

BA_roofline

CPU name: Intel(R) Xeon(R) CPU E5-2699 v3 @ 2.30GHz CPU type: Intel Xeon Haswell EN/EP/EX processor
CPU clock: 2.29 GHz

- Control Group

Result of likwid under roof_latency group for 1s sleep Number of cores used: 18 Run 5 times and calculate the average

- The first take

Event	Counter	Sum	Min	Max	Avg
INSTR_RETIRED_ANY STAT	FIXC0	32500683	0	7121418	1.805594e+06
CPU_CLK_UNHALTED_CORE STAT	FIXC1	51320020	0	10287405	2.851112e+06
CPU_CLK_UNHALTED_REF STAT	FIXC2	96318066	0	19717417	5.351004e+06
CYCLE_ACTIVITY_STALLS_L2_PENDING STAT	PMC0	21207117	0	4574608	1.178173e+06
CYCLE_ACTIVITY_STALLS_LDM_PENDING STAT	PMC1	33797440	0	6435056	1.877636e+06
CYCLE_ACTIVITY_STALLS_TOTAL STAT	PMC2	36304050	0	6863595	2.016892e+06
LLC_LOOKUP_ANY STAT	CBOX0C0	254919	0	254919	14162.1667
LLC_LOOKUP_ANY STAT	CBOX1C0	257773	0	257773	14320.7222
LLC_LOOKUP_ANY STAT	CBOX2C0	237936	0	237936	13218.6667
LLC_LOOKUP_ANY STAT	CBOX3C0	192986	0	192986	10721.4444
LLC_LOOKUP_ANY STAT	CBOX4C0	201781	0	201781	11210.0556
LLC_LOOKUP_ANY STAT	CBOX5C0	203672	0	203672	11315.1111
LLC_LOOKUP_ANY STAT	CBOX6C0	252549	0	252549	14030.5000
LLC_LOOKUP_ANY STAT	CBOX7C0	225818	0	225818	12545.4444
LLC_LOOKUP_ANY STAT	CBOX8C0	257402	0	257402	14300.1111
LLC_LOOKUP_ANY STAT	CBOX9C0	199501	0	199501	11083.3889
LLC_LOOKUP_ANY STAT	CBOX10C0	211184	0	211184	11732.4444
LLC_LOOKUP_ANY STAT	CBOX11C0	208027	0	208027	11557.0556
LLC_LOOKUP_ANY STAT	CBOX12C0	192791	0	192791	10710.6111
LLC_LOOKUP_ANY STAT	CBOX13C0	215107	0	215107	11950.3889
LLC_LOOKUP_ANY STAT	CBOX14C0	212569	0	212569	11809.3889
LLC_LOOKUP_ANY STAT	CBOX15C0	234499	0	234499	13027.7222
LLC_LOOKUP_ANY STAT	CBOX16C0	200775	0	200775	11154.1667
LLC_LOOKUP_ANY STAT	CBOX17C0	205412	0	205412	11411.7778
LLC_LOOKUP_DATA_READ STAT	CBOX0C1	81206	0	81206	4511.4444
LLC_LOOKUP_DATA_READ STAT	CBOX1C1	82473	0	82473	4581.8333
LLC_LOOKUP_DATA_READ STAT	CBOX2C1	69758	0	69758	3875.4444
LLC_LOOKUP_DATA_READ STAT	CBOX3C1	47300	0	47300	2627.7778
LLC_LOOKUP_DATA_READ STAT	CBOX4C1	56540	0	56540	3141.1111
LLC_LOOKUP_DATA_READ STAT	CBOX5C1	59980	0	59980	3332.2222
LLC_LOOKUP_DATA_READ STAT	CBOX6C1	77788	0	77788	4321.5556
LLC_LOOKUP_DATA_READ STAT	CBOX7C1	61198	0	61198	3399.8889
LLC_LOOKUP_DATA_READ STAT	CBOX8C1	80566	0	80566	4475.8889
LLC_LOOKUP_DATA_READ STAT	CBOX9C1	53456	0	53456	2969.7778
LLC_LOOKUP_DATA_READ STAT	CBOX10C1	60078	0	60078	3337.6667
LLC_LOOKUP_DATA_READ STAT	CBOX11C1	58247	0	58247	3235.9444
LLC_LOOKUP_DATA_READ STAT	CBOX12C1	52077	0	52077	2893.1667
LLC_LOOKUP_DATA_READ STAT	CBOX13C1	60089	0	60089	3338.2778
LLC_LOOKUP_DATA_READ STAT	CBOX14C1	56786	0	56786	3154.7778
LLC_LOOKUP_DATA_READ STAT	CBOX15C1	68451	0	68451	3802.8333
LLC_LOOKUP_DATA_READ STAT	CBOX16C1	48301	0	48301	2683.3889
LLC_LOOKUP_DATA_READ STAT	CBOX17C1	51396	0	51396	2855.3333

Metric	Sum	Min	Max	Avg
Time: Runtime (RDtSC) [s] STAT	17.8830	0.9935	0.9935	0.9935
Time: Runtime unhalteD [s] STAT	0.0420	0	0.0086	0.0023
inverseClock STAT	7.844366e-09	4.357981e-10	4.357981e-10	4.357981e-10
Clock [MHz] STAT	18530.1182	1196.9329	1530.8738	1029.4510
Uncore Clock [MHz] STAT	601.3544	0	601.3544	33.4086
Time: Core total stall STAT	0.0296	5.783431e-06	0.0057	0.0016
Time: Core l2 stall STAT	0.0173	2.572917e-06	0.0038	0.0010
Time: Core ldm stall STAT	0.0275	2.212392e-06	0.0054	0.0015
CPI STAT	82.8630	0.9856	32.5074	4.6035
Power PKG [W] STAT	14.8670	0	14.8670	0.8259
Power DRAM [W] STAT	2.0618	0	2.0618	0.1145
Energy PKG [J] STAT	14.7711	0	14.7711	0.8206
Energy DRAM [J] STAT	2.0485	0	2.0485	0.1138
L2M Pending[%] STAT	592.5766	20.1576	49.7546	32.9209
LD Pending[%] STAT	824.2187	28.5801	74.3678	45.7899
LLC Any bandwidth [Bytes/s] STAT	255388200	0	255388200	1.418823e+07
LLC data read bandwidth [Bytes/s] STAT	72511870	0	72511870	4.028437e+06
LLC read bandwidth [Bytes/s] STAT	187827000	0	187827000	1.043483e+07
LLC write bandwidth [Bytes/s] STAT	24326770	0	24326770	1.351487e+06
LLC Any volume [Bytes] STAT	253740864	0	253740864	1.409671e+07
LLC data read volume [Bytes] STAT	72044160	0	72044160	4.002453e+06
LLC read volume [Bytes] STAT	186615488	0	186615488	1.036753e+07
LLC write volume [Bytes] STAT	24169856	0	24169856	1.342770e+06
DRAM read bandwidth [Bytes/s] STAT	19321880	0	19321880	1.073438e+06
DRAM write bandwidth [Bytes/s] STAT	4946272	0	4946272	274792.8889
DRAM read volume [Bytes] STAT	19197248	0	19197248	1.066514e+06
DRAM write volume [Bytes] STAT	4914368	0	4914368	273020.4444
Time: MEM busy STAT	0.0004	0	0.0004	2.222222e-05
Time: L3 busy STAT	0.0005	0	0.0005	2.777778e-05
Ins [] STAT	32500683	0	7121418	1.805594e+06
Cycle [] STAT	51320020	0	10287405	2.851112e+06
Stall_l2M [] STAT	21207117	0	4574608	1.178173e+06
Stall_mem [] STAT	33797440	0	6435056	1.877636e+06
L3_Latency [] STAT	5.3490	0	1.1538	0.2972
DRAM_latency [] STAT	89.7094	0	17.0807	4.9839

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8.592320e+06 || CYCLE_ACTIVITY_STALLS_L2_PENDING STAT | PMC0 | 33547907 | 0 | 4591096 |
1.863773e+06 || CYCLE_ACTIVITY_STALLS_LDM_PENDING STAT | PMC1 | 58800639 | 0 | 7782826 |
3.266702e+06 || CYCLE_ACTIVITY_STALLS_TOTAL STAT | PMC2 | 62950766 | 0 | 8242624 |
3.497265e+06 || LLC_LOOKUP_ANY STAT | CBOX0C0 | 244239 | 0 | 244239 | 13568.8333 ||
LLC_LOOKUP_ANY STAT | CBOX1C0 | 232412 | 0 | 232412 | 12911.7778 || LLC_LOOKUP_ANY STAT |
CBOX2C0 | 282597 | 0 | 282597 | 15699.8333 || LLC_LOOKUP_ANY STAT | CBOX3C0 | 247894 | 0 |
247894 | 13771.8889 || LLC_LOOKUP_ANY STAT | CBOX4C0 | 245431 | 0 | 245431 | 13635.0556 ||
LLC_LOOKUP_ANY STAT | CBOX5C0 | 221222 | 0 | 221222 | 12290.1111 || LLC_LOOKUP_ANY STAT |
CBOX6C0 | 342116 | 0 | 342116 | 19006.4444 || LLC_LOOKUP_ANY STAT | CBOX7C0 | 261060 | 0 |
261060 | 14503.3333 || LLC_LOOKUP_ANY STAT | CBOX8C0 | 262228 | 0 | 262228 | 14568.2222 ||
LLC_LOOKUP_ANY STAT | CBOX9C0 | 273570 | 0 | 273570 | 15198.3333 || LLC_LOOKUP_ANY STAT |
CBOX10C0 | 231627 | 0 | 231627 | 12868.1667 || LLC_LOOKUP_ANY STAT | CBOX11C0 | 236416 | 0 |
236416 | 13134.2222 || LLC_LOOKUP_ANY STAT | CBOX12C0 | 234998 | 0 | 234998 | 13055.4444 ||
LLC_LOOKUP_ANY STAT | CBOX13C0 | 233971 | 0 | 233971 | 12998.3889 || LLC_LOOKUP_ANY STAT |
CBOX14C0 | 253244 | 0 | 253244 | 14069.1111 || LLC_LOOKUP_ANY STAT | CBOX15C0 | 310193 | 0 |
310193 | 17232.9444 || LLC_LOOKUP_ANY STAT | CBOX16C0 | 230307 | 0 | 230307 | 12794.8333 ||
LLC_LOOKUP_ANY STAT | CBOX17C0 | 267147 | 0 | 267147 | 14841.5000 ||
LLC_LOOKUP_DATA_READ STAT | CBOX0C1 | 71928 | 0 | 71928 | 3996 || LLC_LOOKUP_DATA_READ
STAT | CBOX1C1 | 65754 | 0 | 65754 | 3653 || LLC_LOOKUP_DATA_READ STAT | CBOX2C1 | 86831 | 0
| 86831 | 4823.9444 || LLC_LOOKUP_DATA_READ STAT | CBOX3C1 | 69743 | 0 | 69743 | 3874.6111 ||
LLC_LOOKUP_DATA_READ STAT | CBOX4C1 | 75019 | 0 | 75019 | 4167.7222 ||
LLC_LOOKUP_DATA_READ STAT | CBOX5C1 | 65044 | 0 | 65044 | 3613.5556 ||
LLC_LOOKUP_DATA_READ STAT | CBOX6C1 | 115825 | 0 | 115825 | 6434.7222 ||
LLC_LOOKUP_DATA_READ STAT | CBOX7C1 | 73764 | 0 | 73764 | 4098 || LLC_LOOKUP_DATA_READ
STAT | CBOX8C1 | 78664 | 0 | 78664 | 4370.2222 || LLC_LOOKUP_DATA_READ STAT | CBOX9C1 |
86718 | 0 | 86718 | 4817.6667 || LLC_LOOKUP_DATA_READ STAT | CBOX10C1 | 66712 | 0 | 66712 |
3706.2222 || LLC_LOOKUP_DATA_READ STAT | CBOX11C1 | 67275 | 0 | 67275 | 3737.5000 ||
LLC_LOOKUP_DATA_READ STAT | CBOX12C1 | 69522 | 0 | 69522 | 3862.3333 ||
LLC_LOOKUP_DATA_READ STAT | CBOX13C1 | 67040 | 0 | 67040 | 3724.4444 ||
LLC_LOOKUP_DATA_READ STAT | CBOX14C1 | 71203 | 0 | 71203 | 3955.7222 ||
LLC_LOOKUP_DATA_READ STAT | CBOX15C1 | 102792 | 0 | 102792 | 5710.6667 ||
LLC_LOOKUP_DATA_READ STAT | CBOX16C1 | 58793 | 0 | 58793 | 3266.2778 ||
LLC_LOOKUP_DATA_READ STAT | CBOX17C1 | 77953 | 0 | 77953 | 4330.7222 || LLC_LOOKUP_READ
STAT | CBOX0C2 | 185440 | 0 | 185440 | 10302.2222 || LLC_LOOKUP_READ STAT | CBOX1C2 |
167828 | 0 | 167828 | 9323.7778 || LLC_LOOKUP_READ STAT | CBOX2C2 | 208123 | 0 | 208123 |
11562.3889 || LLC_LOOKUP_READ STAT | CBOX3C2 | 182111 | 0 | 182111 | 10117.2778 ||
LLC_LOOKUP_READ STAT | CBOX4C2 | 182080 | 0 | 182080 | 10115.5556 || LLC_LOOKUP_READ
STAT | CBOX5C2 | 165442 | 0 | 165442 | 9191.2222 || LLC_LOOKUP_READ STAT | CBOX6C2 | 255587
| 0 | 255587 | 14199.2778 || LLC_LOOKUP_READ STAT | CBOX7C2 | 196173 | 0 | 196173 | 10898.5000
|| LLC_LOOKUP_READ STAT | CBOX8C2 | 189999 | 0 | 189999 | 10555.5000 || LLC_LOOKUP_READ
STAT | CBOX9C2 | 204681 | 0 | 204681 | 11371.1667 || LLC_LOOKUP_READ STAT | CBOX10C2 |
168587 | 0 | 168587 | 9365.9444 || LLC_LOOKUP_READ STAT | CBOX11C2 | 175654 | 0 | 175654 |
9758.5556 || LLC_LOOKUP_READ STAT | CBOX12C2 | 173090 | 0 | 173090 | 9616.1111 ||
LLC_LOOKUP_READ STAT | CBOX13C2 | 170558 | 0 | 170558 | 9475.4444 || LLC_LOOKUP_READ
STAT | CBOX14C2 | 190344 | 0 | 190344 | 10574.6667 || LLC_LOOKUP_READ STAT | CBOX15C2 |
238551 | 0 | 238551 | 13252.8333 || LLC_LOOKUP_READ STAT | CBOX16C2 | 160782 | 0 | 160782 |

