
VAP11S Product Specification

VAP11S is a professional 2.4G WiFi bridge, wifi repeater and router carefully developed by HouTian network, adopt temperature compensated auto frequency control technology (TAFC), WiFi signal is more stable and not easy to drop, its main features as below:

- Industrial 2.4G WiFi bridge/repeater/router;
- Support wide voltage DC5V-DC24V power supply, two-stage automatic overvoltage protection (Protection voltage upper limit 29V);
- Support 802.11b/g/n WiFi transmission protocol;
- WiFi transmission rate: 300Mbps;
- RF Power: 19dBm/23dBm optional;
- Point-to-point maximum transmission distance: 500 meters;
- 2pcs 3dBi external antennas, can be extended by extension cable (optional);
- Two 10/100Mbps adaptive Ethernet ports, and provide option accessories for expanding Ethernet port (one expansion);
- Standard accessories industrial track fixing kit and Industrial power supply DC connector;
- WiFi hotspot memory, maximum memory 100 hotspots;
- Support connecting more than 20pcs WiFi terminal at the same time;
- Adopt VDNS virtual domain configuration technology to solve the user's trouble of configuration;
- Support manually close SSID broadcast, WiFi hardware;
- Support SSA signal strength detection reporting function to realize WiFi mobile positioning;
- Support configuration parameter import and export function to facilitate batch configuration of engineering projects;
- Support IP layer transparent transmission and MAC layer transparent transmission two bridge modes to meet various bridge applications:
 - IP layer transparent transmission** (factory default), transparent transmission of IP layer data, can meet most of the bridge applications;
 - MAC layer transparent** transmission all data above the MAC layer (link layer) and the MAC layer, including IP layer data; MAC transparent transmission can solve some special applications for MAC layer encryption, such as GoPro camera, Cisco AP, Hikvision monitoring. system, etc.

- Adopt temperature compensated auto frequency control technology (TAFC), WiFi signal is more stable and not easy to drop
- Working environment temperature: -20 °C to 55 °C;

One: Hardware Spec

External interface	1) USB/DC power supply cable; 2) 10/100M Adaptive Ethernet cable; 3) 10/100M Adaptive Ethernet port (A dedicated Ethernet port expander can be used)
LED	Status Indication: Ethernet Port (Cable) Status Light (Yellow); WiFi Connection Status Light (Blue);
Antenna	2*3dBi 2.4G Whip antennas
Button	Reset button (Long press 5 seconds then release)
Module Size	94mm x 45mm x 15mm (L x W x H)
Product Weight	80g

Two: WiFi Related

Protocol Standards	IEEE 802.11n、IEEE 802.11g、IEEE 802.11b;
WiFi Transmission Rate	300Mbps
Basic Function	1) Router mode, support WiFi WAN access and WAN/LAN exchange; 2) Transparent bridge (IP layer transparent, MAC layer transparent); 3) SSID broadcast exchange, WiFi hardware exchange; 4) WiFi mode option: 11B/G/N、11B/G、11N、11G、11B; 5) WiFi hotspot automatic reconnection, two hotspot matching methods: Full match authentication mode, SSID and password authentication mode; 6) WiFi hotspot memory, maximum memory 100 hotspots; 7) SSA signal strength detection and reporting function ; 8) Hotspot connection parameter import and export function;
Supported Channel	1-14



WiFi RF Power	Normal Power: 19dBm; Enhanced Power: 23dBm。
Compliance acceptance sensitivity	-95dbm
LNA Sensitivity	14dBi
Application Method	WiFi Router; WiFi Repeater (WiFi signal repeater), can extend WiFi transmission distance; WiFi Bridge: IP layer transparent transmission, MAC layer transparent transmission, WiFi access point (AP);
WiFi Security	64/128/WEP encryption; WPA-PSK/WPA2-PSK、WPA/WPA2 security mechanism.
System Function	Firmware Upgrade Reboot device Reset factory Account and password revise

