# RF Exposure Estimation

## 1. Introduction

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|---|---|
| Applicant: | ZHEJIANG JIECANG LINEAR MOTION TECHNOLOGY CO., LTD. |
| Address: | No.19 XinTao Road, Provincial High Tech Park XinChang county,ZheJiang ProvinceP.O. Box 312500, XINCHANG COUNTY, 312500 China |
| Product: | Remote controller |
| FCC ID: | 2ANKDJCHR35W5C |
| Model No.: | JCHR35W5C1, JCHR35W5C2, JCHR35W5C3, JCHR35W5C4 |
| Reference RF report # | 709502229109-00A |

## 2. RF Exposure Evaluation

Per the test report included herein, for 433.925MHz

According to the client's declaration, all models are identical and share the same technology, schematics, PCB trace layout except model name and appearance, the number of keys, key functions.

So all the tests were applied on JCHR35W5C4, other models are deemed to fulfill all the requirement without further testing

According to ANSI C63.10-2013 (9.5 Equations to calculate EIRP),

Calculated Data:

According to C63.10 Annex G
$EIRP = p_t \times g_t = (E \times d)^2 / 30$, so $p_t = (E \times d)^2 / 30 * g_t$

where
$p_t$ is the transmitter output power in watts
$g_t$ is the numeric gain of the transmitting antenna (dimensionless)
E is the electric field strength in V/m
d is the measurement distance in meters (m)
transmitter output power for 433.925MHz Function

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|---|---|
| Field strength (E): | 78.59 (dBuV/m) = 0.0085 (V/m) |
| Measurement distance (D): | 3 (m) |
| Antenna Gain, typical (dBi): | -12.12 |
| Numerical gain of the transmit antenna ($g_t$): | 0.06 |
| Transmitter output power (TP): | 0.000353(W) |
| Transmitter output power (TP): | 0.353(mW) |


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The worst case test separation distance is 5mm.
The product belongs to standalone portable device base the FCC rule part 2.1091&2.1093. The transmission frequencies of the device are between 100 MHz and 6 GHz. In KDB 447498 D01 v06: 4.3.1 Standalone SAR test exclusion considerations: The SAR Test Exclusion Threshold is calculated from: [(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] ·[√f(GHz)] ≤ 3.0 for 1-g SAR

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation 17
- The result is rounded to one decimal place for comparison The Max Conducted Output Power and SAR Test Exclusion Threshold (mW) are listed below:

| Transmit Frequency (MHz) | Output power (mW) | SAR Test Exclusion Threshold (mW) |
|---|---|---|
| 433.925 | 0.353 | 22.77 |

According to SAR Exclusion Threshold in KDB 447498 (D01) General RF Exposure Guidance v06, the SAR report is not required.

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| Date: Dec. 02, 2022 | Date: Dec. 02, 2022 | Date: Dec. 02, 2022 |

**----------End of Test Report----------**


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