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8932.3333 || LLC_LOOKUP_READ STAT | CBOX17C2 | 189014 | 0 | 189014 | 10500.7778 ||
LLC_LOOKUP_WRITE STAT | CBOX0C3 | 16212 | 0 | 16212 | 900.6667 || LLC_LOOKUP_WRITE STAT |
CBOX1C3 | 17785 | 0 | 17785 | 988.0556 || LLC_LOOKUP_WRITE STAT | CBOX2C3 | 31182 | 0 | 31182 |
1732.3333 || LLC_LOOKUP_WRITE STAT | CBOX3C3 | 23395 | 0 | 23395 | 1299.7222 ||
LLC_LOOKUP_WRITE STAT | CBOX4C3 | 22618 | 0 | 22618 | 1256.5556 || LLC_LOOKUP_WRITE STAT
| CBOX5C3 | 18291 | 0 | 18291 | 1016.1667 || LLC_LOOKUP_WRITE STAT | CBOX6C3 | 33207 | 0 |
33207 | 1844.8333 || LLC_LOOKUP_WRITE STAT | CBOX7C3 | 18609 | 0 | 18609 | 1033.8333 ||
LLC_LOOKUP_WRITE STAT | CBOX8C3 | 24270 | 0 | 24270 | 1348.3333 || LLC_LOOKUP_WRITE STAT
| CBOX9C3 | 29655 | 0 | 29655 | 1647.5000 || LLC_LOOKUP_WRITE STAT | CBOX10C3 | 21369 | 0 |
21369 | 1187.1667 || LLC_LOOKUP_WRITE STAT | CBOX11C3 | 20285 | 0 | 20285 | 1126.9444 ||
LLC_LOOKUP_WRITE STAT | CBOX12C3 | 21303 | 0 | 21303 | 1183.5000 || LLC_LOOKUP_WRITE STAT
| CBOX13C3 | 18870 | 0 | 18870 | 1048.3333 || LLC_LOOKUP_WRITE STAT | CBOX14C3 | 18827 | 0 |
18827 | 1045.9444 || LLC_LOOKUP_WRITE STAT | CBOX15C3 | 23400 | 0 | 23400 | 1300 ||
LLC_LOOKUP_WRITE STAT | CBOX16C3 | 30992 | 0 | 30992 | 1721.7778 || LLC_LOOKUP_WRITE
STAT | CBOX17C3 | 40777 | 0 | 40777 | 2265.3889 || CAS_COUNT_RD STAT | MBOX0C0 | 113528 | 0 |
113528 | 6307.1111 || CAS_COUNT_WR STAT | MBOX0C1 | 28674 | 0 | 28674 | 1593 ||
CAS_COUNT_RD STAT | MBOX1C0 | 123754 | 0 | 123754 | 6875.2222 || CAS_COUNT_WR STAT |
MBOX1C1 | 32855 | 0 | 32855 | 1825.2778 || CAS_COUNT_RD STAT | MBOX4C0 | 93528 | 0 | 93528 |
5196 || CAS_COUNT_WR STAT | MBOX4C1 | 19811 | 0 | 19811 | 1100.6111 || CAS_COUNT_RD STAT |
MBOX5C0 | 123357 | 0 | 123357 | 6853.1667 || CAS_COUNT_WR STAT | MBOX5C1 | 36053 | 0 |
36053 | 2002.9444 || UNCORE_CLOCK STAT | UBOXFIX | 697323148 | 0 | 697323148 |
3.874017e+07 || PWR_PKG_ENERGY STAT | PWR0 | 16.0503 | 0 | 16.0503 | 0.8917 ||
PWR_DRAM_ENERGY STAT | PWR3 | 2.3318 | 0 | 2.3318 | 0.1295 | +-----+
-----+-----+-----+-----+-----+

+-----+-----+-----+-----+-----+ |
Metric | Sum | Min | Max | Avg | +-----+-----+-----+-----+-----+
-----+-----+ | Time: Runtime (RDTSC) [s] STAT | 17.8308 | 0.9906 | 0.9906 | 0.9906 || Time:
Runtime unhalted [s] STAT | 0.0675 | 0 | 0.0101 | 0.0038 || inverseClock STAT | 7.844234e-09 | 4.357908e-
10 | 4.357908e-10 | 4.357908e-10 || Clock [MHz] STAT | 20864.3966 | 1196.9087 | 1571.8162 | 1159.1331 ||
Uncore Clock [MHz] STAT | 703.9413 | 0 | 703.9413 | 39.1078 || Time: Core total stall STAT | 0.0509 |
2.491276e-05 | 0.0067 | 0.0028 || Time: Core l2 stall STAT | 0.0269 | 1.656730e-05 | 0.0037 | 0.0015 ||
Time: Core ldm stall STAT | 0.0474 | 1.873907e-05 | 0.0063 | 0.0026 || CPI STAT | 34.2575 | 1.0331 | 3.7368 |
1.9032 || Power PKG [W] STAT | 16.2026 | 0 | 16.2026 | 0.9001 || Power DRAM [W] STAT | 2.3539 | 0 |
2.3539 | 0.1308 || Energy PKG [J] STAT | 16.0503 | 0 | 16.0503 | 0.8917 || Energy DRAM [J] STAT | 2.3318 | 0
| 2.3318 | 0.1295 || L2M Pending[%] STAT | 653.7438 | 28.6600 | 50.2432 | 36.3191 || LD Pending[%] STAT |
1025.0537 | 32.3121 | 80.7195 | 56.9474 || LLC Any bandwidth [Bytes/s] STAT | 297883600 | 0 | 297883600
| 1.654909e+07 || LLC data read bandwidth [Bytes/s] STAT | 88549620 | 0 | 88549620 | 4.919423e+06 ||
LLC read bandwidth [Bytes/s] STAT | 219926500 | 0 | 219926500 | 1.221814e+07 || LLC write bandwidth
[Bytes/s] STAT | 27848830 | 0 | 27848830 | 1.547157e+06 || LLC Any volume [Bytes] STAT | 295083008 | 0
| 295083008 | 1.639350e+07 || LLC data read volume [Bytes] STAT | 87717120 | 0 | 87717120 |
4.873173e+06 || LLC read volume [Bytes] STAT | 217858816 | 0 | 217858816 | 1.210327e+07 || LLC write
volume [Bytes] STAT | 27587008 | 0 | 27587008 | 1.532612e+06 || DRAM read bandwidth [Bytes/s] STAT |
29342550 | 0 | 29342550 | 1.630142e+06 || DRAM write bandwidth [Bytes/s] STAT | 7584458 | 0 |
7584458 | 421358.7778 || DRAM read volume [Bytes] STAT | 29066688 | 0 | 29066688 | 1614816 || DRAM
write volume [Bytes] STAT | 7513152 | 0 | 7513152 | 417397.3333 || Time: MEM busy STAT | 0.0006 | 0 |
0.0006 | 3.333333e-05 || Time: L3 busy STAT | 0.0006 | 0 | 0.0006 | 3.333333e-05 || Ins [] STAT |
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+-----+ | Event | Counter | Sum | Min | Max | Avg | +-----+
+-----+-----+-----+-----+-----+-----+ INSTR_RETIRED_ANY STAT | FIXC0 |
43648388 | 0 | 6978084 | 2.424910e+06 || CPU_CLK_UNHALTED_CORE STAT | FIXC1 | 76757120 | 0 |
| 10312223 | 4.264284e+06 || CPU_CLK_UNHALTED_REF STAT | FIXC2 | 143396812 | 0 | 19645105 |
7.966490e+06 || CYCLE_ACTIVITY_STALLS_L2_PENDING STAT | PMC0 | 32084348 | 0 | 4030231 |
1.782464e+06 || CYCLE_ACTIVITY_STALLS_LDM_PENDING STAT | PMC1 | 53607427 | 0 | 7184540 |
2.978190e+06 || CYCLE_ACTIVITY_STALLS_TOTAL STAT | PMC2 | 56899724 | 0 | 7501065 |
3.161096e+06 || LLC_LOOKUP_ANY STAT | CBOX0C0 | 276035 | 0 | 276035 | 15335.2778 ||
LLC_LOOKUP_ANY STAT | CBOX1C0 | 221422 | 0 | 221422 | 12301.2222 || LLC_LOOKUP_ANY STAT |
CBOX2C0 | 243674 | 0 | 243674 | 13537.4444 || LLC_LOOKUP_ANY STAT | CBOX3C0 | 222554 | 0 |
222554 | 12364.1111 || LLC_LOOKUP_ANY STAT | CBOX4C0 | 218774 | 0 | 218774 | 12154.1111 ||
LLC_LOOKUP_ANY STAT | CBOX5C0 | 200611 | 0 | 200611 | 11145.0556 || LLC_LOOKUP_ANY STAT |
CBOX6C0 | 275076 | 0 | 275076 | 15282 || LLC_LOOKUP_ANY STAT | CBOX7C0 | 229594 | 0 |
229594 | 12755.2222 || LLC_LOOKUP_ANY STAT | CBOX8C0 | 231131 | 0 | 231131 | 12840.6111 ||
LLC_LOOKUP_ANY STAT | CBOX9C0 | 251435 | 0 | 251435 | 13968.6111 || LLC_LOOKUP_ANY STAT |
CBOX10C0 | 223788 | 0 | 223788 | 12432.6667 || LLC_LOOKUP_ANY STAT | CBOX11C0 | 218411 | 0 |
218411 | 12133.9444 || LLC_LOOKUP_ANY STAT | CBOX12C0 | 220398 | 0 | 220398 | 12244.3333 ||
LLC_LOOKUP_ANY STAT | CBOX13C0 | 224018 | 0 | 224018 | 12445.4444 || LLC_LOOKUP_ANY
STAT | CBOX14C0 | 223246 | 0 | 223246 | 12402.5556 || LLC_LOOKUP_ANY STAT | CBOX15C0 |
304828 | 0 | 304828 | 16934.8889 || LLC_LOOKUP_ANY STAT | CBOX16C0 | 257918 | 0 | 257918 |
14328.7778 || LLC_LOOKUP_ANY STAT | CBOX17C0 | 224346 | 0 | 224346 | 12463.6667 ||
LLC_LOOKUP_DATA_READ STAT | CBOX0C1 | 93227 | 0 | 93227 | 5179.2778 ||
LLC_LOOKUP_DATA_READ STAT | CBOX1C1 | 64677 | 0 | 64677 | 3593.1667 ||
LLC_LOOKUP_DATA_READ STAT | CBOX2C1 | 73264 | 0 | 73264 | 4070.2222 ||
LLC_LOOKUP_DATA_READ STAT | CBOX3C1 | 62583 | 0 | 62583 | 3476.8333 ||
LLC_LOOKUP_DATA_READ STAT | CBOX4C1 | 66478 | 0 | 66478 | 3693.2222 ||
LLC_LOOKUP_DATA_READ STAT | CBOX5C1 | 60081 | 0 | 60081 | 3337.8333 ||
LLC_LOOKUP_DATA_READ STAT | CBOX6C1 | 91186 | 0 | 91186 | 5065.8889 ||
LLC_LOOKUP_DATA_READ STAT | CBOX7C1 | 66464 | 0 | 66464 | 3692.4444 ||
LLC_LOOKUP_DATA_READ STAT | CBOX8C1 | 66959 | 0 | 66959 | 3719.9444 ||
LLC_LOOKUP_DATA_READ STAT | CBOX9C1 | 80739 | 0 | 80739 | 4485.5000 ||
LLC_LOOKUP_DATA_READ STAT | CBOX10C1 | 66411 | 0 | 66411 | 3689.5000 ||
LLC_LOOKUP_DATA_READ STAT | CBOX11C1 | 62038 | 0 | 62038 | 3446.5556 ||
LLC_LOOKUP_DATA_READ STAT | CBOX12C1 | 66869 | 0 | 66869 | 3714.9444 ||
LLC_LOOKUP_DATA_READ STAT | CBOX13C1 | 65354 | 0 | 65354 | 3630.7778 ||
LLC_LOOKUP_DATA_READ STAT | CBOX14C1 | 64347 | 0 | 64347 | 3574.8333 ||
LLC_LOOKUP_DATA_READ STAT | CBOX15C1 | 108019 | 0 | 108019 | 6001.0556 ||
LLC_LOOKUP_DATA_READ STAT | CBOX16C1 | 75156 | 0 | 75156 | 4175.3333 ||
LLC_LOOKUP_DATA_READ STAT | CBOX17C1 | 58858 | 0 | 58858 | 3269.8889 ||
LLC_LOOKUP_READ_STAT | CBOX0C2 | 206564 | 0 | 206564 | 11475.7778 || LLC_LOOKUP_READ
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STAT | CBOX1C2 | 158979 | 0 | 158979 | 8832.1667 || LLC_LOOKUP_READ STAT | CBOX2C2 | 178684
| 0 | 178684 | 9926.8889 || LLC_LOOKUP_READ STAT | CBOX3C2 | 161984 | 0 | 161984 | 8999.1111 ||
LLC_LOOKUP_READ STAT | CBOX4C2 | 159648 | 0 | 159648 | 8869.3333 || LLC_LOOKUP_READ
STAT | CBOX5C2 | 146819 | 0 | 146819 | 8156.6111 || LLC_LOOKUP_READ STAT | CBOX6C2 | 202521 |
0 | 202521 | 11251.1667 || LLC_LOOKUP_READ STAT | CBOX7C2 | 168836 | 0 | 168836 | 9379.7778 ||
LLC_LOOKUP_READ STAT | CBOX8C2 | 165609 | 0 | 165609 | 9200.5000 || LLC_LOOKUP_READ
STAT | CBOX9C2 | 183455 | 0 | 183455 | 10191.9444 || LLC_LOOKUP_READ STAT | CBOX10C2 |
161769 | 0 | 161769 | 8987.1667 || LLC_LOOKUP_READ STAT | CBOX11C2 | 160478 | 0 | 160478 |
8915.4444 || LLC_LOOKUP_READ STAT | CBOX12C2 | 161484 | 0 | 161484 | 8971.3333 ||
LLC_LOOKUP_READ STAT | CBOX13C2 | 159973 | 0 | 159973 | 8887.3889 || LLC_LOOKUP_READ
STAT | CBOX14C2 | 164810 | 0 | 164810 | 9156.1111 || LLC_LOOKUP_READ STAT | CBOX15C2 |
230806 | 0 | 230806 | 12822.5556 || LLC_LOOKUP_READ STAT | CBOX16C2 | 182651 | 0 | 182651 |
10147.2778 || LLC_LOOKUP_READ STAT | CBOX17C2 | 157861 | 0 | 157861 | 8770.0556 ||
LLC_LOOKUP_WRITE STAT | CBOX0C3 | 27177 | 0 | 27177 | 1509.8333 || LLC_LOOKUP_WRITE STAT |
CBOX1C3 | 17673 | 0 | 17673 | 981.8333 || LLC_LOOKUP_WRITE STAT | CBOX2C3 | 25191 | 0 | 25191 |
1399.5000 || LLC_LOOKUP_WRITE STAT | CBOX3C3 | 18582 | 0 | 18582 | 1032.3333 ||
LLC_LOOKUP_WRITE STAT | CBOX4C3 | 19161 | 0 | 19161 | 1064.5000 || LLC_LOOKUP_WRITE STAT |
CBOX5C3 | 16701 | 0 | 16701 | 927.8333 || LLC_LOOKUP_WRITE STAT | CBOX6C3 | 23512 | 0 | 23512 |
1306.2222 || LLC_LOOKUP_WRITE STAT | CBOX7C3 | 17897 | 0 | 17897 | 994.2778 ||
LLC_LOOKUP_WRITE STAT | CBOX8C3 | 19110 | 0 | 19110 | 1061.6667 || LLC_LOOKUP_WRITE STAT |
CBOX9C3 | 28282 | 0 | 28282 | 1571.2222 || LLC_LOOKUP_WRITE STAT | CBOX10C3 | 19281 | 0 |
19281 | 1071.1667 || LLC_LOOKUP_WRITE STAT | CBOX11C3 | 17284 | 0 | 17284 | 960.2222 ||
LLC_LOOKUP_WRITE STAT | CBOX12C3 | 19523 | 0 | 19523 | 1084.6111 || LLC_LOOKUP_WRITE STAT
| CBOX13C3 | 17859 | 0 | 17859 | 992.1667 || LLC_LOOKUP_WRITE STAT | CBOX14C3 | 17552 | 0 |
17552 | 975.1111 || LLC_LOOKUP_WRITE STAT | CBOX15C3 | 27854 | 0 | 27854 | 1547.4444 ||
LLC_LOOKUP_WRITE STAT | CBOX16C3 | 34629 | 0 | 34629 | 1923.8333 || LLC_LOOKUP_WRITE
STAT | CBOX17C3 | 26581 | 0 | 26581 | 1476.7222 || CAS_COUNT_RD STAT | MBOX0C0 | 113159 | 0 |
113159 | 6286.6111 || CAS_COUNT_WR STAT | MBOX0C1 | 22051 | 0 | 22051 | 1225.0556 ||
CAS_COUNT_RD STAT | MBOX1C0 | 121807 | 0 | 121807 | 6767.0556 || CAS_COUNT_WR STAT |
MBOX1C1 | 24275 | 0 | 24275 | 1348.6111 || CAS_COUNT_RD STAT | MBOX4C0 | 91726 | 0 | 91726 |
5095.8889 || CAS_COUNT_WR STAT | MBOX4C1 | 12425 | 0 | 12425 | 690.2778 || CAS_COUNT_RD
STAT | MBOX5C0 | 119804 | 0 | 119804 | 6655.7778 || CAS_COUNT_WR STAT | MBOX5C1 | 28371 | 0 |
28371 | 1576.1667 || UNCORE_CLOCK STAT | UBOXFIX | 640514924 | 0 | 640514924 | 3.558416e+07
|| PWR_PKG_ENERGY STAT | PWR0 | 15.2393 | 0 | 15.2393 | 0.8466 || PWR_DRAM_ENERGY STAT |
PWR3 | 2.2231 | 0 | 2.2231 | 0.1235 | +-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
Metric | Sum | Min | Max | Avg | +-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+ | Time: Runtime (RDTSC) [s] STAT | 17.8578 | 0.9921 | 0.9921 | 0.9921 || Time:
Runtime unhalted [s] STAT | 0.0627 | 0 | 0.0086 | 0.0035 || inverseClock STAT | 7.844238e-09 | 4.357910e-
10 | 4.357910e-10 | 4.357910e-10 || Clock [MHz] STAT | 21691.1543 | 1197.0720 | 1943.0443 | 1205.0641 ||
Uncore Clock [MHz] STAT | 645.6443 | 0 | 645.6443 | 35.8691 || Time: Core total stall STAT | 0.0464 |
1.651947e-05 | 0.0063 | 0.0026 || Time: Core l2 stall STAT | 0.0263 | 9.333608e-06 | 0.0034 | 0.0015 ||
Time: Core ldm stall STAT | 0.0438 | 8.927617e-06 | 0.0060 | 0.0024 || CPI STAT | 39.7990 | 1.1907 |
10.4039 | 2.2111 || Power PKG [W] STAT | 15.3613 | 0 | 15.3613 | 0.8534 || Power DRAM [W] STAT | 2.2409 |
0 | 2.2409 | 0.1245 || Energy PKG [J] STAT | 15.2393 | 0 | 15.2393 | 0.8466 || Energy DRAM [J] STAT |

