

WiBORNE, INC.

Outdoor High Power 2.4GHz /AP/CPE/Bridge/Repeater with 10dBi Integrated Antenna or N-Type Connector, and Die-Casting Enclosure

CAP-2410D

WiBorne CAP-2410D is a 2.4GHz 500mW 802.11b/g compatible multi-client/bridge/access point/route/WDS Repeater. It has optional 10dBi antenna or optional N-type connector, with IP67/68 long-durable metal



10 dBi Antenna or N-type models

CAP-2410D

WiBorne outdoor CAP-2410D series is the point of connection to wireless outdoor network for service provider deploying last mile services to business or residential broadband subscribers.. Network administrators can create multiple subscriber service tier using per-subscriber rate limiting features, and manage centrally. CAP-2410D series is a 500mW high power with a built-in 10 dBi patch antenna, or N-type connector for base station radio. CAP-2410D may connect to the WiFi mesh or WDS infrastructure and provides the subscriber with an Ethernet connection for a local access.

CAP-2410D supports following operational modes with built-in remote management features simplify the deployment and reduce cost for continued maintenance of the outdoor bridge:

- **Access Point:** as a traditional fixed wireless Access Point
- **WDS (Repeater or bridge):** expanded Wireless Service as WDS Link
- **CPE (Customer Premises Equipment):** connected to Wireless Internet Service Provider's (WISP)

❖ Features at a glance

- IEEE 802.11 b/g 2.4GHz ISM 500mW output power
- Built in 10dBi (H110, E60) sector antenna
- Topology: Point to Point , Point to Multi Point
- Operation Modes : Access Point and AP/WDS , WDS (Repeater , Bridge), CPE (Client Router)
- Security with 802.1X, TKIP-AES, WAP, and WPA2
- Integrated Power over Ethernet (PoE)
- Quality of Service (QoS) and WMM for bandwidth control
- Multiple B-SSID capability (Virtual AP) and Client Isolation
- Business class WLAN Security and Client Authentications
- Provide Advanced Wireless Setting (ACK/CTS)
- Support Web management and SNMP MIB-II
- Wide Range Voltage support (12-68VDC), PoE
- Weather-Proof Housing (IP 68 Approved)
- Weather-Proof M-13 RJ45 and optional N-Type Connector
- QoS: DiffServ / TOS, IEEE802.11p/ COS, IEEE 802.11Q Tag VLAN priority control, IEEE802.11e WMM
- ACK/CTS, Slot Time, RSSI threshold, IAPP, RTS
- Pure AP Mode & AP/WDS Mode: wireless access point that allows wireless clients, or stations(STA) to access
- WDS Mode (Bridge/Repeater): allows a wireless network to be expanded using multiple access point without the need for a wired backbone.
- CPE Mode (Router Client) that run as DHCP server to assign IP address to clients out of a private IP address pool behind a NAT.
- Support Static IP, Dynamic IP(DHCP Client) and PPPoE on WiFi WAN Connection, DHCP Server.
- Support PPTP/L2TP client/server/pass through
- MAC Cloning, Support MAC & IP filtering
- 802.3 Bridging
- Masquerading (NAT), NTP Client
- Proxy DNS, Dynamic DNS
- Virtual DMZ, Virtual Server (IP / Port Forwarding)
- Bandwidth traffic shaping
- Full Statistics and Status Reports; Event logs
- CLI access via Telnet
- Support SNMP v1, v2c, v3; SNMP traps
- Profiles Configuration Backup and Restore
- Remote Link Test – Display connect statistics
- Syslog, event logs



Outdoor High Power 2.4GHz CPE/AP/Bridge/Router with Integrated Antennas

Model No.	CAP-2410D Series
Ethernet Connection	External IEEE 802.3 100BaseT (RJ-45) Bulkhead connector
Standard	IEEE 802.b/g, IEEE802.1x, IEEE802.3(Ethernet),IEEE802.3u
Wireless Features	Transmission power control: 9 Levels. Channel selection: Manual or Auto. No of associated clients per AP: 32; Setting for max no associated clients: Yes; No. of BSSID (Virtual AP): 7; No of Max. WDS setting: 4; Preamble setting: Short/Long; Setting for 802.11a/n mix, 802.11a only; Setting for transmission speed. Dynamic Wireless re-transmission; IEEE802.11f IAPP (Inter Access Point Protocol), hand over users to another AP; IEEE 802.11i Pre-auth (PMKSA Cache); IEEE 802.11h-Transmission Power Control; IEEE 802.11d -Multi country roaming; Wireless site survey; Channel width 20/40 MHz; HT Tx/Rx stream selection: 1 or 2; support A-MSDU and A-MPDU; Maximal MPDU density for Tx aggregation setting; Short slot support; RTS Threshold and Fragment Threshold support.
Wireless Security	Layer 2 User or AP Isolation; Blocks client to client discovery within a specified VLAN; WEP 64/128/152 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, 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; VALN assignment on ESSID; Support VLAN tag over WDS link
Operation Modes	AP, AP Client (Ethernet to WLAN Bridge), WDS (Wireless Repeater; P-to-P, P-to-MP Bridge)
Management	Web base Management System with HTTP or HTTPS, CLI via telnet or SSH.
External Power Jack	12-68VDC, 12V / 1.5A DC Power over Ethernet, 110-220V AC Power. One internal console
Form Factor	Die-cast aluminum enclosure with IP 67/68 rating
LEDs	Power, wireless, and Ethernet.
Mounting	Wall mounting or pole mount
CPE Weight	0.68 KG (1.5 LBS)
Dimension	162(L) x 102(W) x 58(H) mm
Operating Temperature	-30°C to 60°C (-22°F to 140°F)
Operating Humidity	100% non-Condensing
Power Consumption	9W. 1.1A Over Load Current Protection
Package Content	CAP-2410D, PoE Injector x 1 , Power Code x 1 , Mounting Kit (with screw package) x 1, Weatherproof connector x 1 , CD manual x 1
Approval	FCC, CE
Antenna Characteristics	
Gain	10dBi 2.4GHz (H110, E60) built-in sector antenna, or optional N-type connector
Frequency Range	2412 – 2484 GHz
Radio Characteristics	
Radio Scheme	IEEE 802.11b: DSSS (DBPK,DQPSK,CCK) IEEE 802.11g : OFDM(64-QAM,16-QAM,QPSK,BPSK)
Chipset	Atheros AR2315 SOC
Platforms	180MHz MIPS 4Kc, 16MB16-bit SDRAM; 4MB Flash
Frequency Range	2.412 – 2.462GHz(USA); 2.412 -2.484GHz(Japan); 2.412 – 2.472GHz (Europe ETSI) 2.457– 2.462GHz (Spain); 2.457- 2.472GHz (France)
Output Power (Tx)	500mW RF output power, 27 dBm :6MB/1MB, 23dBm:54MB
Data Rate	1 / 2 / 5.5 / 6 / 9 / 11 / 12 / 18 / 24 / 36 / 48 / 54 / 108 Mbps
Channels	802.11b/g : 11 for FCC, 14for Japan13 for Europe, 2 for Spain, 4 for France
Range	Up to 10+ km/6.25+ miles for point-to-multi-points (P2MP); 13+ km/8+ miles for point-to-point (P2P). Possible average link distance up to 12+ miles. All above data is dependent on terrain and base radio
Receiver Sensitivity	1Mbps: -96dBm, 6Mbps:-93dBm,11Mbps:-89dBm,54Mbps:-74dBm