

## CPU-Z

## Binaries

CPU-Z version 1.77.0.x64

## Processors

Number of processors 1

Number of threads 8

## APICs

Processor 0

-- Core 0

-- Thread 0 0

-- Thread 1 1

-- Core 1

-- Thread 0 2

-- Thread 1 3

-- Core 2


-- Thread 0 4

-- Thread 1 5

-- Core 3

-- Thread 0	6
-- Thread 1	7

Timers	
ACPI timer	3.580 MHz
HPET timer	24.000 MHz
Perf timer	3.914 MHz
Sys timer	1.000 KHz

Processors Information	
Processor 1	ID = 0
Number of cores	4 (max 4)
Number of threads	8 (max 8)
Name	Intel Core i7 6700K
Codename	Skylake
Specification	Intel(R) Core(TM) i7-6700K CPU @ 4.00GHz
Package (platform ID)	Socket 1151 LGA (0x1)
CPUID	6.E.3
Extended CPUID	6.5E
Core Stepping	R0
Technology	14 nm
TDP Limit	95.0 Watts
Tjmax	100.0  C

Core Speed	800.0 MHz
Multiplier x Bus Speed	8.0 x 100.0 MHz
Stock frequency	4000 MHz
Max frequency	4200 MHz
Instructions sets	MMX, SSE, SSE2, SSE3, SSSE3, SSE4.1, SSE4.2, EM64T, VT-x, AES, AVX, AVX2, FMA3, TSX
L1 Data cache	4 x 32 KBytes, 8-way set associative, 64-byte line size
L1 Instruction cache	4 x 32 KBytes, 8-way set associative, 64-byte line size
L2 cache	4 x 256 KBytes, 4-way set associative, 64-byte line size
L3 cache	8 MBytes, 16-way set associative, 64-byte line size
FID/VID Control	yes
Turbo Mode	supported, enabled
Max non-turbo ratio	40x
Max turbo ratio	42x
Max efficiency ratio	8x
O/C bins	unlimited
Ratio 1 core	42x
Ratio 2 cores	40x
Ratio 3 cores	40x
Ratio 4 cores	40x
TSC	4008.3 MHz
TSC_24	24.0 MHz
APERF	800.0 MHz

MPERF	3999.9 MHz
IA Voltage Mode	PCU adaptive
IA Voltage Offset	0 mV
GT Voltage Mode	PCU adaptive
GT Voltage Offset	0 mV
LLC/Ring Voltage Mode	PCU adaptive
LLC/Ring Voltage Offset	0 mV
Agent Voltage Mode	PCU adaptive
Agent Voltage Offset	0 mV
Temperature 0	18 degC (64 degF) (Core #0)
Temperature 1	20 degC (68 degF) (Core #1)
Temperature 2	16 degC (60 degF) (Core #2)
Temperature 3	17 degC (62 degF) (Core #3)
Temperature 4	23 degC (73 degF) (Package)
Voltage 0	0.79 Volts (VID)
Voltage 1	+0.00 Volts (IA Offset)
Voltage 2	+0.00 Volts (GT Offset)
Voltage 3	+0.00 Volts (LLC/Ring Offset)
Voltage 4	+0.00 Volts (System Agent Offset)
Power 0	13.03 W (Package)
Power 1	1.86 W (IA Cores)
Power 2	n.a. (GT)
Power 3	11.17 W (Uncore)
Power 4	1.04 W (DRAM)

Clock Speed 0	800.00 MHz (Core #0)
Clock Speed 1	800.00 MHz (Core #1)
Clock Speed 2	800.00 MHz (Core #2)
Clock Speed 3	800.00 MHz (Core #3)

Chipset	
Northbridge	Intel Skylake rev. 07
Southbridge	Intel Z170 rev. 31
Graphic Interface	PCI-Express
PCI-E Link Width	x16
PCI-E Max Link Width	x16
Memory Type	DDR4
Memory Size	16 GBytes
Channels	Dual
Memory Frequency	1066.7 MHz (1:16)
CAS# latency (CL)	15.0
RAS# to CAS# delay (tRCD)	15
RAS# Precharge (tRP)	15
Cycle Time (tRAS)	36
Row Refresh Cycle Time (tRFC)	278
Command Rate (CR)	2T
Uncore Frequency	800.2 MHz

