

## LRES1021PF-2SFP28

— PCIe x8 Dual-port 25G SFP28 Internet Network Adapter (Intel E810 Based)

#### Overview



LRES1021PF-2SFP28 is a PCIe v4.0 x8 dual-optical port 25G Ethernet network adapter developed by Linkreal CO.,LTD. on the basis of Intel E810 master program. It is supplemented with hardware accelerated packet processing extended features, while the introduction of application queuing technology, can be optional support for RDMA iWARP and RoCEv2 function, the adapter can be simultaneously backward compatible with PCIe v3.0 & v2.0.

The LRES1021PF-2SFP28 adopts application queue technology to ensure that each application can request its own queue, i.e., the data between each other is no longer confused, and with an interface speed of up to 25Gbps, it can be widely used in high throughput data center services that can handle a variety of workloads, cloud computing, storage, and other network equipment, combined with the use of application queues to reduce application latency in practice. In practice, it can be used in conjunction with program queues to reduce application latency and increase throughput.

The Ethernet network adapters offer scalable ADQ technology to improve performance scalability and predictability for critical workloads by dedicating specific resources to critical workloads.ADQ uses optimized application thread-to-device data paths to enable application-specific data control, messaging, and rate-limiting features.

The LRES1021PF-2SFP28 utilizes Intel's E810 host controller with broad compatibility and performance guarantees, supporting PCIe v4.0 while being backward compatible for PCIe v3.0 use.

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# **Key Features**

- 1. Based on the Intel E810;
- Excellent ESD protection performance;
   Support 25Gbps data transmission rate.

# Specifications

Controller	Intel E810	
Cable medium	Fiber Optics	
Cable Type	25GBASE-KR, 25G-AUI C2C/C2M, 25GBASE-KR1	
Bracket Height	Low Profile & Full Height	
Power (min)	9.372W	
Power (max)	10.224W	
System Support	Windows 10 /11	
	Windows Server 2016 /2019 /2022	
	Deepin 20 /20.6 /20.9	
	VMware ESXi 6.7/7.0	
	Galaxy Unicorn V10 /V10 SP1	
	RHEL/CentOS 7.6 /7.9	
	Ubuntu 16.04.3 /18.04.5 /20.04.1 /22.04.2	
	SUSE 12.5 /15.4	
	FreeBSD 12.2 /13.2	
	ZTE New Fulcrum 3.2.2	
	Sianux Server V7.0	
	Zhongke Fangde server operating system	
	iKuai router	
Bus Interface	PCIe v4.0 (16.0GT/s) x8; compatible with x16	
Data rate per port	25Gbps	
Connector	2*25G SFP28	
Power Supply	PCle	

## **Technical Features**

Protocol Support	IEEE 802.3by-2016 25GBASE-X Ethernet IEEE 802.3ae 10GBASE-X Ethernet IEEE 802.1Qav IEEE 802.1Qbu IEEE 802.1Qbv IEEE 802.3br IEEE 1588 PTP v1&v2 IEEE 802.3ad IEEE 802.3az - Energy Efficient Ethernet	
RDMA	Yes	
PXE	Yes	
DPDK	Yes	
WoL	No	
iSCSI	Yes	
UEFI	Yes	
Jumbo Frames	Yes	
SR-IOV	Yes	
SCAN CHAIN	Yes	
1588 PTP	Yes	

## **Environment Features**

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

# Physical Features

PCB Size(L x W x H)	68.8 x 163 x 1.6 mm
Package Size(L x W x H)	222 x 147 x 28 mm
Weight(g)	*

## LED Indicators

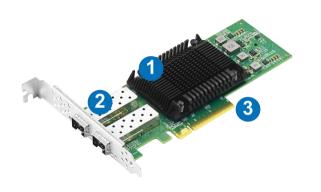
25G	Connection Status	Green Link + Green Link
	Transfer status	Green Link + Green Blink

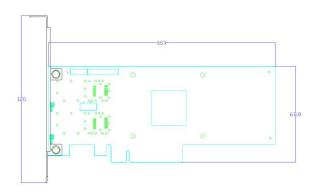
#### Order Information

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

#### **Product Structure**





- 1. Heat sink
- 2. 2\*25G SFP28
- 3. Golden fingers

PS: The depictions provided of our products are not to scale and are intended for illustrative purposes only.

### **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: <a href="https://www.lr-link.com/support/driver.html">https://www.lr-link.com/support/driver.html</a>

#### Product Quick Guide

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

### Linkreal Co,.LTD.

Linkreal 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, manufactured by 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, intellectual property rights and brand names etc.mentioned in specifications are only referenced. There is no infringement meaning. If there is any important and sensitive content related, please contact our company, we'll delete them, Thank you.

#### Linkreal CO.,LTD.

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