

P5 Verification Test Plan

Release No : 09E010030

Product Model	ETX-CX700M
Description	VIA CX700M ETX Board
Test Configuration	☒ New product ☒ CPU Board : ETX-CX700M 1.0 ☒ BIOS : ETX-CX700M BIOS Rev 1.01 (07/06/2009) ☒ Carrier Board : ECB-901A Rev:A1.0-A ☒ Chipset : ☒ CPU : VIA C7 1.5GHz ☒ Chipset : VIA CX700M ☒ VGA Chipset : VIA CX700M Integrated ☒ Audio Chipset : Realtek ALC888 ☒ Ethernet Chipset : Realtek RTL8139DL / Intel 82551QM ☒ I/O Chipset : Winbond W83627HG-AW ☒ TV Chipset : VIA CX700M Integrated ☒ SDVO : N/A ☒ Remark : QE NPDP P5 Report for ETX-CX700M
Test Result Summary	
☒ Pass ☐ Fail ☐ Pass with Deviation Comment: _____ _____	

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Issue date

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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	Test Item
PCB Model	ETX-CX700M A1.0	
BIOS / Version	ETX-CX700M BIOS Rev 1.01 (07/06/2009)	
CPU Type	VIA C7 1.5GHz	
Memory Type	Transcend DDR2 667 SODIMM 1GB TS128MSQ64V6J	
SATA HDD	Western Digital WD1200BEVS-60RST0 120GB 2.5" SATA HDD	
Primary IDE Master	N/A	
Primary IDE Slave	ASUS DVD-E818A DVD-ROM	
CRT	ViewSonic E70	
LCD	N/A	
Compact Flash	N/A	
PCI-104	N/A	
Backplane	N/A	
Carrier Board	ECB-901A Rev:A1.0-A	
Operating System	[] Linux-RedHat 9.0 or [X] Fedora Core 6.0	1.2.3.4.5.6.7.8
	Windows Server 2003 English Version / Standard Edition 5.2.3790	
	Windows Server 2003 English Version /Standard x64 Edition	
	Windows XP Professional English Version V2002 Service Pack 3	1.2.3.4.5.6.7.8
	Windows XP Professional English Version /Standard x64 Edition	
	Windows Vista™ Ultimate English Version	
	Windows Vista™ Ultimate x64 Edition English Version	
	Windows 2000 Professional English Version V5.00.2195 Service Pack4	
	Windows 2000 Professional Simplified-Chinese Version V5.00.2195 Service Pack4	
	Windows 2000 Professional Japanese Version V5.00.2195 Service Pack4	
	Windows Server 2000 English Version	
	Windows 98SE English Version V4.10.2222A	
	MS-DOS 6.22 English Version	
Power Supply	ATX Power : COOLERMASER RS-350-PCAR-13 350W	1.2.3.4.5.6.7.8
	AT Power : ZECK ZKS-300W	1.2.3.4.5.6.7.8

Test Result for Certification

1. I/O Peripheral Function Test

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 3-232	X			
COM 4-232	X			
COM 2-422	X			
COM 2-485	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			
SIR / 115.2 Kbps	X			
FIR / 4M bps			X	
USB 1/2 Ports	X			
USB 3/4 Ports	X			
USB 2.0 1/2 Ports	X			
USB 2.0 3/4 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 – 4/5 Wire			X	
DIMM Slots	X			
Watchdog IRQ n			X	
Watchdog Software Control	X			
FAN1 Connector	X			
FAN2 Connector			X	
Express card			X	
Speaker Connector	X			
LCD Backlight Power Connector			X	
DC in Connector			X	
PCI Express Mini Card			X	
Power Button	X			
Battery 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	
BIOS write protection Selection and boot Selection			X	
Backlight enable level Selection and LVDS Power Selection			X	
COM1 +12V/+5V/RING Selection			X	
COM2 +12V/+5V/RING Selection	X			
Auto Power button Selection and power on selection			X	
Power source selection			X	
FAN Power Selection			X	
CMOS Clear Selection	X			
LCD Brightness and speaker level Selection			X	
Power Connector & Function	Result			
	Pass	Fail	N/A	
Standard AT Power Connector	X			

