

miriac® MPX1022 (EOL)

System on Module based on NXP® QorlQ® P1022 CPU

- 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
- I²S interface with maximum sampling frequency of 192 kHz
- LCD interface supporting a display of 1280 x 1024P @ 60 MHz, 24 bits per pixel



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The miriac® MPX1022 CPU Module is another member of a series of QorlQ® 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 QorlQ® P1011 family, P1022.







Block Diagrams

QorlQ P1022/13 Communication Processors Power Architecture® e500-v2 Core 256 KB Frontside Cache 32/64-bit DDR2/3 Memory Controller 32 KB D-Cache 32 KB I-Cache 2x USB 2.0 eLBC Coherent System Bus* TDM/I2S LCD (DIU) Power Management Security 3.3 DMA SD/MMC DUART 1 GE 1 GE 2x I2C PCle **PCIe** SPI, GPIO 6-Lane 2.5 GHz SerDes Core Complex (CPU and L2 Cache) Basic Peripherals and Interconnect *P1013 single core only

Networking Elements

Accelerators and Memory Control

Features

CPU Architecture PowerPC Processor NXP® QorlQ® 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 up to five SerDes to 3.125 GHz multiplexed across controllers, e.g. SerDes lanes • 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

- Linux
- Microware OS-9

Software Support

- VxWorks
- QNX
- others are avialable on request

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.

Take a look at related products





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