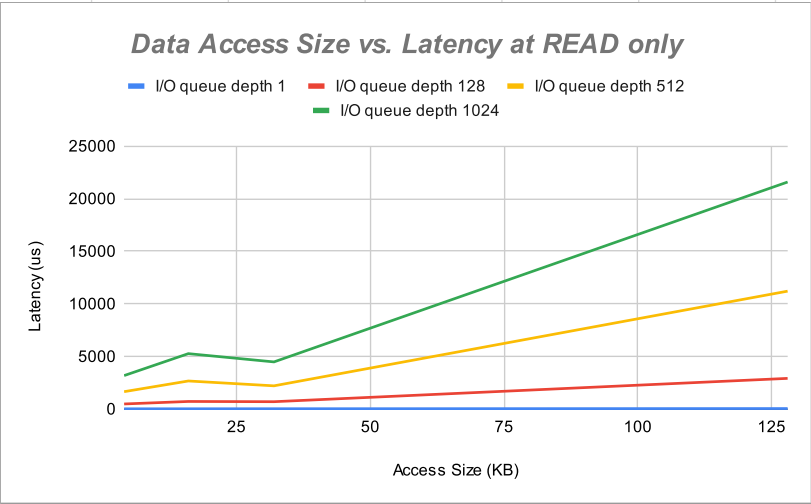
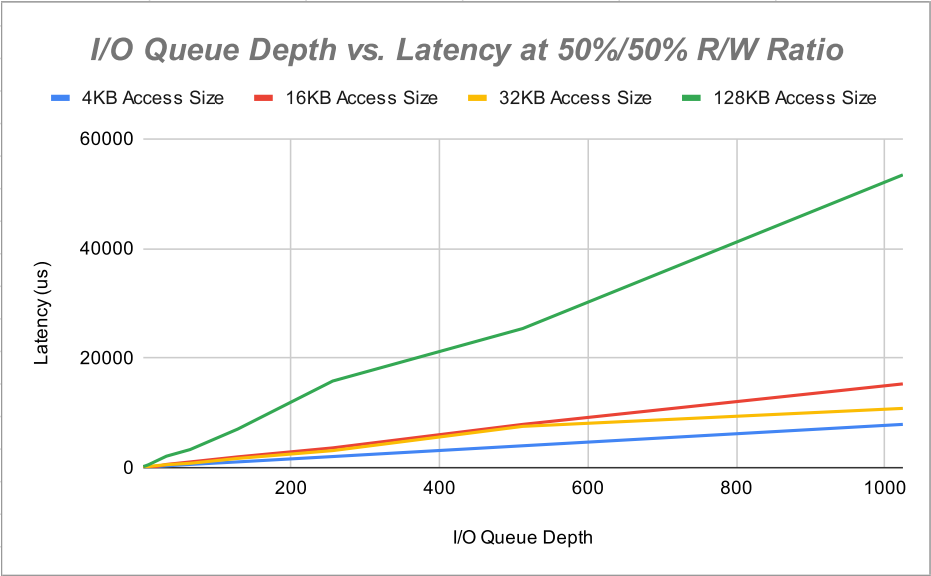


| Data Access Size = 4KB | | | | | Data Access Size = 16KB | | | | | Data Access Size = 32KB | | | | | Data Access Size = 128KB | | | | |
|------------------------|-----------------------------|------------------------------|-----------|------------|-------------------------|-----------------------------|------------------------------|-----------|------------|-------------------------|-----------------------------|------------------------------|-----------|------------|--------------------------|-----------------------------|------------------------------|-----------|------------|
| Bandwidth | | | | Latency | Bandwidth | | | | Latency | Bandwidth | | | | Latency | Bandwidth | | | | Latency |
| I/O queue depth | Small Access Size: IOPS (k) | Big Access Size: IOPS (MB/s) | Time (us) | R:W Ratio | I/O queue depth | Small Access Size: IOPS (k) | Big Access Size: IOPS (MB/s) | Time (us) | R:W Ratio | I/O queue depth | Small Access Size: IOPS (k) | Big Access Size: IOPS (MB/s) | Time (us) | R:W Ratio | I/O queue depth | Small Access Size: IOPS (k) | Big Access Size: IOPS (MB/s) | Time (us) | R:W Ratio |
| 1 | 32.9 | 135 | 29.61 | Read Only | 1 | 30.1 | 494 | 31.4 | Read Only | 1 | 26 | 853 | 35.75 | Read Only | 1 | 16 | 2101 | 53.25 | Read Only |
| 2 | 67.2 | 275 | 26.81 | | 2 | 34.3 | 562 | 52.49 | | 2 | 55 | 1802 | 34.49 | | 2 | 21.5 | 2818 | 90.85 | |
| 4 | 108 | 441 | 31.21 | | 4 | 92.3 | 1512 | 37.61 | | 4 | 77.1 | 2526 | 45.87 | | 4 | 23.2 | 3042 | 167.24 | |
| 8 | 133 | 543 | 47.35 | | 8 | 107 | 1746 | 57.65 | | 8 | 83.8 | 2746 | 80.65 | | 8 | 25.7 | 3366 | 306.12 | |
| 16 | 113 | 461 | 122.16 | | 16 | 69.9 | 1145 | 174.81 | | 16 | 62.5 | 2049 | 243.76 | | 16 | 38.5 | 5041 | 391.85 | |
| 32 | 150 | 613 | 194.88 | | 32 | 91.4 | 1498 | 269.21 | | 32 | 97.5 | 3196 | 303.72 | | 32 | 41 | 5369 | 733.12 | |
