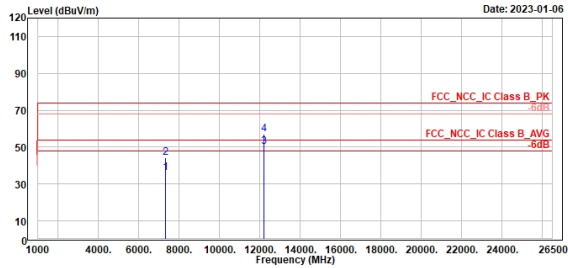
**Zigbee \_1Mbps**

**Middle Channel (Horizontal)**

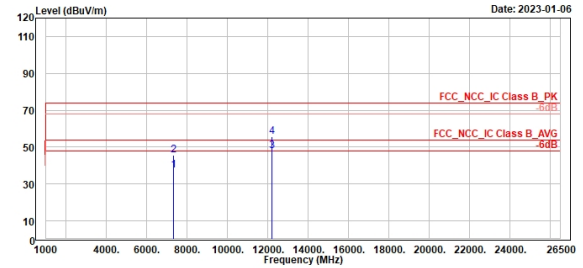
**Middle Channel (Vertical)**



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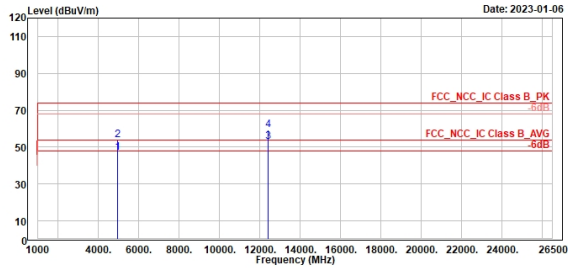
# Zigbee \_1Mbps

## High Channel (Horizontal)

## High Channel (Vertical)



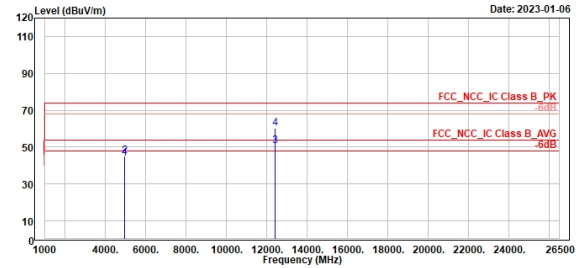
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|   | Freq     | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos    | Remark     | Pol/Phase | Note |
|---|----------|--------|-------|-------|--------|--------|------|------|---------|------------|-----------|------|
|   | MHz      | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg     |            |           |      |
| 1 | 4960.00  | 47.17  | 55.56 | -8.39 | 54.00  | -6.83  | 300  | 352  | Average | Horizontal |           |      |
| 2 | 4960.00  | 53.94  | 62.33 | -8.39 | 74.00  | -20.06 | 300  | 352  | Peak    | Horizontal |           |      |
| 3 | 12400.00 | 52.98  | 51.40 | 1.58  | 54.00  | -1.02  | 100  | 75   | Average | Horizontal |           |      |
| 4 | 12400.00 | 59.35  | 57.77 | 1.58  | 74.00  | -14.65 | 100  | 75   | Peak    | Horizontal |           |      |



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|   | Freq     | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos    | Remark   | Pol/Phase | Note |
|---|----------|--------|-------|-------|--------|--------|------|------|---------|----------|-----------|------|
|   | MHz      | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg     |          |           |      |
| 1 | 4960.00  | 43.82  | 52.21 | -8.39 | 54.00  | -10.18 | 300  | 87   | Average | Vertical |           |      |
| 2 | 4960.00  | 45.39  | 53.78 | -8.39 | 74.00  | -28.61 | 300  | 87   | Peak    | Vertical |           |      |
| 3 | 12400.00 | 50.65  | 49.07 | 1.58  | 54.00  | -3.35  | 300  | 160  | Average | Vertical |           |      |
| 4 | 12400.00 | 60.08  | 58.50 | 1.58  | 74.00  | -13.92 | 300  | 160  | Peak    | Vertical |           |      |



