

Functional safety package for STM8AF microcontrollers in systems implementing safety functions up to ISO 26262 automotive safety integrity level ASIL B



Features

- 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 Series users to realize, in the framework of their ISO 26262-compliant software development process, the software self-test library required by the STM8AF 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 ultra-low-power STM8AL Series. This data brief describes the STM8AF functional safety package. Based on STMicroelectronics Quality foundations, STM8AF product portfolio, and STM8AF embedded safety features, the [STM8A-SafeASIL](#) functional safety package helps users to market safety-critical STM8AF-based systems quickly, targeting the automotive safety integrity level standard ISO 26262 safety integrity level (ASIL A/B).



1 Ordering information

The MCU safety manual is available on www.st.com for download.

Contact 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
7-Jul-2015	1	Initial release.
28-Apr-2020	2	Updated document title, Features and Description .

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