

Appendix A: Test Results

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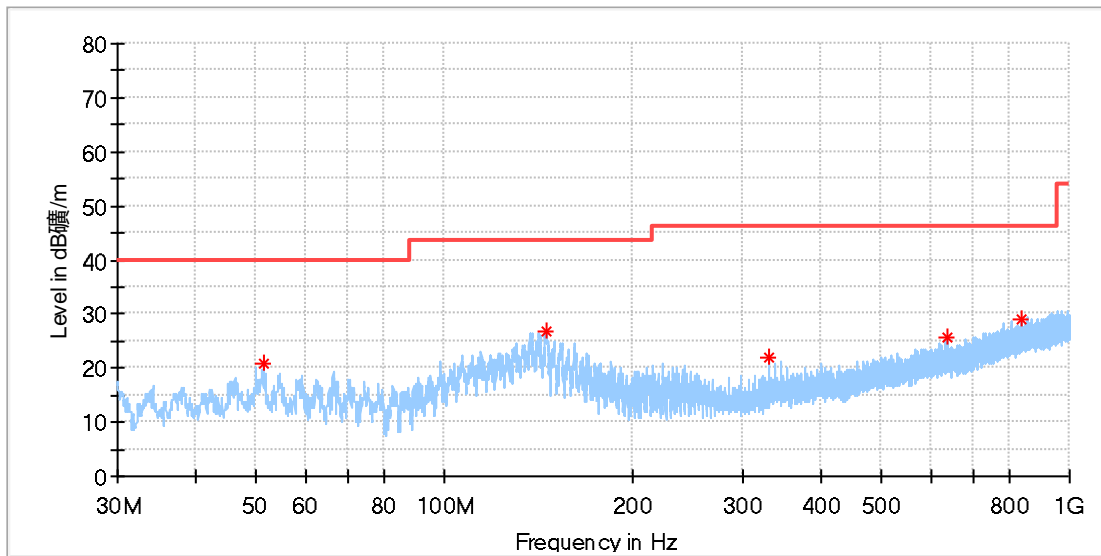
Appendix A.1: Test Results of Field strength of fundamental & harmonics

Note: The testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz to 25GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported.

30MHz - 1GHz

EUT Information

| | |
|---------------------|--------------------|
| EUT Name: | Wireless Keyboard |
| Model: | MD023 (US_CA) |
| Test Mode: | 2.4G M CH |
| Order No/Sample No: | 168413778 |
| Test Voltage: | Battery |
| Remark: | Temp 23 Humi:53% |
| Test Standard: | FCC 15.249/RSS-210 |
| Tested By: | Kei Zhang |
| Reviewed By: | Terry Yin |

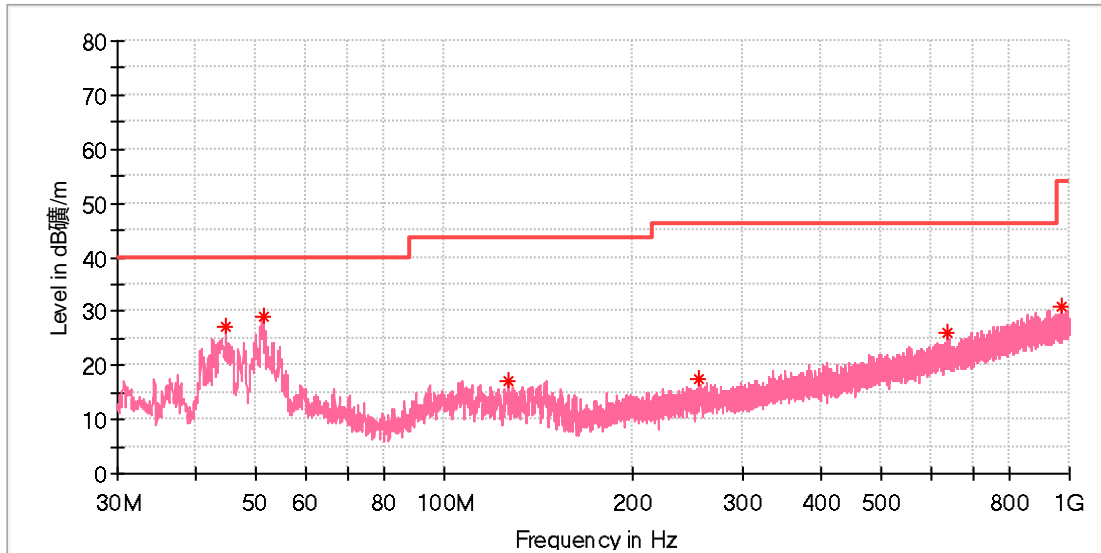


Critical_Freqs

| Frequency (MHz) | MaxPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 51.437000 | 20.84 | 40.00 | 19.16 | 100.0 | H | 252.0 | -18.3 |
| 145.769500 | 26.76 | 43.50 | 16.74 | 100.0 | H | 6.0 | -22.2 |
| 330.069500 | 21.78 | 46.00 | 24.22 | 100.0 | H | 24.0 | -15.5 |
| 637.026000 | 25.84 | 46.00 | 20.16 | 100.0 | H | 141.0 | -9.3 |
| 838.980000 | 29.02 | 46.00 | 16.98 | 100.0 | H | 341.0 | -5.7 |

EUT Information

EUT Name: Wireless Keyboard
 Model: MD023 (US_CA)
 Test Mode: 2.4G M CH
 Order No/Sample No: 168413778
 Test Voltage: Battery
 Remark: Temp 23 Humi:53%
 Test Standard: FCC 15.249/RSS-210
 Tested By: Kei Zhang
 Reviewed By: Terry Yin



Critical_Freqs

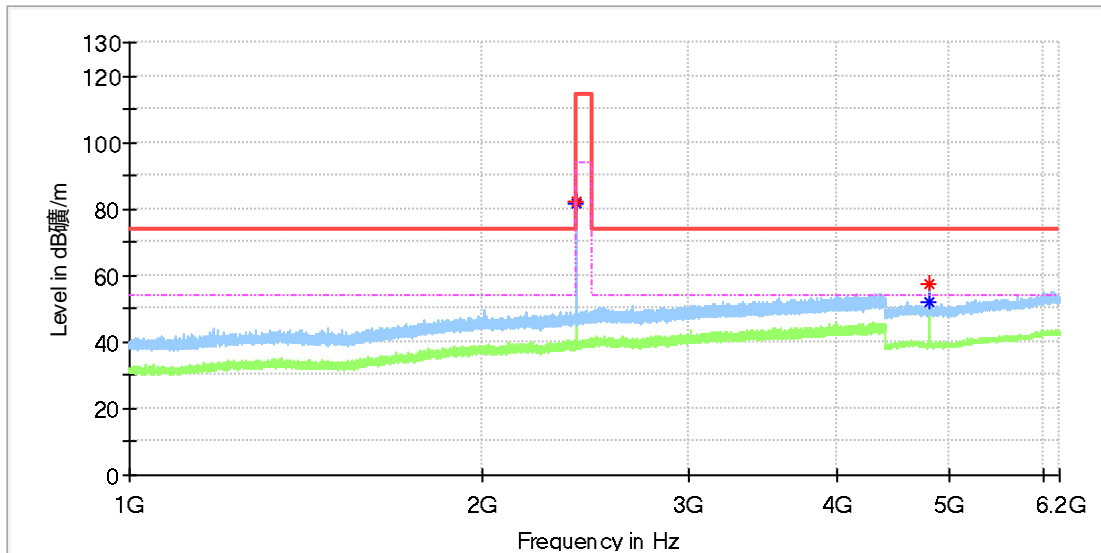
| Frequency (MHz) | MaxPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 44.744000 | 27.21 | 40.00 | 12.79 | 100.0 | V | 310.0 | -18.9 |
| 51.291500 | 28.92 | 40.00 | 11.08 | 100.0 | V | 141.0 | -18.3 |
| 126.272500 | 17.21 | 43.50 | 26.29 | 100.0 | V | 322.0 | -21.5 |
| 255.719000 | 17.43 | 46.00 | 28.57 | 100.0 | V | 52.0 | -17.1 |
| 638.093000 | 25.88 | 46.00 | 20.12 | 100.0 | V | 202.0 | -9.3 |
| 972.112500 | 30.91 | 54.00 | 23.09 | 100.0 | V | 74.0 | -4.1 |

1GHz - 18GHz

Note: The highest waveform in the figure is 2.4GHz Fundamental.

