

# QE 【Mainboard】 Bulletin Test Report

Release No: 08E010016

Product Model	<b>Gene-5315</b>			
Description	<b>SubCompact Board</b>			
Test Configuration	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> PCB : GENE-5315 A1.1 <input checked="" type="checkbox"/> BIOS : GENE-5315 BIOS Rev 2.0 (12/20/2007)  <input checked="" type="checkbox"/> Chipset :AMD LX series + CS5536 <input checked="" type="checkbox"/> VGA Chipset : AMD Geode LX Processors integrated graphic <input checked="" type="checkbox"/> Audio Chipset : Realtek ALC203 2CH CODEC <input checked="" type="checkbox"/> Ethernet Chipset : Realtek RTL8139DL, 10/100Mbps <input checked="" type="checkbox"/> I/O Chipset : ITE IT8712 <input checked="" type="checkbox"/> TV Chipset : N/A  <input checked="" type="checkbox"/> Remark : QE Bulletin GENE-5315 A1.1 External Report			
<b>Test Result Summary</b>				
	Critical	Major	Minor	Enhancement
Defect Found	0	1	1	1
Defect Unsolved	0	0	0	0
<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Pass with Deviation Comment: _____ _____				

2008/05/06

Issue date

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**There are 3 test results in this document; they are described as follows:**

- Pass: Function worked perfectly
- Fail: Function failed and must be modified in the next version
- N/A: Outside of specifications or no test equipment

**The test report would be tested and updated after version changed.**

**Platform Information:**

Item	Device Information
PCB Model / Version	GENE-5315 A1.1
BIOS / Version	GENE-5315 BIOS Rev 2.0 (12/20/2007)
CPU Type	AMD LX 800 Processor (500MHz)
Memory Type	DSL DDR333 Hynix HY5DU121622CTP-J 512MB
SATA	N/A
Primary IDE Master	Seagate ST3160812A 160GB IDE HDD
Primary IDE Slave	ASUS DVD-E818A DVD-ROM
CRT	ViewSonic E70
LCD	N/A
Compact Flash	Transcend CF Card 4GB for Industrial FIX / UDMA
Backplane	N/A
Riser Card	N/A
Operating System	<input type="checkbox"/> Linux-RedHat 9.0 or <input checked="" type="checkbox"/> Fedora Core 6 Windows XP Professional English Version V2002 Service Pack 2
Power Supply	ATX Power : Seventeam ST-302HLP AT Power : LEMACS SP2-4400F 400W

# 1. I/O Peripheral Function Test

## The Result:

I/O Function	Result			Note
	Pass	Fail	N/A	
Floppy Connector / Driver A:	X			
Primary IDE Master	X			
Primary IDE Slave	X			
Secondary IDE Master			X	
Secondary IDE Slave			X	
Third IDE Master			X	
Third IDE Slave			X	
RAID 0 Function Test			X	
RAID 1 Function Test			X	
SATA1 / Serial ATA Connector 1			X	
SATA2 / Serial ATA Connector 2			X	
SATA3 / Serial ATA Connector 3			X	
SATA4 / Serial ATA Connector 4			X	
Compact Flash – Type I	X			
Compact Flash – Type II			X	
DOC (Disk On Chip)			X	
DOM (Disk On Module) – 40 Pin	X			Transcend / TS512MDOM40V / 512MB / IDE 40 Pin
DOM (Disk On Module) – 44 Pin			X	Transcend / TS512MDOM44V / 512MB / IDE 44 Pin
COM 1-232	X			
COM 2-232	X			
COM 2-422	X			
COM 2-485	X			ICP CON I-7044D D/IO Module
COM 2-Ring /+5V /+12V			X	AMD Chipset no support
COM 3-232			X	
COM 4-232			X	
COM 5-232			X	
COM 6-232			X	
PS/2 Mouse & Keyboard (Internal)			X	
PS/2 Mouse & Keyboard (External)	X			
Audio Connector	X			
Audio 5.1 Channel / S/P DIF			X	
LPT 1	X			
LPT 2			X	
IrDA/115200bps	X			
ASKIR / 115.2 Kbps			X	
FIR / 4M bps			X	
USB 1/2 Ports	X			
USB 3/4 Ports	X			
USB 5/6 Ports			X	
USB 7/8 Ports			X	
USB 2.0 1/2 Ports	X			
USB 2.0 3/4 Ports	X			
USB 2.0 5/6 Ports			X	
USB 2.0 7/8 Ports			X	
DVI Function			X	
DIO Connector	X			

Card Bus			X	
PC/104	X			
PC/104-Plus			X	
PCI-104			X	
CD-In Connector	X			
TFT TTL LCD	X			
TFT LVDS LCD	X			
TV-out / S Terminal			X	SHARP LCDTV LC-20S5T
TV-out / AV Terminal			X	SHARP LCDTV LC-20S5T
Touch Screen – 8 Wire			X	
Touch Screen – 5 Wire			X	
DIMM Slots	X			
Watchdog IRQ n			X	
Watchdog Software Control			X	
CPU FAN Connector			X	
System FAN Connector			X	
Front Panel	Result			Notes
	Pass	Fail	N/A	
Power On Button	X			
IDE LED	X			
External Buzzer			X	
On Board Buzzer	X			
Power LED	X			
Reset Switch	X			
Keyboard Lock			X	
Jumpers Function	Result			Notes
	Pass	Fail	N/A	
ATX simulates AT	X			
Audio Out Selection (W/O & W/ Amplifier)			X	
LCD Voltage Selection	X			
COM2-Ring/5V/12V Selection	X			
COM2 RS-232 Selection	X			
COM2 422/485 Selection	X			
Clear CMOS	X			
Touch Screen Operating Mode Selection			X	
Clock Shift of TFT LCD			X	
Power Connector & Function	Result			Notes
	Pass	Fail	N/A	
ATX Power Connector	X			
ATX Power_12V Connector			X	
AT Power Connector (P8 & P9)			X	
Big 4P Power Connector	X			
Mini 4P Power Connector			X	
External Power Connector (-12/-5V)			X	
Option ATX Power Connector (PS-ON / +5VSB)	X			
LAN Connector & Function	Result			Notes
	Pass	Fail	N/A	
LAN Link / Speed LED	LAN1	X		
	LAN2	X		
LAN Active LED	LAN1	X		