Host Bridge	0x191F
Memory SPD	
DIMM #	1
SMBus address	0x51
Memory type	DDR4
Module format	UDIMM
Manufacturer (ID)	Corsair (7F7F9E0000000000000000)
Size	8192 MBytes
Max bandwidth	DDR4-2132 (1066 MHz)
Part number	CMK16GX4M2A2400C14
Nominal Voltage	1.20 Volts
EPP	no
XMP	yes
XMP revision	2.0
AMP	no
JEDEC timings table	CL-tRCD-tRP-tRAS-tRC @ frequency
JEDEC #1	9.0-9-9-22-31 @ 666 MHz
JEDEC #2	10.0-10-10-25-35 @ 740 MHz
JEDEC #3	11.0-11-11-27-38 @ 814 MHz
JEDEC #4	12.0-12-12-30-42 @ 888 MHz
JEDEC #5	13.0-13-13-32-45 @ 962 MHz
JEDEC #6	14.0-14-14-35-49 @ 1037 MHz
JEDEC #7	15.0-15-15-36-50 @ 1066 MHz
JEDEC #8	16.0-15-15-36-50 @ 1066 MHz

XMP profile	XMP-2400
Specification	DDR4-2400
Voltage level	1.200 Volts
Min Cycle time	0.833 ns (1200 MHz)
Max CL	14.0
Min tRP	13.32 ns
Min tRCD	13.32 ns
Min tRAS	25.64 ns
Min tRC	39.14 ns
Min tRRD	4.16 ns
XMP timings table	CL-tRCD-tRP-tRAS-tRC-CR @ frequency (voltage)
XMP #1	9.0-11-11-20-31-n.a @ 772 MHz (1.200 Volts)
XMP #2	11.0-13-13-25-37-n.a @ 944 MHz (1.200 Volts)
XMP #3	12.0-14-14-27-41-n.a @ 1030 MHz (1.200 Volts)
XMP #4	13.0-15-15-29-44-n.a @ 1115 MHz (1.200 Volts)
XMP #5	14.0-16-16-31-47-n.a @ 1200 MHz (1.200 Volts)
XMP #6	15.0-16-16-31-47-n.a @ 1200 MHz (1.200 Volts)
XMP #7	16.0-16-16-31-47-n.a @ 1200 MHz (1.200 Volts)
DIMM #	2
SMBus address	0x53
Memory type	DDR4
Module format	UDIMM
Manufacturer (ID)	Corsair (7F7F9E0000000000000000)

Size	8192 MBytes
Max bandwidth	DDR4-2132 (1066 MHz)
Part number	CMK16GX4M2A2400C14
Nominal Voltage	1.20 Volts
EPP	no
XMP	yes
XMP revision	2.0
AMP	no
JEDEC timings table	CL-tRCD-tRP-tRAS-tRC @ frequency
JEDEC #1	9.0-9-9-22-31 @ 666 MHz
JEDEC #2	10.0-10-10-25-35 @ 740 MHz
JEDEC #3	11.0-11-11-27-38 @ 814 MHz
JEDEC #4	12.0-12-12-30-42 @ 888 MHz
JEDEC #5	13.0-13-13-32-45 @ 962 MHz
JEDEC #6	14.0-14-14-35-49 @ 1037 MHz
JEDEC #7	15.0-15-15-36-50 @ 1066 MHz
JEDEC #8	16.0-15-15-36-50 @ 1066 MHz
XMP profile	XMP-2400
Specification	DDR4-2400
Voltage level	1.200 Volts
Min Cycle time	0.833 ns (1200 MHz)
Max CL	14.0
Min tRP	13.32 ns
Min tRCD	13.32 ns
Min tRAS	25.64 ns



Min tRC	39.14 ns
Min tRRD	4.16 ns
XMP timings table	CL-tRCD-tRP-tRAS-tRC-CR @ frequency (voltage)
XMP #1	9.0-11-11-20-31-n.a @ 772 MHz (1.200 Volts)
XMP #2	11.0-13-13-25-37-n.a @ 944 MHz (1.200 Volts)
XMP #3	12.0-14-14-27-41-n.a @ 1030 MHz (1.200 Volts)
XMP #4	13.0-15-15-29-44-n.a @ 1115 MHz (1.200 Volts)
XMP #5	14.0-16-16-31-47-n.a @ 1200 MHz (1.200 Volts)
XMP #6	15.0-16-16-31-47-n.a @ 1200 MHz (1.200 Volts)
XMP #7	16.0-16-16-31-47-n.a @ 1200 MHz (1.200 Volts)

