

Report NO: 17P010003

OMNI-3195-SKU

19” LEGO Style Fanless Touch Panel with Intel SKYLAKEU Panel PC

System Level Product Compatibility 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	QE Manager	Test Engineer
2017-02-22	KJ Wang	Louie Lee

Version Released Records

Date	Version	Change History	Note
5/26/2015	C0	1. Add UEFI,GPS,CANBUS,POE, Cold boot test item	
3/22/2016	C1	1. Add issue status 2. Update CTOS devices. 3. Add HDMI 5M cable compatibility test. 4. Modified boot up without display test. 5. Add Touch Function test. 6. Add DC adapter compatibility test 7. Add Windows10 compatibility test. 8. Update Benchmark tool. 9. Update DOS / Windows on/off test rule.	

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 would be updated when re-test completed in product next change version.

Specification Validation Main Specification

Item	Specification	Result			Note
		Pass	Fail	N/A	
CPU	Intel Skylake-U SoC Processor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
System Memory	260-pin DDR4 SODIMM x 1, up to 8 GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Wake on LAN	Yes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Watchdog Timer	255 Levels	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Power Requirement	DC9~30V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Power Supply Type	AT/ATX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Display					
CRT/LCD Controller	Intel Skylake-U SoC Processor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Video Output	Support 3 Independent Display VGA : Resolution up to 2560 x 1600@60 Hz (Internal) LVDS : 18/24 Bits Dual Channel LVDS LCD, Resolution up to 4096 x 2160@60 Hz (Internal) HDMI	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I/O					
Ethernet	Intel i210, 10/100/1000Base, RJ 45 x1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio	Realtek ALC269, line-in/ line-out/ Mic-in (Internal)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB Port	USB 3.0 x 2 (Side) USB 3.0 x 2 (Bottom) USB 2.0 x 1 for Touch Screen (Internal) USB 2.0 x 1 (Internal)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I/O Chipset	Fintek F81866	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Serial Port	RS 485/422/232 x 1 (Button Side), Support Ring / +5V/+12V RS 485/422/232 x 1 (Button Side)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
HDD Interface	SATA 3.0 x 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Expansion	Mini card x 1 (W/HDD Signal) SIM card x 1 PCIE[x1] connector x1 OMNI I/O Module Expansion Slot (AAEON PIN Define)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
BIOS Request					
BIOS	AMI	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Chipset Name	Intel Skylake SoC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Super I/O Chipset	Fintek F81866 COM 1/2 : RS-232/422/485	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Graphics Option	18 Bit / 1 CH / 800 x 600, 1024 x 768 , 1280 x 800 18 Bit / 2 CH / 800 x 600, 1024 x 768 , 1280 x 800 24 Bit / 1 CH / 800 x 600, 1024 x 768 , 1280 x 800, 1366 x 768 24 Bit / 2 CH / 1024 x 768, 1280 x 800 , 1366 x 768, 1400 x 900 1600 x 1200, 1920 x 1080	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

	BIOS – LCD / HDMI	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ethernet	PXE ROM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Wake on Events	Wake on LAN, Wake on Ring	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Power Supply Type	AT/ATX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Watchdog Timer	Min. Unit : 1 Sec. Max. Unit : 255 Sec 255 level and can be set by software	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot Device Optional	USB FLash HDD CD-ROM USB-HDD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Others	Power on after power failure function_ On, OFF (Default) & Former status	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hardware					
Product Name	OMNI-3195-SKU	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Construction	Aluminum front bezel with AAEON logo and chassis	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Display	P-CAP full flat touch	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Touch Screen	Multi touch CAP T/S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CPU Board	PBA-SKU6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Processor	Core i5/Celeron Processor (i5 -6300U)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
System Memory	260-pin DDR4 SODIMM x 1, up to 8GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Storage	SATA 2.5" HDD x 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Side I/O	USB type A x 2 for USB 3.0 SMA Antenna hole x 1 HDMI x 1 2.5" HDD Bay x 1 OMNI Expansion I/O Modules	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Bottom I/O	USB type A x 2 for USB 3.0 DB-9 for RS-485/422/232 x 2 RJ-45 x 1 for 10/100/1000 base-T 3-pin terminal block x1 for 9~30 Vdc power input LED Power on/off switch x1 (Power on = Orange, Power off =N/A) (圓頭)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Expansion	Mini card x 1 SIM card x 1 PCIE[x1] connector (AAEON PIN Define)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

O.S. Support

Item	Specification	Result			Note
		Pass	Fail	N/A	
Microsoft Windows	Windows 7 English 32/64 bit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Windows8.1 English 64bit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Windows10 English 64bit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Linux	Linux kernel 2.6.x or above	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Platform Information