	LAN2	X			
LAN 10/100 Ethernet		X			
LAN 1G Ethernet				X	HUB:D-Link DGS-1008T
PCI Connector & Function	Result			Notes	
	Pass	Fail	N/A		
Mini PCI Slot		X			
PCI Slot				X	
PCI Express				X	NW-200503 / NW-200504

## 2. Hardware Compatibility

### 2-1. CPU Compatibility Test

- Test Points: 1. This test focuses on the CPU compatibility and makes it heavy loading  
2. Run Prime95 Under Windows for 8 hours

Run Prime95 for 8 hours

OS	CPU Type	FSB	Result			Note
			Pass	Fail	N/A	
Windows Environment	AMD LX 800 Processor	500MHz	X			

### 2-2. Memory Compatibility Test

- Test Points: 1. "DIMM 2(1)" means to insert DIMM item 1 in DIMM slot 2  
2. Power on machine then boot into DOS environment run "Memory Test Software"  
3. Run MemTest at least 24 hours in DOS mode for each item

Memory List:

Item	Memory Brand	Memory Chipset	Frequency	Size (MB)	Note
01	DSL	Hynix HY5DU121622CTP-J	333	512	
02					
03					
04					
05					
06					
07					

Test Result:

Environment Configuration	MemTest Version	Result			Note
		Pass	Fail	N/A	
DIMM 1(1)	V1.65	X			
DIMM 2(1)				X	
DIMM 1(1) + DIMM 2(1)				X	
DIMM 1(2)				X	
DIMM 2(2)				X	
DIMM 1(2) + DIMM 2(2)				X	
DIMM 1(3)				X	
DIMM 2(3)				X	
DIMM 1(3) + DIMM 2(3)				X	
DIMM 1(4)				X	
DIMM 2(4)				X	
DIMM 1(4) + DIMM 2(4)				X	
DIMM 1(5)				X	
DIMM 2(5)				X	
DIMM 1(5) + DIMM 2(5)				X	
DIMM 1(6)				X	
DIMM 2(6)				X	
DIMM 1(6) + DIMM 2(6)				X	
DIMM 1(7)				X	
DIMM 2(7)				X	
DIMM 1(7) + DIMM 2(7)				X	



## 2-3. On Board Audio Function Test

### 2-3.1. Audio Basic Function Test

- Test Points:
1. Check if the sound driver can be installed correctly in Windows
  2. Use the AP program supplied by sound driver to test sound function
  3. Please pay attention to Left / Right sound output
  4. Adjust sound of speaker and system to the max volume then move cursor around, check if there is any noise appeared

#### The Result:

Function Test		Result			Note
		Pass	Fail	N/A	
System Sound		X			
CD_In		X			
CD_In Sound Recorder				X	
Play Sound Recorder		X			
Line Out		X			
Line In		X			
Line In Sound Record		X			
MIC Speaker	Dynamic	X			Dynamic microphone [DP-2003002]
	Condenser	X			Condenser Microphone [DP-2003001]
MIC Sound Recorder	Dynamic	X			Dynamic microphone [DP-2003002]
	Condenser	X			Condenser Microphone [DP-2003001]

### 2-3.2. Audio 5.1 Channel with S/P DIF Function Test

Speaker Device→Creative inspire 5.1 digital 5600

Function Test		Result			Note
		Pass	Fail	N/A	
Speaker configuration					
2-channel mode for stereo speaker output		X			
4-channel mode for 4 speaker output		X			
6-channel mode for 5.1 speaker output				X	
S/P DIF function Test	Input			X	
	Output			X	

## 2-4. On Board TV Function Test

### Test Result:

Function Test		Result			Note
		Pass	Fail	N/A	
NTSC	S terminal			X	SHARP LCD TV LC-20S5T
PAL				X	
NTSC	AV Terminal			X	SHARP LCD TV LC-20S5T
PAL				X	

## 2-5. On Board LCD Function Test

- Test Point: 1. Please pay more attention to panel color, resolution, and shift issue when you test LCD  
2. Check LCD display in POST and Windows mode

