# *ZyXEL*

**Firmware Release Note**

# P650R-31

# Standard version

**Release 3.40(GT.2)C0**

**Date:**             **May 19, 2003**
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# ZyXEL P650-R31 Standard Version release 3.40(GT.2)C0 Release Note

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## Supported Platforms:

ZyXEL P650R-31

## Versions:

ZyNOS Version    : V3.40(GT.2) | 5/19/2003 10:45:30
Bootbase Version    : V1.11 | 3/4/2003 10:26:13

## Notes:

## Known Issues:

## Features:

**Modifications in V 3.40(GT.2)C0 | 5/19/2003**
1.  Change FCS version

**Modifications in V 3.40(GT.2)b1 | 5/7/2003**
1. Update modem code to 3.9.122
2. [FEATURE CHANGED] Use AT command "atld" without enabled debug flag
3. [FEATURE ENHANCED] Add WAN feature (in Advance Panel) and improve wizard configuration in web-pages.
4. [BUG FIXED]
   Symptom: Protected "rom-0" file, when user no login.
   Condition: Protected "rom-0" file, when user no login.
5. [BUG FIXED]
   Symptom: DHCP client doesn't release the IP address when the IP address is expired
   Condition: System is configured in "enet encap" (DHCP client), and sometimes DHCP server doesn't response in a period of time, when the lease time is expired system should release WAN IP address

**Modifications in V 3.40(GT.1)C0 | 12/2/2002**
1.  [BUG FIXED]
   Symptom: Bad DNS packets cause system reboot.
   Condition: Bad DNS packets cause system reboot.
2.  [BUG FIXED]
   Symptom: LAN external loopback failed in HTP.

Condition: LAN external loopback failed in HTP.

**Modifications in V 3.40(GT.1)b4 | 11/22/2002**
1. [BUG FIXED]
    Symptom: Cell lost at the upstream.
    Condition: Cell lost at the upstream.

**Modifications in V 3.40(GT.1)b3 | 11/19/2002**
1. [BUG FIXED]
    Symptom: Ping and TFTP functions sometimes do not work.
    Condition: Ping and TFTP functions sometimes do not work.
2. [BUG FIXED]
    Symptom: We can not save CBR/VBR setting in the web configuration.
    Condition: We can not save CBR/VBR setting in the web configuration.

**Modifications in V 3.40(GT.1)b2 | 11/7/2002**
1. [BUG FIXED]
    Symptom: 8 VCs bridge mode does not work.
    Condition: When we send the 1518 bytes packets from AX4000 in 8 VCs bridge mode, the system can't transmit and receive any packets.
2. [BUG FIXED]
    Symptom: When you set PPPoA/PPPoE nailed-up mode and change the encapsulation mode, you will not dial out again.
    Condition: When you set PPPoA/PPPoE nailed-up mode and change the encapsulation mode like PPPoA/LLC -> PPPoA/VC, you will not dial out again.
3. [BUG FIXED]
    Symptom: DDNS does not work at 1483 mode.
    Condition: When the encapsulation is 1483 and we change the ip setting for this channel, the ddns would not change the ip address for this domain name.

**Modifications in V 3.40(GT.1)b1 | 10/31/2002**
1.  [FEATURE ENHANCED] Add UPNP Feature.
2.  [FEATURE ENHANCED] Add Traffic Redirection Feature (detected by ADSL Line)
3.  [BUG FIXED]
    Symptom: The command "atba5" does not work in debug mode.
    Condition: The command "atba5" does not work in debug mode.
4.  [BUG FIXED]
    Symptom:  When we change the console baud rate, the system will display garbage.
    Condition: Change the console baud rate in the debug mode.
4.  [BUG FIXED]
    Symptom: **We** cannot configure DDNS in SMT.
    Condition: We cannot find any field to configure DDNS in SMT.
5. [FEATURE ENHANCED] Add the Core Checksum function.
6. [FEATURE ENHANCED] Add the PPPoA idle timeout function.
7. [BUG FIXED]
    Symptom: The web page displays the incorrect modem code version.

Condition: The web page displays the incorrect modem code version.
8. [BUG FIXED]
Symptom: ATM loopback test fail in web configuration.
Condition: ATM loopback test fail in web configuration.
9. [FEATURE CHANGED] Modify the default rom file for standard version.

**Modifications in V 3.40(GT.0)c0 | 10/09/2002**
1.  Rename version from 3.40(GT.0)b9.

**Modifications in V 3.40(GT.0)b9 | 10/04/2002**
1. [BUG FIXED] The Web ATM status error display.
2. [BUG FIXED] No prompt to clear error log in TELNET session and could lead user not to clear log.
3. [BUG FIXED] Can't perform ATM loopback in Web diagnostic page.

