



ZA-5000-WS5
AP Controller
Product Specification

2 Specification

2.1 Product Appearance

ZA-5000-WS5 appearance is shown below:

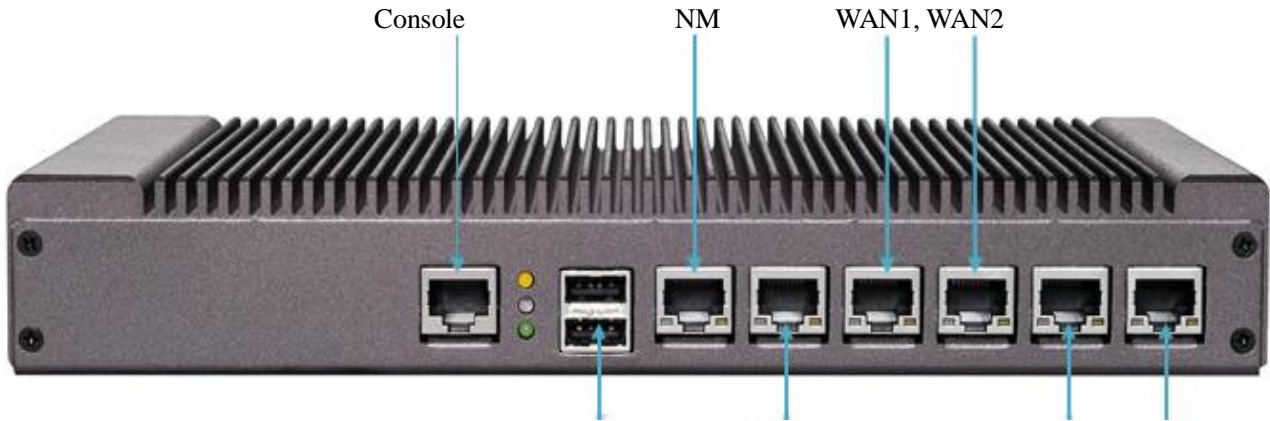


Figure 1 Front View

2.2 Hardware Specification

The Hardware specifications of the product are as below:

Table1.1 Hardware specification

Features	Additional Information	
Form Factor	Desktop	
Platform	Processor Options	Intel Atom D525 Dual Core onboard
	Chipset	Intel ICH8M
BIOS	AMI BIOS 16Mbit SPI Flash ROM	
System Memory	Technology	DDR3 800/1066/1333 MHz
	Max. Capacity	4GB
	Socket	1 x 204P SO-DIMM
OS Support	Windows 2000, 2003, XP, 7, Linux kernel 2.4 and up, Linux, FreeBSD	
Storage	HDD Bays	1 x 2.5"
	CompactFlash	1 x Type II CompactFlash
Networking	Ethernet Ports	6 x GbE RJ45
	Bypass	1 pair G2
	Controllers	1 x Intel 82574L, 5 x Intel 82583V (SKU A/B/C/D)6 x Intel 82574L (SKU E)

	Ethernet Modules	N/A
	Management Port	N/A
	Security Acceleration	N/A
I/O Interface	Console	1 x RJ45
	USB	2 x USB 2.0
	IPMI via OPMA slot	N/A
Expansion	PCIe	1 x Mini-PCIe (with USB signal only)
	PCI	N/A
Cooling	Processor	CPU Passive Heatsink
	System	Optional cooling Fan
Environmental Parameters	Temperature, ambient operating / storage	0 ~ 40° C / -20~70° C
	Humidity (RH), ambient operating / ambient non-operating	5~95%, non-condensing
Miscellaneous	LCD Module	N/A
	Watchdog	Yes
	Internal RTC with Li Battery	Yes
Physical Dimensions	Dimensions (WxHxD)	268 x 40 x 145 mm
	Weight	1.2 kg
Power	Type / Watts	12V/5A 60W Power Adapter
	Input	AC 100~240V @50~60 Hz
Approvals and Compliance		CE emission, FCC Class A, RoHS

2.3 Firmware Specification

The Firmware specifications of the product are as below:

Table 1.2 Software specification

Function Catalog	Detail Function		Default settings
About			
User Information	1. Username 2. User Authority		1. admin 2. Administrator
AP Controller Information	1. Device Name 2. Firmware Version 3. Hardware Version		1. ZA-5000-WS5 2. 3.
Device MAC Address	1. ETH0~ETH9 MAC Address		1.
Basic Setup			
Device Name			ZA-5000-WS5

Enable NTP Server	<ol style="list-style-type: none"> 1. Enable NTP Server 2. Time Zone 3. Daylight Saving Time 4. Time Setting 5. Current Time 		<ol style="list-style-type: none"> 1. Yes 2. GMT+8:00 3. 4. 5. Current Time
Enable NTP Client	<ol style="list-style-type: none"> 1. Enable NTP Client 2. NTP Server 3. Synchronize Time Interval 		<ol style="list-style-type: none"> 1. Disable 2. 3. 86400
Network Settings			
Management Port	<ol style="list-style-type: none"> 1. IP Address 2. Subnet Mask 		<ol style="list-style-type: none"> 1. 192.168.3.228 2. 255.255.255.0
AP Ports	<ol style="list-style-type: none"> 1. Port VLAN ID 2. IP Address 3. Subnet Mask 4. Primary DNS server 5. Secondary DNS server 		<ol style="list-style-type: none"> 1. 2. 192.168.1.228 3. 255.255.255.0 4. 0.0.0.0 5. 0.0.0.0
VLAN Settings	<ol style="list-style-type: none"> 1. VLAN Identifier 2. VLAN ID(1-4094) 3. WAN1(PORT1) 4. WAN2(PORT2) 5. Per-user Uplink Bandwidth(1-1687) 6. Per-user Downlink Bandwidth(1-1687) 7. NAS_ID 8. Portal Server 		<ol style="list-style-type: none"> 1. 2. 3. Disable 4. Disable 5. 6. 7. 8.
QinQ Settings	Turn QinQ On		Disable
	Enable QINQ		Disable
	Port1(WAN) QinQ Configure	<ol style="list-style-type: none"> 1. Enable Port QINQ 2. Port ETYPE(e.g. 0x8100) 3. Port Outer VLAN ID(1-4094) 	<ol style="list-style-type: none"> 1. Disable 2. 0x8100 3.
	Port2(WAN) QinQ Configure	<ol style="list-style-type: none"> 1. Enable Port QINQ 2. Port ETYPE(e.g. 0x8100) 3. Port Outer VLAN ID(1-4094) 	<ol style="list-style-type: none"> 1. Disable 2. 0x8100 3.
	QINQ Setting By VLANID	<ol style="list-style-type: none"> 1. Inner VLAN ID 2. Outer ETYPE(e.g. 0x8100) 3. Outer VLAN ID(1-4094) 	<ol style="list-style-type: none"> 1. 2. 3.
	QINQ List		
VLAN Virtual Interface	VLAN Virtual Interface List/Enable/Edit		

	VLAN Virtual Interface 1	<p>Basic Settings:</p> <ol style="list-style-type: none"> Virtual Interface VLAN ID Master IP Subnet Mask Backup IP Subnet Mask <p>Network Authentication</p> <p>Authentication Mode</p> <p>Network Address Translation</p> <p>Settings:</p> <ol style="list-style-type: none"> Enable NAT Primary IP Address Starting Public IP Address Ending Public IP Address <p>Add/Edit/NAT List/Back</p>	<ol style="list-style-type: none"> VIF1 0.0.0.0 255.255.255.0 0.0.0.0 255.255.255.0 <p>Disable</p> <ol style="list-style-type: none"> Disable
DHCP Settings	<ol style="list-style-type: none"> Option60 Interface DHCP Status AP Port IP Address 1 AP Port IP Address 2 AP Port IP Address 3 AP Port IP Address 4 Starting IP Address Ending IP Address Subnet Mask Default Gateway Primary DNS Server Secondary DNS Server Primary WINS Server Secondary WINS Server Lease Time Add/Edit/Delete DHCP List 		<ol style="list-style-type: none"> Disable LAN Enable 192.168.1.228 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 255.255.255.0 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 3600
Static Routing Settings	<ol style="list-style-type: none"> Destination IP Address Subnet Mask Next Hop Add/Edit/Delete Static Routing List 		<ol style="list-style-type: none"> 0.0.0.0 255.255.255.0 0.0.0.0
N+1 Backup	Enable N+1		OFF