### Test Result:

TFT LCD Model		Result			Note
		Pass	Fail	N/A	
LVDS	AUO G065VN01 V.0 / 6.5" / 640x480 / 18bit (4:3)			X	LM-200604 / 3.3V
	AUO G065VN01 V.0 / 6.5" / 640x480 / 24bit (4:3)			X	LM-200608 / 3.3V
	AU B104SN02 / 10.4" / 800*600 / 18bit (4:3)			X	LM-200113 / 3.3V
	AU G084SN05 V.3 / 8.4" / 800*600 / 18bit (4:3)			X	LM-200703 / 3.3V
	AU G150XG01 V.0 / 15" / 1024*768 / 18bit (4:3)			X	LM-200115 / 3.3V
	AU M150XN07 V.2 / 15" / 1024x768 / 24bit (4:3)	X			LM-200603 / 3.3V
	AU M170EG01 / 17" / 1280*1024 / 48bit (4:3)			X	LM-200601 / 5V
	AU M170XW01 V.1 / 17" / 1280x768 / 24bit (16:9)			X	LM-200606 / 5V
	AUO T260XW02 / 26" / 1366x768 / 24bit			X	
	AU M201UN02 V.5 / 20.1" / 1600x1200x48bit			X	LM-200607 / 5V
	AUO T370HW01 / 37" / 1920x1080 / 48bit			X	
TTL	Toshiba LTM10C209A / 10.4" / 640*480 / 18bit (4:3)			X	LM-200100 / 5V
	NEC NL8060AC31-12 / 12.1" / 800*600 / 18bit (4:3)			X	LM-200101 / 3.3/5V
	Sharp LQ121S1DG11 / 12.1" / 800*600 / 18bit (4:3)			X	LM-200102 / 3.3V
	LG LM151X2-C2TH / 15.1" / 1024x768 / 18bit (4:3)	X			LM-200605 / 3.3V
	Fujitsu FLC38XGC6V-06 / 15" / 1024*768 / 36bit (4:3)			X	LM-200602 / 5V

## 2-6. PCI Slot Function (PCI Adapter Card) Test

Adapter VGA Card	Install Driver			Set Simultaneous Display and Reboot			Note
	Pass	Fail	N/A	Pass	Fail	N/A	
CECUBE GC-R9250PCI-D3 (ATI REDEON9250 256MB)			X			X	[VC-200601]
CHAINTECH NVIDIA GeForce4 MX440-8X			X			X	[VC-200200]
Adapter Sound Card	Install Driver			Play Sound			Note
	Pass	Fail	N/A	Pass	Fail	N/A	
SC3000 CMI8738/C3DX			X			X	[SC-001]
Adapter SCSI Card	Install Driver			Copy files to SCSI HDD			Note
	Pass	Fail	N/A	Pass	Fail	N/A	
Takram DC-395U V1.02			X			X	[SS-200200]
ADAPTEC Ultra160 SCSI ASC-29160			X			X	[SS-200601]
Adapter Image Capture Card	Install Driver			Connect to CCD			Note
	Pass	Fail	N/A	Pass	Fail	N/A	
I-VIEW CP-1400AS (with Age STD-477FAI CCD)			X			X	[CP-200501]
Adapter LAN Card	Install Driver			Connect to Internet			Note
	Pass	Fail	N/A	Pass	Fail	N/A	
Intel GD82559 10/100 Mbps Fast Ethernet Adapter			X			X	[NW-013]
3Com 3C905C-TXM ETHERLINK 10/100 PCI			X			X	[NW-016]
D-Link DWL-520+ Wireless LAN			X			X	[NW-2002001]
Adapter RAID Card	Install Driver			RAID 0 , 1 , 10 Function Test			Note
	Pass	Fail	N/A	Pass	Fail	N/A	
ADAPTEC 1420SA RoHS 4-Port SATA II RAID			X			X	[SS-200602]
MODEM Card	Install Driver			Connect to Internet			Note
	Pass	Fail	N/A	Pass	Fail	N/A	

LEMEL MD V1456VQH-P2 PCI MODEM Card			X			X	[MD-200200]
Other Card	Install Driver			Check Device Status			Note
	Pass	Fail	N/A	Pass	Fail	N/A	
D-Link DU-520 USB 2.0			X			X	[DU-001]
Tekram TR-822 Serial ATA 150 [SA-001] + SATA HDD Seagate ST3120026AS 120GB			X			X	[SA-001] + [ID-200305]

## 2-7. PCI-Express Function Test

### PCI-Express Device

PCI-Express x1	Install Driver		Function Test		N/A	Note
	Pass	Fail	Pass	Fail		
SUNIX SATA1414 VER 1.1 PCI-Express x1 SATA Card					X	[eSATA-200602]
SksKonnect SK-9E21D 10/100/1000 Base-T Adapter PCI-Express x1 LAN Card					X	[NW-200503] [NW-200504]
PCI-Express x4	Install Driver		Function Test		N/A	Note
	Pass	Fail	Pass	Fail		
Adaptec AAR-1430SA SATAII HostRAID Controllers PCI-Express x4 RAID Card					X	[RA-200701]
PCI-Express x16	Install Driver		Function Test (Dual Display)		N/A	Note
	Pass	Fail	Pass	Fail		
ASUS EAX1600PRO/TD/256M/A (ATI Chipset) PCI-Express x16 VGA Card					X	[VC-200602]
WinFast PX6200 TC TDH PCI-Express x16 VGA Card					X	[VC-200501]
Express card	Install Driver		Function Test		N/A	Note
	Pass	Fail	Pass	Fail		
SUNIX SATA II Express card (+ eSATA HDD External Box [eSATA-200601])					X	[PEC-200501]

## 2-8. HDD Compatibility Test

- Test Points: 1. This test focuses on IDE HDD Devices compatibility  
 2. Check if HDD could be detected correctly during POST  
 3. Check HDD boot up function and read/write function

