PRODUCT BRIEF
PCIe x1 1000BASE Desktop Fiber Ethernet Adapter (Intel I210IS Based)
Professional Suppiler Of NIC

LR-LINK®
Link your world to everywhere

LREC6230PF

DESCRIPTION

LREC6230PF is a typical model of 1000base-SX/LX Ethernet adapter, based on Intel I210IS Ethernet Controller, researched and designed by Shenzhen Lianrui Electronics Co., LTD. This new Ethernet adapter builds on LR-LINK's 10 years history of excellence in NIC R&D and Manufacture. LR-LINK continues to maintain the leadership position on NIC in China.
This optical fiber Ethernet adapter is widely applied various occasions of Fiber To The Desktop (FTTD), set up optical fiber LAN network, optical fiber connection with life expectancy of 30 years, not subject to electromagnetic interference and against lightning. This adapter has very high data security, high reliability, stability and compatibility, has been widely used in the secret industry, such as prosecution, courts, police and military industrial enterprises etc. represented defense sectors, and gained all customers' unanimous recognition.
LR-LINK has PCI,PCIe*1; 100M, 1G; SC, SFP,LC,ST,FC; Multi-Mode, Single-Mode and Bidirectional etc. Full-Series Fiber To The Desktop optical fiber network card (FTTD fiber network card). There are more than 50 models for your choose. LR-LINK is an important pusher of the solutions application for global Fiber to the desktop (FTTD), is the leader of global desktop optical fiber network card.
If you want to know more product information, please browse:http://www.lr-link.com/DesktopFiberNICCards/index1.shtml

KEY FEATURES

- Single-port PCI-Express 1000BASE-SX/LX Ethernet adapter
- High-performing design supporting PCI Express* Gen 2.1 2.5GT/s
- According to customers demands, we can select SL, LC, ST, FC and SFP fiber interface
- Innovative power management features including Energy Efficient Ethernet (EEE)
- DMA Coalescing, ultra-compact design and a unique ventilated bracket for increased efficiency and reduced power consumption
- IEEE 802.1Qav Audio-Video-Bridging (AVB) for tightly controlled media stream syn-chronization, buffering, and reservation
- Reliable and proven Gigabit Ethernet technology from Intel Corporation

PERFORMANCE OPTIMIZATION

The Intel® Ethernet Controller I210 Family contains four transmit and four receive queues for the single port. These queues offer Error Correcting Memory (ECC) protection for improved data reliability. The controller efficiently manages packets with minimum latency by combining parallel and pipelined logic architectures optimized for these independent transmit and receive queues. These queues, combined with Receive Side Scaling (RSS) and Message Signal Interrupt Extension (MSI-X) support, provide a toolset for optimizing the performance on multi-core processor designs. Advanced interrupt-handling features to manage multiple interrupts simultaneously, combined with intelligent filtering, ordering, and directing of packets to specific queues and cores, enables load-balancing the network traffic flows to improve throughput in multi-core platforms.Other performance-enhancing features include IPv4 and IPv6 checksum offload,TCP/UDP checksum offload, extended Tx descriptors for more offload capabilities, up to 256 KB TCP segmentation (TSO v2), header splitting, 40 KB packet buffer size, and 9.5 KB Jumbo Frame support.

ADVANCED FEATURES

AUDIO-VIDEO BRIDGING (AVB)
The Intel® Ethernet Controller I210 Family supports IEEE 802.1Qav Audio-Video Bridging (AVB) for customers requiring tightly controlled media stream synchronization, buffering, and reservation. The 802.1Qav is part of the AVB specification that provides a way to guarantee bounded latency and latency variation for time-sensitive traffic and includes:
*Timing and Synchronization for time- specific applications (802.1AS).
*Stream Reservation (SR) protocol to guarantee the resources needed for Audio/Video (AV) streams (802.1Qat).
*Forwarding and queueing enhance-ments for time-sensitive streams (802.1Qav).

POWER MANAGEMENT TECHNOLOGIES

Today, companies want to decrease energy consumption across the enterprise to reduce costs and environmental impact, while also solving increasingly important power density challenges. Thats why Intel has introduced new, advanced Power Management Technologies with the Intel® Ethernet Controller I210 Family that enable platforms to configure its power options and more effectively manage power consumption.

