

# Test Report No.50117032 001

## Appendix D: Radiated and Mains Spurious Emission Data

(File: 50117032AppendixD)

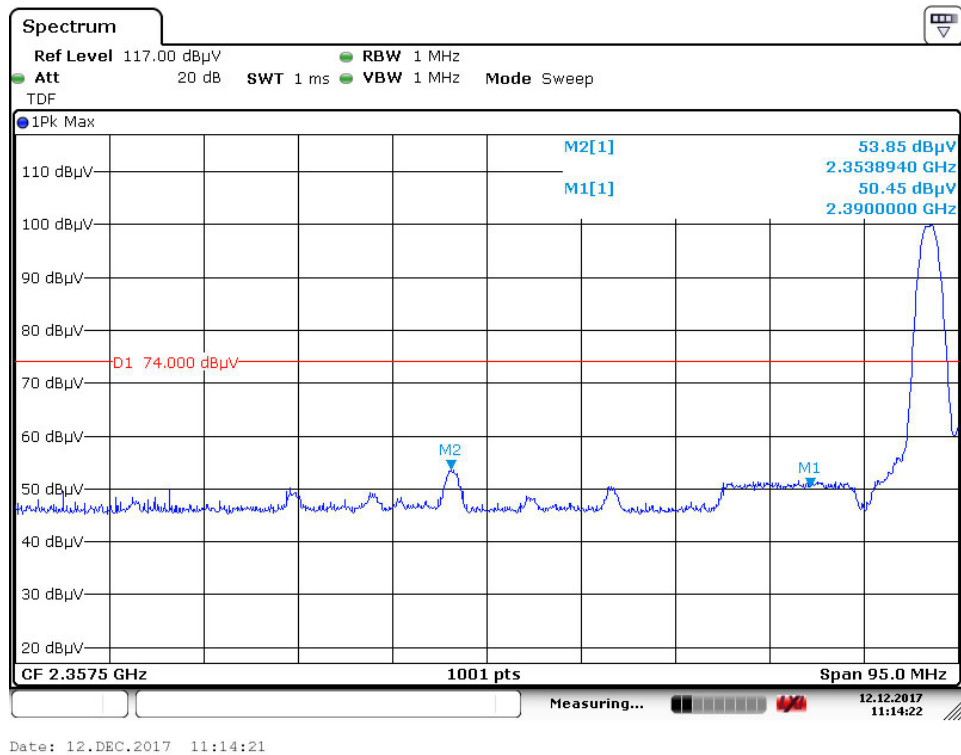
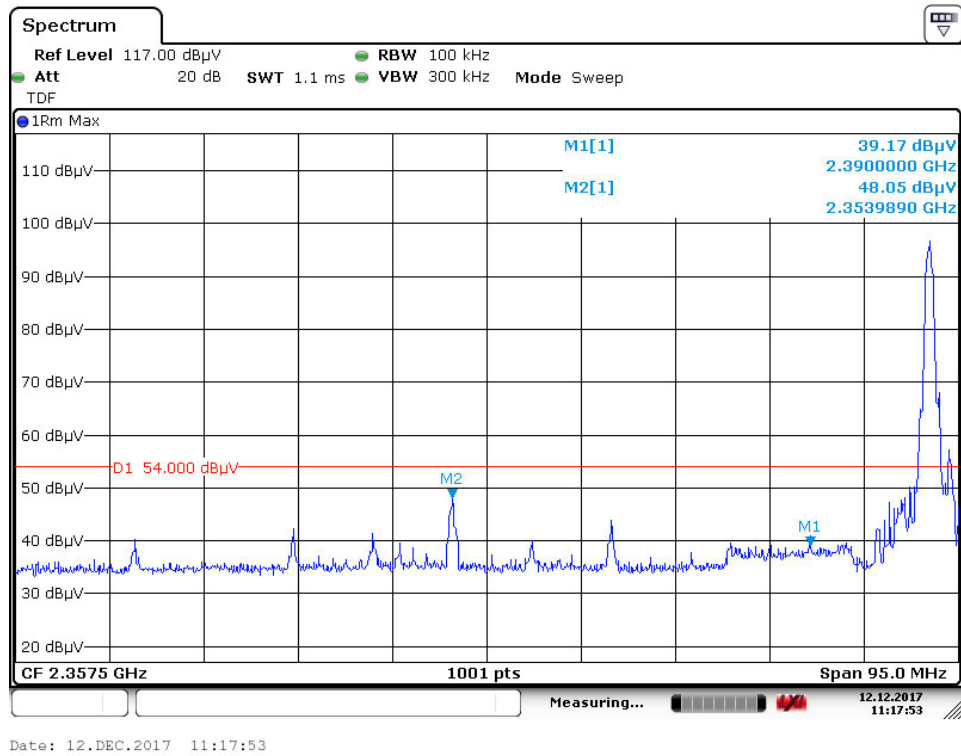
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## Spurious Emissions, Band Edges, 2.35-2.5G

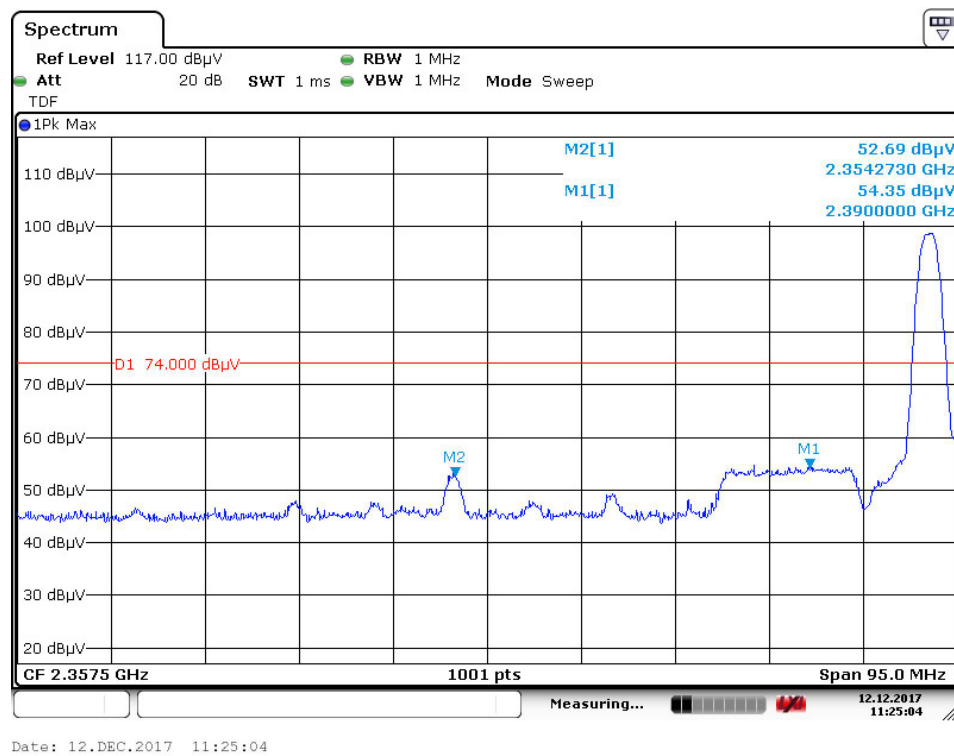
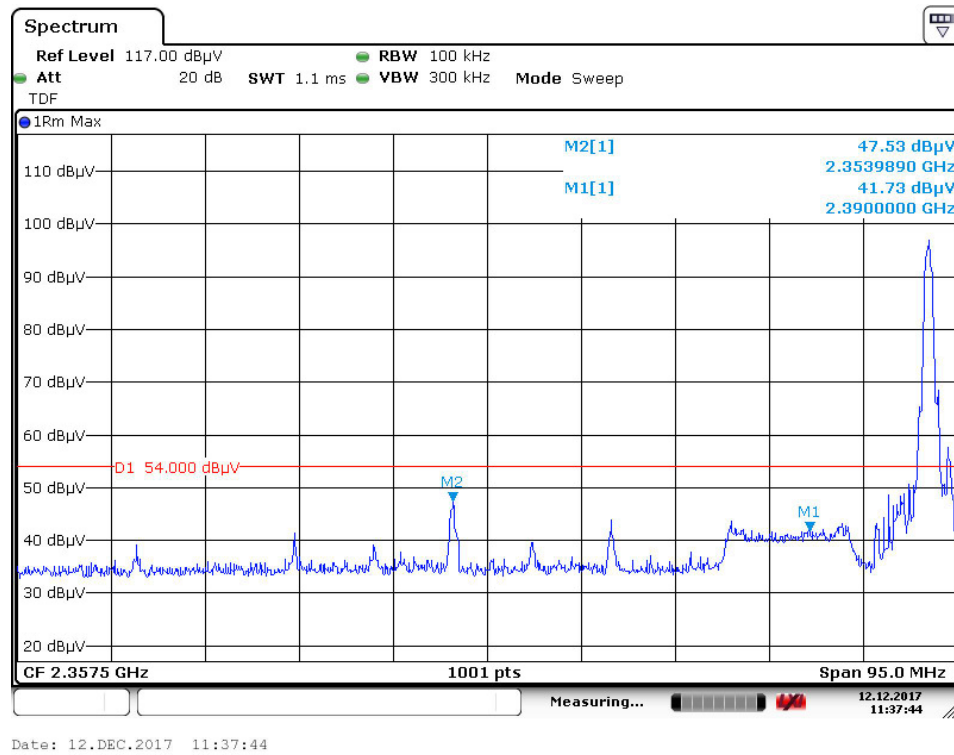
# Radiated Bandedge (GFSK)

### Low Channel (Hor)



## Spurious Emissions, Band Edge, 2.35-2.5G

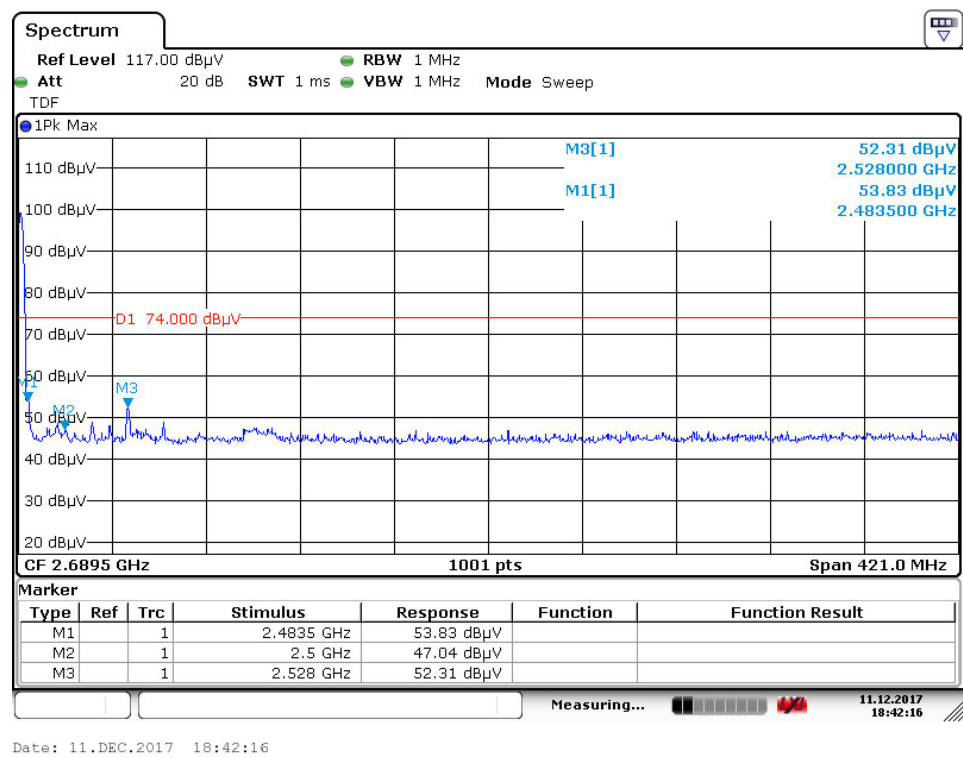
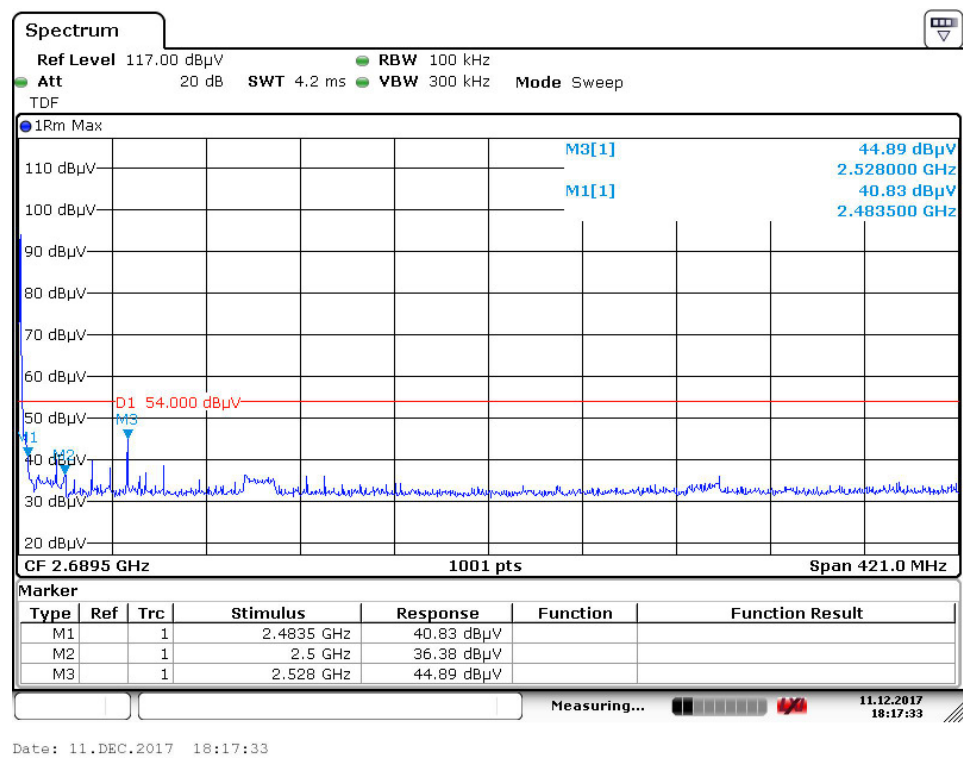
## Low Channel (Ver)



## Spurious Emissions, Band Edge, 2.35-2.5G

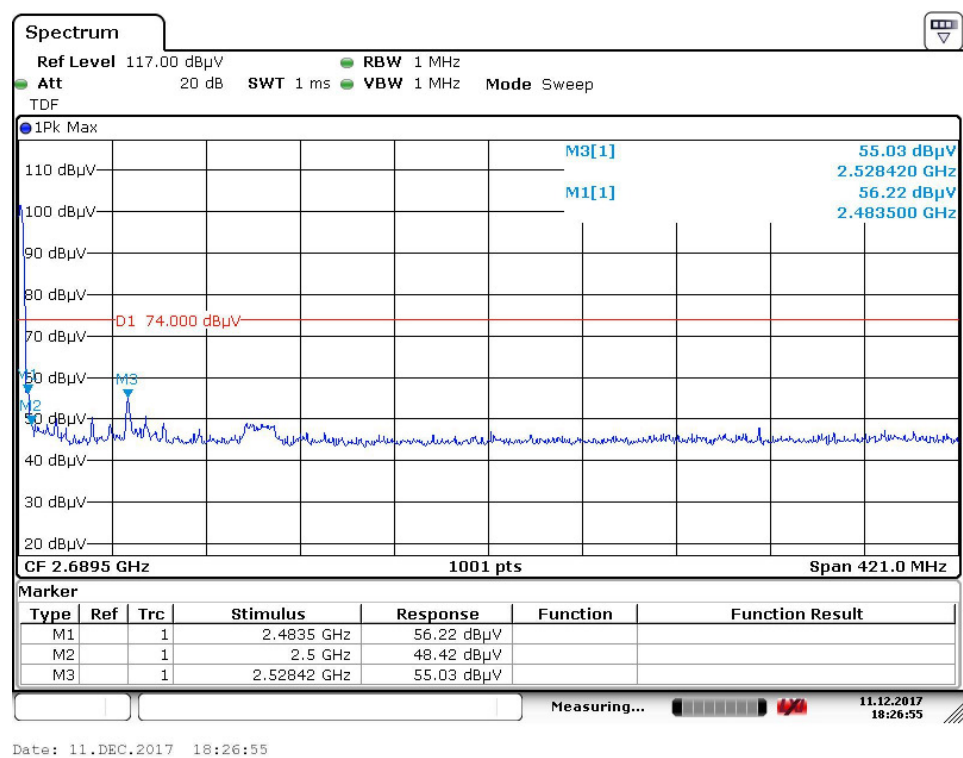
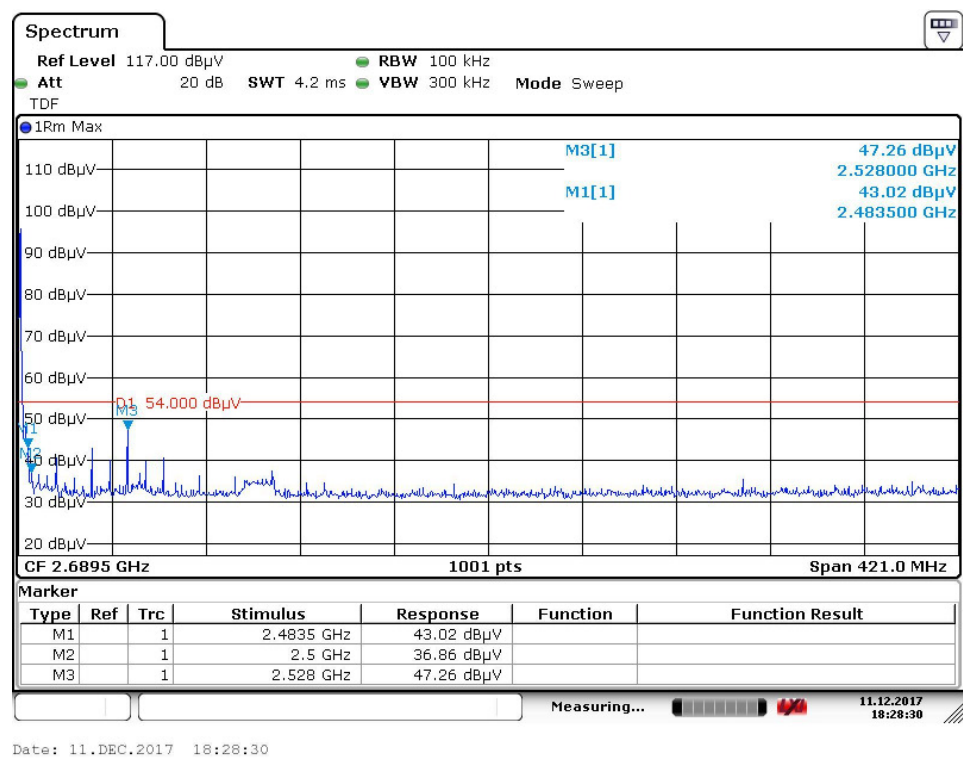
# Radiated Bandedge (GFSK)

## High Channel (Hor)



## Spurious Emissions, Band Edge, 2.35-2.5G

High Channel (Ver)