### IDE HDD Compatibility Test:

Cable Type: [ ] 40 pin , [X] 44 pin , [ ] 80 pin

HDD Device	Detect Message		Booting Up		N/A	Note
	Pass	Fail	Pass	Fail		
Seagate ST3400620A 400GB 3.5" IDE HDD					X	ID-200709
Hitachi HDS722525VLAT80 250GB ATA100 3.5" IDE HDD					X	ID-2002003
IBM DTLA-307045 46.1GB ATA100 3.5" IDE HDD					X	ID-041
Seagate ST315320A 15.3GB ATA33 3.5" IDE HDD					X	ID-048
FUJITSU MPE 3136AH 13.6GB ATA66 3.5" IDE HDD					X	ID-033
Seagate ST340014A 40GB Barracuda 7200.7 3.5" IDE HDD	X		X			ID-200611
Seagate ST3160812A 160GB 3.5" IDE HDD	X		X			ID-200618
Quantum Fireball Plug AS 30GB ATA100 3.5" IDE HDD					X	ID-200111
Seagate ST310210A 10.2GB ATA66 3.5" IDE HDD					X	ID-050

Western WD400BB-75DEA0 40GB ATA100 3.5" IDE HDD					X	ID-2002001
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### SATA HDD Compatibility Test:

HDD Device	Detect Message		Booting Up		N/A	Note
	Pass	Fail	Pass	Fail		
Seagate ST3120026AS 120GB 3.5" SATA-I HDD					X	ID-200305
Seagate ST3120827AS 120GB 3.5" SATA-I HDD					X	ID-200505
Western Digital WD1200JS-00MHB1 120GB 3.5" SATA-I HDD					X	ID-200509
Western Digital WD800JD-00LSA0 80GB 3.5" SATA-I HDD					X	ID-200510
Western Digital WD1600JD-00HBB0 160GB 3.5" SATA HDD					X	ID-200609
Seagate ST98823AS 80GB 2.5" SATA HDD					X	ID-200613
Seagate ST3160811AS 160GB 3.5" SATA-II HDD					X	ID-200619
Western Digital WD 1600AAJS-00PSA0 160GB 3.5" SATA-II HDD					X	ID-200707

### IDE and SATA Device Full Loading Test

IDE and SATA Device Full Loading Test		Detect Message		Booting Up		N/A	Note
		Pass	Fail	Pass	Fail		
Primary Master	Western / WD400BB-75DEA0 / 40GB ATA-100	X		X			ID-2002001
Primary Slave	Hitachi / HDS722525VLAT80 / 250GB / ATA-100	X		X			ID-2002003
Secondary Master	FUJITSU / MPE 3136AH / 13.6GB / ATA-66					X	ID-033
Secondary Slave	Maxtor 4G160J8 / 160GB / ATA-133					X	ID-200206
SATA1	Seagate / ST3120026AS 120GB / ATA-100 / SATA					X	ID-200305
SATA2	Seagate / ST3120827AS 120GB / ATA-100 / SATA					X	ID-200505
SATA3	Seagate / ST3120827AS 120GB / ATA-100 / SATA					X	ID-200505
SATA4	Seagate / ST3120827AS 120GB / ATA-100 / SATA					X	ID-200505

### 2-9. CD/DVD-ROM Compatibility Test

- Test Points: 1. This test focuses on IDE CD/DVD-ROM Devices compatibility  
 2. Check if CD/DVD-ROM could be detected correctly during POST  
 3. Quickly move VCD or DVD seek bar in order to ensure display quality

Cable Type: [ ] 40 pin , [ X ] 44 pin , [ ] 80 pin

DVD/CD-ROM Device	Detect Message		Booting Up		Play VCD		Play DVD Forward 32X Backward 32X		N/A	Note
	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail		
Pioneer DVD-ROM DVD-126D CD 40X / DVD 16X	X		X		X		X			CD-200609
BenQ DW1655 OB2 16 x DVD ReWriter	X		X		X		X			CD-200610
Acer DVP1640A / 16X / DVD-ROM / ATA33									X	CD-044
Pioneer / DVR-A11FXC1 / 8X DVD-RW / 6X DVD-RW / ATA66									X	CD-200605
IBM HL-DT-ST / GCR-8480B / 48X / CD-ROM / ATA33									X	CD-2002013
Pioneer / DVD-121 / 16X / DVD-ROM / ATA66									X	CD-200303
SAMSUNG / SH-W08 / DVD+R 8X / DVD-R 8X / CD-R 32X / ATA33									X	CD-200404

NEC / ND-2500A / DVD R/RW / +R8X-R8X / ATA33													X	CD-200403
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## 2-10. USB Function Test

Test Points: 1. Enable/Disabled USB Function in BIOS then check if the result is fine or not Under Windows or DOS.

### 2-10.1. USB Basic Function Test :

#### USB In BIOS Setup Test :

In BIOS Setup Menu														
USB Port Test Item		USB 1 / 2			USB 3 / 4			USB 5 / 6			USB 7 / 8			Note
		Pass	Fail	N/A	Pass	Fail	N/A	Pass	Fail	N/A	Pass	Fail	N/A	
USB Controller	Enable	X			X					X			X	Under Windows
	Disable	X			X					X			X	Under Windows
USB 2.0 Controller	Enable	X			X					X			X	Under Windows
	Disable	X			X					X			X	Under Windows
USB Keyboard Support	Enable			X			X			X			X	Under DOS 6.22
	Disable			X			X			X			X	Under DOS 6.22
USB Mouse Support	Enable			X			X			X			X	Under DOS 6.22
	Disable			X			X			X			X	Under DOS 6.22

#### USB System Booting Test :

Test Points: 1. Set following devices as the first boot device in BIOS setup menu

2. Restart and check if system could boot from them

System Booting Test														
USB Port Item		USB 1 / 2			USB 3 / 4			USB 5 / 6			USB 7 / 8			Note
		Pass	Fail	N/A	Pass	Fail	N/A	Pass	Fail	N/A	Pass	Fail	N/A	
USB HDD		X			X					X			X	Please use USB thumb device to boot
USB FDD Mitsumi D353GUE		X			X					X			X	[FL-200201] Max 5V / 500mA
USB2.0 DRW-1604P-D/WHT/G/ASUS		X			X					X			X	[CD-200501]

