

*miriac*TM SBC2020

Single Board Computer

Product Description

Introduction

The miriacTM SBC2020 Single Board Computer is a member of a family of Freescale QorIQTM P2/P1 series based complete system solutions by MicroSys. The development kit offers a fast means to implement rugged designs with the aim to withstand extreme and harsh environments. Typical applications for it are found in automotive, industrial automation, medical, railways & transportation, construction and defense market segments. The flexible miriac MPX Module-Carrier-Concept in combination with the provided board support packages of operating systems, is an excellent platform for rapid prototyping and it offers fast time to serial production. Software development environments are an integral part of the product. Middleware to address market specific requirements like field bus solutions (e.g. EtherCAT or PROFINET) embedded graphics (e.g. XiBase9, EmbeddedQT) or Soft-PLCs (e.g. logi.cad, IEC 61131-3) for control applications can be provided on request.

Key system features

The SBC2020 offers an excellent combination of protocol and interface support including dual high-performance CPU cores, DDR2 memory, three enhanced triple speed Ethernet ports, an USB 2.0 interface two RS232 connectors, one SD-Card- and three PCI Express slots, to use existing hardware for expansion. The device also supports IEEE Std 1588TM precision time protocol for network synchronization over Ethernet. Up to 2 GB DDR2 and 512 MB NAND Flash memory can be supported.

Freescale's QorIQ technology is a perfect fit for any application requiring very high performance but low power on a small form factor system. The system is production ready, if it fits the target environment. Conduction cooling can be implemented, if needed.

The MPX-System on Modules as core of the SBC2020 are integrated by an innovative connector technology that allows mounting in both directions and stacking of modules with various interface boards. This offers an easy means to check out system variants and guarantees a fast turnaround into series production. Versions for extended temperature (- 40°C..+85°C) are available.

Feature summary

- Freescale QorIQ P2020, 2x e500v2 core @ 1.0 or 1.2 GHz
- up to 2 GB soldered DDR2 memory
- up to 512 MB NAND Flash
- three 10/100/1000 Mbps Ethernet ports with IEEE® 1588 support
- 1x USB 2.0, SPI, GPIO, I²C
- 2x RS232
- 2x PCIe x 1 slots
- 1x PCIe x 2 slot
- SD Card slot
- Single +12 V power input
- JTAG interface for hardware-related debugging
- Dev Kit for immediate start up, e.g. power supply, cables (optional)
- Board Support Packages for various operating systems (optional)

SBC2020 Single Board Computer incl. MPX2020 SoM



Software-Support

Linux, VxWorks, Microware OS-9, MicroC/OS-II, QNX; others are available on request.

Order Information

Order Nr.	Order Text	Status
839602	miriac SBC2020 Single Board Computer P2020@1.2 GHz, 1 GB DDR2, 256 MB Flash	StI
839601	SBC1011 Starter Kit for MPX2020, includes Order Nr. 839602	StI
831501	MPE03 MPX Header Pin Adapter Board 208 Lines	StI

StI: 'Stock Item' – normally available ex stock

BoO: Build on Order – will be built after order received

You need a different variant? – No problem! Just contact us.

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