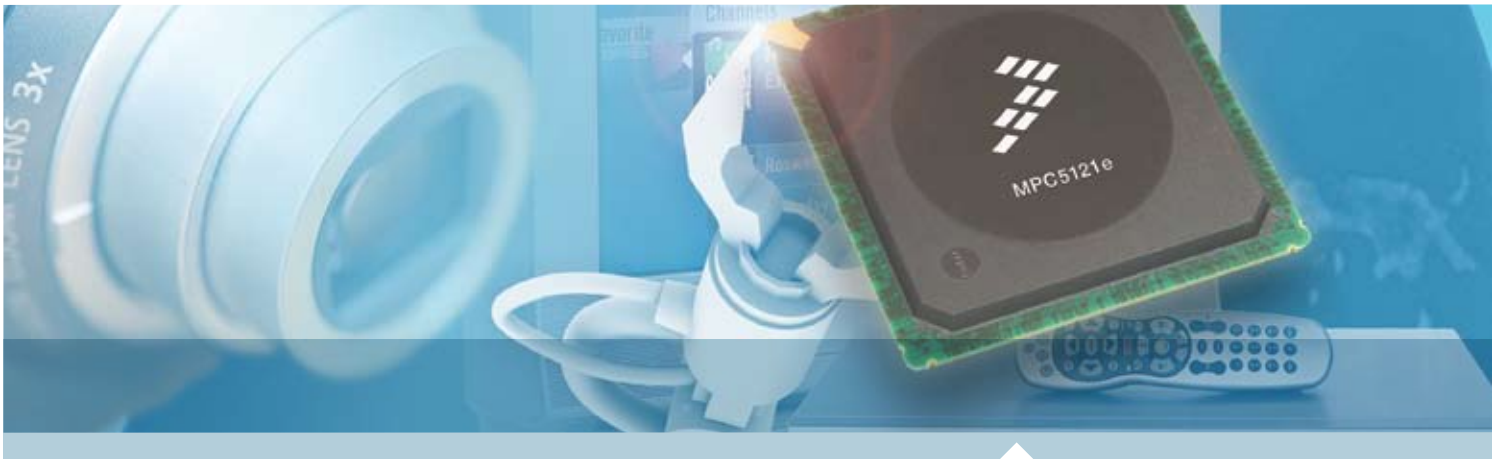


32-bit Microprocessors Fact Sheet

MPC5121e

Multi-core processor for consumer and industrial applications

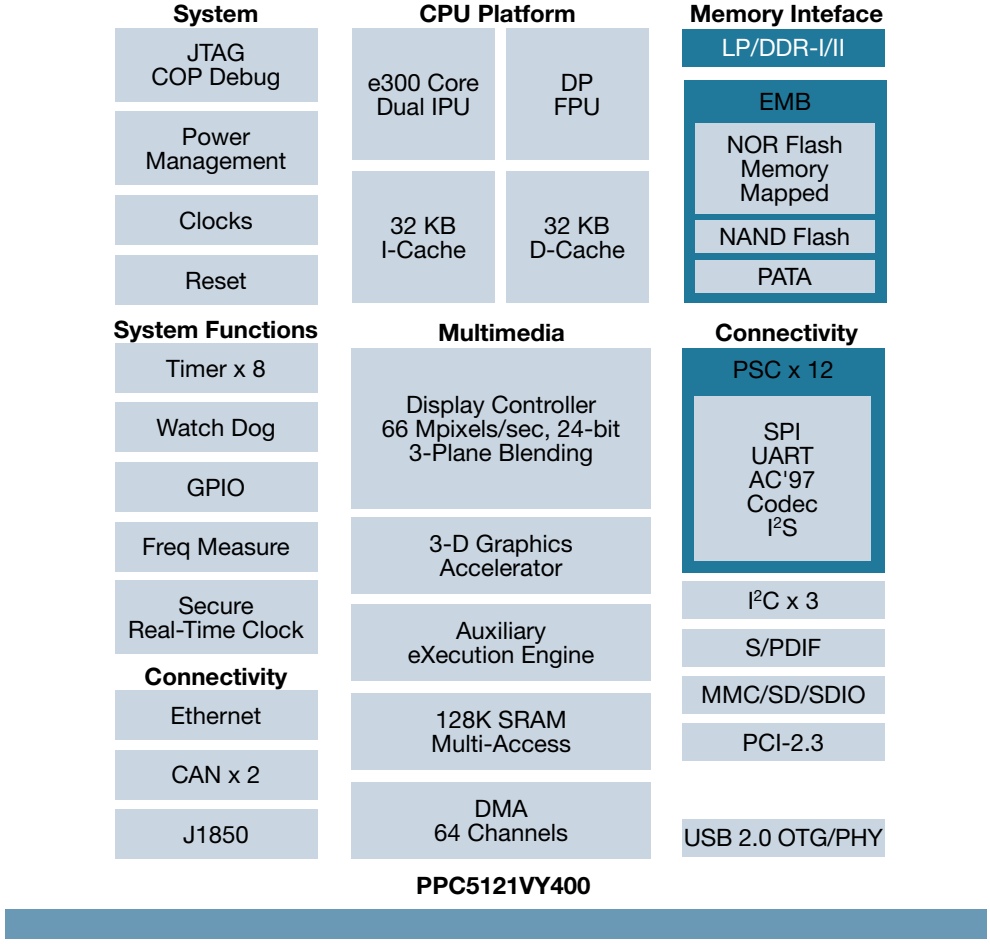
Overview

The latest in integrated processors, Freescale's MPC5121e provides a computing platform for OEM, aftermarket, consumer and industrial applications. The MPC5121e uses an e300 core built on Power Architecture™ technology and is ideal for any embedded solution that requires sophisticated displays, graphics acceleration, rich user interfaces and network connectivity. The MPC5121e multi-core processor offers competitive cost, quality, reliability and exceptional performance.

