

TEST REPORT NUMBER: (8525)076-0053(A)

TEST REPORT

Applicant:	Jakks Pacific (HK) Ltd.	Fax:	---
		E-mail:	---
Address :	12/F., Wharf T&T Centre, 7 Canton Road Tsimshatsui Hong Kong		
Test Date :	2025-3-31 to 2025-4-8		

Manufacturer or Supplier :	Jakks Pacific (HK) Ltd.
Address :	12/F., Wharf T&T Centre, 7 Canton Road Tsimshatsui Hong Kong
Sample Description:	Sonic Light up Drifting RC
Model number:	42997
HVIN:	42997RX
Additional Model :	N/A
Rated Voltage:	DC 9V (AA*6)
FCC ID :	OTA42997RX
IC :	7783A-42997RX

The submitted sample of the above equipment has been tested according to following standard(s)

47 CFR Part 1.1307

47 CFR Part 2.1093

KDB447498D01 General RF Exposure Guidance v06

RSS-102 Issue 6 December 15, 2023

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Assistant Manager



Name: Nick Lung

Date: APR 16,2025

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2 General Information

2.1 Client Information

Applicant:	Jakks Pacific (HK) Ltd.
Address of Applicant:	12/F., Wharf T&T Centre, 7 Canton Road, Tsim Sha Tsui Kowloon Hong Kong
Manufacturer:	Jakks Pacific (HK) Ltd.
Address of Manufacturer:	12/F., Wharf T&T Centre, 7 Canton Road, Tsim Sha Tsui Kowloon Hong Kong

2.2 General Description of EUT

Name:	Sonic Light up Drifting RC
Tset Model No.:	42997
HVIN:	42997RX
Serial No:	N/A
Trade Mark :	N/A
Software Version:	RX_V9
Hardware Version:	42997RXV06
Frequency Range:	2410-2470MHz
Test sample SN:	7884055125
EUT Power level:	Class 0
Test Software of EUT:	EUT Key
Modulation Type:	GFSK
Number of Channels:	21
Sample Type:	Portable product
Antenna Type:	wire antenna
Antenna Gain:	2.97dBi

3 SAR Evaluation

3.1 IC RF Exposure Compliance Requirement

3.1.1 Standard Requirement

IC: According to RSS-102 Issue 6 December 15, 2023

2.5.1 Exemption Limits for Routine Evaluation – SAR Evaluation

SAR evaluation is required if the separation distance between the user and/or bystander and the antenna and/or radiating element of the device is less than or equal to 20 cm, except when the device operates at or below the applicable output power level (adjusted for tune-up tolerance) for the specified separation distance defined in Table 1.

FCC:

According to KDB447498D01 General RF Exposure Guidance v06

4.3.1. 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.

3.1.2 Limits

FCC:

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:

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

$f(\text{GHz})$ 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

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IC:

Frequency (MHz)	≤ 5 mm (mW)	10 mm (mW)	15 mm (mW)	20 mm (mW)	25 mm (mW)	30 mm (mW)	35 mm (mW)	40 mm (mW)	45 mm (mW)	> 50 mm (mW)
≤ 300	45	116	139	163	189	216	246	280	319	362
450	32	71	87	104	124	147	175	208	248	296
835	21	32	41	54	72	96	129	172	228	298
1900	6	10	18	33	57	92	138	194	257	323
2450	3	7	16	32	56	89	128	170	209	245
3500	2	6	15	29	50	72	94	114	134	158
5800	1	5	13	23	32	41	54	74	102	128

Remark: When the operating frequency of the device is between two frequencies located in table 11, linear interpolation shall be applied for the applicable separation distance. If the separation distance of the device is between two distances located in table 11, linear interpolation may be applied for the applicable frequency. Alternatively, the limit corresponding to the smaller distance may be employed. For example, in case of a 7 mm separation distance, either use the exception value for a 5 mm separation distance or interpolate between the limits corresponding to 5 mm and 10 mm separation distances.

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3.1.3 EUT RF Exposure

Measurement Data

IC:

$$\text{eirp} = \text{pt} \times \text{gt} = (\text{E} \times \text{d})^2 / 30$$

where:

pt = transmitter output power in watts,

gt = numeric gain of the transmitting antenna (unitless),

E = electric field strength in V/m, $10^{((\text{dB}\mu\text{V/m})/20)/10^6}$,

d = measurement distance in meters (m)---3m,

$$\text{So pt} = (\text{E} \times \text{d})^2 / 30 / \text{gt}$$

The worst case refer to report (8525)076-0053 is below:

Antenna polarization: Horizontal		
Frequency (GHz)	Level (dB μ V/m)	Value
2.440	90.78	Peak

For 2440MHz:

Field strength = 90.78dB μ V/m @3m

Ant. gain 2.97dBi; so Ant numeric gain=1.982

$$\text{So pt} = \{ [10^{(90.78/20)} / 10^6 \times 3]^2 / 30 / 1.982 \} \times 1000\text{mW} = 0.1812\text{mW}$$

$$0.1812\text{mW} < 3.0\text{mW}$$

So the SAR test is not required.

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2440	90.78	Peak

For 2440MHz:

Field strength = 90.78dB μ V/m @3m

Ant. gain 2.97dBi; so Ant numeric gain=1.982

So $P_t = \{ [10^{(90.78/20)} / 10^6 \times 3]^2 / 30 / 1.982 \} \times 1000 \text{mW} = 0.1812 \text{mW}$

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

Calculated value = $0.1812 / 5 \cdot \sqrt{2.440} = 0.056 < 3$

So the SAR test is not required.