

ACD-521DHTT-A2-1010

21.5” Infotainment Touch Display

P5 Verification Test Report

Summary	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Pass with Deviation (Comment: _____)			
	Test Results Category			
	Critical	Major	Minor	Enhancement
Defect Found	0	0	0	0
Defect Unsolved	0	0	0	0

Issue date

2012/08/20

Approval

Tom Lin

Test Engineer

Mike Lee

Version Released Records

Date	Version	Change History	Note
2010/04/21	P3-1001	1. Re-composing test Items	
2010/06/01	P2P3-1001	1. New Test Report	
2010/06/21	P2P3-1002	1. Add BIOS -> SPI ROM Setting (South Bridge – GPIO)	
2010/12/02	P2P3-1003	1. New Test Report	
2011/02/23	P2P3-1101	1. Re-composing test Items	
2011/03/04	P2P3-1102	1. Add Specification Validation	

Note :

For all test items in this report, 3 results have been defined and described as following:

- Pass:** Functionality work perfectly
- Fail:** Functionality failed and must be resolved in the next version
- N/A:** Functionality Not Applicable or Not Available

This test report will be updated when re-test completed in product next change version.

Specification Verification

Engineering Specification

Item	Specification	Result			Note
		Pass	Fail	N/A	
Product Name	ACD-521DHTT-A2-1010	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Display	21.5", 1920 x 1080, 250 nits	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Touch Screen	Projected Capacitive Touch Window	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Bottom I/O panel	DC IN (Power controller)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Line IN x 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	DVI port x 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	VGA port x 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	USB2.0 port x 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Mini USB port x 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Front I/O panel	Power Button x 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	MENU x 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	AUTO x 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Audio Volume UP x 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Audio Volume DOWN x 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	USB 2.0 x 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
AC / DC Adapter	DC Input 12 V w/ lock connector Built-in AC/DC power adapter , input voltage range 100~240 V (FSP060-DBAB1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

O.S. Support

Item	Specification	Confirmed Result			Refer Chapter
		Pass	Fail	N/A	
Microsoft Windows	Windows XP Professional English SP3 32 Bit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Windows 7 Ultimate English Version 32 / 64 Bit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Linux	Linux Ubuntu 10.10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Environmental Specifications

Operating temperature	32°F ~ 104°F (0°C ~ 40°C)
Storage temperature	-4° ~ 158° F (-20 ~ 70° C)
Storage humidity	5 ~ 90% @ 40° C non-condensing
Vibration	1G rms,random,5~500Hz,X/Y/Z axis
Shock	20G peak acceleration (11 msec duration)
Drop	1 Cycle, 61cm (1 Corner, 3 Edge, 6 Surface)
EMC	CE /FCC class A

Note: Please refer to Environment Test Report for detail information

Platform Information

Host 1 :

Item	Device Information	Test Item
PCB Model / Ver.	IMBA-Q77 Rev A0.2	1,2,3,4,5,6
BIOS / Version	IMBA-Q77 R1.6(IQ77AM16)(05/01/2012)	1,2,3,4,5,6
CPU Type	i7-3770 @ 3.4G / 1600→QS	1,2,3,4,5,6
Memory Type	Kingston DDR3 /1333/4G KVR1333D3N9/4G*2	1,2,3,4,5,6
SATA HDD	TOSHIBA MK1665GSX /160G*4	1,2,3,4,5,6
USB DVD-ROM	LITEON DX-20A4PU	1,2,3,4,5,6
LCD Monitor	ACD-521D	1,2,3,4,5,6
Operating System	<input checked="" type="checkbox"/> Windows 7 Ultimate 32Bit / 64Bit	5-2
DC Adapter	DC Power Input 12V / 5A (FSP060-DBAB1)	1,2,3,4,5,6
	Chipset Information with 7 Ultimate SP1 English Version 32 Bit Driver Version	
Chipset Software	Intel(R) Chipset Device Software: 9.1.1.1020(2009/08/26)	
South Bridge	Intel Q77 (7 Series CHIP) 9.3.0.1011	
Super IO Chipset	Winbond W83627DHG	
VGA Chipset	Intel HD Graphics 4000 8.15.10.2712(3/26/2012)	
Audio Chipset	Realtek ALC662 6.0.1.6482 (10/18/2011)	
USB 3.0	Intel USB3.0 extensible Host 1.0.4.225(3/27/2012)	
Ethernet Chipset	Intel 82579LM Gigabit Network 11.8.84.0 (12/21/2010) Intel 82583V Gigabit Network 11.7.32.0 (9/29/2010)	

