

CPU Execution Time in Milliseconds

No. of elements	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	4.527	4.943	5.780	3.638	3.611	3.861	3.794	3.753	3.604	3.611	5.711	3.650	3.637	4.173	3.625	3.620	3.609	3.650	3.546	3.749	5.697	3.641	4.108	3.597	3.631	5.950	3.682	3.682	5.879	3.862	4.127
2^24	14.382	14.551	22.903	15.199	15.984	15.216	15.022	16.431	15.088	14.957	15.018	15.673	14.551	14.559	22.728	14.638	18.638	14.960	23.147	14.484	14.990	15.778	14.485	15.537	15.644	14.820	14.585	16.859	14.399	15.211	16.015
2^26	90.791	65.139	58.835	60.002	59.196	58.184	57.705	63.512	57.723	58.189	58.474	58.979	91.822	58.014	63.844	57.647	57.952	58.196	57.875	61.254	60.248	59.476	58.517	75.389	61.291	58.503	92.176	57.876	59.992	91.548	64.278

CUDA V 1.0

No. of elements	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 Block Size)	4.434	4.443	4.541	4.564	4.465	4.478	4.487	4.675	4.636	4.534	4.650	4.663	4.559	4.704	4.450	4.532	4.641	6.494	4.810	5.185	4.584	4.534	5.832	4.702	4.585	4.732	4.652	4.581	4.670	4.519	4.711
2^20(512 Block Size)	4.519	4.765	4.595	4.368	4.631	4.360	4.368	4.813	4.251	4.481	4.520	4.535	4.769	4.509	4.543	4.449	4.855	4.865	4.580	4.627	4.657	4.853	4.521	4.864	4.628	4.494	4.769	11.620	4.468	4.706	4.833
2^20(1024Block Size)	4.601	4.576	4.523	4.868	4.819	4.599	4.609	4.891	4.720	4.813	4.704	4.667	4.707	4.722	4.560	4.398	4.780	4.451	4.733	4.539	4.438	4.596	4.638	4.614	4.843	4.900	4.569	4.581	4.679	4.443	4.653
2^22(256 Block Size)	18.894	20.773	21.372	21.104	31.399	21.041	20.451	20.331	21.252	34.466	27.272	21.256	20.891	30.949	21.406	27.291	33.361	19.493	31.048	32.669	20.999	20.320	18.906	29.658	20.337	19.650	19.639	21.091	20.382	29.838	23.918
2^22(512 Block Size)	16.886	22.771	19.945	31.382	18.508	18.248	30.029	18.005	19.927	21.410	18.078	16.917	17.899	16.966	32.813	30.422	29.263	18.503	18.006	27.002	19.170	20.390	18.454	20.185	20.046	18.616	19.787	18.532	17.344	34.855	21.679
2^22(1024Block Size)	18.392	28.182	28.475	27.987	18.008	19.122	19.684	28.435	17.554	18.053	27.144	18.380	32.317	17.439	17.726	28.804	18.250	30.150	18.322	17.089	29.483	19.645	19.258	19.994	19.180	30.008	18.188	18.400	25.953	17.958	22.253
2^24(256 Block Size)	84.878	97.192	83.505	88.379	109.121	81.269	98.519	100.306	85.634	78.724	89.954	85.736	88.553	84.699	132.534	138.318	85.235	99.996	148.020	122.609	99.346	85.257	101.275	88.457	74.135	147.178	93.479	82.322	82.240	92.844	97.657
2^24(512 Block Size)	88.105	98.001	130.712	88.402	78.624	77.032	77.962	86.791	114.676	80.866	78.270	68.914	69.079	95.120	79.179	78.431	88.809	80.079	86.380	78.126	98.167	82.121	143.567	95.896	91.189	80.223	77.617	130.608	88.805	74.180	89.531
2^24(1024Block Size)	93.457	73.383	84.986	77.505	84.842	87.701	85.446	77.580	129.047	75.808	92.175	77.226	85.611	77.990	82.451	81.465	77.903	91.071	77.206	80.056	74.235	83.079	81.444	88.721	85.116	76.032	86.306	91.131	131.460	82.030	85.749

