

# GCS-1100i

## 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 <hr style="width: 100%;"/> 2010/10/11	Approval <hr style="width: 100%;"/> Jansin Lee	Test Engineer <hr style="width: 100%;"/> Leo Liu
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## Platform Information:

<b>Product Model</b>	GCS-1100i
<b>Description</b>	Intel Atom N270 1.6GHz Green Communication Server
<b>Test Configuration</b>	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> PCB Board : EMB-9459T / B1.0 <input checked="" type="checkbox"/> BIOS : GCS-1100i 1.0(09/10/2010)  <input checked="" type="checkbox"/> Chipset : <input checked="" type="checkbox"/> North Bridge : Intel 945GSE <input checked="" type="checkbox"/> South Bridge : Intel ICH7M <input checked="" type="checkbox"/> VGA Chipset : Intel 945GSE w/ integrated <input checked="" type="checkbox"/> Ethernet Chipset : Realtek RTL8111C(on Motherboard and I/O board)  <input checked="" type="checkbox"/> Remark : QE NPDP P5 Report for GCS-1100i

Item	Device Information	Test Item
PCB Model / Version	EMB-9459T / B1.0	1,2,3,4,5,6,7,8
BIOS / Version	GCS-1100i 1.0(09/10/2010)	1,2,3,4,5,6,7,8
CPU Type	Intel N270 Atom 1.6GHz	1,2,3,4,5,6,7,8
Memory Type	DSL DDR2-533 1GB(ELPIDA E5108AGBG-6E-E)	1,2,3,4,5,6,7,8
SATA HDD	WD 2.5" SATA 5400RPM 80GB(WD800BEVS-22RSTO)	1,2,3,4,5,6,7,8
SATA ODD	N/A	
Primary IDE Master	N/A	
Primary IDE Slave	N/A	
CRT	Hanns.G LCD 15"(JC151)	1,2,3,4,5,6,7,8
LCD	N/A	
Compact Flash	N/A	
Riser Card	N/A	
Backplane	N/A	
OS Install	Fedora Core 12	6
	Windows XP Professional English Version V2002 Service Pack 3	6
	Windows 2000 Professional English Version V5.00.2195 Service Pack4	6
Power Supply	DC Adapter : FSP 12V(FSP084-DMAA1)	1,2,3,4,5,6,7,8

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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
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
DOM (Disk On Module) – 44 Pin			X
COM 1-232	X		
COM 1-422	X		
COM 1-485	X		
COM 2-232	X		
COM 2-422	X		
COM 2-485	X		
COM 3-232	X		
COM 3-422	X		
COM 3-485	X		
COM 4-232	X		
COM 4-422	X		
COM 4-485	X		
COM 5-232	X		
COM 5-422	X		
COM 5-485	X		
COM 6-232	X		
COM 6-422	X		
COM 6-485	X		
COM 7-232	X		
COM 7-422	X		

COM 7-485	X		
COM 8-232	X		
COM 8-422	X		
COM 8-485	X		
COM 2-Ring /+5V /+12V	X		
PS/2 Mouse & Keyboard (Internal)			X
PS/2 Mouse & Keyboard (External)	X		
Audio Connector			X
Audio 7.1 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
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
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 IRQ n			X
Watchdog Software Control	X		
CPU FAN Connector			X
System FAN Connector			X
DC in Connector	X		

Power Button	X		
<b>Front Panel</b>	<b>Result</b>		
	<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
Power Button	X		
IDE LED	X		
External Buzzer			X
On Board Buzzer	X		
Power LED	X		
<b>Jumpers Function</b>	<b>Result</b>		
	<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
COM 1-232	X		
COM 1-422	X		
COM 1-485	X		
COM 2-232	X		
COM 2-422	X		
COM 2-485	X		
COM 3-232	X		
COM 3-422	X		
COM 3-485	X		
COM 4-232	X		
COM 4-422	X		
COM 4-485	X		
COM 5-232	X		
COM 5-422	X		
COM 5-485	X		
COM 6-232	X		
COM 6-422	X		
COM 6-485	X		
COM 7-232	X		
COM 7-422	X		
COM 7-485	X		
COM 8-232	X		
COM 8-422	X		
COM 8-485	X		
<b>Power Connector &amp; Function</b>	<b>Result</b>		
	<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
DC Adapter	X		
<b>ATX Power Connector</b>			<b>X</b>

ATX Power_12V Connector				X
AT Power Connector				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		
		Pass	Fail	N/A
LAN Link / Speed LED	LAN1	X		
	LAN2	X		
	LAN3	X		
	LAN4	X		
LAN Active LED	LAN1	X		
	LAN2	X		
	LAN3	X		
	LAN4	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 x1 / x4 / x16				X
Mini PCI Express card				X
Express card				X