ENERGY EFFICIENT ETHERNET (EEE)

The Intel® Ethernet Controller I210 Family supports the IEEE 802.3az EEE standard so that during periods of low network activity, EEE reduces the power consumption of an

Ethernet connection by negotiating with the switch port to transition to a low power idle (LPI) state. This reduces power to approximately 50% of its normal operating power-saving power on both the network and the switch ports. When increased traffic is detected,the controller and the switch quickly come back to full power to handle the increased traffic.

COMPANION PRODUCTS

Fiber NIC

- LR-LINK PCI 100FX Desktop Adapter
- LR-LINK PCIe 100FX Desktop Adapter
- LR-LINK PCI 1000BASE-SX/LX Desktop Adapte
- 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 40GBASE-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

SPECIFICATIONS:

Connector	SC,ST or LC (Fiber)
IEEE standard/network topology	1000BASE-SX/LX
Cabling Distance	1000BASE-SX: 275 m at 62.5 μm; 550 m at 50 μm. 1000BASE-LX: 10Km at 9μm.
Data rate supported per port	1000 Mbps
Bus Type	PCI Express* 2.1 (2.5GT/s)
Interrupt levels	INTA, INTB, INTC, INTD, MSI, MSI-X
Bus Width	1-lane PCI Express; operable in x1 or greater slots
Hardware certifications	FCC , CE
Controller - processor	Intel® Ethernet Controller I210
Power consumption (active-typical)	0.75 W
Operating temperature	0 Degrees Celsius to 55 Degrees Celsius
Storage temperature	–40 Degrees Celsius to 70 Degrees Celsius
Storage humidity	90% non-condensing relative humidity at 35℃
Connect speed LED Indicators	Link/Activity LED: off = No Link; on = Link; Blinking = Activity
Full-height end bracket	12.07 cm (4.755 inches)
Low-profile end bracket	8 cm (3.15 inches)
Packing specification	18x15x3cm (7.08x5.9x1.18 inches)

SYSTEMS SUPPORT

- Windows CE/5.0
- Windows Server 2000
- Windows 7 32-bit (64-bit)
- Windows Vista 32-bit (64-bit)
- Windows Server 2003 32-bit (64-bit)
- Windows Server 2008 32-bit (64-bit)
- Windows Server 2008 R2 32-bit (64-bit)
- NetWare NetWare 5.0/5.1/6.0/
- DOS
- Novell ODI

Linux 2.4 series kernel and 2.6.x/3.x

- FreeBSD with the 9.x kernel
- OpenUNIX 8.0 (Caldera), UnixWare 7.x
- Sun Solaris x86

ORDER INFORMATION

M/N	Description	Notes
LREC6230PF-SFP	PCIe x1 1000Base SFP Port Fiber NIC	SFP connection, do not contain the fiber module
LREC6230PF	PCIe x1 1000Base-SX SC Port MM Fiber NIC	1.25Gbps,850nm,275m at 62.5 μm; 550m at 50 μm
LREC6230PF-LX	PCIe x1 1000Base-LX SC Port SM Fiber NIC	1.25Gbps,1310nm,20km at 9 μm;
LRGP8512-X5ATL	1.25Gbps SFP multi-mode Transceiver	1.25Gbps,850nm,275m at 62.5 μm; 550m at 50 μm
LRGP1312-20ATL	1.25Gbps SFP Single-mode Transceiver	1.25Gbps,1310nm,20Km at 9 μm;

DOWNLOAD DRIVERS

To get the drivers, please visit us at http://www.lr-l ink.com/ProductDriver/index1.shtml

PRODUCT QUICK GUIDE

To know the network card basic knowledge to choose the suitable NIC you need, please visit us at:http://www.lr-l ink.com/product.html

CUSTOMER SUPPORT

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/service.shtml

LianRui Electronic Co.LTD

A professional supplier of high-quality NIC:PCI,PCI-X,PCI-Express;SC,ST,LC,SFP,SFP+;100M,1G,10G,40G;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,manufactured by our company workshop, and then sell.Our products specifications come from modifying the chip manufacturer's specifications released. Product features, technical parameters, technology right, intellectual property rights and brand names etc. mentioned in specifications are just referenced only. There is no infringement meaning.If there is any important and sensitive content related, please contact our Lianrui company, we'll delete them, thank you.

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