



8-Port Dual-Speed Repeater Controller

1. Features

- Fully integrate eight 10/100Mbps repeater ports
- Support independent 10Mbps and 100Mbps Ethernet operation segments
- Automatically connect each port to specific segment, namely 10M or 100M by its data flow rate without user intervention
- Two expansion bus in backplane, one for 10Mbps operation and one for 100Mbps operation are used to cascade other controllers or stack hub devices
- Integrate LED drivers for at-a-glance operation status monitoring
- 208-pin PQFP

2. Description

MX98747 is an 8-port dual-speed repeater controller to provide system vendors a cost-effective chip solution on work-group segment-switched, stack hub devices.

Works with (quad) auto-detect PHY components, MX98747 builds separate 10Mbps repeater state machine and 100Mbps repeater state machine inside to supports either conventional Ethernet or Fast Ethernet operation on each MII port. Depending on data rate, controller automatically hooks each port to the specific segment such that the 10M ports operate in one domain and 100M ports in another domain, they do not interfere mutually. Controller provides two expansion

ports (or inter-repeater buses) for stack hub application, one for 10Mbps cascading and one for 100Mbps cascading. Up to 31 controllers can be chained together in a stack hub system. Cooperates with MX98748 that build in an internal switch will perfectly connect 10M and 100M segments in a repeater set.

LED drivers are integrated per hub port for operation status monitoring. System vendors could implement LED matrix display on front panel for at-a-glance monitoring. Individual LED could indicate "Speed" (10Mbps or 100Mbps rate), "Collision", "Link", "Partition", and "Utilization".



MX98747

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