

GES-3300F

P5 Test Report

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

Issue date	Approval	Test Engineer
2010/9/30	Jansin Lee	Nisam Jone

Platform Information:

Product Model	GES-3300F
Description	Intel 945GME Green Embedded System
Test Configuration	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> PCB Board : EMB-9458T A1.0-B <input checked="" type="checkbox"/> BIOS : GES-3300F BIOS Rev 1.1 (09/14/2010) <input checked="" type="checkbox"/> Carrier Board : N/A <input checked="" type="checkbox"/> Expansion Board : N/A <input checked="" type="checkbox"/> Riser Card :N/A <input checked="" type="checkbox"/> Chipset : <input checked="" type="checkbox"/> CPU : <input checked="" type="checkbox"/> North Bridge : Intel 945 GME <input checked="" type="checkbox"/> South Bridge : ICH7M <input checked="" type="checkbox"/> VGA Chipset : Intel 945 GME <input checked="" type="checkbox"/> Audio Chipset : Realtek AC97 <input checked="" type="checkbox"/> Ethernet Chipset : Intel 82573L Gigabit Ethernet <input checked="" type="checkbox"/> I/O Chipset : ITE 8712F <input checked="" type="checkbox"/> TV Chipset : N/A <input checked="" type="checkbox"/> Remark : QE P5 Report for GES-3300F

Item	Device Information	Test Item
PCB Model / Version	GES-3300F	1
BIOS / Version	GES-3300F BIOS Rev 1.1 (09/14/2010)	1
CPU Type	Intel® Core™ 2 T7400 2.16GHz (166x13)	1
Memory Type	TLA DDR2 667 512MB 240PIN x2 (IC: HYNIX HY5PS12821C)	1
SATA HDD	FUJITSU MHZ2080BH G2 80GB 2.5" SATA HDD	1
Primary IDE Master	N/A	N/A
Primary IDE Slave	N/A	N/A
CRT	N/A	N/A
LCD	ViewSonic VA703b 17"	1
Compact Flash	N/A	N/A
Riser Card	N/A	N/A
Backplane	N/A	N/A
OS Install	Windows XP Professional English Version V2002 Service Pack 3	1
Power Supply	AC Adapter : EDAC EA1050A-120	1

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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

I/O Peripheral Function Test –I/O Function	Result		
	Pass	Fail	N/A
Floppy Connector / Driver A:			X
Primary IDE Master			X
Primary IDE Slave			X
Secondary IDE Master (Reserved for CF Card)			X
Secondary IDE Slave (Reserved for CF Card)			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
DOM (Disk On Module) – 44 Pin			X
COM 1-232	X		
COM 2-232	X		
COM 2-422	X		
COM 2-485	X		
COM 2-Ring /+5V /+12V	X		
COM 3-232	X		
COM 4-232	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
SIR / 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
TFT TTL LCD				X
TFT LVDS LCD				X
TV-out / S Terminal				X
TV-out / AV Terminal				X
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
Onboard IDE LED		X		
Onboard Power LED		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
LAN Connector & Function	Result			
		Pass	Fail	N/A
LAN Speed LED	LAN1	X		
	LAN2	X		
LAN Active LED	LAN1	X		
	LAN2	X		
LAN Link LED	LAN1	X		
	LAN2	X		
LAN 10/100 Ethernet		X		
LAN 1G Ethernet		X		

2. Power Consumption Test (Run Prime95 Program)

Platform Information

PCB Model / Version	GES-3300F
BIOS	EMB-9458T BIOS Rev 0.4 (07/16/2007) for 18S/D LVDS
Operating System	Windows XP Professional V2002 Service Pack 2
CPU	Intel Core 2 Duo T7400 2.16 GHz
Memory	Transcend DDR2-667 SDRAM 2GB (7GE12 D9HNL)
SATA HDD	Seagate ST3120026AS/P 120GB
Primary IDE Master	N/A
Primary IDE Slave	LITE-ON LTN-527T 52X CD-ROM
CRT	Viewsonic E70
Graphics Media	Intel(R) Chipset Software Installation Utility 7.2.1006
LAN Driver	Mobile Intel(R) 945GM Express Chipset Family 6.14.10.4704 (10/6/2006)
Audio Driver	Intel(R) PRO/1000 PL Network Connection 9.5.12.0 (7/26/2006)
Touchscreen Driver	Realtek AC'97 Audio 5.10.0.5820 (3/25/2005)
Power Supply	AC Adapter : EDAC EA1050A-120

