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PRODUCTS

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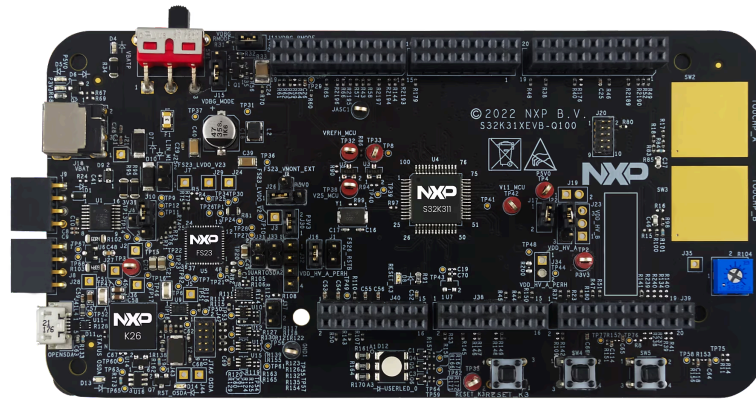
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/ S32K31XEVb-Q100 Evaluation Board for Automotive General Purpose

S32K31XEVb-Q100 Evaluation Board for Automotive General Purpose

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Overview Product Details Documentation Design Resources ⓘ Support BUY OPTIONS GET STARTED (/DOCUMENT/GUIDE/GETTING-STARTED-WITH-THE-S32K31XEVb-Q100-E



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The S32K31XEVB-Q100 is an evaluation and development board for general-purpose industrial and automotive applications.

Based on the 32-bit Arm®Cortex®-M7 S32K3 MCU in a 100 HDQFP package, the S32K31XEVB-Q100 offers a single core mode, HSE security engine, OTA support, advanced connectivity and low power.

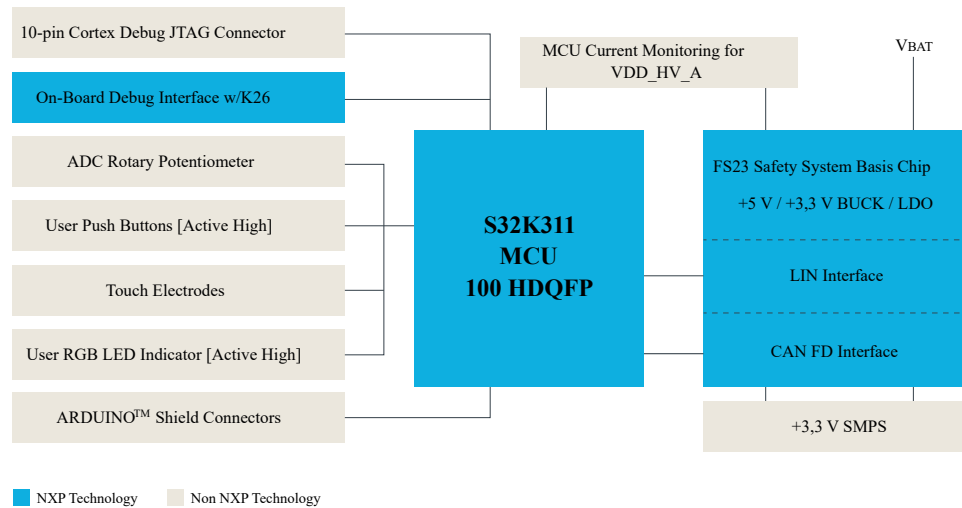
The S32K31XEVB-Q100 offers a standard-based form factor compatible with the Arduino® pin layout, providing a broad range of expansion board options for quick application prototyping and demonstration.

Product Details

Block Diagram | Supported Devices | Features | Applications

Block Diagram

S32K31XEVB-Q100 Features



Supported Devices

Processors and Microcontrollers

S32K Auto General-Purpose MCUs

- **S32K3** (/products/processors-and-microcontrollers/s32-automotive-platform/s32k-auto-general-purpose-mcus/s32k3-microcontrollers-for-automotive-general-purpose:S32K3): S32K3 Microcontrollers for Automotive General Purpose

K2x / KS2x USB

- **K26_180** (/products/processors-and-microcontrollers/arm-microcontrollers/general-purpose-mcus/k-series-arm-cortex-m4/k2x-ks2x-usb/kinetis-k26-180-mhz-dual-high-speed-and-full-speed-usbs-2mb-flash-microcontrollers-mcus-based-on-arm-cortex-m4-core:K26_180): Kinetis® K26-180 MHz, Dual High-Speed and Full-Speed USBs, 2MB Flash Microcontrollers (MCUs) based on Arm® Cortex®-M4 Core

Power Management

System Basis Chips

- **FS23** (/products/power-management/pmics-and-sbcs/system-basis-chips/safety-system-basis-chip-sbc-family-with-power-management-can-and-lin:FS23): Safety System Basis Chip (SBC) Family with Power Management, CAN and LIN

Features

Hardware Features

- Power supply switch
 - MCU voltage/current measurement
 - User RGB LED
 - 2x user push-buttons
 - ADC rotary potentiometer
 - 2x touch pad electrode
-

Software Features

- Free-of-charge real-time drivers for AUTOSAR® and non-AUTOSAR use and ASIL D compliant
- Configuration tools for both AUTOSAR and non-AUTOSAR users
- Free of charge security firmware: SHE+ compliant NXP supplied, designed for ISO 21434
- S32 Safety Software Framework (SAF) (/design/design-center/software/functional-safety-software/s32-safety-software-framework-saf-and-safety-peripheral-drivers-spd:SAF): Six fault detection and reaction libraries
- Free of Charge Safety Peripheral Drivers (SPD) (/design/design-center/software/functional-safety-software/s32-safety-software-framework-saf-and-safety-peripheral-drivers-spd:SAF)
- Structural Core Self-Test (SCST) Library (/design/design-center/software/functional-safety-software/structural-core-self-test-scst-library:SCST)
- Inter-Platform Communication Framework (IPCF) (/design/design-center/software/automotive-software-and-tools/inter-platform-communication-framework-ipcf:IPCF): Middleware for multicore, multi-OS communication in single- and multichip systems
- Free of charge model-based design toolbox for MATLAB®: NXP supplied plug-in for Simulink® environment

More ▾

Applications

Automotive

Automotive Zone Controller (/applications/automotive/software-defined-vehicle/automotive-zone-controller-AUTOMOTIVE-ZONE-CONTROLLER)

Electric Pumps (/applications/automotive/body-and-vehicle-control/electric-pumps:ELECTRIC-PUMPS)

Battery Management System (BMS)

(/applications/automotive/electrification-and-powertrain/battery-management-system-bms:BATTERY-MANAGEMENT-SYSTEM)