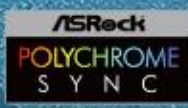




CUBE

ALL-IN-ONE LIQUID COOLER WITH ARGB FANS



240mm Average temperature

	CPU MAX	CPU Average	CPU Package MAX	CPU Package average
BitFenix CUBE	82.3	74.3	82.0	80.0
Galahad ii Trinity SL-INF	83.3	73.7	83.7	81.0
iCUE H100i ELITE CAPELLIX XT	86.7	79	87.3	84.3

CPU	13900KF
MB	ROG STRIX Z790-E GAMING
RAM	GeIL EVO V DDR5 RGB Hardcore Gaming Memory
VGA	GeForce RTX™ 3090 GAMING X TRIO 24G
Test Software	Prime95 - Small FFTs- 20 minutes
Remark	Indoor temperature 24 degrees (±1 degrees)

BitFenix CUBE 240mm

	CPU MAX	CPU Average	CPU Package MAX	CPU Package average
T 1	82	74	82	80
T 2	82	75	82	80
T 3	83	74	82	80
Average temperature	82.3	74.3	82.0	80.0

CPU	13900KF
MB	ROG STRIX Z790-E GAMING
RAM	GeIL EVO V DDR5 RGB Hardcore Gaming Memory
VGA	GeForce RTX™ 3090 GAMING X TRIO 24G
Test Software	Prime95 - Small FFTs- 20 minutes
Remark	Indoor temperature 24 degrees (±1 degrees)

BitFenix CUBE 240mm T 1 Full Test Video <https://youtu.be/4eMikFIY28Y>

Prime95 Test Edit Advanced Options Window Help

Main thread

Window #1 - Texture Test

Window #2 - Texture Test

Window #3 - Texture Test

Window #4 - Texture Test

Window #5 - Texture Test

Window #6 - Texture Test

Window #7 - Texture Test

Window #8 - Texture Test

Window #9 - Texture Test

Window #10 - Texture Test

Window #11 - Texture Test

Window #12 - Texture Test

Window #13 - Texture Test

Window #14 - Texture Test

Window #15 - Texture Test

Window #16 - Texture Test

Window #17 - Texture Test

Window #18 - Texture Test

Window #19 - Texture Test

Window #20 - Texture Test

Window #21 - Texture Test

Window #22 - Texture Test

For Help, press F1

HWiNFO64 本機 - 捷徑 Microsoft Edge 0914-1 0918-2 0915--c-1

rex CrystalDi... DevilZone... 0915-2 20230914-火 0907

20230216-改水道後溫度... 3DMark p95v308b1... Cinebench... 20230914-火 0915--c-2

extreme_t... FastCopy 360 AIO 360 0914-CUB... 0918-240-1

HWiNFO64 v7.36-4960 - Sensors Status

Sensor	Current	Minimum	Maximum	Average
System: ASUS				
Virtual Memory Committed	7,147 MB	7,049 MB	7,837 MB	7,225 MB
Virtual Memory Available	30,297 MB	29,607 MB	30,394 MB	30,219 MB
Virtual Memory Load	19.0 %	18.8 %	20.9 %	19.2 %
Physical Memory Used	4,475 MB	4,440 MB	5,185 MB	4,565 MB
Physical Memory Available	28,105 MB	27,395 MB	28,140 MB	28,015 MB
Physical Memory Load	13.7 %	13.6 %	15.9 %	14.0 %
Page File Usage	0.0 %	0.0 %	0.0 %	0.0 %
CPU [#0]: Intel Core i9-13900KF				
Core VIDs	1.082 V	1.036 V	1.380 V	1.089 V
Uncore VID	1.139 V	1.104 V	1.274 V	1.139 V
SA VID	1.154 V	1.154 V	1.154 V	1.154 V
Core Clocks	4,112.5 MHz	3,700.0 MHz	5,500.0 MHz	4,131.5 MHz
Bus Clock	100.0 MHz	100.0 MHz	100.0 MHz	100.0 MHz
Ring/LLC Clock	4,200.0 MHz	4,100.0 MHz	4,600.0 MHz	4,228.5 MHz
Core Effective Clocks	4,150.8 MHz	0.1 MHz	4,870.5 MHz	4,173.0 MHz
Average Effective Clock	4,312.5 MHz	55.7 MHz	4,461.4 MHz	4,331.3 MHz
Core Usage	100.0 %	0.0 %	100.0 %	99.6 %
Max CPU/Thread Usage	100.0 %	69.2 %	100.0 %	99.9 %
Total CPU Usage	100.0 %	3.0 %	100.0 %	99.6 %
On-Demand Clock Modulation	100.0 %	100.0 %	100.0 %	100.0 %
Core Utility	141.3 %	0.0 %	163.3 %	141.7 %
Total CPU Utility	141.3 %	6.2 %	144.3 %	141.7 %
Core Ratios	41.1 x	37.0 x	55.0 x	41.3 x
Uncore Ratio	42.0 x	41.0 x	46.0 x	42.3 x
CPU [#0]: Intel Core i9-13900KF: DTS				
Core Temperatures	75 °C	30 °C	82 °C	74 °C
Core Distance to TJMAX	25 °C	18 °C	70 °C	26 °C
CPU Package	80 °C	44 °C	82 °C	80 °C
Core Max	81 °C	43 °C	82 °C	80 °C
Core Thermal Throttling	No	No	No	
Core Critical Temperature	No	No	No	
Core Power Limit Exceeded	Yes	No	Yes	
Package/Ring Thermal Throttling	No	No	No	
Package/Ring Critical Temperature	No	No	No	
Package/Ring Power Limit Exceeded	Yes	No	Yes	
CPU [#0]: Intel Core i9-13900KF: Enhanced				
CPU Package	80 °C	45 °C	82 °C	80 °C
CPU IA Cores	80 °C	45 °C	82 °C	80 °C
VR VCC Temperature (SVID)	52 °C	38 °C	53 °C	49 °C
Voltage Offsets		0.000 V	0.000 V	
VDDQ TX Voltage	1.100 V	1.100 V	1.100 V	1.100 V
CPU Package Power	249.935 W	35.249 W	250.220 W	249.184 W
IA Cores Power	236.779 W	26.939 W	237.707 W	235.695 W
System Agent Power	11.321 W	7.073 W	12.179 W	11.565 W
Rest-of-Chip Power	0.984 W	0.421 W	1.380 W	1.075 W
Sensor				
PL1 Power Limit	270.0 W	270.0 W	270.0 W	270.0 W
PL2 Power Limit	250.0 W	250.0 W	250.0 W	250.0 W
OC Ratio Limits		1.0 x	58.0 x	
CPU [#0]: Intel Core i9-13900KF: C-State R...				
Package C2 Residency	0.0 %	0.0 %	0.0 %	0.0 %
Package C3 Residency	0.0 %	0.0 %	0.0 %	0.0 %
Core C0 Residency	97.4 %	0.0 %	99.7 %	97.3 %
Core C1 Residency	0.0 %	0.0 %	62.8 %	0.0 %
Core C6 Residency	0.0 %	0.0 %	99.0 %	0.2 %
Core C7 Residency	0.0 %	0.0 %	99.9 %	0.3 %
Memory Timings				
CPU [#0]: Intel Core i9-13900KF: Performa...				
IA Limit Reasons	Yes	No	Yes	
GT Limit Reasons	No	No	No	
Ring Limit Reasons	No	No	Yes	
ASUS ROG STRIX Z790-E GAMING WIFI (N...				
Motherboard	30 °C	29 °C	31 °C	30 °C
CPU (Weighted Value)	30 °C	29 °C	31 °C	30 °C
CPU Package	80 °C	39 °C	81 °C	80 °C
CPU	69 °C	31 °C	70 °C	69 °C
PCH	56 °C	50 °C	57 °C	54 °C
Vcore	1.074 V	1.066 V	1.359 V	1.093 V
+5V	4.960 V	4.960 V	5.000 V	4.961 V
AVSB	3.392 V	3.392 V	3.408 V	3.392 V
3VCC	3.264 V	3.264 V	3.296 V	3.265 V
+12V	12.000 V	12.000 V	12.192 V	12.078 V
VIN8	1.104 V	0.376 V	1.176 V	1.114 V
VIN4	0.920 V	0.888 V	1.224 V	0.929 V
3VSB_ATX	3.392 V	3.392 V	3.408 V	3.392 V
VTT	1.040 V	1.040 V	1.040 V	1.040 V
IMC VDD	1.225 V	1.225 V	1.243 V	1.226 V
CPU L2	1.120 V	0.000 V	1.168 V	1.116 V
VIN2	1.056 V	1.056 V	1.064 V	1.056 V
CPU VCCSA	1.168 V	1.136 V	1.168 V	1.168 V
VCCIN_AUX	1.776 V	1.776 V	1.792 V	1.776 V
VIN9	0.920 V	0.912 V	0.944 V	0.933 V
VHIF	1.808 V	1.808 V	1.808 V	1.808 V
CPU	1,821 RPM	750 RPM	1,893 RPM	1,792 RPM
AIO Pump	5,973 RPM	5,421 RPM	6,053 RPM	5,960 RPM
ASUS EC: ASUS				
VRM	52.0 °C	38.0 °C	53.0 °C	48.8 °C
Accumulated CPU Temperature	17,647,6...	17,555,768...	17,647,646 °C	17,601,551...
IVR TX VDDQ	1.085 V	1.057 V	1.101 V	1.090 V
Accumulated CPU Voltage	501,853 V	500,612 V	501,853 V	501,230 V

0:20:01

上午 11:14

2023/9/19

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BitFenix CUBE 240mm T 2 Full Test Video <https://youtu.be/m-hf4wJs>

The screenshot displays a Windows 10 desktop environment during a system stress test. The Prime95 application is running in the background, showing a 'Main thread' and multiple 'Worker' threads. The HWINFO64 v7.36-4960 window is open, providing a detailed view of system sensors and their status.

Sensor	Current	Minimum	Maximum	Average
System: ASUS				
Virtual Memory Committed	7,244 MB	7,183 MB	7,277 MB	7,235 MB
Virtual Memory Available	30,200 MB	30,166 MB	30,261 MB	30,209 MB
Virtual Memory Load	19.3 %	19.1 %	19.4 %	19.3 %
Physical Memory Used	4,494 MB	4,469 MB	4,572 MB	4,498 MB
Physical Memory Available	28,086 MB	28,007 MB	28,111 MB	28,082 MB
Physical Memory Load	13.7 %	13.7 %	14.0 %	13.8 %
Page File Usage	0.1 %	0.1 %	0.1 %	0.1 %
CPU [#0]: Intel Core i9-13900KF				
Core VIDs	1.078 V	1.040 V	1.411 V	1.092 V
Uncore VID	1.149 V	1.106 V	1.261 V	1.140 V
SA VID	1.154 V	1.154 V	1.154 V	1.154 V
Core Clocks	4,112.5 MHz	3,600.0 MHz	5,800.0 MHz	4,137.3 MHz
Bus Clock	100.0 MHz	100.0 MHz	100.0 MHz	100.0 MHz
Ring/LLC Clock	4,300.0 MHz	4,100.0 MHz	4,600.0 MHz	4,239.0 MHz
Core Effective Clocks	4,125.2 MHz	0.5 MHz	4,881.6 MHz	4,146.2 MHz
Average Effective Clock	4,285.7 MHz	149.0 MHz	4,453.9 MHz	4,298.7 MHz
Core Usage	100.0 %	0.0 %	100.0 %	99.5 %
Max CPU/Thread Usage	100.0 %	71.7 %	100.0 %	99.9 %
Total CPU Usage	100.0 %	3.5 %	100.0 %	99.5 %
On-Demand Clock Modulation	100.0 %	100.0 %	100.0 %	100.0 %
Core Utility	140.7 %	0.0 %	169.6 %	141.2 %
Total CPU Utility	140.7 %	6.9 %	143.4 %	141.2 %
Core Ratios	41.1 x	36.0 x	58.0 x	41.4 x
Uncore Ratio	43.0 x	41.0 x	46.0 x	42.4 x
CPU [#0]: Intel Core i9-13900KF: DTS				
Core Temperatures	76 °C	30 °C	82 °C	75 °C
Core Distance to TJMAX	25 °C	18 °C	70 °C	25 °C
CPU Package	81 °C	50 °C	82 °C	80 °C
Core Max	79 °C	50 °C	82 °C	80 °C
Core Thermal Throttling	No	No	No	No
Core Critical Temperature	No	No	No	No
Core Power Limit Exceeded	Yes	No	Yes	No
Package/Ring Thermal Throttling	No	No	No	No
Package/Ring Critical Temperature	No	No	No	No
Package/Ring Power Limit Exceeded	Yes	No	Yes	No
CPU [#0]: Intel Core i9-13900KF: Enhanced				
CPU Package	79 °C	48 °C	82 °C	80 °C
CPU IA Cores	79 °C	48 °C	82 °C	80 °C
VR VCC Temperature (SVID)	53 °C	40 °C	53 °C	50 °C
Voltage Offsets	0.000 V	0.000 V	0.000 V	0.000 V
VDDQ TX Voltage	1.100 V	1.100 V	1.100 V	1.100 V
CPU Package Power	250.028 W	36.703 W	250.182 W	249.289 W
IA Cores Power	236.492 W	28.317 W	237.415 W	235.624 W
System Agent Power	11.565 W	7.151 W	12.385 W	11.718 W
Rest-of-Chip Power	1.124 W	0.421 W	1.374 W	1.099 W
ASUS ROG STRIX Z790-E GAMING WIFI (N...)				
Motherboard	32 °C	30 °C	32 °C	31 °C
CPU (Weighted Value)	32 °C	30 °C	32 °C	31 °C
CPU Package	80 °C	41 °C	81 °C	80 °C
CPU	70 °C	34 °C	70 °C	69 °C
PCH	58 °C	54 °C	59 °C	56 °C
Vcore	1.092 V	1.066 V	1.359 V	1.096 V
+5V	4.960 V	4.960 V	5.000 V	4.962 V
AVSB	3.392 V	3.392 V	3.408 V	3.392 V
3VCC	3.264 V	3.264 V	3.296 V	3.266 V
+12V	12.096 V	12.000 V	12.096 V	12.073 V
VIN8	1.112 V	1.096 V	1.128 V	1.116 V
VIN4	0.920 V	0.008 V	0.992 V	0.934 V
3VSB_ATX	3.392 V	3.392 V	3.392 V	3.392 V
VTT	1.040 V	1.040 V	1.040 V	1.040 V
IMC VDD	1.225 V	1.225 V	1.243 V	1.225 V
CPU L2	1.104 V	1.104 V	1.168 V	1.119 V
VIN2	1.056 V	1.056 V	1.064 V	1.056 V
CPU VCCSA	1.168 V	1.136 V	1.168 V	1.168 V
VCCIN_AUX	1.776 V	1.776 V	1.776 V	1.776 V
VIN9	0.896 V	0.888 V	0.920 V	0.907 V
VHIF	1.808 V	1.792 V	1.808 V	1.808 V
CPU	1,906 RPM	771 RPM	1,936 RPM	1,824 RPM
AIO Pump	6,000 RPM	5,510 RPM	6,026 RPM	5,961 RPM
ASUS EC: ASUS				
VRM	53.0 °C	40.0 °C	53.0 °C	49.7 °C
Accumulated CPU Temperature	17,838,6...	17,746,170...	17,838,612 °C	17,792,290...
IVR TX VDDQ	1.095 V	1.070 V	1.101 V	1.089 V
Accumulated CPU Voltage	506,398 V	505,151 V	506,398 V	505,773 V
VRM Vcore Current	215 A	21 A	239 A	222 A

BitFenix CUBE 240mm T3 Full Test Video

<https://youtu.be/COcUeK6-Gp8>

The screenshot displays a Windows desktop during a stress test. The Prime95 window is in the foreground, showing a 'Main thread' and a list of 'Worker' threads, all with green progress bars. The HWINFO64 window shows system and sensor data. The sensor monitoring window on the right provides a detailed view of various sensors.

