



We Connect the World



## WLO-12400N

IEEE802.11n 2.4GHz 2T2R 300Mbps  
MIMO Wireless Outdoor Bridge /  
Wireless Backhaul, (800mW, 2 x N-Type  
Connector, 2 x Ethernet)



PheeNet WLO-12400N is an IEEE802.11bgn 2.4GHz 2T2R 300Mbps MIMO Wireless Outdoor Bridge / AP, which has 2 N-type connectors for external antenna and 2 LAN Ports (1 for LAN POE In, and another for LAN POE Pass-Through to another POE device). With WLO-12400N's LAN POE Pass-Through port, 1 POE source can power on both WLO-12400N and another POE device, like POE IP Camera or POE AP, etc.

WLO-12400N supports rich operation modes, like Router AP, WDS, AP, CPE + Universal Repeater, and Client Bridge + Universal Repeater. You can use WLO-12400N as a standalone AP to service 2.4GHz Wifi users; WDS mode to build up Point-to-Point or Point-to-Multiple-Point Bridge; Router AP mode to use WLO-12400N as a Router and Wifi AP. Because of rich operation mode support, it provides the installer more flexible deployments depends on demands.

If you use WLO-12400N as a Wireless Hotspot Outdoor AP, you also can add PheeNet Network Access Control Gateway WMS-308N to have WLO-12400N AP management, and smart Wifi user management.

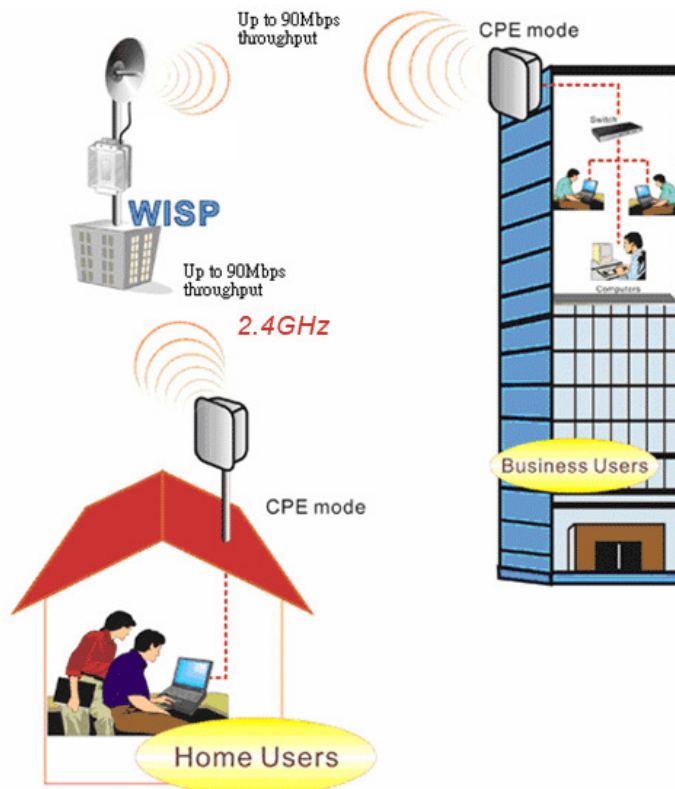
Equips with robust Die Cast Housing and IP68 rated waterproof, WLO-12400N extremely satisfy WISP, Telecom Operator, System Integrator, Hotspot, SMB/Enterprise demands on any kind of Outdoor Wireless applications.

# Application

WDS :



AP-CPE:



## Features

### General Features

- IEEE 802.11n draft 2.0 compliance in 2Tx/2Rx design
- Support IEEE 802.11b, g, n
- Operates in the 2.4GHz ISM band
- Enables bandwidth of up to 300Mbps(Tx) , 300Mbps (Rx) link rate
- Over load current protection
- Wide Range Voltage support (12-68VDC)
- Integrated Power over Ethernet (PoE)

### Wireless Features

- Number of ESSID (Virtual AP) : 7
- Number of associated clients per AP : 32
- Setting for max number associated clients
- Number of Max. WDS Setting : 4
- Setting for transmission speed, Dynamic Wireless Re-transmission
- Channel Selection: Manual or Auto
- Transmission Power Control : 1~100%
- IEEE802.11h – PTC and DFS
- IEEE802.11d – Multi country roaming
- Channel Bandwidth Setting : 20MHz or 20/40MHz
- Wireless Site Survey
- IEEE802.11f IAPP : to facilitate faster roaming for the stations among different APs nearby
- IEEE 802.11i Preauth (PMKSA Cache)
- HT Tx/Rx Stream selection: 1 or 2
- A-MSDU and A-MPDU support
- Maximal MPDU density for TX aggregation setting
- Short Slot support
- RTS Threshold and Fragment Threshold support