Applications

- Gaming and pachinko machines
- Set-top boxes
- Surveillance and security systems
- Ultra-mobile PCs
- Industrial control
- Heavy equipment
- High-resolution display applications
- Health Care devices
- Military/defense
- Process control
- Data collection
- Factory automation
- Non-automotive transportation
- IP connectivity

MPC5121e Block Diagram



freescale semiconductor

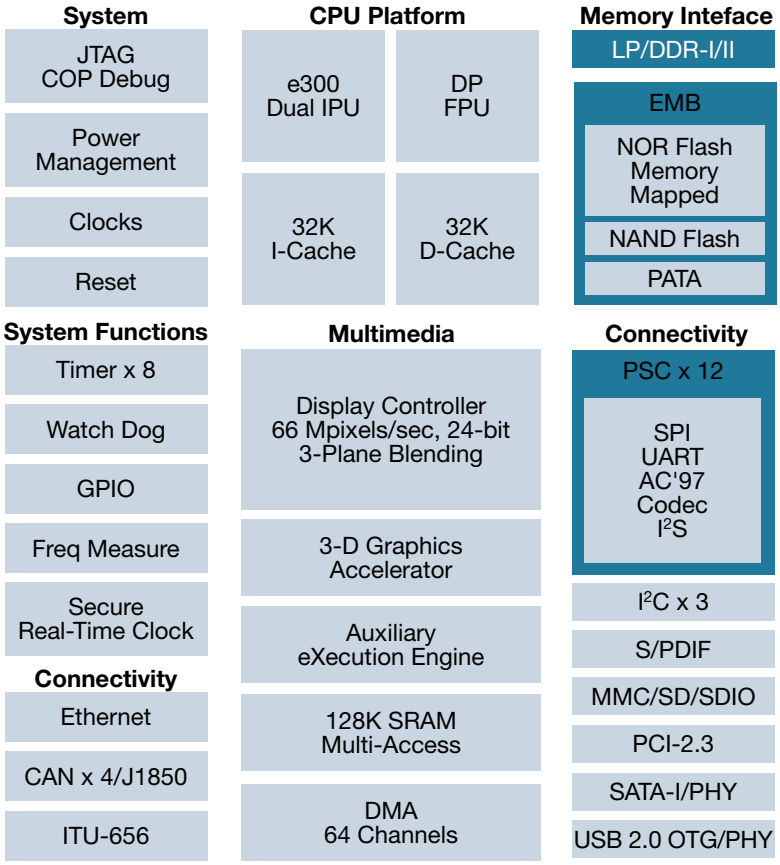
Key Features

- Up to 400 MHz and 760 MIPS performance
- e300 core built on Power Architecture technology
- Instruction and data memory management unit (MMU)
- Double precision floating point unit (FPU) AXE, a fully programmable, 200 MHz, 32-bit RISC core for real-time acceleration tasks, such as audio
- PowerVR® MBX Lite 2-D/3-D graphics engine
- Integrated display controller supports up to 720p and WXGA resolutions
- ITU 656 interface
- 12 programmable serial controllers (PSC) each capable of UART, I²S, Codec/PCM, AC97, and SPI functionality
- SDRAM DDR1/DDR2/mobileDDR memory controller
- 10/100 Fast Ethernet media access controller (MAC)
- Three I²Cs
- PCI 2.3 interface
- Two USB 2.0 High-Speed On-The-Go (OTG), one with physical layer (PHY)
- Serial Advanced Technology Attachment/ Parallel Advanced Technology Attachment (SATA/PATA)
- Four controller area network (CAN) modules
- 64-channel intelligent DMA I/O controller
- Sony/Philips Digital Interface Format (S/PDIF) serial audio interface
- Secure Digital High-Capacity (SDHC) MMC/ SD/SDIO card host controller

mobileGT™ Products

The MPC5121e is the latest addition to the mobileGT family of processors. With the consistent application of the e300 CPU core, software support and compatibility already exists, providing for a rich ecosystem of development tools and support. Freescale plans to enable significant levels of firmware and software driver support. This will include popular real-time operating systems from Green Hills, QNX and Wind River, as well as open-source Linux® solutions.

MPC5121e Block Diagram



MPC5121VY400B, MPC5121YVY400B

MPC5121e Selector Guide

Part Number	Market	Temp. Range	Features	Package	Speed
PPC5121VY400	Consumer	0° C to +70° C	2 CANs	516-pin TE-PBGA, pb-free, RoHS compliant	Up to 400 MHz
MPC5121VY400B	Consumer	0° C to +70° C	4 CANs ITU-656	516-pin TE-PBGA, pb-free, RoHS compliant	Up to 400 MHz
MPC5121YVY400B	Industrial	-40° C to +85° C	4 CANs ITU-656	516-pin TE-PBGA, pb-free, RoHS compliant	Up to 400 MHz

Development Tools

Part Number	Description	Pricing
ADS512101	MPC5121e Base Development System	$999.00 USD

Learn More: For current information about 32-bit integrated processors, please visit **www.freescale.com/mobilegt.**

Document Number: MPC5121ECONFS
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