

CPU Execution Time in ms																																
C++ Base																																
Vector Size / Threads Per Block	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Trial 7	Trial 8	Trial 9	Trial 10	Trial 11	Trial 12	Trial 13	Trial 14	Trial 15	Trial 16	Trial 17	Trial 18	Trial 19	Trial 20	Trial 21	Trial 22	Trial 23	Trial 24	Trial 25	Trial 26	Trial 27	Trial 28	Trial 29	Trial 30	Average	
256	4.00	4.00	4.00	4.00	3.00	3.00	4.00	4.00	4.00	3.00	4.00	4.00	4.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	3.80
512	7.00	6.00	13.00	7.00	7.00	8.00	7.00	6.00	7.00	7.00	7.00	7.00	6.00	8.00	7.00	7.00	7.00	7.00	7.00	6.00	6.00	7.00	7.00	7.00	7.00	6.00	8.00	6.00	7.00	7.00	7.00	7.07
1024	12.00	12.00	13.00	11.00	13.00	12.00	12.00	12.00	12.00	13.00	12.00	12.00	12.00	12.00	12.00	11.00	13.00	12.00	12.00	12.00	12.00	12.00	13.00	12.00	11.00	12.00	13.00	11.00	12.00	13.00	12.00	12.10
2*20	19831.00	19612.00	19627.00	20050.00	19855.00	19687.00	24478.00	20539.00	19745.00	23772.00	19696.00	20205.00	19855.00	19546.00	19558.00	20654.00	23699.00	19599.00	19560.00	24364.00	20185.00	21014.00	24365.00	19515.00	19983.00	19905.00	20532.00	19818.00	19787.00	19782.00	20627.27	
2*24	328054.00	318697.00	322560.00	397839.00	322147.00	324058.00	317692.00	320503.00	323015.00	322955.00	318468.00	326086.00	320832.00	390028.00	321585.00	321125.00	323660.00	319414.00	334034.00	392188.00	340069.00	324519.00	321067.00	319267.00	319620.00	318508.00	327291.00	328058.00	316854.00	334641.00	330494.47	
2*28	5138400.00	5202505.00	5389388.00	5489962.00	6159114.00	5263930.00	5210524.00	5339031.00	5499702.00	5288031.00	5114320.00	5192931.00	5155234.00	5682044.00	5304595.00	5267804.00	5287020.00	5610339.00	5408168.00	5458699.00	5298845.00	5360811.00	5126259.00	5314462.00	5215921.00	5283007.00	5085335.00	5260744.00	5879180.00	5217129.00	5350114.47	
CUDA V 1.0 Float																																
Vector Size / Threads Per Block	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Trial 7	Trial 8	Trial 9	Trial 10	Trial 11	Trial 12	Trial 13	Trial 14	Trial 15	Trial 16	Trial 17	Trial 18	Trial 19	Trial 20	Trial 21	Trial 22	Trial 23	Trial 24	Trial 25	Trial 26	Trial 27	Trial 28	Trial 29	Trial 30	Average	
2*20 / 256	3.691	3.691	3.690	3.691	3.691	3.692	3.690	3.690	3.690	3.691	3.691	3.691	3.691	3.690	3.690	3.690	3.691	3.691	3.690	3.690	3.691	3.691	3.692	3.690	3.690	3.690	3.691	3.691	3.691	3.691	3.690	3.691
2*20 / 512	3.691	3.690	3.690	3.690	3.690	3.691	3.689	3.690	3.690	3.690	3.690	3.690	3.691	3.690	3.690	3.690	3.691	3.690	3.690	3.690	3.691	3.690	3.690	3.690	3.689	3.690	3.690	3.691	3.692	3.691	3.691	3.690
2*20 / 1024	3.691	3.691	3.690	3.690	3.691	3.691	3.690	3.690	3.690	3.690	3.690	3.690	3.691	3.690	3.690	3.691	3.691	3.690	3.690	3.691	3.691	3.692	3.691	3.691	3.691	3.691	3.691	3.690	3.691	3.691	3.691	3.691
2*22 / 256	14.757	14.757	14.757	14.729	14.765	14.763	14.730	14.729	14.729	14.762	14.729	14.729	14.730	14.729	14.730	14.762	14.730	14.729	14.729	14.762	14.755	14.760	14.763	14.750	14.728	14.760	14.775	14.769	14.762	14.729	14.746	
2*22 / 512	14.761	14.729	14.765	14.760	14.764	14.769	14.765	14.764	14.756	14.764	14.728	14.730	14.762	14.729	14.728	14.730	14.729	14.765	14.765	14.729	14.763	14.730	14.728	14.730	14.728	14.728	14.728	14.729	14.762	14.756	14.749	
2*22 / 1024	14.755	14.756	14.740	14.730	14.758	14.729	14.728	14.756	14.759	14.763	14.728	14.730	14.728	14.729	14.765	14.765	14.729	14.763	14.730	14.728	14.763	14.730	14.728	14.730	14.728	14.728	14.728	14.729	14.729	14.729	14.728	14.740
2*24 / 256	58.913	58.929	58.906	58.908	58.932	58.908	58.907	58.911	58.914	58.922	58.914	58.909	58.911	58.908	58.910	58.909	58.908	58.910	58.909	58.908	58.910	58.907	58.918	58.924	58.908	58.908	58.924	58.910	58.908	58.909	58.915	58.913
