

## TEST REPORT

**Product** : Receiver assembly  
**Trade mark** : Kohler  
**Model/Type reference** : 1371930  
**Serial Number** : N/A  
**Report Number** : EED32N80606101  
**FCC ID** : N82-KOHLER041  
**Date of Issue** : Jul. 22, 2021  
**Test Standards** : 47 CFR Part 15 Subpart C  
**Test result** : PASS

Prepared for:

**Kohler Co.****444 Highland Drive, Kohler, WI 53044 USA**

Prepared by:

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**Hongwei Industrial Zone, Bao'an 70 District,**  
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Check No.:5048160721

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### 3 Version

| Version No. | Date          | Description |
|-------------|---------------|-------------|
| 00          | Jul. 22, 2021 | Original    |
|             |               |             |
|             |               |             |

## 4 Test Summary

| Test Item                                     | Test Requirement                                   | Result |
|-----------------------------------------------|----------------------------------------------------|--------|
| Antenna Requirement                           | 47 CFR Part 15 Subpart C Section 15.203/15.247 (c) | Note 1 |
| AC Power Line Conducted Emission              | 47 CFR Part 15 Subpart C Section 15.207            | N/A    |
| DTS Bandwidth                                 | 47 CFR Part 15 Subpart C Section 15.247 (a)(2)     | Note 1 |
| Maximum Conducted Output Power                | 47 CFR Part 15 Subpart C Section 15.247 (b)(3)     | Note 1 |
| Maximum Power Spectral Density                | 47 CFR Part 15 Subpart C Section 15.247 (e)        | Note 1 |
| Band Edge Measurements                        | 47 CFR Part 15 Subpart C Section 15.247(d)         | Note 1 |
| Conducted Spurious Emissions                  | 47 CFR Part 15 Subpart C Section 15.247(d)         | Note 1 |
| Radiated Spurious Emission & Restricted bands | 47 CFR Part 15 Subpart C Section 15.205/15.209     | PASS   |

**Remark:**

Company Name and Address shown on Report, the sample(s) and sample Information were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.

Note 1: This test report (Ref. No.:EED32N80606101) is only valid with the original test report (Ref. No.: EED32L00366301).

Review this report and original report, this report just re-design PCB layout but Bluetooth module keep same as the pervious version.

Therefore in this report the Radiated spurious were retested and shown the data in this report, other tests data please refer to original report No.EED32L00366301.

## 5 General Information

### 5.1 Client Information

|                          |                                                                                      |
|--------------------------|--------------------------------------------------------------------------------------|
| Applicant:               | Kohler Co.                                                                           |
| Address of Applicant:    | 444 Highland Drive, Kohler, WI 53044 USA                                             |
| Manufacturer:            | Kohler Co.                                                                           |
| Address of Manufacturer: | 444 Highland Drive, Kohler, WI 53044 USA                                             |
| Factory:                 | VTech (Dongguan) Communications Ltd.                                                 |
| Address of Factory:      | Xia Ling Bei Management Zone, Liaobu Town, Dongguan City ,Guangdong province, China. |

### 5.2 General Description of EUT

|                       |                                                                          |                    |
|-----------------------|--------------------------------------------------------------------------|--------------------|
| Product Name:         | Receiver assembly                                                        |                    |
| Model No.(EUT):       | 1371930                                                                  |                    |
| Trade mark:           | Kohler                                                                   |                    |
| Bluetooth Version:    | V4.2                                                                     |                    |
| Operation Frequency:  | 2402MHz~2480MHz                                                          |                    |
| Modulation Type:      | GFSK                                                                     |                    |
| Transfer Rate:        | <input checked="" type="checkbox"/> 1Mbps <input type="checkbox"/> 2Mbps |                    |
| Number of Channel:    | 40                                                                       |                    |
| Antenna Type:         | Chip Antenna                                                             |                    |
| Antenna Gain:         | 2dBi                                                                     |                    |
| Power Supply:         | Battery                                                                  | DC 1.5V*4 SIZE +AA |
| Test Voltage:         | DC 6V                                                                    |                    |
| Sample Received Date: | May 22, 2020                                                             |                    |
| Sample tested Date:   | May 22, 2020 to Jun. 02, 2020                                            |                    |

