

Report NO: 16E010018

GENE-BT07 A1.1

Board Level Product Compatibility Test Report

Summary	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input checked="" type="checkbox"/> Pass with Deviation (Comment: Defect No.EE01 / EE02 / EE03 / EE04 / EE05 / EE06 / EE07 , GENE-BT07 A1.1 for ODM project , customer approval for GENE-BT07 A1.1 issue exist)			
	Test Results Category			
	Critical	Major	Minor	Enhancement
Defect Found	0	2	4	0
Defect Unsolved	0	2	4	0

Issue date	QE Manager	Test Engineer
2016-10-21	KJ Wang	Danny Chen

Summary Table of DTS:

Defect No.	Severity	Description	Issue status
1609QEE01	Major	Win7 32/64 bit Device Manager 會出現黃色驚號 (USB)	Open
1609QEE02	Major	LVDS 1920 x 1080 無畫面輸出	Open
1609QEE03	Minor	BIOS Primary Boot Display	Open
1609QEE04	Minor	OS 32bit 下記憶體容量顯示	Open
1609QEE05	Minor	BIOS / Serial-ATA-Port 1 & SATA Port1 Hot Plug	Open
1609QEE06	Minor	BIOS XHCI Mode	Open
1609QEE07	Minor	eDP not support	Open

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. 10. Add DDR4 SO-DIMM. 11. Update Linux to Ubuntu16.04 12. Add Stability Test \ Memory test.	

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	
Form Factor	SubCompact Board – 146mm x 101.6mm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Processor	Intel® Celeron® J1900 Processor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
System Memory	204-pin DDR3L 1333 SODIMM Memory Max. up to 8GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Chipset	Intel® Celeron® J1900 Processor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Super I/O	F81866D-1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
VGA / LCD Controller	Chip – Intel® Celeron® J1900 processors integrated Support dual view / simultaneous display Support LVDS, VGA, Edp VGA- Wafer Connector x1 , Resolution up to 2560 x 1600 LVDS- 18/24 bit dual channel LVDS LCDs, up to 1920 x1200	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Network	RTL8111E, RJ-45 x2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Storage	Support mSATA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio	Realtek ALC892 CODEC, MIC-In, Line-out TPA3113, Support 8ohm/2W speaker	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Serial Port	Six COM ports: wafer connector Six COM1 ~ 6 / RS-232	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Universal Serial Bus	USB 2.0 Ports x 9, internal connector	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Touch Screen Controller	Reserve USB2.0 x1 connector to expend	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Expansion Interface	Mini Card slots x 1 / LPC interface (reserved)/Sim Card Socket	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
WatchDog Timer	Fintek F81866	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hardware Monitor	Fintek F81866	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Power Supply Request	+12V DC, AT/ATX mode Default ATX mode	<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 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	Kernel 2.6 above	<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 / A1.1	
BIOS / Version	GNNE-BT07 R1.3 (V016OM13) (06/21/2016)	
Driver folder	GENE-BT07 / 20151124	
CPU Type	Intel ® Celeron ® CPU J1900 @1.99GHz	
Memory Type	Transcend DDR3L-1600 8GB(SEC 443 BYKO K4B4G0846D)	
mSATA	Transcend mSATA 128GB	
USB DVD-ROM	AOpen USB-DVD ROM / EDR8865U	
LCD Monitor	ViewSonic VP-2770-LED	
LVDS	LG185XW011 / 18" / 1366x768 /	
Operating System	<input checked="" type="checkbox"/> English Ubuntu 14.04 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	ATX Power Supply : Seventeam ST-450P-CG	
Chipset Information		
North Bridge	Intel BayTrail SoC	
South Bridge	Intel BayTrail SoC	
Super IO Chipset	Fintek F81866	
Audio Chipset	Realtek ALC892	
Ethernet Chipset	RTL8111E	

Summary Table of contents:

1. Hardware Compatibility..... 7
 1.1. CPU Compatibility Test..... 7
 1.2. Memory Compatibility Test 7
 1.3. Flash Card Compatibility Test..... 7
 1.4. Power Supply Compatibility Test 8
 1.5. Monitor Compatibility Test 8
 2. Basic Function Test..... 9
 2.1. Video Function Test 9
 2.2. Audio Function Test..... 11
 2.3. LAN Function Test..... 11
 2.4. COM Ports Test..... 13
 2.8. USB Port Integration Test..... 13
 2.13. Jumper and Connector Function Test 14
 3. Expansion card and Application Test 15
 3.1. Expansion Slot Compatibility Test 15
 4. Power Consumption Test 16
 4.1. Power Consumption..... 16
 4.4. CMOS Battery Test..... 17
 5. Time Accuracy Test..... 18
 5.1. System Clock & RTC Clock Test..... 18
 5.2. Booting Timer Test..... 18
 5.3. Watchdog Timer Test 18
 6. O.S. Compatibility Test 19
 6.1. English Ubuntu 14.04 Kernel 3.13.0-24-generic 19
 6.2. Windows 7 Ultimate English Version 32/64Bit 20
 6.3. Windows 8.1 Enterprise English Version 32/64Bit..... 21
 6.4. Windows 10 Enterprise English Version 32/64Bit..... 22
 7. BIOS Function Test 23
 7.1. Advanced Test..... 23
 7.2. Chipset Test 24
 7.3. Boot Test 24
 7.4. CMOS Backup / Clear CMOS Test 24
 7.5. AAEON Tag Check Utility 24
 7.6. Supervisor / User Password Test 24
 7.7. Hi-safe Test 25
 7.9. Negative Test 25
 8. Performance Test 26
 8.1. System Performance Test 26
 8.2. Storage Performance Test..... 27
 9. Stability test..... 28
 9.1. Run In Test 28
 9.2. Reboot Test..... 28
 9.3. ACPI G3 Cold Boot Test..... 29
 9.4. ACPI S5 Cold Boot Test..... 29
 9.5. Memory Test 29

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	
SO-DDR3L					
Transcend DDR3L-1600 2GB(SEC 501 BYMA K4B2G0846Q)	AP-DR968D3002GK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transcend DDR3L-1600 4GB(SEC 446 XYKO K4B4G0846D)	AP-DR968D3004G6	<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. Flash Card Compatibility Test

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	
Half Size					
Transcend.TS32GMSM360 half size 32GB	CTOS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transcend.TS64GMSM360I half size 64GB	CTOS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transcend.TS128GMSM360I half size 128GB	CTOS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Innodisk half size mSATA.8GB 3ME3	AP-SS968C008G1L	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Innodisk half size mSATA.16GB 3ME3	AP-SS968C016G3M	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Innodisk half size mSATA.32GB 3ME3	AP-SS968C032G3P	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Innodisk half size mSATA.64GB 3ME3	AP-SS968C064G3D	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Innodisk half size mSATA.128GB 3ME3	AP-SS968C128G1T	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.4. Power Supply Compatibility Test

Power Supply Information a. System boot to OS should work properly. b. System OS shutdown function should work properly.	Result			Note
	Pass	Fail	N/A	
SeaSonic SSR-450RM 450W 80plus Gold	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	*Must
FSP AS550 550W 80plus Gold	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler Master RS-750-AMAA-G1 750W 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"/>	

1.5. Monitor Compatibility Test

Monitor Information a. Monitor should display under DOS and OS environment. b. Monitor should not appear ghost or ripples.	Result			Note
	Pass	Fail	N/A	
VGA				
HP LA2405x (1920 x 1200)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(at least 3 monitors)
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												
mSATA	Transcend mSATA 128GB												
VGA	View Sonic VP2770-LED												
Operating system	Windows 10 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 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"/>	GENE-BT07 A1.1 for ODM project , customer primary display by LVDS , eDP not support
1024X768	<input 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 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 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 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"/>	
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 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"/>	
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 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"/>	
1920X1080	<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"/>	
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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DOS Display	<input 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"/>	

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	VGA + LVDS	<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	VGA + eDP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Extended Desktop		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Dual Display Clone	eDP + LVDS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Extended Desktop		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Note : GENE-BT07 A1.1 for ODM project , customer primary display by LVDS so eDP not support

2.1.3. Boot up Without Display Test

Process step:

1. BIOS disable LVDS.
2. Power on without inserting any VGA 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 VGA testing.

