

LRES4001PT-PF

---- PCIe x8 Single Port SFP,RJ45 or Fiber Media Converter Three-in-one Combination Function 10G Ethernet Server Adapter Intel 82599 Based

DESCRIPTION

LRES4001PT-PF is a PCI Express x8 Single SFP+ Port/Single RJ45 Port/ Fiber Media Converter three-in-one combination function 10G Ethernet Server Adapter, developed by Shenzhen Lianrui Electronics Co., Ltd. based on Intel 82599 main controller solution. The server adapter is designed for servers and high-end devices. The server adapter is fully integrated with 10 Gigabit Ethernet Media Access Controller (MAC) and SFP+ ports. In addition to the functions of managing the Ethernet MAC and PHY layers, the server adapter can also perform traffic management on the passed data packets.

The server adapter uses hardware acceleration to share tasks for the host, such as TCP/UDP/IP checksums, compute tasks, and TCP segmentation. This server adapter is the ideal solution for deploying multiple networks and deploying critical network application environments on high-performance servers. LRES3002PF-OCP is OCP Type-1 10 Gigabit dual port fiber.

The LRES4001PT-PF server adapter provides hardware-enhanced features such as intelligent queuing technology optimized for multi-core processors, with on-chip support for load balancing for higher levels of 10 Gigabit Ethernet scalability. Providing Intel Virtualization Technology (VT-C), including network level, can significantly improve overall system performance in a virtual server environment. Intel VT-c technology includes several hardware optimization features that dramatically reduce I/O bottlenecks, increase throughput and reduce latency. Intel VT-c's Component Virtual Machine Device Queue (VMDq) significantly improves performance and reduces CPU utilization by offloading the data sorting load from the virtual machine monitor (VMM) to the network controller. The latest enhancements include offloading between virtual machines within the server, virtual machine direct connection (VMDc) to virtual machines.

The LRES4001PT-PF Server Adapter provides multiple hardware optimization features for I/O virtualization and supports a unified network to transform the data center with outstanding reliability, scalability and mobility. Allows local area network (LAN), storage area network (SAN), and IPC traffic to share the same Ethernet network, providing higher levels of performance support for high-bandwidth applications in evolving virtualized data centers.

The LRES4001PT-PF can work in any of the following three modes:

- 1, 10 Gigabit Single RJ45 Port Mode (when connected to the RJ45 port separately), this function is used to access 10 Gigabit networks based on existing cabling and only supports 10G network access.
- 2, 10 Gigabit Single SFP+ Port Mode (when SFP+ fiber is connected separately), this function is used as a fiber access 10 Gigabit network.
- 3, 10 Gigabit Fiber Media Converter Mode (When RJ45 and SFP+ fiber are simultaneously connected) This function can be used as a 10 Gigabit SFP+ optical converter to convert the RJ45 port network into an optical sfp+ port network (the optical SFP+ port network is converted into an RJ45 port).



FEATURES

Controller	Intel 82599
Transmission Medium	10G SFP+ DAC/AOC /UTP
Fiber Types	10GBASE-SR, 10GBASE-LR, 10GBASE-T
Bracket	Low Profile Bracket and Full-height Bracket
Power (max)	10G Single RJ45 Port Mode: 10.12W 10G Single SFP+ Port Mode: 6.73W 10G Fiber Media Converter Mode: 10.12W
Operating Mode	1. 10G Single RJ45 Port Mode (When only connect the RJ45 port) 2. 10G Single SFP+ Port Mode (When only connecting SFP+ Fiber port) 3. 10G Fiber Media Converter Mode (When RJ45 and SFP+ are both connected)
Support OS System	Windows Server 2003, 2003 R2, 2008, 2008 R2, 2012, 2012 R2, 2016 R2 Windows 7, 8, 8.1, 10 Linux Stable Kernel version 2.4.x/2.6.x/3.x/4.x or later Red Hat Enterprise Linux 5, 6, 7 or later SUSE Linux Enterprise Server 10, 11 or later FreeBSD 9, 10 or later VMware ESX/ESXi 4.x, 5.x, 6.x or later