### Networking

- Support Static IP, Dynamic IP(DHCP Client) and PPPoE on WAN Connection
- Support VPN Pass Through ( PPTP, IPSec, L2TP )
- PPPoE Reconnect: Always on, On demand, Manual
- MAC Cloning
- DHCP Server (for CPE mode and Client Bridge mode)
- 802.3 Bridging
- Masquerading (NAT) (for CPE Mode)
- Proxy DNS
- Dynamic DNS
- NTP Client

- Virtual DMZ
- Virtual Server (Port Forwarding)
- Support MAC Filter
- Support IP Filter
- Bandwidth traffic Shaping

### Wireless Security

- Layer 2 User Isolation
- Layer 2 AP Isolation
- Blocks client to client discovery within a specified VLAN
- WEP 64/ 128 Bits
- EAP-TLS + Dynamic WEP
- EAP-TTLS + Dynamic WEP
- PEAP/ MS-PEAP + Dynamic WEP
- WPA (PSK +TKIP)
- WPA (802.1x certification + TKIP)
- 802.11i WPA2 (PSK + CCMP/ AES)
- 802.11i WPA2 (802.1x certification + CCMP/ AES)
- Setting for TKIP/ CCMP/ AES key's refreshing period
- Hidden ESSID support
- Setting for "Deny ANY" connection request
- MAC Address filtering (MAC ACL)
- No. of registered RADIUS servers: 1
- VLAN assignment on BSSID
- Support WEP, AES and TKIP data encryption over WDS link

### Quality of Service

- Download and Upload traffic control
- Packet classifications via DSCP (Differentiated Services Code Point)
- Control Policy by IP/IP Ranges/ MAC/ Service
- Layer-7 Protocol Support
- Traffic Analysis and Statistics
- No.of Max. Policy setting: 10
- DiffServ/ TOS
- IEEE802.11p/ COS
- IEEE 802.11Q Tag VLAN priority control
- IEEE802.11e WMM

### Management

- Web-Based management & firmware upgrade
- Reset to factory default
- Profile Configuration Backup and Restore
- Remote Link Test – Display connect statistics
- Full Statistics and Status Reporting
- NTP Time Synchronization
- Event Log
- Support SNMP v1, v2c, v3, MIBII
- SNMP Traps to a list of IP address
- CLI access via Telnet and SSH
- Administrative Access: HTTP and HTTPS
- UPnP (Universal Plug and Play)
- Can be managed by WMS-308N, WSW-1808A

## Specification

Wireless	
Standard	IEEE 802.11b/g/n IEEE 802.3u 100Base-TX Fast Ethernet
Frequency Band	2.412 ~ 2.462GHz (USA) 2.412 ~ 2.484GHz (Japan) 2.412 ~ 2.472 GHz (Europe ETSI) 2.457 ~ 2.462 GHz (Spain) 2.457 ~ 2.472 GHz (France)
Channel Spacing	IEEE802.11b/g: 20MHz IEEE802.11n: 20/40MHz
Modulation	IEEE802.11b: DSSS (DBPK, DQPSK, CCK) IEEE802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Data Rate	IEEE802.11b: 1/2/5.5/11Mbps(auto sensing) IEEE802.11g/n: 6/9/12/18/24/36/48/54/150/300Mbps
Security	WEP (64/128Bit) WPA / WPA2 Hidden ESSID User Isolation AP Isolation MAC Address Filter
Receive Sensitivity	-97dBm
Output Power	800mW
Operating Mode	AP mode (AP +WDS) WDS Mode (PTP, PTMP, Repeater) CPE Mode (Router Client ) Universal Repeater + Client Bridge

Hardware	
Processor	Atheros AR9341 – 400MHz MIPS CPU
Flash	8MB
SDRAM	32MB
LED Indication	Power/LAN, Power/WAN ,Wireless
Ethernet	- 10/100BASE-TX auto-negotiation Ethernet port x 2 (RJ-45 connector) - Power over Ethernet
Antenna	2 x Ntype Connector
Environment	Operating Temperature: -20 °C ~ 60 °C Storage Temperature: -20 °C ~ 85 °C Humidity: 100%(non condensing)
Power Supply	DC Input : 12V POE : 48 VDC, 0.4A input (POE Injector)
Power Consumption	9W
Material	Aluminum Alloy Housing, W/ IP68 Rated Waterproof
Dimensions	157 (L) x 96 (W) x 45 (H) mm

## PheeNet Technology Corp.

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