

Report NO: 10E010011

# GENE-9655

## Intel Core2 Duo Processors SubCompact Board P5 Test Report

Summary	<input checked="" type="checkbox"/> <b>Pass</b> <input type="checkbox"/> <b>Fail</b> <input type="checkbox"/> <b>Pass with Deviation</b> Comment: _____			
	<b>Test Result Summary</b>			
	Critical	Major	Minor	Enhancement
Defect Found	0	0	0	0
Defect Unsolved	0	0	0	0

Issue date	Approval	Test Engineer
2010 / 05 / 27	Jansin Lee	Allen Hsu

## Platform Information:

<b>Product Model</b>	<b>GENE-9655</b>
<b>Description</b>	<b>Intel Core2 Duo Processors SubCompact Board</b>
<b>Test Configuration</b>	<ul style="list-style-type: none"> <li>↳ New product</li> <li>↳ CPU Board : GENE-9655 A1.0</li> <li>↳ Carrier Board : N/A</li> <li>↳ BIOS : GENE-9655 BIOS Rev 1.0 (3/10/2010)</li>   <li>↳ Chipset :</li> <li>↳ CPU : Intel ® Core™ 2 Duo CPU T7500 2.20GHz</li> <li>↳ North Bridge : Intel GME965</li> <li>↳ South Bridge : ICH8-M</li> <li>↳ VGA Chipset : Intel GME965</li> <li>↳ Audio Chipset : Realtek ALC888</li> <li>↳ Ethernet Chipset : Intel 82574L Gigabit &amp; Intel 82566MM Gigabit</li> <li>↳ I/O Chipset : IT8781F</li>   <li>↳ Remark : P5 Test Report for GENE-9655</li> </ul>

Item	Device Information	Test Item
PCB Model / Version	GENE-9655 Rev A1.0	1~8
BIOS / Version	GENE-9655 BIOS Rev 1.0 (3/10/2010)	1~8
CPU Type	Intel ® Core™ 2 Duo CPU T7500 2.20GHz	1~8
Memory Type	Transcend DDR2 667 SODIMM 2GB	1~8
SATA HDD	Fujitsu 2.5" SATA H.D 80GB/ MHZ2080BH /RPM-5400	1~8
LCD	HANNS.G LCD Monitor HK191H - HSG1049	1~8
Compact Flash	Transcend 2/4/8 G	1~8
Riser Card	N/A	N/A
Backplane	N/A	N/A
OS Install	Fedora Core 10 Windows XP Professional English Version V2002 Service Pack 3	1,2
Power Supply	ATX Power : ZECK ZKS-300W - 115V-23V,50~60Hz,300W	1,2

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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.

## Test Result for Certification

### 1. I/O Peripheral Function Test

I/O Peripheral Function Test –I/O Function	Result		
	Pass	Fail	N/A
Floppy Connector / Driver A:			X
IDE Channel 0 Master			X
IDE Channel 0 Slave			X
IDE Channel 2 Master			X
IDE Channel 2 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	X		
DOC (Disk On Chip)			X
DOM (Disk On Module) – 40 Pin			X
DOM (Disk On Module) – 44 Pin			X
COM 1-232	X		
COM 2-232	X		
COM 2-422	X		
COM 2-485	X		
COM 3-232	X		
COM 4-232	X		
COM 5-232			X
COM 6-232			X
PS/2 Mouse & Keyboard	X		
Audio Connector	X		
Audio 2.1 Channel	X		
LPT 1			X
IRDA			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
DIO Connector	X		

PC/104			X
PC/104-Plus			X
PCI-104			X
CD-In Connector	X		
TFT TTL LCD			X
TFT LVDS LCD	X		
CRT	X		
TV-out / S Terminal			X
TV-out / AV Terminal			X
DVI	X		
HDMI			X
Component Video : Y/ Pb /Pr			X
Touch Screen – 4 Wire			X
Touch Screen – 5 Wire			X
Touch Screen – 8 Wire			X
DIMM Slots	X		
Watchdog Software Control	X		
CPU FAN Connector	X		
System FAN Connector			X
Front Panel	Result		
	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		
	Pass	Fail	N/A
Clear CMOS	X		
Power Connector & Function	Result		
	Pass	Fail	N/A
+12V DC Input AT/ATX	X		
ATX Power Connector			X
AT Power Connector			X
LAN Connector & Function	Result		
	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		

PCI Connector & Function	Result		
	Pass	Fail	N/A
Mini PCI Slots	X		
PCI Slots			X
PCI Express			X
Mini PCI Express card	X		
Express card			X

