

# Certificate



Functional  
Safety

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**No.: 968/FSP 1627.00/18**

<b>Product tested</b>	Diagnostic software test libraries	<b>Certificate holder</b>	STMicroelectronics (Rousset) SAS 190 Avenue Célestin Coq Z.I de Rousset 13106 Rousset Cedex France
<b>Type designation</b>	X-CUBE-STL Diagnostic software test libraries for STM32 32-bit arm® Cortex® - M microcontrollers as listed in the current Revision List.		
<b>Codes and standards</b>	IEC 61508 Parts 1-7:2010 (in extracts)		
<b>Intended application</b>	The STMicroelectronics X-CUBE-STL Diagnostic software test libraries for STM32 32-bit arm® Cortex® - M microcontrollers comply with the requirements of systematic capability 3 (SC 3) acc. to IEC 61508. The claimed diagnostic coverages of medium (90%) for CPU and RAM tests and high (99%) for ROM test can be confirmed. As a result of this the software test libraries X-CUBE-STL can be used in safety related applications up to SIL 3.		
<b>Specific requirements</b>	The instructions of the Safety Manual and the User Guide of the respective microcontroller as well as the specific software test library shall be considered.		
Valid until 2023-06-06			

The issue of this certificate is based upon an examination, whose results are documented in Report No. 968/FSP 1627.00/18 dated 2018-06-06.

This certificate is valid only for products which are identical with the product tested.

**TÜV Rheinland Industrie Service GmbH**  
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Köln, 2018-06-06

Certification Body Safety & Security for Automation & Grid

Dipl.-Ing. Thomas Steffens

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**X-CUBE-STL-F0**

File Name	Description	SHA256	Version	Report-No.:	Certification Status
STL_Lib.a	STM32F0 Series self-test library X-CUBE-STL-F0 (object code)	f1cb923bf7192b99 020eb50e5d2274c0 9e0547293a22a529 51ea95781b4b71cd	1.1.0	968/FSP 1627.00/18	<i>Valid</i>
STL_F0_SM_cx577463_5.0.pdf	STM32F0 Series self-test library safety manual	n/a	5.0	968/FSP 1627.00/18	<i>Valid</i>
STL_F0_UG_cx577445_3.0.pdf	STM32F0 Series self-test library user guide	n/a	3.0	968/FSP 1627.00/18	<i>Valid</i>

**X-CUBE-STL-F1**

File Name	Description	SHA256	Version	Report-No.:	Certification Status
STL_Lib.a	STM32F1 Series self-test library X-CUBE-STL-F1 (object code)	8572ab85c85b7d2e 04918dd88a37c740 be669cd04c563631 324084fa5fb2fc47	1.0.0	968/FSP 1627.05/20	<i>Valid</i>
STL_F1_SM_cx656094_2.0.pdf	STM32F1 Series self-test library safety manual	n/a	2.0	968/FSP 1627.05/20	<i>Valid</i>
STL_F1_UG_cx656167_1.0.pdf	STM32F1 Series self-test library user guide	n/a	1.0	968/FSP 1627.05/20	<i>Valid</i>

**X-CUBE-STL-F3**

File Name	Description	SHA256	Version	Report-No.:	Certification Status
STL_Lib.a	STM32F3 Series self-test library X-CUBE-STL-F3 (object code)	f75b3bdd354eb782dfe53418298733ede358616139ed8f2ee9123ba490e51d2f	1.0.0	968/FSP 1627.01/19	<i>Valid</i>
STL_F3_SM_cx616768_4.0.pdf	STM32F3 Series self-test library safety manual	n/a	4.0	968/FSP 1627.04/19	<i>Valid</i>
STL_F3_UG_cx616704_3.0.pdf	STM32F3 Series self-test library user guide	n/a	3.0	968/FSP 1627.04/19	<i>Valid</i>

**X-CUBE-STL-F4**

File Name	Description	SHA256	Version	Report-No.:	Certification Status
STL_Lib.a	STM32F4 Series self-test library X-CUBE-STL-F4 (object code)	a79e64a09f9cb23b83b83dcd3598ebed16d6238d6b299a47ee66f4248dd1852f	1.0.0	968/FSP 1627.01/19	<i>Valid</i>
STL_F4_SM_cx616769_5.0.pdf	STM32F4 Series self-test library safety manual	n/a	5.0	968/FSP 1627.04/19	<i>Valid</i>
STL_F4_UG_cx616705_3.0.pdf	STM32F4 Series self-test library user guide	n/a	3.0	968/FSP 1627.04/19	<i>Valid</i>

### X-CUBE-STL-F7

File Name	Description	SHA256	Version	Report-No.:	Certification Status
STL_Lib.a	STM32F7 Series self-test library X-CUBE-STL-F7 (object code)	847e765b5184cc148c333f5e4be09273064f7dd21ab89e2ad02a71b3387630cf	1.0.0	968/FSP 1627.04/19	<i>Valid</i>
STL_F7_UG_cx630716_4.0.pdf	STM32F7 Series self-test library safety manual	n/a	4.0	968/FSP 1627.04/19	<i>Valid</i>
STL_F7_SM_cx633351_3.0.pdf	STM32F7 Series self-test library user guide	n/a	3.0	968/FSP 1627.04/19	<i>Valid</i>

