

SoMs Power Architecture

miriac® MPX1011

System on Module based on NXP® QorlQ® P1011 CPU



Highlights







- up to 1 GB soldered DDR2 memory
- up to for 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
- High performance, low power, single core CPU
- The P1011 processor provides single core solutions for the 533 MHz to 800 MHz performance range

NXP Gold Partner



Product Description

The miriac® MPX1011 CPU Module is the second of a series of QorlQ® based SoMs by MicroSys and pin 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® QorlQ® P1011 CPU, single 500v2 core @ 533 - 800 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 | | |
| High Speed IO | | | |
| SerDes lanes: | up to for SerDes to 3.125 GHz multiplexed across controllers, e.g. | | |
| | - 2x PCI Express® interfaces | | |
| | - 2x SGMII interfaces | | |
| USB 2.0: | 2x USB 2.0 | | |
| Mechanical | | | |
| Formfactor: | MPX-1, 77 mm x 66 mm | | |
| Software / Additional | | | |
| Software Support: | Linux | | |
| | Microware OS-9 | | |
| | VxWorks | | |
| | QNX | | |
| | others are avialable on request | | |
| | | | |

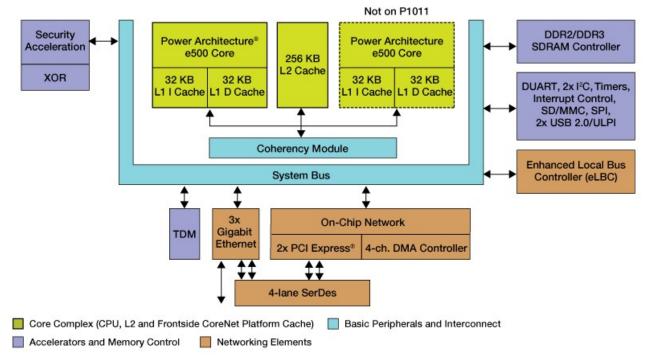
General Note:

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 <u>contact us</u> directly to discuss your desired configuration.

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Block Diagrams

QorlQ P1020 and P1011 Block Diagram



NXP® QorlQ® P1020-1011

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| Name | Code | Description | Status |
|---------------------------------|--------|---|--------|
| miriac® MPX1011 | 837606 | QorlQ® e500v2, 0.8 GHz, 512 MB DDR w ECC, 4 MB NOR Flash, 256 MB NAND Flash, 0 °C to 70 °C, w/o SEC | EOL |
| miriac® SBC1011 Devleopment Kit | 839611 | incl. order #839603 (SoM), Linux BSP, accessories | active |
| miriac® MPX1011 | 837607 | QorlQ® e500v2, 0.533 GHz, 512 MB DDR w ECC, 4 MB NOR Flash, 256 MB NAND Flash, 0 °C to 70 °C, w/o SEC | EOL |
| miriac® MPX1011 | 837608 | QorlQ® e500v2, 0.8 GHz, 512 MB DDR w ECC, 4 MB NOR Flash, 256 MB NAND Flash, -40 °C to 85 °C, w/o SEC | EOL |





Mühlweg 1 82054 Sauerlach Germany Sales: +49 8104 801-130 E-Mail: info@microsys.de www.microsys.de