### 2-10.2. USB Compatible Test :

Test Points: 1. Test Read and Write function for the following devices

#### [X]USB 1.1 [X] USB 2.0 Compatible Test

USB Compatible Test														
USB Port Item		USB 1 / 2			USB 3 / 4			USB 5 / 6			USB 7 / 8			Note
		Pass	Fail	N/A	Pass	Fail	N/A	Pass	Fail	N/A	Pass	Fail	N/A	
USB 2.0 HUB ATEN/ 4 Port UH-204		X			X					X			X	[HB-200201]
USB FDD Mitsumi D353GUE		X			X					X			X	[FL-200201] Max 5V / 500mA
USB2.0 DRW-1604P-D/WHT/G/ASUS		X			X					X			X	[CD-200501]
USB HDD IBM IC25N020ATCS04-0 / 20GB / 4200RPM		X			X					X			X	1394b + USB2.0 External Box (MP-FBHUB20P-V2.0 E10-7073161D60)

### 2-10.3. Install Windows XP Professional from USB CD-ROM Device

Test Points: 1. This test focuses on whether we can install OS from USB devices or not  
2. Install Windows XP Professional by High Speed USB2.0 CD/DVD-ROM

	Pass	Fail	N/A	Note
Install Windows XP Professional by HighSpeed Device: USB2.0 DRW-1604P-D/WHT/G/ASUS	X			Set it as first boot device in BIOS Setup Menu

### 2-10.4. USB Devices Full Loading Test

Test Points: 1. Connect each USB devices to the machine  
2. Play VCD(DAT or MPG file) for each storage device for 8 hours in Windows to make system full loading  
3. In the duration of test, check if system could work fine or not

#### USB Device Full Loading Test (Burn-In 8 Hrs):

USB Port	Installation		Function		Burn in		N/A	Note
	Pass	Fail	Pass	Fail	Pass	Fail		
USB1	X		X		X			BENQ 4824WI-ON2
USB2	X		X		X			Mitsumi FLL3.5 D353GUE/FUE
USB3	X		X		X			USB HDD 20GB
USB4	X		X		X			USB Card Reader
USB5							X	USB Mouse
USB6							X	USB Thumb drive Transcend 256MB

### 2-11. Floppy Disk Controller Function Test

Test Result:

Test Item	Result (1.44M)			Note
	Pass	Fail	N/A	
Copy and compare file between C: and A / B:	Under Windows	X		
Change Floppy to None value	Under Windows		X	
Swap FDD	Under Windows		X	

### 2-12. Peripheral Compatibility- Storage Device Test

#### 2-12.1. Storage Device Test

Device item	Booting		Detected in POST		Read/Write		N/A	Note
	Pass	Fail	Pass	Fail	Pass	Fail		
MO [SCSI]	-----						X	FUJITSU MCB3064SS [MO-001]
ZIP 100 [Parallel]	-----						X	Iomega ZIP100P2 [ZIP-200401]
DOC 2000 Model	16MB						X	M-System / MD2200-D16
DOC 2000 Onboard Address	CC00						X	
	D000						X	
	D400						X	
	D800						X	
	DC00						X	
	Disable						X	

### 2-12.2. Compact Flash Compatibility Test

Test Points: 1. Most of the default value of CF card is set as IDE primary master so we may make the same setting before we use CF

2. Install OS from IDE or USB CD-ROM to IDE CF card according to following description.

Device item	Booting		Detected during POST		Install OS		N/A	Note
	Pass	Fail	Pass	Fail	Pass	Fail		
Type-I CF (Fix / PIO Mode) Jumper: Master/Slave	X		X		X			CF Model: Transcend CF Card 4GB
Type-I CF (Fix / UDMA Mode) Jumper: Master/Slave	X		X		X			CF Model: Transcend CF Card 4GB

### 2-13. Digital I/O Connector Test

Position: 801h / VCC: 5 V

Device item	Input Address		Output Address		VCC		GND		N/A	Note
	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail		
DIO-1 Function Test	X		X		X		X			
DIO-2 Function Test	X		X		X		X			

### 2-14. Adapter Compatibility- Industry Control Card PC/104, PC/104+, PCI-104 Modules

#### 2-14.1. Device List: PC/104 Module

Device item	Device Detection		Function		N/A	Note
	Pass	Fail	Pass	Fail		
AAEON PCM-3660	X		X			LAN Module

#### 2-14.2. Device List: PC/104+ Module

Device item	Device Detection		Function		N/A	Note
	Pass	Fail	Pass	Fail		
AAEON PCM-3430					X	SCSI Module

#### 2-14.3. Device List: PCI-104 Module

Remark: If you want to use PCM-3730, don't forget to adjust LAN1 to INT B, LAN2 to INT C and LAN3 to INT D

Device item	Device Detection		Function		N/A	Note
	Pass	Fail	Pass	Fail		
AAEON PCM-FA00					X	Mini-PCI Converter
AAEON PCM-3794					X	2 Slots PCMCIA Module
AAEON PCM-3730					X	Intel 82559 LAN Module



## 2-15. On-Board SCSI Function Test

- Test Points: 1. This test focuses on SCSI Devices compatibility  
 2. Check if the SCSI Devices could be detected correctly during POST  
 3. Check SCSI Devices boot up function and read/write function

