



## Summary Table of contents :

Summary Table of contents	2
Platform Information	3
1. OSD Control Function Test	3
2. I/O Peripheral Function Test	3
3. Timer Accuracy Test	8
4. Network HUB / LAN Connection Test	8
5. Hardware compatibility	8
6. O.S. Compatibility Test	12
7. BIOS Function Test	12
8. Performance Test	13

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 specification or no test equipment

**Platform Information:**

<b>Item</b>	<b>Device Information</b>
System	POP-150
CPU Board	TF-GENE-8310 (A1.11)
BIOS / Version	POP-150 BIOS Rev 1.0(2009/01/08)
CPU Type	Intel Celeron M370(Dothan) 1.5GHz
Memory Type	DDR 333(PC2700) 512MB
HDD	FUJITSU MHW2040AT 40GB
CRT	ViewSonicE653
Operating System	Windows 2000
	Windows XP Professional English Version Service Pack3
Power Supply	AC Adapter :LE-0316B120084 Input:100-240V~60-50Hz 1.5A
	Output: 12V, 7.0A 84W MAX

## Test Result for Certification

### 1. OSD Control Function Test

OSD Control Function	Result			Note
	Pass	Fail	N/A	
Power Button	X			
Brightness			X	
Contrast			X	
Speaker Volume Up			X	
Speaker Volume Down			X	

### 2. I/O Peripheral Function Test

I/O Function	Result			Note
	Pass	Fail	N/A	
<b>Floppy Connector / Driver A:</b>			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 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	
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	
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	
CD-In Connector			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 – 4 Wire	X			
DIMM Slots			X	
Watchdog IRO 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			X	
LCD Voltage Selection			X	
COM2-Ring/5V/12V Selection			X	
COM2 RS-232/422/485 Selection	X			
Clear CMOS			X	

<b>Touch Screen Operating Mode</b>				X	
<b>Clock Shift of TFT LCD</b>				X	
<b>DC Connector &amp; Function</b>		<b>Result</b>			<b>Notes</b>
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>	
<b>ATX Power Connector</b>				X	
<b>ATX Power 12V Connector</b>				X	
<b>AT Power Connector (P8 &amp; P9)</b>				X	
<b>Big 4P Power Connector</b>				X	
<b>Mini 4P Power Connector</b>				X	
<b>External Power Connector (-12/-5V)</b>				X	
<b>Option ATX Power Connector</b>				X	
<b>LAN Connector &amp; Function</b>		<b>Result</b>			<b>Notes</b>
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>	
<b>LAN Link / Speed LED</b>	<b>LAN1</b>	X			
	<b>LAN2</b>			X	
<b>LAN Active LED</b>	<b>LAN1</b>	X			
	<b>LAN2</b>			X	
<b>LAN 10/100 Ethernet</b>		X			
<b>LAN 1G Ethernet</b>				X	

### 3. Timer Accuracy Test

<b>System Clock &amp; RTC Clock Test</b>				
<b>Test Method</b>	<b>Margin for error</b>	<b>Result</b>		
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
<b>System Clock in Power On Mode</b>	$\pm 1$ second during 24 hours	X		
<b>RTC Clock in Power On Mode</b>	$\pm 1$ second during 24 hours	X		
<b>RTC Clock in Power Off Mode</b>	$\pm 1$ second during 24 hours	X		
<b>Watchdog Timer Test</b>		<b>Result</b>		
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
<b>Time-out Interval</b>	10 sec	X		
	60 sec	X		
	255 sec	X		

### 4. Network HUB / LAN Connection Test

<b>Location</b>		<b>LED Type</b>				<b>Result</b>		
						<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
<b>LAN1 LED</b>		<b>Active LED</b>				X		
		<b>Link LED</b>				X		
		<b>Speed LED</b>				X		
<b>LAN2 LED</b>		<b>Active LED</b>						X
		<b>Link LED</b>						X
		<b>Speed LED</b>						X
<b>LAN1</b>	<b>Speed</b>	<b>HUB Type</b>	<b>Cable</b>	<b>HUB</b>	<b>Onboard</b>	<b>Result</b>		