| Operation Frequency each of channel |           |         |           |         |           |         |           |
|-------------------------------------|-----------|---------|-----------|---------|-----------|---------|-----------|
| Channel                             | Frequency | Channel | Frequency | Channel | Frequency | Channel | Frequency |
| 0                                   | 2402MHz   | 10      | 2422MHz   | 20      | 2442MHz   | 30      | 2462MHz   |
| 1                                   | 2404MHz   | 11      | 2424MHz   | 21      | 2444MHz   | 31      | 2464MHz   |
| 2                                   | 2406MHz   | 12      | 2426MHz   | 22      | 2446MHz   | 32      | 2466MHz   |
| 3                                   | 2408MHz   | 13      | 2428MHz   | 23      | 2448MHz   | 33      | 2468MHz   |
| 4                                   | 2410MHz   | 14      | 2430MHz   | 24      | 2450MHz   | 34      | 2470MHz   |
| 5                                   | 2412MHz   | 15      | 2432MHz   | 25      | 2452MHz   | 35      | 2472MHz   |
| 6                                   | 2414MHz   | 16      | 2434MHz   | 26      | 2454MHz   | 36      | 2474MHz   |
| 7                                   | 2416MHz   | 17      | 2436MHz   | 27      | 2456MHz   | 37      | 2476MHz   |
| 8                                   | 2418MHz   | 18      | 2438MHz   | 28      | 2458MHz   | 38      | 2478MHz   |
| 9                                   | 2420MHz   | 19      | 2440MHz   | 29      | 2460MHz   | 39      | 2480MHz   |

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

| Channel                    | Frequency |
|----------------------------|-----------|
| The lowest channel (CH0)   | 2402MHz   |
| The middle channel (CH19)  | 2440MHz   |
| The highest channel (CH39) | 2480MHz   |

### 5.3 Test Configuration

| EUT Test Software Settings:                                                                                                 |            |                                                                                    |         |                |
|-----------------------------------------------------------------------------------------------------------------------------|------------|------------------------------------------------------------------------------------|---------|----------------|
| Software:                                                                                                                   |            | BlueNRG GUI (manufacturer declare )                                                |         |                |
| EUT Power Grade:                                                                                                            |            | Class2 (Power level is built-in set parameters and cannot be changed and selected) |         |                |
| Use test software to set the lowest frequency, the middle frequency and the highest frequency keep transmitting of the EUT. |            |                                                                                    |         |                |
| Test Mode                                                                                                                   | Modulation | Rate                                                                               | Channel | Frequency(MHz) |
| Mode a                                                                                                                      | GFSK       | 1Mbps                                                                              | CH0     | 2402           |
| Mode b                                                                                                                      | GFSK       | 1Mbps                                                                              | CH19    | 2440           |
| Mode c                                                                                                                      | GFSK       | 1Mbps                                                                              | CH39    | 2480           |

### 5.4 Test Environment

| Operating Environment:       |            |
|------------------------------|------------|
| Radiated Spurious Emissions: |            |
| Temperature:                 | 22~25.0 °C |
| Humidity:                    | 50~55 % RH |
| Atmospheric Pressure:        | 1010mbar   |

## 5.5 Description of Support Units

The EUT has been tested independently.

