

RF Exposure Assessment

Product	Toy with Bluetooth Low Energy transceiver
Name and address of the applicant	Lego System A/S Aastvej 1 7190 Billund, Denmark
Name and address of the manufacturer	Lego System A/S Aastvej 1 7190 Billund, Denmark
Model	HUB NO.16
Rating	2402-2480MHz BLE transceiver
Trademark	LEGO
Additional information	Bluetooth Low Energy
Evaluated according to	FCC Part 1.1307(b) RF Exposure Assessment FCC KDB 447498 D04 v01 Interim General RF Exposure Guidance
Order number	PRJ0042939
Issue date	2023-11-13
Name and address of the testing laboratory	<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="text-align: center;">  Nemko Scandinavia AS Instituttveien 6 2007 Kjeller, Norway www.nemko.com </div> <div style="text-align: center;"> CAB Number: FCC: NO0001 ISED: NO0470 ISED No: 2040D-1 </div> <div style="text-align: center;">   NORWEGIAN ACCREDITATION TEST 033 </div> </div> <p style="text-align: center; color: red;">An accredited technical test executed under the Norwegian accreditation scheme</p>
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  Prepared by [Jan G Eriksen] </div> <div style="text-align: center;">  Approved by [Roy Uggerud] </div> </div>	
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Revision history

Revision	Date	Comment	Sign
A	2023-11-13	First Edition	JGER

GENERAL REMARKS

This report applies only to the sample(s) tested. It is the manufacturer's responsibility to ensure the additional production units of this product are manufactured with identical electrical and mechanical components. The manufacturer is solely responsible for any modifications to the product that could result in non-compliance with the relevant regulations.

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1 Exposure Evaluation

1.1 EUT Technical Information

Name	HUB NO.16
FCC ID	NPI103651
Model/version	HUB NO.16
Hardware identity and/or version	PCBA version D, Schematic version E
Software identity and/or version	0.4.01.0000
Frequency Range	2402-2480 MHz
Type of Power Supply	Internal battery 4 x 1.5 V
Type of Portable Device	Toy train
Output Power incl. Tune-Up Tolerance	< 0 dBm radiated power
Reference to RF Test Report	Nemko test report: REP016671

1.2 Evaluation Summary

The EUT has been evaluated and found to be exempt from SAR Evaluation according to the Exemption Criteria in FCC §1.1307(b)(3)(i)(A) and KDB 447498 D04 v01 Clause 2.1.2, since the Output Power is below the 1 mW standalone threshold.

Determination of Exemption for Single RF Sources		
Conducted Power including Tune Up Tolerance	0.617	mW
Separation Distance	5	mm
Frequency (valid for 100 MHz to 6 GHz)	2.48	GHz
Exclusion Threshold for Body-Worn Device @2.48 GHz and 5 mm	1	mW
CONCLUSION		EXEMPTED