

Report NO: 15E010027

# GENE-BT07

## Board Level Product Compatibility Test Report

Summary	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Pass with Deviation (Comment: _____)
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Issue date	Approval	Test Engineer
<12-29-2015>	<KJ Wang>	<Anderson Lin>

**Version Released Records**

Date	Version	Change History	Note
5/26/2015	C0	1. Add UEFI,GPS,CANBUS,POE, Cold boot test item	

**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.**

**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 32/64bit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Windows10 English 32/64bit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Linux		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## Platform Information

Item	Device Information	Note
Product of department	ECD	
PCB Model / Version	GENE-BT07 / A 1.0	
CPU Type	Intel® Celeron® Processor J1900 (2M Cache, up to 2.42 GHz)	
Memory Type	Transcend DDR3L-1600 4GB(SEC 446 XYKO K4B4G0846D)	
m-SATA	SanDisk U100 SSD 32GB	
LCD Monitor	Samsung SyncMaster BX2450	
Operating System	<input checked="" type="checkbox"/> English Ubuntu14.04 kernel 3.13.0-24-generic	
	<input checked="" type="checkbox"/> Windows 7 Ultimate SP1 32/64Bit	
	<input checked="" type="checkbox"/> Windows 8.1 Enterprise English Version 32/64Bit	
	<input checked="" type="checkbox"/> Windows 10 Enterprise English Version 32/64Bit	
Power Supply	AT Power Supply : Seventeam ST-450P-CG	
<b>Chipset Information</b>		
North Bridge	Intel BayTrail SoC	
South Bridge	Intel BayTrail SoC	
Super IO Chipset	Fintek F81866	
Audio Chipset	Realtek ALC892	
Ethernet Chipset	RTL8111E	

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# 1. Hardware Compatibility

## 1.1. CPU Compatibility Test

CPU Information (Information and frequency should show correct value)	Result			Note
	Pass	Fail	N/A	
Intel® Celeron® Processor J1900 (2M Cache, up to 2.42 GHz)	<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	
<b>SO-DDR3L</b>					
Transcend DDR3L-1600 2GB(SEC 501 BYMA K4B2G0846Q)	AP-DR968D3002 GK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transcend DDR3L-1600 4GB(SEC 446 XYKO K4B4G0846D)	AP-DR968D3004 G6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transcend DDR3L-1600 8GB(SEC 443 BYKO K4B4G0846D)	968D3008G7	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transcend DDR3L-1333 4GB		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	QE(1.35V)SD3-201341
InnoDisk DDR3L-1600 4GB		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DSL DDR3L-1600 8GB		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SD3-201312(1.35V)
DSL DDR3L-1600 4GB		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DSL DDR3L-1600 2GB		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SD3-201345(1.35V)

## 1.3. SATA Compatibility Test

### 1.3.1 Onboard SATA(IDE / 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		
SATAII		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not support	
SATAII		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
SATAII		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
SATAIII		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
SATAIII		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
SATAIII		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
SSD	Transcend TS32GSSD370 2.5".32GB.SATA III SSD MLC.	968C032G2D	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
SSD	Transcend.TS64GSSD370 2.5".64GB. SATA III.SSD.MLC	968C64G003	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
SSD	Transcend.TS128GSSD370 2.5" SATA3 SSD.128GB.MLC.	968C128G0W	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
DVD		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

### 1.3.2 Onboard SATA (RAID) Test

SATA RAID Test (RAID function should work properly)		Result			Note
		Pass	Fail	N/A	
RAID-0 (HDDx2) Striping/Span Test	1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not support
	2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
RAID-1 (HDDx2) Mirror Test	1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

RAID-5 (HDDx3) Striping/Span Test Rotation Parity	1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
RAID-10 (HDDx3) Striping/Span Test Mirroring	1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### 1.4. Flash Card Compatibility Test

