32-bit MCU for Powertrain Applications

MPC5554

Not Recommended for New Designs

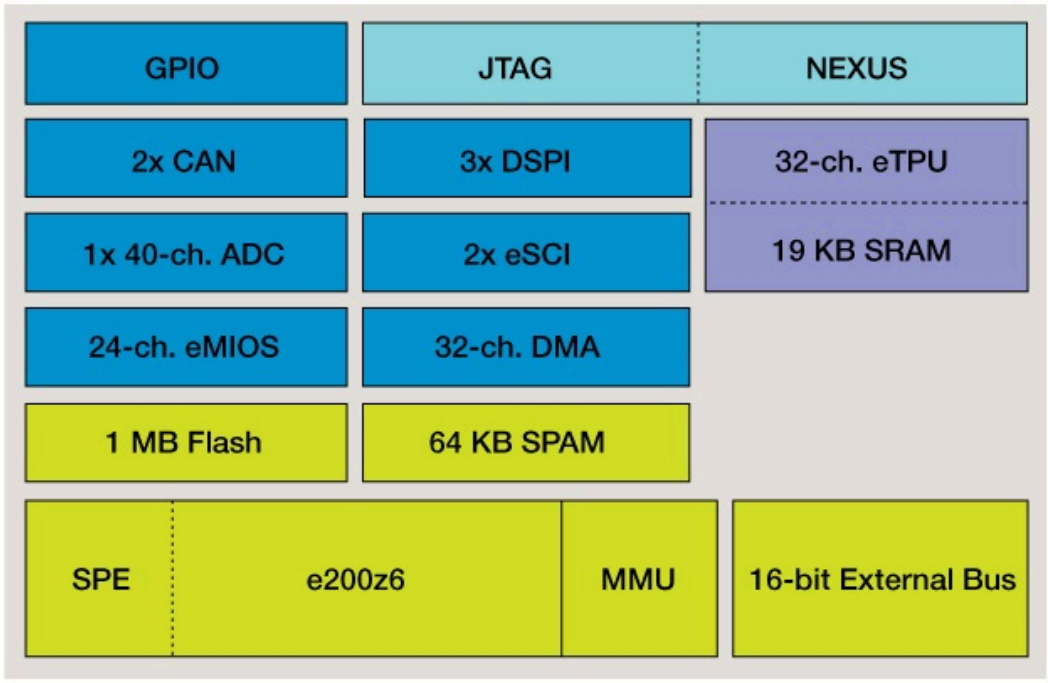
This page contains information on a product that is not recommended for new designs.

Last Updated: Apr 10, 2025

The MPC5554 MCU enables complex, real-time control for engine management systems. It offers system performance of up to five times that of its MPC500 predecessors along with the reliability and familiarity of proven Power Architecture® technology.

- Reduces costs by integrating more functionality on-chip
- Development support speeds time-to-market
- Supports multiple protocols and customer requirements through intelligent subsystems
- Offers a migration path from the MPC500 MCUs, facilitating reuse of legacy software architectures

MPC5554 Block Diagram



View additional information for 32-bit MCU for Powertrain Applications.

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. © 2026 NXP B.V.