

## C++ AMP Tile Static Storage Bandwidth

### 1 Overview

**1.1 Location** \$(AMDAPPSDKSAMPLESROOT)\samples\C++Amp\examples

**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\C++Amp\bin\x86\ for 32-bit builds, and \$(AMDAPPSDKSAMPLESROOT)\samples\C++Amp\bin\x86\_64\ for 64-bit builds.

Type the following command(s).

1. TileStaticStorageBandwidth

This measures the read and write bandwidths of the GPU from the tile static memory.

2. TileStaticStorageBandwidth -h

This prints the help file.

**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	Show all command options and their respective meaning.
-q	--quiet	Quiet mode. Suppresses text output.
-e	--verify	Verify results against reference implementation.
-t	--timing	Print timing.
-i	--iterations	Number of iterations for kernel execution.

### 2 Implementation Details

The sample measures the read and write bandwidths from a C++ AMP tile static memory using the following tests.

1. Read Single — All threads perform read accesses from a single memory location.
2. Read Linear — All threads perform read accesses from tile static memory sequentially.
3. Write Linear — All threads perform write operations to tile static memory sequentially.

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