Test item		Result			Note
		Pass	Fail	N/A	
Display should working normal in Windows Desktop	VGA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

2.1.4. LCD Panel 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"/>	

Note : GENE-BT07 A1.1 for ODM project , customer approval to not support 1920 x 1080 48bit resolution







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"/>	
R (Right) Channel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
AMP (Left and Right)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AMP should mute when Audio jack plug in
MICROPHONE	<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		Realtek RTL8111E GBE Family Controller					MAC Address		00-07-32-3D-42-3C	
OnBoard LAN2		Realtek RTL8111E GBE Family Controller					MAC Address		00-07-32-3D-42-3D	
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 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"/>	S3/S4/S5	
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"/>		
Access 14GB file. Download from ftp http://xxx.xxx.14.125			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Note : GENE-BT07 A1.1 not support WOL Function

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
CPU information	Intel ® Celeron ® CPU J1900 @ 1.99GHz

SMB Platform Information:

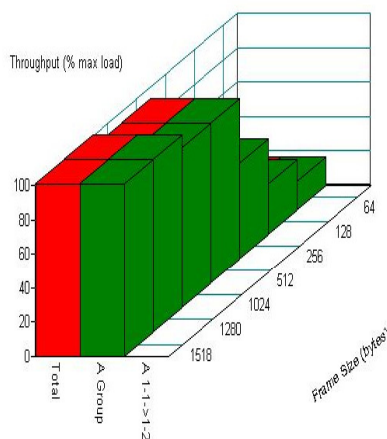
Chassis	SPIRENT Smartbits 600B
Chassis Version	2.80.003 (Cur) 2.50.000
Chassis Serial #	06014047
Library	6.00-29
API	5.50.42.01
File	0550042
Module	2 * LAN-3324A SmartMetrics XD 4-Port 10/100/1000Base-T Gigabit Ethernet
Test Software	SmartFlow5.50.42.1

Test Result:

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

Throughput Summary Report

Top of Page	Detail Report	Stray Frames Report	Port Errors Report	Packet Rate Report
-----------------------------	-------------------------------	-------------------------------------	------------------------------------	------------------------------------



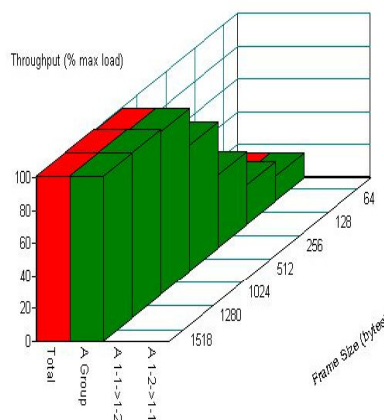
Throughput vs Frame Size

Name/Frame size	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

Top of Page	Detail Report	Stray Frames Report	Port Errors Report	Packet Rate Report
-----------------------------	-------------------------------	-------------------------------------	------------------------------------	------------------------------------



Throughput vs Frame Size

Name/FrameSize	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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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

Note : GENE-BT07 A1.1 not support Wake on Ring function

2.5. 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"/>	

2.6. Jumper and Connector Function Test

[] No Support

Test item	Result			Note
	Pass	Fail	N/A	
LVDS BKLT Power Selection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LVDS Power Selection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
COM6 Pin8 Function Selection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
COM2 Pin8 Function Selection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
COM1 Pin8 Function Selection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
eDP Backlight Power select	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
eDP Panel Power Select	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Clear CMOS Jumper	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
AT/ATX mode select	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

3. Expansion card and Application Test

3.1. Expansion Slot Compatibility Test

Test point: Make sure expansion slots are compatible with expansion cards.

