

## Appendix D: Test Results of Radiated

|                                                   |           |
|---------------------------------------------------|-----------|
| <b>APPENDIX D: TEST RESULTS OF RADIATED .....</b> | <b>1</b>  |
| <b>DTSS#1(BLE) .....</b>                          | <b>2</b>  |
| 30 MHz to 1GHz.....                               | 2         |
| 1GHz to 18GHz.....                                | 6         |
| Band Edge, Low Channel.....                       | 12        |
| Band Edge, High Channel.....                      | 14        |
| <b>DTSS#2 (BANDWIDTH: 500KHz) .....</b>           | <b>16</b> |
| 30 MHz to 1GHz.....                               | 16        |
| 1GHz to 10GHz.....                                | 20        |
| <b>FHSS#1 (BANDWIDTH: 125KHz).....</b>            | <b>26</b> |
| 30 MHz to 1GHz.....                               | 26        |
| 1GHz to 10GHz.....                                | 30        |
| <b>FHSS#2 (DATARATE: 50KBPS) .....</b>            | <b>36</b> |
| 30 MHz to 1GHz.....                               | 36        |
| 1GHz to 10GHz.....                                | 40        |
| <b>FHSS#3 (DATARATE: 150KBPS) .....</b>           | <b>46</b> |
| 30 MHz to 1GHz.....                               | 46        |
| 1GHz to 10GHz.....                                | 50        |
| <b>FHSS#4 (DATARATE: 250KBPS) .....</b>           | <b>56</b> |
| 30 MHz to 1GHz.....                               | 56        |
| 1GHz to 10GHz.....                                | 60        |

## DTSS#1(BLE)

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

30 MHz to 1GHz

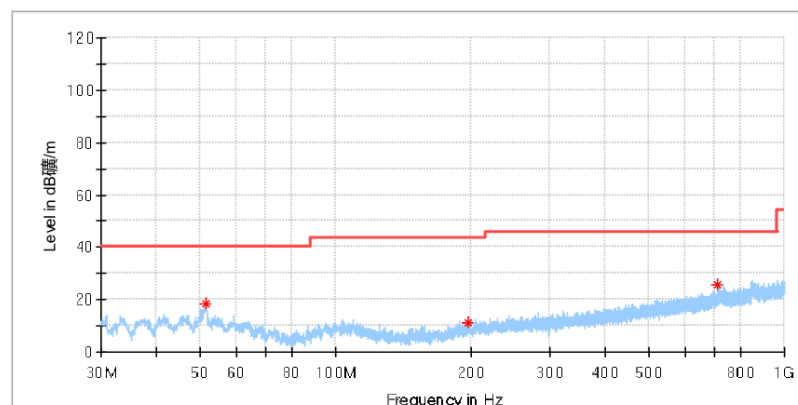
Test

1 / 4

## Test Report

### EUT Information

|                |                   |
|----------------|-------------------|
| EUT Name:      | Spotlight Battery |
| Model:         | 5B11S8            |
| Test Mode:     | BLE_TX_Low CH     |
| Test Voltage:  | Full Battery      |
| Remark:        | Temp 23 Humi:45%  |
| Test Standard: | FCC 15.247        |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 51.437000       | 18.28            | ---              | 40.00          | 21.72       | 100.0       | H   | 0.0           | -18.6        |
| 197.422000      | 11.18            | ---              | 43.50          | 32.32       | 100.0       | H   | 211.0         | -19.4        |
| 709.436500      | 25.52            | ---              | 46.00          | 20.48       | 100.0       | H   | 0.0           | -8.3         |

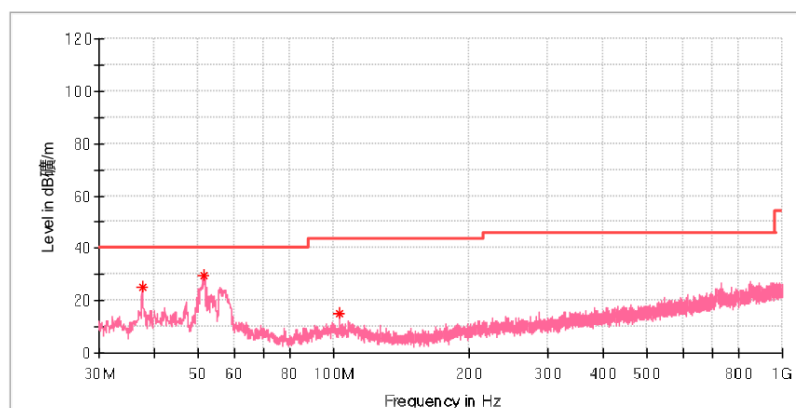
Test

2 / 4

## Test Report

### EUT Information

|                |                   |
|----------------|-------------------|
| EUT Name:      | Spotlight Battery |
| Model:         | 5B11S8            |
| Test Mode:     | BLE_TX_Low CH     |
| Test Voltage:  | Full Battery      |
| Remark:        | Temp 23 Humi:45%  |
| Test Standard: | FCC 15.247        |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 37.420500       | 24.96            | ---              | 40.00          | 15.04       | 100.0       | V   | 280.0         | -21.3        |
| 51.485500       | 29.39            | ---              | 40.00          | 10.61       | 100.0       | V   | 121.0         | -18.6        |
| 103.138000      | 15.16            | ---              | 43.50          | 28.34       | 100.0       | V   | 300.0         | -19.2        |

17/3/2020

7:40:59 PM

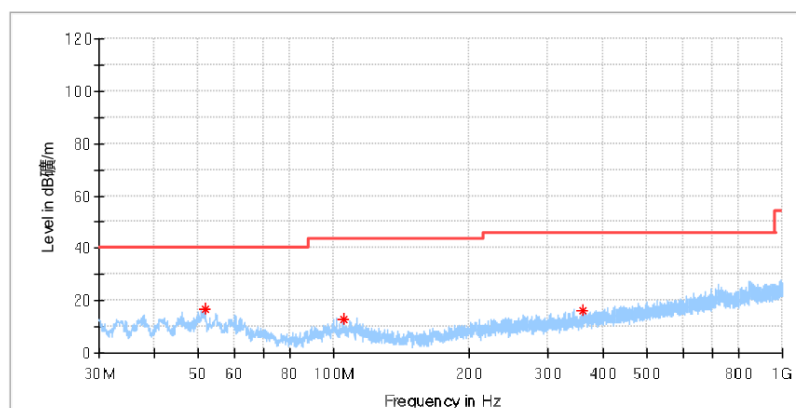
Test

3 / 4

## Test Report

### EUT Information

|                |                   |
|----------------|-------------------|
| EUT Name:      | Spotlight Battery |
| Model:         | 5B11S8            |
| Test Mode:     | BLE_TX_High CH    |
| Test Voltage:  | Full Battery      |
| Remark:        | Temp 23 Humi:45%  |
| Test Standard: | FCC 15.247        |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 51.631000       | 16.50            | ---              | 40.00          | 23.50       | 100.0       | H   | 287.0         | -18.6        |
| 105.126500      | 13.07            | ---              | 43.50          | 30.43       | 100.0       | H   | 136.0         | -19.1        |
| 359.703000      | 16.06            | ---              | 46.00          | 29.94       | 100.0       | H   | 110.0         | -15.0        |