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2.2231 | 0 | 2.2231 | 0.1235 | | L2M Pending[%] STAT | 660.3110 | 19.4737 | 53.7049 | 36.6839 | | LD
Pending[%] STAT | 1033.7805 | 27.7101 | 78.6166 | 57.4323 | | LLC Any bandwidth [Bytes/s] STAT |
275291600 | 0 | 275291600 | 1.529398e+07 | | LLC data read bandwidth [Bytes/s] STAT | 83395980 | 0 |
83395980 | 4633110 | | LLC read bandwidth [Bytes/s] STAT | 200823000 | 0 | 200823000 | 1.115683e+07 | |
LLC write bandwidth [Bytes/s] STAT | 25408190 | 0 | 25408190 | 1.411566e+06 | | LLC Any volume [Bytes]
STAT | 273104576 | 0 | 273104576 | 1.517248e+07 | | LLC data read volume [Bytes] STAT | 82733440 | 0 |
82733440 | 4.596302e+06 | | LLC read volume [Bytes] STAT | 199227584 | 0 | 199227584 | 1.106820e+07 |
| LLC write volume [Bytes] STAT | 25206336 | 0 | 25206336 | 1400352 | | DRAM read bandwidth [Bytes/s]
STAT | 28804580 | 0 | 28804580 | 1.600254e+06 | | DRAM write bandwidth [Bytes/s] STAT | 5620460 | 0 |
5620460 | 312247.7778 | | DRAM read volume [Bytes] STAT | 28575744 | 0 | 28575744 | 1.587541e+06 | |
DRAM write volume [Bytes] STAT | 5575808 | 0 | 5575808 | 309767.1111 | | Time: MEM busy STAT | 0.0006 |
0 | 0.0006 | 3.333333e-05 | | Time: L3 busy STAT | 0.0006 | 0 | 0.0006 | 3.333333e-05 | | Ins [] STAT |
43648388 | 0 | 6978084 | 2.424910e+06 | | Cycle [] STAT | 76757120 | 0 | 10312223 | 4.264284e+06 | |
Stall_l2m [] STAT | 32084348 | 0 | 4030231 | 1.782464e+06 | | Stall_mem [] STAT | 53607427 | 0 | 7184540
| 2.978190e+06 | | L3_Latency [] STAT | 7.5189 | 0 | 0.9445 | 0.4177 | | DRAM_latency [] STAT | 100.4605 | 0 |
13.4638 | 5.5811 | +-----+-----+-----+-----+-----+-----+-----+-----+-----+
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      +-----+-----+-----+-----+-----+-----+-----+-----+-----+
      +-----+-----+-----+-----+-----+-----+-----+-----+-----+ | INSTR_RETIRED_ANY STAT | FIXC0 |
      55891389 | 272 | 7502343 | 3.105077e+06 | | CPU_CLK_UNHALTED_CORE STAT | FIXC1 | 93791522 |
      8356 | 9632741 | 5.210640e+06 | | CPU_CLK_UNHALTED_REF STAT | FIXC2 | 179362119 | 16031 |
      18462721 | 9.964562e+06 | | CYCLE_ACTIVITY_STALLS_L2_PENDING STAT | PMC0 | 40066161 |
      3427 | 3988391 | 2.225898e+06 | | CYCLE_ACTIVITY_STALLS_LDM_PENDING STAT | PMC1 |
      64410123 | 3173 | 6736900 | 3.578340e+06 | | CYCLE_ACTIVITY_STALLS_TOTAL STAT | PMC2 |
      68461258 | 7240 | 7069600 | 3.803403e+06 | | LLC_LOOKUP_ANY STAT | CBOX0C0 | 239885 | 0 |
      239885 | 13326.9444 | | LLC_LOOKUP_ANY STAT | CBOX1C0 | 250338 | 0 | 250338 | 13907.6667 | |
      LLC_LOOKUP_ANY STAT | CBOX2C0 | 288603 | 0 | 288603 | 16033.5000 | | LLC_LOOKUP_ANY STAT
      | CBOX3C0 | 284729 | 0 | 284729 | 15818.2778 | | LLC_LOOKUP_ANY STAT | CBOX4C0 | 234432 | 0 |
      234432 | 13024 | | LLC_LOOKUP_ANY STAT | CBOX5C0 | 233498 | 0 | 233498 | 12972.1111 | |
      LLC_LOOKUP_ANY STAT | CBOX6C0 | 296270 | 0 | 296270 | 16459.4444 | | LLC_LOOKUP_ANY STAT
      | CBOX7C0 | 287340 | 0 | 287340 | 15963.3333 | | LLC_LOOKUP_ANY STAT | CBOX8C0 | 256020 | 0 |
      256020 | 14223.3333 | | LLC_LOOKUP_ANY STAT | CBOX9C0 | 253044 | 0 | 253044 | 14058 | |
      LLC_LOOKUP_ANY STAT | CBOX10C0 | 244390 | 0 | 244390 | 13577.2222 | | LLC_LOOKUP_ANY
      STAT | CBOX11C0 | 235979 | 0 | 235979 | 13109.9444 | | LLC_LOOKUP_ANY STAT | CBOX12C0 |
      284690 | 0 | 284690 | 15816.1111 | | LLC_LOOKUP_ANY STAT | CBOX13C0 | 244437 | 0 | 244437 |
      13579.8333 | | LLC_LOOKUP_ANY STAT | CBOX14C0 | 318920 | 0 | 318920 | 17717.7778 | |
      LLC_LOOKUP_ANY STAT | CBOX15C0 | 282303 | 0 | 282303 | 15683.5000 | | LLC_LOOKUP_ANY
      STAT | CBOX16C0 | 249230 | 0 | 249230 | 13846.1111 | | LLC_LOOKUP_ANY STAT | CBOX17C0 |
      240598 | 0 | 240598 | 13366.5556 | | LLC_LOOKUP_DATA_READ STAT | CBOX0C1 | 67855 | 0 |
      67855 | 3769.7222 | | LLC_LOOKUP_DATA_READ STAT | CBOX1C1 | 73194 | 0 | 73194 | 4066.3333 | |
      LLC_LOOKUP_DATA_READ STAT | CBOX2C1 | 90391 | 0 | 90391 | 5021.7222 | |
      LLC_LOOKUP_DATA_READ STAT | CBOX3C1 | 87265 | 0 | 87265 | 4848.0556 | |
      LLC_LOOKUP_DATA_READ STAT | CBOX4C1 | 68218 | 0 | 68218 | 3789.8889 | |
      LLC_LOOKUP_DATA_READ STAT | CBOX5C1 | 70883 | 0 | 70883 | 3937.9444 | |
      LLC_LOOKUP_DATA_READ STAT | CBOX6C1 | 94241 | 0 | 94241 | 5235.6111 | |
      
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LLC_LOOKUP_DATA_READ STAT | CBOX7C1 | 86511 | 0 | 86511 | 4806.1667 ||
LLC_LOOKUP_DATA_READ STAT | CBOX8C1 | 73557 | 0 | 73557 | 4086.5000 ||
LLC_LOOKUP_DATA_READ STAT | CBOX9C1 | 73803 | 0 | 73803 | 4100.1667 ||
LLC_LOOKUP_DATA_READ STAT | CBOX10C1 | 71345 | 0 | 71345 | 3963.6111 ||
LLC_LOOKUP_DATA_READ STAT | CBOX11C1 | 65755 | 0 | 65755 | 3653.0556 ||
LLC_LOOKUP_DATA_READ STAT | CBOX12C1 | 91951 | 0 | 91951 | 5108.3889 ||
LLC_LOOKUP_DATA_READ STAT | CBOX13C1 | 70039 | 0 | 70039 | 3891.0556 ||
LLC_LOOKUP_DATA_READ STAT | CBOX14C1 | 103592 | 0 | 103592 | 5755.1111 ||
LLC_LOOKUP_DATA_READ STAT | CBOX15C1 | 88332 | 0 | 88332 | 4907.3333 ||
LLC_LOOKUP_DATA_READ STAT | CBOX16C1 | 65192 | 0 | 65192 | 3621.7778 ||
LLC_LOOKUP_DATA_READ STAT | CBOX17C1 | 61246 | 0 | 61246 | 3402.5556 || LLC_LOOKUP_READ
STAT | CBOX0C2 | 179888 | 0 | 179888 | 9993.7778 || LLC_LOOKUP_READ STAT | CBOX1C2 | 182584
| 0 | 182584 | 10143.5556 || LLC_LOOKUP_READ STAT | CBOX2C2 | 213113 | 0 | 213113 | 11839.6111 ||
LLC_LOOKUP_READ STAT | CBOX3C2 | 207840 | 0 | 207840 | 11546.6667 || LLC_LOOKUP_READ
STAT | CBOX4C2 | 172055 | 0 | 172055 | 9558.6111 || LLC_LOOKUP_READ STAT | CBOX5C2 | 173440
| 0 | 173440 | 9635.5556 || LLC_LOOKUP_READ STAT | CBOX6C2 | 218361 | 0 | 218361 | 12131.1667 |
| LLC_LOOKUP_READ STAT | CBOX7C2 | 214707 | 0 | 214707 | 11928.1667 || LLC_LOOKUP_READ
STAT | CBOX8C2 | 185155 | 0 | 185155 | 10286.3889 || LLC_LOOKUP_READ STAT | CBOX9C2 |
187446 | 0 | 187446 | 10413.6667 || LLC_LOOKUP_READ STAT | CBOX10C2 | 178917 | 0 | 178917 |
9939.8333 || LLC_LOOKUP_READ STAT | CBOX11C2 | 176423 | 0 | 176423 | 9801.2778 ||
LLC_LOOKUP_READ STAT | CBOX12C2 | 210679 | 0 | 210679 | 11704.3889 || LLC_LOOKUP_READ
STAT | CBOX13C2 | 177422 | 0 | 177422 | 9856.7778 || LLC_LOOKUP_READ STAT | CBOX14C2 |
238370 | 0 | 238370 | 13242.7778 || LLC_LOOKUP_READ STAT | CBOX15C2 | 213438 | 0 | 213438 |
11857.6667 || LLC_LOOKUP_READ STAT | CBOX16C2 | 172070 | 0 | 172070 | 9559.4444 ||
LLC_LOOKUP_READ STAT | CBOX17C2 | 166658 | 0 | 166658 | 9258.7778 || LLC_LOOKUP_WRITE
STAT | CBOX0C3 | 13034 | 0 | 13034 | 724.1111 || LLC_LOOKUP_WRITE STAT | CBOX1C3 | 19632 | 0 |
19632 | 1090.6667 || LLC_LOOKUP_WRITE STAT | CBOX2C3 | 31483 | 0 | 31483 | 1749.0556 ||
LLC_LOOKUP_WRITE STAT | CBOX3C3 | 30940 | 0 | 30940 | 1718.8889 || LLC_LOOKUP_WRITE STAT
| CBOX4C3 | 20431 | 0 | 20431 | 1135.0556 || LLC_LOOKUP_WRITE STAT | CBOX5C3 | 19304 | 0 |
19304 | 1072.4444 || LLC_LOOKUP_WRITE STAT | CBOX6C3 | 23581 | 0 | 23581 | 1310.0556 ||
LLC_LOOKUP_WRITE STAT | CBOX7C3 | 23069 | 0 | 23069 | 1281.6111 || LLC_LOOKUP_WRITE STAT |
CBOX8C3 | 19644 | 0 | 19644 | 1091.3333 || LLC_LOOKUP_WRITE STAT | CBOX9C3 | 21773 | 0 |
21773 | 1209.6111 || LLC_LOOKUP_WRITE STAT | CBOX10C3 | 20726 | 0 | 20726 | 1151.4444 ||
LLC_LOOKUP_WRITE STAT | CBOX11C3 | 17962 | 0 | 17962 | 997.8889 || LLC_LOOKUP_WRITE STAT |
CBOX12C3 | 29234 | 0 | 29234 | 1624.1111 || LLC_LOOKUP_WRITE STAT | CBOX13C3 | 18789 | 0 |
18789 | 1043.8333 || LLC_LOOKUP_WRITE STAT | CBOX14C3 | 35891 | 0 | 35891 | 1993.9444 ||
LLC_LOOKUP_WRITE STAT | CBOX15C3 | 17509 | 0 | 17509 | 972.7222 || LLC_LOOKUP_WRITE STAT |
CBOX16C3 | 34308 | 0 | 34308 | 1906 || LLC_LOOKUP_WRITE STAT | CBOX17C3 | 31081 | 0 | 31081 |
1726.7222 || CAS_COUNT_RD STAT | MBOX0C0 | 126514 | 0 | 126514 | 7028.5556 ||
CAS_COUNT_WR STAT | MBOX0C1 | 35229 | 0 | 35229 | 1957.1667 || CAS_COUNT_RD STAT |
MBOX1C0 | 115397 | 0 | 115397 | 6410.9444 || CAS_COUNT_WR STAT | MBOX1C1 | 21239 | 0 | 21239 |
1179.9444 || CAS_COUNT_RD STAT | MBOX4C0 | 107364 | 0 | 107364 | 5964.6667 ||
CAS_COUNT_WR STAT | MBOX4C1 | 26512 | 0 | 26512 | 1472.8889 || CAS_COUNT_RD STAT |
MBOX5C0 | 120834 | 0 | 120834 | 6713 || CAS_COUNT_WR STAT | MBOX5C1 | 26747 | 0 | 26747 |
1485.9444 || UNCORE_CLOCK STAT | UBOXFIX | 542755642 | 0 | 542755642 | 3.015309e+07 ||
PWR_PKG_ENERGY STAT | PWR0 | 13.9830 | 0 | 13.9830 | 0.7768 || PWR_DRAM_ENERGY STAT |


