

	Benchmark	MATRIXMUL				
	Data type	32				
	Number of rows	32	64	128	256	512
Exec. time (s)	Native	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	Ours	0.7	1.7	9	76.5	600.1
	ACCELSIM	1.6	2.6	8.3	51.9	427.6
Cycles	Native	9.4 <i>K</i>	13.5 <i>K</i>	21.8 <i>K</i>	71.3 <i>K</i>	342.8 <i>K</i>
	Ours	7.7 <i>K</i>	9.8 <i>K</i>	14.3 <i>K</i>	52.3 <i>K</i>	302.3 <i>K</i>
	ACCELSIM	8.1 <i>K</i>	10.4 <i>K</i>	16.1 <i>K</i>	53.1 <i>K</i>	300.7 <i>K</i>
Instruction count	Native	139.3 <i>K</i>	933.9 <i>K</i>	6.8 <i>M</i>	51.1 <i>M</i>	397.4 <i>M</i>
	Ours	143.4 <i>K</i>	950.3 <i>K</i>	6.8 <i>M</i>	51.4 <i>M</i>	398.5 <i>M</i>
	ACCELSIM	143.4 <i>K</i>	950.3 <i>K</i>	6.8 <i>M</i>	51.4 <i>M</i>	398.5 <i>M</i>
L1 accesses	Native	256	2 <i>K</i>	16.4 <i>K</i>	131.1 <i>K</i>	1 <i>M</i>
	Ours	256	2 <i>K</i>	16.4 <i>K</i>	131.1 <i>K</i>	1 <i>M</i>
	ACCELSIM	256	2 <i>K</i>	16.4 <i>K</i>	131.1 <i>K</i>	1 <i>M</i>
L1 hit rate (%)	Native	0%	0%	0%	0%	0%
	Ours	0%	0%	0%	0%	0%
	ACCELSIM	0%	0%	0%	0%	0%
L2 read hits	Native	256	2 <i>K</i>	16.4 <i>K</i>	131.1 <i>K</i>	995.5 <i>K</i>
	Ours	256	2 <i>K</i>	16.4 <i>K</i>	131.1 <i>K</i>	983 <i>K</i>
	ACCELSIM	0	1 <i>K</i>	12.3 <i>K</i>	114.7 <i>K</i>	982.8 <i>K</i>
L2 read hit rate (%)	Native	100%	100%	100%	100%	94.93%
	Ours	100%	100%	100%	100%	93.75%
	ACCELSIM	0%	50%	75%	87.5%	93.72%
L2 write hits	Native	128	512	2 <i>K</i>	8.2 <i>K</i>	23 <i>K</i>
	Ours	128	512	2 <i>K</i>	8.2 <i>K</i>	31.3 <i>K</i>
	ACCELSIM	0	0	0	0	0
L2 write hit rate (%)	Native	100%	100%	100%	100%	70.21%
	Ours	100%	100%	100%	100%	95.65%
	ACCELSIM	0%	0%	0%	0%	0%
DRAM reads	Native	0	0	0	0	53.2 <i>K</i>
	Ours	0	0	0	0	65.5 <i>K</i>
	ACCELSIM	384	1.5 <i>K</i>	6.1 <i>K</i>	24.6 <i>K</i>	98.6 <i>K</i>
DRAM writes	Native	0	0	12	25	13.6 <i>K</i>
	Ours	0	0	0	0	1.4 <i>K</i>
	ACCELSIM	128	512	2 <i>K</i>	8.2 <i>K</i>	32.8 <i>K</i>