

Binardat 4x2.5G + 2x10G SFP

Binardat 4 Port 2.5G Switch with 2x10G SFP+ User Manual

Model: 4x2.5G + 2x10G SFP
Brand: Binardat

Overview Setup Operation Maintenance Troubleshooting Specifications Support

1. PRODUCT OVERVIEW

The Binardat 4 Port 2.5G Switch with 2x10G SFP+ is an unmanaged multi-gigabit desktop network switch designed to provide high-speed connectivity for your home or office network. It features four 2.5 Gigabit RJ-45 Ethernet ports and two 10G SFP+ slots, offering flexible and powerful networking capabilities. This switch supports Port VLAN functionality via a DIP switch, enhancing network security and efficiency by isolating traffic between ports.

Key Features:

- **High-Speed Ports:** 4 x 2.5Gigabit Ethernet ports (compatible with 100Mbps/1Gbps) and 2 x 10G SFP+ slots (compatible with 1G/2.5G/10G optical modules).
- **Port VLAN Support:** A physical DIP switch allows for port-based VLAN, isolating ports 1-4 from each other while allowing communication with uplinked ports 5 and 6, reducing broadcast storms and improving security.
- **Plug and Play:** Unmanaged design requires no configuration; simply connect power and Ethernet cables.
- **Easy Monitoring:** Power and port LED indicators clearly display working status and port rate.
- **Fanless and Silent Operation:** Designed with double-sided cooling holes and no fan for quiet operation and lower energy consumption.
- **Durable Design:** Metal casing with desktop/wall-mount options, suitable for various applications.
- **60G Switching Capacity:** Provides robust data throughput for demanding network environments.



Figure 1: Front view of the Binardat 4 Port 2.5G Switch with 2x10G SFP+.

2. SETUP AND INSTALLATION

The Binardat 4 Port 2.5G Switch is designed for simple plug-and-play installation. Follow these steps to set up your network switch.

2.1 Package Contents:

- Binardat 4 Port 2.5G Switch
- Power Adapter (12V/2.0A)
- Rubber Feet (for desktop placement)
- Quick Start Guide



Figure 2: Example of product packaging and contents.

2.2 Connecting the Switch:

1. **Power Connection:** Connect the included power adapter to the DC Input Port on the switch and then plug it into a standard electrical outlet. The Power LED (PWR+) on the switch should illuminate green, indicating it is powered on.
2. **Ethernet Connections (RJ-45 Ports 1-4):** Use standard Cat5e or better Ethernet cables to connect your devices (e.g., computers, NAS, gaming consoles, WiFi 6 APs) to the 2.5G RJ-45 ports (labeled 1-4) on the switch. The corresponding Link/Act LED for each port will light up when a connection is established and blink to indicate data activity. The color of the LED (Orange/Left for 100/1000Mbps, Green/Right for 2.5Gbps) indicates the link speed.
3. **SFP+ Connections (Ports 5-6):** Insert compatible 1G, 2.5G, or 10G SFP/SFP+ optical modules (not included) into the SFP+ slots (labeled 5-6). Then, connect appropriate fiber optic cables or DAC cables to these modules. These ports are typically used for uplink connections to a router, server, or other high-speed network devices. The Link/Act LED for SFP+ ports (Orange/Left for 1G/2.5G, Green/Right for 10Gbps) will indicate the link speed.
4. **Grounding (Optional):** For enhanced protection, you may connect a grounding wire to the grounding hole on the switch.

Well Designed



4KV Lightning Protection



Fanless and Silent Operation



Wall Mountable



Plug and Play

Figure 3: Connecting Ethernet and SFP+ cables to the switch.

