

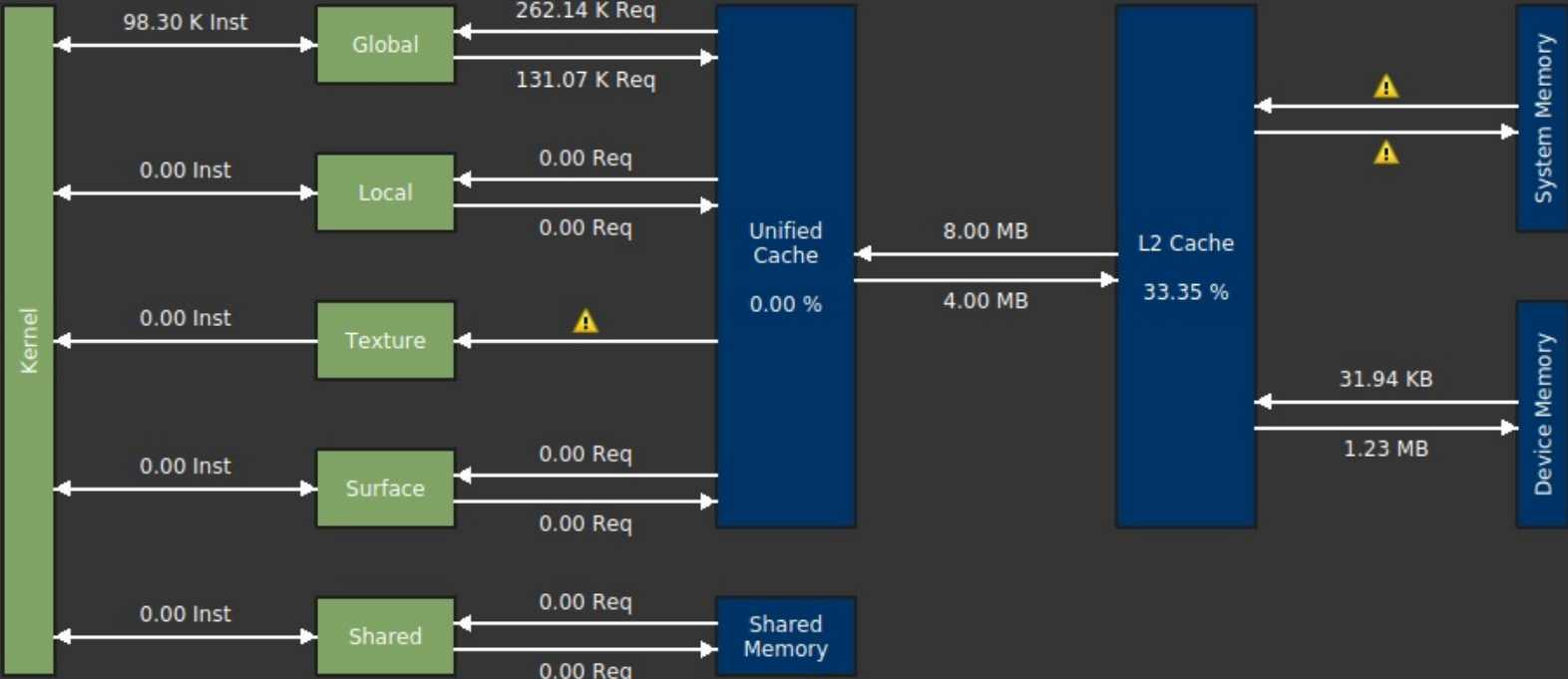
Memory Workload Analysis

All

Detailed analysis of the memory resources of the GPU. Memory can become a limiting factor for the overall kernel performance when fully utilizing the involved hardware units (Mem Busy), exhausting the available communication bandwidth between those units (Max Bandwidth), or by reaching the maximum throughput of issuing memory instructions (Mem Pipes Busy). Detailed chart of the memory units. Detailed tables with data for each memory unit.

Memory Throughput [byte/second]	1,91,42,35,354.14	Mem Busy [%]	2.88
L1 Hit Rate [%]	0	Max Bandwidth [%]	1.26
L2 Hit Rate [%]	33.35	Mem Pipes Busy [%]	0.37

Memory Chart



Shared Memory

	Instructions	Requests	% Peak	Bank Conflicts
Shared Load	0	0	0	0
Shared Store	0	0	0	0
Shared Atomic	0	-	-	-
Total	0	0	0	0

First-Level (Unified) Cache

	Instructions	SM->TEX Requests	% Peak	Hit Rate	TEX->L2 Requests	% Peak	L2->TEX Returns	% Peak	TEX->SM Returns
Global Load Cached	65,536	0	0	0	-	-	0	0	-
Global Load Uncached	-	2,62,144	0.99	-	-	-	2,62,144	0.48	-
Local Load Cached	0	0	0	0	-	-	0	0	2,62,144
Local Load Uncached	0	0	0	-	-	-	0	0	-
Surface Load	0	0	0	-	-	-	0	0	-
Texture Load	0	-	-	-	-	-	-	-	-
Global Store	32,768	1,31,072	0.49	-	1,31,072	0.24	-	-	-
Local Store	0	0	0	-	0	0	-	-	-
Surface Store	0	0	0	-	0	0	-	-	-
Global Reduction	0	0	0	-	0	0	-	-	-
Surface Reduction	0	0	0	-	0	0	-	-	-
Global Atomic	0	0	0	-	0	0	0	0	0
Global Atomic Cas	0	0	0	-	0	0	0	0	0
Surface Atomic	0	0	0	-	0	0	0	0	0
Surface Atomic Cas	0	0	0	-	0	0	0	0	0
Loads	65,536	2,62,144	0.99	0	-	-	2,62,144	0.48	2,62,144
Stores	32,768	1,31,072	0.49	-	1,31,072	0.24	-	-	-

Second-Level (L2) Cache

	TEX->L2 Requests	% Peak	L2->TEX Returns	% Peak	Total Bytes	Total Throughput
Global Load Cached	-	-	0	0	0	0
Global Load Uncached	-	-	2,62,144	0.63	83,88,608	12,15,93,76,594.46
Local Load Cached	-	-	0	0	0	0
Local Load Uncached	-	-	0	0	0	0
Surface Load	-	-	0	0	0	0
Texture Load	-	-	-	-	-	-
Global Store	1,31,072	0.63	-	-	41,94,304	6,07,96,88,297.23
Local Store	0	-	-	-	0	0
Surface Store	0	0	-	-	0	0
Global Reduction	0	0	-	-	0	0
Surface Reduction	0	0	-	-	0	0
Global Atomic	0	0	0	0	0	0
Global Atomic Cas	0	0	0	0	0	0
Surface Atomic	0	0	0	0	0	0
Surface Atomic Cas	0	0	0	0	0	0
Loads	-	-	2,62,144	0.63	83,88,608	12,15,93,76,594.46
Stores	1,31,072	0.63	-	-	41,94,304	6,07,96,88,297.23
Total	1,31,072	0.63	2,62,144	0.63	1,25,82,912	18,23,90,64,891.69

Device Memory (FB)

	L2<->FB Sectors	% Peak	Bytes	Throughput
Load	1,022	0.01	32,704	4,74,04,796.14
Store	40,247	0.54	12,87,904	1,86,68,30,558.00
Total	41,269	0.55	13,20,608	1,91,42,35,354.14