



S32K3X4EVB-T172 Evaluation Board for Automotive General Purpose

S32K3X4EVB-T172

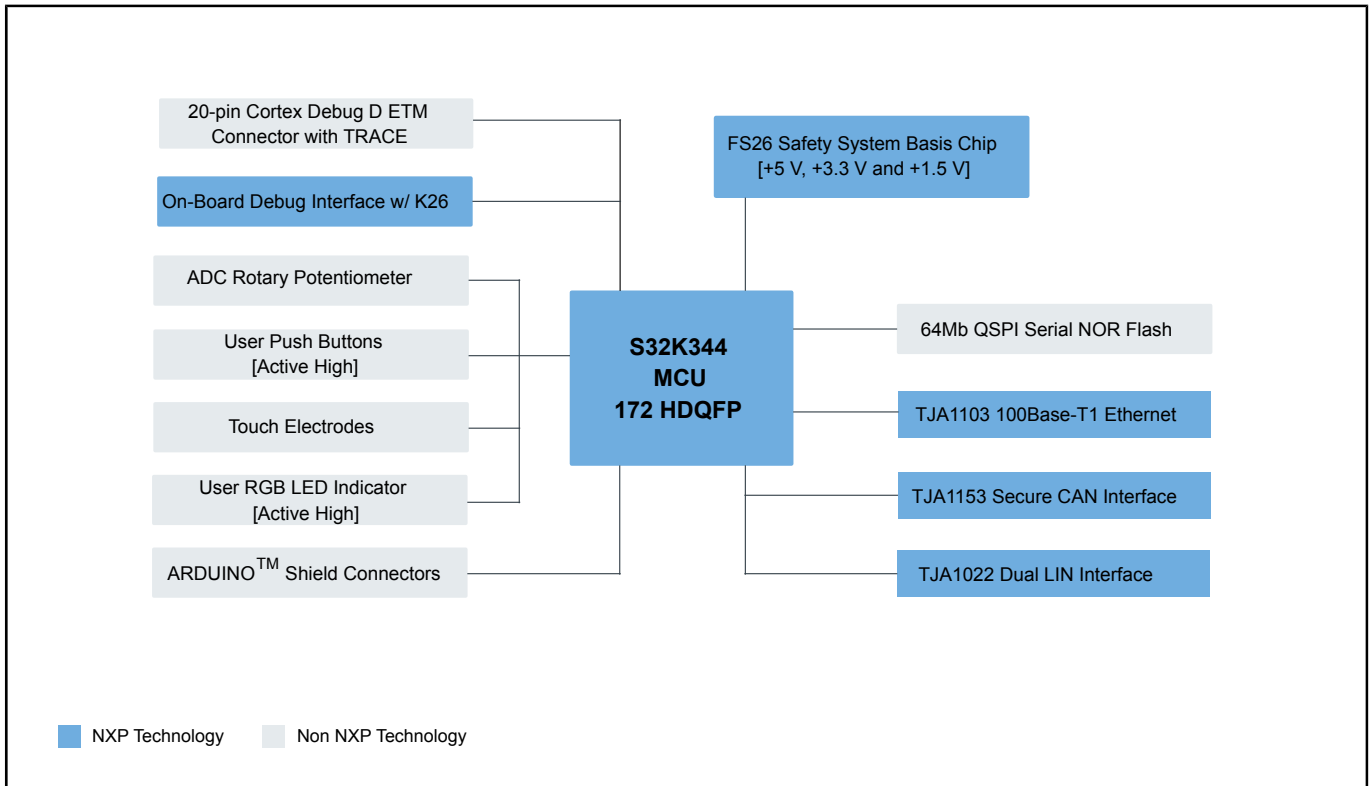
Last Updated: May 2, 2024

The S32K3X4EVB-T172 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 172 HDQFP package, the S32K3X4EVB-T172 offers dual cores configured in lockstep mode, ASIL D safety hardware, HSE security engine, OTA support, advanced connectivity and low power.