High Performance and Reliable Connection

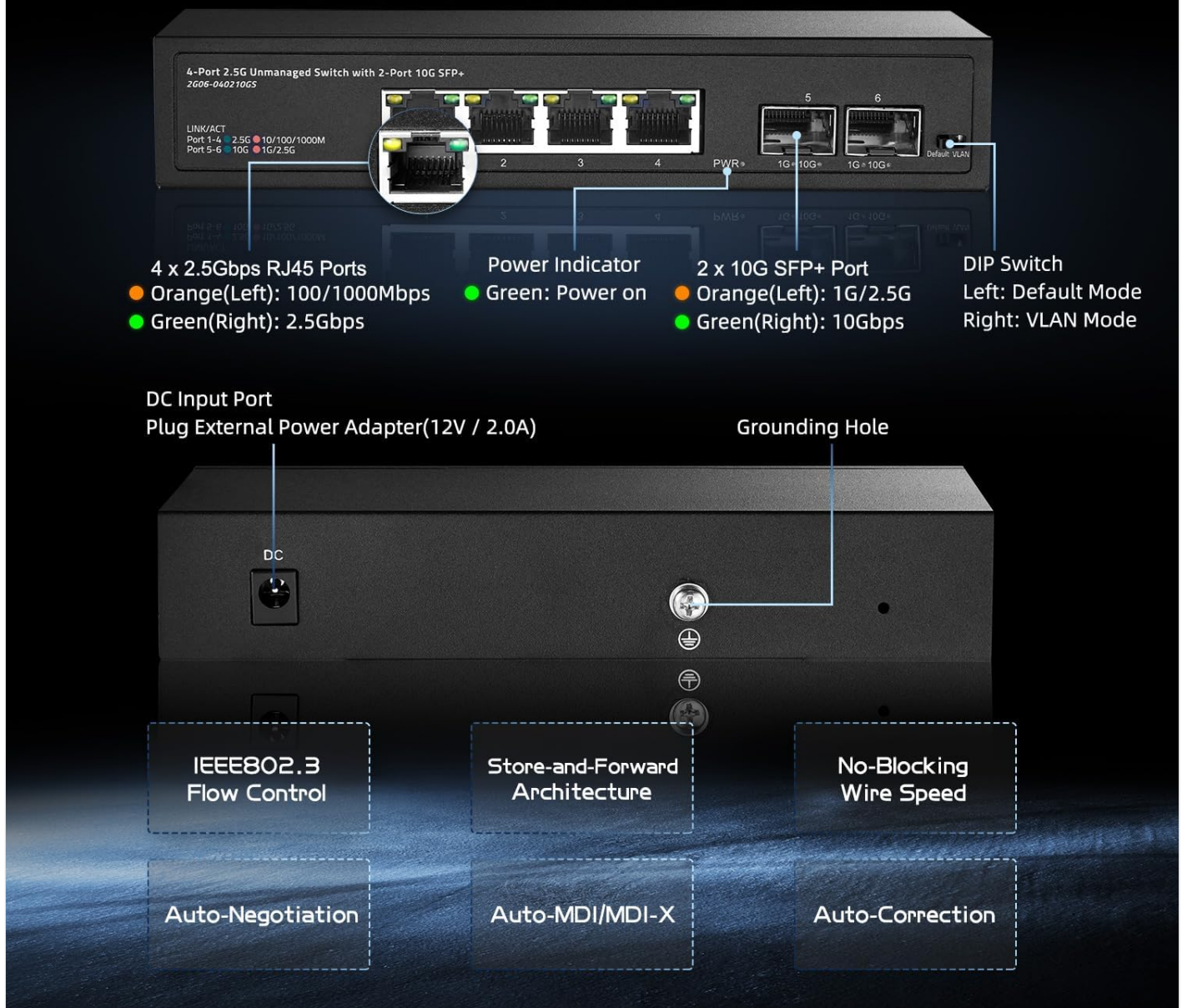


Figure 4: Detailed view of ports, power indicator, and DIP switch.

2.3 Mounting Options:

The switch can be placed on a desktop or mounted on a wall.

- **Desktop Placement:** Attach the included rubber feet to the bottom of the switch to prevent slipping and protect surfaces.
- **Wall Mounting:** The switch features mounting holes on its underside for wall installation. Use appropriate screws (not included) to secure the switch to a wall.

Well Designed



4KV Lightning Protection



Fanless and Silent Operation



Wall Mountable



Plug and Play

Figure 5: Wall mounting option for the switch.

3. OPERATING THE SWITCH

The Binardat 4 Port 2.5G Switch is an unmanaged device, meaning it requires no software configuration. It operates automatically once connected.

3.1 Basic Operation:

- **Auto-Negotiation:** All RJ-45 ports automatically detect the speed and duplex mode of connected devices (100Mbps, 1Gbps, or 2.5Gbps) and adjust accordingly.
- **Auto-MDI/MDI-X:** The ports automatically detect whether a straight-through or crossover cable is being used, eliminating the need for specific cable types.
- **Store-and-Forward Architecture:** The switch uses a store-and-forward method to ensure error-free packet transmission.
- **No-Blocking Wire Speed:** All ports can operate at their maximum theoretical speed simultaneously without

performance degradation.

3.2 Port VLAN Function:

The switch includes a physical DIP switch labeled "Default / VLAN" on the front panel. This switch controls the port-based VLAN function.