Spurious Emissions, Band Edge, 2.35-2.5G

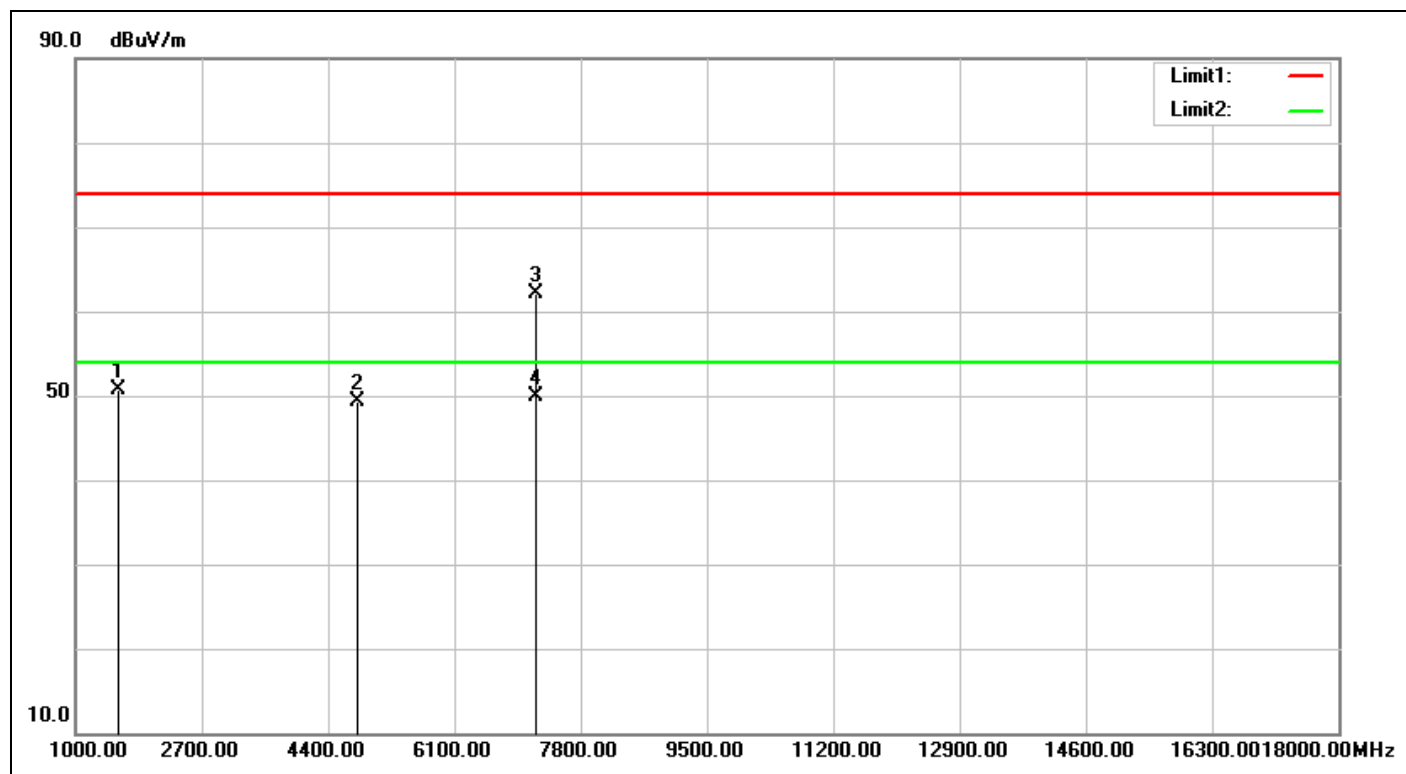
# Spurious Emissions, TX Mode, 1-18G



**TUV Rheinland Taiwan Ltd.**

11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

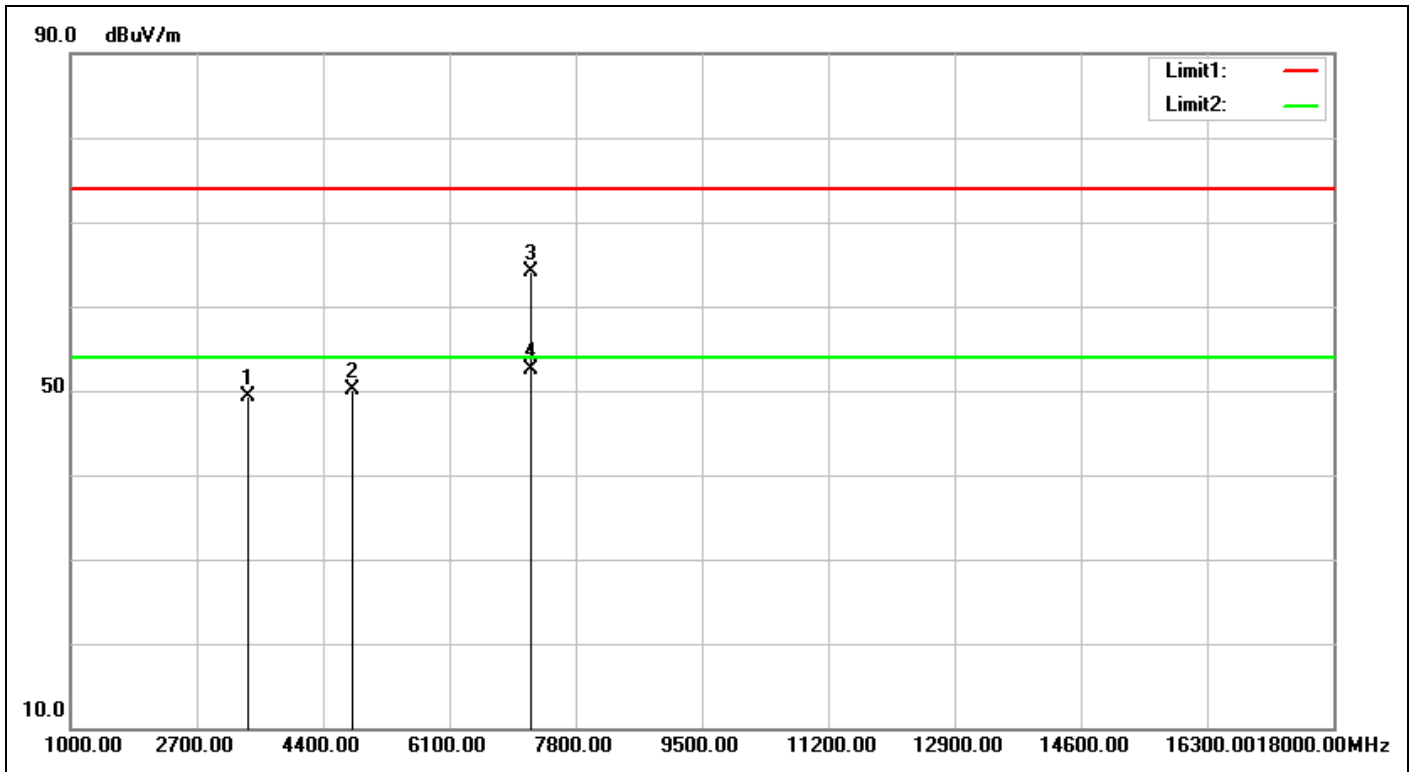
Tel:+886-2172-7000 fax:+886-2528-0018



|                |                    |                    |                     |
|----------------|--------------------|--------------------|---------------------|
| Service No.:   | 114071491          | Test Distance:     | 3m                  |
| Test Standard: | NCC Above 1G PEAK  | Ant. Polarization: | Horizontal          |
| Test item:     | Radiation Emission | Test Time:         | 2017/12/12 11:38:36 |
| Applicant:     | AtechOEM Inc.      | Test Rating:       | DC 5V               |
| Product:       | Bluetooth Module   | Temp.(°C)/Hum.(%): | 20(°C)/60%          |
| Model No.:     | BL-4011 QAM        | Test Engineer:     | George Yang         |
| Test Mode:     | 2402-TX            |                    |                     |
| Remark:        |                    |                    |                     |

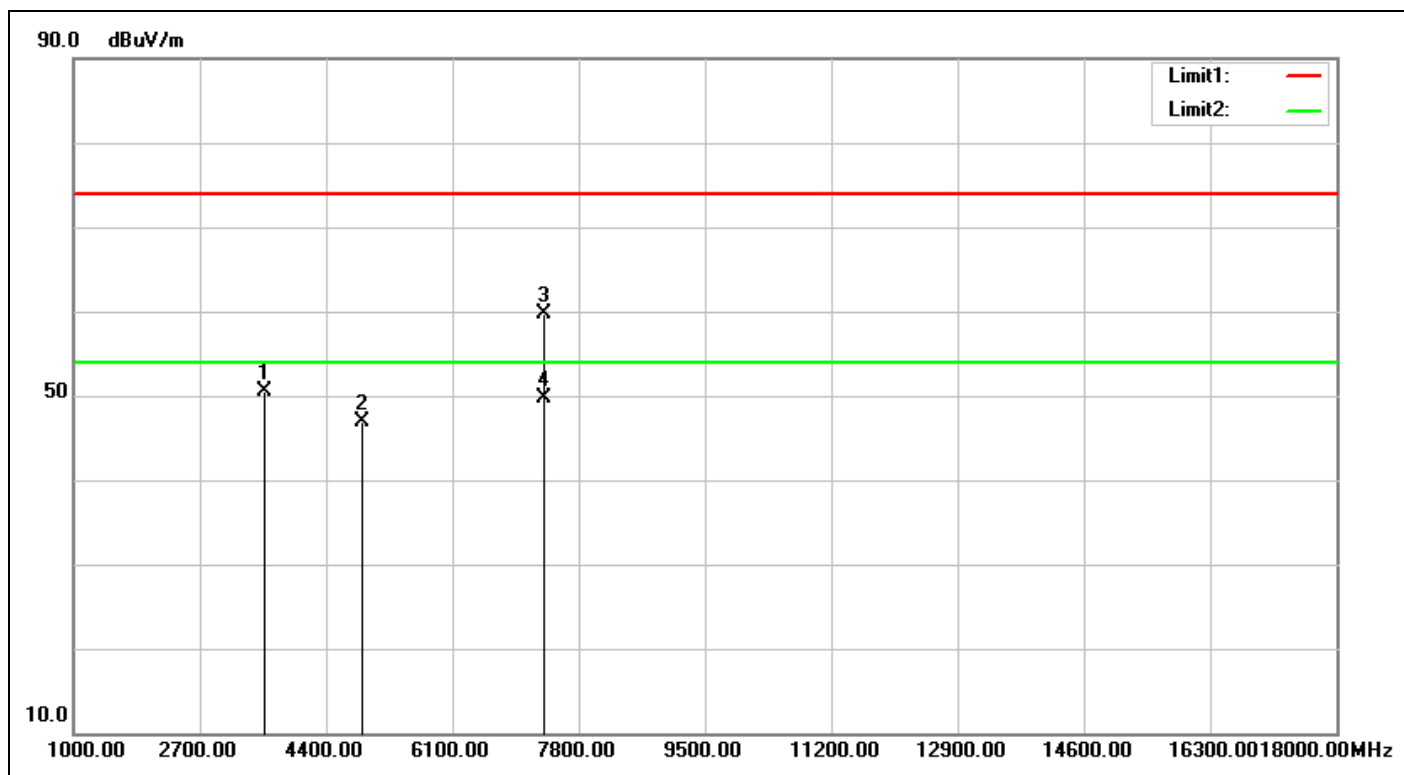
| No. | Frequency (MHz) | Factor (dB/m) | Reading (dBuV) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (°) | Remark |
|-----|-----------------|---------------|----------------|----------------|----------------|-------------|------|-------------|-------------|--------|
| 1   | 1578.000        | -10.00        | 60.66          | 50.66          | 74.00          | -23.34      | peak | 100         | 100         |        |
| 2   | 4804.000        | -2.71         | 51.97          | 49.26          | 74.00          | -24.74      | peak | 100         | 125         |        |
| 3   | 7206.000        | 5.29          | 56.77          | 62.06          | 74.00          | -11.94      | peak | 100         | 258         |        |
| 4   | 7206.000        | 5.29          | 44.63          | 49.92          | 54.00          | -4.08       | AVG  | 100         | 258         |        |

# Spurious Emissions, TX Mode, 1-18G



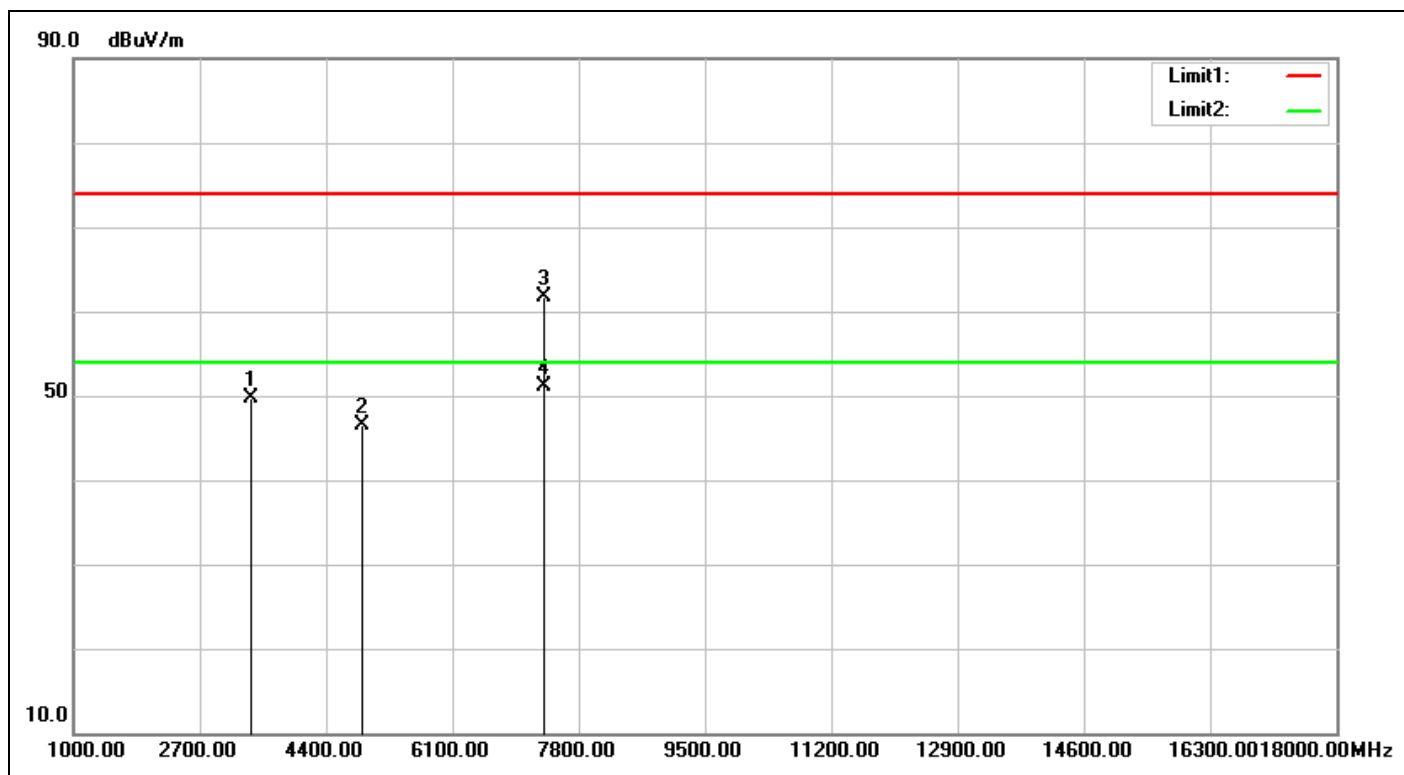
|                       |                           |                           |                            |
|-----------------------|---------------------------|---------------------------|----------------------------|
| <b>Service No.:</b>   | <b>114071491</b>          | <b>Test Distance:</b>     | <b>3m</b>                  |
| <b>Test Standard:</b> | <b>NCC Above 1G PEAK</b>  | <b>Ant. Polarization:</b> | <b>Vertical</b>            |
| <b>Test item:</b>     | <b>Radiation Emission</b> | <b>Test Time:</b>         | <b>2017/12/12 11:39:39</b> |
| <b>Applicant:</b>     | <b>AtechOEM Inc.</b>      | <b>Test Rating:</b>       | <b>DC 5V</b>               |
| <b>Product:</b>       | <b>Bluetooth Module</b>   | <b>Temp.(°C)/Hum.(%)</b>  | <b>20(°C)/60%</b>          |
| <b>Model No.:</b>     | <b>BL-4011 QAM</b>        | <b>Test Engineer:</b>     | <b>George Yang</b>         |
| <b>Test Mode:</b>     | <b>2402-TX</b>            |                           |                            |
| <b>Remark:</b>        |                           |                           |                            |

| No. | Frequency (MHz) | Factor (dB/m) | Reading (dBuV) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth ( ° ) | Remark |
|-----|-----------------|---------------|----------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1   | 3380.000        | -6.25         | 55.52          | 49.27          | 74.00          | -24.73      | peak |             |               |        |
| 2   | 4804.000        | -2.71         | 52.72          | 50.01          | 74.00          | -23.99      | peak | 100         | 174           |        |
| 3   | 7206.000        | 5.29          | 58.76          | 64.05          | 74.00          | -9.95       | peak | 105         | 161           |        |
| 4   | 7206.000        | 5.29          | 47.23          | 52.52          | 54.00          | -1.48       | AVG  | 105         | 161           |        |



