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Vonets VAP11G-500S

VONETS VAP11G-500S 2.4GHz WiFi Bridge, Repeater, and Router Instruction Manual

Model: VAP11G-500S

1. Introduction

This manual provides detailed instructions for the setup, operation, and maintenance of your VONETS VAP11G-500S 2.4GHz WiFi device. The VAP11G-500S is a versatile industrial-grade networking device capable of functioning as a WiFi Bridge, Repeater, or Router, designed to extend network coverage and connect various Ethernet-enabled devices wirelessly.

2. PRODUCT OVERVIEW

The VONETS VAP11G-500S is a compact and powerful 2.4GHz WiFi device offering multiple networking functionalities. It supports 802.11 b/g/n WiFi protocols with a theoretical rate of 300Mbps.





Image 2.1: The VONETS VAP11G-500S device, showing its compact form factor, an RJ45 Ethernet cable, and a power cable with both USB and DC connectors.

2.1 Key Features

- Multi-functional Device: Operates as a WiFi Bridge, Repeater, Router, or AP Client.
- 2.4GHz WiFi: Supports 802.11 b/g/n standards with up to 300Mbps data transfer rate.
- Wide Voltage Power Supply: Compatible with DC5V-24V input, with two-stage automatic overvoltage protection (up to 27V).
- **Dual Power Options:** Can be powered via DC or USB (5V/2A recommended).
- Ethernet Ports: Features one WAN and one LAN RJ45 10/100Mbps adaptive Ethernet port.
- MAC Layer Transparent Transmission: Supports transparent transmission for both IP and MAC layers, useful for specific applications like GoPro cameras or Hikvision monitoring systems.

• Automatic Hotspot Reconnection: Includes WiFi hotspot auto-reconnect, signal strength detection (SSA), motion detection, and storage for up to 100 hotspots.

2.2 What's in the Box

- VONETS VAP11G-500S Device
- · Industrial DC connector
- · Fixing kit
- DC/USB power cable (30cm, 1 male DC port, 1 male USB port, 1 female DC port for parallel connection)
- RJ45 Ethernet cable

3. SETUP

Setting up the VAP11G-500S typically involves connecting it to power and an Ethernet device, then accessing its web-based configuration interface.

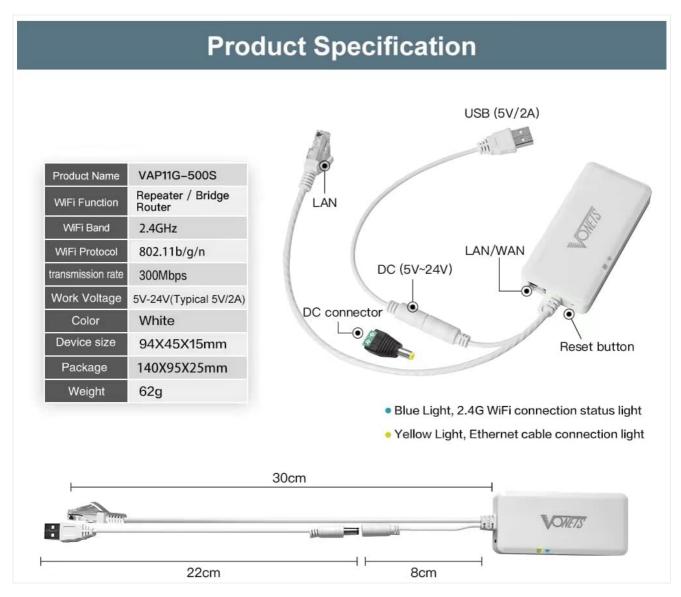


Image 3.1: Diagram illustrating the VAP11G-500S device with its LAN/WAN port, USB power input, DC power input, and reset button. It also shows the blue and yellow LED indicators.

- 1. **Power Connection:** Connect the provided DC/USB power cable to the VAP11G-500S. Use either the USB port with a 5V/2A adapter or the DC port with a compatible power source (DC5V-24V).
- 2. **Ethernet Connection:** Connect one end of the RJ45 Ethernet cable to the LAN/WAN port on the VAP11G-500S and the other end to your computer or the network device you wish to connect.