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PWR3 | 1.8250 | 0 | 1.8250 | 0.1014 | +-----+-----+-----+
+-----+-----+-----+ +-----+-----+-----+
-----+-----+-----+ | Metric | Sum | Min | Max | Avg | +-----+
-----+-----+-----+ | Time: Runtime
(RDTSC) [s] STAT | 17.8848 | 0.9936 | 0.9936 | 0.9936 | | Time: Runtime unhalted [s] STAT | 0.0782 |
6.986219e-06 | 0.0080 | 0.0043 | | inverseClock STAT | 7.844297e-09 | 4.357943e-10 | 4.357943e-
10 | 4.357943e-10 | | Clock [MHz] STAT | 22009.7926 | 1196.0691 | 1637.7926 | 1222.7663 | | Uncore
Clock [MHz] STAT | 546.2578 | 0 | 546.2578 | 30.3477 | | Time: Core total stall STAT | 0.0571 |
6.053162e-06 | 0.0059 | 0.0032 | | Time: Core l2 stall STAT | 0.0334 | 2.865219e-06 | 0.0033 | 0.0019
| | Time: Core ldm stall STAT | 0.0537 | 2.652857e-06 | 0.0056 | 0.0030 | | CPI STAT | 66.3575 | 1.2381
| 30.7206 | 3.6865 | | Power PKG [W] STAT | 14.0733 | 0 | 14.0733 | 0.7818 | | Power DRAM [W] STAT |
1.8368 | 0 | 1.8368 | 0.1020 | | Energy PKG [J] STAT | 13.9830 | 0 | 13.9830 | 0.7768 | | Energy DRAM
[J] STAT | 1.8250 | 0 | 1.8250 | 0.1014 | | L2M Pending[%] STAT | 711.1608 | 10.8882 | 48.1544 |
39.5089 | | LD Pending[%] STAT | 1121.1086 | 28.3927 | 75.6539 | 62.2838 | | LLC Any bandwidth
[Bytes/s] STAT | 304332300 | 0 | 304332300 | 16907350 | | LLC data read bandwidth [Bytes/s] STAT
| 90395220 | 0 | 90395220 | 5.021957e+06 | | LLC read bandwidth [Bytes/s] STAT | 223420600 | 0 |
223420600 | 1.241226e+07 | | LLC write bandwidth [Bytes/s] STAT | 27593930 | 0 | 27593930 |
1.532996e+06 | | LLC Any volume [Bytes] STAT | 302381184 | 0 | 302381184 | 1.679895e+07 | | LLC
data read volume [Bytes] STAT | 89815680 | 0 | 89815680 | 4989760 | | LLC read volume [Bytes]
STAT | 221988224 | 0 | 221988224 | 1.233268e+07 | | LLC write volume [Bytes] STAT | 27417024 | 0 |
27417024 | 1523168 | | DRAM read bandwidth [Bytes/s] STAT | 30281110 | 0 | 30281110 |
1.682284e+06 | | DRAM write bandwidth [Bytes/s] STAT | 7067842 | 0 | 7067842 | 392657.8889 | |
DRAM read volume [Bytes] STAT | 30086976 | 0 | 30086976 | 1.671499e+06 | | DRAM write volume
[Bytes] STAT | 7022528 | 0 | 7022528 | 390140.4444 | | Time: MEM busy STAT | 0.0006 | 0 | 0.0006 |
3.333333e-05 | | Time: L3 busy STAT | 0.0006 | 0 | 0.0006 | 3.333333e-05 | | Ins [] STAT | 55891389 |
272 | 7502343 | 3.105077e+06 | | Cycle [] STAT | 93791522 | 8356 | 9632741 | 5.210640e+06 | |
Stall_l2m [] STAT | 40066161 | 3427 | 3988391 | 2.225898e+06 | | Stall_mem [] STAT | 64410123 |
3173 | 6736900 | 3.578340e+06 | | L3_Latency [] STAT | 8.4801 | 0.0007 | 0.8442 | 0.4711 | |
DRAM_latency [] STAT | 111.0832 | 0.0055 | 11.6186 | 6.1713 | +-----+
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+-----+ | Event | Counter | Sum | Min | Max | Avg | +-----+
+-----+-----+-----+-----+-----+ | INSTR_RETIRED_ANY STAT | FIXC0 |
43076772 | 1743 | 5737867 | 2393154 | | CPU_CLK_UNHALTED_CORE STAT | FIXC1 | 94613446 |
13020 | 11385668 | 5.256303e+06 | | CPU_CLK_UNHALTED_REF STAT | FIXC2 | 178842641 | 24955 |
21822400 | 9.935702e+06 | | CYCLE_ACTIVITY_STALLS_L2_PENDING STAT | PMC0 | 41478628 |
4211 | 4871467 | 2.304368e+06 | | CYCLE_ACTIVITY_STALLS_LDM_PENDING STAT | PMC1 |
70652065 | 4375 | 7778690 | 3.925115e+06 | | CYCLE_ACTIVITY_STALLS_TOTAL STAT | PMC2 |
74397608 | 10977 | 8371765 | 4.133200e+06 | | LLC_LOOKUP_ANY STAT | CBOX0C0 | 246147 | 0 |
246147 | 13674.8333 | | LLC_LOOKUP_ANY STAT | CBOX1C0 | 204480 | 0 | 204480 | 11360 | |
LLC_LOOKUP_ANY STAT | CBOX2C0 | 228753 | 0 | 228753 | 12708.5000 | | LLC_LOOKUP_ANY STAT
| CBOX3C0 | 205346 | 0 | 205346 | 11408.1111 | | LLC_LOOKUP_ANY STAT | CBOX4C0 | 200751 | 0 |
200751 | 11152.8333 | | LLC_LOOKUP_ANY STAT | CBOX5C0 | 190093 | 0 | 190093 | 10560.7222 | |
LLC_LOOKUP_ANY STAT | CBOX6C0 | 260877 | 0 | 260877 | 14493.1667 | | LLC_LOOKUP_ANY STAT
| CBOX7C0 | 230964 | 0 | 230964 | 12831.3333 | | LLC_LOOKUP_ANY STAT | CBOX8C0 | 219590 | 0 |
219590 | 12199.4444 | | LLC_LOOKUP_ANY STAT | CBOX9C0 | 207938 | 0 | 207938 | 11552.1111 | |

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LLC_LOOKUP_ANY STAT | CBOX10C0 | 206983 | 0 | 206983 | 11499.0556 || LLC_LOOKUP_ANY
STAT | CBOX11C0 | 196417 | 0 | 196417 | 10912.0556 || LLC_LOOKUP_ANY STAT | CBOX12C0 |
198675 | 0 | 198675 | 11037.5000 || LLC_LOOKUP_ANY STAT | CBOX13C0 | 204747 | 0 | 204747 |
11374.8333 || LLC_LOOKUP_ANY STAT | CBOX14C0 | 215021 | 0 | 215021 | 11945.6111 ||
LLC_LOOKUP_ANY STAT | CBOX15C0 | 286019 | 0 | 286019 | 15889.9444 || LLC_LOOKUP_ANY
STAT | CBOX16C0 | 217092 | 0 | 217092 | 12060.6667 || LLC_LOOKUP_ANY STAT | CBOX17C0 |
211637 | 0 | 211637 | 11757.6111 || LLC_LOOKUP_DATA_READ STAT | CBOX0C1 | 78490 | 0 | 78490 |
4360.5556 || LLC_LOOKUP_DATA_READ STAT | CBOX1C1 | 57711 | 0 | 57711 | 3206.1667 ||
LLC_LOOKUP_DATA_READ STAT | CBOX2C1 | 66072 | 0 | 66072 | 3670.6667 ||
LLC_LOOKUP_DATA_READ STAT | CBOX3C1 | 54262 | 0 | 54262 | 3014.5556 ||
LLC_LOOKUP_DATA_READ STAT | CBOX4C1 | 57955 | 0 | 57955 | 3219.7222 ||
LLC_LOOKUP_DATA_READ STAT | CBOX5C1 | 55122 | 0 | 55122 | 3062.3333 ||
LLC_LOOKUP_DATA_READ STAT | CBOX6C1 | 83138 | 0 | 83138 | 4618.7778 ||
LLC_LOOKUP_DATA_READ STAT | CBOX7C1 | 68078 | 0 | 68078 | 3782.1111 ||
LLC_LOOKUP_DATA_READ STAT | CBOX8C1 | 62408 | 0 | 62408 | 3467.1111 ||
LLC_LOOKUP_DATA_READ STAT | CBOX9C1 | 61941 | 0 | 61941 | 3441.1667 ||
LLC_LOOKUP_DATA_READ STAT | CBOX10C1 | 60039 | 0 | 60039 | 3335.5000 ||
LLC_LOOKUP_DATA_READ STAT | CBOX11C1 | 52373 | 0 | 52373 | 2909.6111 ||
LLC_LOOKUP_DATA_READ STAT | CBOX12C1 | 56520 | 0 | 56520 | 3140 ||
LLC_LOOKUP_DATA_READ STAT | CBOX13C1 | 57814 | 0 | 57814 | 3211.8889 ||
LLC_LOOKUP_DATA_READ STAT | CBOX14C1 | 60531 | 0 | 60531 | 3362.8333 ||
LLC_LOOKUP_DATA_READ STAT | CBOX15C1 | 97981 | 0 | 97981 | 5443.3889 ||
LLC_LOOKUP_DATA_READ STAT | CBOX16C1 | 56272 | 0 | 56272 | 3126.2222 ||
LLC_LOOKUP_DATA_READ STAT | CBOX17C1 | 55527 | 0 | 55527 | 3084.8333 || LLC_LOOKUP_READ
STAT | CBOX0C2 | 179184 | 0 | 179184 | 9954.6667 || LLC_LOOKUP_READ STAT | CBOX1C2 | 143597
| 0 | 143597 | 7977.6111 || LLC_LOOKUP_READ STAT | CBOX2C2 | 161585 | 0 | 161585 | 8976.9444 ||
LLC_LOOKUP_READ STAT | CBOX3C2 | 142557 | 0 | 142557 | 7919.8333 || LLC_LOOKUP_READ STAT
| CBOX4C2 | 143313 | 0 | 143313 | 7961.8333 || LLC_LOOKUP_READ STAT | CBOX5C2 | 136555 | 0 |
136555 | 7586.3889 || LLC_LOOKUP_READ STAT | CBOX6C2 | 188299 | 0 | 188299 | 10461.0556 ||
LLC_LOOKUP_READ STAT | CBOX7C2 | 167516 | 0 | 167516 | 9306.4444 || LLC_LOOKUP_READ STAT
| CBOX8C2 | 152624 | 0 | 152624 | 8479.1111 || LLC_LOOKUP_READ STAT | CBOX9C2 | 150028 | 0 |
150028 | 8334.8889 || LLC_LOOKUP_READ STAT | CBOX10C2 | 146273 | 0 | 146273 | 8126.2778 ||
LLC_LOOKUP_READ STAT | CBOX11C2 | 139764 | 0 | 139764 | 7764.6667 || LLC_LOOKUP_READ
STAT | CBOX12C2 | 140581 | 0 | 140581 | 7810.0556 || LLC_LOOKUP_READ STAT | CBOX13C2 |
143550 | 0 | 143550 | 7975 || LLC_LOOKUP_READ STAT | CBOX14C2 | 154446 | 0 | 154446 |
8580.3333 || LLC_LOOKUP_READ STAT | CBOX15C2 | 212237 | 0 | 212237 | 11790.9444 ||
LLC_LOOKUP_READ STAT | CBOX16C2 | 144880 | 0 | 144880 | 8048.8889 || LLC_LOOKUP_READ
STAT | CBOX17C2 | 145636 | 0 | 145636 | 8090.8889 || LLC_LOOKUP_WRITE STAT | CBOX0C3 |
21787 | 0 | 21787 | 1210.3889 || LLC_LOOKUP_WRITE STAT | CBOX1C3 | 15086 | 0 | 15086 | 838.1111 |
| LLC_LOOKUP_WRITE STAT | CBOX2C3 | 24123 | 0 | 24123 | 1340.1667 || LLC_LOOKUP_WRITE STAT
| CBOX3C3 | 16762 | 0 | 16762 | 931.2222 || LLC_LOOKUP_WRITE STAT | CBOX4C3 | 15877 | 0 |
15877 | 882.0556 || LLC_LOOKUP_WRITE STAT | CBOX5C3 | 14590 | 0 | 14590 | 810.5556 ||
LLC_LOOKUP_WRITE STAT | CBOX6C3 | 21405 | 0 | 21405 | 1189.1667 || LLC_LOOKUP_WRITE STAT |
CBOX7C3 | 18502 | 0 | 18502 | 1027.8889 || LLC_LOOKUP_WRITE STAT | CBOX8C3 | 17231 | 0 | 17231
| 957.2778 || LLC_LOOKUP_WRITE STAT | CBOX9C3 | 18470 | 0 | 18470 | 1026.1111 ||
LLC_LOOKUP_WRITE STAT | CBOX10C3 | 18325 | 0 | 18325 | 1018.0556 || LLC_LOOKUP_WRITE STAT

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| CBOX11C3 | 15264 | 0 | 15264 | 848 || LLC_LOOKUP_WRITE STAT | CBOX12C3 | 16091 | 0 | 16091 |
893.9444 || LLC_LOOKUP_WRITE STAT | CBOX13C3 | 15338 | 0 | 15338 | 852.1111 ||
LLC_LOOKUP_WRITE STAT | CBOX14C3 | 16081 | 0 | 16081 | 893.3889 || LLC_LOOKUP_WRITE STAT |
CBOX15C3 | 25069 | 0 | 25069 | 1392.7222 || LLC_LOOKUP_WRITE STAT | CBOX16C3 | 26859 | 0 |
26859 | 1492.1667 || LLC_LOOKUP_WRITE STAT | CBOX17C3 | 25411 | 0 | 25411 | 1411.7222 ||
CAS_COUNT_RD STAT | MBOX0C0 | 133144 | 0 | 133144 | 7396.8889 || CAS_COUNT_WR STAT |
MBOX0C1 | 38335 | 0 | 38335 | 2129.7222 || CAS_COUNT_RD STAT | MBOX1C0 | 112443 | 0 | 112443
| 6246.8333 || CAS_COUNT_WR STAT | MBOX1C1 | 20142 | 0 | 20142 | 1119 || CAS_COUNT_RD STAT
| MBOX4C0 | 104434 | 0 | 104434 | 5801.8889 || CAS_COUNT_WR STAT | MBOX4C1 | 25545 | 0 |
25545 | 1419.1667 || CAS_COUNT_RD STAT | MBOX5C0 | 120247 | 0 | 120247 | 6680.3889 ||
CAS_COUNT_WR STAT | MBOX5C1 | 26763 | 0 | 26763 | 1486.8333 || UNCORE_CLOCK STAT |
UBOXFIX | 525148648 | 0 | 525148648 | 2.917492e+07 || PWR_PKG_ENERGY STAT | PWR0 |
13.6923 | 0 | 13.6923 | 0.7607 || PWR_DRAM_ENERGY STAT | PWR3 | 1.7842 | 0 | 1.7842 | 0.0991 | +-
-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+
Metric | Sum | Min | Max | Avg | +-----+-----+-----+-----+-----+-----+
-----+-----+-----+ Time: Runtime (RDTSC) [s] STAT | 17.8884 | 0.9938 | 0.9938 | 0.9938 || Time:
Runtime unhalted [s] STAT | 0.0779 | 1.087507e-05 | 0.0095 | 0.0043 || inverseClock STAT | 7.844171e-09 |
4.357873e-10 | 4.357873e-10 | 4.357873e-10 || Clock [MHz] STAT | 21740.0646 | 1197.2028 | 1354.1053 |
1207.7814 || Uncore Clock [MHz] STAT | 528.4099 | 0 | 528.4099 | 29.3561 || Time: Core total stall STAT |
0.0612 | 9.168639e-06 | 0.0070 | 0.0034 || Time: Core l2 stall STAT | 0.0342 | 3.517276e-06 | 0.0039 |
0.0019 || Time: Core ldm stall STAT | 0.0581 | 3.654259e-06 | 0.0063 | 0.0032 || CPI STAT | 45.7314 |
0.9163 | 7.4699 | 2.5406 || Power PKG [W] STAT | 13.7774 | 0 | 13.7774 | 0.7654 || Power DRAM [W] STAT |
1.7953 | 0 | 1.7953 | 0.0997 || Energy PKG [J] STAT | 13.6923 | 0 | 13.6923 | 0.7607 || Energy DRAM [J] STAT
| 1.7842 | 0 | 1.7842 | 0.0991 || L2M Pending[%] STAT | 743.4477 | 29.9070 | 52.4016 | 41.3026 || LD
Pending[%] STAT | 1194.5547 | 33.6022 | 83.5322 | 66.3642 || LLC Any bandwidth [Bytes/s] STAT |
253180500 | 0 | 253180500 | 1.406558e+07 || LLC data read bandwidth [Bytes/s] STAT | 73556950 | 0 |
73556950 | 4.086497e+06 || LLC read bandwidth [Bytes/s] STAT | 179837900 | 0 | 179837900 |
9.990994e+06 || LLC write bandwidth [Bytes/s] STAT | 22041380 | 0 | 22041380 | 1.224521e+06 || LLC
Any volume [Bytes] STAT | 251617920 | 0 | 251617920 | 1.397877e+07 || LLC data read volume [Bytes]
STAT | 73102976 | 0 | 73102976 | 4.061276e+06 || LLC read volume [Bytes] STAT | 178728000 | 0 |
178728000 | 9.929333e+06 || LLC write volume [Bytes] STAT | 21905344 | 0 | 21905344 | 1.216964e+06 ||
DRAM read bandwidth [Bytes/s] STAT | 30284060 | 0 | 30284060 | 1.682448e+06 || DRAM write
bandwidth [Bytes/s] STAT | 7134271 | 0 | 7134271 | 396348.3889 || DRAM read volume [Bytes] STAT |
30097152 | 0 | 30097152 | 1672064 || DRAM write volume [Bytes] STAT | 7090240 | 0 | 7090240 |
393902.2222 || Time: MEM busy STAT | 0.0006 | 0 | 0.0006 | 3.333333e-05 || Time: L3 busy STAT | 0.0005
| 0 | 0.0005 | 2.777778e-05 || Ins [] STAT | 43076772 | 1743 | 5737867 | 2393154 || Cycle [] STAT |
94613446 | 13020 | 11385668 | 5.256303e+06 || Stall_l2m [] STAT | 41478628 | 4211 | 4871467 |
2.304368e+06 || Stall_mem [] STAT | 70652065 | 4375 | 7778690 | 3.925115e+06 || L3_Latency [] STAT |
10.5502 | 0.0011 | 1.2391 | 0.5861 || DRAM_latency [] STAT | 121.5929 | 0.0075 | 13.3872 | 6.7552 | +-----
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- Stream benchmark Result of likwid under roof_latency group using Stream benchmark Number of cores used: 18 Run Stream benchmark 5 times and calculate the average