Settings	Heartbeat Interface Settings	1. IP Address 2. Subnet Mask	1. 192.168.2.228 2. 255.255.255.0	
	N+1 Parameter Settings	1. Mode 2. Virtual Routing ID 3. Virtual Routing IP 4. Password 5. HB IP 6. Timeout Value for Switching among ACs	1. Master 2. 3. 4. 5. 6.	
	Virtual Routing List			
Port Monitor Config	ETH0~9		Disable	
RF Configure				
AP Template	TAP Template Search	1. Display Message According To Template Name 2. Display Message According To Wireless Mode 3. Display Message According To Channel	1. 2. Auto (802.11g and 802.11b) 3.	
	AP Template Auto Create		Disable	
	LightAP Template Wireless Settings	Configuration Template		Default
		Radio Enable		Enable
		Region/Country		By country dependent
		Wireless Mode		Auto
		1. Auto-Channel		1. Disable
		2. Auto-Channel Adjustment Mode		2. Start
		3. Auto-Channel Interval(60-86400)		3. 3600s
		4. Minimum Signal Level(-90-10)		4. (-70dBm)
		Channel/Frequency		1/2.412GHz
		Data Rate		48Mbps
		Multi-cast Rate		6Mbps
		Power Adjustment		0
		RTS Threshold		2346
Fragment Length		2346		
Beacon Interval		100		
DTIM Interval		1		
Preamble Type		Long		
Support WMM		Yes		
Enable Auto-Power Adjustment		Disable		

		Minimum Signal for Forced Roaming	(-92dBm)
		User Control Mode	
		1. User Control Mode	1. Disable
		2. Maximum Throughput	2. 30Mbps
		Maximum Retry Number when frame length is shorter than RTS Threshold	0
		Maximum Retry Number when frame length is longer than RTS Threshold	0
		Enable Console Port Capture	Disable
		QoS: Enable QoS Mapping	Disable
		Best Effort	
		1. AIFS	1. 0
		2. CW Min	2. 0
		3. CW Max	3. 0
		4. TXOP Limit	4. 0
		Background	
		1. AIFS	1. 0
		2. CW Min	2. 0
		3. CW Max	3. 0
		4. TXOP Limit	4. 0
		Video	
		1. AIFS	1. 0
		2. CW Min	2. 0
		3. CW Max	3. 0
		4. TXOP Limit	4. 0
		Voice	
		1. AIFS	1. 0
		2. CW Min	2. 0
		3. CW Max	3. 0
		4. TXOP Limit	4. 0
	Security Configuration Profile	Security Configuration Profile List	
		Enable	Disable

		Profile Definition 1. Security Profile Name 2. Wireless Network Name (SSID) 3. Broadcast Wireless Network Name (SSID) 4. Maximum User Number 5. VLAN ID 6. Local Forwarding 7. Network Authentication 8. Data Encryption 9. Passphrase 10. WPA Passphrase(Network Key) 11. Wireless Client Security Separation 12. Wireless Client Bandwidth Control Enable 13. Per-user Uplink Bandwidth(1-1687) 14. Per-user Downlink Bandwidth(1-1687) 15. Re-authentication after idle 16. Re-authentication after idle time(1-1440)min 17. Re-authentication after idle flow(0-10240)KB 18. Enable Fast Authen 19. Portal Server 20. RADIUS Server(Web Authen)	1. Profile1 2. Wireless 3. Enable 4. 25 5. 0 6. Disable 7. Disable 8. Open System 9. None/TKIP/AE S 10. 11. 12. Disable 13. Disable 14. 100 * 64Kbps 15. 100 * 64Kbps 16. User default 17. 0 18. 0 19. Disable 20. Please Select	
TAP Configuration Template Application	TAP Configuration Template			
	AP Mac Addr			
	List of TAP Configuration Templates Applied			
Access Control				
Trusted AP	Turn Trust AP Control On		Disable	
	Trusted AP List	Trusted TAP List		
		Edit/Delete		
	Add Trusted AP	MAC Double Card		Disable
		MAC Address		
Serial Number				