17/3/2020

7:40:59 PM

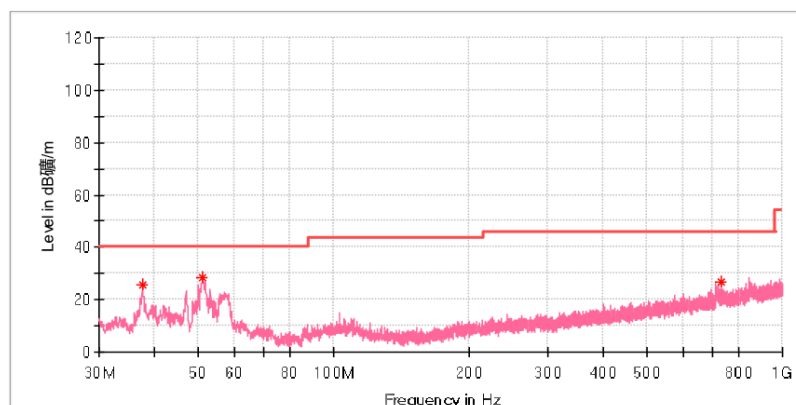
Test

4 / 4

## Test Report

### EUT Information

|                |                   |
|----------------|-------------------|
| EUT Name:      | Spotlight Battery |
| Model:         | 5B11S8            |
| Test Mode:     | BLE_TX_High CH    |
| Test Voltage:  | Full Battery      |
| Remark:        | Temp 23 Humi: 45% |
| Test Standard: | FCC 15.247        |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 37.469000       | 25.57            | —                | 40.00          | 14.43       | 100.0       | V   | 80.0          | -21.3        |
| 51.049000       | 28.71            | —                | 40.00          | 11.29       | 100.0       | V   | 0.0           | -18.6        |
| 729.855000      | 27.00            | —                | 46.00          | 19.00       | 100.0       | V   | 88.0          | -7.9         |

17/3/2020

7:40:59 PM

1GHz to 18GHz

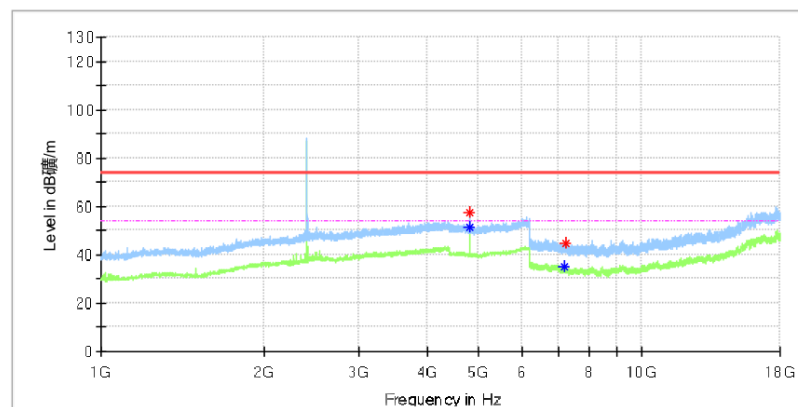
Test

1 / 6

## Test Report

### EUT Information

|                |                   |
|----------------|-------------------|
| EUT Name:      | Spotlight Battery |
| Model:         | 5B11S8            |
| Test Mode:     | BLE_TX_Low CH     |
| Test Voltage:: | Full Battery      |
| Remark:        | Temp 23 Humi:45%  |
| Test Standard: | FCC 15.247        |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 4803.000000     | 57.55            | ---              | 74.00          | 16.45       | 100.0       | H   | 293.0         | 13.6         |
| 4804.000000     | ---              | 50.14            | 54.00          | 3.86        | 100.0       | H   | 174.0         | 13.6         |
| 7204.966667     | ---              | 34.90            | 54.00          | 19.10       | 100.0       | H   | 189.0         | 8.8          |
| 7234.958333     | 44.74            | ---              | 74.00          | 29.26       | 100.0       | H   | 357.0         | 8.6          |

13/3/2020

8:52:57 PM

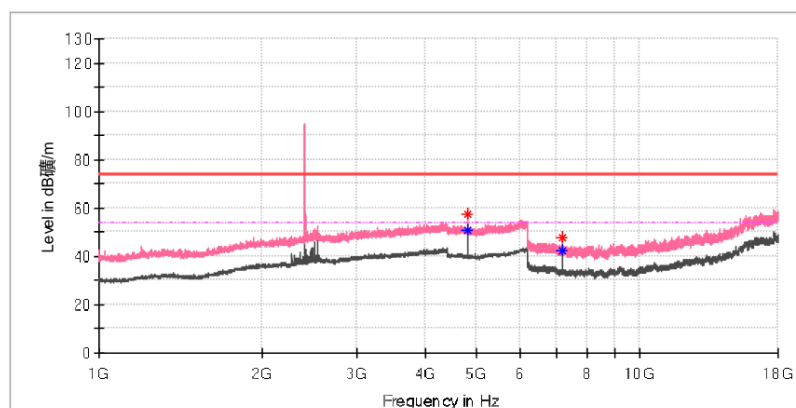
Test

2 / 6

## Test Report

### EUT Information

|                |                   |
|----------------|-------------------|
| EUT Name:      | Spotlight Battery |
| Model:         | 5B11S8            |
| Test Mode:     | BLE_TX_Low CH     |
| Test Voltage:  | Full Battery      |
| Remark:        | Temp 23 Humi:45%  |
| Test Standard: | FCC 15.247        |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 4803.500000     | ---              | 50.97            | 54.00          | 3.03        | 100.0       | V   | 158.0         | 13.6         |
| 4804.000000     | 57.69            | ---              | 74.00          | 16.31       | 100.0       | V   | 229.0         | 13.6         |
| 7205.950000     | ---              | 42.18            | 54.00          | 11.82       | 100.0       | V   | 181.0         | 8.8          |
| 7205.950000     | 47.47            | ---              | 74.00          | 26.53       | 100.0       | V   | 181.0         | 8.8          |

13/3/2020

8:52:57 PM

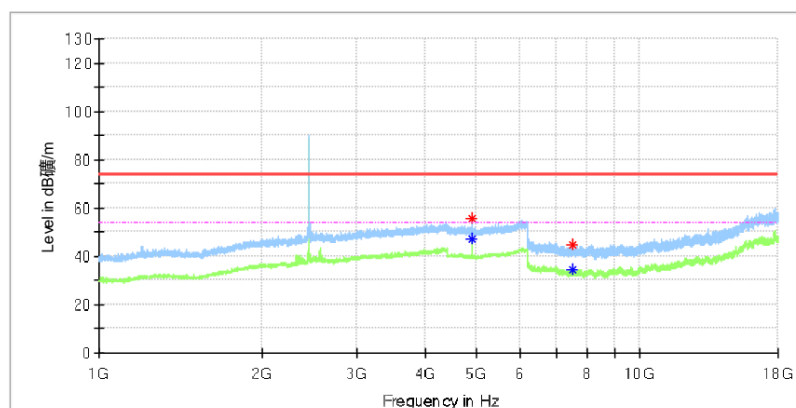
Test

3 / 6

## Test Report

### EUT Information

|               |                   |
|---------------|-------------------|
| EUT Name:     | Spotlight Battery |
| Model:        | 5B11S8            |
| TestMode:     | BLE_TX_Mid CH     |
| TestVoltage:: | Full Battery      |
| Remark:       | Temp 23 Humi:45%  |
| TestStandard: | FCC 15.247        |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 4879.500000     | 55.58            | ---              | 74.00          | 18.42       | 100.0       | H   | 228.0         | 13.4         |
| 4880.000000     | ---              | 46.93            | 54.00          | 7.07        | 100.0       | H   | 3.0           | 13.4         |
| 7516.683333     | ---              | 34.44            | 54.00          | 19.56       | 100.0       | H   | 131.0         | 8.7          |
| 7516.683333     | 44.85            | ---              | 74.00          | 29.15       | 100.0       | H   | 131.0         | 8.7          |

13/3/2020

8:52:57 PM



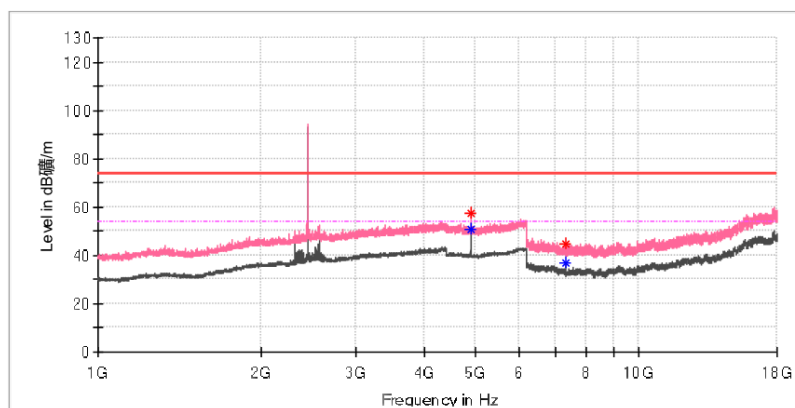
Test

4 / 6

## Test Report

### EUT Information

|                |                   |
|----------------|-------------------|
| EUT Name:      | Spotlight Battery |
| Model:         | 5B11S8            |
| Test Mode:     | BLE_TX_Mid CH     |
| Test Voltage:  | Full Battery      |
| Remark:        | Temp 23 Humi: 45% |
| Test Standard: | FCC 15.247        |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 4879.500000     | 57.56            | —                | 74.00          | 16.44       | 100.0       | V   | 246.0         | 13.4         |
| 4880.000000     | —                | 50.49            | 54.00          | 3.51        | 100.0       | V   | 229.0         | 13.4         |
| 7318.050000     | 44.70            | —                | 74.00          | 29.30       | 100.0       | V   | 151.0         | 8.2          |
| 7320.508333     | —                | 36.63            | 54.00          | 17.37       | 100.0       | V   | 111.0         | 8.2          |