Item	Device Information	Note
Product of department	SPD	
PCB Model / Version	OMNI-3195-SKU	
CPU Board	PBA-SKU6	
BIOS / Version	OMNI Series Project(SKU) R2.3 (0MSKAM23)(01/09/2017)	
Driver folder	20170226	
CPU Type	Intel Core i5-6300U CPU @2.40GHz	
Memory Type	Transcend DDR4-2133 SO-DIMM 8GB	
SATA HDD	HGST HTB-TT7SAE500 SATAIII 2.5" / 320GB	
LCD Monitor	19" SXGA (1280 x 1024) LCD edge-to-edge design compiled IP65	
USB DVD-ROM	AOpen EDR8865U	
Expansion Board	N/A	
	N/A	
Operating System	<input checked="" type="checkbox"/> Ubuntu 16.04.1 Kernel 4.4.0-31-generic x86_64	
	<input checked="" type="checkbox"/> Windows 7 Ultimate SP1 32/64Bit	
	<input checked="" type="checkbox"/> Windows 8.1 Enterprise English Version 64Bit	
	<input checked="" type="checkbox"/> Windows 10 Enterprise English Version 64Bit	
	DC Adapter : FSP120-ABAN2 120W	
Chipset Information		
Chipset	Intel SkylakeU	
Super IO Chipset	Fintek F81866	
Audio Chipset	Realtek ALC269	
Ethernet Chipset	Intel I210	

Summary Table of contents:

- 1. Hardware Compatibility 7
 - 1.1. CPU Compatibility Test..... 7
 - 1.2. Memory Compatibility Test 7
 - 1.3. SATA Compatibility Test 7
 - 1.4. Monitor Compatibility Test..... 8
 - 1.5. OMNI Panel kits Compatibility Test 8
- 2. Basic Function Test..... 9
 - 2.1. Video Function Test 9
 - 2.2. Audio Function Test..... 10
 - 2.3. LAN Function Test..... 10
 - 2.4. Digital I/O Port Test 10
 - 2.5. COM Ports Test 11
 - 2.6. RS-422 / RS-485 Test..... 11
 - 2.7. USB Port Integration Test..... 11
 - 2.8. Touch Function Test 11
- 3. Expansion card and Application Test..... 13
 - 3.1. Expansion Slot Compatibility Test 13
- 4. Power Consumption Test 14
 - 4.1. Power Consumption..... 14
 - 4.2. PC Health Status 14
 - 4.3. Wide Voltage Test..... 15
- 5. Time Accuracy Test 16
 - 5.1. System Clock & RTC Clock Test..... 16
 - 5.2. Booting Timer Test..... 16
 - 5.3. Watchdog Timer Test..... 16
- 6. O.S. Compatibility Test..... 17
 - 6.1. English Ubuntu 16.04.1 Kernel 4.4.0-31-generic x86_64..... 17
 - 6.2. Windows 7 Ultimate English Version 32/64Bit..... 18
 - 6.3. Windows 8.1 Enterprise English Version 64Bit..... 19
 - 6.4. Windows 10 Enterprise English Version 64Bit..... 20
- 7. BIOS Function Test..... 21
 - 7.1. Advanced Test..... 21
 - 7.2. Chipset Test..... 22
 - 7.3. Boot Test 22
 - 7.4. CMOS Backup / Clear CMOS Test..... 22
 - 7.5. AAEON Tag Check Utility 22
 - 7.6. Supervisor / User Password Test 22
 - 7.7. Hi-safe Test..... 23
 - 7.8. Negative Test..... 23
- 8. Performance Test..... 25
 - 8.1. System Performance Test..... 25
 - 8.2. Storage Performance Test 26
- 9. Stability test 27
 - 9.1. Run In Test..... 27
 - 9.2. Reboot Test..... 27
 - 9.3. ACPI G3 Cold Boot Test 27
 - 9.4. ACPI S5 Cold Boot Test..... 28

1. Hardware Compatibility

1.1. CPU Compatibility Test

CPU Information (Information and frequency should show correct value)	Result			Note
	Pass	Fail	N/A	
Intel® Core™ i5-6300 CPU @2.40GHz	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.2. Memory Compatibility Test

Memory Information (a. Information and frequency should show correct value. b. Memtest result should not error or halt)	AAEON P/N	Result			Note
		Pass	Fail	N/A	
DDR4 SO-DIMM					
Transcend DDR4-2133 SO-DIMM 4GB		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transcend DDR4-2133 SO-DIMM 8GB		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transcend DDR4-2133 SO-DIMM 16GB		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
ADATA DDR4-2133 SO-DIMM 4GB		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Crucial DDR4-2133 SO-DIMM 16GB		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DSL DDR4-2133 SO-DIMM 4GB		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Innodisk DDR4-2133 SO-DIMM4GB		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DSL DDR4-2400 SO-DIMM 16GB		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transcend DDR4-2400 SO-DIMM 4GB		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transcend DDR4-2400 SO-DIMM 8GB		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transcend DDR4-2400 SO-DIMM 16GB		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.3. SATA Compatibility Test