**Modifications in V 3.40(GT.0)b8 | 09/25/2002**
1. [FEATURE CHANGED] Add no logo request for China.
2. [FEATURE CHANGED] Add dying gasp recover that if dying gasp exceeds specified counter, system will reset.
3. [BUG FIXED] Create default romfile to correct some wrong settings.
4. [BUG FIXED] Fix f/w upload problem through Web configuration.
5. [BUG FIXED] Fix bug that the first letter of string "My Password=" is covered by exceeded length of the previous field in SMT4.
6. [BUG FIXED] The system may reset from fatal error log when line link up, the cause is due to double free data buffer.
7. [BUG FIXED] Change the PPP encapsulation to PPPoA.
8. [BUG FIXED] Modify "sys romreset" to query user if want to restore default romfile.
9. [BUG FIXED] Add Web help pages.

**Modifications in V 3.40(GT.0)b7 | 09/13/2002**
1. [BUG FIXED] Fix HTP SAR loopback test problem which no DMA can be triggered.

**Modifications in V 3.40(GT.0)b6 | 09/12/2002**
1. [BUG FIXED] In PPPoE connection, if the dynamic WAN IP address is different from the previous one, the ping packet to WAN could not get reply for the source IP address is still the previous one.

**Modifications in V 3.40(GT.0)b5 | 09/11/2002**
1. [BUG FIXED] When power on router, the exception occasionally happens due to periodical SAR timeout reset in case of cell rate calculation by zero speed before line link up.

**Modifications in V 3.40(GT.0)b4 | 09/04/2002**

1. [BUG FIXED] ADSL link up/down cause mbuf buffer leakage and no data can be transferred.
2. [BUG FIXED] Web configuration could cause system crash.
3. [BUG FIXED] HTP Ctrle initialization fail problem.
4. [BUG FIXED] ADSL link up/down cause mbuf buffer leakage and no data can be transferred.
5. [BUG FIXED].Can't open multiple VC connections in routing mode.
6. [FEATURE CHANGED] Add SAR reassembly timeout to prevent affecting throughput while cell lost occurs.
7. [FEATURE CHANGED] HTP UART internal loopback testing.

## Modifications in V 3.40(GT.0)b3 | 08/19/2002
1. [BUG FIXED] SAR reassembly big packet problem which could cause system crash.
2. [BUG FIXED] MAC reset problem which could cause FTP throughput degradation and discontinuous PING.

## Modifications in V 3.40(GT.0)b2 | 08/15/2002
1. [FEATURE CHANGED] Change modem code from 3.8.164 to 3.8.163 for line quality verification.
2. [FEATURE CHANGED] Adjust gain values in autoexec.net after system reboot. User should update rom file.
3. [BUG FIXED] SAR Rx DMA problem that results in no packet received.

## Modifications in V 3.40(GT.0)b1 | 08/08/2002
1. [FEATURE CHANGED] Add dying gasp support.
2. [FEATURE CHANGED] Add PPPoE connection LED indication.
3. [FEATURE CHANGED] Add Reset Botton implementation.
4. [FEATURE CHANGED] CI command to display SAR MIB counter.
5. [BUG FIXED] Check rate adaption when Ctrl-E responses signal lost, it causes line to drop immediately.
6. [BUG FIXED] Can't get the correct modem version.
7. [BUG FIXED] DHCP can't work if we setup DHCP service.
8. [BUG FIXED] Can't telnet from PC to P650R-31 * PCE OS WIN98, WIN2000, or WINXP , when key the password then the link will be break off.
9. [BUG FIXED] Occasionally user can't ping router successfully in Win2000/XP. The bug could cause ether driver can't send packet.

## Modifications in V 3.40(GT.0)a1 | 07/12/2002
1. [NEW FEATUER] Add VBR support in SMT menu4 and menu11.6.

## Annex A CI Command List

| Command Class List Table | | |
|---|---|---|
| System Related Command | Exit Command | Ethernet Related Command |
| WAN Related Command | IP Related Command | Bridge Related Command |
| | | |