## 2. Power Consumption Test (Run Prime95 Program)

### Platform Information

PCB Model / Version / CPU Board	GENE-9655 A1.0
Carrier Board	N/A
BIOS	GENE-9655 BIOS Rev 1.0 (3/10/2010)
Operating System	Windows XP sp3
CPU	Intel® Core™ 2 Duo CPU T7500 2.20GHz
Memory	Transcend HYNIX HY5PS121621BFP-C4 DDR2-533 256MB
SATA HDD	Seagate ST3250318AS 3.5" SATA 250GB
LCD	HANNS.G LCD Monitor HK191H - HSG1049
Backplane	N/A
Riser Card	N/A
Power Supply	ATX Power Supply : ACBEL PC7019 (Short PS-ON and GND to simulate AT mode) AT Power Supply: N/A

Test Environment Model	ATX Power: ACBEL PC7019		AT Power:		Note
	Power (W)	Efficiency (%)	Power (W)	Efficiency (%)	
Normal Mode (+5V)	-----	A	-----	A	
Suspend Mode (+5V)	-----	A	-----	A	
5VSB in Power Off Mode (just for ATX)	-----	A	-----	A	
5VSB in Power On Mode (just for ATX)	-----	A	-----	A	
5VSB in Suspend Mode (just for ATX)	-----	A	-----	A	
Normal Mode (+12V)	4.12	A		A	
Suspend Mode (+12V)	1.60	A	-----	A	S1
Normal Mode (+3.3V) (just for ATX)	-----	A	-----	A	
Suspend Mode (+3.3V) (just for ATX)	-----	A	-----	A	
Normal Mode (-12V)	-----	A	-----	A	
Suspend Mode (-12V)	-----	A	-----	A	
Normal Mode (-5V)	-----	A	-----	A	
Suspend Mode (-5V)	-----	A	-----	A	

### 3. Timer Accuracy Test

System Clock & RTC Clock Test				
Test Method	Margin for error	Result		
		Pass	Fail	N/A
RTC Clock in Power On Mode	±3 second during 24 hours	X		
RTC Clock in Power Off Mode	±3 second during 24 hours	X		
Watchdog Timer Test		Result		
		Pass	Fail	N/A
Time-out Interval	10 sec	X		
	60 sec	X		
	120 sec	X		

### 4. Network HUB / LAN Connection Test

Location		LED Type				Result		
						Pass	Fail	N/A
LAN1 LED		Link / Speed LED				X		
		Active LED				X		
LAN2 LED		Link / Speed LED				X		
		Active LED				X		
Location	Speed	HUB Type	Cable Length	HUB Speed	Onboard LAN Speed	Result		
						Pass	Fail	N/A
Onboard LAN1	10/100/1000 Mbps	D-Link DGS-1008T	100M	1GBps	1000	X		
		Accton DeskTop-3005	100M	100 MBps	100	X		
		SVEC FD916H (10 Mbps HUB)	100M	10 MBps	10	X		
Onboard LAN2	10/100/1000 Mbps	D-Link DGS-1008T	100M	1GBps	1000	X		
		Accton DeskTop-3005	100M	100 MBps	100	X		
		SVEC FD916H (10 Mbps HUB)	100M	10 MBps	10	X		



## 5. Hardware Compatibility

CPU Compatible Test								
CPU Type		FSB	Prime95 Version	Result				
				Pass	Fail	N/A		
Intel ® Corel ™ 2 Duo CPU T7500 2.20GHz		800 MHz	V.259	X				
Memory Compatibility Test								
Memory Brand		Memory Chipset	Frequency	Size	MemTest86 Version	Result		
						Pass	Fail	N/A
Transcend DDR2 SO-DIMM 1GB		Transcend TQ123EJF6 T0743	667	1GB	V4.10	X		
Audio Basic Function Test								
Audio Basic Function Test				Result				
				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			Condenser	X				
MIC Sound Recorder			Condenser	X				
Audio 5.1 Channel with S/P DIF Function Test								
Audio 5.1 Channel with S/P DIF Function Test				Result				
				Pass	Fail	N/A		
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		
8-channel mode for 7.1 speaker output						X		
S/P DIF function Test			Input			X		
			Output			X		
On Board TV Function Test								
On Board TV Function Test				Result				
				Pass	Fail	N/A		
NTSC		AV Terminal				X		
PAL						X		
NTSC		S Terminal				X		
PAL						X		
On Board LCD Function Test								