## 5.6 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd  
Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China  
Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

## 5.7 Measurement Uncertainty (95% confidence levels, k=2)

| No. | Item                            | Measurement Uncertainty |
|-----|---------------------------------|-------------------------|
| 1   | Radio Frequency                 | $7.9 \times 10^{-8}$    |
| 2   | RF power, conducted             | 0.46dB (30MHz-1GHz)     |
|     |                                 | 0.55dB (1GHz-18GHz)     |
| 3   | Radiated Spurious emission test | 3.3dB (9kHz-30MHz)      |
|     |                                 | 4.3dB (30MHz-1GHz)      |
|     |                                 | 4.5dB (1GHz-18GHz)      |
|     |                                 | 3.4dB (18GHz-40GHz)     |
| 4   | Conduction emission             | 3.5dB (9kHz to 150kHz)  |
|     |                                 | 3.1dB (150kHz to 30MHz) |
| 5   | Temperature test                | 0.64°C                  |
| 6   | Humidity test                   | 3.8%                    |
| 7   | DC power voltages               | 0.026%                  |

## 6 Equipment List

| 3M Semi/full-anechoic Chamber    |                  |                   |               |                        |                            |
|----------------------------------|------------------|-------------------|---------------|------------------------|----------------------------|
| Equipment                        | Manufacturer     | Model No.         | Serial Number | Cal. date (mm-dd-yyyy) | Cal. Due date (mm-dd-yyyy) |
| 3M Chamber & Accessory Equipment | TDK              | SAC-3             | ---           | 05-24-2019             | 05-23-2022                 |
| TRILOG Broadband Antenna         | Schwarzbeck      | VULB9163          | 9163-618      | 07-26-2019             | 07-25-2020                 |
| Loop Antenna                     | Schwarzbeck      | FMZB 1519B        | 1519B-076     | 04-25-2018             | 04-24-2021                 |
| Receiver                         | R&S              | ESCI7             | 100938-003    | 10-21-2019             | 10-20-2020                 |
| Multi device Controller          | maturo           | NCD/070/107 11112 | ---           | ---                    | ---                        |
| Temperature/ Humidity Indicator  | Shanghai qixiang | HM10              | 1804298       | 07-26-2019             | 07-25-2020                 |
| Cable line                       | Fulai(7M)        | SF106             | 5219/6A       | ---                    | ---                        |
| Cable line                       | Fulai(6M)        | SF106             | 5220/6A       | ---                    | ---                        |
| Cable line                       | Fulai(3M)        | SF106             | 5216/6A       | ---                    | ---                        |
| Cable line                       | Fulai(3M)        | SF106             | 5217/6A       | ---                    | ---                        |

| 3M full-anechoic Chamber       |              |                   |               |                        |                            |
|--------------------------------|--------------|-------------------|---------------|------------------------|----------------------------|
| Equipment                      | Manufacturer | Model No.         | Serial Number | Cal. date (mm-dd-yyyy) | Cal. Due date (mm-dd-yyyy) |
| RSE Automatic test software    | JS Tonscend  | JS36-RSE          | 10166         | 06-19-2019             | 06-18-2020                 |
| Receiver                       | Keysight     | N9038A            | MY57290136    | 03-05-2020             | 03-04-2021                 |
| Spectrum Analyzer              | Keysight     | N9020B            | MY57111112    | 03-05-2020             | 03-04-2021                 |
| Spectrum Analyzer              | Keysight     | N9030B            | MY57140871    | 03-05-2020             | 03-04-2021                 |
| TRILOG Broadband Antenna       | Schwarzbeck  | VULB 9163         | 9163-1148     | 04-25-2018             | 04-24-2021                 |
| Horn Antenna                   | Schwarzbeck  | BBHA 9170         | 9170-832      | 04-25-2018             | 04-24-2021                 |
| Horn Antenna                   | ETS-LINDGREN | 3117              | 00057407      | 07-10-2018             | 07-09-2021                 |
| Preamplifier                   | EMCI         | EMC184055SE       | 980596        | 05-20-2020             | 05-19-2021                 |
| Preamplifier                   | EMCI         | EMC001330         | 980563        | 04-22-2020             | 04-21-2021                 |
| Preamplifier                   | JS Tonscend  | 980380            | EMC051845 SE  | 01-09-2020             | 01-08-2021                 |
| Temperature/Humidity Indicator | biaozhi      | GM1360            | EE1186631     | 04-27-2020             | 04-26-2021                 |
| Fully Anechoic Chamber         | TDK          | FAC-3             | ---           | 01-17-2018             | 01-16-2021                 |
| Filter bank                    | JS Tonscend  | JS0806-F          | 188060094     | 04-10-2018             | 04-09-2021                 |
| Cable line                     | Times        | SFT205-NMSM-2.50M | 394812-0001   | ---                    | ---                        |
| Cable line                     | Times        | SFT205-NMSM-2.50M | 394812-0002   | ---                    | ---                        |
| Cable line                     | Times        | SFT205-NMSM-2.50M | 394812-0003   | ---                    | ---                        |
| Cable line                     | Times        | SFT205-NMSM-2.50M | 393495-0001   | ---                    | ---                        |
| Cable line                     | Times        | EMC104-NMNM-1000  | SN160710      | ---                    | ---                        |
| Cable line                     | Times        | SFT205-NMSM-3.00M | 394813-0001   | ---                    | ---                        |
| Cable line                     | Times        | SFT205-NMNM-1.50M | 381964-0001   | ---                    | ---                        |
| Cable line                     | Times        | SFT205-NMSM-7.00M | 394815-0001   | ---                    | ---                        |
| Cable line                     | Times        | HF160-KMKM-3.00M  | 393493-0001   | ---                    | ---                        |