Model	Test Environment	ATX Power: PRT PRM400 ATX power supply		AT Power:N/A		Note
		CPU: Intel Core 2 Duo T7400 2.16 GHz	CPU: N/A	CPU:N/A	CPU:N/A	
OS Environment	Windows XP Professional English Version V2002 Service Pack 2					
Normal Mode (+5V)		3.60	A	A	A	A
Suspend Mode (+5V)		0.04	A	A	A	A
5VSB in Power Off Mode (just for ATX)		0.15	A	A	-----A	-----A
5VSB in Power On Mode (just for ATX)		0	A	A	-----A	-----A

Normal Mode (+12V)	2.24	A	A	A	A	A	
Suspend Mode (+12V)	0.02	A	A	A	A	A	Suspend to Windows (S3)
Normal Mode (+3.3V) (just for ATX)	0	A	A	A	A	A	
Suspend Mode (+3.3V) (just for ATX)	0	A	A	A	A	A	
Normal Mode (-12V)	0	A	A	A	A	A	
Suspend Mode (-12V)	0	A	A	A	A	A	
Normal Mode (-5V)	0	A	A	A	A	A	
Suspend Mode (-5V)	0	A	A	A	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		
	255 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 ® Celeron M CPU 440 @1.86GHz		533 MHz	V.256	X				
Memory Compatibility Test								
Memory Brand	Memory Chipset	Frequency	Size	MemTest86 Version	Result			
					Pass	Fail	N/A	
Transcend	SEC 901 HCF7 K4T1G084QQ	800	2GB	V4.0	X			
Audio Basic Function Test					Result			
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			
			Condenser		X			
MIC Sound Recorder			Dynamic		X			
			Condenser		X			
Audio 5.1 Channel with S/P DIF Function Test					Result			
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					Result			
NTSC		AV Terminal						X
PAL								X
NTSC		S Terminal						X

PAL				X
HDD Compatibility Test				
Model	Result			
	Pass	Fail	N/A	
FUJITSU MHY2080BH 80GB 2.5" SATA	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: SONY USB2.0 DVD-R/W DRX-830UL	X			
USB Device Full Loading Test	Result			
	Pass	Fail	N/A	
Model	Pass	Fail	N/A	
SONY USB2.0 DVD-R/W DRX-830UL	X			
Mitsumi FLL3.5 D353GUE/FUE	X			
USB HDD 20GB	X			
USB Card Reader	X			
USB Mouse	X			
USB Flash drive Transcend 8GB	X			
Floppy Disk Controller Function Test	Result			
	Pass	Fail	N/A	

Copy and compare file between C: and A / B:			X
Change Floppy to None value			X
Swap FDD			X

Peripheral Compatibility-Storage Device

Model	Interface	Result		
		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 Transcend CF Card 4GB	Fix / UDMA Mode	X		

Digital I/O Connector Test

Address: 2A1 VCC: (5V) , Position : (801) DIO Function Test	Result		
	Pass	Fail	N/A
Address: 2A1	X		
VCC: (5V) , Position : (801)	X		
DIO Function Test	X		

Adapter Compatibility- Industry Control Card PC/104, PC/104+, PCI-104 Modules

Interface	Model	Type	Result		
			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

On-Board SCSI Function Test

Model	Interface	Result		
		Pass	Fail	N/A
RICOH MP7060S	SCSI-CDROM 24X			X
Fujitsu MCB3064SS	SCSI-MO Device			X
Seagate 32155W	SCSI-HDD 2.15GB			X
IBM DNES-309170	SCSI-HDD 9GB			X
Seagate ST39205LW/P	9GB / Ultra160 / LVD			X

