Binardat 10x1G

Binardat 10-Port Gigabit Ethernet Switch (Model 10x1G) User Manual

Unmanaged Plug and Play Switch with VLAN Support

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your Binardat 10-Port Gigabit Ethernet Switch (Model 10x1G). This unmanaged switch is designed to expand your network capacity with high-speed Gigabit connectivity, offering a reliable and efficient solution for home and office environments.
The switch features 8 Gigabit Ethernet ports and 2 Gigabit uplink ports, supporting data transfer rates of 10/100/1000Mbps. It also includes a port-based VLAN function for enhanced network security and broadcast storm reduction.

Image 1.1: Top-down view of the Binardat 10-Port Gigabit Ethernet Switch, showcasing its compact metal design.

2. Product Features

- **10 Gigabit Ports:** Includes 8 x 1 Gigabit Ethernet ports and 2 x 1 Gigabit Uplink Ports. All ports support

10/100/1000Mbps rates, providing a total bandwidth of 20Gbps.

- **Port VLAN Support:** Features a DIP switch to enable port VLAN functionality. When enabled, ports 1-8 are isolated from each other and communicate only with uplink ports 9-10, reducing broadcast storms and improving network security.
- **Unmanaged Plug & Play:** Automatically detects connected devices. Requires no configuration; simply connect the power cord and Ethernet cables.
- **Easy Installation:** Designed with a durable metal case and a fanless operation for silent performance. Suitable for various placements including desktops, weak current boxes, and cabinets.
- **Wide Application:** Ideal for IP cameras, Wireless Access Points, and general home and office network expansion.

Image 2.1: Visual representation of the switch's key features including full Gigabit ports, plug and play, port-based VLAN, dual uplink ports, fanless design, and wall-mountable option.

3. Package Contents

Verify the following items are included in your package:

- Binardat 10-Port Gigabit Ethernet Switch (Model 10x1G)
- Power Adapter
- User Manual (this document)

