

ChangeList

Date Released : 17th Aug, 2010
Latest Firmware Version : wp543_abgn_v222_b100817.img

Supported Hardware:

MMC/MMJ/MMS with WLM200NX
MMC/MMJ/MMS with WLM200N2
MMC/MMJ/MMS with WLM200N2_26
MMC/MMJ/MMS with WLM200N5_23 ESD
MMC/MMJ/MMS with WLM200N5_24
MMC/MMJ/MMS with WLM200N5_26
WP543A HV (with 2 miniPCI slots)

Changelog (V222_B100817)

1. Fixed: WPA/WPA2 not connecting/slow to connect with WLU150N2-23.
2. Fixed: HT40 drop to HT20 when using with WLU150N2-23.
3. Fixed: HT40 drop to HT20 when using 2.4GHz with WLM200 Series card in PC.
4. Fixed: In point to multipoint scenarios, throughput from AP to Compex Station becomes low.
5. Improved: Algorithm in Multicast packets.
6. Fixed: Stay at HT20 when using 2.4GHz using AR9223-based chipsets (WLM200N2, WLM200N2-26)
7. Fixed: "Cannot get Ethernet Port Status" appearing in webpages.
8. Fixed: Using WP543A HV with 2 miniPCI Slots, when you disable Radio 1, Radio 2 will disappear from the Status.
9. Fixed: Backup config not working in IE6/IE8
10. SNMP: Added MAC Counters (Support up to 4 cards)
11. SNMP: Added Associated Clients (Support up to 4 Clients)
Document: Compex_SNMP_V222_B100817
MIB File: compex_V2.22_B100817.mib
12. Fixed: Alert about rate reduction when using IEEE802.1X Security

Changelog (V221_B100625)

1. Fixed: Looping in Wireless
2. Fixed: 2.3GHz not connecting to Mikrotik APs.
3. Changed: SuperChannel >5.740GHz frequencies, changed to normal bands.
4. Added: DHCP server Gateway IP option. If left blank, the LAN IP will be used as the
5. Fixed: SuperChannel < 5.0 GHz frequencies, compatible with Mikrotik APs.
6. Fixed: Compatibility with Mikrotik 4.10 Firmware (Transmit/Receive able to reach 300Mbps)
7. Fixed: DFS not properly working under certain conditions.
8. Fixed: IEEE802.1X not working properly. Note: For this type of security, we can only connect at Legacy Transmit Rates.

9. Added: Ability to disable reset button in the Telnet
10. Fixed: With 2 cards slots, the radios would not connect to each other if one is an AP and the other is a Station.
11. Added: PPTP Client on WAN Interface.
12. Fixed: WPA Bug, hostapd cannot startup after WEP keytype was previously set to HEX.
13. Fixed: Password reset using reset button not working.
14. Added: DHCP Server Gateway IP option added.

Changelog (V212_B100512)

1. Fixed: ARP Leaks in Router Mode
2. Added: DHCP Server Description for DHCP Server Reservations.

Changelog (V211_B100428)

1. Added: More Status in Status Page, including
 - a. Ping Utility
 - b. ARP Table
 - c. Bridge Table
 - d. DHCP Server Leases
2. Added: Bandwidth Control in Bridge Mode (In Basic Network)
Note: In bridge mode, we can only control the total upload and download speeds.
3. Added: DHCP Server Reservations (In Basic Network)
4. Changed: Refresh Button relocated in Status page for easy maneuvering.

Changelog (V210_B100419)

1. Fixed: Disable DHCP Server when under DHCP Client Mode
2. Added: Refresh Button in Status for every radio.

Upcoming features for next revision of firmware:

- a. Certain Web Tools, e.g. Ping Utility, ARP Table, Bridge Table
- b. Bandwidth Control in Bridge Mode
- c. DHCP Reservations

Changelog (V209_RC5_B100401)

1. Fixed: Station Mode with VLAN Switch on certain boards not able to transfer packets to the PC.

Changelog (V209_RC4_B100331)

1. Added: SNMP Read for:
 - a) Statistics: Loader Version
 - b) Wireless Statistics (For AP / AP WDS Only):
 - Connected Station MAC Address (Only 1 can be displayed)
 - Connected Station RSSI (Only 1 can be displayed)