Ant 5, ECC Mode for 2<sup>nd</sup> Source  
Band Edges, 2.31GHz ~ 2.9GHz

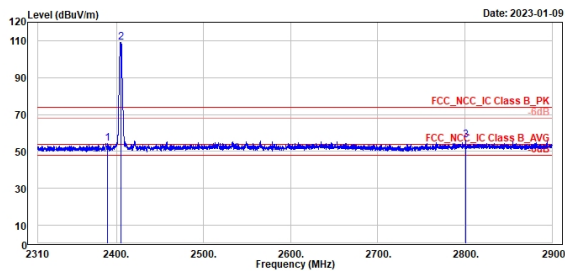
Zigbee\_1Mbps

Low Channel (Horizontal) Peak

Low Channel (Vertical) Peak



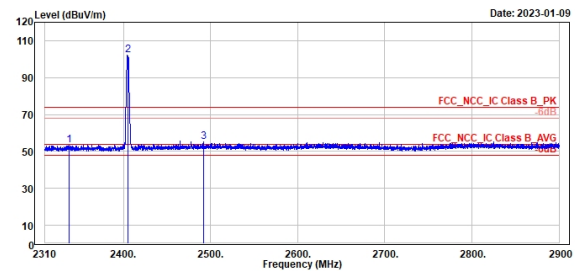
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|     | Freq    | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos | Remark | Pol/Phase  | Note |
|-----|---------|--------|-------|-------|--------|--------|------|------|------|--------|------------|------|
|     | MHz     | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg  |        |            |      |
| 1   | 2389.89 | 54.14  | 16.22 | 37.92 | 74.00  | -19.86 |      | 361  | 187  | Peak   | Horizontal |      |
| 2 * | 2405.00 | 109.26 | 71.31 | 37.95 | 74.00  | 35.26  |      | 361  | 187  | Peak   | Horizontal |      |
| 3   | 2801.12 | 56.19  | 17.61 | 38.58 | 74.00  | -17.81 |      | 361  | 187  | Peak   | Horizontal |      |



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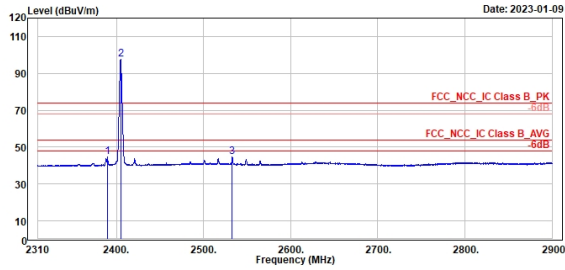
|     | Freq    | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos | Remark | Pol/Phase | Note |
|-----|---------|--------|-------|-------|--------|--------|------|------|------|--------|-----------|------|
|     | MHz     | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg  |        |           |      |
| 1   | 2338.20 | 53.58  | 15.73 | 37.85 | 74.00  | -20.42 |      | 370  | 271  | Peak   | Vertical  |      |
| 2 * | 2405.00 | 102.02 | 64.07 | 37.95 | 74.00  | 28.02  |      | 370  | 271  | Peak   | Vertical  |      |
| 3   | 2492.43 | 55.39  | 17.07 | 38.32 | 74.00  | -18.61 |      | 370  | 271  | Peak   | Vertical  |      |

**Zigbee\_1Mbps**

**Low Channel (Horizontal) Average**



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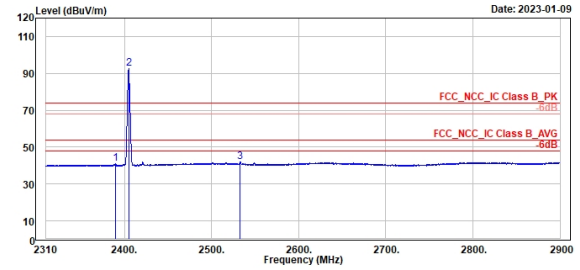


|     | Freq    | Level  | Read  | Level | Factor | Limit | Over | APos | TPos | Remark  | Pol/Phase  | Note |
|-----|---------|--------|-------|-------|--------|-------|------|------|------|---------|------------|------|
|     | MHz     | dBuV/m | dBuV  | dB/m  | dBuV/m | dB    | dB   | cm   | deg  |         |            |      |
| 1   | 2389.77 | 44.61  | 6.69  | 37.92 | 54.00  | -9.39 |      | 370  | 187  | Average | Horizontal |      |
| 2 * | 2405.00 | 97.76  | 59.81 | 37.95 | 54.00  | 43.76 |      | 370  | 187  | Average | Horizontal |      |
| 3   | 2533.02 | 44.56  | 6.32  | 38.24 | 54.00  | -9.44 |      | 370  | 187  | Average | Horizontal |      |