### X-CUBE-STL-G0

File Name	Description	SHA256	Version	Report-No.:	Certification Status
STL_Lib.a	STM32G0 Series self-test library X-CUBE-STL-G0 (object code)	718440fb566fbaeca6cc0f7202008f8c3d415f0c63605b916edc900f0d9f3e7a	1.0.0	968/FSP 1627.02/19	<i>Valid</i>
STL_G0_SM_cx626237_4.0.pdf	STM32G0 Series self-test library safety manual	n/a	4.0	968/FSP 1627.02/19	<i>Valid</i>
STL_G0_UG_cx619359_1.0.pdf	STM32G0 Series self-test library user guide	n/a	1.0	968/FSP 1627.02/19	<i>Valid</i>

### X-CUBE-STL-G4

File Name	Description	SHA256	Version	Report-No.:	Certification Status
STL_Lib.a	STM32G4 Series self-test library X-CUBE-STL-G4 (object code)	711e6528eb35f94336aa16ea923052b105a7ed006d49359dd391e48b5ab6e694	1.0.0	968/FSP 1627.04/19	<i>Valid</i>

File Name	Description	SHA256	Version	Report-No.:	Certification Status
STL_G4_SM_cx641301_2.0.pdf	STM32G4 Series self-test library safety manual	n/a	2.0	968/FSP 1627.04/19	<i>Valid</i>
STL_G4_UG_cx640151_2.0.pdf	STM32G4 Series self-test library user guide	n/a	2.0	968/FSP 1627.04/19	<i>Valid</i>

### X-CUBE-STL-H7

File Name	Description	SHA256	Version	Report-No.:	Certification Status
STL_Lib.a	STM32H7 Series self-test library X-CUBE-STL-H7 (object code)	747260a0d9df8985 ba08eac75dc4457c 785d14a281fd2159 cdc28c80c89aa1b0	1.0.0	968/FSP 1627.04/19	<i>Valid</i>
STL_H7_SM_cx633352_2.0.pdf	STM32H7 Series self-test library safety manual	n/a	2.0	968/FSP 1627.04/19	<i>Valid</i>
STL_H7_UG_cx638680_3.0.pdf	STM32H7 Series self-test library user guide	n/a	3.0	968/FSP 1627.04/19	<i>Valid</i>

### X-CUBE-STL-L0

File Name	Description	SHA256	Version	Report-No.:	Certification Status
STL_Lib.a	STM32L0 Series self-test library X-CUBE-STL-L0 (object code)	93c281010d0bfb63 749714edfc62f106 b0271b452e8e7e2f fec559d2e230cdab	1.0.0	968/FSP 1627.05/20	<i>Valid</i>
STL_L0_SM_cx650006_2.0.pdf	STM32L0 Series self-test library safety manual	n/a	2.0	968/FSP 1627.05/20	<i>Valid</i>
STL_L0_UG_cx650008_1.0.pdf	STM32L0 Series self-test library user guide	n/a	1.0	968/FSP 1627.05/20	<i>Valid</i>

**X-CUBE-STL-L4**

File Name	Description	SHA256	Version	Report-No.:	Certification Status
STL_Lib.a	STM32L4 / STM32L4+ Series self-test library X-CUBE-STL-L4 (object code)	584e2d7c0bb652bf e6c697cec93a0e60 f3faac948dcc59d0 62299a38bad17fc0	1.0.0	968/FSP 1627.01/19	<i>Valid</i>
STL_L4_SM_cx609803_6.0.pdf	STM32L4 / STM32L4+ Series self-test library safety manual	n/a	6.0	968/FSP 1627.04/19	<i>Valid</i>
STL_L4_UG_cx609806_4.0.pdf	STM32L4 / STM32L4+ Series self-test library user guide	n/a	4.0	968/FSP 1627.04/19	<i>Valid</i>

**The content of this revision list has been agreed between manufacturer and certification body.**

**Revision**

Date	Rev.	Beschreibung / Änderungen	Autor
2018-06-06	1.0	Initial creation, based on Report-No.: 968/FSP 1627.00/18	fba/A-FS
2019-04-05	2.0	Update, based on Report-No.: 968/FSP 1627.01/19	fba/A-FS
2019-06-24	3.0	Update, based on Report-No.: 968/FSP 1627.02/19	Fba/Hei/A-FS
2019-06-27	4.0	Update, based on Report-No.: 968/FSP 1627.03/19	Fba/A-FS
2020-02-25	5.0	Update, based on Report-No.: 968/FSP 1627.04/19	fzw/A-FS
2020-06-05	6.0	Update, based on Report-No.: 968/FSP 1627.05/20	fzw/A-FS