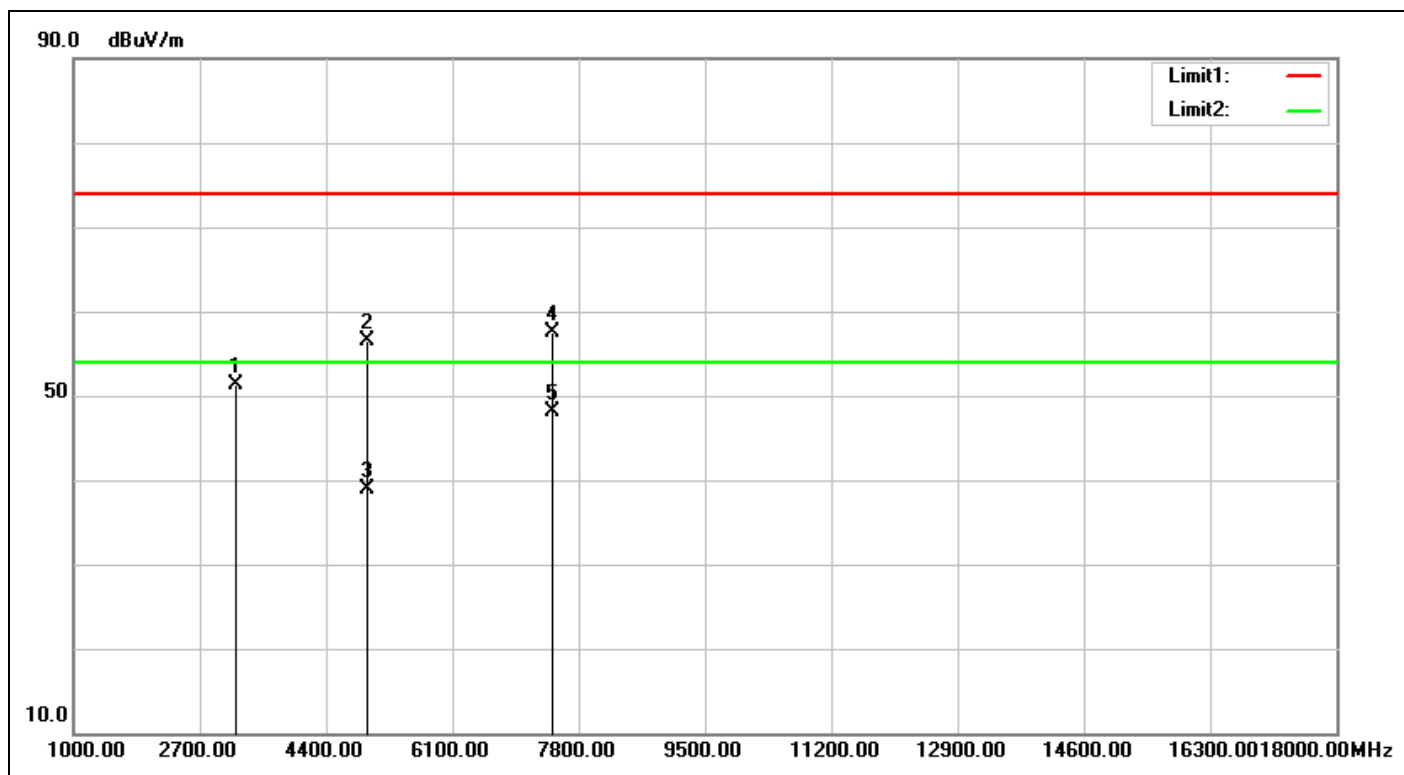
|                       |                           |                           |                            |
|-----------------------|---------------------------|---------------------------|----------------------------|
| <b>Service No.:</b>   | <b>114071491</b>          | <b>Test Distance:</b>     | <b>3m</b>                  |
| <b>Test Standard:</b> | <b>NCC Above 1G PEAK</b>  | <b>Ant. Polarization:</b> | <b>Horizontal</b>          |
| <b>Test item:</b>     | <b>Radiation Emission</b> | <b>Test Time:</b>         | <b>2017/12/12 13:09:51</b> |
| <b>Applicant:</b>     | <b>AtechOEM Inc.</b>      | <b>Test Rating:</b>       | <b>DC 5V</b>               |
| <b>Product:</b>       | <b>Bluetooth Module</b>   | <b>Temp.(°C)/Hum.(%)</b>  | <b>20(°C)/60%</b>          |
| <b>Model No.:</b>     | <b>BL-4011 QAM</b>        | <b>Test Engineer:</b>     | <b>George Yang</b>         |
| <b>Test Mode:</b>     | <b>2440-TX</b>            |                           |                            |
| <b>Remark:</b>        |                           |                           |                            |

| No. | Frequency (MHz) | Factor (dB/m) | Reading (dBuV) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth ( ° ) | Remark |
|-----|-----------------|---------------|----------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1   | 3567.000        | -6.09         | 56.65          | 50.56          | 74.00          | -23.44      | peak |             |               |        |
| 2   | 4880.000        | -2.50         | 49.34          | 46.84          | 74.00          | -27.16      | peak |             |               |        |
| 3   | 7320.000        | 5.59          | 54.02          | 59.61          | 74.00          | -14.39      | peak | 146         | 255           |        |
| 4   | 7320.000        | 5.59          | 44.11          | 49.70          | 54.00          | -4.30       | AVG  | 146         | 255           |        |



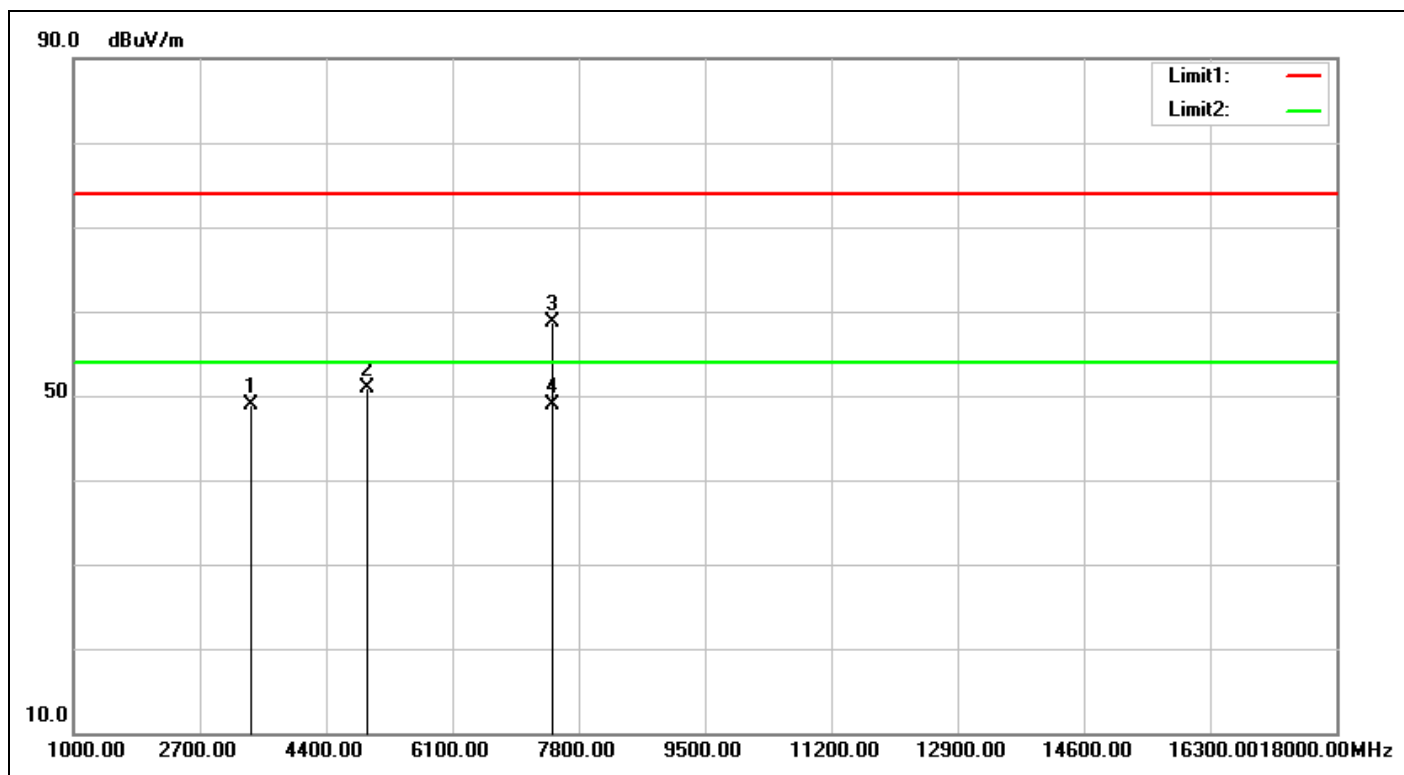
|                       |                           |                           |                            |
|-----------------------|---------------------------|---------------------------|----------------------------|
| <b>Service No.:</b>   | <b>114071491</b>          | <b>Test Distance:</b>     | <b>3m</b>                  |
| <b>Test Standard:</b> | <b>NCC Above 1G PEAK</b>  | <b>Ant. Polarization:</b> | <b>Vertical</b>            |
| <b>Test item:</b>     | <b>Radiation Emission</b> | <b>Test Time:</b>         | <b>2017/12/12 13:10:54</b> |
| <b>Applicant:</b>     | <b>AtechOEM Inc.</b>      | <b>Test Rating:</b>       | <b>DC 5V</b>               |
| <b>Product:</b>       | <b>Bluetooth Module</b>   | <b>Temp.(°C)/Hum.(%)</b>  | <b>20(°C)/60%</b>          |
| <b>Model No.:</b>     | <b>BL-4011 QAM</b>        | <b>Test Engineer:</b>     | <b>George Yang</b>         |
| <b>Test Mode:</b>     | <b>2440-TX</b>            |                           |                            |
| <b>Remark:</b>        |                           |                           |                            |

| No. | Frequency (MHz) | Factor (dB/m) | Reading (dBuV) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth ( ° ) | Remark |
|-----|-----------------|---------------|----------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1   | 3380.000        | -6.25         | 55.93          | 49.68          | 74.00          | -24.32      | peak |             |               |        |
| 2   | 4880.000        | -2.50         | 48.96          | 46.46          | 74.00          | -27.54      | peak |             |               |        |
| 3   | 7320.000        | 5.59          | 56.08          | 61.67          | 74.00          | -12.33      | peak | 109         | 162           |        |
| 4   | 7320.000        | 5.59          | 45.42          | 51.01          | 54.00          | -2.99       | AVG  | 109         | 162           |        |



|                       |                           |                           |                            |
|-----------------------|---------------------------|---------------------------|----------------------------|
| <b>Service No.:</b>   | <b>114071491</b>          | <b>Test Distance:</b>     | <b>3m</b>                  |
| <b>Test Standard:</b> | <b>NCC Above 1G PEAK</b>  | <b>Ant. Polarization:</b> | <b>Horizontal</b>          |
| <b>Test item:</b>     | <b>Radiation Emission</b> | <b>Test Time:</b>         | <b>2017/12/12 13:32:38</b> |
| <b>Applicant:</b>     | <b>AtechOEM Inc.</b>      | <b>Test Rating:</b>       | <b>DC 5V</b>               |
| <b>Product:</b>       | <b>Bluetooth Module</b>   | <b>Temp.(°C)/Hum.(%)</b>  | <b>20(°C)/60%</b>          |
| <b>Model No.:</b>     | <b>BL-4011 QAM</b>        | <b>Test Engineer:</b>     | <b>George Yang</b>         |
| <b>Test Mode:</b>     | <b>2480-TX</b>            |                           |                            |
| <b>Remark:</b>        |                           |                           |                            |

| No. | Frequency (MHz) | Factor (dB/m) | Reading (dBuV) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth ( ° ) | Remark |
|-----|-----------------|---------------|----------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1   | 3176.000        | -6.41         | 57.75          | 51.34          | 74.00          | -22.66      | peak | 100         | 114           |        |
| 2   | 4960.000        | -2.29         | 58.89          | 56.60          | 74.00          | -17.40      | peak | 100         | 34            |        |
| 3   | 4960.000        | -2.29         | 41.18          | 38.89          | 54.00          | -15.11      | AVG  | 100         | 34            |        |
| 4   | 7440.000        | 5.90          | 51.59          | 57.49          | 74.00          | -16.51      | peak | 132         | 130           |        |
| 5   | 7440.000        | 5.90          | 42.25          | 48.15          | 54.00          | -5.85       | AVG  | 132         | 130           |        |



|                       |                           |                           |                            |
|-----------------------|---------------------------|---------------------------|----------------------------|
| <b>Service No.:</b>   | <b>114071491</b>          | <b>Test Distance:</b>     | <b>3m</b>                  |
| <b>Test Standard:</b> | <b>NCC Above 1G PEAK</b>  | <b>Ant. Polarization:</b> | <b>Vertical</b>            |
| <b>Test item:</b>     | <b>Radiation Emission</b> | <b>Test Time:</b>         | <b>2017/12/12 13:33:41</b> |
| <b>Applicant:</b>     | <b>AtechOEM Inc.</b>      | <b>Test Rating:</b>       | <b>DC 5V</b>               |
| <b>Product:</b>       | <b>Bluetooth Module</b>   | <b>Temp.(°C)/Hum.(%)</b>  | <b>20(°C)/60%</b>          |
| <b>Model No.:</b>     | <b>BL-4011 QAM</b>        | <b>Test Engineer:</b>     | <b>George Yang</b>         |
| <b>Test Mode:</b>     | <b>2480-TX</b>            |                           |                            |
| <b>Remark:</b>        |                           |                           |                            |

| No. | Frequency (MHz) | Factor (dB/m) | Reading (dBuV) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth ( ° ) | Remark |
|-----|-----------------|---------------|----------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1   | 3380.000        | -6.25         | 55.19          | 48.94          | 74.00          | -25.06      | peak | 100         | 138           |        |
| 2   | 4960.000        | -2.29         | 53.20          | 50.91          | 74.00          | -23.09      | peak | 100         | 120           |        |
| 3   | 7440.000        | 5.90          | 52.88          | 58.78          | 74.00          | -15.22      | peak | 116         | 307           |        |
| 4   | 7440.000        | 5.90          | 43.08          | 48.98          | 54.00          | -5.02       | AVG  | 116         | 307           |        |

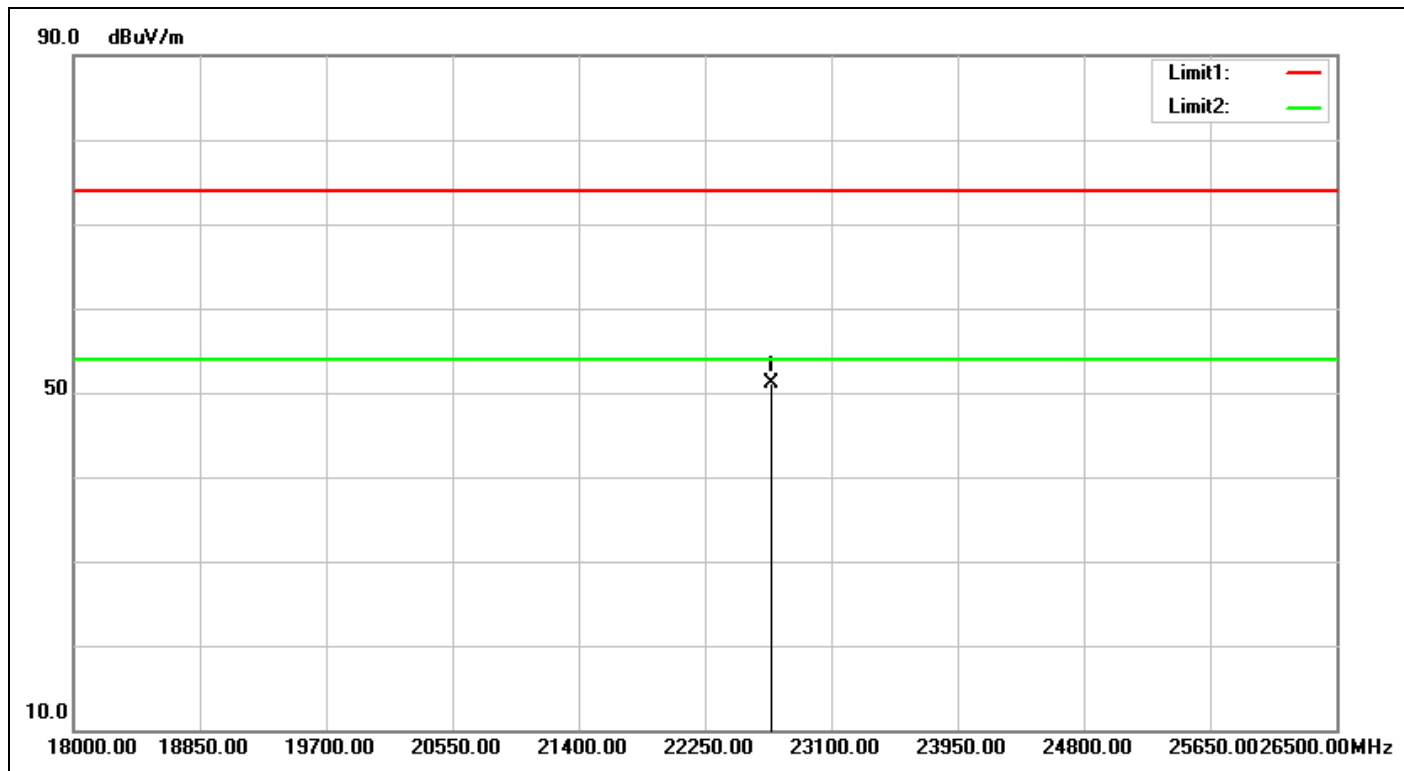
# Spurious Emissions, TX Mode, 18-26G



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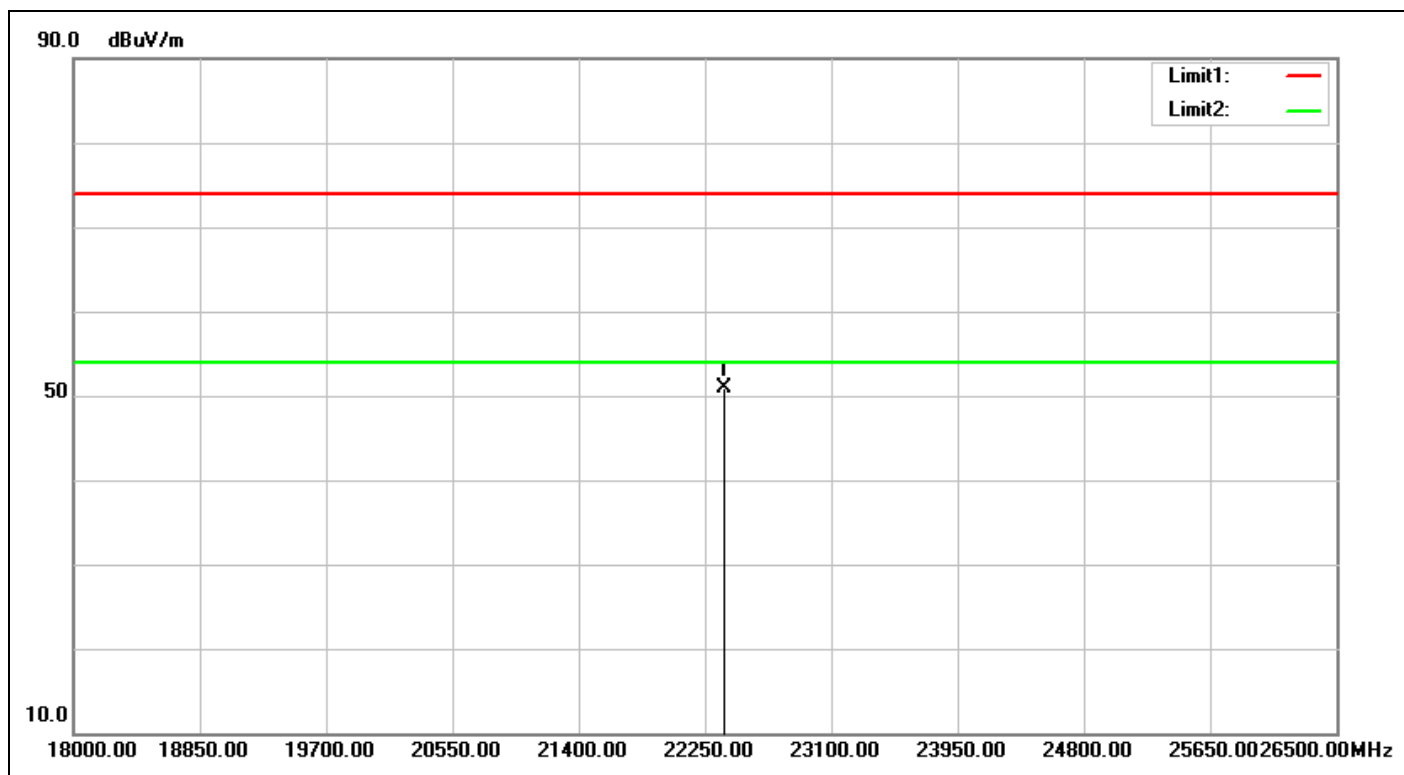
**11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105**