3. Access Configuration:

- Ensure your computer is set to obtain an IP address automatically (DHCP).
- Open a web browser and navigate to the default IP address of the VAP11G-500S (refer to the product documentation or device label for the exact IP, commonly 192.168.1.254 or 192.168.1.1).
- Enter the default username and password (usually "admin" for both, or as specified in the device documentation).
- 4. **Initial Configuration:** Follow the on-screen wizard or manual settings to configure the device for your desired operating mode (Bridge, Repeater, or Router).
- 5. **Verify Connection:** After configuration, check the LED indicators. The blue light indicates 2.4G WiFi connection status, and the yellow light indicates Ethernet cable connection status.

4. OPERATING MODES

The VAP11G-500S supports several operating modes to suit various networking needs.



Image 4.1: Visual representation of the VAP11G-500S functioning as an industrial-grade WiFi bridge, repeater, or router, highlighting its wide voltage power supply and transparent transmission capabilities.

4.1 WiFi Bridge Mode (AP Client)

In Bridge mode, the VAP11G-500S converts a WiFi signal into a wired Ethernet connection. This is ideal for connecting Ethernet-only devices (like IP cameras, network printers, or smart TVs) to a wireless network.

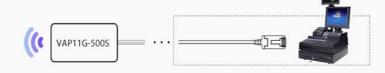
- Connect the VAP11G-500S to your Ethernet device via an RJ45 cable.
- Configure the VAP11G-500S to connect to your existing WiFi network.
- The Ethernet device will then access the network wirelessly through the VAP11G-500S.

Repeater/bridge application Application 1

Expand existing WiFi networks, easily expand your network

And the WiFi signal can be converted into a wired signal, and connected to the network port device through the RJ45 network cable, so that it is connected to the network, replacing the network cable, and solving the wiring troubles, and can be applied to a cash register, a printer, a surveillance video recorder, an attendance machine, and so on.









AP Application Application 2

AP mode can achieve wireless access function of wired network

Suitable for the scene where the network cable is connected to the computer and can access the Internet without dialing.









Remote video transmission application Application 3

Two VAP11G-500S can achieve long-distance point-to-point wireless transmission

Suitable for long-distance video wireless transmission scenarios







Image 4.2: Illustrations of the VAP11G-500S in Repeater/Bridge mode, expanding WiFi networks, and AP Application mode, enabling wired devices to access wireless networks.

4.2 WiFi Repeater Mode

Repeater mode extends the range of an existing WiFi signal. This is useful for eliminating dead zones and improving wireless coverage in larger areas.

- Place the VAP11G-500S within range of your main WiFi router.
- Configure it to connect to your main WiFi network and broadcast an extended signal.
- Devices can then connect to the VAP11G-500S for improved signal strength.

4.3 WiFi Router Mode

In Router mode, the VAP11G-500S can create a new wireless network. This is suitable for scenarios where you need to share an internet connection from a wired source wirelessly.

- Connect the VAP11G-500S WAN port to an internet source (e.g., a modem).
- Configure the VAP11G-500S to broadcast a new WiFi network.
- Devices can connect to this new WiFi network for internet access.

4.4 WiFi Hotspot Mode (AP Station)

This mode allows the VAP11G-500S to act as a WiFi hotspot, providing wireless access to a wired network. It is suitable for environments like hotel rooms where a wired connection is available, but wireless access is desired.

5. APPLICATIONS

The VAP11G-500S is designed for a wide range of applications, particularly in industrial and specialized networking environments.

