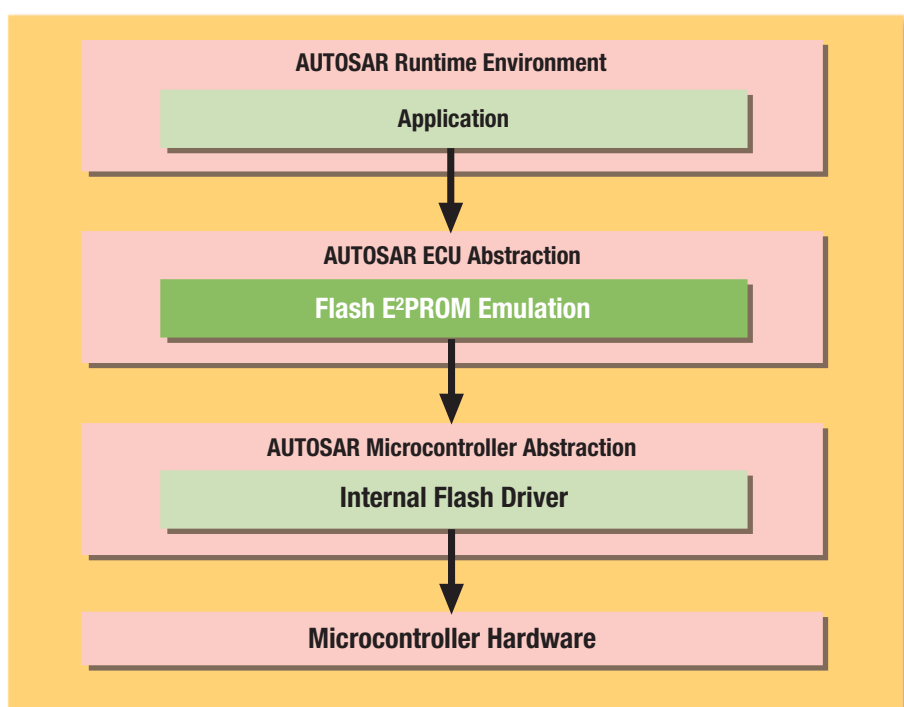


E²PROM EMULATION DRIVER

AUTOSAR compliant E²PROM Emulation for Fujitsu microcontrollers



Fujitsu E²PROM Emulation Software

Description

E²PROM emulation virtually grants random access to non-volatile flash memory. This by-passes the drawback of sector by sector access that comes with the flash technology. Internal flash memory is cheaper, physically smaller and safer compared with external E²PROM memory. These advantages are mapped to emulated E²PROM.

Fujitsu offers an E²PROM Emulation Driver to serve this purpose. The driver is compliant to the AUTOSAR V2.1 standard and therefore it can be used together with any other AUTOSAR V2.1 compliant Internal Flash Driver. However, the combination with

Fujitsu's Internal Flash Driver enables additional features to increase the emulation performance.

The E²PROM Emulation Driver offers a dynamic block allocation to provide optimised erase cycle utilisation with independence to the actual write sequence. The virtual memory management encapsulates all sector and data restructuring and provides a complete independence to the upper layer.

The basis for the Fujitsu E²PROM Emulation is an additional internal data flash, which has its own physical flash interface. This allows erasing or writing to the data flash, without

blocking code execution from the main flash. It is not necessary to block interrupts or to execute program code in RAM during emulation.

Currently, Fujitsu's 16-bit MB96F340 series microcontrollers provide this data flash extension, and other devices will follow soon.

FACTSHEET
FUJITSU E²PROM
EMULATION DRIVER

Features

- AUTOSAR V2.1 compliant E²PROM Emulation Driver
- Can use the advantages of a separate Fujitsu data flash for parallel E²PROM emulation and code execution
- Constant E²PROM access latency with transparent background memory management
- Full dynamic block allocation to increase erase cycle utilisation
- Configurable page-size for optimised memory granularity and memory utilisation
- Supports the 16-bit MB96F340 microcontroller series of the new Fujitsu 16FX family
- Softune Workbench samples are available for immediate and smooth start-up

Application area

- Automotive
 - Body
 - Chassis
 - Instrumentation

Software package content

- Fujitsu AUTOSAR V2.1 E²PROM Emulation Package
 - Memory hardware abstraction (flash E²PROM emulation)
 - Documentation (API and functional description)
 - Softune Workbench sample to demonstrate features and usage

Ordering information

Fujitsu AUTOSAR V2.1 E²PROM Emulation Package

Order Number	Description
SW-FEE-DRV-96340-001-E	AUTOSAR V2.1 E ² PROM Emulation 16FX Evaluation Licence
SW-FEE-DRV-96340-001-T	AUTOSAR V2.1 E ² PROM Emulation 16FX Prototype-Licence for SW-development
SW-FEE-DRV-96340-001-S	AUTOSAR V2.1 E ² PROM Emulation 16FX Series-Production-Licence

Supported devices

- 16-bit MCUs of the MB96F340 series
 - MB96F348H
 - MB96F348T
 - MB96F348C

Availability

Available now



ASK FUJITSU MICROELECTRONICS EUROPE

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<http://emea.fujitsu.com/microelectronics>