



ZWA-G192 Wireless Outdoor AP/Client/Router

Revision History

Revision	Release Date	Summary
1.2.1		First release
1.2.2		Update wireless NIC driver(for Ad-hoc throughput)
1.2.3	01-Aug-2005	Radio ACK timing adjustment function Bandwidth Control function in client mode Firewall filters are up to 50 entries
1.2.4	12-Oct-2005	Update wireless NIC driver(re-association issue) Update factory default value restore function Clients expired time function added Update web pages
1.2.4.1	12-Dec-2005	Update wireless NIC driver Increase MAC address entry of wireless access control to 50 SNMP function modify Modify hardware factory default value reset function
1.3.0		Update wireless NIC driver SNMP private MIB Dynamic Route MTU size Web pages modify Firewall Device discovery tool modify STP default enabled HTTP port setting Bug Fixed of WEB UI Bandwidth control maximum and minimum rate Configuration automatically restore function Monitor daemon DHCP server System Log BusyBox

		Web server QoS
<u>1.3.0.1</u>	20-Mar-2006	Update Wireless NIC Driver SSH password bug fixed SNMP agent is opened for WAN port accessing

Revision 1.2.1

G192	
Division	Feature
WLAN	Enable/Disable wireless LAN interface
	802.11B/G/Mixed Mode Selection
	AP/Client/WDS/AP+WDS Network Type Selection
	Client Isolation
	Channel Auto Selection
	Mac Address Clone(Client Mode only)
	Fragment/RTS Threshold Setting
	Beacon Interval Setting
	Data Rate(1/2/5.5/11/6/9/12/18/24/36/48/54/Auto) Setting
	Short/Long Preamble Selection
	Open/Share/Auto Authentication Mode Selection
	IAPP
	802.11G Protection Mode
	SSID Hidden
	Active Wireless Clients List
	802.1x RADIUS client
	WEP 64/128 bits encryption
	WPA(TKIP)/WPA2(AES)/WPA2 Mixed Authentication
	Mac Address Access Control List
	Wireless Site Survey List
Wireless Distribution System	
LAN	Static IP/mask/gateway Setting
	DHCP Client
	DHCP Server
	STP
	Mac Address Clone
WAN	Static IP/mask/gateway/DNS Setting
	DHCP Client
	Mac Address Clone
	DDNS

	UPNP
	PPPoE
	Continuous/Manual/On-Demand Connection Type Selection
	MTU Size Setting
	PPTP
	Port Filtering
	IP Filtering
	Port forwarding
	DMZ
	IPSec VPN MD5/SHA1 authentication ESP 3DES/AES128 encryption
SYSTEM	Time Zone
	SNMP v1/v2c agent & standard MIB II
	Setup Wizard
	Gateway/Bridge/Wireless ISP Operation Mode Selection
	WAN/LAN/WLAN Packet Statistics
	System Status
	Configuration Save/Restore
	Firmware Upgrade
	SSH CLI Configuration
	WEB GUI Password Management

Revision 1.2.3

1. ACK timing

For long range transmission purpose, the range of ACK timing is $0 \sim 4 * 255 \text{ us}$

2. Bandwidth Control

- a. Only available when the radio mode is set to client mode
- b. Upstream rate means the rate of packets are outgoing through WLAN interface
- c. Downstream rate means the rate of packets are outgoing through Ethernet interface

3. Firewall filters are up to 50 entries

- a. Expand the configuration area for more filter entries
- b. Modify flash MTD driver in Bootloader and Linux kernel.

Revision 1.2.4

1. Update wireless NIC driver

Fix continuous re-association problem when G192 as a client and associate to an AP with hidden SSID.

2. Factory default value restoring function

Fix the bug of sometimes when user continuously press reset button over 5 seconds to restore the default value, the kernel will be crashed since the flash device resource is hold by another process.

3. Expired time of clients

Add expired time tuning function to allow clients stay longer in associated status.

4. Web pages

Fix typo in web pages and the erratically wrong number of active association clients in status web page.