Host 2 :

Item	Device Information	Test Item
SYSTEM Model / Ver.	TKS-G50-QM77	1,2,3,4,5,6
BIOS / Version	TKS-G50-QM77 R0.1(TG77AM01)(03/14/2012)	1,2,3,4,5,6
CPU Type	Intel @ Core™ i7-3610QE CPU @ 2.30GHz	1,2,3,4,5,6
Memory Type	Transcend DDR3 1333 8GB CL9-SEC 207 Hynix - HYKO K4B4G0846B	1,2,3,4,5,6
SATA HDD	TOSHIBA SATA2 2.5" 100GB-MK1060GSC	1,2,3,4,5,6
USB DVD-ROM	LITEON DX-20A4PU	1,2,3,4,5,6
LCD Monitor	ACD-521D	1,2,3,4,5,6
Operating System	<input checked="" type="checkbox"/> English Ubuntu 10.10 – Kernel 2.6.28-11	5-1
	<input checked="" type="checkbox"/> Windows 7 Ultimate 32Bit / 64Bit	5-2
	<input checked="" type="checkbox"/> Windows XP Ultimate English Version 32 Bit	5-3
DC Adapter	DC Power Input 12V / 5A (FSP060-DBAB1)	1,2,3,4,5,6
	Chipset Information with 7 Ultimate SP1 English Version 32 Bit Driver Version	
Chipset Software	Intel @ Core™ i7-3610QE CPU @ 2.30GHz 6.1.7600.16385(6/21/2006)	
South Bridge	Intel @ HM76 PCH	
Super IO Chipset	COM 1 / COM2→ITE 8728 COM3 / COM4→Fintek F81216DG	
VGA Chipset	Intel @ HD Graphics 4000 8.15.10.2653(2/14/2012)	
Audio Chipset	Realtek ALC-892 High Definition Audio 6.0.1.6363(5/3/2011)	
Ethernet Chipset	Realtek RTL-8111E PCIe GBE Family Controller 7.50.1123.2011(11/23/2011)	
	Intel @ 82579LM Gigabit Network Connection 11.13.51.0(7/20/2011)	
	Atheros AR9002WB-1NG Wireless Network Adapter 9.2.0.458(10/3/2011)	

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1. OSD Control Function Test

1.1. OSD Control Test

OSD Control Function	Function			Note
	Pass	Fail	N/A	
Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
MENU	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
UP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DOWN	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
POWER	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
EXIT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.2. OSD On Screen Display Test

OSD –On Screen Display	Function			Note
	Pass	Fail	N/A	
Input Source	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Auto In Progress	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Contrast	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Brightness	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sharpness	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Color	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
User - RED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
User - Green	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
User - Blue	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
OSD Position (H & V)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Language	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Recall	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Save Exit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cancel Exit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.3. OSD Light Test

OSD Control Function	Function			Note
	Pass	Fail	N/A	
Power off	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Power on	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.4. Modular System Industrial Workstation Function Test

Test Item	Result			
	Pass	Fail	N/A	
AC power outlet / inlet	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Power On / Off	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DC-IN CON (+12V)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
VGA – IN (D – Sub)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DVI - IN	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Touch Screen (USB Device)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

2. Basic Function Test

2.1. Video Function Test

2.1.1. Single Output Function Test

Hardware Information with 7 Ultimate SP1 English Version 32 Bit Driver Version										
CPU	Intel® Core™ i7-3610QE CPU @ 2.30GHz									
Memory	Transcend DDR3 1333 8GB CL9-SEC 207 HYKO K4B4G0846B									
SATA HDD	TOSHIBA SATA2 2.5" 100GB-MK1060GSC									
VGA	ACD-521D									
DVI	ACD-521D									
Color Quality	<input checked="" type="checkbox"/> 16bit <input checked="" type="checkbox"/> 32bit									
Resolution	VGA			DVI			LVDS			Note
	Pass	Fail	N/A	Pass	Fail	N/A	Pass	Fail	N/A	
640X480	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
800X600	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1024X768	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1152X864	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1280X720	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1280X768	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1280X960	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1280X1024	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1400X1050	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1600X900	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1600X1200	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1600X1050	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1792X1344	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1856X1392	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1920X1080	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1920X1200	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1920X1440	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2048X1536	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Rotation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Rotation (0 / 90 /180 /270)

Note: Pay attention to Full Screen under POST screen and Text Mode.