### Device List:

Device Item	Booting		Format		Read / Write		Programming		N/A	Note
	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail		
RICOH MP7060S / 24X / SCSI-CD-ROM									X	CD-045
Fujitsu MCB3064SS / MO Device									X	MO-001
Seagate 32155W / 2.15GB									X	SD-001
IBM DNES-309170 / 9GB									X	SD-004
Seagate ST39205LW/P 9GB / Ultra160 / LVD									X	SD-200101

## 2-16. On-Board RAID Function Test

	Booting		Format		Read / Write		Install OS		N/A	Note
	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail		
Set SATA HDDs as RAID 0									X	
Set SATA HDDs as RAID 1									X	
Set SATA HDDs as RAID 10									X	
Set SATA HDDs as RAID 5									X	

## 2-17. COM Port Function Test

### 2-17.1. COM Port Burn In Test

- Test Point: 1. Use BurnIn Test V5.1 Pro to test COM port reliability  
 2. Add all COM port of test machine into “COM Ports Selected” table and set “detect and loopback test” in Set Preferences→Serial Ports  
 3. Attach COM port loopbacks to each COM connector then burn in overnight  
 4. Com port status must be error free after finish test

BurnIn Test V5.1 Pro	Result			Note
	Pass	Fail	N/A	
COM1	X			
COM2	X			
COM3			X	
COM4			X	
COM5			X	
COM6			X	

## 2-18. Disk On Module [DOM] Compatibility Test

Test Point: Please pay attention to align pin 1 of DOM with pin 1 of socket.

Device Item	Detect Message		Booting UP		Read/ Write		Programming		N/A	Note
	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail		
Transcend / TS512MDOM40V / 512MB / IDE 40 Pin									X	[DC-200703]
Transcend / TS512MDOM44V / 512MB / IDE 44 Pin									X	[DC-200704]



## 2-19. Mini PCI Card Compatibility Test

Test Result:

Device Item	Detect Message		Function Test		N/A	Note
	Pass	Fail	Pass	Fail		
GM-100 WLAN 11g Mini PCI Card (Model: Sky Thru GC-100)	X		X			MI-200601
GM-101 WLAN 11b/g 54Mbps Mini PCI Card (Model: VNT6655AM)					X	MI-200602
PER-C20S SATA RAID MiniPCI Card (Silicon Image Sil3512ECTU128 QF7227.1-1)					X	

## 2-20. COM/LPT Ports & RS-232/422/485 Function Test

Test Result:

Basic Function Test				
Test Item	Result			Note
	Pass	Fail	N/A	
RS-422 for COM2	X			Use loopback and WINSSD.exe to test RS-422 in Windows
RS-485 for COM2	X			Use ICP CON I-7044D D/IO Module in Windows
COM1	Serial Mouse	X		
	Serial Modem	X		
COM2	Serial Mouse	X		
	Serial Modem	X		
LPT1	X			Epson Stylus C61 Printer

## 2-21. CardBus(PCMCIA) Compatibility Function Test

Test Result:

Device Item	Slot	Bit	Detect Message		Function Test		N/A	Note
			Pass	Fail	Pass	Fail		
Intel PRO/Wireless 2011B LAN PC Card (WPC2011BWW)	Slot 1 (Up)	16					X	[PC-200200]
	Slot 2 (Down)						X	
PQI 16MB Compact Flash Adapter (64MB PQI CF Card inserting)	Slot 1 (Up)	16					X	[PC-200100]
	Slot 2 (Down)						X	
Kingston datapack DP-PCM2 / 2GB (PC Card TypeII HDD)	Slot 1 (Up)	32					X	[PC-200201]
	Slot 2 (Down)						X	
PCi GW-NS54SG Cardbus Adapter Wireless LAN Type-II	Slot 1 (Up)	32					X	[PC-200502]
	Slot 2 (Down)						X	
PQI 16MB Compact Flash Adapter (64MB PQI CF Card inserting)	Slot 1 (Up)	16					X	[PC-200100] + [PC-200502]
PCi GW-NS54SG Cardbus Adapter Wireless LAN Type-II	Slot 2 (Down)	16						

### 3. O.S. Compatibility Test

3-1. English- Linux RedHat 9.0 ,  Fedora Core 6

No Support

#### Driver Information:

Chipset Software	Default driver
Graphics Media	Default driver
LAN Driver	Default driver
Audio Driver	Default driver

Install OS to  IDE  SATA HDD:

Installation	Result			Note
	Pass	Fail	N/A	
English Linux Fedora Core 5 Ver :2.615-1.2054	X			

#### VGA Resolution Test:

Note: Pay attention to LCD Full Screen under Text Mode.

Color :  256  16bits: Thousands of Colors  32bits: Millions of Colors

Resolution	CRT			TTL			LVDS			Note
	Pass	Fail	N/A	Pass	Fail	N/A	Pass	Fail	N/A	
640X480	X					X			X	
800X600	X					X			X	
1024X768	X					X			X	
1280X1024	X					X			X	
1600X1200	X					X			X	