4. Product Overview

4.1 Front Panel

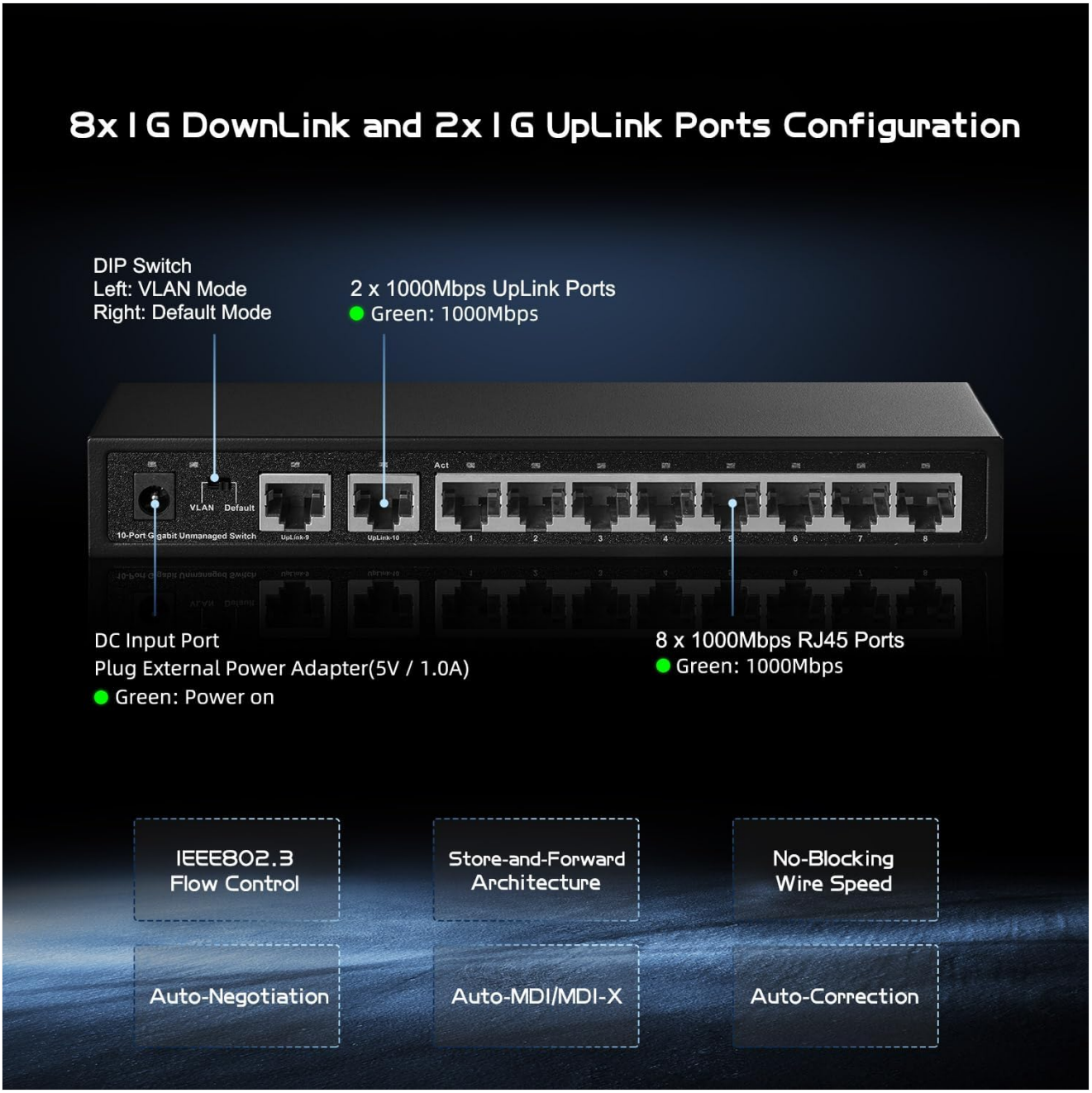

Image 4.1: Detailed view of the switch's front panel, indicating the DC input, VLAN/Default switch, Uplink ports, and standard Ethernet ports.

- **DC Input Port:** Connects to the external power adapter (5V / 1.0A). The green LED indicates power is on.
- **VLAN/Default DIP Switch:**
  - **VLAN Mode (Left):** Isolates ports 1-8 from each other, allowing them to communicate only with uplink ports 9-10.
  - **Default Mode (Right):** All ports communicate freely with each other.
- **Uplink Ports (9-10):** Two 1000Mbps Gigabit uplink ports. Green LED indicates 1000Mbps connection.

- **RJ45 Ports (1-8):** Eight 1000Mbps Gigabit Ethernet ports. Green LED indicates 1000Mbps connection.
- **Act LED:** Indicates activity on the ports.

Image 4.2: Close-up of the power input and the VLAN/Default DIP switch, showing the clear labeling for each mode.

5. Setup

5.1 Physical Connection

1. **Power Connection:** Connect the provided power adapter to the DC Input Port on the switch and then plug it into a power outlet. The power LED will illuminate.
2. **Network Device Connection:** Connect your network devices (e.g., computers, IP cameras, Wireless Access Points) to the RJ45 ports (1-8) using standard Ethernet cables.
3. **Uplink Connection:** Connect your router or main network backbone to the Uplink Ports (9-10) using standard Ethernet cables.

Image 5.1: Illustration of the switch's easy installation, including wall-mounting options and simple plug-and-play connectivity.

5.2 VLAN Configuration

The Binardat 10-Port Gigabit Ethernet Switch supports a port-based VLAN function controlled by a DIP switch on the front panel.

- **Default Mode (DIP switch to the Right):** This is the standard operating mode. All connected devices on ports 1-10 can communicate with each other.
- **VLAN Mode (DIP switch to the Left):** In this mode, ports 1 through 8 are isolated from each other. Devices connected to ports 1-8 can only communicate with devices connected to the uplink ports (9 and 10). This is useful for segmenting your network, for example, to isolate IP cameras or guest networks from your main network.

Important: Change the DIP switch setting only when the switch is powered off to ensure proper configuration.

Image 5.2: Diagram illustrating how port-based VLAN isolates ports 1-8, allowing communication only with uplink ports 9-10, enhancing network security.

6. Operation

The Binardat 10-Port Gigabit Ethernet Switch is an unmanaged device, meaning it requires no software configuration for basic operation. Once powered on and connected, it functions automatically.

6.1 LED Indicators

The LEDs on the front panel provide visual status of the switch and its connections:

- **Power LED (Green, next to DC input):**
  - On: The switch is powered on.
  - Off: The switch is powered off.
- **Link/Act LEDs (Green, above each RJ45 port):**
  - On: A device is successfully connected to the port.

- Flashing: Data is being transmitted or received through the port.
- Off: No device is connected or the connected device is not active.

