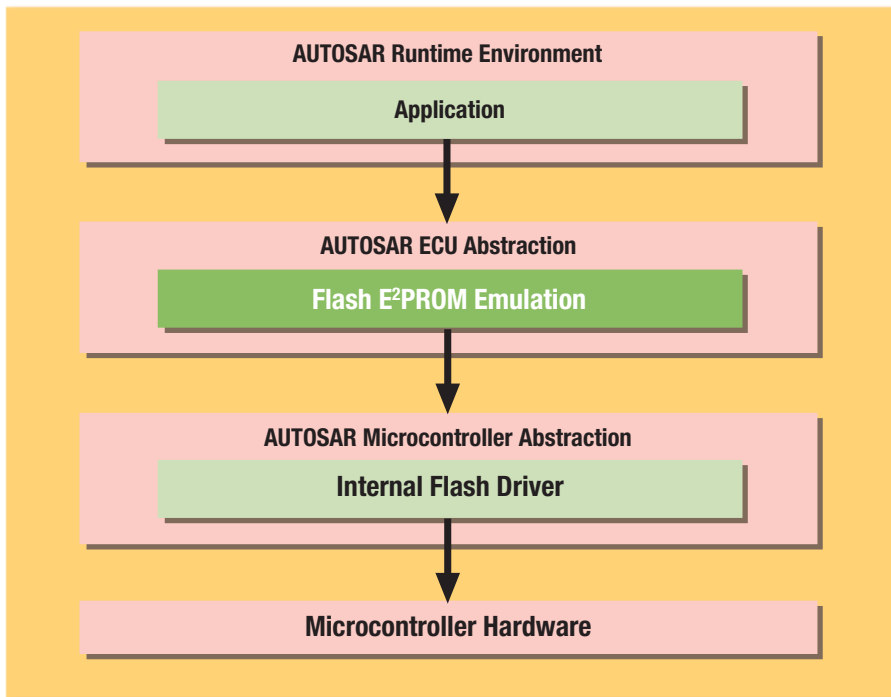


INTERNAL FLASH DRIVER – AUTOSAR compliant Internal Flash Driver for Fujitsu’s 16-bit MCU



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 to external E²PROM memory. These advantages are mapped to emulated E²PROM.

Fujitsu offers an Internal Flash Driver to serve this purpose and to grant access to the features of dedicated microcontrollers equipped with a Data Flash extension. The driver is compliant to the AUTOSAR V2.1 standard and therefore it can be used together with any other AUTOSAR V2.1 compliant E²PROM emulation

modules. However, the combination with Fujitsu’s E²PROM Emulation Driver enables additional features to increase the emulation performance.

The Internal Flash Driver has no side effects to other MCU functionalities since there is no need to execute it from RAM. Hence interrupts and watchdog triggering is not effected. The driver code can be simply executed as a standard task within the operating system. A wide set of API functionality like suspending and continuing any Flash activity or a RAM independent Flash to Flash copy operation are optimising the complete Flash management.

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 INTERNAL FLASH DRIVER

Features

- AUTOSAR V2.1 compliant E²PROM Emulation Driver
- AUTOSAR V2.1 compliant Internal Flash Driver
- Independent of other CPU features like interrupts, watchdog, etc.
- No RAM area required for code
- Execution in simple OS task
- Advanced API functionality like suspend and resume of any flash activity and flash to flash copy operations without RAM usage
- Supporting 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 Internal Flash Driver
 - Memory drivers (internal flash)
 - Documentation (API and functional description)
 - Softune Workbench sample to demonstrate features and usage

Ordering information

Fujitsu AUTOSAR V2.1 Internal Flash Driver

Order Number	Description
SW-FIF-DRV-96340-001-E	AUTOSAR V2.1 Internal Flash Driver 16-bit Evaluation Licence
SW-FIF-DRV-96340-001-T	AUTOSAR V2.1 Internal Flash Driver 16-bit Prototype-Licence for SW-development
SW-FIF-DRV-96340-001-S	AUTOSAR V2.1 Internal Flash Driver 16-bit Series-Production-Licence

Supported devices

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

Availability

Available now



ASK FUJITSU MICROELECTRONICS EUROPE

Contact us on +49(0) 61 03 69 00 or visit <http://emea.fujitsu.com/microelectronics>