The S32K3X4EVB-T172 offers a standard-based form factor compatible with the Arduino® UNO pin layout, providing a broad range of expansion board options for quick application prototyping and demonstration.

S32K3X4EVB-T172 Evaluation Board Block Diagram



S32K3 Family Overview Block Diagram

K311	K312	K314	Common Features	K322	K324	K341	K342	K344	K328	K338	K348	K358	
1 x Arm® Cortex-M7 @120 MHz		1x Cortex-M7 @240MHz	AEC-Q100, 125 °C, 3,3/5 V	2 x Cortex-M7 @240 MHz		1 Lockstep Cortex-M7 @ 240 MHz			2 x Cortex-M7 @ 240 MHz	3 x Cortex-M7 @ 240 MHz	1 LS Cortex-M7 @ 240 MHz	1 LS Cortex-M7 + 1 Cortex-M7 @ 240 MHz	
1 MB Flash	2 MB Flash	4 MB Flash	HSE-B Crypto Security Engine	2 MB Flash	4 MB Flash	1 MB Flash	2 MB Flash	4 MB Flash	8 MB Flash				
128 K SRAM	192 K SRAM	512 K SRAM	FOTA (Firmware Over-the-Air)	256 k SRAM	512 k SRAM	256 k SRAM	256 k SRAM	512 k SRAM	1152 KB SRAM	1152 KB SRAM	1152 KB SRAM	1152 KB SRAM	
up to 84 I/Os	up to 143 I/Os	up to 218 I/Os	Low-Power Operating Modes and Peripherals (LP UART, FlexIO)	up to 143 I/Os	up to 218 I/Os	up to 143 I/Os	up to 143 I/Os	up to 218 I/Os	up to 218 I/Os				
16-ch, eDMA		32-ch, eDMA	ASIL B/D Safety: (ECC Memories, MPU, CRC, Watchdogs)	32-ch, eDMA					32-ch, eDMA				
3 x CAN (3 x FD)	6 x CAN (6 x FD)		100 Mbit/s Ethernet (TSN)	4 x CAN (4 x FD)	6 x CAN (6 x FD)	4 x CAN (4 x FD)	4 x CAN (4 x FD)	6 x CAN (6 x FD)	8 x CAN (8 x FD)	8 x CAN (8 x FD)	8 x CAN (8 x FD)	8 x CAN (8 x FD)	
			eMIOS Timers, Analogue Comparator, Logic Control Unit, Body Cross Triggering Unit, Trigger Mux	100 Mbit/s Ethernet (TSN)					1 Gbit/s Ethernet (TSN)				
2 x I2C	2 x I2C	2 x I2C	JTAG	2 x I2C	2 x I2C	2 x I2C	2 x I2C	2 x I2C	2 x I2C				
4 x SPI*		6 x SPI*	S32 Design Studio IDE	4 x SPI*	6 x SPI*	4 x SPI*	4 x SPI*	6 x SPI*	6 x SPI*				
2 x 24-ch, 12-bit ADC		3 x 24-ch, 12-bit ADC	Real-Time Drivers (AUTOSAR® and Non-AUTOSAR)	2 x 24-ch, 12-bit ADC	3 x 24-ch, 12-bit ADC	2 x 24-ch, 12-bit ADC	2 x 24-ch, 12-bit ADC	3 x 24-ch, 12-bit ADC	3 x 24-ch, 12-bit ADC				
			2 x SAI (FS)	2 x SAI (FS)					2 x SAI (FS)				
			Quad SPI	Quad SPI					Quad SPI + SDHC (SDIO)				
LOFP-48	HDQFP-172		HDQFP-172										
HDQFP-100			HDQFP-100		HDQFP-100	HDQFP-100	HDQFP-172						
			MAPBGA-257	MAPBGA-257		MAPBGA-257		MAPBGA-289					
			Security FW Safety Software Framework Application Software										

View additional information for [S32K3X4EVB-T172 Evaluation Board for Automotive General Purpose](#).

Note: The information on this document is subject to change without notice.

www.nxp.com

NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. © 2024 NXP B.V.