| 64 | 164 | 670 | 301.75 | | 64 | 95.5 | 1565 | 424.87 | | 64 | 117 | 3849 | 429.1 | | 64 | 41.6 | 5450 | 1449.65 | |
| 128 | 165 | 678 | 489.71 | | 128 | 99.4 | 1629 | 727.28 | | 128 | 120 | 3919 | 704.81 | | 128 | 41.2 | 5396 | 2922.12 | |
| 256 | 164 | 672 | 886.81 | | 256 | 95.8 | 1570 | 1397.15 | | 256 | 127 | 4162 | 1192.87 | | 256 | 41.4 | 5423 | 5783.33 | |
| 512 | 163 | 668 | 1658.8 | | 512 | 97.5 | 1598 | 2674.59 | | 512 | 121 | 3962 | 2213.53 | | 512 | 40.4 | 5289 | 11214.87 | |
| 1024 | 165 | 674 | 3188.57 | | 1024 | 93.8 | 1536 | 5274.47 | | 1024 | 117 | 3835 | 4487.22 | | 1024 | 39.8 | 5212 | 21590.73 | |
| 1 | 32.8 | 134 | 29.92 | Write only | 1 | 15.4 | 253 | 63.62 | Write only | 1 | 23.3 | 762 | 42.39 | Write only | 1 | 15.7 | 2057 | 63.05 | Write only |
| 2 | 78.6 | 322 | 24.63 | | 2 | 38.7 | 633 | 48.48 | | 2 | 50 | 1637 | 38.59 | | 2 | 29.3 | 3835 | 66.55 | |
| 4 | 96.1 | 394 | 35.37 | | 4 | 44.2 | 725 | 74.37 | | 4 | 67.6 | 2214 | 48.79 | | 4 | 31 | 4067 | 123.27 | |
| 8 | 106 | 435 | 52.56 | | 8 | 48.4 | 792 | 110.8 | | 8 | 69.1 | 2265 | 82.6 | | 8 | 31.8 | 4162 | 248.18 | |
| 16 | 115 | 473 | 91.45 | | 16 | 49.7 | 815 | 189.52 | | 16 | 67.8 | 2223 | 146.08 | | 16 | 32.1 | 4211 | 491.88 | |
| 32 | 124 | 507 | 156.39 | | 32 | 50.1 | 820 | 356.5 | | 32 | 68 | 2228 | 279.86 | | 32 | 30.5 | 3992 | 1044.63 | |
| 64 | 115 | 469 | 309.26 | | 64 | 53.5 | 877 | 635.83 | | 64 | 67.8 | 2223 | 547.59 | | 64 | 29 | 3808 | 2114.59 | |
| 128 | 122 | 499 | 556.68 | | 128 | 54.9 | 900 | 1199.64 | | 128 | 72 | 2360 | 990.55 | | 128 | 28.4 | 3728 | 4329.61 | |
| 256 | 125 | 513 | 1064.18 | | 256 | 53 | 868 | 2635.3 | | 256 | 75 | 2457 | 1922.29 | | 256 | 32.4 | 4244 | 7494.76 | |
| 512 | 111 | 455 | 2306.22 | | 512 | 57.3 | 939 | 4376.75 | | 512 | 75 | 2457 | 3541.57 | | 512 | 30.7 | 4022 | 15886.49 | |
| 1024 | 121 | 494 | 4375.29 | | 1024 | 59 | 966 | 8622.4 | | 1024 | 72.5 | 2376 | 7067.63 | | 1024 | 29.6 | 3876 | 33190 | |