Sensor	Current	Minimum	Maximum	Average
System: ASUS				
Virtual Memory Committed	6,953 MB	0,876 MB	7,564 MB	0,903 MB
Virtual Memory Available	30,491 MB	29,880 MB	30,568 MB	30,480 MB
Virtual Memory Load	18.5 %	18.3 %	20.2 %	18.5 %
Physical Memory Used	4,495 MB	4,458 MB	5,144 MB	4,531 MB
Physical Memory Available	28,085 MB	27,436 MB	28,121 MB	28,049 MB
Physical Memory Load	13.7 %	13.6 %	15.7 %	13.9 %
Page File Usage	0.0 %	0.0 %	0.0 %	0.0 %
CPU [#0]: Intel Core i9-12900KF				
Core VIDs	1,083 V	1,036 V	1,355 V	1,089 V
Uncore VID	1,149 V	1,106 V	1,264 V	1,139 V
SA VID	1,154 V	1,154 V	1,154 V	1,154 V
Core Clocks	4,108.0 MHz	3,700.0 MHz	5,500.0 MHz	4,133.6 MHz
Bus Clock	100.0 MHz	100.0 MHz	100.0 MHz	100.0 MHz
Ring/LLC Clock	4,300.0 MHz	4,100.0 MHz	4,600.0 MHz	4,235.1 MHz
Core Effective Clocks	4,130.8 MHz	0.5 MHz	4,872.4 MHz	4,171.9 MHz
Average Effective Clock	4,296.4 MHz	142.2 MHz	4,456.7 MHz	4,334.8 MHz
Core Usage	100.0 %	0.0 %	100.0 %	99.6 %
Max CPU/Thread Usage	100.0 %	67.1 %	100.0 %	99.9 %
Total CPU Usage	100.0 %	3.8 %	100.0 %	99.6 %
On-Demand Clock Modulation	100.0 %	100.0 %	100.0 %	141.6 %
Core Utility	141.0 %	0.0 %	163.0 %	141.6 %
Total CPU Utility	141.0 %	6.9 %	143.7 %	141.6 %
Core Ratios	41.1 x	32.0 x	55.0 x	41.3 x
Uncore Ratio	43.0 x	41.0 x	46.0 x	42.1 x
CPU [#0]: Intel Core i9-12900KF: DTS				
Core Temperatures	75 °C	28 °C	83 °C	74 °C
Core Distance to TJMAX	25 °C	17 °C	72 °C	26 °C
CPU Package	82 °C	43 °C	82 °C	80 °C
Core Max	81 °C	43 °C	83 °C	80 °C
Core Thermal Throttling	No	No	No	No
Core Critical Temperature	No	No	No	No
Core Power Limit Exceeded	Yes	No	Yes	Yes
Package/Ring Thermal Throttling	No	No	No	No
Package/Ring Critical Temperature	No	No	No	No
Package/Ring Power Limit Exceeded	Yes	No	Yes	Yes
CPU [#0]: Intel Core i9-12900KF: Enhanced				
CPU Package	80 °C	46 °C	82 °C	80 °C
CPU IA Cores	80 °C	46 °C	82 °C	80 °C
VR VCC Temperature (SVID)	53 °C	38 °C	53 °C	49 °C
Voltage Offsets	0.000 V	0.000 V	0.000 V	0.000 V
VDDQ TX Voltage	1.100 V	1.100 V	1.100 V	1.100 V
CPU Package Power	250.094 W	36.216 W	250.181 W	249.256 W
IA Cores Power	236.864 W	27.947 W	237.932 W	235.799 W
System Agent Power	11.232 W	7.071 W	12.240 W	11.569 W
Rest-of-Chip Power	1.048 W	0.420 W	1.373 W	1.029 W

Sensor	Current	Minimum	Maximum	Average
FL1 Power Limit	270.0 W	270.0 W	270.0 W	270.0 W
FL2 Power Limit	250.0 W	250.0 W	250.0 W	250.0 W
OC Ratio Limits	1.0 x	1.0 x	1.0 x	1.0 x
CPU [#0]: Intel Core i9-12900KF: Co-Store II				
Package C2 Residency	0.0 %	0.0 %	0.0 %	0.0 %
Package C3 Residency	0.0 %	0.0 %	0.0 %	0.0 %
Core C0 Residency	97.1 %	0.0 %	99.7 %	97.3 %
Core C1 Residency	0.0 %	0.0 %	53.5 %	0.0 %
Core C2 Residency	0.0 %	0.0 %	98.3 %	0.2 %
Core C3 Residency	0.0 %	0.0 %	99.9 %	0.2 %
Memory Timings				
CPU [#0]: Intel Core i9-12900KF: Performance				
IA Limit Reasons	Yes	No	Yes	Yes
GT Limit Reasons	No	No	No	No
Ring Limit Reasons	No	No	Yes	Yes
ASUS ROG STRIX Z790-E GAMING WIFI (U)				
Motherboard	32 °C	29 °C	32 °C	30 °C
CPU (Weighted Value)	32 °C	29 °C	32 °C	30 °C
CPU Package	81 °C	42 °C	81 °C	80 °C
CPU	79 °C	34 °C	71 °C	69 °C
PCI	56 °C	49 °C	57 °C	54 °C
Vcore	1,083 V	1,066 V	1,332 V	1,093 V
+5V	4,960 V	4,960 V	5,000 V	4,962 V
AVS0	3,392 V	3,392 V	3,408 V	3,392 V
VCC	3,264 V	3,264 V	3,296 V	3,265 V
V12V	12,096 V	12,096 V	12,096 V	12,079 V
VINR	1,112 V	1,104 V	1,128 V	1,115 V
VIN4	0,912 V	0,168 V	0,984 V	0,927 V
VPS0_ATX	3,392 V	3,392 V	3,408 V	3,392 V
VTT	1,040 V	1,040 V	1,040 V	1,040 V
IHC VDD	1,225 V	1,225 V	1,243 V	1,225 V
CPU I2	1,104 V	1,104 V	1,136 V	1,118 V
VIN2	1,056 V	1,056 V	1,064 V	1,056 V
CPU VCCSA	1,168 V	1,136 V	1,168 V	1,168 V
VCCIN_AUX	1,776 V	1,776 V	1,776 V	1,776 V
VIN9	0,816 V	0,896 V	0,944 V	0,922 V
VIN1	1,808 V	1,808 V	1,808 V	1,809 V
CPU	1,906 RPM	704 RPM	1,923 RPM	1,819 RPM
AIO Pump	6,000 RPM	5,400 RPM	6,053 RPM	5,960 RPM
ASUS EC: ASUS				
VRM	52.0 °C	37.0 °C	53.0 °C	49.0 °C
Accumulated CPU Temperature	18,092,1...	17,999,750...	18,092,124 °C	18,045,720...
VRM TX VDDQ	1,095 V	1,064 V	1,098 V	1,090 V
Accumulated CPU Voltage	512,048 V	510,803 V	512,048 V	511,424 V

Galahad ii Trinity SL-INF 240

	CPU MAX	CPU Average	CPU Package MAX	CPU Package average
T 1	83	74	83	81
T 2	83	73	83	81
T 3	84	74	85	81
Average temperature	83.3	73.7	83.7	81.0

CPU	13900KF
MB	ROG STRIX Z790-E GAMING
RAM	GeIL EVO V DDR5 RGB Hardcore Gaming Memory
VGA	GeForce RTX™ 3090 GAMING X TRIO 24G
Test Software	Prime95 - Small FFTs- 20 minutes
Remark	Indoor temperature 24 degrees (±1 degrees)

Galahad ii Trinity SL-INF 240 T 1 Full Test Video

<https://youtu.be/Me-Zd0a3hno>

HWINFO64 v7.36-4960 - Sensors Status

Sensor	Current	Minimum	Maximum	Average
System: ASUS				
Virtual Memory Committed	7,319 MB	7,221 MB	7,408 MB	7,314 MB
Virtual Memory Available	30,124 MB	30,035 MB	30,223 MB	30,130 MB
Virtual Memory Load	19.5 %	19.2 %	19.7 %	19.5 %
Physical Memory Used	4,632 MB	4,601 MB	4,742 MB	4,654 MB
Physical Memory Available	27,948 MB	27,838 MB	27,979 MB	27,926 MB
Physical Memory Load	14.2 %	14.1 %	14.5 %	14.2 %
Page File Usage	0.1 %	0.1 %	0.1 %	0.1 %
CPU [#0]: Intel Core i9-13900KF				
Core VIDs	1.074 V	1.039 V	1.413 V	1.087 V
Uncore VID	1.121 V	1.104 V	1.261 V	1.137 V
SA VID	1.154 V	1.154 V	1.154 V	1.154 V
Core Clocks	4,100.0 MHz	3,700.0 MHz	5,800.0 MHz	4,126.6 MHz
Bus Clock	100.0 MHz	100.0 MHz	100.0 MHz	100.0 MHz
Ring/LLC Clock	4,200.0 MHz	4,100.0 MHz	4,600.0 MHz	4,222.5 MHz
Core Effective Clocks	4,163.6 MHz	0.6 MHz	4,863.5 MHz	4,167.4 MHz
Average Effective Clock	4,391.3 MHz	147.5 MHz	4,466.0 MHz	4,389.9 MHz
Core Usage	100.0 %	0.0 %	100.0 %	99.6 %
Max CPU/Thread Usage	100.0 %	66.4 %	100.0 %	99.9 %
Total CPU Usage	100.0 %	3.7 %	100.0 %	99.6 %
On-Demand Clock Modulation	100.0 %	100.0 %	100.0 %	100.0 %
Core Utility	140.6 %	0.0 %	162.7 %	141.5 %
Total CPU Utility	140.6 %	7.1 %	143.5 %	141.5 %
Core Ratios	41.0 x	37.0 x	58.0 x	41.3 x
Uncore Ratio	42.0 x	41.0 x	46.0 x	42.2 x
CPU [#0]: Intel Core i9-13900KF: DTS				
Core Temperatures	75 °C	32 °C	83 °C	74 °C
Core Distance to TJMAX	26 °C	17 °C	68 °C	26 °C
CPU Package	82 °C	49 °C	83 °C	81 °C
Core Max	82 °C	51 °C	83 °C	81 °C
Core Thermal Throttling	No	No	No	
Core Critical Temperature	No	No	No	
Core Power Limit Exceeded	Yes	No	Yes	
Package/Ring Thermal Throttling	No	No	No	
Package/Ring Critical Temperature	No	No	No	
Package/Ring Power Limit Exceeded	Yes	No	Yes	
CPU [#0]: Intel Core i9-13900KF: Enhanced				
CPU Package	82 °C	50 °C	83 °C	81 °C
CPU IA Cores	82 °C	50 °C	83 °C	81 °C
VR VCC Temperature (SVID)	64 °C	41 °C	65 °C	58 °C
Voltage Offsets	0.000 V	0.000 V	0.000 V	
VDDQ TX Voltage	1.100 V	1.100 V	1.100 V	1.100 V
CPU Package Power	249.902 W	37.537 W	250.254 W	249.287 W
IA Cores Power	236.405 W	29.030 W	237.587 W	235.631 W
System Agent Power	11.587 W	7.267 W	12.408 W	11.729 W
Rest-of-Chip Power	1.062 W	0.420 W	1.374 W	1.079 W

Sensor	Current	Minimum	Maximum	Average
PL1 Power Limit	270.0 W	270.0 W	270.0 W	270.0 W
PL2 Power Limit	250.0 W	250.0 W	250.0 W	250.0 W
OC Ratio Limits		1.0 x	58.0 x	
CPU [#0]: Intel Core i9-13900KF: C-State R...				
Package C2 Residency	0.0 %	0.0 %	0.0 %	0.0 %
Core C0 Residency	98.2 %	0.0 %	99.8 %	97.3 %
Core C1 Residency	0.0 %	0.0 %	48.6 %	0.0 %
Core C6 Residency	0.0 %	0.0 %	97.1 %	0.2 %
Core C7 Residency	0.0 %	0.0 %	99.0 %	0.2 %
Memory Timings				
CPU [#0]: Intel Core i9-13900KF: Performa...				
IA Limit Reasons	Yes	No	Yes	
GT Limit Reasons	No	No	No	
Ring Limit Reasons	No	No	Yes	
ASUS ROG STRIX Z790-E GAMING WIFI (N...				
Motherboard	32 °C	30 °C	32 °C	31 °C
CPU (Weighted Value)	32 °C	30 °C	32 °C	31 °C
CPU Package	82 °C	45 °C	82 °C	81 °C
CPU	71 °C	35 °C	71 °C	70 °C
PCH	58 °C	51 °C	58 °C	55 °C
Vcore	1.074 V	1.057 V	1.368 V	1.091 V
+5V	4.960 V	4.960 V	5.000 V	4.985 V
AVSB	3.392 V	3.392 V	3.408 V	3.394 V
3VCC	3.264 V	3.248 V	3.296 V	3.274 V
+12V	12.096 V	12.000 V	12.192 V	12.096 V
VIN8	1.112 V	1.104 V	1.184 V	1.115 V
VIN4	0.912 V	0.160 V	0.984 V	0.927 V
3VSB_ATX	3.392 V	3.392 V	3.408 V	3.392 V
VTT	1.040 V	1.040 V	1.040 V	1.040 V
IMC VDD	1.225 V	1.225 V	1.243 V	1.225 V
CPU L2	1.104 V	0.288 V	1.120 V	1.117 V
VIN2	1.056 V	1.056 V	1.064 V	1.058 V
CPU VCCSA	1.168 V	1.136 V	1.168 V	1.168 V
VCCIN_AUX	1.776 V	1.776 V	1.792 V	1.776 V
VIN9	0.888 V	0.888 V	0.920 V	0.905 V
VHIF	1.808 V	1.808 V	1.808 V	1.808 V
CPU	2,061 RPM	671 RPM	2,177 RPM	2,054 RPM
AIO Pump	3,154 RPM	3,132 RPM	3,176 RPM	3,156 RPM
ASUS EC: ASUS				
VRM	64.0 °C	41.0 °C	65.0 °C	57.6 °C
Accumulated CPU Temperature	20,244,6...	20,150,954...	20,244,626 °C	20,197,650...
IVR TX VDDQ	1.089 V	1.045 V	1.098 V	1.091 V
Accumulated CPU Voltage	562,983 V	561,739 V	562,983 V	562,360 V
VRM Vcore Current	229 A	19 A	238 A	222 A

Galahad ii Trinity SL-INF 240 T 2 Full Test Video

<https://youtu.be/d1NTX5CZf3s>

The screenshot displays a Windows 10 desktop environment during a stress test. The Prime95 application is running in the background, showing a 'Main thread' and multiple 'Worker' threads. The HWINFO64 v7.36-4960 window is open, providing detailed sensor data for the system. The taskbar includes icons for HWINFO64, Microsoft Edge, and several folders. The system tray shows the time as 0:20:01 and the date as 2023/9/21.