13/3/2020

8:52:57 PM

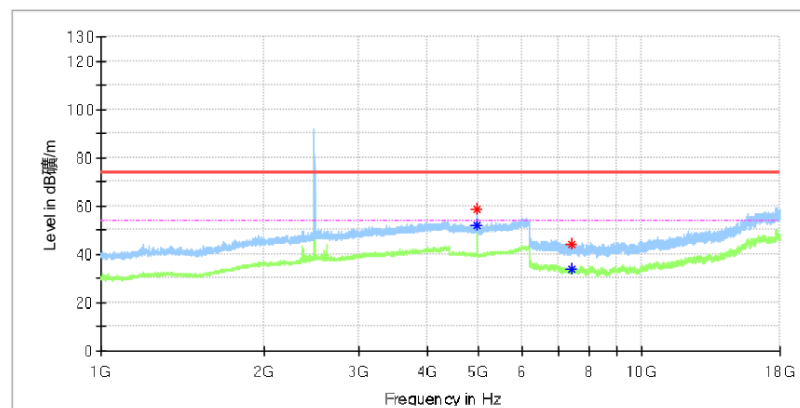
Test

5 / 6

## Test Report

### EUT Information

|                |                   |
|----------------|-------------------|
| EUT Name:      | Spotlight Battery |
| Model:         | 5B11S8            |
| Test Mode:     | BLE_TX_High CH    |
| Test Voltage:  | Full Battery      |
| Remark:        | Temp 23 Humi:45%  |
| Test Standard: | FCC 15.247        |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 4959.500000     | ---              | 50.78            | 54.00          | 3.22        | 100.0       | H   | 148.0         | 13.2         |
| 4959.500000     | 58.60            | ---              | 74.00          | 15.40       | 100.0       | H   | 148.0         | 13.2         |
| 7417.858333     | ---              | 33.99            | 54.00          | 20.01       | 100.0       | H   | 148.0         | 8.3          |
| 7434.575000     | 43.93            | ---              | 74.00          | 30.07       | 100.0       | H   | 128.0         | 8.4          |

13/3/2020

8:52:57 PM

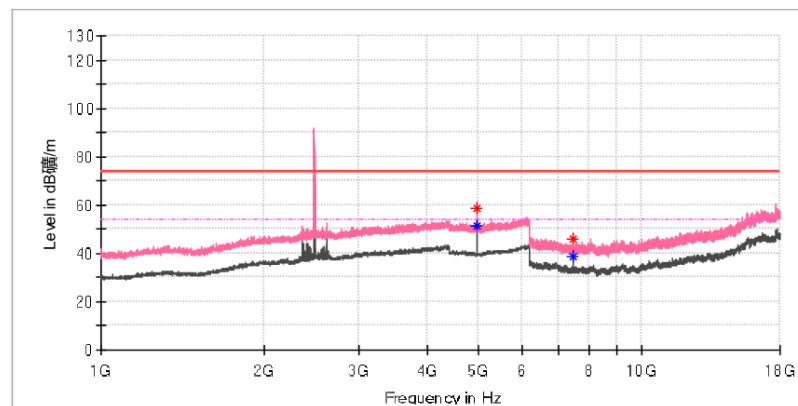
Test

6 / 6

## Test Report

### EUT Information

|                |                   |
|----------------|-------------------|
| EUT Name:      | Spotlight Battery |
| Model:         | 5B11S8            |
| Test Mode:     | BLE_TX_High CH    |
| Test Voltage:  | Full Battery      |
| Remark:        | Temp 23 Humi: 45% |
| Test Standard: | FCC 15.247        |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 4959.500000     | —                | 50.51            | 54.00          | 3.49        | 100.0       | V   | 232.0         | 13.2         |
| 4960.000000     | 58.64            | —                | 74.00          | 15.36       | 100.0       | V   | 162.0         | 13.2         |
| 7439.983333     | —                | 39.00            | 54.00          | 15.00       | 100.0       | V   | 184.0         | 8.4          |
| 7440.475000     | 45.80            | —                | 74.00          | 28.20       | 100.0       | V   | 184.0         | 8.4          |

13/3/2020

8:52:57 PM

Note: The highest waveform in the figure is Bluetooth Fundamental.

## Band Edge, Low Channel

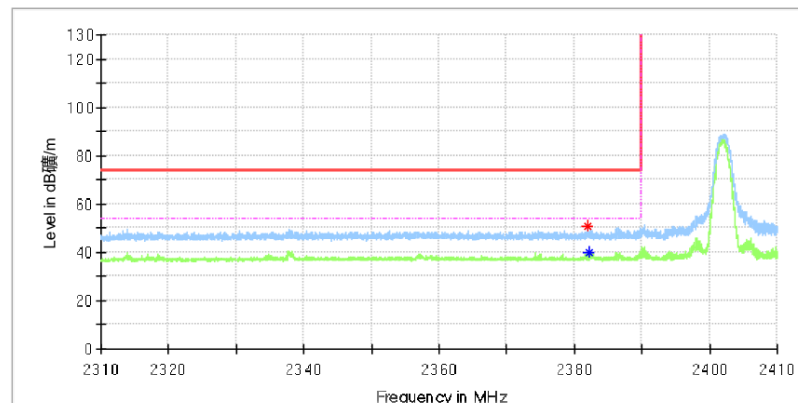
Test

1 / 4

# Test Report

## EUT Information

|                |                   |
|----------------|-------------------|
| EUT Name:      | Spotlight Battery |
| Model:         | 5B11S8            |
| Test Mode:     | BLE_TX_Low CH     |
| Test Voltage:: | Full Battery      |
| Remark:        | Temp 23 Humi:45%  |
| Test Standard: | FCC 15.247        |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2382.029412     | 51.03            | ---              | 74.00          | 22.97       | 100.0       | H   | 236.0         | 7.0          |
| 2382.117647     | ---              | 40.06            | 54.00          | 13.94       | 100.0       | H   | 124.0         | 7.0          |

13/3/2020

9:09:50 PM

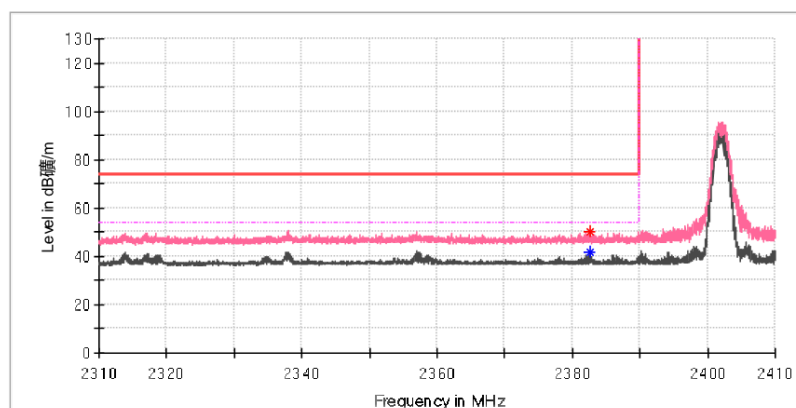
Test

2 / 4

## Test Report

### EUT Information

|                |                   |
|----------------|-------------------|
| EUT Name:      | Spotlight Battery |
| Model:         | 5B11S8            |
| Test Mode:     | BLE_TX_Low CH     |
| Test Voltage:  | Full Battery      |
| Remark:        | Temp 23 Humi:45%  |
| Test Standard: | FCC 15.247        |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2382.588235     | 50.19            | ---              | 74.00          | 23.81       | 100.0       | V   | 199.0         | 7.0          |
| 2382.632353     | ---              | 41.53            | 54.00          | 12.47       | 100.0       | V   | 192.0         | 7.0          |

