

Test Report

Number: SZHH01351471

Applicant: NINGBO MIDEER TOYS CO LTD
RM501, BUILDING NO.1, YIDU
CULTURE SQUARE, HAISHU
DISTRIC, NINGBO, ZHEJIANG

Date: Jul 02, 2019

Sample Description:

One (1) piece of submitted sample said to be :
Item Name : **Kids Storybook Torch.**
Item No. : **MD1103.**
Quantity : 1 Set.
Labelled Age Group : 3+.
Packaging Provided by Applicant : Yes.
Goods Exported To : Europe, Australia.
Country of Origin : China.
Date Sample Received : Apr 19, 2019 & May 24, 2019.
Testing Period : Apr 19, 2019~Jul 02, 2019.



Tests conducted:

As requested by the applicant, refer to attached page(s) for details.

Conclusion:

The submitted samples were tested and found to comply with EN 60825-1:1994 + A1:2002 + A2:2001 Class 1 LED Product.

Authorized by:
For Intertek Testing Services
Shenzhen Ltd.

Ben N.L. Lin
General Manager



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1 Safety of Laser Products

As per European Standard EN 60825-1:1994 + A1:2002 + A2:2001 on Safety of Laser Product Part 1: Equipment Classification, Requirements and User's Guide-Section Two: Manufacturing Requirements.

Classification of the laser product	
Laser and/or LED product class for which the equipment is assigned :	Class 1 LED product
Laser and/or LED product class of the equipment :	--
Laser and/or LED product class of the embedded laser/LED :	--
Test specification	
Test procedure :	Testing (Laser classification only)
Test case verdicts	
Test case does not apply to the test object ... :	N/A
Test item does meet the requirement :	Pass
General product information:	
In normal use, this product is operated by 3 pieces 1.5V "LR44" batteries.	

Clause	Requirement – Test	Result – Remark	Verdict
4	Engineering Specifications		N/A
5	Labelling		N/A
6	Other Informational Requirements		N/A
7	Additional Requirements for Specific Laser Products		N/A
8	Classification (Normal Condition)		Pass
8.4	Classification rules		Pass
	Applicable condition/s	Condition 2	Pass



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Clause	Requirement – Test	Result – Remark	Verdict
8.4e	Time base used	100s for Class 1 limits;	Pass
	Calculations and limits: For white water-clear LED Measured wavelength: peak at 450nm (Range:400-800nm) Measured retinal thermal power: 2.02mW Measured retinal photochemical power: 27.6μW AEL ₍₁₎ for retinal thermal hazard: 8.462mW AEL ₍₁₎ for retinal photochemical hazard: 39.0μW For warm white water-clear LED Measured wavelength: peak at 456nm (Range:400-800nm) Measured retinal thermal power: 541.6μW Measured retinal photochemical power: 31.1μW AEL ₍₁₎ for retinal thermal hazard: 2.521mW AEL ₍₁₎ for retinal photochemical hazard: 51.0μW		Pass
8.4f	Repetitively pulsed or modulated lasers	Continuous	N/A
	Calculations and limits		N/A
	AEL for continued operation used		N/A
	Total-on-time-pulse (TOTP) method used		N/A
9	Measurements for Classification (Normal Condition)		Pass
9.1	Tests		Pass
9.2	Measurement conditions		Pass
	Measured laser radiation	a,b,c,d,e,f,g	—
9.3	Measurement geometry		Pass
	a) aperture diameter (mm)	7mm	Pass



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Clause	Requirement – Test	Result – Remark	Verdict
	b) measurement distance (mm)	For white water-clear LED 64.0mm for thermal 100.0mm for photochemical For warm white water-clear LED 32.5mm for thermal 91.8mm for photochemical	Pass
	c) angle of acceptance γ		Pass
	i) photochemical limits	11mrad (at t = 100s)	Pass
	ii) all other limits	100mrad	Pass
8			
	Classification (Fault Condition)		Pass
8.4	Classification rules		Pass
	Applicable condition/s	Condition 2	Pass
8.4e	Time base used	100s for Class 1 limits;	Pass
	Calculations and limits: For white water-clear LED Measured wavelength: peak at 450nm (Range:400-800nm) Measured retinal thermal power: 1.02mW Measured retinal photochemical power: 13.9 μ W AEL ₍₁₎ for retinal thermal hazard: 8.462mW AEL ₍₁₎ for retinal photochemical hazard: 39.0 μ W For warm white water-clear LED Measured wavelength: peak at 456nm (Range:400-800nm) Measured retinal thermal power: 367.5 μ W Measured retinal photochemical power: 20.3 μ W AEL ₍₁₎ for retinal thermal hazard: 2.521mW AEL ₍₁₎ for retinal photochemical hazard: 51.0 μ W		Pass



