

# WiBORNE, INC.

## Outdoor 802.11b/g 2.4 GHz High Power 400mW AP/CPE/ Bridge/Router with 19dBi or 15 dBi Integrated Antenna: CAP-2400L



CAP-2419L



CAP-2415L



CAP-240WL

**WiBorne CAP-2419L or CAL-2415L is a 2.4 GHz 802.11b/g compatible Access Point (AP) or subscriber station (CPE) specifically designed for long range point-to-multipoint. This is completely 400mW integrated in to a 19dBi wideband antenna delivering up to 42 dBm or 16 Watts EIRP of power with superior radio performance as a carrier AP/CPE!**

The 19dBi / 15dBi integrated antennas comply with 802.11 standards. Designed with ease of installation in mind, WiBorne simplifies subscriber installation with its Integrated Antenna, Power over Ethernet (PoE), 'Plug and Play' installation and software power controlled capability. Housed in a weatherproof aluminum enclosure, the CAP-2400L is built to operate in harsh environments. This device can be installed on the building exterior as well as indoors. CAP-2400L delivers reliable performance under all climatic conditions, withstanding temperatures between -20°C ~ +60°C. Driverless Operation - The self-contained CAP-2419L/2415L unit can be mounted on a pole or wall. With the included PoE the CAP-2419L/2415L can be powered over the standard Ethernet CAT 5 cable. CAP-2419L/2415L also features plug-and-play installation that enables quick and efficient deployment. It works with all WiFi™ compatible IEEE 802.11b/g Access Points and eliminates complicated client installations and driver conflicts with various OS. The CAP-2419L/2415L delivers outstanding network availability and end-to-end system throughput. Perfect for applications requiring high bandwidth at a fraction of the cost of T1/E1 leased-line, with the additional advantage of zero monthly recurring cost from the service carrier. Typical usages include bridging satellite offices, corporate LANs, school campus, as well as wireless Internet services, at distances up to 20+ miles (35+ kilometers). The WiBorne CAP-2419L/2415L is also the solution of choice for bridging networks that are impossible to connect using wired alternatives, including networks separated by difficult terrain, railroads, or bodies of water.

CAP-240WL is outdoor AP model equipped with same radio, NEMA 6 housing, and multi-strike gas discharge lightening protector.

### Features:

- Compatible with IEEE 802.11a & IEEE 802.3 standards
- Detachable 19 or 15 dBi patch antenna
- Rugged wideband weatherproof design in a compact and UV stabilized ABS plastic with electronics protected in aluminum for EMF protection.
- Ideal for wireless LAN access in all areas.
- Flexible mounting on wall or antenna mast (up to 2.5 inch diameter)
- Can be mounted for Horizontal or Vertical Polarities
- Power over Ethernet cable using PoE injector
- Auto Fall back data rate for long distance communication in noisy environments
- High standard watertight (IP66/67) and weatherproof
- Back plate is alodine coated aluminum with stainless steel fasteners. All bracket fasteners are stainless steel for corrosion protection.
- Automatic ACK Timing based on specified range
- SNMP agent for monitoring
- Adjustable output power up to 400mW
- Hardware LEDs and Software Antenna Alignment Tool
- Statistics of wireless errors
- Wireless Site Survey for connectivity
- DHCP Server / Client
- Secure with 64/128Bit WEP / WPA / WPA2
- Custom heat sink allows performance over extended temperature ranges while inside compact enclosure
- Web base management with logo customization
- Advanced Link Setup for RTS Threshold, Fragmentation Threshold, Distance, ACK Timeout
- SuperG feature with fast frame / bursting / compression
- 802.11e QoS (WMM) Setting for priority of Video / Voice
- Remote Firmware upgrade from WEB GUI
- Work with all operating system, true 'Plug and Play'
- SDK kits available for customization