Monitoring	
Mainboard Model	Z170XP-SLI-CF (0x00000365 - 0x7D57F2A6)
LPCIO	
LPCIO Vendor	ITE
LPCIO Model	IT8628
LPCIO Vendor ID	0x90
LPCIO Chip ID	0x8628
LPCIO Revision ID	0x2
Hardware Monitors	
Hardware monitor	ITE IT8620

Voltage 0	0.79 Volts [0x42] (CPU VCORE)
Voltage 2	12.24 Volts [0xAA] (+12V)
Voltage 5	1.07 Volts [0x59] (CPU VTT)
Voltage 6	1.20 Volts [0x64] (DRAM)
Voltage 7	3.36 Volts [0x8C] (+3.3V)
Voltage 8	1.56 Volts [0x82] (VIN8)
Temperature 0	30 degC (86 degF) [0x1E] (CPU)
Temperature 2	22 degC (71 degF) [0x16] (System)
Fan 0	743 RPM [0x38D] (FANIN0)
Fan 1	829 RPM [0x32E] (FANIN1)
Fan 2	657 RPM [0x403] (FANIN2)
Fan 3	799 RPM [0x34D] (FANIN3)
Fan PWM 0	0 pc [0x0] (FANPWM0)
Fan PWM 1	0 pc [0x0] (FANPWM1)
Fan PWM 2	0 pc [0x0] (FANPWM2)

#### Hardware monitor

Temperature 0	28 degC (82 degF) [0xBC2] (TZ00)
Temperature 1	30 degC (85 degF) [0xBD6] (TZ01)

#### Hardware monitor

Voltage 0	0.86 Volts [0x358] (VIN0)
Power 0	146.18 pc (GPU)
Temperature 0	39 degC (102 degF) [0x27] (TMPIN0)
Fan 0	0 RPM [0x0] (FANIN0)

Fan PWM 0

Clock Speed 0

Clock Speed 1

20 pc [0x14] (FANPWMIN0)

135.00 MHz [0x87] (Graphics)

405.00 MHz [0x87] (Memory)

PCI Devices	
Description	Host Bridge
Location	bus 0 (0x00), device 0 (0x00), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0x191F
Revision ID	0x07
Description	PCI to PCI Bridge
Location	bus 0 (0x00), device 1 (0x01), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0x1901
Revision ID	0x07
Description	USB Controller
Location	bus 0 (0x00), device 20 (0x14), function 0 (0x00)
Common header	
Vendor ID	0x8086

Model ID	0xA12F
Revision ID	0x31
Description	Data Aquisition and Signal Processing Device
Location	bus 0 (0x00), device 20 (0x14), function 2 (0x02)
Common header	
Vendor ID	0x8086
Model ID	0xA131
Revision ID	0x31
Description	Communication Device
Location	bus 0 (0x00), device 22 (0x16), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0xA13A
Revision ID	0x31
Description	Serial ATA Controller
Location	bus 0 (0x00), device 23 (0x17), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0xA102
Revision ID	0x31
Description	PCI to PCI Bridge

Location	bus 0 (0x00), device 27 (0x1B), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0xA167
Revision ID	0xF1
Description	PCI to PCI Bridge
Location	bus 0 (0x00), device 27 (0x1B), function 2 (0x02)
Common header	
Vendor ID	0x8086
Model ID	0xA169
Revision ID	0xF1
Description	PCI to PCI Bridge
Location	bus 0 (0x00), device 27 (0x1B), function 3 (0x03)
Common header	
Vendor ID	0x8086
Model ID	0xA16A
Revision ID	0xF1
Description	PCI to PCI Bridge
Location	bus 0 (0x00), device 28 (0x1C), function 0 (0x00)
Common header	
Vendor ID	0x8086