TFT LCD	Type	Voltage	Result		
			Pass	Fail	N/A
LVDS	AUO G065VN01 V.0 / 6.5" / 640x480 / 18bit (4:3)	3.3V	X		
	AUO G065VN01 V.0 / 6.5" / 640x480 / 24bit (4:3)	3.3V	X		
	Data Image 7" / 800*480 / 18bit (16:9)	3.3V	X		
	AU G084SN05 V.3 / 8.4" / 800*600 / 18bit (4:3)	3.3V	X		
	AU B104SN02 V.0 / 10.4" / 800*600 / 18bit (4:3)	3.3V			X
	AUO G084SN05 v7 / 8.4" / 800*600 / 24bit (4:3)	3.3V	X		
	AU G150XG01 V.0 / 15" / 1024*768 / 18bit (4:3)	3.3V	X		
	AU M150XN07 V.2 / 15" / 1024x768 / 24bit (4:3)	5V	X		
	Toshiba /12.1"/1280 x 768 x 18bit (16:9)	5V	X		
	AU M170EG01 V.D/ 17"/ 1280*1024 / 48bit (4:3)	5V	X		
	AU M170XW01 V.1 / 17" / 1280x768 / 24bit (16:9)	5V	X		
	AUO T260XW02 / 26" / 1366x768 / 24bit	5V	X		
	AU M201UN02 V.5 / 20.1" / 1600x1200x48bit	5V	X		
	AUO T370HW01 / 37" / 1920x1080 / 48bit	12V	X		
	AUO M190PW01 V0 / 19"/1440X900/48 bit	5V	X		
TTL	Toshiba LTM10C209A / 10.4" / 640*480 / 18bit (4:3)	5V			X
	NEC NL8060AC31-12 / 12.1" / 800*600 / 18bit (4:3)	3.3/5V			X
	Sharp LQ121S1DG11 / 12.1" / 800*600 / 18bit (4:3)	3.3V			X
	LG LM151X2-C2TH / 15.1" / 1024x768 / 18bit (4:3)	3.3V			X
	Fujitsu FLC38XGC6V-06 / 15" / 1024*768 / 36bit (4:3)	5V			X

#### PCI Slot Function (PCI Adapter Card) Test

Model	Type	Result		
		Pass	Fail	N/A
CHAINTECH NVIDIA GeForce4 MX440-8X	VGA Card			X
Creative Sound BLASTER Live5.1	Sound Card			X
Takram DC-395U V1.02	SCSI Card			X
ADAPTEC Ultra160 SCSI ASC-29160	SCSI Card			X
I-VIEW CP-1400AS (with Age STD-477FAI CCD)	Capture Card			X
Intel GD82559 10/100 Mbps Fast Ethernet Adapter	LAN Card			X
3Com 3C905C-TXM ETHERLINK 10/100 PCI	LAN Card			X
D-Link DWL-520+ Wireless LAN	LAN Card			X
ADAPTEC 1420SA RoHS 4-Port SATA II RAID	RAID Card			X
LEMEL MD V1456VQH-P2 PCI MODEM Card	Modem Card			X
D-Link DU-520 USB 2.0	USB Hub Card			X
Tekram TR-822 Serial ATA 150 [SA-001] + SATA HDD Seagate ST3120026AS 120GB	SATA Card			X
ISA Slot Function Test		Result		
		Pass	Fail	N/A
NE2000 Compatible LAN Card (RTL8019AS)				X
Adaptec AHA-1510/20/22B SCSI Card				X

PCI-Express Function Test			
Model	Result		
	Pass	Fail	N/A
SUNIX SATA1414 VER 1.1 PCI-Express x1 SATA Card			X
SksKonnct SK-9E21D 10/100/1000 Base-T Adapter PCI-Express x1 LAN Card			X
Adaptec AAR-1430SA SATAII HostRAID Controllers PCI-Express x4 RAID Card			X
ASUS EAX1600PRO/TD/256M/A (ATI Chipset) PCI-Express x16 VGA Card			X
WinFast PX6200 TC TDH PCI-Express x16 VGA Card			X
HDD Compatibility Test			
Model	Result		
	Pass	Fail	N/A
Seagate ST3250318AS 3.5" SATA 250GB	X		
FUJITSU 2.5" SATA H.D 60GB - MHY2060BH	X		
IDE Cable Function test			
IDE Model	Result		
	Pass	Fail	N/A
40 Pin Cable ATA100			X
44 Pin Cable ATA33			X
80 Pin Cable ATA100			X
USB Function Test			
USB Basic Function Test	Result		
	Pass	Fail	N/A
USB Controller	X		
USB 2.0 Controller	X		
USB Keyboard Support	X		
USB Mouse Support	X		
USB 1.1 Compatible Test	Result		
	Pass	Fail	N/A
USB 1.1 Compatible Test	X		
USB 2.0 Compatible Test	Result		
	Pass	Fail	N/A
USB 2.0 Compatible Test	X		
USB 2.0 Function Test	Result		
	Pass	Fail	N/A
Install Windows XP Professional from HighSpeed Device: USB2.0 DRW-1604P-D/WHT/G/ASUS	X		
USB Device Full Loading Test	Result		
	Pass	Fail	N/A
Model			
Mitsumi FLL3.5 D353GUE/FUE	X		
USB HDD 20GB	X		