EUT Information

| | |
|---------------------|--------------------|
| EUT Name: | Wireless Keyboard |
| Model: | MD023 (US_CA) |
| Test Mode: | 2.4G L CH |
| Order No/Sample No: | 168413778 |
| Test Voltage: | Battery |
| Remark: | Temp 23 Humi:53% |
| Test Standard: | FCC 15.249/RSS-210 |
| Tested By: | Kei Zhang |
| Reviewed By: | Terry Yin |

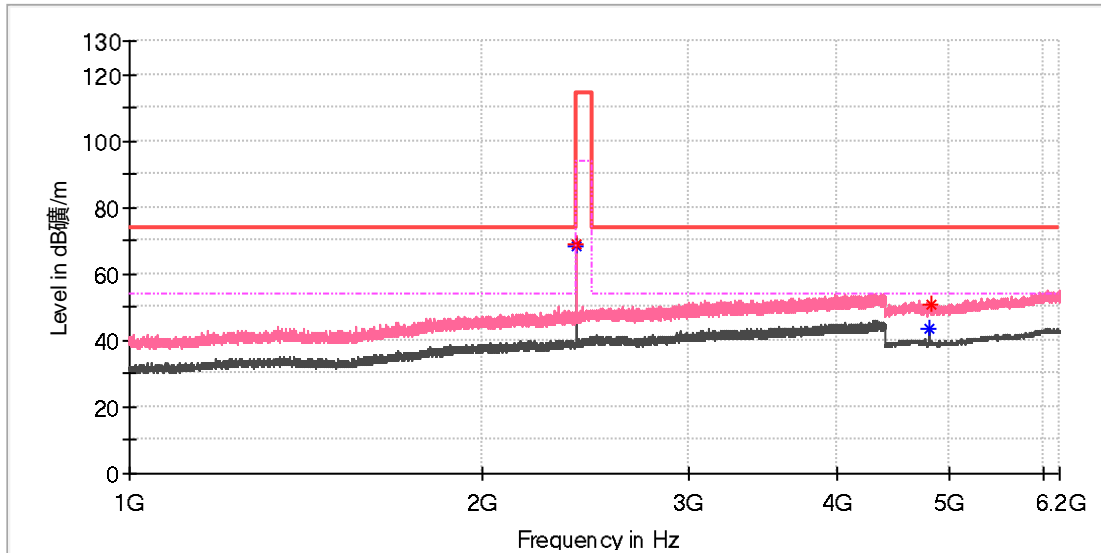


Critical Freqs

| Frequency (MHz) | MaxPeak (dBµV/m) | Average (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2401.990000 | --- | 81.89 | 94.00 | 12.11 | 100.0 | H | 0.0 | 7.0 |
| 2402.330000 | 82.34 | --- | 114.00 | 31.66 | 100.0 | H | 0.0 | 7.0 |
| 4803.500000 | --- | 51.71 | 54.00 | 2.29 | 100.0 | H | 321.0 | 11.8 |
| 4803.500000 | 57.14 | --- | 74.00 | 16.86 | 100.0 | H | 321.0 | 11.8 |

EUT Information

EUT Name: Wireless Keyboard
 Model: MD023 (US_CA)
 Test Mode: 2.4G L CH
 Order No/Sample No: 168413778
 Test Voltage: Battery
 Remark: Temp 23 Humi:53%
 Test Standard: FCC 15.249/RSS-210
 Tested By: Kei Zhang
 Reviewed By: Terry Yin

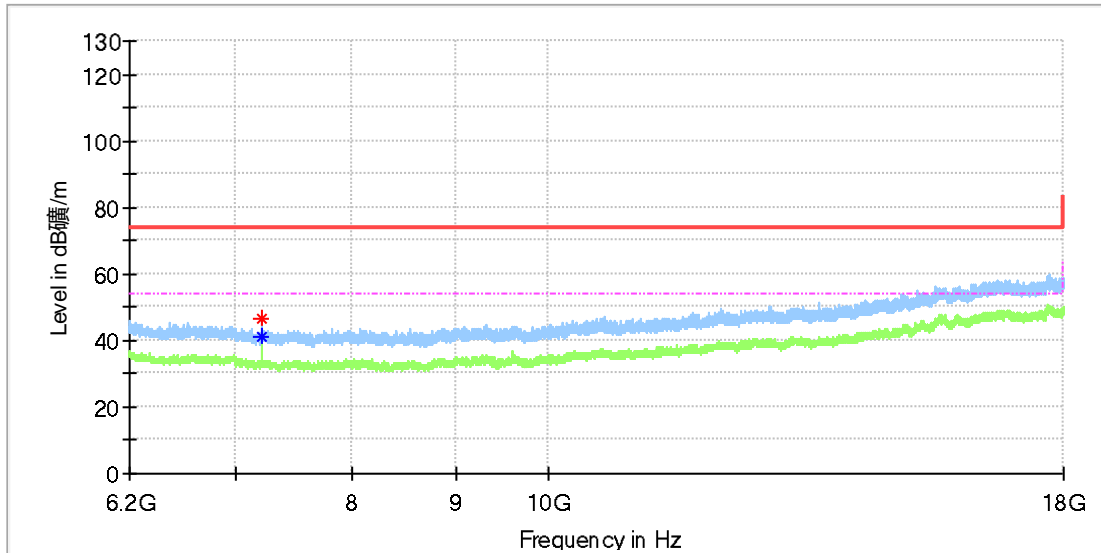


Critical_Freqs

| Frequency (MHz) | MaxPeak (dBµV/m) | Average (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2401.990000 | 68.69 | --- | 114.00 | 45.31 | 100.0 | V | 83.0 | 7.0 |
| 2401.990000 | --- | 68.24 | 94.00 | 25.76 | 100.0 | V | 83.0 | 7.0 |
| 4803.500000 | --- | 43.26 | 54.00 | 10.74 | 100.0 | V | 128.0 | 11.8 |
| 4813.000000 | 51.00 | --- | 74.00 | 23.00 | 100.0 | V | 305.0 | 11.8 |

EUT Information

| | |
|---------------------|--------------------|
| EUT Name: | Wireless Keyboard |
| Model: | MD023 (US_CA) |
| Test Mode: | 2.4G L CH |
| Order No/Sample No: | 168413778 |
| Test Voltage: | Battery |
| Remark: | Temp 23 Humi:53% |
| Test Standard: | FCC 15.249/RSS-210 |
| Tested By: | Kei Zhang |
| Reviewed By: | Terry Yin |

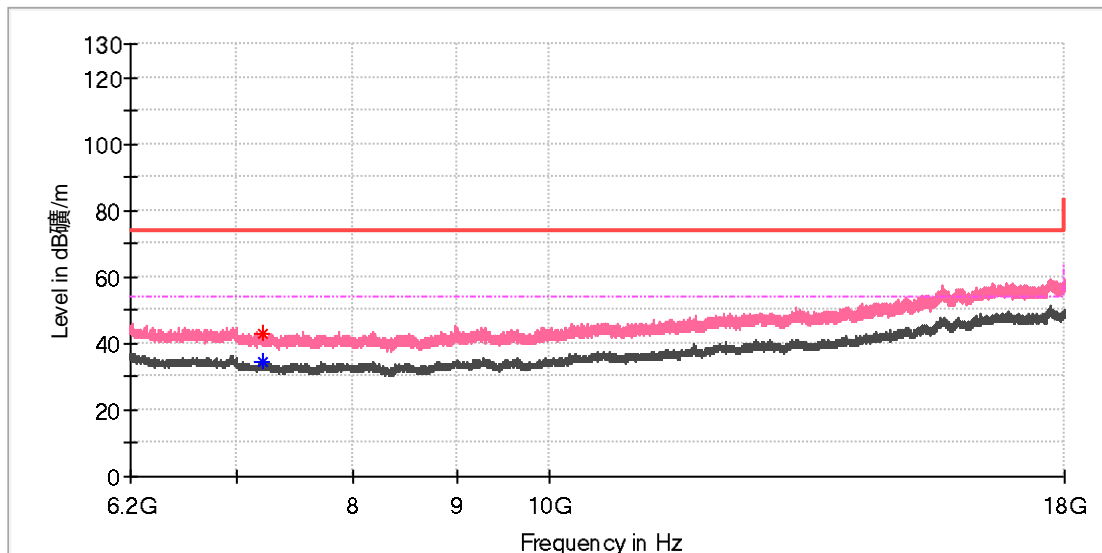


Critical_Freqs

| Frequency (MHz) | MaxPeak (dBµV/m) | Average (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 7204.966667 | --- | 41.07 | 54.00 | 12.93 | 100.0 | H | 303.0 | 8.8 |
| 7205.458333 | 46.64 | --- | 74.00 | 27.36 | 100.0 | H | 277.0 | 8.8 |

