

1 Overview

1.1 **Location** `$(AMDAPPSDKSAMPLESROOT)\samples\opencl\cl\app`

1.2 **How to Run** See the *Getting Started* guide for how to build samples. You first must compile the sample.

Use the command line to change to the directory where the executable is located. The default executables are placed in `$(AMDAPPSDKSAMPLESROOT)\samples\opencl\bin\x86` for 32-bit builds and `$(AMDAPPSDKSAMPLESROOT)\samples\opencl\bin\x86_64\` for 64-bit builds.

Type the following command(s).

1. `LDSBandwidth`
Measures the peak bandwidth from local memory.
2. `LDSBandwidth -h`
This prints the help message.

1.3 **Command Line Options** Table 1 lists, and briefly describes, the command line options.

Table 1 Command Line Options

| Short Form | Long Form | Description |
|------------|--------------|---|
| -h | --help | Shows all command options and their respective meaning. |
| | --device | Devices on which the program is to be run. Acceptable values are <code>cpu</code> or <code>gpu</code> . |
| -q | --quiet | Quiet mode. Suppresses all text output. |
| -e | --verify | Verify results against reference implementation. |
| -t | --timing | Print timing. |
| | --dump | Dump binary image for all devices. |
| | --load | Load binary image and execute on device. |
| | --flags | Specify compiler flags to build the kernel. |
| -p | --platformId | Select <code>deviceId</code> to be used (0 to N-1, where N is the number of available devices). |
| -d | --deviceId | Select <code>deviceId</code> to be used (0 to N-1, where N is the number of available devices). |
| -i | --iterations | Number of iterations for kernel execution. |
| -v | --components | Number of vector components. |

2 Implementation Details

This sample measures the peak bandwidth from images using the following subtests.

1. Read Single — All threads are read multiple times from a single memory location that is known at compile time. Broadcasting is supported on hardware local memory in the Radeon 5xxx series.

Radeon 5870 results: 844.581 GB/s

2. Read Linear - Threads read from local memory sequentially.

Radeon 5870 results: 865.792 GB/s

Contact

Advanced Micro Devices, Inc.
One AMD Place
P.O. Box 3453
Sunnyvale, CA, 94088-3453
Phone: +1.408.749.4000

For AMD Accelerated Parallel Processing:
URL: developer.amd.com/appsdk
Developing: developer.amd.com/
Support: developer.amd.com/appsdksupport
Forum: developer.amd.com/opencvforum



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