MS-S322 System Component AVL List

AVL Test Configuration	
Test Plan Rev.	3.0
Test Schedule	032023~080823
Test Leader	Danieldu
Test Engineer	Danieldu / Carlostsai /RoyTsai
CPU	As following
Memory	As following
HDD	As following
PSU	As following
OS	Red Hat Enterprise Linux 8.6 for AMD64 / Windows Server 2022 x64

CPU

Test Procedures:

1. Check processor information during the POST and in O.S.
2. Install Windows/Linux and check CPU information in OS.
3. Running the "Burn-In" 2hrs test for Uni-processor of intel
3. Running the "AMDSST CPU Stress" 2hrs test for Uni-processor of AMD

Expected Result:

- Processor information is correct.
- Install OS without problem and CPU information is correct.
- No errors and system hang during test.

Vendor	Code Name	Processor Number	Freq	TDP	Cores	Stepping	Socket	Q'ty	Model	Test Result	IMS
Intel	SAPPHIRE RAPIDS	3408U #Q27B(MCC)	1.8GHZ	125W	8Cores	S3	LGA4677	2P	PK8071305118600	Pass	
Intel	SAPPHIRE RAPIDS	4410T #Q27V(MCC)	2.7GHZ	150W	10Cores	S3	LGA4677	2P	PK8071305121601	Pass	
Intel	SAPPHIRE RAPIDS	4410Y #Q27D(MCC)	2.0GHZ	150W	12Cores	S3	LGA4677	2P	PK8071305120002	Pass	
Intel	SAPPHIRE RAPIDS	4416+ #Q27F(MCC)	2.0GHZ	165W	20Cores	S3	LGA4677	2P	PK8071305120201	Pass	
Intel	SAPPHIRE RAPIDS	5411N #Q27X(MCC)	1.9GHZ	165W	24Cores	S3	LGA4677	2P	PK8071305121801	Pass	
Intel	SAPPHIRE RAPIDS	5411N #Q27X(MCC)	1.9GHZ	165W	24Cores	S3	LGA4677	2P	PK8071305121801	Pass	
Intel	SAPPHIRE RAPIDS	5412U #Q27H(MCC)	2.1GHZ	185W	24Cores	S3	LGA4677	2P	PK8071305120401	Pass	
Intel	SAPPHIRE RAPIDS	5415+ #Q27C(MCC)	2.9GHZ	150W	8Cores	S3	LGA4677	2P	PK8071305118701	Pass	
Intel	SAPPHIRE RAPIDS	5416S #Q281(MCC)	2.0GHZ	150W	16Cores	S3	LGA4677	2P	PK8071305122201	Pass	
Intel	SAPPHIRE RAPIDS	5418N #Q27W(MCC)	1.8GHZ	165W	24Cores	S3	LGA4677	2P	PK8071305121701	Pass	
Intel	SAPPHIRE RAPIDS	5420+ #Q27K(MCC)	2.0GHZ	205W	28Cores	S3	LGA4677	2P	PK8071305120600	Pass	
Intel	SAPPHIRE RAPIDS	6416H #Q27Q(MCC)	2.2GHZ	165W	18Cores	S3	LGA4677	2P	PK8071305121101	Pass	
Intel	SAPPHIRE RAPIDS	6418H #Q27R(MCC)	2.1GHZ	185W	24Cores	S3	LGA4677	2P	PK8071305121202	Pass	
Intel	SAPPHIRE RAPIDS	6421N #Q27Z(MCC)	1.8GHZ	185W	32Cores	S3	LGA4677	2P	PK8071305122001	Pass	
Intel	SAPPHIRE RAPIDS	6426Y #Q27E(MCC)	2.5GHZ	185W	16Cores	S3	LGA4677	2P	PK8071305120102	Pass	
Intel	SAPPHIRE RAPIDS	6428N #Q27Y(MCC)	1.8GHZ	185W	32Cores	S3	LGA4677	2P	PK8071305121901	Pass	
Intel	SAPPHIRE RAPIDS	6430 #Q23B	2.1GHZ	270W	32Cores	E5	LGA4677	2P	PK8071305072902	Pass	
Intel	SAPPHIRE RAPIDS	6434H #Q27P(MCC)	3.7GHZ	195W	8Cores	S3	LGA4677	2P	PK8071305121001	Pass	
Intel	SAPPHIRE RAPIDS	6438M #Q282(MCC)	2.2GHZ	205W	32Cores	S3	LGA4677	2P	PK8071305122301	Pass	
Intel	SAPPHIRE RAPIDS	6438N #Q280(MCC)	2.0GHZ	205W	32Cores	S3	LGA4677	2P	PK8071305122101	Pass	
Intel	SAPPHIRE RAPIDS	6438Y+ #Q27L(MCC)	2.0GHZ	205W	32Cores	S3	LGA4677	2P	PK8071305120701	Pass	
Intel	SAPPHIRE RAPIDS	6442Y #Q27J(MCC)	2.6GHZ	225W	24Cores	S3	LGA4677	2P	PK8071305120500	Pass	
Intel	SAPPHIRE RAPIDS	6444Y #Q27T(MCC)	3.6GHZ	270W	16Cores	S3	LGA4677	2P	PK8071305121400	Pass	
Intel	SAPPHIRE RAPIDS	6448H #Q27S(MCC)	2.4GHZ	250W	32Cores	S3	LGA4677	2P	PK8071305121300	Pass	

