

REPORT

(a)

(i) GPU device name: Tesla T4 (Using : **!nvidia-smi -L**)

(ii) Number of streaming multiprocessors present in the GPU: 40

(iii) Shared memory available in each SM: 64KB

(iv) Maximum size of the thread block: 1024

(b)

Maximum value of m that version-2 supports is 32.

Matrix Size (m*m)	Thread Block Size	Number of thread Blocks	Version-1 Execution Time	Version-3 Execution Time	Version-4 Execution Time
128*128	1024	16	0.001809	0.000012	
256*256	1024	64	0.007979	0.000013	
512*512	1024	256	0.031952	0.000017	
1024*1024	1024	1024			
2048*2048	1024	4096			
4096*4096	1024	16384			
8192*8192	1024	65536			

For **m>512** ,execution time is not coming.