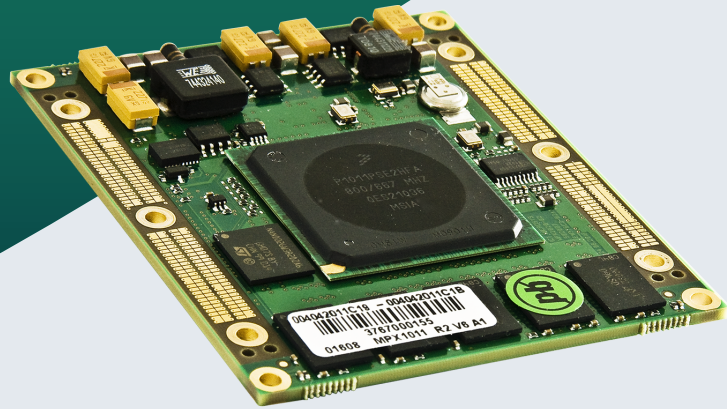


SoMs Power Architecture

# miriac® MPX1022

System on Module based on NXP® QorIQ® P1022  
CPU



## Highlights



- up to 2 GB soldered DDR2 memory
- up to five SerDes up to 3.125 GHz multiplexed across controllers
- two 208 Pin Zero Force Connectors, that make all I/O and bus signals available to the carrier board
- I<sup>2</sup>S interface with maximum sampling frequency of 192 kHz
- LCD interface supporting a display of 1280 x 1024P @ 60 MHz, 24 bits per pixel





## Product Description

The miriac® MPX1022 CPU Module is another member of a series of QorIQ® based SoMs by MicroSys. It is functional compatible to the MPX2020 products. The devices in these two platforms are software compatible, sharing the e500 Power Architecture core and peripherals, as well as being fully software compatible with the existing PowerQUICC processors. This enables you to create a product with multiple performance points from a single board design. The MPX1022 SoM supports the CPUs audio visual and two SATA interfaces and offers two processor cores as main benefit over the QorIQ® P1011 family, P1022.



## Features

CPU	
Architecture:	PowerPC
Processor:	NXP® QorIQ® P1022 CPU, dual 500v2 core @ 600 - 1055 MHz, 256 kB L2 Cache with ECC, also configurable as SRAM and stashing memory
Memory	
Flash:	up to 512 MB NAND Flash
Flash Card:	1x SD/MMC
Graphic	
Graphics Controller:	LCD interface supporting a display of 1280 x 1024P @ 60 MHz, 24 bits per pixel
High Speed IO	
SerDes lanes:	up to five SerDes to 3.125 GHz multiplexed across controllers, e.g.  - 3x PCI Express® interfaces  - 2x SATA interfaces
USB 2.0:	2x USB 2.0
Operating Condition	
Temperature:	optional: ext. temp.
Mechanical	
Formfactor:	MPX-1, 77 mm x 66 mm
Software / Additional	
Software Support:	Linux  Microware OS-9  VxWorks  QNX  others are avialable on request

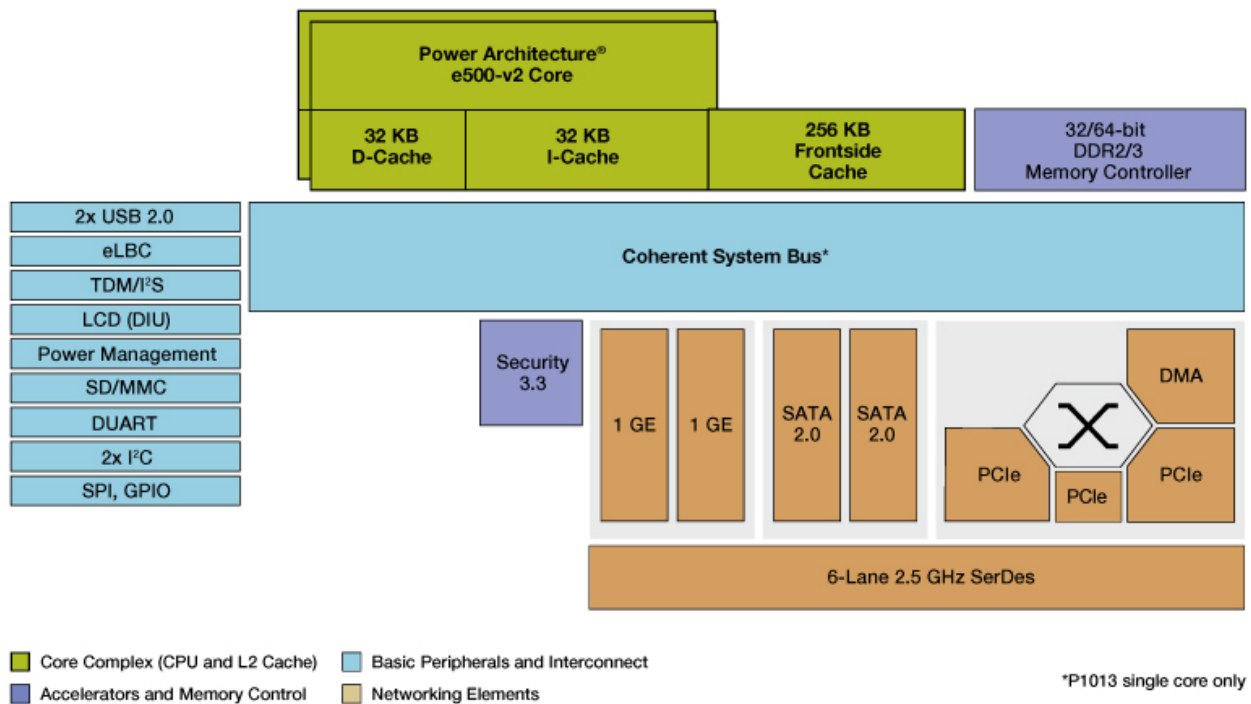
**General Note:**

Our standard product versions offer what we consider to be the optimum configuration in terms of performance, price, usage and TDP. The product features lists specify the maximum range of functions per interface. However, not all interfaces or functions are always available in parallel. Flexible SERDES multiplexing is one of the reasons for this. In addition, we provide multiple memory expansion options and are also happy to accommodate specific customer wishes. So do not hesitate to [contact us](#) directly to discuss your desired configuration.



## Block Diagrams

### QorIQ P1022/13 Communication Processors



QorIQ®, NPX®, P1013, P1022, block diagram



## Order Info

Name	Code	Description	Status
miriac® MPX1022	840201	2 QorIQ® e500v2, 1.0 GHz, 2 GB DDR2 w ECC, 4 MB NOR Flash, 256 MB NAND Flash, 0 °C to 70 °C, w/o SEC	EOL
miriac® SBC1022 Development Kit	839613	miriac® SBC1022 Development Kit, incl. order #: 839606 (SoM), Linux BSP accessories	build on order



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