

P5 Verification Test Report

Release No : 09P010017

Product Model	FOX-151
Description	Multi-Purpose & Weather-Resistant Panel PC with 15" TFT LCD
Test Configuration	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> System : FOX-151 <input checked="" type="checkbox"/> PCB : GENE-9455 A1.0 <input checked="" type="checkbox"/> BIOS : FOX-151 BIOS Rev 1.0(07/01/2009) <input checked="" type="checkbox"/> Riser Card : N/A <input checked="" type="checkbox"/> LCD : CMOG150X1-L1 <input checked="" type="checkbox"/> Touch Panel : AMT 5-wire <input checked="" type="checkbox"/> M/B Chipset <input checked="" type="checkbox"/> North Bridge : Intel 945GSE <input checked="" type="checkbox"/> South Bridge : Intel ICH7-M <input checked="" type="checkbox"/> VGA Chipset : Intel 945GSE integrated VGA <input checked="" type="checkbox"/> Audio Chipset : Realtek ALC655 <input checked="" type="checkbox"/> Ethernet Chipset : Intel 82574L <input checked="" type="checkbox"/> I/O Chipset : ITE8781 <input checked="" type="checkbox"/> TV Chipset : N/A <input checked="" type="checkbox"/> Remark : QE P5 Report for FOX-151
Test Result Summary	
<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Pass with Deviation Comment: _____ _____	

2009/11/25

Issue date

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Manager

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Summary Table of contents :

Summary Table of contents	2
Platform Information	3
1. OSD Control Function Test	4
2. I/O Peripheral Function Test	4
3. Timer Accuracy Test	7
4. Network HUB / LAN Connection Test	7
5. Hardware compatibility	8
6. O.S. Compatibility Test	11
7. BIOS Function Test	11
8. Performance Test	12

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:

Item	Device Information
System	FOX-151
CPU Board	GENE-9455 A1.0
BIOS / Version	FOX-151 BIOS Rev 1.0(07/01/2009)
CPU Type	Intel ATOM N270 1.6GHz
Memory Type	DSL DDRII 667 512MB
IDE	IDE FUJITSU MHW2040AT 40GB
CRT	Viewsonic E653
Operating System	Windows XP Professional English Version Service Pack 3
Power Supply	DC Input: SINPRO MPU100-108 Input:100-240V~47-63Hz 1.25-0.5A Output : 24V 4.16A

Test Result for Certification

1. OSD Control Function Test

OSD Control Function	Result			Note
	Pass	Fail	N/A	
Power off	X			
Power on	X			
Brightness for Day and Night	X			

2. I/O Peripheral Function Test

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	
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 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			X	
LCD Voltage Selection			X	
COM2-Ring/5V/12V Selection			X	
COM2 RS-232/422/485 Selection			X	
Clear CMOS			X	
Touch Screen Operating Mode			X	
Clock Shift of TFT LCD			X	
DC 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				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			

3. Timer Accuracy Test

System Clock & RTC Clock Test				
Test Method	Margin for error	Result		
		Pass	Fail	N/A
System Clock in Power On Mode	± 1 second during 24 hours	X		
RTC Clock in Power On Mode	± 1 second during 24 hours	X		
RTC Clock in Power Off Mode	± 1 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		Active LED				X		
		Link LED				X		
		Speed LED				X		
LAN1	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(R) Atom(TM) CPU N270 1.6GHz		533MHz			X		
Memory Compatibility Test							
Memory Brand	Memory Chipset	Frequency	Size	MemTest86 Version	Result		
					Pass	Fail	N/A
DSL	ELPIDA(64MX8).E5108A(X)-6E-E.DSL.D2SE64081XG30AA	667	512MB	V2.01	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
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
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
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
CHAINTECH NVIDIA GeForce4 MX440-8X	VGA Card			X
SB Sound Live ! 5.1 SB0100	Sound Card			X
ADAPTEC Ultra160 SCSI ASC-29160	SCSI Card			X
RTL 8139 10/100MB	LAN Card			X
ADAPTEC 1420SA RoHS 4-Port SATA II RAID	RAID 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
FUJITSU MHW2040AT 40GB	X		

CD/DVD-ROM Compatibility Test

Model	Result		
	Pass	Fail	N/A
SONY DVD-RW DRU-840A IDE 40 pin			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						
Peripheral Compatibility-Storage Device								
Model		Interface		Result				
				Pass	Fail	N/A		
Type-I CF		Fix / PIO Mode				X		
Type-I CF		Fix / UDMA Mode				X		
Digital I/O Connector Test				Result				
				Pass	Fail	N/A		
Input Address: 801H						X		
Output Address:801H						X		
VCC: (5V)						X		
DIO-1 Function Test						X		
DIO-2 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
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/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
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		

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 / TV 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
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

System	FOX-151
CPU Board	Gene-9455 A1.0
BIOS	FOX-151 BIOS Rev 0.1.1(05/12/2009)

Operating System	English Windows XP Professional Service Pack 3
CPU	Intel(R) Atom(TM) CPU N270 1.6GHz
Memory	DSL DDRII 667 512MB
HDD	FUJITSU MHW2040AT 40GB
CRT	Viewsonic E653
Chipset Software	Intel (R) Chipset Device Software 9.0.0.1008
Graphics Media	Mobile Intel (R) 945 Express Chipset Family 6.14.10.4926(2/15/2008)
LAN Driver	Intel(R) 82574L Gigabit Network Connection 10.3.49.0(8/5/2008)
Audio Driver	Realtek AC'97 Audio 5.10.0.6280(1/23/2008)
Touchscreen Driver	PenMount 6000 USB 2.1.0.0(5/13/2008)
Power Supply	DC Input: SINPRO MPU100-108 Input:100-240V~47-63Hz 1.25-0.5A Output : 24V 4.16A

Test result:

Testing Software	Result	Unit
PCMark2002		
CPU	2649	
Memory	5909	
HDD	689	
Final Reality V1.01—BenchMark Test		
2D image	18.55	
3D	3.94	
Bus transfer	25.04	
Overall	11.49	Reality marks
3Dmark2001		
3DMark2001SE Build 330_Benchmark mode	2710	

Test Result:

Testing Software	Result	Unit
PCMark05		
PCMark	1389	PCMarks
CPU	1481	
Memory	2341	
Graphics	465	

HDD	2485	
3Dmark2003 v360		
3Dmark Score	686	
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)**