



# **S32K312EVB-Q172 Evaluation Board for Automotive General Purpose**

## **S32K312EVB-Q172**

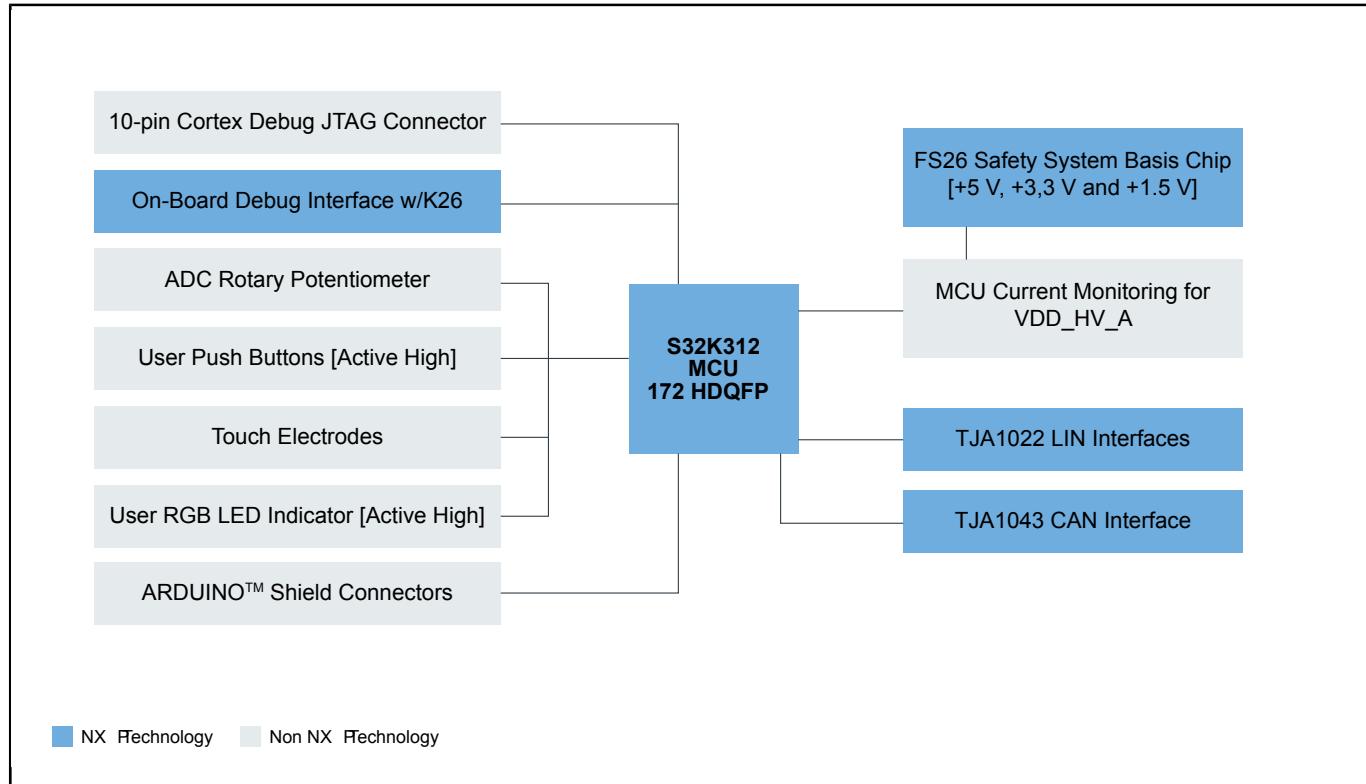
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The S32K312EVB-Q172 is an evaluation and development board for general-purpose industrial and automotive applications.

Based on the 32-bit Arm®Cortex®-M7 S32K3 MCU in a 172 HDQFP package, the S32K312EVB-Q172 offers a single core mode, HSE security engine, OTA support, advanced connectivity and low power.

The S32K312EVB-Q172 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.

## S32K312EVB-Q172 Block Diagram



## S32K3 Family 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 @240 MHz	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	up to 143 I/Os	up to 218 I/Os	up to 143 I/Os	up to 218 I/Os	up to 143 I/Os	up to 218 I/Os	up to 218 I/Os			
16-ch. eDMA	32-ch. eDMA	100 Mbit/s Ethernet (TSN)		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)
2 x I²C	2 x I²C	2 x I²C	emI²S Timers, Analogue Comparator, Logic Control Unit, Body Cross Triggering Unit, Trigger Mux	2 x I²C	2 x I²C	2 x I²C	2 x I²C	2 x I²C	2 x I²C			
4 x SPI*	6 x SPI*	4 x SPI*	4 x SPI*	6 x SPI*	4 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	2 x 24-ch, 12-bit ADC	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	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)	Quad SPI	2 x SAI (FS)	2 x SAI (FS)	Quad SPI					Quad SPI + SDHC (SDIO)			
LOFP-48	HDQFP-172	HDQFP-100	Real Time Drivers (AUTOSAR® and Non-AUTOSAR)	HDQFP-172					HDQFP-172			
MAPBGA-257		MAPBGA-257		MAPBGA-257		MAPBGA-257		MAPBGA-289				
Security F/W, Safety Software Framework, Application Software												

View additional information for [S32K312EVB-Q172 Evaluation Board for Automotive General Purpose](#).

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