



CPU-Z

Binaries

CPU-Z version 1.72.0.x64

Processors

Number of processors 1

Number of threads 4

APICs

Processor 0

-- Core 0

-- Thread 0 0

-- Thread 1 1

-- Core 1

-- Thread 0 2

-- Thread 1 3

Timers

ACPI timer 3.580 MHz

HPET timer 14.318 MHz

Perf timer 2.436 MHz

Sys timer 1.000 KHz

Processors Information

Processor 1 ID = 0

Number of cores 2 (max 8)

Number of threads 4 (max 16)

Name Intel Core i5 2450M

Codename Sandy Bridge

Specification Intel(R) Core(TM) i5-2450M CPU @ 2.50GHz

Package (platform ID) Socket 988B rPGA (0x4)

CPUID 6.A.7

Extended CPUID 6.2A

Core Stepping D2

Technology 32 nm

TDP Limit 35.0 Watts

Tjmax 100.0 °C

Core Speed 798.1 MHz

Multiplier x Bus Speed 8.0 x 99.8 MHz

Stock frequency	2500 MHz
Instructions sets	MMX, SSE, SSE2, SSE3, SSSE3, SSE4.1, SSE4.2, EM64T, VT-x, AES, AVX
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	3 MBytes, 12-way set associative, 64-byte line size
FID/VID Control	yes

Turbo Mode	supported, enabled
Max non-turbo ratio	25x
Max turbo ratio	31x
Max efficiency ratio	8x
Max Power	56 Watts
Min Power	24 Watts
O/C bins	none
Ratio 1 core	31x
Ratio 2 cores	29x
Ratio 3 cores	29x
Ratio 4 cores	29x
TSC	2494.2 MHz
APERF	3093.0 MHz

Chipset

Northbridge	Intel Sandy Bridge rev. 09
Southbridge	Intel HM65 rev. 05
Graphic Interface	PCI-Express
PCI-E Link Width	x16
PCI-E Max Link Width	x16
Memory Type	DDR3
Memory Size	8 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

Memory SPD

DIMM #	1
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SMBus address	0x50
Memory type	DDR3
Module format	SO-DIMM
Manufacturer (ID)	Samsung (CE000000000000000000)
Size	4096 MBytes
Max bandwidth	PC3-10700 (667 MHz)
Part number	M471B5273CH0-CH9
Serial number	005EC534
Manufacturing date	Week 02/Year 12
Number of banks	8
Nominal Voltage	1.50 Volts
EPP	no
XMP	no
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	7.0-7-7-20-27 @ 533 MHz
JEDEC #4	8.0-8-8-22-30 @ 609 MHz
JEDEC #5	9.0-9-9-24-33 @ 666 MHz
DIMM #	2
SMBus address	0x52
Memory type	DDR3
Module format	SO-DIMM
Manufacturer (ID)	Samsung (CE000000000000000000)
Size	4096 MBytes
Max bandwidth	PC3-10700 (667 MHz)
Part number	M471B5273CH0-CH9
Serial number	005EC52C
Manufacturing date	Week 02/Year 12
Number of banks	8
Nominal Voltage	1.50 Volts
EPP	no
XMP	no
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	7.0-7-7-20-27 @ 533 MHz
JEDEC #4	8.0-8-8-22-30 @ 609 MHz
JEDEC #5	9.0-9-9-24-33 @ 666 MHz

Monitoring

Mainboard Model Base Board Product Name (0x00000825 - 0x4694B6D0)

LPCIO**Hardware Monitors**

Hardware monitor	ACPI
Temperature 0	54°C (129°F) [0xCC8] (TZ00)
Hardware monitor	Battery
Voltage 0	11.58 Volts [0x2D3E] (Current Voltage)
Capacity 0	5772 mWh [0x168C] (Designed Capacity)
Capacity 1	4033 mWh [0xFC1] (Full Charge Capacity)
Capacity 2	1880 mWh [0x758] (Current Capacity)
Level 0	31 pc [0x45] (Wear Level)
Level 1	47 pc [0x2E] (Charge Level)
Hardware monitor	Intel I/O
Hardware monitor	NVIDIA NVAPI
Voltage 0	1.08 Volts [0x438] (VIN0)
Temperature 0	50°C (122°F) [0x32] (TMPIN0)

PCI Devices

Description	Host Bridge
Location	bus 0 (0x00), device 0 (0x00), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0x0104
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	0x0101
Revision ID	0x09
Description	VGA Controller
Location	bus 0 (0x00), device 2 (0x02), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0x0126
Revision ID	0x09

