INTELLINET NETWORK SOLUTIONS 562041

Intellinet 48-Port L3 Managed Gigabit PoE+ Switch (Model 562041) User Manual

Model: 562041

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of the Intellinet 48-Port L3 Managed Gigabit PoE+ Switch, Model 562041. This device is designed for enterprise networks requiring efficient and scalable routing solutions with high-powered Power over Ethernet (PoE) capabilities.

2. Safety Information

Observe the following safety precautions to prevent damage to the device and injury to personnel:

- Ensure proper grounding of the device.
- Do not expose the switch to water or excessive humidity.
- Operate the device within the specified temperature and humidity ranges.
- Use only the power cable provided or a compatible replacement.
- Do not open the switch casing; refer servicing to qualified personnel.
- Ensure adequate ventilation around the switch to prevent overheating.

3. Package Contents

Verify that all items are present in the package:

- Intellinet 48-Port L3 Managed Gigabit PoE+ Switch (Model 562041)
- Power cable
- 19" rackmount brackets
- Rubber feet
- Instructions (this manual)

4. Product Overview

The Intellinet 562041 is a robust Layer 3 managed switch featuring 48 Gigabit PoE+ ports and six 10G SFP+ uplink slots. It supports a total power budget of 850 watts for PoE devices.

4.1 Front Panel

Figure 4.1: Front view of the Intellinet 48-Port L3 Managed Gigabit PoE+ Switch. This image shows the 48 Gigabit Ethernet ports, six SFP+ slots, and LED indicators on the front panel.

The front panel includes:

- **48 x 10/100/1000 Mbps RJ45 Ports:** These ports support Power over Ethernet Plus (PoE+) for connecting compatible devices.
- **6 x 10 Gigabit SFP+ Slots:** For high-speed uplink connections to other network devices.
- **LED Indicators:** Provide status information for power, system, link activity, and PoE status.
- **Console Port:** For local management and configuration.

Figure 4.2: Close-up view of the SFP+ uplink ports and the console port on the right side of the switch's front panel. The SYS and PWR LEDs are also visible.

Figure 4.3: Close-up view of the LED indicators (LED MODE, LINK, PoE) located on the left side of the switch's front panel, above the RJ45 ports.

4.2 Rear Panel

Figure 4.4: Rear view of the Intellinet 48-Port L3 Managed Gigabit PoE+ Switch. This image shows the power input and cooling fans.

The rear panel typically includes the AC power input and cooling fans for heat dissipation.

Figure 4.5: Rear view of the Intellinet 48-Port L3 Managed Gigabit PoE+ Switch, highlighting the power input, cooling fans, and a warning label regarding proper grounding.

5. Setup

5.1 Physical Installation

The switch can be installed in a standard 19-inch equipment rack or placed on a desktop.

- **Rackmount Installation:** Attach the provided rackmount brackets to the sides of the switch using the included screws. Secure the switch into a standard 19-inch rack.
- **Desktop Installation:** Attach the provided rubber feet to the bottom of the switch to prevent scratching and ensure stability. Place the switch on a flat, stable surface.

5.2 Power Connection

Connect the provided power cable to the AC power input on the rear panel of the switch and then to a grounded electrical outlet. Ensure the power switch is in the OFF position before connecting the power cable.

5.3 Network Connections

- **PoE Devices:** Connect PoE-compatible devices (e.g., IP cameras, VoIP phones, wireless access points) to any of the 48 Gigabit RJ45 ports. The switch will automatically detect and provide power to these devices.
- **Uplink Connections:** Insert compatible SFP+ transceivers into the 10 Gigabit SFP+ slots and connect them to your core network or other high-speed devices using appropriate fiber optic cables.
- **Console Connection:** For initial configuration or direct management, connect a console cable from your computer to the console port on the switch.

5.4 Initial Configuration

Refer to the separate software configuration guide for detailed instructions on accessing the switch's management interface (web-based GUI or command-line interface via console port) and performing initial setup, including IP address assignment, user accounts, and basic network settings.

6. Operating Instructions

6.1 Layer 3 Routing

This switch offers dynamic Layer 3 IP routing capabilities, including OSPF (Open Shortest Path First), RIP (Routing Information Protocol), and VRRP (Virtual Router Redundancy Protocol). These protocols enable efficient and scalable routing within complex network environments.

