32-bit Power Architecture® Microcontrollers
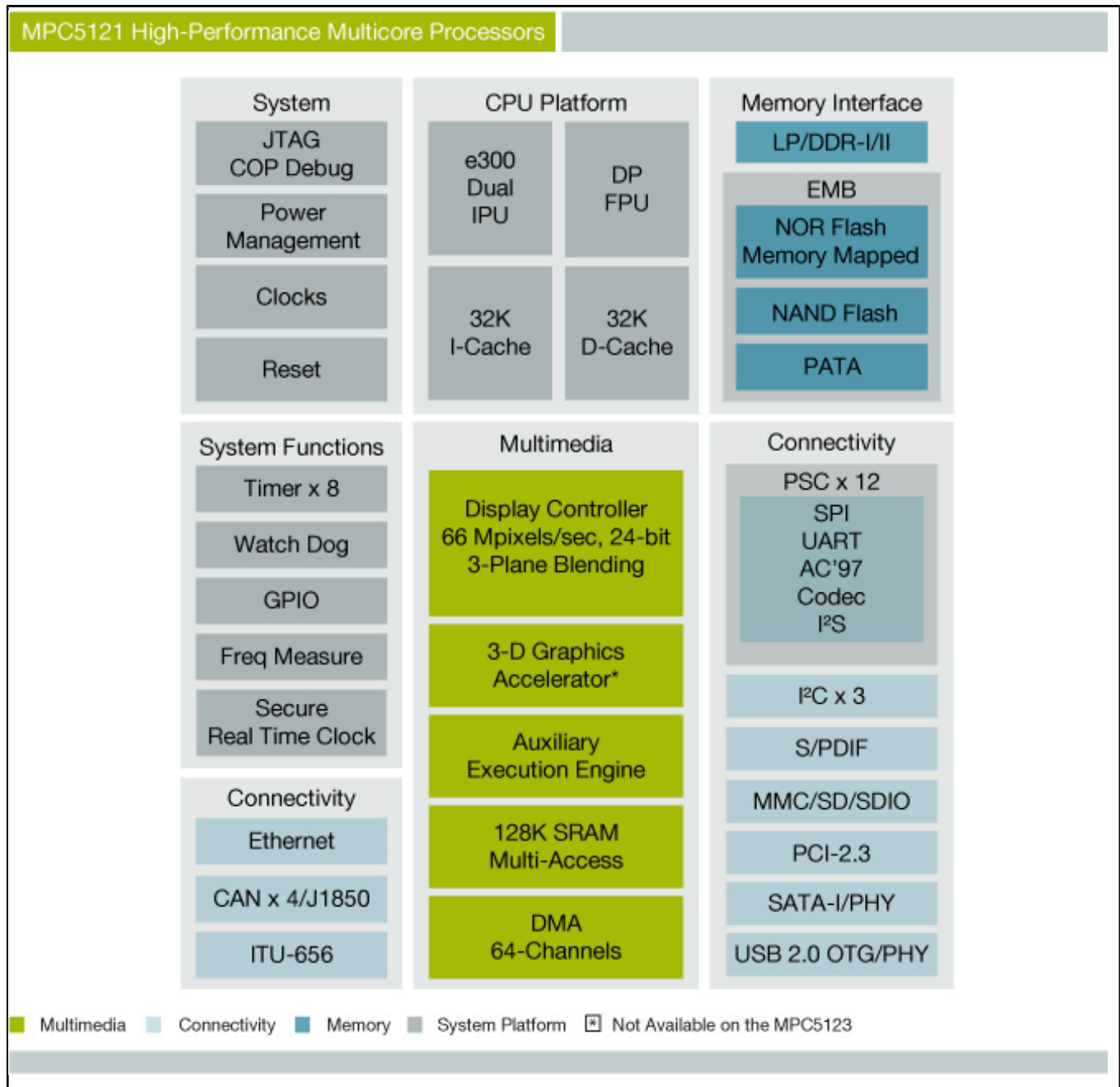
MPC5121e

Last Updated: Apr 9, 2022

NXP ® MPC5121e and MPC5123 MCUs provide an excellent computing platform for OEM, aftermarket, commercial telematics and consumer applications—including embedded solutions requiring network connectivity, graphics and a graphical user interface.

- Optimal for applications such as automotive center stack systems
- An array of I/Os and dedicated cores reduces bill-of-materials costs while improving functionality
- Offers competitive cost, quality, reliability and excellent performance
- Includes widespread mobileGT ® alliance firmware and software driver support
- Supports real-time operating systems (Green Hills, QNX and Wind River, Linux®)

Freescale mobileGT MPC5121E Microcontroller Block Diagram Block Diagram

MPC5121 High-Performance Multicore Processors

System
- JTAG COP Debug
- Power Management
- Clocks
- Reset

CPU Platform
- e300 Dual IPU
- DP FPU
- 32K I-Cache
- 32K D-Cache

Memory Interface
- LP/DDR-I/II
- EMB
  - NOR Flash Memory Mapped
  - NAND Flash
  - PATA

System Functions
- Timer x 8
- Watch Dog
- GPIO
- Freq Measure
- Secure Real Time Clock

Connectivity
- Ethernet
- CAN x 4/J1850
- ITU-656

Multimedia
- Display Controller 66 Mpixels/sec, 24-bit 3-Plane Blending
- 3-D Graphics Accelerator*
- Auxiliary Execution Engine
- 128K SRAM Multi-Access
- DMA 64-Channels

Connectivity
- PSC x 12
  - SPI
  - UART
  - AC'97
  - Codec
  - I²S
- I²C x 3
- S/PDIF
- MMC/SD/SDIO
- PCI-2.3
- SATA-I/PHY
- USB 2.0 OTG/PHY

Legend: ■ Multimedia ■ Connectivity ■ Memory ■ System Platform ⊠ Not Available on the MPC5123

View additional information for 32-bit Power Architecture® Microcontrollers.

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