1.3.1 Onboard SATA(AHCI) Test

SATA Device Information (Information and size should show correct value with IDE and AHCI mode)	AAEON P/N	Result			Note	
		Pass	Fail	N/A		
Main Board project test with 80~100cm SATA cable , typical #1709070800						
SATAII	Toshiba MK1676GSX 160GB	N/A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SATAII	Seagate ST9120823AS 120GB	N/A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SATAIII	HGST HTE725032A7E630 320GB	N/A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SATAIII	WD WD5000LPVT 500GB	N/A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SATAIII	Toshiba MQ01ABF050 500GB	N/A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SATAIII	WD SlimWD10SPCX 1TB	N/A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SSD	Transcend TS32GSSD370 2.5".32GB.SATA III SSD MLC.	968C032G2D	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SSD	Transcend.TS64GSSD370 2.5".64GB. SATA III.SSD.MLC	968C64G003	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SSD	Transcend.TS128GSSD370 2.5" SATA3 SSD.128GB.MLC.	968C128G0W	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SSD	2.5" .16GB 3MG2-P 15nm.SATA III MLC SSD.Innodisk MLC .0°C ~ +70°C.DGS25-16GD81BC3SC-26	AP-SS968C016 G3K	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SSD	(TF)2.5".32GB 3MG2-P 15nm.SATA SSD MLC.0~70°C.HIGH IOPS.innodisk.DGS25-32GD81B C3DC-26	AP-SS968C032 G1P	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

SSD	(TF)2.5".64GB.SATA MLC SSD .3MG2-P 15nm.0~70°C.HIGH IOPS.innodisk.DGS25-64GD81B C3QC-26	968C064G39	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SSD	2.5' MLC SSD 128GB 3MG2-P 15nm.SATA 0°C~+70°C .InnoDisk.DGS25-A28 D81BC3QC-26	AP-SS968C128 G1P	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SSD	2.5".256GB.SATA MLC SSD 3MG2-P 15nm.0~70°C.HIGH IOPS.innodisk.DGS25-B56D81BC 3QC-26	AP-SS968C256 G16	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.4. Monitor Compatibility Test

Monitor Information	Result			Note
	Pass	Fail	N/A	
a. Monitor should display under DOS and OS environment.				
b. Monitor should not appear ghost or ripples.				
HDMI (Test with 5M HDMI cable)				
*Samsung BX2450 – LED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DELL U2713HM-LED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
ASUS PA238-LED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LG 27UD68 – LED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.5. OMNI Panel kits Compatibility Test

Purpose:

The OMNI Bay Trail CPU BOX kits can directly support various OMNI Panel kits, size including 10.4", 12.1", 15", 15.6", 17", 19", 21.5" due to the integrated BIOS.

Panel kits	Result			Note
	Pass	Fail	N/A	
a. Panel should display under DOS and OS environment.				
b. Panel should not appear ghost or ripples.				
10.4"panel kit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.1" panel kit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
15" panel kit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
15.6" panel kit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
17" panel kit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
19" panel kit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
21.5" panel kit	<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

Configuration													
CPU	Intel Core i5-6300U CPU @2.40GHz												
Memory	Transcend DDR4-2133 SO-DIMM 8GB												
SATA HDD	HGST HTB-TT7SAE500 SATAIII 2.5" / 320GB												
Onboard LCD	19" SXGA (1280 x 1024) LCD												
HDMI	Philips 288P												
Operating system	Windows 8.1 Enterprise English 64bit												
Color Quality	<input checked="" type="checkbox"/> 16bit <input type="checkbox"/> 24bit <input checked="" type="checkbox"/> 32bit												
Resolution	Onboard LCD			HDMI			DVI			CRT			Note
	Pass	Fail	N/A	Pass	Fail	N/A	Pass	Fail	N/A	Pass	Fail	N/A	
800X600	<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"/>	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1280X600	<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"/>	<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"/>	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1280X800	<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"/>	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1360X768	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1366X768	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1600X900	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1600X1200	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1680X1050	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1920X1080	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1920X1200	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2048X1152	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2560X1440	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3840 X 2160	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
EDID check	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Hot plug	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Rotation(0/90/180/270)	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
DOS Display	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

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

2.1.2. Multi-Display Output Test

Selection	Output	Result			Note
		Pass	Fail	N/A	
Dual Display Clone	Onboard LCD + HDMI	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Extended Desktop		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

2.1.3. Boot up Without Display Test

Process step:

1. BIOS disable LVDS.
2. Power on without inserting any HDMI connector until system reaches Windows desktop
3. Plug VGA connector into test machine while system reaches Windows then check Graphics driver and display.
4. Check VGA output Brightness is normal and it shows "Ghost Image" / "Flicker" or not
5. Repeat step2~4 for HDMI testing.

