AMD GPU Memory Hierarchy

Graphics Core Next

GPU

Compute Unit

Instruction Issue

Processors

Read & Write

Read & Write

Read & Write

64KB Local Share
(read & write)

Global Share
(read & write)

16KB L1 Cache
(read & Write)

Write Through

4 CU Shared 16KB Scalar L1 Data Cache
(read only)

4 CU Shared 64KB Instruction L1 Cache
(read only)

Read Only

Read & Write

Coherency between CU's and CPU at L2

Read Only

ROP
(Rendering Output Pipeline)

Cache

128KB x n L2 Cache
(read & Write)

Write Back

Read & Write

Read & Write

Memory Controller

Read & Write

External DRAM