

mixbench (v0.04-5-g8a3585e)

----- Device specifications -----

Device: NVIDIA GeForce RTX 4080  
 CUDA driver version: 12.10  
 GPU clock rate: 2505 MHz  
 Memory clock rate: 5600 MHz  
 Memory bus width: 256 bits  
 WarpSize: 32  
 L2 cache size: 65536 KB  
 Total global mem: 16079 MB  
 ECC enabled: No  
 Compute Capability: 8.9  
 Total SPs: 9728 (76 MPs x 128 SPs/MP)  
 Compute throughput: 48737.28 GFlops (theoretical single precision FMAs)  
 Memory bandwidth: 716.86 GB/sec

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 Total GPU memory 16860184576, free 16609837056

Buffer size: 256MB  
 Trade-off type: compute with global memory (block strided)  
 Elements per thread: 8  
 Thread fusion degree: 4

| Compute iters | Single Precision ops |         |          |        | Double precision ops |         |        |        | Half precision ops |         |          |        | Integer operations |         |          |        |
|---------------|----------------------|---------|----------|--------|----------------------|---------|--------|--------|--------------------|---------|----------|--------|--------------------|---------|----------|--------|
|               | Flops/byte           | ex.time | GFLOPS   | GB/sec | Flops/byte           | ex.time | GFLOPS | GB/sec | Flops/byte         | ex.time | GFLOPS   | GB/sec | lops/byte          | ex.time | GIOPS    | GB/sec |
| 0             | 0.25                 | 0.27    | 124.12   | 496.48 | 0.125                | 0.4     | 83.02  | 664.13 | 0.5                | 0.2     | 329.95   | 659.9  | 0.25               | 0.2     | 165      | 660    |
| 1             | 0.75                 | 0.2     | 493.99   | 658.65 | 0.375                | 0.4     | 250.14 | 667.03 | 1.5                | 0.2     | 991.56   | 661.04 | 0.75               | 0.2     | 496.88   | 662.5  |
| 2             | 1.25                 | 0.2     | 824.74   | 659.79 | 0.625                | 0.41    | 412.01 | 659.22 | 2.5                | 0.2     | 1646.63  | 658.65 | 1.25               | 0.2     | 827.47   | 661.98 |
| 3             | 1.75                 | 0.2     | 1158.46  | 661.98 | 0.875                | 0.41    | 575.37 | 657.57 | 3.5                | 0.2     | 2315.83  | 661.67 | 1.75               | 0.2     | 1158.83  | 662.19 |
| 4             | 2.25                 | 0.2     | 1489.45  | 661.98 | 1.125                | 0.49    | 620.87 | 551.88 | 4.5                | 0.2     | 2968.6   | 659.69 | 2.25               | 0.2     | 1483.37  | 659.27 |
| 5             | 2.75                 | 0.2     | 1820.44  | 661.98 | 1.375                | 0.59    | 624.69 | 454.32 | 5.5                | 0.2     | 3640.89  | 661.98 | 2.75               | 0.2     | 1811.3   | 658.65 |
| 6             | 3.25                 | 0.2     | 2154.84  | 663.03 | 1.625                | 0.7     | 627.37 | 386.07 | 6.5                | 0.2     | 4295.41  | 660.83 | 3.25               | 0.2     | 2142.64  | 659.27 |
| 7             | 3.75                 | 0.2     | 2470.73  | 658.86 | 1.875                | 0.8     | 628.84 | 335.38 | 7.5                | 0.2     | 4939.9   | 658.65 | 3.75               | 0.2     | 2471.11  | 658.96 |
| 8             | 4.25                 | 0.2     | 2810.31  | 661.25 | 2.125                | 0.91    | 630.09 | 296.51 | 8.5                | 0.2     | 5598.55  | 658.65 | 4.25               | 0.2     | 2799.28  | 658.65 |
| 9             | 4.75                 | 0.2     | 3112.96  | 655.36 | 2.375                | 1.01    | 631.19 | 265.77 | 9.5                | 0.2     | 6263.11  | 659.27 | 4.75               | 0.2     | 3126.15  | 658.14 |
| 10            | 5.25                 | 0.2     | 3461.19  | 659.27 | 2.625                | 1.12    | 631.89 | 240.72 | 10.5               | 0.2     | 6925.65  | 659.59 | 5.25               | 0.2     | 3447.1   | 656.59 |
| 11            | 5.75                 | 0.2     | 3806.38  | 661.98 | 2.875                | 1.22    | 632.27 | 219.92 | 11.5               | 0.2     | 7581.66  | 659.27 | 5.75               | 0.2     | 3787.26  | 658.65 |
| 12            | 6.25                 | 0.2     | 4121.76  | 659.48 | 3.125                | 1.33    | 633.06 | 202.58 | 12.5               | 0.2     | 8240.93  | 659.27 | 6.25               | 0.2     | 4115.29  | 658.45 |
