



CPU-Z

Binaries

CPU-Z version 1.82.0.x64

Processors

Number of sockets 1
Number of threads 2

APICs

Socket 0
 -- Core 0
 -- Thread 0 0
 -- Core 2
 -- Thread 0 2

Timers

ACPI timer 3.580 MHz
 Perf timer 2.733 MHz
 Sys timer 1.000 KHz

Processors Information

Socket 1 ID = 0
 Number of cores 2 (max 2)
 Number of threads 2 (max 2)
 Name Intel Celeron G1840
 Codename Haswell
 Specification Intel(R) Celeron(R) CPU G1840 @ 2.80GHz
 Package (platform ID) Socket 1150 LGA (0x1)
 CPUID 6.C.3
 Extended CPUID 6.3C
 Core Stepping C0
 Technology 22 nm
 TDP Limit 53.0 Watts
 Tjmax 100.0 °C
 Core Speed 2798.3 MHz
 Multiplier x Bus Speed 28.0 x 99.9 MHz
 Stock frequency 2800 MHz
 Instructions sets MMX, SSE, SSE2, SSE3, SSSE3, SSE4.1, SSE4.2, EM64T,

	VT-x
L1 Data cache	2 x 32 KBytes, 8-way set associative, 64-byte line size
L1 Instruction cache	2 x 32 KBytes, 8-way set associative, 64-byte line size
L2 cache	2 x 256 KBytes, 8-way set associative, 64-byte line size
L3 cache	2 MBytes, 8-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, 2 MB, 16 thread(s)
FID/VID Control	yes
Turbo Mode	not supported
Max non-turbo ratio	28x
Max turbo ratio	28x
Max efficiency ratio	8x
O/C bins	none
Ratio 1 core	28x
Ratio 2 cores	28x
Ratio 3 cores	28x
Ratio 4 cores	28x
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
TDP Level	53.0 W @ 28x
Temperature 0	39 degC (102 degF) (Package)
Temperature 1	39 degC (102 degF) (Core #0)
Temperature 2	39 degC (102 degF) (Core #2)
Voltage 0	1.04 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 00	2.12 W (Package)
Power 01	0.35 W (IA Cores)
Power 02	n.a. (GT)

Power 03	0.56 W (Uncore)
Power 04	1.21 W (DRAM)
Clock Speed 0	2798.34 MHz (Core #0)
Clock Speed 1	2798.34 MHz (Core #2)
Core 0 max ratio	28.0 (effective 28.0)
Core 1 max ratio	28.0 (effective 28.0)

Chipset

Northbridge	Intel Haswell rev. 06
Southbridge	Intel Z97 rev. 00
Graphic Interface	PCI-Express
PCI-E Link Width	x1
PCI-E Max Link Width	x16
Memory Type	DDR3
Memory Size	8 GBytes
Channels	Single
Memory Frequency	666.3 MHz (1:5)
CAS# latency (CL)	9.0
RAS# to CAS# delay (tRCD)	9
RAS# Precharge (tRP)	9
Cycle Time (tRAS)	24
Row Refresh Cycle Time (tRFC)	200
Command Rate (CR)	1T
Uncore Frequency	2798.3 MHz
Host Bridge	0x0C00

Memory SPD

DIMM #	1
SMBus address	0x50
Memory type	DDR3
Module format	UDIMM
Manufacturer (ID)	Corsair (7F7F9E0000000000000000)
Size	8192 MBytes
Max bandwidth	PC3-10700 (667 MHz)
Part number	CML16GX3M2A1600C10
Manufacturing date	Week 24/Year 12
Number of banks	8
Nominal Voltage	1.50 Volts
EPP	no
XMP	yes
XMP revision	1.3
AMP	no

JEDEC timings table	CL-tRCD-tRP-tRAS-tRC @ frequency
JEDEC #1	5.0-5-5-14-19 @ 380 MHz
JEDEC #2	6.0-6-6-17-23 @ 457 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	10.0
Min tRP	12.50 ns
Min tRCD	12.50 ns
Min tWR	28.75 ns
Min tRAS	33.75 ns
Min tRC	46.25 ns
Min tRFC	260.00 ns
Min tRTP	7.50 ns
Min tRRD	6.25 ns
Command Rate	2T
XMP timings table	CL-tRCD-tRP-tRAS-tRC-CR @ frequency (voltage)
XMP #1	6.0-7-7-17-23-2T @ 480 MHz (1.500 Volts)
XMP #2	10.0-10-10-27-37-2T @ 800 MHz (1.500 Volts)