Sensor	Current	Minimum	Maximum	Average
System: ASUS				
Virtual Memory Committed	7,331 MB	6,968 MB	7,954 MB	7,309 MB
Virtual Memory Available	30,113 MB	29,489 MB	30,476 MB	30,135 MB
Virtual Memory Load	19.5 %	18.6 %	21.2 %	19.5 %
Physical Memory Used	4,662 MB	4,478 MB	5,294 MB	4,687 MB
Physical Memory Available	27,918 MB	27,286 MB	28,101 MB	27,893 MB
Physical Memory Load	14.3 %	13.7 %	16.2 %	14.3 %
Page File Usage	0.1 %	0.1 %	0.1 %	0.1 %
CPU [#0]: Intel Core i9-13900KF				
Core VIDs	1.077 V	1.035 V	1.346 V	1.088 V
Uncore VID	1.121 V	1.104 V	1.264 V	1.137 V
SA VID	1.154 V	1.154 V	1.154 V	1.154 V
Core Clocks	4,108.3 MHz	3,700.0 MHz	5,500.0 MHz	4,130.9 MHz
Bus Clock	100.0 MHz	100.0 MHz	100.0 MHz	100.0 MHz
Ring/LLC Clock	4,200.0 MHz	4,100.0 MHz	4,600.0 MHz	4,227.3 MHz
Core Effective Clocks	4,185.1 MHz	0.3 MHz	4,866.3 MHz	4,170.0 MHz
Average Effective Clock	4,397.4 MHz	82.0 MHz	4,469.5 MHz	4,395.7 MHz
Core Usage	100.0 %	0.0 %	100.0 %	99.7 %
Max CPU/Thread Usage	100.0 %	70.3 %	100.0 %	99.9 %
Total CPU Usage	100.0 %	3.5 %	100.0 %	99.7 %
On-Demand Clock Modulation	100.0 %	100.0 %	100.0 %	100.0 %
Core Utility	140.8 %	0.0 %	163.3 %	141.6 %
Total CPU Utility	140.8 %	6.8 %	144.0 %	141.6 %
Core Ratios	41.1 x	37.0 x	55.0 x	41.3 x
Uncore Ratio	42.0 x	41.0 x	46.0 x	42.3 x
CPU [#0]: Intel Core i9-13900KF: DTS				
Core Temperatures	74 °C	33 °C	83 °C	73 °C
Core Distance to TJMAX	26 °C	17 °C	67 °C	27 °C
CPU Package	81 °C	44 °C	83 °C	81 °C
Core Max	81 °C	43 °C	83 °C	81 °C
Core Thermal Throttling	No	No	No	
Core Critical Temperature	No	No	No	
Core Power Limit Exceeded	Yes	No	Yes	
Package/Ring Thermal Throttling	No	No	No	
Package/Ring Critical Temperature	No	No	No	
Package/Ring Power Limit Exceeded	Yes	No	Yes	
CPU [#0]: Intel Core i9-13900KF: Enhanced				
CPU Package	81 °C	47 °C	83 °C	81 °C
CPU IA Cores	81 °C	47 °C	83 °C	81 °C
VR VCC Temperature (SVID)	64 °C	40 °C	64 °C	57 °C
Voltage Offsets	0.000 V	0.000 V	0.000 V	
VDDQ TX Voltage	1.100 V	1.100 V	1.100 V	1.100 V
CPU Package Power	249.971 W	37.383 W	250.182 W	249.336 W
CPU Cores Power	236.578 W	28.960 W	237.650 W	235.733 W
System Agent Power	11.507 W	7.184 W	12.537 W	11.678 W
Rest-of-Chip Power	1.037 W	0.420 W	1.380 W	1.078 W
PL1 Power Limit				
PL1 Power Limit	270.0 W	270.0 W	270.0 W	270.0 W
PL2 Power Limit	250.0 W	250.0 W	250.0 W	250.0 W
OC Ratio Limits				
OC Ratio Limits	1.0 x	58.0 x		
CPU [#0]: Intel Core i9-13900KF: C-State R...				
Package C2 Residency	0.0 %	0.0 %	0.0 %	0.0 %
Package C3 Residency	0.0 %	0.0 %	0.0 %	0.0 %
Core C0 Residency	98.6 %	0.0 %	99.7 %	97.3 %
Core C1 Residency	0.0 %	0.0 %	48.7 %	0.0 %
Core C6 Residency	0.0 %	0.0 %	97.9 %	0.2 %
Core C7 Residency	0.0 %	0.0 %	98.9 %	0.2 %
Memory Timings				
CPU [#0]: Intel Core i9-13900KF: Performa...				
IA Limit Reasons	Yes	No	Yes	
GT Limit Reasons	No	No	No	
Ring Limit Reasons	No	No	Yes	
ASUS ROG STRIX Z790-E GAMING WIFI (N...				
Motherboard	32 °C	29 °C	32 °C	30 °C
CPU (Weighted Value)	32 °C	29 °C	32 °C	30 °C
CPU Package	81 °C	43 °C	82 °C	81 °C
CPU	70 °C	34 °C	71 °C	70 °C
PCH	56 °C	48 °C	57 °C	53 °C
Vcore	1.083 V	1.057 V	1.376 V	1.092 V
+5V	5.000 V	4.960 V	5.000 V	4.985 V
AVSB	3.392 V	3.392 V	3.408 V	3.396 V
3VCC	3.280 V	3.264 V	3.296 V	3.274 V
+12V	12.096 V	12.000 V	12.096 V	12.096 V
VIN8	1.112 V	1.096 V	1.128 V	1.115 V
VIN4	0.920 V	0.912 V	1.184 V	0.929 V
3VSB_ATX	3.392 V	3.392 V	3.408 V	3.393 V
VTT	1.040 V	1.040 V	1.040 V	1.040 V
IMC VDD	1.225 V	1.225 V	1.243 V	1.225 V
CPU L2	1.104 V	0.016 V	1.136 V	1.117 V
VIN2	1.056 V	1.056 V	1.064 V	1.059 V
CPU VCCSA	1.168 V	1.136 V	1.168 V	1.168 V
VCCIN_AUX	1.776 V	1.776 V	1.792 V	1.776 V
VIN9	0.896 V	0.896 V	0.944 V	0.921 V
VHIF	1.808 V	1.808 V	1.808 V	1.808 V
CPU	2,000 RPM	516 RPM	2,209 RPM	2,038 RPM
AIO Pump	3,154 RPM	3,139 RPM	3,176 RPM	3,156 RPM
ASUS EC: ASUS				
VRM	64.0 °C	39.0 °C	64.0 °C	56.7 °C
Accumulated CPU Temperature	20,462,500 °C	20,369,346 °C	20,462,592 °C	20,415,890 °C
IVR TX VDDQ	1.098 V	1.070 V	1.104 V	1.091 V
Accumulated CPU Voltage	568,247 V	567,004 V	568,247 V	567,625 V

Galahad ii Trinity SL-INF 240 T 3 Full Test Video

<https://youtu.be/0x9U7C8fMXQ>

The screenshot displays the HWINFO64 v7.36-4960 - Sensors Status window. The interface is divided into several sections:

- System: ASUS**
 - Virtual Memory Committed: 7,371 MB
 - Virtual Memory Available: 30,073 MB
 - Virtual Memory Load: 19.6 %
 - Physical Memory Used: 4,647 MB
 - Physical Memory Available: 27,933 MB
 - Physical Memory Load: 14.2 %
 - Page File Usage: 0.1 %
- CPU [#0]: Intel Core i9-13900KF**
 - Core VIDs: 1.071 V
 - Uncore VID: 1.106 V
 - SA VID: 1.154 V
 - Core Clocks: 4,079.2 MHz
 - Bus Clock: 100.0 MHz
 - Ring/LLC Clock: 4,100.0 MHz
 - Core Effective Clocks: 4,155.2 MHz
 - Average Effective Clock: 4,331.3 MHz
 - Core Usage: 100.0 %
 - Max CPU/Thread Usage: 100.0 %
 - Total CPU Usage: 100.0 %
 - On-Demand Clock Modulation: 100.0 %
 - Core Utility: 140.7 %
 - Total CPU Utility: 140.7 %
 - Core Ratios: 40.8 x
 - Uncore Ratio: 41.0 x
- CPU [#0]: Intel Core i9-13900KF: DTS**
 - Core Temperatures: 75 °C
 - Core Distance to TJMAX: 25 °C
 - CPU Package: 82 °C
 - Core Max: 81 °C
 - Core Thermal Throttling: No
 - Core Critical Temperature: No
 - Core Power Limit Exceeded: Yes
 - Package/Ring Thermal Throttling: No
 - Package/Ring Critical Temperature: No
 - Package/Ring Power Limit Exceeded: Yes
- CPU [#0]: Intel Core i9-13900KF: Enhanced**
 - CPU Package: 82 °C
 - CPU IA Cores: 82 °C
 - VR VCC Temperature (SVID): 66 °C
 - Voltage Offsets: 0.000 V
 - VDDQ TX Voltage: 1.100 V
 - CPU Package Power: 250.014 W
 - IA Cores Power: 236.356 W
 - System Agent Power: 11.710 W
 - Rest-of-Chip Power: 1.100 W
- PL1 Power Limit: 270.0 W**
- PL2 Power Limit: 250.0 W**
- OC Ratio Limits: 1.0 x**
- CPU [#0]: Intel Core i9-13900KF: C-State R...**
 - Package C2 Residency: 0.0 %
 - Package C3 Residency: 0.0 %
 - Core C0 Residency: 97.9 %
 - Core C1 Residency: 0.0 %
 - Core C6 Residency: 0.0 %
 - Core C7 Residency: 0.0 %
- Memory Timings**
- CPU [#0]: Intel Core i9-13900KF: Performa...**
 - IA Limit Reasons: Yes
 - GT Limit Reasons: No
 - Ring Limit Reasons: No
- ASUS ROG STRIX Z790-E GAMING WIFI (N...**
 - Motherboard: 33 °C
 - CPU (Weighted Value): 33 °C
 - CPU Package: 82 °C
 - CPU: 71 °C
 - PCH: 61 °C
 - Vcore: 1.074 V
 - +5V: 5.000 V
 - AVSB: 3.392 V
 - 3VCC: 3.264 V
 - +12V: 12.096 V
 - VIN8: 1.112 V
 - VIN4: 0.928 V
 - 3VSB_ATX: 3.392 V
 - VTT: 1.040 V
 - IMC VDD: 1.225 V
 - CPU L2: 1.120 V
 - VIN2: 1.056 V
 - CPU VCCSA: 1.168 V
 - VCCIN_AUX: 1.776 V
 - VIN9: 0.880 V
 - VHIF: 1.808 V
 - CPU: 2,014 RPM
 - AIO Pump: 3,161 RPM
- ASUS EC: ASUS**
 - VRM: 66.0 °C
 - Accumulated CPU Temperature: 20,713,7...
 - IVR TX VDDQ: 1.092 V
 - Accumulated CPU Voltage: 574,537 V

The task manager window in the background shows a Prime95 test running with multiple threads. The taskbar at the bottom includes icons for HWINFO64, CrystalDiskInfo, DevilZone, and various folders. The system tray shows the time as 0:20:01 and the date as 2023/9/21.

iCUE H100i ELITE CAPELLIX XT 240

	CPU MAX	CPU Average	CPU Package MAX	CPU Package average
T 1	87	79	87	84
T 2	87	79	88	85
T 3	86	79	87	84
Average temperature	86.7	79	87.3	84.3

CPU	13900KF
MB	ROG STRIX Z790-E GAMING
RAM	GeIL EVO V DDR5 RGB Hardcore Gaming Memory
VGA	GeForce RTX™ 3090 GAMING X TRIO 24G
Test Software	Prime95 - Small FFTs- 20 minutes
Remark	Indoor temperature 24 degrees (±1 degrees)

iCUE H100i ELITE CAPELLIX XT 240 T 1 Full Test Video

<https://youtu.be/p1W6NDIJ-FI>

The screenshot displays the HWINFO64 v7.36-4960 - Sensors Status window. The interface is divided into several sections:

- System: ASUS**
 - Virtual Memory Committed: 7,188 MB
 - Virtual Memory Available: 30,255 MB
 - Virtual Memory Load: 19.1 %
 - Physical Memory Used: 4,576 MB
 - Physical Memory Available: 28,004 MB
 - Physical Memory Load: 14.0 %
 - Page File Usage: 0.1 %
- CPU [#0]: Intel Core i9-13900KF**
 - Core VIDs: 1.076 V
 - Uncore VID: 1.151 V
 - SA VID: 1.154 V
 - Core Clocks: 4,100.0 MHz
 - Bus Clock: 100.0 MHz
 - Ring/LLC Clock: 4,300.0 MHz
 - Core Effective Clocks: 4,109.5 MHz
 - Average Effective Clock: 4,277.8 MHz
 - Core Usage: 100.0 %
 - Max CPU/Thread Usage: 100.0 %
 - Total CPU Usage: 100.0 %
 - On-Demand Clock Modulation: 100.0 %
 - Core Utility: 140.1 %
 - Total CPU Utility: 140.1 %
 - Core Ratios: 41.0 x
 - Uncore Ratio: 43.0 x
- CPU [#0]: Intel Core i9-13900KF: DTS**
 - Core Temperatures: 80 °C
 - Core Distance to TJMAX: 20 °C
 - CPU Package: 83 °C
 - Core Max: 85 °C
 - Core Thermal Throttling: No
 - Core Critical Temperature: No
 - Core Power Limit Exceeded: Yes
 - Package/Ring Thermal Throttling: No
 - Package/Ring Critical Temperature: No
 - Package/Ring Power Limit Exceeded: Yes
- CPU [#0]: Intel Core i9-13900KF: Enhanced**
 - CPU Package: 85 °C
 - CPU IA Cores: 85 °C
 - VR VCC Temperature (SVID): 63 °C
 - Voltage Offsets: 0.000 V
 - VDDQ TX Voltage: 1.100 V
 - CPU Package Power: 249.932 W
 - IA Cores Power: 236.297 W
 - System Agent Power: 11.741 W
 - Rest-of-Chip Power: 1.039 W
- ASUS ROG STRIX Z790-E GAMING WIFI (N...)**
 - Motherboard: 32 °C
 - CPU (Weighted Value): 32 °C
 - CPU Package: 84 °C
 - CPU: 73 °C
 - PCH: 57 °C
 - Vcore: 1.083 V
 - +5V: 4.960 V
 - AVSB: 3.392 V
 - 3VCC: 3.264 V
 - +12V: 12.096 V
 - VIN8: 1.112 V
 - VIN4: 0.912 V
 - 3VSB_ATX: 3.392 V
 - VTT: 1.040 V
 - IMC VDD: 1.225 V
 - CPU L2: 1.120 V
 - VIN2: 1.056 V
 - CPU VCCSA: 1.168 V
 - VCCIN_AUX: 1.776 V
 - VIN9: 0.888 V
 - VHIF: 1.808 V
 - CPU: 2,202 RPM
 - AIO Pump: 2,250 RPM
- ASUS EC: ASUS**
 - VRM: 63.0 °C
 - Accumulated CPU Temperature: 19,683,704 °C
 - IVR TX VDDQ: 1.095 V
 - Accumulated CPU Voltage: 549,916 V

