



# Ultra-Reliable Dual-Core 32-bit MCU for Automotive and Industrial Applications

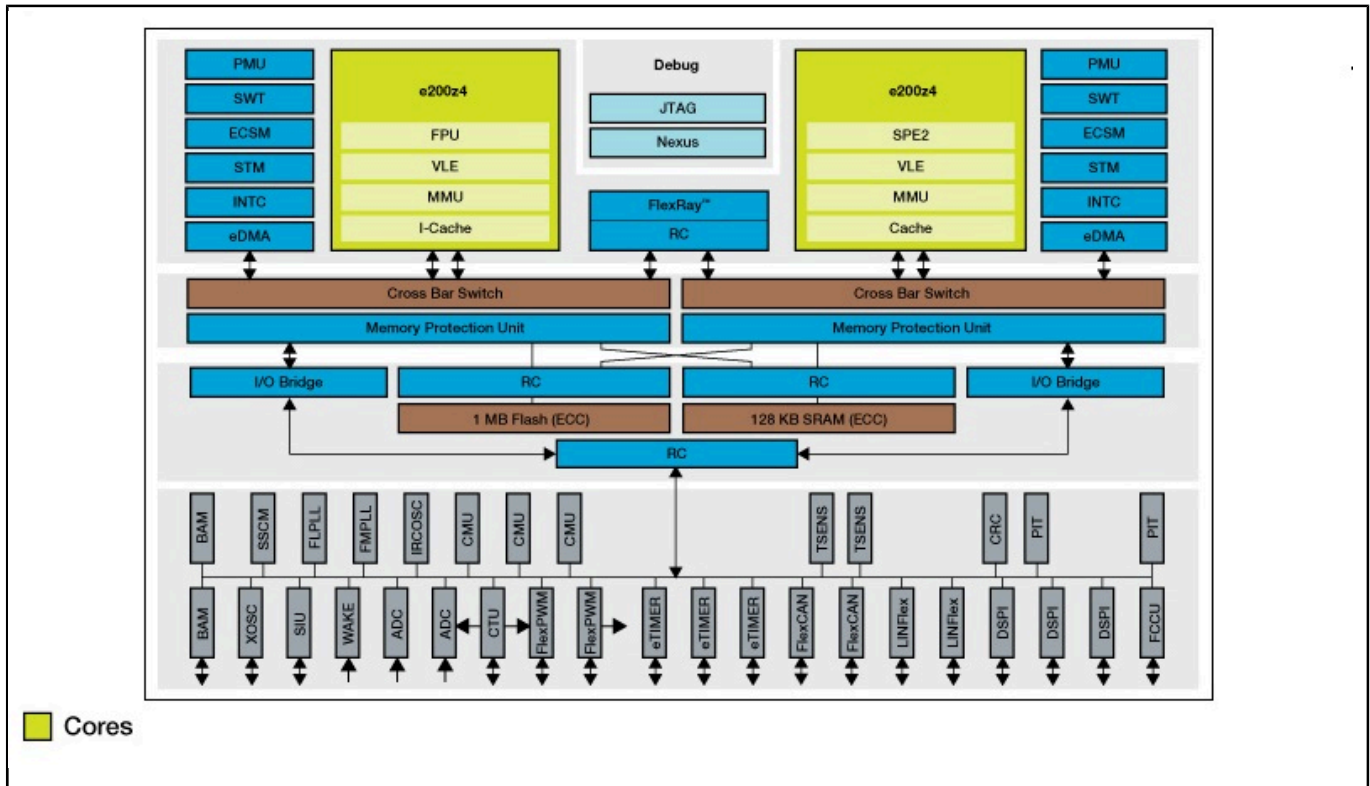
## MPC564xL

Last Updated: Mar 24, 2023

The MPC5643L 32-bit MCU built on Power Architecture® technology reduces design complexity and component count by putting key functional safety features on a single chip. It specifically addresses the ISO 26262 safety standard up to the most stringent ASIL D requirements.

- Dual-core, dual-issue architecture enables more performance while using less power
- Lockstep mode provides a software environment for redundant processing and calculations
- Decoupled parallel mode supports applications needing maximum performance or software diversity
- Precise and deterministic control timing for real-time applications, such as motor control
- A [SafeAssure® functional safety solution](#)

# MPC564XL Microcontroller Block Diagram Block Diagram



View additional information for [Ultra-Reliable Dual-Core 32-bit MCU for Automotive and Industrial Applications](#).

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

[www.nxp.com](http://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.