Compact Flash Information (a. Information and size should show correct value (b. R/W and HDD LED should work properly)	AAEON P/N	Result			Note
		Pass	Fail	N/A	
		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not support
		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
CFast Information (a. Information and size should show correct value (b. R/W and HDD LED should work properly)	AAEON P/N	Result			Note
		Pass	Fail	N/A	
Innodisk.DECFA-04GD07AC2DT-26 4G.SLC	968C004G0P	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not support
InnoDisk.DECFA-08GD07RC2SC-26 8GB.MLC.3ME.	AP-SS968C008 G10	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Innodisk.3ME.DECFA-16GD07RC2DC-26 16GB.MLC.	968C016G4C	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Innodisk.DECFA-32GD07RC2DC-26 SATA3.MLC.32GB	968C032G2B	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Innodisk.DECFA-64GD07RC2DC-26 SATA3.MLC.64GB.CFAST.	AP-SS968C064 G2T	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Innodisk.DECFA-A28D07RC2DC-26 SATA3.MLC.128GB	AP-SS968C128 G19	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
m-SATA Information (a. Information and size should show correct value (b. R/W and HDD LED should work properly)	AAEON P/N	Result			Note
		Pass	Fail	N/A	
<b>Half Size</b>					
Innodisk.DEMSM-64GD07SW1DC	968C064G0T	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SanDisk U100 SSD 32GB		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Full Size</b>					
Transcend.TS16GMSA370 Full-size mSATA.16GB.MLC.	AP-SS968C016 G2Z	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not support
Transcend.TS32GMSA370 Full-size mSATA.32GB.MLC.	968C032G32	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Transcend.TS64GMSA371 (TF)Full-size.64GB.mSATA.MLC	968C064G2K	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

### 1.5. Power Supply Compatibility Test

Power Supply Information	Result	Note
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a. System boot to OS should work properly. b. System OS shutdown function should work properly.	Pass	Fail	N/A	
SeaSonic SSR-450RM 450W 80plus Gold	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Seasonic SS-430GB Active PFC F3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Seventeam ST-450P-CG	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### 1.6. Monitor Compatibility Test

Monitor Information	Result			
a. Monitor should display under DOS and OS environment. b. Monitor should not appear ghost or ripples.	Pass	Fail	N/A	Note
VGA				
HP LA2405x (1920 x 1200)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CHIMEI 22SH-L (1920 x 1080)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Samsung SyncMaster BX2450	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dell 27" V2713HM	<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® Celeron® Processor J1900 (2M Cache, up to 2.42 GHz)												
Memory	Transcend DDR3L-1600 8GB												
M-SATA	Innodisk.DEMSM-64GD07SW1DC												
VGA	Dell 27" V2713HM												
Operating system	Windows 8.1 Enterprise English Version 64 Bit Driver Version												
Color Quality	<input checked="" type="checkbox"/> 16bit <input type="checkbox"/> 24bit <input checked="" type="checkbox"/> 32bit												
Resolution	VGA			DVI			eDP			LVDS			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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1024X768	<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"/>	<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 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"/>	
1280X768	<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"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1280X800	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1280X1024	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1360X768	<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"/>	
1366X768	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1600X900	<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"/>	
1600X1200	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1680X1050	<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"/>	
1920X1080	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<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"/>	
1920X1200	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2048X1152	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2560X1440	<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"/>	
3840 X 2160	<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"/>	
EDID check	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Hot plug	<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"/>	<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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DOS Display	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<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"/>	

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	CRT + LVDS(BIOS)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Support
Dual Display Clone	CRT + LVDS(OS)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Extended Desktop		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dual Display Clone	CRT(Monitor) + eDP(Build-in Display)(under Win 8.1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Extended Desktop		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dual Display Clone	CRT(Monitor) + LVDS(Digital Display)( under Win 8.1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Extended Desktop		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dual Display Clone	eDP(Build-in	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Extended Desktop	Display+ LVDS(Digital Display))(under Win 8.1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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### 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

