

## FCC - TEST REPORT

Report Number : **60.790.18.060.01R01** Date of Issue : January 23, 2019

Model : **RIDEtime ELITE**

Product Type : **Bike Computer**

Applicant : DAYTON INDUSTRIAL CO., LTD

Address : 2-12 Kwai Fat Road, 11-A Kwai Chung, New Territories, Hong Kong

Production Facility : KENDY ELECTRONICS (DONGGUAN) CO., LTD

Address : XIN SI HUANG TANG VILLAGE HENG LI TOWN, DONGGUANG CITY, GUANGDONG, CHINA

Test Result :  **Positive**       **Negative**

Total pages including Appendices : 34

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# 1 Table of Contents

|  |    |
|--|----|
| 1 Table of Contents.....                         | 2  |
| 2 Description of Equipment Under Test .....      | 3  |
| 3 Summary of Test Standards .....                | 4  |
| 4 Details about the Test Laboratory .....        | 5  |
| 4.1 Test Equipment Site List .....               | 6  |
| 4.2 Measurement System Uncertainty .....         | 7  |
| 5 Summary of Test Results.....                   | 8  |
| 6 General Remarks.....                           | 9  |
| 7 Emission Test Results .....                    | 10 |
| 7.1 Spurious Radiated Emission .....             | 10 |
| 7.2 Conducted Emission at AC Power line.....     | 15 |
| 7.3 6dB & 99% Bandwidth .....                    | 16 |
| 7.4 Peak Output Power.....                       | 19 |
| 7.5 Spurious Emissions at Antenna Terminals..... | 22 |
| 7.6 100kHz Bandwidth of band edges.....          | 28 |
| 7.7 Power Spectral Density.....                  | 30 |
| 7.8 Antenna Requirement.....                     | 33 |
| 8 Appendix A - General Product Information ..... | 34 |

## 2 Description of Equipment Under Test

### Description of the Equipment Under Test

|                             |                             |
|-----------------------------|-----------------------------|
| Product:                    | Bike Computer               |
| Model no.:                  | RIDEtime ELITE              |
| FCC ID:                     | O4GRTELITE                  |
| Rating:                     | 3V DC (CR2032 battery)      |
| Frequency:                  | 2402MHz-2480MHz (Tx and Rx) |
| Antenna gain:               | 0 dBi                       |
| Number of operated channel: | 40                          |
| Modulation:                 | GFSK                        |

### Auxiliary Equipment and Software Used during Test:

| DESCRIPTION | MANUFACTURER | MODEL NO. | S/N     |
|-------------|--------------|-----------|---------|
| Computer    | Lenovo       | X220      | 0A72168 |

### Auxiliary Software Used during Test:

| DESCRIPTION           | SOFTWARE NAME | VERSION | REMARK                |
|-----------------------|---------------|---------|-----------------------|
| RF Test Mode Software | nRFgo         | 1.16    | Provided by applicant |

### 3 Summary of Test Standards

| Test Standards  |
|---|
| FCC Part 15 Subpart C 10-1-17 Edition<br>Federal Communications Commission, PART 15 — Radio Frequency Devices,<br>Subpart C — Unintentional Radiators |

All the tests were performed using the procedures from ANSI C63.4(2014) and ANSI C63.10 (2013).

## 4 Details about the Test Laboratory

### Site 1

Company name: TÜV SÜD Hong Kong Ltd.  
3/F, West Wing, Lakeside 2,  
10 Science Park West Avenue,  
Science Park, Shatin, Hong Kong

### Site 2

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch  
Building 12&13 Zhiheng Wisdomland Business Park,  
Nantou Checkpoint Road 2,  
Shenzhen 518052, P.R.China  
FCC Registration Number: 502708

| Emission Tests   |           |
|--|-----------|
| Test Item  | Test Site |
| <b>FCC Part 15 Subpart C</b>   |           |
| FCC Title 47 Part 15.205, 15.209 & 15.247(d) Spurious Radiated Emission      | Site 2    |
| FCC Title 47 Part 15.207 Conduct Emission                                    | NIL       |
| FCC Title 47 Part 15.247(a)(1) 6dB & 99% Bandwidth                           | Site 2    |
| FCC Title 47 Part 15.247(b) Peak Output Power                                | Site 2    |
| FCC Title 47 Part 2.1051 & 15.247(d) Spurious Emissions at Antenna Terminals | Site 2    |
| FCC Title 47 Part 15.247(d) 100kHz Bandwidth of band edges                   | Site 2    |
| FCC Title 47 Part 15.247(e) Power Spectral Density                           | Site 2    |
| FCC Title 47 Part 15.203 & 15.247(b) Antenna Requirement                     | Site 2    |

## 4.1 Test Equipment Site List

### Radiated emission Test – Site 2

| DESCRIPTION                         | MANUFACTURER    | MODEL NO.         | SERIAL NO.      | CAL. DUE DATE |
|-------------------------------------|-----------------|-------------------|-----------------|---------------|
| EMI Test Receiver                   | Rohde & Schwarz | ESR 26            | 101269          | 2019-7-6      |
| Signal Analyzer                     | Rohde & Schwarz | FSV40             | 101031          | 2019-7-6      |
| Loop Antenna                        | Rohde & Schwarz | HFH2-Z2           | 100398          | 2019-7-6      |
| Trilog Super Broadband Test Antenna | Schwarzbeck     | VULB 9163         | 707             | 2019-6-28     |
| Horn Antenna                        | Rohde & Schwarz | HF907             | 102294          | 2019-6-28     |
| Wideband Horn Antenna               | Q-PAR           | QWH-SL-18-40-K-SG | 12827           | 2019-7-12     |
| Pre-amplifier                       | Rohde & Schwarz | SCU 18            | 102230          | 2019-7-6      |
| Pre-amplifier                       | Rohde & Schwarz | SCU 40A           | 100432          | 2019-7-6      |
| Signal Generator                    | Rohde & Schwarz | SMY01             | 839369/005      | 2019-7-6      |
| Attenuator                          | Agilent         | 8491A             | MY39264334      | 2019-7-6      |
| 3m Semi-anechoic chamber            | TDK             | 9X6X6             | ----            | 2020-7-7      |
| Test software                       | Rohde & Schwarz | EMC32             | Version 9.15.00 | N/A           |

### Conducted Emission Test – Site 2

| DESCRIPTION        | MANUFACTURER      | MODEL NO.      | SERIAL NO.     | CAL. DUE DATE |
|--------------------|-------------------|----------------|----------------|---------------|
| EMI Test Receiver  | Rohde & Schwarz   | ESR 3          | 101782         | 2019-7-6      |
| LISN               | Rohde & Schwarz   | ENV4200        | 100249         | 2019-7-6      |
| LISN               | Rohde & Schwarz   | ENV432         | 101318         | 2019-7-6      |
| LISN               | Rohde & Schwarz   | ENV216         | 100326         | 2019-7-6      |
| ISN                | Rohde & Schwarz   | ENY81          | 100177         | 2019-7-6      |
| ISN                | Rohde & Schwarz   | ENY81-CA6      | 101664         | 2019-7-6      |
| High Voltage Probe | Rohde & Schwarz   | TK9420(VT9420) | 9420-584       | 2019-6-30     |
| RF Current Probe   | Rohde & Schwarz   | EZ-17          | 100816         | 2019-6-30     |
| Attenuator         | Shanghai Huaxiang | TS2-26-3       | 080928189      | 2019-7-6      |
| Test software      | Rohde & Schwarz   | EMC32          | Version9.15.00 | N/A           |

### 20dB & 99% Bandwidth, Peak Output Power, Spurious Emissions at Antenna Terminals, 100kHz Bandwidth of band edges, Power Spectral Density – Site 2

| DESCRIPTION             | MANUFACTURER    | MODEL NO.       | SERIAL NO.    | CAL. DUE DATE |
|-------------------------|-----------------|-----------------|---------------|---------------|
| Signal Generator        | Rohde & Schwarz | SMB100A         | 108272        | 2019-7-6      |
| Signal Analyzer         | Rohde & Schwarz | FSV40           | 101030        | 2019-7-6      |
| Vector Signal Generator | Rohde & Schwarz | SMU 200A        | 105324        | 2019-7-6      |
| RF Switch Module        | Rohde & Schwarz | OSP120/OSP-B157 | 101226/100851 | 2019-7-6      |

## 4.2 Measurement System Uncertainty

### Measurement System Uncertainty Emissions

| System Measurement Uncertainty                                      |  |
|---|--|
| Items   | Extended Uncertainty                     |
| Uncertainty for Radiated Emission in 3m chamber<br>9kHz-30MHz       | 4.46dB                                   |
| Uncertainty for Radiated Emission in 3m chamber<br>30MHz-1000MHz    | Horizontal: 4.91dB;<br>Vertical: 4.89dB; |
| Uncertainty for Radiated Emission in 3m chamber<br>1000MHz-25000MHz | Horizontal: 4.80dB;<br>Vertical: 4.79dB; |
| Uncertainty for Conducted Emission at AC Power Line<br>150kHz-30MHz | 3.21dB                                   |
| Uncertainty for frequency test                                      | $0.6 \times 10^{-7}$                     |