CPU

Test Procedures:

1. Check processor information during the POST and in O.S.
2. Install Windows/Linux and check CPU information in OS.
3. Running the "Burn-In" 2hrs test for Uni-processor of intel
3. Running the "AMDSST CPU Stress" 2hrs test for Uni-processor of AMD

Expected Result:

- Processor information is correct.
- Install OS without problem and CPU information is correct.
- No errors and system hang during test.

Vendor	Code Name	Processor Number	Freq	TDP	Cores	Stepping	Socket	Q'ty	Model	Test Result	IMS
Intel	SAPPHIRE RAPIDS	6448Y #Q27M(MCC)	2.1GHZ	225W	32Cores	S3	LGA4677	2P	PK8071305120802	Pass	
Intel	SAPPHIRE RAPIDS	6454S #Q23C	2.1GHZ	270W	32Cores	E5	LGA4677	2P	PK8071305073001	Pass	
Intel	SAPPHIRE RAPIDS	6458Q #Q27U(MCC)	3.1GHZ	350W	32Cores	S3	LGA4677	2P	PK8071305121501	Pass	
Intel	SAPPHIRE RAPIDS	8444H #Q23W	2.9GHZ	270W	16Cores	E5	LGA4677	2P	PK8071305075101	Pass	
Intel	SAPPHIRE RAPIDS	8450H #Q244	2.0GHZ	250W	28Cores	E5	LGA4677	2P	PK8071305075901	Pass	
Intel	SAPPHIRE RAPIDS	8454H #Q23R	2.1GHZ	270W	32Cores	E5	LGA4677	2P	PK8071305074601	Pass	
Intel	SAPPHIRE RAPIDS	8460H #Q23V	2.2GHZ	330W	40Cores	E5	LGA4677	2P	PK8071305075001	Pass	
Intel	SAPPHIRE RAPIDS	8460Y+ #Q238	2.0GHZ	300W	40Cores	E5	LGA4677	2P	PK8071305072601	Pass	
Intel	SAPPHIRE RAPIDS	8462Y+ #Q27N(MCC)	2.8GHZ	300W	32Cores	S3	LGA4677	2P	PK8071305120901	Pass	
Intel	SAPPHIRE RAPIDS	8468 #Q237	2.1GHZ	350W	48Cores	E5	LGA4677	2P	PK8071305072501	Pass	
Intel	SAPPHIRE RAPIDS	8470Q #Q235	2.1GHZ	350W	52Cores	E5	LGA4677	2P	PK8071305072301	Pass	
Intel	SAPPHIRE RAPIDS	8458P#Q170	2.7GHZ	350W	44Cores	E3	LGA4677	2P	PK8071305073301	Pass	
Intel	SAPPHIRE RAPIDS	8468V#Q16Y	2.4GHZ	330W	48Cores	E3	LGA4677	2P	PK8071305073101	Pass	
Intel	SAPPHIRE RAPIDS	8470Q#Q16Q	2.1GHZ	350W	52Cores	E3	LGA4677	2P	PK8071305072301	Pass	
Intel	SAPPHIRE RAPIDS	6430#Q16W	2.1GHZ	270W	32Cores	E3	LGA4677	2P	PK8071305072901	Pass	

