



**Firmware Release Note**

**Prestige 645M-A1**  
**Standard Version**

**Release 3.40(KY.1)C1**

**Date:** May 10, 2005  
**Author:** Keil Chu

## **Prestige P645M-A1 3.40(KY.1)C1 Release Note**

---

Date: May 10, 2005

### **Supported Platforms:**

---

Samsung 8947+9850+8951

### **Versions:**

---

ZyNOS Version: ZyNOS Version: V3.40(KY.1) | 6/18/2003 17:42:50

Bootbase Version: V1.07t | 1/19/2005 14:56:56

### **Notes:**

---

Main features:

- ADSL

- Support Multi-Mode standard (ANSI T1.413, Issue 2 ; G.dmt(G.992.1); G.lite(G.992.2)).
- Auto-negotiating rate adaptation
- ADSL physical connection ATM AAL5 (ATM Adaptation Layer type 5)
- Support multi-protocol over AAL5 (RFC1483)
- Support PPP over ATM AAL5 (RFC2364)
- Support VC-based and LLC-based multiplexing
- F4/F5 OAM

- Hardware

- One 10/100M Ethernet UTP ports for LAN connection

**2. Modem code version: SAMSUNG, DSP Version 109.030225**

**3. Modem Setting :**

ADSL Standard	Multi
MinSNRMargin	6 db
TCM mode	ON
FEC R=2 mode	OFF
Tx Power attn	Normal db

—

## **Known Issues:**

---

Modification in 3.40(KY.1)b3 (June 11, 2003)

1. Update Bootbase to KY1.07.
2. Update DSP code to 109.030225.
3. Update S5N8950 ADSL Debug Information to version 4.02.
4. Performance enhanced (about 20% in throughput test) by decrease SDRAM delay timer.  
Please also upgrade Bootbase to KY1.07 when upgrade Ras to 3.40(KY.1)b3.

Modification in 3.40(KY.0)b4 (March 31, 2003)

1. [BUG FIXED]  
Symptom: Wrong Vendor ID display (first 3 Bytes) after link up.  
Condition:  
Solution: Fix this bug in s5N8950 driver.
2. [FEATURE ENHANCE]  
Add CI CMD – “WAN ADSL DETXATTEN [1/2/4]” to decrease Tx power atten.  
Ref : Tx Power attn(1,2,4): 1 : 0dB, 2 : -2dB, 4 : -4dB, (default 1).

Modification in 3.40(KY.0)b3 (March 24, 2003)

1. [BUG FIXED]  
Symptom: Configure one RN will clear the connection of other RNs.  
Only link up/down or system reset can recover it.  
Condition: In Multi-RN configuration.  
Solution: Fix it in S8947 SAR driver.
2. [BUG FIXED]  
Symptom: Configure two RN with the same VPI/VCI, the system will not display  
“VPI# and VCI # is duplicated with another remote node” error msg.  
Condition: In SMT 11 of pure Bridge type modem.  
Solution: Fix the return value of remoteNodeCheck function to fix it.
3. [BUG FIXED]  
Symptom: In the case that DSP goes to an endless loop state.  
Condition:  
Solution: Update DSP to 109.030306 to recover itself, and continue the ADSL operation from the beginning.
4. [BUG FIXED]  
Symptom: In the case that Host interface problem occurs  
Condition:  
Solution: Update DSP to 109.030306 to recover itself, and continue the ADSL operation from the beginning.

Modification in 3.40(KY.0)b2 (March 5, 2003)

1. [BUG FIXED]  
Symptom: Sometimes the DSLAM will not receive packet because the TC of S5N8950 can't receive data from UTOPIA. This problem occurred when S5N8947 SAR recover function didn't execute.  
Condition: Happens only when configuring multiple PVC in bridge mode and high link rate.  
Solution: Change TC init function call of S5N8950 to the front of S5N8947 SAR recover function.  
This change can make TC init execute before SAR init.