The taskbar at the bottom shows the system tray with the time 02:19 and date 2023/9/21. The taskbar also includes icons for HWINFO64, Microsoft Edge, and several folders.

iCUE H100i ELITE CAPELLIX XT 240 T 2 Full Test Video

https://youtu.be/yidDNVTX_gA

HWINFO64 v7.36-4960 - Sensors Status

Sensor	Current	Minimum	Maximum	Average
System: ASUS				
Virtual Memory Committed	7,354 MB	7,350 MB	7,453 MB	7,381 MB
Virtual Memory Available	30,089 MB	29,991 MB	30,094 MB	30,063 MB
Virtual Memory Load	19.6 %	19.6 %	19.9 %	19.7 %
Physical Memory Used	4,650 MB	4,646 MB	4,737 MB	4,678 MB
Physical Memory Available	27,930 MB	27,843 MB	27,934 MB	27,902 MB
Physical Memory Load	14.2 %	14.2 %	14.5 %	14.3 %
Page File Usage	0.1 %	0.1 %	0.1 %	0.1 %
CPU [#0]: Intel Core i9-13900KF				
Core VIDs	1.075 V	0.955 V	1.357 V	1.085 V
Uncore VID	1.124 V	1.106 V	1.261 V	1.135 V
SA VID	1.154 V	1.154 V	1.154 V	1.154 V
Core Clocks	4,070.8 MHz	3,600.0 MHz	5,500.0 MHz	4,107.8 MHz
Bus Clock	100.0 MHz	100.0 MHz	100.0 MHz	100.0 MHz
Ring/LLC Clock	4,200.0 MHz	4,100.0 MHz	4,600.0 MHz	4,219.2 MHz
Core Effective Clocks	4,162.7 MHz	0.7 MHz	4,881.1 MHz	4,128.7 MHz
Average Effective Clock	4,347.0 MHz	188.7 MHz	4,450.3 MHz	4,284.8 MHz
Core Usage	100.0 %	0.0 %	100.0 %	99.5 %
Max CPU/Thread Usage	100.0 %	65.9 %	100.0 %	99.9 %
Total CPU Usage	100.0 %	3.5 %	100.0 %	99.5 %
On-Demand Clock Modulation	100.0 %	100.0 %	100.0 %	100.0 %
Core Utility	140.1 %	0.0 %	163.5 %	140.7 %
Total CPU Utility	140.1 %	7.0 %	143.4 %	140.7 %
Core Ratios	40.7 x	36.0 x	55.0 x	41.1 x
Uncore Ratio	42.0 x	41.0 x	46.0 x	42.2 x
CPU [#0]: Intel Core i9-13900KF: DTS				
Core Temperatures	79 °C	32 °C	86 °C	79 °C
Core Distance to TJMAX	21 °C	14 °C	68 °C	21 °C
CPU Package	84 °C	46 °C	87 °C	84 °C
Core Max	84 °C	46 °C	86 °C	84 °C
Core Thermal Throttling	No	No	No	No
Core Critical Temperature	No	No	No	No
Core Power Limit Exceeded	Yes	No	Yes	84 °C
Package/Ring Thermal Throttling	No	No	No	No
Package/Ring Critical Temperature	No	No	No	No
Package/Ring Power Limit Exceeded	Yes	No	Yes	84 °C
CPU [#0]: Intel Core i9-13900KF: Enhanced				
CPU Package	85 °C	45 °C	87 °C	84 °C
CPU IA Cores	85 °C	45 °C	87 °C	84 °C
VR VCC Temperature (SVID)	64 °C	45 °C	65 °C	59 °C
Voltage Offsets	0.000 V	0.000 V	0.000 V	0.000 V
VDDQ TX Voltage	1.100 V	1.100 V	1.100 V	1.100 V
CPU Package Power	250.087 W	37.873 W	250.389 W	249.308 W
IA Cores Power	236.391 W	29.181 W	237.203 W	235.384 W
System Agent Power	11.784 W	7.449 W	12.652 W	11.988 W
Rest-of-Chip Power	1.058 W	0.421 W	1.382 W	1.083 W
ASUS ROG STRIX Z790-E GAMING WIFI (N...)				
Motherboard	33 °C	32 °C	33 °C	32 °C
CPU (Weighted Value)	33 °C	32 °C	33 °C	32 °C
CPU Package	84 °C	43 °C	85 °C	83 °C
CPU	73 °C	37 °C	75 °C	73 °C
PCH	59 °C	56 °C	60 °C	58 °C
Vcore	1.074 V	1.066 V	1.350 V	1.090 V
+5V	4.960 V	4.960 V	5.000 V	4.977 V
AVSB	3.392 V	3.392 V	3.408 V	3.392 V
3VCC	3.264 V	3.264 V	3.296 V	3.268 V
+12V	12.096 V	12.000 V	12.096 V	12.078 V
VIN8	1.112 V	1.096 V	1.120 V	1.111 V
VIN4	0.912 V	0.168 V	0.976 V	0.925 V
3V5B_ATX	3.392 V	3.392 V	3.392 V	3.392 V
VTT	1.040 V	1.040 V	1.040 V	1.040 V
IMC VDD	1.225 V	1.225 V	1.243 V	1.225 V
CPU L2	1.120 V	1.024 V	1.136 V	1.116 V
VIN2	1.056 V	1.056 V	1.064 V	1.057 V
CPU VCCSA	1.168 V	1.136 V	1.168 V	1.168 V
VCCIN_AUX	1.776 V	1.776 V	1.792 V	1.776 V
VIN9	0.864 V	0.864 V	0.896 V	0.880 V
WHIF	1.808 V	1.808 V	1.808 V	1.808 V
CPU	2,220 RPM	843 RPM	2,231 RPM	2,199 RPM
AIO Pump	2,250 RPM	2,220 RPM	2,261 RPM	2,239 RPM
ASUS EC: ASUS				
VRM	64.0 °C	44.0 °C	64.0 °C	59.0 °C
Accumulated CPU Temperature	19,921,218 °C	19,824,544 °C	19,921,218 °C	19,872,739 °C
IVR TX VDDQ	1.089 V	1.054 V	1.101 V	1.091 V
Accumulated CPU Voltage	555,847 V	554,604 V	555,847 V	555,224 V

iCUE H100i ELITE CAPELLIX XT 240 T 3 Full Test Video

<https://youtu.be/Ls2txxDcASQ>

HWINFO64 v7.36-4960 - Sensors Status

Sensor	Current	Minimum	Maximum	Average
System: ASUS				
Virtual Memory Committed	7,101 MB	7,071 MB	7,154 MB	7,115 MB
Virtual Memory Available	30,342 MB	30,290 MB	30,373 MB	30,329 MB
Virtual Memory Load	18.9 %	18.8 %	19.1 %	19.0 %
Physical Memory Used	4,383 MB	4,349 MB	4,432 MB	4,391 MB
Physical Memory Available	28,197 MB	28,148 MB	28,230 MB	28,189 MB
Physical Memory Load	13.4 %	13.3 %	13.6 %	13.4 %
Page File Usage	0.0 %	0.0 %	0.0 %	0.0 %
CPU [#0]: Intel Core i9-13900KF				
Core VIDs	1.072 V	1.039 V	1.362 V	1.083 V
Uncore VID	1.124 V	1.106 V	1.261 V	1.135 V
SA VID	1.154 V	1.154 V	1.154 V	1.154 V
Core Clocks	4,083.3 MHz	3,600.0 MHz	5,500.0 MHz	4,108.4 MHz
Bus Clock	100.0 MHz	100.0 MHz	100.0 MHz	100.0 MHz
Ring/LLC Clock	4,200.0 MHz	4,100.0 MHz	4,600.0 MHz	4,214.7 MHz
Core Effective Clocks	4,122.4 MHz	0.2 MHz	4,827.2 MHz	4,125.7 MHz
Average Effective Clock	4,296.2 MHz	86.4 MHz	4,421.7 MHz	4,283.4 MHz
Core Usage	100.0 %	0.0 %	100.0 %	99.6 %
Max CPU/Thread Usage	100.0 %	69.9 %	100.0 %	99.9 %
Total CPU Usage	100.0 %	3.0 %	100.0 %	99.6 %
On-Demand Clock Modulation	100.0 %	100.0 %	100.0 %	100.0 %
Core Utility	139.9 %	0.0 %	172.7 %	140.5 %
Total CPU Utility	139.9 %	6.0 %	142.6 %	140.5 %
Core Ratios	40.8 x	36.0 x	55.0 x	41.1 x
Uncore Ratio	42.0 x	41.0 x	46.0 x	42.1 x
CPU [#0]: Intel Core i9-13900KF: DTS				
Core Temperatures	80 °C	30 °C	87 °C	79 °C
Core Distance to TJMAX	20 °C	13 °C	70 °C	21 °C
CPU Package	85 °C	37 °C	87 °C	84 °C
Core Max	83 °C	37 °C	87 °C	84 °C
Core Thermal Throttling	No	No	No	No
Core Critical Temperature	No	No	No	No
Core Power Limit Exceeded	Yes	No	Yes	No
Package/Ring Thermal Throttling	No	No	No	No
Package/Ring Critical Temperature	No	No	No	No
Package/Ring Power Limit Exceeded	Yes	No	Yes	No
CPU [#0]: Intel Core i9-13900KF: Enhanced				
CPU Package	86 °C	37 °C	87 °C	84 °C
CPU IA Cores	86 °C	37 °C	87 °C	84 °C
VR VCC Temperature (SVID)	65 °C	46 °C	65 °C	59 °C
Voltage Offsets	0.000 V	0.000 V	0.000 V	0.000 V
VDDQ TX Voltage	1.100 V	1.100 V	1.100 V	1.100 V
CPU Package Power	249.950 W	35.970 W	250.193 W	249.180 W
IA Cores Power	236.238 W	27.445 W	237.255 W	235.266 W
System Agent Power	11.794 W	7.287 W	12.630 W	11.989 W
Rest-of-Chip Power	1.058 W	0.420 W	1.373 W	1.071 W
Sensor				
PL1 Power Limit	270.0 W	270.0 W	270.0 W	270.0 W
PL2 Power Limit	250.0 W	250.0 W	250.0 W	250.0 W
OC Ratio Limits		1.0 x	58.0 x	
CPU [#0]: Intel Core i9-13900KF: C-State R...				
Package C2 Residency	0.0 %	0.0 %	0.0 %	0.0 %
Package C3 Residency	0.0 %	0.0 %	0.0 %	0.0 %
Core C0 Residency	98.0 %	0.0 %	99.9 %	97.2 %
Core C1 Residency	0.0 %	0.0 %	61.3 %	0.0 %
Core C6 Residency	0.0 %	0.0 %	98.9 %	0.2 %
Core C7 Residency	0.0 %	0.0 %	99.9 %	0.3 %
Memory Timings				
CPU [#0]: Intel Core i9-13900KF: Performa...				
IA Limit Reasons	Yes	No	Yes	
GT Limit Reasons	No	No	No	
Ring Limit Reasons	No	No	Yes	
ASUS ROG STRIX Z790-E GAMING WIFI (N...				
Motherboard	33 °C	32 °C	33 °C	33 °C
CPU (Weighted Value)	33 °C	32 °C	33 °C	33 °C
CPU Package	85 °C	41 °C	86 °C	84 °C
CPU	74 °C	32 °C	75 °C	73 °C
PCH	60 °C	56 °C	60 °C	58 °C
Vcore	1.083 V	1.057 V	1.376 V	1.087 V
+5V	5.000 V	4.960 V	5.040 V	4.979 V
AVSB	3.392 V	3.392 V	3.408 V	3.392 V
3VCC	3.264 V	3.264 V	3.296 V	3.270 V
+12V	12.096 V	12.000 V	12.192 V	12.082 V
VIN8	1.104 V	0.888 V	1.176 V	1.110 V
VIN4	0.912 V	0.904 V	1.256 V	0.923 V
3VSB_ATX	3.392 V	3.392 V	3.392 V	3.392 V
VTT	1.040 V	1.040 V	1.040 V	1.040 V
IMC VDD	1.225 V	1.225 V	1.243 V	1.226 V
CPU L2	1.104 V	0.000 V	1.168 V	1.115 V
VIN2	1.056 V	1.056 V	1.064 V	1.057 V
CPU VCCSA	1.168 V	1.136 V	1.168 V	1.168 V
VCCIN_AUX	1.776 V	1.776 V	1.776 V	1.776 V
VIN9	0.864 V	0.864 V	0.896 V	0.878 V
VHIF	1.808 V	1.808 V	1.808 V	1.808 V
CPU	2,220 RPM	857 RPM	2,231 RPM	2,201 RPM
AIO Pump	2,231 RPM	2,220 RPM	2,265 RPM	2,238 RPM
ASUS EC: ASUS				
VRM	64.0 °C	46.0 °C	65.0 °C	59.4 °C
Accumulated CPU Temperature	19,533,9...	19,436,798...	19,533,956 °C	19,485,207...
IVR TX VDDQ	1.089 V	1.064 V	1.098 V	1.091 V
Accumulated CPU Voltage	547,014 V	545,775 V	547,014 V	546,393 V

360mm Average temperature

	CPU MAX	CPU Average	CPU Package MAX	CPU Package average
BitFenix CUBE	81.7	72.7	81.7	79.0
Galahad ii Trinity SL-INF	87	73.7	84.7	80.7
iCUE H100i ELITE CAPELLIX XT	83	76	82.7	81

CPU	13900KF
MB	ROG STRIX Z790-E GAMING
RAM	GeIL EVO V DDR5 RGB Hardcore Gaming Memory
VGA	GeForce RTX™ 3090 GAMING X TRIO 24G
Test Software	Prime95 - Small FFTs- 20 minutes
Remark	Indoor temperature 24 degrees (±1 degrees)

BitFenix CUBE 360

	CPU MAX	CPU Average	CPU Package MAX	CPU Package average
T 1	82	73	82	80
T 2	82	73	82	78
T 3	82	72	81	79
Average temperature	81.7	72.7	81.7	79.0

CPU	13900KF
MB	ROG STRIX Z790-E GAMING
RAM	GeIL EVO V DDR5 RGB Hardcore Gaming Memory
VGA	GeForce RTX™ 3090 GAMING X TRIO 24G
Test Software	Prime95 - Small FFTs- 20 minutes
Remark	Indoor temperature 24 degrees (±1 degrees)

BitFenix CUBE 360 T 1 Full Test Video

<https://youtu.be/2P7TTQksyXo>

The screenshot displays a Windows 10 desktop environment during a stress test. The Prime95 application is running in the background, showing a 'Main thread' and multiple 'Masked' threads. The HWiNFO64 v7.36-4960 window is open, providing detailed sensor data for the system. The taskbar at the bottom shows several application icons, including Steam, AORUS ENGINE, HWiNFO64, Bandizip, Infinst, AIO 360, 0907, Honeyview, Microsoft Edge, and 0912-2. The system tray in the bottom right corner shows the time as 0:20:01 and the date as 2023/9/13.