7. Maintenance

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the switch. Do not use liquid or aerosol cleaners.
- **Ventilation:** Ensure adequate airflow around the switch. Do not block the ventilation holes on the sides.
- **Environment:** Operate the switch within its specified temperature and humidity ranges. Avoid placing it in direct sunlight or near heat sources.
- **Cable Management:** Keep network cables organized to prevent damage and ensure proper airflow.

8. Troubleshooting

Problem	Possible Cause	Solution
No power LED indication.	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/Act LED for a connected device.	Ethernet cable faulty or improperly connected; connected device is off or faulty.	Check Ethernet cable connections at both ends. Try a different cable. Ensure the connected device is powered on and functioning correctly.
Network performance is slow.	Cable issues; network congestion; VLAN mode incorrectly configured.	Ensure all cables are Cat5e/Cat6 or higher. Check for excessive network traffic. Verify the VLAN/Default DIP switch setting is appropriate for your network setup.
Devices in ports 1-8 cannot communicate with each other.	VLAN mode is enabled.	If you require direct communication between ports 1-8, switch the VLAN/Default DIP switch to the "Default" position (right). Remember to power off the switch before changing the setting.

9. Specifications

Feature	Detail
Model Number	10x1G
Number of Ports	10 (8 x 10/100/1000Mbps RJ45, 2 x 10/100/1000Mbps Uplink RJ45)
Data Transfer Rate	1000 Megabits Per Second (Mbps)
Switching Capacity	20Gbps
MAC Address Table Size	8K
Jumbo Frame Support	15KB
Interface Type	RJ45

Feature	Detail
Case Material	Metal
Product Dimensions (L x W x H)	7.4" x 3.66" x 1.15"
Item Weight	1.18 Kilograms (2.59 pounds)
Power Input	5V / 1.0A (External Power Adapter)
Fanless Design	Yes
VLAN Support	Port-based VLAN via DIP switch
Compatible Devices	Desktop, Laptop, Router

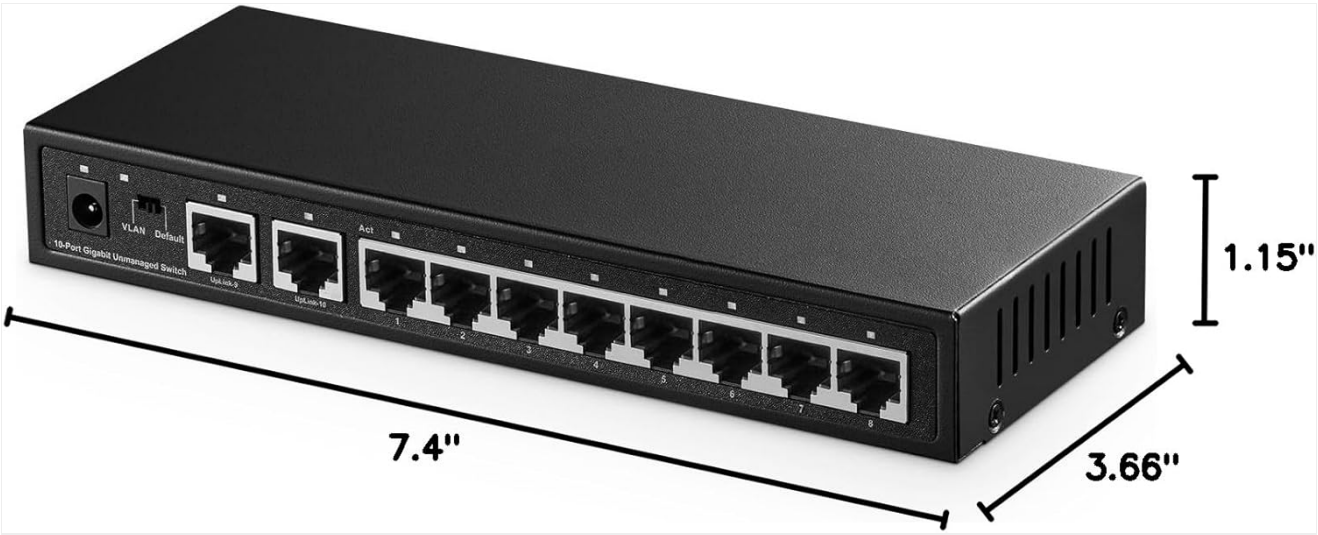

Image 9.1: Physical dimensions of the Binardat 10-Port Gigabit Ethernet Switch.

10. Warranty and Support

Binardat provides lifelong technical support for this product. For assistance, please refer to the contact information provided with your purchase or visit the official Binardat website.
Please retain your proof of purchase for warranty claims, if applicable.