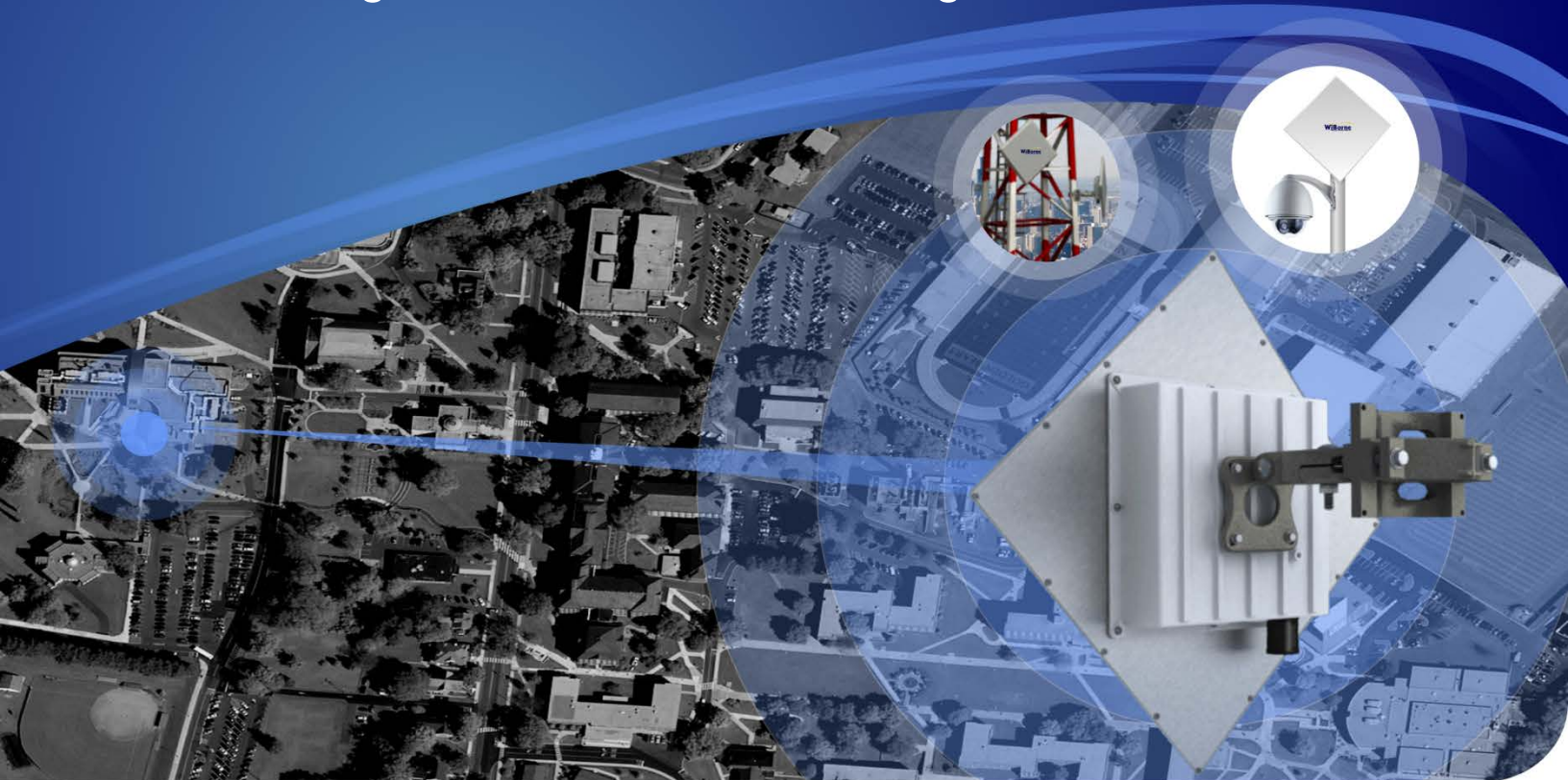


Outdoor 802.11a/n/ac 5 GHz MIMO High Power AP/CPE/Bridge/Router with 24dBi Integrated Antenna



WIBORNE

The **CAP-5024AC** and **CAP-520AC** are specially designed for applications of point-to-point as backhaul, or CPEs for point-to-multipoint to provide a 866Mbit superior performance solution for connecting many locations through wireless, yet flexible to customize for your deployment. It has up to three wireless interfaces for sectors or backhaul. The CAP-5024AC delivers Internet service to your clients' network for extreme distance. You can use this package to provide high data rates and superior throughput for data-intensive yet up to hundreds of concurrent users for WiFi Citywide project. Multiple sites can share a single, high-speed connection to the Internet.

The feature rich radio firmware allows you to apply the most advanced firewall, NAT, bandwidth shaping, cloaking modes, 802.11ac for up to 866 Mbit of throughput, and other technologies to create a smart and manageable network.

