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Report No.: SHEM181200000204  
 Page: 1 of 8

**1 Cover Page**

**RF MPE REPORT**

<b>Application No.:</b>	SHEM1812000002CR
<b>Applicant:</b>	Kohler Co.
<b>FCC:</b>	N82-KOHLER034
<b>IC ID:</b>	4554A-KOHLER034
<b>Equipment Under Test (EUT):</b>	
<b>NOTE:</b> The following sample(s) was/were submitted and identified by the client as	
<b>Product Name:</b>	Eir Intelligent Remote Control
<b>Model No.(EUT):</b>	1377073
<b>Trade mark:</b>	KOHLER
<b>Standards:</b>	RSS-102 Issue 5 (March 2015)
<b>Date of Receipt:</b>	2018-12-18
<b>Date of Test:</b>	2018-12-18 to 2018-12-25
<b>Date of Issue:</b>	2019-04-08
<b>Test Result:</b>	<b>Pass*</b>

\* In the configuration tested, the EUT complied with the standards specified above.




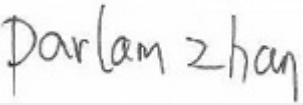
Parlam Zhan  
 E&E Section Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

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Revision Record			
Version	Description	Date	Remark
00	Original	2019-04-10	/

<b>Authorized for issue by:</b>			
			
		<hr/>	
		<b>Vincent Zhu / Project Engineer</b>	
			
		<hr/>	
		<b>Parlam Zhan / Reviewer</b>	



## 2 Contents

	Page
<b>1 COVER PAGE.....</b>	<b>1</b>
<b>2 CONTENTS .....</b>	<b>3</b>
<b>3 GENERAL INFORMATION .....</b>	<b>4</b>
3.1 CLIENT INFORMATION.....	4
3.1 GENERAL DESCRIPTION OF E.U.T.....	4
3.2 TECHNICAL SPECIFICATIONS .....	4
3.3 TEST LOCATION .....	5
3.4 TEST FACILITY .....	5
<b>4 TEST STANDARDS AND LIMITS .....</b>	<b>6</b>
4.1 IC RADIOFREQUENCY RADIATION EXPOSURE LIMITS:.....	6
<b>5 MEASUREMENT AND CALCULATION .....</b>	<b>7</b>
5.1 MAXIMUM TRANSMIT POWER .....	7
5.2 MPE CALCULATION.....	8



### 3 General Information

#### 3.1 Client Information

Applicant:	Kohler Co.
Address of Applicant:	444 Highland Drive KOHLER, WI 53044
Manufacturer:	Shanghai Kohler Electronics., Ltd.
Address of Manufacturer:	No. 1955, Fengxiang Road, Baoshan Area, Shanghai, PRC Post code: 200444
Factory:	Shanghai Kohler Electronics., Ltd.
Address of Factory:	No. 1955, Fengxiang Road, Baoshan Area, Shanghai, PRC Post code: 200444

#### 3.1 General Description of E.U.T.

Power supply:	Remote: DC 3.7V 400mAh Li-on rechargeable battery Charger: DC 6V by 4*AA size batteries
Test voltage:	DC 3.7V

#### 3.2 Technical Specifications

2.4GHz:

Modulation Type	MSK
Number of Channels	8
Operation Frequency	2414.5MHz~2449.5MHz
Channel Spacing	5MHz
Antenna Type:	PCB Antenna
Antenna Gain:	2.88 dBi
Modulation Type	MSK



### 3.3 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. E&E Lab  
588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China  
Tel: +86 21 6191 5666 Fax: +86 21 6191 5678

No tests were sub-contracted.

### 3.4 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **CNAS (No. CNAS L0599)**

CNAS has accredited SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

- **NVLAP (Certificate No. 201034-0)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP). Certificate No. 201034-0.

- **FCC –Designation Number: CN5033**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been recognized as an accredited testing laboratory.

Designation Number: CN5033. Test Firm Registration Number: 479755.

- **Industry Canada (IC) – IC Assigned Code: 8617A**

The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 8617A-1. CAB identifier: CN0020.

- **VCCI (Member No.: 3061)**

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-13868, C-14336, T-12221, G-10830 respectively.



## 4 Test Standards and Limits

### 4.1 IC Radiofrequency radiation exposure limits:

Accordinging RSS-102 Table 4(RF Field Strength Limits for Devices Used by the General Public)

Frequency Range (MHz)	Electric Field (V/m rms)	Magnetic Field (A/m rms)	Power Density (W/m <sup>2</sup> )	Reference Period (minutes)
0.003-10	83	90	-	Instantaneous*
0.1-10	-	0.73/ <i>f</i>	-	6**
1.1-10	87/ <i>f</i> <sup>0.5</sup>	-	-	6**
10-20	27.46	0.0728	-2	6
20-48	58.07/ <i>f</i> <sup>0.25</sup>	0.1540/ <i>f</i> <sup>0.25</sup>	8.944/ <i>f</i> <sup>0.5</sup>	6
48-300	22.06	0.05852	1.291	6
300-6000	3.142 <i>f</i> <sup>0.3417</sup>	0.008335 <i>f</i> <sup>0.3417</sup>	0.02619 <i>f</i> <sup>0.6834</sup>	6
6000-15000	61.4	0.163	10	6
15000-150000	61.4	0.163	10	616000/ <i>f</i> <sup>1.2</sup>
150000-300000	0.158 <i>f</i> <sup>0.5</sup>	4.21 x 10 <sup>-4</sup> <i>f</i> <sup>0.5</sup>	6.67 x 10 <sup>-5</sup> <i>f</i>	616000/ <i>f</i> <sup>1.2</sup>

**Note:** *f* is frequency in MHz.

\* Based on nerve stimulation (NS).

\*\* Based on specific absorption rate (SAR).

For 2.4GHz Devices RF Field Strength Limits is 45V/m

## 5 Measurement and Calculation

### 5.1 Maximum transmit power

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
2414.5	90.99	-8.15	<b>82.84</b>	94	-11.16	Peak	Horizontal
	86.76	-8.18	78.58	94	-15.42	Peak	Vertical

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
2434.5	89.17	-8.17	81	94	-13	Peak	Horizontal
	86.56	-8.17	78.39	94	-15.61	Peak	Vertical

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
2449.5	90.34	-8.18	82.16	94	-11.84	Peak	Horizontal
	85.94	-8.15	77.79	94	-16.21	Peak	Vertical



## 5.2 MPE Calculation

The max Field Strength is  $82.84 \text{ dBuV/m} = 0.0139 \text{ V/m} < 45 \text{ V/m}$

So the device is exclusion from SAR test.

**--End of the Report--**