

## HOST COS MEASURES

COS SEQ					
M	10	50	250	1250	2500
N					
28 672	1.42962	5.24731	39.49770	204.43090	372.51854
57 344	5.42697	41.52872	184.66790	790.02527	1421.74909
114 688	40.5216	149.37387	643.30954	2819.69727	5685.85363
229 376	143.2768	562.03045	2369.76090	10826.79363	21295.05454
458 752	502.98609	2087.83272	8452.83545	41896.09090	82783.78181

COS PAR					
M	10	50	250	1250	2500
N					
28 672	145.91409	140.22872	160.72836	245.20127	381.82054
57 344	285.54890	266.67154	293.17236	510.10572	772.11127
114 688	608.74290	587.31918	620.26945	1081.54363	1671.5
229 376	1332.57545	1358.62727	1348.86	2266.62181	3430.73
458 752	3322.73545	3399.93545	3340.84818	4839.05909	7337.23545

COS SPEEDUP					
M	10	50	250	1250	2500
N					
28 672	0.00979	0.03741	0.24574	0.83372	0.97563
57 344	0.01900	0.15572	0.62989	1.54874	1.841378
114 688	0.06656	0.25433	1.03714	2.60710	3.401647
229 376	0.10751	0.41367	1.75686	4.77662	6.207149
458 752	0.15137	0.61408	2.53014	8.65790	11.282693

## DEVICE COS MEASURES (EVENTS)

- *FUTURE*

FUTURE EVENT LOW PAR					
M	10	50	250	1250	2500
N					
28 672	2.88919	13.13288	59.02628	283.72436	555.045
57 344	13.50842	47.67262	225.08827	1110.80727	2215.54
114 688	46.13869	193.93863	896.76772	4437.920909	8859.974545
229 376	183.02172	748.69681	3578.92272	17748.91818	35438.08181
458 752	704.095909	2969.74636	14300.50909	70937.76363	141745

FUTURE EVENT AVG					
M	10	50	250	1250	2500
N					
28 672	0.22116	0.24952	0.31498	0.69834	1.17096
57 344	0.60561	0.69615	0.98471	2.56750	4.51806
114 688	1.95782	2.26894	3.43592	9.52854	17.36458
229 376	6.93717	7.72374	12.99608	37.26713	67.94385
458 752	22.14060	26.05277	47.02205	152.32782	268.14327

FUTURE EVENT SPEEDUP					
M	10	50	250	1250	2500
N					
28 672	13.06394	52.63228	187.39584	406.28294	474.00851
57 344	22.30554	68.48027	228.58251	432.64097	490.37458
114 688	23.56635	85.47547	260.99778	465.75049	510.23253
229 376	26.38278	96.93450	275.38475	476.26204	521.57898
458 752	31.80112	113.98965	304.12344	465.69146	528.61666

- **STREAM**

STREAM EVENT LOW PAR					
M	10	50	250	1250	2500
N					
28 672	2.89218	13.89562	58.63923	287.41536	554.10082
57 344	11.18228	46.66872	224.11655	1109.02364	2215.19273
114 688	48.79428	188.47200	896.48764	4435.31818	8861.67091
229 376	186.58818	746.47936	3577.88818	17735.94545	35439.30909
458 752	710.51773	2969.10909	14295.61818	70927.22727	141721.72727

STREAM EVENT AVG					
M	10	50	250	1250	2500
N					
28 672	0.28720	0.29948	0.36127	0.76496	1.21707
57 344	0.71034	0.76955	1.09421	2.63958	4.57634
114 688	2.07331	2.30278	3.50759	9.63369	17.21776
229 376	6.52679	7.59280	12.62022	36.83553	66.97081
458 752	19.15718	23.58443	44.16785	146.66964	263.91818

STREAM EVENT SPEEDUP					
M	10	50	250	1250	2500
N					
28 672	1.58735	1.61786	1.87516	2.94565	4.13535
57 344	1.60025	1.87442	2.49763	6.38142	11.11277
114 688	1.60019	2.22902	5.14847	19.10347	35.38715
229 376	1.87489	3.67810	12.52846	54.05047	96.80833
458 752	2.01725	6.10654	25.59165	105.53947	176.05989

