

10G USB Ethernet Adapter

Features the Realtek RTL8159 high-performance controller chip



Model: DR59R11

This product utilizes the Realtek RTL8159 chip, serving as a high-performance USB-to-10G Ethernet adapter. It delivers 10Gbps speeds via a standard RJ45 interface and supports 10G/5G/2.5G/Gigabit/100Mbps networks. Features include Wake-on-LAN, Jumbo Frames, and more, effectively enhancing network performance while reducing CPU utilization. Important Note: This is a pure USB device supporting only USB protocols. To achieve full 10Gbps network performance, connect to a host interface supporting USB 3.2 Gen2x2 (20Gbps) signals. When connected to interfaces supporting only USB 3.2 Gen2 (10Gbps)—including certain Thunderbolt ports operating solely in USB mode—bandwidth limitations will cap maximum throughput at approximately 7–7.5Gbps. Connecting to interfaces supporting only USB 3.1 (5Gbps) will result in a maximum throughput of approximately 3.54Gbps.

Quick Specifications

Basic Parameters

- ✓ Features the Realtek RTL8159 professional Ethernet controller chip
- ✓ 1×USB Type-C physical port, compatible with USB 3.2 Gen2 protocol
- ✓ 1×RJ45 10G Ethernet port, supporting multi-rate auto-negotiation
- ✓ 10G transmission requires Cat6a or higher specification network cables.
- ✓ Supports LPM (Link Power Management) and automatic power-off power-saving mechanisms to enhance energy efficiency
- ✓ Supports up to 16KB jumbo frames, optimizing throughput efficiency for large data sets.

Function

- ✓ Supports Wake-on-LAN network wake-up and RealWoW™ remote wake-up
- ✓ Supports Microsoft WPD and Intel CPPM power management standards
- ✓ Features adaptive equalization, crosstalk cancellation, and RFI protection
- ✓ Supports unloading NDIS5/NDIS6 protocols, enabling IPv4/IPv6/TCP/UDP checksum calculation
- ✓ Supports ARP & DNS protocol offloading, significantly reducing the CPU processing load on the host.
- ✓ Supports hot-swapping to meet plug-and-play device requirements.

System Requirements

- ✓ Windows 10 / 11
- ✓ Linux (Kernel 5.8 and above)
- ✓ Mac os

Application Scenarios

- ✓ 10 Gigabit High-Speed Network Upgrade for Laptops/Desktops
- ✓ Video Editing/3D Rendering/Audio Production Material Large File Transfer
- ✓ Compact 10 Gigabit Networking Solution for Small Offices and Homes
- ✓ Low-Latency Networking for Esports/Premium Entertainment
- ✓ Small Studio/Individual Creator File Transfer

About LeKuo: Shenzhen MMUI CO.,Ltd is a company that was established in 2004 and focuses on computer boards and industrial embedded systems. The company values professionalism, innovation, and trust, and its products and services cater to various industries such as manufacturing, aerospace, banking, transportation, healthcare, and cloud storage, providing high-quality embedded solutions for industrial control and other areas.

Hardware Interface

Host Connection Interface	1 × USB Type-C (physical port)
Network Access Interface	1 × RJ45 10G Ethernet Port
Host Interface	USB-C
Network Cable Adapter Interface	RJ45-compatible CAT6a Ethernet cable
Housing Material	Aluminum alloy

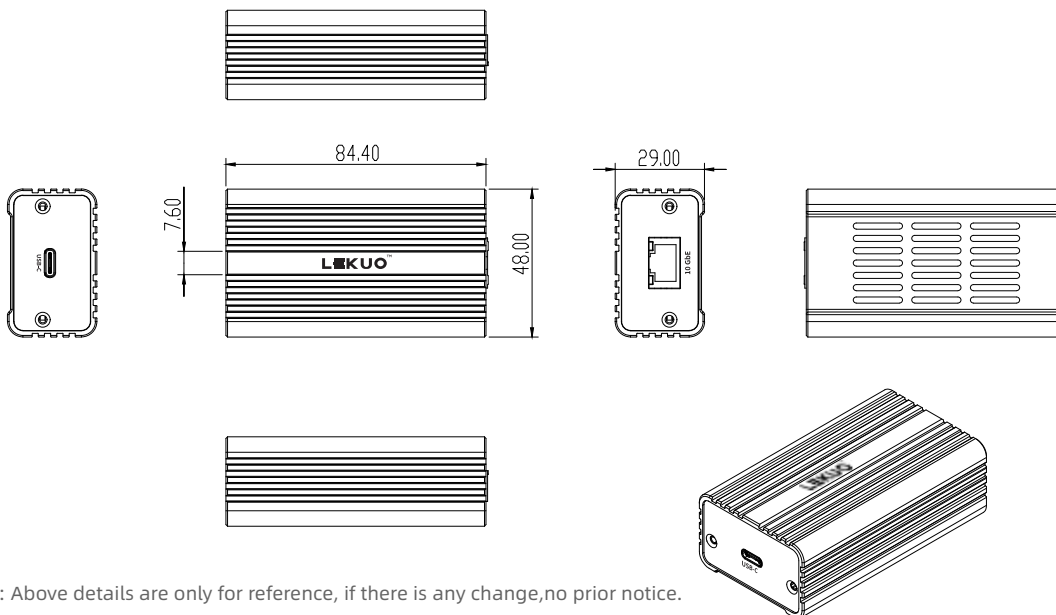
Performance

Throughput under USB 3.2 Gen2x2 (20Gbps)	Approximately 9.45 Gbps (10G full-speed transmission)
Throughput under USB 3.2 Gen2 (10Gbps)	Approximately 7.2 Gbps (bandwidth-limited)
Throughput under USB 3.1 (5Gbps)	Approximately 3.54 Gbps (bandwidth-limited)
Supported network speeds	10/100/1000M/2.5G/5G/10G BASE-T auto-sensing
Protocol Unloading Capability	Supports IPv4/IPv6/TCP/UDP checksum, ARP & NS protocol offloading
Support for giant frames	Maximum 16KB bytes, optimized for file transfer efficiency
Transmission Protection	Features crosstalk cancellation, timed recovery, and RFI protection with strong anti-interference capability
Rate standard compatibility	Compatible with multiple standards including IEEE 802.3ab/802.3bz/802.3an

Package Contents

Included Items	<ul style="list-style-type: none"> •1 x 10GbE USB Ethernet Adapter •1 x User Manual •1 x Type-C Data Cable
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Block Diagram



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

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