## 5 Summary of Test Results

| Emission Tests   |       |                                     |                          |                          |
|--|-------|-------------------------------------|--------------------------|--------------------------|
| FCC Part 15 Subpart C  |       |                                     |                          |                          |
| Test Condition   | Pages | Test Result                         |                          |                          |
|  |       | Pass                                | Fail                     | N/A                      |
| FCC Title 47 Part 15.205, 15.209 & 15.247(d) Spurious Radiated Emission      | 10-14 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| FCC Title 47 Part 15.207 Conduct Emission (1)                                | NIL   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| FCC Title 47 Part 15.247(a)(2) 6dB & 99% Bandwidth                           | 16-18 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| FCC Title 47 Part 15.247(b) Peak Output Power                                | 19-21 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| FCC Title 47 Part 2.1051 & 15.247(d) Spurious Emissions at Antenna Terminals | 22-27 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| FCC Title 47 Part 15.247(d) 100kHz Bandwidth of band edges                   | 28-29 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| FCC Title 47 Part 15.247(e) Power Spectral Density                           | 30-32 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| FCC Title 47 Part 15.203 & 15.247(b) Antenna Requirement                     | 33    | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Remark:

(1) Conducted Emission testing is not applicable for battery operating device.



## 6 General Remarks

### Remarks

This submittal(s) (test report) is intended for **FCC ID: O4GRTELITE**, complies with Section 15.203, 15.205, 15.207, 15.209, 15.247 of the FCC Part 15, Subpart C rules for the DTS grant

The TX and RX range is 2402MHz-2480MHz.

### SUMMARY:

- All tests according to the regulations cited on page 8 were

■ - Performed

□ - **Not** Performed

- The Equipment Under Test

■ - **Fulfills** the general approval requirements.

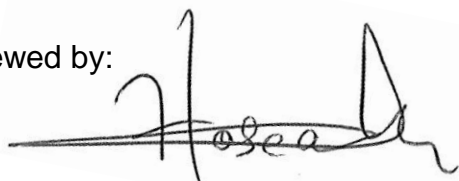
□ - **Does not** fulfill the general approval requirements.

Sample Received Date: November 28, 2018

Testing Start Date: November 30, 2018

Testing End Date: December 30, 2018

Reviewed by:



Hosea CHAN  
EMC Project Engineer

Prepared by:



Eric LI  
EMC Senior Project Engineer

## 7 Emission Test Results

### 7.1 Spurious Radiated Emission

EUT: RIDetime ELITE  
 Op Condition: Operated, TX Mode  
 (Low channel is the worst case)  
 Test Specification: FCC15.205, 15.209 & 15.247(d)  
 Comment: 3V DC  
 Remark: 9kHz to 1GHz

|  |
|--|
| Test Result                                |
| <input checked="" type="checkbox"/> Passed |
| <input type="checkbox"/> Not Passed        |

| Frequency<br>MHz | Result<br>dB $\mu$ V/m | Limit<br>dB $\mu$ V/m | Margin<br>dB | Detector<br>PK/QP/AV | Ant. Polarity<br>H/V | Corr.<br>(dB) |
|------------------|------------------------|-----------------------|--------------|----------------------|----------------------|---------------|
| 39.107222        | 18.83                  | 40.00                 | -21.17       | Peak                 | H                    | -26.3         |
| 49.992778        | 16.88                  | 40.00                 | -23.12       | Peak                 | H                    | -24.9         |
| 870.235556       | 25.03                  | 46.00                 | -20.97       | Peak                 | H                    | -15.8         |
| 38.298889        | 16.87                  | 40.00                 | -23.13       | Peak                 | V                    | -26.5         |
| 48.430000        | 17.41                  | 40.00                 | -22.59       | Peak                 | V                    | -25.0         |
| 880.258889       | 25.06                  | 46.00                 | -20.94       | Peak                 | V                    | -15.6         |

Remark:

- As the measured peak value not exceeded the Quasi-peak limit, Quasi-peak value no need to be measured.

**Spurious Radiated Emission**

EUT: RIDetime ELITE  
 Op Condition: Operated, TX Mode (2402MHz)  
 Test Specification: FCC15.205, 15.209 & 15.247(d)  
 Comment: 3V DC  
 Remark: 1GHz to 25GHz

| Test Result                         |            |
|-------------------------------------|------------|
| <input checked="" type="checkbox"/> | Passed     |
| <input type="checkbox"/>            | Not Passed |

| Frequency<br>MHz | Result<br>dBµV/m | Limit<br>dBµV/m | Margin<br>dB | Detector<br>PK/QP/AV | Ant.<br>Polarity<br>H/V | Corr.<br>(dB) |
|------------------|------------------|-----------------|--------------|----------------------|-------------------------|---------------|
| 2338.125000      | 38.75            | 54.00           | -15.25       | Peak                 | H                       | -5.9          |
| 2465.750000      | 43.76            | 54.00           | -10.24       | Peak                 | H                       | -4.8          |
| 5034.843750      | 37.97            | 54.00           | -16.03       | Peak                 | H                       | 4.7           |
| 7601.250000      | 42.51            | 54.00           | -11.49       | Peak                 | H                       | 9.9           |
| 12563.437500     | 44.85            | 54.00           | -9.15        | Peak                 | H                       | 14.5          |
| 2337.812500      | 34.47            | 54.00           | -19.53       | Peak                 | V                       | -5.9          |
| 2465.812500      | 34.72            | 54.00           | -19.28       | Peak                 | V                       | -4.8          |
| 7543.125000      | 42.06            | 54.00           | -11.94       | Peak                 | V                       | 9.9           |
| 9392.343750      | 41.78            | 54.00           | -12.22       | Peak                 | V                       | 9.7           |
| 11903.906250     | 44.00            | 54.00           | -10.00       | Peak                 | V                       | 11.9          |

Remark:  
 1.As the measured peak value not exceeded the average limit, average value no need to be measured.

**Spurious Radiated Emission**

EUT: RIDetime ELITE  
 Op Condition: Operated, TX Mode (2440MHz)  
 Test Specification: FCC15.205, 15.209 & 15.247(d)  
 Comment: 3V DC  
 Remark: 1GHz to 25GHz

| Test Result                         |            |
|-------------------------------------|------------|
| <input checked="" type="checkbox"/> | Passed     |
| <input type="checkbox"/>            | Not Passed |

| Frequency<br>MHz | Result<br>dBµV/m | Limit<br>dBµV/m | Margin<br>dB | Detector<br>PK/QP/AV | Ant.<br>Polarity<br>H/V | Corr.<br>(dB) |
|------------------|------------------|-----------------|--------------|----------------------|-------------------------|---------------|
| 2376.000000      | 41.05            | 54.00           | -12.95       | Peak                 | H                       | -5.8          |
| 2504.062500      | 43.07            | 54.00           | -10.93       | Peak                 | H                       | -4.5          |
| 7571.718750      | 42.59            | 54.00           | -11.41       | Peak                 | H                       | 10.1          |
| 9405.000000      | 41.62            | 54.00           | -12.38       | Peak                 | H                       | 9.7           |
| 12429.843750     | 44.86            | 54.00           | -9.14        | Peak                 | H                       | 14.3          |
| 2376.125000      | 32.55            | 54.00           | -21.45       | Peak                 | V                       | -5.8          |
| 2504.062500      | 36.94            | 54.00           | -17.06       | Peak                 | V                       | -4.5          |
| 7529.531250      | 41.97            | 54.00           | -12.03       | Peak                 | V                       | 9.7           |
| 9338.906250      | 41.73            | 54.00           | -12.27       | Peak                 | V                       | 9.8           |
| 10639.218750     | 43.01            | 54.00           | -10.99       | Peak                 | V                       | 10.3          |

Remark:

1.As the measured peak value not exceeded the average limit, average value no need to be measured.