Description	Communication Device
Location	bus 0 (0x00), device 22 (0x16), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0x1C3A
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	0x1C2D
Revision ID	0x05
Description	Multimedia device
Location	bus 0 (0x00), device 27 (0x1B), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0x1C20
Revision ID	0x05
Description	PCI to PCI Bridge
Location	bus 0 (0x00), device 28 (0x1C), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0x1C10
Revision ID	0xB5
Description	PCI to PCI Bridge
Location	bus 0 (0x00), device 28 (0x1C), function 1 (0x01)
Common header	
Vendor ID	0x8086
Model ID	0x1C12
Revision ID	0xB5
Description	PCI to PCI Bridge
Location	bus 0 (0x00), device 28 (0x1C), function 3 (0x03)
Common header	
Vendor ID	0x8086
Model ID	0x1C16
Revision ID	0xB5
Description	PCI to PCI Bridge

Location	bus 0 (0x00), device 28 (0x1C), function 4 (0x04)
Common header	
Vendor ID	0x8086
Model ID	0x1C18
Revision ID	0xB5
Description	USB 2.0 Controller (EHCI)
Location	bus 0 (0x00), device 29 (0x1D), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0x1C26
Revision ID	0x05
Description	PCI to ISA Bridge
Location	bus 0 (0x00), device 31 (0x1F), function 0 (0x00)
Common header	
Vendor ID	0x8086
Model ID	0x1C49
Revision ID	0x05
Description	Serial ATA Controller
Location	bus 0 (0x00), device 31 (0x1F), function 2 (0x02)
Common header	
Vendor ID	0x8086
Model ID	0x1C03
Revision ID	0x05
Description	SMBus Controller
Location	bus 0 (0x00), device 31 (0x1F), function 3 (0x03)
Common header	
Vendor ID	0x8086
Model ID	0x1C22
Revision ID	0x05
Description	VGA Controller
Location	bus 1 (0x01), device 0 (0x00), function 0 (0x00)
Common header	
Vendor ID	0x10DE
Model ID	0x0DEB
Revision ID	0xA1
Description	Ethernet Controller
Location	bus 7 (0x07), device 0 (0x00), function 0 (0x00)
Common header	

Vendor ID	0x14E4
Model ID	0x16B1
Revision ID	0x10
Description	Network Controller
Location	bus 8 (0x08), device 0 (0x00), function 0 (0x00)
Common header	
Vendor ID	0x14E4
Model ID	0x4357
Revision ID	0x01
Description	USB Controller
Location	bus 9 (0x09), device 0 (0x00), function 0 (0x00)
Common header	
Vendor ID	0x1033
Model ID	0x0194
Revision ID	0x04
Description	System Device
Location	bus 10 (0x0A), device 0 (0x00), function 0 (0x00)
Common header	
Vendor ID	0x197B
Model ID	0x2392
Revision ID	0x30
Description	System Device
Location	bus 10 (0x0A), device 0 (0x00), function 2 (0x02)
Common header	
Vendor ID	0x197B
Model ID	0x2391
Revision ID	0x30
Description	System Device
Location	bus 10 (0x0A), device 0 (0x00), function 3 (0x03)
Common header	
Vendor ID	0x197B
Model ID	0x2393
Revision ID	0x30
Description	System Device
Location	bus 10 (0x0A), device 0 (0x00), function 4 (0x04)
Common header	
Vendor ID	0x197B
Model ID	0x2394

Revision ID 0x30

DMI

DMI BIOS

vendor LENOVO
version 47CN32WW(V2.10)
date 01/04/2012
ROM size 2560 KB

DMI System Information

manufacturer LENOVO
product 0862
version Lenovo IdeaPad Y570
serial 2814699100292
UUID {A6197293-2831-E111-8DE4-DC0EA1794FA0}
SKU HuronRiver_CRB
family IDEAPAD

DMI Baseboard

vendor LENOVO
model Base Board Product Name
revision Base Board Version
serial CB13619361

DMI System Enclosure

manufacturer Chassis Manufacturer
chassis type Notebook
chassis serial Chassis Serial Number