CRT Model Name: Viewsonic E70

TTL Panel: N/A

LVDS Panel: N/A

### Test Result:

Test Item	Result			Note
	Pass	Fail	N/A	
<b>Install From IDE CD-ROM</b>				
Install to HDD	X			
<b>Base Function Test</b>				
VGA Setup	X			
Soundcard Setup	X			
LAN & Modem Setup	X			
Printer Setup	X			
Mouse Setup	X			
Keyboard Setup	X			
Mount Floppy	X			
Mount CD-ROM	X			
Mount USB Floppy	X			
Mount USB CD-ROM	X			
Mount USB HDD	X			
Virtual Consoles	X			Ctrl+Alt+F[1-7]
<b>Display Function Test</b>				
CRT -- Full Screen	X			
LCD -- Full Screen			X	
DVI -- Full Screen			X	
DVI + LCD			X	
CRT + LCD	X			
CRT + DVI			X	
<b>Touch Screen Function Test</b>				
8 Wire			X	
5 Wire			X	
<b>Network Function Test</b>				
Connect to Internet	X			
Ping IP Address			X	Ping
Telnet IP Address			X	telnet
<b>Audio Function Test</b>				
Play Audio Function Test	X			Play Audio Test
MIC Function Test			X	Microphone Test
<b>X Windows Application</b>				
Start Button→Office	X			Office function
X-Window			X	Startx – Desktop in Linux
<b>Command Test On Text Mode: Attention Delay Phenomenon.</b>				
uname -a	X			Show information
Log Out	X			
Shutdown	X			Init 0 or shutdown -h now
Restart the Computer	X			Init 6 or shutdown -r now
Halt			X	Power Off Mode
ls / clear .....; cd /dev /ls -l			X	Command instruction

## 4. BIOS Function Test

### 4-1. Memory Beep Test

Test Item	Function		N/A	Note
	Pass	Fail		
Check if there is beep sound during power on inserting no memory	X			

### 4-2. Standard CMOS Features

Test Item	Setting		Function		N/A	Note
	Pass	Fail	Pass	Fail		
Data (mm:dd:yy)	X		X			
Time (hh:mm:ss)	X		X			
IDE Primary Master	X		X			
IDE Primary Slave	X		X			
IDE Secondary Master					X	
IDE Secondary Slave					X	
Drive A (Floppy)	X		X			1.44M,3.5 in. / None
Drive B (Floppy)					X	1.44M,3.5 in. / None

### 4-3. Boot Sequence Test

Test Item	Result			Note
	Pass	Fail	N/A	
Floppy	X			
Hard Disk	X			
Removable (All Device Priority)			X	For Product BIOS Request
HDD-0:	X			
SCSI	X			
CDROM	X			
HDD-1:	X			
HDD-2:	X			
USB HDD	X			
USB Floppy	X			
USB CD-ROM	X			
LAN [ Boot From LAN First ]	X			
First Boot Device	X			First Boot Device must be set to HDD in first edition SAP
Second Boot Device	X			
Third Boot Device	X			
Boot Other Device			X	
Disable			X	

### 4-4. Power Management Test

#### 4-4.1. APM Power Management Test

Test Item	Setting Test	Result			Note
		Pass	Fail	N/A	
Normal Mode	Normal Mode	X			
HDD Power Down	Function Test			X	
Suspend Mode	Function Test			X	
Power Button	Delay 4 Sec	X			Soft-Off By PWRBTN

Power Button	Instant-Off	X		Soft-Off By PWRBTN
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#### 4-4.2. ACPI Power Management Test

Test Point:

1. While setting S1(POS) in BIOS ACPI option, boot into Windows then choice standby item to let system suspend. It must be resumed back correctly by moving PS/2 Keyboard or mouse
2. While setting S3(STR) in BIOS ACPI option, boot into Windows then choice standby item to let system suspend. It must be resumed back correctly by pressing power button

Test Item	Result			Note
	Pass	Fail	N/A	
Enable	X			
Disable	X			
ACPI - S1 (POS)	X			
ACPI - S3 (STR)	X			
ACPI - S1 & S3			X	

#### 4-5. Power On Function Test

Test Item	Result			Note
	Pass	Fail	N/A	
Password			X	Only support ACPI Mode
Hot KEY			X	Only support ACPI Mode
MOUSE Move			X	Only support ACPI Mode
Keyboard 98			X	Only support ACPI Mode
Any KEY			X	Only support ACPI Mode
BUTTON ONLY	X			Only support ACPI Mode

#### 4-6. Wake Up Event Test

Test Step:

##### 1. Wake on MODEM→

- 1.1. Connected COM port MODEM to machine, and MODEM power stay in off state
- 1.2. Power on machine then enter BIOS setup menu, enable “Power On by Ring” item.
- 1.3. Turn off power by pressing shutdown button during POST
  - 1.3.1. Turn on COM port MODEM’s power, then machine must be powered on successfully
- 1.4. Turn off computer from start menu in Windows OS
  - 1.4.1. Turn on COM port MODEM’s power, then machine must be powered on successfully

##### 2. Wake on LAN→

- 2.1. Connected machine and another PC with LAN cable.
- 2.2. Power on machine then enter BIOS setup menu, enable “Wake up by PCI Card” item.
- 2.3. Turn off power by pressing shutdown button during POST
  - 2.3.1. Send magic packet to machine by key in it’s MAC address in another PC, then machine must be powered on successfully
- 2.4. Turn off computer from start menu in Windows OS
  - 2.4.1. Send magic packet to machine by key in it’s MAC address in another PC, then machine must be powered on successfully

Test Item	Result			Note
	Pass	Fail	N/A	
Power On by Ring / COM 1	Ring		X	Test by Modem
	+12V	X		Test by Multimeter
	+5V	X		Test by Multimeter
Power On by Ring / COM 2	Ring		X	Test by Modem
	+12V	X		Test by Multimeter
	+5V	X		Test by Multimeter

Wake On LAN (Wake up by PCI Card)	X			Before test, all drivers must be installed completely first
Wake On RTC (Resume by Alarm)	X			

#### 4-7. Power On after Power Failure Test

Test Points: 1. Power on after power failure function only supports for ACPI mode