| 1 | 20.6 | 84.4 | 95.05 | 50%:50% | 1 | 8.883 | 145.6 | 217.04 | 50%:50% | 1 | 12.834 | 420 | 150.1 | 50%:50% | 1 | 9.308 | 1220 | 196.45 | 50%:50% |
| 2 | 35.2 | 143.9 | 111.09 | | 2 | 22 | 361 | 171.61 | | 2 | 25 | 818 | 157.4 | | 2 | 15.968 | 2093 | 247.03 | |
| 4 | 66 | 270 | 113.2 | | 4 | 42.8 | 701 | 167.67 | | 4 | 42.8 | 1404 | 180.28 | | 4 | 23.3 | 3050 | 334.15 | |
| 8 | 99.1 | 406 | 142.65 | | 8 | 61.9 | 1013 | 209.6 | | 8 | 69.4 | 2275 | 212.36 | | 8 | 29.5 | 3863 | 536.73 | |
| 16 | 128.2 | 525 | 197.53 | | 16 | 66.7 | 1093 | 133.98 | | 16 | 79.4 | 2599 | 333.1 | | 16 | 29.3 | 3835 | 1053.54 | |
| 32 | 132.5 | 542 | 324.46 | | 32 | 65.9 | 1081 | 578.98 | | 32 | 87.6 | 2871 | 532.81 | | 32 | 29.5 | 3863 | 2083.91 | |
| 64 | 126.8 | 520 | 580.7 | | 64 | 67.9 | 1111 | 1036.81 | | 64 | 97.8 | 3205 | 788 | | 64 | 36.9 | 4836 | 3297.03 | |
| 128 | 135.5 | 555 | 1043.05 | | 128 | 69.8 | 1143 | 1960.63 | | 128 | 91.8 | 3007 | 1673.5 | | 128 | 34.6 | 4531 | 7025.95 | |
| 256 | 134.8 | 552 | 2019.82 | | 256 | 71.3 | 1169 | 3598.97 | | 256 | 93.4 | 3069 | 3101.96 | | 256 | 30.8 | 4037 | 15793.16 | |
| 512 | 131.4 | 538 | 3984.27 | | 512 | 66.8 | 1095 | 7886.59 | | 512 | 86.2 | 2825 | 7525.93 | | 512 | 38 | 4971 | 25374.14 | |
| 1024 | 133.2 | 546 | 7888.35 | | 1024 | 69.9 | 1146 | 15273.65 | | 1024 | 98.1 | 3215 | 10804.91 | | 1024 | 35.6 | 4668 | 53406.77 | |
| 1 | 72.5 | 297.2 | 27.62 | 70%:30% | 1 | 5.957 | 97.6 | 300.57 | 70%:30% | 1 | 10.556 | 346 | 154.32 | 70%:30% | 1 | 2.455 | 322.3 | 746.47 | 70%:30% |
| 2 | 145.8 | 597 | 27.39 | | 2 | 17.394 | 284.1 | 193.17 | | 2 | 20.56 | 674 | 156.38 | | 2 | 8.265 | 1083 | 409.78 | |
| 4 | 148.8 | 612 | 39.81 | | 4 | 38.8 | 636 | 162.76 | | 4 | 38.1 | 907.54 | 164.71 | | 4 | 15.85 | 2081 | 402.13 | |
| 8 | 155.8 | 638 | 64.33 | | 8 | 64.1 | 1049 | 183.6 | | 8 | 59.9 | 1963 | 203.72 | | 8 | 25.325 | 3314 | 472.79 | |
| 16 | 155.8 | 639 | 114.87 | | 16 | 66.9 | 1096 | 301.58 | | 16 | 90.2 | 2958 | 255.98 | | 16 | 29.935 | 3918 | 746.59 | |