13/3/2020

9:09:50 PM

## Band Edge, High Channel

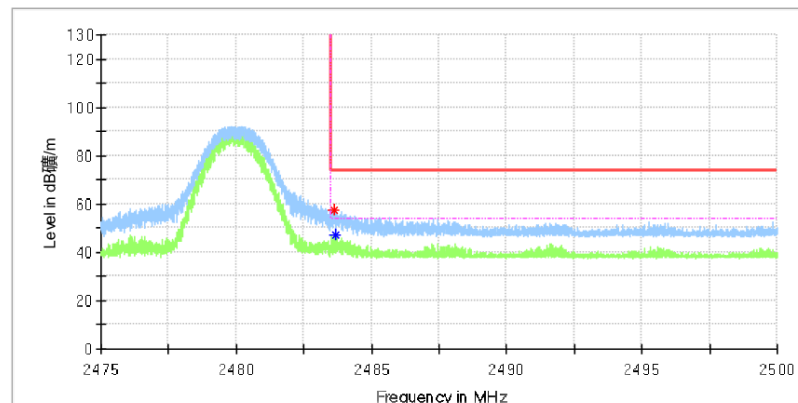
Test

3 / 4

# Test Report

## EUT Information

|                |                   |
|----------------|-------------------|
| EUT Name:      | Spotlight Battery |
| Model:         | 5B11S8            |
| Test Mode:     | BLE_TX_High CH    |
| Test Voltage:: | Full Battery      |
| Remark:        | Temp 23 Humi:45%  |
| Test Standard: | FCC 15.247        |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2483.595588     | 57.69            | ---              | 74.00          | 16.31       | 100.0       | H   | 169.0         | 7.4          |
| 2483.669118     | ---              | 47.28            | 54.00          | 6.72        | 100.0       | H   | 169.0         | 7.4          |

13/3/2020

9:09:50 PM

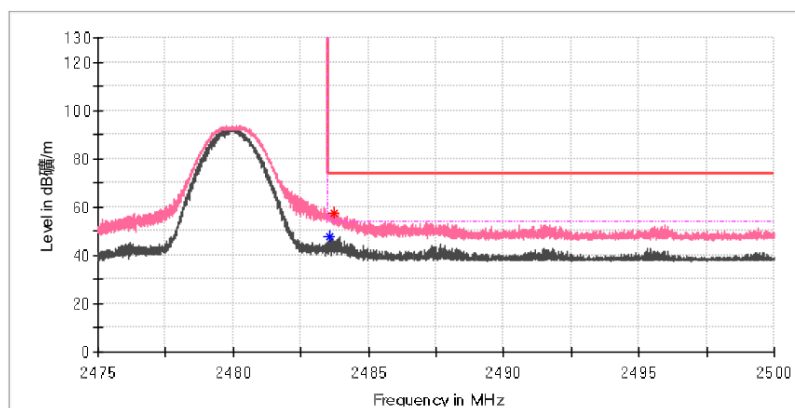
Test

4 / 4

## Test Report

### EUT Information

|                |                   |
|----------------|-------------------|
| EUT Name:      | Spotlight Battery |
| Model:         | 5B11S8            |
| Test Mode:     | BLE_TX_High CH    |
| Test Voltage:  | Full Battery      |
| Remark:        | Temp 23 Humi: 45% |
| Test Standard: | FCC 15.247        |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2483.569853     | —                | 48.06            | 54.00          | 5.94        | 100.0       | V   | 195.0         | 7.4          |
| 2483.702206     | 57.61            | —                | 74.00          | 16.39       | 100.0       | V   | 188.0         | 7.4          |

13/3/2020

9:09:50 PM

**DTSS#2 (Bandwidth: 500KHz)**  
30 MHz to 1GHz

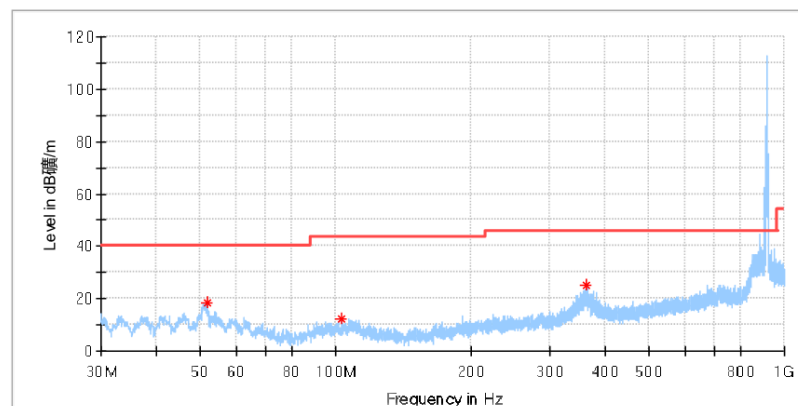
Test

1 / 4

## Test Report

### EUT Information

|                |                               |
|----------------|-------------------------------|
| EUT Name:      | Spotlight Battery             |
| Model:         | 5B11S8                        |
| Test Mode:     | Lora DTS 500K Low CH_902.5MHz |
| Test Voltage:: | Full Battery                  |
| Remark:        | Temp 23 Humi:45%              |
| Test Standard: | FCC 15.247                    |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 51.631000       | 18.37            | ---              | 40.00          | 21.63       | 100.0       | H   | 0.0           | -18.6        |
| 103.041000      | 12.52            | ---              | 43.50          | 30.98       | 100.0       | H   | 0.0           | -19.2        |
| 362.225000      | 25.36            | ---              | 46.00          | 20.64       | 100.0       | H   | 99.0          | -14.9        |

17/3/2020

7:20:52 PM



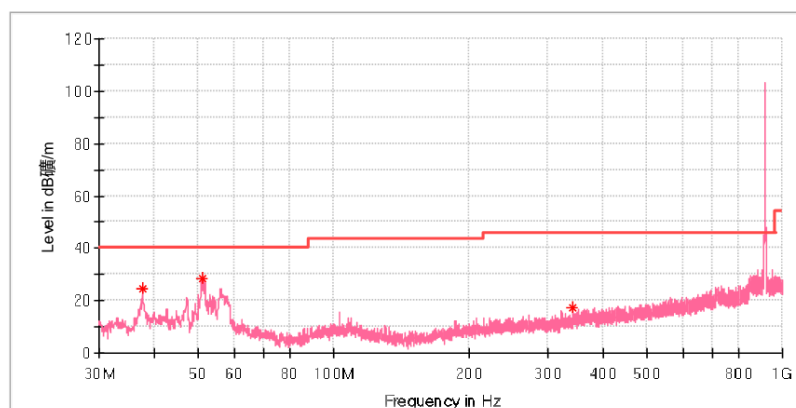
Test

2 / 4

## Test Report

### EUT Information

|               |                               |
|---------------|-------------------------------|
| EUT Name:     | Spotlight Battery             |
| Model:        | 5B11S8                        |
| TestMode:     | Lora DTS 500K Low CH_902.5MHz |
| TestVoltage:: | Full Battery                  |
| Remark:       | Temp 23 Humi:45%              |
| TestStandard: | FCC 15.247                    |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 37.469000       | 24.81            | ---              | 40.00          | 15.19       | 100.0       | V   | 238.0         | -21.3        |
| 51.194500       | 28.65            | ---              | 40.00          | 11.35       | 100.0       | V   | 314.0         | -18.6        |
| 341.418500      | 17.15            | ---              | 46.00          | 28.85       | 100.0       | V   | 221.0         | -15.4        |