- MANAGED

MANAGED EVENT LOW PAR					
M	10	50	250	1250	2500
N					
28 672	14.17135	23.08527	67.34249	288.56618	565.11545
57 344	22.44026	57.82284	234.85109	1120.01455	2226.27727
114 688	56.08245	197.41445	905.79809	4445.64182	8870.54636
229 376	186.80355	753.50227	3585.94364	17745.59091	35444.78182
458 752	706.74009	2972.69545	14301.13636	70936.98182	141734.00000

MANAGED EVENT AVG					
M	10	50	250	1250	2500
N					
28 672	21.53920	21.54593	21.62365	21.99027	22.46911
57 344	22.96191	23.01155	23.31264	24.55690	26.50095
114 688	26.20254	26.42461	27.04125	32.20898	39.84345
229 376	35.10842	35.59195	38.21733	60.33380	90.43180
458 752	39.38775	43.31163	63.39972	166.65418	278.85100

MANAGED EVENT SPEEDUP					
M	10	50	250	1250	2500
N					
28 672	0.65793	1.07144	3.11430	13.12245	25.15077
57 344	0.97728	2.51278	10.07398	45.60895	84.00744
114 688	2.14034	7.47086	33.49691	138.02491	222.63497
229 376	5.32076	21.17058	93.83031	294.12354	391.95042
458 752	17.94315	68.63504	225.57098	425.65378	508.27861

## HOST MAT MUL MEASURES

- *MAT MUL*

MAT MUL SEQ					
NUM MATS					
DIM MAT	8	16	32	64	128
16	0.16119	0.28432	0.54925	1.08268	2.20288
32	0.71856	1.41086	2.79820	5.62285	14.65805
64	4.77986	9.51347	32.80788	66.20909	129.79149
128	71.78706	120.34089	245.35564	492.20209	908.09327
256	460.15991	884.65909	1623.61364	3062.36455	6010.33545

MAT MUL PAR					
NUM MATS					
DIM MAT	8	16	32	64	128
16	130.76066	188.96655	251.63509	283.95245	303.14555
32	134.27618	214.65909	254.05582	272.24545	301.58282
64	134.77091	203.31955	240.35255	277.47882	305.67909
128	129.96212	235.82400	274.05109	313.68827	342.35709
256	351.43582	470.95191	503.00127	576.89073	660.33309

MAT MUL SPEEDUP					
NUM MATS					
DIM MAT	8	16	32	64	128
16	0.00123	0.00150	0.00218	0.00381	0.00727
32	0.00535	0.00657	0.01101	0.02065	0.04860
64	0.03547	0.04679	0.13650	0.23861	0.42460
128	0.55237	0.51030	0.89529	1.56908	2.65247
256	1.30937	1.87845	3.22785	5.30840	9.10198

- *LOT MAT MUL*

LOT MAT MUL SEQ					
NUM MATS					
DIM MAT	64	128	256	512	1024
32	18629.91818	40689.03636	86095.30909	173830.11818	348620.36364
16	2699.95818	5392.37455	10614.88364	21642.18182	38807.90909
8	373.52391	651.92655	1273.57700	2449.19000	4899.30091
4	47.64611	106.05426	198.61982	323.07582	715.45882
2	6.23999	10.86164	28.16296	56.79772	116.23509

LOT MAT MUL PAR					
NUM MATS					
DIM MAT	64	128	256	512	1024
32	2568.68364	4464.43091	5795.81818	8263.94636	12664.12727
16	425.29800	819.55182	1070.61455	1538.54273	2295.31455
8	159.97927	392.15691	461.71727	601.87973	893.40945
4	140.95445	329.43009	394.85455	430.34827	565.73427
2	126.85764	325.64782	349.98455	389.04345	503.09100

LOT MAT MUL SPEEDUP					
NUM MATS					
DIM MAT	64	128	256	512	1024
32	7.25271	9.11405	14.85473	21.03476	27.52818
16	6.34839	6.57966	9.91476	14.06668	16.90745
8	2.33483	1.66241	2.75835	4.06923	5.48382
4	0.33802	0.32193	0.50302	0.75073	1.26466
2	0.04919	0.03335	0.08047	0.14599	0.23104