| 32 | 155.6 | 636 | 217.42 | | 32 | 70.4 | 1152 | 512.9 | | 32 | 98.4 | 3225 | 431.41 | | 32 | 27.942 | 3665 | 1614.57 | |
| 64 | 155.9 | 639 | 419.64 | | 64 | 71.9 | 1179 | 968.38 | | 64 | 100.5 | 3293 | 734.19 | | 64 | 34.7 | 4550 | 2656.99 | |
| 128 | 159.9 | 653 | 808.69 | | 128 | 81.3 | 1332 | 1613.42 | | 128 | 85.8 | 3139 | 1481.37 | | 128 | 33.3 | 4365 | 7316.84 | |
| 256 | 160.2 | 658 | 1594.43 | | 256 | 69.4 | 1138 | 3745.25 | | 256 | 98.9 | 3243 | 2649.4 | | 256 | 36 | 4709 | 15285.18 | |
| 512 | 157.1 | 642 | 3235.54 | | 512 | 75 | 1229 | 7115.45 | | 512 | 105.4 | 3453 | 5041.48 | | 512 | 33.4 | 4383 | 29467.04 | |
| 1024 | 152.9 | 626 | 6641.49 | | 1024 | 85.9 | 1407 | 11773.6 | | 1024 | 99.3 | 3153 | 10810.44 | | 1024 | 34.1 | 4474 | 43923.15 | |

| Data Access Size (KB) | I/O queue depth 1 | I/O queue depth 128 | I/O queue depth 512 | I/O queue depth 1024 |
|-----------------------|-------------------|---------------------|---------------------|----------------------|
| 4 | 29.61 | | | |
| 16 | 31.4 | | | |
| 32 | 35.75 | | | |
| 128 | 53.25 | | | |
| | | | | |
| 4 | | 489.71 | | |
| 16 | | 727.28 | | |
| 32 | | 704.81 | | |
| 128 | | 2922.12 | | |
| | | | | |
| 4 | | | 1658.8 | |
| 16 | | | 2674.59 | |
| 32 | | | 2213.53 | |
| 128 | | | 11214.87 | |
| | | | | |
| 4 | | | | 3188.57 |
| 16 | | | | 5274.47 |
| 32 | | | | 4487.22 |
| 128 | | | | 21590.73 |

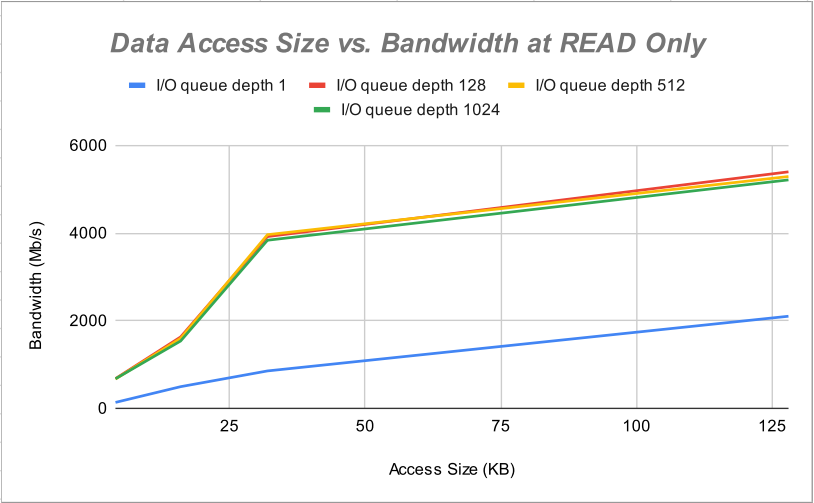


| I/O Queue Depth | 4KB Access Size | 16KB Access Size | 32KB Access Size | 128KB Access Size | | | | | | |
|-----------------|-----------------|------------------|------------------|-------------------|--|--|--|--|--|--|
| 1 | 95.05 | | | | | | | | | |
| 2 | 111.09 | | | | | | | | | |
| 4 | 113.2 | | | | | | | | | |
| 8 | 142.65 | | | | | | | | | |
| 16 | 197.53 | | | | | | | | | |
| 32 | 324.46 | | | | | | | | | |
| 64 | 580.7 | | | | | | | | | |
| 128 | 1043.05 | | | | | | | | | |
| 256 | 2019.82 | | | | | | | | | |