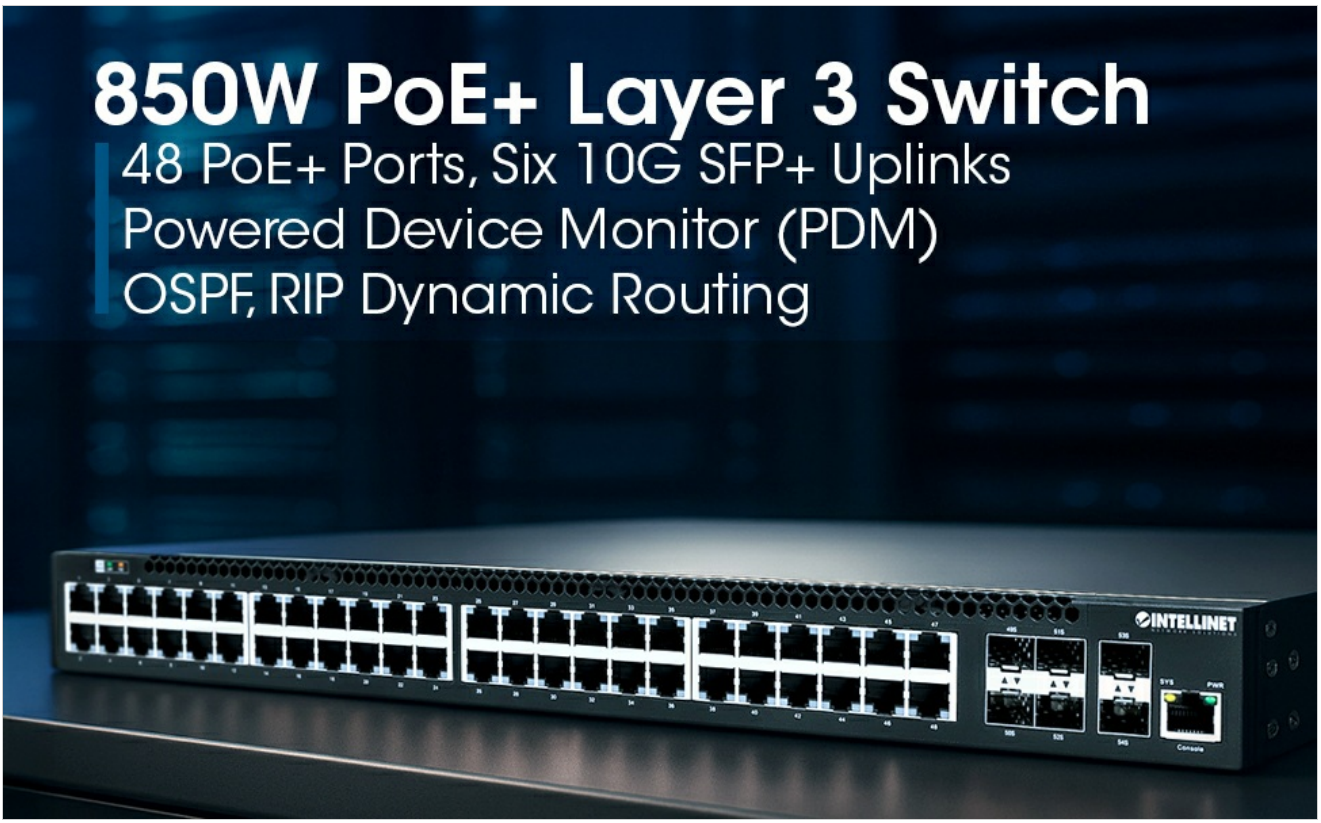

Figure 6.1: Overview of the switch's Layer 3 capabilities, including OSPF, RIP, VRRP, 6x10G SFP+ uplinks, and an 850W PoE budget.

6.2 Power over Ethernet (PoE+)

The switch provides up to 30 watts of power per port across its 48 PoE+ ports, with a total power budget of 850 watts. This allows for seamless integration of various PoE devices without the need for separate power adapters.