17/3/2020

7:20:52 PM

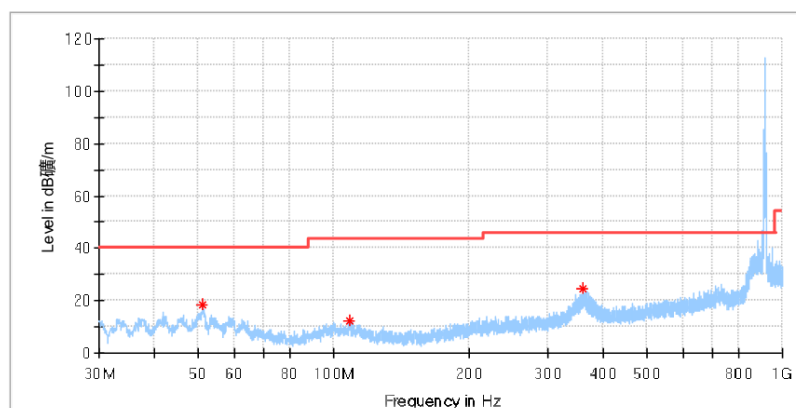
Test

3 / 4

## Test Report

### EUT Information

|                |                                |
|----------------|--------------------------------|
| EUT Name:      | Spotlight Battery              |
| Model:         | 5B11S8                         |
| Test Mode:     | Lora DTS 500K High CH_926.5MHz |
| Test Voltage:: | Full Battery                   |
| Remark:        | Temp 23 Humi:45%               |
| Test Standard: | FCC 15.247                     |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 51.097500       | 18.69            | ---              | 40.00          | 21.31       | 100.0       | H   | 188.0         | -18.6        |
| 108.376000      | 12.26            | ---              | 43.50          | 31.24       | 100.0       | H   | 0.0           | -19.3        |
| 360.042500      | 24.75            | ---              | 46.00          | 21.25       | 100.0       | H   | 94.0          | -15.0        |

17/3/2020

7:20:52 PM

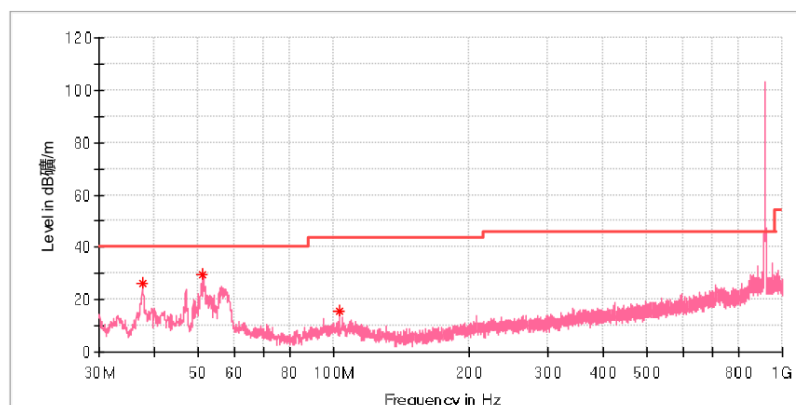
Test

4 / 4

## Test Report

### EUT Information

|                |                                |
|----------------|--------------------------------|
| EUT Name:      | Spotlight Battery              |
| Model:         | 5B11S8                         |
| Test Mode:     | Lora DTS 500K High CH_926.5MHz |
| Test Voltage:  | Full Battery                   |
| Remark:        | Temp 23 Humi:45%               |
| Test Standard: | FCC 15.247                     |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 37.469000       | 26.28            | ---              | 40.00          | 13.72       | 100.0       | V   | 0.0           | -21.3        |
| 51.146000       | 29.79            | ---              | 40.00          | 10.21       | 100.0       | V   | 43.0          | -18.6        |
| 103.089500      | 15.40            | ---              | 43.50          | 28.10       | 100.0       | V   | 0.0           | -19.2        |

17/3/2020

7:20:52 PM

1GHz to 10GHz

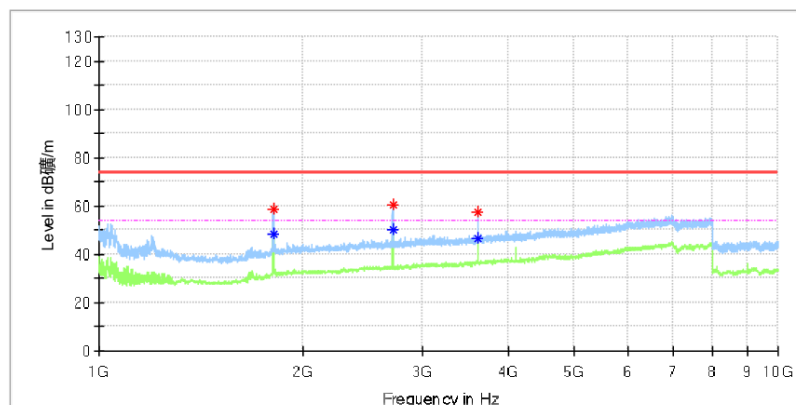
Test

1 / 6

## Test Report

### EUT Information

|                |                               |
|----------------|-------------------------------|
| EUT Name:      | Spotlight Battery             |
| Model:         | 5B11S8                        |
| Test Mode:     | Lora DTS 500K Low CH_902.5MHz |
| Test Voltage:: | Full Battery                  |
| Remark:        | Temp 23 Humi:45%              |
| Test Standard: | FCC 15.247                    |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 1805.012500     | ---              | 48.28            | 54.00          | 5.72        | 100.0       | H   | 136.0         | 4.8          |
| 1805.012500     | 58.74            | ---              | 74.00          | 15.26       | 100.0       | H   | 136.0         | 4.8          |
| 2707.000000     | 60.26            | ---              | 74.00          | 13.74       | 100.0       | H   | 98.0          | 7.6          |
| 2707.000000     | ---              | 50.31            | 54.00          | 3.69        | 100.0       | H   | 98.0          | 7.6          |
| 3608.987500     | ---              | 46.59            | 54.00          | 7.41        | 100.0       | H   | 321.0         | 9.4          |
| 3608.987500     | 57.61            | ---              | 74.00          | 16.39       | 100.0       | H   | 321.0         | 9.4          |

17/3/2020

9:44:47 AM

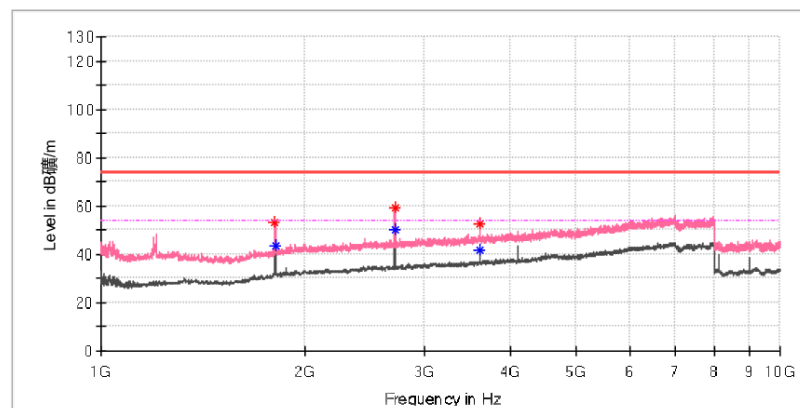
Test

2 / 6

## Test Report

### EUT Information

|                |                               |
|----------------|-------------------------------|
| EUT Name:      | Spotlight Battery             |
| Model:         | 5B11S8                        |
| TestMode:      | Lora DTS 500K Low CH_902.5MHz |
| Test Voltage:: | Full Battery                  |
| Remark:        | Temp 23 Humi:45%              |
| Test Standard: | FCC 15.247                    |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 1804.175000     | 52.96            | ---              | 74.00          | 21.04       | 100.0       | V   | 144.0         | 4.7          |
| 1805.012500     | ---              | 43.55            | 54.00          | 10.45       | 100.0       | V   | 153.0         | 4.8          |
| 2707.000000     | ---              | 50.39            | 54.00          | 3.61        | 100.0       | V   | 222.0         | 7.6          |
| 2707.837500     | 59.24            | ---              | 74.00          | 14.76       | 100.0       | V   | 144.0         | 7.6          |
| 3609.825000     | 52.45            | ---              | 74.00          | 21.55       | 100.0       | V   | 51.0          | 9.4          |
| 3611.500000     | ---              | 41.84            | 54.00          | 12.16       | 100.0       | V   | 271.0         | 9.4          |