You can secure wireless traffic with firewall, VLAN, encryption (WEP/WPA/WPA2) from base to individual clients. Layer 2 Mesh and WDS Spanning Tree Bridging are available for all connected APs and clients in the same SSID group or Multiple SSIDs. QoS with voice / video / gaming priority is available.

CAP-5024AC comes with choice of radio powered up to 1000mW. It also offers variety of CPU platforms customized for your deployment that can produce maximum of 50 dBm or 100 Watts EIRP!

Support radio channel selections for 4.9- 6.1 GHz providing support for both public & licensed bands. While bundle with WiBorne's outdoor AP [WAP-520AC](#) and [HSG Access Controllers](#), it supports remote management from individual clients to backhaul for hundreds of base stations with thousands of wireless clients. It is also capable with 3G technology

AP / CPE
Bridge / Router
24dBi Integrated Antenna



CAP-520AC



CAP-5024AC

CAP-5024AC is based on state-of-the-art wireless technology with intelligent wireless edge platform enables new revenue generating converged services for IPv4/IPv6 data, voice (VoIP) and video streaming / conferencing / messaging. The CAP platform is a rugged communications-grade wireless delivery system with superior performance and high reliability to enable cost effective deployment. CAP-520AC is outdoor AP model equipped with same radio, NEMA6 / IP 67 housing, and multi-strike gas discharge lightening protector. MTBF is more than 100,000 hrs.

FEATURES

- Single Atheros high power max. 1000mW (30dBm) radio for 802.11a/n/ac MIMO. Radio sensitivity up to -96dBm
- Time Division Duplex (TDD) with CSMA/CA, TDMA
- 802.11a/c MIMO dual polarity for up to 866Mbit. 1 X Gigabit (Gbit) port
- Packet Aggregation for improved VoIP and gaming
- Integrated ESD (14kV) + lightning surge protection (10kA)
- Channel width (Cloaking mode) for 5/10/20/40 MHz
- Channel selections for 4.9-6.1GHz support for both public & licensed bands, NLOS scenarios
- IP 67 for CAP-5024AC, NEMA 6 aluminum for CAP-520AC
- Firewall and NAT with stateful packet filtering
- QoS by IP/ protocol / subnet / ports, HTB, PCQ, CIR, EBS, and PIR. Equivalent WiMAX 802.16 QoS Classification
- Layer 2 Mesh, Dynamic / Static WDS, Nstreme / bonding protocols, AP routing / transparent bridging.
- VRRP for High Availability
- Optional 3G/4G USB slot for backup connectivity
- Bridge: spanning tree protocol; multiple bridge interfaces; bridge firewalling, MAC NATing
- 802.11e QoS (WMM) Setting for priority of Video and Voice
- Tools: Device Discovery, Bandwidth, Link Test, Network Monitoring, Neighbor Viewer, Radio/Traffic Statistics
- Virtual Machine (VM) for 3rd party application software
- Client statistics (current signal level/quality, rate TX/RX, bytes TX/RX, radio rate) with graphical indication
- 64/128/152 bits WEP and WPA support.
- IPSec: DES, 3DES, AES-128/192/256, Camellia-128/192/256
- Routing for RIP, BGP, MPLS, VPLS, OSPF, VRRP, GRE/GRE6, Static
- VLAN: 802.1q, multiple VLANs; VLAN bridging
- Console/Terminal/SSH/Telnet/CLI/SNMP/FTP
- Neighbor Discovery; ping; traceroute; bandwidth test; ping flood; packet sniffer; mac address spoofing; Dynamic DNS update tool
- Proxy: FTP & HTTP caching proxy server; HTTPS, SSL, DNS, HTTP, DNS entries, caching lists, access control lists
- Authentication: PPP, PPTP, PPPoE, L2TP, SSTP, OVPN, WPA, access control, MSCHAPv1/v2, RADIUS, MPPE encryption
- DHCP server/client/relay, multiple DHCP networks
- Layer 2 connectivity: bridge, synchronous, Asynchronous, ISDN, and SDSL
- UPnP, NTP, SNMP/MIB II, Cisco CDP, syslog/SNMP traps
- Monitoring and accounting for traffic, firewall logging. Graphical bandwidth for each interface
- Watchdog for auto and remote reboot
- BER (bits per rate) up to 10e-9 with very low latency
- Latency: <2 ms, availability 99.99%, depends on terrain
- Dynamic Multicast Filtering support for video surveillance