Sensor	Current	Minimum	Maximum	Average
System: ASUS				
Virtual Memory Committed	7,368 MB	7,316 MB	7,431 MB	7,384 MB
Virtual Memory Available	30,076 MB	30,013 MB	30,127 MB	30,059 MB
Virtual Memory Load	19.6 %	19.5 %	19.8 %	19.7 %
Physical Memory Used	4,943 MB	4,921 MB	5,011 MB	4,956 MB
Physical Memory Available	27,637 MB	27,569 MB	27,659 MB	27,624 MB
Physical Memory Load	15.1 %	15.1 %	15.3 %	15.2 %
Page File Usage	0.0 %	0.0 %	0.0 %	0.0 %
CPU [#0]: Intel Core i9-13900KF				
Core VIDs	1.093 V	1.035 V	1.363 V	1.087 V
Uncore VID	1.146 V	1.104 V	1.314 V	1.139 V
SA VID	1.154 V	1.154 V	1.154 V	1.154 V
Core Clocks	4,145.8 MHz	3,700.0 MHz	5,800.0 MHz	4,135.0 MHz
Bus Clock	100.0 MHz	100.0 MHz	100.0 MHz	100.0 MHz
Ring/LLC Clock	4,300.0 MHz	4,100.0 MHz	5,000.0 MHz	4,233.8 MHz
Core Effective Clocks	4,073.3 MHz	0.7 MHz	5,219.9 MHz	4,161.6 MHz
Average Effective Clock	4,189.6 MHz	241.9 MHz	4,460.0 MHz	4,307.4 MHz
Core Usage	94.2 %	0.0 %	100.0 %	96.8 %
Max CPU/Thread Usage	100.0 %	67.1 %	100.0 %	99.9 %
Total CPU Usage	94.2 %	3.2 %	100.0 %	96.8 %
On-Demand Clock Modulation	100.0 %	100.0 %	100.0 %	100.0 %
Core Utility	135.2 %	0.0 %	174.8 %	138.2 %
Total CPU Utility	135.2 %	6.2 %	142.3 %	138.2 %
Core Ratios	41.5 x	37.0 x	58.0 x	41.3 x
Uncore Ratio	43.0 x	41.0 x	50.0 x	42.3 x
CPU [#0]: Intel Core i9-13900KF: DTS				
Core Temperatures	74 °C	32 °C	82 °C	73 °C
Core Distance to TjMAX	26 °C	18 °C	68 °C	27 °C
CPU Package	81 °C	42 °C	82 °C	80 °C
Core Max	80 °C	43 °C	82 °C	80 °C
Core Thermal Throttling	No	No	No	No
Core Critical Temperature	No	No	No	No
Core Power Limit Exceeded	Yes	No	Yes	Yes
Package/Ring Thermal Throttling	No	No	No	No
Package/Ring Critical Temperature	No	No	No	No
Package/Ring Power Limit Exceeded	Yes	No	Yes	Yes
CPU [#0]: Intel Core i9-13900KF: Enhanced				
CPU Package	80 °C	43 °C	82 °C	80 °C
CPU IA Cores	80 °C	43 °C	82 °C	80 °C
VR VCC Temperature (SVID)	66 °C	48 °C	66 °C	61 °C
Voltage Offsets	0.000 V	0.000 V	0.000 V	0.000 V
VDDQ TX Voltage	1.100 V	1.100 V	1.100 V	1.100 V
CPU Package Power	249.653 W	36.671 W	250.043 W	248.883 W
IA Cores Power	237.058 W	28.087 W	237.332 W	235.622 W
System Agent Power	10.937 W	7.337 W	12.195 W	11.469 W
Rest-of-Chip Power	0.814 W	0.419 W	1.226 W	0.948 W
ASUS ROG STRIX Z790-E GAMING WIFI (N...)				
Motherboard	33 °C	32 °C	33 °C	33 °C
CPU (Weighted Value)	33 °C	32 °C	33 °C	33 °C
CPU Package	80 °C	42 °C	81 °C	79 °C
CPU	70 °C	35 °C	71 °C	69 °C
PCH	60 °C	57 °C	61 °C	59 °C
Vcore	1.092 V	1.057 V	1.368 V	1.090 V
+5V	4.960 V	4.960 V	5.000 V	4.960 V
AVSB	3.392 V	3.392 V	3.392 V	3.392 V
3VCC	3.248 V	3.248 V	3.280 V	3.260 V
+12V	12.000 V	12.000 V	12.096 V	12.000 V
VIN8	1.120 V	0.440 V	1.120 V	1.115 V
VIN4	0.928 V	0.016 V	0.944 V	0.922 V
3VSB_ATX	3.392 V	3.392 V	3.392 V	3.392 V
VTT	1.040 V	1.040 V	1.040 V	1.040 V
IMC VDD	1.225 V	1.225 V	1.243 V	1.226 V
CPU L2	1.120 V	1.104 V	1.120 V	1.118 V
VIN2	1.056 V	1.056 V	1.064 V	1.056 V
CPU VCCSA	1.168 V	1.136 V	1.168 V	1.168 V
VCCIN_AUX	1.776 V	1.776 V	1.792 V	1.776 V
VIN9	0.864 V	0.864 V	0.880 V	0.872 V
VHIF	1.808 V	1.808 V	1.808 V	1.808 V
CPU	1,691 RPM	334 RPM	1,737 RPM	1,608 RPM
AIO Pump	6,026 RPM	5,921 RPM	6,108 RPM	6,010 RPM
ASUS EC: ASUS				
VRM	66.0 °C	48.0 °C	66.0 °C	61.1 °C
Accumulated CPU Temperature	9,757,47...	9,665,498 °C	9,757,470 °C	9,711,327 °C
IVR TX VDDQ	1.089 V	1.067 V	1.098 V	1.090 V
Accumulated CPU Voltage	268,236 V	266,995 V	268,236 V	267,615 V
VRM Vcore Current	224 A	20 A	236 A	222 A

BitFenix CUBE 360 T 2 Full Test Video

<https://youtu.be/NK5yGiujs8M>

The screenshot displays a Windows 10 desktop environment during a stress test. The Prime95 application is running in the background, showing a 'Main thread' and multiple 'Torture Test' windows. The HWINFO64 window is open, showing detailed sensor status for the system and CPU. The taskbar at the bottom includes icons for Bandizip, Infinst, AIO 360, 0907, 0913-2, Honeyview, Microsoft Edge, and other applications. The system tray shows the time as 02:00:01 on 2023/9/13.

Sensor	Current	Minimum	Maximum	Average
System: ASUS				
Virtual Memory Committed	7,067 MB	7,051 MB	7,200 MB	7,114 MB
Virtual Memory Available	30,377 MB	30,243 MB	30,393 MB	30,330 MB
Virtual Memory Load	18.8 %	18.8 %	19.2 %	18.9 %
Physical Memory Used	4,263 MB	4,240 MB	4,435 MB	4,326 MB
Physical Memory Available	28,317 MB	28,145 MB	28,340 MB	28,254 MB
Physical Memory Load	13.0 %	13.0 %	13.6 %	13.2 %
Page File Usage	1.4 %	1.4 %	1.4 %	1.4 %
CPU [#0]: Intel Core i9-13900KF				
Core VIDs	1.108 V	1.037 V	1.417 V	1.089 V
Uncore VID	1.156 V	1.104 V	1.311 V	1.140 V
SA VID	1.154 V	1.154 V	1.154 V	1.154 V
Core Clocks	4,166.7 MHz	3,700.0 MHz	5,800.0 MHz	4,141.9 MHz
Bus Clock	100.0 MHz	100.0 MHz	100.0 MHz	100.0 MHz
Ring/LLC Clock	4,400.0 MHz	4,100.0 MHz	4,600.0 MHz	4,239.1 MHz
Core Effective Clocks	4,003.8 MHz	0.8 MHz	4,949.1 MHz	4,189.6 MHz
Average Effective Clock	4,239.9 MHz	232.8 MHz	4,472.3 MHz	4,369.4 MHz
Core Usage	93.2 %	0.0 %	100.0 %	97.9 %
Max CPU/Thread Usage	100.0 %	71.0 %	100.0 %	99.9 %
Total CPU Usage	93.2 %	3.6 %	100.0 %	97.9 %
On-Demand Clock Modulation	100.0 %	100.0 %	100.0 %	100.0 %
Core Utility	133.0 %	0.0 %	164.4 %	139.2 %
Total CPU Utility	133.0 %	6.2 %	142.7 %	139.2 %
Core Ratios	41.7 x	37.0 x	58.0 x	41.4 x
Uncore Ratio	44.0 x	41.0 x	46.0 x	42.4 x
CPU [#0]: Intel Core i9-13900KF: DTS				
Core Temperatures	74 °C	30 °C	82 °C	73 °C
Core Distance to TJMAX	26 °C	18 °C	70 °C	27 °C
CPU Package	80 °C	40 °C	82 °C	78 °C
Core Max	79 °C	40 °C	82 °C	78 °C
Core Thermal Throttling	No	No	No	No
Core Critical Temperature	No	No	No	No
Core Power Limit Exceeded	Yes	No	Yes	Yes
Package/Ring Thermal Throttling	No	No	No	No
Package/Ring Critical Temperature	No	No	No	No
Package/Ring Power Limit Exceeded	Yes	No	Yes	Yes
CPU [#0]: Intel Core i9-13900KF: Enhanced				
CPU Package	79 °C	41 °C	82 °C	78 °C
CPU IA Cores	79 °C	41 °C	82 °C	78 °C
VR VCC Temperature (SVID)	62 °C	38 °C	63 °C	55 °C
Voltage Offsets		0.000 V	0.000 V	
VDDQ TX Voltage	1.100 V	1.100 V	1.100 V	1.100 V
CPU Package Power	249.970 W	34.506 W	250.203 W	249.181 W
IA Cores Power	237.046 W	26.229 W	237.814 W	235.803 W
System Agent Power	11.155 W	7.041 W	12.307 W	11.516 W
Rest-of-Chip Power	0.924 W	0.420 W	1.338 W	1.020 W

Sensor	Current	Minimum	Maximum	Average
PL1 Power Limit	270.0 W	270.0 W	270.0 W	270.0 W
PL2 Power Limit	250.0 W	250.0 W	250.0 W	250.0 W
OC Ratio Limits	1.0 x		58.0 x	
CPU [#0]: Intel Core i9-13900KF: C-State R...				
Package C2 Residency	0.0 %	0.0 %	0.0 %	0.0 %
Core C0 Residency	93.1 %	0.0 %	100.0 %	98.0 %
Core C1 Residency	1.1 %	0.0 %	54.0 %	0.2 %
Core C6 Residency	4.0 %	0.0 %	99.3 %	0.7 %
Core C7 Residency	0.0 %	0.0 %	99.9 %	0.3 %
Memory Timings				
CPU [#0]: Intel Core i9-13900KF: Performa...				
IA Limit Reasons	Yes	No	Yes	
GT Limit Reasons	No	No	No	
Ring Limit Reasons	No	No	Yes	
ASUS ROG STRIX Z790-E GAMING WIFI (N...				
Motherboard	31 °C	27 °C	31 °C	29 °C
CPU (Weighted Value)	31 °C	27 °C	31 °C	29 °C
CPU Package	79 °C	39 °C	80 °C	78 °C
CPU	68 °C	28 °C	70 °C	67 °C
PCH	56 °C	46 °C	56 °C	52 °C
Vcore	1.101 V	1.066 V	1.359 V	1.093 V
+5V	4.960 V	4.960 V	5.000 V	4.960 V
AVSB	3.392 V	3.392 V	3.408 V	3.398 V
3VCC	3.264 V	3.248 V	3.296 V	3.264 V
+12V	12.000 V	12.000 V	12.096 V	12.000 V
VIN8	1.120 V	0.888 V	1.176 V	1.118 V
VIN4	0.936 V	0.016 V	0.976 V	0.930 V
3VSB_ATX	3.392 V	3.392 V	3.408 V	3.395 V
VTT	1.040 V	1.040 V	1.040 V	1.040 V
IMC VDD	1.225 V	1.225 V	1.261 V	1.226 V
CPU L2	1.120 V	0.288 V	1.136 V	1.119 V
VIN2	1.056 V	1.056 V	1.064 V	1.059 V
CPU VCCSA	1.168 V	1.136 V	1.168 V	1.168 V
VCCIN_AUX	1.776 V	1.776 V	1.792 V	1.776 V
VIN9	0.912 V	0.904 V	0.976 V	0.942 V
VHIF	1.808 V	1.808 V	1.808 V	1.808 V
CPU	1,551 RPM	329 RPM	1,638 RPM	1,511 RPM
AIO Pump	5,973 RPM	5,921 RPM	6,136 RPM	6,017 RPM
ASUS EC: ASUS				
VRM	63.0 °C	38.0 °C	63.0 °C	55.1 °C
Accumulated CPU Temperature	10,217,3...	10,127,336...	10,217,388 °C	10,172,210...
IVR TX VDDQ	1.089 V	1.064 V	1.098 V	1.089 V
Accumulated CPU Voltage	279,423 V	278,179 V	279,423 V	278,798 V
VRM Vcore Current	220 A	20 A	233 A	222 A

BitFenix CUBE 360 T 3 Full Test Video

<https://youtu.be/vMtHKmCxR5I>

The screenshot displays the HWINFO64 v7.36-4960 - Sensors Status window, which provides a comprehensive overview of the system's hardware and performance metrics. The interface is organized into several sections, each with a tree view on the left and a corresponding data table on the right.