Model ID	0xA110
Revision ID	0xF1
Description	PCI to PCI Bridge
Location	bus 0 (0x00), device 28 (0x1C), function 4 (0x04)
Common header	
Vendor ID	0x8086
Model ID	0xA114
Revision ID	0xF1
Description	PCI to PCI Bridge
Location	bus 0 (0x00), device 29 (0x1D), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0xA118
Revision ID	0xF1
Description	PCI to PCI Bridge
Location	bus 0 (0x00), device 29 (0x1D), function 4 (0x04)
Common header	
Vendor ID	0x8086
Model ID	0xA11C
Revision ID	0xF1
Description	PCI to ISA Bridge

Location	bus 0 (0x00), device 31 (0x1F), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0xA145
Revision ID	0x31
Description	Memory Controller
Location	bus 0 (0x00), device 31 (0x1F), function 2 (0x02)
Common header	
Vendor ID	0x8086
Model ID	0xA121
Revision ID	0x31
Description	Multimedia device
Location	bus 0 (0x00), device 31 (0x1F), function 3 (0x03)
Common header	
Vendor ID	0x8086
Model ID	0xA170
Revision ID	0x31
Description	SMBus Controller
Location	bus 0 (0x00), device 31 (0x1F), function 4 (0x04)
Common header	
Vendor ID	0x8086

Model ID	0xA123
Revision ID	0x31
Description	Ethernet Controller
Location	bus 0 (0x00), device 31 (0x1F), function 6 (0x06)
Common header	
Vendor ID	0x8086
Model ID	0x15B8
Revision ID	0x31
Description	VGA Controller
Location	bus 1 (0x01), device 0 (0x00), function 0 (0x00)
Common header	
Vendor ID	0x10DE
Model ID	0x17C8
Revision ID	0xA1
Description	Multimedia device
Location	bus 1 (0x01), device 0 (0x00), function 1 (0x01)
Common header	
Vendor ID	0x10DE
Model ID	0x0FB0
Revision ID	0xA1
Description	PCI to PCI Bridge



Location	bus 3 (0x03), device 0 (0x00), function 0 (0x00)
Common header	
Vendor ID	0x1B21
Model ID	0x1080
Revision ID	0x04
Description	Network Controller
Location	bus 5 (0x05), device 0 (0x00), function 0 (0x00)
Common header	
Vendor ID	0x168C
Model ID	0x002E
Revision ID	0x01
Description	USB Controller
Location	bus 6 (0x06), device 0 (0x00), function 0 (0x00)
Common header	
Vendor ID	0x1B21
Model ID	0x1242
Revision ID	0x00
Description	PCI to PCI Bridge
Location	bus 7 (0x07), device 0 (0x00), function 0 (0x00)
Common header	
Vendor ID	0x1B21

Model ID	0x1080
Revision ID	0x04
Description	Audio device
Location	bus 8 (0x08), device 4 (0x04), function 0 (0x00)
Common header	
Vendor ID	0x13F6
Model ID	0x8788
Revision ID	0x00
<b>DMI</b>	
DMI BIOS	
vendor	American Megatrends Inc.
version	F6
date	03/07/2016
ROM size	8192 KB
DMI System Information	
manufacturer	Gigabyte Technology Co. Ltd.
product	Z170XP-SLI
version	To be filled by O.E.M.
serial	To be filled by O.E.M.
UUID	{038D0240-045C-051E-7C06-DF0700080009}
SKU	To be filled by O.E.M.

family	To be filled by O.E.M.
DMI Baseboard	
vendor	Gigabyte Technology Co. Ltd.
model	Z170XP-SLI-CF
revision	x.x
serial	To be filled by O.E.M.
DMI System Enclosure	
manufacturer	To Be Filled By O.E.M.
chassis type	Desktop
chassis serial	To Be Filled By O.E.M.
DMI Port Connector	
designation	J1A1 (internal)
designation	PS2Mouse (external)
port type	Mouse Port
connector	PS/2
DMI Port Connector	
designation	J1A1 (internal)
designation	Keyboard (external)
port type	Keyboard Port
connector	PS/2

DMI Port Connector

designation	J2A1 (internal)
designation	TV Out (external)
connector	Mini Centronics Type-14

DMI Port Connector

designation	J2A2A (internal)
designation	COM A (external)
port type	Serial Port 16550A
connector	DB-9 male

DMI Port Connector

designation	J2A2B (internal)
designation	Video (external)
port type	Video Port
connector	DB-15 female

DMI Port Connector

designation	J3A1 (internal)
designation	USB1 (external)
port type	USB
connector	Access Bus (USB)

