

Catch our keynote at Computex: NXP CTO Lars Reger unveils our "Brighter Together" approach

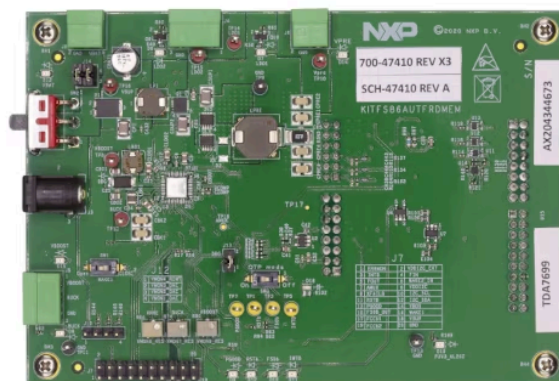
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 / KITFS86AUTFRDMEM | FS86 Safety SBC Evaluation Board

# FS86 Safety SBC Evaluation Board


KITFS86AUTFRDMEM [Receive alerts ⓘ](#)



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The KITFS86AUTFRDMEM provides easy customer development of the FS86 device family with flexibility to play with all the features of the device and make measurements on the main part of the application. All regulators are accessible through connectors. Nonuser signals, like DC / DC switcher node, are mapped on test points. It targets 12 V automotive applications.

 Freedom connected to the board, combined with the FS86 NXP GUI software, allows to fully configure and control FS86 SBC. The board can be used in a standalone mode and controlled with an USB interface. (<http://www.nxp.com>)

## FS86 Safety SBC Evaluation Board

This board is populated with a FS86 family superset part for device evaluation. The FS86 part soldered on the board can be programmed (OTP) two times and it is possible to test as many configurations as needed in emulation mode before and after programming. No extra tools or board are needed for device programming.



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Less ^

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[DESIGN FILES](#)[SOFTWARE](#)

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## Product Details

[Supported Devices](#) | [Features](#) | [Applications](#)

### Supported Devices

#### Power Management

##### System Basis Chips

- **FS86** (/products/power-management/pmics-and-sbcs/system-basis-chips/safety-system-basis-chip-for-domain-controller-fit-for-asil-b-and-d:FS86): Safety System Basis Chip For Domain Controller, Fit For ASIL B and D

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### Features

#### Connectivity

- FRDM-KL25Z MCU plugged allows USB connection for easy connection to software GUI (access to I<sup>2</sup> bus, IOs, Safety outputs, Debug, AMUX, regulators)
- USB connection for register access, OTP emulation and fuse
- Socket to fit and remove device easily

#### Power Management

- VBAT power supply connectors (Jack and Phoenix, 35 V max)
- VPRE output capability up to 10 A (external MOSFET)
- VBOOST 5.0 V or 6.0 V, up to 800 mA
- BUCK up to 2.5 A DC
- LDO1, from 1.5 V to 5.0 V, up to 400 mA, with load switch capability
- LDO2, from 1.1 V to 5.0 V, up to 400 mA
- Ignition key switch

#### General Specifications

- FS0B external safety pin

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#### Support

- Debug mode access



- Manual or automated OTP fuse programming
- Connectors allowing easy access to digital signals

- Analog variable resistor to test external VMON

## Applications

### Automotive

Automotive High Performance Compute  
 (/applications/automotive/adas-and-safe-driving/automotive-high-performance-compute:AUTOMOTIVE-COMPUTE)

Automotive Vision Systems  
 (/applications/industrial/aerospace/automotive-vision-systems:VISION-PROCESSING-SYSTEMS)

Diesel Engine Management  
 (/applications/automotive/electrification-and-powertrain/diesel-engine-management:DIESEL-ENGINE-MANAGEMENT)

V2X Communications (/applications/automotive/adas-and-safe-driving/v2x-communications:V2X-COMMUNICATIONS)

### Industrial

Surround View (/pages/surround-view-:SURROUND-VIEW-PARK-ASSIST-SYSTEM)

## Buy Options

For a quantity of 1

**BUY FROM DISTRIBUTOR**

**KITFS86AUTFRDMEM**  
 (/part/KITFS86AUTFRDMEM)

FS86 Safety SBC Evaluation Board.

- KITFS86AUTFRDMEM board
- FRDM-KL25Z
- Power supply mating connectors

