



PL2733

USB 3.0 iOS/Generic Storage Controller

Product Test Report (Chip A Version)

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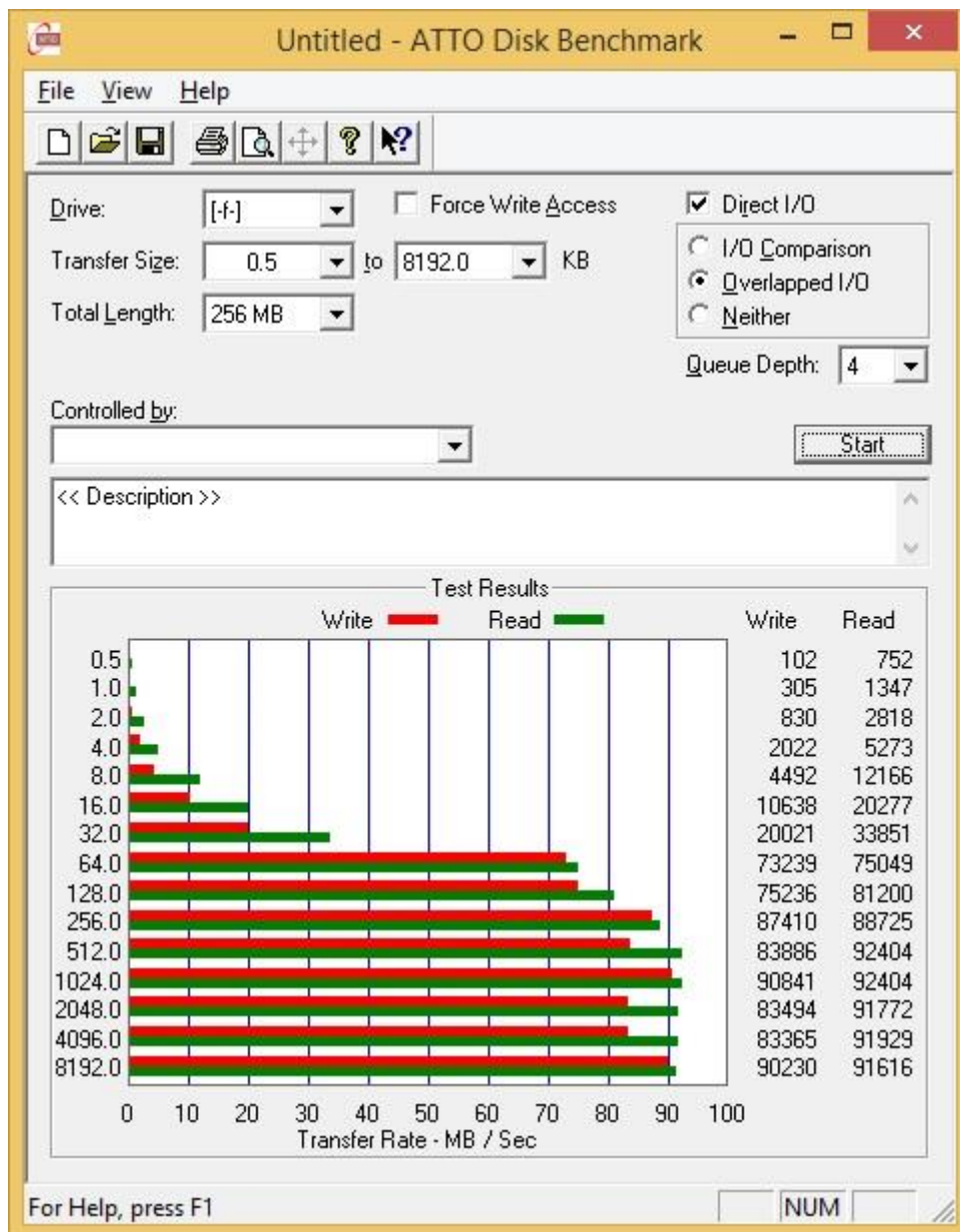
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1. R/W speed test via USB 3.0 Interface