EUT Information

EUT Name: Wireless Keyboard
 Model: MD023 (US_CA)
 Test Mode: 2.4G L CH
 Order No/Sample No: 168413778
 Test Voltage: Battery
 Remark: Temp 23 Humi:53%
 Test Standard: FCC 15.249/RSS-210
 Tested By: Kei Zhang
 Reviewed By: Terry Yin

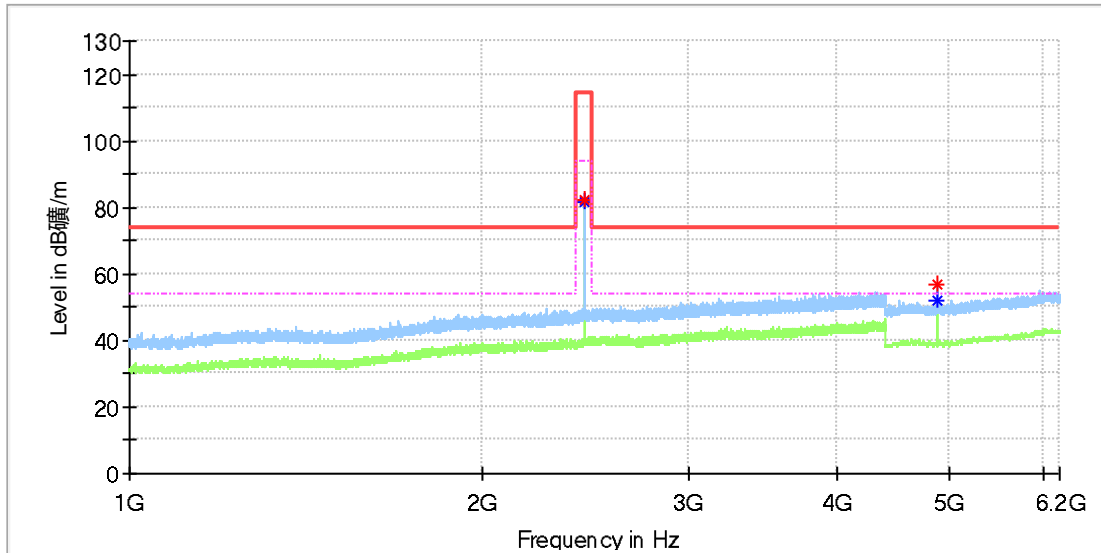


Critical_Freqs

| Frequency (MHz) | MaxPeak (dBµV/m) | Average (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 7204.966667 | --- | 34.56 | 54.00 | 19.44 | 100.0 | V | 69.0 | 8.8 |
| 7205.458333 | 43.15 | --- | 74.00 | 30.85 | 100.0 | V | 323.0 | 8.8 |

EUT Information

| | |
|---------------------|--------------------|
| EUT Name: | Wireless Keyboard |
| Model: | MD023 (US_CA) |
| Test Mode: | 2.4G M CH |
| Order No/Sample No: | 168413778 |
| Test Voltage: | Battery |
| Remark: | Temp 23 Humi:53% |
| Test Standard: | FCC 15.249/RSS-210 |
| Tested By: | Kei Zhang |
| Reviewed By: | Terry Yin |

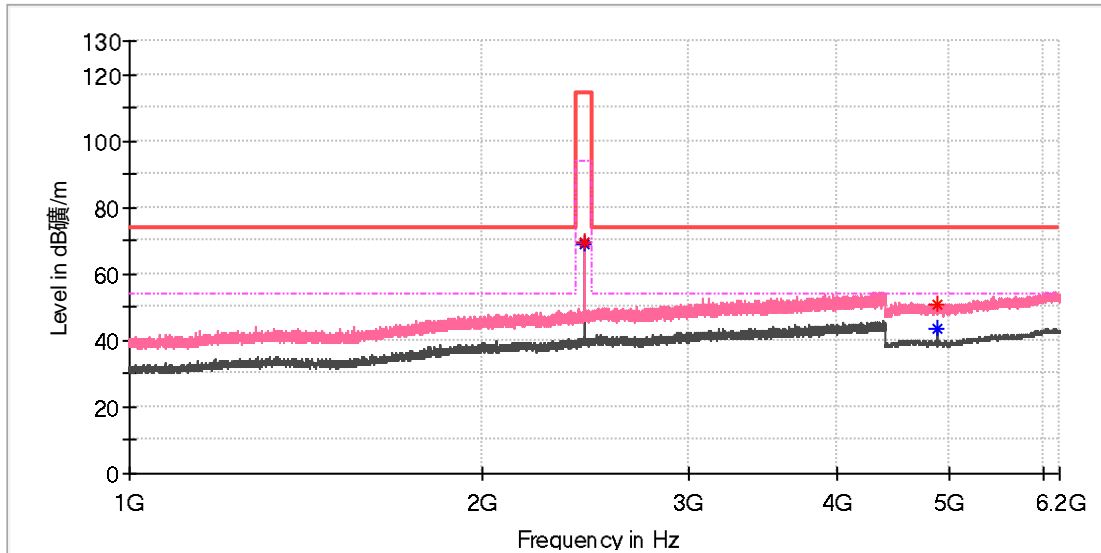


Critical_Freqs

| Frequency (MHz) | MaxPeak (dBµV/m) | Average (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2439.730000 | 82.16 | --- | 114.00 | 31.84 | 100.0 | H | 0.0 | 7.4 |
| 2440.070000 | --- | 81.73 | 94.00 | 12.27 | 100.0 | H | 0.0 | 7.4 |
| 4879.500000 | --- | 51.89 | 54.00 | 2.11 | 100.0 | H | 20.0 | 11.8 |
| 4880.500000 | 56.80 | --- | 74.00 | 17.20 | 100.0 | H | 20.0 | 11.8 |

EUT Information

EUT Name: Wireless Keyboard
 Model: MD023 (US_CA)
 Test Mode: 2.4G M CH
 Order No/Sample No: 168413778
 Test Voltage: Battery
 Remark: Temp 23 Humi:53%
 Test Standard: FCC 15.249/RSS-210
 Tested By: Kei Zhang
 Reviewed By: Terry Yin