Monitoring

Mainboard Model Z97-AR (0x0000018A - 0x005A9C40)

LPCIO

LPCIO Vendor Nuvoton
 LPCIO Model NCT6791
 LPCIO Vendor ID 0x5CA3
 LPCIO Chip ID 0xC8
 LPCIO Revision ID 0x3

Hardware Monitors

Hardware monitor Nuvoton NCT6791D
 Voltage 0 5.04 Volts [0x7E] (+5V)
 Voltage 1 3.26 Volts [0xCC] (+3.3V)
 Voltage 2 11.90 Volts [0x7C] (+12V)
 Voltage 3 1.00 Volts [0x7D] (VIN3)
 Voltage 4 0.11 Volts [0x7] (VIN4)
 Voltage 5 0.86 Volts [0x6C] (VCORE)
 Voltage 6 0.17 Volts [0x15] (VIN6)
 Temperature 0 31 degC (87 degF) [0x1F] (Mainboard)

Temperature 1	40 degC (104 degF) [0x28] (CPU)
Temperature 2	31 degC (87 degF) [0x1F] (TMPIN2)
Temperature 3	38 degC (100 degF) [0x26] (TMPIN3)
Temperature 4	0 degC (32 degF) [0x80] (TMPIN4)
Temperature 5	0 degC (32 degF) [0x80] (TMPIN5)
Temperature 6	26 degC (78 degF) [0x1A] (TMPIN6)
Fan 1	1401 RPM [0x579] (CPU)
Hardware monitor	AMD ADL
Temperature 0	52 degC (125 degF) [0x34] (GPU)
Fan 0	1641 RPM [0x669] (GPU)
Clock Speed 0	947.00 MHz [0x3B3] (Graphics)
Clock Speed 1	1500.00 MHz [0x3B3] (Memory)
Hardware monitor	AMD ADL
Temperature 0	49 degC (120 degF) [0x31] (GPU)
Fan 0	1602 RPM [0x642] (GPU)
Clock Speed 0	947.00 MHz [0x3B3] (Graphics)
Clock Speed 1	1500.00 MHz [0x3B3] (Memory)
Hardware monitor	AMD ADL
Temperature 0	43 degC (109 degF) [0x2B] (GPU)
Fan 0	1507 RPM [0x5E3] (GPU)
Clock Speed 0	947.00 MHz [0x3B3] (Graphics)
Clock Speed 1	1500.00 MHz [0x3B3] (Memory)
Hardware monitor	AMD ADL
Temperature 0	55 degC (131 degF) [0x37] (GPU)
Fan 0	1668 RPM [0x684] (GPU)
Clock Speed 0	947.00 MHz [0x3B3] (Graphics)
Clock Speed 1	1500.00 MHz [0x3B3] (Memory)
Hardware monitor	AMD ADL
Temperature 0	53 degC (127 degF) [0x35] (GPU)
Fan 0	1677 RPM [0x68D] (GPU)
Clock Speed 0	947.00 MHz [0x3B3] (Graphics)
Clock Speed 1	1500.00 MHz [0x3B3] (Memory)
PCI Devices	
Description	Host Bridge
Location	bus 0 (0x00), device 0 (0x00), function 0 (0x00)
Common header	
Vendor ID	0x8086

Model ID	0x0C00
Revision ID	0x06
Description	PCI to PCI Bridge
Location	bus 0 (0x00), device 1 (0x01), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0x0C01
Revision ID	0x06
Description	PCI to PCI Bridge
Location	bus 0 (0x00), device 1 (0x01), function 1 (0x01)
Common header	
Vendor ID	0x8086
Model ID	0x0C05
Revision ID	0x06
Description	USB Controller
Location	bus 0 (0x00), device 20 (0x14), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0x8CB1
Revision ID	0x00
Description	Communication Device
Location	bus 0 (0x00), device 22 (0x16), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0x8CBA
Revision ID	0x00
Description	Ethernet Controller
Location	bus 0 (0x00), device 25 (0x19), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0x15A1
Revision ID	0x00
Description	USB 2.0 Controller (EHCI)
Location	bus 0 (0x00), device 26 (0x1A), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0x8CAD
Revision ID	0x00