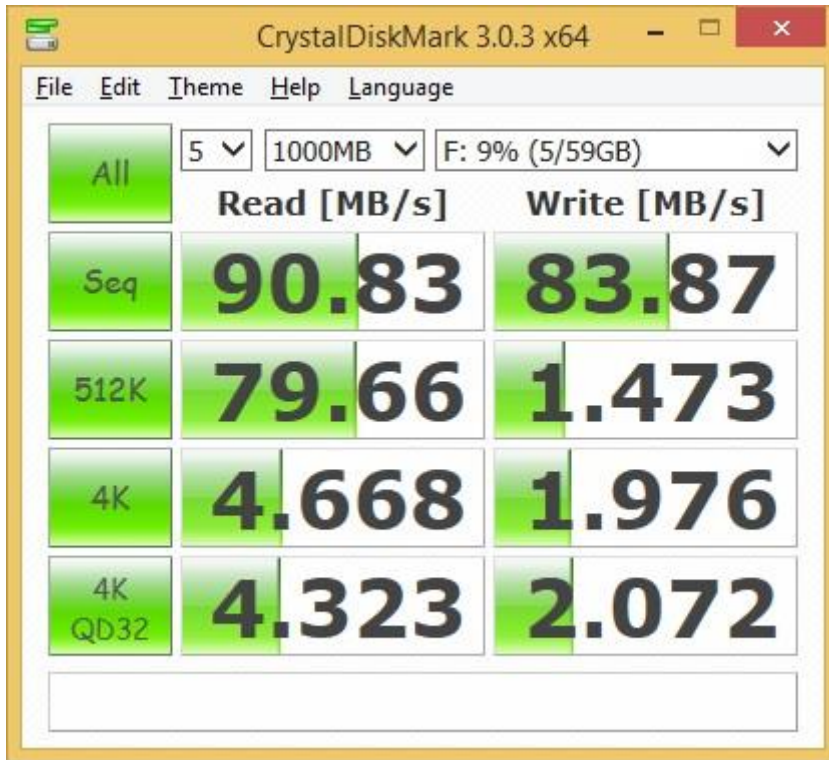
Test Configuration (Windows 10 X64)	
System	Gigabyte GA Z97-HDC
Chipset	Intel Z97
CPU	Intel(R)Core(TM)i3-4150 CPU@3.5G
Memory	4G
OS	Windows 10 (X64)
USB Host & Driver	Intel Z97 (Driver : 10.0.10586.0)
SD Card Type/Size	SanDisk 95/90MB Extreme Pro SDXC UHS-I U1/Class 10/64G
Test Program	ATTO Disk Benchmark v2.47 / CrystalDiskMark v3.0.3

Table 1-1 : Test Configuration (Windows 10 X64)

1.1 ATTO Disk Benchmark



1.2 CrystalDiskMark



2. SD Card Compatibility Test

Test Configuration (Windows 10 X64)	
System	Gigabyte GA Z97-HDC
Chipset	Intel Z97
CPU	Intel(R)Core(TM)i3-4150 CPU@3.5G
Memory	4G
OS	Windows 10 (X64)
USB Host & Driver	Intel Z97 (Driver : 10.0.10586.0)
Test Program	ATTO Disk Benchmark v2.47 / CrystalDiskMark v3.0.3

Table 2-1 : Test Configuration (Windows 10 X64)

2.1 Support List of SD Card

SD Card			
No.	Brand	Type	Size
1	SanDisk	280/250MB Extreme ProSDXC UHS-II U3	16GB
2	SanDisk	95/90MB Extreme Pro SDXC UHS-I U3 Class 10	256GB
3	SanDisk	95/90MB Extreme Pro SDXC UHS-I U1/Class 10	64GB
4	SanDisk	80/60MB Extreme PLUS SDHC/SDXC UHS-I U1/Class 10	16GB
5	SanDisk	45/30MB Extreme SDHC/ SDXC UHS-I U1/Class 10	8GB
6	SanDisk	Ultra SDHC/SDXC Class 10	16G
7	Toshiba	95/90MB Exceria SDHC UHS-I U1/Class 10	32GB
8	Toshiba	30MB SDHC UHS-I U1/Class 10	32GB
9	SONY	94/60MB SDXC UHS-I U3 Class 10	128GB
10	SONY	40MB SDXC UHS-I Class 10	128GB
11	Kingston	90/80MB SDXC UHS-I U3 Class 10	256GB
12	Kingston	90/80MB SDXC UHS-I U3 Class 10	64GB
13	Kingston	90/45MB SDXC UHS-I Class 10	128GB
14	Kingston	30MB SDXC UHS-I Class 10	128GB
15	Transcend	90/85MB SDXC UHS-I U3/Class 10	64GB
16	Transcend	95/60MB SDXC UHS-I U3 Class 10	256GB
17	Transcend	90MB 600x SDHC/SDXC UHS-I/Class 10	128GB
18	Transcend	45MB 300x SDHC/SDXC UHS-I/Class 10	32GB
19	Apacer	95/45MB SDXC/SDHC UHS-I U1/Class 10	32GB

20	Apacer	45MB SDXC/SDHC UHS-I U1/Class 10	32GB
21	ADATA	95/85MB XPG SDXC/SDHC/UHS-I U3/Class 10	64GB
22	ADATA	95/60MB Premier Pro SDXC/SDHC/UHS-I U3/Class 10	64GB
23	ADATA	95/45MB Premier Pro SDXC/SDHC/UHS-I U3/Class 10	32GB
24	ADATA	30MB Premier SDXC/SDHC UHS-I U1/Class 10	16GB
25	ADATA	30MB Premier SDXC/SDHC UHS-I U1/Class 10	8GB
26	RiDATA	SDHC/UHS-I U1/Class 10	16GB
27	Lexar	90MB PRO 600x SDHC/UHS-I U1/Class 10	128GB
28	PATRIOT	80/10MB SDXC/UHS-I Class 10	256GB

