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1. []
2. [] SP-PU-L1-DMA []
 1. []
 2. []
 3. []
 4. LD/ST [] fence []
3. Launch [] fork
 1. []
4. launch/signal/wait:join
 1. launch pu instruction: write_back_id local_id
 1. write_back atomic add/sub
 2. wait instruction: local_id
 1. local_id GE LE counter
 3. wait remote instruction: remote_id
 1. local_id GE LE counter
5. [] & []
 1. []
 2. []
 1. [] scale
 2. 1D/2D []
 3. [] Reduce []
 1. L3 Atomic
 3. []
 4. []
 1. leading tailing latency
 1. LD/ST inflight delay [] DMA Delay
 1. ping-pong
 2. pipeline
 2. kernel [] latency
 1. kernel []
 3. kernel [] gap
 1. kernel []
 2. [] fusion

2. `ready` fence
1. `m-barrier`
3. `ready`

MAC

1. Vector
2. `VR` `RO WO`
3. `Vector`
4. `VR`
5. Vector

Software

1. `ready`

ISA

1. `RV64i`
2. `VLD VST VMUL VADD REDUCE_ADD REDUCE_MAX REDUCE_MIN VMUL_REDUCE_ADD`
`MLD MST`
3. `GEMM`
 1. `128 = 7 + 3 = 10`
 2. `7`
 3. `Opcode`
4. `fence`
 1. `L1 cache line`
5. `VR`
 1. `VR data hazard`
 2. `VR` `rename` `ing` `bank`
 3. `VR count`
 1. `LD ST`
 2. `GEMM` `LD`
 3. `ST`
6. `L1`
 1. `cache line`
 2. **cache line**
 3. `L1 CacheLine`

1. `Load L1 cache line`
2. `cache line mask`
3. `L1-L1`
4. `MNK`

7. DMA

1. `ROM Launch Kernel kernel`
2. `cmd`
3. `DMA kernel linear copy kernel launch ** **`
 1. `launch constructor`
8. `128 RV64`
9.
10. `/ RiscV-V`

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