			Length	Speed	LAN Speed	Pass	Fail	N/A
			D-Link DGS-1008T	100M	1GBps	100	X	
Accton DeskTop-3005	100M	100 MBps	100	X				
SVEC FD916H (10 Mbps HUB)	100M	10 MBps	10	X				
LAN2	Speed	HUB Type	Cable Length	HUB Speed	Onboard LAN Speed	Result		
						Pass	Fail	N/A
		D-Link DGS-1008T	100M	1GBps	100			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			Result		
						Pass	Fail	N/A
Intel Celeron M370(Dothan) 1.5GHz			400MHz			X		
Memory Compatibility Test								
Memory Brand	Memory Chipset	Frequency	Size	MemTest86 Version	Result			
					Pass	Fail	N/A	
Onboard	Onboard Memory	333	512MB	V2.01	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
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
	AU B104SN05 / 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 LTD121EX1S / 12.1" / 1280x768 / 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
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
PCI VGA Card ATI REDEON 9250 256MB	VGA Card			X
SB Sound Live ! 5.1 SB0100	Sound 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

**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
<b>HDD Compatibility Test</b>				
<b>Model</b>		<b>Result</b>		
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
Seagate ST316815A 80GB 3.5" IDE HDD				X
<b>CD/DVD-ROM Compatibility Test</b>				
<b>Model</b>		<b>Result</b>		
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
SONY DVD-RW DRU-840A IDE 40 pin				X
<b>USB Function Test</b>				
<b>USB Basic Function Test</b>		<b>Result</b>		
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
USB Controller		X		
USB 2.0 Controller		X		
USB Keyboard Support		X		
USB Mouse Support		X		
<b>USB 1.1 Compatible Test</b>		<b>Result</b>		
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
USB 1.1 Compatible Test		X		
<b>USB 2.0 Compatible Test</b>		<b>Result</b>		
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
USB 2.0 Compatible Test		X		
<b>USB 2.0 Function Test</b>		<b>Result</b>		
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
Install Windows XP Professional from HighSpeed Device: USB2.0 DRW-1604P-D/WHT/G/ASUS		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>
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: 801H				X
Output Address:801H				X
VCC: (5V)				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

#### 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

#### PCI Card Compatibility Test

Model	Interface	Result		
		Pass	Fail	N/A
PCI VGA Card ATI REDEON 9250 256MB	VGA			X
D-Link DWL-520+ Wireless LAN	LAN			X
ADAPTEC 1420SA RoHS 4-Port SATA II RAID	SATA			X

#### PCI-Express Card Compatibility Test

Model	Interface	Result		
		Pass	Fail	N/A
SUNIX SATA1414 VER 1.1 PCI-Express x1 SATA Card	PCI-Express x1			X
Adaptec AAR-1430SA SATAII HostRAID Controllers PCI-Express x4 RAID Card	PCI-Express x4			X
ASUS EAX1600PRO/TD/256M/A (ATI Chipset) PCI-Express x16 VGA Card	PCI-Express x16			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

## 6. O.S. Compatibility Test

Installation Operation System Compatibility Test	Result		
	Pass	Fail	N/A
Windows XP Professional English Version Service Pack 3	X		
Windows 2000	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 (PXE)	X		
Supervisor / User Password Test	X		
Init Display First Function Test			X
On-Chip Serial ATA Function Test			X
SATA Mode-IDE/RAID Function Test			X
LPT Address / IRQ Test			X
BIOS AWDFLASH Program Test	X		

## 8. Performance Test Platform Information

System	POP-150
CPU Board	TF-GENE-8310(A1.11)
BIOS	POP-150 BIOS Rev 1.0(2009/01/08)
Operating System	English Windows XP Professional Service Pack 3
CPU	Intel Celeron M370(Dothan) 1.5GHz
Memory	DDR 333(PC2700) 512MB
HDD	FUJITSU MHW2040AT 40GB
Chipset Software	Intel(R) Chipset Software Installation Utility6.0.1.1002
Graphics Media	Intel(R) 82852/82855 GM/GME Graphics Controller 6.14.10.4020(1/23/2005)
LAN Driver	Intel(R)PRO/100 VE 7.1.12.0(2/10/2004)
Audio Driver	Realtek AC'97 Audio 5.10.0.5630 (7/1/2004)

Power Supply	AC Adapter :LE-0316B120084 Input:100-240V~60-50Hz 1. 5A Output: 12V, 7.0A 84W MAX
--------------	--

**Test result:**

Testing Software	Result	Unit
<b>PCMark2002</b>		
CPU	4976	
Memory	3201	
HDD	641	
<b>Final Reality V1.01—BenchMark Test</b>		
2D image	19.50	
3D	6.47	
Bus transfer	25.87	
Overall	13.29	Reality marks
<b>3Dmark2001</b>		
3DMark2001SE Build 330_Benchmark mode	1090	

**Test Result:**

Testing Software	Result	Unit
<b>PCMark05</b>		
PCMark	N/A	PCMarks
CPU	1923	
Memory	1513	
Graphics	N/A	
HDD	2430	
<b>3Dmark2003 v360</b>		
3Dmark Score	54	
CPU Score	N/A	

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