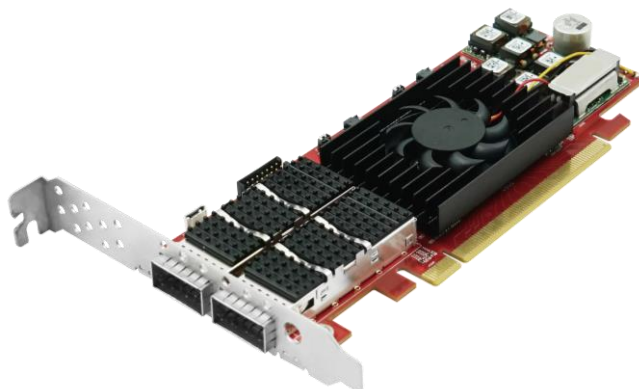


LREG1001PF-2QSFP28

— PCIe x16 Dual Ports 100G QSFP28 Ethernet Smart Card (Xilinx Ultrascale+ 16nm Based)

Overview



LREG1001PF-2QSFP28 is a dual-port 100G FPGA fiber-optic Ethernet PCI-Express v3.0 x16 intelligent network card developed by Shenzhen Lianrui Electronics Co., Ltd. based on Xilinx Ultrascale+16nm VU3P chip solution. The intelligent network card has high throughput. The low-latency network processing capability and the ability of the auxiliary CPU to perform network function unloading maximize the CPU power, reduce CPU usage and reduce power consumption. The intelligent network card can be directly installed on the PCIe slot of the server or other device, which is very convenient. The IP core involved has independent intellectual property rights, and the network can be intelligentized through the combination with specific applications and services. , programmable, thus saving CPU usage.

The intelligent network card has chip-level encryption function to realize data security processing and transmission, and also has protection against over-temperature, over-current, over-power, etc., so as not to be damaged by power supply impact.

When the intelligent network card is used directly on the server, the single CPU core can support the transmission speed of transmitting and receiving bidirectionally up to 80 Gbps. When the multi-card single-board link communication is performed by Firefly, the full-duplex transmission and reception of 300 Gbps can be achieved. The ability to process text.

The intelligent network card is the first in China to provide secondary function development supporting P4 programming. It can realize real-time configurability of network card processing functions, support users to implement custom security policy configuration and detection for network cards, and support OvS offloading. It can monitor the traffic and delay of data packets in the network NIC in real time. Through P4 telemetry technology, it can form an end-to-end telemetry technology solution with P4-enabled switches to observe the traffic, congestion and delay of the entire link in real time, providing real-time network deployment. Reference conditions.

LREG1001PF-2QSFP28 intelligent network card is especially suitable for artificial intelligence, deep learning, network acceleration, gene sequencing, video processing, financial analysis and other fields that have special requirements for network delay and data processing requirements due to its excellent performance.

Key Features

- P4-enabled with P4 compiler
- P4 featured programmable match-action policies
- Open vSwitch datapath offload
- SR-IOV
- DPDK, zero-copy
- SDN ready as well as supporting legacy network management systems
- High throughput monitoring & data export
- Multi purpose and adaptive fragile service offload & delivery
- Highly Programmable platform in hardware and software

Specifications

Controller	Xilinx Ultrascale+ 16nm VU3P
Transmission medium	Fiber
Medium Type	100GBASE_CR4、100GBase-LR4、100GBase-Cu
Baffle Height	Low Profile & Full Height
Power Consumption	25W (75W when in need)
OS Support	CentOS
	Ubuntu
	No Windows & Windows Server
Bus Type	PCIe v3.0 x16
DDR	8GB/16GB
Data rate per port	25Gbps/100Gbps
Connector	2*100G QSFP28
Configuration	PCIe/JTAG

Technical Features

Standards compliant	IEEE_802.3bj 100GBASE_CR4, 100GBASE-LR4, 100GBASE-KR4 IEEE P802.3by 25 Gb/s IEEE 802.1Qbg Virtual Bridging IEEE 802.1Qbb Priority Flow Control IEEE 802.1az Enhanced Transmission Selection
iSCSI	No
WoL	No
Jumbo Frames	Yes
DPDK	Yes
PXE	No
FCoE	No

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	Maximum: 90% non-condensing relative humidity at 35°C
Certification	FCC ,RoHS , CE