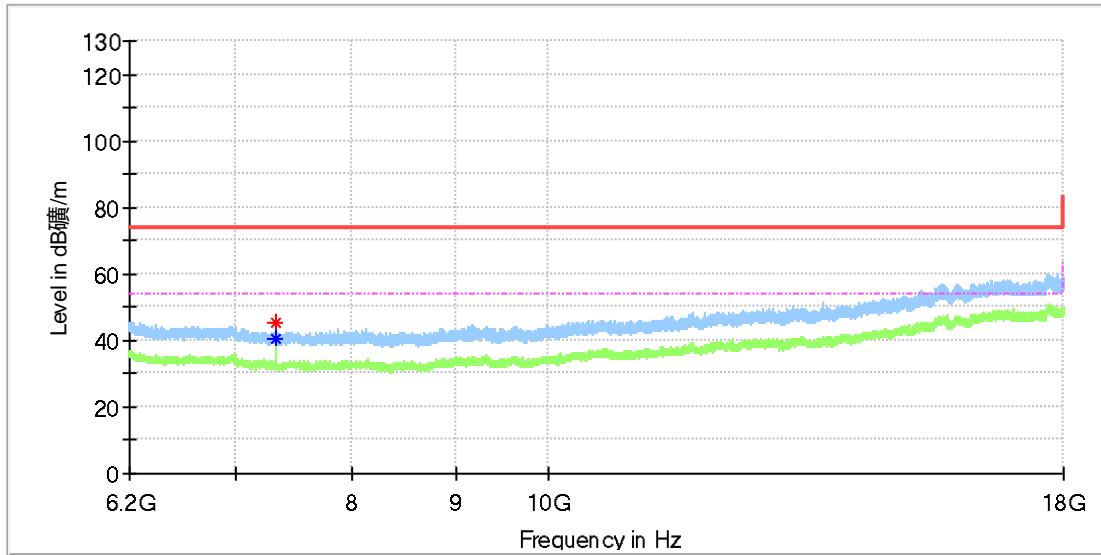


Critical_Freqs

| Frequency (MHz) | MaxPeak (dBµV/m) | Average (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2440.070000 | --- | 68.81 | 94.00 | 25.19 | 100.0 | V | 82.0 | 7.4 |
| 2440.240000 | 69.64 | --- | 114.00 | 44.36 | 100.0 | V | 82.0 | 7.4 |
| 4879.500000 | 50.57 | --- | 74.00 | 23.43 | 100.0 | V | 359.0 | 11.8 |
| 4880.000000 | --- | 43.51 | 54.00 | 10.49 | 100.0 | V | 128.0 | 11.8 |

EUT Information

EUT Name: Wireless Keyboard
 Model: MD023 (US_CA)
 Test Mode: 2.4G M CH
 Order No/Sample No: 168413778
 Test Voltage: Battery
 Remark: Temp 23 Humi:53%
 Test Standard: FCC 15.249/RSS-210
 Tested By: Kei Zhang
 Reviewed By: Terry Yin

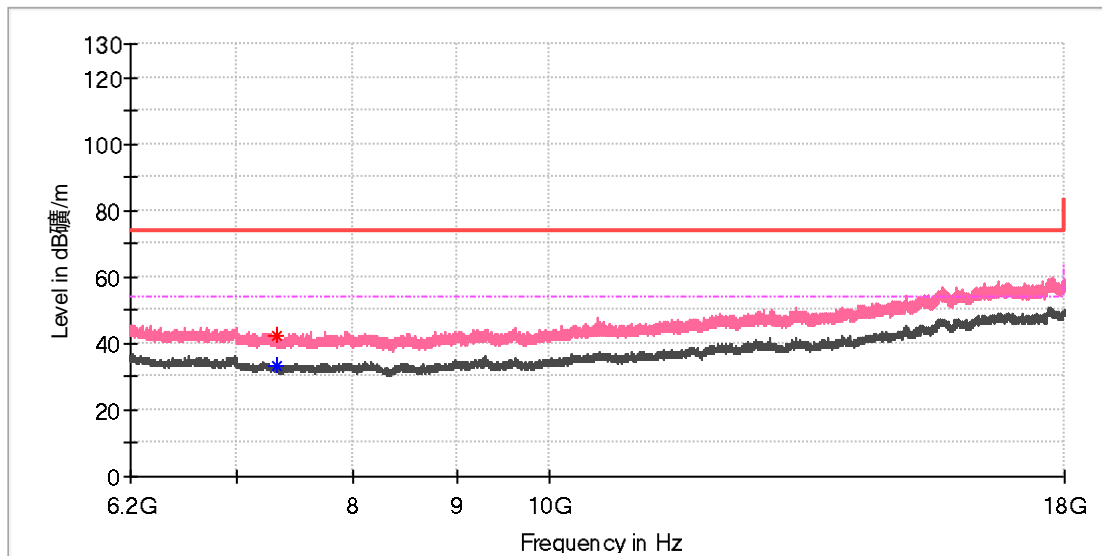


Critical_Freqs

| Frequency (MHz) | MaxPeak (dBµV/m) | Average (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 7319.525000 | 45.45 | --- | 74.00 | 28.55 | 100.0 | H | 310.0 | 8.2 |
| 7319.525000 | --- | 40.30 | 54.00 | 13.70 | 100.0 | H | 310.0 | 8.2 |

EUT Information

EUT Name: Wireless Keyboard
 Model: MD023 (US_CA)
 Test Mode: 2.4G M CH
 Order No/Sample No: 168413778
 Test Voltage: Battery
 Remark: Temp 23 Humi:53%
 Test Standard: FCC 15.249/RSS-210
 Tested By: Kei Zhang
 Reviewed By: Terry Yin

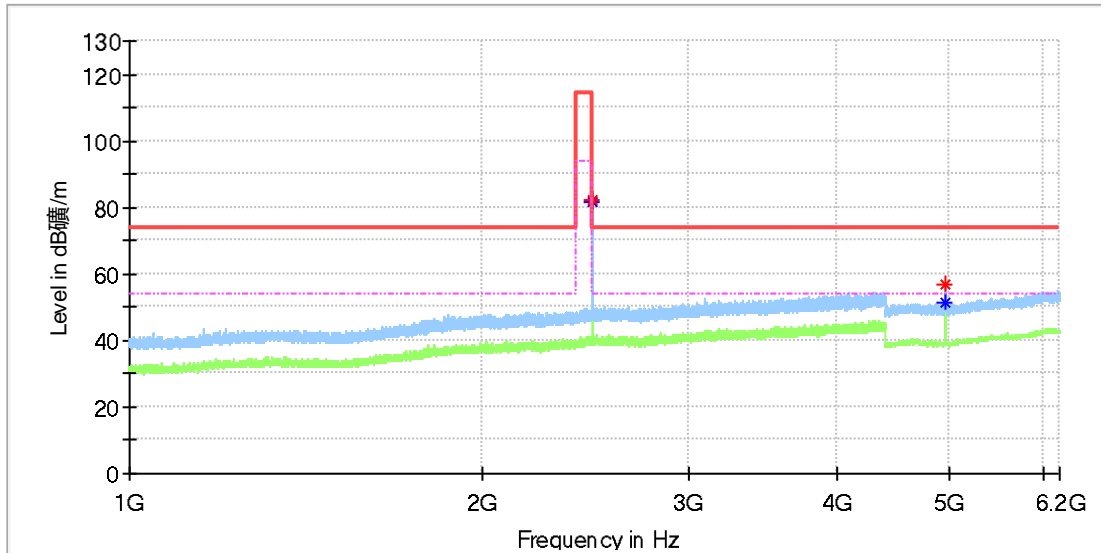


Critical_Freqs

| Frequency (MHz) | MaxPeak (dBµV/m) | Average (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 7319.033333 | --- | 33.42 | 54.00 | 20.58 | 100.0 | V | 68.0 | 8.2 |
| 7319.525000 | 42.23 | --- | 74.00 | 31.77 | 100.0 | V | 68.0 | 8.2 |

EUT Information

EUT Name: Wireless Keyboard
 Model: MD023 (US_CA)
 Test Mode: 2.4G H CH
 Order No/Sample No: 168413778
 Test Voltage: Battery
 Remark: Temp 23 Humi:53%
 Test Standard: FCC 15.249/RSS-210
 Tested By: Kei Zhang
 Reviewed By: Terry Yin