Memory

Test Procedures:

1. Check memory information during the POST / check frequency via BIOS setup menu as Full DIMM mode.
2. Install Windows/Linux and check memory information in OS.
3. Running the "Memtest86 V10.0 Pro" 2hrs test (F2:SMP mode enabled)

Vendor	Size	L/SOD	Reg/Unb	ECC	DDR	Freq.	Rank	Q'ty	Model	Test Result	IMS
Samsung	64GB	LDIMM	Registered	ECC	DDR5	4800	2R	32DIMMs	M321R8GA0BB0-CQKVG	Pass	
Samsung	16GB	LDIMM	Registered	ECC	DDR5	4800	1R*8	32DIMMs	M321R2GA3BB6-CQK	Pass	
Samsung	32GB	LDIMM	Registered	ECC	DDR5	4800	2R*8	32DIMMs	M321R4GA0BB0-CQK	Pass	
Samsung	64GB	LDIMM	Registered	ECC	DDR5	4800	2R*4	32DIMMs	M321R8GA0BB0-CQK	Pass	
Micron	16GB	LDIMM	Registered	ECC	DDR5	4800	1R*8	32DIMMs	MTC10F1084S1RC48BA1	Pass	
Micron	32GB	LDIMM	Registered	ECC	DDR5	4800	2R*8	32DIMMs	MTC20F2085S1RC48BA1	Pass	
Micron	32GB	LDIMM	Registered	ECC	DDR5	4800	2R*8	32DIMMs	MTC20F2085S1RC48BA1	Pass	
Micron	64GB	LDIMM	Registered	ECC	DDR5	4800	2R*8	32DIMMs	MTC40F2046S1RC48BA1	Pass	

VGA_GPU

Test Procedures:

1. Download the driver for Windows/Linux from vendor website
2. Load driver under Windows/Linux
3. Run the "hpcg" performance test. For GPU
3. (NVIDIA A100/H100) Run the NVIDIA HPC-Benchmarks 4 hrs test
3. Run the "3D-mark" performance test. For VGA
4. Run the "3D-mark" 2hrs test

Expected Result:

- Check the driver can be load under OS

- No errors and system hang during test.

Vendor	Model & Description	Firmware Version	System Interface Type	Model	Test Result	IMS
NVIDIA	NVIDIA/TeslaA16/VGACard/64GBGDDR6PCIe4.0x16TDP:250WVDICard+GPUPowerSplitterC	31.0.15.3598	PCI Express Gen4 x16	TeslaA16	Pass	
NVIDIA	Nvidia/NVIDIARTXA4000/16GBGDDR6PCIe4.0x164xDisplayPort1.4aforSIT/Order	31.0.15.3598	PCI Express Gen4 x16	A4000	Pass	
NVIDIA	NVIDIAT1000/4GBGDDR6PCIe3.0x164xmDP1.4withlatchingmechanism(含說明書 *2,mDPtoDPcable*4,長檔板*1,短檔板*1)	31.0.15.3598	PCI Express Gen3 x16	T1000	Pass	
NVIDIA	NVIDIA / A100 / A100 Tensor Core GPU card	31.0.15.3598	PCI Express Gen4 x16	A100	Pass	
NVIDIA	NVIDIA Turing T4 / 16 GB GDDR6 300 GB/s / x16 PCIe Gen3	31.0.15.3598	PCI Express Gen3 x16	T4	Pass	
Qualcomm	QAIC-100P-0-MPA001- MT-01-0-BE (PCIe HHHL-Standard)	1.9.0.81	PCI Express Gen4 x8	QAIC-100P-0-MPA001- MT-01-0-BE	Pass	

Storage card

Test Procedures:

1. Create the RAID function in addon HBA option BIOS. (By RAID Card 's ability,RAID priority RAID6 > RAID 5 > RAID 10 > RAID 1 > RAID 0)
2. Load driver under Windows/Linux and check RAID information in OS.
3. Run the "Burn-in HDD stress" 2hrs test. For intel
3. Run the "AMDSST stress" 2hrs test.

Expected Result:

- Check the RAID function can be build.
- The O.S install can be complete & restart successful.

- No errors and system hang during test.
- Device is working and no device loss.

