



Certification Report for Functional Safety

Certificate No. FS/71/220/25/1715

Report No.: W0VX0001

Mar 10, 2025

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License Holder / Manufacturer:	Lattice Semiconductor Corporation 5555 NE Moore Ct, Hillsboro, OR 97124, USA
Project Title:	Lattice Propel Builder Tool 2023.2 Work Product: Lattice Propel Builder Functional Safety Tool Qualification Report, Version 1.0
Test and Inspection Body:	SGS-TÜV Saar GmbH Functional Safety Benzstr. 28 82178 Puchheim Germany
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1 Task

SGS-TÜV Saar GmbH is commissioned to certify the Software Tool Qualification Report for Lattice Propel Builder Tool, version 1.0, of the company Lattice Semiconductor Corporation, according to the requirements of functional safety standard ISO 26262-8 [R1], clause 11.5.

2 Time Schedule

Start of Project:	Feb 26, 2025
End of Project:	Mar 07, 2025

3 Description of System under Certification

3.1 Overview

The system under certification is the Software Tool Qualification Report for Lattice Propel Builder Tool, version 1.0, of the company Lattice Semiconductor Corporation

The purpose of the Software Tool Criteria Evaluation and Qualification Report is to provide evidence and best practices that Lattice Propel Builder Tool may be considered to be suitable for ISO 26262 activities or task by the user of the tool. The tool user shall apply the suggested project specific tool or toolchain restrictions and process measures to have the confidence required by ISO 26262 standard.

4 References

4.1 Standards

Ref. No.	Standard	Title	Date
[R1]	ISO 26262-8	Road vehicles — Functional safety	2018

Table 1: Functional Safety Standards

5 Glossary of Terms

Term/Abbreviation	Description
ASIL	Automotive Safety Integrity Level
TI	Tool Impact
TD	Tool error Detection level
TCL	Tool Confidence Level

Table 2: Terms and Abbreviations

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6 Documentation

The following documents were provided for certification by Lattice Semiconductor Corporation:

Doc. No.	Title and Document Number	Version / Date
[D1]	Propel Builder 2023.2 Product Safety Manual Propel Builder 2023.2 Product Safety Manual.docx	v1.0 / 2/15/2025
[D2]	Software Tool Evaluation and Qualification Report of SW Tool: Propel Builder 2023.2 Propel Builder 2023.2 SW Tool Evaluation&Qualification Report.xlsx	v1.0 / 2025-02-15

Table 3: Technical documentation created by Lattice Semiconductor Corporation

The following documents were created by SGS-TÜV beside this report:

Doc. No.	Title and Document Number	Version / Date
[L1]	Review Protocol W0VX_RP_SGS_TUEV_V2_LATTICE_Propel_Builder_TQR_2023.2.xlsx	V2 / 07.03.2025

Table 4: Technical documentation created by SGS-TÜV

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7 Certification Requirements

7.1 Scope

Software Tool Qualification Report for Lattice Propel Builder Tool was assessed according to the normative references as defined in chapter 4.1.

Lattice Semiconductor Corporation cannot predict how any particular customer will use the Lattice Propel Builder tool, but the Software Tool Qualification Report for Lattice Propel Builder tool can provide general information that will help the Lattice Propel Builder tool user in planning on the usage of the Lattice Propel Builder tool. Therefore, the Software Tool Qualification Report for Lattice Propel Builder tool has to fulfil the requirements of work product ISO 26262-8, 11.5.2.