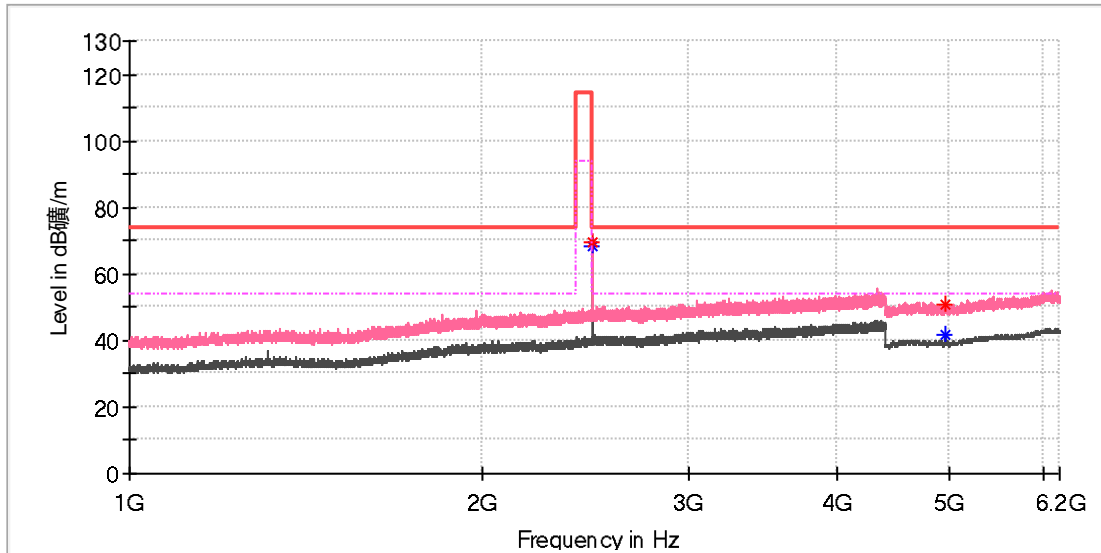


Critical_Freqs

| Frequency (MHz) | MaxPeak (dBµV/m) | Average (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2479.680000 | 82.13 | --- | 114.00 | 31.87 | 100.0 | H | 46.0 | 7.4 |
| 2480.020000 | --- | 81.65 | 94.00 | 12.35 | 100.0 | H | 46.0 | 7.4 |
| 4959.500000 | 56.79 | --- | 74.00 | 17.21 | 100.0 | H | 35.0 | 11.8 |
| 4959.500000 | --- | 51.41 | 54.00 | 2.59 | 100.0 | H | 35.0 | 11.8 |

EUT Information

EUT Name: Wireless Keyboard
 Model: MD023 (US_CA)
 Test Mode: 2.4G H CH
 Order No/Sample No: 168413778
 Test Voltage: Battery
 Remark: Temp 23 Humi:53%
 Test Standard: FCC 15.249/RSS-210
 Tested By: Kei Zhang
 Reviewed By: Terry Yin

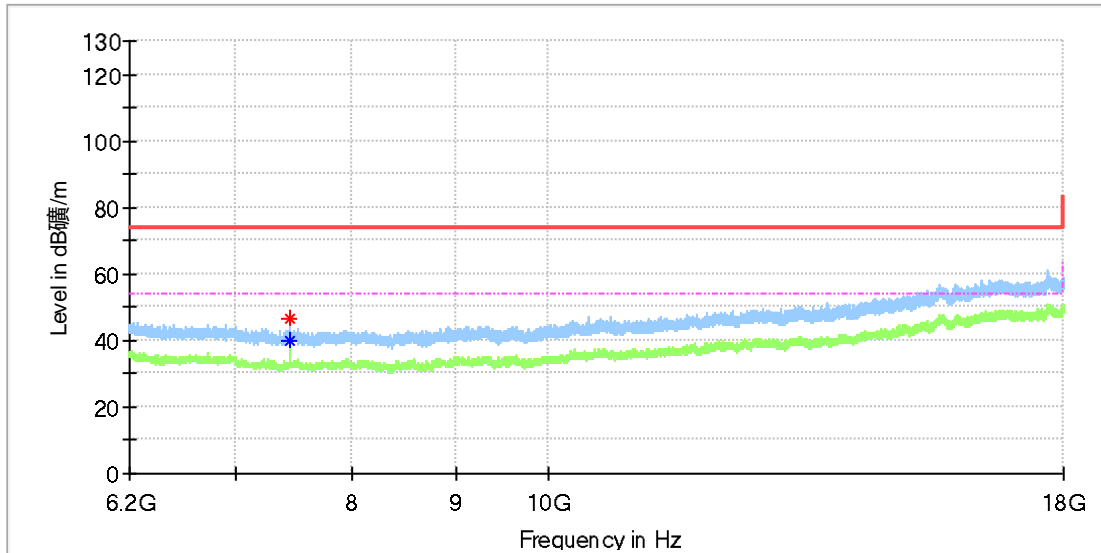


Critical_Freqs

| Frequency (MHz) | MaxPeak (dBµV/m) | Average (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2479.850000 | 69.37 | --- | 114.00 | 44.63 | 100.0 | V | 86.0 | 7.4 |
| 2480.020000 | --- | 68.60 | 94.00 | 25.40 | 100.0 | V | 106.0 | 7.4 |
| 4959.500000 | --- | 42.01 | 54.00 | 11.99 | 100.0 | V | 81.0 | 11.8 |
| 4960.000000 | 50.53 | --- | 74.00 | 23.47 | 100.0 | V | 351.0 | 11.8 |

EUT Information

EUT Name: Wireless Keyboard
 Model: MD023 (US_CA)
 Test Mode: 2.4G H CH
 Order No/Sample No: 168413778
 Test Voltage: Battery
 Remark: Temp 23 Humi:53%
 Test Standard: FCC 15.249/RSS-210
 Tested By: Kei Zhang
 Reviewed By: Terry Yin

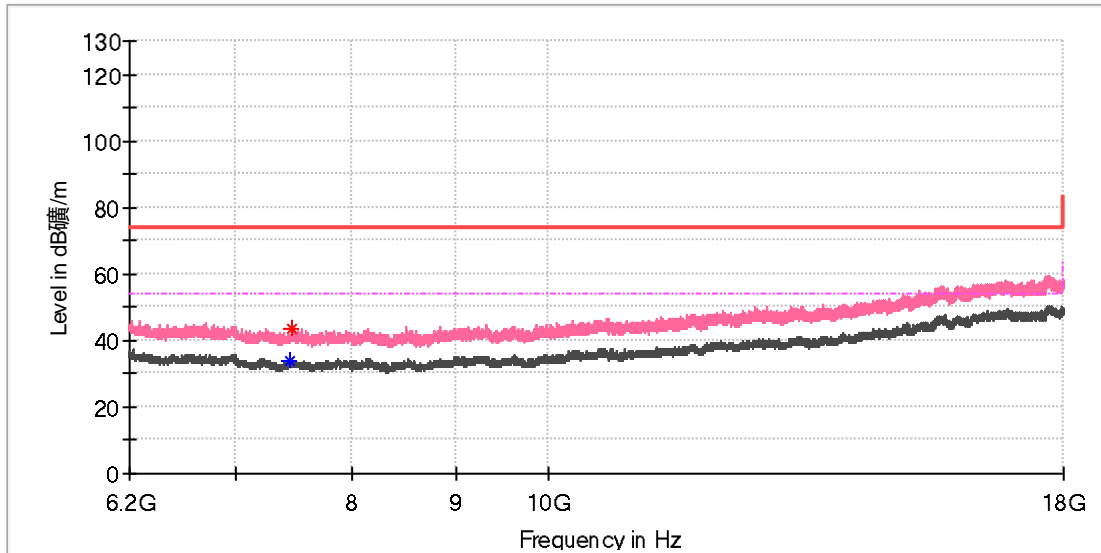


Critical_Freqs

| Frequency (MHz) | MaxPeak (dBµV/m) | Average (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 7439.000000 | 46.72 | --- | 74.00 | 27.28 | 100.0 | H | 276.0 | 8.4 |
| 7440.475000 | --- | 39.79 | 54.00 | 14.21 | 100.0 | H | 252.0 | 8.4 |