Vendor	Model & Description	Firmware Version	System Interface Type	Model	Test Result	IMS
MSI	609-S101B-03S(001)/MS-S101B11OPT:AEPScard/Lowprofile/LSI3008chipset/12Gbps,miniSASHDconnector*2/goldenfinger,IRRAIDSKUforpowerleader,withbracket/Raidcard/forS165/Goldensample	4.680.01-8455	PCI Express Gen3 x8	S101B11OPT	Pass	
MSI	MSI/919-S101B-12S/609-S101B-01S,CHANGE020Lowprofile,LSI3008chipset,12Gbps,miniSASHDconnector*2,goldenfinger,IMRRAIDSKU/forN	4.670.01-6501	PCI Express Gen3 x8	LSI3008	Pass	
Avago	Avago/MRSAS9362-8I_1GB/RAIDBoard(Merga)forS206/SrorageContorller	4.220.80-3557	PCI Express Gen3 x8	MRSAS9362-8I	Pass	
LSILogic	N8103-178/Merga2GBRAID0/1/5/6/OnlyforS090、S091(NavyGem)	4.220.60-3324	PCI Express Gen3 x8	N8103-178	Pass	
Broadcom	MegaRAID9560-16i8GBRAIDcard,PCIeGen4x8,MegaRAID7.xsupportRaid0/1/5/6/10/50/60,2x8SFF-8654Connectors,SAS3916Tri-Mode(12Gb/sSAS,6Gb/sSATA,Gen4.0PCIe(NVMe))RAID-on-Chip(ROC)	5.160.02-3415	PCI Express Gen4 x8	MegaRAID9560-16i	Pass	
Broadcom	9560-8i / PCIe Gen4 x8 MegaRAID 7.x support Raid 0/1/5/6/10/50/60 1 x8 SFF-8654 Connectors for SIT	5.200.02-3618	PCI Express Gen4 x8	9560-8i	Pass	
GRAID	SR-BUN-1000-FD32, PCI-E3.0 X16, 32-port NVMe/SAS/SATA Supreme RAID card, RAID 0, 1, 5, 6, 10	31.0.15.3598	PCI Express Gen3 x16	SR-BUN-1000-FD32	Pass	
GRAID	SR-BUN-1010-FD32, PCI-E4.0 X16, 32-port NVMe/SAS/SATA Supreme RAID card, RAID 0, 1, 5, 6, 10	31.0.15.3598	PCI Express Gen4 x16	SR-BUN-1010-FD32	Pass	

NIC

Test Procedures:

1. Download the driver for Windows from vendor website
2. Load driver under Windows/Linux and check NIC information in OS.
3. Run performance test for InfiniBand card.
4. Run the "Burn-in network" 2Hrs test for intel
4. Run the "AMDSST network (W)/Netperf(L)" 2Hrs test for AMD

Expected Result:

- Check the driver can be load under OS

- No errors and system hang during test.

Vendor	Description	Firmware Version	System Interface Type	Model	Test Result	IMS
Broadcom	Dual port 25/10G PCIe NIC (PCIe 3.0 x8)(25/10/1GbE)	216.0.333.11	PCI Express Gen3.0 x8	BCM957414A4142CC P225P	Pass	
Broadcom	Quad port x 25/10GbE PCIe NIC (PCIe 4.0 x16)(25/10GbE)	221.1.28.0	PCI Express Gen4.0 x16	BCM957504-P425G	Pass	
Mellanox	Mellanox / MCX631102AN-ADAT / CX631102A / ConnectX-6 Lx Ethernet Adapter Card, 25GbE, Dual-port SFP28, PCIe 4.0 x8	26.36.10.10	PCI Express Gen4.0 x8	MCX631102AN-ADAT	Pass	
Mellanox	Mellanox/ MCX653106A-ECAT/ Network/ConnectX-6 VPI Card 100Gb/s Dual-Port InfiniBand and Ethernet Adapter Card HDR100 QSFP56 PCIe3.0/4.0x16/	20.36.10.10	PCI Express Gen4.0 x16	MCX653106A-ECAT	Pass	
Mellanox	Mellanox/ MCX653106A-HDAT/ Network/ConnectX-6 VPI Card 200Gb/s Dual-Port InfiniBand and Ethernet Adapter Card HDR200 QSFP56 PCIe3.0/4.0x16	20.36.10.10	PCI Express Gen4.0 x16	MCX653106A-HDAT	Pass	
Intel	I225-T1 Base: Foxville(I225) Fox Pond SP SP 2.5/1GBASE-T PCIe 3.1 x1, Low Profile	1.0.1.4	PCI Express Gen3.1 x1	I225-T1	Pass	
Intel	810-XXVDA2 / Intel Ethement Network Adapter E810-XXVDA2 DP 25Gb/10Gb SFP28; PCIe 4.0 x8, ADQ, DDP, RDMA (iWARP &RoCEv2), Low Profile	1.3146.0	PCI Express Gen4.0 x8	810-XXVDA2	Pass	
Intel	Inetl/E810XXVDA4/IntelEthernetControllerE810Quadport25/10/1GbESFP28ports-DAC;PCIe4.0(16GT/s)x16lanesforSIT	1.2960.0	PCI Express Gen4.0 x16	E810	Pass	
NVIDIA	NVIDIA Mellanox ConnectX®-6 Lx Dual-Port 25GbE OCP3.0 PCIe 4.0 x8 25/10 Gb/s	26.34.10.02	PCI Express Gen4.0 x8	ConnectX®-6	Pass	