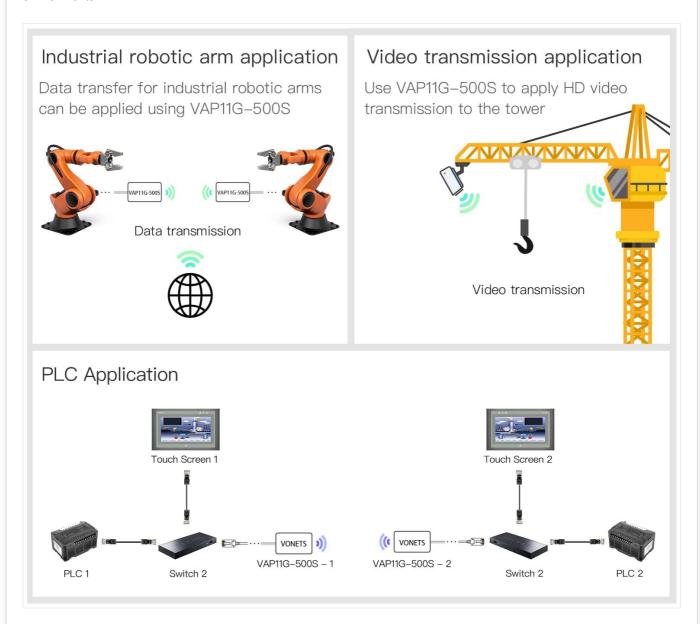
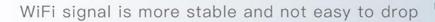
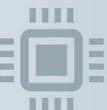


Image 5.1: Examples of VAP11G-500S usage in industrial settings, including data transfer for robotic arms, HD video transmission to towers, and integration within PLC networks.

- Network Printers: Connect wired printers to a wireless network.
- Monitoring Systems: Ideal for DVRs and IP cameras, enabling wireless video transmission.
- Industrial Automation: Suitable for Industrial PLCs, robotic arms, and other IoT network devices.
- Medical Devices: Facilitates network connectivity for various medical instruments.
- Point-of-Sale (POS) Systems: Connect cash registers and electronic scales wirelessly.
- Gaming Consoles: Provides wired Ethernet connectivity for devices like PS3.
- Specialized Equipment: Applicable for doll machines, electronic scales, and other unique network devices.
- Remote Video Transmission: Two VAP11G-500S units can establish a long-distance point-to-point wireless video transmission link.

Adopt temperature compensated auto frequency control technology (TAFC)





VAP11G-500S is suitable for various applications

VAP11G-500S is applicable to application scenarios



Robot



Electronic Scale



Printer



Doll Machine



PLC



Set-top box



Robot Arm



Cashier



Attendance machine

Image 5.2: A visual guide to various devices and systems compatible with the VAP11G-500S, including robots, electronic scales, printers, doll machines, PLCs, set-top boxes, robotic arms, cashiers, and attendance machines.

6. POWER SUPPLY

The VAP11G-500S is designed for flexible power input, supporting a wide voltage range and multiple connection methods.

Support wide voltage DC5V-24V power supply

Two-stage automatic overvoltage protection (Protection voltage upper limit 29V)

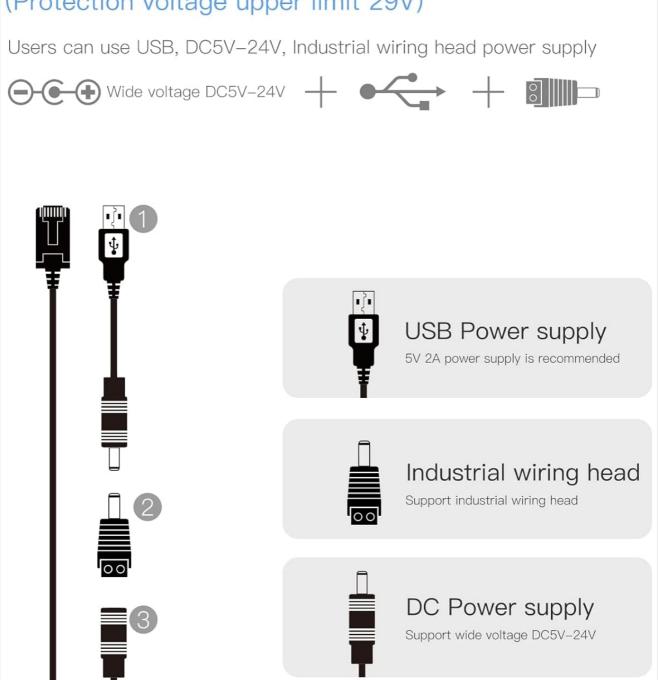


Image 6.1: Detailed diagram showing the various power supply options for the VAP11G-500S, including USB (5V 2A recommended), industrial wiring head, and standard DC (5V-24V) connections. It also highlights the two-stage automatic overvoltage protection up to 29V.