USB Card Reader		X			
USB Mouse		X			
USB Flash drive Transcend 2GB		X			
Floppy Disk Controller Function Test	<b>Result</b>				
		Pass	Fail	N/A	
Copy and compare file between C: and A / B:				X	
Change Floppy to None value				X	
Swap FDD				X	
<b>Peripheral Compatibility-Storage Device</b>					
Model	Interface	<b>Result</b>			
		Pass	Fail	N/A	
FUJITSU MCB3064SS	SCSI			X	
IOMega ZIP 100 parallel port	Parallel			X	
IOMega ZIP100MB Internal ATAPI Drive	IDE			X	
DOC				X	
Type-I CF	Fix / PIO Mode	X			
Type-I CF	Fix / UDMA Mode	X			
Digital I/O Connector Test	<b>Result</b>				
		Pass	Fail	N/A	
Input Address: 201H		X			
Output Address: 201H		X			
VCC: (5V) , Position : (CN9)		X			
DIO-1 Function Test		X			
DIO-2 Function Test				X	
<b>Adapter Compatibility- Industry Control Card PC/104, PC/104+, PCI-104 Modules</b>					
Interface	Model	Type	<b>Result</b>		
			Pass	Fail	N/A
PC/104	AAEON PCM-5600	Modem Module			X
	AAEON PCM-3115B	PCMCIA Module			X
PC/104+	AAEON PCM-3430	SCSI Module			X
PCI-104	AAEON PCM-FA00	Mini-PCI Converter			X
	AAEON PCM-3794	SCSI Module			X
	AAEON PCM-3730	Intel 82559 LAN Module			X
PCI/104 Express	AAEON PER-123				X
<b>On-Board RAID Function Test</b>					
Model	Interface	<b>Result</b>			
		Pass	Fail	N/A	
Set SATA HDDs as RAID 0	SATA			X	
Set SATA HDDs as RAID 1	SATA			X	
Set SATA HDDs as RAID 10	SATA			X	

Set SATA HDDs as RAID 5	SATA			X		
COM Function Test		Result				
		Pass	Fail	N/A		
COM Port Burn In Test overnight		X				
Disk On Module [DOM] Compatibility Test						
Model		Interface		Result		
				Pass	Fail	N/A
Transcend / TS512MDOM40V / 512MB		IDE 40 Pin				X
Transcend / TS512MDOM44V / 512MB		IDE 44 Pin				X
Mini PCI Card Compatibility Test						
Model		Interface		Result		
				Pass	Fail	N/A
PCI 10/100 LAN Mini PCI Card (Model:PER-C10L)		LAN		X		
GM-101 WLAN 11b/g 54Mbps Mini PCI Card (Model: VNT6655AM)		WLAN		X		
COM/LPT Ports & RS-232/422/485 Function Test				Result		
				Pass	Fail	N/A
RS-422 for COM2				X		
RS-485 for COM2				X		
COM1				X		
COM2				X		
COM3				X		
COM4				X		
COM5						X
COM6						X
LPT1						X
LPT2						X
Card Bus(PCMCIA) Compatibility Function Test						
Model			Result			
			Pass	Fail	N/A	
Intel PRO/Wireless 2011B LAN PC Card (WPC2011BWW)					X	
PQI 16MB Compact Flash Adapter (64MB PQI CF Card inserting)					X	
Kingston datapack DP-PCM2 / 2GB (PC Card TypeII HDD)					X	
PCi GW-NS54SG Cardbus Adapter Wireless LAN Type-II					X	

