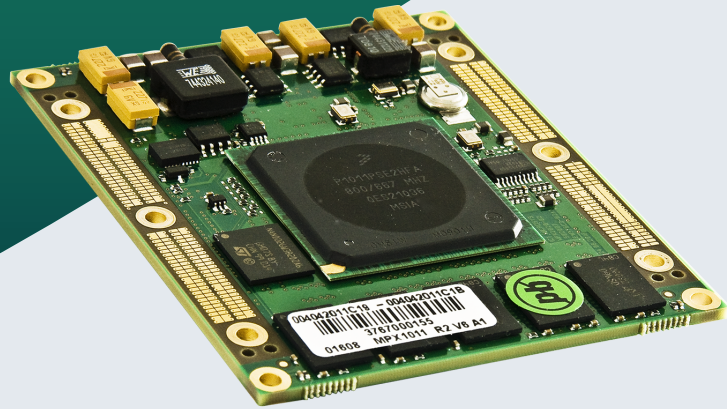


SoMs Power Architecture

miriac® MPX1013

System on Module based on NXP® QorIQ® P1013
CPU



Highlights



- up to 1 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
- I²S 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 mirac® MPX1013 CPU Module is the third of a series of QorIQ® based SoMs by MicroSys and 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.



Features

| CPU | |
|-----------------------|---|
| Architecture: | PowerPC |
| Processor: | NXP® QorIQ® P1013 CPU, single 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 available on request |

General Note:

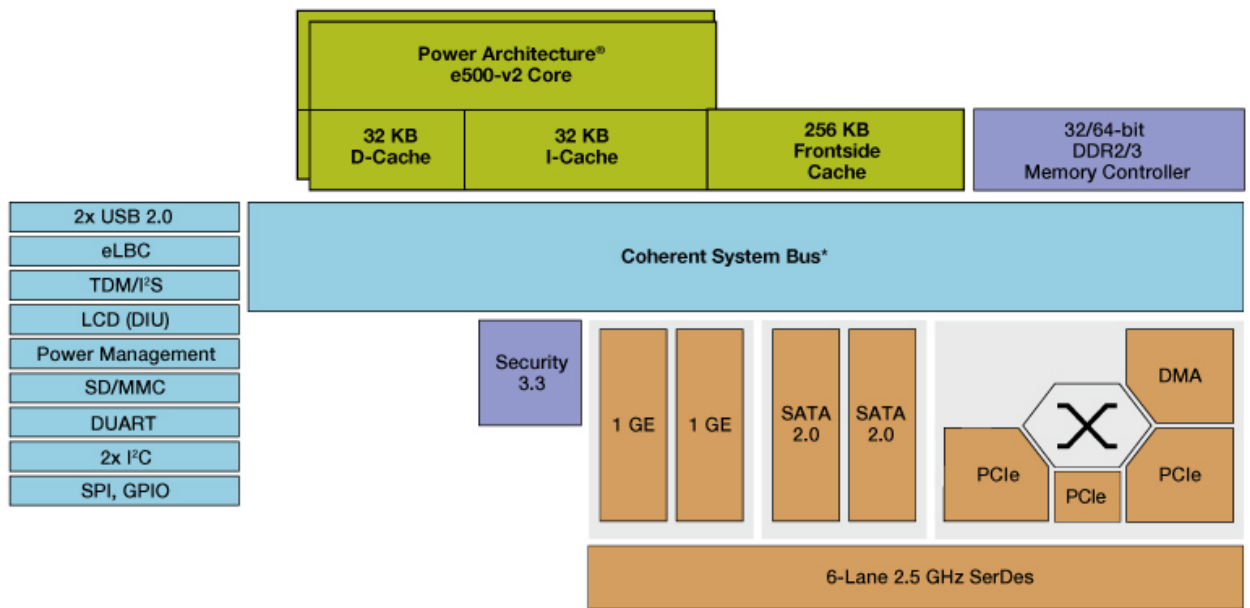
Our standard product versions offer what we consider to be the optimum configuration in terms of performance, price, usage and TDP.

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



- Core Complex (CPU and L2 Cache)
- Basic Peripherals and Interconnect
- Accelerators and Memory Control
- Networking Elements

*P1013 single core only

NPX®_P1013_1022BD



Order Info

| Name | Code | Description | Status |
|---------------------------------|--------|--|--------|
| miriac® MPX1013 | 840202 | QorlQ® e500v2, 1.0 GHz, 1 GB DDR2 w ECC, 4 MB NOR Flash, 256 MB NAND Flash, 0 °C to 70 °C, w/o SEC | EOL |
| miriac® SCB1013 Development Kit | 839612 | includes MPX1013 SoM (order# 840202), Carrier, Linux BSP and accessories | |



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