## 7 Test results and Measurement Data

### 7.1 Radiated Spurious Emission & Restricted bands

|                   |                                                                                                                                                                                                                                                                             |                                     |                   |            |                             |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------|------------|-----------------------------|
| Test Requirement: | 47 CFR Part 15C Section 15.209 and 15.205                                                                                                                                                                                                                                   |                                     |                   |            |                             |
| Test Method:      | ANSI C63.10 2013                                                                                                                                                                                                                                                            |                                     |                   |            |                             |
| Test Site:        | Measurement Distance: 3m (Semi-Anechoic Chamber)                                                                                                                                                                                                                            |                                     |                   |            |                             |
| Receiver Setup:   | Frequency                                                                                                                                                                                                                                                                   | Detector                            | RBW               | VBW        | Remark                      |
|                   | 0.009MHz-0.090MHz                                                                                                                                                                                                                                                           | Peak                                | 10kHz             | 30kHz      | Peak                        |
|                   | 0.009MHz-0.090MHz                                                                                                                                                                                                                                                           | Average                             | 10kHz             | 30kHz      | Average                     |
|                   | 0.090MHz-0.110MHz                                                                                                                                                                                                                                                           | Quasi-peak                          | 10kHz             | 30kHz      | Quasi-peak                  |
|                   | 0.110MHz-0.490MHz                                                                                                                                                                                                                                                           | Peak                                | 10kHz             | 30kHz      | Peak                        |
|                   | 0.110MHz-0.490MHz                                                                                                                                                                                                                                                           | Average                             | 10kHz             | 30kHz      | Average                     |
|                   | 0.490MHz -30MHz                                                                                                                                                                                                                                                             | Quasi-peak                          | 10kHz             | 30kHz      | Quasi-peak                  |
|                   | 30MHz-1GHz                                                                                                                                                                                                                                                                  | Quasi-peak                          | 100 kHz           | 300kHz     | Quasi-peak                  |
|                   | Above 1GHz                                                                                                                                                                                                                                                                  | Peak                                | 1MHz              | 3MHz       | Peak                        |
|                   |                                                                                                                                                                                                                                                                             | Peak                                | 1MHz              | 10kHz      | Average                     |
| Limit:            | Frequency                                                                                                                                                                                                                                                                   | Field strength<br>(microvolt/meter) | Limit<br>(dBuV/m) | Remark     | Measurement<br>distance (m) |
|                   | 0.009MHz-0.490MHz                                                                                                                                                                                                                                                           | 2400/F(kHz)                         | -                 | -          | 300                         |
|                   | 0.490MHz-1.705MHz                                                                                                                                                                                                                                                           | 24000/F(kHz)                        | -                 | -          | 30                          |
|                   | 1.705MHz-30MHz                                                                                                                                                                                                                                                              | 30                                  | -                 | -          | 30                          |
|                   | 30MHz-88MHz                                                                                                                                                                                                                                                                 | 100                                 | 40.0              | Quasi-peak | 3                           |
|                   | 88MHz-216MHz                                                                                                                                                                                                                                                                | 150                                 | 43.5              | Quasi-peak | 3                           |
|                   | 216MHz-960MHz                                                                                                                                                                                                                                                               | 200                                 | 46.0              | Quasi-peak | 3                           |
|                   | 960MHz-1GHz                                                                                                                                                                                                                                                                 | 500                                 | 54.0              | Quasi-peak | 3                           |
|                   | Above 1GHz                                                                                                                                                                                                                                                                  | 500                                 | 54.0              | Average    | 3                           |
|                   | Note: 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device. |                                     |                   |            |                             |

