32-bit Microcontrollers

MPC5200

Not Recommended for New Designs

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

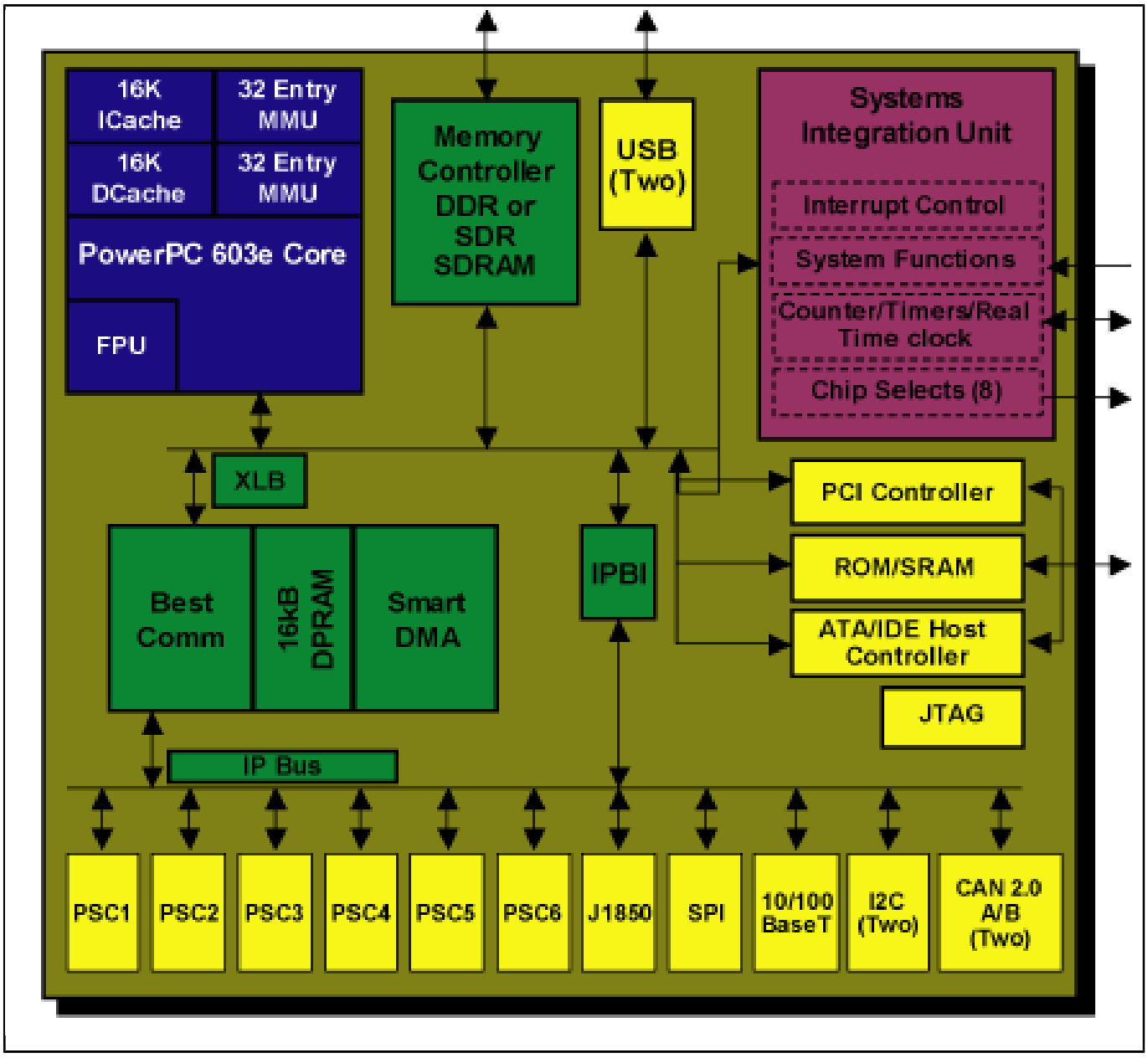
Last Updated: Apr 24, 2025

Our highly integrated, cost-effective MPC5200 is well suited for networking, media, industrial control, and automotive applications. It delivers 760 MIPS with a Floating Point Unit (FPU), hardware Memory Management Unit (MMU) for fast task switching, is packed with I/O, and operates at only one watt. The MPC5200 serves the processing-intensive network media gateway, network access storage, set-top box, audio jukebox automotive, Internet access, industrial automation, image detection/analysis, and electronic/medical instrumentation markets. With its successful foundation in the automotive/telematics market via the mobileGT®; alliance and platforms, all markets can now enjoy extended temperature, automotive qualification, and life cycles typically demanded in that industry. A solid choice of Real Time Operating Systems (RTOS) and development boards with Board Support Packages (BSPs) provides users with a complete and flexible set of solutions.

Product Highlights

The MPC5200 is based on a 400 MHz MPC603e Power Architecture core with an integrated double precision Floating Point Unit (FPU) that is qualified at -40°C to +85°C. It incorporates a hardware-based memory management unit (MMU) for advanced memory protection schemes, fast task switching and broad RTOS support. The MPC5200 was designed for fast data throughput and processing. The integrated BestComm DMA controller offloads the main MPC603e core from I/O intensive data transfers. An integrated Double Data Rate (DDR) memory controller accelerates data access with an effective memory bus speed of 266 MHz. A high-speed PCI interface backed by the BestComm DMA controller and DDR memory support enables high-speed data transfers in and out of the MPC5200.

MPC5200 Block Diagram Block Diagram



View additional information for 32-bit Microcontrollers.

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.