DMI Extension Slot

designation J5C1
type AA
populated yes

DMI Extension Slot

designation J6C1
type A8
populated yes

DMI Extension Slot

designation J6C2
type A6
populated yes

DMI Extension Slot

designation	J6D2
type	A6
populated	yes

DMI Extension Slot

designation	J7C1
type	A6
populated	yes

DMI Extension Slot

designation	J7D2
type	A6
populated	yes

DMI Extension Slot

designation	J8C2
type	AA
populated	yes

DMI OEM Strings

string[0]	String1 for Original Equipment Manufacturer
string[1]	String2 for Original Equipment Manufacturer
string[2]	String3 for Original Equipment Manufacturer
string[3]	String4 for Original Equipment Manufacturer
string[4]	String5 for Original Equipment Manufacturer

DMI Physical Memory Array

location	Motherboard
usage	System Memory
correction	None
max capacity	16384 MBytes
max# of devices	2

DMI Memory Device

designation	ChannelA-DIMM0
format	SODIMM
type	unknown
total width	64 bits
data width	64 bits
size	4096 MBytes

DMI Memory Module

designation	ChannelA-DIMM0
size	4096 MBytes (single bank)
DMI Memory Device	
designation	ChannelA-DIMM1
format	DIMM
type	unknown
DMI Memory Module	
designation	ChannelA-DIMM1
DMI Memory Device	
designation	ChannelB-DIMM0
format	SODIMM
type	unknown
total width	64 bits
data width	64 bits
size	4096 MBytes
DMI Memory Module	
designation	ChannelB-DIMM0
size	4096 MBytes (single bank)
DMI Memory Device	
designation	ChannelB-DIMM1
format	DIMM
type	unknown
DMI Memory Module	
designation	ChannelB-DIMM1
DMI Memory Controller	
correction	unknown
Max module size	8192 MBytes
DMI Processor	
manufacturer	Intel(R) Corporation
model	Intel(R) Core(TM) i5-2450M CPU @ 2.50GHz
clock speed	2500.0 MHz
FSB speed	1333.0 MHz
multiplier	2.0x

Graphics

Number of adapters 2

Graphic APIs

API NVIDIA I/O
 API NVIDIA NVAPI
 API Intel I/O

Display Adapters

Display adapter 0

Display name \\.\DISPLAY1
 Name Intel(R) HD Graphics 3000
 Board Manufacturer Lenovo
 Codename Sandy Bridge
 Technology 32 nm
 Memory size 2 GB
 PCI device bus 0 (0x0), device 2 (0x2), function 0 (0x0)
 Vendor ID 0x8086 (0x17AA)
 Model ID 0x0126 (0x3981)
 Performance Level 0
 Core clock 648.5 MHz

Display adapter 1

Name NVIDIA GeForce GT 555M
 Board Manufacturer Lenovo
 Revision A1
 Memory size 2108 MB
 PCI device bus 1 (0x1), device 0 (0x0), function 0 (0x0)
 Vendor ID 0x10DE (0x17AA)
 Model ID 0x0DEB (0x3981)
 Performance Level Default
 Core clock 50.5 MHz
 Shader clock 101.0 MHz
 Memory clock 135.0 MHz
 Performance Level 2D Desktop
 Core clock 202.5 MHz
 Shader clock 405.0 MHz
 Memory clock 324.0 MHz
 Performance Level 3D Applications
 Core clock 752.5 MHz
 Shader clock 1505.0 MHz
 Memory clock 1570.0 MHz

Win32_VideoController AdapterRAM = 0x80000000 (2147483648)

Win32_VideoController AdapterRAM = 0x83C00000 (2210398208)

Win32_VideoController	DriverVersion = 9.18.13.2762
Win32_VideoController	DriverVersion = 9.17.10.3347
Win32_VideoController	DriverDate = 10/28/2013
Win32_VideoController	DriverDate = 01/29/2014

Monitor 0

Model	()
ID	AUO22EC
Serial	
Manufacturing Date	Week 1, Year 2009
Size	15.3 inches
Max Resolution	1366 x 768 @ 60 Hz
Horizontal Freq. Range	0-0 kHz
Vertical Freq. Range	0-0 Hz
Max Pixel Clock	0 MHz
Gamma Factor	2.2

Monitor 1

Model	MD20446 ()
ID	MED3933
Serial	V104TX214166
Manufacturing Date	Week 4, Year 2011
Size	19.9 inches
Max Resolution	1600 x 900 @ 59 Hz
Horizontal Freq. Range	30-82 kHz
Vertical Freq. Range	55-76 Hz
Max Pixel Clock	150 MHz
Gamma Factor	2.2

Software

Windows Version	Microsoft Windows 7 (6.1) Home Premium Edition 64-bit Service Pack 1 (Build 7601)
DirectX Version	11.0