## Technical details

### CPU

Atmel AT91RM9200 with ARM920T core
ARM9TDMI instruction set
200 MIPS at 180 MHz
Memory Management Unit (MMU)

### Memory

64 MB SDRAM
16 MB Flash
MMC/SD card slot (onboard),
optional CF card via PXB

### Peripherals (onboard)

2 serial interfaces
Debug unit as an alternative to the first serial interface
MAC 10/100 Mbit/s ethernet
Portux extension bus (PXB)
JTAG

### Peripherals (Portux Extension Bus)

USART 2, USART 3
TWI (two-wire interface)
SPI (serial peripheral interface)
PIF bus (universal 8-bit bus with 64 I/O addresses)
$I^2C$ bus, USB host and client port

### Operating system

Linux 2.6.x and „U-Boot" bootloader

### Operating voltage

3.3 V, supply voltage: 6.5 - 40 V
Power consumption: 70 mA at 10 V normal operation

### Attributes

Eurocard version: 100 x 71 x 16 mm
Sandwich version: 100 x 71 x 11 mm

*taskit*

## We´re here for you!

Do you have your own ideas for innovative uses for
the Portux920T card?
We are naturally pleased to produce customized extension cards to meet your individual demands.
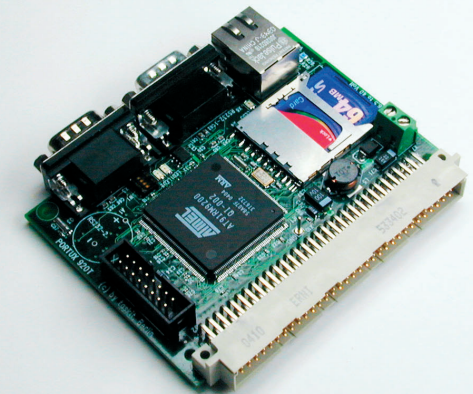Talk with the creative minds on our development team
about the many possible applications for our flexible
embedded ARM!

*embedded systems*

# PORTUX920T

*Embedded ARM
and Linux*
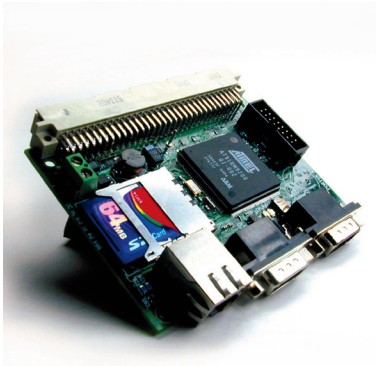
Portux920T

## The efficient CPU module

Based on the Atmel AT91RM9200 controller, taskit has developed a board to satisfy the most challenging requirements.

Highlights are its powerful 180 MHz ARM-920T core and a wide varity of integrated peripherals, such as USB 2.0, Ethernet and four USARTs.

The Linux open-source operating system offers developers a proven, cost-efficient platform. With taskit at your side, you have a trusted partner for support and service during every development stage.

## All inclusive: U-Boot and Linux 2.6

The open Linux operating system and function-rich U-Boot bootloader are already installed. With its journaling Flash file system and myriad network services, you can put your Portux920T to use immediately. You can develop custom applications either on a Linux-based development PC or on a Windows host using Cygwin. We give you an already-compiled toolchain, saving time and integration costs.

## Flexible base board

The base board comes with 10/100 Mbit/s Ethernet and two serial interfaces.

With 64 MB SDRAM, integrated 16 MB Flash and an MMC/SD card slot, Portux920T offers enough room for demanding, memory-intensive applications. Additional peripherals can be connected using the PXB. This bus offers a 96-pin connector, which can be assembled either angled or in-line. It enables an easy extension with own customized developments or an Add-On card from taskit.

At 100 x 71 mm, the card format represents a half Eurocard and can be built into 19-inch racks. Upon request, Portux can be equipped with a compatible front plate (2x DSUB, 1x RJ45). With an extension board of the same size, the format corresponds to a full Eurocard, enabling installation in standard housings. The straight pin-row facilitates sandwich architecture. With its integrated power supply, the Portux920T board can, of course, also be used as a single-board computer.
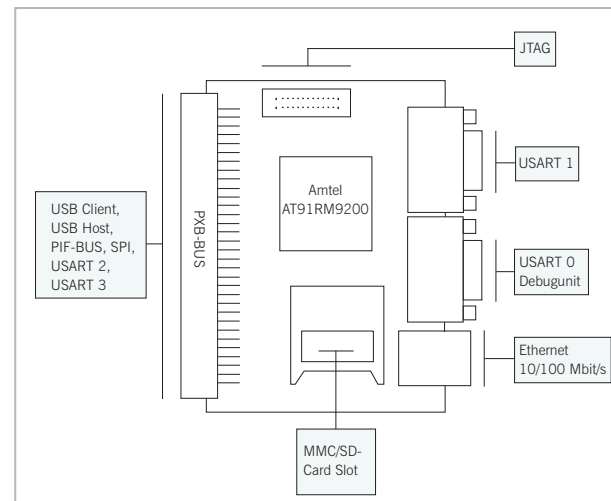


Portux920T base board

## Hardware extension: the PXB

Many applications require extending the existing hardware with additional modules. The 96-pin Portux Extension Bus (PXB) ensures the necessary flexibility. Plus: The Portux920T will not be the only CPU card from taskit to use this bus.

Self-developed hardware thus remains CPU-card independent. Integrated components of the AT91RM9200 can also be used via the PXB: USART 2 and 3, USB Host/Client, CompactFlash, $I^2C$ bus, TWI and SPI. Altogether, 32 I/O ports are available, though they are multiplxed with integrated components. The actual number of I/O ports thus depends on the configuration. The PIF bus, a universal 8-bit bus for simple connection of your own components, is also integrated into the PXB.
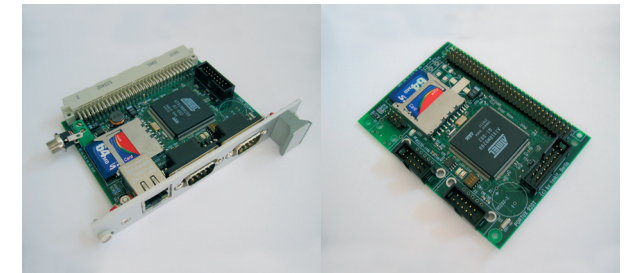


Eurocard version (l.) and Sandwich version (r.)

## Modularity protects your investment

Embedded systems demand long-term availability. To reduce the risk of discontinuations, taskit uses exclusively standard components. And in the event that the unthinkable occurs, the Portux920T modular concept ensures that minimal effort would be required to adapt a new CPU card. The Linux software interface and PXB hardware interface remain stable.