Test item	Result	Note
-----------	--------	------

		Pass	Fail	N/A	
Display should working normal in Windows Desktop	HDMI	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	







2.2. Audio Function Test

[] No Support

Function Test	Result			Note
	Pass	Fail	N/A	
L (Left) Channel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Internal Audio
R (Right) Channel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Line In	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
MICROPHONE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
HDMI Audio	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

2.3. LAN Function Test

[] No Support

Connect two computers via different speed LAN HUB by using "Ping" instruction (1000 times) Command: ping xxx.xxx.xx.xx -l 65500 -n 1000									
1000MBps LAN HUB	D-Link DGS-1008D								
100MBps LAN HUB	Accton Desktop-3005								
10MBps LAN HUB	SVEC FD916H								
OnBoard LAN1	Intel® I210 Gigabit Network Connection						MAC Address	00-00-5A-15-00-01	
LAN Speed	Link / Speed LED	Active LED	LAN 1			LAN 2			Note
			Pass	Fail	N/A	Pass	Fail	N/A	
1000MBps			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
100MBps			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
10MBps			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Wake On LAN			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	S3/S4/S5
LAN Boot (PXE)			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Internet Browser (DHCP Server)			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Access 1GB file. Download from ftp http://xxx.xx.14.126/			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

2.4. Digital I/O Port Test

DIO Address (___)	Result			Note
	Pass	Fail	N/A	
DIO VCC +5V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Input: 5V / Output (H):5V / (L):0V

2.5. COM Ports Test

Test Item	Result			Note
	Pass	Fail	N/A	
Serial Modem Dial Out	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Serial Modem	Ring In	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Test by Modem
	+12V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Test by Multimeter
	+5V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Test by Multimeter
Transmission Test <115200bps / 15M>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

2.6. RS-422 / RS-485 Test

Test Item	Result			Note
	Pass	Fail	N/A	
RS-422 for COM1 / COM2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Use loopback and WINSSD.exe to test RS-422 in Windows
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. The communication between the RS-422 port of two boards is linked by one 1.2km cable on Windows Terminal. 2. Confirm RS422 can work properly from G3 status
RS-485 for COM1 / COM2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Use ICP CON I-7044D D/IO Module in Windows.
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. The communication between the RS-485 port of two boards is linked by one 1.2km cable on Windows Terminal 2. Confirm RS485 can work properly from G3 status

2.7. USB Port Integration Test

Item	USB Port	USB2.0 ports (under OS)			USB3.0 ports (under OS)			Note
		Pass	Fail	N/A	Pass	Fail	N/A	
USB HDD:	Toshiba 1 TB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB Flash:	Kingston 32GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Transcend 8GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB DVD ROM:	AOpne EDR8865U	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB keyboard:	Microsoft-1366	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB mouse:	Microsoft-1113	<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"/>	
USB2.0 HUB:	Power sync	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

2.8. Touch Function Test

Test item	Result			Note
	Pass	Fail	N/A	
The calibrating result is correct.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
After touch panel is calibrated, drawing test result is precise enough.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Windows icon should work properly when used touch to execute.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Right-Click function should work properly.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Multi touch should work properly	Multi draw	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	For multi touch panel
	Rotation / zoom	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Touch and right-click should work properly during Burnintest running.	Windows8.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BurninTest test item must include CPU/RAM/2D/3D/Video

3. Expansion card and Application Test

3.1. Expansion Slot Compatibility Test

Expansion Slot		Result			Note
		Pass	Fail	N/A	
(TF)SMD ASS'Y.LAN board.PER-T359.Rev.A0.2_0_0.for OMNI-2155	LAN 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	P/N:1907T35901 REV:A0.2_0_0
	LAN 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(TF)SMD ASS'Y.USB Audio.PER-T381.Rev.A0.2_0_0.for OMNI-2155	Line-out	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	P/N:1907T38101 REV:A0.2_0_0
	MIC-in	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(TF)Mini Card board PCB.PER-T358.Rev.A0.1_0_0	Mini Card board(include sim slot)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	P/N:1907T35800
(TF)PCB.PER-T371.Rev.A0.1_0_0.4Layer Green.1*2.153.4*80*1.6mm.for AHP-1155	CANBUS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	P/N:1907T37100
PER-T380 Rev.A0.1_0_0	DIO	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	P/N:1907T38000

Mini PCI Express Card		Result			Note
		Pass	Fail	N/A	
Full size	Quectel UC20 3G Card	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Full size	Sierra Wireless AirPrime MC7304 Qualcomm 4G	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Full size	AzureWave Mini-PCIE Wireless LAN Card	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AW-CB161H
Full size	AzureWave Mini-PCIE Wireless LAN Card	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AW-NB159H
Full size	BOINTEC AR5B22 Mini-PCIE Wireless LAN Card	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