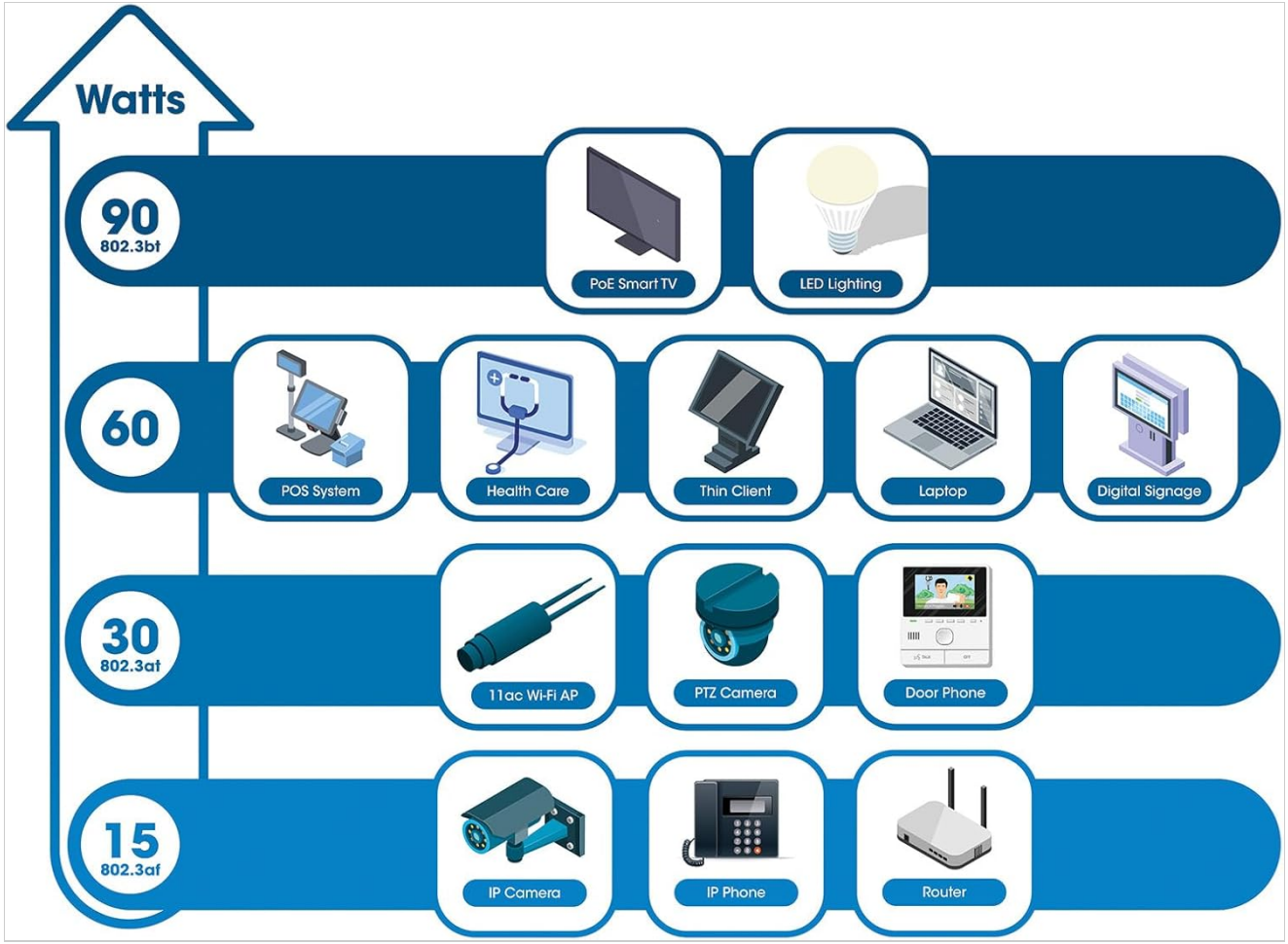

Figure 6.2: Examples of power consumption for various PoE devices, categorized by 802.3af (15W), 802.3at (30W), and 802.3bt (60W, 90W) standards.

6.3 PoE Scheduling

The switch supports PoE scheduling, allowing administrators to define specific times for powering on, powering off, or rebooting connected PoE devices. This feature can optimize power consumption and enhance network security.