Table 2-2 : SD Card List

Micro SD Card			
No.	Brand	Type	Size
1	SanDisk	95/90MB Extreme Pro® microSDHC UHS-I U3/Class 10	32GB
2	SanDisk	90/90MB Extreme Pro® micro SDHC UHS-I U1/Class 10	16GB
3	SanDisk	90MB micro SDHC UHS-I U1/Class 10	200GB
4	SanDisk	60MB Extreme micro SDHC UHS-I U3/Class 10	32GB
5	SanDisk	80/30MB Extreme micro SDHC UHS-I U1/Class 10	16GB
6	SanDisk	80MB Ultra micro SDHC/ SDXC UHS-I /Class 10	128GB
7	SanDisk	48MB Ultra micro SDHC/ SDXC UHS-I /Class 10	16GB
8	SanDisk	48/30MB Ultra micro SDHC/ SDXC UHS-I U1/Class 10/8G	8GB
9	Toshiba	95/60MB micro SDHC UHS-I U3 Class 10	32GB
10	Toshiba	40MB micro SDHC UHS-I Class 10	16GB
11	Toshiba	30MB micro SDHC UHS-I U1/Class 10	32GB
12	SONY	95/30MB micro SDXC UHS-I Class 10	16GB
13	SONY	40MB micro SDXC UHS-I Class 10	64GB
14	SONY	70MB micro SDXC UHS-I Class 10	128GB
15	SONY	40MB micro SDXC UHS-I Class 10	16GB
16	Kingston	90/80MB micro SDHC/SDXC UHS-I U3 Class 10	128GB
17	Kingston	90/80MB micro SDHC/SDXC UHS-I U3/Class 10	32GB
18	Kingston	micro SDHC/SDXC UHS-I U1/Class 10	32GB
19	Kingston	micro SDHC/SDXC UHS-I U1/Class 10	16GB
20	Transcend	95/85MB micro SDHC/UHS-I U3/Class 10	32GB
21	Transcend	45MB micro SDHC/UHS-I Class 10	32GB
22	Transcend	60MB micro SDHC/UHS-I Class 10	128GB
23	Apacer	95/45MB micro SDXC/SDHC UHS-I Class 10	32GB
24	Apacer	micro SDXC/SDHC UHS-I U1/Class 10	32GB
25	ADATA	50MB Premier Pro micro SDXC/UHS-I Class 10	128GB

26	ADATA	45/40MB Premier Pro micro SDXC/UHS-I U1/Class 10	32GB
27	ADATA	45/40MB Premier Pro micro SDXC/UHS-I U1/Class 10	16GB
28	ADATA	30MB Premier UH micro SDHC/UHS-I U1/Class 10	16GB
29	RiDATA	30MB micro SDHC/UHS-I U1/Class 10	64GB
30	Samsung	90/80MB PRO micro SDXC/UHS-I/Class 10	64GB
31	Samsung	80/20MB EVO micro SDXC/UHS-I/Class 10	128GB
32	Samsung	48MB EVO micro SDXC/UHS-I/Class 10	64GB
33	Lexar	95MB PRO 633x micro SDHC/UHS-I Class 10	32GB
34	Lexar	45MB PRO 300x micro SDHC/UHS-I Class 10	16GB
35	Verbatim	90/80MB micro SDHC/UHS-I U3/Class 10	32GB
36	Verbatim	45MB micro SDHC/UHS-I Class 10	128GB
37	Strontium	65MB micro SDHC/UHS-I U1/Class 10	16GB
38	Pretec	50/10MB micro SDHC/UHS-I Class 10	32GB
39	PQI	90/45MB micro SDHC/UHS-I Class 10	32GB

Table 2-3 : Micro SD Card List

2.2 Support List of Legacy SD Card

SD Card			
No.	Brand	Type	Size
1	SONY	U1/ Class 10(94MB/s)	8GB
2	ADATA	U1/ Class 10(95MB/s)	16GB
3	SONY	U1/ Class 10(94MB/s)	16GB
4	Transcend	U1/ Class 10 (85MB/s)	16GB
5	SONY	U1/ Class 10 (95MB/s)	16GB
6	SONY	U1/ Class 10 (94MB/s)	32GB
7	TOSHIBA	U1/ Class 10 (95MB/s)	32GB
8	Transcend	U1/ Class 10 (85MB/s)	32GB
9	ADATA	U1/ Class 10 (R95/W45)	32GB
10	ADATA	U1/ Class 10 (95MB/s)	64GB
11	SanDisk	U1/ Class 10(95MB)	64GB

Table 2-4 : Legacy SD Card List

Micro SD Card			
No.	Brand	Type	Size
1	Transcend	U1/ Class 10(Ultimate,90M/s)	8GB
2	Transcend	U1/ Class 10(Ultimate,90M/s)	16GB
3	Maxell	U1/ Class 10	128GB
4	microflash	U1/ Class 10	128GB
5	Netac	U1/ Class 10	128GB
6	OV	U1/ Class 10	128GB
7	KINGBANK	U1/ Class 10	128GB

Table 2-5 : Legacy Micro SD Card List

3. USB 3.0 Host & System Compatibility Test

3.1 Windows OS Platform

No.	Test Items
1	DUT Detection – Device Manager, Disk Management, My Computer
2	Partition - Quick Format – Benchmark Test
3	Copy/Compare 4GB Files/Folder
4	Power Cycle Test 5X – Plug USB cable and do Cold Boot, Warm Boot, DUT Power On/OFF, Hotplug USB Cable, Safe Removal, Standby (S1/S3), Hibernate (S4)
5	Abnormal Test (While Copy Files do Unplug USB cable, Standby/Hibernate, and Power Off DUT) – DUT should still be detected and work properly after doing Abnormal Test
6	Plug to USB 2.0 root port and do copy/compare test

