

## CPU-Z

### Binaries

CPU-Z version 1.85.0.x64

### Processors

Number of sockets 1  
Number of threads 8

### APICs

Socket 0

-- Core 0 (ID 0)  
-- Thread 0 0  
-- Thread 1 1  
-- Core 1 (ID 1)  
-- Thread 2 2  
-- Thread 3 3  
-- Core 2 (ID 2)  
-- Thread 4 4  
-- Thread 5 5  
-- Core 3 (ID 3)  
-- Thread 6 6  
-- Thread 7 7

### Timers

ACPI timer 3.580 MHz  
Perf timer 3.313 MHz  
Sys timer 1.000 KHz

### Processors Information

Socket 1 ID = 0  
Number of cores 4 (max 4)  
Number of threads 8 (max 8)  
Name Intel Core i7 3770  
Codename Ivy Bridge  
Specification Intel(R) Core(TM) i7-3770 CPU @ 3.40GHz  
Package (platform ID) Socket 1155 LGA (0x1)  
CPUID 6.A.9  
Extended CPUID 6.3A  
Core Stepping E1/L1  
Technology 22 nm  
TDP Limit 77.0 Watts  
Tjmax 105.0 °C  
Core Speed 3890.7 MHz  
Multiplier x Bus Speed 39.0 x 99.8 MHz  
Base frequency (cores) 99.8 MHz  
Base frequency (ext.) 99.8 MHz  
Stock frequency 3400 MHz  
Instructions sets MMX, SSE, SSE2, SSE3, SSSE3, SSE4.1, SSE4.2, EM64T, VT-x, AES, AVX  
Microcode Revision 0x1C  
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, 8-way set associative, 64-byte line size
L3 cache	8 MBytes, 16-way set associative, 64-byte line size
Max CPUID level	0000000Dh
Max CPUID ext. level	80000008h
Cache descriptor	Level 1, D, 32 KB, 2 thread(s)
Cache descriptor	Level 1, I, 32 KB, 2 thread(s)
Cache descriptor	Level 2, U, 256 KB, 2 thread(s)
Cache descriptor	Level 3, U, 8 MB, 16 thread(s)
FID/VID Control	yes

IBRS	not supported
IBPB	not supported
STIBP	not supported
RDCL_NO	no
IBRS_ALL	not supported
Turbo Mode	supported, enabled
Max non-turbo ratio	34x
Max turbo ratio	39x
Max efficiency ratio	16x
Min Power	60 Watts
O/C bins	+4
Ratio 1 core	39x
Ratio 2 cores	39x
Ratio 3 cores	38x
Ratio 4 cores	37x
TDP Level	77.0 W @ 34x

Temperature 0	46 degC (114 degF) (Package)
Temperature 1	42 degC (107 degF) (Core #0)
Temperature 2	47 degC (116 degF) (Core #1)
Temperature 3	47 degC (116 degF) (Core #2)
Temperature 4	43 degC (109 degF) (Core #3)
Voltage 0	0.92 Volts (VID)
Power 00	9.42 W (Package)
Power 01	4.65 W (IA Cores)
Power 02	n.a. (GT)
Power 03	4.77 W (Uncore)
Clock Speed 0	3890.72 MHz (Core #0)
Clock Speed 1	3890.72 MHz (Core #1)
Clock Speed 2	3890.72 MHz (Core #2)
Clock Speed 3	3890.72 MHz (Core #3)
Core 0 max ratio	39.0 (effective 39.0)
Core 1 max ratio	39.0 (effective 39.0)
Core 2 max ratio	39.0 (effective 39.0)
Core 3 max ratio	39.0 (effective 39.0)

Chipset	
Northbridge	Intel Ivy Bridge rev. 09
Southbridge	Intel P75/B75 rev. 04
Graphic Interface	PCI-Express
PCI-E Link Width	x8
PCI-E Max Link Width	x8
Memory Type	DDR3