**Low Channel (Vertical) Average**



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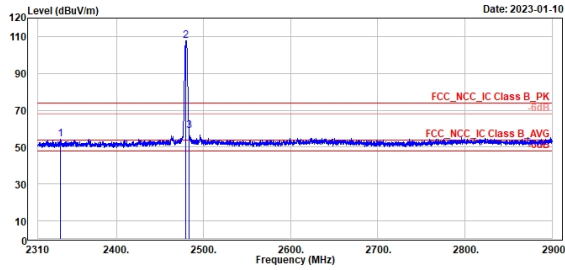
|     | Freq    | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos | Remark  | Pol/Phase | Note |
|-----|---------|--------|-------|-------|--------|--------|------|------|------|---------|-----------|------|
|     | MHz     | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg  |         |           |      |
| 1   | 2389.89 | 41.17  | 3.25  | 37.92 | 54.00  | -12.83 |      | 370  | 271  | Average | Vertical  |      |
| 2 * | 2405.00 | 92.48  | 54.53 | 37.95 | 54.00  | 38.48  |      | 370  | 271  | Average | Vertical  |      |
| 3   | 2532.78 | 42.09  | 3.85  | 38.24 | 54.00  | -11.91 |      | 370  | 271  | Average | Vertical  |      |

**Zigbee \_1Mbps**

**High Channel (Horizontal) Peak**



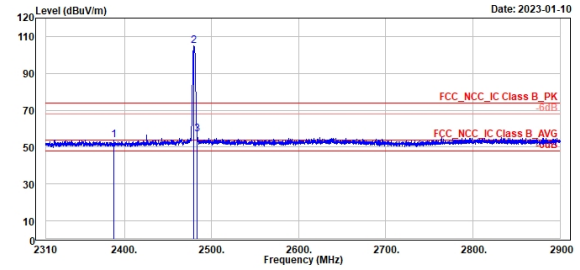
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|     | Freq    | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos | Remark     | Pol/Phase | Note |
|-----|---------|--------|-------|-------|--------|--------|------|------|------|------------|-----------|------|
|     | MHz     | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg  |            |           |      |
| 1   | 2335.72 | 54.19  | 16.36 | 37.83 | 74.00  | -19.81 | 386  | 193  | Peak | Horizontal |           |      |
| 2 * | 2480.00 | 107.91 | 69.60 | 38.31 | 74.00  | 33.91  | 386  | 193  | Peak | Horizontal |           |      |
| 3   | 2483.46 | 58.94  | 20.63 | 38.31 | 74.00  | -15.06 | 386  | 193  | Peak | Horizontal |           |      |



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|     | Freq    | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos | Remark   | Pol/Phase | Note |
|-----|---------|--------|-------|-------|--------|--------|------|------|------|----------|-----------|------|
|     | MHz     | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg  |          |           |      |
| 1   | 2387.88 | 53.85  | 15.93 | 37.92 | 74.00  | -20.15 | 376  | 112  | Peak | Vertical |           |      |
| 2 * | 2480.00 | 104.75 | 66.44 | 38.31 | 74.00  | 30.75  | 376  | 112  | Peak | Vertical |           |      |
| 3   | 2483.46 | 57.06  | 18.75 | 38.31 | 74.00  | -16.94 | 376  | 112  | Peak | Vertical |           |      |

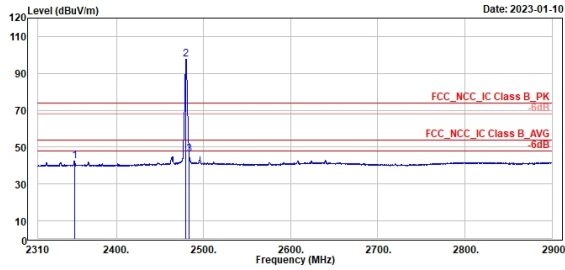
**Zigbee \_1Mbps**

**High Channel (Horizontal) Average**

**High Channel (Vertical) Average**



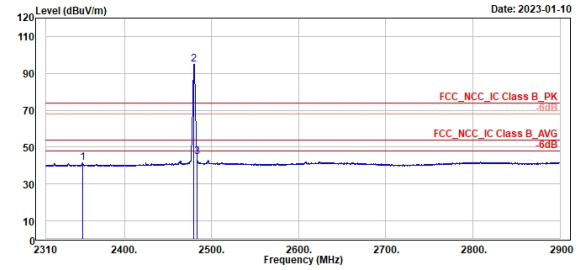
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|     | Freq    | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos    | Remark     | Pol/Phase | Note |
|-----|---------|--------|-------|-------|--------|--------|------|------|---------|------------|-----------|------|
|     | MHz     | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg     |            |           |      |
| 1   | 2352.01 | 42.38  | 4.42  | 37.96 | 54.00  | -11.62 | 386  | 193  | Average | Horizontal |           |      |
| 2 * | 2480.00 | 97.83  | 59.52 | 38.31 | 54.00  | 43.83  | 386  | 193  | Average | Horizontal |           |      |
| 3   | 2483.46 | 46.27  | 7.96  | 38.31 | 54.00  | -7.73  | 386  | 193  | Average | Horizontal |           |      |