Description PCI to PCI Bridge
Location bus 0 (0x00), device 28 (0x1C), function 0 (0x00)
Common header
Vendor ID 0x8086
Model ID 0x8C90
Revision ID 0xD0

Description PCI to PCI Bridge
Location bus 0 (0x00), device 28 (0x1C), function 3 (0x03)
Common header
Vendor ID 0x8086
Model ID 0x244E
Revision ID 0xD0

Description PCI to PCI Bridge
Location bus 0 (0x00), device 28 (0x1C), function 4 (0x04)
Common header
Vendor ID 0x8086
Model ID 0x8C98
Revision ID 0xD0

Description PCI to PCI Bridge
Location bus 0 (0x00), device 28 (0x1C), function 6 (0x06)
Common header
Vendor ID 0x8086
Model ID 0x8C9C
Revision ID 0xD0

Description PCI to PCI Bridge
Location bus 0 (0x00), device 28 (0x1C), function 7 (0x07)
Common header
Vendor ID 0x8086
Model ID 0x8C9E
Revision ID 0xD0

Description USB 2.0 Controller (EHCI)
Location bus 0 (0x00), device 29 (0x1D), function 0 (0x00)
Common header
Vendor ID 0x8086
Model ID 0x8CA6
Revision ID 0x00

Description PCI to ISA Bridge

Location bus 0 (0x00), device 31 (0x1F), function 0 (0x00)

Common header

Vendor ID 0x8086
Model ID 0x8CC4
Revision ID 0x00

Description Serial ATA Controller

Location bus 0 (0x00), device 31 (0x1F), function 2 (0x02)

Common header

Vendor ID 0x8086
Model ID 0x8C82
Revision ID 0x00

Description SMBus Controller

Location bus 0 (0x00), device 31 (0x1F), function 3 (0x03)

Common header

Vendor ID 0x8086
Model ID 0x8CA2
Revision ID 0x00

Description VGA Controller

Location bus 1 (0x01), device 0 (0x00), function 0 (0x00)

Common header

Vendor ID 0x1002
Model ID 0x6939
Revision ID 0xF1

Description Multimedia device

Location bus 1 (0x01), device 0 (0x00), function 1 (0x01)

Common header

Vendor ID 0x1002
Model ID 0xAAD8
Revision ID 0x00

Description VGA Controller

Location bus 2 (0x02), device 0 (0x00), function 0 (0x00)

Common header

Vendor ID 0x1002
Model ID 0x6939
Revision ID 0xF1

Description Multimedia device

Location bus 2 (0x02), device 0 (0x00), function 1 (0x01)

Common header

Vendor ID	0x1002
Model ID	0xAAD8
Revision ID	0x00
Description	PCI to PCI Bridge
Location	bus 4 (0x04), device 0 (0x00), function 0 (0x00)
Common header	
Vendor ID	0x1B21
Model ID	0x1080
Revision ID	0x04
Description	VGA Controller
Location	bus 6 (0x06), device 0 (0x00), function 0 (0x00)
Common header	
Vendor ID	0x1002
Model ID	0x6939
Revision ID	0xF1
Description	Multimedia device
Location	bus 6 (0x06), device 0 (0x00), function 1 (0x01)
Common header	
Vendor ID	0x1002
Model ID	0xAAD8
Revision ID	0x00
Description	VGA Controller
Location	bus 7 (0x07), device 0 (0x00), function 0 (0x00)
Common header	
Vendor ID	0x1002
Model ID	0x6939
Revision ID	0xF1
Description	Multimedia device
Location	bus 7 (0x07), device 0 (0x00), function 1 (0x01)
Common header	
Vendor ID	0x1002
Model ID	0xAAD8
Revision ID	0x00
Description	VGA Controller
Location	bus 8 (0x08), device 0 (0x00), function 0 (0x00)
Common header	
Vendor ID	0x1002
Model ID	0x6939

Revision ID	0xF1
Description	Multimedia device
Location	bus 8 (0x08), device 0 (0x00), function 1 (0x01)
Common header	
Vendor ID	0x1002
Model ID	0xAAD8
Revision ID	0x00