Connected Station TX Rate (Only 1 can be displayed)
Connected Station RX Rate (Only 1 can be displayed)
Connected Station Channel Width (Only 1 can be displayed)

Note: Updated MIB File: V2.03_B100331

2. Added VLAN Modes

a) VLAN Switch Mode

(Note: It will only work in Bridge Mode, Not Router Mode)

This is a mode that emulates a VLAN Switch. We treat Ethernet Ports, the Main AP, 3 other Virtual Access Points as Ports, thus forming a port-based VLAN. You can choose to tag or untag the VLAN IDs being selected for the ports. You can also select the default VLAN ID to go out of the port, if the incoming packet is not a VLAN packet.

Incoming Strategy:

1. If the incoming packet is a VLAN packet, then we will check the VLAN ID. If the port contains the VLAN ID of the VLAN packet. If not, directly discard the VLAN packet.
2. If the incoming packet is not a VLAN packet, then we will definitely accept. It will then become the VLAN packet with the default VLAN ID of the port when it comes out of that particular port. This is IEEE802.11q standard.

Outgoing Strategy:

1. From the Incoming Strategy 1, if the incoming VLAN packet is accepted, the outgoing packet will be tagged/untagged depends on whether the VLAN ID used is tagged /untagged.
2. If the packet comes from inside the device e.g. web server, dhcp server, etc, or whichever packet that has no route going in first, then we will go out as the default ID of the port, tagged/untagged depending on the VLAN ID of the device.

b) VLAN Management Mode

This is a mode for customer to use VLAN to manage our device.

- Each Tag is an individual IP Address.
- Select which is the management IP that can access the web server of the device.
- If a non-VLAN packet enters the device, it will be pass-through.
- If a VLAN packet that is not specified enters the device, it will be pass-through.

Note:

1. We do not claim to be compatible with every VLAN Switches. Please test it before you apply in large scale applications.
2. Throughput will be affected by 5% to 10% because of the need to add VLAN Tags.
3. Only work in Bridge Mode. It will NOT work in Router Mode.
4. Only work with AP, AP WDS, Station, Station WDS modes. Would NOT work with Repeater Mode.

3. Fixed: Interference Analyser pressed more than 1 time would hang the board.

Changelog (V209_RC3_B100305)

1. Added: SNMP Read for:
 - a) Basic Wireless - Wireless Mode , SSID, Hide SSID, Wireless Profile, Channel/Frequency, Data Rate (Mbps), Wireless Mode
 - b) Advance Wireless – Beacon Interval, RTS Threshold, Fragmentation Threshold
 - c) Basic Network – IP Address, Network Mask, Gateway IP, DNS Address
 - d) Statistics – Firmware Version, UpTime
 - e) Other Statistics – RSSI, Association Count (Both SNMPget and SNMPwalk is able to get the address)
2. Fixed: AP is not able to keep scan list after Apply
3. Fixed: Station is not able to see any AP if encryption is not enabled.
4. Fixed: Router + Station => Hang after apply and save 2 times.
5. Added: Transmit CCQ (In Status Page)
6. Fixed: ACK Timeout falling below default values, causing very bad performance.
7. Fixed: Router + Station => From 10MHz to 20MHz, would cause Station to hang, if it is a PPPoE client.
8. Fixed: When Station changed from Router to Bridge while still connected to PPPoE, the wireless hang there. Have to reboot.
9. Fixed: Restore Config will lead to a blank page.
10. Fixed: Eliminate long wait during startup if dhcp client is enabled.