EUT Information

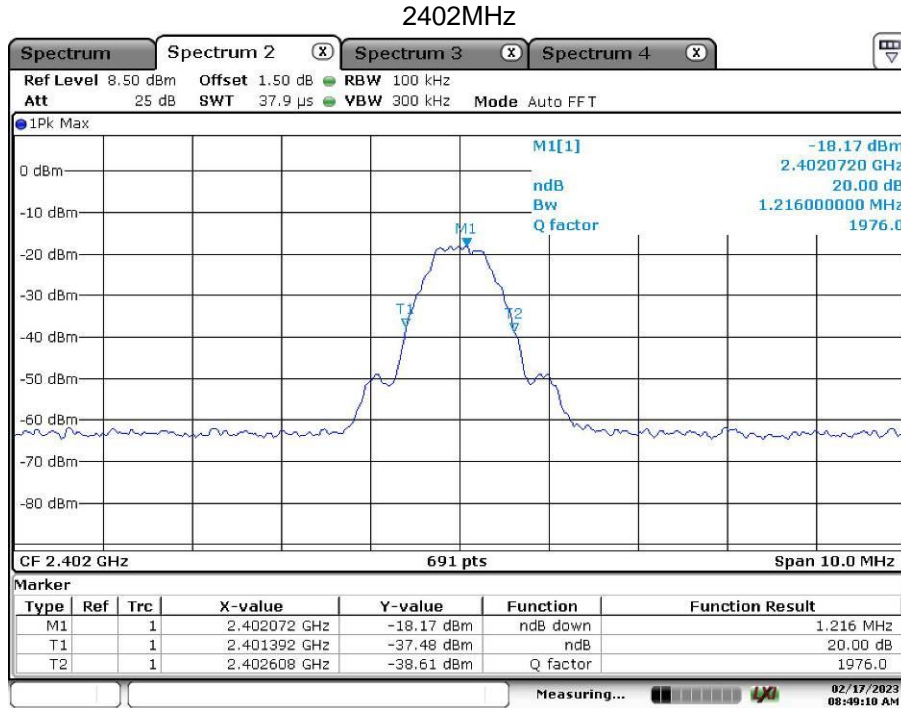
| | |
|---------------------|--------------------|
| EUT Name: | Wireless Keyboard |
| Model: | MD023 (US_CA) |
| Test Mode: | 2.4G H CH |
| Order No/Sample No: | 168413778 |
| Test Voltage: | Battery |
| Remark: | Temp 23 Humi:53% |
| Test Standard: | FCC 15.249/RSS-210 |
| Tested By: | Kei Zhang |
| Reviewed By: | Terry Yin |



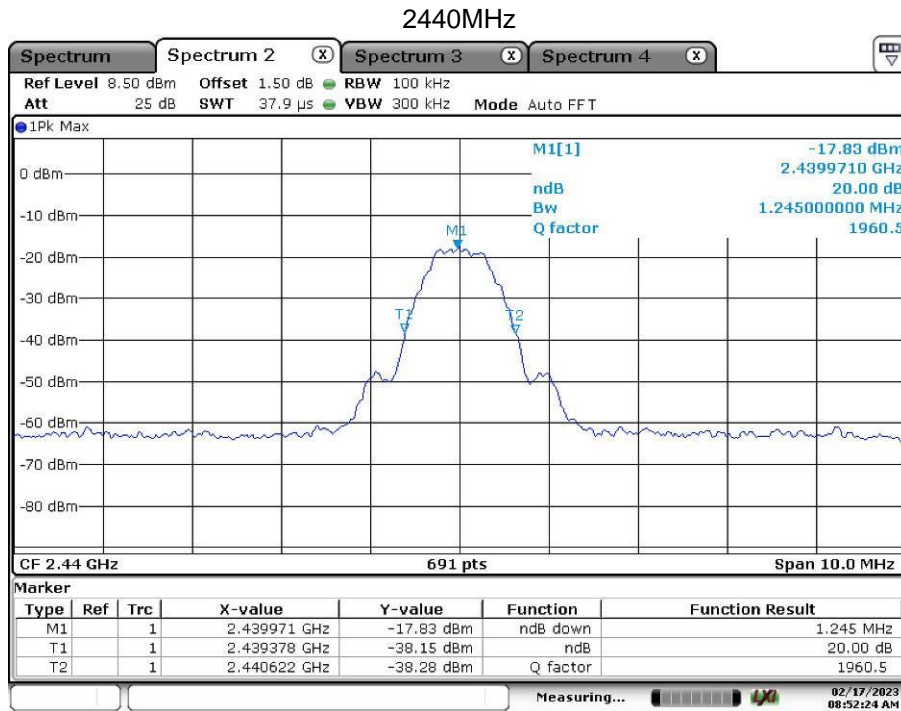
Critical_Freqs

| Frequency (MHz) | MaxPeak (dBµV/m) | Average (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 7439.491667 | --- | 33.93 | 54.00 | 20.07 | 100.0 | V | 33.0 | 8.4 |
| 7454.733333 | 43.39 | --- | 74.00 | 30.61 | 100.0 | V | 10.0 | 8.5 |