CUDA V 2.0

No. of elements	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 Block Size)	4.542	4.182	4.350	4.269	3.981	4.430	4.288	4.120	4.286	4.331	4.280	4.391	3.850	4.299	4.324	4.414	4.315	4.323	4.350	4.234	4.242	4.400	4.177	4.398	4.106	4.438	4.587	4.319	4.284	4.249	4.292
2 ²⁰ (512 Block Size)	4.444	4.311	4.123	4.251	4.305	4.278	4.268	4.154	4.206	4.081	4.281	4.419	4.135	4.375	4.252	4.093	4.257	4.313	4.279	4.368	4.371	4.169	4.203	4.175	4.136	3.958	4.199	4.412	4.328	4.432	4.253
2 ²⁰ (1024Block Size)	4.333	4.231	3.920	4.192	4.352	3.977	4.170	4.386	4.434	4.045	4.057	4.163	4.184	4.450	4.300	4.131	4.176	4.441	4.251	4.194	3.900	4.082	4.272	4.046	4.023	4.062	3.988	4.146	4.000	4.113	4.167
2 ²² (256 Block Size)	19.082	19.580	28.012	19.368	20.154	19.861	25.953	19.162	19.776	19.828	20.074	29.331	28.747	20.523	19.783	19.545	31.717	19.190	19.533	19.533	19.681	19.968	20.772	28.816	20.174	19.462	19.002	21.018	34.475	19.696	22.091
2 ²² (512 Block Size)	18.857	15.687	23.558	23.794	18.785	24.765	17.119	19.214	18.612	18.129	19.511	19.797	19.660	23.843	20.114	18.857	18.296	15.969	17.306	20.183	19.013	18.776	20.993	25.832	18.272	28.606	18.110	16.003	16.788	17.419	19.729
2 ²² (1024Block Size)	17.379	19.915	17.106	26.705	19.932	28.680	16.694	17.292	17.245	16.788	17.876	16.766	17.421	27.755	18.343	30.353	17.907	16.532	16.423	17.251	17.273	26.968	22.804	16.985	16.969	29.072	17.162	17.113	17.056	17.077	19.661
2 ²⁴ (256 Block Size)	96.365	80.541	82.366	87.877	136.518	91.418	82.857	82.396	79.906	85.978	114.605	82.942	94.637	69.869	84.193	77.163	98.235	80.292	82.868	130.904	94.200	91.328	92.210	97.608	92.585	127.896	95.178	88.444	81.513	90.954	92.462
2 ²⁴ (512 Block Size)	75.630	81.674	75.149	72.743	124.053	71.682	119.143	82.553	85.533	87.644	73.166	73.515	81.001	77.335	125.542	77.812	84.517	73.643	73.849	90.642	84.802	88.811	76.465	77.058	84.789	86.585	83.615	86.364	90.855	87.977	85.138
2 ²⁴ (1024Block Size)	82.771	96.979	73.396	71.414	72.197	83.615	79.976	72.949	71.083	84.196	70.174	78.773	84.004	77.042	79.187	82.143	64.991	70.310	71.518	73.956	79.618	70.617	80.650	73.707	80.588	69.817	74.583	72.764	94.844	77.283	

CUDA V 3.0

No. of elements	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 Block Size)	4.616	4.657	4.959	4.704	4.953	4.783	4.846	4.894	4.966	4.802	4.760	4.780	4.749	4.686	4.692	4.790	5.020	5.037	5.046	4.654	5.441	4.685	4.664	5.351	4.731	4.767	4.671	4.948	4.703	4.806	4.845	
2 ²⁰ (512 Block Size)	4.540	8.430	4.765	4.532	4.795	5.715	4.754	4.745	4.745	4.620	4.714	5.014	4.552	4.503	4.915	4.735	4.529	4.548	4.795	4.585	4.574	4.565	4.753	4.460	4.590	4.786	5.084	4.502	4.744	4.678	4.600	4.837
2 ²⁰ (1024Block Size)	4.635	5.276	4.561	4.800	4.495	4.719	4.570	4.525	4.638	4.687	4.955	4.852	4.637	4.851	4.710	4.363	4.435	4.498	4.521	4.482	4.561	4.581	4.687	4.722	4.524	4.493	4.496	4.707	4.688	4.624	4.643	
2 ²² (256 Block Size)	20.364	23.022	20.410	25.914	20.521	20.456	23.469	28.538	20.205	20.800	16.841	28.489	20.389	19.915	20.084	20.303	20.871	32.564	20.640	17.518	20.206	19.736	20.441	21.278	19.988	17.304	20.078	30.539	17.456	20.784	21.637	
2 ²² (512 Block Size)	18.333	20.846	19.563	22.594	17.736	29.499	19.565	19.738	18.059	19.204	16.588	19.304	19.310	27.206	19.018	24.591	21.356	27.344	17.953	19.160	29.095	19.670	22.263	28.761	19.062	26.928	19.429	20.571	19.342	20.129	21.474	
2 ²² (1024Block Size)	19.389	29.131	20.676	18.106	18.563	18.449	18.004	18.262	18.518	29.492	17.898	18.057	20.522	18.098	17.009	18.377	17.032	18.478	16.978	18.239	26.846	18.062	17.674	18.266	17.960	18.431	25.959	28.744	30.840	19.394	20.412	
2 ²⁴ (256 Block Size)	131.398	119.274	93.572	88.449	124.970	85.040	133.242	92.895	82.491	90.498	131.277	134.108	83.761	94.243	102.245	99.440	135.733	83.611	90.214	96.857	117.304	92.341	98.826	87.517	85.181	101.201	84.256	82.579	85.488	86.029	100.468	
2 ²⁴ (512 Block Size)	77.932	83.711	87.528	73.842	97.461	101.800	76.657	73.796	84.427	81.574	74.508	92.007	128.618	89.759	85.887	98.875	76.672	66.924	76.386	85.104	77.228	124.373	87.745	85.639	77.943	86.990	82.287	84.309	79.297	83.203	86.083	
2 ²⁴ (1024Block Size)	78.226	96.079	108.181	107.895	84.577	76.145	65.881	76.486	77.691	76.102	84.686	76.772	89.327	76.191	88.121	90.372	79.335	77.257	75.746	88.735	74.938	75.828	120.296	86.484	86.723	82.456	77.634	95.583	77.054	88.737	84.658	

