ADM5120

System on Chip (SoC) Network Controller

The ADM5120 is a high performance, integrated and highly flexible SOC (System-On-Chip) network controller.

Internally, the ADM5120 consists of a high performance (227 MIPS) embedded MIPS CPU, an embedded switch engine, a five port 10/100M PHY, an embedded USB host and interfaces for PCI, UART, SDRAM and Flash. The ADM5120 enables the sharing of IP-based broadband services throughout the home and office using wired and wireless computers, entertainment equipment, printers and other intelligent devices.

It's applications include a SOHO/SME Gateway, NAT Router, USB Print Server and a Single / Multi band WLAN Access Point aswell as a range of PCI connected applications. The ADM5120 can be combined with a number of Infineon's other products to add functionality to VoIP and ADSL among other technologies.

Applications
- Soho and SME Gateways
- NAT Routers
- USB Print Servers
- WLAN Access Points
- Wired and Wireless ATAs

Features
- 175 MHz/227 MIPS 4Kc CPU with an embedded cache, 8K-byte I-cache and 8K D-cache
- An embedded memory management unit (MMU) 32-entry TLB (Translation Lookaside Buffer), with 16 organized entry pairs
- IEEE 802.3 Fast Ethernet 5 auto-MDIX (auto-crossover) twisted paired LAN interfaces with embedded 10/100M PHY and 1 GMII/MII interface
- PCI, UART, SDRAM and Flash interfaces

- Flexible WAN port selection and embedded switch engine and Data-buffer/Address-look-up table
- Look-up table (read/write-able)
- MAC layer security and MAC clone
- MAC filtering, Bandwidth control and a Class of Services (CoS) with two priority levels
- Shared dynamic data buffer management with embedded SSRAM
- Port grouping VLAN (overlap-able)
- Supports store & forward, modify cut-through, and fast cut-through frame forwarding.

Software Features
- Linux OS
- IEEE 802.3 Ethernet Driver, IEEE 802.11 WLAN Driver and RS232 Driver for Console User Interface
- DHCP Server/Client, PPP over Ethernet (PPPoE), Network Address Translation (NAT) for IP Address Mapping/Sharing/Security
- DNS Proxy, Simple Network Time Protocol (SNTP) and Firewall

Physical Characteristics
- CSM CMOS, 0.18 1P5M
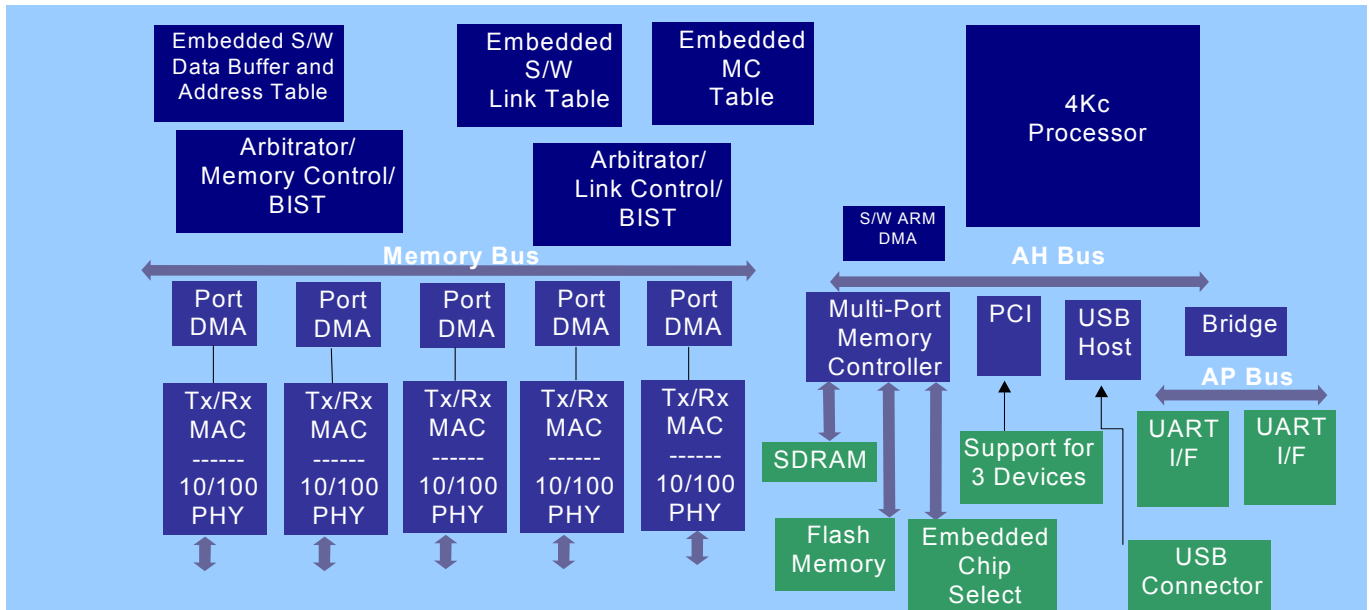- 324-ball BGA package
- 1.8/3.3 V Variable Voltage

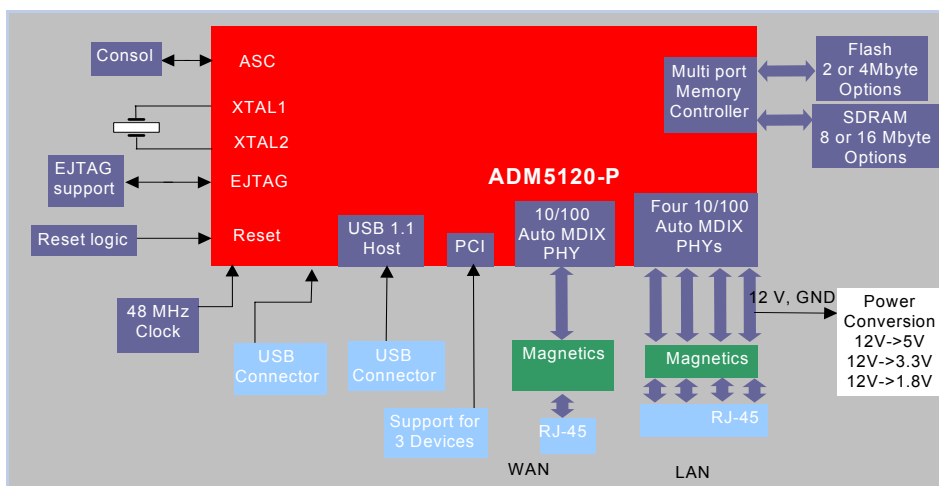www.infineon.com/products

Wireline Communications

Infineon technologies

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ADM5120 Block Diagram

Product Summary

ADM5120

Product	Sales Code	Description	Package
ADM5120	ADM5120	Network Controller	BGA324

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Application Example

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The information herein is given to describe certain components and shall not be considered as a guarantee of characteristics.

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Information

For further information on technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies Office.

Warnings

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Published by Infineon Technologies AG