Remove the user account “super” of Goahead web server

Revision 1.2.4.1

1. Update wireless NIC driver
 - a. Fix the bug of the client device can't be wake up when entering the power saving mode
 - b. Increase the maximum associated client number to 128

2. Increase the MAC address entries of wireless access control to 50
Increase the number of MAC address filters from 20 to 50

3. SNMP management function modify
 - a. Add SNMP trap function
 - b. Add one web page for SNMP function, add the input items of SNMP enabled, system community string, system name, system location, system contact, trap receiver IP address 1~3, trap community string 1~3

4. Fix the system crash bug
Fix the bug of the system will crash when pppoe daemon is running then user trigger the hardware default value rest button

Revision 1.3.0

1. Update wireless NIC driver
 - a. Add “universal repeater mode“ , let radio act as AP and client in the same time
 - b. Expose the AP information when it doesn't broadcast SSID in BSS database

2. Add private MIB
 - OID 1.3.6.1.4.1.99.1 show device mode
 - OID 1.3.6.1.4.1.99.2 show SSID
 - OID 1.3.6.1.4.1.99.3 show CHANNEL
 - OID 1.3.6.1.4.1.99.4 show BAND
 - OID 1.3.6.1.4.1.99.5 show RSSI
 - OID 1.3.6.1.4.1.99.6 show active client number
 - OID 1.3.6.1.4.1.99.7 show active client list (MAC address,Tx packet,Rx packet,Tx Rate,Power-Saving,Expired Time,RSSI)
 - OID 1.3.6.1.4.1.99.8 show encryption mode

3. Dynamic Route

RIP v1 & v2, only the connected devices with RIP capability will exchange the routing messages.

4. MTU size

Expose MTU parameter of bridge & wlan interface for advanced user modification.

5. Web Pages modify
 - a. Status page: display status of universal repeater interface if enabled , show receiving signal strength in dbm and quality if client mode is enabled , fix the bug of erratic number of active client
 - b. Wireless Basic Setting page: universal repeater mode
 - c. Wireless Advanced Setting page: MTU size
 - d. Site Survey page: RSSI with dbm unit and show hidden SSID AP information, add signal quality item , add auto-refreshing function
 - e. TCP/IP LAN page: add MTU size input item
 - f. TCP/IP WAN page: IPSec/PPTP/L2TP VPN pass through
 - g. Route page added.

- h. Miscellaneous page added
 - i. QoS page added.
 - j. Bandwidth Control page: maximum and minimum rate adjustment.
6. Firewall
 - IPSec/PPTP/L2TP VPN pass through
 7. Device Auto Discovery Tool modify
 - Add more information such like RSSI/WDS LIST/ACTIVE CLIENTS....
 8. Default STP enabled
 9. Configurable port of http in Miscellaneous page
 10. Revise the maximum and minimum rate of bandwidth control function.
 11. Add a flash partition to store configuration data permanently when firmware upgrading and restore compatible configuration in the future firmware version after 1.3.0
 12. Add a monitor daemon to watch a: default value reload requirement. b: webs daemon c: refreshing RSSI every minute when device in client mode
 13. Force to disable DHCP client/server when the device is set to client-bridge mode
 14. Enlarge the size of log to 32k , add SSH authentication and monitor daemon information into system-call log.
 15. Upgrade the version of BusyBox to 1.1.0
 16. Web Server
 - a. Decrease the login timeout to 2 minutes
 - b. Enlarge the memory buffer of web server
 - c. Fix the bug of redundant login
 17. QoS
 - Shaping and queuing traffic from LAN (WLAN) to WAN or LAN to WLAN, not WLAN to WLAN by IP/ MAC address, Port range.

This function is still under tuning, bandwidth priority is OK, but filters priority, IP TOS need to be tuned.

Revision 1.3.0.1

1. Update wireless NIC driver]
Fix the bug of data rate can't be dynamic switching when the device in client mode
2. Fix the bug of the SSH password can't be changed by CLI
3. Open the SNMP agent for WAN port accessing