Memory Size	16 GBytes
Channels	Dual
Memory Frequency	665.1 MHz (1:5)
CAS# latency (CL)	9.0
RAS# to CAS# delay (tRCD)	9
RAS# Precharge (tRP)	9
Cycle Time (tRAS)	24
Command Rate (CR)	1T
Host Bridge	0x0150
Memory SPD	
DIMM #	1
SMBus address	0x50
Memory type	DDR3
Module format	UDIMM
Manufacturer (ID)	Kingston (7F980000000000000000)
Size	8192 MBytes
Max bandwidth	PC3-10700 (667 MHz)
Part number	KHX1600C9D3/8GX
Serial number	65229CF6
Manufacturing date	Week 25/Year 13
Number of banks	8
Nominal Voltage	1.50 Volts
EPP	no
XMP	yes
XMP revision	1.2
AMP	no
JEDEC timings table	CL-tRCD-tRP-tRAS-tRC @ frequency
JEDEC #1	6.0-6-6-17-23 @ 457 MHz
JEDEC #2	7.0-7-7-20-27 @ 533 MHz
JEDEC #3	8.0-8-8-22-30 @ 609 MHz
JEDEC #4	9.0-9-9-24-33 @ 666 MHz
XMP profile	XMP-1600
Specification	PC3-12800
Voltage level	1.500 Volts
Min Cycle time	1.250 ns (800 MHz)
Max CL	9.0
Min tRP	11.25 ns
Min tRCD	11.25 ns
Min tWR	15.00 ns
Min tRAS	33.75 ns
Min tRC	45.00 ns
Min tRFC	260.00 ns
Min tRTP	7.50 ns
Min tRRD	6.00 ns
XMP timings table	CL-tRCD-tRP-tRAS-tRC-CR @ frequency (voltage)
XMP #1	6.0-6-6-18-24-n.a @ 533 MHz (1.500 Volts)
XMP #2	7.0-7-7-21-28-n.a @ 622 MHz (1.500 Volts)
XMP #3	8.0-8-8-24-32-n.a @ 711 MHz (1.500 Volts)
XMP #4	9.0-9-9-27-36-n.a @ 800 MHz (1.500 Volts)
DIMM #	2
SMBus address	0x52
Memory type	DDR3
Module format	UDIMM
Manufacturer (ID)	Kingston (7F980000000000000000)

Size	8192 MBytes
Max bandwidth	PC3-10700 (667 MHz)
Part number	KHX1600C9D3/8GX
Serial number	65229BF6
Manufacturing date	Week 25/Year 13
Number of banks	8
Nominal Voltage	1.50 Volts
EPP	no
XMP	yes
XMP revision	1.2
AMP	no
JEDEC timings table	CL-tRCD-tRP-tRAS-tRC @ frequency
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XMP #4	9.0-9-9-27-36-n.a @ 800 MHz (1.500 Volts)

Monitoring	
Mainboard Model	B75M-D2V (0x000001F4 - 0x009DE610)

LPCIO	
LPCIO Vendor	ITE
LPCIO Model	IT8772
LPCIO Vendor ID	0x90
LPCIO Chip ID	0x8772
LPCIO Revision ID	0x1

Hardware Monitors	
Hardware monitor	ITE IT8772
Voltage 0	0.88 Volts [0x49] (CPU VCORE)
Voltage 1	1.51 Volts [0x7E] (VIN1)
Voltage 2	1.99 Volts [0xA6] (+3.3V)
Voltage 3	3.39 Volts [0xA8] (+5V)
Voltage 4	4.22 Volts [0x58] (+12V)
Voltage 5	-4.27 Volts [0x59] (-12V)
Voltage 6	-8.88 Volts [0xB9] (-5V)
Voltage 7	2.82 Volts [0x8C] (+5V VCCH)

Temperature 0	35 degC (95 degF) [0x23] (TMPIN0)
Temperature 1	39 degC (102 degF) [0x27] (TMPIN1)
Fan 1	1050 RPM [0x283] (FANIN1)
Fan 2	1424 RPM [0x1DA] (FANIN2)
Fan PWM 0	0 pc [0x0] (FANPWM0)
Fan PWM 1	0 pc [0x0] (FANPWM1)
Fan PWM 2	0 pc [0x0] (FANPWM2)

Hardware monitor      Display API

Hardware monitor	NVIDIA NVAPI
Voltage 0	1.02 Volts [0x401] (GPU)
Temperature 0	33 degC (91 degF) [0x21] (GPU)
Clock Speed 0	135.00 MHz [0x87] (Graphics)
Clock Speed 1	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	0x0150
Revision ID	0x09
Description	PCI to PCI Bridge
Location	bus 0 (0x00), device 1 (0x01), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0x0151
Revision ID	0x09
Description	USB Controller
Location	bus 0 (0x00), device 20 (0x14), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0x1E31
Revision ID	0x04
Description	Communication Device
Location	bus 0 (0x00), device 22 (0x16), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0x1E3A
Revision ID	0x04
Description	USB 2.0 Controller (EHCI)
Location	bus 0 (0x00), device 26 (0x1A), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0x1E2D
Revision ID	0x04
Description	Multimedia device
Location	bus 0 (0x00), device 27 (0x1B), function 0 (0x00)
Common header	