SIM Card		Result			Note
		Pass	Fail	N/A	
SIM Card Slot		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

4. Power Consumption Test

Configuration	
CPU	Intel Core i5-6300U CPU @2.40GHz
Memory	Transcend DDR4-2133 SO-DIMM 8GB
Storage	HGST HTB-TT7SAE500 SATAIII 2.5" / 320GB
O.S	Windows 10 Enterprise English 64bit

4.1. Power Consumption

Test Equipment					
Equipment	Digital Multimeter				
Manufacturer	HOLA				
Model name	DM-1240				
Test Environment					
Power Model	FSP120-ABAN2 120W 19V				
Power Supply	Current	P		Note	
(Full Loading Mode) Windows 7 with Prime 95 Full Loading Test	+19V	1.67	A	31.73	W Prime95 Version 259
Full Loading Total Watt	31.73 (W)				
S3 mode: Measure the current value when system in S3 mode of windows and without running any	+19V	0.06	A	1.14	W
Suspend Total Watt	1.14 (W)				
Win. Idle mode: Measure the current value when system in windows mode and without running any program	+19V	1.13	A	21.47	W
Idle Total Watt	21.47 (W)				
S5 mode: Measure the current value when system in S5 mode of windows and without running any	+19V	0.05	A	0.95	W
Suspend Total Watt	0.95 (W)				

4.2. PC Health Status

Test Point:

Voltage deviation: ±5%.

Fan speed deviation: ±10%

CPU DTS Temp deviation: ±15°C

System Temp deviation: ±5°C

Voltage Monitoring Test	Result			BIOS (V)	Note
	Pass	Fail	N/A		
VCORE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+0.880V	
12V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+12.144V	
5V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+5.129V	
VDIMM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+1.208V	
VCC3V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+3.360V	
VSB3V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+3.376V	
VSB5V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+5.184V	

VBAT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+3.216V	
CPU DTS Temp	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+61	
System Temp	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+51	

4.3. Wide Voltage Test

4.3.1. Wide Voltage Test

Test Point:

Test voltage range is follow specification.

Test Environment (a. System should boot properly (b. System wasn't halt in following status.)	DC Power (9V~30V)	Current		Note
Windows 10 with Prime 95 Full Loading Test	Min(+9V)	3.58	A	
	Max(+30V)	1.1	A	
Windows 10 Without running any Software	Min(+9V)	2.33	A	
	Max(+30V)	0.76	A	

4.3.2. DC Adapter Compatibility Test

Test Point:

Confirm each adapter can be compatible with wide voltage design.

Adapter Information (a. System boot to OS should work properly.		AAEON P/N	Result			Note
			Pass	Fail	N/A	
9V	GS60A09-P1J 54W	N/A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12V	FSP084-DIBAN2 84W	1255900841	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12V	FSP084-DMAA1 84W	1757908403	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
19V	FSP120-ABAN2 120W	1255901202	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
19V	FSP120-AAB 120W	1757912005	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
24V	SINPRO MPU100-108 100W	N/A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

5. Time Accuracy Test

5.1. System Clock & RTC Clock Test

Under Room Temperature:

Function	Item	Time Interval	Criteria	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	0 Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

5.2. Booting Timer Test

Installation	Actual	Note
System Booting Time	9.5 Sec	Press the Power Button till "Beep" Sound appears

5.3. Watchdog Timer Test

Use Function as below: Hi-Safe_20160704

[] No Support.

Time-Out Interval	Criteria	Actual	Result			Note
			Pass	Fail	N/A	
10 sec	+/- 10%	10 Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
60 sec	+/- 10%	60 Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
255 sec	+/- 10%	255 Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Note : Under Room Temperature:

6. O.S. Compatibility Test

6.1. English Ubuntu 16.04.1 Kernel 4.4.0-31-generic x86_64

Driver Information:

Chipset Software	System default
Graphics Media	System default
Audio Driver	System default
LAN Driver	Igb 5.3.3.2

Install OS to SATA HDD :

Installation	Result			Note
	Pass	Fail	N/A	
English Ubuntu16.04.1 LTS kernel 4.4.0-31-generic x86_64	<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				
Onboard Display -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1280x1024
HDMI -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3840x2160
Onboard Display + HDMI	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Network Function Test				
Connect to Internet – LAN 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio Function Test				
Play Audio Function Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Play Audio Test HDMI audio
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"/>	
Console Redirection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COM1/2
USB DVD-ROM Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<IDE / SATA / USB >
USB 3.0 Removable Devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Touch	<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
ls / clear; cd /dev /ls -l	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Command instruction
Suspend icon	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

