global store metric: l1tex_t_sectors_pipe_lsu_mem_global_op_st.sum global load metric: l1tex_t_sectors_pipe_lsu_mem_global_op_ld.sum

| A100 note: the FLOP of halo calculation in TCSte | encil is ignored |
|--|------------------|
|--|------------------|

| stencil implement | ٢ | inner mesh | TFLOP | time us | global store sectors | global load sectors | memory traffic(GB) | AI (FLOP/byte) | TFLOP/s |
|--------------------------------|---|------------|------------|---------|----------------------|---------------------|--------------------|-----------------|-------------|
| tc-w/o-tc-star | 1 | 7200 | 0.0005184 | 194.46 | 6,480,000 | 11,744,979 | 0.583199328 | 0.888889913 | |
| | 2 | 7200 | 0.00093312 | 300.38 | 16,200,000 | 13,770,000 | 0.95904 | 0.972972973 | 3.106465144 |
| tc-w/o-tc-box | 1 | 7200 | 0.00093312 | 206.59 | 6,480,000 | 11,744,967 | 0.583198944 | 1.600002897 | 4.516772351 |
| | 2 | 7200 | 0.002592 | 320.51 | 16,200,000 | 12,960,000 | 0.93312 | 2.77777778 | 8.087111167 |
| tcstencil-star | 1 | 7200 | 0.00331776 | 152.16 | 3,240,000 | 28,350,000 | 1.01088 | 3.282051282 | |
| | 2 | 7200 | 0.00331776 | 181.82 | 3,240,000 | 34,020,000 | 1.19232 | 2.782608696 | |
| tcstencil-box | 1 | 7200 | 0.00497664 | 173.66 | 3,240,000 | 31,185,000 | 1.1016 | 4.517647059 | 28.65737648 |
| | 2 | 7200 | 0.0082944 | 198.88 | 3,240,000 | 45,360,000 | 1.5552 | 5.333333333 | 41.70555109 |
| tensor core global memory peak | | peak | | | | | 1555 | | 312 |
| FPU global memory peak | | | | | | | 1555 | | 78 |

V100 note: the FLOP of halo calculation in TCStencil is ignored

| stencil implemen | r | inner mesh | TFLOP | time us | global store sectors | global load sectors | memory traffic(GB) | AI (FLOP/byte) | TFLOP/s |
|--------------------------------|-----|------------|------------|---------|----------------------|---------------------|--------------------|-----------------|-------------|
| tc-w/o-tc-star | 1 | . 7200 | 0.0005184 | 376.51 | 6,481,070 | 11,745,093 | 0.583237216 | 0.888832169 | 1.37685586 |
| | 2 | 7200 | 0.00093312 | 556.54 | 16,199,395 | 13,769,040 | 0.95898992 | 0.973023783 | 1.676644985 |
| tc-w/o-tc-box | 1 | . 7200 | 0.00093312 | 384.51 | 6,480,038 | | | 1.599982793 | |
| | 2 | 7200 | 0.002592 | 520.48 | 16,200,250 | 12,957,600 | 0.9330512 | 2.777982602 | 4.980018445 |
| tcstencil-star | 1 | . 7200 | 0.00331776 | 274.34 | 3,240,000 | 28,354,565 | 1.01102608 | 3.281577069 | 12.09360647 |
| | 2 | 7200 | 0.00331776 | 306.69 | 3,239,990 | 33,996,606 | 1.191571072 | 2.784357625 | 10.8179595 |
| tcstencil-box | 1 | . 7200 | 0.00497664 | 313.73 | 3,240,000 | 21,481,837 | 0.791098784 | 6.290794653 | 15.86281197 |
| | 2 | 7200 | 0.0082944 | 358.05 | 3,240,000 | 29,193,390 | 1.03786848 | 7.991764043 | 15.93605902 |
| tensor core global memory peak | | | | | | 900 | | 125 | |
| tensor core L2 pe | eak | | | | | | 4198.4 | | 125 |
| FPU global memory peak | | | | | | | 900 | | 31.4 |
| FPU L2 peak | | | | | | | 4198.4 | | 31.4 |