| 512 | 3984.27 | | | | | | | | | |
| 1024 | 7888.35 | | | | | | | | | |
| | | | | | | | | | | |
| 1 | | 217.04 | | | | | | | | |
| 2 | | 171.61 | | | | | | | | |
| 4 | | 167.67 | | | | | | | | |
| 8 | | 209.6 | | | | | | | | |
| 16 | | 133.98 | | | | | | | | |
| 32 | | 578.98 | | | | | | | | |
| 64 | | 1036.81 | | | | | | | | |
| 128 | | 1960.63 | | | | | | | | |
| 256 | | 3598.97 | | | | | | | | |
| 512 | | 7886.59 | | | | | | | | |
| 1024 | | 15273.65 | | | | | | | | |
| | | | | | | | | | | |
| 1 | | | 150.1 | | | | | | | |
| 2 | | | 157.4 | | | | | | | |
| 4 | | | 180.28 | | | | | | | |
| 8 | | | 212.36 | | | | | | | |
| 16 | | | 333.1 | | | | | | | |
| 32 | | | 532.81 | | | | | | | |
| 64 | | | 788 | | | | | | | |
| 128 | | | 1673.5 | | | | | | | |
| 256 | | | 3101.96 | | | | | | | |
| 512 | | | 7525.93 | | | | | | | |
| 1024 | | | 10804.91 | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| 1 | | | | 196.45 | | | | | | |

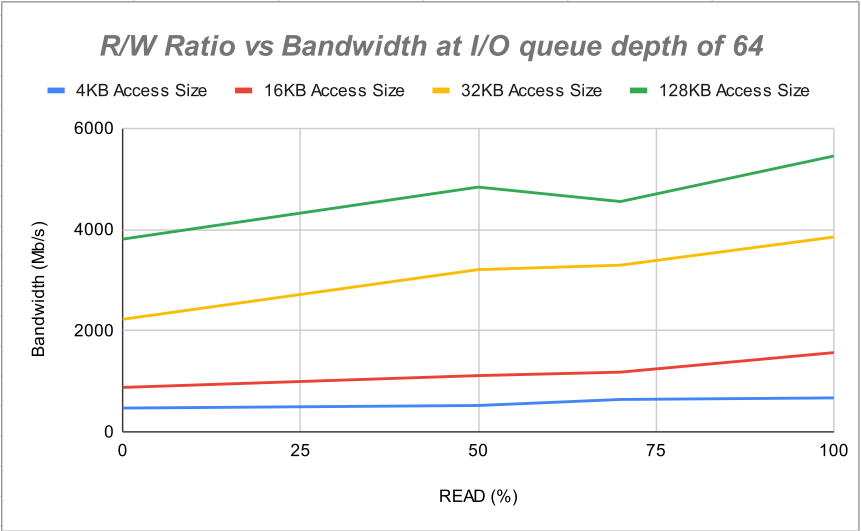


| | | | | | | | | | | |
|------|--|--|--|----------|--|--|--|--|--|--|
| 2 | | | | 247.03 | | | | | | |
| 4 | | | | 334.15 | | | | | | |
| 8 | | | | 536.73 | | | | | | |
| 16 | | | | 1053.54 | | | | | | |
| 32 | | | | 2083.91 | | | | | | |
| 64 | | | | 3297.03 | | | | | | |
| 128 | | | | 7025.95 | | | | | | |
| 256 | | | | 15793.16 | | | | | | |
| 512 | | | | 25374.14 | | | | | | |
| 1024 | | | | 53406.77 | | | | | | |

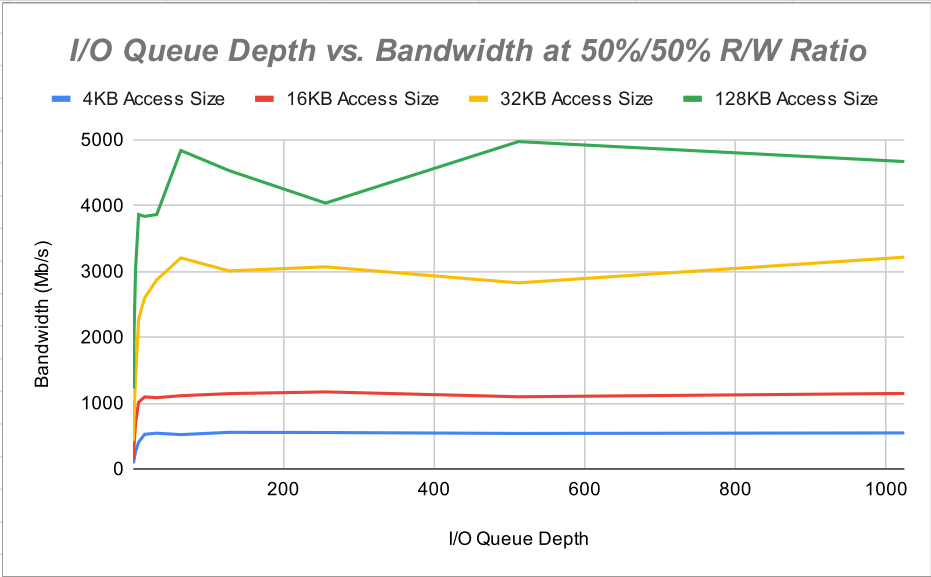
| Data Access Size (KB) | I/O queue depth 1 | I/O queue depth 128 | I/O queue depth 512 | I/O queue depth 1024 |
|-----------------------|-------------------|---------------------|---------------------|----------------------|
| 4 | 135 | | | |
| 16 | 494 | | | |
| 32 | 853 | | | |
| 128 | 2101 | | | |
| | | | | |
| | | | | |
| 4 | | 678 | | |
| 16 | | 1629 | | |
| 32 | | 3919 | | |
| 128 | | 5396 | | |
| | | | | |
| | | | | |
| 4 | | | 668 | |
| 16 | | | 1598 | |
| 32 | | | 3962 | |