- **Default Mode (Switch to "Default"):** In this mode, all ports (1-6) can communicate with each other. This is the standard operation for a typical network switch.
- **VLAN Mode (Switch to "VLAN"):** When set to VLAN mode, ports 1-4 are isolated from each other. Devices connected to ports 1, 2, 3, and 4 can only communicate with the uplinked ports (5 and 6). They cannot communicate directly with each other. This feature is useful for enhancing network security by preventing direct communication between specific devices, such as IP cameras or guest networks, while still allowing them internet access through the uplink.

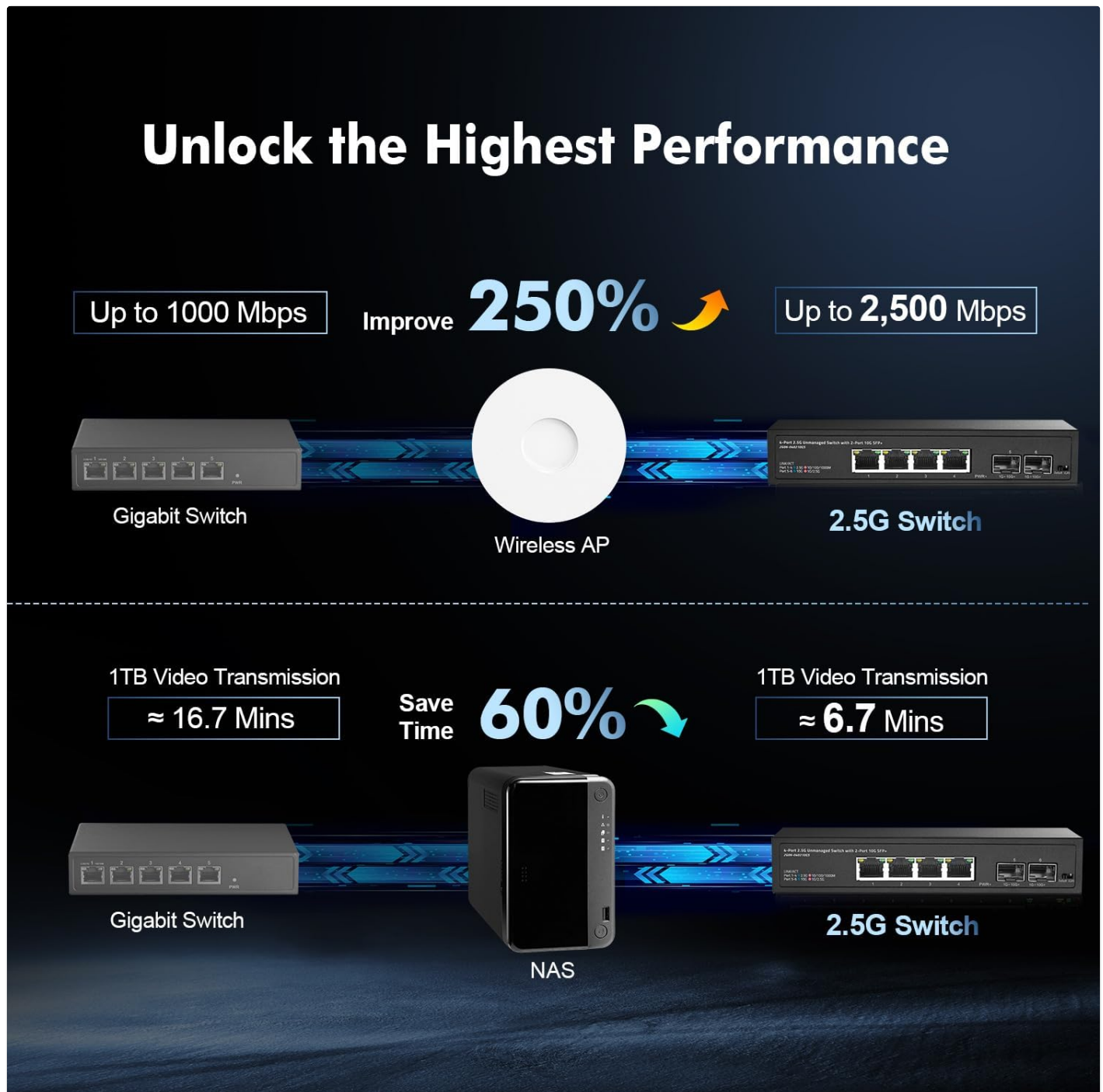


Figure 6: Diagram illustrating Port-based VLAN operation.

