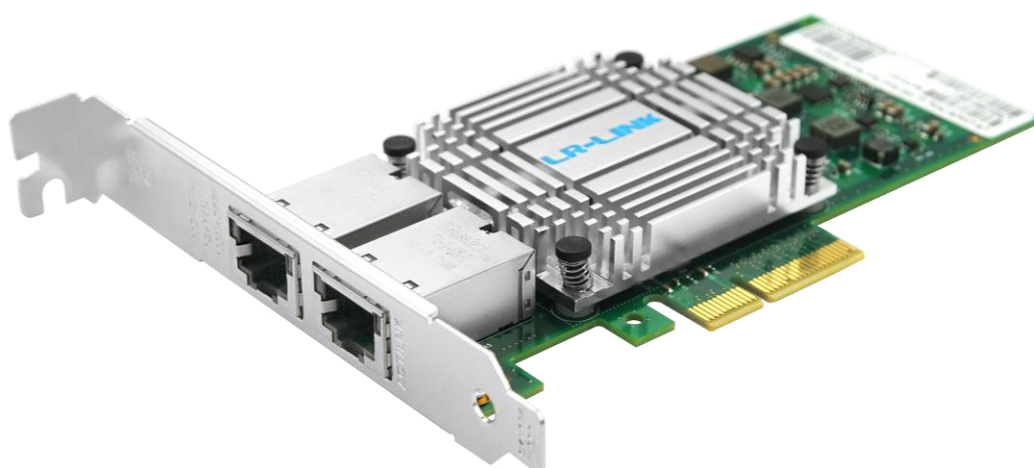


## LREC9812BT

— PCIe x4 Dual-port 10G Copper Ethernet Network Adapter (Intel X550 Based)

### Overview



LREC9812BT is a 10G Dual-port PCIe v3.0 x4 ethernet network adapter independently developed by Shenzhen Lianrui Electronics Co., Ltd. based on the Intel X550 chip. It is compatible with PCIe x8 and x16. The adapter is suitable for server and high-end network equipment and is also suitable for common workstations. This adapter is optimized and improved in development and design, so that system I/O is no longer a network application bottleneck. The adapter can be bundled into groups for fault tolerance, automatically detecting and routing communications from the failed port to the same group, and other members of the group continue to run for uninterrupted communication. The adapter has integrated hardware acceleration and is capable of performing TCP/UDP/IP checksum offloading and TCP segmentation tasks. The host processing technology can offload the accelerator, and the host processing technology can offload the accelerator and release the CPU resources to free up more CPU resources to process other applications.

The LREC9812BT can be used in any PCIe X4 host device, which provides a simple 10GBase-T adaptive rate network; the host adapter's chip (Intel X550 10G ethernet controller) includes two fully integrated ethernet Media Access Control (MAC) and two fully integrated 10GBASE-T copper PHYs ports. The Intel X550's 10G ethernet controller includes hardware acceleration that offloads tasks from the host, such as TCP/UDP/IP checksum calculations and TCP partitioning.

The LREC9812BT is the ideal solution for multi-network, high-performance network applications and environmental applications in high-performance servers.

## Key Features

1. Low cost, low power, 10GbE performance for the entire datacenter.
2. New generation single- and dual-port 10Gbase-T controller with integrated MAC and PHY
3. Standard CAT 6a cabling with RJ45 connectors.
4. Supports NBASE-T\* technology (2.5 and 5.0 GbE over CAT 5e)
5. Backward compatibility with existing 1000BASE-T networks simplifies the transition to 10GbE.
6. PCI Express v3.0 with up to 8.0 GT/s

## Specifications

Controller	Intel X550
Cable medium	Copper
Cable Type	10GBase-T, Cat 6A or higher up to 100m, Cat6 or higher up to 55m
	1000MBase-T, Cat 5e or higher up to 100m
	100MBase-T, Cat5 or higher up to 100m
Baffle Configuration	Full height & half height
Power Consumption	13.0W
System Support	Windows 7/8/8.1/10/11
	Windows Server 2008 R2/ 2012 R2/ 2016 R2/2019 R2/2022 R2
	Linux Stable Kernel version 2.6.x/3.x/4.x or later;
	Linux CentOS/RHEL 6.5 / 7.x or later
	Ubuntu 14.x/15.x/16.x or later
	FreeBSD 9 / 10 / 11 or later
	VMware ESX/ESXi 2.6.x/3.x/4.x/5.x or later
Bus Type	PCIe v3.0 x4 , compatible with x8 , x16
Data Rate	100/1000/10000Mbps
Connector	2*10G RJ45