2.1.2. Dual Output Function Test

Selection	Output	Result			Note
		Pass	Fail	N/A	
Dual Display Clone	VGA + DVI	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dual Display Twin		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Extended Desktop		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

2.1.3. Video Resolution Test

Test points:

1. Power on without inserting any VGA connector until system reaches Windows desktop
2. Plug VGA connector into test machine while system reaches Windows then check VGA driver and display
3. Check VGA output Brightness is normal and it shows "Ghost Image" / "Flicker" or not

	Result			Note
	Pass	Fail	N/A	
In Windows Desktop	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

2.2. LCD Monitor Test

Monitor Integration Test			Result			Note
			Pass	Fail	N/A	
DVI display only	Win 7	1_Play 720P video file(RM)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		2_Play 720P video file(WMV)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		3_Play 1080P video file (RM)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		4_Play 1080P video file (WMV)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		5_Play 1080P video file (MPEG)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		6_Play 1080P video file(MKV)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	WinXP	1_Play 720P video file(RM)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		2_Play 720P video file(WMV)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		3_Play 1080P video file (RM)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		4_Play 1080P video file (WMV)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		5_Play 1080P video file (MPEG)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		6_Play 1080P video file(MKV)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DVI + VGA	Win 7	1_Play 720P video file(RM)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		2_Play 720P video file(WMV)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		3_Play 1080P video file (RM)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		4_Play 1080P video file (WMV)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		5_Play 1080P video file (MPEG)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		6_Play 1080P video file(MKV)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	WinXP	1_Play 720P video file(RM)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		2_Play 720P video file(WMV)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		3_Play 1080P video file (RM)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		4_Play 1080P video file (WMV)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		5_Play 1080i video file (MPEG)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		6_Play 1080P video file(MKV)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

3. Integration Test

Hardware Information with 7 Ultimate SP1 English Version 32 Bit Driver Version	
CPU	Intel ® Core™ i7-3610QE CPU @ 2.30GHz
Memory	Transcend DDR3 1333 8GB CL9-SEC 207 HYKO K4B4G0846B
SATA HDD	TOSHIBA SATA2 2.5" 100GB-MK1060GSC
Chipset Information with 7 Ultimate SP1 English Version 32 Bit Driver Version	
Chipset Software	Intel ® Core™ i7-3610QE CPU @ 2.30GHz 6.1.7600.16385(6/21/2006)
South Bridge	Intel ® HM76 PCH
Super IO Chipset	COM 1 / COM2→ITE 8728 COM3 / COM4→Fintek F81216DG
VGA Chipset	Intel ® HD Graphics 4000 8.15.10.2653(2/14/2012)
Audio Chipset	Realtek ALC-892 High Definition Audio 6.0.1.6363(5/3/2011)
Ethernet Chipset	Realtek RTL-8111E PCIe GBE Family Controller 7.50.1123.2011(11/23/2011)
	Intel ® 82579LM Gigabit Network Connection 11.13.51.0(7/20/2011)
	Atheros AR9002WB-1NG Wireless Network Adapter 9.2.0.458(10/3/2011)

3.1. USB Port Integration Test

Item	USB Port	Boot			Function(Win 7)			Note
		Pass	Fail	N/A	Pass	Fail	N/A	
USB HDD		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB FDD Mitsumi D353GUE		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SONY USB2.0 DVD-R/W DRX-830UL		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB Hub Test (Connect USB Device) HUB Port1: USB Keyboard / HUB Port2: USB Mouse / HUB Port3: USB HDD								
USB 2.0 HUB PowerSync / USB 2.0 4 Port HU-155					<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

3.2. Peripheral Devices Test List

USB Port Integration Test		Result			Note
		Pass	Fail	N/A	
USB KB	1_ Microsoft Wired Keyboard600	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	2_ Lemel 5105U	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	3_ Logitech Y-BP62a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB MS	1_ Logitech M-UV94	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	2_ Microsoft X820471-004	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	3_ Lemel Mini WEEH	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB Flash	1_ JetFlash 2A 4G	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	2_ Sandisk Ccuzer micro / 8G	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	3_ JetFlash V30 / 2G	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	4_ Kingston DataTravelerII PLUS / 256M	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB DISK	1_ FUJITS4 / 40G	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	2_ WD WD1600BEVE / 160G	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB Card Reader	1_ Multi Card Reader P8	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB DVD_ROM	1_ LITEON DX-20A4PU	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	2_ SONY USB2.0 DVD-R/W DRX-830UL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	3_ MSI UO881-P-22	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	4_ Pioneer DVD-XD01-W	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB FDD	1_ MITSUMI D353FUE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB HUB	PowerSync / USB 2.0 4 Port HU-155	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	eSENSE 01-USE216	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