- Voltage Range: Supports wide voltage input from DC5V to 24V.
- Overvoltage Protection: Features a two-stage automatic overvoltage protection mechanism, with an upper limit of 27V.

- Power Options:
 - USB Power Supply: Can be powered via a standard USB port (5V/2A adapter is recommended).
 - DC Power Supply: Connects via a DC power adapter within the 5V-24V range.
 - Industrial Wiring Head: Supports industrial wiring for direct integration into systems.
- Important Note: The DC and USB power supply options cannot be used simultaneously.

7. SPECIFICATIONS

Detailed technical specifications for the VONETS VAP11G-500S.

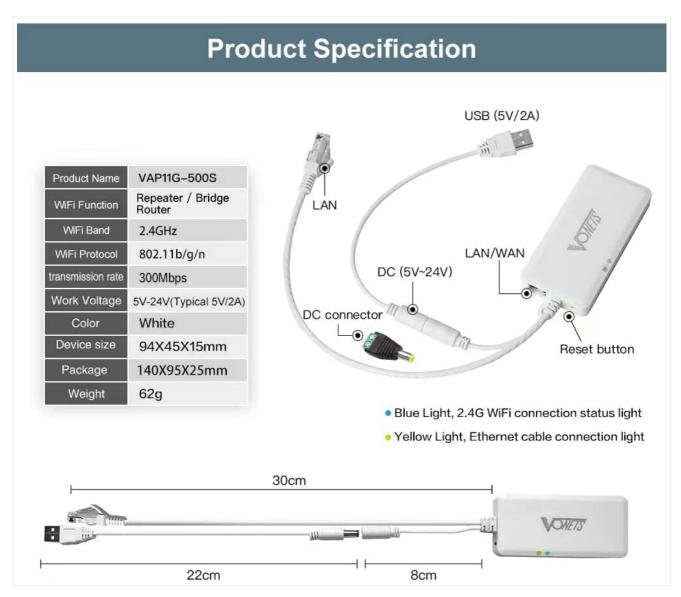


Image 7.1: Product specification table for the VAP11G-500S, detailing its name, WiFi function, band, protocol, transmission rate, work voltage, color, device size, package size, and weight. Also includes a diagram with device dimensions.

Feature	Detail
Product Name	VAP11G-500S
WiFi Function	Repeater / Bridge / Router
WiFi Band	2.4GHz
WiFi Protocol	802.11 b/g/n

Feature	Detail
Transmission Rate	300Mbps (theoretical)
Work Voltage	DC5V-24V (Typical 5V/2A)
Color	White
Device Dimensions (L x W x H)	3.74 x 1.77 x 0.59 inches (94 x 45 x 15 mm)
Item Weight	3.17 ounces (62g)
Ethernet Ports	1 WAN, 1 LAN RJ45 10/100Mbps adaptive
Special Feature	Access Point Mode, Bridge/Repeater Mode, Router Mode, MAC Layer Transparent Transmission, SSA Signal Detection, Motion Detection

8. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your VAP11G-500S.

- **Firmware Updates:** Periodically check the manufacturer's website for firmware updates to ensure the device has the latest features and security patches.
- Cleaning: Keep the device free from dust and debris. Use a soft, dry cloth for cleaning. Avoid liquid cleaners.
- **Placement:** Ensure the device is placed in a well-ventilated area to prevent overheating. Avoid direct sunlight or extreme temperatures.
- **Power Cycle:** If the device experiences connectivity issues, try power cycling it (unplug from power, wait 10 seconds, then plug back in).
- **Reset Button:** The reset button can be used to restore factory default settings if configuration issues arise. Use a paperclip to press and hold the reset button for approximately 5-10 seconds while the device is powered on.