| 128 | | | 5289 | |
| | | | | |
| | | | | |
| 4 | | | | 674 |
| 16 | | | | 1536 |
| 32 | | | | 3835 |
| 128 | | | | 5212 |



| Read Ratio (%) | 4KB Access Size | 16KB Access Size | 32KB Access Size | 128KB Access Size |
|----------------|-----------------|------------------|------------------|-------------------|
| 0 | 469 | | | |
| 50 | 520 | | | |
| 70 | 639 | | | |
| 100 | 670 | | | |
| | | | | |
| 0 | | 877 | | |
| 50 | | 1111 | | |
| 70 | | 1179 | | |
| 100 | | 1565 | | |
| | | | | |
| 0 | | | 2223 | |
| 50 | | | 3205 | |
| 70 | | | 3293 | |
| 100 | | | 3849 | |
| | | | | |
| 0 | | | | 3808 |
| 50 | | | | 4836 |
| 70 | | | | 4550 |
| 100 | | | | 5450 |



| I/O Queue Depth | 4KB Access Size | 16KB Access Size | 32KB Access Size | 128KB Access Size |
|-----------------|-----------------|------------------|------------------|-------------------|
| 1 | 84.4 | | | |
| 2 | 143.9 | | | |
| 4 | 270 | | | |
| 8 | 406 | | | |
| 16 | 525 | | | |
| 32 | 542 | | | |
| 64 | 520 | | | |
| 128 | 555 | | | |
| 256 | 552 | | | |
| 512 | 538 | | | |
| 1024 | 546 | | | |
| | | | | |
| 1 | | 145.6 | | |
| 2 | | 361 | | |
| 4 | | 701 | | |
| 8 | | 1013 | | |
| 16 | | 1093 | | |
| 32 | | 1081 | | |
| 64 | | 1111 | | |
| 128 | | 1143 | | |
| 256 | | 1169 | | |
| 512 | | 1095 | | |
| 1024 | | 1146 | | |
| | | | | |
| 1 | | | 420 | |
| 2 | | | 818 | |
| 4 | | | 1404 | |
| 8 | | | 2275 | |
| 16 | | | 2599 | |
| 32 | | | 2871 | |
| 64 | | | 3205 | |
| 128 | | | 3007 | |
| 256 | | | 3069 | |
| 512 | | | 2825 | |
| 1024 | | | 3215 | |
| | | | | |
| | | | | |
| 1 | | | | 1220 |



| | | | | | | | | | | |
|------|--|--|--|------|--|--|--|--|--|--|
| 2 | | | | 2093 | | | | | | |
| 4 | | | | 3050 | | | | | | |
| 8 | | | | 3863 | | | | | | |
| 16 | | | | 3835 | | | | | | |
| 32 | | | | 3863 | | | | | | |
| 64 | | | | 4836 | | | | | | |
| 128 | | | | 4531 | | | | | | |
| 256 | | | | 4037 | | | | | | |
| 512 | | | | 4971 | | | | | | |
| 1024 | | | | 4668 | | | | | | |