System Related Command            Home

| Command | | | Description |
|---|---|---|---|
| sys | | | |
| | adjtime | | retrive date and time from Internet |
| | atsh | | display MRD field |
| | callhist | | |
| | | display | display call history |
| | | remove | <index> | remove entry from call history |
| | countrycode | [countrycode] | set country code |
| | date | [year month date] | set/display date |
| | domainname | | display domain name |
| | edit | <filename> | edit a text file |
| | extraphnum | | maintain extra phone numbers for outcalls |
| | | add | <set 1-3> <1st phone num> [2nd phone num] | add extra phone numbers |
| | | display | display extra phone numbers |
| | | node | <num> | set all extend phone number to remote node <num> |
| | | remove | <set 1-3> | remove extra phone numbers |
| | | reset | reset flag and mask |
| | feature | | display feature bit |
| | hostname | [hostname] | display system hostname |
| | log | | |
| | | clear | clear log error |
| | | disp | display log error |
| | | online | [on\|off] | turn on/off error log online display |
| | stdio | [second] | change terminal timeout value |
| | time | [hour [min [sec]]] | display/set system time |
| | trcdisp | parse, brief, disp | monitor packets |
| | syslog | | |
| | | server | [destip] | set syslog server IP address |
| | | facility | <facilityno> | set syslog facility |
| | | type | [type] | set/display syslog type flag |
| | | mode | [on\|off] | set syslog mode |
| | version | | display RAS code and driver version |
| | view | <filename> | view a text file |
| | wdog | | |
| | | switch | [on\|off] | set on/off wdog |
| | | cnt | [value] | display watchdog counts value: 0-34463 |
| | romreset | | restore default romfile |
| | socket | | display system socket information |
| | ddns | | |
| | | debug | <level> | enable/disable ddns service |
| | | display | <iface name> | display ddns information |
| | | restart | <iface name> | restart ddns |
| | | logout | <iface name> | logout ddns |
| | cpu | | |
| | | display | display CPU utilization |
| | xmodemmo | [crc\|checksum] | select xmodem mode |

| | de | | | |
|---|---|---|---|---|

Exit Command

| Command | | | Description |
|---|---|---|---|
| exit | | | exit smt menu |

Ethernet Related Command

| Command | | | | Description |
|---|---|---|---|---|
| ether | | | | |
| | config | | | display LAN configuration information |
| | driver | | | |
| | | cnt | | |
| | | | disp <name> | display ether driver counters |
| | | status | <ch_name> | see LAN status |
| | | config | [0\|1=auto\|normal] [0\|1=10\|100] [0\|1=hd\|fd] <ch-name> | Configure LAN Settings Auto/Normal, 100/10 Mbps, Half/Full Duplex |
| | version | | | see ethernet device type |

WAN Related Command

| Command | | | | Description |
|---|---|---|---|---|
| wan | adsl | bert | | ADSL ber |
| | | chandata | | ADSL channel data, line rate |
| | | close | | Close ADSL line |
| | | coding | | ADSL standard current |
| | | ctrleint | | ADSL CTRLE response command |
| | | defbitmap | | ADSL defect bitmap status |
| | | dyinggasp | | Send ADSL dyinggasp |
| | | fwav | | Test the ADSL F/W available ping |
| | | fwdl | | Download modem code, but must reset first |
| | | linedata | | |
| | | linedata | near | Show ADSL near end noise margin |
| | | linedata | far | Show ADSL far end noise margin |
| | | open | | Open ADSL line |
| | | opencmd | | Open ADSL line with specific standard |
| | | opmode | | Show the operational mode |
| | | perfdata | | Show performance information,CRC,FEC, error seconds.. |
| | | rdata | [start] [length] | Read DSP CTRLE registers 512 bytes |
| | | reset | | Reset ADSL modem, and must reload the modem code again |
| | | selftest | | |
| | | selftest | long | ADSL long loop test |
| | | selftest | short | ADSL short loop test |
| | | status | | ADSL status (ex: up, down or wait for init) |
| | | version | | ADSL version information |
| | | vendorid | | ADSL vendor information |
| | | utopia | | Show ADSL utopia information |
| | | cellcnt | | Show ADSL cell counter |
| | | display | | |
| | | display | shutdown | Show the counter of rate adaptive mechanism happening |
| | | display | rateup | Show real status that rate adaptive mechanism happened |
| | | rateadap | [on\|off] | Turn on/off rate adaptive mechanism |