2*24 / 512	58.918	58.916	58.912	58.917	58.918	58.930	58.908	58.920	58.912	58.912	58.922	58.923	58.908	58.908	58.916	58.915	58.916	58.910	58.910	58.915	58.909	58.906	58.909	58.913	58.914	58.909	58.908	58.913	58.910	58.914	58.914	58.914
2*24 / 1024	58.918	58.911	58.909	58.909	58.909	58.911	58.910	58.917	58.911	58.910	58.910	58.910	58.909	58.918	58.908	58.926	58.909	58.910	58.909	58.919	58.909	58.919	58.909	58.912	58.917	58.924	58.911	58.907	58.916	58.909	58.913	
CUDA V 1.0 Double																																
Vector Size / Threads Per Block	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Trial 7	Trial 8	Trial 9	Trial 10	Average																					
2*20 / 256	9965.879	9936.006	9911.366	9988.485	9983.640	10009.286	9932.506	9958.984	9943.731	9968.534	9961.842																					
2*20 / 512	10635.282	10607.774	10627.518	10645.093	10660.977	10561.949	10583.538	10608.222	10587.505	10600.064	10613.790																					
2*20 / 1024	12209.003	12237.393	12218.975	12237.104	12215.426	12280.791	12207.993	12218.812	12213.959	12218.050	12225.751																					
2*22 / 256	40467.273	40353.566	40478.504	40658.461	40451.430	40539.930	40674.125	40445.652	40584.398	40464.734	40531.907																					
2*22 / 512	49420.754	42941.172	42786.391	42926.625	42827.625	42849.367	42948.199	42903.738	42878.449	42911.633	43539.395																					
2*22 / 1024	49500.109	49546.895	49571.000	49529.312	49431.418	49557.215	49378.480	49420.855	49393.826	49420.754	49474.987																					
CUDA V2.0 Float																																
Vector Size / Threads Per Block	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Trial 7	Trial 8	Trial 9	Trial 10	Trial 11	Trial 12	Trial 13	Trial 14	Trial 15	Trial 16	Trial 17	Trial 18	Trial 19	Trial 20	Trial 21	Trial 22	Trial 23	Trial 24	Trial 25	Trial 26	Trial 27	Trial 28	Trial 29	Trial 30	Average	
2*20 / 256	0.235	0.234	0.279	0.234	0.234	0.234	0.234	0.235	0.234	0.234	0.235	0.234	0.234	0.234	0.234	0.234	0.234	0.234	0.258	0.234	0.235	0.234	0.234	0.234	0.234	0.234	0.234	0.234	0.234	0.234	0.236	
2*20 / 512	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	
2*20 / 1024	0.368	0.368	0.368	0.368	0.368	0.368	0.368	0.368	0.368	0.368	0.368	0.368	0.368	0.368	0.368	0.368	0.368	0.368	0.367	0.368	0.368	0.367	0.367	0.367	0.367	0.367	0.368	0.368	0.368	0.368	0.368	
2*22 / 256	0.456	0.513	0.456	0.456	0.456	0.456	0.512	0.456	0.511	0.456	0.512	0.456	0.456	0.519	0.456	0.508	0.456	0.514	0.525	0.517	0.517	0.457	0.457	0.456	0.456	0.456	0.456	0.456	0.497	0.456	0.479	
2*22 / 512	0.532	0.630	0.582	0.532	0.531	0.531	0.532	0.532	0.532	0.532	0.531	0.591	0.531	0.531	0.531	0.586	0.600	0.532	0.594	0.531	0.532	0.517	0.532	0.584	0.581	0.576	0.561	0.532	0.531	0.586	0.531	
2*22 / 1024	0.775	0.765	0.778	0.720	0.720	0.720	0.720	0.720	0.720	0.720	0.784	0.720	0.720	0.771	0.772	0.720	0.720	0.720	0.760	0.767	0.788	0.781	0.760	0.720	0.756	0.720	0.720	0.779	0.719	0.720	0.742	
2*24 / 256	1.854	1.840	1.847	1.875	1.844	1.848	1.850	1.852	1.850	1.849	1.846	1.851	1.857	1.851	1.858	1.845	1.849	1.848	1.850	1.852	1.850	1.849	1.846	1.851	1.857	1.849	1.850	1.849	1.857	1.850	1.851	
2*24 / 512	2.148	2.151	2.144	2.149	2.146	2.144	2.148	2.146	2.147	2.154	2.159	2.153	2.147	2.187	2.145	2.155	2.146	2.150	2.151	2.150	2.145	2.145	2.147	2.149	2.146	2.138	2.146	2.152	2.145	2.149	2.143	
2*24 / 1024	2.917	2.895	2.893	2.890	2.890	2.893	2.898	2.897	2.896	2.891	2.890	2.899	2.894	2.887	2.893	2.894	2.882	2.898	2.893	2.898	2.892	2.889	2.892	2.892	2.890	2.889	2.898	2.893	2.895	2.897	2.893	