Real HD 5 Port 2.5GB Switch Unmanaged

Real HD 5 Port 2.5Gb Ethernet Switch with 10G SFP+ Port User Manual

Model: 5 Port 2.5GB Switch Unmanaged | Brand: Real HD

1. Introduction

Thank you for choosing the Real HD 5 Port 2.5Gb Ethernet Switch. This unmanaged network switch is designed to provide high-speed connectivity for your network devices, featuring five 2.5 Gigabit RJ45 ports and one 10 Gigabit SFP+ port. This manual will guide you through the installation, operation, maintenance, and troubleshooting of your new switch, ensuring optimal performance and a seamless networking experience.

2. Product Overview

The Real HD 5 Port 2.5Gb Ethernet Switch is a high-performance, fanless, and unmanaged solution for expanding your network's capabilities. It is ideal for home offices, small businesses, and gaming setups requiring faster data transfer speeds.

Key Features:

- **High-Speed Connectivity:** Equipped with five 2.5G RJ45 ports and one 10G SFP+ port for multi-gigabit network expansion.
- **Unmanaged Operation:** Plug and Play design requires no software installation or configuration.
- **Wide Compatibility:** Supports 10/100/1000Mbps devices and is compatible with 4K Video, Laptops with 2.5G Ethernet Adapters, WiFi 6 Routers, WiFi 6 APs, 2.5G Gaming PCs, and 2.5G NAS computers.
- **Durable Design:** Features a compact and sturdy metal housing with 6KV lightning protection.
- **Silent Operation:** Fanless design ensures quiet operation and good heat dissipation, suitable for various environments from -20 to 50°C.

Figure 2.1: The Real HD 5 Port 2.5Gb Ethernet Switch, showcasing its compact design and port layout.

Package Contents:

- Real HD 5 Port 2.5Gb Ethernet Switch
- Power Adapter (DC 12V 1A)
- User Manual

3. Setup Instructions

Follow these steps to set up your Real HD 5 Port 2.5Gb Ethernet Switch.

3.1 Physical Placement

1. Place the switch on a stable, flat surface such as a desktop, or mount it to a wall using appropriate hardware (not included).
2. Ensure adequate ventilation around the device. Although fanless, proper airflow helps maintain optimal operating temperature.
3. Keep the switch away from strong electromagnetic fields, direct sunlight, and sources of excessive heat or moisture.

3.2 Connecting the Switch

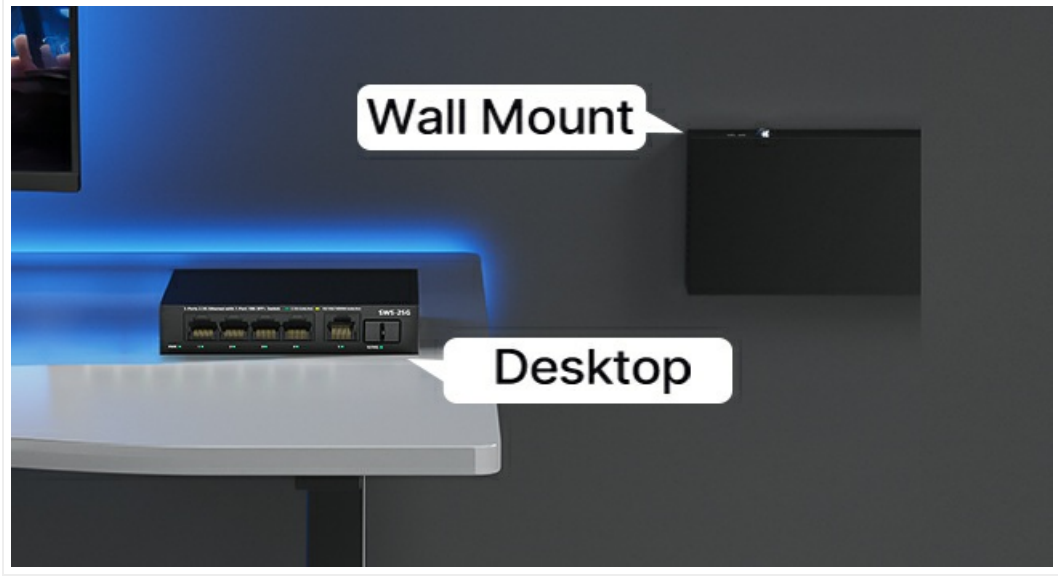

Figure 3.1: Rear view of the switch showing power input and port layout.

