

P5 Verification Test Plan

Release No: 09P010004

Product Model	FOX-122
Description	Multipurpose & Waterproof Panel PC
Test Configuration	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> System : FOX-122 <input checked="" type="checkbox"/> PCB : Gene-9310 A1.0 <input checked="" type="checkbox"/> BIOS : FOX-122 BIOS Rev 1.0(4/21/2009) <input checked="" type="checkbox"/> Riser Card : N/A <input checked="" type="checkbox"/> Inverter : ATBEL.AB-A502-14M <input checked="" type="checkbox"/> Daughter Board : N/A <input checked="" type="checkbox"/> I/O Board : PER-T102 A1.1 <input checked="" type="checkbox"/> Power Board : PER-P17D A1.0 <input checked="" type="checkbox"/> LCD : Sharp LQ121S1LG61 12.1" (Max. resolution 800x600) <input checked="" type="checkbox"/> Touch Panel : Egalx 5 wire(USB interface) <input checked="" type="checkbox"/> M/B Chipset : <input checked="" type="checkbox"/> North Bridge : Intel 945GM <input checked="" type="checkbox"/> South Bridge : Intel ICH7-M <input checked="" type="checkbox"/> VGA Chipset : Intel 945GM integrated <input checked="" type="checkbox"/> Audio Chipset : Realtek ALC655 5.1CH AC97 CODEC <input checked="" type="checkbox"/> Ethernet Chipset : Intel 82573L 10/100/1000 Base-TX <input checked="" type="checkbox"/> I/O Chipset : IT-8712 <input checked="" type="checkbox"/> Remark : QE P5 test report for FOX-122
Test Result Summary	
<input checked="" type="checkbox"/> Pass	
<input type="checkbox"/> Fail	
<input type="checkbox"/> Pass with Deviation	
Comment: _____ _____	

2009/04/28

Issue date

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Manager

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Test Engineer

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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 specification or no test equipment

Platform Information:

Item	Device Information
System	FOX-122
PCB Model / Version	Gene-9310 A1.0
BIOS / Version	FOX-122 BIOS Rev. 1.0(4/21/2009)
CPU Type	Intel(R) Core(TM)2 CPU U7500 1.06GHz
Memory Type	DSL DDR2 1GB SODIMM(ELPIDA E5108AJBG6E-E)
SATA	Fujitsu MHZ2080BH 2.5" 80GB SATA HDD
Primary IDE Master	N/A
Primary IDE Slave	N/A
CRT	N/A
LCD	Sharp LQ121S1LG61 / 12.1" / 800x600
Compact Flash	N/A
Riser Card	N/A
Inverter	ATBEL.AB-A502-14M
Daughter Board	N/A
I/O Board	PER-T102 A1.1
Touch Panel	Egalx 5 wire(USB interface)
Operating System	Windows XP Professional English Version V2002 Service Pack 3
	Windows 2000 Professional English Version V5.00.2195 Service Pack4
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. 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 2-232	X		
COM 2-422	X		
COM 2-485(Adam-4011Module)	X		
COM 2-Ring /+5V /+12V(No Support)			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(Line out)	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
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
ATX simulates AT			X
Audio Out Selection (W/O & W/ Amplifier)			X
LCD Power Select			X
COM1-Ring/5V/12V Selection			X
COM2-Ring/5V/12V Selection			X
COM2 RS-232/422/485 Selection (Depends on BIOS)			X
COM3-Ring/5V/12V Selection			X
COM4-Ring/5V/12V Selection			X
Clear CMOS	X		
Touch Screen Operating Mode Selection			X
Clock Shift of TFT LCD			X

Power Connector & Function		Result		
		Pass	Fail	N/A
5V only Power for Big 4P				X
ATX Power Connector				X
ATX Power_12V Connector				X
AT Power Connector				X
Big 4P Power Connector				X
Mini 4P Power Connector				X
External Power Connector(DC Input)		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
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. Timer Accuracy Test

System Clock & RTC Clock Test				
Test Method	Margin for error	Result		
		Pass	Fail	N/A
RTC Clock in Power On Mode	±4 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		