Tel:+886-2172-7000 fax:+886-2528-0018



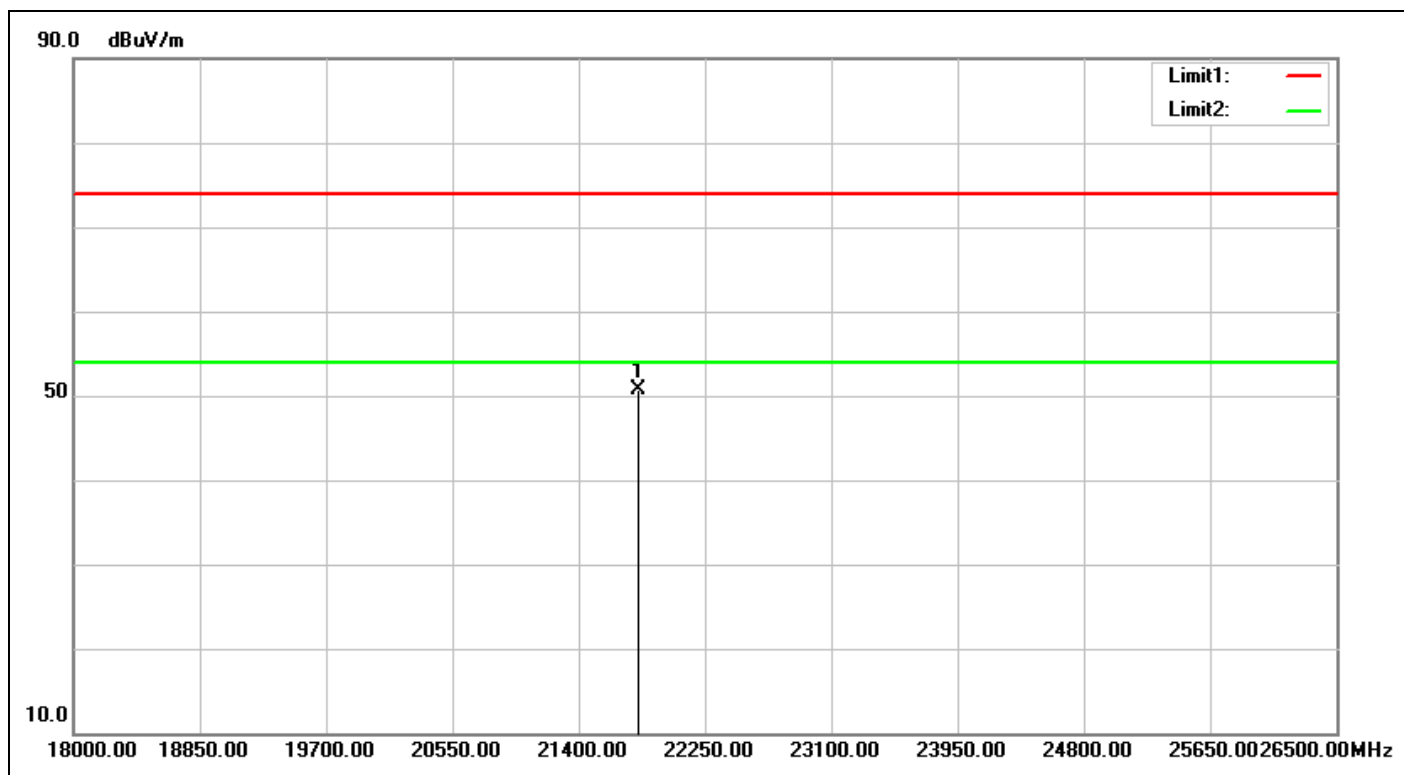
|                |                    |                    |                     |
|----------------|--------------------|--------------------|---------------------|
| Service No.:   | 114071491          | Test Distance:     | 3m                  |
| Test Standard: | NCC Above 1G PEAK  | Ant. Polarization: | Horizontal          |
| Test item:     | Radiation Emission | Test Time:         | 2017/12/12 14:29:43 |
| Applicant:     | AtechOEM Inc.      | Test Rating:       | DC 5V               |
| Product:       | Bluetooth Module   | Temp.(°C)/Hum.(%): | 20(°C)/60%          |
| Model No.:     | BL-4011 QAM        | Test Engineer:     | George Yang         |
| Test Mode:     | 2402-TX            |                    |                     |
| Remark:        |                    |                    |                     |

| No. | Frequency (MHz) | Factor (dB/m) | Reading (dBuV) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (°) | Remark |
|-----|-----------------|---------------|----------------|----------------|----------------|-------------|------|-------------|-------------|--------|
| 1   | 22692.000       | 32.12         | 19.01          | 51.13          | 74.00          | -22.87      | peak | 100         | 145         |        |



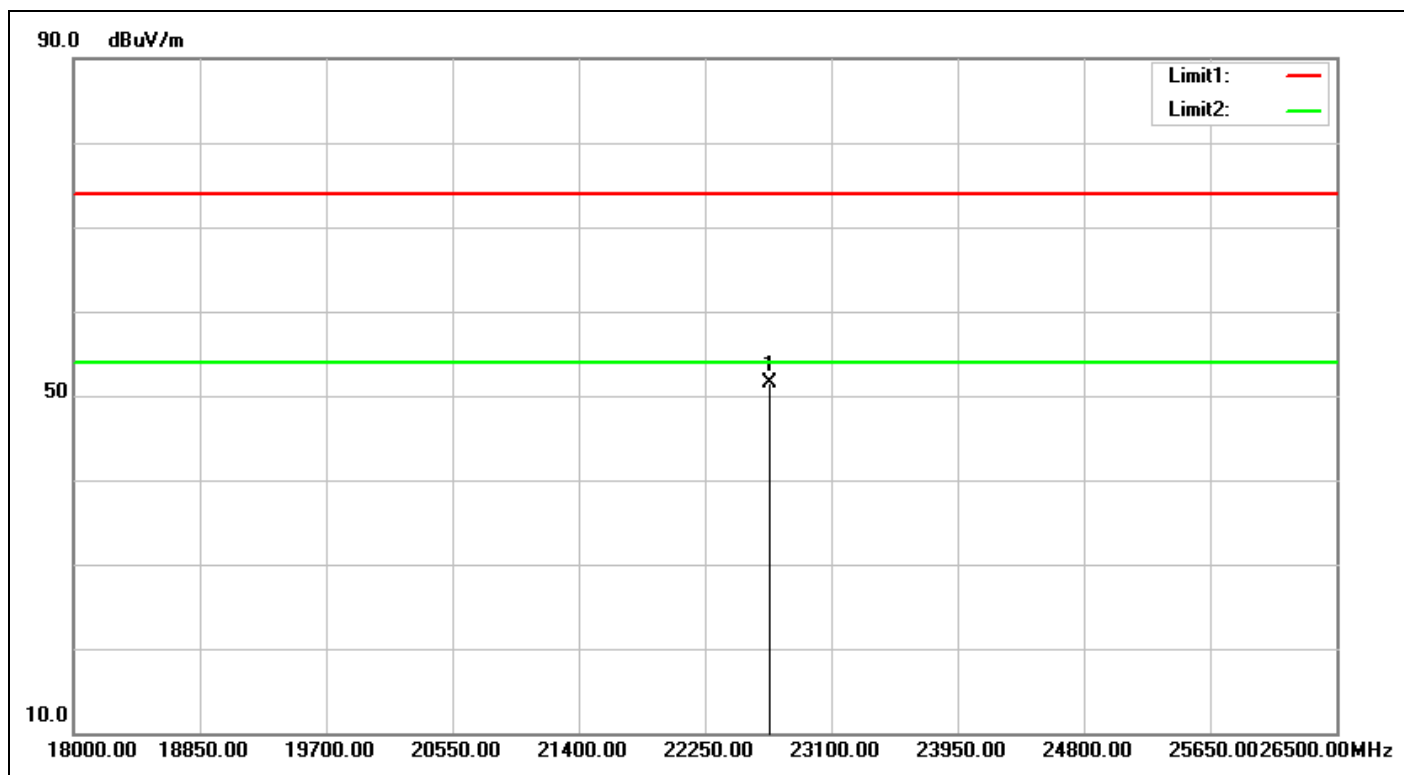
|                       |                           |                           |                            |
|-----------------------|---------------------------|---------------------------|----------------------------|
| <b>Service No.:</b>   | <b>114071491</b>          | <b>Test Distance:</b>     | <b>3m</b>                  |
| <b>Test Standard:</b> | <b>NCC Above 1G PEAK</b>  | <b>Ant. Polarization:</b> | <b>Vertical</b>            |
| <b>Test item:</b>     | <b>Radiation Emission</b> | <b>Test Time:</b>         | <b>2017/12/12 14:30:46</b> |
| <b>Applicant:</b>     | <b>AtechOEM Inc.</b>      | <b>Test Rating:</b>       | <b>DC 5V</b>               |
| <b>Product:</b>       | <b>Bluetooth Module</b>   | <b>Temp.(°C)/Hum.(%)</b>  | <b>20(°C)/60%</b>          |
| <b>Model No.:</b>     | <b>BL-4011 QAM</b>        | <b>Test Engineer:</b>     | <b>George Yang</b>         |
| <b>Test Mode:</b>     | <b>2402-TX</b>            |                           |                            |
| <b>Remark:</b>        |                           |                           |                            |

| No. | Frequency<br>(MHz) | Factor<br>(dB/m) | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Det. | Height<br>(cm) | Azimuth<br>( ° ) | Remark |
|-----|--------------------|------------------|-------------------|-------------------|-------------------|----------------|------|----------------|------------------|--------|
| 1   | 22377.500          | 32.32            | 18.58             | 50.90             | 74.00             | -23.10         | peak | 100            | 179              |        |



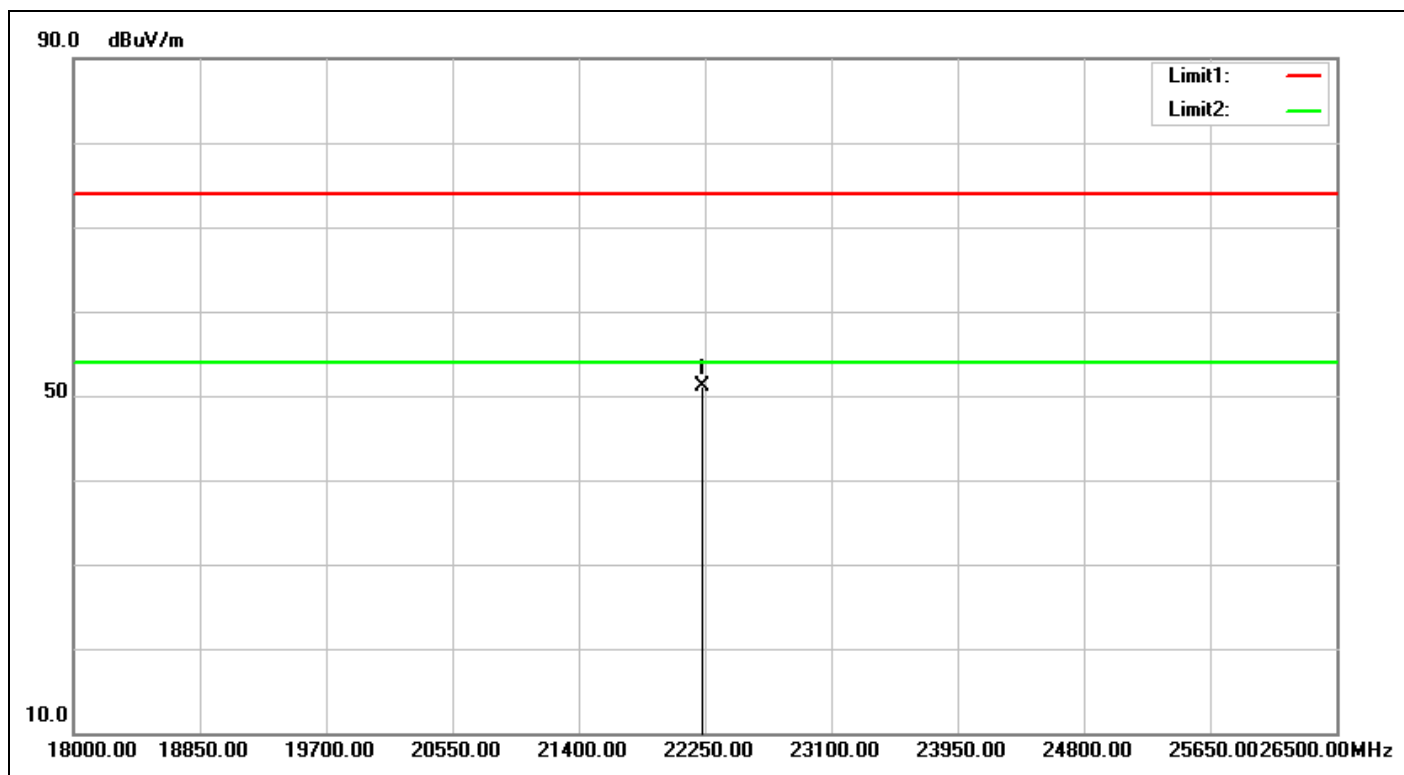
|                       |                           |                           |                            |
|-----------------------|---------------------------|---------------------------|----------------------------|
| <b>Service No.:</b>   | <b>114071491</b>          | <b>Test Distance:</b>     | <b>3m</b>                  |
| <b>Test Standard:</b> | <b>NCC Above 1G PEAK</b>  | <b>Ant. Polarization:</b> | <b>Horizontal</b>          |
| <b>Test item:</b>     | <b>Radiation Emission</b> | <b>Test Time:</b>         | <b>2017/12/12 14:33:21</b> |
| <b>Applicant:</b>     | <b>AtechOEM Inc.</b>      | <b>Test Rating:</b>       | <b>DC 5V</b>               |
| <b>Product:</b>       | <b>Bluetooth Module</b>   | <b>Temp.(°C)/Hum.(%):</b> | <b>20(°C)/60%</b>          |
| <b>Model No.:</b>     | <b>BL-4011 QAM</b>        | <b>Test Engineer:</b>     | <b>George Yang</b>         |
| <b>Test Mode:</b>     | <b>2440-TX</b>            |                           |                            |
| <b>Remark:</b>        |                           |                           |                            |

| No. | Frequency<br>(MHz) | Factor<br>(dB/m) | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Det. | Height<br>(cm) | Azimuth<br>( ° ) | Remark |
|-----|--------------------|------------------|-------------------|-------------------|-------------------|----------------|------|----------------|------------------|--------|
| 1   | 21799.500          | 32.36            | 18.32             | 50.68             | 74.00             | -23.32         | peak | 100            | 123              |        |



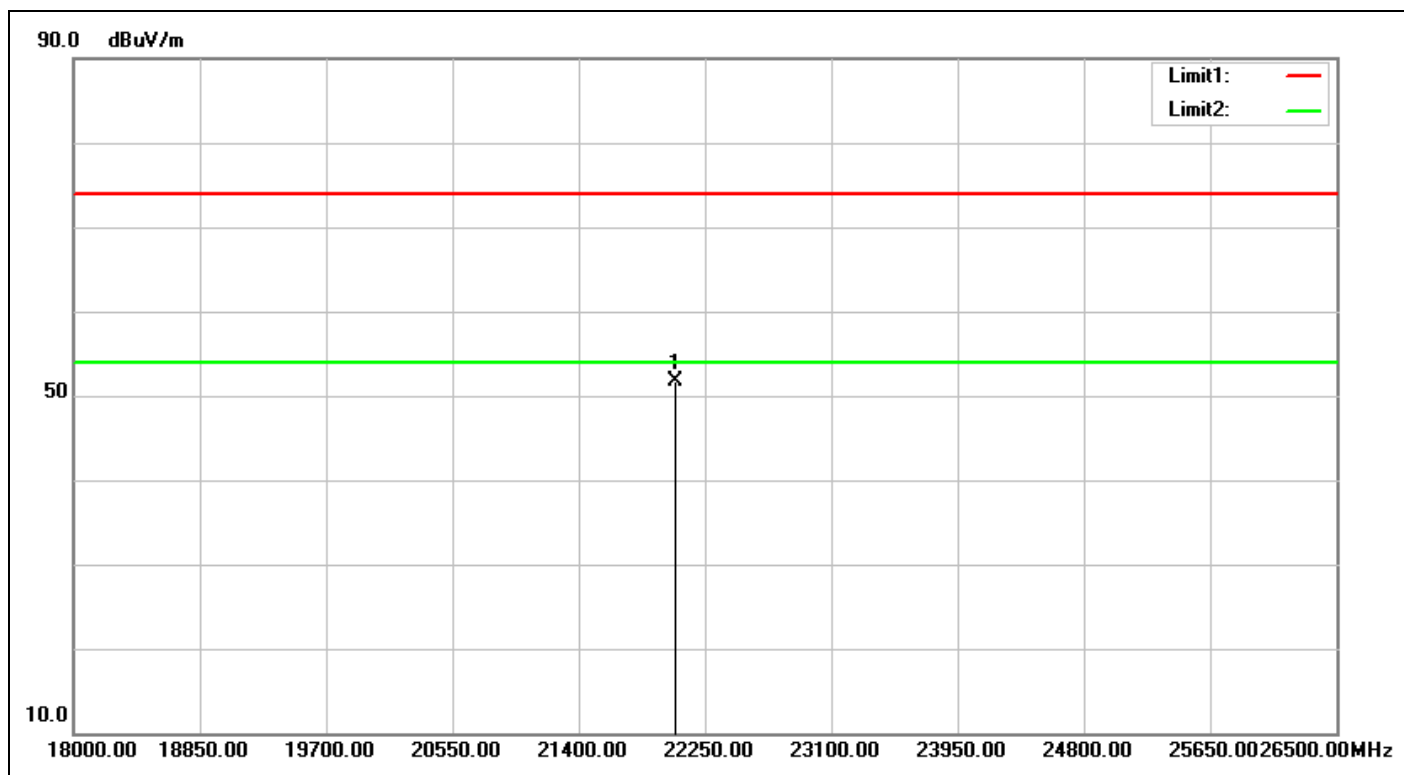
|                       |                           |                           |                            |
|-----------------------|---------------------------|---------------------------|----------------------------|
| <b>Service No.:</b>   | <b>114071491</b>          | <b>Test Distance:</b>     | <b>3m</b>                  |
| <b>Test Standard:</b> | <b>NCC Above 1G PEAK</b>  | <b>Ant. Polarization:</b> | <b>Vertical</b>            |
| <b>Test item:</b>     | <b>Radiation Emission</b> | <b>Test Time:</b>         | <b>2017/12/12 14:34:23</b> |
| <b>Applicant:</b>     | <b>AtechOEM Inc.</b>      | <b>Test Rating:</b>       | <b>DC 5V</b>               |
| <b>Product:</b>       | <b>Bluetooth Module</b>   | <b>Temp.(°C)/Hum.(%):</b> | <b>20(°C)/60%</b>          |
| <b>Model No.:</b>     | <b>BL-4011 QAM</b>        | <b>Test Engineer:</b>     | <b>George Yang</b>         |
| <b>Test Mode:</b>     | <b>2440-TX</b>            |                           |                            |
| <b>Remark:</b>        |                           |                           |                            |