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

### 2.1.4. Video Resolution Test

LVDS Panel Model (LVDS display should full screen and no flicker)			Result			Note
			Pass	Fail	N/A	
18bit	800x600	AUO G084SN05 V.7	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	inverter
	1280x768	Toshiba /12.1"/1280 x 768 x 18bit (16:9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
24bit	1366x768	LG185XW011 / 18" / 1366x768 /	<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"/>	By speaker
R (Right) Channel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	By speaker
AMP (Left and Right)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AMP should mute when Audio jack plug in
CD_In	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Line In	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
MICROPHONE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6-channel mode for 5.1 speaker output	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
8-channel mode for 7.1 speaker output	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
S/P DIF function Test	Input	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Output	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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	RTL8111E						MAC Address	00-E0-4C-00-0A		
OnBoard LAN2	RTL8111E						MAC Address	XX-XX-XX-XX-XX		
LAN Speed	Link / Speed LED	Active LED	LAN 1(near to usb)			LAN 2			Note	
			Pass	Fail	N/A	Pass	Fail	N/A		
1000Mbps			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
100Mbps			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
10Mbps			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Wake On LAN			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not support	
LAN Boot (PXE)			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Internet Browser (DHCP Server)			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

### 2.3.2. Throughput Test

#### DUT Platform Information:

<input type="checkbox"/>	Fedora 15 Kernel 2.6.27
<input type="checkbox"/>	Cent 5.5
<input checked="" type="checkbox"/>	English Ubuntu14.04 kernel 3.13.0-24-generic
<input type="checkbox"/>	Red Hat

Note : Connection-Level Performance (Interaction Constants Duration Time Set to 60 Sec.)

Graphics Media	Ubuntu Default setting
LAN	LAN1→ RTL8111E Ethernet: r8168-8.039.00
	LAN2→ RTL8111E Ethernet: r8168-8.039.00
Audio Driver	Ubuntu Default setting

#### SMB Platform Information:

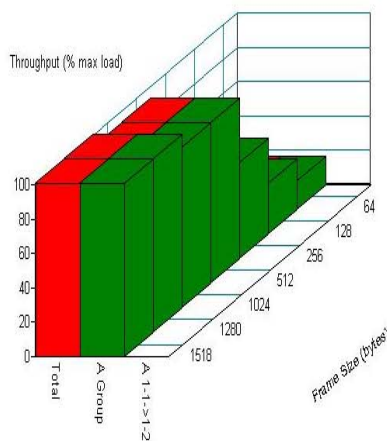
Chassis	SPIRENT Smartbits 600B
Chassis Version	2.80.003 (Cur) 2.50.000
Chassis Serial #	06014047
Library	6.00-29
API	5.50.42.01
File	0550042
Module	2 * LAN-3324A SmartMetrics XD 4-Port 10/100/1000Base-T Gigabit Ethernet
Test Software	SmartFlow5.50.42.1

#### Test Result:

- Half Direction (LAN1: RTL8111E 10/100/1G Ethernet → LAN2: RTL8111E 10/100/1G Ethernet)

#### Throughput Summary Report

<a href="#">Top of Page</a>	<a href="#">Detail Report</a>	<a href="#">Stray Frames Report</a>	<a href="#">Port Errors Report</a>	<a href="#">Packet Rate Report</a>
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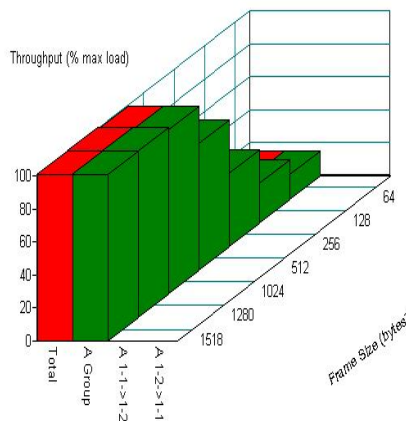
Throughput vs Frame Size

Name/Framesize	64	128	256	512	1024	1280	1518
Total	16.46875	28.84375	55.140625	93.0390625	93.0390625	100	100
A Group	16.46875	28.84375	55.140625	93.0390625	93.0390625	100	100
A 1-1->1-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A

2. Binary Direction (LAN1: RTL8111E 10/100/1G Ethernet → LAN2: RTL8111E 10/100/1G Ethernet)

Throughput Summary Report

<a href="#">Top of Page</a>	<a href="#">Detail Report</a>	<a href="#">Stray Frames Report</a>	<a href="#">Port Errors Report</a>	<a href="#">Packet Rate Report</a>
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Throughput vs Frame Size