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

4. Power Consumption Test

Configuration	
CPU	Intel® Celeron® Processor J1900 (2M Cache, up to 2.42 GHz)
Memory	Transcend DDR3L / 1600 / 8GB
Storage	Transcend mSATA 128GB
O.S	Windows 8.1 Enterprise English Version 64 Bit Driver Version

4.1. Power Consumption

Test Equipment					
Equipment	KYORITSU AC/DC digital clamp meter				
Manufacturer	KYORITSU				
Model name	KYORITSU kew snap model 2010				
Test Environment					
ATX Power Model	Seasonic SS-430GB				
Power Supply	Current	P		Note	
(Full Loading Mode) Windows 7 with Prime 95 Full Loading Test	(+12V) 1.06 A	12.72 W		Prime95 Version 259	
Full Loading Total Watt	12.72 (W)				
Win. Idle mode: Measure the current value when system in windows mode and without running any program	(+12V) 0.68 A	8.16 W			
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	
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. 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

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	-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	Press the Power Button till "display" appears

5.3. Watchdog Timer Test

Use Function as below: Hi-Safe_20150612

[] 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"/>	
60 sec	+/- 10%		Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
255 sec	+/- 10%		Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Note : Under Room Temperature.

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	
Display Function Test				
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"/>	
Network Function Test				
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"/>	
Audio Function Test				
Play Audio Function Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Play Audio Test
Base Function Test				
Mouse Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Keyboard Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB 2.0 Removable Devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
X Windows Application				
Start Button Office	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Office function
X-Window	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Startx – Desktop in Linux
Command Test On Text Mode: Attention Delay Phenomenon				
uname -a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Show information
Shutdown	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Init 0 or shutdown -h now
Restart the Computer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Init 6 or shutdown -r now
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

32bit Driver Information	
Chipset Software	Intel Chipset Device Utility 10.1.1 (03/26/2014)
Graphics Media	Intel Atom Processor E3800 Series/ Intel Celeron Processor N2900/J1900 37.15.0.1124 (4/20/2015)
Audio Driver	Realtek High Definition Audio 6.0.1.7878 (7/12/2016) Intel Display Audio 6.16.0.3150 (7/8/2014)
LAN Driver	Realtek RTL8111E 7.73.618.2013 (6/18/2013)
64bit Driver Information	
Chipset Software	Intel Chipset Device Utility 10.1.1 (03/26/2014)
Graphics Media	Intel Atom Processor E3800 Series/ Intel Celeron Processor N2900/J1900 37.15.0.1124 (4/20/2015)
Audio Driver	Realtek High Definition Audio 6.0.1.7878 (7/12/2016) Intel Display Audio 6.16.0.3150 (7/8/2014)
LAN Driver	Realtek RTL8111E 7.73.618.2013 (6/18/2013)

Install OS to mSATA:

Installation	Result			Note
	Pass	Fail	N/A	
English Windows 7 Ultimate 32bit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Legacy
English Windows 7 Ultimate 64bit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	UEFI

Test Results:

Test Item	Result			Note
	Pass	Fail	N/A	
Single Display				
VGA -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DVI -- Full Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
LVDS -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Basic Function Test				
Usable memory	32bit: 2.89GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Defect No.EE04
	64bit: 7.89GB	<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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	USB3.0	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Safe to remove icon	<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"/>	
LAN2 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio Function Test				
Line Out Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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"/>	
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 32/64Bit

32bit Driver Information	
Chipset Software	Intel Chipset Device Utility 10.1.1 (03/26/2014)
Graphics Media	Intel HD Graphics 10.18.10.4175 (3/30/2015)
Audio Driver	Realtek High Definition Audio 6.0.1.7878 (7/12/2016) Intel Display Audio 6.16.0.3154 (9/9/2014)
LAN Driver	Realtek RTL8111E 8.20.815.2013 (8/15/2013)
64bit Driver Information	
Chipset Software	Intel Chipset Device Utility 10.1.1 (03/26/2014)
Graphics Media	Intel HD Graphics 10.18.10.4175 (3/30/2015)
Audio Driver	Realtek High Definition Audio 6.0.1.7878 (7/12/2016) Intel Display Audio 6.16.0.3154 (9/9/2014)
LAN Driver	Realtek RTL8111E 8.20.815.2013 (8/15/2013)

Install OS to SATA HDD/ mSATA Card:

Installation	Result			Note
	Pass	Fail	N/A	
English Windows8.1 Enterprise 32bit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Legacy
English Windows8.1 Enterprise 64bit UEFI mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	UEFI

Test Results:

Test Item	Result			Note
	Pass	Fail	N/A	
Single Display				
VGA -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DVI -- Full Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
LVDS -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Basic Function Test				
Usable memory	32bit: 2.89GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Defect No.EE04
	64bit: 7.89GB	<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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	USB3.0	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Safe to remove icon	<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"/>	
LAN2 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio Function Test				
Line Out Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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"/>	
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 32/64Bit