- The first take

Event	Counter	Sum	Min	Max	Avg
INSTR_RETIRED_ANY STAT	FIXC0	6496000609	69495	6439635040	3.608889e+08
CPU_CLK_UNHALTED_CORE STAT	FIXC1	4268013526	243407	4178508179	2.371119e+08
CPU_CLK_UNHALTED_REF STAT	FIXC2	2882859675	425914	2714844836	1.601589e+08
CYCLE_ACTIVITY_STALLS_L2_PENDING STAT	PMC0	432080244	121218	398391881	24004458
CYCLE_ACTIVITY_STALLS_LDM_PENDING STAT	PMC1	803593429	121305	745276231	4.464408e+07
CYCLE_ACTIVITY_STALLS_TOTAL STAT	PMC2	1149196816	188600	1086663284	6.384427e+07
LLC_LOOKUP_ANY STAT	CB0X0C0	14457771	0	14457771	803209.5000
LLC_LOOKUP_ANY STAT	CB0X1C0	14593861	0	14593861	810770.0556
LLC_LOOKUP_ANY STAT	CB0X2C0	14604915	0	14604915	811384.1667
LLC_LOOKUP_ANY STAT	CB0X3C0	14574571	0	14574571	809698.3889
LLC_LOOKUP_ANY STAT	CB0X4C0	14579725	0	14579725	809984.7222
LLC_LOOKUP_ANY STAT	CB0X5C0	14526817	0	14526817	807045.3889
LLC_LOOKUP_ANY STAT	CB0X6C0	14682670	0	14682670	815703.8889
LLC_LOOKUP_ANY STAT	CB0X7C0	14608053	0	14608053	811558.5000
LLC_LOOKUP_ANY STAT	CB0X8C0	14559403	0	14559403	808855.7222
LLC_LOOKUP_ANY STAT	CB0X9C0	14490579	0	14490579	805032.1667
LLC_LOOKUP_ANY STAT	CB0X10C0	14539181	0	14539181	807732.2778
LLC_LOOKUP_ANY STAT	CB0X11C0	14513367	0	14513367	806298.1667
LLC_LOOKUP_ANY STAT	CB0X12C0	14577499	0	14577499	809861.0556
LLC_LOOKUP_ANY STAT	CB0X13C0	14522360	0	14522360	806797.7778
LLC_LOOKUP_ANY STAT	CB0X14C0	14648739	0	14648739	813818.8333
LLC_LOOKUP_ANY STAT	CB0X15C0	14691752	0	14691752	816208.4444
LLC_LOOKUP_ANY STAT	CB0X16C0	12292896	0	12292896	682938.6667
LLC_LOOKUP_ANY STAT	CB0X17C0	12245080	0	12245080	680282.2222
LLC_LOOKUP_DATA_READ STAT	CB0X0C1	4678885	0	4678885	259938.0556
LLC_LOOKUP_DATA_READ STAT	CB0X1C1	4710120	0	4710120	261673.3333
LLC_LOOKUP_DATA_READ STAT	CB0X2C1	4707907	0	4707907	261550.3889
LLC_LOOKUP_DATA_READ STAT	CB0X3C1	4685337	0	4685337	260296.5000
LLC_LOOKUP_DATA_READ STAT	CB0X4C1	4707989	0	4707989	261554.9444
LLC_LOOKUP_DATA_READ STAT	CB0X5C1	4689421	0	4689421	260523.3889
LLC_LOOKUP_DATA_READ STAT	CB0X6C1	4726629	0	4726629	262590.5000
LLC_LOOKUP_DATA_READ STAT	CB0X7C1	4706002	0	4706002	261444.5556
LLC_LOOKUP_DATA_READ STAT	CB0X8C1	4695318	0	4695318	260851
LLC_LOOKUP_DATA_READ STAT	CB0X9C1	4677437	0	4677437	259857.6111
LLC_LOOKUP_DATA_READ STAT	CB0X10C1	4681286	0	4681286	260071.4444
LLC_LOOKUP_DATA_READ STAT	CB0X11C1	4685677	0	4685677	260315.3889
LLC_LOOKUP_DATA_READ STAT	CB0X12C1	4702675	0	4702675	261259.7222
LLC_LOOKUP_DATA_READ STAT	CB0X13C1	4693692	0	4693692	260760.6667
LLC_LOOKUP_DATA_READ STAT	CB0X14C1	4700187	0	4700187	261121.5000
LLC_LOOKUP_DATA_READ STAT	CB0X15C1	4783309	0	4783309	265739.3889
LLC_LOOKUP_DATA_READ STAT	CB0X16C1	3904206	0	3904206	216900.3333
LLC_LOOKUP_DATA_READ STAT	CB0X17C1	3899439	0	3899439	216635.5000

LLC_LOOKUP_READ	STAT	CBOX0C2	7943850	0	7943850	441325
LLC_LOOKUP_READ	STAT	CBOX1C2	7984866	0	7984866	443603.6667
LLC_LOOKUP_READ	STAT	CBOX2C2	7987857	0	7987857	443769.8333
LLC_LOOKUP_READ	STAT	CBOX3C2	7953486	0	7953486	441860.3333
LLC_LOOKUP_READ	STAT	CBOX4C2	7975029	0	7975029	443057.1667
LLC_LOOKUP_READ	STAT	CBOX5C2	7945973	0	7945973	441442.9444
LLC_LOOKUP_READ	STAT	CBOX6C2	8022289	0	8022289	445682.7222
LLC_LOOKUP_READ	STAT	CBOX7C2	7995613	0	7995613	444200.7222
LLC_LOOKUP_READ	STAT	CBOX8C2	7962164	0	7962164	442342.4444
LLC_LOOKUP_READ	STAT	CBOX9C2	7934209	0	7934209	440789.3889
LLC_LOOKUP_READ	STAT	CBOX10C2	7937776	0	7937776	440987.5556
LLC_LOOKUP_READ	STAT	CBOX11C2	7955604	0	7955604	441978
LLC_LOOKUP_READ	STAT	CBOX12C2	7968825	0	7968825	442712.5000
LLC_LOOKUP_READ	STAT	CBOX13C2	7953645	0	7953645	441869.1667
LLC_LOOKUP_READ	STAT	CBOX14C2	7983543	0	7983543	443530.1667
LLC_LOOKUP_READ	STAT	CBOX15C2	8108901	0	8108901	450494.5000
LLC_LOOKUP_READ	STAT	CBOX16C2	6641457	0	6641457	368969.8333
LLC_LOOKUP_READ	STAT	CBOX17C2	6633085	0	6633085	368504.7222
LLC_LOOKUP_WRITE	STAT	CBOX0C3	3207232	0	3207232	178179.5556
LLC_LOOKUP_WRITE	STAT	CBOX1C3	3284626	0	3284626	182479.2222
LLC_LOOKUP_WRITE	STAT	CBOX2C3	3293255	0	3293255	182958.6111
LLC_LOOKUP_WRITE	STAT	CBOX3C3	3281050	0	3281050	182280.5556
LLC_LOOKUP_WRITE	STAT	CBOX4C3	3287189	0	3287189	182621.6111
LLC_LOOKUP_WRITE	STAT	CBOX5C3	3278845	0	3278845	182158.0556
LLC_LOOKUP_WRITE	STAT	CBOX6C3	3284673	0	3284673	182481.8333
LLC_LOOKUP_WRITE	STAT	CBOX7C3	3284619	0	3284619	182478.8333
LLC_LOOKUP_WRITE	STAT	CBOX8C3	3277734	0	3277734	182096.3333
LLC_LOOKUP_WRITE	STAT	CBOX9C3	3271778	0	3271778	181765.4444
LLC_LOOKUP_WRITE	STAT	CBOX10C3	3276787	0	3276787	182043.7222
LLC_LOOKUP_WRITE	STAT	CBOX11C3	3280252	0	3280252	182236.2222
LLC_LOOKUP_WRITE	STAT	CBOX12C3	3284199	0	3284199	182455.5000
LLC_LOOKUP_WRITE	STAT	CBOX13C3	3276320	0	3276320	182017.7778
LLC_LOOKUP_WRITE	STAT	CBOX14C3	3282424	0	3282424	182356.8889
LLC_LOOKUP_WRITE	STAT	CBOX15C3	3305300	0	3305300	183627.7778
LLC_LOOKUP_WRITE	STAT	CBOX16C3	2869950	0	2869950	159441.6667
LLC_LOOKUP_WRITE	STAT	CBOX17C3	2865269	0	2865269	159181.6111
CAS_COUNT_RD	STAT	MBOX0C0	33073862	0	33073862	1.837437e+06
CAS_COUNT_WR	STAT	MBOX0C1	13899752	0	13899752	772208.4444
CAS_COUNT_RD	STAT	MBOX1C0	33095117	0	33095117	1.838618e+06
CAS_COUNT_WR	STAT	MBOX1C1	13923502	0	13923502	773527.8889
CAS_COUNT_RD	STAT	MBOX4C0	33045373	0	33045373	1.835854e+06
CAS_COUNT_WR	STAT	MBOX4C1	13891006	0	13891006	771722.5556
CAS_COUNT_RD	STAT	MBOX5C0	33100654	0	33100654	1.838925e+06
CAS_COUNT_WR	STAT	MBOX5C1	13932640	0	13932640	774035.5556
UNCORE_CLOCK	STAT	UBOXFIX	3821149552	0	3821149552	2.122861e+08
PWR_PKG_ENERGY	STAT	PWR0	64.1208	0	64.1208	3.5623
PWR_DRAM_ENERGY	STAT	PWR3	11.7880	0	11.7880	0.6549

Metric	Sum	Min	Max	Avg
Time: Runtime (RDTSC) [s] STAT	23.8644	1.3258	1.3258	1.3258
Time: Runtime unhaltd [s] STAT	1.2563	0.0002	1.1831	0.0698
inverseClock STAT	7.844170e-09	4.357872e-10	4.357872e-10	4.357872e-10
Clock [MHz] STAT	24579.9529	1197.2253	3531.8458	1365.5529
Uncore Clock [MHz] STAT	2882.2429	0	2882.2429	160.1246
Time: Core total stall STAT	0.3588	0.0001	0.3077	0.0199
Time: Core l2 stall STAT	0.1403	0.0001	0.1128	0.0078
Time: Core ldm stall STAT	0.2583	0.0001	0.2110	0.0143
CPI STAT	32.7173	0.6489	4.1853	1.8176
Power PKG [W] STAT	48.3655	0	48.3655	2.6870
Power DRAM [W] STAT	8.8915	0	8.8915	0.4940
Energy PKG [J] STAT	64.1208	0	64.1208	3.5623
Energy DRAM [J] STAT	11.7880	0	11.7880	0.6549
L2M Pending[%] STAT	625.5108	9.5343	49.8005	34.7506
LD Pending[%] STAT	1049.7773	17.8359	78.0207	58.3210
LLC Any bandwidth [Bytes/s] STAT	12440750000	0	12440750000	6.911528e+08
LLC data read bandwidth [Bytes/s] STAT	4008486000	0	4008486000	2.226937e+08
LLC read bandwidth [Bytes/s] STAT	6801286000	0	6801286000	3.778492e+08
LLC write bandwidth [Bytes/s] STAT	2809157000	0	2809157000	1.560643e+08
LLC Any volume [Bytes] STAT	16493391296	0	16493391296	9.162995e+08
LLC data read volume [Bytes] STAT	5314273024	0	5314273024	2.952374e+08
LLC read volume [Bytes] STAT	9016843008	0	9016843008	5.009357e+08
LLC write volume [Bytes] STAT	3724256128	0	3724256128	2.069031e+08
DRAM read bandwidth [Bytes/s] STAT	6387422000	0	6387422000	3.548568e+08
DRAM write bandwidth [Bytes/s] STAT	2686318000	0	2686318000	1.492399e+08
DRAM read volume [Bytes] STAT	8468160384	0	8468160384	4.704534e+08
DRAM write volume [Bytes] STAT	3561401600	0	3561401600	1.978556e+08
Time: MEM busy STAT	0.2022	0	0.2022	0.0112
Time: L3 busy STAT	0.0329	0	0.0329	0.0018
Ins [] STAT	6496000609	69495	6439635040	3.608889e+08
Cycle [] STAT	4268013526	243407	4178508179	2.371119e+08
Stall_l2M [] STAT	432080244	121218	398391881	24004458
Stall_mem [] STAT	803593429	121305	745276231	4.464408e+07
L3_Latency [] STAT	1.6767	0.0005	1.5459	0.0931
DRAM_Latency [] STAT	4.2752	0.0006	3.9650	0.2375