System: ASUS

Sensor	Current	Minimum	Maximum	Average
Virtual Memory Committed	6,992 MB	6,883 MB	7,112 MB	6,992 MB
Virtual Memory Available	30,452 MB	30,332 MB	30,561 MB	30,452 MB
Virtual Memory Load	18.6 %	18.3 %	18.9 %	18.6 %
Physical Memory Used	3,260 MB	3,179 MB	3,398 MB	3,272 MB
Physical Memory Available	29,320 MB	29,181 MB	29,400 MB	29,308 MB
Physical Memory Load	10.0 %	9.7 %	10.4 %	10.0 %
Page File Usage	3.3 %	3.3 %	3.3 %	3.3 %

CPU [#0]: Intel Core i9-13900KF

Sensor	Current	Minimum	Maximum	Average
Core VIDs	1.100 V	1.035 V	1.406 V	1.090 V
Uncore VID	1.154 V	1.104 V	1.304 V	1.140 V
SA VID	1.154 V	1.154 V	1.154 V	1.154 V
Core Clocks	4,150.0 MHz	3,700.0 MHz	5,801.4 MHz	4,140.1 MHz
Bus Clock	100.0 MHz	100.0 MHz	100.0 MHz	100.0 MHz
Ring/LLC Clock	4,400.0 MHz	4,100.0 MHz	4,601.1 MHz	4,250.8 MHz
Core Effective Clocks	4,086.0 MHz	0.8 MHz	4,959.8 MHz	4,236.9 MHz
Average Effective Clock	4,223.8 MHz	232.7 MHz	4,539.9 MHz	4,413.7 MHz
Core Usage	95.8 %	0.0 %	100.0 %	99.0 %
Max CPU/Thread Usage	100.0 %	62.9 %	100.0 %	99.9 %
Total CPU Usage	95.8 %	2.9 %	100.0 %	99.0 %
On-Demand Clock Modulation	100.0 %	100.0 %	100.0 %	100.0 %
Core Utility	135.6 %	0.0 %	164.7 %	140.7 %
Total CPU Utility	135.6 %	6.1 %	144.3 %	140.7 %
Core Ratios	41.5 x	37.0 x	58.0 x	41.4 x
Uncore Ratio	44.0 x	41.0 x	46.0 x	42.5 x

CPU [#0]: Intel Core i9-13900KF: DTS

Sensor	Current	Minimum	Maximum	Average
Core Temperatures	74 °C	33 °C	82 °C	73 °C
Core Distance to TJMAX	26 °C	18 °C	67 °C	27 °C
CPU Package	81 °C	47 °C	83 °C	79 °C
Core Max	81 °C	47 °C	82 °C	79 °C
Core Thermal Throttling	No	No	No	No
Core Critical Temperature	No	No	No	No
Core Power Limit Exceeded	Yes	No	Yes	No
Package/Ring Thermal Throttling	No	No	No	No
Package/Ring Critical Temperature	No	No	No	No
Package/Ring Power Limit Exceeded	Yes	No	Yes	Yes

CPU [#0]: Intel Core i9-13900KF: Enhanced

Sensor	Current	Minimum	Maximum	Average
CPU Package	81 °C	41 °C	82 °C	79 °C
CPU IA Cores	81 °C	40 °C	82 °C	79 °C
VR VCC Temperature (SVID)	65 °C	49 °C	66 °C	61 °C
Voltage Offsets	0.000 V	0.000 V	0.000 V	0.000 V
VDDQ TX Voltage	1.100 V	1.100 V	1.100 V	1.100 V
CPU Package Power	249.995 W	36.148 W	250.164 W	249.256 W
CPU Cores Power	236.741 W	27.557 W	237.429 W	235.638 W
IA Cores Power	11.420 W	7.350 W	12.899 W	11.727 W
Rest-of-Chip Power	0.987 W	0.420 W	1.384 W	1.048 W

ASUS ROG STRIX Z790-E GAMING WIFI (N...)

Sensor	Current	Minimum	Maximum	Average
Motherboard	33 °C	33 °C	33 °C	33 °C
CPU (Weighted Value)	33 °C	33 °C	33 °C	33 °C
CPU Package	81 °C	42 °C	82 °C	79 °C
CPU	70 °C	35 °C	71 °C	69 °C
PCH	60 °C	58 °C	61 °C	59 °C
Vcore	1.092 V	1.066 V	1.376 V	1.095 V
+5V	4.960 V	4.920 V	5.000 V	4.960 V
AVSB	3.392 V	3.392 V	3.408 V	3.392 V
3VCC	3.264 V	3.248 V	3.280 V	3.262 V
+12V	12.000 V	12.000 V	12.096 V	12.000 V
VIN8	1.112 V	0.008 V	1.136 V	1.114 V
VIN4	0.944 V	0.032 V	1.000 V	0.933 V
3VSB_ATX	3.392 V	3.392 V	3.392 V	3.392 V
VTT	1.040 V	1.040 V	1.040 V	1.040 V
IMC VDD	1.225 V	1.225 V	1.243 V	1.226 V
CPU L2	1.120 V	0.592 V	1.136 V	1.118 V
VIN2	1.056 V	1.056 V	1.064 V	1.056 V
CPU VCCSA	1.168 V	1.136 V	1.168 V	1.168 V
VCCIN_AUX	1.776 V	1.776 V	1.792 V	1.776 V
VIN9	0.880 V	0.872 V	0.880 V	0.873 V
VHIF	1.808 V	1.808 V	1.808 V	1.808 V
CPU	1,654 RPM	407 RPM	1,728 RPM	1,595 RPM
AIO Pump	6,026 RPM	5,921 RPM	6,108 RPM	6,013 RPM

ASUS EC: ASUS

Sensor	Current	Minimum	Maximum	Average
VRM	66.0 °C	49.0 °C	66.0 °C	61.3 °C
Accumulated CPU Temperature	10,074,362 °C	9,981,242 °C	10,074,362 °C	10,027,767 °C
IVR TX VDDQ	1.095 V	1.038 V	1.098 V	1.089 V
Accumulated CPU Voltage	276,483 V	275,210 V	276,483 V	275,845 V
VRM Vcore Current	220 A	21 A	237 A	221 A

Galahad ii Trinity SL-INF 360

	CPU MAX	CPU Average	CPU Package MAX	CPU Package average
T 1	87	74	86	81
T 2	87	73	86	81
T 3	87	74	82	80
Average temperature	87	73.7	84.7	80.7

CPU	13900KF
MB	ROG STRIX Z790-E GAMING
RAM	GeIL EVO V DDR5 RGB Hardcore Gaming Memory
VGA	GeForce RTX™ 3090 GAMING X TRIO 24G
Test Software	Prime95 - Small FFTs- 20 minutes
Remark	Indoor temperature 24 degrees (±1 degrees)

Galahad ii Trinity SL-INF 360 T 1 Full Test Video

https://youtu.be/94pBJ0_VbFI

The screenshot displays the HWINFO64 v7.36-4960 - Sensors Status window. The window is divided into several sections, each showing a different category of system data. The 'System: ASUS' section provides an overview of memory usage. The 'CPU [#0]: Intel Core i9-13900KF' section details various CPU metrics including voltages, clocks, and usage. The 'CPU [#0]: Intel Core i9-13900KF: DTS' section shows temperatures and thermal throttling status. The 'CPU [#0]: Intel Core i9-13900KF: Enhanced' section provides further CPU performance and power data. The 'ASUS ROG STRIX Z790-E GAMING WIFI (N...)' section lists motherboard and power supply specifications. The 'ASUS EC: ASUS' section shows environmental and power management data.

Sensor	Current	Minimum	Maximum	Average
System: ASUS				
Virtual Memory Committed	7,143 MB	7,090 MB	7,208 MB	7,139 MB
Virtual Memory Available	30,300 MB	30,236 MB	30,354 MB	30,305 MB
Virtual Memory Load	19.0 %	18.9 %	19.2 %	19.0 %
Physical Memory Used	4,519 MB	4,487 MB	4,589 MB	4,528 MB
Physical Memory Available	28,061 MB	27,990 MB	28,093 MB	28,052 MB
Physical Memory Load	13.8 %	13.7 %	14.0 %	13.8 %
Page File Usage	0.0 %	0.0 %	0.0 %	0.0 %
CPU [#0]: Intel Core i9-13900KF				
Core VIDs	1.165 V	0.959 V	1.380 V	1.105 V
Uncore VID	1.191 V	1.104 V	1.319 V	1.150 V
SA VID	1.154 V	1.154 V	1.154 V	1.154 V
Core Clocks	4,312.5 MHz	3,500.0 MHz	5,800.0 MHz	4,169.0 MHz
Bus Clock	100.0 MHz	100.0 MHz	100.0 MHz	100.0 MHz
Ring/LLC Clock	4,500.0 MHz	4,100.0 MHz	4,600.0 MHz	4,298.5 MHz
Core Effective Clocks	3,611.3 MHz	0.9 MHz	5,096.5 MHz	4,023.2 MHz
Average Effective Clock	3,686.6 MHz	229.0 MHz	4,455.0 MHz	4,190.1 MHz
Core Usage	80.8 %	0.0 %	100.0 %	93.3 %
Max CPU/Thread Usage	100.0 %	57.7 %	100.0 %	99.9 %
Total CPU Usage	80.8 %	2.8 %	100.0 %	93.3 %
On-Demand Clock Modulation	100.0 %	100.0 %	100.0 %	100.0 %
Core Utility	119.8 %	0.0 %	169.4 %	133.6 %
Total CPU Utility	119.8 %	6.0 %	141.9 %	133.6 %
Core Ratios	43.1 x	35.0 x	58.0 x	41.7 x
Uncore Ratio	45.0 x	41.0 x	46.0 x	43.0 x
CPU [#0]: Intel Core i9-13900KF: DTS				
Core Temperatures	75 °C	37 °C	87 °C	74 °C
Core Distance to TJMAX	26 °C	13 °C	63 °C	26 °C
CPU Package	85 °C	48 °C	87 °C	81 °C
Core Max	85 °C	48 °C	87 °C	81 °C
Core Thermal Throttling	No	No	No	No
Core Critical Temperature	No	No	No	No
Core Power Limit Exceeded	Yes	No	Yes	Yes
Package/Ring Thermal Throttling	No	No	No	No
Package/Ring Critical Temperature	No	No	No	No
Package/Ring Power Limit Exceeded	Yes	No	Yes	Yes
CPU [#0]: Intel Core i9-13900KF: Enhanced				
CPU Package	83 °C	47 °C	86 °C	81 °C
CPU IA Cores	83 °C	47 °C	86 °C	81 °C
VR VCC Temperature (SVID)	67 °C	52 °C	67 °C	63 °C
Voltage Offsets	0.000 V	0.000 V	0.000 V	0.000 V
VDDQ TX Voltage	1.100 V	1.100 V	1.100 V	1.100 V
CPU Package Power	250.024 W	36.833 W	250.171 W	249.087 W
IA Cores Power	238.288 W	28.029 W	238.429 W	236.010 W
System Agent Power	10.382 W	7.557 W	12.127 W	11.390 W
Rest-of-Chip Power	0.511 W	0.419 W	1.082 W	0.844 W
ASUS ROG STRIX Z790-E GAMING WIFI (N...)				
Motherboard	32 °C	31 °C	33 °C	32 °C
CPU (Weighted Value)	32 °C	31 °C	33 °C	32 °C
CPU Package	84 °C	46 °C	86 °C	80 °C
CPU	73 °C	37 °C	75 °C	70 °C
PCH	59 °C	57 °C	61 °C	59 °C
Vcore	1.163 V	1.057 V	1.421 V	1.107 V
+5V	4.960 V	4.960 V	5.000 V	4.960 V
AVSB	3.392 V	3.392 V	3.392 V	3.392 V
3VCC	3.248 V	3.248 V	3.280 V	3.261 V
+12V	12.000 V	12.000 V	12.096 V	12.000 V
VIN8	1.136 V	0.008 V	1.152 V	1.115 V
VIN4	0.976 V	0.008 V	1.000 V	0.937 V
3VSB_ATX	3.392 V	3.376 V	3.392 V	3.392 V
VTT	1.040 V	1.040 V	1.040 V	1.040 V
IMC VDD	1.225 V	1.225 V	1.243 V	1.226 V
CPU L2	1.136 V	0.016 V	1.152 V	1.117 V
VIN2	1.056 V	1.056 V	1.056 V	1.056 V
CPU VCCSA	1.168 V	1.136 V	1.168 V	1.168 V
VCCIN_AUX	1.776 V	1.776 V	1.776 V	1.776 V
VIN9	0.880 V	0.880 V	0.896 V	0.890 V
VHIF	1.808 V	1.808 V	1.808 V	1.808 V
CPU	1,826 RPM	325 RPM	2,188 RPM	1,591 RPM
AIO Pump	3,161 RPM	3,139 RPM	3,176 RPM	3,159 RPM
ASUS EC: ASUS				
VRM	67.0 °C	51.0 °C	68.0 °C	63.4 °C
Accumulated CPU Temperature	6,202,28...	6,108,986 °C	6,202,284 °C	6,155,194 °C
IVR TX VDDQ	1.089 V	1.057 V	1.098 V	1.089 V
Accumulated CPU Voltage	168,441 V	167,176 V	168,441 V	167,802 V

Galahad ii Trinity SL-INF 360 T 2 Full Test Video

https://youtu.be/mmYQhZW_ECO

The screenshot displays the HWINFO64 v7.36-4960 - Sensors Status window. The interface is divided into several sections:

- System: ASUS**
 - Virtual Memory Committed: 7,054 MB
 - Virtual Memory Available: 30,390 MB
 - Virtual Memory Load: 18.8 %
 - Physical Memory Used: 4,570 MB
 - Physical Memory Available: 28,010 MB
 - Physical Memory Load: 14.0 %
 - Page File Usage: 0.0 %
- CPU [#0]: Intel Core i9-13900KF**
 - Core VIDs: 1.178 V
 - Uncore VID: 1.204 V
 - SA VID: 1.154 V
 - Core Clocks: 4,362.5 MHz
 - Bus Clock: 100.0 MHz
 - Ring/LLC Clock: 4,500.0 MHz
 - Core Effective Clocks: 3,531.1 MHz
 - Average Effective Clock: 3,709.5 MHz
 - Core Usage: 77.7 %
 - Max CPU/Thread Usage: 100.0 %
 - Total CPU Usage: 77.7 %
 - On-Demand Clock Modulation: 100.0 %
 - Core Utility: 117.3 %
 - Total CPU Utility: 117.3 %
 - Core Ratios: 43.6 x
 - Uncore Ratio: 45.0 x
- CPU [#0]: Intel Core i9-13900KF: DTS**
 - Core Temperatures: 74 °C
 - Core Distance to TJMAX: 26 °C
 - CPU Package: 85 °C
 - Core Max: 84 °C
 - Core Thermal Throttling: No
 - Core Critical Temperature: No
 - Core Power Limit Exceeded: Yes
 - Package/Ring Thermal Throttling: No
 - Package/Ring Critical Temperature: No
 - Package/Ring Power Limit Exceeded: Yes
- CPU [#0]: Intel Core i9-13900KF: Enhanced**
 - CPU Package: 86 °C
 - CPU IA Cores: 86 °C
 - VR VCC Temperature (SVID): 62 °C
 - Voltage Offsets: 0.000 V
 - VDDQ TX Voltage: 1.100 V
 - CPU Package Power: 249.971 W
 - IA Cores Power: 238.579 W
 - System Agent Power: 10.040 W
 - Rest-of-Chip Power: 0.512 W
- ASUS ROG STRIX Z790-E GAMING WIFI (N...)**
 - Motherboard: 30 °C
 - CPU (Weighted Value): 30 °C
 - CPU Package: 84 °C
 - CPU: 73 °C
 - PCH: 56 °C
 - Vcore: 1.163 V
 - +5V: 4.960 V
 - AVSB: 3.392 V
 - 3VCC: 3.264 V
 - +12V: 12.000 V
 - VIN8: 1.152 V
 - VIN4: 0.992 V
 - 3VSB_ATX: 3.392 V
 - VTT: 1.040 V
 - IMC VDD: 1.225 V
 - CPU L2: 1.152 V
 - VIN2: 1.056 V
 - CPU VCCSA: 1.168 V
 - VCCIN_AUX: 1.776 V
 - VIN9: 0.920 V
 - VHIF: 1.808 V
 - CPU: 2,020 RPM
 - AIO Pump: 3,161 RPM
- ASUS EC: ASUS**
 - VRM: 63.0 °C
 - Accumulated CPU Temperature: 6,499,270 °C
 - IVR TX VDDQ: 1.085 V
 - Accumulated CPU Voltage: 174,249 V
 - VRM Vcore Current: 210 A
- Memory Timings**
 - IA Limit Reasons: Yes
 - GT Limit Reasons: No
 - Ring Limit Reasons: Yes
- OC Ratio Limits**
 - OC Ratio Limits: 1.0 x
- CPU Residency**
 - Core C0 Residency: 77.6 %
 - Core C1 Residency: 1.4 %
 - Core C6 Residency: 16.4 %
 - Core C7 Residency: 10.6 %

The taskbar shows the system clock at 0:20:01 on 2023/9/12 at 1:56 PM. The taskbar includes icons for HWINFO64, Microsoft Edge, AORUS ENGINE, and various application folders like '20230216-改水道後溫度...' and '3DMark'.