6.2. Windows 7 Ultimate English Version 32/64Bit

32bit Driver Information	
Chipset Software	Intel Chipset Device Software 10.1.1.38 (06/03/2015)
Graphics Media	Intel HD Graphics 520 : 21.20.16.4574 (12/23/2016)
Audio Driver	Realtek High Definition Audio : 6.0.1.7541 (6/18/2015)
	Intel Display Audio : 6.16.0.3197 (05/10/2016)
LAN Driver	Intel I210 Gigabit Network Connection 12.13.27.0 (6/05/2015)
64bit Driver Information	
Chipset Software	Intel Chipset Device Software 10.1.1.38 (06/03/2015)
Graphics Media	Intel HD Graphics 520 : 21.20.16.4542 (10/24/2016)
Audio Driver	Realtek High Definition Audio : 6.0.1.7541 (6/18/2015)
	Intel Display Audio : 6.16.0.3197 (05/10/2016)
LAN Driver	Intel I210 Gigabit Network Connection 12.13.27.0 (6/05/2015)

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				
Onboard Display -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1280x1024
HDMI -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3840x2160
DVI -- Full Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Boot - Windows 7 Ultimate Advanced Options Menu				
Safe Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Basic Function Test				
Usable memory	32bit: 2.94GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	BIOS support adjustment
	64bit: 16GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
PS/2 Mouse and Keyboard	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
USB Mouse and Keyboard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
COM Port Mouse detect	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LPT1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
USB Removable Devices	USB2.0	<input type="checkbox"/>	<input type="checkbox"/>	X4
	USB3.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Safe to remove icon	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Touch Function	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
TPM Function	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN Function Test				
LAN1 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio Function Test				
Line Out Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Line In Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Microphone Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
HDMI Audio	<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"/>	
Sleep (S3)	<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"/>	

6.3. Windows 8.1 Enterprise English Version 64Bit

64bit Driver Information	
Chipset Software	Intel Chipset Device Software 10.1.1.38 (06/03/2015)
Graphics Media	Intel HD Graphics 520 : 21.20.16.4542 (10/24/2016)
Audio Driver	Realtek High Definition Audio : 6.0.1.7541 (6/18/2015)
	Intel Display Audio : 10.22.0.96 (10/05/2016)
LAN Driver	Intel I210 Gigabit Network Connection 12.14.7.0 (6/18/2015)

Install OS to SATA HDD :

Installation	Result			Note
	Pass	Fail	N/A	
English Windows8.1 Enterprise 64bit UEFI mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Test Results:

Test Item	Result			Note	
	Pass	Fail	N/A		
Single Display					
Onboard Display -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1280 x 1024	
HDMI -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3840x2160	
DVI -- Full Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Boot – Windows8.1 Enterprise Advanced Options Menu					
Safe Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. msconfig 2. safe boot.	
Basic Function Test					
Usable memory	32bit: MB	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	64bit: 16GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
PS/2 Mouse and Keyboard	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
USB Mouse and Keyboard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
COM Port Mouse detect	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
LPT1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
USB Removable Devices	USB2.0	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	X4
	USB3.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Safe to remove icon	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Touch Function	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
TPM Function	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
LAN Function Test					
LAN1 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Audio Function Test					
Line Out Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Line In Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Microphone Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
HDMI Audio	<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"/>		
Sleep (S3)	<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"/>		

6.4. Windows 10 Enterprise English Version 64Bit

64bit Driver Information	
Chipset Software	Intel Chipset Device software 10.1.1 (06/03/2015)
Graphics Media	Intel HD Graphics 520 21.20.16.542 (10/24/2016)
Audio Driver	Intel Display Audio 10.22.0.96 (10/5/2016)
	Realtek High Definition Audio 6.0.1.7541 (06/18/2015)
LAN Driver	Intel I210 Gigabit Network Connection 12.15.184.0 (08/04/2016)

Install OS to SATA HDD :

Installation	Result			Note
	Pass	Fail	N/A	
English Windows10 Enterprise 64bit V1607	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Test Results:

Test Item	Result			Note	
	Pass	Fail	N/A		
Single Display					
Onboard Display -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1280 x 1024	
HDMI -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3840 x 2160	
DVI -- Full Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Basic Function Test					
Usable memory	32bit: MB	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	64bit: 16GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
PS/2 Mouse and Keyboard	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
USB Mouse and Keyboard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
COM Port Mouse detect	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
LPT1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
USB Removable Devices	USB2.0	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	USB Removable Devices
	USB3.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Safe to remove icon	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Touch Function	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
TPM Function	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
LAN Function Test					
LAN1 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Audio Function Test					
Line Out Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Line In Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Microphone Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
HDMI Audio	<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"/>		
Sleep (S3)	<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"/>		

7. BIOS Function Test

Configuration	
CPU	Intel Core i5-6300U CPU @2.40GHz
Memory	Transcend DDR4-2133 SO-DIMM 8GB
Storage	HGST HTB-TT7SAE500 SATAIII 2.5" / 320GB
O.S	Windows 10 Enterprise English 64bit

Test Point:
Confirm BIOS control items are working correctly.