CUDA V 4.0

No. of elements	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 Block Size)	4.283	4.330	4.320	4.657	4.501	4.250	4.512	4.357	4.179	4.390	4.356	4.393	4.166	4.203	4.273	4.375	4.100	4.200	4.363	4.409	4.421	4.659	5.880	4.520	4.195	4.320	4.230	4.387	4.482	4.350	4.400
2 ²⁰ (512 Block Size)	3.881	5.364	4.084	4.119	4.558	4.311	4.152	5.644	4.211	3.939	4.251	4.160	4.208	4.398	4.343	4.128	4.213	4.153	4.099	4.128	4.057	4.027	4.167	4.189	4.141	4.260	4.391	4.201	4.301	4.235	4.277
2 ²⁰ (1024Block Size)	4.158	4.249	3.314	4.274	4.161	4.199	4.136	3.909	3.997	4.248	3.948	4.235	5.265	4.243	4.163	4.078	4.041	4.269	6.625	4.064	4.088	4.203	3.765	3.950	3.880	4.229	4.321	4.193	4.617	4.034	4.225
2 ²² (256 Block Size)	18.982	20.448	22.336	17.375	16.872	24.041	18.763	28.983	20.133	18.860	18.547	20.788	18.565	19.007	19.269	19.883	28.477	28.944	32.813	18.888	19.292	22.516	18.840	18.668	18.708	19.799	19.265	19.449	28.348	19.129	21.228
2 ²² (512 Block Size)	23.869	18.794	19.039	18.602	19.532	18.343	20.877	23.226	29.008	24.558	18.311	27.270	18.623	27.228	18.081	18.506	17.984	19.102	15.723	18.884	18.256	18.497	21	18.272	18.607	18.753	28.765	18.567	18.811	18.319	20.372
2 ²² (1024Block Size)	24.297	22.590	17.676	15.502	16.928	18.000	17.920	17.920	27.084	18.968	17.180	16.415	17.020	16.962	17.434	17.439	20.557	16.499	17.483	16.905	23.356	26.126	17.636	18.593	17.686	16.016	26.459	17.195	17.428	19.775	19.098
2 ²⁴ (256 Block Size)	85.107	76.334	126.530	98.982	78.605	77.311	80.726	81.973	80.798	80.761	81.413	90.050	96.321	95.039	88.237	87.872	77.177	77.575	84.890	78.003	80.679	80.501	82.044	87.029	79.456	80.931	77.732	116.063	84.568	127.931	87.344
2 ²⁴ (512 Block Size)	72.780	71.322	76.148	93.488	111.224	77.296	93.002	124.003	117.306	72.611	71.762	84.911	73.036	72.804	74.018	87.716	76.466	75.043	76.109	72.808	81.902	77.232	78.972	78.446	81.668	74.342	71.354	71.074	72.714	77.365	80.780
2 ²⁴ (1024Block Size)	73.820	74.334	74.028	79.591	99.123	83.624	74.322	74.667	73.771	76.015	75.856	73.274	74.826	78.183	80.856	73.608	69.991	81.542	78.870	79.905	73.421	83.210	72.478	67.812	73.242	62.664	69.883	73.073	63.943	73.242	75.651