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Clause	Requirement – Test	Result – Remark	Verdict
8.4f	Repetitively pulsed or modulated lasers	Continuous	N/A
	Calculations and limits		N/A
	AEL for continued operation used		N/A
	Total-on-time-pulse (TOTP) method used		N/A
9	Measurements For Classification (Fault Condition)		Pass
9.1	Tests		Pass
9.2	Measurement conditions		Pass
	Measured laser radiation	a,b,c,d,e,f,g	—
9.3	Measurement geometry		Pass
	a) aperture diameter (mm)	7mm	Pass
	b) measurement distance (mm)	For white water-clear LED 64.0mm for thermal 100.0mm for photochemical For warm white water-clear LED 32.5mm for thermal 91.8mm for photochemical	Pass
	c) angle of acceptance γ		Pass
	i) photochemical limits	11mrad (at t = 100s)	Pass
	ii) all other limits	100mrad	Pass

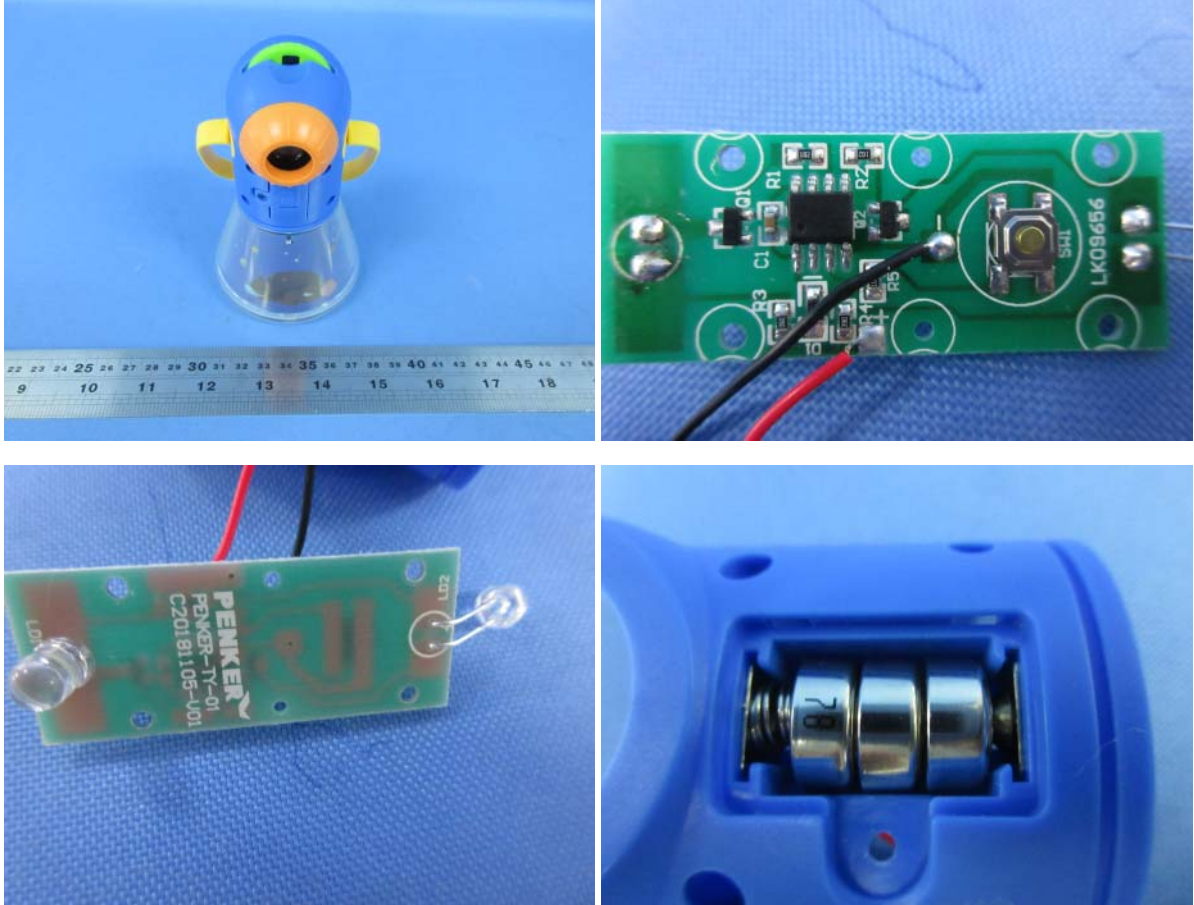


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Photos:



End of report

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