Table 3-1 : Test Configuration

System + OS + Host Compatibility List			
No.	System	Host Controller	OS
1	Asus Z97-C Motherboard Intel(R)Core(TM)i3-4150 CPU@3.5G 4GB RAM Memory Intel Z97 Chipset	Asmedia USB 3.1 xHCI Host On-board Chipset Driver v10.0.10240.16461	Win10 x64 Win10 x86
2	GA-F2A88X-D3H Motherboard AMD A10-7700K APU with Radeon(tm)R7 Graphics 3.4G 4GB RAM Memory AMD A88X Chipset	AMD USB 3.0 xHCI Host On-board Chipset Driver v10.0.10240.16461	Win10 x64 Win10 x86
3	Asus Z97-C Motherboard Intel(R)Core(TM)i3-4150 CPU@3.5G 4GB RAM Memory Intel Z97 Chipset	Intel USB 3.0 xHCI Host On-board Chipset Driver v10.0.10240.16461	Win10 x64 Win10 x86

4	Asus Z87-PRO Motherboard Intel(R)Core(TM)i3-4130 CPU@3.4G 4GB RAM Memory Intel Z87 Chipset	Intel USB 3.0 xHCI Host On-board Chipset Driver v10.0.10240.16461	Win10 x64 Win10 x86
5	Asus P8H77 Motherboard Intel Core i3 3.30GHz CPU 4GB RAM Memory Intel H77 Chipset	Intel USB 3.0 xHCI Host On-board Chipset Driver v10.0.10240.16461	Win10 x64 Win10 x86
6	ASUS P8H67 Motherboard Intel(R) core(TM)i3-2120 CPU @ 3.30G / 4GB RAM Intel H67 Chipset	NEC USB 3.0 Host PCIe Host Card μPD720202A 2-Ports Driver v10.0.10240.16461	Win10 x64 Win10 x86
7	ASUS P8H67 Motherboard Intel(R) core(TM)i3-2120 CPU @ 3.30G / 4GB RAM Intel H67 Chipset	NEC USB 3.0 Host On-board NEC Chip μPD720201 2-Ports Driver v10.0.10240.16461	Win10 x64 Win10 x86
8	ASUS P8H67 Motherboard Intel(R) core(TM)i3-2120 CPU @ 3.30G / 4GB RAM Intel H67 Chipset	NEC USB 3.0 Host On-board NEC Chip μPD720200 2-Ports Driver v10.0.10240.16461	Win10 x64 Win10 x86
9	ASUS M5A97 Motherboard AMD FX(tm)-4100 Quad-Core Processor 3.60G / 4GB RAM SB950 Chipset	Asmedia 1042 USB 3.0 Host On-board Chipset Driver v10.0.10240.16461	Win10 x64 Win10 x86
10	ASUS P8H67 Motherboard Intel(R) core(TM)i3-2120 CPU @ 3.30G / 4GB RAM Intel H67 Chipset	Fresco Logic USB 3.0 PCIe Host Card (GEN2) FL1100,4-Port Driver v10.0.10240.16461	Win10 x64 Win10 x86
11	ASUS M5A97 Motherboard AMD FX(tm)-4100 Quad-Core Processor 3.60G / 4GB RAM SB950 Chipset	Etron USB 3.0 Host PCIe Host Card (GEN2) EJ198A,2-Ports Driver v10.0.10240.16461	Win10 x64 Win10 x86

12	ASUS M5A97 Motherboard AMD FX(tm)-4100 Quad-Core Processor 3.60G / 4GB RAM SB950 Chipset	Etron USB 3.0 Host PCIe Host Card (GEN2) EJ188A,2-Ports Driver v10.0.10240.16461	Win10 x64 Win10 x86
13	ASUS M5A97 Motherboard AMD FX(tm)-4100 Quad-Core Processor 3.60G / 4GB RAM SB950 Chipset	Etron USB 3.0 Host PCIe Host Card (GEN2) EJ168A,2-Ports Driver v10.0.10240.16461	Win10 x64 Win10 x86
14	GA-H61M-USB3H Motherboard Intel(R)Core(TM)i3-3240 CPU@3.4G / 4GB RAM Intel H61 Chipset	Via 805 USB 3.0 Host On-board Chipset Driver v10.0.10240.16461	Win10 x64 Win10 x86
15	ASUS P8H61M-LX Motherboard Intel(R)Core(TM)i3-2100 CPU@3.1G / 4GB RAM Intel H61 Chipset	TI USB 3.0 Host PCIe Host Card (GEN4) TI 351,4-Ports Driver v10.0.10240.16461	Win10 x64 Win10 x86
16	GA-F2A88X-D3H Motherboard AMD A10-7700K APU with Radeon(tm)R7 Graphics 3.4G 4GB RAM Memory AMD A88X Chipset	AMD USB 3.0 xHCI Host On-board Chipset Driver v6.3.9600.17393	Win8.1 x64 Win8.1 x86
17	Asus Z97-C Motherboard Intel(R)Core(TM)i3-4150 CPU@3.5G 4GB RAM Memory Intel Z97 Chipset	Intel USB 3.0 xHCI Host On-board Chipset Driver v6.3.9600.17393	Win8.1 x64 Win8.1 x86
18	Asus Z87-PRO Motherboard Intel(R)Core(TM)i3-4130 CPU@3.4G 4GB RAM Memory Intel Z87 Chipset	Intel USB 3.0 xHCI Host On-board Chipset Driver v6.3.9600.17393	Win8.1 x64 Win8.1 x86
19	Asus P8H77 Motherboard Intel Core i3 3.30GHz CPU 4GB RAM Memory Intel H77 Chipset	Intel USB 3.0 xHCI Host On-board Chipset Driver v6.3.9600.17393	Win8.1 x64 Win8.1 x86