| | | | | |
|---|---|---|---|---|
| | | dumpcondition | [on\|off] | Turn on/off online debug information of rate adaptive mechanism |
| | | sampletime | [mins] | Tune the sample time of rate adaptive mechanism |
| | | noisegt | [db] | if noise margin is 3db greater than before, and rate is worse than before, then system will do "L1 shutdown RA3", default is 3db |
| | | noisemargin | [db] | if noise margin is greater than this value, and rate is worse than before, then system will do "L1 shutdown RA3", default is 8db |
| | | persisttime | [time] | when the adaptive condition is matched system will continue to monitor the time period "persisttime" before doing "L1 shutdown RA3", default is 30 seconds |
| | | timeinterval | [mins] | when "L1 shutdown RA3" is done twice, and still can't reach the max rate which system recorded, it will delay a time period that the period base time is"timeinterval" before starting again. The time-based default is 2 hrs |
| | | defectcheck | [on\|off] | Turn on/off detect table checking, default is on |
| | | txgain | [value] | Set the CTRLE register (0xc3), the value is from 0xfa to 0x06 |
| | | targetnoise | [value] | Set the CTRLE register (0xc4), the value is from 0xfa to 0x06 |
| | | maxtonelimit | [value] | Set the CTRLE register (0xc5), the value is from 0xfa to 0x06 |
| | | rxgain | [value] | Set the CTRLE register (0xc6), the value is from 0xfa to 0x06 |
| | | txoutputpwr | [value] | Set the CTRLE register (0xc7), the value is from 0xfa to 0x06 |
| | | rxoutputpwr | [value] | Set the CTRLE register (0xc8), the value is from 0xfa to 0x06 |
| | | maxoutputpwr | [value] | Set the CTRLE register (0xc9), the value is from 0xfa to 0x06 |
| | | errorsecond | | |
| | | errorsecond | switch [1\|0] | Turn on/off error sending to DSLAM side |
| | | errorsecond | sendes | Send current error second information immediately |
| | | dygasprecover | | |
| | | dygasprecover | level [value] | By default is 100, after receiving 100 dying gasp system will reboot |
| | | dygasprecover | active [on\|off] | Turn on/off this mechanism |
| | | rsploss | [1\|0] | Turn on means to response signal loss of CTRLE immediately, default is off |
| | | watchdog | [1\|0] | Watchdog for DSP |
| | atm | test | [fix\|rand\|period\|oam\|loopback] | Generate ATM traffic |
| wan | hwsar | disp | | Display hwsar packets incoming/outgoing information |
| | | clear | | Clear hwsar packets information |
| | | sendoam | | Send OAM packets: <vpi> <vci> <f5> <end-to-end> <type:0(AIS) 1(RDI) 2(LoopBack)> |

IP Related Command

| Command | | | | Description |
|---|---|---|---|---|
| ip | | | | |

| | address | | [addr] | display host ip address |
|---|---|---|---|---|
| | alias | | <iface> | alias iface |
| | aliasdis | | <0\|1> | disable alias |
| | arp | | | |
| | | status | <iface> | display ip arp status |
| | dhcp | | <iface> | |
| | | client | | |
| | | | release | release DHCP client IP |
| | | | renew | renew DHCP client IP |
| | | status | [option] | show dhcp status |
| | dns | | | |
| | | query | | |
| | | stats | | |
| | | | clear | clear dns statistics |
| | | | disp | display dns statistics |
| | icmp | | | |
| | | status | | display icmp statistic counter |
| | | discovery | <iface> [on\|off] | set icmp router discovery flag |
| | ifconfig | | [iface] [ipaddr] [broadcast <addr> \|mtu <value>\|dynamic] | configure network interface |
| | ping | | <hostid> | ping remote host |
| | route | | | |
| | | status | [if] | display routing table |
| | | add | <dest_addr\|default>[/<bits>] <gateway> [<metric>] | add route |
| | | addiface | <dest_addr\|default>[/<bits>] <gateway> [<metric>] | add an entry to the routing table to iface |
| | | addprivate | <dest_addr\|default>[/<bits>] <gateway> [<metric>] | add private route |
| | | drop | <host addr> [/<bits>] | drop a route |
| | status | | | display ip statistic counters |
| | udp | | | |
| | | status | | display udp status |
| | tcp | | | |
| | | status | [tcb] [<interval>] | display TCP statistic counters |
| | xparent | | | |
| | | join | <iface1> [<iface2>] | join iface2 to iface1 group |
| | | break | <iface> | break iface to leave ipxparent group |
| | igmp | | | |
| | | debug | [level] | set igmp debug level |
| | | forwardall | [on\|off] | turn on/off igmp forward to all interfaces flag |
| | | querier | [on\|off] | turn on/off igmp stop query flag |
| | | iface | | |
| | | | <iface> grouptm <timeout> | set igmp group timeout |
| | | | <iface> interval <interval> | set igmp query interval |
| | | | <iface> join <group> | join a group on iface |
| | | | <iface> leave <group> | leave a group on iface |
| | | | <iface> query | send query on iface |
| | | | <iface> rsptime [time] | set igmp response time |
| | | | <iface> start | turn on of igmp on iface |
| | | | <iface> stop | turn off of igmp on iface |
| | | | <iface> ttl <threshold> | set ttl threshold |
| | | | <iface> v1compat [on\|off] | turn on/off v1compat on iface |
| | | robustness | <num> | set igmp robustness variable |

| | | status | | dump igmp status |
|---|---|---|---|---|

Bridge Related Command

| Command | | | | Description |
|---|---|---|---|---|
| bridge | | | | |
| | cnt | | | related to bridge routing statistic table |
| | | disp | | display bridge route counter |
| | | clear | | clear bridge route counter |
| | stat | | | related to bridge packet statistic table |
| | | disp | | display bridge route packet counter |
| | | clear | | clear bridge route packet counter |