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|     | Freq    | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos    | Remark   | Pol/Phase | Note |
|-----|---------|--------|-------|-------|--------|--------|------|------|---------|----------|-----------|------|
|     | MHz     | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg     |          |           |      |
| 1   | 2352.01 | 41.41  | 3.45  | 37.96 | 54.00  | -12.59 | 376  | 112  | Average | Vertical |           |      |
| 2 * | 2480.00 | 95.01  | 56.70 | 38.31 | 54.00  | 41.01  | 376  | 112  | Average | Vertical |           |      |
| 3   | 2483.46 | 44.51  | 6.20  | 38.31 | 54.00  | -9.49  | 376  | 112  | Average | Vertical |           |      |

# Spurious Emissions, Tx Mode, 9kHz ~ 30MHz

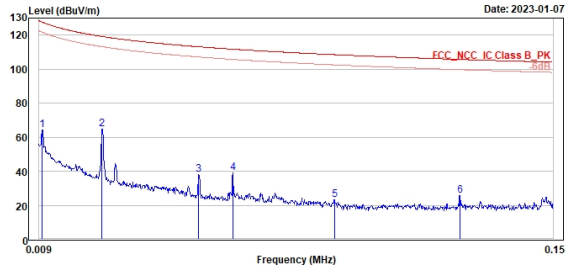
## Zigbee\_1Mbps

### High Channel (Open) 9kHz~150kHz

### High Channel (Open) 150kHz~30MHz



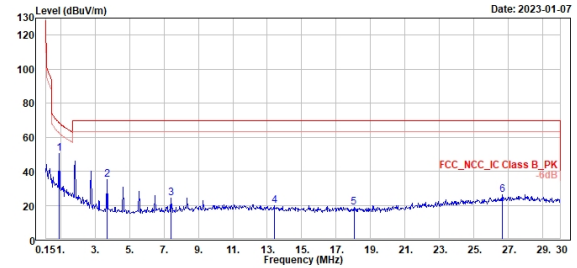
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|   | Freq | Level  | Read  | Level | Factor | Limit  | Over | APos | TPos | Remark | Pol/Phase | Note |
|---|------|--------|-------|-------|--------|--------|------|------|------|--------|-----------|------|
|   | MHz  | dBuV/m | dBuV  | dB/m  | dBuV/m | dB     | dB   | cm   | deg  |        |           |      |
| 1 | 0.01 | 64.31  | 35.47 | 28.84 | 127.72 | -63.41 | 100  | 361  | QP   | Open   |           |      |
| 2 | 0.03 | 64.99  | 42.44 | 22.55 | 119.18 | -54.19 | 100  | 75   | QP   | Open   |           |      |
| 3 | 0.05 | 37.90  | 21.88 | 16.02 | 113.13 | -75.23 | 100  | 360  | QP   | Open   |           |      |
| 4 | 0.06 | 39.25  | 24.52 | 14.73 | 111.72 | -72.47 | 100  | 172  | QP   | Open   |           |      |
| 5 | 0.09 | 23.39  | 12.51 | 10.68 | 106.50 | -85.11 | 100  | 239  | QP   | Open   |           |      |
| 6 | 0.12 | 25.61  | 17.09 | 8.52  | 105.70 | -88.09 | 100  | 213  | QP   | Open   |           |      |



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|   | Freq  | Level  | Read  | Level  | Factor | Limit  | Over | APos | TPos | Remark | Pol/Phase | Note |
|---|-------|--------|-------|--------|--------|--------|------|------|------|--------|-----------|------|
|   | MHz   | dBuV/m | dBuV  | dB/m   | dBuV/m | dB     | dB   | cm   | deg  |        |           |      |
| 1 | 0.93  | 50.59  | 56.71 | -6.12  | 68.27  | -17.68 | 100  | 269  | QP   | Open   |           |      |
| 2 | 3.70  | 34.98  | 46.23 | -11.25 | 69.50  | -34.52 | 100  | 269  | QP   | Open   |           |      |
| 3 | 7.40  | 24.36  | 35.40 | -11.04 | 69.50  | -45.14 | 100  | 145  | QP   | Open   |           |      |
| 4 | 13.40 | 19.80  | 30.27 | -10.47 | 69.50  | -49.70 | 100  | 14   | QP   | Open   |           |      |
| 5 | 18.03 | 18.59  | 29.57 | -10.98 | 69.50  | -50.91 | 100  | 143  | QP   | Open   |           |      |
| 6 | 26.63 | 26.15  | 34.14 | -7.99  | 69.50  | -43.35 | 100  | 194  | QP   | Open   |           |      |