32bit 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 6.0.1.7878 (7/12/2016) Intel Display Audio 6.16.0.3154 (9/9/2014)
LAN Driver	Realtek RTL8111E 10.6.1001.2015(10/1/2015)
64bit Driver Information	
Chipset Software	Intel Chipset Device Utility 10.1.1 (06/03/2015)
Graphics Media	Intel HD Graphics 10.18.10.4358 (10/21/2015)
Audio Driver	Realtek High Definition Audio 6.0.1.7878 (7/12/2016) Intel Display Audio 6.16.0.3154 (9/9/2014)
LAN Driver	Realtek RTL8111E 10.6.1001.2015(10/1/2015)

Install OS to mSATA Card:

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

Test Results:

Test Item	Result			Note		
	Pass	Fail	N/A			
Single Display						
VGA -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
eDP -- Full Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
LVDS -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Basic Function Test						
Usable memory	32bit:	2.89GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Defect No.EE04
	64bit:	7.89GB	<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"/>	
USB 2.0	USB2.0		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Removable Devices	USB3.0		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Safe to remove icon		<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"/>	
LAN2 --- Auto			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio Function Test						
Line Out Test			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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"/>	
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® 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

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		
Power Manager					
Power Mode	ATX Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	AT Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Restore AC Power Loss	Power Off	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Power On	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Last State	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Wake On Ring	Enabled / Disabled	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	GNEN-BT07 not support this function
Wake On LAN	Enabled / Disabled	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>	
Super IO Configuration					
Super IO chip	Serial Port 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable/Disable
	Serial Port 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Serial Port 3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Serial Port 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Serial Port 5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Serial Port 6	<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"/>	
CPU Configuration					
CPU	Information	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Intel Virtualization Tech	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable/Disable
IDE Configuration					
Serial-ATA	Enabled / Disabled	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SATA Speed	GEN1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	GEN2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SATA Mode	AHCI Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	IED Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Serial - ATA Port 1	Enabled / Disabled	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Defect No.05
SATA Hot Plug	Enabled / Disabled	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Defect No.05
USB Configuration					
Legacy USB Support	Enabled / Disabled	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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	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"/>	Defect No.EE06
	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 (Following item should work properly)	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 (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	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"/>	Fanless
	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"/>	

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 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
PCMark2005		
PCMark	-	PCMarks
CPU	4915	
Memory	3541	
Graphics	1405	
HDD	N/A	
Benchmark (B)	-	
Average Efficiency	-	
PCMARK 7		
PCMark	2649	
PCMARK 8		
PCMark	1366	

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

Testing Software	Scope	Note
Performance Test 7.0		
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	-	
Performance Test 8.0		
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	Transcend USB 3.0 128GB			
Item	Comment / (unit)	Software	Transfer Rate (MB/s)	Note
USB2.0	Maximum Read	ATTO Disk Benchmark	38MB/s	
	Maximum Write	ATTO Disk Benchmark	35MB/s	

mSATA performance				
mSATA	Innodisk mSATA mini 3ME3 / 64GB			
Item	Comment / (unit)	Software	Transfer Rate (MB/s)	Note
mSATA	Maximum Read	ATTO Disk Benchmark	207MB/s	
	Maximum Write	ATTO Disk Benchmark	78MB/s	

9. Stability 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

9.1. Run In Test

Under Room Temperature:

OS: Windows 8.1 Enterprise English 64bit

Note: COM PORT Speed Set to 115200.

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"/>	

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"/>	<ol style="list-style-type: none"> 1. "PassMark Rebooter" set 500 cycles / delay 30sec and enable "auto load Rebooter at startup". 2. On/off fixture cycle time to set 150sec.

9.5. Memory Test

Under room temperature:

OS: DOS

Tool: Memtest86+ V5.01 above

Memory information: Transcend DDR3L-1600 8GB(SEC 443 BYKO K4B4G0846D)

Test item	Result			Note
	Pass	Fail	N/A	
Memory Test for 3 loops. < Memtest result should not error or hang..>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	