

# RF Exposure Evaluation Report

**Product** : Remote actuator  
**Trade mark** : Kohler  
**Model/Type reference** : 46035-0  
**Serial Number** : N/A  
**Report Number** : EED32N80091702  
**FCC ID** : N82-KOHLER042  
**Date of Issue** : May 21, 2021  
**Test Standards** : 47 CFR Part 1.1307  
47 CFR Part 1.1310  
KDB447498D01 General RF  
Exposure Guidance v06  
**Test result** : PASS

Prepared for:

**Kohler Co.**

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

Prepared by:

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## 1 Version

Version No.	Date	Description
00	May 21, 2021	Original

## 2 Contents

	Page
<b>COVER PAGE</b> .....	1
<b>1 VERSION</b> .....	2
<b>2 CONTENTS</b> .....	3
<b>3 GENERAL INFORMATION</b> .....	4
3.1 CLIENT INFORMATION.....	4
3.2 GENERAL DESCRIPTION OF EUT.....	4
3.3 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD.....	4
3.4 TEST LOCATION.....	5
3.5 DEVIATION FROM STANDARDS.....	5
3.6 ABNORMALITIES FROM STANDARD CONDITIONS.....	5
3.7 OTHER INFORMATION REQUESTED BY THE CUSTOMER.....	5
<b>4 SAR EVALUATION</b> .....	6
4.1 RF EXPOSURE COMPLIANCE REQUIREMENT.....	6
4.1.1 Standard Requirement.....	6
4.1.2 EUT RF Exposure.....	7
<b>PHOTOGRAPHS OF EUT CONSTRUCTIONAL DETAILS</b> .....	8

### 3 General Information

#### 3.1 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.

#### 3.2 General Description of EUT

Product Name:	Remote actuator
Model No.(EUT):	46035-0
Trade Mark:	Kohler
EUT Supports Radios application:	4.2(BLE)

#### 3.3 Product Specification subjective to this standard

Frequency Range:	2402MHz~2480MHz
Modulation Type:	GFSK
Test Software of EUT:	BlueNRG GUI
Test Power Grade:	Default(manufacturer declare )
Antenna Type:	integral antenna
Antenna Gain:	2dBi
Power Supply:	DC 3.0V (2*1.5V AA Battery)
Max Conducted Peak Output Power:	BLE 4.2: -1.69dBm The Max Conducted Peak Output Power data refer to the report EED32N80091701
Sample Received Date:	Mar. 05, 2021
Sample tested Date:	Mar. 05, 2021 to Mar. 15, 2021

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

### **3.4 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

### **3.5 Deviation from Standards**

None.

### **3.6 Abnormalities from Standard Conditions**

None.

### **3.7 Other Information Requested by the Customer**

None.

## 4 SAR Evaluation

### 4.1 RF Exposure Compliance Requirement

#### 4.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

#### Limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$$\left[ \frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] \cdot \sqrt{f(\text{GHz})} \leq 3.0$$
 for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR, where

$f(\text{GHz})$  is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation<sup>17</sup>

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion

#### 4.1.2 EUT RF Exposure

The tune-up power is -2.2 dBm +/- 0.5dB, therefore the highest tune-up power is

-1.7 dBm (0.68 mW) @ 2402 MHz

When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

So,

$$\left( \frac{0.68\text{mW}}{5\text{mm}} \right) * (2.402\text{GHz})^{0.5} = 0.2$$

$$\left[ \frac{\text{(max. power of channel, including tune-up tolerance, mW)}}{\text{(min. test separation distance, mm)}} \right] * [\sqrt{f(\text{GHz})}] = 0.2 < 3.0$$

Therefore, standalone SAR measurements are not required for both head and body

## PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32N80091701 for EUT external and internal photos.

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.

\*\*\* End of Report \*\*\*