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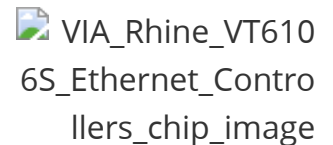
# Rhine III VT6106S/L Fast Ethernet Controller



The feature rich, ultra compact package design of the VIA Rhine III VT6106S/L Fast Ethernet Controller enables easy integration of networking capability into a wide range of mobile, desktop and small form factor devices.

In today's homes and offices high speed Ethernet networks form the backbone of data communication systems, providing connections between computers, peripherals, and the Internet commonly at 10Mbps and increasingly at 100Mbps in full and half duplex modes.

The VIA Rhine III VT6106S/L is a Fast Ethernet controller developed to provide system designers a cost effective solution that combines the physical and media access control layers into a single device. The compact 14x14 LQPF package design of the VIA VT6106S enables easy integration into LAN-on-Motherboard applications in notebooks and an emerging new generation of small form factor digital devices, as well as in desktop PCs.



Fully compliant with 10Base-T and 100 Base-T standards, the VIA VT6106S/L has an advanced flow control scheme allowing data transfers up to 200Mbps in full duplex mode. A 32-bit PCI bus-master interface employs a custom ASIC chip that optimizes the data throughput between the chip and the PCI bus. The VIA VT6106S/L also features Wired for Management support (WFM), remote bootability, and DMI 2.0 compliance. Power efficiency is provided through support for Wake-on-LAN and ACPI features, and the VIA VT6105 LOM is manufactured using a low power process.

Available as a single chip or as a PCI add-in card, the VIA VT6106S/L has a low power embedded 100Base-TX transceiver that auto-configures the data speed and duplex modes. With its small size and low power consumption the VIA VT6106S/L is ideal for a wide range of digital devices and Information Appliances, helping bring high speed Ethernet connectivity to the electronics of tomorrow.



**Ultra Compact Design:** The VIA VT6106S/L has a small, 128-pin 14×14 LQFP/14×20 PQFP package design, taking up less motherboard real estate and thus making it easy to integrate into a wide range of mobile and small form factor devices.

**Remote Operability:** Providing flexibility in network operation, the VIA VT6106S/L offers network remote bootability and Wired for Management (WFM) version 2.0 support for remote network access.

**Power Efficiency:** Incorporating effective power management features such as ACPI, Wake-on-LAN, and a low power 0.22 micron CMOS design; the VIA VT6106S/L is ideal for low power requirement applications.

**Flexibility:** Available as an onboard chip or as a PCI add-in card, the VIA VT6105 LOM has an integrated design contains the physical, and media layers in a single chip with a 32 bit PCI bus-master interface, and a 3.3V IO voltage.

### emBoot PXE Certification

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## Key Features

- » Single chip full/half duplex 10/100Mbps Fast Ethernet Management Controller
- » IEEE 802.3/802.3u 10Base-T and 100Base-TX compatible
- » 32bit PCI 2.2 Bus-Master Interface
- » Low power 100Base-TX transceiver embedded
- » Supports 10Mbps and 100Mbps N-way auto-negotiation operation
- » FIFO buffers to reduce CPU utilization
- » Supports ACPI including Wake on LAN
- » Wake on LAN (W-O-L) feature for power management of connected devices
- » Network Remote boot (RPL and PXE)
- » WFM 2.0 remote network access
- » Four LED support for status
- » DMI 2.0
- » IO 3.3v/core 2.5v power, and PCI bus 5V tolerant
- » Low power 0.22um TSMC CMOS process
- » 128-pin 14×14 LQFP package (6106S)
- » 128-pin 14×20 PQFP package (6106L)





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