## **DEVICE MAT MUL MEASURES**

- *MAT MUL*

<b>MAT MUL EVENT LOW PAR</b>					
NUM MATS	<b>8</b>	<b>16</b>	<b>32</b>	<b>64</b>	<b>128</b>
DIM MAT					
<b>16</b>	34.09323	55.71480	88.39822	161.63945	296.67827
<b>32</b>	41.08875	67.00769	114.36591	219.93045	425.26518
<b>64</b>	48.38231	84.90964	164.00718	326.39327	550.48927
<b>128</b>	132.11245	215.93664	431.48509	866.65009	1615.14545
<b>256</b>	640.70018	1174.75955	2332.70636	4622.23364	9052.01000

<b>MAT MUL EVENT AVG</b>					
NUM MATS	<b>8</b>	<b>16</b>	<b>32</b>	<b>64</b>	<b>128</b>
DIM MAT					
<b>16</b>	21.90124	22.43131	24.22967	26.98019	34.58660
<b>32</b>	41.37197	64.20848	112.31373	208.97655	403.74773
<b>64</b>	37.31978	69.89083	114.54495	215.68300	356.22955
<b>128</b>	61.88770	111.18886	209.39491	363.58836	676.44455
<b>256</b>	138.53309	260.28373	514.36773	929.48482	1732.65182

<b>MAT MUL EVENT SPEEDUP</b>					
NUM MATS	<b>8</b>	<b>16</b>	<b>32</b>	<b>64</b>	<b>128</b>
DIM MAT					
<b>16</b>	1.55668	2.48380	3.64835	5.99104	8.57784
<b>32</b>	0.99315	1.04360	1.01827	1.05242	1.05329
<b>64</b>	1.29643	1.21489	1.43182	1.51330	1.54532
<b>128</b>	2.13471	1.94207	2.06063	2.38360	2.38770
<b>256</b>	4.62489	4.51338	4.53509	4.97290	5.22437

- *SMALL MAT MUL*

SMALL MM EVENT LOW PAR					
NUM MATS	8	16	32	64	128
DIM MAT					
16	33.18583	67.70766	132.88927	260.74582	508.45218
32	16.65039	31.08955	67.76125	130.31536	265.89591
64	14.46459	29.25565	56.81969	115.28264	227.00982
128	13.32134	27.26438	54.86896	109.10127	221.77655
256	13.70870	27.17932	54.61514	107.47555	218.02764

SMALL MM EVENT AVG					
NUM MATS	8	16	32	64	128
DIM MAT					
16	23.09025	43.91857	97.92708	189.10000	420.15391
32	14.78253	30.65296	60.03662	128.60427	260.85745
64	10.92620	29.96420	60.96771	121.35499	272.68873
128	12.87352	32.73701	48.38893	131.10194	248.37318
256	15.11396	26.00104	61.98962	131.34325	220.78191

SMALL MM EVENT SPEEDUP					
NUM MATS	8	16	32	64	128
DIM MAT					
16	2.85110	2.70605	1.41453	2.90098	2.24009
32	0.58944	1.10326	0.70903	0.75744	0.74236
64	0.78091	0.51494	0.57305	0.46954	0.59027
128	0.56475	0.33807	0.33862	0.44562	0.35667
256	0.14760	0.17316	0.18115	0.14679	0.15271



- *LOT SMALL MAT MUL*

LOT SMALL MM EVENT LOW PAR					
NUM MATS	64	128	256	512	1024
DIM MAT					
32	33.18583	67.70766	132.88927	260.74582	508.45218
16	16.65039	31.08955	67.76125	130.31536	265.89591
8	14.46459	29.25565	56.81969	115.28264	227.00982
4	13.32134	27.26438	54.86896	109.10127	221.77655
2	13.70870	27.17932	54.61514	107.47555	218.02764

LOT SMALL MM EVENT AVG					
NUM MATS	64	128	256	512	1024
DIM MAT					
32	23.09025	43.91857	97.92708	189.10000	420.15391
16	14.78253	30.65296	60.03662	128.60427	260.85745
8	10.92620	29.96420	60.96771	121.35499	272.68873
4	12.87352	32.73701	48.38893	131.10194	248.37318
2	15.11396	26.00104	61.98962	131.34325	220.78191

LOT SMALL MM EVENT SPEEDUP					
NUM MATS	64	128	256	512	1024
DIM MAT					
32	1.43722	1.54166	1.35702	1.37888	1.21016
16	1.12636	1.01424	1.12867	1.01331	1.01931
8	1.32384	0.97635	0.93196	0.94996	0.83249
4	1.03479	0.83283	1.13392	0.83219	0.89292
2	0.90702	1.04532	0.88104	0.81828	0.98752