# Dell MX840c — Xeon Gold 6148, 16 GB cap, SATA SSD

Duration [ms]

| d | NO | | | PGLZ | | | LZ4 | | | ZSTD | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | w=1 | w=4 | w=8 | w=1 | w=4 | w=8 | w=1 | w=4 | w=8 | w=1 | w=4 | w=8 |
| **1** | 145,981 | 542,919 | 871,697 | 414,711 | 559,104 | 688,363 | 134,469 | 441,745 | 712,439 | 142,425 | 319,125 | 461,540 |
| **10** | 157,407 | 551,573 | 905,409 | 412,083 | 548,715 | 692,731 | 145,479 | 442,637 | 772,181 | 151,062 | 314,924 | 452,505 |
| **100** | 170,523 | 540,725 | 889,023 | 376,698 | 481,024 | 596,093 | 136,743 | 378,038 | 564,792 | 144,250 | 265,659 | 390,450 |
| **1000** | 167,128 | 566,697 | 882,833 | 258,501 | 291,634 | 373,995 | 121,115 | 221,338 | 346,806 | 128,685 | 154,056 | 252,232 |

COMPRESS_BLCKSZ = 32 KB · 100M rows · work_mem = 64 MB · drop-caches between runs

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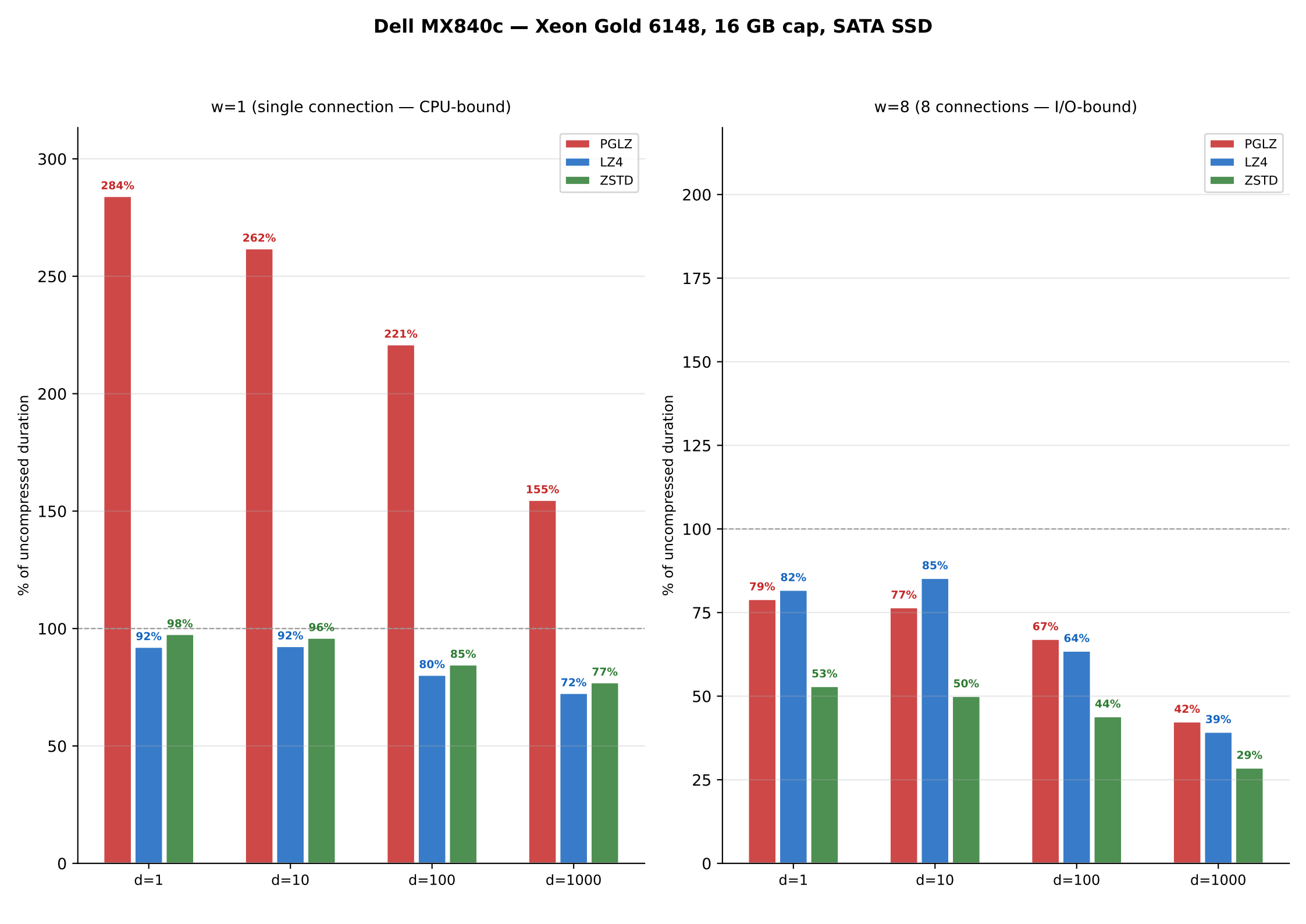
Duration as % of uncompressed (same d, same w) — <100% = faster, >100% = slower

| d | PGLZ | | | LZ4 | | | ZSTD | | |
|---|---|---|---|---|---|---|---|---|---|
| | w=1 | w=4 | w=8 | w=1 | w=4 | w=8 | w=1 | w=4 | w=8 |
| **1** | **284%** | **103%** | **79%** | **92%** | **81%** | **82%** | **98%** | **59%** | **53%** |
| **10** | **262%** | **99%** | **77%** | **92%** | **80%** | **85%** | **96%** | **57%** | **50%** |
| **100** | **221%** | **89%** | **67%** | **80%** | **70%** | **64%** | **85%** | **49%** | **44%** |
| **1000** | **155%** | **51%** | **42%** | **72%** | **39%** | **39%** | **77%** | **27%** | **29%** |

**< 85%** = significant speedup **85–105%** = within noise / neutral **105–115%** = mild regression **> 115%** = significant regression

COMPRESS_BLCKSZ = 32 KB · 100M rows · work_mem = 64 MB · drop-caches between runs


Dell MX840c — Xeon Gold 6148, 16 GB cap, SATA SSD
w=1 (single connection — CPU-bound)
w=8 (8 connections — I/O-bound)
% of uncompressed duration
PGLZ
LZ4
ZSTD
0
50
100
150
200
250
300
284%
92%
98%
262%
92%
96%
221%
80%
85%
155%
72%
77%
0
25
50
75
100
125
150
175
200
79%
82%
53%
77%
85%
50%
67%
64%
44%
42%
39%
29%
d=1
d=10
d=100
d=1000

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## Temp file size per process

Absolute [MB/GB] and compression ratio (w=1)

| d | NO | PGLZ | LZ4 | ZSTD | ratio |
|---|---|---|---|---|---|
| **1** | 11.3G | 8.7G | 8.6G | 5.5G | **49%** |
| **10** | 11.3G | 8.5G | 8.4G | 5.4G | **48%** |
| **100** | 11.3G | 7.0G | 6.9G | 4.5G | **40%** |
| **1000** | 11.3G | 3.5G | 3.7G | 2.5G | **22%** |