Vendor ID	0x8086
Model ID	0x1E20
Revision ID	0x04
Description	PCI to PCI Bridge
Location	bus 0 (0x00), device 28 (0x1C), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0x1E10
Revision ID	0xC4
Description	PCI to PCI Bridge
Location	bus 0 (0x00), device 28 (0x1C), function 4 (0x04)
Common header	
Vendor ID	0x8086
Model ID	0x1E18
Revision ID	0xC4
Description	USB 2.0 Controller (EHCI)
Location	bus 0 (0x00), device 29 (0x1D), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0x1E26
Revision ID	0x04
Description	PCI to PCI Bridge
Location	bus 0 (0x00), device 30 (0x1E), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0x244E
Revision ID	0xA4
Description	PCI to ISA Bridge
Location	bus 0 (0x00), device 31 (0x1F), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0x1E49
Revision ID	0x04
Description	IDE Controller
Location	bus 0 (0x00), device 31 (0x1F), function 2 (0x02)
Common header	
Vendor ID	0x8086
Model ID	0x1E00
Revision ID	0x04
Description	SMBus Controller
Location	bus 0 (0x00), device 31 (0x1F), function 3 (0x03)
Common header	
Vendor ID	0x8086
Model ID	0x1E22
Revision ID	0x04
Description	IDE Controller
Location	bus 0 (0x00), device 31 (0x1F), function 5 (0x05)
Common header	

Vendor ID	0x8086
Model ID	0x1E08
Revision ID	0x04
Description	VGA Controller
Location	bus 1 (0x01), device 0 (0x00), function 0 (0x00)
Common header	
Vendor ID	0x10DE
Model ID	0x1287
Revision ID	0xA1
Description	Multimedia device
Location	bus 1 (0x01), device 0 (0x00), function 1 (0x01)
Common header	
Vendor ID	0x10DE
Model ID	0x0E0F
Revision ID	0xA1
Description	Ethernet Controller
Location	bus 3 (0x03), device 0 (0x00), function 0 (0x00)
Common header	
Vendor ID	0x10EC
Model ID	0x8168
Revision ID	0x06

## DMI

DMI BIOS	
vendor	American Megatrends Inc.
version	F5
date	11/14/2013
ROM size	8192 KB
DMI System Information	
manufacturer	Gigabyte Technology Co. Ltd.
product	To be filled by O.E.M.
version	To be filled by O.E.M.
serial	To be filled by O.E.M.
UUID	{03DE0294-0480-05D7-0306-8D0700080009}
SKU	To be filled by O.E.M.
family	To be filled by O.E.M.
DMI Baseboard	
vendor	Gigabyte Technology Co. Ltd.
model	B75M-D2V
revision	x.x
serial	To be filled by O.E.M.
DMI System Enclosure	
manufacturer	Gigabyte Technology Co. Ltd.
chassis type	Desktop
chassis serial	To Be Filled By O.E.M.
DMI Physical Memory Array	
location	Motherboard
usage	System Memory

correction	None
max capacity	32 GB
max# of devices	2
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 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 Extension Slot	
designation	J8B3
type	PCI
width	32 bits
populated	yes
DMI OEM Strings	
string[0]	To Be Filled By O.E.M.
DMI Memory Device	
designation	ChannelB-DIMM0
format	DIMM
type	DDR3
total width	64 bits
data width	64 bits
size	8 GB
DMI Memory Device	
designation	ChannelA-DIMM0
format	DIMM
type	DDR3
total width	64 bits
data width	64 bits
size	8 GB
DMI Processor	
manufacturer	Intel
model	Intel(R) Core(TM) i7-3770 CPU @ 3.40GHz
clock speed	3700.0 MHz
FSB speed	100.0 MHz
multiplier	37.0x
<b>Graphics</b>	
Number of adapters	1
<b>Graphic APIs</b>	
API	D3D
API	NVIDIA I/O
API	NVIDIA NVAPI
<b>Display Adapters</b>	
Display adapter 0	
ID	0x1070208

Name	NVIDIA GeForce GT 730
Board Manufacturer	ASUSTeK Computer Inc.
Revision	B1
Codename	GK208
Technology	28 nm
Memory size	2 GB
Memory type	DDR3
PCI device	bus 1 (0x1), device 0 (0x0), function 0 (0x0)
Vendor ID	0x10DE (0x1043)
Model ID	0x1287 (0x8589)
Revision ID	0xA1
Performance Level	0
Core clock	135.0 MHz
Memory clock	405.0 MHz

Win32_VideoController	AdapterRAM = 0x80000000 (2147483648)
Win32_VideoController	DriverVersion = 24.21.13.9836
Win32_VideoController	DriverDate = 06/24/2018

Monitor 0	
Model	PHL 243V5 (Philips)
ID	PHLC0D1
Serial	ZV01513005949
Manufacturing Date	Week 13, Year 2015
Size	23.4 inches
Max Resolution	1920 x 1080 @ 60 Hz
Horizontal Freq. Range	30-83 kHz
Vertical Freq. Range	56-76 Hz
Max Pixel Clock	170 MHz
Gamma Factor	2.2

## Software

Windows Version	Microsoft Windows 10 (10.0) Professional 64-bit (Build 17134)
DirectX Version	12.0