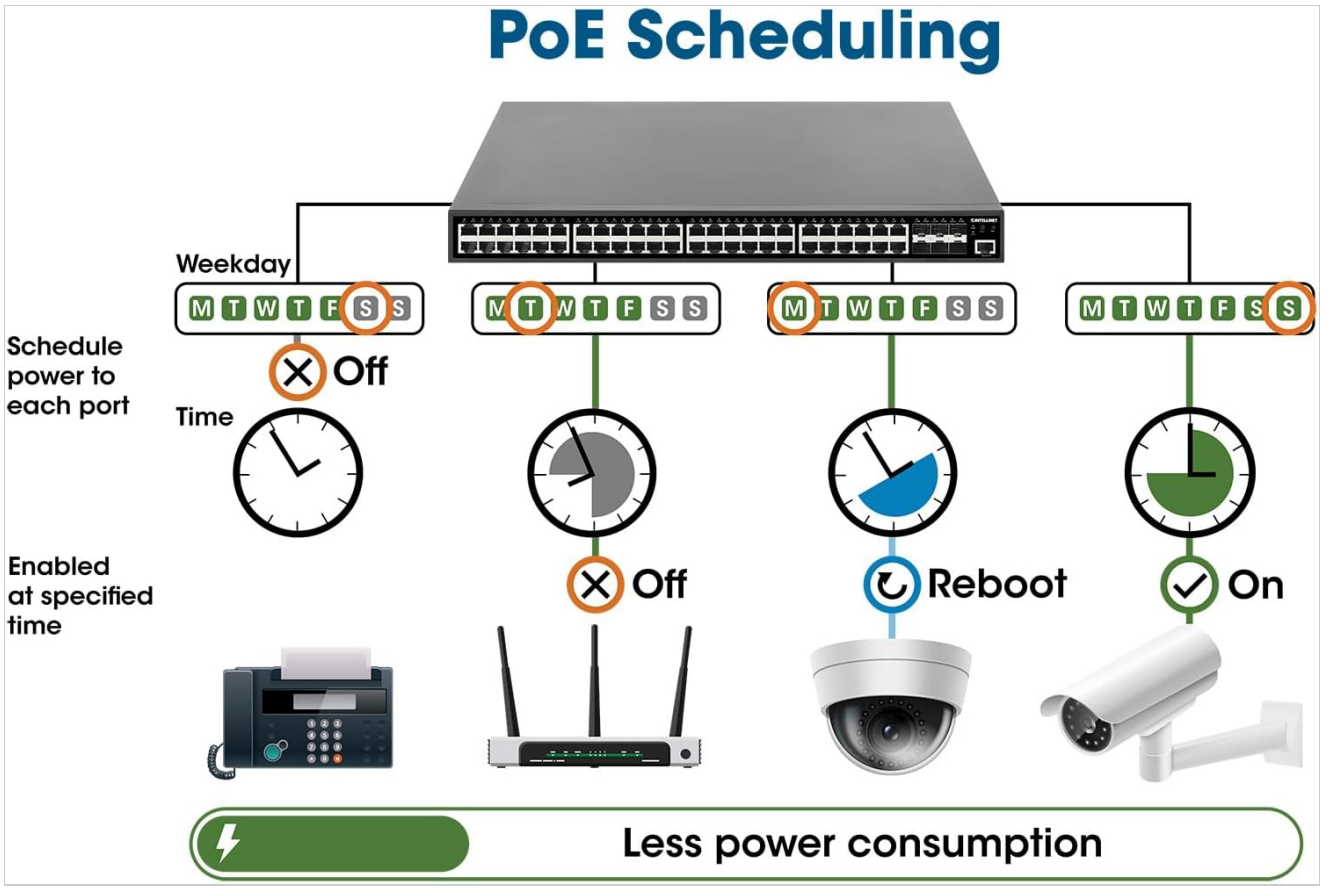

Figure 6.3: Illustration of PoE scheduling, showing how power can be scheduled to turn off, reboot, or turn on for different devices on specific days and times.