		Project Status Information 1~3	
		Add/Apply/Cancel	
		Backup/Browse/Resume	
WEB Authentication		<ol style="list-style-type: none"> 1. Enable User And Host Binding 2. Enable SSID Binding 3. Enable ACIP Binding 4. WEB Authentication Mode 5. Accounting Interval 6. Re-authentication after Idle time(1-1440)min 7. Reauthentication after idle flow(0-10240)KB 8. Enable User Accurate Online Time 9. Click here to go to User Management settings 	<ol style="list-style-type: none"> 1. Disable 2. Disable 3. Disable 4. Internal portal + Internal Database 5. 900 6. 15 7. Disable 8. Disable
	Information Settings Settings	<ol style="list-style-type: none"> 1. Information Server Name 2. Information Server IP 3. Flow Detection threshold(1-20)KB 4. Time Detection threshold(60-600)sec 	<ol style="list-style-type: none"> 1. 2. 0.0.0.0 3. 10 4. 300
	Portal Server Settings	<ol style="list-style-type: none"> 1. Find Portal Address 2. Portal Name 3. URL 4. ACName(CAN.CTY.PRO.OPE) 5. Portal Server List 6. Add/Edit/Delete 	<ol style="list-style-type: none"> 1. Default 2. 3. http:// 4. 0.0.0.0 5. 6.

PPPOE server		<ol style="list-style-type: none"> 1. Authentication 2. Authentication Location 3. The Max. User Number 4. The Local IP Address 5. Remote First Remote IP Address 6. Remote Last Remote IP Address 7. Subnet Mask 8. Primary DNS Server 9. Secondary DNS Server 	<ol style="list-style-type: none"> 1. enable/enable 2. Local 3. 65 4. 10.0.0.1 5. 10.67.15.1 6. 10.67.15.64 7. 8. 255.255.255.0 9. 10. 0.0.0.0 11. 0.0.0.0 12. 0.0.0.0
RADIUS Settings		<ol style="list-style-type: none"> 1. RADIUS Mode 2. Extensible Authentication 3. Search Area Method 4. Default NAS Id 5. Apply/Cancel 	<ol style="list-style-type: none"> 1. Disable 2. Disable 3. Default 4. NasIdentifier 5.
Access Control	Turn Access Control On		Disable
	Wireless STA List		
	Add/Delete/Search STA	MAC Address	
		Select All/Add/Delete/Search	
	Apply/Cancel/Browse/Resume		
White List (Before Authentication)		Enable While List	Disable
	Access Control Settings	<ol style="list-style-type: none"> 1. Access Control Rule 2. Dest Start IP Address 3. Dest End IP Address 4. Port 5. VLAN ID 6. SSID 7. Allow List 8. Add/Edit/Delete 	<ol style="list-style-type: none"> 1. Based on IP Control 2. 0.0.0.0 3. 0.0.0.0 4. 5. 6. 7. 8.
Black-White List		Access Control Mode	Disable

