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GET STARTED (/DOCUMENT/GUIDE/GETTING-STARTED-WITH-THE-KITFS86SKTFRDMEM-E

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/ KITFS86SKTFRDMEM: FS86 Safety SBC Programming Socket Board

# FS86 Safety SBC Programming Socket Board

KITFS86SKTFRDMEM Receive alerts ①





FS86 Safety SBC Programming Socket Board

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The KITFS86SKTFRDMEM provides easy customer configuration of the FS86 device family, thanks to a QFN48 socket and 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 and 24 V transportation (truck and bus) applications.

The KL25Z 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.

Devices can be easily placed on socket to OTP emulation, functional testing or program OTP (one time programming) fuses when ready. In addition to the OTP programming, the customer can test all features (with power delivery limitation due to the socket). No extra tools or board are needed for FS86 OTP programming.

Less ^

**DESIGN FILES** 

SOFTWARE

## **Product Details**

Supported Devices | Features | Applications

### **Supported Devices**

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		chip-for-domain-controller-fit-for-asil-b-and-d:FS86): Safety System Basis Chip For Domain			
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s					
Connectivity		<ul> <li>FRDM-KL25Z MCU plugged allows USB connection for easy connection to software GUI (access to I<sup>2</sup>C bus, IOs, Safety outputs, Debug, AMUX, regulators)</li> </ul>			
		• USB con	nection for	register acce	ss, OTP emulation and fuse
		Socket to	o fit and re	move device e	easily
Power Management		VBAT power supply connectors (Jack and Phoenix, 35 V max)			
		<ul> <li>VPRE out</li> </ul>	put capab	oility up to 10 A	(external MOSFET)
		<ul> <li>VBOOST</li> </ul>	5.0 V or 6.0	0 V, up to 800 r	mA
		BUCK up	to 2.5 A DO	С	
		<ul> <li>LDO1, from 1.5 V to 5.0 V, up to 400 mA, with load switch capability</li> </ul>			
		<ul> <li>LDO2, from 1.1 V to 5.0 V, up to 400 mA</li> </ul>			
		• Ignition I	cey switch		
General Specifications		FS0B external safety pin			
Support		Debug mode access			
		• Manual	or automa	ted OTP fuse p	programming
		<ul> <li>Connect</li> </ul>	ors allowir	ng easy acces	s to digital signals
,	Details  s vity	Details Documentation  s vity	Product Documentation Design ontrol Resources  S  vity  FRDM-KL bus, IOs,  USB conr  Socket to  VBAT por  VPRE out  VBOOST  BUCK up  LDO1, from  LDO2, from  Ignition k  pecifications  FS0B exter  Debug m  Manual of	Product Details  Design ontroller, Fit For Resources  Support  FRDM-KL25Z MCU pbus, IOs, Safety out  USB connection for Socket to fit and re  VBAT power supply  VPRE output capate  VBOOST 5.0 V or 6.0  BUCK up to 2.5 A Do  LDO1, from 1.5 V to 8  LDO2, from 1.1 V to 8  Ignition key switch  Pecifications  Pobug mode accee  Manual or automa	Product Details  Design ontroller, Fit For ASIL B and D Resources  Support Buy options  FRDM-KL25Z MCU plugged allows bus, IOs, Safety outputs, Debug, A USB connection for register acce Socket to fit and remove device of VPRE output capability up to 10 A VBOOST 5.0 V or 6.0 V, up to 800 metabolic places and bus a USB Connection for register acce.  Public places are supply connectors (a VPRE output capability up to 10 A VBOOST 5.0 V or 6.0 V, up to 800 metabolic places are supply connectors (a USB Connection for register acce.  Public places are supply connectors (a VPRE output capability up to 10 A USBOOST 5.0 V or 6.0 V, up to 800 metabolic places are supply connectors.  Public places are supply connectors

System Basis Chips

• FS86 (/products/power-management/pmics-and-sbcs/system-basis-chips/safety-system-basis-

## Components

• LEDs indicate signal and regulator status

• Analog variable resistor to test external VMON

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#### **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)

#### Industrial

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

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)

## **Buy Options**

For a quantity of 1