Appendix A.2: Test Results of 20dB Bandwidth

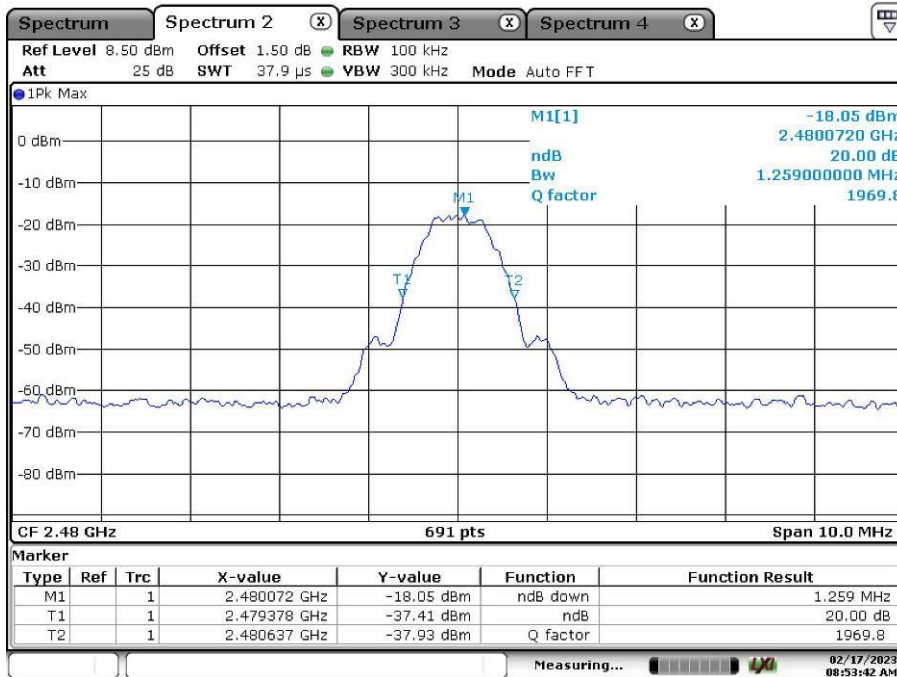


Date: 17.FEB.2023 08:49:11



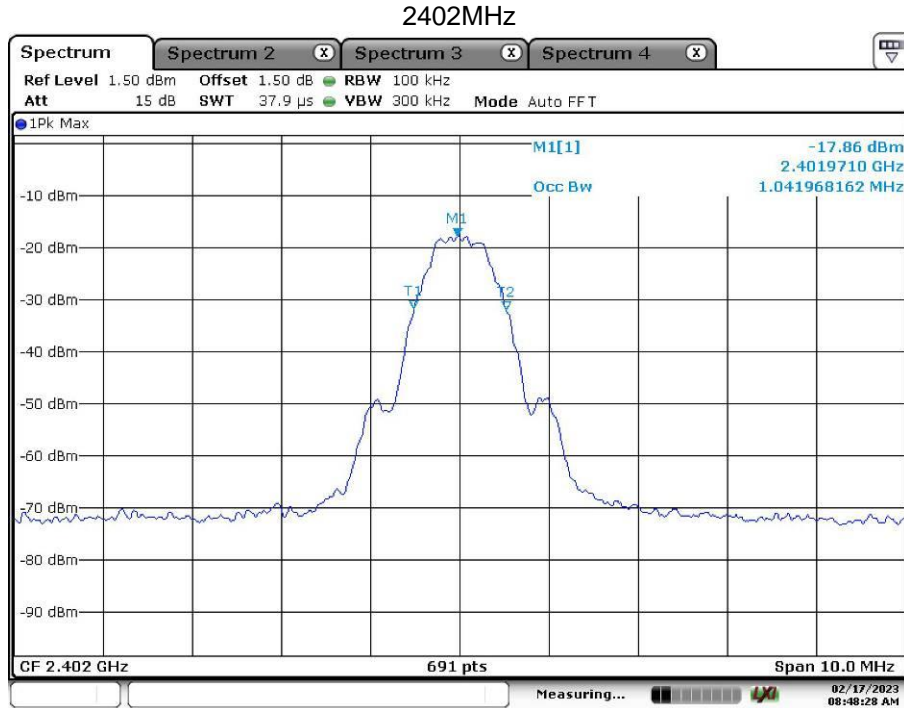
Date: 17.FEB.2023 08:52:25

2480MHz

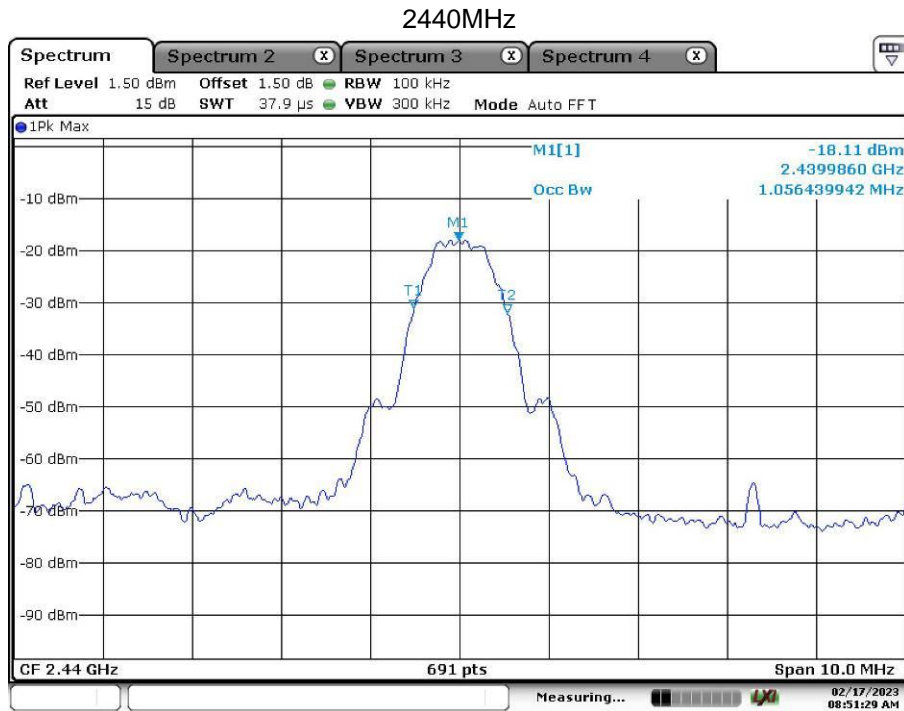


Date: 17.FEB.2023 08:53:42

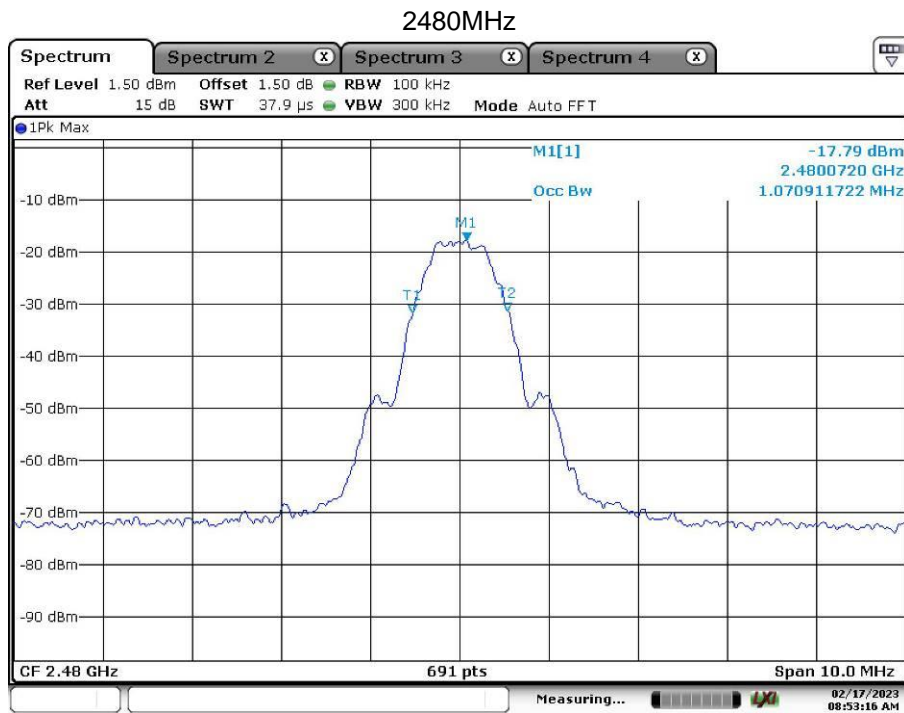
Appendix A.3: Test Results of 99% Bandwidth



Date: 17.FEB.2023 08:48:29



Date: 17.FEB.2023 08:51:30

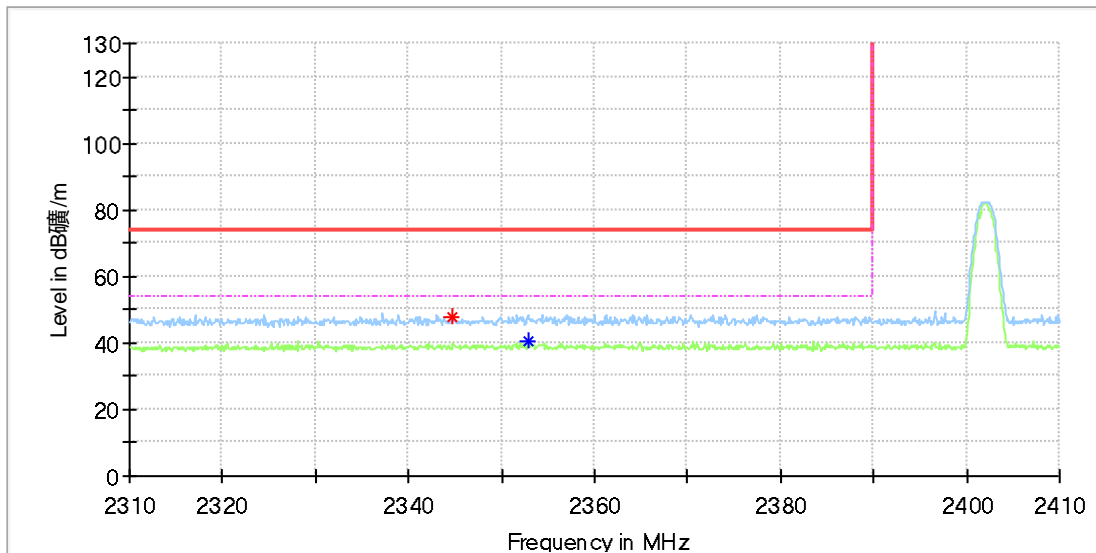


Date: 17.FEB.2023 08:53:15

Appendix A.4: Test Results of Band Edge

EUT Information

EUT Name: Wireless Keyboard
 Model: MD023 (US_CA)
 Test Mode: 2.4G L CH
 Order No/Sample No: 168413778
 Test Voltage: Battery
 Remark: Temp 23 Humi:53%
 Test Standard: FCC 15.249/RSS-210
 Tested By: Kei Zhang
 Reviewed By: Terry Yin