Connector	1* SFP+ & 1* RJ45
PCIe Bus	PCI Express v2.0 (5.0GT/s) x8, Compatible with x16
Data Rate Per Port	10000Mbps

TECHNICAL FEATURES

Ethernet Power Management	Yes
IEEE* 802.3 Automatic negotiation	Yes
Support Speed	10G
IEEE Standard	IEEE 802.3ae 10 Gigabit Ethernet IEEE 802.3an 10GBASE-T IEEE 802.3az Energy Efficient Ethernet IEEE 802.3ap IEEE 802.1Q VLAN IEEE 802.1qbb IEEE 1588 802.1as IEEE 802.3ad IEEE 802.1p
PXE Support	Yes
Jumbo Frame Support	CE,FCC,Rohs, ISO9001:2015
DPDK Support	Yes
iSCSI Support	Yes
SR-IOV Support	Yes
IPv4/IPv6 Support	Yes

ENVIRONMENT FEATURES

Operating Temperature	0 °C to 55 °C (32 °F to 131°F)
Storage Temperature	-40 °C to 70 °C (-40 °F to 158 °F)
Storage Humidity	5%~90% non condensing
LED Indicators	Green Link(Link Indicator) + Green Blink (Ack Indicator)

Operating systems support

M/N	Description
LRES4001PT-PF	PCIe x8 SFP,RJ45 or Fiber Media Converter Three-in-one Combination Function 10G Ethernet Server Adapter (Based on Intel 82599, 3U/2U bracket)

PS: The above details is just for reference,if there is any change,no inform will have.

Companion Products

Fiber NIC

- LR-LINK PCI 100FX Desktop Adapter
- LR-LINK PCIe 100FX Desktop Adapter
- LR-LINK PCI 1000BASE-SX/LX Desktop Adapter
- LR-LINK PCIe 1000BASE-SX/LX Desktop Adapter
- LR-LINK PCIe 1000BASE-SX/LX Server Adapter
- LR-LINK PCIe 10GBASE-SR/LR Server Adapter
- LR-LINK PCIe 25GBASE-SR/LR Server Adapter
- LR-LINK PCIe 40GBASE-SR/LR Server Adapter
- LR-LINK PCIe 100GBASE-SR/LR Server Adapter

Copper NIC

- LR-LINK PCI 10/100Mbps Desktop Adapter
- LR-LINK PCIe 10/100Mbps Desktop Adapter
- LR-LINK PCI 10/100/1000Mbps Desktop Adapter
- LR-LINK PCIe 10/100/1000Mbps Desktop Adapter
- LR-LINK PCIe 10/100/1000Mbps Server Adapter
- LR-LINK PCIe 100/1Gbps/10Gbps Server Adapter

DownloadDrivers

To get the drivers, please visit us at <http://www.lr-link.com/support/driver.html>

ProductQuickGuide

To know the network card basic knowledge to choose the suitable NIC you need, please visit us at <http://www.lr-link.com/support/datasheet.html>

CustomerSupport

LR-LINK customer Support Services offers a broad selection of programs including phone support and warranty service. For more information, contact us at Service and availability. <http://www.lr-link.com/contactus.html>

LianRui Electronic Co.LTD

A professional supplier of high-quality NIC:PCI,PCI-X,PCI-Express,OCP;SC,ST,LC,SFP,SFP+,QSFP+;100M,1G,10G,25G,40G,100G;single, dual,quad ports. all series fiber and copper NIC with nearly 150 specifications which can meet demands of various applications, continuously creates value for customers and partners as well as OEM/ODM services provided.

DECLARATION

Shenzhen Lianrui Electronics Co., Ltd is an efficient Ethernet adapter design company with independent research and development, using Intel,Broadcom, Mellanox, Marvell, VIA, Realtek and other manufacturers Ethernet controller, developed by our company's independent R & D design team,manufacturedby our company workshop, and then sell.

Our products specifications come from modifying the chip manufacturer's specifications released. Product features, technical parameters, technology right, intellectualproperty rights and brand names etc.mentioned in specifications are just referenced only. There is no infringement meaning.If there is any important andsensitive content related, please contact our Lianrui company, we'll delete them, thank you.

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