20	ASUS P8H67 Motherboard Intel(R) core(TM)i3-2120 CPU @ 3.30G / 4GB RAM Intel H67 Chipset	NEC USB 3.0 Host PCIe Host Card μPD720202A,2-Ports Driver v6.3.9600.17393	Win8.1 x64 Win8.1 x86
21	ASUS P8H67 Motherboard Intel(R) core(TM)i3-2120 CPU @ 3.30G / 4GB RAM Intel H67 Chipset	NEC USB 3.0 Host On-board NEC Chip μPD720201,2-Ports Driver v6.3.9600.17393	Win8.1 x64 Win8.1 x86
22	ASUS P8H67 Motherboard Intel(R) core(TM)i3-2120 CPU @ 3.30G / 4GB RAM Intel H67 Chipset	NEC USB 3.0 Host On-board NEC Chip μPD720200,2-Ports Driver v6.3.9600.17393	Win8.1 x64 Win8.1 x86
23	ASUS M5A97 Motherboard AMD FX(tm)-4100 Quad-Core Processor 3.60G / 4GB RAM SB950 Chipset	Asmedia 1042 USB 3.0 Host On-board Chipset Driver v6.3.9600.17393	Win8.1 x64 Win8.1 x86
24	ASUS P8H67 Motherboard Intel(R) core(TM)i3-2120 CPU @ 3.30G / 4GB RAM Intel H67 Chipset	Fresco Logic USB 3.0 PCIe Host Card (GEN2) FL1100,4-Port Driver v6.3.9600.17393	Win8.1 x64 Win8.1 x86
25	ASUS M5A97 Motherboard AMD FX(tm)-4100 Quad-Core Processor 3.60G / 4GB RAM SB950 Chipset	Etron USB 3.0 Host PCIe Host Card (GEN2) EJ198A,2-Ports Driver v6.3.9600.17393	Win8.1 x64 Win8.1 x86
26	ASUS M5A97 Motherboard AMD FX(tm)-4100 Quad-Core Processor 3.60G / 4GB RAM SB950 Chipset	Etron USB 3.0 Host PCIe Host Card (GEN2) EJ188A,2-Ports Driver v6.3.9600.17393	Win8.1 x64 Win8.1 x86
27	ASUS M5A97 Motherboard AMD FX(tm)-4100 Quad-Core Processor 3.60G / 4GB RAM SB950 Chipset	Etron USB 3.0 Host PCIe Host Card (GEN2) EJ168A,2-Ports Driver v6.3.9600.17393	Win8.1 x64 Win8.1 x86

28	GA-H61M-USB3H Motherboard Intel(R)Core(TM)i3-3240 CPU@3.4G / 4GB RAM Intel H61 Chipset	Via 805 USB 3.0 Host On-board Chipset Driver v6.3.9600.17393	Win8.1 x64 Win8.1 x86
29	ASUS P8H61M-LX Motherboard Intel(R)Core(TM)i3-2100 CPU@3.1G / 4GB RAM Intel H61 Chipset	TI USB 3.0 Host PCIe Host Card (GEN4) TI 35L4-Ports Driver v6.3.9600.17393	Win8.1 x64 Win8.1 x86
30	GA-F2A88X-D3H Motherboard AMD A10-7700K APU with Radeon(tm)R7 Graphics 3.4G 4GB RAM Memory AMD A88X Chipset	AMD USB 3.0 xHCI Host On-board Chipset Driver v8.0.915.0	Win 7 x64 SP1 Win 7 x86 SP1
31	Asus Z97-C Motherboard Intel(R)Core(TM)i3-4150 CPU@3.5G 4GB RAM Memory Intel Z97 Chipset	Intel USB 3.0 xHCI Host On-board Chipset Driver v3.0.23.0	Win 7 x64 SP1 Win 7 x86 SP1
32	Asus P8H77 Motherboard Intel Core i3 3.30GHz CPU 4GB RAM Memory Intel H77 Chipset	Intel USB 3.0 xHCI Host On-board Chipset Driver v3.0.23.0	Win 7 x64 SP1 Win 7 x86 SP1
33	ASUS P8H67 Motherboard Intel(R) core(TM)i3-2120 CPU @ 3.30G / 4GB RAM Intel H67 Chipset	NEC USB 3.0 Host PCIe Host Card μPD720202A,2-Ports Driver v3.0.23.0	Win 7 x64 SP1 Win 7 x86 SP1
34	ASUS P8H67 Motherboard Intel(R) core(TM)i3-2120 CPU @ 3.30G / 4GB RAM Intel H67 Chipset	NEC USB 3.0 Host On-board NEC Chip μPD720201,2-Ports Driver v3.0.23.0	Win 7 x64 SP1 Win 7 x86 SP1
35	ASUS P8H67 Motherboard Intel(R) core(TM)i3-2120 CPU @ 3.30G / 4GB RAM Intel H67 Chipset	NEC USB 3.0 Host On-board NEC Chip μPD720200,2-Ports Driver v2.1.39	Win 7 x64 SP1 Win 7 x86 SP1