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

### Platform Information

PCB Model / Version / CPU Board	EMB-9459T / B1.0
Carrier Board	N/A
BIOS	GCS-1100i 1.0(09/10/2010)
Operating System	Windows XP Professional English Version V2002 Service Pack 3
CPU	Intel N270 Atom 1.6GHz
Memory	DSL DDR2-533 1GB(ELPIDA E5108AGBG-6E-E)
SATA HDD	WD 2.5" SATA 5400RPM 80GB(WD800BEVS-22RSTO)
Primary IDE Master	N/A
Primary IDE Slave	N/A
CRT	Hanns.G LCD 15"(JC151)
LCD	N/A
Compact Flash	N/A
Backplane	N/A
Riser Card	N/A
Power Supply	DC Adapter : FSP 12V(FSP084-DMAA1)

Test Environment	ATX Power: Seventeam 350W(ST-350BKV)	AT Power: N/A	Note
Model			
CPU	Intel(R) Atom N450 1.6GHz / FSB: 533MHz	N/A	S1
HDD	Seagate 3.5" SATA2 80G(ST380815AS)	N/A	
RAM	A-DATA DDR2-667 1G(A-DATA AD29608A8A-3EG)	N/A	
OS Environment	Windows XP-sp3	N/A	
Normal Mode (+5V)	N/A	A	A
Suspend Mode (+5V)	N/A	A	A
5VSB in Power Off Mode (just for ATX)	0.01	A	A
5VSB in Power On Mode (just for ATX)	0.01	A	A
5VSB in Suspend Mode (just for ATX)	0.02	A	A S1
Normal Mode (+12V)	1.54	A	A
Suspend Mode (+12V)	0.91	A	A
Normal Mode (+3.3V) (just for ATX)	N/A	A	A



Suspend Mode (+3.3V) (just for ATX)	N/A	A	-----	A	
Normal Mode (-12V)	N/A	A	N/A	A	
Suspend Mode (-12V)	N/A	A	-----	A	
Normal Mode (-5V)	N/A	A	N/A	A	
Suspend Mode (-5V)	N/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			
LAN3 LED	Link / Speed LED				X			
	Active LED				X			
LAN4 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		
		HP J4095A 24 Ports	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		
		HP J4095A 24 Ports	100M	100 MBps	100	X		
		SVEC FD916H (10 Mbps HUB)	100M	10 MBps	10	X		
Onboard LAN3	10/100/1000 Mbps	D-Link DGS-1008T	100M	1GBps	1000	X		
		HP J4095A 24 Ports	100M	100 MBps	100	X		
		SVEC FD916H (10 Mbps HUB)	100M	10 MBps	10	X		
Onboard LAN4	10/100/1000 Mbps	D-Link DGS-1008T	100M	1GBps	1000	X		
		HP J4095A 24 Ports	100M	100 MBps	100	X		

		SVEC FD916H (10 Mbps HUB)	100M	10 MBps	10	X		
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## 5. Hardware Compatibility

CPU Compatible Test							
CPU Type	FSB	Prime95 Version	Result				
			Pass	Fail	N/A		
Intel Atom D510	533	V.259	X				
Memory Compatibility Test							
Memory Brand	Memory Chipset	Frequency	Size	MemTest86 Version	Result		
					Pass	Fail	N/A
DSL	ELPIDA(E5108AGB G-6E-E)	533MHz	1GB	V4.00	X		
Transcend	SEC 652 ZCE6 K4T51083QE	667MHz	512MB	V4.00	X		
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				Dynamic			X
				Condenser			X
MIC Sound Recorder				Dynamic			X
				Condenser			X
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					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
	AU G150XG01 V.0 / 15" / 1024*768 / 18bit (4:3)	3.3V			X
	AU M150XN07 V.2 / 15" / 1024x768 / 24bit (4:3)	3.3V			X
	Toshiba /12.1"/1280 x 768 x 18bit (16:9)	3.3V			X
	AU M170EG01 / 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	5V			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
CHANTECH 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
SksKonnnect 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
WD 2.5" 5400RPM 80GB(WD800BEVS-22RSTO)	X		
FUJITSU 2.5" SATA2 5400RPM 80GB(MHZ2080BH G2)	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			
SONY USB2.0 DVD-R/W DRX-830UL	X		
Mitsumi FDD D353GUE/FUE	X		

USB HDD FUJITSU MHW2040AT 40GB	X		
USB 2.0 HUB PowerSync 4 Port HU-155	X		
USB Mouse	X		
USB Flash drive Transcend 2GB	X		
<b>Floppy Disk Controller Function Test</b>	<b>Result</b>		
	<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
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>				
<b>Model</b>	<b>Interface</b>	<b>Result</b>		
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
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

