

CIAP2124-A2

2-Port 2.4Ghz Ceiling Mount PoE Wireless AP



- Support 1 x 100M WAN/LAN combo port, 1 x 100M LAN port, with built-in 2.4GHz antenna
- Support five operating modes: Router, AP, Repeater, Bridge, and Client to accommodate diverse application scenarios
- Support 802.11k/v/r fast roaming, enabling wireless terminals to achieve rapid handover, low latency, and seamless transitions when moving between multiple identical WLANs
- Support WDS wireless and WISP universal bridging to extend and amplify wireless signals
- Support firewall and service functions including port forwarding, IP/MAC rate limiting/filtering, DMZ, QoS, internal network penetration, DDNS, VPN, SNMP, and LLDP
- Support DC12V power input or WAN port PoE-in
- Operating temperature range: -40°C~+65°C

Product Description

The CIAP2124-A2 is a 2-port 100M enterprise-grade ceiling-mounted wireless AP. It provides 2.4GHz wireless connectivity, 1 x 100M WAN/LAN combo port, 1 x 100M LAN port. The WAN port supports PoE power reception, and the device also supports 1 x DC12V power input. Featuring a ceiling-mounted installation design, it meets diverse network deployment requirements.

The product supports web-based configuration for multiple network management functions, including routing/AP/relay/bridging/client modes, universal/WDS bridging, fast roaming, AC control, dynamic/static/PPPoE dial-up networking, IP address conflict detection, DHCP server, IP/MAC binding, RF settings, black/white lists, static routing, network diagnostics, firewall, internal network penetration, DDNS, VPN, SNMP, LLDP, NTP, etc. The system provides multi-level user management, supports local/remote log management, and enables scheduled reboots, configuration backup/restore, firmware upgrades, and factory reset. Featuring low-power, wide-temperature hardware design with premium components, it operates from -40°C to +65°C, delivering reliable wireless coverage for enterprises, schools, hotels, and similar environments.

Features and Benefits

- Support router mode, enabling WAN connection to external networks via DHCP/static addresses/PPPoE dial-up to connect wired and wireless terminals;
- Support AP mode, converting wired networks into wireless networks for wireless terminal access to wired networks, controllable by an AC;
- Support repeater mode to extend upstream wireless networks, converting wireless networks into wired networks for wired and wireless terminal access;
- Support bridge mode to convert wireless networks into both wired and wireless networks, enabling wired and wireless terminal access;
- Support client mode to convert wireless networks into wired networks, enabling wired terminals to access wireless networks;
- Support IP address conflict detection to quickly locate conflict sources and prevent network failures;
- Support DHCP server for centralized dynamic management and configuration of user IP addresses;
- Support DHCP-based device management by binding client IPs to MAC addresses, preventing IP changes or conflicts;
- Support 802.11k/v/r fast roaming, reducing information exchange via FT protocol for low latency and enhanced user experience;
- Support switching between multiple country codes for regional channel compatibility;
- Support transmit power adjustment, connection user limit, SSID hiding, user isolation, WDS bridging, and more;
- Support WEP-OPEN/SHARE-AUTH, WPA/WPA2-PSK encryption methods, CCMP and TKIP encryption algorithms;
- Support wireless user management with black/white lists for filtering, allowing/blocking specific users;
- Support static routing for precise network routing control, improving performance and ensuring bandwidth allocation;
- Support IPv4/IPv6 Ping, IPv4/IPv6 Traceroute, Nslookup, and packet capture for network diagnostics or troubleshooting;
- Support firewall functions including SYN-flood defense, port forwarding, IP/MAC/DNS address filtering, custom iptables rules, DMZ isolation zone, UPnP, IP/MAC bandwidth control, and QoS services;
- Support NTP client and server functionality for clock synchronization or providing a time source;
- Support hierarchical user permission management with SSH and HTTP/HTTPS access control;
- Records multi-level kernel, application, and network logs, supporting local download, scheduled saving, and remote monitoring;
- Support Peanut Shell internal network penetration, enabling remote device login and management via Peanut Shell dynamic domain names;
- Support dynamic DNS functionality, allowing remote device login and management through designated domain names;
- Support VPN client and server for private network construction. Clients support PPTP, L2TP, IPSec, OpenVPN, GRE, and other tunnel protocols; servers support PPTP, L2TP, IPSec, and other protocols;
- Support SNMPv1/v2c and SNMP Trap. Enables centralized management through MIB for information querying, modification, and troubleshooting;
- Support LLDP to obtain LLDP neighbor device information, monitor link status, and facilitate topology management and fault localization.

