WSC710 Enterprise-Level Intelligent WAC Controllers

WSC710 Series

- **Centralized wireless network management**
- **Seamless roaming characteristics**
- **Centralized and secure access of wireless networks**
- **All-round QoS mechanism**
- **Diversified connection and authentication interface**

Ascent's WSC710 Series are wireless AC controllers are based on a multi-core general hardware platform. WSC710 series features versatile functions, various services, and high stability. ASCENT WSC710 Series supports CAPWAP standard protocol, strong WLAN access control capabilities, automatic channel management, wireless radio frequency adjustment, user load balance, and user roaming and switching.

WSC710 Series can be deployed independently or deployed together with Ascent Switch NMS platform and Cloud Platform, which provide carrier-level network maintenance and administration. It can be used to manage APs and users, facilitating the deployment and maintenance of carriers' networks.

WSC710 Series also features an authentication and charging interface, which can connect with mainstream industry platform such as Radius and Portal.

Key Features

- Supports multiple networking modes including centralized and local forwarding

- Supports layer-2 and layer-3 roaming functions

- WEP/WPA/WPA2/802.1x encryption

- Wireless IPS/IDS, Layer-2 user isolation

- Centralized ACL control

- 802.1x/MAC/Portal/PPPoE/WAPI authentication

- Illegal AP detection and processing

- Wireless attack prevention

- Wireless user blacklist/whitelist

- Packet classification, flow control, DSCP flow schedule, end-to-end QoS mapping, 802.11e, load balance, and reception control

- Supports Portal 2.0 interface and WiFidog interface

Application Diagram
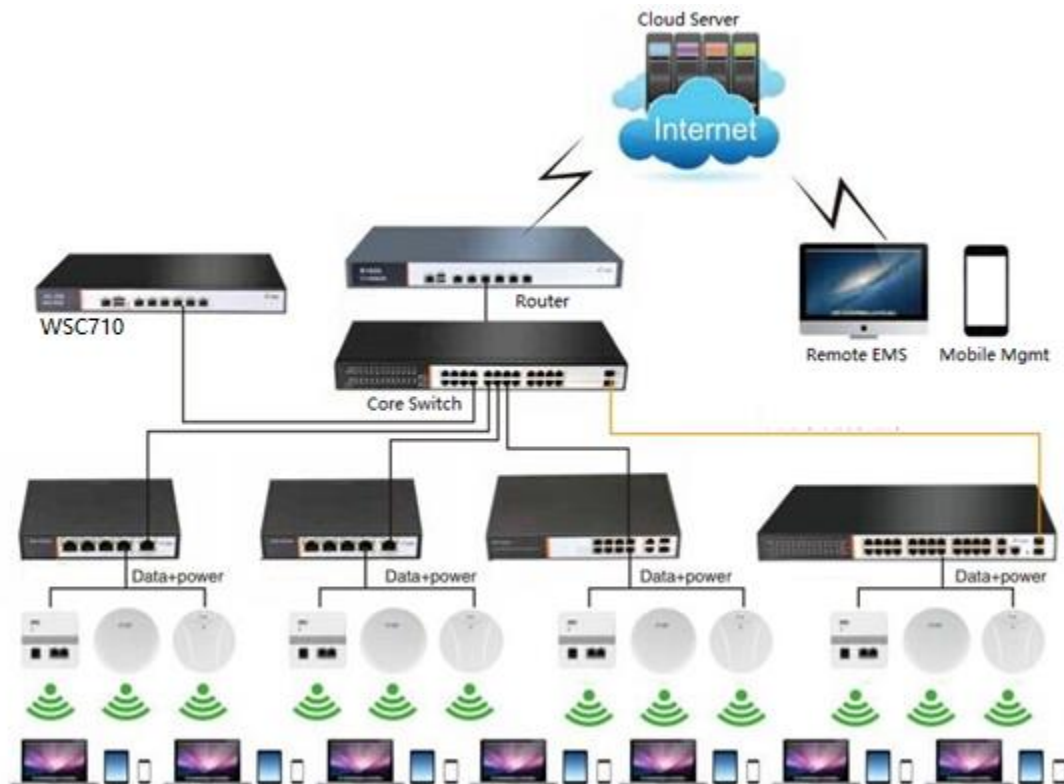
Specifications

Hardware Specifications

Model	WSC710-X32B	WSC710-X64B	WSC710-X128B	WSC710-X256B	WSC710-X512B	WSC710-X1024B
Interfaces						
Standard Interfaces	1 × CON 1 × USB 2.0 2 × GE Combo 8 × GE Base-T ports	1 × CON 1 × USB 2.0 2 × GE Combo 8 × GE Base-T ports	1 × CON 1 × USB 2.0 8 × GE Combo	1 × CON 1 × USB 2.0 8 × GE Combo	1 × CON 1 × USB 2.0 8 × GE Combo	1 × CON 1 × USB 2.0 8 × GE Combo
Operation Keys	Reset	Reset	Power on-off	Power on-off	Power on-off	Power on-off
Basic Performance						
AP Access	Built-in 32 × Lic	Built-in 64 × Lic	Built-in 128 × Lic	Built-in 256 × Lic	Built-in 512 × Lic	Built-in 1K × Lic
User Access	Recommend ≤1K	Recommend ≤2K	Recommend ≤4K	Recommend ≤8K	Recommend ≤16K	Recommend ≤30K
Data Throughput	≥512 Mbps	≥512 Mbps	≥2 Gbps	≥2 Gbps	≥2 Gbps	≥2 Gbps
Hardware Parameters						
Dimensions (W×D×H)	300 mm × 200 mm × 44 mm		443 mm × 208 mm × 66 mm			
Weight	≤1.8 kg		≤4.5 kg			
Power Supply	220 V AC		220 V AC, dual AC (optional)			
Average Power Consumption	≤36 W		≤90 W			
Operating Temperature	0 °C to 50 °C					
Operating Humidity	5% to 95 % RH (non-condensing)					