**Spurious Radiated Emission**

EUT: RIDetime ELITE  
 Op Condition: Operated, TX Mode (2480MHz)  
 Test Specification: FCC15.205, 15.209 & 15.247(d)  
 Comment: 3V DC  
 Remark: 1GHz to 25GHz

|                                     |            |
|-------------------------------------|------------|
| Test Result                         |            |
| <input checked="" type="checkbox"/> | Passed     |
| <input type="checkbox"/>            | Not Passed |

| Frequency<br>MHz | Result<br>dBµV/m | Limit<br>dBµV/m | Margin<br>dB | Detector<br>PK/QP/AV | Ant.<br>Polarity<br>H/V | Corr.<br>(dB) |
|------------------|------------------|-----------------|--------------|----------------------|-------------------------|---------------|
| 2416.312500      | 40.85            | 54.00           | -13.15       | Peak                 | H                       | -5.4          |
| 2544.125000      | 40.23            | 54.00           | -13.77       | Peak                 | H                       | -4.3          |
| 4959.375000      | 38.94            | 54.00           | -15.06       | Peak                 | H                       | 4.3           |
| 7530.000000      | 42.34            | 54.00           | -11.66       | Peak                 | H                       | 9.7           |
| 10615.312500     | 41.48            | 54.00           | -12.52       | Peak                 | H                       | 10.3          |
| 2198.312500      | 34.34            | 54.00           | -19.66       | Peak                 | V                       | -7.2          |
| 7645.781250      | 43.25            | 54.00           | -10.75       | Peak                 | V                       | 9.5           |
| 9479.531250      | 41.91            | 54.00           | -12.09       | Peak                 | V                       | 9.8           |
| 11904.375000     | 43.63            | 54.00           | -10.37       | Peak                 | V                       | 11.9          |

Remark:

1.As the measured peak value not exceeded the average limit, average value no need to be measured.

**Spurious Radiated Emission**

EUT: RIDetime ELITE  
 Op Condition: Operated, TX Mode (2402 and 2480)  
 Test Specification: FCC15.247  
 Comment: 3V DC, Radiated Bandedge

|                                     |            |
|-------------------------------------|------------|
| Test Result                         |            |
| <input checked="" type="checkbox"/> | Passed     |
| <input type="checkbox"/>            | Not Passed |

| Channel | Frequency<br>MHz | Result<br>dBµV/m | Limit<br>dBµV/m | Margin<br>dB | Detector<br>PK /AV | Ant. Polarity<br>H/V | Corr.<br>(dB) |
|---------|------------------|------------------|-----------------|--------------|--------------------|----------------------|---------------|
| 2402    | 2400.00          | 41.37            | 74.00           | -32.63       | Peak               | H                    | -5.5          |
| 2402    | 2400.00          | 32.37            | 54.00           | -21.63       | Average            | H                    | -5.5          |
| 2402    | 2400.00          | 43.54            | 74.00           | -30.46       | Peak               | V                    | -5.5          |
| 2402    | 2400.00          | 36.38            | 54.00           | -17.62       | Average            | V                    | -5.5          |
| 2480    | 2483.50          | 45.17            | 74.00           | -28.83       | Peak               | H                    | -4.8          |
| 2480    | 2483.50          | 35.89            | 54.00           | -18.11       | Average            | H                    | -4.8          |
| 2480    | 2483.50          | 47.37            | 74.00           | -26.63       | Peak               | V                    | -4.8          |
| 2480    | 2483.50          | 35.38            | 54.00           | -18.62       | Average            | V                    | -4.8          |

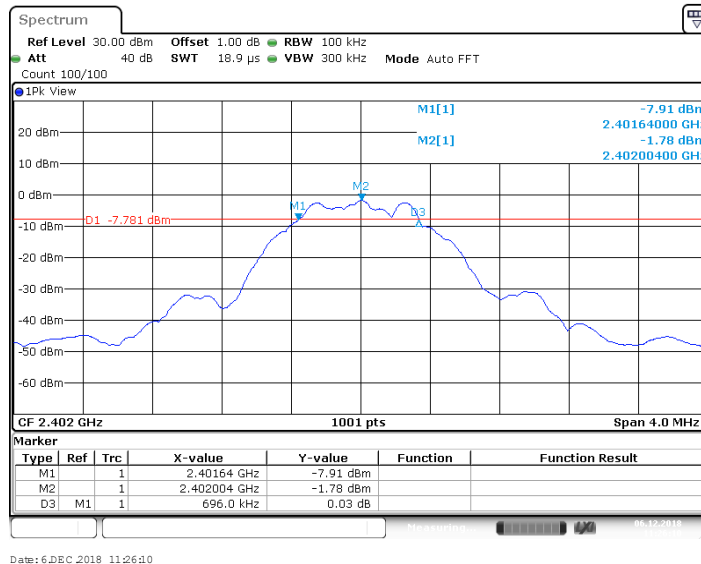
## 7.2 Conducted Emission at AC Power line

Conducted Emission testing is not applicable for this device as it is a battery operating device.

### 7.3 6dB & 99% Bandwidth

EUT: RIDetime ELITE  
 Op Condition: Operated, TX Mode (2402MHz)  
 Test Specification: FCC15.247(a)(2), 6dB Bandwidth & 99% Bandwidth  
 Comment: 3V DC

|                                     |            |
|-------------------------------------|------------|
| Test Result                         |            |
| <input checked="" type="checkbox"/> | Passed     |
| <input type="checkbox"/>            | Not Passed |



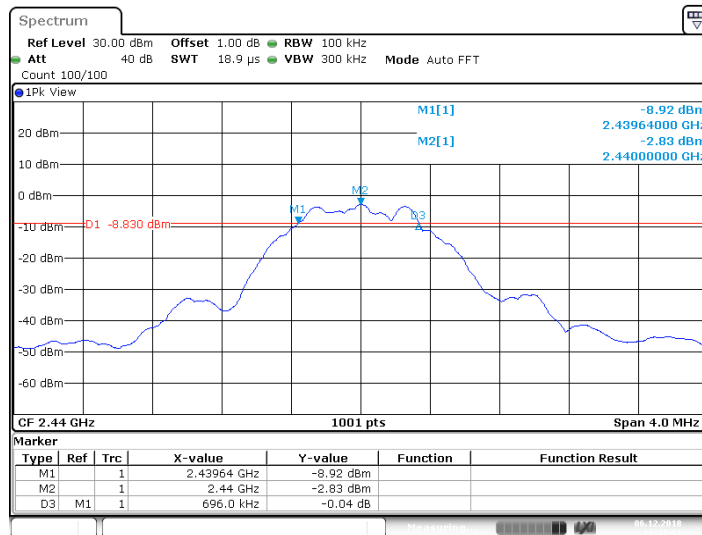
| Bandwidth     | Measured Value | Limit    |
|---------------|----------------|----------|
| 6dB bandwidth | 0.696 MHz      | > 0.5MHz |
| 99% OCB       | 1.047 MHz      | NA       |



### 6dB & 99% Bandwidth

EUT: RIDetime ELITE  
 Op Condition: Operated, TX Mode (2440MHz)  
 Test Specification: FCC15.247(a)(2), 6dB Bandwidth & 99% Bandwidth  
 Comment: 3V DC

|                                     |            |
|-------------------------------------|------------|
| Test Result                         |            |
| <input checked="" type="checkbox"/> | Passed     |
| <input type="checkbox"/>            | Not Passed |



Date: 6 DEC 2018 12:47:01



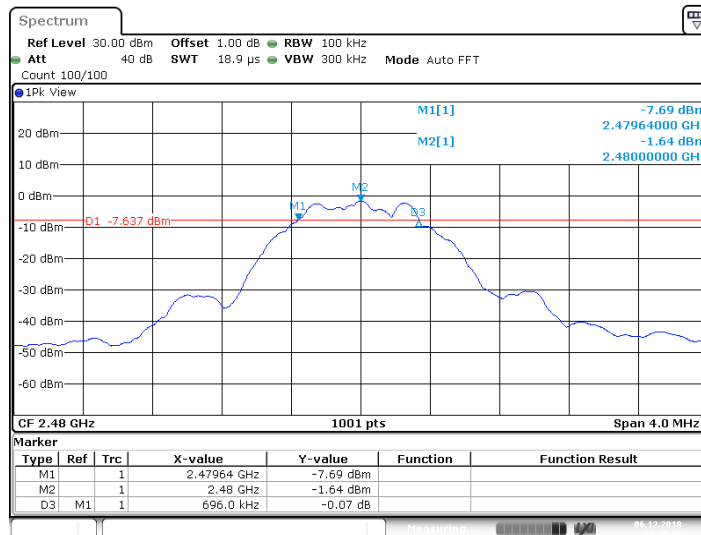
Date: 6 DEC 2018 12:47:13

| Bandwidth     | Measured Value | Limit     |
|---------------|----------------|-----------|
| 6dB bandwidth | 0.696 MHz      | > 0.5 MHz |
| 99% OCB       | 1.051 MHz      | NA        |

### 6dB & 99% Bandwidth

EUT: RIDetime ELITE  
 Op Condition: Operated, TX Mode (2480MHz)  
 Test Specification: FCC15.247(a)(2), 6dB Bandwidth & 99% Bandwidth  
 Comment: 3V DC

|                                     |            |
|-------------------------------------|------------|
| Test Result                         |            |
| <input checked="" type="checkbox"/> | Passed     |
| <input type="checkbox"/>            | Not Passed |