## Test Setup:

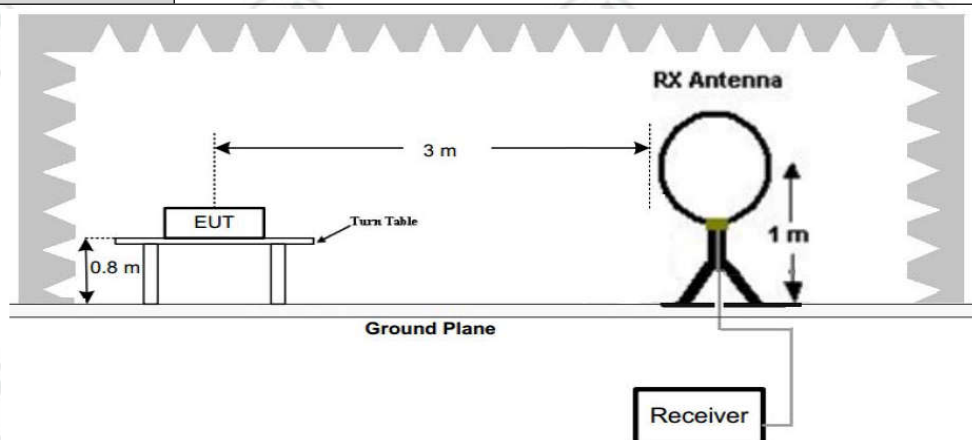


Figure 1. Below 30MHz

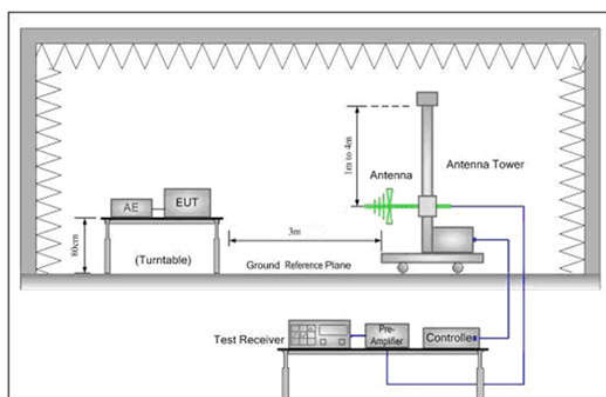


Figure 2. 30MHz to 1GHz

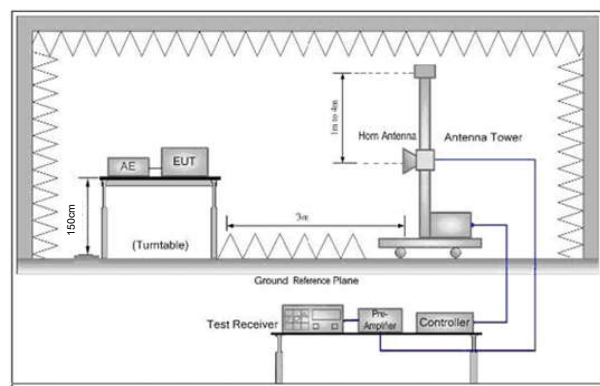


Figure 3. Above 1 GHz

## Test Procedure:

- 1) Below 1G: The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
  - 2) Above 1G: The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- Note: For the radiated emission test above 1GHz:  
Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
  - The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               | measurement.<br>d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.<br>e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.<br>f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.<br>g. Test the EUT in the lowest channel (2402MHz),the middle channel (2440MHz),the Highest channel (2480MHz)<br>h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.<br>i. Repeat above procedures until all frequencies measured was complete. |
| Test Mode:    | Refer to clause 5.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Test Results: | Pass                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