| No. | Frequency<br>(MHz) | Factor<br>(dB/m) | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Det. | Height<br>(cm) | Azimuth<br>( ° ) | Remark |
|-----|--------------------|------------------|-------------------|-------------------|-------------------|----------------|------|----------------|------------------|--------|
| 1   | 22683.500          | 32.13            | 19.29             | 51.42             | 74.00             | -22.58         | peak | 100            | 94               |        |



|                       |                           |                           |                            |
|-----------------------|---------------------------|---------------------------|----------------------------|
| <b>Service No.:</b>   | <b>114071491</b>          | <b>Test Distance:</b>     | <b>3m</b>                  |
| <b>Test Standard:</b> | <b>NCC Above 1G PEAK</b>  | <b>Ant. Polarization:</b> | <b>Horizontal</b>          |
| <b>Test item:</b>     | <b>Radiation Emission</b> | <b>Test Time:</b>         | <b>2017/12/12 14:37:59</b> |
| <b>Applicant:</b>     | <b>AtechOEM Inc.</b>      | <b>Test Rating:</b>       | <b>DC 5V</b>               |
| <b>Product:</b>       | <b>Bluetooth Module</b>   | <b>Temp.(°C)/Hum.(%)</b>  | <b>20(°C)/60%</b>          |
| <b>Model No.:</b>     | <b>BL-4011 QAM</b>        | <b>Test Engineer:</b>     | <b>George Yang</b>         |
| <b>Test Mode:</b>     | <b>2480-TX</b>            |                           |                            |
| <b>Remark:</b>        |                           |                           |                            |

| No. | Frequency<br>(MHz) | Factor<br>(dB/m) | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Det. | Height<br>(cm) | Azimuth<br>( ° ) | Remark |
|-----|--------------------|------------------|-------------------|-------------------|-------------------|----------------|------|----------------|------------------|--------|
| 1   | 22233.000          | 32.42            | 18.69             | 51.11             | 74.00             | -22.89         | peak | 100            | 192              |        |



|                       |                           |                           |                            |
|-----------------------|---------------------------|---------------------------|----------------------------|
| <b>Service No.:</b>   | <b>114071491</b>          | <b>Test Distance:</b>     | <b>3m</b>                  |
| <b>Test Standard:</b> | <b>NCC Above 1G PEAK</b>  | <b>Ant. Polarization:</b> | <b>Vertical</b>            |
| <b>Test item:</b>     | <b>Radiation Emission</b> | <b>Test Time:</b>         | <b>2017/12/12 14:39:02</b> |
| <b>Applicant:</b>     | <b>AtechOEM Inc.</b>      | <b>Test Rating:</b>       | <b>DC 5V</b>               |
| <b>Product:</b>       | <b>Bluetooth Module</b>   | <b>Temp.(°C)/Hum.(%):</b> | <b>20(°C)/60%</b>          |
| <b>Model No.:</b>     | <b>BL-4011 QAM</b>        | <b>Test Engineer:</b>     | <b>George Yang</b>         |
| <b>Test Mode:</b>     | <b>2480-TX</b>            |                           |                            |
| <b>Remark:</b>        |                           |                           |                            |

| No. | Frequency<br>(MHz) | Factor<br>(dB/m) | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Det. | Height<br>(cm) | Azimuth<br>( ° ) | Remark |
|-----|--------------------|------------------|-------------------|-------------------|-------------------|----------------|------|----------------|------------------|--------|
| 1   | 22054.500          | 32.54            | 19.12             | 51.66             | 74.00             | -22.34         | peak | 100            | 346              |        |

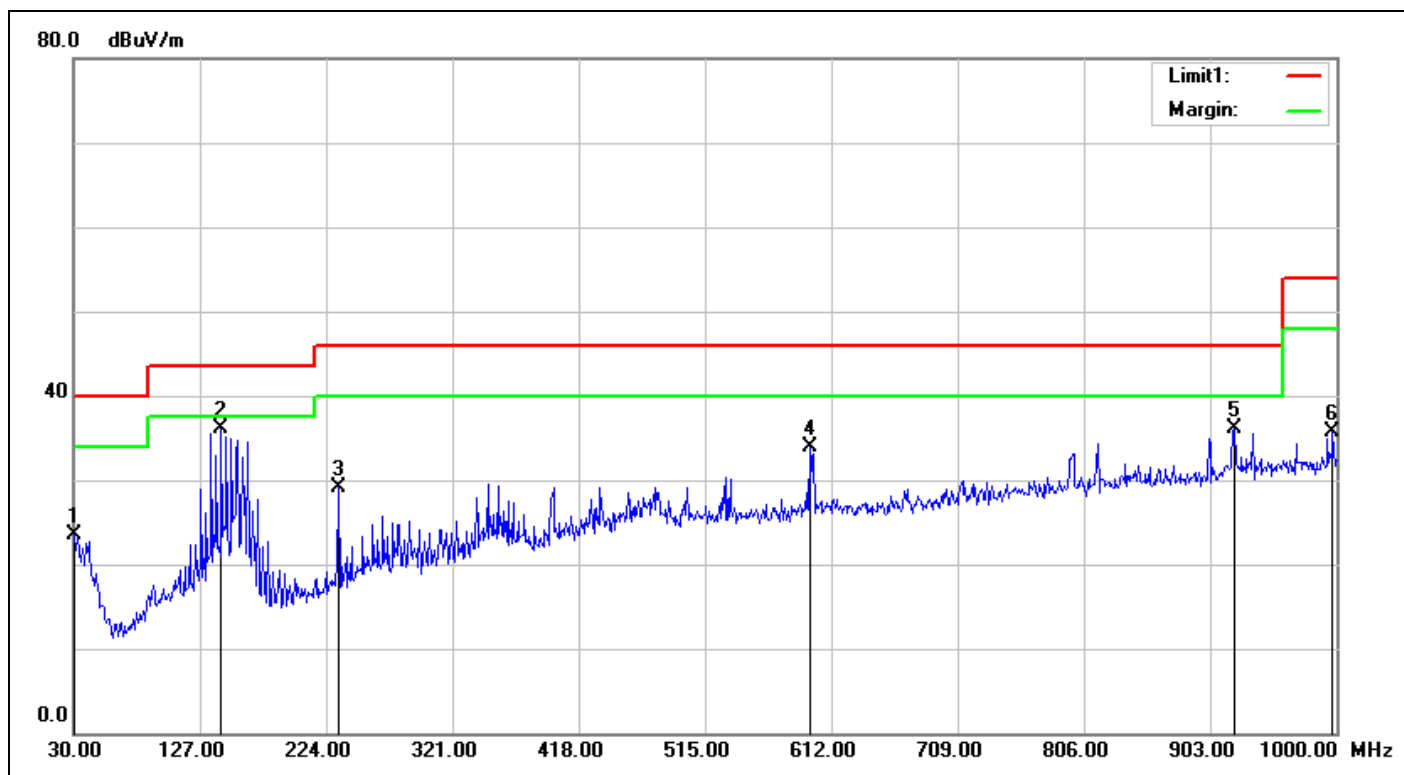
## Spurious Emissions, TX Mode, 30M-1G



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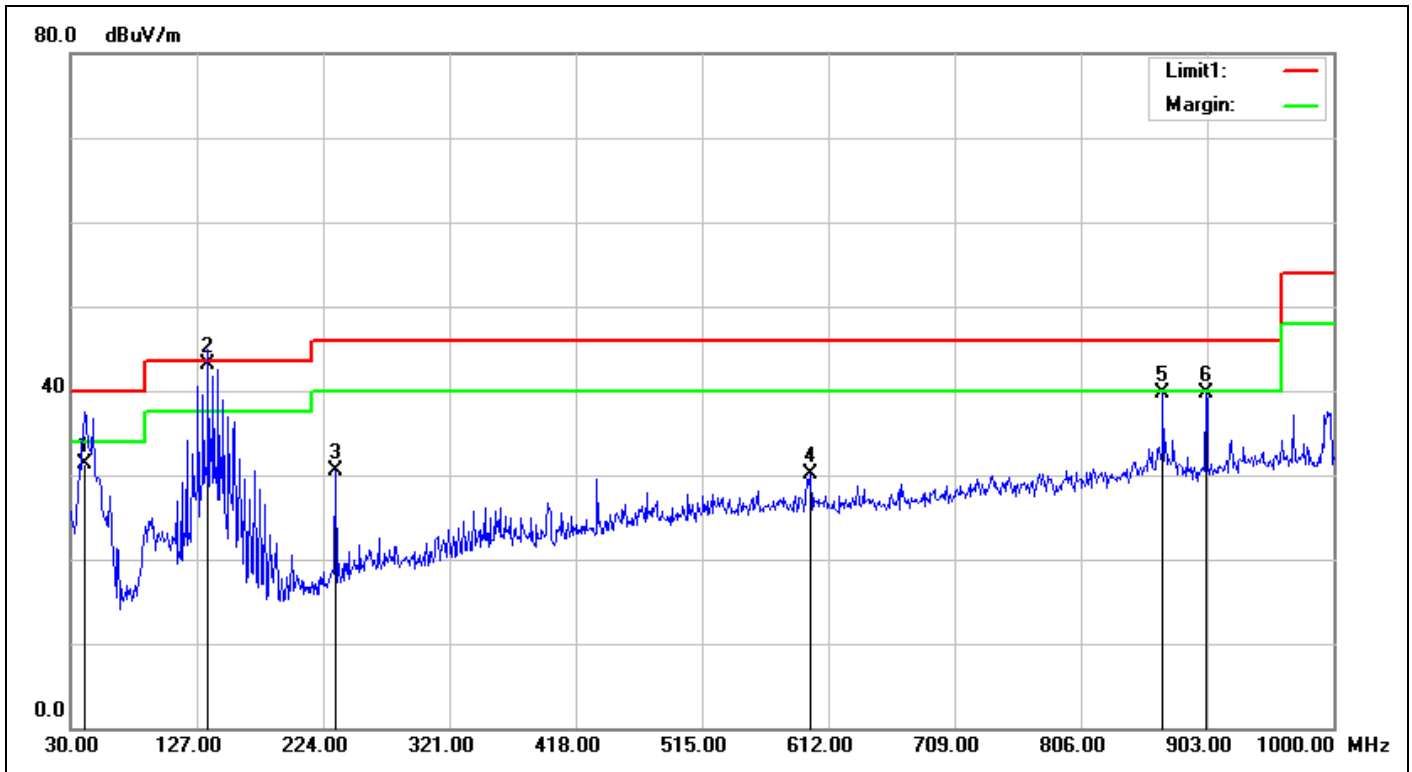
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|                       |                                 |                           |                            |
|-----------------------|---------------------------------|---------------------------|----------------------------|
| <b>Service No.:</b>   | <b>114071491</b>                | <b>Test Distance:</b>     | <b>3m</b>                  |
| <b>Test Standard:</b> | <b>NCC Class B 3M Radiation</b> | <b>Ant. Polarization:</b> | <b>Horizontal</b>          |
| <b>Test item:</b>     | <b>Radiation Emission</b>       | <b>Test Time:</b>         | <b>2017/12/12 10:01:59</b> |
| <b>Applicant:</b>     | <b>AtechOEM Inc.</b>            | <b>Test Rating:</b>       | <b>DC 5V</b>               |
| <b>Product:</b>       | <b>Bluetooth Module</b>         | <b>Temp.(°C)/Hum.(%)</b>  | <b>20(°C)/60%</b>          |
| <b>Model No.:</b>     | <b>BL-4011 QAM</b>              | <b>Test Engineer:</b>     | <b>George Yang</b>         |
| <b>Test Mode:</b>     | <b>2440-TX</b>                  |                           |                            |
| <b>Remark:</b>        |                                 |                           |                            |

| No. | Frequency (MHz) | Factor (dB/m) | Reading (dBuV) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth ( ° ) | Remark |
|-----|-----------------|---------------|----------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1   | 30.0000         | -0.25         | 23.79          | 23.54          | 40.00          | -16.46      | QP   | 100         | 156           |        |
| 2   | 143.4900        | -7.12         | 43.22          | 36.10          | 43.50          | -7.40       | QP   | 100         | 113           |        |
| 3   | 233.7000        | -7.29         | 36.47          | 29.18          | 46.00          | -16.82      | QP   | 100         | 169           |        |
| 4   | 595.5100        | 0.03          | 33.93          | 33.96          | 46.00          | -12.04      | QP   | 100         | 273           |        |
| 5   | 921.4300        | 4.68          | 31.33          | 36.01          | 46.00          | -9.99       | QP   | 100         | 214           |        |
| 6   | 997.0900        | 5.72          | 29.96          | 35.68          | 54.00          | -18.32      | QP   | 100         | 142           |        |

## Spurious Emissions, TX Mode, 30M-1G



|                       |                                 |                           |                            |
|-----------------------|---------------------------------|---------------------------|----------------------------|
| <b>Service No.:</b>   | <b>114071491</b>                | <b>Test Distance:</b>     | <b>3m</b>                  |
| <b>Test Standard:</b> | <b>NCC Class B 3M Radiation</b> | <b>Ant. Polarization:</b> | <b>Vertical</b>            |
| <b>Test item:</b>     | <b>Radiation Emission</b>       | <b>Test Time:</b>         | <b>2017/12/12 10:03:02</b> |
| <b>Applicant:</b>     | <b>AtechOEM Inc.</b>            | <b>Test Rating:</b>       | <b>DC 5V</b>               |
| <b>Product:</b>       | <b>Bluetooth Module</b>         | <b>Temp.(°C)/Hum.(%)</b>  | <b>20(°C)/60%</b>          |
| <b>Model No.:</b>     | <b>BL-4011 QAM</b>              | <b>Test Engineer:</b>     | <b>George Yang</b>         |
| <b>Test Mode:</b>     | <b>2440-TX</b>                  |                           |                            |
| <b>Remark:</b>        |                                 |                           |                            |

| No. | Frequency (MHz) | Factor (dB/m) | Reading (dBuV) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth ( ° ) | Remark |
|-----|-----------------|---------------|----------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1   | 40.6700         | -6.25         | 37.55          | 31.30          | 40.00          | -8.70       | QP   | 100         | 354           |        |
| 2   | 135.7300        | -7.08         | 50.28          | 43.20          | 43.50          | -0.30       | QP   | 100         | 223           |        |
| 3   | 233.7000        | -7.29         | 37.75          | 30.46          | 46.00          | -15.54      | QP   | 100         | 234           |        |
| 4   | 598.4200        | 0.06          | 30.08          | 30.14          | 46.00          | -15.86      | QP   | 100         | 312           |        |
| 5   | 869.0500        | 3.85          | 35.83          | 39.68          | 46.00          | -6.32       | QP   | 100         | 237           |        |
| 6   | 902.0300        | 4.12          | 35.56          | 39.68          | 46.00          | -6.32       | QP   | 100         | 239           |        |