17/3/2020

9:44:47 AM

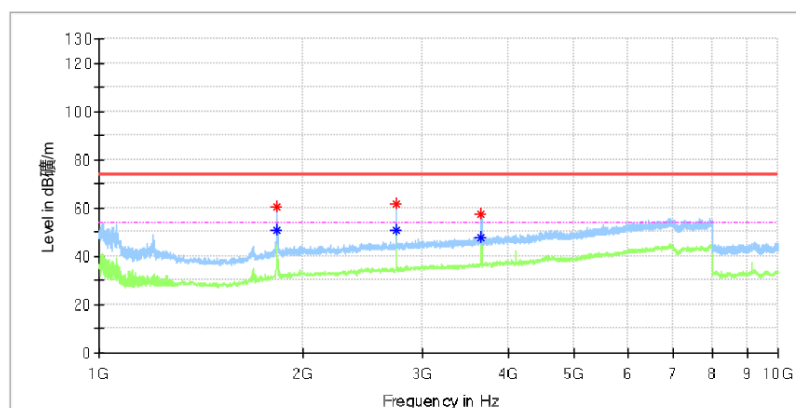
Test

3 / 6

## Test Report

### EUT Information

|               |                              |
|---------------|------------------------------|
| EUT Name:     | Spotlight Battery            |
| Model:        | 5B11S8                       |
| TestMode:     | Lora DTS 500KMid CH_914.5MHz |
| TestVoltage:: | Full Battery                 |
| Remark:       | Temp 23 Humi:45%             |
| TestStandard: | FCC 15.247                   |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 1829.300000     | 60.72            | ---              | 74.00          | 13.28       | 100.0       | H   | 151.0         | 4.9          |
| 1829.300000     | ---              | 50.68            | 54.00          | 3.32        | 100.0       | H   | 151.0         | 4.9          |
| 2743.012500     | 61.94            | ---              | 74.00          | 12.07       | 100.0       | H   | 142.0         | 7.8          |
| 2743.850000     | ---              | 50.77            | 54.00          | 3.23        | 100.0       | H   | 142.0         | 7.8          |
| 3658.400000     | ---              | 47.80            | 54.00          | 6.20        | 100.0       | H   | 198.0         | 9.4          |
| 3658.400000     | 57.73            | ---              | 74.00          | 16.27       | 100.0       | H   | 198.0         | 9.4          |

17/3/2020

9:44:47 AM

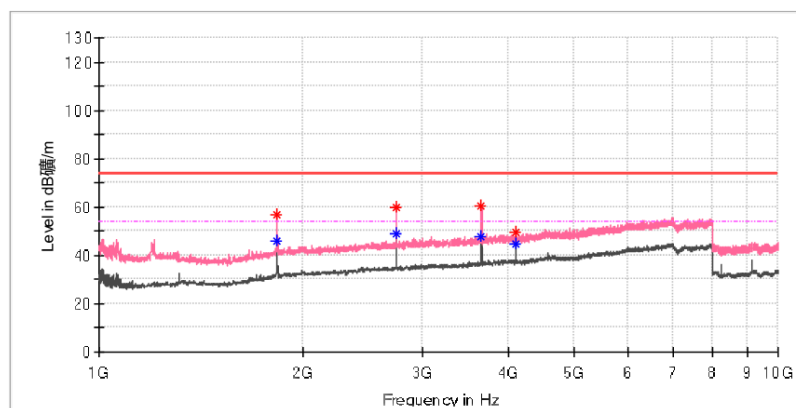
Test

4 / 6

## Test Report

### EUT Information

|                |                               |
|----------------|-------------------------------|
| EUT Name:      | Spotlight Battery             |
| Model:         | 5B11S8                        |
| Test Mode:     | Lora DTS 500K Mid CH_914.5MHz |
| Test Voltage:  | Full Battery                  |
| Remark:        | Temp 23 Humi: 45%             |
| Test Standard: | FCC 15.247                    |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 1828.462500     | 56.98            | ---              | 74.00          | 17.02       | 100.0       | V   | 151.0         | 4.9          |
| 1828.462500     | ---              | 45.80            | 54.00          | 8.20        | 100.0       | V   | 151.0         | 4.9          |
| 2743.012500     | ---              | 49.03            | 54.00          | 4.97        | 100.0       | V   | 217.0         | 7.8          |
| 2743.012500     | 60.08            | ---              | 74.00          | 13.92       | 100.0       | V   | 217.0         | 7.8          |
| 3657.562500     | ---              | 47.99            | 54.00          | 6.01        | 100.0       | V   | 255.0         | 9.4          |
| 3658.400000     | 60.17            | ---              | 74.00          | 13.83       | 100.0       | V   | 264.0         | 9.4          |
| 4101.437500     | 49.78            | ---              | 74.00          | 24.22       | 100.0       | V   | 299.0         | 10.1         |
| 4101.437500     | ---              | 44.65            | 54.00          | 9.35        | 100.0       | V   | 299.0         | 10.1         |

17/3/2020

9:44:47 AM

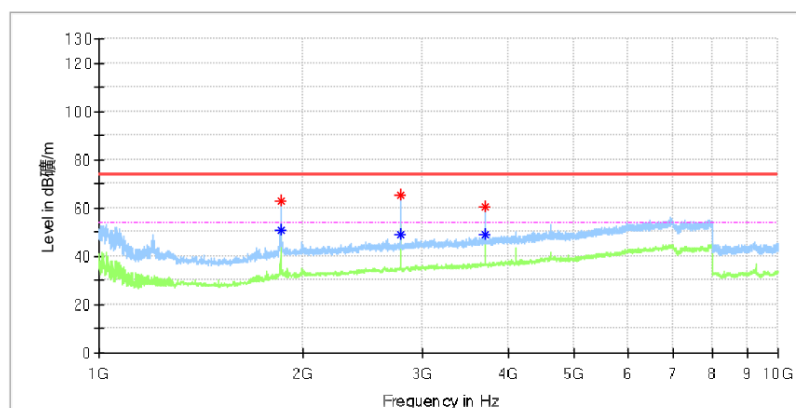
Test

5 / 6

## Test Report

### EUT Information

|                |                                |
|----------------|--------------------------------|
| EUT Name:      | Spotlight Battery              |
| Model:         | 5B11S8                         |
| Test Mode:     | Lora DTS 500K High CH_926.5MHz |
| Test Voltage:: | Full Battery                   |
| Remark:        | Temp 23 Humi:45%               |
| Test Standard: | FCC 15.247                     |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 1852.750000     | 63.16            | ---              | 74.00          | 10.84       | 100.0       | H   | 153.0         | 5.0          |
| 1852.750000     | ---              | 51.00            | 54.00          | 3.00        | 100.0       | H   | 153.0         | 5.0          |
| 2778.187500     | ---              | 48.88            | 54.00          | 5.12        | 100.0       | H   | 125.0         | 7.9          |
| 2779.025000     | 65.08            | ---              | 74.00          | 8.92        | 100.0       | H   | 135.0         | 7.9          |
| 3704.462500     | ---              | 48.69            | 54.00          | 5.31        | 100.0       | H   | 0.0           | 9.6          |
| 3705.300000     | 60.53            | ---              | 74.00          | 13.47       | 100.0       | H   | 125.0         | 9.6          |