Date: 6 DEC 2018 12:49:39



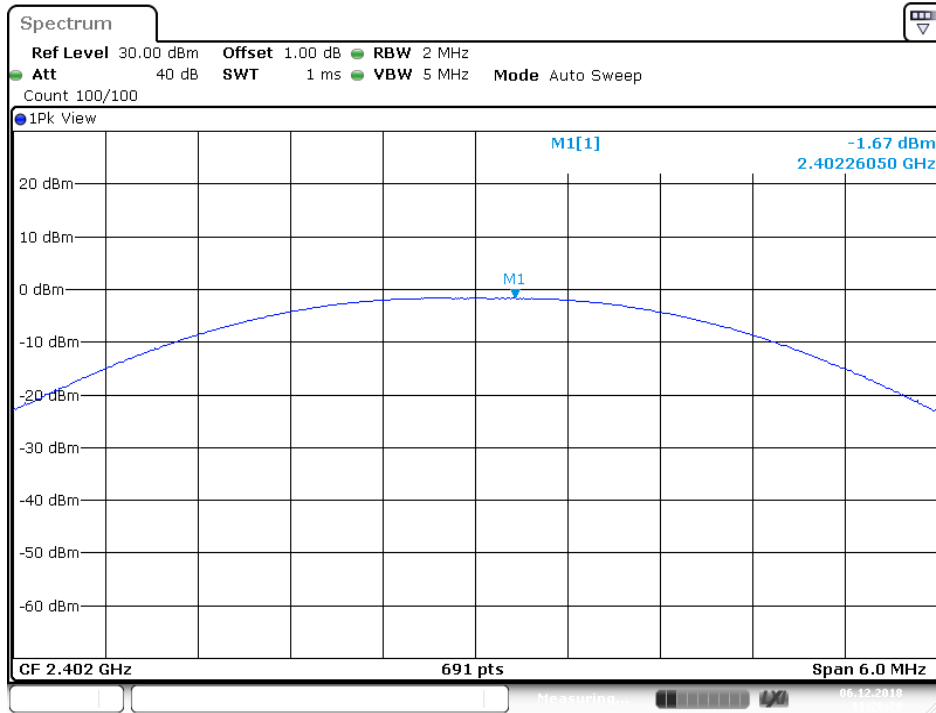
Date: 6 DEC 2018 12:49:50

| Bandwidth     | Measured Value | Limit     |
|---------------|----------------|-----------|
| 6dB bandwidth | 0.696 MHz      | > 0.5 MHz |
| 99% OCB       | 1.055 MHz      | NA        |

## 7.4 Peak Output Power

EUT: RIDetime ELITE  
 Op Condition: Operated, TX Mode (2402MHz)  
 Test Specification: FCC15.247(b)  
 Comment: 3V DC

|                                     |            |
|-------------------------------------|------------|
| Test Result                         |            |
| <input checked="" type="checkbox"/> | Passed     |
| <input type="checkbox"/>            | Not Passed |



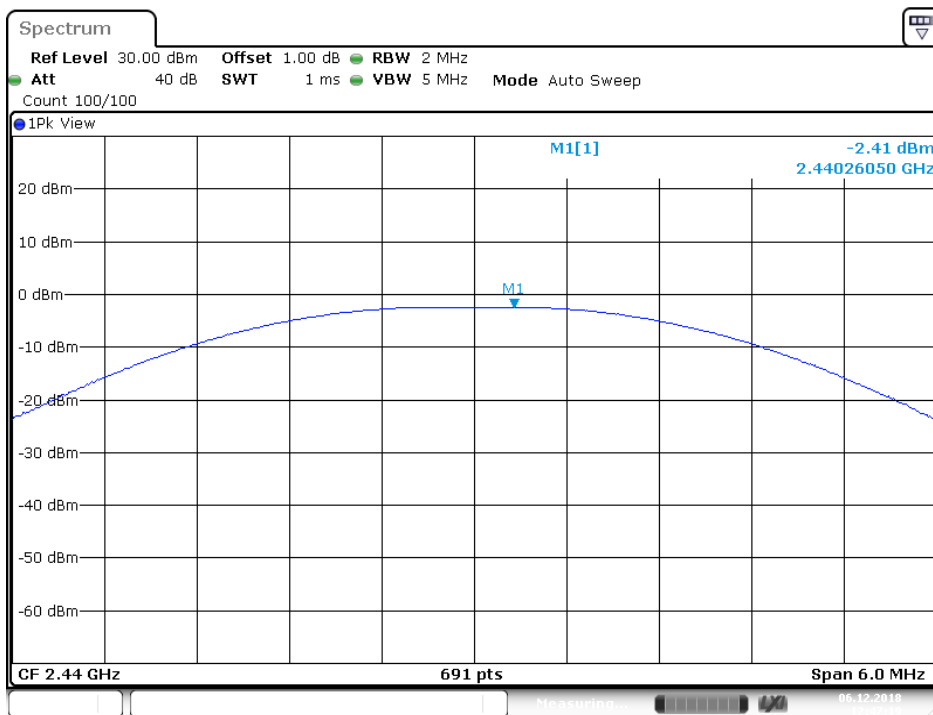
Date: 6.DEC.2018 11:26:29

| Conducted Output Power | Limit   |
|------------------------|---------|
| -1.67 dBm              | < 30dBm |

### Peak Output Power

EUT: RIDetime ELITE  
 Op Condition: Operated, TX Mode (2440MHz)  
 Test Specification: FCC15.247(b)  
 Comment: 3V DC

| Test Result                         |            |
|-------------------------------------|------------|
| <input checked="" type="checkbox"/> | Passed     |
| <input type="checkbox"/>            | Not Passed |



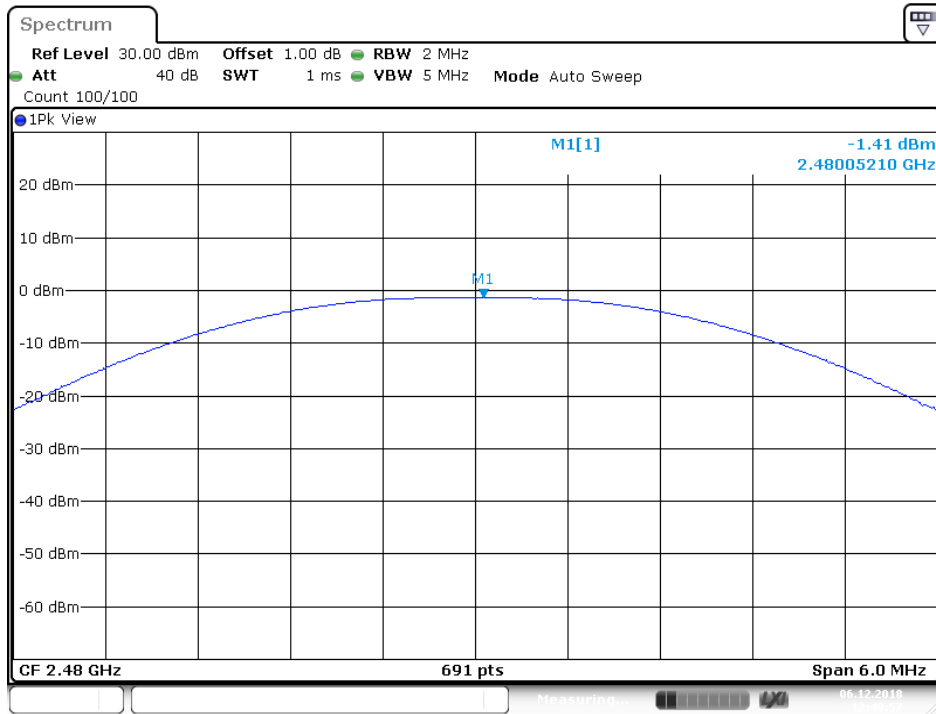
Date: 6.DEC.2018 12:47:20

| Conducted Output Power | Limit   |
|------------------------|---------|
| -2.41 dBm              | < 30dBm |

**Peak Output Power**

EUT: RIDetime ELITE  
 Op Condition: Operated, TX Mode (2480MHz)  
 Test Specification: FCC15.247(b)  
 Comment: 3V DC

| Test Result                         |            |
|-------------------------------------|------------|
| <input checked="" type="checkbox"/> | Passed     |
| <input type="checkbox"/>            | Not Passed |



