

AE201 Series

Managed 11AC Wave 2 vCPE and Wireless Access Point



The ICCN multi-protocol AE201 series delivers 802.11ac Wave 2 hardware performance with a software-driven Unified Access Device Operating System (UADOS) to deliver the most from this quad-core MU-MIMO dual radio wireless device. The AE201 series enterprise features include multi-mode security, guest access and routing with content awareness, but also enables standalone modes via patent-pending UADOS firmware or the deployment of thousands via the activeARC Cloud Management System.

Key Features

- 2x2 MU-MIMO IEEE802.11ac Wave 2
- Up to 1.3Gbps aggregate performance
- Application and Device aware
- Extended 7 SSIDs per radio (14 total)
- 128 VLAN capability
- activeNode feature for vCPE flexibility
- activeControl for policy, access, and security
- Performance quad-core processing
- Small form with USB Type C power
- 2 Ports for additional devices

ICCN vCPE platforms deliver a flexible platform for IP networks ranging from small hotspots to highly complex growth networks. The adaptive UADOS ensure simple connectivity via activeNode and activeControl for provisioning, identification of content, content control to ensure delivery for an enhanced user experience even while the network becomes more saturated.

activeControl is a policy-based and software-driven features allowing for specific Quality-of-Service streams that ensure voice, video, and data services based on client or provider requirements. Combined with basic Firewall setting, these devices enable users to start deploying true all-wireless network environments at superior value

activeNode provides vCPE control of the AE201 wireless devices allowing them flexible modes (router, AP, bridge, monitor, firewall, etc.) on a per device basis while software support ensure user

performance regardless if you deploy 1 or 1,000 devices. All AE201s deliver Captive Portal support, 128 VLANs, Dual IP Address, IEEE 802.1p VLAN priority, WMM, IEEE 802.11e EDCF, and Service-Aware priority assigned by VSC, support for radius authentication and Layer 2 Isolation.

The **AE201** is ideal for low or high density environments. The activeARC cloud and UADOS operating systems are simple to use for the novice IT person while loaded with beyond enterprise features to ensure content control and delivery.

The **AE201** can be used as a standalone device, integrated into management systems or provide capable integrators with open source access to deploy their own Wireless as a Service platforms including Location Service and Monetization among others services.

Technical Specifications: AE201 Series

DEVICE DETAILS

Measurement: 6.88 (h) x 2.55 (w) x 3 (d)
 Operating: -5° C ~ +45° C & 5% to 95% non-condensing humidity
 Environment Temperature: Storage: -20° C to +85° C
 Dustproof & waterproof - IP20

RADIO

Dual Band Radio
 2X2 MIMO
 IEEE 802.11n
 IEEE 802.11ac Wave 2
 USB Type-C Power connector

Supported 2.4GHz Wi-Fi channels

Channel 1-11 (NA)
 Channel 12-13 (ROW)
 Channel 14 (Japan)

Supported 5GHz Wi-Fi channels

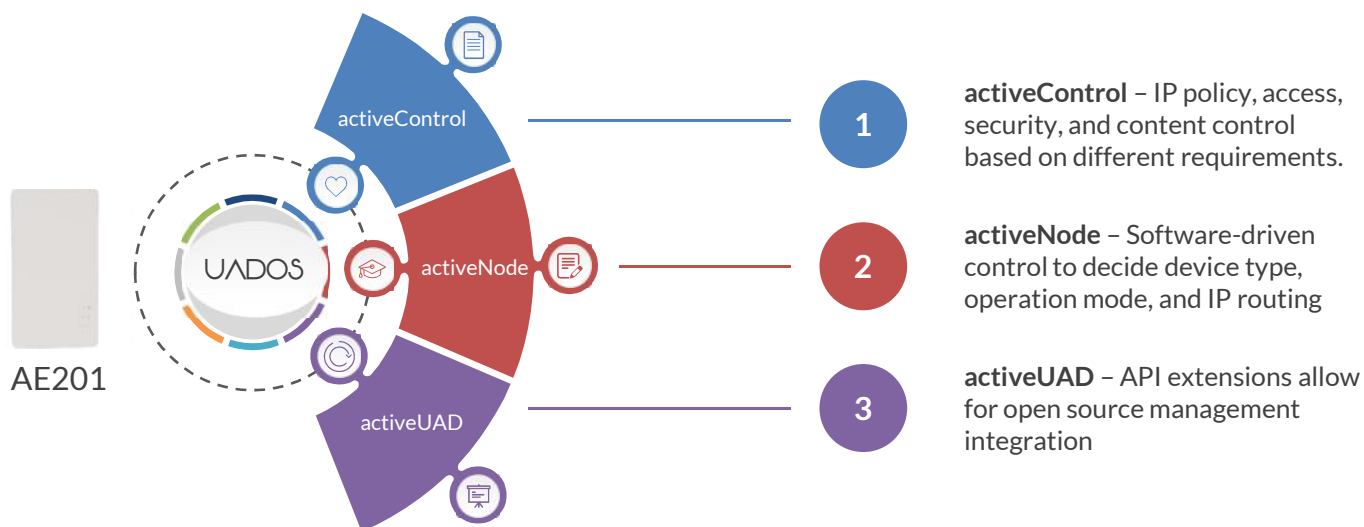
Channels:
 36,40,44,48,52,56,60,64,100,104,108,112,116,120,124,149,153,157,161

Wi-Fi scanning to allow for best channel strength/settings

MULTIPLE SSIDS

7 SSIDs per band / 14 SSIDs total
 256 simultaneous users

ICCN wireless devices come standard with the UADOS firmware.



