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

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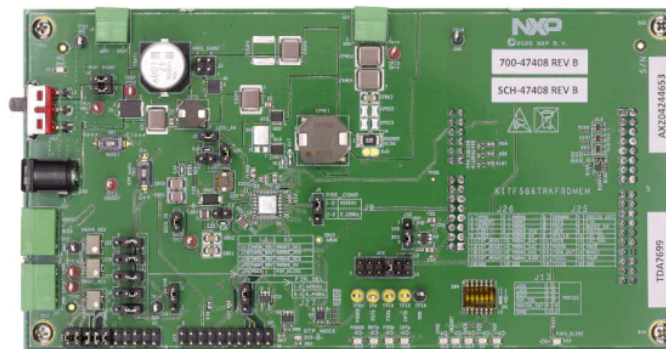 / Development Boards and Designs (/design/design-center/development-boards-and-designs:EVDEBRDSSYS)
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 / KITFS86TRKFRDMEM | FS86 Safety SBC Evaluation Board

FS86 Safety SBC Evaluation Board

KITFS86TRKFRDMEM   Receive alerts ⓘ

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KITFS86TRKFRDMEM 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 24 V transportation (truck and bus) applications.

The KL25Z Freedom connected to the board, combined with the FS86 NXP GUI software, allows you to fully configure and control FS86 SBC. The board can be used in a standalone mode and controlled with a USB interface.

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.

Less ∧

DESIGN FILES   SOFTWARE

Product Details

Supported Devices | Features | Applications

Supported Devices

Power Management

System Basis Chips

NXP
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FS86 Safety SBC Evaluation Board

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- **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

Features

Connectivity

- FRDM-KL25Z MCU plugged allows USB connection for easy connection to software GUI (access to I²C bus, IOs, Safety outputs, Debug, AMUX, regulators)
- USB connection for register access, OTP emulation and fuse

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

Support

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

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Components

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- LEDs indicate signal and regulator status
- 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)

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