## Outdoor High Power AP/CPE/Bridge/Router With 19dBi or 15dBi Integrated Antenna

<b>Model No.</b>	CAP-2419L / CAP-2415L / CAP-240WL
<b>Standard</b>	IEEE 802.11b/g (Wireless LAN), IEEE 802.3 (Ethernet)
<b>Wireless Security Functions</b>	Secure with WPA, WPA2, AES-CCM & TKIP Encryption, 802.1x, 64/128/152bit WEP 802.1x / RADIUS client, and MAC Access Control
<b>Operation Functions</b>	Distance Adjustment: CTS/RTS, Automatic ACK Timing, RTS Fragmentation Threshold Adjustable transmit power up to 400mW SuperG mode (Hardware compression, aggregation and bursting) 802.11e QoS (WMM) for Video and Voice Priority, Wireless Traffic Shaping DHCP Server / Client SNMP agent, DNS, PPPoE Client, Wireless Site Survey Hardware LEDs and Software Antenna Alignment Statistical Reporting: Ethernet active, uptime, packet success/errors Firmware upgradeable; Logo / Link Customization Atheros 5/10/20/40 MHz Channels, Fast Frames, Compression, Super Frames
<b>Operation Modes</b>	AP, AP Client, WDS, Bridging, Ethernet to WLAN Bridge, AP Client with Routing function
<b>Management</b>	Web base Management System
<b>External Power Jack (POE)</b>	Passive Power over Ethernet (pairs 4,5+; 7,8 return)
<b>Processor / Memory</b>	220MHz / 16MB SDRAM, 4MB Parallel Flash
<b>Interface</b>	External RJ-45 bulkhead connector – optional. two RJ45 (One PoE), one RF connector, one RS232, LEDs for signal strength / alignment tool.
<b>Mounting</b>	Pole or wall mount via 2pc clamps(included)
<b>Enclosure</b>	CAP-2419 / CAP-2415: UV stabilized ABS plastic with electronics protected in aluminum for EMF protection; CAP-240WL: NEMA 6 housing
<b>Weight</b>	CAP-2419L: 3.5 lbs (1.5kg); CAP-2415L : 2.2 lbs (1kg); CAP-240WL: 2.65 lbs (1.20 Kg)
<b>Dimension (L x W x H)</b>	CAP-2419: 18.5"x16.8"x 2.5" (470x427x64mm) CAP-2415: 10.75"x10.75"x 2.6" (267x267x67mm) CAP-240WL: 10" X 7.1" X 2.25" (254x180x57mm)
<b>Temperature Range</b>	-20°C ~ +60°C
<b>Relative Humidity</b>	10% to 90% non condensing
<b>Surge Protector</b>	CAP-2419/CAP-2415: PoE surge protector – optional CAP-240WL: multi-strike gas discharge tube lighten protector
<b>Antenna Characteristics</b>	
<b>Gain</b>	CAP-2419L: 19dBi; CAP-2415L: 15dBi
<b>Frequency Range</b>	2400 - 2485 MHz
<b>Polarization</b>	Horizontal or Vertical
<b>3dB Beam Angle</b>	CAP-2419L: E-Plane: 15; H-Plane: 20 Deg; CAP-2415L: E-Plane: 15; H-Plane: 15 Deg
<b>Front to Back</b>	CAP-2419L: > 30 dB; CAP-2415L: 25 dB
<b>Wind loading (Lbs)</b>	CAP-2419L: 100MPH:77.8; 125MPH: 121; 100MPH with ½" Radial Ice: 83 CAP-2415L: 100MPH: 27.8; 125MPH: 43.4 Lbs
<b>Radio Characteristics</b>	
<b>Radio Scheme</b>	802.11g: OFDM; 802.11b: RSSS
<b>Frequency Range</b>	2412-2462 MHz
<b>Data Rate</b>	802.11 b/g: 54 / 48 / 36 / 24 / 18 /12 / 9 / 6 Mbps; SuperG: 108Mbps
<b>Channels</b>	North America: 12 Channels (US, Canada) ETSI: 13 Channels (Most European Countries) TELEC: 4 Channels (Japan)
<b>Range</b>	24+ km/15+ miles for point-to-multi-points; 40+ km/25+ miles for point-to-point. Depends on terrain and throughput
<b>Output Power</b>	802.11b/g: 400mW max.
<b>Receiver Sensitivity (without antenna)</b>	54Mb@-74dBm. 48Mb@-77dBm, 36Mb@-83dBm, 24Mb@-86dBm, 18Mb@-90dBm, 12Mb@-91dBm, 9Mb@-93dBm, 6Mb@-94dBm, 1Mb@-97dBm
<b>Approvals</b>	Radio / board: FCC Part15, Section 15,247, IC RS210