Name/Frame size	64	128	256	512	1024	1280	1518
Total	14.921875	23.4296875	44.3125	76.0234375	99.2265625	100	100
A Group	14.921875	23.4296875	44.3125	76.0234375	99.2265625	100	100
A 1-1->1-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A 1-2->1-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A

2.4. COM Ports Test

Test Item		Result			Note
		Pass	Fail	N/A	
Serial Modem	Ring In	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test by Modem
	+12V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test by Multimeter
	+5V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test by Multimeter

2.5. RS-422 / RS-485 Test

[ X ] Not Support

Test Item		Result			Note
		Pass	Fail	N/A	
RS-422 for COMx		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Use loopback and WINSSD.exe to test RS-422 in Windows
		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 COMx		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Use ICP CON I-7044D D/IO Module in Windows(Support Auto flow control)
		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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

### 2.6. LPT Port Test

Test Item	Result			Note
	Pass	Fail	N/A	
XEROX Phaser 3124 Laser Printer	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not support

### 2.7. Digital I/O Test

Test item	Result			Note
	Pass	Fail	N/A	
DIO VCC +5V or +3.3V	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not support

### 2.8. 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 1TB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	9 port
USB Flash:	SONY 128GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Sandisk 64 GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
USB DVD ROM:	LITE-ON Enau808	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
USB keyboard:	Microsoft	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
USB mouse:	Microsoft	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
USB FDD:	Mitsumi D353GUE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
USB2.0 HUB:	Powersync	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	






### 2.9. CAN BUS Test

CAN BUS Compatibility Test	Result			Note
	Pass	Fail	N/A	
ICP I-7565-H2-G CR	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not support
30 meter transmission test	Result			Note
	Pass	Fail	N/A	
20K Baud rate	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not support
50K Baud rate	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
100K Baud rate	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
250K Baud rate	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
500K Baud rate	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1M Baud rate	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

### 2.10. POE LAN Function Test

[ X ] Not Support

Connect two computers via different speed LAN HUB by using "Ping" instruction (1000 times)	
1000MBps LAN HUB	D-Link DGS-1008D
100MBps LAN HUB	Accton Desktop-3005

10MBps LAN HUB			SVEC FD916H						
POE Camera									
POE LAN						MAC Address			
Device	POE LED	Active LED	LAN1			LAN2			Note
			Pass	Fail	N/A	Pass	Fail	N/A	
1000MBps Switch			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
100MBps Switch			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
10MBps HUB			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
POE camera			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Wake On LAN			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
LAN Boot (PXE)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Internet Browser (DHCP Server)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
POE camera recode test over 12 hours.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

### 2.11. GPS Function Test

Test item		Result			Note
		Pass	Fail	N/A	
Time-To-First-Fix (TTFF)	cold start Fix time<35s	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not support
	Warm start Fix time<35s	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not support
X / Y coordinate check		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not support

### 2.12. Jumper and Connector Function Test

[ ] No Support

Test item		Result			Note
		Pass	Fail	N/A	
LVDS voltage jumper support 3.3V / 5V selection.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	JP4
Inverter voltage jumper support 5V / 12V selection.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	JP1
Brightness control jumper	PWM mode support 0~100% modulation.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	DC mode support 0~100% modulation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
COM_VSET jumper support 12V / 5V / RI		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	JP8,JP9,JP10
Clear CMOS will clear CMOS date , time , setting , password.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	JP21
Buzzer and 4 pin Speaker test	System boot: one short beep.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	No memory found: One long beep, two short beep, pause a period of time, and loop.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Power button	One touch for power on or power off	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	QIG: reserved no use
	> 4sec for power off when system halt.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	QIG: reserved no use

Reset button, system reset under DOS or Windows.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	QIG: reserved no use
Power LED, active when system boot.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	QIG: reserved no use
HDD LED, active when SATA/CF/CFast/mSATA access		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
CPU FAN	full speed can meet FAN specification	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	fanless
		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	fanless
CHA FAN	full speed can meet FAN specification	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	fanless
		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	fanless
AAFP, line out / microphone work properly.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
AMP_CON, AMP left / right channel work properly		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AMP should mute when audio jack plug-in.
PS/2 KBMS, keyboard / mouse work properly under DOS and OS .		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	