Date: 6.DEC.2018 12:49:57

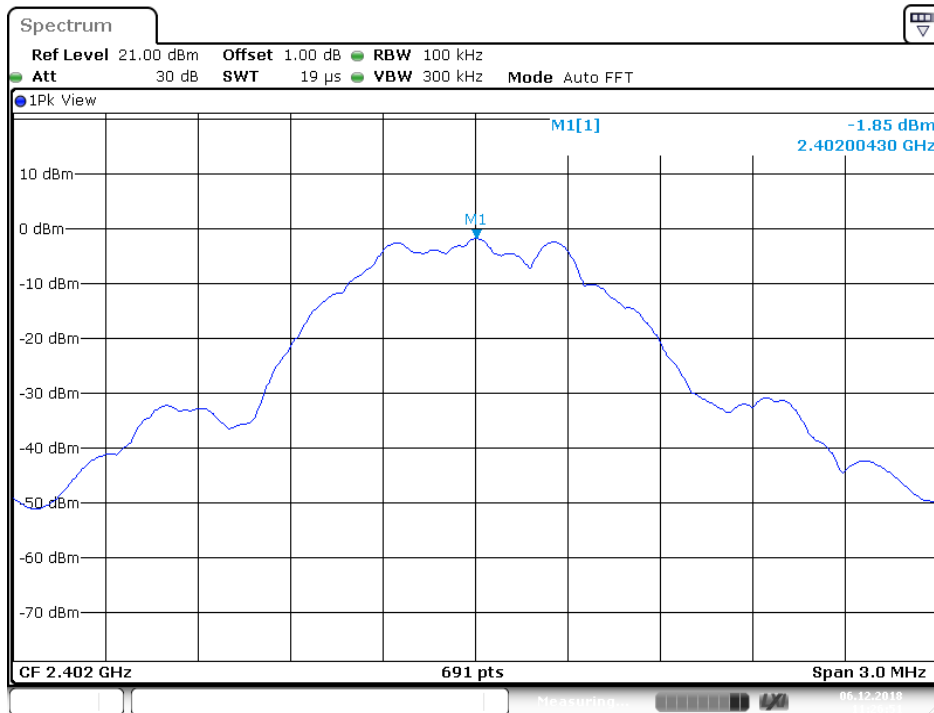
| Conducted Output Power | Limit   |
|------------------------|---------|
| -1.41 dBm              | < 30dBm |

## 7.5 Spurious Emissions at Antenna Terminals

EUT: RIDetime ELITE  
 Op Condition: Operated, TX Mode (2402MHz)  
 Test Specification: FCC2.1051 & 15.247(d)  
 Comment: 3V DC

|                                     |            |
|-------------------------------------|------------|
| Test Result                         |            |
| <input checked="" type="checkbox"/> | Passed     |
| <input type="checkbox"/>            | Not Passed |

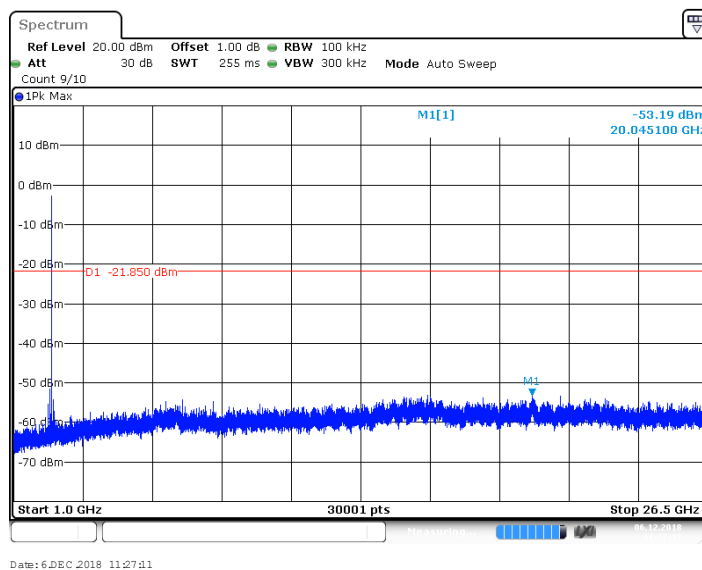
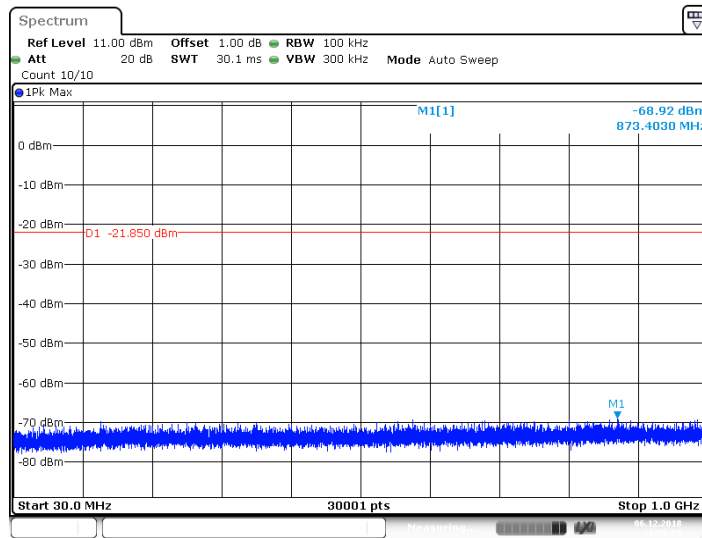
| Channel | FreqRange  | RefLevel | Result | Limit  | Verdict |
|---------|------------|----------|--------|--------|---------|
| 2402    | Reference  | -1.85    | -1.85  | ---    | PASS    |
| 2402    | 30~1000    | -1.85    | -68.92 | -21.85 | PASS    |
| 2402    | 1000~26500 | -1.85    | -53.19 | -21.85 | PASS    |



### Spurious Emissions at Antenna Terminals

EUT: RIDetime ELITE  
 Op Condition: Operated, TX Mode (2402MHz)  
 Test Specification: FCC2.1051 & 15.247(d)  
 Comment: 3V DC

|                                     |            |
|-------------------------------------|------------|
| Test Result                         |            |
| <input checked="" type="checkbox"/> | Passed     |
| <input type="checkbox"/>            | Not Passed |

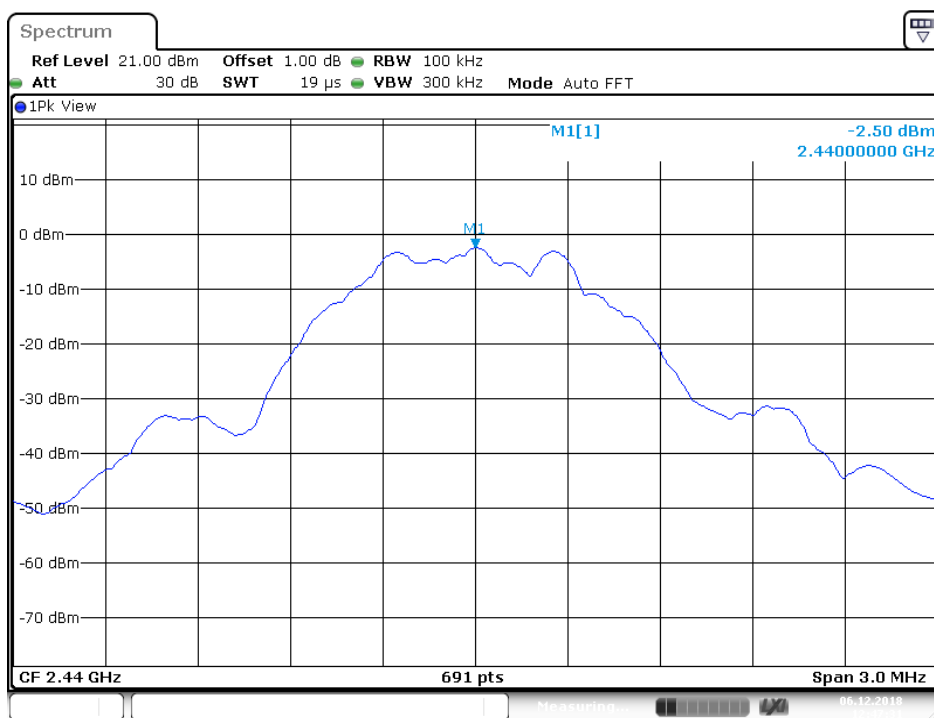


### Spurious Emissions at Antenna Terminals

EUT: RIDetime ELITE  
 Op Condition: Operated, TX Mode (2440MHz)  
 Test Specification: FCC2.1051 & 15.247(d)  
 Comment: 3V DC

| Test Result                         |            |
|-------------------------------------|------------|
| <input checked="" type="checkbox"/> | Passed     |
| <input type="checkbox"/>            | Not Passed |

| Channel | FreqRange  | RefLevel | Result | Limit | Verdict |
|---------|------------|----------|--------|-------|---------|
| 2440    | Reference  | -2.50    | -2.50  | ---   | PASS    |
| 2440    | 30~1000    | -2.50    | -69.28 | -22.5 | PASS    |
| 2440    | 1000~26500 | -2.50    | -52.98 | -22.5 | PASS    |



