

Profile Summary

Application: driver
Created: 2019-09-24 20:03:14
Devices: xilinx_u280_xdma_201910_1-0
Msec: 1569348194022
Report name: Profile Summary
Target: CPU Emulation
Tool version: 2019.1

OpenCL API Calls

API Name	Number Of Calls	Total Time (ms)	Minimum Time (ms)	Average Time (ms)	Maximum Time (ms)
clFinish	5	96491.700	19229.400	19298.300	19428.100
clEnqueueWriteBuffer	10	351.510	4.035	35.151	67.513
clEnqueueReadBuffer	10	263.904	24.672	26.390	30.145
clCreateProgramWithBinary	1	88.531	88.531	88.531	88.531
clEnqueueNDRangeKernel	5	40.804	7.994	8.161	8.291
clReleaseKernel	1	7.014	7.014	7.014	7.014
clCreateKernel	1	0.487	0.487	0.487	0.487
clSetKernelArg	35	0.192	0.000	0.005	0.092
clEnqueueMigrateMemObjects	10	0.154	0.005	0.015	0.028
clRetainMemObject	40	0.043	0.000	0.001	0.004
clReleaseProgram	1	0.042	0.042	0.042	0.042
clReleaseMemObject	44	0.032	0.000	0.001	0.007
clGetExtensionFunctionAddress	1	0.008	0.008	0.008	0.008
clGetPlatformInfo	4	0.008	0.000	0.002	0.005
clCreateBuffer	4	0.007	0.000	0.002	0.005
clCreateContext	1	0.003	0.003	0.003	0.003
clGetDeviceIDs	2	0.003	0.001	0.002	0.003
clReleaseCommandQueue	1	0.003	0.003	0.003	0.003
clGetDeviceInfo	2	0.003	0.001	0.001	0.002
clGetExtensionFunctionAddressForPlatform	1	0.002	0.002	0.002	0.002
clCreateCommandQueue	1	0.002	0.002	0.002	0.002
clReleaseContext	1	0.002	0.002	0.002	0.002
clReleaseDevice	2	0.002	0.001	0.001	0.001
clRetainDevice	2	0.001	0.000	0.001	0.001

Kernel Execution

Kernel	Number Of Enqueues	Total Time (ms)	Minimum Time (ms)	Average Time (ms)	Maximum Time (ms)
events_kernel	5	95799.400	19102.900	19159.900	19241.200

Compute Unit Utilization

Device	Compute Unit	Kernel	Global Work Size	Local Work Size	Number Of Calls	Dataflow Execution	Max Parallel Executions	Dataflow Acceleration	Total Time (ms)	Minimum Time (ms)	Average Time (ms)	Maximum Time (ms)	Clock Freq (MHz)
xilinx_u280_xdma_201910_1-0	events_kernel_1	events_kernel	1000000:1:1	1000000:1:1	5	No	0	1.000000x	95798.600	19102.700	19159.700	19241.000	300

Data Transfer: Host to Global Memory

Context: Number of Devices	Transfer Type	Number Of Buffer Transfers	Transfer Rate (MB/s)	Average Bandwidth Utilization (%)	Average Buffer Size (KB)	Total Time (ms)	Average Time (ms)
No Data. Run Hardware Emulation or on Hardware Platform to get data.							

Data Transfer: Kernels to Global Memory

Device	Compute Unit/ Port Name	Kernel Arguments	Memory Resources	Transfer Type	Number Of Transfers	Transfer Rate (MB/s)	Average Bandwidth Utilization (%)	Average Size (KB)	Average Latency (ns)
No Data. Run Hardware Emulation or on Hardware Platform to get data.									

Top Data Transfer: Kernels to Global Memory

Device	Compute Unit	Number Of Transfers	Average Bytes per Transfer	Transfer Efficiency (%)	Total Data Transfer (MB)	Total Write (MB)	Total Read (MB)	Total Transfer Rate (MB/s)
No Data. Run Hardware Emulation or on Hardware Platform to get data.								

Top Kernel Execution

Kernel Instance Address	Kernel	Context ID	Command Queue ID	Device	Start Time (ms)	Duration (ms)	Global Work Size	Local Work Size
0x557648277500	events_kernel	0	0	xilinx_u280_xdma_201910_1-0	441.976	19241.200	1000000:1:1	1000000:1:1

0x557648277500	events_kernel	0	0	xilinx_u280_xdma_201910_1-0	20210.900	19203.800	1000000:1:1	1000000:1:1
0x557648277500	events_kernel	0	0	xilinx_u280_xdma_201910_1-0	39913.000	19131.800	1000000:1:1	1000000:1:1
0x557648277500	events_kernel	0	0	xilinx_u280_xdma_201910_1-0	59534.200	19119.700	1000000:1:1	1000000:1:1
0x557648277500	events_kernel	0	0	xilinx_u280_xdma_201910_1-0	79128.300	19102.900	1000000:1:1	1000000:1:1

Top Memory Writes: Host to Global Memory

Buffer Address	Context ID	Command Queue ID	Start Time (ms)	Duration (ms)	Buffer Size (KB)	Writing Rate (MB/s)
0x0	0	0	311.680	N/A	48000.000	N/A
0x0	0	0	59444.200	N/A	48000.000	N/A
0x0	0	0	79038.400	N/A	48000.000	N/A
0x0	0	0	39823.400	N/A	48000.000	N/A
0x0	0	0	20121.600	N/A	48000.000	N/A
0x0	0	0	20038.000	N/A	32000.000	N/A
0x0	0	0	39739.700	N/A	32000.000	N/A
0x0	0	0	59360.600	N/A	32000.000	N/A
0x0	0	0	78956.700	N/A	32000.000	N/A
0x1e85000	0	0	59428.000	N/A	8000.000	N/A

Top Memory Reads: Host to Global Memory

Buffer Address	Context ID	Command Queue ID	Start Time (ms)	Duration (ms)	Buffer Size (KB)	Reading Rate (MB/s)
0x2dc8000	0	0	19683.300	N/A	16000.000	N/A
0x2dc8000	0	0	59044.900	N/A	16000.000	N/A
0x2dc8000	0	0	39414.700	N/A	16000.000	N/A
0x2dc8000	0	0	98231.300	N/A	16000.000	N/A
0x2dc8000	0	0	78653.900	N/A	16000.000	N/A
0x2dc8000	0	0	19747.900	N/A	8000.000	N/A
0x2dc8000	0	0	39459.600	N/A	8000.000	N/A
0x356a000	0	0	39487.300	N/A	8000.000	N/A
0x356a000	0	0	59114.800	N/A	8000.000	N/A
0x356a000	0	0	19778.100	N/A	8000.000	N/A