### 3. Expansion card and Application Test

#### 3.1. Expansion Slot Compatibility Test

Test point: Device should work properly in windows environment

Mini PCI Express Card	Result			Note
	Pass	Fail	N/A	
HUAWEI EM820W 3G Card	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
AzureWave AW-NE768(PCI-e Wireless)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Win 8.1(64 bit)no need driver

#### 3.2. Expansion Card Integration Test

Test Item	Result			Note
	Pass	Fail	N/A	
1. Connect devices to all of expansion slots.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not support
2. No error during OS and driver installation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

#### 3.3. Display port Converter Compatibility Test

Test Item			Result			Note
			Pass	Fail	N/A	
DP to HDMI converter: LPC-1504	DOS display	Full screen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not support
	OS display	Full screen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not support
DP to DVI converter: LPC-1503	DOS display	Full screen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not support
	OS display	Full screen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not support

## 4. Power Consumption Test

Configuration	
CPU	Intel® Celeron® Processor J1900 (2M Cache, up to 2.42 GHz)
Memory	Transcend DDR3L / 1600 / 8GB
Storage	SanDisk U100 SSD 32GB
O.S	Windows 8.1 Enterprise English Version 64 Bit Driver Version

### 4.1. AT/ATX Power Consumption

Test Equipment					
Equipment	KYORITSU AC/DC digital clamp meter				
Manufacturer	KYORITSU				
Model name	KYORITSU kew snap model 2010				
Test Environment					
AT Power Model	Seasonic SS-430GB Active PFC F3(simulated to AT Mode)				
Note	Power consumption does not include HDD consumption.				
Power Supply	AT/ATX Power				Note
(Full Loading Mode) Windows 8.1 with Prime 95 Full Loading Test	(+12V)	1.06	A	W	Prime95 Version 2.7.9
	(+5V)	-			
	(+3.3V)	-			
	(-12V)	-			
	(5VSB)	-			
Full Loading Total Watt	12.72(W)				
Idle mode: Measure the current value when system in windows mode and without running any program	(+12V)	0.68	A	W	
	(+5V)	-			
	(+3.3V)	-			
	(-12V)	-			
	(5VSB)	-			
Idle Total Watt	8.16 (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)	Actual (V)	Note
	Pass	Fail	N/A			
VSB5V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.088	5.04	
VSB3V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.392	3.37	
12V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12.320	12.17	
5V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.129	5.06	
VDIMM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.376	1.36	
VCC3V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.408	3.34	
VBAT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.120	3.17	
VCORE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.824	0.82	
Fan Speed	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	RPM	RPM	
CPU DTS Temp	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	42°C	37.2°C	
System Temp	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	33°C	33.2°C	

### 4.3. Wide Voltage Test

Test Environment (a. System should boot properly (b. System wasn't halt in following status. )	DC Power (9V~30V)	Current	Note
Windows 7 with Prime 95 Full Loading Test	(+8.55V)	A	not support wide voltage
	(+19V)	A	
	(+31.5V)	A	
Windows 7 Without running any Software	(+8.55V)	A	
	(+19V)	A	
	(+31.5V)	A	

### 4.4. CMOS Battery Test

Test Point: Calculated result should be > 5 years.

Battery: CR2032

Capacity 225mA

Check item	Measured Voltage		Measured Current		Calculate Result		Result			Note
							Pass	Fail	N/A	
Battery leakage 1. Voltage should be >3V. 2. Calculated result should be > 5 years.	3V	V	2.7	uA	9	years	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Calculate result=225mA/measured current / 365days/24hours

$$225000/2.7/365/24=9.51$$

## 5. Time Accuracy Test

### 5.1. System Clock & RTC Clock Test

Under Room Temperature: 26 °C

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	-1	Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### 5.2. Booting Timer Test

Installation	Actual		Note
System Booting Time	5.8	Sec	display appears

### 5.3. Watchdog Timer Test

Use Function as below: Hi-Safe

[ ] No Support.