7.1. Advanced Test

Test Item (Following item should work properly)	Result			Note	
	Pass	Fail	N/A		
CPU Configuration					
Hyper- threading	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable/Disable	
Intel Virtualization Technology	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable/Disable	
Active process	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1/2	
Intel SpeedStep	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Turbo mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
SATA Configuration					
SATA Controller	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable/Disable	
SATA Port 0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable/Disable	
Hot Plug	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable/Disable	
F81866 Super IO Configuration					
Serial Port 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable/Disable	
RS-232	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
RS-422	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
RS-485	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Serial Port 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable/Disable	
RS-232	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
RS-422	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
RS-485	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Hardware Monitor					
PC Health Status	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
USB Configuration					
Legacy USB Support	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable/Disable	
Trusted Computing					
Security Device support	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable / Disable	
TPM State	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
TPM Clear	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Power Management					
Power Mode	AT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	ATX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
State After G3	Always on	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Always off	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Last State	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
*S5 RTC Wake up	Wake system with Dynamic time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Wake system with fixed time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Resume from PCIE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable/Disable	
Resume from LAN/RI	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable/Disable	

7.2. Chipset Test

Test Item (Following item should work properly)			Result			Note
			Pass	Fail	N/A	
Graphics Configuration	Primary IGFX Boot Display	VBIOS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		HDMI	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		LVDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Secondary IGFX Boot Display	Disable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		HDMI	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	*Memory Configuration		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	LVDS		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable / Disable
	Panel Type (Auto)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Color Depth (Auto)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Backlight Type (Auto)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Backlight Level		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10~100%	
PCH-IO Configuration	HD Audio		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(Internal)
Max TOLUD	Dynamic~3GB		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

7.3. Boot Test

Test Item (Following item should work properly)		Result			Note
		Pass	Fail	N/A	
Quiet Boot		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
PXE OpROM		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot From Hard Disk		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot From CDRom		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot From USB HDD		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot From USB Floppy		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot From USB CD-ROM		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot from LAN		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Disable		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

7.4. CMOS Backup / Clear CMOS Test

Test Item (Following item should work properly)		Result			Note
		Pass	Fail	N/A	
CMOS Backup		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Clear all setting
Clear CMOS Test		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Clear all setting

7.5. AAEON Tag Check Utility

Test Item (Following item should work properly)		Result			Note
		Pass	Fail	N/A	
Check AAEON BIOS OK		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AONCHECK.EXE

7.6. Supervisor / User Password Test

Test Item (Following item should work properly)		Result			Note
		Pass	Fail	N/A	
Administrator Password		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
User Password		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

7.7. Hi-safe Test

Test Item (Following item should work properly)		Result			Note
		Pass	Fail	N/A	
Version(20160801)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
System Information	CPU Information	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Model Name	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Display Information	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	RAM Information	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Support single DIMM
H/W Monitor	Info	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Fan Speed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Voltage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DIO	DIO1~4 High	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	DIO1~4 Low	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	DIO5~8 High	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	DIO5~8 Low	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
WatchDog	10sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Actual 10 sec
	1min	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Actual 60sec
	255sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Actual 255sec
	Auto Reload	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SMBus	SMBus IO	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SMBus Address 0xF040
	Read Byte	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Slave Address A0h
	Read Word	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Result / Read	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Backlight Controller	DC Voltage	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Brightness	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

7.8. Negative Test

7.8.1 USB Keyboard Negative Test

Methods	Result			Note
	Pass	Fail	N/A	
1. Boot into BIOS setup manual. 2. Press NumLock or ScrLk and press arrow key. 3. confirm arrow key function are normally	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

7.8.2 Suspend S3 Negative Test

Methods		Result			Note
		Pass	Fail	N/A	
1. Resume from S3. 2. Confirm com ports(RS232/422/485), DIO, smartfan, LVDS backlight control, USB ports, HDMI/DP audio can work properly.	RS232	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	RS422	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	RS485	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	DIO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	LVDS Backlight control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	USB ports	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	DP/HDMI audio	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

7.8.3 UEFI Mode Negative Test

Methods	Result			Note
	Pass	Fail	N/A	
1. Install Windows with UEFI mode. 2. Clear CMOS. 3. Confirm BIOS\Boot device was not lost "Windows boot manager" and should boot into Windows properly.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

8. Performance Test

Configuration	
CPU	Intel Core i5-6300U CPU @2.40GHz
Memory	Transcend DDR4-2133 SO-DIMM 8GB
Storage	HGST HTB-TT7SAE500 SATAIII 2.5" / 320GB
O.S	Windows 10 Enterprise English 64bit