36	ASUS M5A97 Motherboard AMD FX(tm)-4100 Quad-Core Processor 3.60G / 4GB RAM SB950 Chipset	Asmedia 1042 USB 3.0 Host On-board Chipset Driver v1.16.24	Win 7 x64 SP1 Win 7 x86 SP1
37	ASUS P8H67 Motherboard Intel(R) core(TM)i3-2120 CPU @ 3.30G / 4GB RAM Intel H67 Chipset	Fresco Logic USB 3.0 PCIe Host Card (GEN2) FL1100,4-Port Driver v3.5.108.0	Win 7 x64 SP1 Win 7 x86 SP1
38	ASUS M5A97 Motherboard AMD FX(tm)-4100 Quad-Core Processor 3.60G / 4GB RAM SB950 Chipset	Etron USB 3.0 Host PCIe Host Card (GEN2) EJ198A,2-Ports Driver v1.0.0.119	Win 7 x64 SP1 Win 7 x86 SP1
39	ASUS M5A97 Motherboard AMD FX(tm)-4100 Quad-Core Processor 3.60G / 4GB RAM SB950 Chipset	Etron USB 3.0 Host PCIe Host Card (GEN2) EJ188A 2-Ports Driver v1.0.0.119	Win 7 x64 SP1 Win 7 x86 SP1
40	ASUS M5A97 Motherboard AMD FX(tm)-4100 Quad-Core Processor 3.60G / 4GB RAM SB950 Chipset	Etron USB 3.0 Host PCIe Host Card (GEN2) EJ168A,2-Ports Driver v1.0.0.119	Win 7 x64 SP1 Win 7 x86 SP1
41	GA-H61M-USB3H Motherboard Intel(R)Core(TM)i3-3240 CPU@3.4G / 4GB RAM Intel H61 Chipset	Via 805 USB 3.0 Host On-board Chipset Driver v4.90a	Win 7 x64 SP1 Win 7 x86 SP1
42	ASUS P8H61M-LX Motherboard Intel(R)Core(TM)i3-2100 CPU@3.1G / 4GB RAM Intel H61 Chipset	TI USB 3.0 Host PCIe Host Card (GEN4) TI 35I,4-Ports Driver v1.16.4	Win 7 x64 SP1 Win 7 x86 SP1

3.2 Mac OS Platform

Mac Test Configuration	
System	Apple MacBook Air
CPU / RAM	1.3GHz Dual-Core Intel Core i5 processor / 4GB Memory
Chipset	Intel xHCI Chipset
OS	Mac OS X 10.10.5
USB 3.0 Host Controller	Intel xHCI Controller
SD Card Type	ADATA 95/85MB XPG SDXC/SDHC/UHS-I U3/Class 10/64G

Table 3-2 : Test Configuration (Mac)

No.	Test	Test Item	Test Results
1	Enumeration Test	Detect Device Properly (Device Manager)	Pass
		Partition / Format Disk (Disk Management)	Pass
		Quick Format (My Computer)	Pass
2	Benchmark Test	AJA_SystemTest_Mac- Read (MB/sec)	79.5
		AJA_SystemTest_Mac- Write (MB/sec)	30.1
3	Power Cycle Test	Shutdown 3X	Pass
		Restart 3X	Pass
		Safe Removal 3X	Pass
		Hotplug 3X	Pass
		Standby / Sleep 3X	Pass
		DUT Power Reset 3X	Pass
4	Copy/Compare Test	4GB Files/Folder	Pass
5	Abnormal Test	Unplug cable while copy files	Pass
		Standby while copy files	Pass
		Power off DUT while copy files	Pass

4. Android System Compatibility Test

4.1 Android Platform

No.	Test Items
1	DUT Detection – File Commander, SD card
2	Copy/Compare 4GB Files/Folder
3	Power Cycle Test 5X – Plug USB cable and do Cold Boot, Warm Boot, Hotplug USB Cable, Standby
4	Abnormal Test (While Copy Files do Unplug USB cable, Standby – DUT should still be detected and work properly after doing Abnormal Test)

Table 4-1 : Test Configuration (Android)

System + OS + Host Compatibility List			
No.	System	Host Controller	OS
1	Asus MeMo Pad	USB 2.0 Host	Android 4.1
2	ACER Iconia One 7	USB 2.0 Host	Android 4.4
3	SONY Z3	USB 2.0 Host	Android 5.0.2
4	SONY Z3 Table Compact	USB 2.0 Host	Android 4.4
5	LG G tablet 8.0 V480	USB 2.0 Host	Android 4.4.2
6	Samsung Galaxy S3	USB 2.0 Host	Android 4.1.1
7	Samsung Galaxy S6	USB 2.0 Host	Android 5.0.2
8	Samsung Galaxy Tab4 7.0	USB 2.0 Host	Android 4.4
9	Samsung Galaxy Note Pro 12.2	USB 2.0 Host	Android 4.4
10	Samsung Galaxy S3	USB 2.0 Host	Android 4.1.1
11	Samsung Galaxy Note 10.1	USB 2.0 Host	Android 4.1.2

4.2 Linux Platform

No.	Test Items
1	DUT Detection – SD card
2	Copy/Compare 4GB Files/Folder
3	Power Cycle Test 5X – Plug USB cable and do Cold Boot, Warm Boot, Hotplug USB Cable, Standby
4	Abnormal Test (While Copy Files do Unplug USB cable, Standby – DUT should still be detected and work properly after doing Abnormal Test)