Software Specifications

Item	WSC710 Series
IP Functions	✓ Direct IP connection, static route ✓ RIP v1/v2 ✓ NAT/NPAT ✓ DHCP Server/Client/Relay ✓ NTP Server ✓ FTP Server
AP/AC Networking	✓ Connecting AP/AC via L3 security tunnel ✓ Centralized, distributive and hybrid exchanges of L2 services
Roaming	✓ Inner-AC or inter-AC roaming
Internetworking	✓ L2 or L3 forwarding between AC and external network

Forwarding Mode	✓ STP/802.1Q L2 forwarding ✓ RIP/OSPF L3 forwarding ✓ Centralized forwarding ✓ Forwarding all services after being centralized on AC ✓ Distributive forwarding ✓ Forwarding some AP or SSID services on a thin AP locally
QoS Control	✓ User's flow control: Support the domain-based flow control (taking VLAN or SSID as the configuration domain). Support user-level flow control or flow control based on the contract information of the Radius server. ✓ Service priority: Support 802.11e, which provides different services according to session's priority. Support to map users' QoS levels according to SSID. Support 802.1p and L2 packet's priority mapping ✓ Load balance and control: Support AP/AC interconnection based on priority and load. Support load balance between adjacent APs on the basis of user quantity and flow.
RF Management	✓ Automatic channel Support static channel configuration. Support automatic channel configuration when AP is powered. Support automatic channel configuration when AP is running. Support to set an automatic channel choice list. ✓ Automatic transmitting power Support to set the static transmitting power. Support the automatic transmitting power for coverage remedy. Support the STA-based automatic transmitting power to improve the throughput. ✓ Automatic rate Support the STA-based automatic rate choice. Support to limit the maximum transmitting rate.
AAA	✓ RADIUS Client ✓ Multi-domain configuration of the authentication server ✓ Connection of active and standby authentication/charging servers ✓ Isolation of the authentication server and the charging server

Authentication and Charging	✓ PPPoE authentication
	✓ Portal authentication
	✓ AAA charging
Network Security	✓ Open system
	✓ WEP
	✓ WPA/WPA2 PSK
	✓ 802.1x
	✓ 802.11i
	✓ WAPI
	✓ DDOS prevention
	✓ ACL
	✓ Wireless IPS/IDS
	✓ Illegal AP detection
	✓ Illegal terminal checkup
	✓ Isolation of users' services
	✓ White list
	✓ Static/dynamic blacklist
Network Management	✓ Local interconnection based on WEB/SSH
	✓ Remote control via SNMP access
	✓ Uniform network management via OMC
	✓ SNMP v2/v3
	✓ MIB-II (RFC1213), which is based on TCP/IP Internet management base
	✓ RFC1537, which is a developing protocol of MIB-II
	✓ RFC1643
	✓ ISO/IEC 8802-11:1999,
	✓ IEEE802.11b
	✓ ISO/IEC 8802-11:1999/Amd 1:2000
	✓ MIB that is defined by IEEE 802.11g and IEEE 802.11i
AC Redundancy	✓ "N+1" backup based on load sharing
	✓ Load sharing on each AC in normal cases
	✓ Switching load from troubled AC to another normal AC (The switchover policy can be set)
	✓ Port redundancy: multi-port binding
MAC-Layer Protocols	802.1d, 802.1s, 802.1p, 802.1q, 802.1w, 802.3, 802.3ab, 802.3u, 802.3x, 802.3z, ARP, Reverse ARP, multi-LAN ARP/Proxy ARP

802.11 Protocols	802.11n, 802.11b, 802.11a, 802.11g, 802.11d, 802.11h, 802.11i, 802.11e
IP-Layer Protocols	RFC791 IP, RFC792 ICMP, RFC793 TCP, RFC768 UDP,
	RFC854 Telnet, RFC1542 BOOTP,
	RFC1191 Path MTU Discovery,
	RFC1519 Classless Inter-Domain Routing (CIDR),
	RFC1812 IP router requirements,
	RFC2236 IGMP&IGMPv2

Ordering Information

Item	Description
WSC710-2F-8G-32-1	Enterprise-level intelligent WAC (1 CON, 1 USB, 2 gigabit SFP/Base-T combo ports, 8 gigabit LAN ports, up to 32 APs, 220V AC power supply)

Contact Information

Ascent Communication Technology Ltd

AUSTRALIA
140 William Street, Melbourne
Victoria 3000, AUSTRALIA
Phone: +61-3-8691 2902

HONG KONG SAR
Unit 9, 12th Floor, Wing Tuck Commercial Centre
177 Wing Lok Street, Sheung Wan, HONG KONG
Phone: +852-2851 4722

CHINA
Unit 1933, 600 Luban Road
200023, Shanghai CHINA
Phone: +86-21-60232616

USA
2710 Thomes Ave
Cheyenne, WY 82001, USA
Phone: +1-203 816 5188

EUROPE
Pfarrer-Bensheimer-Strasse 7a
55129 Mainz, GERMANY
Phone: +49 (0) 6136 926 3246

VIETNAM
15 /F TTC Building, Duy Tan Street
Cau Giay Dist., Hanoi, VIETNAM
Phone: +84 243 795 5917

WEB: www.ascentcomtec.com

EMAIL: sales@ascentcomtec.com