17/3/2020

9:44:47 AM



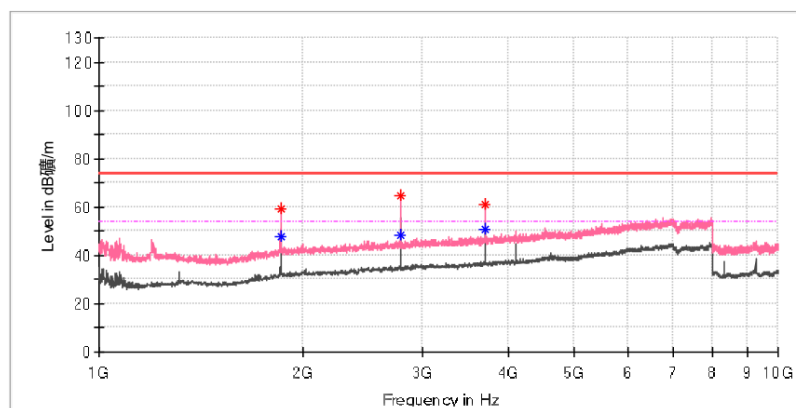
Test

6 / 6

## Test Report

### EUT Information

|                |                                |
|----------------|--------------------------------|
| EUT Name:      | Spotlight Battery              |
| Model:         | 5B11S8                         |
| Test Mode:     | Lora DTS 500K High CH_926.5MHz |
| Test Voltage:  | Full Battery                   |
| Remark:        | Temp 23 Humi: 45%              |
| Test Standard: | FCC 15.247                     |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 1851.912500     | 59.21            | ---              | 74.00          | 14.79       | 100.0       | V   | 158.0         | 5.0          |
| 1852.750000     | ---              | 47.74            | 54.00          | 6.26        | 100.0       | V   | 158.0         | 5.0          |
| 2779.862500     | 64.75            | ---              | 74.00          | 9.25        | 100.0       | V   | 168.0         | 7.9          |
| 2780.700000     | ---              | 48.31            | 54.00          | 5.69        | 100.0       | V   | 252.0         | 7.9          |
| 3706.137500     | 61.18            | ---              | 74.00          | 12.82       | 100.0       | V   | 252.0         | 9.6          |
| 3706.137500     | ---              | 50.74            | 54.00          | 3.26        | 100.0       | V   | 252.0         | 9.6          |

17/3/2020

9:44:47 AM

**FHSS#1 (Bandwidth: 125KHz)**  
30 MHz to 1GHz

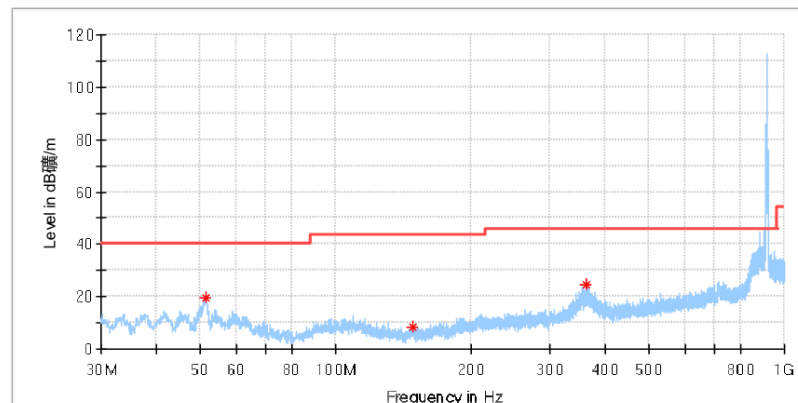
Test

1 / 4

## Test Report

### EUT Information

|                |                                |
|----------------|--------------------------------|
| EUT Name:      | Spotlight Battery              |
| Model:         | 5B11S8                         |
| Test Mode:     | Lora FHSS 125K Low CH_902.2MHz |
| Test Voltage:: | Full Battery                   |
| Remark:        | Temp 23 Humi:45%               |
| Test Standard: | FCC 15.247                     |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 51.437000       | 19.47            | ---              | 40.00          | 20.53       | 100.0       | H   | 232.0         | -18.6        |
| 148.970500      | 8.29             | ---              | 43.50          | 35.21       | 100.0       | H   | 199.0         | -22.5        |
| 361.788500      | 24.33            | ---              | 46.00          | 21.67       | 100.0       | H   | 102.0         | -14.9        |

17/3/2020

6:59:52 PM

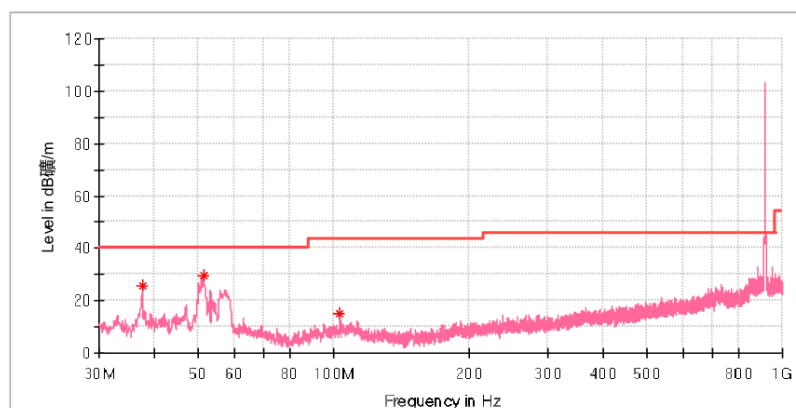
Test

2 / 4

## Test Report

### EUT Information

|                |                                |
|----------------|--------------------------------|
| EUT Name:      | Spotlight Battery              |
| Model:         | 5B11S8                         |
| Test Mode:     | Lora FHSS 125K Low CH_902.2MHz |
| Test Voltage:  | Full Battery                   |
| Remark:        | Temp 23 Humi:45%               |
| Test Standard: | FCC 15.247                     |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 37.469000       | 25.60            | ---              | 40.00          | 14.40       | 100.0       | V   | 52.0          | -21.3        |
| 51.340000       | 29.39            | ---              | 40.00          | 10.61       | 100.0       | V   | 302.0         | -18.6        |
| 103.138000      | 15.17            | ---              | 43.50          | 28.33       | 100.0       | V   | 25.0          | -19.2        |

17/3/2020

6:59:52 PM

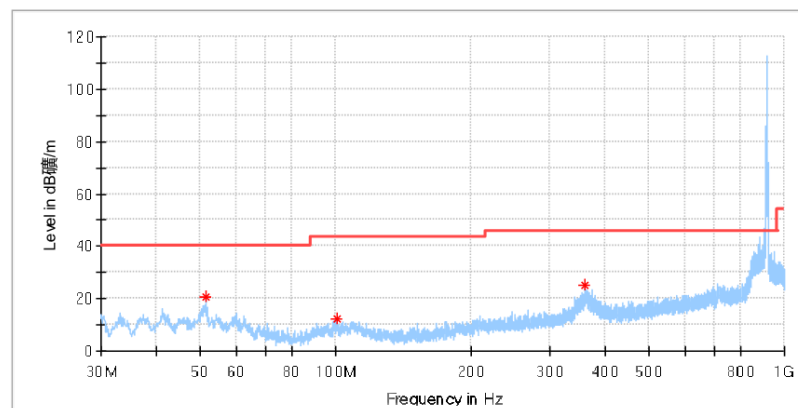
Test

3 / 4

## Test Report

### EUT Information

|                |                                 |
|----------------|---------------------------------|
| EUT Name:      | Spotlight Battery               |
| Model:         | 5B11S8                          |
| Test Mode:     | Lora FHSS 125K High CH_927.8MHz |
| Test Voltage:: | Full Battery                    |
| Remark:        | Temp 23 Humi:45%                |
| Test Standard: | FCC 15.247                      |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 51.437000       | 20.70            | ---              | 40.00          | 19.30       | 100.0       | H   | 359.0         | -18.6        |
| 100.373500      | 12.54            | ---              | 43.50          | 30.96       | 100.0       | H   | 325.0         | -19.3        |
| 357.811500      | 25.25            | ---              | 46.00          | 20.76       | 100.0       | H   | 104.0         | -15.0        |