Specifications

System Information

Operating System	Immortal WEB Uboot; OpenWrt
DDR	64M
FLASH	16M

Software

Network Management	<p>Support traffic statistics, operational status, network status, local address, and other status information or wireless data</p> <p>Support router mode, AP mode, repeater mode, bridge mode, and client mode</p> <p>Support static addresses, DHCP, and PPPoE external network connections</p> <p>Support DHCP server, IP/MAC binding, wireless user black/white lists</p> <p>Support IP address conflict detection</p> <p>Support 802.11k/v/r fast roaming</p> <p>Support static routing</p> <p>Support Peanut Shell internal network penetration, dynamic DNS, SNMP, LLDP</p> <p>Support PPTP/L2TP/GRE/TUN/TAP protocol VPN clients</p> <p>Support PPTP/L2TP/IPSec protocol VPN server</p>
Firewall	<p>Support SYN-flood defense, IP dynamic spoofing, MSS throttling, inbound/outbound data control</p> <p>Support WAN/LAN port TCP/UDP port mapping</p> <p>Support IP/MAC/domain name filtering, iptables, DMZ, UPnP, IP/MAC/QoS speed limiting</p>
System Management	Support IPv4/IPv6 Ping, IPv4/IPv6 Traceroute, Nslookup, network packet capture

	<p>Support time zone, NTP client/server, Crontab, remote/local logging</p> <p>Support user permission management, SSH, HTTP/HTTPS access control</p> <p>Support online reboot, scheduled reboot, configuration backup/restore, firmware flashing, factory reset</p>
Wi-Fi	
Wireless Standard	300Mbps
Modulation	DSSS/CCK BPSK/QPSK OFDM BPSK/QPSK/16-QAM/64-QAM
RF Interface	U.FL*2
Wireless Protocol	802.11g/n
Wireless Frequency	2.4 GHz
Power	26dBm@2.4G
Frequency Range	2412 MHz~2482 MHz
RX sensitivity	Up to -96 dBm
Channel Bandwidth	20 MHz/40 MHz (adjustable)
RF Interface	U.FL*2
Interface	
100M WAN	<p>1×10/100Base-T(X) auto-sensing WAN/LAN combo port, RJ45 connector, supporting full/half-duplex operation and auto MDI/MDI-X,</p> <p>compliant with IEEE802.3af/at standard, supports PoE in</p>
100M LAN	1×10/100Base-T(X) auto-sensing RJ45 LAN ports, full/half-duplex, auto MDI/MDI-X

Antenna Connector	Built-in 2.4GHz antenna
Button	One-click restart or factory reset
Status LED	Power indicator, operation indicator, interface indicator
Power Supply	
Power Input	DC12V power input or WAN port PoE-in
Power Consumption	<5W (full load)
Connection	DC round connector
Physical Characteristics	
Dimensions	204×20mm (Φ×H)
Installations	Ceiling mounted
Weight	About 0.3kg
Working Environment	
Operating Temp	-40°C~+65°C
Storage Temp	-40°C~+85°C
Relative Humidity	5%~95% (non-condensing)