3. 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

4. Hardware Compatibility

CPU Compatible Test							
CPU Type		FSB	Prime95 Version	Result			
				Pass	Fail	N/A	
Intel(R) Core(TM)2 CPU U7500 1.06GHz		533MHz	V.256	X			
		MHz	V.256				
Memory Compatibility Test							
Memory Brand	Memory Chipset	Frequency	Size	MemTest86 Version	Result		
					Pass	Fail	N/A
DSL DDR2 1GB SODIMM	ELPIDA E5108AJBG6E-E	533	1GB	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
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	Sharp LQ121S1LG61 / 12.1" / 800x600	-	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 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
TTL	AUO M190PW01 V0 / 19" / 1440X900/48 bit	5V			X
	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
Creative CT4170 Sound Blaster Sound Card				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
SksKonnect 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 / ST3160815A / 160GB /PATA-100				X
Fujitsu MHY2080BH 80GB 2.5" HDD / ATA-133 / SATA				X
Western Digital/WD8800AAJS / 80GB / SATA II				X
HITACHI HDP725025GLA380 / 250GB / SATA 3.0Gb/s				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			
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	Fix / UDMA Mode			X	
Digital I/O Connector Test		Result			
		Pass	Fail	N/A	
Input Address: BF				X	
Output Address: 33				X	
VCC: (5V) , Position : (801)				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 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		
COM Port Burn In Test overnight		Pass	Fail	N/A
		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		
RS-422 for COM2		Pass	Fail	N/A
		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	

5. O.S. Compatibility Test

Installation Operation System Compatibility Test		Result			
		Pass	Fail	N/A	
[] Linux-Red Hat 9.0 or [] Fedora Core 9				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
Windows XP Professional English Version V2002 Service Pack 3	Chipset Software	Intel(R) Chipset Device Software 8.3.1.1009	X		
	Graphics Media	Mobile Intel (R) 945 Express Chipset Family 6.14.10.4864(8/24/2007)	X		
	LAN Driver	Intel(R) PRO/1000 PL Network Connection 9.10.8.0(8/30/2007)	X		
	Audio Driver	Realtek AC'97 Audio 5.10.0.6270(10/26/2007)	X		
	Touchscreen Driver	USB Touchscreen Controller(Universal) 4.3.7.3203(8/3/2006)	X		
Windows 2000 Professional English Version V5.00.2195 Service Pack 4	Chipset Software	Intel(R) Chipset Device Software 8.3.1.1009	X		
	Graphics Media	Mobile Intel (R) 945 Express Chipset Family 6.14.10.4864(8/24/2007)	X		
	LAN Driver	Intel(R) PRO/1000 PL Network Connection 9.10.8.0(8/30/2007)	X		
	Audio Driver	Realtek AC'97 Audio 5.10.0.6270	X		

	Touchscreen Driver	USB Touchscreen Controller(Universal) 4.3.7.3203(8/3/2006)	X		
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6. 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(Wake on LAN / Wake on RTC)	X		
Power On after Power Failure Test	X		
CMOS Backup / Clear CMOS Test	X		
Boot ROM Test (PXE)	X		
Supervisor / User Password Test	X		
CRT / LCD / DVI / HDMI //TV Function Test (LCD only)	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		

7. Performance Test

Platform Information

System	FOX-122
PCB Model / Version	Gene-9310 A1.0
BIOS	FOX-122 BIOS Rev 0.2 (2009/02/12)
Operating System	Windows XP Professional V2002 Service Pack 3
CPU	Intel(R) Core(TM)2 CPU U7500 1.06GHz
Memory	DSL DDR2 1GB SODIMM(ELPIDA E5108AJBG6E-E)
SATA HDD	Fujitsu MHZ2080BH 2.5" 80GB SATA HDD

Primary IDE Master	N/A
Primary IDE Slave	N/A
CRT	N/A
LCD	Sharp LQ121S1LG61 / 12.1" / 800x600
Compact Flash	N/A
Backplane	N/A
Riser Card	N/A
Chipset Software	Intel(R) Chipset Device Software 8.3.1.1009
Graphics Media	Mobile Intel (R) 945 Express Chipset Family 6.14.10.4864(8/24/2007)
LAN Driver	Intel(R) PRO/1000 PL Network Connection 9.10.8.0(8/30/2007)
Audio Driver	Realtek AC'97 Audio 5.10.0.6270(10/26/2007)
Touchscreen Driver	USB Touchscreen Controller(Universal) 4.3.7.3203(8/3/2006)
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	4199	
Memory	8813	
HDD	1422	
Final Reality V1.01—BenchMark Test		
2D image	23.75	
3D	5.28	
Bus transfer	53.43	
Overall	18.05	Reality marks

Test Result:

Testing Software	Result	Unit
PCMark05		
PCMark	1602	PCMarks
CPU	1952	
Memory	2431	
Graphics	600	
HDD	4437	

3Dmark2003 v360		
3Dmark Score	964	
CPU Score	427	

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

(ex. Intel Core 2 Duo CPU)