DMI

DMI BIOS

vendor	American Megatrends Inc.
version	2801
date	11/11/2015
ROM size	8192 KB

DMI System Information

manufacturer	ASUS
product	All Series
version	System Version
serial	System Serial Number
UUID	{2E9F2EE0-D7E4-11DD-93D5-7824AF8B6BED}
SKU	All
family	ASUS MB

DMI Baseboard

vendor	ASUSTeK COMPUTER INC.
model	Z97-AR
revision	Rev 1.xx
serial	140728588800889

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	SPDIF_O_HDMI_DP (internal)
designation	SPDIF_O_HDMI_DP (external)
port type	Video Port

DMI Port Connector

designation	SPDIF_1_DVI_VGA (internal)
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designation	SPDIF_1_DVI_VGA (external)
port type	Video Port
DMI Port Connector	
designation	USB3_78 (internal)
designation	USB3_78 (external)
port type	USB
connector	Access Bus (USB)
DMI Port Connector	
designation	PS2Mouse (internal)
designation	PS2Mouse (external)
port type	Mouse Port
connector	PS/2
DMI Port Connector	
designation	Keyboard (internal)
designation	Keyboard (external)
port type	Keyboard Port
connector	PS/2
DMI Port Connector	
designation	LAN (internal)
designation	LAN (external)
port type	Network Port
connector	RJ-45
DMI Port Connector	
designation	USB3_34 (internal)
designation	USB3_34 (external)
port type	USB
connector	Access Bus (USB)
DMI Port Connector	
designation	AUDIO (internal)
designation	AUDIO (external)
port type	Audio Port
DMI Port Connector	
designation	USB3_56 (internal)
designation	USB3_56 (external)
port type	USB
connector	Access Bus (USB)

DMI Port Connector designation	SPDIF_OUT (internal)
DMI Port Connector designation	AAFP (internal)
port type	Audio Port
connector	Mini Jack (headphones)
DMI Port Connector designation	COM (internal)
port type	Serial Port 16550A
connector	DB-9 male
DMI Port Connector designation	TB_HEADER (internal)
DMI Port Connector designation	TPM (internal)
DMI Port Connector designation	USB1314 (internal)
port type	USB
connector	Access Bus (USB)
DMI Port Connector designation	USB1112 (internal)
port type	USB
connector	Access Bus (USB)
DMI Port Connector designation	USB910 (internal)
port type	USB
connector	Access Bus (USB)
DMI Port Connector designation	SATA6G_34 (internal)
DMI Port Connector designation	SATA6G_2 (internal)
DMI Port Connector designation	SATA6G_1 (internal)
DMI Port Connector	

designation	SATAEXPRESS (internal)
DMI Port Connector	
designation	USB3_12 (internal)
port type	USB
connector	Access Bus (USB)
DMI Port Connector	
designation	CPU_FAN (internal)
DMI Port Connector	
designation	OPT_FAN (internal)
DMI Port Connector	
designation	CHA_FAN1 (internal)
DMI Port Connector	
designation	CHA_FAN2 (internal)
DMI Port Connector	
designation	CHA_FAN3 (internal)
DMI Port Connector	
designation	CHA_FAN4 (internal)
DMI Port Connector	
designation	M2 (internal)
DMI Extension Slot	
designation	PCIEX1_1
type	A5
populated	no
DMI Extension Slot	
designation	PCIEX16_1
type	A5
populated	yes
DMI Extension Slot	
designation	PCI1
type	PCI
width	32 bits
populated	no

DMI Extension Slot

designation	PCIEX1_2
type	A5
populated	no

DMI Extension Slot

designation	PCIEX16_2
type	A5
populated	yes

DMI Extension Slot

designation	PCI2
type	PCI
width	32 bits
populated	no

DMI Extension Slot

designation	PCIEX16_3
type	A5
populated	yes

DMI OEM Strings

string[0]	To Be Filled By O.E.M.
string[1]	To Be Filled By O.E.M.
string[2]	Ferrari
string[3]	To Be Filled By O.E.M.