Standard ATX Power Connector		X			
5V Only Power Connector				X	
DC Adapter				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 Slot				X	
PCI Slot		X			
PCI Express				X	
Express card				X	

2. Power Consumption Test:

- Test Point:
1. Power on machine and boot into Windows environment
 2. Run test software: Prime95 to make system heavy loading in order to measure its maximum current
 3. Use Prova KYORITSU (set as 20A) to measure each current of system different mode

Environment Test Model	ATX Power: COOLERMASTER RS-350-PCAR-13 350W		AT Power: ZECK ZKS-300W		Note
CPU	VIA C7 1.5GHz		VIA C7 1.5GHz		
HDD	Western Digital WD800BB 80GB		Western Digital WD800BB 80GB		
RAM	Transcend DDR2 667 SODIMM 1GB TS128MSQ64V6J		Transcend DDR2 667 SODIMM 1GB TS128MSQ64V6J		
OS Environment	Windows XP Professional SP3		Windows XP Professional SP3		
Normal Mode (+5V)	3.49	A	3.05	A	
Suspend Mode (+5V)	1.43	A		A	
5VSB in Power Off Mode (just for ATX)	0.08	A		A	
5VSB in Power On Mode (just for ATX)	0.05	A		A	
5VSB in Suspend Mode (S1)	0.03	A		A	
Normal Mode (+12V)	0.87	A	0.65	A	
Suspend Mode (+12V)	0.14	A		A	
Normal Mode (+3.3V) (just for ATX)	0	A		A	
Suspend Mode (+3.3V) (just for ATX)	0	A		A	
Normal Mode (-12V)	0	A		A	
Suspend Mode (-12V)	0	A		A	
Normal Mode (-5V)	0	A		A	
Suspend Mode (-5V)	0	A		A	

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		
	20 sec	X		
	60 sec	X		
	255 sec	X		

4. Network HUB / LAN Connection Test

Location		LED Type				Result		
						Pass	Fail	N/A
LAN 1		Active LED				X		
		Link LED				X		
		Speed LED				X		
Location	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	Prime95 Version		Result		
					Pass	Fail	N/A
VIA C7 1.5GHz		400 MHz	V2414		X		
Memory Compatibility Test							
Memory Brand	Memory Chipset	Frequency	Size	MemTest86 Version	Result		
					Pass	Fail	N/A
DSL	ELPIDA E5108AGBG-6E-E	667MHz	512MB	V211	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 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		
	AU G084SN05 V.3 / 10" / 800*600 / 24bit (4:3)	3.3V			X
	AU M170EG01 V.D/ 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
ATI REDEON 9250 GC-R9250PCI-D3		VGA Card	X		
Creative Sound BLASTER Live5.1		Sound Card	X		
ADAPTEC Ultra160 SCSI ASC-29160		SCSI Card	X		
I-VIEW CP-1400AS (with Age STD-477FAI CCD)		Adapter Image Card	X		
D-Link DFE-530TX 10/100 Mbps Fast Ethernet Adapter		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 VGA Card					X
WinFast PX6200 TC TDH PCI-Express x16 VGA Card					X

HDD Compatibility Test			
IDE/SATA Model	Result		
	Pass	Fail	N/A
Seagate 8T380011A 80GB IDE 3.5"	X		
Western Digital WD800JB-00JJC0 80GB IDE 3.5"	X		
Seagate ST380815AS 80GB 3.5" HDD	X		
Seagate ST3160815AS 160GB 3.5" HDD	X		
CD/DVD-ROM Compatibility Test			
Model	Result		
	Pass	Fail	N/A
ASUS DVD-E818A 18X DVD ROM	X		
Pioneer DVD-ROM DVD-127A	X		
IDE Cable Function test			
IDE Model	Result		
	Pass	Fail	N/A
40 Pin Cable ATA66	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		
USB Device Full Loading Test			
Model	Pass	Fail	N/A
USB 2.0 HUBATEN/ 4 Port UH-204	X		
USB FDDMitsumi D353GUE	X		
ASUS USB2.0 DVD-R/W DRW-1604P	X		