Changelog (V209_B100208)

1. Fixed: Web Page Cannot Save Configuration after reset to factory default
2. Added: Transmit CCQ (Experimental Feature) (Status Tab)
3. Added: Number of Connected Clients (In AP mode Only) (Status Tab)

Changelog (V208_B100203)

2. Added: Included Left/Right Chain Signal Strength (In Status Page)
3. Fixed: Admin User name is able to synchronize with the telnet admin user name.
4. Fixed: Station Mode, under WPA, can scan 5.825GHz and above in SuperChannel Mode.
5. Added: Antenna Alignment (In Status Page)
Note: Antenna Alignment only works in Station Mode, and can only see a value when it is linked up.
6. Fixed: AP and Station under WPA/WPA2 connect very slowly. (A Bug introduced in V2.07)
7. Fixed: SuperChannel, 5/10MHz, crash after 2 minutes when running throughput. (A Bug introduced in V2.07)
8. Fixed: Correct Noise Level (In Status Page)
9. Fixed: Station changed to AP mode, if have not press “Apply”, Interference Analyzer cannot be chosen.
10. Fixed: Auto ACK not working properly (A Bug introduced in V2.07)

Changelog (V207_B100121)

1. Improved: Site Survey responds faster, and web page has been made cleaner.

2. Fixed: Cannot change Admin User Name
Current Bug: The Admin user name cannot synchronize with the telnet admin user name. Compex is working on it, and will release a next version solving this bug.
3. Fixed: STP with WPA, cannot link, with VLAN Switches.
4. Fixed: Issues with Cisco switches, with VLAN.
5. Fixed: Site Survey cannot scan the extra channels in 5MHz, 10MHz Bandwidth.
Current Bug: In 5MHz, using WPA as security, the station is not able to connect to an AP with frequency 5.825GHz and above. Compex is working on it, and will release a next version solving this bug.
6. Fixed: WAN DHCP is not able to get IP.
7. Added: Mac Clone for the Routing Mode.
Please Add the MAC Address that you want to clone for the WAN port.
8. Fixed:
Max Slottime
 - a. Changed to 200 for 20MHz
 - b. Changed to 400 for 10MHz
 - c. Changed to 800 for 5MHz.
9. Fixed:
Max ACK Timeout/CTS Timeout
 - d. Changed to 409 for 20MHz
 - e. Changed to 818 for 10MHz
 - f. Changed to 1636 for 5MHz.
10. Fixed: DFS Channels Changing might cause kernel panic.
11. Fixed: NTP Client with Bridge
12. Added: Interference Analyser (Experimental - Can only work with 20MHz or 20/40MHz)
 - g. Able to allow customers to see which are the channels badly affected by the other APs.
 - h. In 11n, channels have extension channels. It will interfere with the current channels in other APs, and thus we need an analyzer to see which control channels and main channels are being affected.
 - i. This feature is still experimental – please give us feedback. As of now, it has been tested working well in heavy interference areas.
13. Fixed: In “No Country” setting, 11BGN has channels 2467, 2472. It should only have channels from 2412 to 2462 in “No Country” setting.
14. Fixed: In Basic Wireless, Changing of transmit Power setting does not become effective.

Changelog (V207_RC1_B091130)

1. Fixed: Admin User for telnet is not able to set commands.
2. Fixed: Webpage bugs - 11na changed to 11ng, datarates and channels not updated properly.
3. Fixed: Choose DHCP IP at station mode, after apply changes 2 times, will hang the board, can only reboot to recover.
4. Fixed: In SuperChannel, using 11NA band, using 5MHz bandwidth, you can only set the channels until 5.645GHz.
5. Fixed: In IE6, “Loading” after Apply does not appear.
6. Fixed: In IE6, 11ng modes show only until 270Mbps.

7. Fixed: NTP Client not working.
8. Fixed: Auto-Reboot by time not working.
9. Fixed: VLAN Passthrough - Able to handle jumbo packets.

Changelog (V206_B091111)

1. Synchronize change of password from web and telnet.
2. Fixed: Ping Watchdog cannot be used.
3. Improved Auto ACK Timeout Algorithm.
4. Fixed: Station WDS compatible with Mikrotik BTS, using WPA.
5. Fixed: Site Survey hang.
Note: Using of Site Survey will cause link to break off for a while, and it will recover shortly.
6. Fixed: AP WDS/AP to Station WDS/Station cannot send multicast packets.
7. Fixed: 10MHz instability with WLM200N5-23
8. Fixed: 11NG not able to reach HT40 throughput
9. Added: Ability to disable LAN Port
10. Added: AP Scan List
11. Added: LAN Port Status
12. Fixed: System Name able to appear on Mikrotik Firmware, using Compex as Station or Station WDS.
13. Added: SuperChannel

Able to choose 2.312GHz to 2.502GHz in all bandwidths.