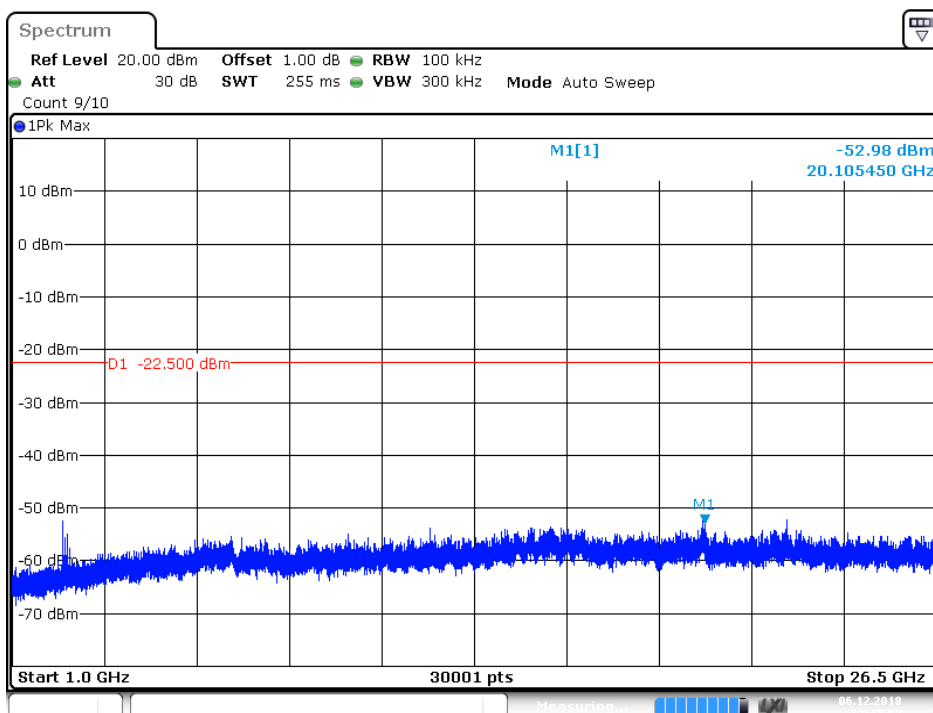
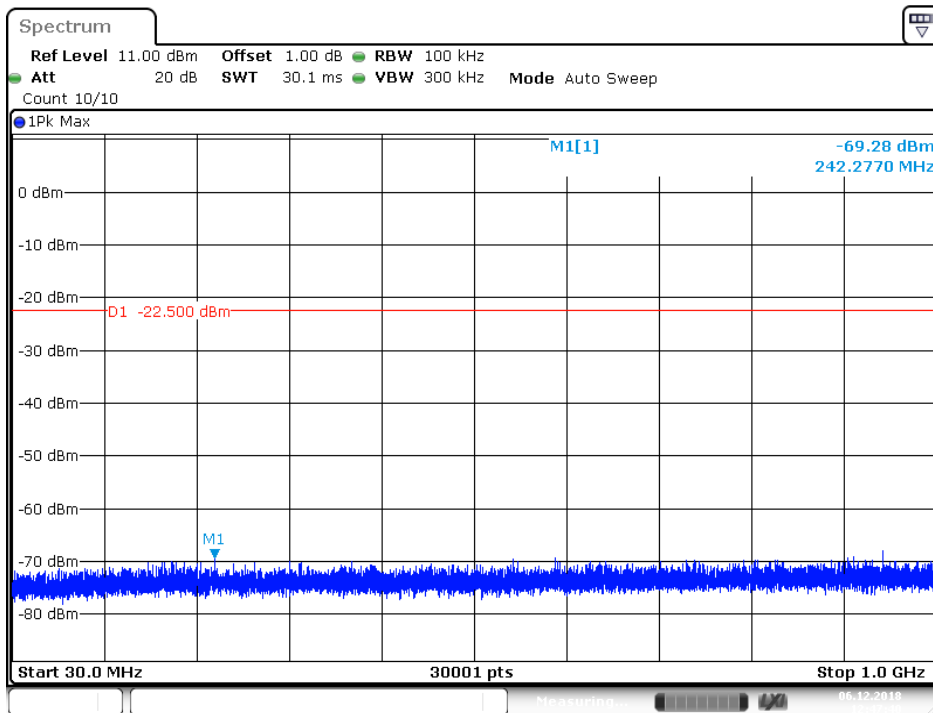
Date: 6 DEC 2018 12:47:32



### Spurious Emissions at Antenna Terminals

EUT: RIDetime ELITE  
 Op Condition: Operated, TX Mode (2440MHz)  
 Test Specification: FCC2.1051 & 15.247(d)  
 Comment: 3V DC

| Test Result                         |            |
|-------------------------------------|------------|
| <input checked="" type="checkbox"/> | Passed     |
| <input type="checkbox"/>            | Not Passed |

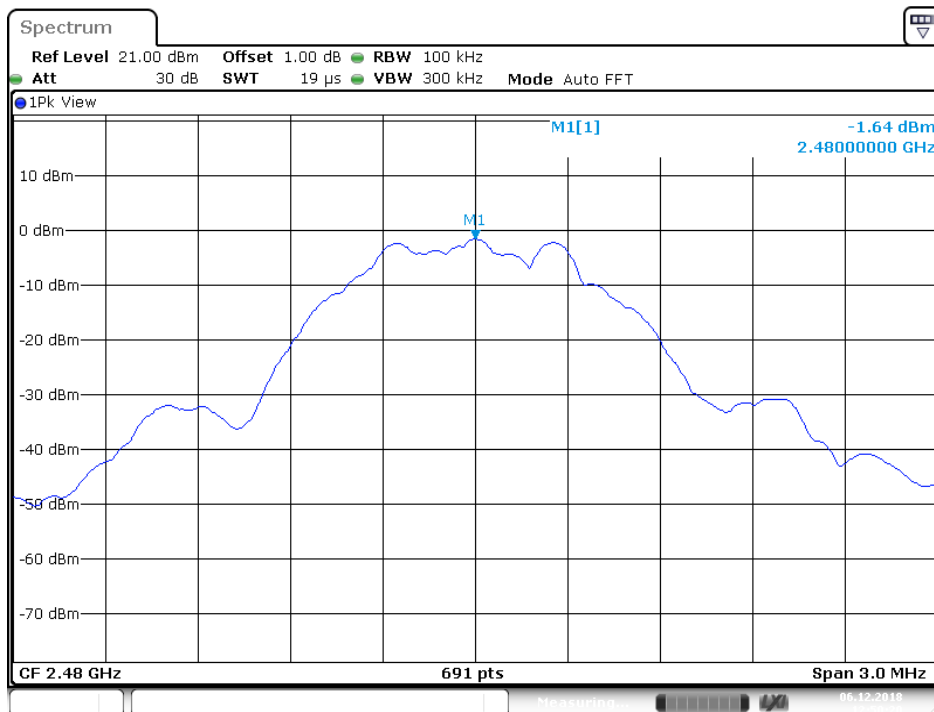


### Spurious Emissions at Antenna Terminals

EUT: RIDetime ELITE  
 Op Condition: Operated, TX Mode (2480MHz)  
 Test Specification: FCC2.1051 & 15.247(d)  
 Comment: 3V DC

|                                     |            |
|-------------------------------------|------------|
| Test Result                         |            |
| <input checked="" type="checkbox"/> | Passed     |
| <input type="checkbox"/>            | Not Passed |