1. **Connect Power:** Insert the power adapter into the DC 12V port on the switch and plug the other end into a standard electrical outlet. The Power (PWR) LED indicator on the front panel will illuminate.
2. **Connect Network Devices (RJ45 Ports):** Use CAT6 or higher-level pure copper Ethernet cables to connect your network devices (e.g., computers, routers, NAS, WiFi 6 APs) to any of the five 2.5G RJ45 ports (labeled 1-5). For optimal 2.5Gbps speeds, ensure all connected devices and cables support 2.5Gbps.
3. **Connect 10G SFP+ Port (Optional):** If you require 10 Gigabit connectivity, insert a compatible 10G SFP+ module (not included) into the SFP+ port (labeled 6(10G)). Then, connect a suitable fiber optic cable or DAC cable to the SFP+ module. Ensure the SFP+ module and connected device are compatible.

Figure 3.2: Illustration of cable requirements for achieving 2.5Gbps and 10Gbps speeds. CAT6, CAT6a, and CAT7 cables are recommended for optimal performance.

Important Note: To achieve 2.5Gbps or 10Gbps network speeds, ensure that all components in your network path, including network cards, routers, and cables, support these higher speeds. If any device operates at a lower speed (e.g., 1Gbps), the connection speed will default to the lowest common speed.

4. Operating Instructions

The Real HD 5 Port 2.5Gb Ethernet Switch is an unmanaged device, meaning it operates on a plug-and-play basis without requiring any software configuration. Once connected, it automatically detects and configures the speed and duplex mode of connected devices.

LED Indicators:

The front panel of the switch features LED indicators to provide status information:

- **PWR (Power) LED:**
  - **On:** The switch is powered on.
  - **Off:** The switch is powered off.
- **2.5G Link/Act LEDs (for RJ45 Ports 1-5):**
  - **Green On:** A 2.5Gbps link is established.
  - **Green Flashing:** Data is being transmitted or received at 2.5Gbps.
  - **Off:** No link is established or the device is not connected.
- **10/100/1000M Link/Act LEDs (for RJ45 Ports 1-5):**
  - **Yellow On:** A 10/100/1000Mbps link is established.
  - **Yellow Flashing:** Data is being transmitted or received at 10/100/1000Mbps.
  - **Off:** No link is established or the device is not connected.
- **10G Link/Act LED (for SFP+ Port 6):**
  - **On:** A 10Gbps link is established.
  - **Flashing:** Data is being transmitted or received at 10Gbps.
  - **Off:** No link is established or the SFP+ module/device is not connected.