DMI Physical Memory Array

location	Motherboard
usage	System Memory
correction	None
max capacity	32768 MBytes
max# of devices	4

DMI Memory Device

designation	DIMM_A1
format	DIMM
type	unknown
total width	64 bits
data width	64 bits
size	8192 MBytes

DMI Memory Device

designation	DIMM_A2
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format DIMM
type unknown

DMI Memory Device

designation DIMM_B1
format DIMM
type unknown

DMI Memory Device

designation DIMM_B2
format DIMM
type unknown

DMI Processor

manufacturer Intel
model Intel(R) Celeron(R) CPU G1840 @ 2.80GHz
clock speed 2800.0 MHz
FSB speed 100.0 MHz
multiplier 28.0x

Graphics

Number of adapters 5

Graphic APIs

API ATI I/O
API ADL SDK

Display Adapters

Display adapter 0

ID 0x2130001
Name AMD Radeon (TM) R9 380 Series
Board Manufacturer Micro-Star International Co., Ltd. (MSI)
Codename Tonga
Technology 28 nm
Memory size 4 GB
Memory type GDDR5
PCI device bus 1 (0x1), device 0 (0x0), function 0 (0x0)
Vendor ID 0x1002 (0x1462)
Model ID 0x6939 (0x2015)
Performance Level 0
Performance Level 1

Display adapter 1

ID	0x2130001
Name	AMD Radeon (TM) R9 380 Series
Board Manufacturer	Micro-Star International Co., Ltd. (MSI)
Codename	Tonga
Technology	28 nm
Memory size	4 GB
Memory type	GDDR5
PCI device	bus 2 (0x2), device 0 (0x0), function 0 (0x0)
Vendor ID	0x1002 (0x1462)
Model ID	0x6939 (0x2015)
Performance Level	0
Performance Level	1

Display adapter 2

ID	0x2130001
Name	AMD Radeon (TM) R9 380 Series
Board Manufacturer	Micro-Star International Co., Ltd. (MSI)
Codename	Tonga
Technology	28 nm
Memory size	4 GB
Memory type	GDDR5
PCI device	bus 6 (0x6), device 0 (0x0), function 0 (0x0)
Vendor ID	0x1002 (0x1462)
Model ID	0x6939 (0x2015)
Performance Level	0
Performance Level	1

Display adapter 3

ID	0x2130001
Name	AMD Radeon (TM) R9 380 Series
Board Manufacturer	Micro-Star International Co., Ltd. (MSI)
Codename	Tonga
Technology	28 nm
Memory size	4 GB
Memory type	GDDR5
PCI device	bus 7 (0x7), device 0 (0x0), function 0 (0x0)
Vendor ID	0x1002 (0x1462)
Model ID	0x6939 (0x2015)
Performance Level	0
Performance Level	1

Display adapter 4

ID	0x2130001
Name	AMD Radeon (TM) R9 380 Series

Board Manufacturer	Micro-Star International Co., Ltd. (MSI)
Codename	Tonga
Technology	28 nm
Memory size	4 GB
Memory type	GDDR5
PCI device	bus 8 (0x8), device 0 (0x0), function 0 (0x0)
Vendor ID	0x1002 (0x1462)
Model ID	0x6939 (0x2015)
Performance Level	0
Performance Level	1

Win32_VideoController	AdapterRAM = 0xFFFF0000 (4293918720)
Win32_VideoController	AdapterRAM = 0xFFFF0000 (4293918720)
Win32_VideoController	AdapterRAM = 0xFFFF0000 (4293918720)
Win32_VideoController	AdapterRAM = 0xFFFF0000 (4293918720)
Win32_VideoController	AdapterRAM = 0xFFFF0000 (4293918720)
Win32_VideoController	DriverVersion = 22.19.659.0
Win32_VideoController	DriverVersion = 22.19.659.0
Win32_VideoController	DriverVersion = 22.19.659.0
Win32_VideoController	DriverVersion = 22.19.659.0
Win32_VideoController	DriverVersion = 22.19.659.0
Win32_VideoController	DriverDate = 08/08/2017
Win32_VideoController	DriverDate = 08/08/2017
Win32_VideoController	DriverDate = 08/08/2017
Win32_VideoController	DriverDate = 08/08/2017
Win32_VideoController	DriverDate = 08/08/2017

Software

Windows Version	Microsoft Windows 10 (10.0) Professional 64-bit (Build 15063)
DirectX Version	12.0