ICCN’s Unified Access Device Operating System (UADOS), leverages IEEE standards in the latest wave 2 technology and expands the flexibility of how a solution is deployed, managed, and configured.

Moreover, ICCN’s icXengine is a patent-pending optimization engine designed to increase throughput while creating a more stable wireless network ecosystem. icXengine uses a heuristic formula designed to smooth out access across more network clients while attempting to prevent IP packets from dropping.

Number of Clients	TCP			UDP (Mbps)		
	MU (Mbps)	SU (Mbps)	MU Gain	MU (Mbps)	SU (Mbps)	MU Gain
1	325	321	1.01	355	356	1.00
2	542	312	1.74	678	355	1.91
3	651	305	2.13	849	334	2.54
6	581	297	1.96	681	330	2.06
18	523	293	1.78	647	335	1.93
30	509	287	1.77	639	335	1.91
42	491	279	1.76	629	330	1.91
54	469	273	1.72	597	325	1.84
64	465	277	1.68	574	327	1.76
83	438	267	1.64	516	323	1.60
90	410	262	1.56	501	325	1.54
100	383	253	1.51	486	319	1.52
105	372	250	1.49	470	317	1.48

Technical Features: AE201 Series

DEVICE FEATURES

2 101001000Base-TX Ports
 1 USB Type C Power Port
 2x2:2 2.4Ghz 802.11b/g/n,
 256QAM, up to 400Mbps

2x2:2 5Ghz 802.11a/n/ac
 up to 867Mbps
 Mounting: Wall, gang, or desktop

IEEE802.11ac MU-MIMO
 IEEE802.11k/v
 IEEE802.11r
 Single AP band steering
 Multi-AP coordinated steering
 Video over wireless
 Beamforming

MAC FILTERING

Individual Radio Client Management
 Wireless Client Connection
 Transmission Management
 Ability to limit/exclude certain channels
 Radio Transmit Power Control

RADIO MODES

AP Mode
 AP WDS Mode

AUTHENTICATION TYPES AND SECURITY

Multiple authentication methods
 WPA(PSK), WPA2(PSK), WEP
 WPA Enterprise, WPA2 Enterprise

Multiple encryption algorithms
 CCMP (AES)
 TKIP
 CCMP and TKIP both
 Hidden SSID support
 Wireless client isolation
 Remote Radius authentication and
 accounting support
 Local authentication while utilizing other
 type of authentication (MAC passing)

WAN CONNECTIVITY MODES

DHCP
 Static
 PPTP
 L2TP
 PPPoE

LAN CONNECTIVITY MODES

DHCP Server
 Configurable DHCP Lease Time
 Configurable DHCP IP Pool
 Static

NETWORKING

VLAN Support
 Out-of-band management IP
 Static Routing
 End user Router Mode
 SNMP support for usage statistics and
 equipment health
 WAN ping blocking

QoS / Bandwidth Management
 Client level advanced bandwidth
 management
 Auto enabled QoS
 Wireless QoS (WMM)
 Packet queuing and prioritization

CAPTIVE PORTAL

SSID Binding
 Automatic redirection to Splash page
 Customizable landing page
 Custom DNS
 Built-in web-server
 NAS ID support
 Whitelisted Websites
 WISPr attributes

Various attributes support
 Standard Radius Access accept
 Bandwidth up and down
 Data usage
 Session time out
 Idle Timeout
 Interim accounting updates
 Disconnect message
 Multiple RADIUS profiles support
 Optional secondary RADIUS server and
 prioritization options

CLI

User friendly CLI support

USER INTERFACE

Easy access Web GUI

Multiple browser compatibility
 Internet Explorer 11
 Google Chrome
 Mozilla Firefox
 Safari
 Multiple Admin login support
 Admin access log

GRAPHS

Realtime Graphs
 Load Graph
 Traffic Graph
 Wireless Graph
 Active Connection Graph

ROUTES

ARP
 Active IPv4-Routes

ADMINISTRATION

Setting of Router password
 SSH
 Telnet

FIREWALL

Firewall settings
 General settings
 Zones settings
 Port Forwarding
 Firewall Rules
 Traffic Rules
 Source NAT