Able to choose 4.92GHz to 6.1GHz in all bandwidths.

Note:

- a. Customers are to note that, Compex is NOT RESPONSIBLE for the customer's usage of channels. They are to make sure that the channels are suitable for their countries before they select the appropriate country codes.
- b. Because there are more channels, the station would take more time in order to scan the channels. Please wait a little longer to be able to see the channels.
- c. Please make sure that the antenna that you are using fulfills that range of frequencies. If you use the wrong frequency, you might suffer a burnt miniPCI.
- d. Antenna on MMJ, MMS for 2.4GHz supported only from 2.412GHz to 2.484GHz
- e. Antenna on MMJ, MMS for 5GHz supported only from 5.475GHz to 5.875GHz.

Current Bugs:

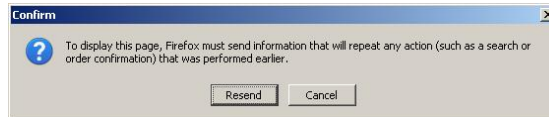
- a. Using 11na band, using 5MHz bandwidth, you can only set the channels until 5.645GHz. Compex is working on this, and will come up with a solution in the next firmware release.
 - b. Site Survey cannot scan the extra channels. Compex is working on this, and will come up with a solution in the next firmware release.
14. Added: Status to support multiple cards.
Note: Multiple cards option is not available on WPJ543 boards.
 15. Added: Warning for WPA-TKIP or WEP, which the selection of such security will lead to LEGACY throughputs.

Changelog (V206_RC1_B091013)

1. More stability in DFS Channels.

Changelog (V205_B091009)

1. Added: Telnet commands can be used.
(List to be obtained from Support, we would put it up online next time.)
2. Fixed: Upgrading of firmware from 2.0x to 2.0x firmware, causes webpage to send a “Resend” in Mozilla Firefox, eg. below. Subsequent change in configuration causes board to hang.



When you upgrade to V2.05, you would still encounter the above figure, as you are still in old firmware. Please press “Cancel” to continue. This bug would be fixed from V2.05 onwards.

3. Fixed: In US Country code, 5745 to 5825 would connect at a lower legacy band. (This is a bug introduced in V2.04). All other versions do not have such bugs. This is a bug in Station after connecting to AP.
4. Added: Guest Account (Username: guest, Password: guest)
Can only view status. Introduced during initial version, only resolved the kinks now.
5. Fixed: Guest Account cannot see any wireless statistics.

Changelog (V204_B090930)

1. Fixed: Site Survey Link Cache too long. Therefore it will not scan even if one board is down.
2. Fixed: Site Survey during Ping does not scan.
Note: Packets sent during Site Survey will be dropped for a few seconds. This is because Station needs to scan for the AP.
3. Fixed: Station does not scan for another AP when there are 2 APs in the same range and does not roam when the connected AP lost its signal.
4. Fixed: Web Page Bugs
5. Improved timing of webpages by around 60%.
6. DHCP Server Disabled by default. (In Basic Network)
7. Fixed: On DFS mode, clients will not link back after jumping channels for 2 to 3 times.
8. Added: DHCP Fallback IP
9. Added: Verification for the Advanced Network Page
10. Added: Telnet by guest account is able to be used.
11. Fixed: More stable output on DFS Channels.
12. Added: Maximum Power (In Basic Wireless)
To be able to select the maximum power given card and/or regulatory restrictions. Untick the regulatory restrictions if only want power to be restricted by miniPCI power.
13. Added: Obey Regulatory Power (In Basic Wireless)
Tick to obey the regulatory power set by different countries.
14. STP is moved from Advanced Network Tab to Services Tab.

Changelog (V203_B090827)

1. Added manual setting of TX and RX Chainmasks (In Advanced Wireless)

2. Added Maximum Regulatory Power (In Basic Wireless)
 - Maximum Regulatory Power of the channels.
 - Regulatory power varies from country to country. Please check with the local authorities.
3. Added Option for Auto or Static DNS (In Basic Networks)
4. Added Static Routing (In Advanced Networks)
5. Added Remote HTTP (In Advanced Networks)
6. Added Multicast Routing (In Advanced Networks)
7. Fixed: WLAN not up after “apply and save” in Advanced Network, during some circumstances.
8. Fixed: Jumping of frequencies in the beginning if channel is in DFS range.
9. Reset to default if current configuration is using old V1.x firmware, to prevent crash of firmware during upgrading.
10. Support Preferred AP with WPA encryption.