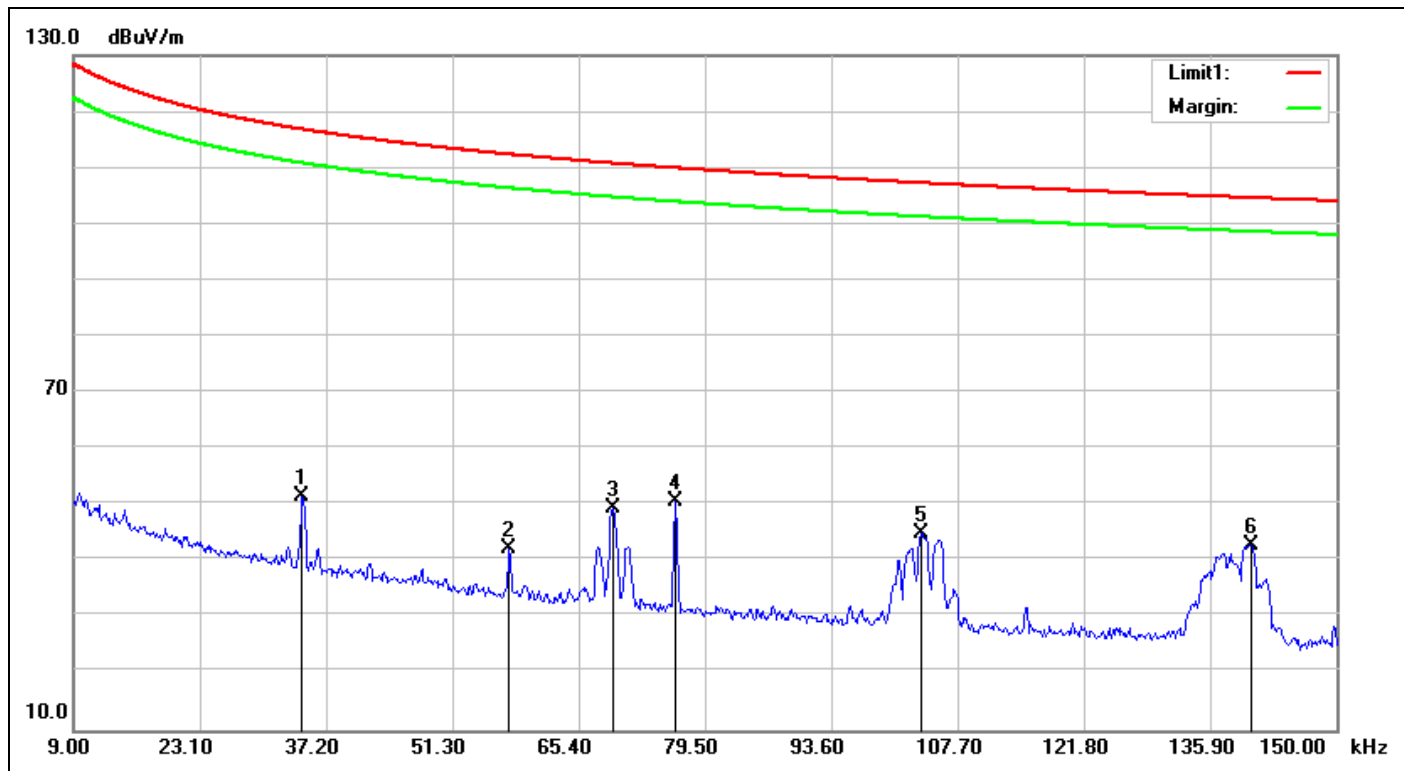
## Spurious Emissions, TX Mode, 9k-30M



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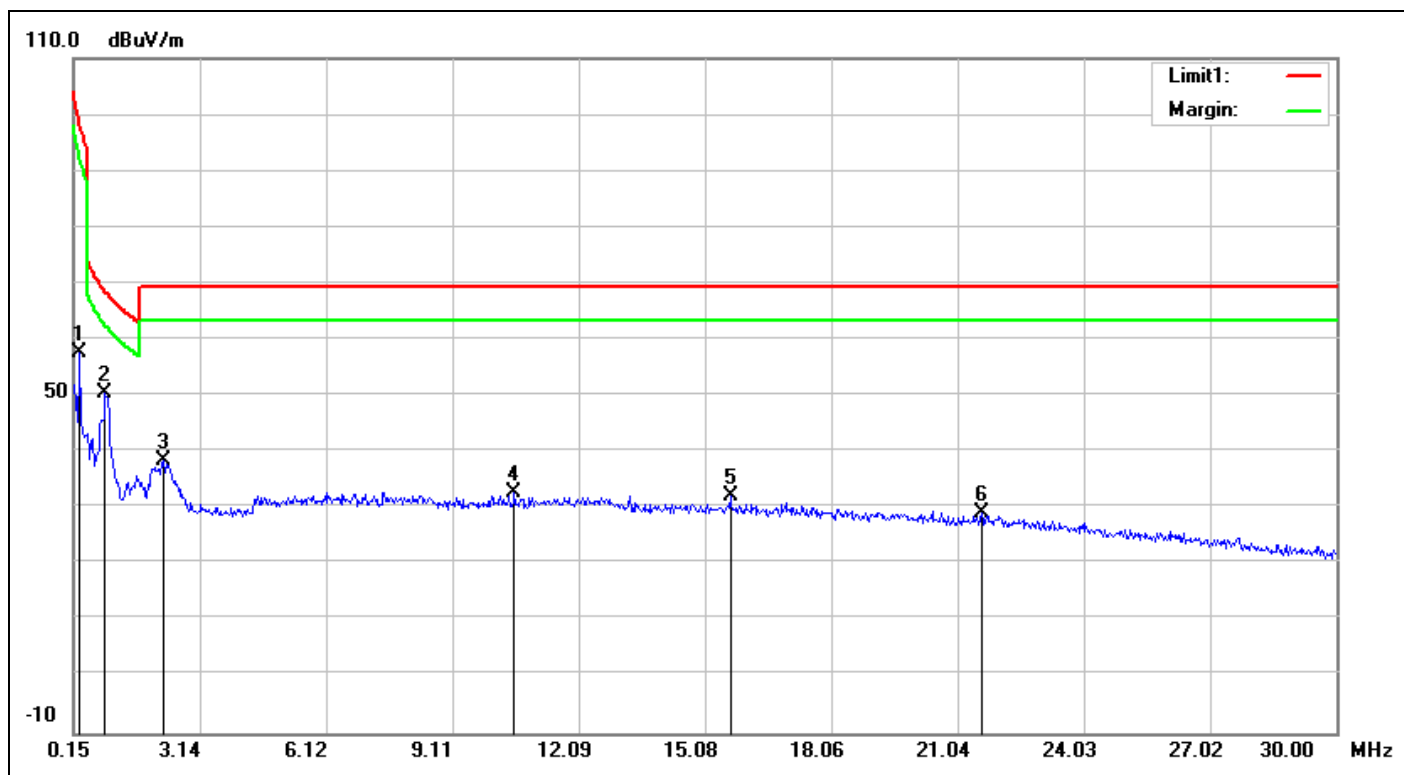
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|                |                    |                    |                     |
|----------------|--------------------|--------------------|---------------------|
| Service No.:   | 114071491          | Test Distance:     | 3m                  |
| Test Standard: | NCC2.8_9k-1G_3m    | Ant. Polarization: |                     |
| Test item:     | Radiation Emission | Test Time:         | 2017/12/12 10:37:38 |
| Applicant:     | AtechOEM Inc.      | Test Rating:       | DC 5V               |
| Product:       | Bluetooth Module   | Temp.(°C)/Hum.(%)  | 20(°C)/60%          |
| Model No.:     | BL-4011 QAM        | Test Engineer:     | George Yang         |
| Test Mode:     | 2440-TX            |                    |                     |
| Remark:        |                    |                    |                     |

| No. | Frequency (MHz) | Factor (dB/m) | Reading (dBuV) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (°) | Remark |
|-----|-----------------|---------------|----------------|----------------|----------------|-------------|------|-------------|-------------|--------|
| 1   | 0.0345          | 19.97         | 31.70          | 51.67          | 116.83         | -65.16      | QP   | 100         | 166         |        |
| 2   | 0.0576          | 19.38         | 22.90          | 42.28          | 112.39         | -70.11      | QP   | 100         | 149         |        |
| 3   | 0.0692          | 19.31         | 30.02          | 49.33          | 110.79         | -61.46      | QP   | 100         | 168         |        |
| 4   | 0.0762          | 19.27         | 31.33          | 50.60          | 109.96         | -59.36      | QP   | 100         | 147         |        |
| 5   | 0.1036          | 19.13         | 25.77          | 44.90          | 107.29         | -62.39      | QP   | 100         | 176         |        |
| 6   | 0.1405          | 19.09         | 23.86          | 42.95          | 104.64         | -61.69      | QP   | 100         | 182         |        |

## Spurious Emissions, TX Mode, 9k-30M



|                       |                           |                           |                            |
|-----------------------|---------------------------|---------------------------|----------------------------|
| <b>Service No.:</b>   | <b>114071491</b>          | <b>Test Distance:</b>     | <b>3m</b>                  |
| <b>Test Standard:</b> | <b>NCC2.8_9k-1G_3m</b>    | <b>Ant. Polarization:</b> |                            |
| <b>Test item:</b>     | <b>Radiation Emission</b> | <b>Test Time:</b>         | <b>2017/12/12 10:44:03</b> |
| <b>Applicant:</b>     | <b>AtechOEM Inc.</b>      | <b>Test Rating:</b>       | <b>DC 5V</b>               |
| <b>Product:</b>       | <b>Bluetooth Module</b>   | <b>Temp.(°C)/Hum.(%)</b>  | <b>20(°C)/60%</b>          |
| <b>Model No.:</b>     | <b>BL-4011 QAM</b>        | <b>Test Engineer:</b>     | <b>George Yang</b>         |
| <b>Test Mode:</b>     | <b>2440-TX</b>            |                           |                            |
| <b>Remark:</b>        |                           |                           |                            |

| No. | Frequency (MHz) | Factor (dB/m) | Reading (dBuV) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth ( ° ) | Remark |
|-----|-----------------|---------------|----------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1   | 0.2992          | 18.94         | 38.78          | 57.72          | 98.08          | -40.36      | QP   | 100         | 176           |        |
| 2   | 0.8962          | 18.96         | 31.45          | 50.41          | 68.57          | -18.16      | QP   | 100         | 190           |        |
| 3   | 2.2693          | 18.69         | 19.62          | 38.31          | 69.50          | -31.19      | QP   | 100         | 190           |        |
| 4   | 10.5676         | 20.32         | 12.49          | 32.81          | 69.50          | -36.69      | QP   | 100         | 40            |        |
| 5   | 15.6720         | 21.22         | 10.88          | 32.10          | 69.50          | -37.40      | QP   | 100         | 56            |        |
| 6   | 21.6121         | 22.10         | 6.93           | 29.03          | 69.50          | -40.47      | QP   | 100         | 152           |        |

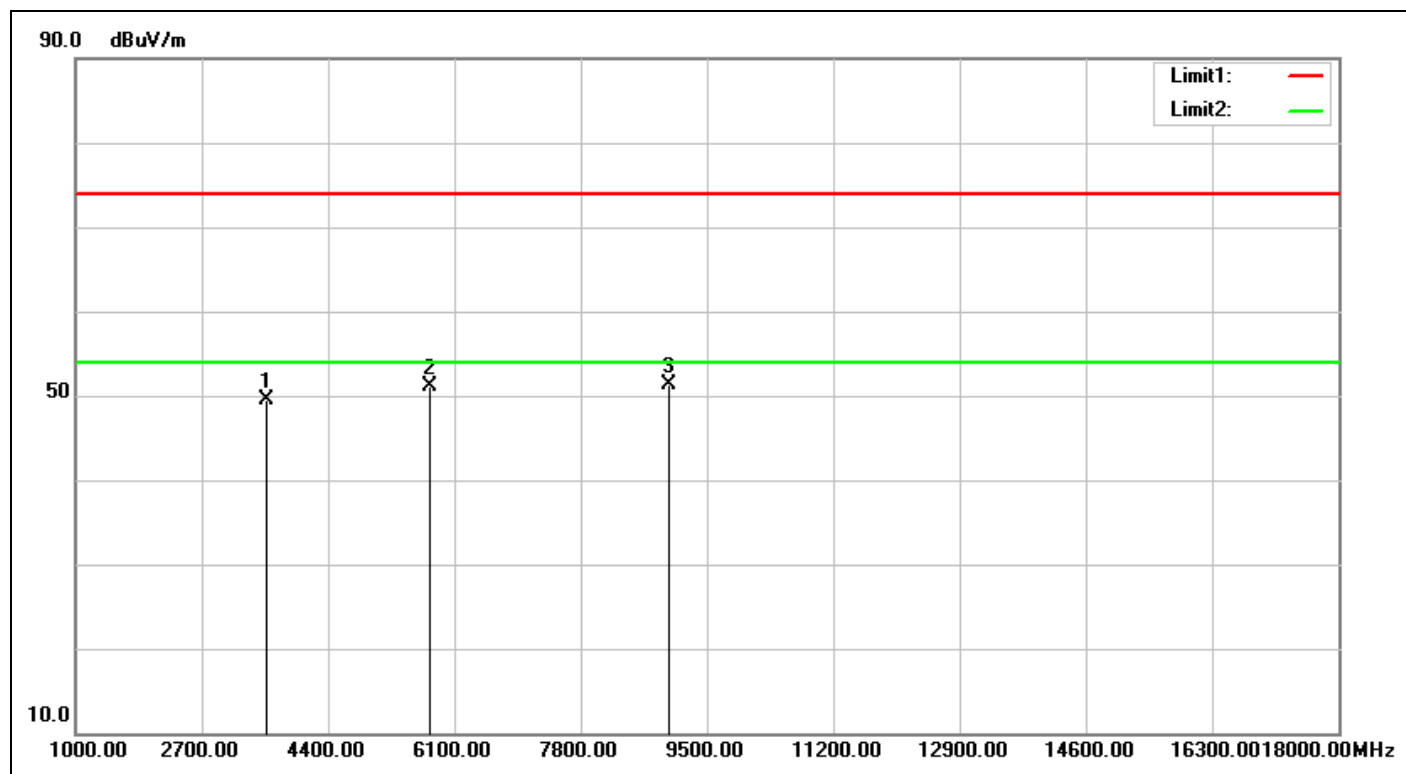
# Spurious Emissions, RX Mode, 1-18G



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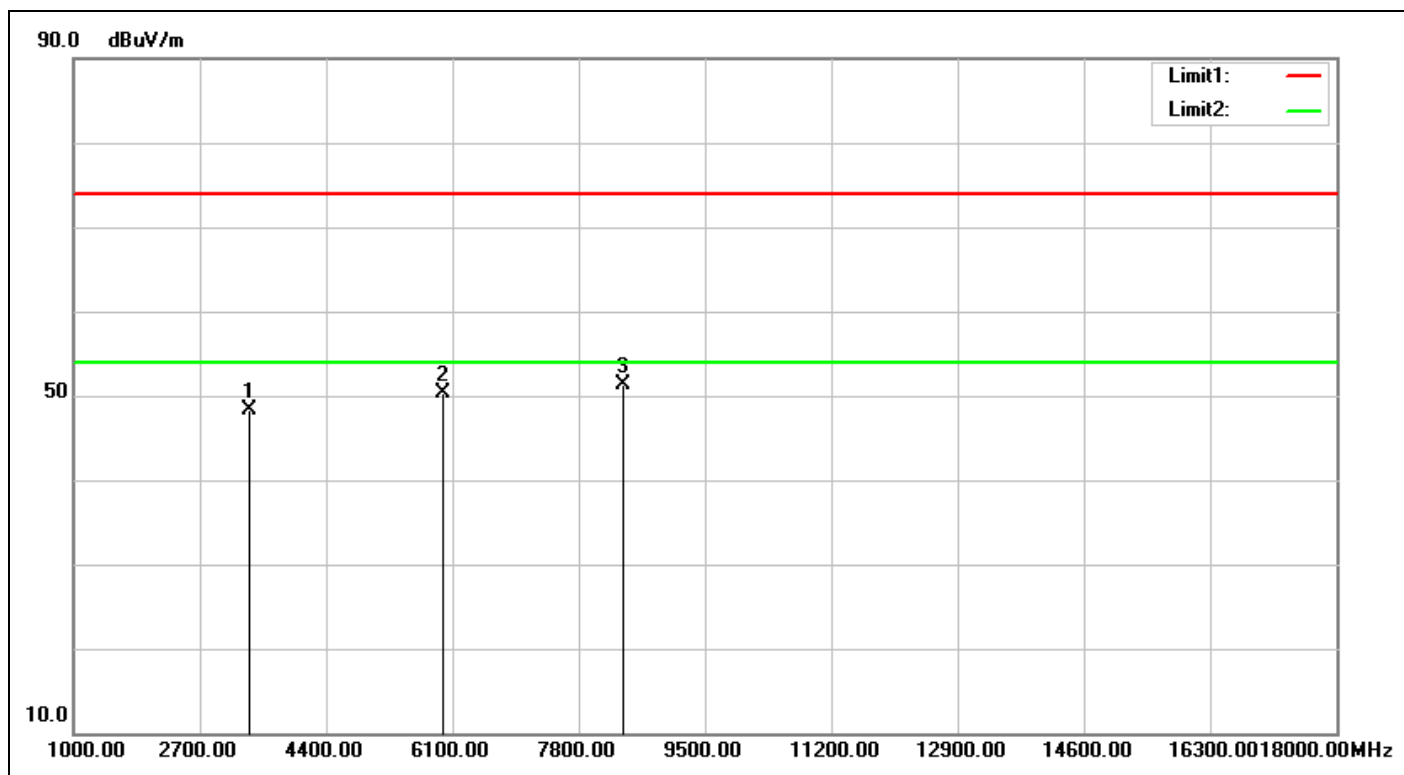
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|                |                    |                    |                     |
|----------------|--------------------|--------------------|---------------------|
| Service No.:   | 114071491          | Test Distance:     | 3m                  |
| Test Standard: | NCC Above 1G PEAK  | Ant. Polarization: | Horizontal          |
| Test item:     | Radiation Emission | Test Time:         | 2017/12/12 14:06:57 |
| Applicant:     | AtechOEM Inc.      | Test Rating:       | DC 5V               |
| Product:       | Bluetooth Module   | Temp.(°C)/Hum.(%)  | 20(°C)/60%          |
| Model No.:     | BL-4011 QAM        | Test Engineer:     | George Yang         |
| Test Mode:     | 2440-RX            |                    |                     |
| Remark:        |                    |                    |                     |

| No. | Frequency (MHz) | Factor (dB/m) | Reading (dBuV) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (°) | Remark |
|-----|-----------------|---------------|----------------|----------------|----------------|-------------|------|-------------|-------------|--------|
| 1   | 3567.000        | -6.72         | 56.31          | 49.59          | 74.00          | -24.41      | peak | 100         | 291         |        |
| 2   | 5777.000        | 0.93          | 50.15          | 51.08          | 74.00          | -22.92      | peak | 100         | 100         |        |
| 3   | 8990.000        | 5.46          | 45.92          | 51.38          | 74.00          | -22.62      | peak | 100         | 327         |        |



|                |                    |                    |                     |
|----------------|--------------------|--------------------|---------------------|
| Service No.:   | 114071491          | Test Distance:     | 3m                  |
| Test Standard: | NCC Above 1G PEAK  | Ant. Polarization: | Vertical            |
| Test item:     | Radiation Emission | Test Time:         | 2017/12/12 14:08:00 |
| Applicant:     | AtechOEM Inc.      | Test Rating:       | DC 5V               |
| Product:       | Bluetooth Module   | Temp.(°C)/Hum.(%)  | 20(°C)/60%          |
| Model No.:     | BL-4011 QAM        | Test Engineer:     | George Yang         |
| Test Mode:     | 2440-RX            |                    |                     |
| Remark:        |                    |                    |                     |

| No. | Frequency (MHz) | Factor (dB/m) | Reading (dBuV) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (°) | Remark |
|-----|-----------------|---------------|----------------|----------------|----------------|-------------|------|-------------|-------------|--------|
| 1   | 3363.000        | -6.93         | 55.31          | 48.38          | 74.00          | -25.62      | peak | 100         | 99          |        |
| 2   | 5981.000        | 2.25          | 48.11          | 50.36          | 74.00          | -23.64      | peak | 100         | 113         |        |
| 3   | 8395.000        | 5.31          | 45.94          | 51.25          | 74.00          | -22.75      | peak | 100         | 91          |        |

