



The manufacturer may use the mark:



Revision 1.1 September 29, 2023
Surveillance Audit Due
September 1, 2026



Certificate / Certificat Zertifikat / 合格証

EFI 2207092 C001

exida hereby confirms that the:

**Efinity® IDE and Toolchain v2023.1
and later**

**Efinix Technology (M) Sdn. Bhd.
Penang - Malaysia**

Has been assessed per the relevant requirements of:
IEC 61508:2010 and ISO 26262:2018

and meets requirements providing a level of integrity to:
SIL 4 / ASIL D Qualified

Tool Functions:

The Efinity® IDE and Toolchain suite is an integrated development environment designed for Efinix FPGA development. Using Efinity, customers can develop, compile and test their FPGA design from RTL source code all the way down to bitstream programming on FPGA development boards.

Application Restrictions:

The tools of the Efinity® IDE and Toolchain must be used per the defined use cases, and all requirements specified for the tool users (conditions and assumptions of use) shall be fulfilled, as described in the Functional Safety Manual for each tool.



Jack Gao

Evaluating Assessor

Diamond Lee

Certifying Assessor

EFI 2207092 C001

SIL 4 / ASIL D Tool Qualification:

The Efinity® IDE and Toolchain have met the requirements for support tools up to Safety Integrity Level (SIL) 4 of IEC 61508-3 (section 7.4.4). The product has also met the requirements for confidence in use of software tools of Automotive Safety Integrity Level (ASIL) D of ISO 26262-8 (Section 11). These are intended to achieve sufficient integrity against systematic errors of design by the manufacturer.

Tool Confidence Level (TCL)

Several use cases were defined for each Efinity® IDE tool. A software tool evaluation according to ISO 26262-8, clause 11 determined a required tool confidence level of TCL1 for all tools and use cases, without the need for software tool qualification. Individual tools or the complete tool chain can be used in the development of FPGAs with allocated safety requirements up to ASIL D.

Tool users must confirm the validity of the pre-determined TCL1 in their own design environment, and confirm that all tools are used per the defined use cases and that all conditions and assumptions of use (CoU and AoU) are fulfilled, as specified in the tool functional safety manuals. Otherwise, tool users must perform their own detailed software tool evaluation and possibly software tool qualification.

The following documents are a mandatory part of the certification:

exida Assessment Report:

- EFI 22-07-092 R011 V1R2 61508 26262 Tool Assessment Report - Efinix IDE

Efinix Functional Safety Manuals:

- Efinity_IDE Functional Safety Manual v3 or later
- Interface_Designer Functional Safety Manual v2 or later
- IP_Manager Functional Safety Manual v2 or later
- Code_Editor Functional Safety Manual v2 or later
- Synthesis Functional Safety Manual v2 or later
- PnR Functional Safety Manual v2 or later
- Bitgen Functional Safety Manual v2 or later
- Programmer Functional Safety Manual v2 or later
- Timing_Engine Functional Safety Manual v2 or later
- Debugger Functional Safety Manual v2 or later



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