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Datasheet

Ethernet Failover Adapter - 4 Port

Opteq's Gigabit Ethernet Bypass Server Adapters are designed with optical or copper bypass circutry in order to provide maximum up time for networks.

OPLAN4PXRED - Quad Port Copper Gigabit Ethernet PCI-X Bypass Server Adapter IntelÂ® based

Opteq's Gigabit Ethernet Bypass server adapters can Bypass its Ethernet ports on a host system failure, power off, or upon software request. In Bypass mode, the connections of the Ethernet network ports are disconnected from the interfaces and switched over to the other port to create a crossed connection loop-back between the Ethernet ports. Hence, in bypass mode all packets received from one port are transmitted to other port and vice versa. This feature enables to bypass a failed system and provides maximum up time for the network.

These server adapters include an on board WDT (Watch Dog Timer) controller. The adapter's software drivers or software application can write commands to the on board WDT controller. The adapter's software drivers, WDT controller and the Bypass circuitry provide an interface that control and manage the mode of the adapter.

The Gigabit Ethernet Bypass server adapters have an integrated hardware acceleration that performs TCP/UDP/IP checksum offload and TCP segmentation. The host processing offloads accelerators frees CPU for application processing.

Opteq adapters are based on the Dual port Gigabit Ethernet MAC+PHY of Intel Controller

Key Features

Bypass:
- Bypass Ethernet ports on Power Fail, System Hangs or Software Application Hangs.
- Software programmable Bypass or Normal Mode.
- On Board Watch Dog Timer (WDT) Controller.
- Software programmable time out interval.
- Software Programmable WDT Enable / Disable counter.
- Software programmable Bypass Capability Enable / Disable.
- Programmable state (Bypass mode /Normal mode) at Power up.
- Emulates standard NIC
- Independent Bypass operation in every two ports.

Copper Gigabit Ethernet 1000Base-T:
- Independently copper Gigabit Ethernet channels support six, four, two and one Gigabit Ethernet (1000Base-T), Fast Ethernet (100Base-Tx) and Ethernet (10Base-T).
- Triple speed 1000Mbps (1000Base-T), 100 Mbps (100Base-Tx) and 10 Mbps (100Base-T) operation.
- Nway auto negotiation automatic sensing and switching between 1Gbps full duplex and 100 / 10 Mbps operations Simplex or Full Duplex.
- RJ-45 female connectors.

Common Key Features

- Host Interface standard support:
  - 32/64 bit, 33/66Mhz
  - 32/64-bit, 66/100/133MHz
- High performance, reliability, and low power use in Intel 82546 dual integrated MAC + PHY / SERDES chip controller.
- Ultra deep, 64 KB packet buffer per channel lowers CPU utilization, avoids congestion
- Hardware acceleration that can offload tasks from the host processor. The controllers can offload TCP/UDP/IP checksum calculations and TCP segmentation.
- Server class reliability, availability and performance
- Priority queuing – 802.1p layer 2 priority encoding.
- Virtual LANs –802.1q VLAN tagging.
- Jumbo Frame (16KB).
- 802.x flow control.
- Power Management Interface.
- Statistics for SNMP MIB II, Ethernet like MIB, and Ethernet MIB (802.3z, Clause 30)
- LEDs indicators for link/Activity/Speed/Bypass status