Three: Electrical performance parameters

1.Power supply parameters			
Supply Voltage Range	Input Power	Typical Power Supply	Ripple
DC5-DC24V	≥10W	5V/2A	<100mV
2. Working Electrical Performance Parameter Measurement Form (Environment Temperature: 26℃)			
Supply Voltage	Work Stage	Work Current (mA)	Main Chip Temperature (℃)
12V	Booting Up	160-280	25-38
	Standby	260-280	40
	Transfer Data	400-450	45

Four: Network Throughput Test Report Throughput Test Fluctuation Chart



Five: RF Test Report

Channel (Band)	1 (2412M)	3 (2422)	6 (2437M)	7 (2442M)	9 (2452M)	11 (2462M)	13 (2472M)
Transmit Power 1	20.2	20.3	19.7	19.9	20.3	20.2	20.1
EVM1	-32	-33.5	-33	-33.5	-34	-34	-35
Transmit Power 2	22.8	22.7	22.6	22.5	22.6	22.6	22.4
EVM2	-28.5	-28	-28	-29	-29	-29	-28.5

Six: Antenna Matching Test Report

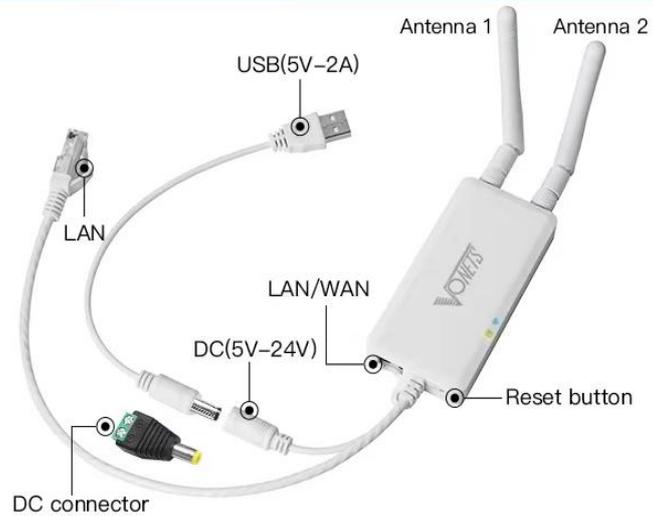
Standing Wave Ratio Parameters Form (Hardware Version: 10.0)					
Band	2.412GHz	2.432GHz	2.452GHz	2.462GHz	2.477GHz
Antenna Channel					
ANT1	1.54	1.52	1.35	1.32	1.3
ANT2	1.27	1.36	1.37	1.44	1.48

Seven: Product Picture

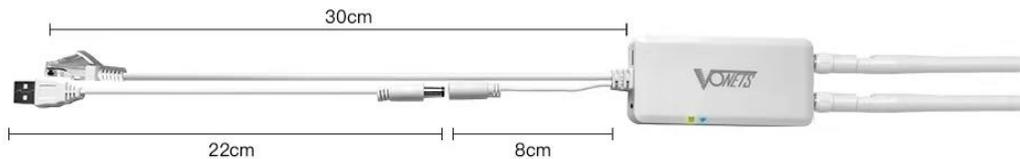
- Device

Product Specification

Product Name	VAP11S
WiFi Function	Repeater/Bridge/Router
WiFi Band	2.4GHz
WiFi Protocol	802.11b/g/n
transmission rate	300Mbps
Work Voltage	5V-24V(Typical 5V/2A)
Color	White
Device size	94X45X15mm
Package	158X116X31mm
Weight	80g



- Blue Light, 2.4G WiFi connection status light
- Yellow Light, Ethernet cable connection light



- Other Accessories

1. Industrial power supply DC connector (Standard Accessories)	2. Industrial chassis track hook kit (Standard Accessories)
3. Antenna extension cable (Option Accessories)	4. Extended Ethernet Port (Option Accessories)