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Event	Counter	Sum	Min	Max	Avg
INSTR_RETIRED_ANY STAT	FIXC0	6472346257	0	6439710123	3.595748e+08
CPU_CLK_UNHALTED_CORE STAT	FIXC1	4247172449	0	4184668988	2.359540e+08
CPU_CLK_UNHALTED_REF STAT	FIXC2	2830755084	0	2713118157	1.572642e+08
CYCLE_ACTIVITY_STALLS_L2_PENDING STAT	PMC0	420905975	0	393994744	2.338367e+07
CYCLE_ACTIVITY_STALLS_LDM_PENDING STAT	PMC1	688925634	0	646569229	3.827365e+07
CYCLE_ACTIVITY_STALLS_TOTAL STAT	PMC2	1136515795	0	1090273405	6.313977e+07
LLC_LOOKUP_ANY STAT	CBOX0C0	14419586	0	14419586	801088.1111
LLC_LOOKUP_ANY STAT	CBOX1C0	14549856	0	14549856	808325.3333
LLC_LOOKUP_ANY STAT	CBOX2C0	14539332	0	14539332	807740.6667
LLC_LOOKUP_ANY STAT	CBOX3C0	14505651	0	14505651	805869.5000
LLC_LOOKUP_ANY STAT	CBOX4C0	14506209	0	14506209	805900.5000
LLC_LOOKUP_ANY STAT	CBOX5C0	14512435	0	14512435	806246.3889
LLC_LOOKUP_ANY STAT	CBOX6C0	14599518	0	14599518	811084.3333
LLC_LOOKUP_ANY STAT	CBOX7C0	14533482	0	14533482	807415.6667
LLC_LOOKUP_ANY STAT	CBOX8C0	14509834	0	14509834	806101.8889
LLC_LOOKUP_ANY STAT	CBOX9C0	14450257	0	14450257	802792.0556
LLC_LOOKUP_ANY STAT	CBOX10C0	14547327	0	14547327	808184.8333
LLC_LOOKUP_ANY STAT	CBOX11C0	14443141	0	14443141	802396.7222
LLC_LOOKUP_ANY STAT	CBOX12C0	14553642	0	14553642	808535.6667
LLC_LOOKUP_ANY STAT	CBOX13C0	14443577	0	14443577	802420.9444
LLC_LOOKUP_ANY STAT	CBOX14C0	14569166	0	14569166	809398.1111
LLC_LOOKUP_ANY STAT	CBOX15C0	14484738	0	14484738	804707.6667
LLC_LOOKUP_ANY STAT	CBOX16C0	12231152	0	12231152	679508.4444
LLC_LOOKUP_ANY STAT	CBOX17C0	12281288	0	12281288	682293.7778
LLC_LOOKUP_DATA_READ STAT	CBOX0C1	4662596	0	4662596	259033.1111
LLC_LOOKUP_DATA_READ STAT	CBOX1C1	4680306	0	4680306	260017
LLC_LOOKUP_DATA_READ STAT	CBOX2C1	4694033	0	4694033	260779.6111
LLC_LOOKUP_DATA_READ STAT	CBOX3C1	4666235	0	4666235	259235.2778
LLC_LOOKUP_DATA_READ STAT	CBOX4C1	4686140	0	4686140	260341.1111
LLC_LOOKUP_DATA_READ STAT	CBOX5C1	4688196	0	4688196	260455.3333
LLC_LOOKUP_DATA_READ STAT	CBOX6C1	4703508	0	4703508	261306
LLC_LOOKUP_DATA_READ STAT	CBOX7C1	4688190	0	4688190	260455
LLC_LOOKUP_DATA_READ STAT	CBOX8C1	4685233	0	4685233	260290.7222
LLC_LOOKUP_DATA_READ STAT	CBOX9C1	4670704	0	4670704	259483.5556
LLC_LOOKUP_DATA_READ STAT	CBOX10C1	4699194	0	4699194	261066.3333
LLC_LOOKUP_DATA_READ STAT	CBOX11C1	4664841	0	4664841	259157.8333
LLC_LOOKUP_DATA_READ STAT	CBOX12C1	4703807	0	4703807	261322.6111
LLC_LOOKUP_DATA_READ STAT	CBOX13C1	4677006	0	4677006	259833.6667
LLC_LOOKUP_DATA_READ STAT	CBOX14C1	4674062	0	4674062	259670.1111
LLC_LOOKUP_DATA_READ STAT	CBOX15C1	4689310	0	4689310	260517.2222
LLC_LOOKUP_DATA_READ STAT	CBOX16C1	3887936	0	3887936	215996.4444
LLC_LOOKUP_DATA_READ STAT	CBOX17C1	3928557	0	3928557	218253.1667

LLC_LOOKUP_READ STAT	CBOX0C2	7918346	0	7918346	439908.1111
LLC_LOOKUP_READ STAT	CBOX1C2	7942594	0	7942594	441255.2222
LLC_LOOKUP_READ STAT	CBOX2C2	7966809	0	7966809	442600.5000
LLC_LOOKUP_READ STAT	CBOX3C2	7926598	0	7926598	440366.5556
LLC_LOOKUP_READ STAT	CBOX4C2	7947138	0	7947138	441507.6667
LLC_LOOKUP_READ STAT	CBOX5C2	7949026	0	7949026	441612.5556
LLC_LOOKUP_READ STAT	CBOX6C2	7983483	0	7983483	443526.8333
LLC_LOOKUP_READ STAT	CBOX7C2	7966899	0	7966899	442605.5000
LLC_LOOKUP_READ STAT	CBOX8C2	7951653	0	7951653	441758.5000
LLC_LOOKUP_READ STAT	CBOX9C2	7927784	0	7927784	440432.4444
LLC_LOOKUP_READ STAT	CBOX10C2	7962885	0	7962885	442382.5000
LLC_LOOKUP_READ STAT	CBOX11C2	7922493	0	7922493	440138.5000
LLC_LOOKUP_READ STAT	CBOX12C2	7973892	0	7973892	442994
LLC_LOOKUP_READ STAT	CBOX13C2	7933865	0	7933865	440770.2778
LLC_LOOKUP_READ STAT	CBOX14C2	7942410	0	7942410	441245
LLC_LOOKUP_READ STAT	CBOX15C2	7965113	0	7965113	442506.2778
LLC_LOOKUP_READ STAT	CBOX16C2	6612737	0	6612737	367374.2778
LLC_LOOKUP_READ STAT	CBOX17C2	6674462	0	6674462	370803.4444
LLC_LOOKUP_WRITE STAT	CBOX0C3	3210480	0	3210480	178360
LLC_LOOKUP_WRITE STAT	CBOX1C3	3279952	0	3279952	182219.5556
LLC_LOOKUP_WRITE STAT	CBOX2C3	3294214	0	3294214	183011.8889
LLC_LOOKUP_WRITE STAT	CBOX3C3	3279527	0	3279527	182195.9444
LLC_LOOKUP_WRITE STAT	CBOX4C3	3284742	0	3284742	182485.6667
LLC_LOOKUP_WRITE STAT	CBOX5C3	3287663	0	3287663	182647.9444
LLC_LOOKUP_WRITE STAT	CBOX6C3	3288364	0	3288364	182686.8889
LLC_LOOKUP_WRITE STAT	CBOX7C3	3288535	0	3288535	182696.3889
LLC_LOOKUP_WRITE STAT	CBOX8C3	3280734	0	3280734	182263
LLC_LOOKUP_WRITE STAT	CBOX9C3	3277746	0	3277746	182097
LLC_LOOKUP_WRITE STAT	CBOX10C3	3293927	0	3293927	182995.9444
LLC_LOOKUP_WRITE STAT	CBOX11C3	3279356	0	3279356	182186.4444
LLC_LOOKUP_WRITE STAT	CBOX12C3	3294448	0	3294448	183024.8889
LLC_LOOKUP_WRITE STAT	CBOX13C3	3280166	0	3280166	182231.4444
LLC_LOOKUP_WRITE STAT	CBOX14C3	3282446	0	3282446	182358.1111
LLC_LOOKUP_WRITE STAT	CBOX15C3	3277639	0	3277639	182091.0556
LLC_LOOKUP_WRITE STAT	CBOX16C3	2867305	0	2867305	159294.7222
LLC_LOOKUP_WRITE STAT	CBOX17C3	2886067	0	2886067	160337.0556
CAS_COUNT_RD STAT	MBOX0C0	33045209	0	33045209	1.835845e+06
CAS_COUNT_WR STAT	MBOX0C1	13909000	0	13909000	772722.2222
CAS_COUNT_RD STAT	MBOX1C0	33076549	0	33076549	1.837586e+06
CAS_COUNT_WR STAT	MBOX1C1	13937639	0	13937639	774313.2778
CAS_COUNT_RD STAT	MBOX4C0	33030853	0	33030853	1.835047e+06
CAS_COUNT_WR STAT	MBOX4C1	13903753	0	13903753	772430.7222
CAS_COUNT_RD STAT	MBOX5C0	33080372	0	33080372	1.837798e+06
CAS_COUNT_WR STAT	MBOX5C1	13944178	0	13944178	774676.5556
UNCORE_CLOCK STAT	UBOXFIX	3840208140	0	3840208140	2.133449e+08
PWR_PKG_ENERGY STAT	PWR0	63.7859	0	63.7859	3.5437
PWR_DRAM_ENERGY STAT	PWR3	11.8838	0	11.8838	0.6602

Metric	Sum	Min	Max	Avg
Time: Runtime [RDTSC] [s] STAT	23.8266	1.3237	1.3237	1.3237
Time: Runtime unhaltd [s] STAT	1.2337	0	1.1824	0.0685
inverseClock STAT	7.844299e-09	4.357944e-10	4.357944e-10	4.357944e-10
Clock [MHz] STAT	23309.6126	1197.2013	3539.2459	1294.9785
Uncore Clock [MHz] STAT	2901.1444	0	2901.1444	161.1747
Time: Core total stall STAT	0.3460	3.603996e-05	0.3081	0.0192
Time: Core l2 stall STAT	0.1335	2.362601e-05	0.1113	0.0074
Time: Core ldm stall STAT	0.2174	2.241995e-05	0.1827	0.0121
CPI STAT	43.7693	0.6498	7.8228	2.4316
Power PKG [W] STAT	48.1881	0	48.1881	2.6771
Power DRAM [W] STAT	8.9778	0	8.9778	0.4988
Energy PKG [J] STAT	63.7859	0	63.7859	3.5437
Energy DRAM [J] STAT	11.8838	0	11.8838	0.6602
L2M Pending[%] STAT	721.7831	9.4152	69.8215	40.0991
LD Pending[%] STAT	982.0639	15.4509	78.1850	54.5591
LLC Any bandwidth [Bytes/s] STAT	12410430000	0	12410430000	6.894683e+08
LLC data read bandwidth [Bytes/s] STAT	4000938000	0	4000938000	2.222743e+08
LLC read bandwidth [Bytes/s] STAT	6791607000	0	6791607000	377311500
LLC write bandwidth [Bytes/s] STAT	2815568000	0	2815568000	1.564204e+08
LLC Any volume [Bytes] STAT	16427532224	0	16427532224	9.126407e+08
LLC data read volume [Bytes] STAT	5295990656	0	5295990656	2.942217e+08
LLC read volume [Bytes] STAT	8989963968	0	8989963968	4.994424e+08
LLC write volume [Bytes] STAT	3726931904	0	3726931904	2.070518e+08
DRAM read bandwidth [Bytes/s] STAT	6393436000	0	6393436000	3.551909e+08
DRAM write bandwidth [Bytes/s] STAT	2692821000	0	2692821000	1.496012e+08
DRAM read volume [Bytes] STAT	8462910912	0	8462910912	4.701617e+08
DRAM write volume [Bytes] STAT	3564452480	0	3564452480	1.980251e+08
Time: MEM busy STAT	0.2021	0	0.2021	0.0112
Time: L3 busy STAT	0.0329	0	0.0329	0.0018
Ins [] STAT	6472346257	0	6439710123	3.595748e+08
Cycle [] STAT	4247172449	0	4184668988	2.359540e+08
Stall_l2M [] STAT	420905975	0	393994744	2.338367e+07
Stall_mem [] STAT	688925634	0	646569229	3.827365e+07
L3_latency [] STAT	1.6399	0	1.5350	0.0911
DRAM_latency [] STAT	3.6660	0	3.4405	0.2037

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Event	Counter	Sum	Min	Max	Avg
INSTR_RETIRED_ANY STAT	FIXC0	6480883383	2793	6439628568	3.600491e+08
CPU_CLK_UNHALTED_CORE STAT	FIXC1	4235735503	32999	4182261652	2.353186e+08
CPU_CLK_UNHALTED_REF STAT	FIXC2	2845361556	63273	2742872958	158075642
CYCLE_ACTIVITY_STALLS_L2_PENDING STAT	PMC0	407739408	17437	387411474	2.265219e+07
CYCLE_ACTIVITY_STALLS_LDM_PENDING STAT	PMC1	671532972	13776	641920376	3.730739e+07
CYCLE_ACTIVITY_STALLS_TOTAL STAT	PMC2	1122398283	30561	1088513291	6.235546e+07
LLC_LOOKUP_ANY STAT	CBOX0C0	14380238	0	14380238	798902.1111
LLC_LOOKUP_ANY STAT	CBOX1C0	14558685	0	14558685	808815.8333
LLC_LOOKUP_ANY STAT	CBOX2C0	14500508	0	14500508	805583.7778
LLC_LOOKUP_ANY STAT	CBOX3C0	14487822	0	14487822	804879
LLC_LOOKUP_ANY STAT	CBOX4C0	14509163	0	14509163	806064.6111
LLC_LOOKUP_ANY STAT	CBOX5C0	14549387	0	14549387	808299.2778
LLC_LOOKUP_ANY STAT	CBOX6C0	14551888	0	14551888	808438.2222
LLC_LOOKUP_ANY STAT	CBOX7C0	14531521	0	14531521	807306.7222
LLC_LOOKUP_ANY STAT	CBOX8C0	14490415	0	14490415	805023.0556
LLC_LOOKUP_ANY STAT	CBOX9C0	14402542	0	14402542	800141.2222
LLC_LOOKUP_ANY STAT	CBOX10C0	14454883	0	14454883	803049.0556
LLC_LOOKUP_ANY STAT	CBOX11C0	14400946	0	14400946	800052.5556
LLC_LOOKUP_ANY STAT	CBOX12C0	14465528	0	14465528	803640.4444
LLC_LOOKUP_ANY STAT	CBOX13C0	14408776	0	14408776	800487.5556
LLC_LOOKUP_ANY STAT	CBOX14C0	14597736	0	14597736	810985.3333
LLC_LOOKUP_ANY STAT	CBOX15C0	14446605	0	14446605	802589.1667
LLC_LOOKUP_ANY STAT	CBOX16C0	12217100	0	12217100	678727.7778
LLC_LOOKUP_ANY STAT	CBOX17C0	12179791	0	12179791	676655.0556
LLC_LOOKUP_DATA_READ STAT	CBOX0C1	4662373	0	4662373	259020.7222
LLC_LOOKUP_DATA_READ STAT	CBOX1C1	4714807	0	4714807	261933.7222
LLC_LOOKUP_DATA_READ STAT	CBOX2C1	4691400	0	4691400	260633.3333
LLC_LOOKUP_DATA_READ STAT	CBOX3C1	4666806	0	4666806	259267
LLC_LOOKUP_DATA_READ STAT	CBOX4C1	4692237	0	4692237	260679.8333
LLC_LOOKUP_DATA_READ STAT	CBOX5C1	4718406	0	4718406	262133.6667
LLC_LOOKUP_DATA_READ STAT	CBOX6C1	4688044	0	4688044	260446.8889
LLC_LOOKUP_DATA_READ STAT	CBOX7C1	4678229	0	4678229	259901.6111
LLC_LOOKUP_DATA_READ STAT	CBOX8C1	4683099	0	4683099	260172.1667
LLC_LOOKUP_DATA_READ STAT	CBOX9C1	4661117	0	4661117	258950.9444
LLC_LOOKUP_DATA_READ STAT	CBOX10C1	4663355	0	4663355	259075.2778
LLC_LOOKUP_DATA_READ STAT	CBOX11C1	4660901	0	4660901	258938.9444
LLC_LOOKUP_DATA_READ STAT	CBOX12C1	4669099	0	4669099	259394.3889
LLC_LOOKUP_DATA_READ STAT	CBOX13C1	4666970	0	4666970	259276.1111
LLC_LOOKUP_DATA_READ STAT	CBOX14C1	4698063	0	4698063	261003.5000
LLC_LOOKUP_DATA_READ STAT	CBOX15C1	4681935	0	4681935	260107.5000
LLC_LOOKUP_DATA_READ STAT	CBOX16C1	3884638	0	3884638	215813.2222
LLC_LOOKUP_DATA_READ STAT	CBOX17C1	3875770	0	3875770	215320.5556