<b>Digital I/O Connector Test</b>	<b>Result</b>		
	<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
Input Address: N/A			X
Output Address: N/A			X
VCC: (5V) , Position :			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>					
<b>Interface</b>	<b>Model</b>	<b>Type</b>	<b>Result</b>		
			<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
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 SCSI Function Test</b>				
<b>Model</b>	<b>Interface</b>	<b>Result</b>		
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
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
<b>On-Board RAID Function Test</b>				
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
<b>COM Function Test</b>		Result		
		Pass	Fail	N/A
COM Port Burn In Test overnight		X		
<b>Disk On Module [DOM] Compatibility Test</b>				
Model	Interface	Result		
		Pass	Fail	N/A
Transcend / TS512MDOM40V / 512MB	IDE 40 Pin			X
Transcend / TS512MDOM44V / 512MB	IDE 44 Pin			X
<b>Mini PCI Card Compatibility Test</b>				
Model	Interface	Result		
		Pass	Fail	N/A
Ralink RT2571WF WLAN Mini Card (USB Interface)	WLAN			X
Sil3132 Mini PCI-E Function Test Card (USB Interface)				X
<b>COM/LPT Ports &amp; RS-232/422/485 Function Test</b>		Result		
		Pass	Fail	N/A
RS-422 for COM1		X		
RS-485 for COM2		X		
RS-485 for COM3		X		
RS-485 for COM4		X		
RS-485 for COM5		X		
RS-485 for COM6		X		
RS-485 for COM7		X		
RS-485 for COM8		X		
COM1		X		
COM2		X		
COM3		X		
COM4		X		
COM5		X		
COM6		X		



COM7	X		
COM8	X		
LPT1			X
LPT2			X
<b>Card Bus(PCMCIA) Compatibility Function Test</b>			
<b>Model</b>	<b>Result</b>		
	<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
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

<b>Installation Operation System Compatibility Test</b>		<b>Result</b>			
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>	
[ ] Linux-Red Hat 9.0 or [ X ] Fedora Core 12		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	
<b>Utility and Driver Test</b>					
<b>OS</b>	<b>Drivers Version</b>		<b>Result</b>		
			<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
Linux-Fedora 12 / Kernel-2.6.31.5-127.fc12	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
	LAN Driver				X

	Audio 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(R) Chipset Device Software: 9.1.1.1009(2009/03/09)	X		
	Graphics Media	Intel(R) Graphics Media Accelerator 3150: 6.14.10.5244(2010/03/17)	X		
	LAN Driver	Intel(R) 82567V-3 Gigabit Network Connection: 10.1.9.0(2010/4/7)	X		
		Intel(R) 82583V Gigabit Network Connection: 11.4.7.0(2009/12/4)			
	Audio Driver	Realtek High Definition Audio: (2.99)R2.48; 5.10.0.6101(2010/4/30)	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	Intel(R) Chipset Device Software: 9.0.0.1008(2008/05/01)			X
	Graphics Media	Mobile Intel(R) 945 Express Chipset Family: 6.14.10.4926(2008/02/15)	X		
	LAN Driver	Realtek PCIe GBE Family Controller: 5.732.629.2009(2009/6/29)	X		
	Audio Driver	VIA High Definition Audio: 6.50.30.081111; 6.0.1.1550(2008/10/22)	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		
<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 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

PCB Board	EMB-9459T / B1.0
Carrier Board	N/A
BIOS	GCS-1100i 1.0(09/10/2010)
Operating System	English Windows XP Professional Service Pack 3
CPU	Intel N270 Atom 1.6GHz
Memory	DSL DDR2-533 1GB(ELPIDA E5108AGBG-6E-E)
SATA HDD	WD 2.5" SATA 5400RPM 80GB(WD800BEVS-22RSTO)
Primary IDE Master	N/A
Primary IDE Slave	N/A
CRT	Hanns.G LCD 15"(JC151)
LCD	N/A
Compact Flash	N/A
Expansion Board	N/A
Chipset Software	Intel(R) Chipset Device Software: 9.0.0.1008(2008/05/01)
Graphics Media	Mobile Intel(R) 945 Express Chipset Family: 6.14.10.4926(2008/02/15)
LAN Driver	Realtek PCIe GBE Family Controller: 5.732.629.2009(2009/6/29)
Audio Driver	VIA High Definition Audio: 6.0.1.1550(2008/10/22)
Touchscreen Driver	N/A
Power Supply	DC-Adapter : FSP 12V(FSP084-DMAA1)

### Test result:

Testing Software	Result	Unit
<b>PCMark2002</b>		
CPU	2660	
Memory	6272	
HDD	986	
<b>Final Reality V1.01—BenchMark Test</b>		
2D image	19.65	Reality marks
3D	4.16	
Bus transfer	37.02	
Overall	13.74	
<b>3Dmark2001</b>		
3DMark2001SE Build 330_Benchmark mode	2839	

**Test Result:**

Testing Software	Result	Unit
<b>PCMark05</b>		
PCMark	1384	PCMarks
CPU	1486	
Memory	2423	
Graphics	465	
HDD	3967	
<b>3Dmark2003 v360</b>		
3Dmark Score	710	
CPU Score	247	

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