RF parameters

400mW ESD MIMO AP

TX SPECIFICATIONS

	Data Rate	TX Power(per chain)			TX Power(2 chains)	Tolerance			
802.11 G	6-24Mbps	23dBm			26dBm	±2dB			
	36Mbps	23dBm			26dBm	±2dB			
	48Mbps	22dBm			25dBm	±2dB			
	54Mbps	21dBm			24dBm	±2dB			
	DataRate	TX Power (1 chain)	TX Power (2 chains)	Tolerance		DataRate	TX Power (1 chain)	TX Power (2 chains)	Tolerance
2.4GHz 11n HT 20	MCS 0/8	23dBm	26dBm	±2dB	2.4GHz 11n HT 40	MCS 0/8	23dBm	26dBm	±2dB
	MCS 1/9	23dBm	26dBm	±2dB		MCS 1/9	23dBm	26dBm	±2dB
	MCS 2/10	23dBm	26dBm	±2dB		MCS 2/10	23dBm	26dBm	±2dB
	MCS 3/11	22dBm	25dBm	±2dB		MCS 3/11	22dBm	25dBm	±2dB
	MCS 4/12	22dBm	25dBm	±2dB		MCS 4/12	22dBm	25dBm	±2dB
	MCS 5/13	22dBm	25dBm	±2dB		MCS 5/13	22dBm	25dBm	±2dB
	MCS 6/14	22dBm	25dBm	±2dB		MCS 6/14	22dBm	25dBm	±2dB
	MCS 7/15	21dBm	24dBm	±2dB		MCS 7/15	21dBm	24dBm	±2dB

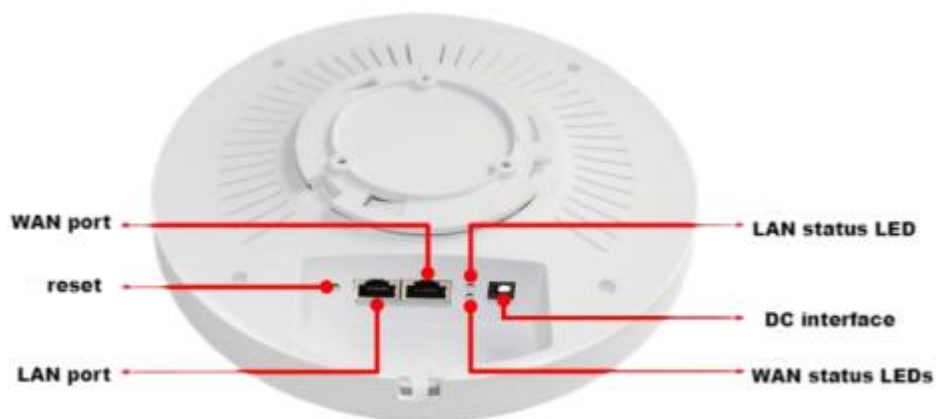
RX SPECIFICATIONS

	DataRate	Sensitivity (2 chains)	Tolerance		DataRate	Sensitivity (2 chains)	Tolerance
802.11 G	6M	-96dBm	±2dB	802.11 G	24M	-89dBm	±2dB
	9M	-96dBm	±2dB		36M	-86dBm	±2dB
	12M	-95dBm	±2dB		48M	-82dBm	±2dB
	18M	-93dBm	±2dB		54M	-79dBm	±2dB
2.4GHz	MCS0	-95dBm	±2dB	2.4GHz	MCS0	-92dBm	±2dB

11n HT 20	MCS1	-93dBm	±2dB	11n HT 40	MCS1	-90dBm	±2dB
	MCS2	-90dBm	±2dB		MCS2	-87dBm	±2dB
	MCS3	-89dBm	±2dB		MCS3	-84dBm	±2dB
	MCS4	-85dBm	±2dB		MCS4	-81dBm	±2dB
	MCS5	-81dBm	±2dB		MCS5	-77dBm	±2dB
	MCS6	-79dBm	±2dB		MCS6	-76dBm	±2dB
	MCS7	-75dBm	±2dB		MCS7	-74dBm	±2dB

Dimensions

Unit: mm



Ordering Information

Standard Model	100M WAN	100M LAN	Input Voltage
CIAP2124-A2	1	1	PoE 48V/DC 12V



Contact Us

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