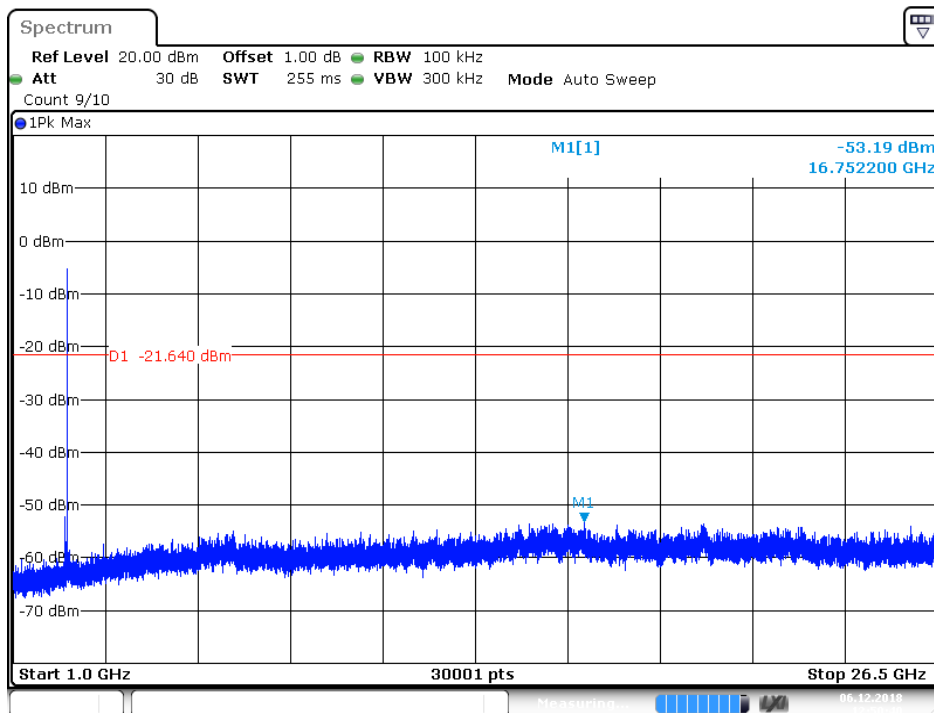
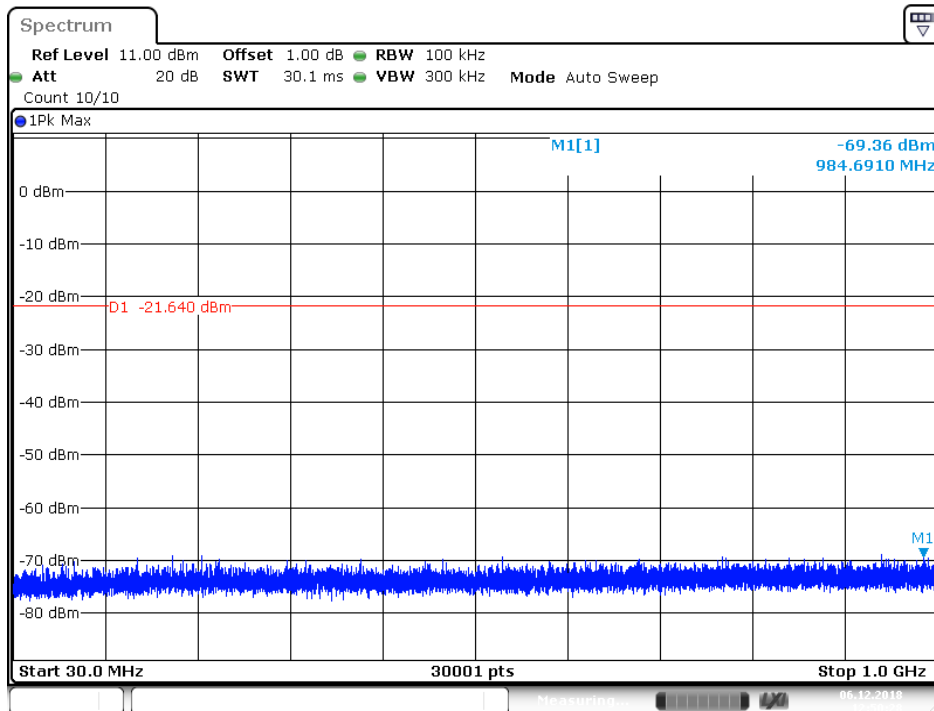
| Channel | FreqRange  | RefLevel | Result | Limit  | Verdict |
|---------|------------|----------|--------|--------|---------|
| 2480    | Reference  | -1.64    | -1.64  | ---    | PASS    |
| 2480    | 30~1000    | -1.64    | -69.36 | -21.64 | PASS    |
| 2480    | 1000~26500 | -1.64    | -53.19 | -21.64 | PASS    |



### Spurious Emissions at Antenna Terminals

EUT: RIDetime ELITE  
 Op Condition: Operated, TX Mode (2480MHz)  
 Test Specification: FCC2.1051 & 15.247(d)  
 Comment: 3V DC

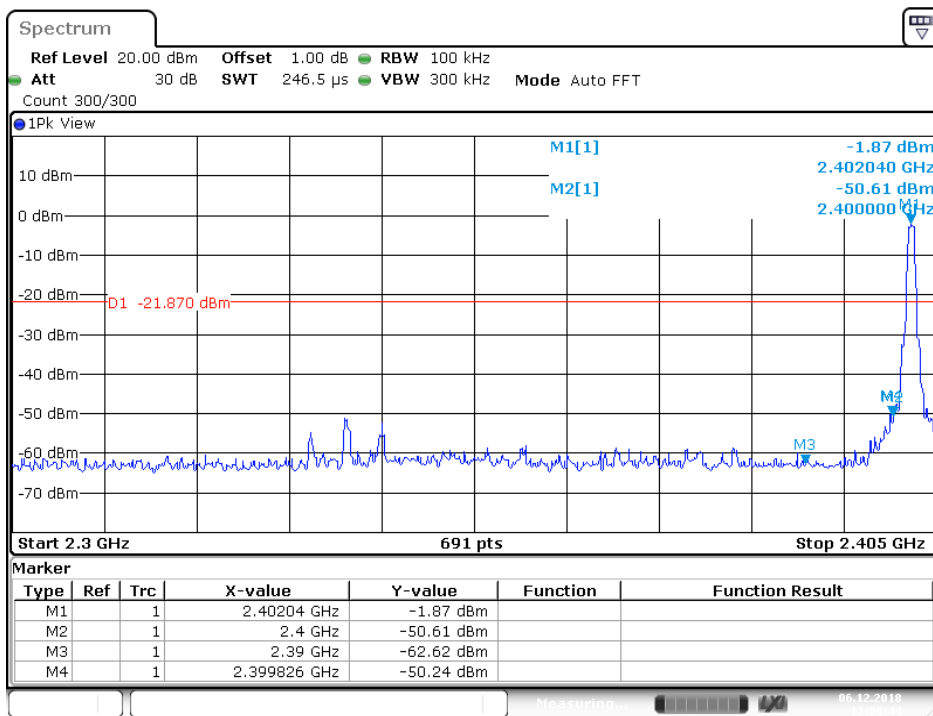
|                                     |            |
|-------------------------------------|------------|
| Test Result                         |            |
| <input checked="" type="checkbox"/> | Passed     |
| <input type="checkbox"/>            | Not Passed |



## 7.6 100kHz Bandwidth of band edges

EUT: RIDetime ELITE  
 Op Condition: Operated, TX Mode (2402MHz)  
 Test Specification: FCC15.247(d), Conducted  
 Comment: 3V DC

|                                     |            |
|-------------------------------------|------------|
| Test Result                         |            |
| <input checked="" type="checkbox"/> | Passed     |
| <input type="checkbox"/>            | Not Passed |



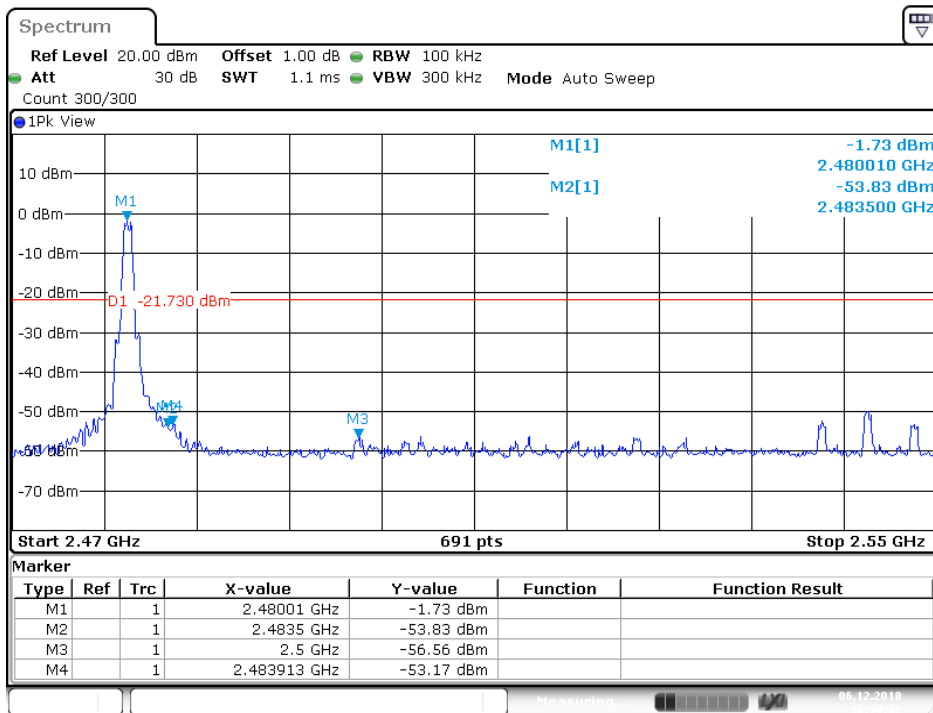
Date: 6 DEC 2018 11:26:45

|                   |              |
|-------------------|--------------|
| <b>Band edges</b> | <b>Limit</b> |
| 48.74 dB          | > 20dB       |