| 13            | 6.75                 | 0.2     | 4459.92  | 660.73 | 3.375                | 1.43    | 633.81 | 187.79 | 13.5               | 0.2     | 8847.36  | 655.36 | 6.75               | 0.2     | 4432.68  | 656.69 |
| 14            | 7.25                 | 0.2     | 4777.49  | 658.96 | 3.625                | 1.53    | 634.06 | 174.91 | 14.5               | 0.2     | 9514.61  | 656.18 | 7.25               | 0.2     | 4775.24  | 658.65 |
| 15            | 7.75                 | 0.2     | 5110.18  | 659.38 | 3.875                | 1.64    | 634.48 | 163.74 | 15.5               | 0.2     | 10170.79 | 656.18 | 7.75               | 0.2     | 5104.56  | 658.65 |
| 16            | 8.25                 | 0.2     | 5441.58  | 659.59 | 4.125                | 1.74    | 635.05 | 153.95 | 16.5               | 0.2     | 10867.78 | 658.65 | 8.25               | 0.21    | 5382.33  | 652.4  |
| 17            | 8.75                 | 0.2     | 5792.32  | 661.98 | 4.375                | 1.85    | 635.39 | 145.23 | 17.5               | 0.2     | 11526.43 | 658.65 | 8.75               | 0.2     | 5738.88  | 655.87 |
| 18            | 9.25                 | 0.2     | 6102.13  | 659.69 | 4.625                | 1.95    | 635.77 | 137.46 | 18.5               | 0.2     | 12143.13 | 656.39 | 9.25               | 0.2     | 6080.13  | 657.31 |
| 20            | 10.25                | 0.2     | 6751.2   | 658.65 | 5.125                | 2.16    | 635.89 | 124.08 | 20.5               | 0.2     | 13502.39 | 658.65 | 10.25              | 0.2     | 6751.2   | 658.65 |
| 22            | 11.25                | 0.2     | 7409.85  | 658.65 | 5.625                | 2.37    | 636.41 | 113.14 | 22.5               | 0.2     | 14840.67 | 659.59 | 11.25              | 0.2     | 7402.87  | 658.03 |
| 24            | 12.25                | 0.2     | 8040.72  | 656.39 | 6.125                | 2.58    | 636.65 | 103.94 | 24.5               | 0.2     | 16081.45 | 656.39 | 12.25              | 0.2     | 8038.21  | 656.18 |
| 28            | 14.25                | 0.2     | 9385.81  | 658.65 | 7.125                | 3       | 637.25 | 89.44  | 28.5               | 0.21    | 17959.38 | 630.15 | 14.25              | 0.21    | 9198.03  | 645.48 |
| 32            | 16.25                | 0.2     | 10706.48 | 658.86 | 8.125                | 3.42    | 637.31 | 78.44  | 32.5               | 0.2     | 21299.2  | 655.36 | 16.25              | 0.21    | 10601.56 | 652.4  |
| 40            | 20.25                | 0.2     | 13271.04 | 655.36 | 10.125               | 4.26    | 638.03 | 63.02  | 40.5               | 0.2     | 26550.38 | 655.56 | 20.25              | 0.21    | 13076.93 | 645.77 |
| 48            | 24.25                | 0.21    | 15818.33 | 652.3  | 12.125               | 5.1     | 638.54 | 52.66  | 48.5               | 0.21    | 31470.26 | 648.87 | 24.25              | 0.21    | 15509.59 | 639.57 |
| 56            | 28.25                | 0.2     | 18513.92 | 655.36 | 14.125               | 5.94    | 638.83 | 45.23  | 56.5               | 0.21    | 36301.8  | 642.51 | 28.25              | 0.22    | 17632.3  | 624.15 |
| 64            | 32.25                | 0.2     | 21135.36 | 655.36 | 16.125               | 6.77    | 638.92 | 39.62  | 64.5               | 0.21    | 41441.88 | 642.51 | 32.25              | 0.23    | 19159.53 | 594.09 |
| 80            | 40.25                | 0.21    | 26137.29 | 649.37 | 20.125               | 8.45    | 639.16 | 31.76  | 80.5               | 0.25    | 43963.73 | 546.13 | 40.25              | 0.27    | 19983.51 | 496.48 |
| 96            | 48.25                | 0.21    | 31308.04 | 648.87 | 24.125               | 10.13   | 639.32 | 26.5   | 96.5               | 0.28    | 45858.87 | 475.22 | 48.25              | 0.32    | 20269.95 | 420.1  |
| 128           | 64.25                | 0.21    | 41079.88 | 639.38 | 32.125               | 13.49   | 639.45 | 19.91  | 128.5              | 0.37    | 47157.94 | 366.99 | 64.25              | 0.42    | 20494.64 | 318.98 |
| 192           | 96.25                | 0.29    | 44110.77 | 458.29 | 48.125               | 20.2    | 639.66 | 13.29  | 192.5              | 0.55    | 47004.92 | 244.18 | 96.25              | 0.62    | 20759.08 | 215.68 |
| 256           | 128.25               | 0.39    | 44588.82 | 347.67 | 64.125               | 26.91   | 639.76 | 9.98   | 256.5              | 0.72    | 47506.8  | 185.21 | 128.25             | 0.83    | 20829.41 | 162.41 |