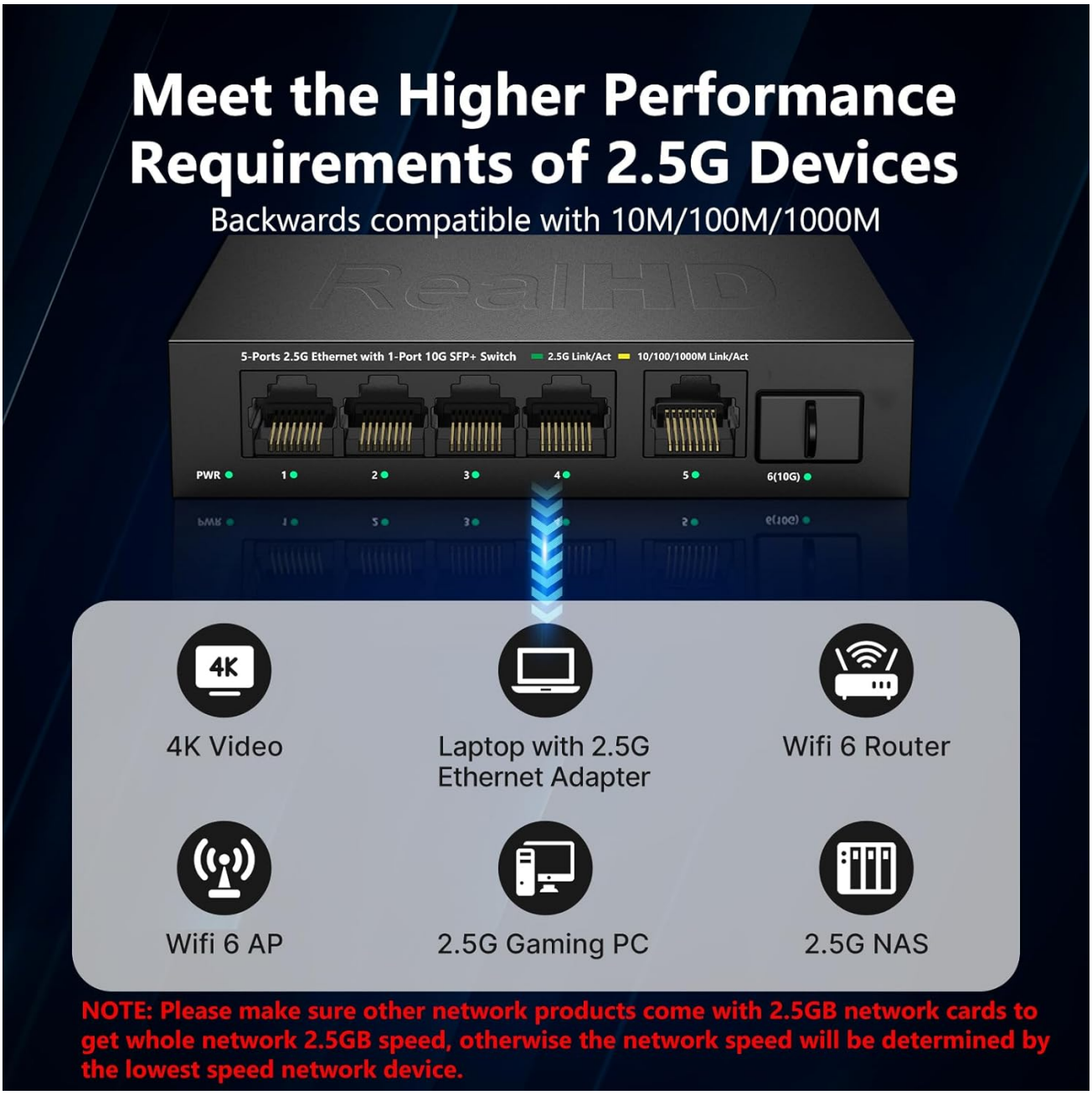

Figure 4.1: Examples of devices that can benefit from the 2.5G Ethernet switch, including 4K video streams, laptops, WiFi 6 routers/APs, gaming PCs, and NAS systems.

5. Maintenance

Proper maintenance ensures the longevity and reliable operation of your Real HD Ethernet Switch.

5.1 General Care

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the switch. Do not use liquid or aerosol cleaners.
- **Environment:** Operate the switch within its specified temperature range (-20 to 50°C). Avoid placing it in areas with high humidity, dust, or extreme temperatures.
- **Ventilation:** Ensure that the ventilation holes on the sides of the switch are not blocked to allow for proper heat dissipation, even though it is a fanless design.
- **Power:** Use only the provided power adapter. Disconnect power during electrical storms or when unused for extended periods.

Figure 5.1: The fanless design of the switch ensures quiet operation and prevents dust build-up, contributing to its durability.

6. Troubleshooting

If you encounter issues with your switch, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No Power (PWR LED Off)	Power adapter not connected or faulty; power outlet not working.	Ensure the power adapter is securely connected to the switch and a working power outlet. Test the outlet with another device.
No Link Light for a Connected Device	Ethernet cable faulty or improperly connected; device is off or faulty; incorrect cable type.	Check cable connections at both ends. Try a different Ethernet cable. Ensure the connected device is powered on and functioning correctly. Verify you are using CAT6 or higher for 2.5G connections.

Problem	Possible Cause	Solution
Slow Network Speed	Connected device does not support 2.5Gbps; cable type is insufficient (e.g., CAT5e for 2.5G); network congestion.	Ensure all devices in the network path (including network cards) support 2.5Gbps. Use CAT6 or higher pure copper Ethernet cables. Check for other network activity that might be consuming bandwidth.
SFP+ Port Not Functioning	SFP+ module not inserted correctly or incompatible; fiber/DAC cable faulty.	Ensure the SFP+ module is fully inserted and compatible with the switch. Check the fiber optic or DAC cable for damage and proper connection. Ensure the connected device supports 10Gbps.

7. Specifications

Detailed technical specifications for the Real HD 5 Port 2.5Gb Ethernet Switch:

Feature	Specification
Model Number	5 Port 2.5GB Switch Unmanaged
Number of Ports	5 x 2.5G RJ45 Ports, 1 x 10G SFP+ Port (Total 6 Ports)
Interface Type	RJ45, SFP+
Data Transfer Rate (Per Port)	2.5Gbps (RJ45), 10Gbps (SFP+)
Total Bandwidth	45Gbps
Backwards Compatibility	10/100/1000Mbps
Case Material	Metal
Cooling	Fanless
Operating Temperature	-20 to 50 Degrees Celsius
Lightning Protection	6KV
Power Input	DC 12V 1A
Package Dimensions	6.93 x 4.92 x 2.52 inches
Item Weight	14 ounces (0.4 Kilograms)
Color	Black

8. Warranty Information

For specific warranty details regarding your Real HD 5 Port 2.5Gb Ethernet Switch, please refer to the warranty card included with your product or contact Real HD customer support directly. Warranty terms typically cover manufacturing defects for a specified period from the date of purchase.

9. Technical Support

If you require further assistance or have questions not covered in this manual, please contact Real HD technical support.

- **US Local Tech Support:** Available from 9 AM to 5 PM CST.
- **Contact:** Please refer to the contact information provided on the product packaging or the official Real HD website for the most current support channels.