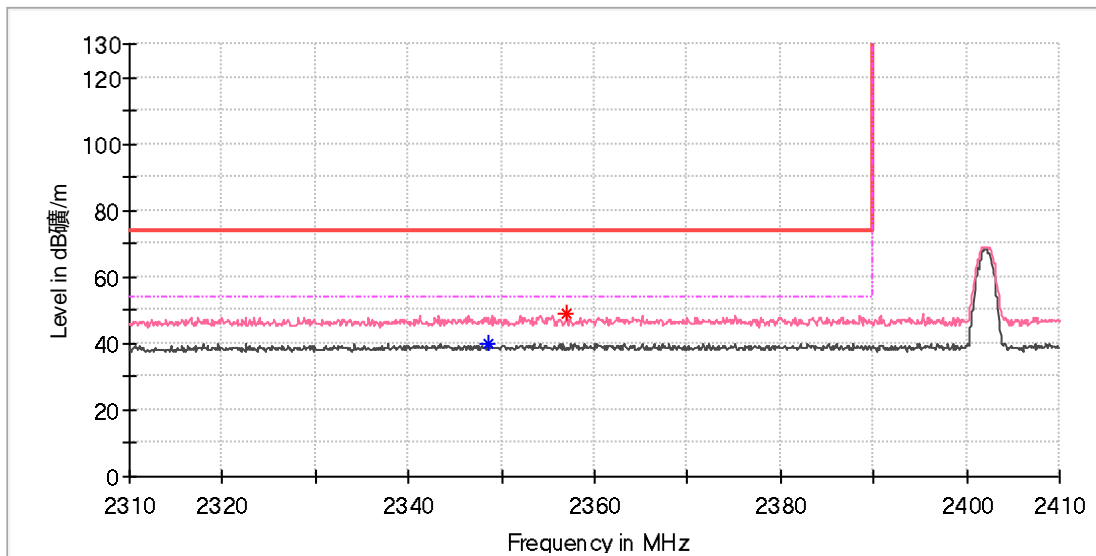


Critical Freqs

| Frequency (MHz) | MaxPeak (dBµV/m) | Average (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2344.800000 | 47.97 | --- | 74.00 | 26.03 | 100.0 | H | 264.0 | 6.9 |
| 2352.800000 | --- | 40.40 | 54.00 | 13.60 | 100.0 | H | 81.0 | 6.9 |

EUT Information

EUT Name: Wireless Keyboard
 Model: MD023 (US_CA)
 Test Mode: 2.4G L CH
 Order No/Sample No: 168413778
 Test Voltage: Battery
 Remark: Temp 23 Humi:53%
 Test Standard: FCC 15.249/RSS-210
 Tested By: Kei Zhang
 Reviewed By: Terry Yin

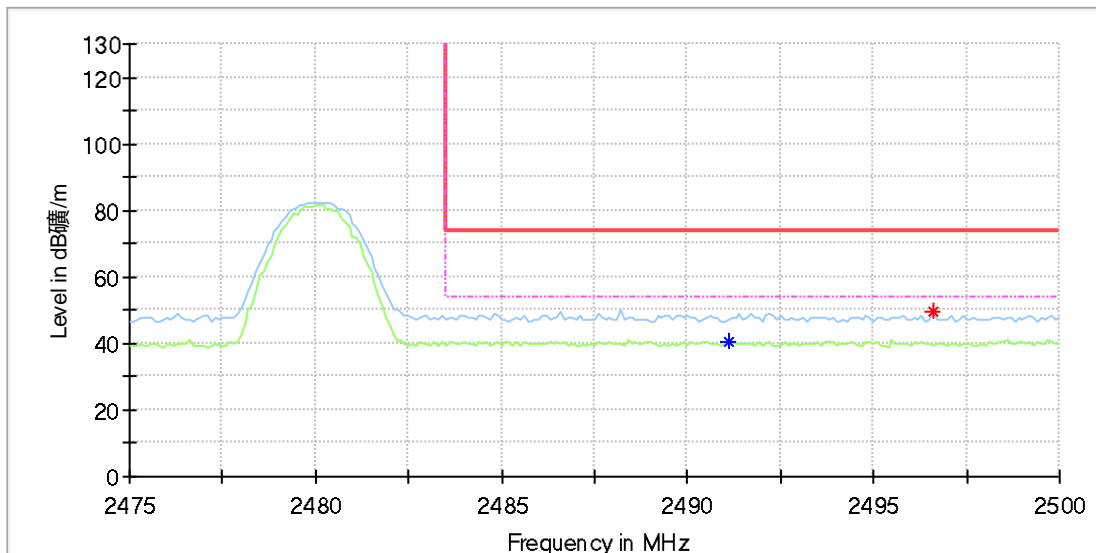


Critical_Freqs

| Frequency (MHz) | MaxPeak (dBµV/m) | Average (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2348.500000 | --- | 40.17 | 54.00 | 13.83 | 100.0 | V | 190.0 | 6.9 |
| 2357.000000 | 49.24 | --- | 74.00 | 24.76 | 100.0 | V | 11.0 | 6.9 |

EUT Information

| | |
|---------------------|--------------------|
| EUT Name: | Wireless Keyboard |
| Model: | MD023 (US_CA) |
| Test Mode: | 2.4G H CH |
| Order No/Sample No: | 168413778 |
| Test Voltage: | Battery |
| Remark: | Temp 23 Humi:53% |
| Test Standard: | FCC 15.249/RSS-210 |
| Tested By: | Kei Zhang |
| Reviewed By: | Terry Yin |

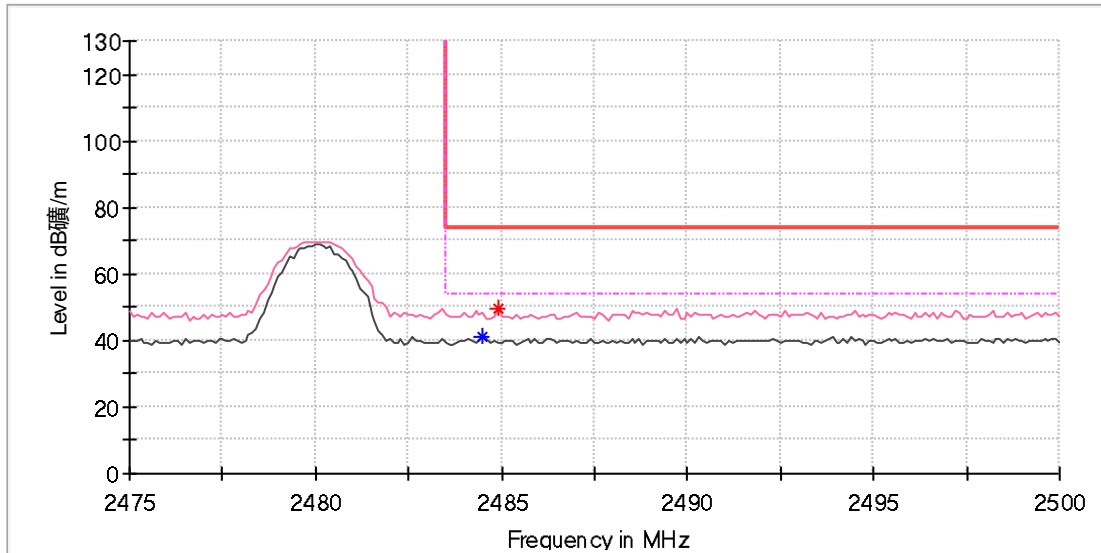


Critical_Freqs

| Frequency (MHz) | MaxPeak (dBµV/m) | Average (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2491.100000 | --- | 40.58 | 54.00 | 13.42 | 100.0 | H | 206.0 | 7.4 |
| 2496.600000 | 49.84 | --- | 74.00 | 24.16 | 100.0 | H | 153.0 | 7.4 |

EUT Information

EUT Name: Wireless Keyboard
 Model: MD023 (US_CA)
 Test Mode: 2.4G H CH
 Order No/Sample No: 168413778
 Test Voltage: Battery
 Remark: Temp 23 Humi:53%
 Test Standard: FCC 15.249/RSS-210
 Tested By: Kei Zhang
 Reviewed By: Terry Yin



Critical_Freqs

| Frequency (MHz) | MaxPeak (dBµV/m) | Average (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2484.500000 | --- | 41.01 | 54.00 | 12.99 | 100.0 | V | 226.0 | 7.4 |
| 2484.900000 | 49.51 | --- | 74.00 | 24.49 | 100.0 | V | 109.0 | 7.4 |