

## Automotive functional safety package for STM8AF and STM8AL Series MCUs in systems implementing safety functions up to ISO 26262 ASIL B



### Features

- STM8AF and STM8AL Series devices are AEC-Q100 qualified
- MCU safety manual
  - Detailed list of safety requirements (assumptions of use) and examples to guide end users to use STM8 8-bit MCUs in systems implementing safety functions compliant to ISO 26262 and up to ASIL B
- FMEA / FMEDA document
  - FMEA: detailed list of MCU failure modes and related mitigation measures to be adopted (qualitative analysis)
  - FMEDA: static snapshot reporting failure rates compliant to ISO 26262, computed at both MCU and basic function levels of detail
- Specification document for self-test library
  - List of detailed safety requirements enabling STM8AF and STM8AL Series users to realize, in the framework of their ISO 26262-compliant software development process, the software self-test library required by the STM8AF and STM8AL Series safety manual to address CPU permanent failures
  - The quality and detail level of the specification enables its direct use in a development process compliant to ISO 26262-6 requirements
  - Includes the evidences and rationales behind the generation of the safety requirements for the completeness of end-user safety case
  - Application independent: can be used in potentially any end-user application



### Description

The automotive STM8 8-bit MCUs include the mainstream STM8AF Series and the ultra-low-power STM8AL Series. Based on STMicroelectronics Quality foundations, STM8AF and STM8AL Series product portfolios, and STM8AF and STM8AL Series embedded safety features, the [STM8A-SafeASIL](#) functional safety package helps users to market safety-critical STM8AF-based and STM8AL-based systems quickly, targeting the automotive safety integrity level standard ISO 26262 safety integrity level (ASIL A/B).



## 1 Ordering information

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The MCU safety manual is available on [www.st.com](http://www.st.com) for download.

Contact an STMicroelectronics local representative to request the [STM8A-SafeASIL](#) safety documentation, including the FMEA, FMEDA and self-test library specification (NDA agreement required).

## Revision history

**Table 1. Document revision history**

Date	Version	Changes
07-Jul-2015	1	Initial release.
28-Apr-2020	2	Updated document title, <a href="#">Features</a> and <a href="#">Description</a> .
09-Dec-2020	3	<ul style="list-style-type: none"><li>Updated document title, <a href="#">Features</a> and <a href="#">Description</a>.</li><li>Extended the functional safety package scope to the STM8AL Series microcontrollers.</li></ul>

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