Galahad ii Trinity SL-INF 360 T 3 Full Test Video

<https://youtu.be/aP3kAPTW61k>

The screenshot displays a Windows desktop environment during a system stress test. The Prime95 application is running in the background, showing a 'Main thread' window with a list of 'Torture Test' windows. The HWINFO64 v7.36-4960 window is open, providing detailed sensor status for the system (ASUS) and the Intel Core i9-13900KF processor. The system tray shows the time as 0:20:01 on 2023/9/12 at 03:40.

Sensor	Current	Minimum	Maximum	Average
System: ASUS				
Virtual Memory Committed	7,111 MB	7,062 MB	7,193 MB	7,124 MB
Virtual Memory Available	30,333 MB	30,251 MB	30,382 MB	30,320 MB
Virtual Memory Load	18.9 %	18.8 %	19.2 %	19.0 %
Physical Memory Used	3,101 MB	3,039 MB	3,203 MB	3,115 MB
Physical Memory Available	29,478 MB	29,377 MB	29,541 MB	29,465 MB
Physical Memory Load	9.5 %	9.3 %	9.8 %	9.5 %
Page File Usage	4.7 %	4.7 %	4.8 %	4.8 %
CPU [#0]: Intel Core i9-13900KF				
Core VIDs	1.072 V	1.026 V	1.381 V	1.086 V
Uncore VID	1.121 V	1.104 V	1.321 V	1.136 V
SA VID	1.154 V	1.154 V	1.154 V	1.154 V
Core Clocks	4,095.8 MHz	3,600.0 MHz	5,800.0 MHz	4,127.9 MHz
Bus Clock	100.0 MHz	100.0 MHz	100.0 MHz	100.0 MHz
Ring/LLC Clock	4,200.0 MHz	4,100.0 MHz	4,600.0 MHz	4,226.8 MHz
Core Effective Clocks	4,224.2 MHz	0.7 MHz	4,927.3 MHz	4,247.1 MHz
Average Effective Clock	4,417.0 MHz	230.1 MHz	4,532.4 MHz	4,430.6 MHz
Core Usage	100.0 %	0.0 %	100.0 %	99.5 %
Max CPU/Thread Usage	100.0 %	71.2 %	100.0 %	99.9 %
Total CPU Usage	100.0 %	3.0 %	100.0 %	99.5 %
On-Demand Clock Modulation	100.0 %	100.0 %	100.0 %	100.0 %
Core Utility	140.3 %	0.0 %	164.6 %	141.0 %
Total CPU Utility	140.3 %	6.1 %	144.1 %	141.0 %
Core Ratios	41.0 x	36.0 x	58.0 x	41.3 x
Uncore Ratio	42.0 x	41.0 x	46.0 x	42.3 x
CPU [#0]: Intel Core i9-13900KF: DTS				
Core Temperatures	74 °C	37 °C	87 °C	74 °C
Core Distance to TJMAX	26 °C	13 °C	63 °C	26 °C
CPU Package	80 °C	48 °C	82 °C	80 °C
Core Max	79 °C	48 °C	87 °C	80 °C
Core Thermal Throttling	No	No	No	
Core Critical Temperature	No	No	No	
Core Power Limit Exceeded	Yes	No	Yes	
Package/Ring Thermal Throttling	No	No	No	
Package/Ring Critical Temperature	No	No	No	
Package/Ring Power Limit Exceeded	Yes	No	Yes	
CPU [#0]: Intel Core i9-13900KF: Enhanced				
CPU Package	79 °C	47 °C	82 °C	80 °C
CPU IA Cores	79 °C	47 °C	82 °C	80 °C
VR VCC Temperature (SVID)	68 °C	51 °C	69 °C	63 °C
Voltage Offsets	0.000 V	0.000 V	0.000 V	
VDDQ TX Voltage	1.100 V	1.100 V	1.100 V	1.100 V
CPU Package Power	249.682 W	38.196 W	250.177 W	248.874 W
IA Cores Power	236.116 W	29.433 W	237.294 W	235.137 W
System Agent Power	11.655 W	7.517 W	12.535 W	11.834 W
Rest-of-Chip Power	1.067 W	0.420 W	1.381 W	1.058 W
Sensor				
PL1 Power Limit	270.0 W	270.0 W	270.0 W	270.0 W
PL2 Power Limit	250.0 W	250.0 W	250.0 W	250.0 W
OC Ratio Limits		1.0 x	58.0 x	
CPU [#0]: Intel Core i9-13900KF: C-State R...				
Package C2 Residency	0.0 %	0.0 %	0.0 %	0.0 %
Core C0 Residency	100.0 %	0.0 %	100.0 %	99.5 %
Core C1 Residency	0.0 %	0.0 %	78.9 %	0.0 %
Core C6 Residency	0.0 %	0.0 %	99.1 %	0.2 %
Core C7 Residency	0.0 %	0.0 %	99.9 %	0.3 %
Memory Timings				
CPU [#0]: Intel Core i9-13900KF: Performa...				
IA Limit Reasons	Yes	No	Yes	
GT Limit Reasons	No	No	No	
Ring Limit Reasons	No	No	Yes	
ASUS ROG STRIX Z790-E GAMING WIFI (N...				
Motherboard	33 °C	32 °C	33 °C	32 °C
CPU (Weighted Value)	33 °C	32 °C	33 °C	32 °C
CPU Package	79 °C	47 °C	81 °C	79 °C
CPU	70 °C	36 °C	71 °C	69 °C
PCH	60 °C	56 °C	61 °C	58 °C
Vcore	1.083 V	1.066 V	1.403 V	1.090 V
+5V	4.960 V	4.920 V	5.000 V	4.960 V
AVSB	3.392 V	3.392 V	3.392 V	3.392 V
3VCC	3.264 V	3.248 V	3.280 V	3.258 V
+12V	12.000 V	12.000 V	12.096 V	12.000 V
VIN8	1.104 V	1.096 V	1.176 V	1.113 V
VIN4	0.920 V	0.008 V	0.992 V	0.923 V
3VSB_ATX	3.392 V	3.376 V	3.392 V	3.392 V
VTT	1.040 V	1.040 V	1.040 V	1.040 V
IMC VDD	1.225 V	1.225 V	1.243 V	1.226 V
CPU L2	1.104 V	0.016 V	1.136 V	1.115 V
VIN2	1.056 V	1.056 V	1.056 V	1.056 V
CPU VCCSA	1.168 V	1.136 V	1.168 V	1.168 V
VCCIN_AUX	1.776 V	1.776 V	1.792 V	1.776 V
VIN9	0.864 V	0.864 V	0.896 V	0.881 V
VHIF	1.808 V	1.808 V	1.808 V	1.808 V
CPU	1,578 RPM	373 RPM	1,773 RPM	1,538 RPM
AIO Pump	3,161 RPM	3,139 RPM	3,176 RPM	3,159 RPM
ASUS EC: ASUS				
VRM	68.0 °C	51.0 °C	69.0 °C	63.4 °C
Accumulated CPU Temperature	6,740,541 °C	6,648,402 °C	6,740,548 °C	6,694,611 °C
IVR TX VDDQ	1.085 V	1.060 V	1.098 V	1.090 V
Accumulated CPU Voltage	179,502 V	178,258 V	179,502 V	178,879 V
VRM Vcore Current	229 A	21 A	237 A	222 A

iCUE H150i ELITE CAPELLIX XT 360

	CPU MAX	CPU Average	CPU Package MAX	CPU Package average
T 1	83	76	83	81
T 2	83	76	83	81
T 3	83	76	82	81
Average temperature	83	76	82.7	81

CPU	13900KF
MB	ROG STRIX Z790-E GAMING
RAM	GeIL EVO V DDR5 RGB Hardcore Gaming Memory
VGA	GeForce RTX™ 3090 GAMING X TRIO 24G
Test Software	Prime95 - Small FFTs- 20 minutes
Remark	Indoor temperature 24 degrees (±1 degrees)

iCUE H150i ELITE CAPELLIX XT 360 T 1 Full Test Video

<https://youtu.be/38hDfM2Iwg4>

The screenshot displays a Windows desktop environment. On the left, a Prime95 window is open, showing a list of 33 'Torture Test' threads. The taskbar includes icons for ArmouryCrash, FastCopy, 240比較, PotPlayer 64 bit, 0913-1, and various folders. The desktop background features icons for 20230216-改水道後溫度..., 客戶usb測試, 馬丁, HWINFO64, 0913-2, extreme_t..., Steam, AIO 360, 0907, 0913-3, Bandizip, Infinst, 0912-2, rex, and 0914-CUB... The HWINFO64 v7.36-4960 - Sensors Status window is the primary focus, displaying a detailed table of system metrics.

Sensor	Current	Minimum	Maximum	Average
System: ASUS				
Virtual Memory Committed	6,963 MB	6,568 MB	7,044 MB	6,897 MB
Virtual Memory Available	30,481 MB	30,400 MB	30,876 MB	30,547 MB
Virtual Memory Load	18.5 %	17.5 %	18.8 %	18.4 %
Physical Memory Used	4,367 MB	4,063 MB	4,468 MB	4,339 MB
Physical Memory Available	28,213 MB	28,111 MB	28,517 MB	28,240 MB
Physical Memory Load	13.4 %	12.4 %	13.7 %	13.3 %
Page File Usage	0.0 %	0.0 %	0.0 %	0.0 %
CPU [#0]: Intel Core i9-13900KF				
Core VID	1.076 V	1.037 V	1.360 V	1.087 V
Uncore VID	1.109 V	1.104 V	1.261 V	1.137 V
SA VID	1.154 V	1.154 V	1.154 V	1.154 V
Core Clocks	4,104.2 MHz	3,700.0 MHz	5,500.0 MHz	4,124.5 MHz
Bus Clock	100.0 MHz	100.0 MHz	100.0 MHz	100.0 MHz
Ring/LLC Clock	4,100.0 MHz	4,100.0 MHz	4,600.0 MHz	4,227.8 MHz
Core Effective Clocks	4,134.5 MHz	0.2 MHz	4,873.8 MHz	4,162.8 MHz
Average Effective Clock	4,304.9 MHz	31.5 MHz	4,461.9 MHz	4,326.2 MHz
Core Usage	100.0 %	0.0 %	100.0 %	99.6 %
Max CPU/Thread Usage	100.0 %	62.2 %	100.0 %	99.9 %
Total CPU Usage	100.0 %	3.0 %	100.0 %	99.6 %
On-Demand Clock Modulation	100.0 %	100.0 %	100.0 %	100.0 %
Core Utility	140.7 %	0.0 %	163.1 %	141.4 %
Total CPU Utility	140.7 %	6.5 %	143.7 %	141.4 %
Core Ratios	41.0 x	37.0 x	55.0 x	41.2 x
Uncore Ratio	41.0 x	41.0 x	46.0 x	42.3 x
CPU [#0]: Intel Core i9-13900KF: DTS				
Core Temperatures	76 °C	31 °C	83 °C	76 °C
Core Distance to TJMAX	24 °C	17 °C	69 °C	24 °C
CPU Package	81 °C	43 °C	83 °C	81 °C
Core Max	81 °C	43 °C	83 °C	81 °C
Core Thermal Throttling	No	No	No	
Core Critical Temperature	No	No	No	
Core Power Limit Exceeded	Yes	No	Yes	
Package/Ring Thermal Throttling	No	No	No	
Package/Ring Critical Temperature	No	No	No	
Package/Ring Power Limit Exceeded	Yes	No	Yes	
CPU [#0]: Intel Core i9-13900KF: Enhanced				
CPU Package	80 °C	43 °C	83 °C	81 °C
CPU IA Cores	80 °C	47 °C	83 °C	81 °C
VR VCC Temperature (SVID)	66 °C	42 °C	66 °C	59 °C
Voltage Offsets		0.000 V	0.000 V	
VDDQ TX Voltage	1.100 V	1.100 V	1.100 V	1.100 V
CPU Package Power	250.001 W	36.539 W	250.239 W	249.244 W
IA Cores Power	236.544 W	28.183 W	237.811 W	235.585 W
System Agent Power	11.548 W	7.115 W	12.455 W	11.727 W
Rest-of-Chip Power	1.060 W	0.420 W	1.378 W	1.083 W
ASUS ROG STRIX Z790-E GAMING WIFI (N...)				
Motherboard	32 °C	30 °C	32 °C	31 °C
CPU (Weighted Value)	32 °C	30 °C	32 °C	31 °C
CPU Package	81 °C	43 °C	83 °C	81 °C
CPU	72 °C	31 °C	72 °C	70 °C
PCH	58 °C	50 °C	60 °C	55 °C
Vcore	1.074 V	1.057 V	1.385 V	1.091 V
+5V	5.000 V	4.960 V	5.000 V	4.994 V
AVSB	3.392 V	3.392 V	3.408 V	3.396 V
3VCC	3.280 V	3.264 V	3.296 V	3.275 V
+12V	12.096 V	12.096 V	12.192 V	12.096 V
VIN8	1.112 V	0.000 V	1.176 V	1.113 V
VIN4	0.928 V	0.904 V	1.200 V	0.928 V
3VSB_ATX	3.392 V	3.392 V	3.408 V	3.393 V
VTT	1.040 V	1.040 V	1.040 V	1.040 V
IMC VDD	1.225 V	1.225 V	1.243 V	1.226 V
CPU L2	1.120 V	1.104 V	1.168 V	1.119 V
VIN2	1.056 V	1.056 V	1.064 V	1.060 V
CPU VCCSA	1.168 V	1.136 V	1.168 V	1.168 V
VCCIN_AUX	1.776 V	1.776 V	1.792 V	1.776 V
VIN9	0.880 V	0.880 V	0.936 V	0.906 V
WHIF	1.808 V	1.808 V	1.808 V	1.808 V
CPU	2,163 RPM	770 RPM	2,170 RPM	2,137 RPM
AIO Pump	2,299 RPM	2,288 RPM	2,315 RPM	2,301 RPM
ASUS EC: ASUS				
VRM	66.0 °C	42.0 °C	66.0 °C	58.6 °C
Accumulated CPU Temperature	14,048,6...	13,955,238...	14,048,694 °C	14,001,973...
IVR TX VDDQ	1.095 V	1.070 V	1.104 V	1.091 V
Accumulated CPU Voltage	397,167 V	395,925 V	397,167 V	396,545 V

iCUE H150i ELITE CAPELLIX XT 360 T 2 Full Test Video

https://youtu.be/SkjUeo6V_g0

The screenshot displays a Windows desktop environment during a hardware stress test. The taskbar at the bottom shows the Start button, search icon, and several pinned applications including Prime95, HWINFO64, and various folders. The desktop background is a dark, abstract image.