Note: This port-based VLAN is a physical isolation feature and is different from 802.1Q VLAN tagging. The switch will pass

802.1Q VLAN tags without modification.

4. MAINTENANCE AND CARE

The Binardat 4 Port 2.5G Switch is designed for reliable, low-maintenance operation. Follow these guidelines to ensure its longevity.

4.1 General Care:

- **Cleaning:** Use a soft, dry cloth to wipe the exterior of the switch. Do not use liquid or aerosol cleaners.
- **Ventilation:** Although fanless, ensure the cooling holes on the sides of the switch are not obstructed to allow for proper heat dissipation.
- **Environment:** Operate the switch within its specified temperature range of -10°C to +50°C (14°F to 122°F). Avoid placing it in direct sunlight, near heat sources, or in areas with high humidity.
- **Power:** Use only the provided power adapter. Disconnect power during electrical storms or when unused for long periods.



Figure 7: Recommended operating temperature range.

4.2 Lightning Protection:

The switch is designed with 4KV lightning protection to safeguard against electrical surges. For optimal protection, ensure proper grounding if available.



Figure 8: Illustration of 4KV lightning protection.

5. TROUBLESHOOTING

If you encounter issues with your Binardat 4 Port 2.5G Switch, refer to the following common problems and solutions.

Problem	Possible Cause	Solution
No Power LED (PWR+) 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. Try a different outlet.

Problem	Possible Cause	Solution
No Link/Act LED for a connected device.	Incorrect cable type; faulty cable; device not powered on or configured correctly; port issue.	Verify the Ethernet cable is securely connected at both ends. Try a different Ethernet cable. Ensure the connected device is powered on and its network adapter is enabled. Try connecting the device to a different port on the switch. For SFP+ ports, ensure the optical module is correctly inserted and compatible.
Slow network speeds.	Cable quality; device network adapter limitations; network congestion.	Ensure you are using Cat5e or better cables for 2.5G speeds. Verify your device's network adapter supports 2.5G or 10G speeds. Check for other network activity that might be consuming bandwidth.
Devices on ports 1-4 cannot communicate with each other.	Port VLAN function is enabled.	Check the "Default / VLAN" DIP switch on the front panel. If it is set to "VLAN", switch it to "Default" to allow full communication between all ports.
Switch gets warm.	Normal operation, especially with SFP/SFP+ modules.	This is generally normal, particularly around the SFP+ ports as optical modules can generate heat. Ensure adequate ventilation around the device. If the device becomes excessively hot to touch or malfunctions, contact support.
Compatibility issue with specific ISP equipment (e.g., Huawei GPON).	Specific hardware or firmware incompatibility.	While the switch is generally plug-and-play, some specific ISP-provided equipment (like certain GPON ONTs) may have unique compatibility requirements. Consult your ISP or Binardat support for specific compatibility concerns.

6. TECHNICAL SPECIFICATIONS

Feature	Description
Model	4x2.5G + 2x10G SFP
Part Number	2G06-040210GS
Ports	4 x 2.5 Gigabit RJ-45 Ethernet Ports, 2 x 10G SFP+ Slots
Data Transfer Rate	2.5 Gigabits Per Second (RJ-45), 1G/2.5G/10G (SFP+)
Switching Capacity	60G
Packet Buffer	8Mbit
Packet Forward Speed	44.64Mpps
Interface Type	RJ45, SFP+
Material Type	Metal
Mounting Type	Desktop / Wall Mount

Feature	Description
Cooling	Fanless, Passive Cooling
Power Supply	External Power Adapter (12V/2.0A)
Operating Temperature	-10°C to +50°C (14°F to 122°F)
Item Weight	0.62 Kilograms
Parcel Dimensions	19.3 x 16.8 x 6.2 cm
Compatible Devices	Camera, Computer, Desktop, Gaming Console, NAS, Printer, Smartphone, Tablet, WiFi 6 AP

7. WARRANTY AND SUPPORT

Binardat is committed to providing high-quality products and customer satisfaction.

7.1 Warranty Information:

This product comes with a standard manufacturer's warranty. Please refer to the warranty card included in your product packaging or contact Binardat support for detailed warranty terms and conditions.

7.2 Technical Support:

For technical assistance, troubleshooting, or any product-related inquiries, please contact Binardat customer support:

- **Email:** support@binardat.com
- **Website:** Visit the official Binardat website for FAQs and additional resources.

When contacting support, please have your product model number (4x2.5G + 2x10G SFP) and a detailed description of your issue ready.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

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