

RF Exposure Evaluation Report

Product : Control Fob
Trade mark : Ring
Model/Type reference : RSURC
Serial Number : N/A
Report Number : EED32L00265102
FCC ID : 2AUOBRSURC
Date of Issue : Jan. 14, 2020
Test Standards : 47 CFR Part 1.1307
47 CFR Part 2.1093
KDB447498D01 General RF Exposure Guidance v06
Test result : PASS

Prepared for:

Ring Automotive
GelderdRoad, Leeds, LS12 6NA, UK.

Prepared by:

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Jan. 14, 2020

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Check No.:3915681977



2 Version

Version No.	Date	Description
00	Jan. 14, 2020	Original

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4 General Information

4.1 Client Information

Applicant:	Ring Automotive
Address of Applicant:	GelderdRoad, Leeds, LS12 6NA, UK.
Manufacturer:	Zhejiang Leiya Electronics Co., Ltd.
Address of Manufacturer:	No.519, Fifteen Road, Binhai Park, Econ and Technological Development Zone, Wenzhou City, P.R. China
Factory:	Zhejiang Leiya Electronics Co., Ltd.
Address of Factory:	No.519, Fifteen Road, Binhai Park, Econ and Technological Development Zone, Wenzhou City, P.R. China

4.2 General Description of EUT

Product Name:	Control Fob
Model No.(EUT):	RSURC
Trade Mark:	Ring
EUT Supports Radios application:	2401MHz to 2479MHz

4.3 Product Specification subjective to this standard

Frequency Range:	2401MHz~2479MHz
Modulation Type:	GFSK
Number of Channels:	28
Test Power Grade:	Default
Test Software of EUT:	Default
Antenna Type:	PCB antenna;
Antenna Gain:	-5 dBi
Max EIRP	94.85 dB μ V/m (-0.38 dBm)
	The Max EIRP data refer to the report EED32L00265101
Sample Received Date:	Sep. 17, 2019
Sample tested Date:	Sep. 17, 2019 to Nov. 12, 2019
The tested sample(s) and the sample information are provided by the client.	

4.4 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

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 SAR Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 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.

5.1.2 Limits

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

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot$

$[\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 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 calculation¹⁷

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 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

5.1.3 EUT RF Exposure

The tune-up power is -2 dBm +/- 2dB, therefore the highest tune-up power is

0.0 dBm (1.00 mW) @ 2401 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,

$$\left(\frac{1.0\text{mW}}{5\text{mm}} \right) * \left(2.401\text{GHz}^{0.5} \right) = 0.3$$

$$\left[\frac{\text{(max. power of channel, including tune-up tolerance, mW)}}{\text{(min. test separation distance, mm)}} \right] * \left[\sqrt{f(\text{GHz})} \right] = 0.3 < 3.0$$

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

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32L00265101 for EUT external and internal photos.

*** End of Report ***

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