9. TROUBLESHOOTING

This section addresses common issues you might encounter with the VAP11G-500S.

Problem	Possible Cause / Solution
No Power / Device Not Turning On	 Ensure the power cable is securely connected to both the device and the power source. Verify the power adapter is functioning and providing the correct voltage (DC5V-24V). Try a different power outlet or USB port.
Cannot Access Configuration Page	 Confirm your computer is connected to the VAP11G-500S via Ethernet. Ensure your computer's network adapter is set to obtain an IP address automatically (DHCP). Verify the correct default IP address is being used (e.g., 192.168.1.254). Temporarily disable any firewall or antivirus software on your computer. Perform a factory reset if the default IP or login credentials are unknown.

Problem	Possible Cause / Solution
No Internet Connection (Bridge/Repeater Mode)	 Check if the main WiFi router is working correctly and has internet access. Ensure the VAP11G-500S is successfully connected to the main WiFi network (blue LED should indicate connection). Verify the WiFi password entered during configuration is correct. Check the signal strength between the VAP11G-500S and the main router; reposition if necessary.
Slow Speed or Dropped Connections	 Interference from other 2.4GHz devices (cordless phones, microwaves). Try changing the WiFi channel on your main router. Distance from the main router or obstacles. Reposition the VAP11G-500S for better signal. Ensure the device's firmware is up to date. For video streaming, ensure the WiFi protocol is set to 'n' for optimal performance, as noted by some users.
Ethernet Device Not Connecting	 Ensure the Ethernet cable is properly connected to both the VAP11G-500S and the device. Check the yellow LED on the VAP11G-500S for Ethernet link status. Verify the Ethernet device's network settings (e.g., DHCP enabled).

10. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official VONETS website or contact their customer service directly. Specific warranty terms may vary by region and retailer.

You can visit the Vonets Store on Amazon for more product information and contact options.

Related Documents - VAP11G-500S



VONETS Series Product Manual: WiFi Repeater, Router, and Bridge Setup Guide

Comprehensive guide to setting up and troubleshooting VONETS WiFi repeaters, routers, and bridges. Covers Class A, B, and C product series with detailed instructions and common fault solutions.

WIFT Bridge Repeater Flouter VAP115 VAP115-50 VAP110-5005	VONETS WiFi Bridge/Repeater/Router VAP11S/VAP11S-5G/VAP11G-500S Quick Setting Guide Quick setting guide for VONETS VAP11S, VAP11S-5G, and VAP11G-500S WiFi Bridge, Repeater, and Router devices. Learn how to configure modes, network settings, and installation.
WER Bridge from the WERT SAME FROM THE SAME	VONETS WiFi Bridge/Repeater/Router VAP11S/VAP11S-5G/VAP11G-500S Quick Setting Guide Quick setting guide for VONETS VAP11S, VAP11S-5G, and VAP11G-500S WiFi Bridge/Repeater/Router devices, covering setup, configuration modes, and troubleshooting.
WIT In clays Top order Second copies transport	VONETS WiFi Bridge/Repeater - Przewodnik Szybkiej Konfiguracji Szczegółowy przewodnik konfiguracji urządzenia VONETS WiFi Bridge/Repeater, opisujący tryby pracy (Repeater, Bridge, AP), podłączanie, ustawienia sieciowe, konfigurację punktu dostępu oraz często zadawane pytania. Zawiera również informacje o certyfikacji zgodności CE.
WET TO THE MAN THE PROPERTY OF	VONETS WiFi Bridge/Repeater Quick Setting Guide A quick guide to setting up and configuring VONETS WiFi Bridge and Repeater devices, including application methods and troubleshooting.
2564 Hot Vall Repeater MEM350 Quoti Setting Quide	VONETS MINI300 300M WiFi Repeater Quick Setting Guide A concise guide to setting up the VONETS MINI300 300M Mini WiFi Repeater, covering its functions as a WiFi Repeater and Intelligent WiFi Bridge, with step-by-step instructions for wireless configuration.