(After Authentication)	Access Control Settings	<ol style="list-style-type: none"> 1. Access Control Mode 2. Dest Start IP Address 3. Dest End IP Address 4. Port 5. VLAN ID 6. SSID 7. Allow List 8. Deny List 9. Allow/Deny/Edit/Delete 	<ol style="list-style-type: none"> 1. Disable 2. 0.0.0.0 3. 0.0.0.0 4. 5. 6. 7. 8. 9.
NASID Binding Settings		<ol style="list-style-type: none"> 1. NASID Binding Mode 2. TAP Mac Addr 3. Start IP Address 4. End IP Address 5. NASID 6. TAP MAC List of NASID Binding 7. Add/Edit/Delete 	<ol style="list-style-type: none"> 1. VLAN 2. 3. 0.0.0.0 4. 0.0.0.0 5. 6. 7. 8.
Bandwidth Control		Enable Bandwidth Control	Disable
	User Bandwidth Control Based on MAC	<ol style="list-style-type: none"> 1. Default User Bandwidth 2. MAC Address 3. Per-user Uplink Bandwidth 4. Per-user Downlink Bandwidth 5. Add/Edit/Delete 	<ol style="list-style-type: none"> 1. 8*64Kbps 2. 3. 0*64Kbps 4. 0*64Kbps 5.
Firewall Settings		ICMP Protocol	Disable
	IP Access Control	Authorized IP Access	Disable
		Interface: VIF1~8/TAP Port	
		Ports can be accessed by all IPs:	
		<ol style="list-style-type: none"> 1. TCP Port Number 2. UDP Port Number 	<ol style="list-style-type: none"> 1. 2.
	IP Settings	<ol style="list-style-type: none"> 1. IP Address 2. Forbid Port Number 3. Authorized Local IP List 4. Add/Edit/Delete 	<ol style="list-style-type: none"> 1. 0.0.0.0/0 2. 3. 4.
Firewall	Enable IP filter		Disable
	IP filtering Settings	<ol style="list-style-type: none"> 1. Dest Start IP Address 2. Dest End IP Address 3. Add 4. IP Address List 5. Delete/Apply/Cancel 	<ol style="list-style-type: none"> 1. 0.0.0.0 2. 0.0.0.0 3. 4. 5.

Advanced Settings	WAN Broadcast Packet Separation	WAN Broadcast Isolation	Disable	
		ARP Passing	Disable	
	WAN Multicast Isolation		Disable	
	WAN Unknown Unicast Isolation		Disable	
	Wireless Separation			
	Enable Refuse DHCPFLOOD	Enable Refuse DHCPFLOOD		Disable
		The number of requests allowed		512
	Side of broadcast Filtering		Disable	
	Flow Balance Mode	<ol style="list-style-type: none"> 1. Flow Balance Mode 2. Basic User Number(1-100) 3. Basic Flow Value(0-6553kbps) 4. Flow Balance Group 5. Max. Deny Times 6. User Number Difference 7. Data Traffic Difference 	<ol style="list-style-type: none"> 1. Disable 2. 5 3. 10240kbps 4. Default 5. 4 6. 1 7. 2048kbps 	
	Enable IGMP Snooping		Disable	
	IGMP Proxy	1. Enable IGMP Proxy		1. Disable
		2. Upstream		2. VIF1
	VoIP Control	1. Enable VoIP Control		1. Disable
		2. Max. VoIP Number		2. 0
	DHCP Snooping			1. Disable
	DHCP Relay	1. Enable DHCP Relay		1. Disable
		2. DHCP Server IP Addr		2. 0.0.0.0
	Link Check	Link Check		Disable
		IP Address 1~2		0.0.0.0
		Check Interval time(10-3600s)		20
Allow Check Failure Times(6-60)			6	
Enable Serial Capture			Disable	
TAP Offline Timeout Setting			60	
Time ACL Setting	Time ACL		Disable	
	Time ACL Message		Disable	
	VLAN ID(1-4094)			
	Time ACL Date	Starting Date		
		Ending Date		
	Time ACL Weekday	Monday ~ Sunday		Disable
	Time ACL Period	Start Time1~Starting Time4		00:00:00
		Ending Time 1~Ending Time4		00:00:00
Add/Edit/Delete				

Management			
User Management	Add User	User ID	
		Username	
		Password	
		Repeat Password	
		Login Limit	
		Used Duration	
		Total Online Time	
		Allowed MAC	
		Interface	
	Add/Apply/Cancel		
	User List	Edit/Delete	
System User Management	User Inactivity Time Threshold		3
	Add User	User ID	
		Username	
		Strong Password	
		Password length limit	6
		Password	
		Repeat Password	
		Lock user	Disable
		End time Setting	
		Remote Access	Disable
		Password Reuse Number	5
		Max Auth Fail Number	6
	User Authority	Select	
	User List	Edit/Delete	
Change Password	Current Password		
	New Password		
	Repeat New Password		
	Restore to Default Password		Disable
	Click here to go TAP password Settings		
Upgrade Firmware	Browse		
	Upload		
Backup/Retrieve Settings	Backup current settings to a file	Backup	
	Retrieve settings from a backup file	Browse/Retrieve	

