Certificate

Functional Safety

TÜVRheinland® CERTIFIED

www.tuv.com
ID 0600000000

No.: 968/FSP 2292.08/26

Product tested	Diagnostic software self-test library set	**Certificate holder**	STMicroelectronics (Rousset) SAS 190 Avenue Célestin Coq Z.I de Rousset 13106 Rousset Cedex France
Type designation	X-CUBE-STL Diagnostic software test library set for STM32 microcontrollers / microprocessors based on dual arm® Cortex® processors as listed in the current Revision List.		
Codes and standards	IEC 61508-1:2010 IEC 61508-2:2010 IEC 61508-3:2010		
Intended application	The STMicroelectronics software self-test library set X-CUBE-STL for STM32 32-bit dual-core microcontroller / microprocessor series complies with the requirements of systematic capability 3 (SC 3) acc. to IEC 61508. The claimed diagnostic coverages of medium (90%) for Processor Core(s) and RAM tests and high (99%) for Flash tests / program memory integrity tests can be confirmed. As a result of this the STMicroelectronics software self-test library set X-CUBE-STL for the STM32 32-bit dual-core microcontroller / microprocessor series can be used in safety related applications up to SIL 3 acc. to IEC 61508		
Specific requirements	The software integrator has to obey the assumptions and requirements for the respective self-test library set described in the Safety Manual, in the User Guide and also the requirements from the Safety Manual for the respective dual-core microcontroller / microprocessor of the STM32 series. There is sufficient independence or freedom from interference for the software test library application(s) on the two cores of the STM32 microcontroller / microprocessor series when the requirements of the Safety Manuals and User Guide are met. The user must verify in the X-CUBE-STL Safety Manuals the exact safety scope of the above claimed diagnostic coverage – in specific STM32 devices some of the available CPUs/RAM/Flash could be not addressed by the solution.		

The issue of this certificate is based upon an evaluation in accordance with the Certification Program CERT FSP1 V3.0:2020 in its actual version, whose results are documented in Report No. 968/FSP 2292.08/26 dated 2026-10-07. This certificate is valid only for products, which are identical with the product tested. Issued by the certification body accredited by DAkkS according to DIN EN ISO/IEC 17065. The accreditation is only valid for the scope listed in the annex to the accreditation certificate D-ZE-11052-02-00.

TÜV Rheinland Industrie Service GmbH
Bereich Automation
Funktionale Sicherheit
Am Grauen Stein, 51105 Köln

Köln, 2026-10-09

Certification Body Safety & Security for Automation & Grid

Dipl.-Ing. Thomas Steffens

www.fs-products.com
www.tuv.com

TÜVRheinland®
Precisely Right.

10/222 12. 12 E A4 ® TÜV, TUEV and TUV are registered trademarks. Utilisation and application requires prior approval.

TÜV Rheinland Industrie Service GmbH, Am Grauen Stein, 51105 Köln / Germany
Tel.: +49 221 806-1790, Fax: +49 221 806-1539, E-Mail: industrie-service@de.tuv.com