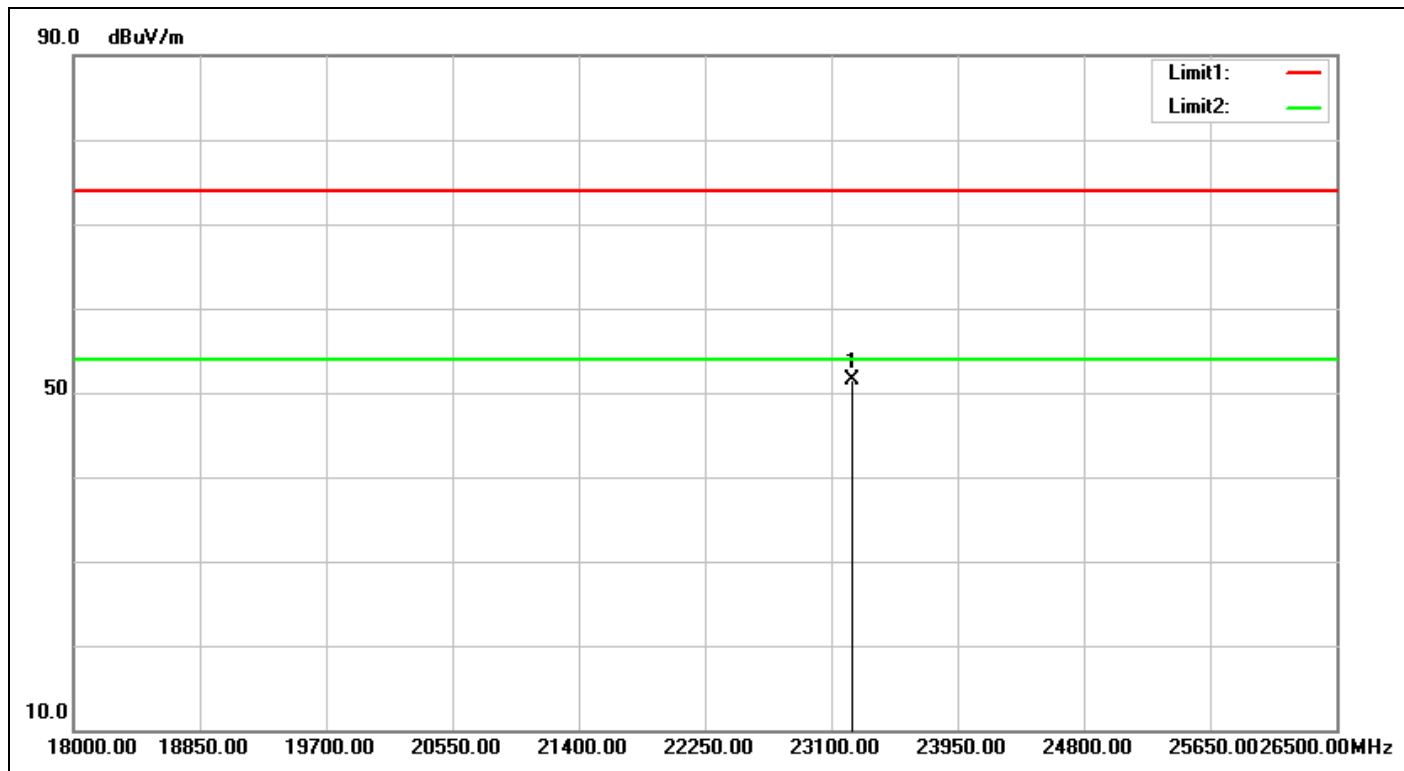
# Spurious Emissions, RX Mode, 18-26G



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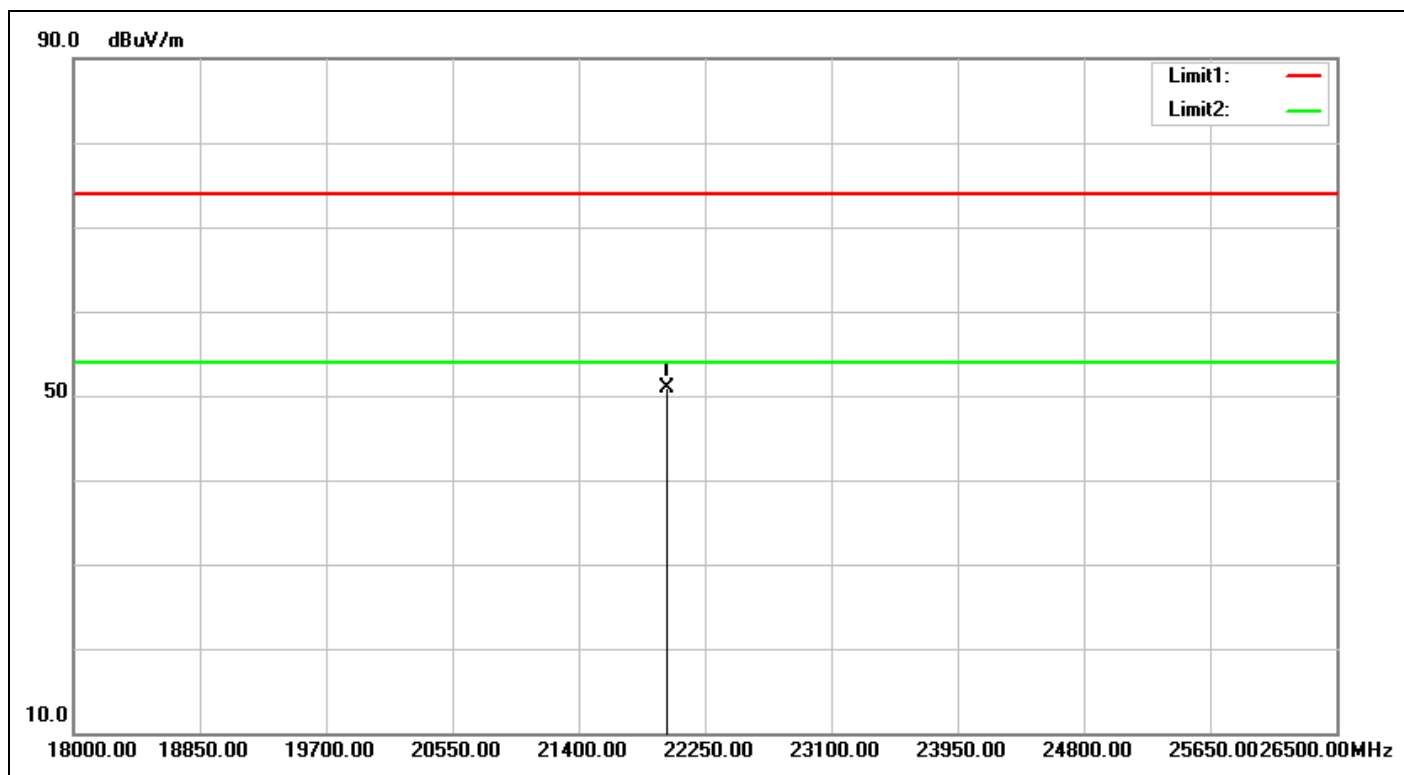
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|                |                    |                    |                     |
|----------------|--------------------|--------------------|---------------------|
| Service No.:   | 114071491          | Test Distance:     | 3m                  |
| Test Standard: | NCC Above 1G PEAK  | Ant. Polarization: | Horizontal          |
| Test item:     | Radiation Emission | Test Time:         | 2017/12/12 14:25:49 |
| Applicant:     | AtechOEM Inc.      | Test Rating:       | DC 5V               |
| Product:       | Bluetooth Module   | Temp.(°C)/Hum.(%): | 20(°C)/60%          |
| Model No.:     | BL-4011 QAM        | Test Engineer:     | George Yang         |
| Test Mode:     | 2440-RX            |                    |                     |
| Remark:        |                    |                    |                     |

| No. | Frequency (MHz) | Factor (dB/m) | Reading (dBuV) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (°) | Remark |
|-----|-----------------|---------------|----------------|----------------|----------------|-------------|------|-------------|-------------|--------|
| 1   | 23236.000       | 32.17         | 19.26          | 51.43          | 74.00          | -22.57      | peak | 100         | 134         |        |



|                       |                           |                           |                            |
|-----------------------|---------------------------|---------------------------|----------------------------|
| <b>Service No.:</b>   | <b>114071491</b>          | <b>Test Distance:</b>     | <b>3m</b>                  |
| <b>Test Standard:</b> | <b>NCC Above 1G PEAK</b>  | <b>Ant. Polarization:</b> | <b>Vertical</b>            |
| <b>Test item:</b>     | <b>Radiation Emission</b> | <b>Test Time:</b>         | <b>2017/12/12 14:26:52</b> |
| <b>Applicant:</b>     | <b>AtechOEM Inc.</b>      | <b>Test Rating:</b>       | <b>DC 5V</b>               |
| <b>Product:</b>       | <b>Bluetooth Module</b>   | <b>Temp.(°C)/Hum.(%):</b> | <b>20(°C)/60%</b>          |
| <b>Model No.:</b>     | <b>BL-4011 QAM</b>        | <b>Test Engineer:</b>     | <b>George Yang</b>         |
| <b>Test Mode:</b>     | <b>2440-RX</b>            |                           |                            |
| <b>Remark:</b>        |                           |                           |                            |

| No. | Frequency<br>(MHz) | Factor<br>(dB/m) | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Det. | Height<br>(cm) | Azimuth<br>( ° ) | Remark |
|-----|--------------------|------------------|-------------------|-------------------|-------------------|----------------|------|----------------|------------------|--------|
| 1   | 21995.000          | 32.58            | 18.38             | 50.96             | 74.00             | -23.04         | peak | 100            | 307              |        |

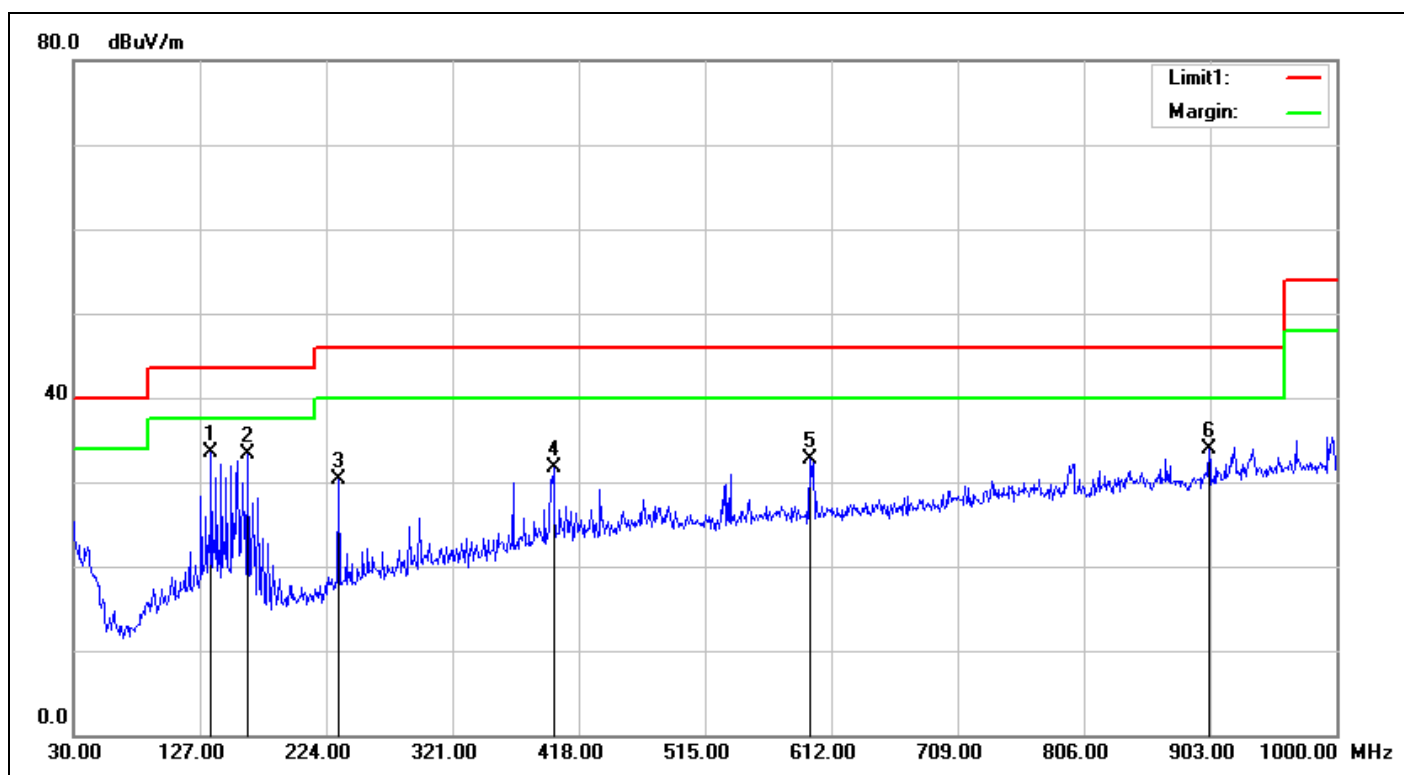
# Spurious Emissions, RX Mode, 30M-1G



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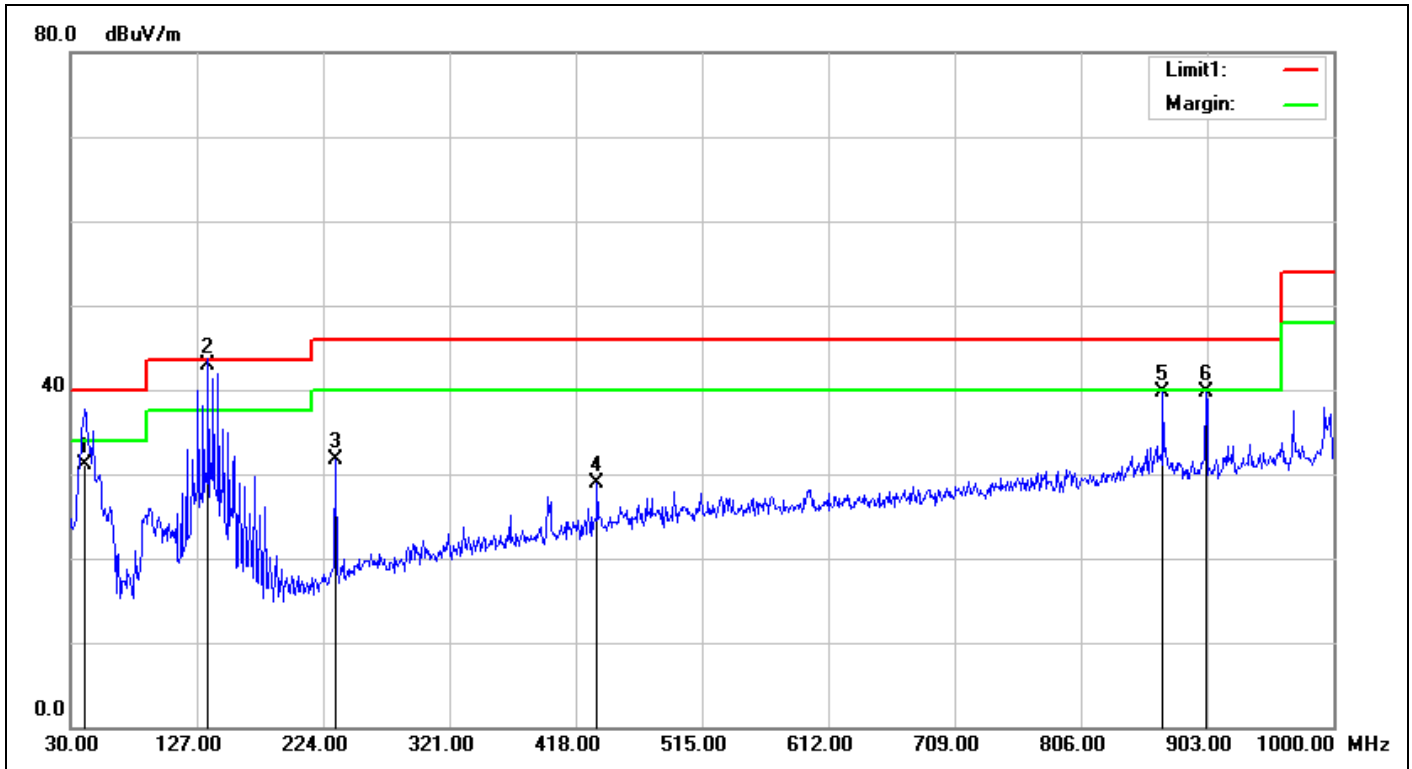
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|                |                          |                    |                     |
|----------------|--------------------------|--------------------|---------------------|
| Service No.:   | 114071491                | Test Distance:     | 3m                  |
| Test Standard: | NCC Class B 3M Radiation | Ant. Polarization: | Horizontal          |
| Test item:     | Radiation Emission       | Test Time:         | 2017/12/12 10:14:59 |
| Applicant:     | AtechOEM Inc.            | Test Rating:       | DC 5V               |
| Product:       | Bluetooth Module         | Temp.(°C)/Hum.(%)  | 20(°C)/60%          |
| Model No.:     | BL-4011 QAM              | Test Engineer:     | George Yang         |
| Test Mode:     | 2440-RX                  |                    |                     |
| Remark:        |                          |                    |                     |

| No. | Frequency (MHz) | Factor (dB/m) | Reading (dBuV) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (°) | Remark |
|-----|-----------------|---------------|----------------|----------------|----------------|-------------|------|-------------|-------------|--------|
| 1   | 135.7300        | -7.08         | 40.58          | 33.50          | 43.50          | -10.00      | QP   | 100         | 123         |        |
| 2   | 163.8600        | -8.43         | 41.82          | 33.39          | 43.50          | -10.11      | QP   | 100         | 238         |        |
| 3   | 233.7000        | -7.29         | 37.51          | 30.22          | 46.00          | -15.78      | QP   | 100         | 160         |        |
| 4   | 398.6000        | -2.45         | 34.22          | 31.77          | 46.00          | -14.23      | QP   | 100         | 206         |        |
| 5   | 595.5100        | 0.03          | 32.68          | 32.71          | 46.00          | -13.29      | QP   | 100         | 134         |        |
| 6   | 902.0300        | 4.12          | 29.88          | 34.00          | 46.00          | -12.00      | QP   | 100         | 158         |        |

## Spurious Emissions, RX Mode, 30M-1G



|                       |                                 |                           |                            |
|-----------------------|---------------------------------|---------------------------|----------------------------|
| <b>Service No.:</b>   | <b>114071491</b>                | <b>Test Distance:</b>     | <b>3m</b>                  |
| <b>Test Standard:</b> | <b>NCC Class B 3M Radiation</b> | <b>Ant. Polarization:</b> | <b>Vertical</b>            |
| <b>Test item:</b>     | <b>Radiation Emission</b>       | <b>Test Time:</b>         | <b>2017/12/12 10:16:02</b> |
| <b>Applicant:</b>     | <b>AtechOEM Inc.</b>            | <b>Test Rating:</b>       | <b>DC 5V</b>               |
| <b>Product:</b>       | <b>Bluetooth Module</b>         | <b>Temp.(°C)/Hum.(%)</b>  | <b>20(°C)/60%</b>          |
| <b>Model No.:</b>     | <b>BL-4011 QAM</b>              | <b>Test Engineer:</b>     | <b>George Yang</b>         |
| <b>Test Mode:</b>     | <b>2440-RX</b>                  |                           |                            |
| <b>Remark:</b>        |                                 |                           |                            |

| No. | Frequency<br>(MHz) | Factor<br>(dB/m) | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Det. | Height<br>(cm) | Azimuth<br>( ° ) | Remark |
|-----|--------------------|------------------|-------------------|-------------------|-------------------|----------------|------|----------------|------------------|--------|
| 1   | 40.6700            | -6.25            | 37.45             | 31.20             | 40.00             | -8.80          | QP   | 100            | 245              |        |
| 2   | 135.7300           | -7.08            | 50.08             | 43.00             | 43.50             | -0.50          | QP   | 100            | 231              |        |
| 3   | 233.7000           | -7.29            | 38.94             | 31.65             | 46.00             | -14.35         | QP   | 100            | 239              |        |
| 4   | 434.4900           | -2.06            | 30.95             | 28.89             | 46.00             | -17.11         | QP   | 100            | 167              |        |
| 5   | 869.0500           | 3.85             | 35.85             | 39.70             | 46.00             | -6.30          | QP   | 100            | 239              |        |
| 6   | 902.0300           | 4.12             | 35.57             | 39.69             | 46.00             | -6.31          | QP   | 100            | 242              |        |