8.1. System Performance Test

Test Result: (Display set 1920*1080 test)

Testing Software	Scope		Note
	AAEON	Ref.	
PCMark 8 (Creative)			Windows 10(64bit)
PCMarks	2465		PCMarks
Web Browsing-Jungle Pin	0.329s		
Web Browsing-Azononia	0.136s		
Video Group Chat v2- Video Group Chat playback1 v2	30.0fps		
Video Group Chat v2- Video Group Chat playback2 v2	30.0fps		
Video Group Chat v2- Video Group Chat playback3 v2	30.0fps		
Video Group Chat v2- Video Group Chat encoding v2	114.3ms		
Photo Editing v2	0.671s		
Batch Photo Editing v2	43.6s		
Video Editing 1 v2	18.4s		
Video Editing 2 v2	169.5s		
Mainstream Gaming part 1	8.0FPS		
Mainstream Gaming part 2	4.3FPS		
Video To Go part 1	10.1s		
Video To Go part 2	14.5s		
Music To Go	28.86s		
Benchmark duration	59 min 23 s		

Testing Software	Scope		Note
	AAEON	Ref.	
3Dmark2006 v120			
3Dmark Score	7645	-	
SM2.0 Score	2621	-	
HDR/SM3.0 Score	3362	-	
CPU Score	3500	-	
Benchmark (B)	-	-	
Average Efficiency	-	-	

3Dmark11 Professional Edition			
Performance 1280*720 (Default)			
3Dmark 11Score	1226	-	
Graphics Score	1112	-	
Physics Score	3268	-	
Combined Score	1056	-	

Testing Software	Scope		Note
	AAEON	Ref.	
Performance Test 8.0			
PassMark Rating	1922	-	
CPU Mark	4425	-	
2D Graphics Mark	602	-	
3D Graphics Mark	804	-	
Memory Mark	1940	-	
Disk Mark	830	-	
CD Mark	-	-	

8.2. Storage Performance Test

SATA Performance				
SATA SSD	Crucial M550 2.5 SSD 256GB			
CPU	Intel @ Core™ i5-6300U CPU @ 2.40GHz			
Memory	Transcend DDR4-2133 SO-DIMM 8GB			
OS	Windows 10 Enterprise English 64bit			
Item	Comment / (unit)	Software	Score	Note
SATAIII	Maximum Read	ATTO Disk Benchmark	485 MB/s	SATAII 150~300MB SATAIII up 300M/B
	Maximum Write	ATTO Disk Benchmark	348 MB/s	

USB3.0/2.0 Performance				
USB Flash	Sony USB3.0 32GB			
Item	Comment / (unit)	Software	Transfer Rate (MB/s)	Note
USB3.0	Maximum Read	ATTO Disk Benchmark	95 MB/s	
	Maximum Write	ATTO Disk Benchmark	69 MB/s	

9. Stability test

9.1. Run In Test

Under Room Temperature:

OS: Windows 8.1 Enterprise English 64bit

Test Item	Result			Note	
	Pass	Fail	N/A		
Burn In Test V8.1(1015) Duty: 100 Time: over 12 hours <System should not error or hang during testing.>	CPU	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	RAM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	COM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Video	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	2D	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	3D	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Disk	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Sound	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Network <Advanced>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Parallel	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	USB				
2.0	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
3.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X2 ; keyboardx1 , mouse x1	

Note: COM PORT Speed Set to 115200.

9.2. Reboot Test

Under Room Temperature:

OS: Windows 8.1 Enterprise English 64bit

Test Tool: Passmark rebooter.exe

Test item	Result			Note
	Pass	Fail	N/A	
Reboot test for 500 cycles <System should not error or hang during testing.>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

9.3. ACPI G3 Cold Boot Test

Under Room Temperature:

OS: DOS

Test Point:

1. Make sure system boot up is stable.
2. Make sure boot function support AC power restored in short time.

Test item	Result			Note
	Pass	Fail	N/A	
G3(AC loss) cold boot over 1000 cycles Setting: Power on- 40sec ; Power off-- 20sec. <loss rate: 0 /1000 times>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> BIOS select " power on" or <input type="checkbox"/> Jumper setting auto power button
G3(AC loss) cold boot over 20 cycles Setting: Power on- 40sec ; Power off- 5sec. <loss rate: 0 /20 times>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	H/W [auto power button] need to set enable..

9.4. ACPI S5 Cold Boot Test

Under Room Temperature:

OS: Windows 8.1 Enterprise English 64bit

Test item	Result			Note
	Pass	Fail	N/A	
S5(standby power) cold boot over 500 cycles < System should complete 500 cycles without any error or hang.>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. "PassMark Rebooter" set 500 cycles ; delay 30sec and enable "auto load Rebooter at startup". 2. On/off fixture cycle time to set 150sec.