Two windows are open:

- Prime95:** A window titled "Prime95" with a menu bar (Test, Edit, Advanced, Options, Window, Help). The main area shows a "Main thread" and a list of "Worker" threads (Worker #1 to Worker #20), all in a "Testing" state.
- HWINFO64 v7.36-4960 - Sensors Status:** A detailed window showing system and hardware sensors. It is divided into several sections:

Sensor	Current	Minimum	Maximum	Average
System: ASUS				
Virtual Memory Committed	7,387 MB	7,351 MB	8,012 MB	7,423 MB
Virtual Memory Available	30,057 MB	29,432 MB	30,093 MB	30,021 MB
Virtual Memory Load	19.7 %	19.6 %	21.3 %	19.8 %
Physical Memory Used	4,114 MB	4,095 MB	4,749 MB	4,158 MB
Physical Memory Available	28,466 MB	27,831 MB	28,484 MB	28,421 MB
Physical Memory Load	12.6 %	12.5 %	14.5 %	12.7 %
Page File Usage	0.0 %	0.0 %	0.0 %	0.0 %
CPU [#0]: Intel Core i9-13900KF				
Core VIDs	1.072 V	1.038 V	1.384 V	1.086 V
Uncore VID	1.109 V	1.106 V	1.264 V	1.137 V
SA VID	1.154 V	1.154 V	1.154 V	1.154 V
Core Clocks	4,100.0 MHz	3,700.0 MHz	5,500.0 MHz	4,123.2 MHz
Bus Clock	100.0 MHz	100.0 MHz	100.0 MHz	100.0 MHz
Ring/LLC Clock	4,100.0 MHz	4,100.0 MHz	4,600.0 MHz	4,223.5 MHz
Core Effective Clocks	4,115.7 MHz	0.5 MHz	4,849.3 MHz	4,135.1 MHz
Average Effective Clock	4,278.8 MHz	144.8 MHz	4,453.1 MHz	4,288.7 MHz
Core Usage	100.0 %	0.0 %	100.0 %	99.5 %
Max CPU/Thread Usage	100.0 %	59.3 %	100.0 %	99.9 %
Total CPU Usage	100.0 %	3.5 %	100.0 %	99.5 %
On-Demand Clock Modulation	100.0 %	100.0 %	100.0 %	100.0 %
Core Utility	140.4 %	0.0 %	162.2 %	141.0 %
Total CPU Utility	140.4 %	6.9 %	142.6 %	141.0 %
Core Ratios	41.0 x	37.0 x	55.0 x	41.2 x
Uncore Ratio	41.0 x	41.0 x	46.0 x	42.2 x
CPU [#0]: Intel Core i9-13900KF: DTS				
Core Temperatures	77 °C	32 °C	83 °C	76 °C
Core Distance to TJMAX	23 °C	17 °C	68 °C	24 °C
CPU Package	82 °C	44 °C	83 °C	81 °C
Core Max	81 °C	44 °C	83 °C	81 °C
Core Thermal Throttling	No	No	No	No
Core Critical Temperature	No	No	No	No
Core Power Limit Exceeded	Yes	No	Yes	No
Package/Ring Thermal Throttling	No	No	No	No
Package/Ring Critical Temperature	No	No	No	No
Package/Ring Power Limit Exceeded	Yes	No	Yes	No
CPU [#0]: Intel Core i9-13900KF: Enhanced				
CPU Package	82 °C	46 °C	83 °C	81 °C
CPU IA Cores	82 °C	46 °C	83 °C	81 °C
VR VCC Temperature (SVID)	67 °C	48 °C	68 °C	62 °C
Voltage Offsets	0.000 V	0.000 V	0.000 V	0.000 V
VDDQ TX Voltage	1.100 V	1.100 V	1.100 V	1.100 V
CPU Package Power	249.920 W	38.339 W	250.273 W	249.291 W
IA Cores Power	236.190 W	29.637 W	237.240 W	235.351 W
System Agent Power	11.776 W	7.462 W	12.624 W	11.999 W
Rest-of-Chip Power	1.106 W	0.420 W	1.364 W	1.093 W
ASUS ROG STRIX Z790-E GAMING WIFI (N...)				
Motherboard	33 °C	32 °C	33 °C	33 °C
CPU (Weighted Value)	33 °C	32 °C	33 °C	33 °C
CPU Package	81 °C	44 °C	82 °C	81 °C
CPU	72 °C	34 °C	74 °C	70 °C
PCH	61 °C	59 °C	61 °C	60 °C
Vcore	1.083 V	1.066 V	1.359 V	1.091 V
+5V	4.960 V	4.960 V	5.000 V	4.984 V
AVSB	3.392 V	3.392 V	3.408 V	3.394 V
3VCC	3.264 V	3.264 V	3.296 V	3.272 V
+12V	12.096 V	12.096 V	12.192 V	12.096 V
VIN8	1.112 V	1.104 V	1.176 V	1.114 V
VIN4	0.912 V	0.912 V	1.216 V	0.934 V
3VSB_ATX	3.392 V	3.392 V	3.408 V	3.392 V
VTT	1.040 V	1.040 V	1.040 V	1.040 V
IMC VDD	1.225 V	1.225 V	1.243 V	1.225 V
CPU L2	1.120 V	1.104 V	1.168 V	1.120 V
VIN2	1.056 V	1.056 V	1.064 V	1.057 V
CPU VCCSA	1.168 V	1.136 V	1.168 V	1.168 V
VCCIN_AUX	1.776 V	1.776 V	1.792 V	1.776 V
VIN9	0.872 V	0.864 V	0.880 V	0.875 V
VHIF	1.808 V	1.808 V	1.808 V	1.808 V
CPU	2,160 RPM	811 RPM	2,170 RPM	2,140 RPM
AIO Pump	2,292 RPM	2,288 RPM	2,315 RPM	2,301 RPM
ASUS EC: ASUS				
VRM	67.0 °C	48.0 °C	68.0 °C	62.2 °C
Accumulated CPU Temperature	14,599,0...	14,505,512...	14,599,046 °C	14,552,271...
IVR TX VDDQ	1.092 V	1.060 V	1.101 V	1.091 V
Accumulated CPU Voltage	411,610 V	410,365 V	411,610 V	410,988 V

iCUE H150i ELITE CAPELLIX XT 360 T 3 Full Test Video

<https://youtu.be/QeA3YiConw8>

The screenshot displays a Windows desktop environment during a stress test. On the left, a Prime95 window is open, showing a 'Main thread' and a list of 'Machines' (Machines #1 through #23) all in a 'Testing' state. The taskbar at the bottom contains icons for BIOScreen, 3DMark, 20230418-分鏡-TDP2..., BitFenix QUBE, CrystalDisk..., 0915--c-1, ArmouryCr..., FastCopy, 240比較, PotPlayer 64 bit, 0913-1, 0915--c-2, 20230216-改水道後溫度..., 客戶usb測試 測試正常, 馬丁 12030AIO..., HWINFO64, 0913-2, extreme_t..., Steam, AIO 360, 0907, and 0913-3.

The central window is 'HWINFO64 v7.36-4960 - Sensors Status', showing a detailed table of system sensors. The table is organized into sections for System, CPU, and Motherboard. The CPU section is expanded to show 'CPU [#0]: Intel Core i9-13900KF' details, including Core VIDs, Core Clocks, Core Effective Clocks, Core Usage, Core Ratios, Core Temperatures, and Voltage Offsets. The Motherboard section shows various voltage rails (Vcore, +5V, AVSBB, 3VCC, +12V, VIN8, VIN4, 3VSB_ATX, VTT, IMC VDD, CPU L2, VIN2, CPU VCCSA, VCCIN_AUX, VIN9, VHFIF) and RPM values for the CPU and AIO Pump.

Sensor	Current	Minimum	Maximum	Average
System: ASUS				
Virtual Memory Committed	7,322 MB	7,249 MB	7,428 MB	7,304 MB
Virtual Memory Available	30,122 MB	30,016 MB	30,195 MB	30,140 MB
Virtual Memory Load	19.5 %	19.3 %	19.8 %	19.5 %
Physical Memory Used	4,471 MB	4,425 MB	4,621 MB	4,457 MB
Physical Memory Available	28,109 MB	27,959 MB	28,155 MB	28,123 MB
Physical Memory Load	13.7 %	13.5 %	14.1 %	13.6 %
Page File Usage	0.1 %	0.1 %	0.1 %	0.1 %
CPU [#0]: Intel Core i9-13900KF				
Core VIDs				
Uncore VID	1.139 V	1.106 V	1.264 V	1.135 V
SA VID	1.154 V	1.154 V	1.154 V	1.154 V
Core Clocks				
Bus Clock	100.0 MHz	100.0 MHz	100.0 MHz	100.0 MHz
Ring/LLC Clock	4,095.8 MHz	3,700.0 MHz	5,800.0 MHz	4,120.6 MHz
Core Effective Clocks				
Core Effective Clocks	4,200.0 MHz	4,100.0 MHz	4,600.0 MHz	4,215.9 MHz
Average Effective Clock	4,141.6 MHz	0.3 MHz	4,849.7 MHz	4,164.5 MHz
Core Usage				
Core Usage	100.0 %	0.0 %	100.0 %	99.6 %
Max CPU/Thread Usage	100.0 %	72.0 %	100.0 %	99.9 %
Total CPU Usage	100.0 %	3.6 %	100.0 %	99.6 %
On-Demand Clock Modulation	100.0 %	100.0 %	100.0 %	100.0 %
Core Utility				
Core Utility	141.0 %	0.0 %	175.8 %	141.4 %
Total CPU Utility	141.0 %	6.9 %	143.4 %	141.4 %
Core Ratios				
Core Ratios	41.0 x	37.0 x	58.0 x	41.2 x
Uncore Ratio	42.0 x	41.0 x	46.0 x	42.2 x
CPU [#0]: Intel Core i9-13900KF: DTS				
Core Temperatures				
Core Temperatures	76 °C	31 °C	83 °C	76 °C
Core Distance to TJMAX	24 °C	17 °C	69 °C	24 °C
CPU Package				
CPU Package	81 °C	46 °C	82 °C	81 °C
Core Max	80 °C	46 °C	83 °C	81 °C
Core Thermal Throttling				
Core Thermal Throttling	No	No	No	No
Core Critical Temperature				
Core Critical Temperature	No	No	No	No
Core Power Limit Exceeded				
Core Power Limit Exceeded	Yes	No	Yes	No
Package/Ring Thermal Throttling				
Package/Ring Thermal Throttling	No	No	No	No
Package/Ring Critical Temperature				
Package/Ring Critical Temperature	No	No	No	No
Package/Ring Power Limit Exceeded				
Package/Ring Power Limit Exceeded	Yes	No	Yes	No
CPU [#0]: Intel Core i9-13900KF: Enhanced				
CPU Package				
CPU Package	81 °C	47 °C	82 °C	81 °C
CPU IA Cores				
CPU IA Cores	81 °C	47 °C	82 °C	81 °C
VR VCC Temperature (SVID)				
VR VCC Temperature (SVID)	68 °C	46 °C	68 °C	61 °C
Voltage Offsets				
VDDQ TX Voltage	1.100 V	1.100 V	1.100 V	1.100 V
CPU Package Power				
CPU Package Power	249.986 W	38.102 W	250.194 W	249.241 W
IA Cores Power				
IA Cores Power	236.530 W	29.414 W	237.439 W	235.463 W
System Agent Power				
System Agent Power	11.621 W	7.450 W	12.557 W	11.858 W
Rest-of-Chip Power				
Rest-of-Chip Power	0.989 W	0.421 W	1.367 W	1.071 W
ASUS ROG STRIX Z790-E GAMING WIFI (N...				
Motherboard				
CPU (Weighted Value)	33 °C	31 °C	33 °C	32 °C
CPU Package	80 °C	42 °C	82 °C	80 °C
CPU	72 °C	35 °C	73 °C	70 °C
PCH	60 °C	56 °C	61 °C	59 °C
Vcore				
Vcore	1.083 V	1.066 V	1.359 V	1.090 V
+5V	5.000 V	4.960 V	5.000 V	4.991 V
AVSBB	3.392 V	3.392 V	3.408 V	3.401 V
3VCC	3.280 V	3.264 V	3.296 V	3.275 V
+12V	12.096 V	12.096 V	12.192 V	12.096 V
VIN8	1.104 V	0.008 V	1.128 V	1.113 V
VIN4	0.920 V	0.464 V	0.984 V	0.925 V
3VSB_ATX	3.392 V	3.392 V	3.408 V	3.398 V
VTT	1.040 V	1.040 V	1.040 V	1.040 V
IMC VDD	1.225 V	1.225 V	1.243 V	1.225 V
CPU L2	1.120 V	1.104 V	1.136 V	1.119 V
VIN2	1.064 V	1.056 V	1.064 V	1.061 V
CPU VCCSA	1.168 V	1.136 V	1.168 V	1.168 V
VCCIN_AUX	1.776 V	1.776 V	1.792 V	1.776 V
VIN9	0.872 V	0.872 V	0.904 V	0.887 V
VHFIF	1.808 V	1.808 V	1.808 V	1.808 V
CPU				
CPU	2,163 RPM	809 RPM	2,170 RPM	2,137 RPM
AIO Pump	2,307 RPM	2,288 RPM	2,315 RPM	2,301 RPM
ASUS EC: ASUS				
VRM				
VRM	67.0 °C	46.0 °C	68.0 °C	61.2 °C
Accumulated CPU Temperature				
Accumulated CPU Temperature	14,843,7...	14,750,604...	14,843,768 °C	14,797,123...
IVR TX VDDQ				
IVR TX VDDQ	1.089 V	1.032 V	1.098 V	1.091 V
Accumulated CPU Voltage				
Accumulated CPU Voltage	417,739 V	416,499 V	417,739 V	417,118 V