On-Board RAID Function Test

Model	Interface	Result		
		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 Typell 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 8			X		
Windows 7 Ultimate English Version					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 2000 Professional Simplified-Chinese Version V5.00.2195 Service Pack4					X
Windows 2000 Professional Japanese 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
Windows 98SE English Version V4.10.2222A					X
DOS 6.22 English Version					X
Utility and Driver Test					
OS	Drivers Version		Result		
			Pass	Fail	N/A
Linux-Fedora 8 / Kernel-2.6.26.5-28.fc8	Chipset Software	Default Driver	X		
	Graphics Media	Default Driver	X		
	LAN Driver	Default Driver	X		
	Audio Driver	Default Driver	X		
Windows 7 Ultimate English Version	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows Vista TM Ultimate English Version	Chipset Software	Intel ® Chipset Device Software 8.3.1.1009 (7/26/2007)	X		
	Graphics Media	Mobile Intel ® 945 Express Chipset Family 7.14.10.1364 (10/31/2007)	X		
	LAN Driver	Intel ® PRO/1000 PL Network Connection 9.11.5.7 (6/21/2006)	X		
	Audio Driver	Realtek AC97 Audio 6.0.1.6251 (8/14/2007)	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 8.3.1.1009 (7/26/2007)	X		
	Graphics Media	Mobile Intel® 945 Express Chipset Family 6.14.10.4864 (8/204/2007)	X		
	LAN Driver	Intel® PRO/1000 PL Network Connection 9.5.12.0 (7/26/2006)	X		
	Audio Driver	Realtek AC97 Audio 5.10.0.5820 (3/25/2005)	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 2000 Professional Simplified-Chinese Version V5.00.2195 Service Pack4	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows 2000 Professional Japanese Version V5.00.2195 Service Pack4	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
Windows 98SE English Version V4.10.2222A	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		
Power Management Test			
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 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		
PC Health Status			
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	EMB-9458T Rev A1.0-B
Carrier Board	N/A
BIOS	GES-3300F BIOS Rev 0.1 (02/24/2010)
Operating System	English Windows XP Professional Service Pack 3
CPU	Intel ® Celeron M CPU 440 @ 1.86GHz
Memory	Transcend SEC 901 HCF7 K4T1G084QQ 800 2GB
SATA HDD	FUJITSU MHY2080BH 80GB 2.5" SATA
Primary IDE Master	N/A
Primary IDE Slave	N/A
CRT	View Sonic E70
LCD	N/A
Compact Flash	N/A
Expansion Board	N/A
Chipset Software	Intel ® Chipset Device Software 8.3.1.1009 (7/26/2007)
Graphics Media	Mobile Intel ® 945 Express Chipset Family 6.14.10.4864 (8/204/2007)
LAN Driver	Intel ® PRO/1000 PL Network Connection 9.5.12.0 (7/26/2006)
Audio Driver	Realtek AC97 Audio 5.10.0.5820 (3/25/2005)
Touchscreen Driver	N/A
Power Supply	DC-Adapter : 12V DC-IN

Test result:

Testing Software	Result	Unit
PCMark2002		
CPU	6342	
Memory	8693	
HDD	1083	
Final Reality V1.01—BenchMark Test		
2D image	35.34	
3D	6.46	
Bus transfer	55.44	
Overall	22.47	Reality marks
3Dmark2001		
3DMark2001SE Build 330_Benchmark mode	5295	

Testing Software	Result	Unit
PCMark05		
PCMark	N/A	PCMarks
CPU	3104	
Memory	2807	
Graphics	N/A	
HDD	4111	
3Dmark2003 v360		
3Dmark Score	1100	

Remark: Please uses below two performance software to test main board if the chipset is new enough.

(ex. Intel Core 2 Duo CPU)