3.3. Burn In Test

Under Room Temperature: 26 °C

Test Item	Result			Note
	Pass	Fail	N/A	
Burn-In Test V7.0 Pro	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Win 7 Ultimate SP1 English Version 32 Bit

4. Time Accuracy Test

4.1. System Clock & RTC Clock Test

Under Room Temperature: 26 °C

Item Function	Time Interval	Margin for error	Actual	Result			Note
				Pass	Fail	N/A	
RTC Clock in Power On Mode	24 hrs	+/-2 sec	+1 Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
RTC Clock in Power Off Mode	24 hrs	+/-2 sec	+1 Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

4.2. Monitor Timer Test

Installation	Actual		Note
Power On	3	Sec	Press the Power Button till recovery signal
Power OFF	3	Sec	Press the Power Button till no signal

5. O.S. Compatibility Test

5.1. English Ubuntu 10.10 – Kernel 2.6.35-22

[] No Support

Driver Information:

Chipset Software	System default
Graphics Media	System default
Audio Driver	System default
LAN Driver	System default

Install OS to SATA HDD:

Installation	Result			Note
	Pass	Fail	N/A	
English Ubuntu 10.10 – Kernel 2.6.35-22	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Type uname -a

Test Result:

Test Item	Result			Note
	Pass	Fail	N/A	
Display Function Test				
VGA -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DVI -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Base Function Test				
Mouse Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Keyboard Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB 2.0 Removable Devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
X Windows Application				
Start Button Office	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Office function
X-Window	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Startx – Desktop in Linux
Command Test On Text Mode: Attention Delay Phenomenon				
uname -a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Show information
Shutdown	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Init 0 or shutdown -h now
Restart the Computer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Init 6 or shutdown -r now
Halt	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Power Off Mode
ls / clear; cd /dev /ls -l	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Command instruction

5.2. Windows 7 Ultimate English Version 32/64 Bit

[X] x86 Driver Information:

Chipset Software	Intel ® Core™ i7-3610QE CPU @ 2.30GHz 6.1.7600.16385(6/21/2006)
Graphics Media	Intel ® HD Graphics 4000 8.15.10.2653(2/14/2012)
Audio Driver	Realtek ALC-892 High Definition Audio 6.0.1.6363(5/3/2011)
LAN Driver	Realtek RTL -8111E PCIe GBE Family Controller 7.50.1123.2011(11/23/2011)
	Intel ® 82579LM Gigabit Network Connection 11.13.51.0(7/20/2011)
	Atheros AR9002WB-1NG Wireless Network Adapter 9.2.0.458(10/3/2011)

[X] x64 Driver Information:

Chipset Software	Intel ® Core™ i7-3610QE CPU @ 2.30GHz 6.1.7600.16385(6/21/2006)
Graphics Media	Intel ® HD Graphics 4000 8.15.10.2653(2/14/2012)
Audio Driver	Realtek ALC-892 High Definition Audio 6.0.1.6363(5/3/2011)
LAN Driver	Realtek RTL -8111E PCIe GBE Family Controller 7.50.1123.2011(11/23/2011)
	Intel ® 82579LM Gigabit Network Connection 11.13.51.0(7/20/2011)
	Atheros AR9002WB-1NG Wireless Network Adapter 9.2.0.458(10/3/2011)

Install OS to SATA HDD:

Installation	Result			Note
	Pass	Fail	N/A	
English Windows 7 Ultimate ACPI Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Test Results:

Test Item	Result			Note
	Pass	Fail	N/A	
Single Display				
VGA -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DVI -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot - Windows 7 Ultimate Advanced Options Menu				
Safe Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Basic Function Test				
USB Mouse and Keyboard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB 2.0 Removable Devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio Function Test				
Line In Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Start Menu				
Log off User	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Shut down (S5)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Standby	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Restart	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hibernate (S4)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

5.3. Windows XP Ultimate English Version 32 Bit

[X] x86 Driver Information:

Chipset Software	Intel ® Core™ i7-3610QE CPU @ 2.30GHz 5.1.2600.0(4/1/2004)
Graphics Media	Intel ® HD Graphics 4000 6.14.10.5398(1/16/2012)
Audio Driver	Realtek ALC-892 High Definition Audio 5.10.0.6363(5/3/2011)
LAN Driver	Realtek RTL-8111E PCIe GBE Family Controller 5.792.1208.2011(12/8/2011)
	Intel ® 82579LM Gigabit Network Connection 11.13.51.0(7/20/2011)
	Atheros AR9002WB-1NG Wireless Network Adapter 9.2.0.458(10/4/2011)

Install OS to SATA HDD:

Installation	Result			Note
	Pass	Fail	N/A	
English Windows XP Ultimate ACPI Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Test Results:

Test Item	Result			Note
	Pass	Fail	N/A	
Single Display				
VGA -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DVI -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot - Windows XP Ultimate Advanced Options Menu				
Safe Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Basic Function Test				
USB Mouse and Keyboard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB 2.0 Removable Devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Touch Function	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio Function Test				
Line In Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Start Menu				
Log off User	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Shut down (S5)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Standby	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Restart	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hibernate (S4)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

6. Performance Test

Hardware Information with 7 Ultimate SP1 English Version 32 Bit Driver Version	
CPU	Intel ® Core™ i7-3610QE CPU @ 2.30GHz
Memory	Transcend DDR3 1333 8GB CL9-SEC 207 HYKO K4B4G0846B
SATA HDD	TOSHIBA SATA2 2.5" 100GB-MK1060GSC

6.1. Performance Test

Test Result: (Display set 1920*1080 test)

Testing Software	Scope		Note
	AAEON	Ref.	
PCMark2002			Only for Windows 7
CPU	N/A	-	
Memory	54548	-	
HDD	1467	-	
Benchmark (A)	-	-	
PCMark2005			Windows 7
PCMark	9291	-	PCMarks
CPU	11904	-	
Memory	7645	-	
Graphics	5043	-	
HDD	4262	-	
Benchmark (B)	-	-	
Average Efficiency	-	-	

Testing Software	Scope		Note
	AAEON	Ref.	
3Dmark2003 v360			Only for Windows 7
3Dmark Score	4554	-	
CPU Score	1991	-	
Benchmark (A)	-	-	
3Dmark2006 v120			Windows 7
3Dmark Score	3390	-	
CPU Score	6084	-	
SM2.0 Score	1090	-	
HDR/SM3.0 Score	1295	-	
Benchmark (B)	-	-	
Average Efficiency	-	-	

Testing Software	Scope		Note
	AAEON	Ref.	
Final Reality V1.01—BenchMark Test			Windows 7
2D image	63.36	-	Reality marks
3D	6.65	-	
Bus transfer	44.33	-	
Overall	29.32	-	
Benchmark (A)	-	-	

Testing Software	Scope		Note
	AAEON	Ref.	
PCMark7			
PCMark	2352	-	
CPU	-	-	
Memory	-	-	
HDD	-	-	
Benchmark (A)	-		
PCMark Vantage			
PCMarks	7485	-	PCMarks
TV and Movies	5305	-	
Memories	3986	-	
Gaming	4645	-	
Music	6232	-	
Communications	9004	-	
Productivity	5412	-	
HDD	2530	-	
Benchmark (B)	-		
Average Efficiency	-		

Testing Software	Scope		Note
	AAEON	Ref.	
Performance Test 7.0			
PassMark Rating	1199.1	-	
CPU Mark	6778.8	-	
2D Graphics Mark	353.1	-	
3D Graphics Mark	355.8	-	
Memory Mark	1163.6	-	
Disk Mark	349.1	-	
Benchmark (A)	-		

6.2. NOKIA Monitor Test

Under Room Temperature: 26 °C

Testing Software	Result			Note
	Pass	Fail	N/A	
Nokia Monitor test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Win 7 Ultimate SP1 English Version 32 Bit

6.3. Performance Test

Under Room Temperature: 26 °C

Testing Software	Result			Note
	Pass	Fail	N/A	
Performance 7.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Win 7 Ultimate SP1 English Version 32 Bit

6.4. Screens Test

Under Room Temperature: 26 °C

Testing Software	Result			Note
	Pass	Fail	N/A	
Test Screens	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Win 7 Ultimate SP1 English Version 32 Bit

6.5. Monitor Test

Under Room Temperature: 26 °C

Testing Software	Result			Note
	Pass	Fail	N/A	
Monitor Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Win 7 Ultimate SP1 English Version 32 Bit