Storage M.2

Test Procedures:

1. Make sure install OS without problem.
2. Check HDD information in BIOS and device manager under Windows or Linux (by Project or Device)
3. Run "Burn-in HDD Stress" 2Hrs test. For Intel
3. Run "AMDSST HDD Stress" 2Hrs test. For AMD

Expected Result:

- No errors and system hang during test.

Vendor	Interface	Form Factor	Class	Capacity	C-Temp	SLC/MLC	Performance	Model	Test Result	IMS
Innodisk	PCI Express Gen3.0 x4	2280	M.2	100 GB	-40度~85度	TLC	R:2000MB/s ; W:1850MB/s	DEM28-A28M61EWAQF-	Pass	
ADATA	PCI Express Gen3.0 x4	2280	M.2	512GB	0~70度	TLC	R:3400MB/s;W:2800MB/s	IM2P33E8-512GP	Pass	
Apacer	PCI Express Gen3.0 x4	2280	M.2	240GB	-40度~85度	SLC	R:2430MB/s;W:1040MB/s	APP240G1DC-01VWD	Pass	
Samsung	PCI Express Gen4.0 x4	22110	M.2	1.92 TB	N/A	NA	R:5500 MB/s ; W: 2000MB/s	MZ-1L21T90	Pass	
Samsung	PCI Express Gen4.0 x4	2280	M.2	512GB	-40度~85度	NA	R:3500MB/s ; W:2500MB/s	MZVL4512HBLU-00BTW	Pass	
Samsung	PCI Express Gen4.0 x4	2280	M.2	2TB	-40度~85度	NA	R:7000MB/s ; W:5200MB/s	MZVL22T0HBLB-00B00	Pass	
Samsung	PCI Express Gen4.0 x4	2280	M.2	1TB	-40度~85度	NA	R:7000MB/s ; W:5100MB/s	MZVL21T0HCLR-00B00	Pass	
Crucial	PCI Express Gen4.0 x4	2280	M.2	480GB	NA	TLC	R:5000MB/s ; W:700MB/s	MTFDKBA480TFR-	Pass	
Crucial	PCI Express Gen4.0 x4	2280	M.2	960GB	NA	TLC	R:5000MB/s ; W:1400MB/s	MTFDKBA960TFR-	Pass	
Crucial	PCI Express Gen4.0 x4	22110	M.2	960GB	NA	TLC	R:5000MB/s ; W:1400MB/s	MTFDKBG960TFR-	Pass	
Transcend	PCI Express Gen3.0 x4	2280	M.2	128GB	NA	TLC	R:1600MB/s;W:400MB/s	TS128GMTE550T	Pass	

Storage SATA HDD

Test Procedures:

1. Install HDD in HDD tray (if project support)
2. Make sure install OS without problem.
3. Check HDD information in BIOS and device manager under Windows or Linux (by Project or Device)
4. Run "Burn-in HDD Stress" 2Hrs test. For Intel
4. Run "AMDSST HDD Stress" 2Hrs test. For AMD

Expected Result:

- No errors and system hang during test.