BACKUP/UPGRADE FIRMWARE

Firmware Options
 Backup/Restore firmware
 Reset to defaults
 Flash new firmware keeping previous
 configurations
 Flash new firmware with factory settings
 Configurable Option
 Backup file list

DIAGNOSTICS

Ping
 Trace route
 Nslookup

CERTIFICATIONS

FCC
 DFS

Ordering information

SKU	Material #	UPC	Description
AE108	9178073521	857203003228	IEEE802.11ac 2x2:2 Indoor Access Point with advanced UADOS features
AX110	9178073526	857203003235	IEEE802.11ac 2x2:2 Outdoor Access Point with UADOS features with internal 2.4GHz/5GHz antennas and an IP 68 NEMA enclosure
AX110-V2	9178073531	857203003242	IEEE802.11ac 2x2:2 Outdoor Access Point with UADOS features with internal 15dBi 5GHz antenna and external 2.4GHz antenna option
AX110-EXT	9178073536	857203003259	IEEE802.11ac 2x2:2 Outdoor Access Point with UADOS features with external 5GHz and 2.4GHz antenna options
Hyper Intelligent activeARC CMS Access Points			
AE108-CMS	9178073546	857203003372	IEEE802.11ac 2x2:2 Indoor Access Point with activeARC CMS cloud management control features
AX110-CMS	9178073506	857203003198	IEEE802.11ac 2x2:2 Outdoor Access Point with UADOS features with internal 2.4GHz/5GHz antennas and 5yrs activeARC CMS cloud management control features
AX110-V2-CMS	9178073511	857203003204	IEEE802.11ac 2x2:2 Outdoor Access Point with UADOS features with internal 15dBi 5GHz antenna and external 2.4GHz antenna option and 5yrs activeARC CMS cloud management control features
AX110-EXT-CMS	9178073516	857203003211	IEEE802.11ac 2x2:2 Outdoor Access Point with UADOS features with external 5GHz and 2.4GHz antenna options and 5yrs activeARC CMS cloud management control features
AE201	9178073711	857203003631	IEEE802.11ac Wave 2 2x2:2 MU-MIMO enterprise access point for standalone deployment with advanced features including 128 VLANs, SNMP, 32 SSIDs, and integrated patented optimization.
AE201-CMS	9178073716	857203003648	IEEE802.11ac Wave 2 2x2:2 access point featuring activeARC Cloud Management System for centralized deployment of advanced features including 128 VLANs, SNMP, 32 SSIDs, and integrated patented optimization. activeARC CMS authorized for 5 years.
Optional activeARC Cloud System Single License			
ARC Basic	9178073676		activeARC CMS license for any standalone AE (ICX10UAD) or AX (ICX20UAD) AP to be managed via the cloud. Licensed for 5 years.
Universal Carrier Aggregation Platform (UniCAP) - Multi-Gig high-capacity 802.11ac aggregation			
UC-12-KIT1	9178073646	857203003488	UniCAP KIT is a pre-packaged carrier system (1 UC-12-Base, 1 UC-12-Blank + 2 UC-12-EXP, 2 UC-12-MNT, 2 UC-JP-18 and 2 UC-JP-26)
UC-12-BASE	9178073646	857203003495	UniCAP 12" Base Unit
UC-12-EXP	9178073651	857203003501	UniCAP 12" Expansion Unit with 2x90° 2.4 GHz & 5 GHz Antennas
UC-12-BLANK	9178073656	857203003518	UniCAP 12" Blank Unit (Enclosure only)
UC-MNT	9178073661	857203003525	UniCAP Mounting Assembly for mounting 2 UniCAP units to a Pole
UC-JP-18	9178073666	857203003532	UniCAP 18" Outdoor Cat5e RJ-45 Jumper Cable
UC-JP-26	9178073671	857203003549	UniCAP 26" Outdoor Cat5e RJ-45 Jumper Cable
Antennas, Cables, and Power Injectors			
PWR-INJ	9178073421	857203003365	Gigabit Power Over Ethernet (POE) Injector featuring 30W, 52V, and 1000Mbps IEEE 802.3at/af
ANT-245GHZ	9178073621	857203003433	2.4GHz & 5.8GHz (dual-band) 7dBi omni directional antenna with an N-Male connector designed for indoor or outdoor use
ANT-OMNI-12	9178073606	857203003402	High gain long range MIMO omni directional antenna with 2 x 2 12 dbi performance and 2 N-female connectors
ANT-DUALOMNI-12	9178073641	857203003471	High gain long range Dual MIMO omni directional antenna with 2 x 8 12 dbi performance and 2x2.4GHz and 2x5GHz N-female connectors
ANT-DISH-24	9178073611	857203003419	High gain long range directional MIMO parabolic dish antennas with up to 24 dbi gain and 2 N-female connectors
ANT-CABLE-4	9178073616	857203003426	4ft (122cm) LMR240 pigtail cable N male to N male connector. Qty 2 units included

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