USB HDD IBM IC25N020ATCS04-0 / 20GB / 4200RPM		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	
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:		X			
Output Address:		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 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 (Use PCI-104 transform board: MBC-1TM Rev.A1.0)	Interface	Result		
		Pass	Fail	N/A
GM-100 WLAN 11g Mini PCI Card (Model: Sky Thru GC-100)	LAN			X
GM-101 WLAN 11b/g 54Mbps Mini PCI Card (Model: VNT6655AM)	LAN			X
PER-C20S SATA RAID MiniPCI Card (Silicon Image Sil3512ECTU128 QF7227.1-1)	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
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

6. O.S. Compatibility Test

Installation Operation System Compatibility Test			Result		
			Pass	Fail	N/A
[] Linux-RedHat 9.0 or [X] Fedora Core 6.0			X		
Windows Server 2003 English Version / Standard Edition 5.2.3790					X
Windows Server 2003 English Version /Standard x64 Edition					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 Server 2000 English Version					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
Fedora Core 6.0	Chipset Software	Use Default Driver	X		
	Graphics Media	Use Default Driver	X		
	LAN Driver	Use Default Driver	X		
	Audio Driver	Use Default Driver	X		
Windows Vista TM Ultimate x64 Edition English Version	Chipset Software				X
	Graphics Media				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 XP Professional English Version V2002 Service Pack 3	Chipset Software	VIA 5.10A	X		
	Graphics Media	VIA/S3G UniChrome Pro II IGP 6.14.10.412 (12/30/2008)	X		
	LAN Driver	Realtek RTL8139/810x Family Fast Ethernet NIC 5.505.1004.2002 (10/4/2002)	X		
	Audio Driver	Realtek High Definition Audio 5.10.0.5296 (9/12/2006)	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 Server 2000 English Version	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			
AT Power Management Test	X		
ATX 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		
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

PCB Model	ETX-CX700M A1.0
Carrier Board	ECB-910A A1.0-A
BIOS	ETX-CX700M BIOS Rev 1.01 (07/06/2009)
Operating System	Windows XP Professional Service Pack 3 V2002
CPU	VIA C7 1.5GHz
Memory	DSL DDR2 667 512MB (ELPIDA E5108AGBG-6E-E)
SATA HDD	N/A
Primary IDE Master	WD WD800JB 80GB 3.5"HDD
Primary IDE Slave	N/A
CRT	ViewSonic E70
Compact Flash	N/A
Backplane	N/A
Riser Card	N/A
Expansion Board	N/A
Chipset Software	VIA 5.10A
Graphics Media	VIA/S3G UniChrome Pro II IGP 6.14.10.412 (12/30/2008)
LAN Driver	Realtek RTL8139/810x Family Fast Ethernet NIC 5.505.1004.2002 (10/4/2002)
Audio Driver	Realtek High Definition Audio5.10.0.5296 (9/12/2006)
Touchscreen Driver	N/A
Power Supply	COOLERMASER RS-350-PCAR-13 350W

Test result:

Final Reality V1.01—BenchMark Test (Reality Marks)		
2D Image	N/A	
3D	N/A	
Bus transfer	N/A	
Overall	N/A	
3Dmark2001SE Pro (Demo version)		
3DMark2001SE Build 330_Benchmark mode	894	
PCMark2002		
CPU	1319	
Memory	2030	
HDD	702	
PCMark05		
PCMark	N/A	
CPU	N/A	
Memory	N/A	
Graphics	N/A	
HDD	N/A	
3Dmark2003 v360		
3Dmark Score	55	