Table 4-2 : Test Configuration (Android)

System + OS + Host Compatibility List			
No.	System	Host Controller	OS
1	ECS-MCP73T-M2 Motherboard Intel(R) Celerom(R) CPU 3.06G 3.07G / 2GB RAM Nvidia 630i	USB 2.0 Host	Ubuntu 14.04.1

5. USB Command Verifier Test & Interoperability Test

Test Configuration (Windows 8.1 X64)	
System	DELL XPS
Chipset	Intel Z87
CPU	Intel(R)Core(TM)i7-4770 CPU@3.4G
Memory	4G
OS	Windows 8.1 (X64)
USB Host & Driver Verison	Intel Z87
Test Program	USB20CV 1.4.15.1 、USB30CV 2.0.1.4

Table 5-1 : Test Configuration (Windows 8.1 X64)

No.	Test Category	Test Items	Results
1	Frameworks Test (USB30CV) Chapter 9 Test	Super-Speed(USB 3.0) - SS device behind Root Port	Pass
		Super-Speed(USB 3.0) - SS device behind SS Hub	Pass
		High-Speed(USB 2.0) - SS device under High-Speed	Pass
		Full-Speed(USB 2.0) - SS device under Full-Speed	Pass
2	Frameworks Test (USB20CV) Chapter 9 Test	High-Speed(USB 2.0) - SS device behind High-Speed Hub	Pass
		Full-Speed(USB 2.0) - SS device behind Full-Speed Hub	Pass
3	Power Current Test (Super Speed)	Unconfiguration Power (X <=150mA)	Pass
		U0 Configuration Power (High power:<=900mA, Lower Power:X<=150mA)	Pass
		U0 Operation Power (High power:<=900mA, Lower Power:X<=150mA)	Pass
		U1 Power	Pass
		U2 Power	Pass
		U3 Power (X<=2.5mA)	Pass
4	Power Current Test (High Speed)	Operating Power (High power:<=500mA, Lower Power:X<=100mA)	Pass
		Unconfiguration Power (X <=100mA)	Pass
		Configuration Power (High power:<=500mA, Lower Power:X<=100mA)	Pass
		Suspend Mode Power with remote wake up	Pass

		Suspend Mode Power without remote wake up ($X \leq 2.5\text{mA}$)	Pass
		Powered' State Suspend Mode Power ($\leq 2.5\text{mA}$)	Pass
5	Power Current Test (Full Speed)	Operating Power (High power: $\leq 500\text{mA}$, Lower Power: $X \leq 100\text{mA}$)	Pass
		Unconfiguration Power ($X \leq 100\text{mA}$)	Pass
		Configuration Power (High power: $\leq 500\text{mA}$, Lower Power: $X \leq 100\text{mA}$)	Pass
		Suspend Mode Power with remote wake up	Pass
		Suspend Mode Power without remote wake up ($X \leq 2.5\text{mA}$)	Pass
		Powered' State Suspend Mode Power ($\leq 2.5\text{mA}$)	Pass

Table 5-2 : Test Item

6. USB 3.0 Link Layer Compliance test

No	Test Category	Test Items	Test Results
1	PL2733 Test	Ellisys USB Compliance	Pass
2		LeCroy USB Compliance	Pass

6.1 Ellisys

Test Configuration (Windows 7 X86)	
System	Asus P8Z97
Chipset	Intel Z97
CPU	Intel(R)Core(TM)i3-4150 CPU@3.5G
Memory	4G
OS	Windows 7 (X86)
USB Speed	USB 3.0
Test Program (Ellisys)	Ellisys USB 3.0 Examiner Version: 2.0.5700 Ellisys USB 3.0 Analyzer Version: 2.0.4932