Vendor	Type	Form Factor	Class	Capacity	RPM	Performance	Model	Test Result	IMS
Intel	SATA3	2.5"	SSD	480GB	NA	R:540MB/s;W:490MB/s	SSDSC2BW480A4	Pass	
Micron	SATA3	2.5"	SSD	1.92TB	NA	R:540MB/s ; W: 520MB/s	MTFDDAK1T9TGA-1BC1ZABYY	Pass	
Micron	SATA3	2.5"	SSD	3.84TB	NA	R:540MB/s ; W: 520MB/s	MTFDDAK3T8TGA-1BC1ZABYY	Pass	
ADATA	SATA3	2.5"	SSD	400GB	NA	R:560MB/s;W:340MB/s	ASX1000LS7-400GM	Pass	
Seagate	SATA3	2.5"	SSD	1 TB	7200 rpm	NA	ST1000NX0313	Pass	
Seagate	SATA3	2.5"	STD	2 TB	7200 rpm	NA	ST2000NX0243	Pass	
Seagate	SATA3	3.5"	STD	12TB	7200 rpm	NA	ST12000NM001G	Pass	
Seagate	SATA3	3.5"	STD	14TB	7200 rpm	NA	ST14000NM001G	Pass	
Seagate	SATA3	3.5"	STD	16 TB	7200 rpm	NA	ST16000NM001G	Pass	
Seagate	SATA3	3.5"	STD	10 TB	7200 rpm	NA	ST10000NM018G	Pass	
TOSHIBA	SATA3	3.5"	STD	1 TB	7200 rpm	NA	MG04ACA100N	Pass	
TOSHIBA	SATA3	3.5"	STD	4 TB	7200 rpm	NA	MG04ACA400E	Pass	

Storage SAS HDD

Test Procedures:

1. Install HDD in HDD tray (if project support)
2. Make sure install OS without problem.
3. Check HDD information in BIOS and device manager under Windows or Linux (by Project or Device)
4. Run "Burn-in HDD Stress" 2Hrs test. For Intel
4. Run "AMDSST HDD Stress" 2Hrs test. For AMD

Expected Result:

- No errors and system hang during test.

Vendor	Type	Form Factor	Class	Capacity	RPM	Performance	Model	Test Result	IMS
HGST(Hitachi)	SAS	2.5	STD	1.2TB	10000rpm	NA	HUC101812CS4200	Pass	
HGST(Hitachi)	SAS	2.5	STD	1.2TB	10000rpm	NA	HUC101812CSS200	Pass	
HGST(Hitachi)	SAS	2.5	STD	1.8TB	10000rpm	NA	HUC101818CS4200	Pass	
HGST(Hitachi)	SAS	2.5	STD	600GB	10000rpm	NA	HUC101860CS4200	Pass	
WesternDigital	SAS	3.5	STD	10TB	7200rpm	(Sustainedtransferrate)R=W=262MB/s	WUS721010AL5204	Pass	
WesternDigital	SAS	3.5	STD	12TB	7200rpm	(Sustainedtransferrate)R=W=255MB/s	HUH721212AL5204	Pass	
WesternDigital	SAS	3.5	STD	14TB	7200rpm	(Sustainedtransferrate)R=W=267MB/s	WUH721414AL5204	Pass	
WesternDigital	SAS	3.5	STD	16TB	7200rpm	(Sustainedtransferrate)R=W=262MB/s	WUH721816AL5204	Pass	
WesternDigital	SAS	3.5	STD	18TB	7200rpm	(Sustainedtransferrate)R=W=269MB/s	WUH721818AL5204	Pass	

Storage NVME HDD

Test Procedures:

1. Install HDD in HDD tray (if project support)
2. Make sure install OS without problem.
3. Check HDD information in BIOS and device manager under Windows or Linux (by Project or Device)
4. Run "Burn-in HDD Stress" 2Hrs test. For Intel
4. Run "AMDSST HDD Stress" 2Hrs test. For AMD

Expected Result:

- No errors and system hang during test.