Physical Features

Size (mm ±0.5mm)	173*120*21
Weight (g ±2g)	*

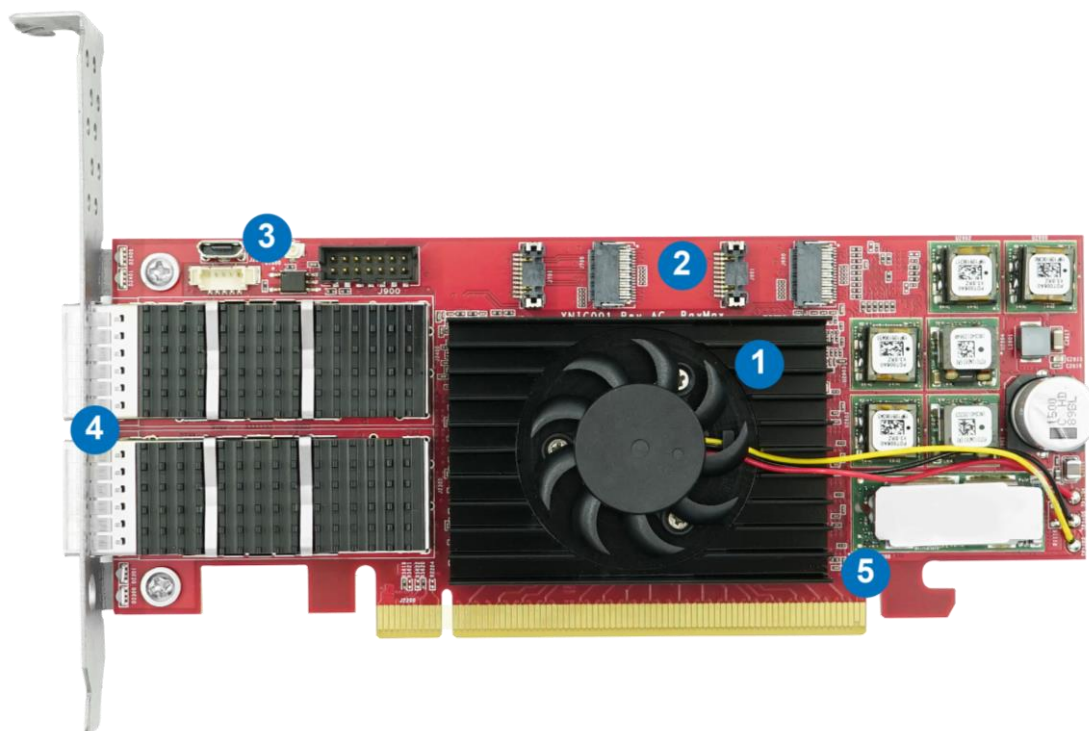
LED Indication

LED indication	100G, Blue + Red
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Order information

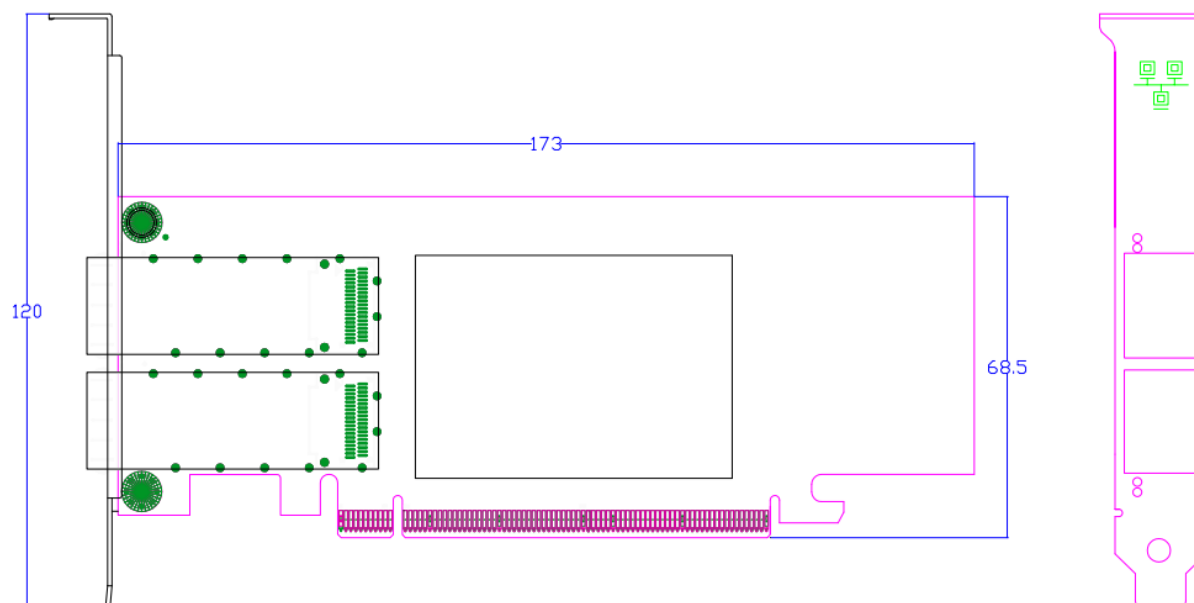
P/N	Description
LREG1001PF-2QSFP28	PCIe x16 Dual Ports 100G QSFP28 Ethernet Smart adapter (Xilinx Ultrascale+ 16nm Based)

Product Structure



- 1、Heat sink
- 2、Firefly connector
- 3、Micro USB-A connector
- 4、2*100G QSFP connector
- 5、PCIe x16 Bus

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



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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 Electronics 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. 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, intellectualproperty 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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