



JMC251

PCI Express to Gigabit Ethernet & Card Reader Host Controller

● Overview

The JMC251 is a single-chip PCI-Express Gigabit Ethernet combo Card Reader Host controller.

The Gigabit Ethernet function is compliant to IEEE 802.3 Media Access Controller, and IEEE 802.3u 1000BASE-T/100BASE-TX/10BASE-T. The MAC supports IPV4, IPV6, TCP, UDP checksum, segmentation task-offload, priority encoding and IEEE802.1Q VLAN features. It also supports Receive Side Scaling (RSS) to balance the loading for received data processing across multiple CPUs. The Ethernet function supports remote wakeup (including AMD Magic Packet™ and Microsoft® Wake-up frame) in both ACPI and APM (Advanced Power Management).

The Card Reader Host provides one set of 4-in-1 Combo Memory Card Reader Mechanism, and supports one of SD/SDHC/MMC/MMC Plus/MS/MS Duo/MS-HG (1/4/8-bit) & xD access at the same time.

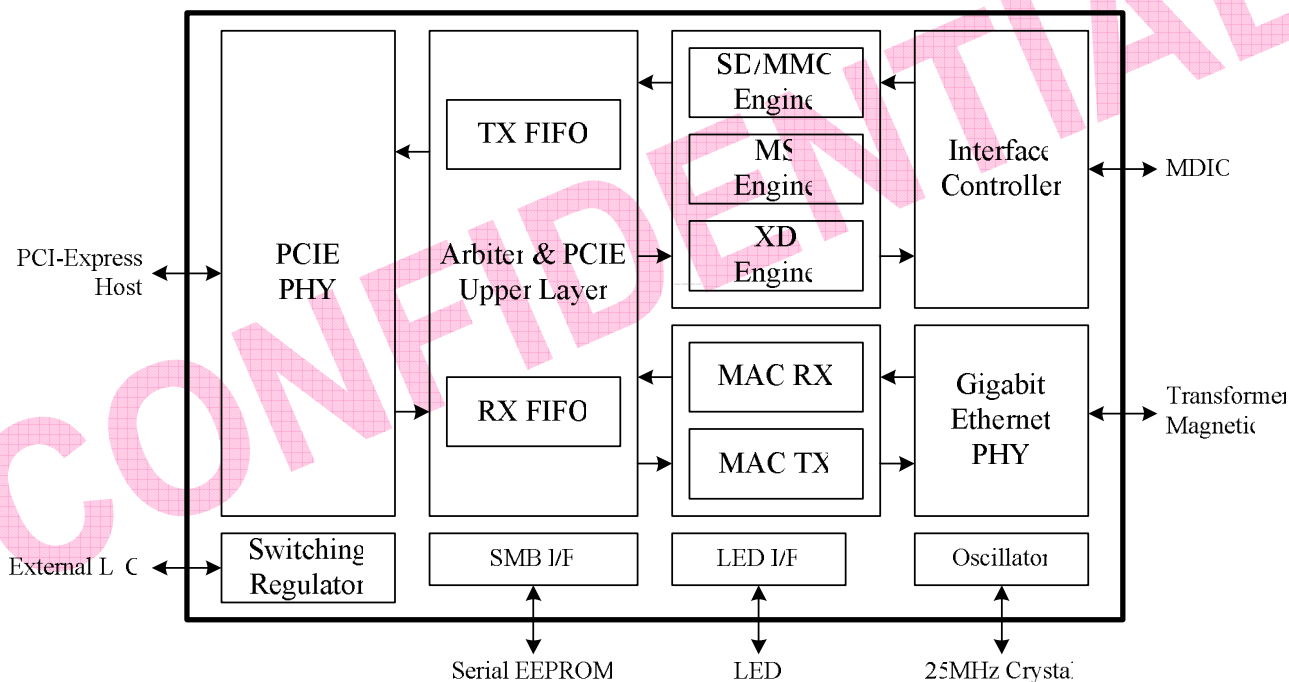
● Features

- ✓ Compliant with PCI Express Base Spec. Revision 1.1
- ✓ Integrated one-lane 2.5GHz PCI Express PHY
- ✓ Support multi-entry MSI and multi-vector MSI-X.
- ✓ Compliant with IEEE 802.3, IEEE 802.3u, and IEEE 802.3ab
- ✓ Integrated 10/100/1000Mbps transceiver
- ✓ Support Auto Negotiation
- ✓ Support Wake-on-LAN
- ✓ Support Microsoft® NDIS 5, NDIS6 Checksum Offload (IPv4, IPv6, IP, TCP, UDP)
- ✓ Support Microsoft® NDIS 5, NDIS6 Transmit Segmentation Task-offload (Large/Giant send)
- ✓ Support Receive Side Scaling (RSS)
- ✓ Support IEEE 802.1P Layer 2 Priority Encoding
- ✓ Support IEEE 802.1Q VLAN insertion and removal
- ✓ Support jumbo frame
- ✓ Supports 1 set of "4-in-1 Combo Memory Card Reader Mechanism"
- ✓ Compliant with SD Spec. Part 1 Physical Layer Spec. Version 2.00
- ✓ Compliant with SD Spec. Part A2 SD Host Controller Standard Spec. Version 2.00
- ✓ Compliant with SD Spec. Part E1 SDIO Spec. Version 2.00
- ✓ Compliant with SD Spec. Part 2 File System Spec. Version 2.00
- ✓ Compliant with MultiMediaCard System Spec. Version 4.2
- ✓ Compliant with Memory Stick Standard Format Spec. Version 1.43-00
- ✓ Compliant with Memory Stick Standard Memory Stick PRO Format Spec. – without security spec. – Version 1.02-00



- ✓ Compliant with Memory Stick Pro-HG Duo Spec. Version 1.00
- ✓ Compliant with xD-Picture Card™ Card Spec. Version 1.20
- ✓ Compliant with xD-Picture Card™ Host Guideline Version 1.20
- ✓ Compliant with xD-Picture Card™ Host Compliance Design Check Spec. Version 1.20D
- ✓ Compliant with xD-Picture Card™ Format Spec. Version 1.11
- ✓ Compliant with System Management Bus Specification Revision 1.1
- ✓ Internal native interface multiplexed to Memory Card (SD/MMC/MS/xD)
- ✓ Integrate External PMOS Power Switch for power control of memory card
- ✓ Integrated switching regulator, and single 3.3V power source
- ✓ External 25MHz crystal
- ✓ 64-pin LQFP package
- ✓ Pin-to-pin compatible to JMC261.

● Block Diagram



● Contact Information

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