LLC_LOOKUP_READ	STAT	CBOX0C2	7921457	0	7921457	440080.9444
LLC_LOOKUP_READ	STAT	CBOX1C2	7998621	0	7998621	444367.8333
LLC_LOOKUP_READ	STAT	CBOX2C2	7964638	0	7964638	442479.8889
LLC_LOOKUP_READ	STAT	CBOX3C2	7933708	0	7933708	440761.5556
LLC_LOOKUP_READ	STAT	CBOX4C2	7961910	0	7961910	442328.3333
LLC_LOOKUP_READ	STAT	CBOX5C2	7998149	0	7998149	444341.6111
LLC_LOOKUP_READ	STAT	CBOX6C2	7964286	0	7964286	442460.3333
LLC_LOOKUP_READ	STAT	CBOX7C2	7954253	0	7954253	441902.9444
LLC_LOOKUP_READ	STAT	CBOX8C2	7948694	0	7948694	441594.1111
LLC_LOOKUP_READ	STAT	CBOX9C2	7915073	0	7915073	439726.2778
LLC_LOOKUP_READ	STAT	CBOX10C2	7917387	0	7917387	439854.8333
LLC_LOOKUP_READ	STAT	CBOX11C2	7919950	0	7919950	439997.2222
LLC_LOOKUP_READ	STAT	CBOX12C2	7925867	0	7925867	440325.9444
LLC_LOOKUP_READ	STAT	CBOX13C2	7922441	0	7922441	440135.6111
LLC_LOOKUP_READ	STAT	CBOX14C2	7981942	0	7981942	443441.2222
LLC_LOOKUP_READ	STAT	CBOX15C2	7957537	0	7957537	442085.3889
LLC_LOOKUP_READ	STAT	CBOX16C2	6615030	0	6615030	367501.6667
LLC_LOOKUP_READ	STAT	CBOX17C2	6602230	0	6602230	366790.5556
LLC_LOOKUP_WRITE	STAT	CBOX0C3	3214151	0	3214151	178563.9444
LLC_LOOKUP_WRITE	STAT	CBOX1C3	3302162	0	3302162	183453.4444
LLC_LOOKUP_WRITE	STAT	CBOX2C3	3297818	0	3297818	183212.1111
LLC_LOOKUP_WRITE	STAT	CBOX3C3	3285812	0	3285812	182545.1111
LLC_LOOKUP_WRITE	STAT	CBOX4C3	3293063	0	3293063	182947.9444
LLC_LOOKUP_WRITE	STAT	CBOX5C3	3307805	0	3307805	183766.9444
LLC_LOOKUP_WRITE	STAT	CBOX6C3	3288767	0	3288767	182709.2778
LLC_LOOKUP_WRITE	STAT	CBOX7C3	3287747	0	3287747	182652.6111
LLC_LOOKUP_WRITE	STAT	CBOX8C3	3283532	0	3283532	182418.4444
LLC_LOOKUP_WRITE	STAT	CBOX9C3	3277340	0	3277340	182074.4444
LLC_LOOKUP_WRITE	STAT	CBOX10C3	3280874	0	3280874	182270.7778
LLC_LOOKUP_WRITE	STAT	CBOX11C3	3281482	0	3281482	182304.5556
LLC_LOOKUP_WRITE	STAT	CBOX12C3	3281183	0	3281183	182287.9444
LLC_LOOKUP_WRITE	STAT	CBOX13C3	3277814	0	3277814	182100.7778
LLC_LOOKUP_WRITE	STAT	CBOX14C3	3300111	0	3300111	183339.5000
LLC_LOOKUP_WRITE	STAT	CBOX15C3	3281581	0	3281581	182310.0556
LLC_LOOKUP_WRITE	STAT	CBOX16C3	2871782	0	2871782	159543.4444
LLC_LOOKUP_WRITE	STAT	CBOX17C3	2865800	0	2865800	159211.1111
CAS_COUNT_RD	STAT	MBOX0C0	33117206	0	33117206	1.839845e+06
CAS_COUNT_WR	STAT	MBOX0C1	13946973	0	13946973	774831.8333
CAS_COUNT_RD	STAT	MBOX1C0	33143824	0	33143824	1.841324e+06
CAS_COUNT_WR	STAT	MBOX1C1	13973039	0	13973039	776279.9444
CAS_COUNT_RD	STAT	MBOX4C0	33095361	0	33095361	1.838631e+06
CAS_COUNT_WR	STAT	MBOX4C1	13939113	0	13939113	774395.1667
CAS_COUNT_RD	STAT	MBOX5C0	33153484	0	33153484	1.841860e+06
CAS_COUNT_WR	STAT	MBOX5C1	13983616	0	13983616	776867.5556
UNCORE_CLOCK	STAT	UBOXFIX	3844527500	0	3844527500	2.135849e+08
PWR_PKG_ENERGY	STAT	PWR0	63.4553	0	63.4553	3.5253
PWR_DRAM_ENERGY	STAT	PWR3	11.5924	0	11.5924	0.6440

Metric	Sum	Min	Max	Avg
Time: Runtime (RDTSC) [s] STAT	24.3612	1.3534	1.3534	1.3534
Time: Runtime unhaltd [s] STAT	1.2401	2.757415e-05	1.1953	0.0689
inverseClock STAT	7.844337e-09	4.357965e-10	4.357965e-10	4.357965e-10
Clock [MHz] STAT	23851.5132	1196.7368	3498.8217	1325.0841
Uncore Clock [MHz] STAT	2840.5742	0	2840.5742	157.8097
Time: Core total stall STAT	0.3392	2.553694e-05	0.3111	0.0188
Time: Core l2 stall STAT	0.1275	1.457045e-05	0.1107	0.0071
Time: Core ldm stall STAT	0.2083	1.151130e-05	0.1835	0.0116
CPI STAT	53.3068	0.5668	16.2041	2.9615
Power PKG [W] STAT	46.8847	0	46.8847	2.6047
Power DRAM [W] STAT	8.5652	0	8.5652	0.4758
Energy PKG [J] STAT	63.4553	0	63.4553	3.5253
Energy DRAM [J] STAT	11.5924	0	11.5924	0.6440
L2M Pending[%] STAT	689.4171	9.2632	52.8410	38.3010
LD Pending[%] STAT	922.0930	15.3486	71.9581	51.2274
LLC Any bandwidth [Bytes/s] STAT	12111820000	0	12111820000	6.728789e+08
LLC data read bandwidth [Bytes/s] STAT	3908626000	0	3908626000	2.171459e+08
LLC read bandwidth [Bytes/s] STAT	6639266000	0	6639266000	3.688481e+08
LLC write bandwidth [Bytes/s] STAT	2755839000	0	2755839000	1.531022e+08
LLC Any volume [Bytes] STAT	16392546176	0	16392546176	9.106970e+08
LLC data read volume [Bytes] STAT	5290063936	0	5290063936	2.938924e+08
LLC read volume [Bytes] STAT	8985803072	0	8985803072	4.992113e+08
LLC write volume [Bytes] STAT	3729844736	0	3729844736	2.072136e+08
DRAM read bandwidth [Bytes/s] STAT	6266014000	0	6266014000	3.481119e+08
DRAM write bandwidth [Bytes/s] STAT	2640644000	0	2640644000	1.467024e+08
DRAM read volume [Bytes] STAT	8480632000	0	8480632000	4.711462e+08
DRAM write volume [Bytes] STAT	3573935424	0	3573935424	198551968
Time: MEM busy STAT	0.2026	0	0.2026	0.0113
Time: L3 busy STAT	0.0329	0	0.0329	0.0018
Ins [] STAT	6480883383	2793	6439628568	3.600491e+08
Cycle [] STAT	4235735503	32999	4182261652	2.353186e+08
Stall_l2m [] STAT	407739408	17437	387411474	2.265219e+07
Stall_mem [] STAT	671532972	13776	641920376	3.730739e+07
L3_Latency [] STAT	1.5917	0.0001	1.5125	0.0884
DRAM_latency [] STAT	3.5654	0.0001	3.4081	0.1981

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Event	Counter	Sum	Min	Max	Avg
INSTR_RETIRED_ANY STAT	FIXC0	6486447601	12246	6439720066	3.603582e+08
CPU_CLK_UNHALTED_CORE STAT	FIXC1	4244846509	106761	4156424607	2.358248e+08
CPU_CLK_UNHALTED_REF STAT	FIXC2	2890045059	204562	2722091147	1.605581e+08
CYCLE_ACTIVITY_STALLS_L2_PENDING STAT	PMC0	421967408	51169	385805404	2.344263e+07
CYCLE_ACTIVITY_STALLS_LDM_PENDING STAT	PMC1	689388701	46133	627000275	3.829937e+07
CYCLE_ACTIVITY_STALLS_TOTAL STAT	PMC2	1127219491	90311	1061080221	6.262331e+07
LLC_LOOKUP_ANY STAT	CB0X0C0	14436749	0	14436749	802041.6111
LLC_LOOKUP_ANY STAT	CB0X1C0	14570746	0	14570746	809485.8889
LLC_LOOKUP_ANY STAT	CB0X2C0	14567861	0	14567861	809325.6111
LLC_LOOKUP_ANY STAT	CB0X3C0	14579740	0	14579740	809985.5556
LLC_LOOKUP_ANY STAT	CB0X4C0	14536227	0	14536227	807568.1667
LLC_LOOKUP_ANY STAT	CB0X5C0	14516073	0	14516073	806448.5000
LLC_LOOKUP_ANY STAT	CB0X6C0	14627532	0	14627532	812640.6667
LLC_LOOKUP_ANY STAT	CB0X7C0	14646259	0	14646259	813681.0556
LLC_LOOKUP_ANY STAT	CB0X8C0	14533975	0	14533975	807443.0556
LLC_LOOKUP_ANY STAT	CB0X9C0	14514242	0	14514242	806346.7778
LLC_LOOKUP_ANY STAT	CB0X10C0	14640972	0	14640972	813387.3333
LLC_LOOKUP_ANY STAT	CB0X11C0	14481308	0	14481308	804517.1111
LLC_LOOKUP_ANY STAT	CB0X12C0	14517835	0	14517835	806546.3889
LLC_LOOKUP_ANY STAT	CB0X13C0	14477014	0	14477014	804278.5556
LLC_LOOKUP_ANY STAT	CB0X14C0	14647527	0	14647527	813751.5000
LLC_LOOKUP_ANY STAT	CB0X15C0	14591301	0	14591301	810627.8333
LLC_LOOKUP_ANY STAT	CB0X16C0	12240795	0	12240795	680044.1667
LLC_LOOKUP_ANY STAT	CB0X17C0	12199259	0	12199259	677736.6111
LLC_LOOKUP_DATA_READ STAT	CB0X0C1	4668086	0	4668086	259338.1111
LLC_LOOKUP_DATA_READ STAT	CB0X1C1	4696709	0	4696709	260928.2778
LLC_LOOKUP_DATA_READ STAT	CB0X2C1	4697677	0	4697677	260982.0556
LLC_LOOKUP_DATA_READ STAT	CB0X3C1	4677454	0	4677454	259858.5556
LLC_LOOKUP_DATA_READ STAT	CB0X4C1	4684627	0	4684627	260257.0556
LLC_LOOKUP_DATA_READ STAT	CB0X5C1	4678207	0	4678207	259900.3889
LLC_LOOKUP_DATA_READ STAT	CB0X6C1	4701893	0	4701893	261216.2778
LLC_LOOKUP_DATA_READ STAT	CB0X7C1	4729322	0	4729322	262740.1111
LLC_LOOKUP_DATA_READ STAT	CB0X8C1	4685250	0	4685250	260291.6667
LLC_LOOKUP_DATA_READ STAT	CB0X9C1	4682947	0	4682947	260163.7222
LLC_LOOKUP_DATA_READ STAT	CB0X10C1	4711718	0	4711718	261762.1111
LLC_LOOKUP_DATA_READ STAT	CB0X11C1	4666463	0	4666463	259247.9444
LLC_LOOKUP_DATA_READ STAT	CB0X12C1	4676057	0	4676057	259780.9444
LLC_LOOKUP_DATA_READ STAT	CB0X13C1	4677467	0	4677467	259859.2778
LLC_LOOKUP_DATA_READ STAT	CB0X14C1	4704236	0	4704236	261346.4444
LLC_LOOKUP_DATA_READ STAT	CB0X15C1	4725788	0	4725788	262543.7778
LLC_LOOKUP_DATA_READ STAT	CB0X16C1	3881581	0	3881581	215643.3889
LLC_LOOKUP_DATA_READ STAT	CB0X17C1	3871370	0	3871370	215076.1111

LLC_LOOKUP_READ	STAT	CBOX0C2	7933103	0	7933103	440727.9444
LLC_LOOKUP_READ	STAT	CBOX1C2	7971103	0	7971103	442839.0556
LLC_LOOKUP_READ	STAT	CBOX2C2	7975393	0	7975393	443077.3889
LLC_LOOKUP_READ	STAT	CBOX3C2	7954432	0	7954432	441912.8889
LLC_LOOKUP_READ	STAT	CBOX4C2	7949579	0	7949579	441643.2778
LLC_LOOKUP_READ	STAT	CBOX5C2	7938444	0	7938444	441024.6667
LLC_LOOKUP_READ	STAT	CBOX6C2	7992003	0	7992003	444000.1667
LLC_LOOKUP_READ	STAT	CBOX7C2	8033532	0	8033532	446307.3333
LLC_LOOKUP_READ	STAT	CBOX8C2	7955776	0	7955776	441987.5556
LLC_LOOKUP_READ	STAT	CBOX9C2	7951381	0	7951381	441743.3889
LLC_LOOKUP_READ	STAT	CBOX10C2	7992182	0	7992182	444010.1111
LLC_LOOKUP_READ	STAT	CBOX11C2	7929546	0	7929546	440530.3333
LLC_LOOKUP_READ	STAT	CBOX12C2	7938885	0	7938885	441049.1667
LLC_LOOKUP_READ	STAT	CBOX13C2	7939747	0	7939747	441097.0556
LLC_LOOKUP_READ	STAT	CBOX14C2	7993817	0	7993817	444100.9444
LLC_LOOKUP_READ	STAT	CBOX15C2	8032316	0	8032316	446239.7778
LLC_LOOKUP_READ	STAT	CBOX16C2	6614364	0	6614364	367464.6667
LLC_LOOKUP_READ	STAT	CBOX17C2	6598864	0	6598864	366603.5556
LLC_LOOKUP_WRITE	STAT	CBOX0C3	3209125	0	3209125	178284.7222
LLC_LOOKUP_WRITE	STAT	CBOX1C3	3284625	0	3284625	182479.1667
LLC_LOOKUP_WRITE	STAT	CBOX2C3	3291730	0	3291730	182873.8889
LLC_LOOKUP_WRITE	STAT	CBOX3C3	3282291	0	3282291	182349.5000
LLC_LOOKUP_WRITE	STAT	CBOX4C3	3280861	0	3280861	182270.0556
LLC_LOOKUP_WRITE	STAT	CBOX5C3	3279675	0	3279675	182204.1667
LLC_LOOKUP_WRITE	STAT	CBOX6C3	3282195	0	3282195	182344.1667
LLC_LOOKUP_WRITE	STAT	CBOX7C3	3304067	0	3304067	183559.2778
LLC_LOOKUP_WRITE	STAT	CBOX8C3	3278026	0	3278026	182112.5556
LLC_LOOKUP_WRITE	STAT	CBOX9C3	3283482	0	3283482	182415.6667
LLC_LOOKUP_WRITE	STAT	CBOX10C3	3298415	0	3298415	183245.2778
LLC_LOOKUP_WRITE	STAT	CBOX11C3	3277606	0	3277606	182089.2222
LLC_LOOKUP_WRITE	STAT	CBOX12C3	3278108	0	3278108	182117.1111
LLC_LOOKUP_WRITE	STAT	CBOX13C3	3276510	0	3276510	182028.3333
LLC_LOOKUP_WRITE	STAT	CBOX14C3	3293387	0	3293387	182965.9444
LLC_LOOKUP_WRITE	STAT	CBOX15C3	3289110	0	3289110	182728.3333
LLC_LOOKUP_WRITE	STAT	CBOX16C3	2864514	0	2864514	159139.6667
LLC_LOOKUP_WRITE	STAT	CBOX17C3	2859332	0	2859332	158851.7778
CAS_COUNT_RD	STAT	MBOX0C0	33075534	0	33075534	1.837530e+06
CAS_COUNT_WR	STAT	MBOX0C1	13917524	0	13917524	773195.7778
CAS_COUNT_RD	STAT	MBOX1C0	33101899	0	33101899	1.838994e+06
CAS_COUNT_WR	STAT	MBOX1C1	13940711	0	13940711	774483.9444
CAS_COUNT_RD	STAT	MBOX4C0	33044263	0	33044263	1.835792e+06
CAS_COUNT_WR	STAT	MBOX4C1	13905548	0	13905548	772530.4444
CAS_COUNT_RD	STAT	MBOX5C0	33111914	0	33111914	1.839551e+06
CAS_COUNT_WR	STAT	MBOX5C1	13952342	0	13952342	775130.1111
UNCORE_CLOCK	STAT	UBOXFIX	3834737564	0	3834737564	2.130410e+08
PWR_PKG_ENERGY	STAT	PWR0	63.8023	0	63.8023	3.5446
PWR_DRAM_ENERGY	STAT	PWR3	11.9607	0	11.9607	0.6645