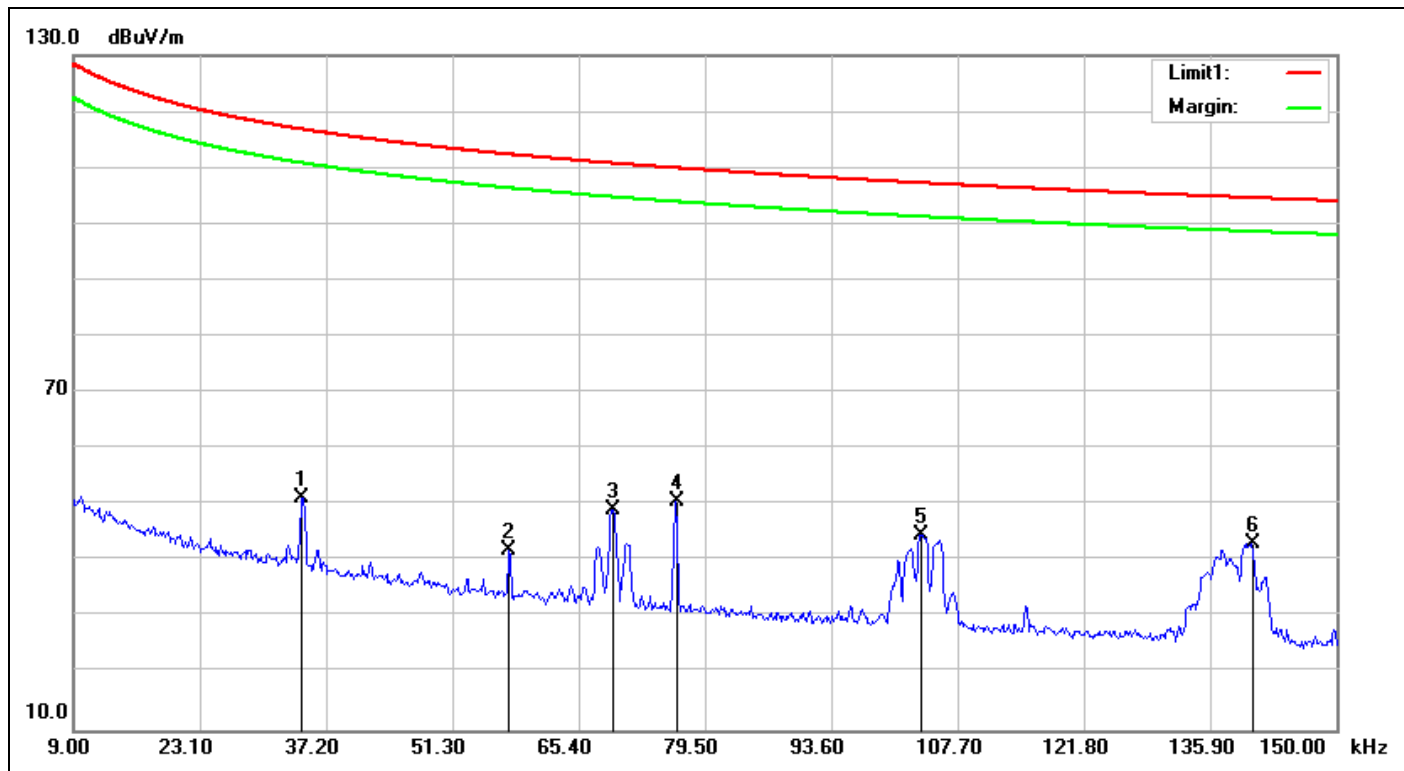
## Spurious Emissions, RX Mode, 9K-30M



**TUV Rheinland Taiwan Ltd.**

11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

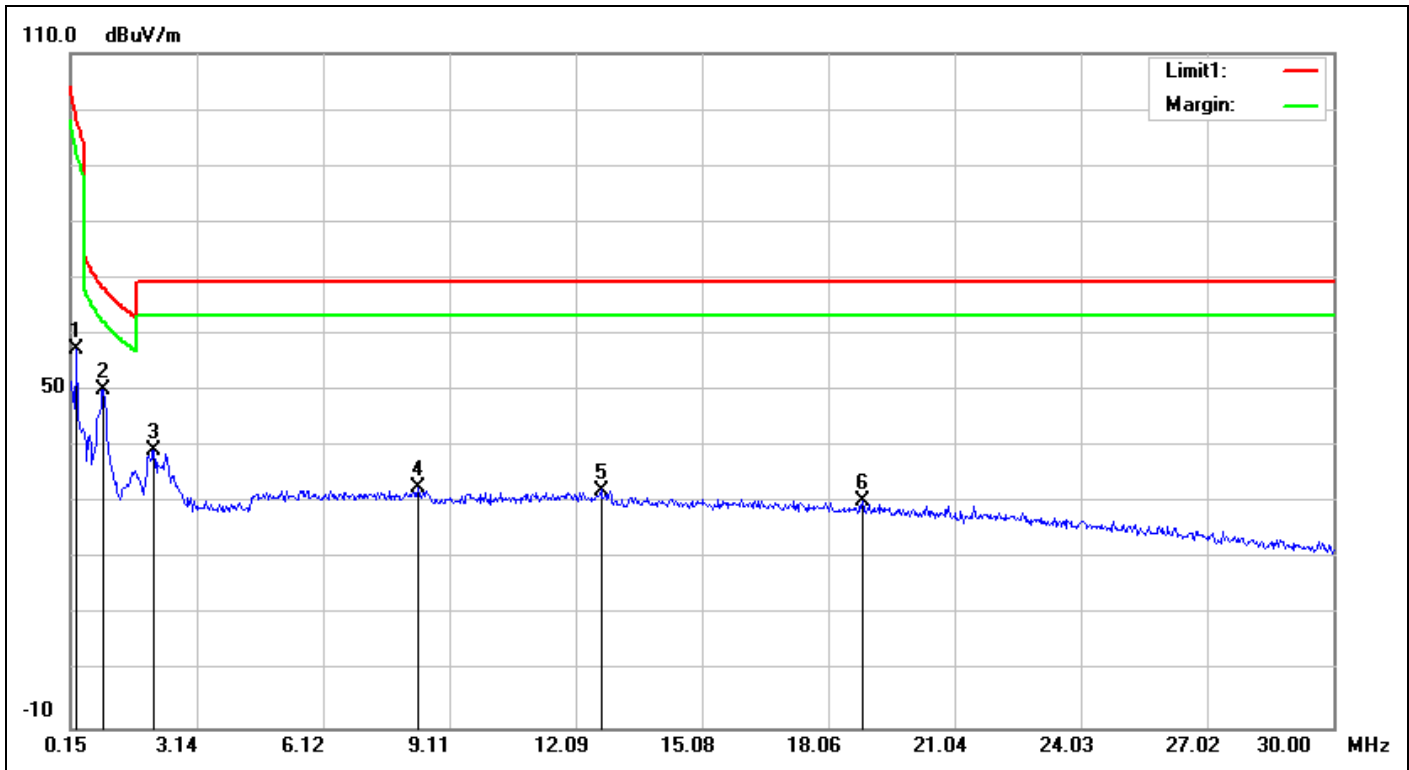
Tel:+886-2172-7000 fax:+886-2528-0018



|                       |                           |                           |                            |
|-----------------------|---------------------------|---------------------------|----------------------------|
| <b>Service No.:</b>   | <b>114071491</b>          | <b>Test Distance:</b>     | <b>3m</b>                  |
| <b>Test Standard:</b> | <b>NCC2.8_9k-1G_3m</b>    | <b>Ant. Polarization:</b> |                            |
| <b>Test item:</b>     | <b>Radiation Emission</b> | <b>Test Time:</b>         | <b>2017/12/12 10:38:42</b> |
| <b>Applicant:</b>     | <b>AtechOEM Inc.</b>      | <b>Test Rating:</b>       | <b>DC 5V</b>               |
| <b>Product:</b>       | <b>Bluetooth Module</b>   | <b>Temp.(°C)/Hum.(%)</b>  | <b>20(°C)/60%</b>          |
| <b>Model No.:</b>     | <b>BL-4011 QAM</b>        | <b>Test Engineer:</b>     | <b>George Yang</b>         |
| <b>Test Mode:</b>     | <b>2440-RX</b>            |                           |                            |
| <b>Remark:</b>        |                           |                           |                            |

| No. | Frequency (MHz) | Factor (dB/m) | Reading (dBuV) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (°) | Remark |
|-----|-----------------|---------------|----------------|----------------|----------------|-------------|------|-------------|-------------|--------|
| 1   | 0.0345          | 19.97         | 31.41          | 51.38          | 116.83         | -65.45      | QP   | 100         | 162         |        |
| 2   | 0.0576          | 19.38         | 22.62          | 42.00          | 112.39         | -70.39      | QP   | 100         | 157         |        |
| 3   | 0.0692          | 19.31         | 29.87          | 49.18          | 110.79         | -61.61      | QP   | 100         | 165         |        |
| 4   | 0.0763          | 19.27         | 31.33          | 50.60          | 109.94         | -59.34      | QP   | 100         | 149         |        |
| 5   | 0.1036          | 19.13         | 25.66          | 44.79          | 107.29         | -62.50      | QP   | 100         | 176         |        |
| 6   | 0.1406          | 19.09         | 24.09          | 43.18          | 104.64         | -61.46      | QP   | 100         | 189         |        |

## Spurious Emissions, RX Mode, 9k-30M



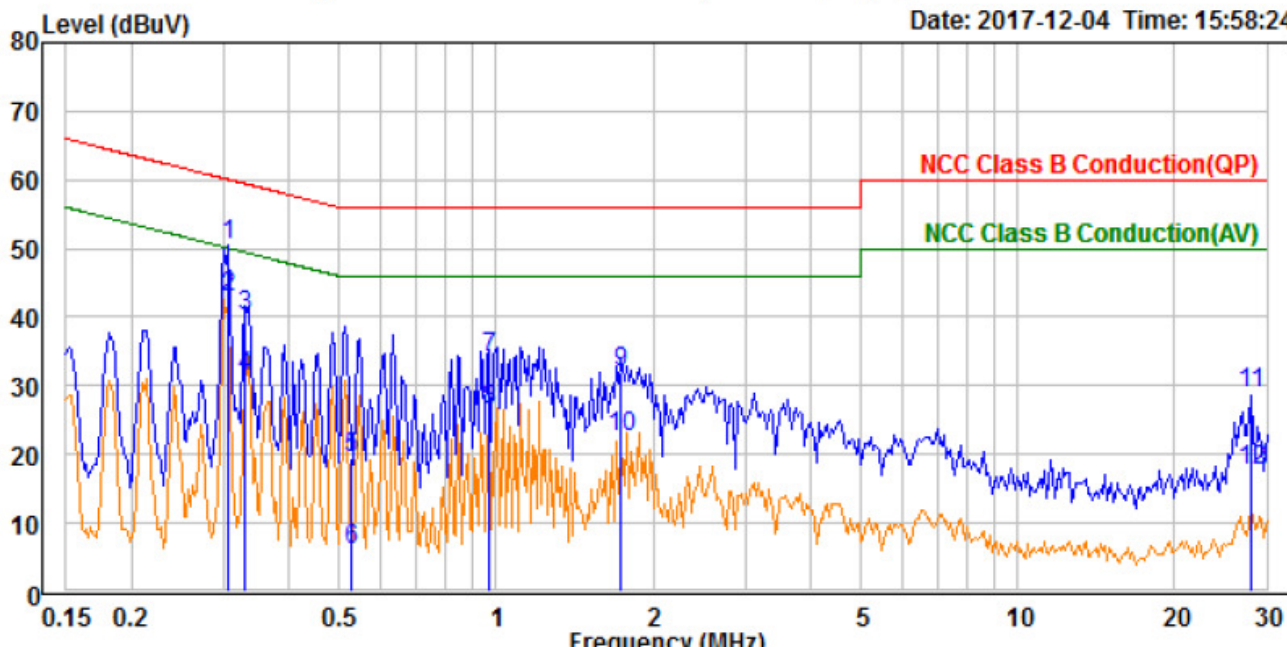
|                       |                           |                           |                            |
|-----------------------|---------------------------|---------------------------|----------------------------|
| <b>Service No.:</b>   | <b>114071491</b>          | <b>Test Distance:</b>     | <b>3m</b>                  |
| <b>Test Standard:</b> | <b>NCC2.8_9k-1G_3m</b>    | <b>Ant. Polarization:</b> |                            |
| <b>Test item:</b>     | <b>Radiation Emission</b> | <b>Test Time:</b>         | <b>2017/12/12 10:45:07</b> |
| <b>Applicant:</b>     | <b>AtechOEM Inc.</b>      | <b>Test Rating:</b>       | <b>DC 5V</b>               |
| <b>Product:</b>       | <b>Bluetooth Module</b>   | <b>Temp.(°C)/Hum.(%)</b>  | <b>20(°C)/60%</b>          |
| <b>Model No.:</b>     | <b>BL-4011 QAM</b>        | <b>Test Engineer:</b>     | <b>George Yang</b>         |
| <b>Test Mode:</b>     | <b>2440-RX</b>            |                           |                            |
| <b>Remark:</b>        |                           |                           |                            |

| No. | Frequency (MHz) | Factor (dB/m) | Reading (dBuV) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth ( ° ) | Remark |
|-----|-----------------|---------------|----------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1   | 0.2993          | 18.94         | 38.55          | 57.49          | 98.08          | -40.59      | QP   | 100         | 165           |        |
| 2   | 0.9261          | 18.97         | 31.15          | 50.12          | 68.29          | -18.17      | QP   | 100         | 181           |        |
| 3   | 2.1201          | 18.72         | 20.50          | 39.22          | 69.50          | -30.28      | QP   | 100         | 184           |        |
| 4   | 8.3588          | 20.07         | 12.77          | 32.84          | 69.50          | -36.66      | QP   | 100         | 320           |        |
| 5   | 12.6870         | 20.70         | 11.60          | 32.30          | 69.50          | -37.20      | QP   | 100         | 154           |        |
| 6   | 18.8660         | 21.79         | 8.42           | 30.21          | 69.50          | -39.29      | QP   | 100         | 208           |        |

# Mains Spurious Emissions

File: C:\EMC\Report\2017\AtechOEM\114071491(BL-4011 QAM)\1\_00001.EMI

Date: 2017-12-04 Time: 15:58:24



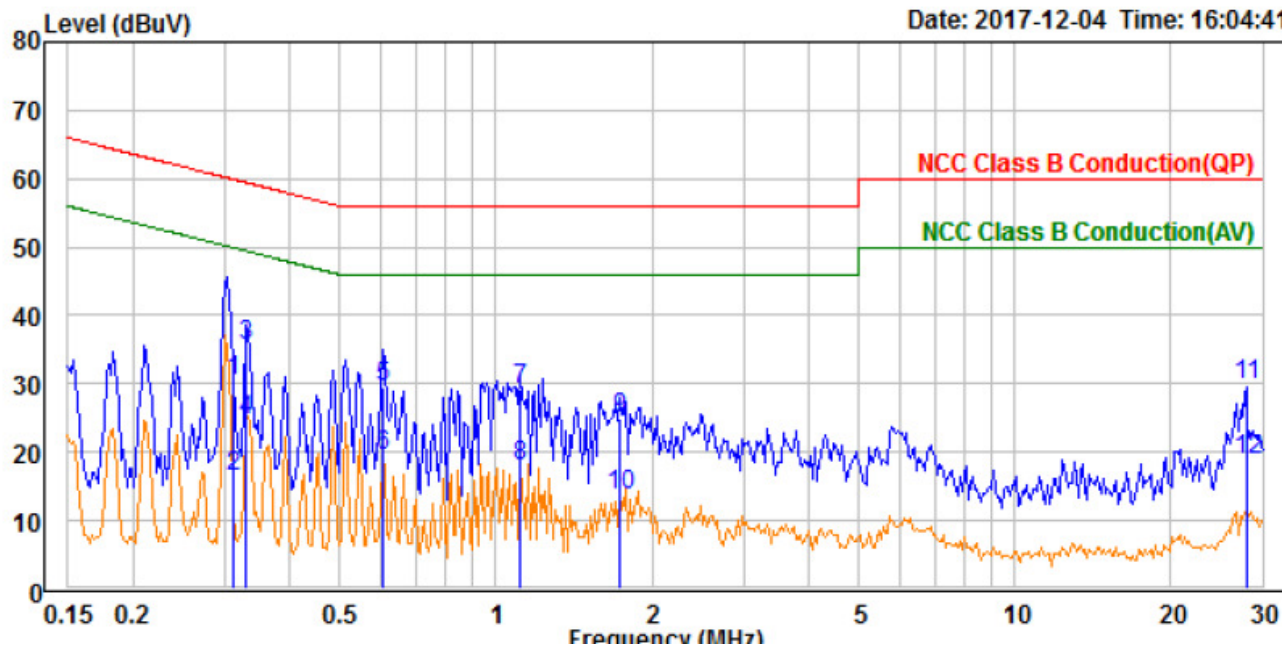
Trace: 1

Site : Conduction room  
Condition : NCC Class B Conduction(QP) line1  
Test Engineer: George Yang  
Applicant : AtechOEM Inc.  
Product : Bluetooth Module  
Model No. : BL-4011 QAM  
Test Rating : 110Vac/60Hz  
Tmp/Hum : 23.2°C / 47%  
Memo : Mains

|    | Freq   | Read Level | Factor | Level | Limit Line | Over Limit | Remark  |
|----|--------|------------|--------|-------|------------|------------|---------|
|    | MHz    | dBuV       |        | dBuV  | dBuV       | dB         |         |
| 1  | 0.305  | 40.77      | 9.66   | 50.43 | 60.10      | -9.67      | QP      |
| 2  | 0.305  | 33.29      | 9.66   | 42.95 | 50.10      | -7.15      | Average |
| 3  | 0.330  | 30.55      | 9.66   | 40.21 | 59.44      | -19.23     | QP      |
| 4  | 0.330  | 21.64      | 9.66   | 31.30 | 49.44      | -18.14     | Average |
| 5  | 0.528  | 9.76       | 9.66   | 19.42 | 56.00      | -36.58     | QP      |
| 6  | 0.528  | -3.51      | 9.66   | 6.15  | 46.00      | -39.85     | Average |
| 7  | 0.972  | 24.36      | 9.67   | 34.03 | 56.00      | -21.97     | QP      |
| 8  | 0.972  | 16.90      | 9.67   | 26.57 | 46.00      | -19.43     | Average |
| 9  | 1.732  | 22.33      | 9.69   | 32.02 | 56.00      | -23.98     | QP      |
| 10 | 1.732  | 12.90      | 9.69   | 22.59 | 46.00      | -23.41     | Average |
| 11 | 28.000 | 19.11      | 9.79   | 28.90 | 60.00      | -31.10     | QP      |
| 12 | 28.000 | 7.95       | 9.79   | 17.74 | 50.00      | -32.26     | Average |

File: C:\EMC\Report\2017\AtechOEM\114071491(BL-4011 QAM)\1\_00003.EMI

Date: 2017-12-04 Time: 16:04:41



Trace: 1

Site : Conduction room  
Condition : NCC Class B Conduction(QP) neutral  
Test Engineer: George Yang  
Applicant : AtechOEM Inc.  
Product : Bluetooth Module  
Model No. : BL-4011 QAM  
Test Rating : 110Vac/60Hz  
Tmp/Hum : 23.2°C / 47%  
Memo : Mains

|    | Freq   | Read Level | Factor | Level | Limit Line | Over Limit | Remark  |
|----|--------|------------|--------|-------|------------|------------|---------|
|    | MHz    | dBuV       | dB     | dBuV  | dBuV       | dB         |         |
| 1  | 0.312  | 20.87      | 9.66   | 30.53 | 59.92      | -29.39     | QP      |
| 2  | 0.312  | 6.86       | 9.66   | 16.52 | 49.92      | -33.40     | Average |
| 3  | 0.330  | 25.95      | 9.66   | 35.61 | 59.46      | -23.85     | QP      |
| 4  | 0.330  | 15.10      | 9.66   | 24.76 | 49.46      | -24.70     | Average |
| 5  | 0.605  | 19.70      | 9.66   | 29.36 | 56.00      | -26.64     | QP      |
| 6  | 0.605  | 9.90       | 9.66   | 19.56 | 46.00      | -26.44     | Average |
| 7  | 1.117  | 19.43      | 9.68   | 29.11 | 56.00      | -26.89     | QP      |
| 8  | 1.117  | 8.21       | 9.68   | 17.89 | 46.00      | -28.11     | Average |
| 9  | 1.733  | 15.16      | 9.70   | 24.86 | 56.00      | -31.14     | QP      |
| 10 | 1.733  | 4.07       | 9.70   | 13.77 | 46.00      | -32.23     | Average |
| 11 | 27.999 | 20.01      | 9.89   | 29.90 | 60.00      | -30.10     | QP      |
| 12 | 27.999 | 8.90       | 9.89   | 18.79 | 50.00      | -31.21     | Average |