	Restore to Factory Default Settings	Restore		
License Management	Export device ID numbers to a file	Export		
	Import a Certificate File	Browse/Import		
	Certificate Information			
Legal AP Management	Legal AP Settings	Type	AP MAC	
		Legal AP MAC Setting		
		Add/Confirm/Delete/Edit/Cancel		
		Legal AP manufacturer MAC		
		Legal AP manufacturer Name		
		Legal AP SSID Setting		
Save Configuration	Save Configuration		Disable	
	Confirm/Cancel			
Remote Control Management	SNMP	Enable/Disable	Enable	
		Trap Server 1	192.168.0.254	
		Trap Server 2	0.0.0.0	
		Read Community1	public	
		Read Community2		
		Write Community3	private	
		Write Community4		
		Listen IP	ListenAllIp	
	Telnet		Disable	
	SSH	SSH		Enable
		SSH Port		22
SSH Refuse Time			5	
Reboot	Reboot Wireless Switch		Disable	
	Reboot Reboot Thin AP		Disable	
	Shutdown Wireless Switch		Disable	
Information				
Service Adapter List	Number			
	Reboot			
Routing List				
Port Statistic Information		<ol style="list-style-type: none"> 1. WLAN Interface Statistic Information 2. WAN Interface Statistic Information 		
AP List	AP Search	Display Messages According To IP		

		Display Messages According To Mac	
		Display Messages According To AP Name	
		Display Messages According To AP Project Information	
		Display Messages According To Netcard	
		Choose a template issued for a batch of tap	default
	TAP Status Statistics		
	Deliver template to group TAPs/Scan/Refresh/Select All/Reboot/Restore to factory settings/Delete		
Station List	Wireless Station Scan	<ol style="list-style-type: none"> 1. Display Messages According To ID 2. Display Messages According To IP 3. Display Messages According To MAC 4. Display Message According To AP MAC 5. Display Message According To AP NAME 6. Display Message According To Authentication Type 	1.0
DHCP IP List	Including interface, MAC address, IP address, assignment time and expiration time		
Rogue AP List	Scan AP settings and rogue APs	Scan AP Type	ONCE
		Scan AP MAC	
		Add/Edit/Delete/Confirm/Cancel	
		Scan AP List	
		Scan/Stop	
		Scan rogue AP and filter rogue AP based on SSID	
		Rogue AP list	
Activity Log	Enable Syslog		Disable

	Syslog Server IP Address1		0.0.0.0
	Syslog Server IP Address2		0.0.0.0
	Port		514
	Display Messages According To Keyword		
	Log Window	Refresh/Save as/Clear	
System Information	Device Serial Number		
	Memory Storage		2G
	Memory Utilization		
	CPU Utilization		
	System Up Time		
	System Temperature		
RT User Stats	Real-time user statistic	1. Scope of Statistics 2. Time Interval	1. Entire Network 2. 5s
RT Traffic Status	Real-time traffic statistic	1. Scope of Statistics 2. Time Interval	1. Entire Network 2. 5s
Hist User Status	Historical user statistic	Scope of Statistics	Entire Network
Hist Traffic Status	Historical traffic statistic	Scope of Statistics	Entire Network
Phase II Features			
Redirect Automatically at Fixed Time			
User-defined portal Web page			
Automatic Channel Assignment			
Automatic Power Adjustment			
Rogue AP Detection			
Statistics Feature			

2.4 Product Performance Specification

The performance specifications of the product are as below:

Table -3 Environment Specification

Items	Specification
Manageable AP (Number)	Centralized Forwarding 64, Distributed Forwarding 256
Simultaneous Client Number	1024
DHCP Address Capability	1024 wireless users +256APs

MAC Address List Capability	32K
VLAN Number	4K

2.5 Environment specification

The Environment specifications of the product are as below:

Table -4 Environment Specification

Items	Information
Temperature, Ambient operating	0°C~40°C
Temperature, Ambient storage	-20°C~70°C
Humidity, Ambient operating and non-operating	5~95%RH, non condensing
Watchdog	Yes
Internal RTC with Li Battery	Yes
Warranty	1 years