DMI Port Connector

designation	J3A1 (internal)
designation	USB2 (external)
port type	USB
connector	Access Bus (USB)
DMI Port Connector	
designation	J3A1 (internal)
designation	USB3 (external)
port type	USB
connector	Access Bus (USB)
DMI Port Connector	
designation	J9A1 - TPM HDR (internal)
DMI Port Connector	
designation	J9C1 - PCIE DOCKING CONN (internal)
DMI Port Connector	
designation	J2B3 - CPU FAN (internal)
DMI Port Connector	
designation	J6C2 - EXT HDMI (internal)
DMI Port Connector	

DMI Port Connector designation	J3C1 - GMCH FAN (internal)
DMI Port Connector designation	J1D1 - ITP (internal)
DMI Port Connector designation	J9E2 - MDC INTPSR (internal)
DMI Port Connector designation	J9E4 - MDC INTPSR (internal)
DMI Port Connector designation	J9E3 - LPC HOT DOCKING (internal)
DMI Port Connector designation	J9E1 - SCAN MATRIX (internal)
DMI Port Connector designation	J9G1 - LPC SIDE BAND (internal)
DMI Port Connector designation	J8F1 - UNIFIED (internal)
DMI Port Connector designation	J6F1 - LVDS (internal)

DMI Port Connector	
designation	J2F1 - LAI FAN (internal)
DMI Port Connector	
designation	J2G1 - GFX VID (internal)
DMI Port Connector	
designation	J1G6 - AC JACK (internal)
DMI Extension Slot	
designation	J6B2
type	A5
populated	yes
DMI Extension Slot	
designation	J6B1
type	A5
populated	yes
DMI Extension Slot	
designation	J6D1
type	A5
populated	yes

#### DMI Extension Slot

designation	J7B1
type	A5
populated	yes

#### DMI Extension Slot

designation	J8B4
type	A5
populated	yes

#### DMI OEM Strings

string[0]	To Be Filled By O.E.M.
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#### DMI Processor

manufacturer	Intel(R) Corporation
model	Intel(R) Core(TM) i7-6700K CPU @ 4.00GHz
clock speed	4000.0 MHz
FSB speed	100.0 MHz
multiplier	40.0x

#### DMI Physical Memory Array

location	Motherboard
usage	System Memory
correction	None



max capacity	65536 MBytes
max# of devices	4
DMI Memory Device	
designation	ChannelA-DIMM0
format	unknown
type	unknown
DMI Memory Device	
designation	ChannelA-DIMM1
format	DIMM
type	unknown
total width	64 bits
data width	64 bits
size	8192 MBytes
DMI Memory Device	
designation	ChannelB-DIMM0
format	unknown
type	unknown
DMI Memory Device	
designation	ChannelB-DIMM1
format	DIMM

type	unknown
total width	64 bits
data width	64 bits
size	8192 MBytes

Graphics

Number of adapters1

Graphic APIs

API	NVIDIA I/O
API	NVIDIA NVAPI

Display Adapters

Display adapter 0	
Name	NVIDIA GeForce GTX 980 Ti
Board Manufacturer	ASUSTeK Computer Inc.
Revision	A1
Codename	GM200
Technology	28 nm
Memory size	6 GB
Memory type	GDDR5
PCI device	bus 1 (0x1), device 0 (0x0), function 0 (0x0)
Vendor ID	0x10DE (0x1043)
Model ID	0x17C8 (0x8548)

Performance Level	0
Core clock	1291.0 MHz
Memory clock	3600.0 MHz
Win32_VideoController	AdapterRAM = 0xFFF00000 (4293918720)
Win32_VideoController	DriverVersion = 21.21.13.7270
Win32_VideoController	DriverDate = 08/25/2016
Monitor 0	
Model	DUAL-DVI ( )
ID	HYO049B
Serial	
Manufacturing Date	Week 40, Year 2011
Size	27.2 inches
Max Resolution	2560 x 1440 @ 59 Hz
Horizontal Freq. Range	0-0 kHz
Vertical Freq. Range	0-0 Hz
Max Pixel Clock	0 MHz
Gamma Factor	2.2

## Software

Windows Version	Microsoft Windows 10 (10.0) Home 64-bit (Build 14393)
DirectX Version	12.0

