

Product Information

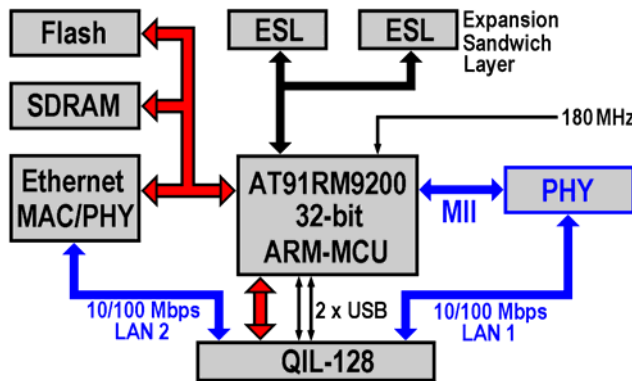
DIL/NetPC ADNP/9200

Embedded Linux Module with Dual Ethernet, USB Host and Device Interfaces



Description

The DIL/NetPC ADNP/9200 provides a very compact Atmel AT91RM9200 ARM9-based embedded controller with preinstalled U-Boot boot loader, Linux O/S, full-featured TCP/IP stack, Web (HTTP) server, Telnet and (T)FTP support, Expansion Sandwich Layer (ESP), USB Host and Device port for embedded networking applications with Ethernet, USB and WSN (Wireless Sensor Network) connectivity.



Block diagram ADNP/9200: The DIL/NetPC ADNP/9200 comes with two 10/100 Ethernet LAN interface, 20-bit GPIO, 1 x SPI, 3 x UARTs, 2 x USB Host port, 1 x USB Device port and Expansion Sandwich Layer (ELS) connector. The 16-bit bus interface (available over the QIL-128 connector) supports the connection to external chips and devices. The main application area of the ADNP/9200 is the new field of Ethernet-to-WSN (Wireless Sensor Network) gateways for industrial and laboratory environments.

The ADNP/9200 is built around the Atmel 32-bit AT91RM9200 ARM9 microcontroller unit (MCU) running with 180 MHz. The external main components for the AT91RM9200 MCU are two Flash memory chips with 32 Mbytes, two 64 MByte SDRAM memory chips, and chips for the dual 10/100 Mbps Ethernet LAN interface.

The ADNP/9200 offers the footprint of a standard 128-pin QIL socket with 2.54mm centers and all the hardware and software features necessary to add dual high-speed Ethernet and USB host and device connectivity capabilities to any product design. The ADNP/9200 is developed specifically for products that need to be connected to 10/100 Mbps Ethernet-based TCP/IP networks on one side and WSNs (Wireless Sensor Networks) on the other side.

Technical Data ADNP/9200

Basic

CPU	32-bit Atmel ARM9 MCU AT91RM9200
Speed	180 MHz
RAM	64 MByte SDRAM
Flash	32 MByte
Ethernet	2x 10/100 Mbps Ethernet

I/O Functions

Parallel (PIO)	20-bit GPIO
Serial I/Os	1x SPI, 3x UARTs,
USB Interfaces	1x USB Device Port, 2x USB Host Port (compliance with USB 2.0 full-speed and low-speed specification)
Bus Interface	16-bit for external expansion
Expansion Sandwich Layer	ESL 1.0 pinout with 8x GPIO, 1x USB Host Port, 1x SPI, 1 x UART

Special Functions

RTC	1x Real Time Clock with external battery-backup
Watchdogs	1x timer watchdog, 1 x power supervisor
Chip Select Outputs	4x CS output lines for external expansion
Interrupts	1x INT interrupt input line for external devices

Other

Mechanical	128-pin QIL form factor
Size	36mm x 82mm
Power	3.3 VDC
Current	300 mA typical

Expansion Sandwich Layer (ESL) Boards

E2Z/ESL1	Expansion Sandwich Layer (ESL) board (ZigBee compliant)
E2B/ESL1	Expansion Sandwich Layer (ESL) board (Bluetooth compliant)
Other Wireless Technologies	On Request

Delivery

ADNP/9200	ADNP/9200 with preinstalled embedded Linux O/S
DNP/SK27	Starter Kit with ADNP/9200 and evaluation board DNP/EVA11

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