APPLICATIONS examples

VIDEO SURVEILLANCE



BUILDING TO BUILDING



Long Range Outdoor MIMO High Power AP/CPE/Bridge/Router with Integrated Antenna	
Model No.	CAP-5024AC / CAP-520AC
Standard	IEEE 802.11a/n/ac MIMO, 10/100/1000 Base-T IEEE 802.3 (CSMA/CD autosensing Ethernet)
Wireless & Wired Security Functions	Secure with WPA, WPA2, 802.1x (EAP, MIC, TKIP and AES), 64/128/152 bits WEP, IPSec/VPN. WPA-PSK, WPA2-PSK, WPA-EAP, EPA-EAP2, EAP-TLS, AES-CCM, 802.11i TKIP, PEAP- MSCHAPv2, PEAP-TTLS, Mac/IP Mac Access Control Lists, Custom scan lists to prevent clients from scanning unwanted channels, Full firewall, NAT and Bandwidth Management support, Mac Authentication, 802.1q VLAN support, multiple VLANs; VLAN bridging client list, DHCP auto-auth configuration, hide/stealth ESSID/SSID setup, Multiple SSID, Multiple Access Points mode. Sniffer detects intrusion attempts (lite IPS).
Operation Functions	Static, dynamic (RIP v1/2, OSPFv2), or policy (source) routing, DHCP Server / Client Super A mode (Hardware compression, aggregation and bursting). Mesh-WDS / OLSR / RSTP, or Layer 2 Mesh routing. NV2 Protocol. Packet processing: 100,000 pps. Support up to 128 Virtual Access Points (SSIDs) for single interface, WDS settings, and even different MAC address. Cloaking to reduce interference, dynamic frequency selection (DFS/ACCS) mode for auto channel. Firmware upgradeable LED and Audible alignment methods based on signal strength for antenna aiming Beacon real-time traffic monitor, AP association displays, with per-user, and system wide throughput and traffic reporting. Wireless site survey. ACK Timing, RTS Fragmentation Threshold Adjustable transmit power control up to 630mW (TPC/ATPC), Country code Selection 802.11e QoS for Video and Voice Priority, protocol / port / IP / MAC filtering and shaping Layer 2 connectivity: bridge, synchronous, Asynchronous, ISDN, and SDSL. 6to4 support, EoIP/IPv6 support.
Operation Modes	P2P, P2MP, Bridging, Ethernet to WLAN Bridge, AP Client with Routing function, dynamic WDS, mesh-WDS, High performance learning bridge with STP. Optional 3G/4G connectivity
Management	SSH-based interface, Password, Web GUI, HTTP, Serial-based CLI, SNMP, Telnet, FTP, TFTP, Backup/Restore config-tool, Configuration tool for remote access and setup, User level access.
Power over Ethernet	Non-802.3af 24 VDC Passive with built-in surge protector, Gbit Ethernet port.
Interface	External RJ-45 Bulkhead connector, optional 1 X MiniPCI wireless slot, 1 X Gbits RJ45 Ethernet port, optional internal 1 X USB 2.0 with 5V power. CAP-520AC supports 2 or multiple N-type connectors.
Mounting	Pole or wall mount via 2pc clamps(included)
Enclosure	CAP-5024AC: UV stabilized ABS plastic with electronics protected in IP 67 aluminum for EMF protection. CAP-520AC: NEMA 6 housing
Weight	CAP-5024AC: 2.5 lb (1.13kg); CAP-520AC: 2.65 lb (1.20 Kg)
Dimension (L x W x H)	CAP-5024AC:14"x14"x3.4"(356x356x86.5mm) integrated dual polarity 24 dBi antenna CAP-520AC: 10"x7.1"x2.25" (254x180x57mm)
Temperature Range	Operating: -45°C to 75°C (-49°F to 167°F). -45°Cto 75°C (-49°F to 167°F) for radio and board
Relative Humidity	0% to 99% non condensing
Surge Protector	Integrated ESD lightning surge protection for radio module, and PoE surge protector CAP-520AC with optional multi-strike gas discharge tube lighten protector
Platform Characteristics	
Platforms	720MHz Atheros MIPS CPU
LED	Power, 2 LED pairs for MiniPCI slot(s), 1 user LED (Internal)
Radio Characteristics	
Radio Scheme	MIMO 802.11ac. 802.11a: OFDM; optional 802.11b: DSSS; 802.11g: DSSS/OFDM. FDD BPSK/QPSK/16QAM/64/128/256QAM. Access Method: Time Division Duplex (TDD) with CSMA/CA, TDMA
Frequency Range	4.920~6.100 GHz
Data Rate	802.11ac MIMO for 6.5 – 886 Mbit
Output Power (radio)	Up to 1000mW
Receiver Sensitivity (without antenna)	54Mbit 27dBm/-80dBm, 6 Mbit 31dBm/-96dBm, MCS9 22dBm/-72dBm, MCS7 27dBm/-77dBm, MCS0 30dBm@-96dBm
Approvals	Radio and Board FCC Part15, Section 15.247. CAP-520 for WPC.

Note: Sales price may be varied that is dependent on components for specific requirement.



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