2. Power failure means that we turn off power by unplugging power cord or turn off power supply directly without pressing power button
3. Off→ Power failure function always off no matter shutdown normally or power failure
4. On→ Power failure function always on no matter shutdown normally or power failure
5. Auto→ Power failure function off while shutdown normally, and function on while power failure

Test Item	Result			Note
	Pass	Fail	N/A	
Off	X			Default value must set to "Off"
On			X	1. Directly turn off then on power supply for 10 times, each time for 1 seconds
			X	2. Directly turn off then on power supply for 5 times, each time for 1 minutes
			X	3. Shutdown power normally then turn off power supply, next time when you turn on power supply directly, machine still has to power on
Former-Sts (Auto)	X			1. Directly turn off then on power supply for 10 times, each time for 1 seconds
	X			2. Directly turn off then on power supply for 5 times, each time for 1 minutes
	X			3. Shutdown power normally then turn off power supply, next time when you turn on power supply directly, machine still has to stay in off status

#### 4-8. CMOS Backup / Clear CMOS Test

Test Item	Result			Note
	Pass	Fail	N/A	
CMOS Backup			X	
Clear CMOS Test	X			

#### 4-9. Boot ROM Test

Test Item	Result			Note
	Pass	Fail	N/A	
Boot ROM to Novell 4.11 [RPL]			X	HUB : HP J4095A
Boot ROM to WinNT 4.0 [PXE]	X			HUB : HP J4095A

#### 4-10. Supervisor / User Password Test

Test Item	Result			Note
	Pass	Fail	N/A	
Supervisor Password			X	
User Password			X	

#### 4-11. CRT / LCD / TV Function Test

Test Point: Boot display must be set to CRT+LCD in BIOS setup menu

Test Item	Result			Note
	Pass	Fail	N/A	
Boot Display –CRT	X			
Boot Display –LCD	X			
Boot Display –CRT+LCD	X			
Boot Display –DVI			X	
Boot Display –TV			X	
Boot Display –CRT+TV			X	
Boot Display –CRT+DVI			X	

#### 4-12. TV Standard Function Test

Function Test		Result			Note
		Pass	Fail	N/A	
NTSC	S terminal (Composite)			X	SHARP LCDTV LC-20S5T
PAL				X	
NTSC	AV Terminal (Component)			X	KONKA / T3731A / AC220V /50Hz
PAL				X	

#### 4-13. Init Display First Function Test

Test Item	Result			Note
	Pass	Fail	N/A	
PCI Slot			X	
On Board	X			

#### 4-14. On-Chip Serial ATA Function Test

Test Item	Result			Note
	Pass	Fail	N/A	
Auto			X	
Combined Mode			X	
Enhanced Mode			X	
SATA Only			X	
Disable			X	

#### 4-15. SATA Mode – IDE / RAID Function Test

Test Item	Result			Note
	Pass	Fail	N/A	
IDE			X	
RAID (Only support Enhanced Mode)			X	

#### 4-16. Swap Floppy Drive & Boot up Floppy Seek Function Test

Test Item		Result			Note
		Pass	Fail	N/A	
Swap Floppy Drive	Enabled			X	
	Disabled			X	
Boot up Floppy Seek	Enabled			X	
	Disabled			X	

#### 4-17. USB Onboard Device Function Test :

Test Item	Result			Note
	Pass	Fail	N/A	
USB Controller	X			
USB 2.0 Controller	X			
USB Keyboard Support			X	
USB Mouse Support			X	

#### 4-18. COM Address / IRQ Test

COM Port Mouse : Logitech M-MM43

Test Item	BIOS Adjust		Function		Boot into Windows		N/A	Note
	Pass	Fail	Pass	Fail	Pass	Fail		
<b>COM 1</b>								
3F8 / IRQ4	X		X		X			
2F8 / IRQ3							X	
3E8 / IRQ4							X	
2E8 / IRQ3							X	
AUTO (3F8 / IRQ4)							X	
Disable	X		X		X			
<b>COM 2</b>								
3F8 / IRQ4	X		X		X			
2F8 / IRQ3							X	
3E8 / IRQ4							X	
2E8 / IRQ3							X	
AUTO (2F8 / IRQ3)							X	
Disable	X		X		X			

#### 4-19. LPT Address / IRQ Test

Printer Type : EPSON Stylus C61

Test Item	BIOS Adjust		Function		Boot into Windows		N/A	Note
	Pass	Fail	Pass	Fail	Pass	Fail		
<b>LPT 1</b>								
Disabled	X		X		X			
<b>LPT1 Mode(378 / IRQ 7 )</b>								
SPP	X		X		X			
EPP							X	
ECP / DMA1							X	
ECP / DMA3							X	
ECP+EPP / DMA 1							X	
ECP+EPP / DMA 3							X	
<b>LPT1 Mode( 278 / IRQ 5)</b>								
SPP							X	
EPP							X	
ECP / DAM1							X	
ECP / DMA3							X	
ECP+EPP / DMA 1							X	
ECP+EPP / DMA 3							X	
<b>LPT1 Mode( 3BC / IRQ 7 )</b>								
SPP							X	
ECP / DAM1							X	



ECP / DMA3								X
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#### 4-20. BIOS AWDFLASH Program Test

Test Points: 1. All we have to do is just type instruction: awdfash.exe XXX.BIN in DOS, and other parameter is no need  
If it can not be run, then we can say the test is fail

BIOS BIN file	5315_20.BIN		
Award Flash Tools Version	Result		
	Pass	Fail	N/A
8.60C	X		