## Radiated Spurious Emission below 1GHz:

During the test, the Radiates Emission from 30MHz to 1GHz was performed in all modes, only the worst case mode b was recorded in the report.

### Test Graph

| Mode: |             |                 | BLE GFSK Transmitting |                 |                |                | Channel:       |             | 2440   |          |        |
|-------|-------------|-----------------|-----------------------|-----------------|----------------|----------------|----------------|-------------|--------|----------|--------|
| NO    | Freq. [MHz] | Ant Factor [dB] | Cable loss [dB]       | Pream gain [dB] | Reading [dBμV] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Result | Polarity | Remark |
| 1     | 36.5967     | 11.21           | 0.67                  | -31.38          | 45.06          | 25.56          | 40.00          | 14.44       | Pass   | H        | PK     |
| 2     | 51.4391     | 12.97           | 0.81                  | -32.07          | 42.80          | 24.51          | 40.00          | 15.49       | Pass   | H        | PK     |
| 3     | 195.0135    | 10.43           | 1.64                  | -31.94          | 44.69          | 24.82          | 43.50          | 18.68       | Pass   | H        | PK     |
| 4     | 360.0270    | 14.52           | 2.27                  | -31.84          | 41.37          | 26.32          | 46.00          | 19.68       | Pass   | H        | PK     |
| 5     | 649.9890    | 19.40           | 3.10                  | -32.07          | 40.93          | 31.36          | 46.00          | 14.64       | Pass   | H        | PK     |
| 6     | 844.9785    | 21.44           | 3.50                  | -31.82          | 37.70          | 30.82          | 46.00          | 15.18       | Pass   | H        | PK     |
| 7     | 36.5967     | 11.21           | 0.67                  | -31.38          | 44.88          | 25.38          | 40.00          | 14.62       | Pass   | V        | PK     |
| 8     | 150.0010    | 7.55            | 1.45                  | -32.01          | 47.80          | 24.79          | 43.50          | 18.71       | Pass   | V        | PK     |
| 9     | 195.0135    | 10.43           | 1.64                  | -31.94          | 47.02          | 27.15          | 43.50          | 16.35       | Pass   | V        | PK     |
| 10    | 360.0270    | 14.52           | 2.27                  | -31.84          | 42.39          | 27.34          | 46.00          | 18.66       | Pass   | V        | PK     |
| 11    | 649.9890    | 19.40           | 3.10                  | -32.07          | 41.57          | 32.00          | 46.00          | 14.00       | Pass   | V        | PK     |
| 12    | 875.0515    | 21.80           | 3.55                  | -31.70          | 36.16          | 29.81          | 46.00          | 16.19       | Pass   | V        | PK     |