Changelog (V202_B090804)

1. Added Channel Spectrum Width
 - 5MHz and 10MHz – Applicable to 2.4GHz and 5GHz.
 - Compatible with WP54 SuperChannel, WP543 ABG SuperChannel, UB, Mikrotik V2.9.43
2. Added Selection of Guard Interval
 - 5MHz – Only choose Long
 - 10MHz – Only choose Long
 - 20MHz – Only choose Long
 - 20/40MHz – Can choose Long/Short
3. Updated MCS TX Rates according to the Channel Spectrum Width and Guard Interval Setting.
4. Added Australia2, Canada2 and Belgium2 Country Code
5. Added Radio Off When No Ethernet (In Advanced Wireless)
6. Added Station Isolation (In Advanced Wireless)
7. Updated WPA to the latest stable version with improved WPA algorithm.

Changelog (V200_B090713_BETA)

1. Added: Preferred AP
 - Note: Have not supported WPA for Preferred AP.
2. Added: Outdoor Channels (Enabled in Long Range Parameters)
 - a. If enabled “Long Range Parameters” in “Advanced Wireless”, the channels in certain EU countries become outdoor channels (5500 – 5700)
 - b. For EU Countries, AP only display 5500-5700
 - c. For EU Countries, Station only scan 5500-5700
 - d. If enabled, it will show in Basic Wireless for the status.
3. Fixed: Using WLM200N2_26, the power displayed would be 26dBm.
4. Fixed: India’s extended channels

Changelog (V200_B090703_BETA)

1. Fixed: If use N5 card or N2 card, both NA and NG modes appear.

2. Fixed: High power card show power to 1044.
3. Fixed: VAP1 cannot be used.
4. Added: Country Code's Channel Lists –
 - a. EU 5725 – 5825 (14dBm max – Web Page shows 11dBm, because 2 streams add up to give 14dBm)
 - b. India added channel 5845 and 5865.
 - c. Updated FCCA of NG band to 30dBm
5. Fixed: NG band randomly dropped to low throughput.
6. Added: Channel Scan List
Channel Scan List allows the user to select certain channels to be scanned by the Stations. This improves the efficiency of the firmware.
7. Signal Strength Indicator
User is able to select signal strength for use on the LED selection.
8. Added: Firewall
9. Added: Status show current Channel Bandwidth being used – 20MHz or 40MHz.
10. Improvement in Auto ACK Timeout selection.
11. Fixed: Repeater WDS Mode Crash.

Changelog(V200_B090618_BETA)

1. Added: Rate Aggressiveness
Allows user to reduce or increase transmit rate while still remain in Fully Auto Algorithm. Environment might be noisy at times. You might want a lower throughput to ensure better stability. Rate Aggressiveness allows you to reduce the transmit rate, so that range or power can be higher. Choose a range of value from -3,-2,-1.
Environment might be free of interference. But the fully auto algorithm gives you low throughput than you expected. Rate Aggressiveness allows you to increase the transmit rate, so that throughput can be higher. Choose a range of value from +3, +2, +1.
2. Added: Auto ACK Timeout (In Beta, preliminary testing is OK, we welcome feedback from customers)
ACK Timeout is very important in outdoor environment. Auto ACK Timeout strives to dynamically change the ACK Timeout according to the changes in outdoor environment.
3. Added: Adaptive Noise Immunity (In Beta, preliminary testing is OK, we welcome feedback from customers)
Noise Immunity strives to eliminate on board noise and noise from the environment, giving a more stable link.

Changelog(V200_B090616_BETA):

1. Updated Latest Atheros 11n Drivers.
2. Ethernet port can ping large packets
3. Wireless features still in Testing, please do not use the below features:
 - a. WPA with Preferred SSID
 - b. WPA with Hidden SSID
 - c. Channel Scan List

- d. WEP
- e. Rate Aggressiveness