## 6. O.S. Compatibility Test

Installation Operation System Compatibility Test		Result			
		Pass	Fail	N/A	
[ ] Linux-Red Hat 9.0 or [ X ] Fedora Core 10 -Kernel 2.6.27		X			
Windows Vista TM Ultimate English Version				X	
Windows Vista TM Ultimate x64 Edition English Version				X	
Windows XP Professional English Version V2002 Service Pack 3		X			
Windows XP Professional English Version /Standard x64 Edition				X	
Windows 2000 Professional English Version V5.00.2195 Service Pack4				X	
Windows Server 2000 English Version				X	
Windows Server 2003 English Version / Standard Edition 5.2.3790				X	
Windows Server 2003 English Version /Standard x64 Edition				X	
Utility and Driver Test					
OS	Drivers Version		Result		
			Pass	Fail	N/A
Linux-Fedora 10 Kernel- 2.6.27	Chipset Software	Default Driver	X		
	Graphics Media	Default Driver	X		
	LAN Driver	Default Driver	X		
	Audio Driver	Default Driver	X		
Windows Vista TM Ultimate English Version	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows Vista TM Ultimate x64 Edition English Version	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows XP Professional English Version V2002 Service Pack 3	Chipset Software	Intel ® Chipset Device Software 8.2.0.1014 (3/5/2007)	X		
	Graphics Media	Mobile Intel ® 965 Express Chipset Family 6.14.10.4924 (2/8/2008)	X		
	LAN Driver	Intel ® 82566MM Gigabit Network Connection 9.12.18.0 (2/6/2008) Intel ® 82574L Gigabit Network Connection 10.3.49.0 (8/5/2008)	X		
	Audio Driver	Realtek High Definition Audio 5.10.0.5928 (8/31/2009)	X		
Windows XP Professional x64 Edition English Version Service Pack 2 V2002	Chipset Software				X
	Graphics Media				X

	LAN Driver				X
	Audio Driver				X
Windows 2000 Professional English Version V5.00.2195 Service Pack 4	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows Server 2000 English Version	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows Server 2003 English Version Standard Edition 5.2.3790	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows Server 2003 English Version Standard x64 Edition	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X

## 7. BIOS Function Test

Test Item	Result		
	Pass	Fail	N/A
Memory Beep Test			X
Standard CMOS Setup Test	X		
Boot Sequence Test	X		
<b>Power Management Test</b>			
APM Power Management Test	X		
ACPI Power Management Test	X		
Power On Function Test			X
Wake Up Event Test	X		
Power On after Power Failure Test	X		
CMOS Backup / Clear CMOS Test	X		
Boot ROM Test (RPL/PXE)	X		
Supervisor / User Password Test	X		
CRT / LCD / DVI / Function Test	X		
TV Standard Function Test			X
Init Display First Function Test			X
On-Chip Serial ATA Function Test	X		
SATA Mode-IDE/RAID Function Test			X
<b>PC Health Status</b>			
Voltage Monitor Test	X		
FAN Speed Monitor Test	X		
Temperature Monitor Test	X		
Swap Floppy Drive & Boot up Floppy Seek Function Test			X
USB Onboard Device Function Test	X		
COM Address / IRQ Test	X		
LPT Address / IRQ Test			X
BIOS AWDFLASH Program Test	X		



## 8. Performance Test

### Platform Information

CPU Board	GENE-9655 Rev A1.0
Carrier Board	N/A
BIOS	GENE-9655 BIOS Rev 1.0 (3/10/2010)
Operating System	Windows XP SP3
CPU	Intel® Core™ 2 Duo CPU T7500 2.20GHz
Memory	Transcend HYNIX HY5PS121621BFP-C4 DDR2-533 256MB
SATA HDD	Seagate ST3250318AS 3.5" SATA 250GB
CRT	ViewSonic E70 17"
Chipset Software	Intel (R) Chipset Device Software 8.2.0.1014 (3/5/2007)
Graphics Media	Mobile Intel (R) 965 Express Chipset Family 6.14.10.4924 (2/8/2008)
LAN Driver	Intel (R) 82566MM Gigabit Network Connection 9.12.18.0 (2/6/2008) Intel (R) 82574L Gigabit Network Connection 10.3.49.0 (8/5/2008)
Audio Driver	Realtek High Definition Audio 5.10.0.5928 (8/31/2009)
Power Supply or Adapter	ACBEL PC7019 330W

### Test result:

Testing Software	Result	Unit
<b>PCMark2002</b>		
CPU	8680	
Memory	27290	
HDD	1437	
<b>Final Reality V1.01—BenchMark Test</b>		
2D image	50.94	
3D	4.40	
Bus transfer	85.12	
Overall	30.47	Reality marks
<b>3Dmark2001</b>		
3DMark2001SE Build 330_Benchmark mode	3184	
Testing Software	Result	Unit
<b>PCMark05</b>		
PCMark	N/A	PCMarks
CPU	5805	
Memory	4377	
Graphics	N/A	
HDD	16167	
<b>3Dmark2003 v360</b>		

3Dmark Score	1285	
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Remark: Please uses below two performance software to test main board if the chipset is new enough.  
(ex. Intel Core 2 Duo CPU)