Metric	Sum	Min	Max	Avg
Time: Runtime (RDTSC) [s] STAT	24.1020	1.3390	1.3390	1.3390
Time: Runtime unhalsted [s] STAT	1.2593	0.0001	1.1863	0.0700
inverseClock STAT	7.844368e-09	4.357982e-10	4.357982e-10	4.357982e-10
Clock [MHz] STAT	23963.9540	1197.1338	3503.7397	1331.3308
Uncore Clock [MHz] STAT	2863.8001	0	2863.8001	159.1000
Time: Core total stall STAT	0.3575	0.0001	0.3028	0.0199
Time: Core l2 stall STAT	0.1399	4.272722e-05	0.1101	0.0078
Time: Core ldm stall STAT	0.2305	3.852205e-05	0.1790	0.0128
CPI STAT	40.5702	0.6454	8.7180	2.2539
Power PKG [W] STAT	47.6479	0	47.6479	2.6471
Power DRAM [W] STAT	8.9323	0	8.9323	0.4962
Energy PKG [J] STAT	63.8023	0	63.8023	3.5446
Energy DRAM [J] STAT	11.9607	0	11.9607	0.6645
L2M Pending[%] STAT	722.7989	9.2821	53.4199	40.1555
LD Pending[%] STAT	1078.8561	15.0851	76.0679	59.9364
LLC Any bandwidth [Bytes/s] STAT	12299000000	0	12299000000	6.832778e+08
LLC data read bandwidth [Bytes/s] STAT	3958273000	0	3958273000	2.199041e+08
LLC read bandwidth [Bytes/s] STAT	6724563000	0	6724563000	3.735868e+08
LLC write bandwidth [Bytes/s] STAT	2782322000	0	2782322000	1.545734e+08
LLC Any volume [Bytes] STAT	16468826560	0	16468826560	9.149348e+08
LLC data read volume [Bytes] STAT	5300278528	0	5300278528	2.944599e+08
LLC read volume [Bytes] STAT	9004445888	0	9004445888	5.002470e+08
LLC write volume [Bytes] STAT	3725635776	0	3725635776	2.069798e+08
DRAM read bandwidth [Bytes/s] STAT	6324951000	0	6324951000	3.513862e+08
DRAM write bandwidth [Bytes/s] STAT	2662980000	0	2662980000	1.479433e+08
DRAM read volume [Bytes] STAT	8469351040	0	8469351040	4.705195e+08
DRAM write volume [Bytes] STAT	3565832000	0	3565832000	1.981018e+08
Time: MEM busy STAT	0.2023	0	0.2023	0.0112
Time: L3 busy STAT	0.0329	0	0.0329	0.0018
Ins [] STAT	6486447601	12246	6439720066	3.603582e+08
Cycle [] STAT	4244846509	106761	4156424607	2.358248e+08
Stall_l2m [] STAT	421967408	51169	385805404	2.344263e+07
Stall_mem [] STAT	689388701	46133	627000275	3.829937e+07
L3_Latency [] STAT	1.6399	0.0002	1.4993	0.0911
DRAM_latency [] STAT	3.6660	0.0002	3.3342	0.2037

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Event	Counter	Sum	Min	Max	Avg
INSTR_RETIRED_ANY STAT	FIXC0	6460623667	0	6439682028	3.589235e+08
CPU_CLK_UNHALTED_CORE STAT	FIXC1	4214768007	0	4172338749	2.341538e+08
CPU_CLK_UNHALTED_REF STAT	FIXC2	2793112341	0	2715149356	1.551729e+08
CYCLE_ACTIVITY_STALLS_L2_PENDING STAT	PMC0	401928679	0	383606355	2.232937e+07
CYCLE_ACTIVITY_STALLS_LDM_PENDING STAT	PMC1	664969926	0	635940572	3.694277e+07
CYCLE_ACTIVITY_STALLS_TOTAL STAT	PMC2	1105466629	0	1073873184	6.141481e+07
LLC_LOOKUP_ANY STAT	CBOX0C0	14372615	0	14372615	798478.6111
LLC_LOOKUP_ANY STAT	CBOX1C0	14503595	0	14503595	805755.2778
LLC_LOOKUP_ANY STAT	CBOX2C0	14480628	0	14480628	804479.3333
LLC_LOOKUP_ANY STAT	CBOX3C0	14479399	0	14479399	804411.0556
LLC_LOOKUP_ANY STAT	CBOX4C0	14494768	0	14494768	805264.8889
LLC_LOOKUP_ANY STAT	CBOX5C0	14473761	0	14473761	804097.8333
LLC_LOOKUP_ANY STAT	CBOX6C0	14580098	0	14580098	810005.4444
LLC_LOOKUP_ANY STAT	CBOX7C0	14533743	0	14533743	807430.1667
LLC_LOOKUP_ANY STAT	CBOX8C0	14482263	0	14482263	804570.1667
LLC_LOOKUP_ANY STAT	CBOX9C0	14588000	0	14588000	810444.4444
LLC_LOOKUP_ANY STAT	CBOX10C0	14460402	0	14460402	803355.6667
LLC_LOOKUP_ANY STAT	CBOX11C0	14412560	0	14412560	800697.7778
LLC_LOOKUP_ANY STAT	CBOX12C0	14459204	0	14459204	803289.1111
LLC_LOOKUP_ANY STAT	CBOX13C0	14417413	0	14417413	800967.3889
LLC_LOOKUP_ANY STAT	CBOX14C0	14522387	0	14522387	806799.2778
LLC_LOOKUP_ANY STAT	CBOX15C0	14476515	0	14476515	804250.8333
LLC_LOOKUP_ANY STAT	CBOX16C0	12144933	0	12144933	674718.5000
LLC_LOOKUP_ANY STAT	CBOX17C0	12128190	0	12128190	673788.3333
LLC_LOOKUP_DATA_READ STAT	CBOX0C1	4669527	0	4669527	259418.1667
LLC_LOOKUP_DATA_READ STAT	CBOX1C1	4688062	0	4688062	260447.8889
LLC_LOOKUP_DATA_READ STAT	CBOX2C1	4686216	0	4686216	260345.3333
LLC_LOOKUP_DATA_READ STAT	CBOX3C1	4665946	0	4665946	259219.2222
LLC_LOOKUP_DATA_READ STAT	CBOX4C1	4691122	0	4691122	260617.8889
LLC_LOOKUP_DATA_READ STAT	CBOX5C1	4682002	0	4682002	260111.2222
LLC_LOOKUP_DATA_READ STAT	CBOX6C1	4712009	0	4712009	261778.2778
LLC_LOOKUP_DATA_READ STAT	CBOX7C1	4684756	0	4684756	260264.2222
LLC_LOOKUP_DATA_READ STAT	CBOX8C1	4685041	0	4685041	260280.0556
LLC_LOOKUP_DATA_READ STAT	CBOX9C1	4731308	0	4731308	262850.4444
LLC_LOOKUP_DATA_READ STAT	CBOX10C1	4670548	0	4670548	259474.8889
LLC_LOOKUP_DATA_READ STAT	CBOX11C1	4663712	0	4663712	259095.1111
LLC_LOOKUP_DATA_READ STAT	CBOX12C1	4674144	0	4674144	259674.6667
LLC_LOOKUP_DATA_READ STAT	CBOX13C1	4678916	0	4678916	259939.7778
LLC_LOOKUP_DATA_READ STAT	CBOX14C1	4674641	0	4674641	259702.2778
LLC_LOOKUP_DATA_READ STAT	CBOX15C1	4700455	0	4700455	261136.3889
LLC_LOOKUP_DATA_READ STAT	CBOX16C1	3870614	0	3870614	215034.1111
LLC_LOOKUP_DATA_READ STAT	CBOX17C1	3868804	0	3868804	214933.5556

LLC_LOOKUP_READ STAT	CBOX0C2	7917293	0	7917293	439849.6111
LLC_LOOKUP_READ STAT	CBOX1C2	7941744	0	7941744	441208
LLC_LOOKUP_READ STAT	CBOX2C2	7942039	0	7942039	441224.3889
LLC_LOOKUP_READ STAT	CBOX3C2	7914076	0	7914076	439670.8889
LLC_LOOKUP_READ STAT	CBOX4C2	7943634	0	7943634	441313
LLC_LOOKUP_READ STAT	CBOX5C2	7928370	0	7928370	440465
LLC_LOOKUP_READ STAT	CBOX6C2	7988144	0	7988144	443785.7778
LLC_LOOKUP_READ STAT	CBOX7C2	7951823	0	7951823	441767.9444
LLC_LOOKUP_READ STAT	CBOX8C2	7939595	0	7939595	441088.6111
LLC_LOOKUP_READ STAT	CBOX9C2	8006963	0	8006963	444831.2778
LLC_LOOKUP_READ STAT	CBOX10C2	7911640	0	7911640	439535.5556
LLC_LOOKUP_READ STAT	CBOX11C2	7910741	0	7910741	439485.6111
LLC_LOOKUP_READ STAT	CBOX12C2	7918884	0	7918884	439938
LLC_LOOKUP_READ STAT	CBOX13C2	7927764	0	7927764	440431.3333
LLC_LOOKUP_READ STAT	CBOX14C2	7933262	0	7933262	440736.7778
LLC_LOOKUP_READ STAT	CBOX15C2	7974506	0	7974506	443028.1111
LLC_LOOKUP_READ STAT	CBOX16C2	6578311	0	6578311	365461.7222
LLC_LOOKUP_READ STAT	CBOX17C2	6576624	0	6576624	365368
LLC_LOOKUP_WRITE STAT	CBOX0C3	3211902	0	3211902	178439
LLC_LOOKUP_WRITE STAT	CBOX1C3	3283357	0	3283357	182408.7222
LLC_LOOKUP_WRITE STAT	CBOX2C3	3288786	0	3288786	182710.3333
LLC_LOOKUP_WRITE STAT	CBOX3C3	3277978	0	3277978	182109.8889
LLC_LOOKUP_WRITE STAT	CBOX4C3	3287790	0	3287790	182655
LLC_LOOKUP_WRITE STAT	CBOX5C3	3282457	0	3282457	182358.7222
LLC_LOOKUP_WRITE STAT	CBOX6C3	3286682	0	3286682	182593.4444
LLC_LOOKUP_WRITE STAT	CBOX7C3	3281369	0	3281369	182298.2778
LLC_LOOKUP_WRITE STAT	CBOX8C3	3281667	0	3281667	182314.8333
LLC_LOOKUP_WRITE STAT	CBOX9C3	3308323	0	3308323	183795.7222
LLC_LOOKUP_WRITE STAT	CBOX10C3	3279091	0	3279091	182171.7222
LLC_LOOKUP_WRITE STAT	CBOX11C3	3277398	0	3277398	182077.6667
LLC_LOOKUP_WRITE STAT	CBOX12C3	3279984	0	3279984	182221.3333
LLC_LOOKUP_WRITE STAT	CBOX13C3	3280296	0	3280296	182238.6667
LLC_LOOKUP_WRITE STAT	CBOX14C3	3280356	0	3280356	182242
LLC_LOOKUP_WRITE STAT	CBOX15C3	3276755	0	3276755	182041.9444
LLC_LOOKUP_WRITE STAT	CBOX16C3	2857527	0	2857527	158751.5000
LLC_LOOKUP_WRITE STAT	CBOX17C3	2855715	0	2855715	158650.8333
CAS_COUNT_RD STAT	MBOX0C0	33071887	0	33071887	1.837327e+06
CAS_COUNT_WR STAT	MBOX0C1	13918526	0	13918526	773251.4444
CAS_COUNT_RD STAT	MBOX1C0	33098676	0	33098676	1.838815e+06
CAS_COUNT_WR STAT	MBOX1C1	13943344	0	13943344	774630.2222
CAS_COUNT_RD STAT	MBOX4C0	33040588	0	33040588	1.835588e+06
CAS_COUNT_WR STAT	MBOX4C1	13905812	0	13905812	772545.1111
CAS_COUNT_RD STAT	MBOX5C0	33099003	0	33099003	1.838834e+06
CAS_COUNT_WR STAT	MBOX5C1	13948957	0	13948957	774942.0556
UNCORE_CLOCK STAT	UBOXFIX	3832965370	0	3832965370	2.129425e+08
PWR_PKG_ENERGY STAT	PWR0	63.9039	0	63.9039	3.5502
PWR_DRAM_ENERGY STAT	PWR3	12.0224	0	12.0224	0.6679

Metric	Sum	Min	Max	Avg
Time: Runtime (RDTSC) [s] STAT	23.9094	1.3283	1.3283	1.3283
Time: Runtime unhaltd [s] STAT	1.2172	0	1.1833	0.0676
inverseClock STAT	7.844486e-09	4.358048e-10	4.358048e-10	4.358048e-10
Clock [MHz] STAT	23421.8415	1196.7770	3526.0938	1301.2134
Uncore Clock [MHz] STAT	2885.5788	0	2885.5788	160.3099
Time: Core total stall STAT	0.3298	1.463013e-05	0.3046	0.0183
Time: Core l2 stall STAT	0.1231	9.591594e-06	0.1088	0.0068
Time: Core ldm stall STAT	0.2034	1.171313e-05	0.1804	0.0113
CPI STAT	66.1768	0.6479	16.5311	3.6765
Power PKG [W] STAT	48.1089	0	48.1089	2.6727
Power DRAM [W] STAT	9.0508	0	9.0508	0.5028
Energy PKG [J] STAT	63.9039	0	63.9039	3.5502
Energy DRAM [J] STAT	12.0224	0	12.0224	0.6679
L2M Pending[%] STAT	715.2844	9.1940	65.5649	39.7380
LD Pending[%] STAT	858.9171	15.2418	80.6345	47.7176
LLC Any bandwidth [Bytes/s] STAT	12334900000	0	12334900000	6.852722e+08
LLC data read bandwidth [Bytes/s] STAT	3984484000	0	3984484000	2.213602e+08
LLC read bandwidth [Bytes/s] STAT	6755271000	0	6755271000	3.752928e+08
LLC write bandwidth [Bytes/s] STAT	2803061000	0	2803061000	1.557256e+08
LLC Any volume [Bytes] STAT	16384670336	0	16384670336	9.102595e+08
LLC data read volume [Bytes] STAT	5292660672	0	5292660672	294036704
LLC read volume [Bytes] STAT	8973146432	0	8973146432	4.985081e+08
LLC write volume [Bytes] STAT	3723355712	0	3723355712	2.068531e+08
DRAM read bandwidth [Bytes/s] STAT	6374868000	0	6374868000	3.541593e+08
DRAM write bandwidth [Bytes/s] STAT	2684497000	0	2684497000	1.491387e+08
DRAM read volume [Bytes] STAT	8467849856	0	8467849856	4.704361e+08
DRAM write volume [Bytes] STAT	3565864896	0	3565864896	1.981036e+08
Time: MEM busy STAT	0.2022	0	0.2022	0.0112
Time: L3 busy STAT	0.0328	0	0.0328	0.0018
Ins [] STAT	6460623667	0	6439682028	3.589235e+08
Cycle [] STAT	4214768007	0	4172338749	2.341538e+08
Stall_l2m [] STAT	401928679	0	383606355	2.232937e+07
Stall_mem [] STAT	664969926	0	635940572	3.694277e+07
L3_Latency [] STAT	1.5699	0	1.4984	0.0872
DRAM_latency [] STAT	3.5366	0	3.3822	0.1965