## Technical Features

Standards Compliant	IEEE 802.3an 10GBASE-T IEEE802.3bz 2.5G/5GBASE-T
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	IEEE 802.3ab 1000BASE-T IEEE 802.3u 100BASE-TX IEEE 802.1Q* VLANs IEEE 802.3 2005* flow control support
PXE	Yes
FCoE	No
DPDK	Yes
WoL	No
Jumbo frame	Yes
PCI-SIG* SR-IOV	Yes
VMDq	Yes
Storage	iSCSI, NFS, FCoE, SMB

## Environment Features

Operating Temperature	0 °C to 55 °C (32 °F to 131 °F)
Storage Temperature	-40 °C to 85 °C (-40 °F to 185 °F)
Storage Humidity	Maximum: 90% non-condensing relative humidity at 35 °C

## Physical Features

PCB Size(mm)	137**1.6
Weight(g)	*

## LED Indicators

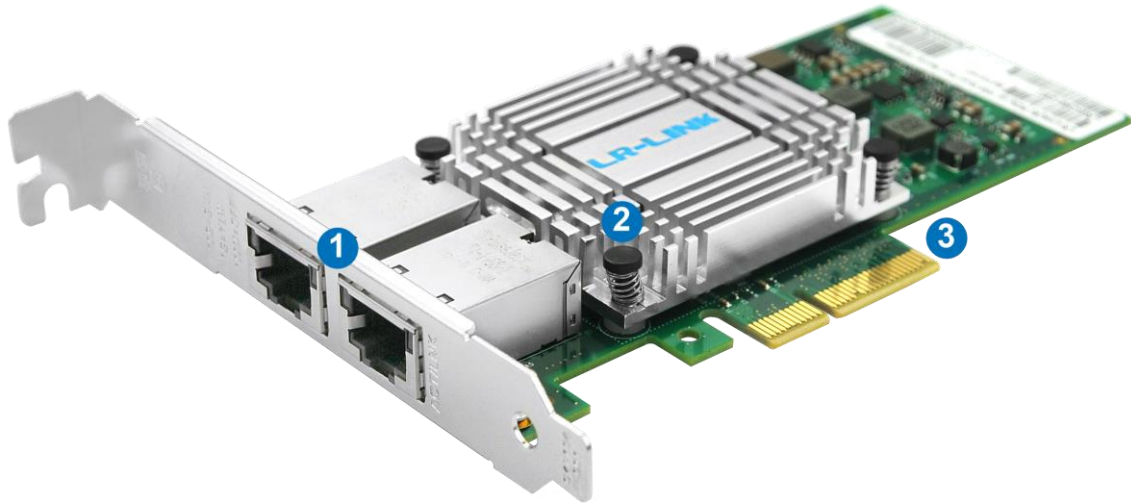
Status indication	10Gbps, Green bright + Green flashing
	10/100Mbps, Orange bright + Green flashing

## Order Information

P/N	Description
LREC9812BT	PCIe x4 Dual-port 10G Copper Ethernet Network Adapter

PS: Above details are only for reference, if there is any change, no prior notice.

## Product Structure



1. 2\*10G RJ45 Connector
2. Heat sink
3. PCIe x4 Bus

PS: Above details are only for reference, if there is any change, no prior notice.

## 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-SX/LX Server Adapter
- § LR-LINK PCIe 25GBASE-SX/LX Server Adapter
- § LR-LINK PCIe 40GBASE-SX/LX Server Adapter
- § LR-LINK PCIe 100GBASE-SX/LX 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 100/1G/10Gbps Server Adapter
- § LR-LINK PCIe 1G/2.5G/5G/10Gbps Server Adapter

## Download Drivers

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

## Product Quick Guide

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

## Shenzhen Lianrui Electronic Co.,LTD.

Shenzhen Lianrui Electronics Co.,Ltd is an efficient Ethernet adapter design company with independent research and development, using Intel, Net-swift, Tehuite, Broadcom, Realtek and other manufacturers Ethernet controller, developed by

our company's independent R & D design team,manufacturedby our company workshop, and then sell.

## Declaration

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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### SHENZHEN LIANRUI ELECTRONICS CON.,LTD.

ADD:C4 Bldg.,Xintang Industry Zone,Baishixia FuyongTown,Baoan District Shenzhen China

T10 Bldg.,Xintang Industry Zone,Baishixia FuyongTown,Baoan District Shenzhen China

Tel:+86(0)755-33671531 33671533 Fax:+86(0)755-29082065

Product Sales [service@lr-link.com](mailto:service@lr-link.com)

Technical Support [support@lr-link.com](mailto:support@lr-link.com)

WEB [www.lr-link.com](http://www.lr-link.com)

The logo for LR-LINK, featuring the letters 'LR-LINK' in a bold, blue, sans-serif font.

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