Vendor	Interface	Form Factor	Capacity	Performance	Model	Test Result	IMS
Intel	PCI Express Gen4.0 x4	2.5"	3.84 TB	R:6500MB/s ; W:3400MB/s	SSDPF2KX038TZ	Pass	
Samsung	PCI Express Gen4.0 x4	2.5"	1.92 TB	N/A	MZQL21T9HCJR-00A07	Pass	
Samsung	PCI Express Gen4.0 x4	2.5"	960 GB	N/A	MZQL2960HCJR-00A07	Pass	

External Storage

Test Procedures: **Expected Result:**

1. Check HDD information in BIOS and device manager under Windows or Linux (by Project or Device)
2. Run "cp test Stress" 2Hrs test. For Intel
2. Run "AMDSST HDD Stress" 2Hrs test. For AMD - No errors and system hang during test.

Vendor	Interface	Capacity	Class	Model	Performance	Test Result	IMS
Samsung	USB 3.2 Gen.2	1TB	2.5"	T7	NA	Pass	
TOSHIBA	USB3.2	01TB	2.5"	DTX110	NA	Pass	
ADATA	USB3.2	01TB	2.5"	HC660	NA	Pass	
Seagate	USB3.0	01TB	2.5"	STHN10004XX	NA	Pass	
Transcend	USB3.1	01TB	2.5"	TS1TESD370C	NA	Pass	

PSU

Test Procedures:

1. Plug full device
2. Run "Burn-in Full load stress" 2Hrs test for Intel
2. Run "AMDSST Full load stress" 2Hrs test for AMD

Expected Result:

- No errors and system hang during test.

Vendor	Watt	Description	Model	Test Result	IMS
Gospower	2200W	(AC Input:100-127V~50~60Hz, 13.8A / DC Output:+12.2V~82A, +12Vsb~2.1A / Max. Power: 1000W), (AC Input:200-240V~50~60Hz, 15A / DC Input:240V-15A / DC Output: +12.2V-178A, +12Vsb~2.1A / Max. F	G1302-2200WNA	Pass	
FSP	2000W	FSP/S93-0913130-S14,OUT-PUR/FSP2000-20FM,SYSPOWERSUPPLY,OTHER,ACTIVEPFC,80PLUSPLATINUM,2000W,90-264Vin,+/-5%,SPI/FSP2000-20FM,FORMS-S238,RoHSCOMPLIANCE	S93-0913130-S14	Pass	
Gospower	1600W	(AC Input:100-127V~50~60Hz, 13.8A / DC Output:+12V~83A, +12Vsb~2.1A / Max. Power: 1000W), (AC Input:200-240V~50~60Hz, 9.6A / DC Input:240V-8.5A / DC Output: +12V-132A, +12Vsb~2.1A / Max. Pov	G1136-1600WNA	Pass	
Gospower	1300W	(AC Input:100-127V~50~60Hz, 13.8A / DC Output:+12V~83A, +12Vsb~2.1A / Max. Power: 1000W), (AC Input:200-240V~50~60Hz, 8.5A / DC Input:240V-8.5A / DC Output: +12V-108A, +12Vsb~2.1A / Max. Pov	G1136-1300WNA	Pass	
FSP	1300W	FSP/FSP1300-20FM/PowerSupply/CRPS/1300W/SwitchingPowerSupply/Input:100-240V,12-7A,50-60Hz;Output:+12V,80.5A;Workingtemperature:0°Cto55°C,Storagetemperature:-20°Cto+80°C/ForMS-S322(	FSP1300-20FM	Pass	
FSP	1600W	FSP/FSP1600-20FM/Power Supply/CRPS/ 1600W/Switching Power Supply/Input:100-240V,12-7A,50-60Hz;Output:+12V,80.5A;Working temperature:0°Cto 55°C,Storage temperature:-20°C to + 80°C/ For MS-	FSP1600-20FM	Pass	
AcBel	2000W	AcBel/ R1CA2202B-P00A / Power Supply/ (AC Input:100-127V~50/60Hz, 13A / DC Output:+12V~83A, +12Vsb-3A / Max. Power: 1000W), (AC Input:220-240V~50/60Hz, 10A / DC Input:240V-10A / DC Output:	R1CA2202B	Pass	
AcBel	1600W	AcBel/ R1CA2162B-P00A/ Power Supply/ (AC Input:100-127V~50/60Hz, 12A / DC Output:+12V~83.33A, +12Vsb-3A / Max. Power: 1000W), (AC Input:200-240V~50/60Hz, 10A / DC Input:240V-8A / DC Output	R1CA2162B-P00A	Pass	