

Adnacom-S31 Performance Test

The S31 performance was measured using CUDA and SSD benchmarking software. The performance up to 500 m was measured using a GeForce GTX 760 video card and CUDA bandwidth test software. The transfer size was 32 Mbytes. The results are shown in Table 1 and Table 2. The performance from 500 m to 1 km was measured using Crystal Disk Mark and Samsung 970 EVO Plus 500 GB SSD. The results are shown in Table 3.

Table 1. Adnacom-S31 Performance with Multi-Mode QSFP AOC.

GTX 760	Device to Host	Host to Device
Computer PCIe Gen 3 x8 slot	51.39 Gbits/s	50.53 Gbits/s
Two 10 m cables , R34 PCIe Gen 3 x8 slot	51.39 Gbits/s	50.77 Gbits/s
Two 100 m cables , R34 PCIe Gen 3 x8 slot	50.84 Gbits/s	50.58 Gbits/s
One 10 m cable , R34 PCIe Gen 3 x8 slot	25.79 Gbits/s	25.77 Gbits/s
One 100 m cable , R34 PCIe Gen 3 x8 slot	25.79 Gbits/s	25.77 Gbits/s

Table 2. Adnacom-S31 Performance with Single-Mode QSFP and LC-LC Cable.

GTX 760	Device to Host	Host to Device
Two LC-LC 150 m cables , R34 PCIe Gen 3 x8 slot	36.77 Gbits/s	32.28 Gbits/s
One LC-LC 150 m cable , R34 PCIe Gen 3 x8 slot	25.79 Gbits/s	25.77 Gbits/s
One LC-LC 200 m cable , R34 PCIe Gen 3 x8 slot	25.79 Gbits/s	22.83 Gbits/s
One LC-LC 250 m cable , R34 PCIe Gen 3 x8 slot	23.58 Gbits/s	19.89 Gbits/s
One LC-LC 500 m cable , R34 PCIe Gen 3 x8 slot	12.24 Gbits/s	11.84 Gbits/s

Table 3. Adnacom-S31 SSD Performance with Single-Mode QSFP and LC-LC Cable.

SAMSUNG 970 EVO PLUS 500 GB SSD	Read	Write
One LC-LC 10 m cable , R34 PCIe Gen 3 x4 slot	28.96 Gbits/s	24.88 Gbits/s
One LC-LC 100 m cable , R34 PCIe Gen 3 x4 slot	28.61 Gbits/s	24.10 Gbits/s
One LC-LC 500 m cable , R34 PCIe Gen 3 x4 slot	12.35 Gbits/s	9.52 Gbits/s
One LC-LC 750 m cable , R34 PCIe Gen 3 x4 slot	8.40 Gbits/s	6.94 Gbits/s
One LC-LC 1 km cable , R34 PCIe Gen 3 x4 slot	6.30 Gbits/s	5.42 Gbits/s

Test computer information:

Motherboard: Gigabyte GA-Z170MX-Gaming5

CPU: Intel i3-6100 @ 3.70GHz

Chipset: Intel Z170

PCIe payload size: 256 bytes

Memory: 8 GB

OS: Windows 10