## **Features:**

---

## **Internal Information:**

### **1. Modification.**

**Modification in 3.40(KY.1)C1 (May 10, 2005)**

- 1. change MAC OUI from 00A0C5 to 001349 for short term solution**
- 2. [3.40(KY.1)b3] Update Bootbase version to KY1.07.**

### **2.Manufactory Data in Bootbase**

ZyNOS Version	: V3.40 (KY.1)   6/18/2003 17 :42 :50
Bootbase Version	: V1.07t   1/19/2005 14:56:56
Vendor Name	: ZyXEL Communications Corp.
Product Model	: Prestige 645M-A1
ZyNOS Code Model	: P645M-A1 ATU-R
HTP Code Model	: HTP_P645 V 1.3
ZyNOS ROM address	: 06008000
System Type	: 5
MAC Address	: 001349000001
Default Country Code	: FF
Boot Module Debug Flag	: 01
RomFile Version	: C4
RomFile Checksum	: 37d7
ZyNOS Checksum	: e538
Core Checksum	: 59ba
SNMP MIB level & OID	: 060102030405060708091011121314151617181920
Main Feature Bits	: 86
Other Feature Bits	:
	93 12 00 00 00 00 00 00-00 00 00 00 00 00 00 00
	00 00 00 01 00 00 00 00-00 00 13 00 00 00
Notes:	
	<ul style="list-style-type: none"><li>• Other Feature Bits 20 should be 0 after Flash Rewrite in Burn-in test. In our default release will be 1. Because in the manufacture process will need it to run Flash-Rewrite once in the Burn-in test.</li><li>• Debug Flag should be 0 after production. In our default release will be 1. Because in the manufacture process will need it to set the MAC address.</li><li>• MAC address will be changed by production process. The first 3 octets are correct, only the last 3 octets will depend on the production process.</li></ul>

### **3.Default ROM File Value Setting**

- Menu 1: General Setup

Menu 1 - General Setup
System Name= P645M-A1
Location=
Contact Person's Name=
Press ENTER to Confirm or ESC to Cancel:

• **Menu 3 - TCP/IP Ethernet Setup**

```
Menu 3 - TCP/IP Ethernet Setup

TCP/IP Setup:
  IP Address= 192.168.1.1
  IP Subnet Mask= 255.255.255.0

Enter Menu Selection Number:
```

• **Menu 4 - Internet Access Setup**

```
Menu 4 - Internet Access Setup

ISP's Name= MyISP
Encapsulation= RFC 1483
Multiplexing= LLC-based
VPI #= 8
VCI #= 35
ATM QoS Type= UBR
  Peak Cell Rate (PCR)= 0
  Sustain Cell Rate (SCR)= 0
  Maximum Burst Size (MBS)= 0
My Login= N/A
My Password= N/A

Press ENTER to Confirm or ESC to Cancel:
```

• **Menu 11 Remote Node Setup**

```
Menu 11 - Remote Node Setup

1. MyISP (ISP)
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

Enter Node # to Edit:
```

• **Menu 11.1 Remote Node Profile (first)**

```
Menu 11.1 - Remote Node Profile

Rem Node Name= MyISP
Active= Yes

Encapsulation= RFC 1483
Multiplexing= LLC-based

Incoming:
  Rem Login= N/A
  Rem Password= N/A
Outgoing:
  My Login= N/A
  My Password= N/A

Bridge:
Ethernet Addr Timeout(min)= 0
  VPI #= 8
  VCI #= 35

ATM QoS Type= UBR
  Peak Cell Rate (PCR)= 0
  Sustain Cell Rate (SCR)= 0
  Maximum Burst Size (MBS)= 0

Filter Sets:
  Input Device Filters=
```

Authen= N/A	Output Device Filters=
Press ENTER to Confirm or ESC to Cancel:	

• **Menu 21 Filter Set Configuration**

Menu 21 - Filter Set Configuration			
Filter Set #	Comments	Filter Set #	Comments
-----	-----	-----	-----
1	_____	7	_____
2	_____	8	_____
3	_____	9	_____
4	_____	10	_____
5	_____	11	_____
6	_____	12	_____
Enter Filter Set Number to Configure= 0			
Edit Comments= N/A			
Press ENTER to Confirm or ESC to Cancel:			

• **Menu 23 – System Password:**

Menu 23 - System Password
Old Password= ?
New Password= ?
Retype to confirm= ?
Enter here to CONFIRM or ESC to CANCEL:

• **Menu 24.2.2: System Maintenance – Change Console Port Speed**

Menu 24.2.2 - System Maintenance - Change Console Port Speed
Console Port Speed: 9600
Press ENTER to Confirm or ESC to Cancel:

- Menu 24.3: System Maintenance – UNIX Syslog

Menu 24.3.2 - System Maintenance - UNIX Syslog
UNIX Syslog:
Active= No
Syslog IP Address= ?
Log Facility= Local 1
Types:
CDR= No
Filter Log= No
PPP Log= No
Press ENTER to Confirm or ESC to Cancel:

- ras> sys view autoexec.net
- sys errctl 0
- sys trcl level 5
- sys trcl type 1180
- sys trcp cr 64 96
- sys trcl sw off
- sys trcp sw off
- ip tcp mss 512
- ip tcp limit 2
- ip tcp irtt 65000
- ip tcp window 2
- ip tcp ceiling 6000
- ip rip activate
- ip rip merge on
- ip icmp discovery enif0 off
- ppp ipcp compress off
- sys wdog sw on
- sys quick enable

## ***Annex A CLI Command List***

Command Class List Table		
<a href="#">System Related Command</a>	<a href="#">Exit Command</a>	<a href="#">Ethernet Related Command</a>
<a href="#">IP Related Command</a>	<a href="#">Bridge Related Command</a>	<a href="#">Wan Related Command</a>

USER : CAT1(0x02) ➔ User usable and visible.

ENG : CAT2(0x01) ➔ User unusable and invisible.

OEM : CAT3(0x04) ➔ OEM product only.

HIDE : HIDE(0) ➔ User usable and invisible.

System Related Command



Command				Description
sys				
	adjtime			retrive date and time from Internet
	Atsh			display MRD field
		display		display cbuf static
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
Tredisp	parse, brief, disp			monitor packets
Trelog				
trepacket				
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
Filter				
Cpu				
	display			display CPU utilization
xmodemmode	[crc checksum]			select xmodem mode

## Exit Command

Command				Description	Flag	Compiler Flag
exit				exit smt menu	USER	

## Ethernet Related Command

[Home](#)

Command				Description
ether				
	config			display LAN configuration information
	driver			
		cnt		
			disp <name>	display ether driver counters
			clear <name>	clear ether driver counters
		status	<ch_name>	see LAN status
	version			see ethernet device type

## IP Related Command

[Home](#)

Command				Description
ip				
	address		[addr]	display host ip address
	arp			
		status	<iface>	display ip arp status
	dhcp		<iface>	
	dns			
		stats		
	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
	rip			
	tcp			
		status	[tcb] [<interval>	display TCP statistic counters
	tftp			
	xparent			
		join	<iface1> [<iface2>]	join iface2 to iface1 ipxparent group
		break	<iface>	break iface to leave ipxparent group

## Bridge Related Command

[Home](#)

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

## WAN Related Command

[Home](#)

Command				Description
Wan	adsl			
		Chandata		ADSL channel data, line rate
		close		Close ADSL line
		Coding		ADSL standard current
		Linedata		
			near	Show ADSL near end noise margin
			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..
		Reset		Reset ADSL modem, and must reload the modem code again
		Status		ADSL status (ex: up, down or wait for init)
		Version		ADSL version information
		Vendorid		ADSL vendor information
		cfgbd 1	<adsl standard> <MinSNRMargin> <TCM mode> <FEC R=2 mode> <Decrease Tx Power attn>	Special commands for tuning Tx power atten or noise margin. <adsl standard> 0:G.DMT, 1:G.LITE, 2:T1.413, 3 : G.MULTI (default 0) <MinSNRMargin>0x0(0dB)~0xF(15dB)(default 6) <TCM mode> 0:OFF, 1:ON (default 0) <FEC R=2 mode> 0:OFF, 1:ON (default 0) <Decrease Tx Power attn>1:0dB, 2:-2dB, 4 ~ -4dB (default 1)
		Detxatten	<1 2 4>	Tx Power attenuation(1,2,4): 1 : 0dB, 2 : -2dB, 4 : -4dB, (default 1)
		tcinit		
		reload		
		linkup		
		dump	On Off Disp	
		tcregdisp		
	hwsar			
		clear		Clear hwsar packets information
		disp		Display hwsar packets incoming/outgoing information
	atm			
		count	Usage: count [disp clear] [rn_index]	