**Radiated Spurious Emission above 1GHz:**

| Mode: |             | BLE GFSK Transmitting |                 |                 |                |                | Channel:       |             | 2402MHz |          |        |
|-------|-------------|-----------------------|-----------------|-----------------|----------------|----------------|----------------|-------------|---------|----------|--------|
| NO    | Freq. [MHz] | Ant Factor [dB]       | Cable loss [dB] | Pream gain [dB] | Reading [dBμV] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Result  | Polarity | Remark |
| 1     | 1062.8063   | 27.96                 | 2.52            | -43.03          | 57.43          | 44.88          | 74.00          | 29.12       | Pass    | H        | PK     |
| 2     | 2131.3131   | 31.88                 | 3.62            | -43.17          | 59.61          | 51.94          | 74.00          | 22.06       | Pass    | H        | PK     |
| 3     | 4804.0000   | 34.50                 | 4.55            | -42.80          | 54.64          | 50.89          | 74.00          | 23.11       | Pass    | H        | PK     |
| 4     | 7206.2804   | 36.31                 | 5.81            | -42.16          | 54.03          | 53.99          | 74.00          | 20.01       | Pass    | H        | PK     |
| 5     | 9608.0000   | 37.64                 | 6.63            | -42.10          | 46.62          | 48.79          | 74.00          | 25.21       | Pass    | H        | PK     |
| 6     | 12010.0000  | 39.31                 | 7.60            | -41.90          | 46.58          | 51.59          | 74.00          | 22.41       | Pass    | H        | AV     |
| 7     | 2133.5134   | 31.89                 | 3.63            | -43.18          | 58.89          | 51.23          | 74.00          | 22.77       | Pass    | V        | PK     |
| 8     | 2660.5661   | 32.66                 | 4.10            | -43.11          | 57.73          | 51.38          | 74.00          | 22.62       | Pass    | V        | PK     |
| 9     | 4804.0000   | 34.50                 | 4.55            | -42.80          | 55.86          | 52.11          | 74.00          | 21.89       | Pass    | V        | PK     |
| 10    | 7206.2804   | 36.31                 | 5.81            | -42.16          | 55.06          | 55.02          | 74.00          | 18.98       | Pass    | V        | PK     |
| 11    | 9608.0000   | 37.64                 | 6.63            | -42.10          | 48.19          | 50.36          | 74.00          | 23.64       | Pass    | V        | PK     |
| 12    | 12010.0000  | 39.31                 | 7.60            | -41.90          | 46.49          | 51.50          | 74.00          | 22.50       | Pass    | V        | PK     |
| 13    | 7206.2808   | 36.31                 | 5.81            | -42.16          | 51.53          | 51.49          | 54.00          | 2.51        | Pass    | V        | AV     |

| Mode: |             | BLE GFSK Transmitting |                 |                 |                |                | Channel:       |             | 2440MHz |          |        |
|-------|-------------|-----------------------|-----------------|-----------------|----------------|----------------|----------------|-------------|---------|----------|--------|
| NO    | Freq. [MHz] | Ant Factor [dB]       | Cable loss [dB] | Pream gain [dB] | Reading [dBμV] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Result  | Polarity | Remark |
| 1     | 1332.6333   | 28.23                 | 2.80            | -42.75          | 53.64          | 41.92          | 74.00          | 32.08       | Pass    | H        | PK     |
| 2     | 2124.5125   | 31.87                 | 3.61            | -43.17          | 57.95          | 50.26          | 74.00          | 23.74       | Pass    | H        | PK     |
| 3     | 4880.0000   | 34.50                 | 4.80            | -42.80          | 54.88          | 51.38          | 74.00          | 22.62       | Pass    | H        | PK     |
| 4     | 7320.2880   | 36.42                 | 5.85            | -42.14          | 55.38          | 55.51          | 74.00          | 18.49       | Pass    | H        | PK     |
| 5     | 9760.0000   | 37.70                 | 6.73            | -42.10          | 48.50          | 50.83          | 74.00          | 23.17       | Pass    | H        | PK     |
| 6     | 12200.0000  | 39.42                 | 7.67            | -41.90          | 45.87          | 51.06          | 74.00          | 22.94       | Pass    | H        | PK     |
| 7     | 7320.2870   | 36.42                 | 5.85            | -42.14          | 52.59          | 52.72          | 54.00          | 1.28        | Pass    | H        | AV     |
| 8     | 2125.5126   | 31.88                 | 3.62            | -43.18          | 55.38          | 47.70          | 74.00          | 26.30       | Pass    | V        | PK     |
| 9     | 2658.7659   | 32.65                 | 4.10            | -43.10          | 58.20          | 51.85          | 74.00          | 22.15       | Pass    | V        | PK     |
| 10    | 4880.0000   | 34.50                 | 4.80            | -42.80          | 56.55          | 53.05          | 74.00          | 20.95       | Pass    | V        | PK     |
| 11    | 7320.2880   | 36.42                 | 5.85            | -42.14          | 54.20          | 54.33          | 74.00          | 19.67       | Pass    | V        | PK     |
| 12    | 9760.0000   | 37.70                 | 6.73            | -42.10          | 47.02          | 49.35          | 74.00          | 24.65       | Pass    | V        | PK     |
| 13    | 12200.0000  | 39.42                 | 7.67            | -41.90          | 46.73          | 51.92          | 74.00          | 22.08       | Pass    | V        | PK     |
| 14    | 7320.2877   | 36.42                 | 5.85            | -42.14          | 51.51          | 51.64          | 54.00          | 2.36        | Pass    | V        | AV     |