Time-Out Interval	Criteria	Actual		Result			Note
				Pass	Fail	N/A	
10 sec	+/- 10%		Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Actual 11 sec
60 sec	+/- 10%		Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Actual 64sec
255 sec	+/- 10%		Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Actual 269sec

Note : Under Room Temperature: 26°C

## 6. O.S. Compatibility Test

### 6.1. English Ubuntu 14.04 Kernel 3.13.0-24-generic

[ ] No Support

Driver Information:

Chipset Software	System default
Graphics Media	System default
Audio Driver	System default
LAN Driver	r8168-8.039.00

Install OS to mSATA Card:

Installation	Result			Note
	Pass	Fail	N/A	
English Ubuntu14.04 kernel 3.13.0-24-generic	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Type uname -a

Test Result:

Test Item	Result			Note
	Pass	Fail	N/A	
<b>Display Function Test</b>				
VGA -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
eDP -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LVDS -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Network Function Test</b>				
Connect to Internet – LAN 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Connect to Internet – LAN 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Audio Function Test</b>				
Play Audio Function Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Play Audio Test
<b>Base Function Test</b>				
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"/>	
<b>X Windows Application</b>				
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
<b>Command Test On Text Mode: Attention Delay Phenomenon</b>				
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

## 6.2. Windows 7 Ultimate English Version 32/64Bit

### [ X ] x32 Driver Information(IDE)

Chipset Software	Intel Chipset Device Utility 10.0 (03/26/2014)
Graphics Media	Intel HD Graphics 3615.0.1097 (9/9/2014)
Audio Driver	Realtek High Definition Audio 6.0.1.7083 (11/05/2013)
LAN Driver	Realtek RTL8111E 7.73.618.2013(6/18/2013)
	Realtek RTL8111E 7.73.618.2013(6/18/2013)

### [ X ] x64 Driver Information(AHCI)

Chipset Software	Intel Chipset Device Utility 10.0 (03/26/2014)
Graphics Media	Intel HD Graphics 3615.0.1097 (9/9/2014)
Audio Driver	Realtek High Definition Audio 6.0.1.7083 (11/05/2013)
LAN Driver	Realtek RTL8111E 7.73.618.2013(6/18/2013)
	Realtek RTL8111E 7.73.618.2013(6/18/2013)

### Install OS to mSATA:

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	
<b>Single Display</b>				
VGA -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
eDP -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LVDS -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Boot – Windows8.1 Enterprise Advanced Options Menu</b>				
Safe Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Basic Function Test</b>				
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 2.0 Removable Devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Touch Function	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
TPM Function	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>LAN Function Test</b>				
LAN1 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN2 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Audio Function Test</b>				
Line Out Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2W Speaker
Line In Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Microphone Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
S/P DIF Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Start Menu</b>				
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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Only support AT Mode

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 32/64Bit

x32 Driver Information:

Chipset Software	Intel Chipset Device Utility 10.0 (03/26/2014)
Graphics Media	Intel HD Graphics 10.18.10.4176 (3/30/2015)
Audio Driver	Realtek High Definition Audio 6.0.1.7083 (11/05/2013)
LAN Driver	Realtek RTL8111E 8.20.815.2013(8/15/2013)
	Realtek RTL8111E 8.20.815.2013(8/15/2013)

x64 Driver Information:

Chipset Software	Intel Chipset Device Utility 10.0 (03/26/2014)
Graphics Media	Intel HD Graphics 10.18.10.4176 (3/30/2015)
Audio Driver	Realtek High Definition Audio 6.0.1.7083 (11/05/2013)
LAN Driver	Realtek RTL8111E 8.20.815.2013(8/15/2013)
	Realtek RTL8111E 8.20.815.2013(8/15/2013)

Install OS to mSATA Card:

Installation	Result			Note
	Pass	Fail	N/A	
English Windows8.1 Enterprise 32bit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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	
<b>Single Display</b>				
VGA -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
eDP -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LVDS -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Boot – Windows8.1 Enterprise Advanced Options Menu</b>				
Safe Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. msconfig 2. safe boot.
<b>Basic Function Test</b>				
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 2.0 Removable Devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Touch Function	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
TPM Function	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>LAN Function Test</b>				
LAN1 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN2 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Audio Function Test</b>				
Line Out Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2W Speaker
Line In Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Microphone Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
S/P DIF Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Start Menu</b>				
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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Only support AT Mode
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 32/64Bit

[ X ] x32 Driver Information:

Chipset Software	Intel Chipset Device Utility 10.1.1 (06/03/2015)
Graphics Media	Intel HD Graphics 10.18.10.4252 (7/10/2015)
Audio Driver	Realtek High Definition Audio 6.0.1.7541 (6/18/2015)
LAN Driver	Realtek RTL8111E 10.6.1001.2015(10/1/2015)
	Realtek RTL8111E 10.6.1001.2015(10/1/2015)

[ X ] x64 Driver Information:

Chipset Software	Intel Chipset Device Utility 10.1.1 (06/03/2015)
Graphics Media	Intel HD Graphics 10.18.10.4252 (7/10/2015)
Audio Driver	Realtek High Definition Audio 6.0.1.7541 (6/18/2015)
LAN Driver	Realtek RTL8111E 10.6.1001.2015(10/1/2015)
	Realtek RTL8111E 10.6.1001.2015(10/1/2015)

### Install OS to mSATA Card:

Installation	Result			Note
	Pass	Fail	N/A	
English Windows 10 Enterprise 64 bit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
English Windows 10 Enterprise 64 bit(UEFI)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
English Windows10 Enterprise 32bit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### Test Results:

Test Item	Result			Note
	Pass	Fail	N/A	
<b>Single Display</b>				
VGA -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
eDP -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LVDS -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Boot – Windows8.1 Enterprise Advanced Options Menu</b>				
Safe Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	msconfig
<b>Basic Function Test</b>				
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 2.0 Removable Devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Touch Function	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
TPM Function	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>LAN Function Test</b>				
LAN1 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN2 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Audio Function Test</b>				
Line Out Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2W Speaker
Line In Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Microphone Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



S/P DIF Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Start Menu</b>				
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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Only support AT Mode
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® Celeron® Processor J1900 (2M Cache, up to 2.42 GHz)
Memory	Transcend DDR3L-1600 8GB(SEC 443 BYKO K4B4G0846D)
Storage	SanDisk U100 SSD 32GB
O.S	Windows 8.1 Enterprise English Version 64 Bit Driver Version
Bios Version	GENE-BT07 R1.0(GBT7AM10)(11/24/2015)

### 7.1. Advanced Test

Test Item	Result			Note	
	Pass	Fail	N/A		
Power Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
NCT6791D Super IO configuration	Serial Port 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Enable / Disable	
	Serial Port 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Enable / Disable	
	Serial Port 3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Enable / Disable	
	Serial Port 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Enable / Disable	
	Serial Port 5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Enable / Disable	
	Serial Port 6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Enable / Disable	
	Smart Fan Function	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not support
Digital IO	DIO0~7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not support
CPU configuration	Hyper-threading	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Enable/Disable
	Virtualization Technology	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable/Disable
Trusted Computing	TPM SUPPORT	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not support
	Clear TPM	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not support
IDE configuration	SATA controller	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable/Disable
	AHCI mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	IDE mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	SATA Speed Support	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Gen1 / Gen2
	SATA ODD Port	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not support
USB configuration	Legacy USB Support	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Touch Device		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Spec:Reserve USB2.0 x1 connector to expend

### 7.2. Chipset Test

Test Item	Result			Note	
	Pass	Fail	N/A		
North Bridge	Primary Boot Display	VBIOS Default	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		CRT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		LVDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		eDP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	IGD-LCD Control	LVDS Enable/Disable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Memory Information	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shows correct information
South Bridge	Azalia HD Audio Controller	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable /disable
	USB Configuration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	PCI Express Configuration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### 7.3. Boot Test

Test Item	Result			Note
	Pass	Fail	N/A	
Boot up Numlock State	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Quiet Boot	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot From USB Flash	<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	Result			Note
	Pass	Fail	N/A	
CMOS Backup	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Clear Date and time
Clear CMOS Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Clear Date

### 7.5. AAEON Tag Check Utility

Test Item	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	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	Result			Note	
	Pass	Fail	N/A		
Version(20150612)	<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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 11 sec
	1min	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Actual 64sec
	255sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Actual 269sec
	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"/>	
	Read Byte	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Read Word	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Result / Read	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Smart FAN	Chipset	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Fan Speed	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Temperature	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Speed control	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Off Speed TMP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Full Speed TMP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Fanless