1	Ellisys	TD.6.1 Lane Polarity Inversion Test - Testing Upstream Port (Device)	Pass
2		TD.6.2 Skip Test - Testing Upstream Port (Device)	Pass
3		TD.6.3 Elasticity Buffer Test - Testing Upstream Port (Device)	Pass
4		TD.6.4 LFPS Frequency Test - Testing Upstream Port (Device)	Pass
5		TD.6.4 LFPS Frequency Test - Testing Upstream Port (Device)	Pass
6		TD.6.5 Polling.LFPS Duration Test - Testing Upstream Port (Device)	Pass
7		TD.7.1 Link Bring Up Test - Testing Upstream Port (Device)	Pass
8		TD.7.2 Link Command Framing Test - Testing Upstream Port (Device)	Pass
9		TD.7.3 Link Command CRC Test - Testing Upstream Port (Device)	Pass
10		TD.7.4 Invalid Link Command Test - Testing Upstream Port (Device)	Pass
11		TD.7.5 Header Packet Framing Test - Testing Upstream Port (Device)	Pass
12		TD.7.6 Data Payload Framing Test - Testing Upstream Port (Device)	Pass
13		TD.7.7 RX Header Retransmission Test - Testing Upstream Port (Device)	Pass
14		TD.7.8 TX Header Retransmission Test - Testing Upstream Port (Device)	Pass
15		TD.7.9 PENDING_HP_TIMER Deadline Test - Testing Upstream Port (Device)	Pass
16		TD.7.10 CREDIT_HP_TIMER Deadline Test - Testing Upstream Port (Device)	Pass
17		TD.7.11 PENDING_HP_TIMER Timeout Test - Testing Upstream Port (Device)	Pass
18		TD.7.12 CREDIT_HP_TIMER Timeout Test - Testing Upstream Port (Device)	Pass
19		TD.7.13 Wrong Header Sequence Test - Testing Upstream Port (Device)	Pass
20		TD.7.14 Wrong LGOOD_N Sequence Test - Testing Upstream Port (Device)	Pass
21		TD.7.15 Wrong LCRD_X Sequence Test - Testing Upstream Port (Device)	Pass
22		TD.7.16 Link Command Missing Test - Testing Upstream Port (Device)	Pass
23		TD.7.17 tPortConfiguration Timeout Test - Testing Upstream Port (Device)	Pass
24		TD.7.22 PM_ENTRY_TIMER Timeout Test - Testing Upstream Port (Device)	Pass
25		TD.7.23 Accepted U1 Transaction Test - Testing Upstream Port (Device)	Pass
26		TD.7.24 Accepted U2 Transaction Test - Testing Upstream Port (Device)	Pass
27		TD.7.25 Accepted U3 Transaction Test - Testing Upstream Port (Device)	Pass
28		TD.7.26 U0 to Recovery Transition Test - Testing Upstream Port (Device)	Pass
29		TD.7.27 Hot Reset in Polling Test - Testing Upstream Port (Device)	Pass
30		TD.7.28 Hot Reset in U0 Test - Testing Upstream Port (Device)	Pass
31		TD.7.30 Recovery on 3 Failed RX HP Test - Testing Upstream Port (Device)	Pass
32		TD.7.33 Exit Compliance Mode Test - Testing Upstream Port (Device)	Pass
33		TD.7.37 Packet Pending Test - Testing Upstream Port (Device)	Pass
34		TD.7.38 Port Capability Tiebreaker Test - Testing Upstream Port (Device)	Pass

Table 6-1 : Test Configuration (Windows 7 X86)

6.2 LeCroy

Test Configuration (Windows 8.1 X64)	
System	Asus P8Z97
Chipset	Intel Z97
CPU	Intel(R)Core(TM)i3-4150 CPU@3.5G
Memory	4G
OS	Windows 8.1 (X64)
USB Speed	USB 3.0
Test Program(LeCroy)	Lecroy USB Compliance Suite Version: 2.43 Build 0329 Lecroy USB Protocol Suite Version: 7.10 Build 2006

1	LeCroy	TD.6.1.1 Lane Polarity Inversion Test (No Invert)	Pass
2		TD.6.1 Lane Polarity Inversion Test	Pass
3		TD.6.2 Skip Test	Pass
4		TD.6.3 Elasticity Buffer Test	Pass
5		TD.6.3 Elasticity Buffer Test	Pass
6		TD.6.5 Polling.LFPS Duration Test	Pass
7		TD.6.6 SCD Duration Test	N/A
8		TD.6.7 PWM Duration Test	N/A
9		TD.7.01 Link Bring-up Test (Subtest 1)	Pass
10		TD.7.02 Link Bring-up Test (Subtest 2)	N/A
11		TD.7.03 Link Bring-up Test (Subtest 3)	N/A
12		TD.7.04 Link Bring-up Test (Subtest 4)	N/A
13		TD.7.02 Link Commands Framings Robustness Test	Pass
14		TD.7.03 Link Commands CRC-5 Robustness Test	Pass
15		TD.7.04 Invalid Link Commands Test	Pass
16		TD.7.05 Header Packet Framing Robustness Test	Pass
17		TD.7.06 Data Payload Packet Framing Robustness Test	Pass
18		TD.7.07 RX Header Packet Retransmission Test	Pass
19		TD.7.08 TX Header Packet Retransmission Test	Pass
20		TD.7.09 PENDING_HP_TIMER Deadline Test	Pass
21		TD.7.10 CREDIT_HP_TIMER Deadline Test	Pass
22		TD.7.11 PENDING_HP_TIMER Timeout Test	Pass
23		TD.7.12 CREDIT_HP_TIMER Timeout Test	Pass
24		TD.7.13 Wrong Header Sequence Test	Pass
25		TD.7.14 Wrong LGOOD_N Sequence Test	Pass
26		TD.7.15 Wrong LCRD_X Sequence Test	Pass
27		TD.7.16 Link Command Missing Test	Pass
28		TD.7.17 tPortConfiguration Time Timeout Test	Pass
29		TD.7.22 PM_ENTRY_TIMER Timeout Test	Pass
30		TD.7.23 Accepted Power Management Transaction for U1 Test	Pass
31		TD.7.24 Accepted Power Management Transaction for U2 Test	Pass
32		TD.7.25 Accepted Power Management Transaction for U3 Test	Pass
33		TD.7.26 Transition to U0 from Recovery Test	Pass
34		TD.7.27 Hot Reset Detection in Polling Test	Pass
35		TD.7.28 Hot Reset Detection in U0 Test	Pass
36		TD.7.30 Recovery on three consecutive failed RX Header Packets Test	Pass
37		TD.7.33 Exit Compliance Mode Test	Pass
38		TD.7.37 Packet Pending Test	Pass
39		TD.7.38 Port Capability Tiebreaker Test	Pass

Table 6-2 : Test Configuration (Windows 8.1 X64)