**100kHz Bandwidth of band edges**

EUT: RIDetime ELITE  
 Op Condition: Operated, TX Mode (2480MHz)  
 Test Specification: FCC15.247(d), Conducted  
 Comment: 3V DC

| Test Result                         |            |
|-------------------------------------|------------|
| <input checked="" type="checkbox"/> | Passed     |
| <input type="checkbox"/>            | Not Passed |



Date: 6.DEC.2018 12:50:13

|                   |              |
|-------------------|--------------|
| <b>Band edges</b> | <b>Limit</b> |
| 52.10 dB          | > 20dB       |

## 7.7 Power Spectral Density

EUT: RIDetime ELITE  
 Op Condition: Operated, TX Mode (2402MHz)  
 Test Specification: FCC15.247(e)  
 Comment: 3V DC

|                                     |            |
|-------------------------------------|------------|
| Test Result                         |            |
| <input checked="" type="checkbox"/> | Passed     |
| <input type="checkbox"/>            | Not Passed |

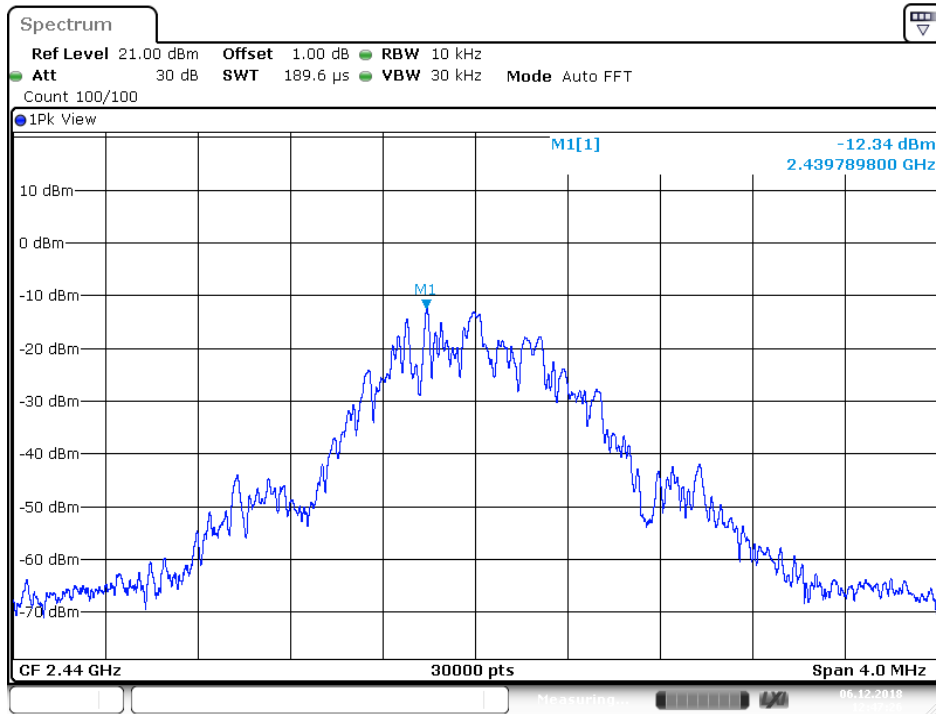


| PSD        | Limit   |
|------------|---------|
| -11.63 dBm | < 8 dBm |

**Power Spectral Density**

EUT: RIDetime ELITE  
 Op Condition: Operated, TX Mode (2440MHz)  
 Test Specification: FCC15.247(e)  
 Comment: 3V DC

|                                     |            |
|-------------------------------------|------------|
| Test Result                         |            |
| <input checked="" type="checkbox"/> | Passed     |
| <input type="checkbox"/>            | Not Passed |



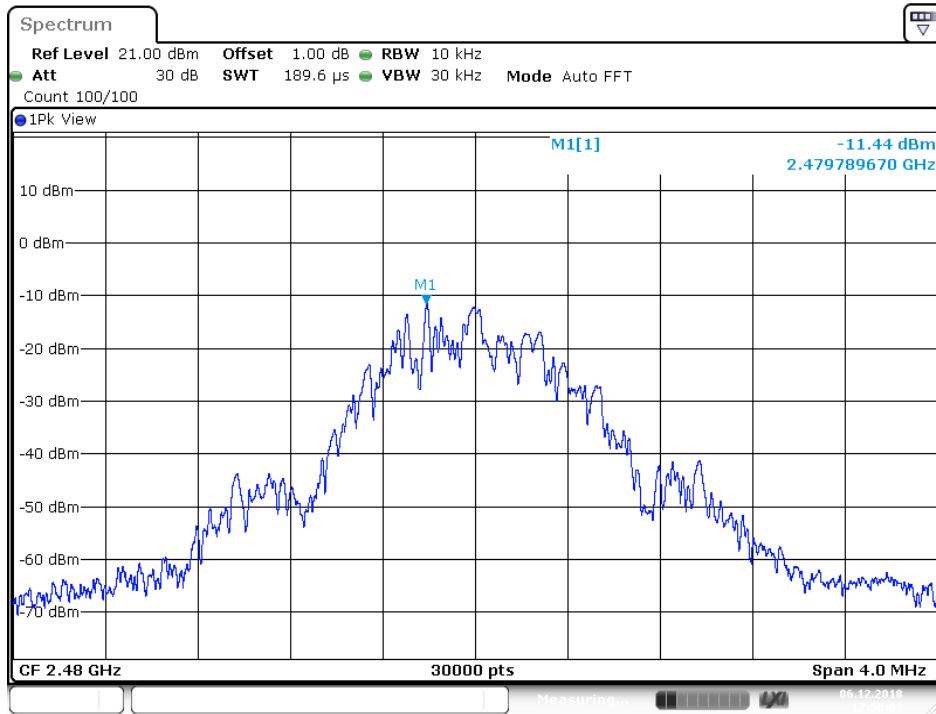
Date: 6.DEC.2018 12:47:26

| PSD        | Limit   |
|------------|---------|
| -12.34 dBm | < 8 dBm |

## Power Spectral Density

EUT: RIDetime ELITE  
 Op Condition: Operated, TX Mode (2480MHz)  
 Test Specification: FCC15.247(e)  
 Comment: 3V DC

|                                     |            |
|-------------------------------------|------------|
| <b>Test Result</b>                  |            |
| <input checked="" type="checkbox"/> | Passed     |
| <input type="checkbox"/>            | Not Passed |



Date: 6.DEC.2018 12:50:03

|            |              |
|------------|--------------|
| <b>PSD</b> | <b>Limit</b> |
| -11.44 dBm | < 8 dBm      |



## 7.8 Antenna Requirement

EUT: RIDetime ELITE  
Op Condition: Operated, TX Mode  
Test Specification: FCC15.203 & 15.247(b)  
Comment: 3V DC

Test Result

Passed

Not Passed

### Limit

For intentional device, according to FCC Title 47 Part 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC Title 47 Part 15.247(b), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

### Antenna Connector Construction

The antenna used in this product is integrated antenna on PCB, and the maximum gain of this antenna is 0.0 dBi.

## 8 Appendix A - General Product Information

### Radiofrequency radiation exposure evaluation

According to KDB 447498 D01v06 section 4.3.1, For frequencies between 100 MHz to 6GHz and test separation distances  $\leq 50$  mm, the Numeric threshold is determined as:

Step a)

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR

>> The fundamental frequency of the EUT is 2402-2480MHz,  
the test separation distance is  $\leq 50$ mm.  
(Manufacturer specified the separation distance is: 20mm)

Step a)

>> Numeric threshold (2402MHz),  $\text{mW} / 20\text{mm} \cdot \sqrt{2.402\text{GHz}} \leq 3.0$   
Numeric threshold (2402MHz)  $\leq 38.713\text{mW}$

>> Numeric threshold (2440MHz),  $\text{mW} / 20\text{mm} \cdot \sqrt{2.440\text{GHz}} \leq 3.0$   
Numeric threshold (2440MHz)  $\leq 38.411\text{mW}$

>> Numeric threshold (2480MHz),  $\text{mW} / 20\text{mm} \cdot \sqrt{2.480\text{GHz}} \leq 3.0$   
Numeric threshold (2480MHz)  $\leq 38.100\text{mW}$

>> The power of EUT measured (2402MHz) is:  $-1.67\text{dBm} = 0.681\text{mW}$   
The power of EUT measured (2440MHz) is:  $-2.41\text{dBm} = 0.574\text{mW}$   
The power of EUT measured (2480MHz) is:  $-1.41\text{dBm} = 0.723\text{mW}$

Which is smaller than the Numeric threshold.

Therefore, the device is exempt from stand-alone SAR test requirements.