### 7.8. Hi-Manager Test

Test Item	Result			Note
	Pass	Fail	N/A	
Version(20130819)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Power control	Power on	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Power off	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Reset	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Power on from G3 state	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Group Management	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Event log	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Alarm Clock	Set Alarm Time	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Recurring Alarm	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Remote Recovery		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
KVM		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schedule		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## 7.9. Negative Test

### 7.9.1 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"/>	

### 7.9.2 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 can work properly.	RS232/422/485	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not support Sleep mode
	DIO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	SmartFan	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	LVDS Backlight control	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	USB ports	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

### 7.9.3 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 loss "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® Celeron® Processor J1900 (2M Cache, up to 2.42 GHz)
Memory	Transcend DDR3L-1600 8GB(SEC 443 BYKO K4B4G0846D)
Storage	Innodisk.DEMSM-64GD07SW1DC
O.S	Windows 8.1 Enterprise English Version 64 Bit Driver Version

### 8.1. System Performance Test

Test Result: (Display set 1920\*1080 test)

Testing Software	Scope	Note
<b>PCMark2005</b>		
PCMark	-	PCMarks
CPU	4915	
Memory	3541	
Graphics	1405	
HDD	N/A	
Benchmark (B)	-	
Average Efficiency	-	
<b>PCMARK 7</b>		
PCMark	2649	
<b>PCMARK 8</b>		
PCMark	1366	

Testing Software	Scope	Note
<b>3Dmark06 v120</b>		
3Dmark Score	1496	2048 X 1152
SM2.0 Score	515	
HDR/SM3.0 Score	542	
CPU Score	2385	
Benchmark (B)	-	
Average Efficiency	-	
<b>3Dmark Vantage</b>		
GPU Score	367	2048 X 1152
CPU Score	5271	

Testing Software	Scope	Note
<b>Performance Test 7.0</b>		
PassMark Rating	753.9	
CPU Mark	2076.5	
2D Graphics Mark	178.1	

3D Graphics Mark	148.2	
Memory Mark	973.4	
Disk Mark	876.7	
CD Mark	-	
<b>Performance Test 8.0</b>		
PassMark Rating	761.9	
CPU Mark	1766	
2D Graphics Mark	222.6	
3D Graphics Mark	161.3	
Memory Mark	825	
Disk Mark	1039	
CD Mark	-	

## 8.2. Storage Performance Test

USB3.0/2.0 Performance				
USB Flash	Sony USB3.0 128GB			
Item	Comment / (unit)	Software	Transfer Rate (MB/s)	Note
USB3.0	-	ATTO Disk Benchmark	MB/s	
	-	ATTO Disk Benchmark	MB/s	
USB2.0	Maximum Read:40.245 MB/s	ATTO Disk Benchmark	MB/s	
	Maximum Write: 26.604 MB/s	ATTO Disk Benchmark	MB/s	

mSATA performance				
mSATA				
Item	Comment / (unit)	Software	Transfer Rate (MB/s)	Note
mSATA	Maximum Read: 82.090 MB/s	ATTO Disk Benchmark	MB/s	
	Maximum Write: 20.554 MB/s	ATTO Disk Benchmark	MB/s	

## 9. Stability test

### 9.1. Run In Test

Under Room Temperature: 26 °C

OS: Windows 8.1 Enterprise English 64bit

Test Item		Result			Note
		Pass	Fail	N/A	
Burn In Test V8.0( 1041 ) 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"/>	Baud rate:115200(install patch)
	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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Network	<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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	3.0	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Note: COM PORT Speed Set to 115200.

### 9.2. Reboot Test

Under Room Temperature: 26 °C

OS: Windows 8.1 Enterprise English 64bit

Test Tool: Passmark rebooter.exe

Test item	Result			Note
	Pass	Fail	N/A	
Reboot test for 1000 cycles <System should not error or hang during testing.>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### 9.3. Cold Boot Test

Under Room Temperature: 26 °C

OS: DOS

Test item	Result			Note
	Pass	Fail	N/A	
AC loss cold boot over 1000 cycles <loss rate: 0 /1000 times>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	