| Mode: |             | BLE GFSK Transmitting |                 |                 |                |                | Channel:       |             | 2480MHz |          |        |
|-------|-------------|-----------------------|-----------------|-----------------|----------------|----------------|----------------|-------------|---------|----------|--------|
| NO    | Freq. [MHz] | Ant Factor [dB]       | Cable loss [dB] | Pream gain [dB] | Reading [dBμV] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Result  | Polarity | Remark |
| 1     | 1061.6062   | 27.96                 | 2.52            | -43.03          | 55.86          | 43.31          | 74.00          | 30.69       | Pass    | H        | PK     |
| 2     | 2129.5130   | 31.88                 | 3.62            | -43.17          | 55.98          | 48.31          | 74.00          | 25.69       | Pass    | H        | PK     |
| 3     | 4960.0000   | 34.50                 | 4.82            | -42.80          | 56.67          | 53.19          | 74.00          | 20.81       | Pass    | H        | PK     |
| 4     | 7440.2960   | 36.54                 | 5.85            | -42.11          | 56.56          | 56.84          | 74.00          | 17.16       | Pass    | H        | PK     |
| 5     | 9920.0000   | 37.77                 | 6.79            | -42.10          | 47.44          | 49.90          | 74.00          | 24.10       | Pass    | H        | PK     |
| 6     | 12400.0000  | 39.54                 | 7.86            | -41.90          | 48.49          | 53.99          | 74.00          | 20.01       | Pass    | H        | PK     |
| 7     | 7440.2967   | 36.54                 | 5.85            | -42.11          | 51.38          | 51.66          | 54.00          | 2.34        | Pass    | H        | AV     |
| 8     | 1494.2494   | 28.39                 | 2.99            | -43.08          | 54.27          | 42.57          | 74.00          | 31.43       | Pass    | V        | PK     |
| 9     | 2127.1127   | 31.88                 | 3.62            | -43.18          | 60.41          | 52.73          | 74.00          | 21.27       | Pass    | V        | PK     |
| 10    | 4960.1307   | 34.50                 | 4.82            | -42.80          | 58.69          | 55.21          | 74.00          | 18.79       | Pass    | V        | PK     |
| 11    | 7440.2960   | 36.54                 | 5.85            | -42.11          | 56.00          | 56.28          | 74.00          | 17.72       | Pass    | V        | PK     |
| 12    | 9920.0000   | 37.77                 | 6.79            | -42.10          | 46.88          | 49.34          | 74.00          | 24.66       | Pass    | V        | PK     |
| 13    | 11313.5542  | 38.79                 | 7.33            | -42.00          | 49.19          | 53.31          | 74.00          | 20.69       | Pass    | V        | PK     |
| 14    | 4960.1305   | 34.50                 | 4.82            | -42.80          | 54.66          | 51.18          | 54.00          | 2.82        | Pass    | V        | AV     |
| 15    | 7440.2970   | 36.54                 | 5.85            | -42.11          | 51.63          | 51.91          | 54.00          | 2.09        | Pass    | V        | AV     |

**Remark:**

1) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading - Correct Factor

Correct Factor = Preamplifier Factor - Antenna Factor - Cable Factor

2) Scan from 9kHz to 25GHz, the disturbance above 13GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.