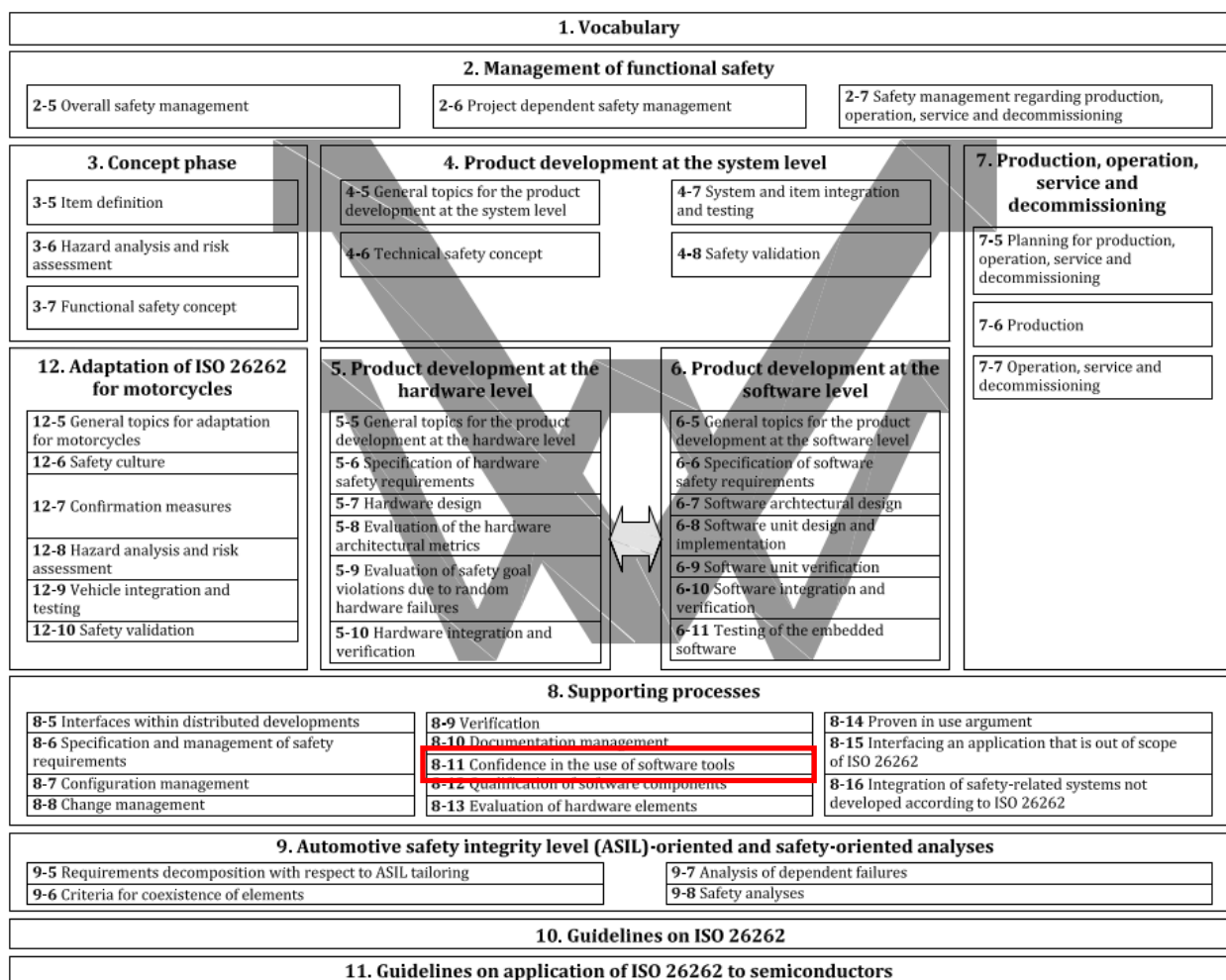


Figure 1: Scope of assessment according to the normative references

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8 Inspection

Not applicable for this certification.

9 Assessment

SGS-TÜV has reviewed the documents:

- “Propel Builder 2023.2 Product Safety Manual.docx” [D1];
- “Propel Builder 2023.2 SW Tool Evaluation&Qualification Report.xlsx” [D2].

The review results are reported in Review Protocol [L1].

Assessment Result:

1. The evaluation of the tool confidence level is compliant to the requirements of ISO 26262-8 [R1], clause 11.4.5.4.
2. The “Software Tool Qualification Report” for Lattice Propel Builder Tool [D1] fulfils the requirements of ISO 26262-8 [R1], clause 11.5.1 and 11.5.2.

10 Certification Conclusion

The “Propel Builder 2023.2 Product Safety Manual.docx” [D1], version 1.0, provides a description and best practices information in the use of Lattice Propel Builder tool, release 2023.2. The Lattice Propel Builder tool demonstrates a tool classification of a TCL3.

For tool use cases classified as TCL3, the validation of the Lattice Propel Builder tool was performed by Lattice Semiconductor Corporation according to ISO 26262-8, clause 11 method “1c-Validation of the software tool”.

The Lattice Propel Builder tool validation results were not assessed by SGS-TÜV.

Lattice Propel Builder tool, release 2023.2, can be used during development of safety related systems according to ISO 26262 up to ASIL D.

Approved by

Date

Signature

Liu Min

Mar 10, 2025



--- End of Certification Report ---

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