17/3/2020

6:59:52 PM

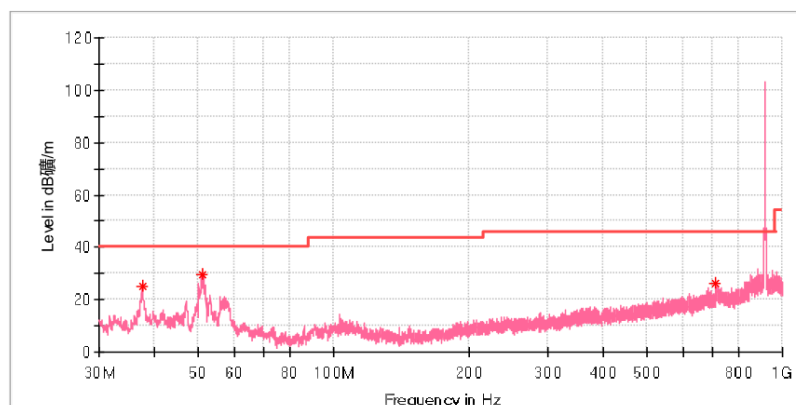
Test

4 / 4

## Test Report

### EUT Information

|                |                                 |
|----------------|---------------------------------|
| EUT Name:      | Spotlight Battery               |
| Model:         | 5B11S8                          |
| Test Mode:     | Lora FHSS 125K High CH_927.8MHz |
| Test Voltage:: | Full Battery                    |
| Remark:        | Temp 23 Humi:45%                |
| Test Standard: | FCC 15.247                      |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 37.517500       | 25.14            | ---              | 40.00          | 14.86       | 100.0       | V   | 282.0         | -21.2        |
| 51.194500       | 29.69            | ---              | 40.00          | 10.31       | 100.0       | V   | 1.0           | -18.6        |
| 709.679000      | 26.43            | ---              | 46.00          | 19.57       | 100.0       | V   | 23.0          | -8.3         |

17/3/2020

6:59:52 PM

1GHz to 10GHz

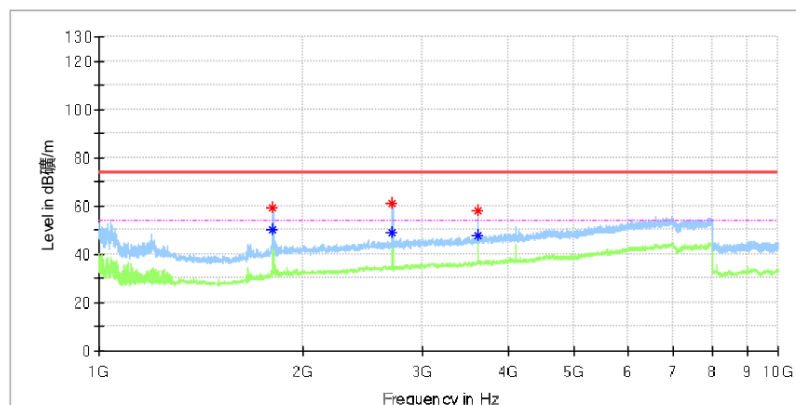
Test

1 / 6

## Test Report

### EUT Information

|                |                                |
|----------------|--------------------------------|
| EUT Name:      | Spotlight Battery              |
| Model:         | 5B11S8                         |
| Test Mode:     | Lora FHSS 125K Low CH_902.2MHz |
| Test Voltage:: | Full Battery                   |
| Remark:        | Temp 23 Humi:45%               |
| Test Standard: | FCC 15.247                     |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 1803.337500     | ---              | 50.25            | 54.00          | 3.75        | 100.0       | H   | 145.0         | 4.7          |
| 1804.175000     | 58.97            | ---              | 74.00          | 15.03       | 100.0       | H   | 98.0          | 4.7          |
| 2706.162500     | 60.97            | ---              | 74.00          | 13.03       | 100.0       | H   | 136.0         | 7.5          |
| 2706.162500     | ---              | 48.99            | 54.00          | 5.01        | 100.0       | H   | 136.0         | 7.5          |
| 3608.987500     | ---              | 47.86            | 54.00          | 6.14        | 100.0       | H   | 155.0         | 9.4          |
| 3608.987500     | 57.93            | ---              | 74.00          | 16.07       | 100.0       | H   | 155.0         | 9.4          |

17/3/2020

11:14:38 AM

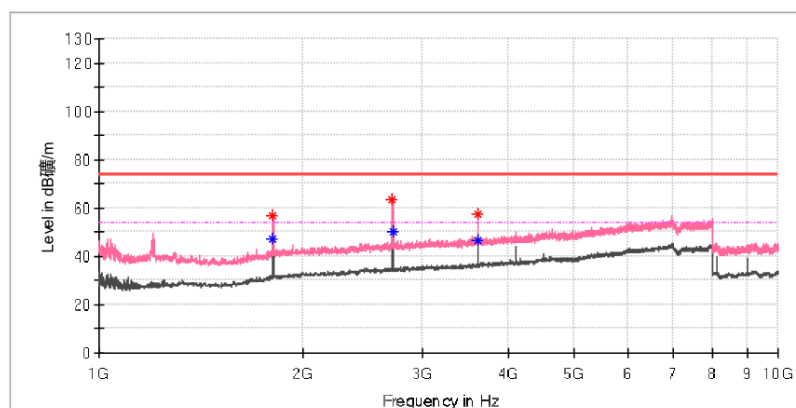
Test

2 / 6

## Test Report

### EUT Information

|                |                                |
|----------------|--------------------------------|
| EUT Name:      | Spotlight Battery              |
| Model:         | 5B11S8                         |
| Test Mode:     | Lora FHSS 125K Low CH_902.2MHz |
| Test Voltage:: | Full Battery                   |
| Remark:        | Temp 23 Humi:45%               |
| Test Standard: | FCC 15.247                     |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 1804.175000     | ---              | 46.91            | 54.00          | 7.09        | 100.0       | V   | 312.0         | 4.7          |
| 1804.175000     | 56.69            | ---              | 74.00          | 17.31       | 100.0       | V   | 312.0         | 4.7          |
| 2706.162500     | 63.46            | ---              | 74.00          | 10.54       | 100.0       | V   | 229.0         | 7.5          |
| 2707.000000     | ---              | 50.13            | 54.00          | 3.87        | 100.0       | V   | 139.0         | 7.6          |
| 3608.987500     | ---              | 46.34            | 54.00          | 7.66        | 100.0       | V   | 279.0         | 9.4          |
| 3608.987500     | 57.39            | ---              | 74.00          | 16.61       | 100.0       | V   | 279.0         | 9.4          |

17/3/2020

11:14:38 AM

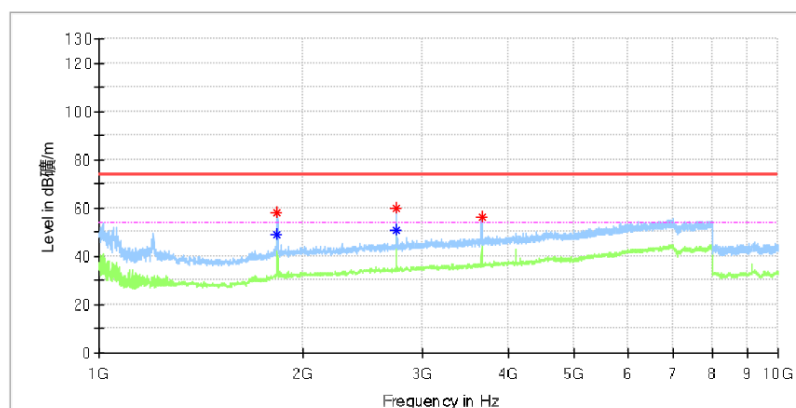
Test

3 / 6

## Test Report

### EUT Information

|                |                              |
|----------------|------------------------------|
| EUT Name:      | Spotlight Battery            |
| Model:         | 5B11S8                       |
| TestMode:      | Lora FHSS 125K Mid CH_915MHz |
| Test Voltage:: | Full Battery                 |
| Remark:        | Temp 23 Humi:45%             |
| Test Standard: | FCC 15.247                   |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 1830.137500     | 58.30            | ---              | 74.00          | 15.70       | 100.0       | H   | 148.0         | 4.9          |
| 1830.137500     | ---              | 49.25            | 54.00          | 4.75        | 100.0       | H   | 148.0         | 4.9          |
| 2743.850000     | 59.87            | ---              | 74.00          | 14.13       | 100.0       | H   | 337.0         | 7.8          |
| 2744.687500     | ---              | 50.72            | 54.00          | 3.28        | 100.0       | H   | 337.0         | 7.8          |
| 3659.237500     | 56.41            | ---              | 74.00          | 17.59       | 100.0       | H   | 358.0         | 9.4          |

17/3/2020

11:14:38 AM