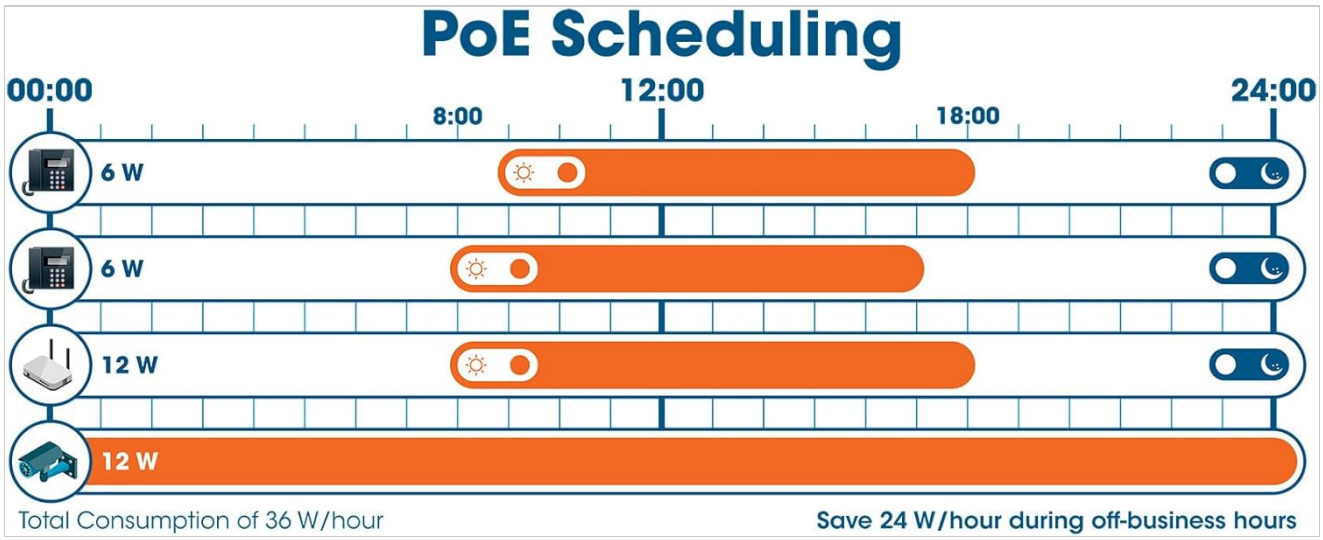

Figure 6.4: A timeline example demonstrating how PoE scheduling can save power by turning off devices during non-business hours.

6.4 Self-Healing Functionality (PDM)

The Powered Device Monitor (PDM) feature enables the switch to proactively monitor the status of connected PoE devices. If a device becomes unresponsive, the PDM can automatically restart the PoE port to restore functionality, minimizing downtime and maintaining network integrity.

6.5 Cloud Management

The switch supports cloud management capabilities, allowing for remote configuration, monitoring, and troubleshooting of the device from a centralized platform. Refer to the cloud management documentation for setup and usage details.

7. Maintenance

7.1 Firmware Updates

Regularly check the Intellinet Network Solutions website for the latest firmware updates. Applying firmware updates can improve performance, add new features, and address security vulnerabilities. Follow the instructions provided with the firmware update package carefully.

7.2 Cleaning

To clean the switch, power it off and disconnect all cables. Use a soft, dry cloth to wipe the exterior. Do not use liquid or aerosol cleaners. Ensure ventilation openings are free from dust and debris.

7.3 Environmental Considerations

Ensure the switch operates within its specified temperature and humidity ranges. Avoid placing the switch in direct sunlight, near heat sources, or in areas with high dust accumulation.

8. Troubleshooting

This section addresses common issues you might encounter with the switch.

8.1 No Power

- Verify the power cable is securely connected to both the switch and a working electrical outlet.
- Ensure the power switch on the rear panel is in the ON position.
- Check the power outlet with another device to confirm it is functional.

8.2 No Link on a Port

- Check the Ethernet cable connection at both ends. Ensure it is securely plugged in.
- Verify the cable is not damaged. Try a different cable.
- Ensure the connected device is powered on and functioning correctly.
- Check the port status in the switch's management interface.

8.3 PoE Device Not Receiving Power

- Confirm the connected device is a PoE-compatible device.
- Check the PoE status LED for the specific port.
- Verify the total PoE power budget (850W) is not exceeded by all connected devices.
- Utilize the Powered Device Monitor (PDM) feature to automatically restart the port if the device is unresponsive.
- Check PoE settings in the switch's management interface.

9. Specifications

Feature	Specification
Model Number	562041
Brand	INTELLINET NETWORK SOLUTIONS
Number of Ports	54 (48 x Gigabit PoE+, 6 x 10G SFP+)

Feature	Specification
Interface Type	PoE, SFP
Maximum Power (PoE Budget)	850 Watts
Data Transfer Rate	10 Gigabits Per Second (SFP+ uplinks)
Item Weight	6.2 Kilograms (13.64 pounds)
Product Dimensions (L x W x H)	13.78 x 17.32 x 1.73 inches
Upper Temperature Rating	104 Degrees Fahrenheit (40°C)
Lower Temperature Rating	32 Degrees Fahrenheit (0°C)
Compatible Devices	Desktop, Router, PoE devices (IP cameras, VoIP phones, WAPs)
Included Components	19" rackmount brackets, Instructions, Rubber feet, power cable
UPC	766623562041

10. Warranty and Support

10.1 Warranty Information

This Intellinet Network Solutions product is covered by a **3-Year Manufacturer's Warranty**. Please retain your proof of purchase for warranty claims. The warranty covers defects in materials and workmanship under normal use.

10.2 Technical Support

For technical assistance, product documentation, or to register your product, please visit the official Intellinet Network Solutions website or contact their customer support. Contact information can typically be found on the manufacturer's website or in the product packaging.