

# HWiNFO64 v5.61-3290

Creation Time 16.01.2018 17:09

## DESKTOP-6NHHLB0

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### [Current Computer]

Computer Name:	DESKTOP-6NHHLB0
Computer Brand Name:	ASUS GL552VX

### [Operating System]

Operating System:	Microsoft Windows 10 Home Single Language (x64) Build 16299.192 (1709/RS3)
UEFI Boot:	Present

## Central Processor(s)

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### [CPU Unit Count]

Number Of Processor Packages (Physical):	1
Number Of Processor Cores:	4
Number Of Logical Processors:	8

## Intel Core i7-6700HQ

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### [General Information]

Processor Name:	Intel Core i7-6700HQ
Original Processor Frequency:	2600.0 MHz
Original Processor Frequency [MHz]:	2600

CPU ID:	000506E3
CPU Brand Name:	Intel(R) Core(TM) i7-6700HQ CPU @ 2.60GHz
CPU Vendor:	GenuineIntel
CPU Stepping:	R0
CPU Code Name:	Skylake-H
CPU Technology:	14 nm

CPU S-Spec:	SR2FQ
CPU Thermal Design Power (TDP):	45.0 W
CPU Power Limits (Max):	Power = Unlimited, Time = Unlimited
CPU Power Limit 1 - Long Duration:	(45.00 W) (28.00 sec) [Unlocked]
CPU Power Limit 2 - Short Duration:	(56.25 W) (2.44 ms) [Unlocked]
Configurable TDP Level 1 (Down):	35.00 W (Unlimited range), 2100 MHz
Current Configurable TDP Level:	Nominal [Unlocked]
CPU Type:	Production Unit
CPU Platform:	BGA1440
Microcode Update Revision:	BA

Number of CPU Cores:	4
Number of Logical CPUs:	8

### **[Operating Points]**

CPU MFM (LowPower):	800.0 MHz = 8 x 100.0 MHz
CPU LFM (Minimum):	800.0 MHz = 8 x 100.0 MHz
CPU HFM (Maximum):	2600.0 MHz = 26 x 100.0 MHz
CPU Turbo:	3500.0 MHz = 35 x 100.0 MHz [Unlocked]
Turbo Ratio Limits:	35x (1c), 33x (2c), 32x (3c), 31x (4c)
CPU Current:	3493.2 MHz = 35 x 99.8 MHz @ 1.2153 V
Ring Maximum:	3500.0 MHz = 35.00 x 100.0 MHz
Ring Current:	3493.2 MHz = 35.00 x 99.8 MHz
System Agent Current:	998.1 MHz = 10.00 x 99.8 MHz

CPU Bus Type:	Intel Direct Media Interface (DMI) v3.0
Maximum DMI Link Speed:	8.0 GT/s
Residency State Regulation (RSR):	Enabled

### **[IA Overclocking]**

Voltage Offset:	Supported
Voltage Override:	Supported
Ratio Overclocking:	Not Supported
Fused Ratio Limit:	35x
Voltage Mode:	Interpolative
Voltage Offset:	0 mV
IccMax:	Unlimited

### **[GT Overclocking (Slice-EUs)]**

Voltage Offset:	Supported
Voltage Override:	Supported
Ratio Overclocking:	Supported
Fused Ratio Limit:	60x
Voltage Mode:	Interpolative
Voltage Offset:	0 mV
IccMax:	54.00 A

### **[CLR (CBo/LLC/Ring Overclocking)]**

Voltage Offset:	Supported
Voltage Override:	Supported
Ratio Overclocking:	Not Supported
Fused Ratio Limit:	35x
Voltage Mode:	Interpolative
Voltage Offset:	0 mV
IccMax:	Unlimited

#### ***[GT Overclocking (Unslice-Fixed Functions)]***

Voltage Offset:	Supported
Voltage Override:	Supported
Ratio Overclocking:	Supported
Fused Ratio Limit:	60x
Voltage Mode:	Interpolative
Voltage Offset:	0 mV
IccMax:	54.00 A

#### ***[Uncore/SA Overclocking]***

Voltage Offset:	Supported
Voltage Override:	Not Supported
Ratio Overclocking:	Not Supported
Fused Ratio Limit:	N/A
Voltage Mode:	Interpolative
Voltage Offset:	0 mV
IccMax:	11.00 A

#### ***[Cache and TLB]***

L1 Cache:	Instruction: 4 x 32 KBytes, Data: 4 x 32 KBytes
L2 Cache:	Integrated: 4 x 256 KBytes
L3 Cache:	6 MBytes
Instruction TLB:	2MB/4MB Pages, Fully associative, 8 entries
Data TLB:	4 KB Pages, 4-way set associative, 64 entries

#### ***[Standard Feature Flags]***

FPU on Chip	Present
Enhanced Virtual-86 Mode	Present
I/O Breakpoints	Present
Page Size Extensions	Present
Time Stamp Counter	Present
Pentium-style Model Specific Registers	Present
Physical Address Extension	Present
Machine Check Exception	Present
CMPXCHG8B Instruction	Present
APIC On Chip / PGE (AMD)	Present
Fast System Call	Present
Memory Type Range Registers	Present
Page Global Feature	Present
Machine Check Architecture	Present
CMOV Instruction	Present
Page Attribute Table	Present

36-bit Page Size Extensions	Present
Processor Number	Not Present
CLFLUSH Instruction	Present
Debug Trace and EMON Store	Present
Internal ACPI Support	Present
MMX Technology	Present
Fast FP Save/Restore (IA MMX-2)	Present
Streaming SIMD Extensions	Present
Streaming SIMD Extensions 2	Present
Self-Snoop	Present
Multi-Threading Capable	Present
Automatic Clock Control	Present
IA-64 Processor	Not Present
Signal Break on FERR	Present
Virtual Machine Extensions (VMX)	Present
Safer Mode Extensions (Intel TXT)	Not Present
Streaming SIMD Extensions 3	Present
Supplemental Streaming SIMD Extensions 3	Present
Streaming SIMD Extensions 4.1	Present
Streaming SIMD Extensions 4.2	Present
AVX Support	Present
Fused Multiply Add (FMA)	Present
Carryless Multiplication (PCLMULQDQ)/GFMUL	Present
CMPXCHG16B Support	Present
MOVBE Instruction	Present
POPCNT Instruction	Present
XSAVE/XRSTOR/XSETBV/XGETBV Instructions	Present
XGETBV/XSETBV OS Enabled	Present
Float16 Instructions	Present
AES Cryptography Support	Present
Random Number Read Instruction (RDRAND)	Present
Extended xAPIC	Present
MONITOR/MWAIT Support	Present
Thermal Monitor 2	Present
Enhanced SpeedStep Technology	Present
L1 Context ID	Not Present
Send Task Priority Messages Disabling	Present
Processor Context ID	Present
Direct Cache Access	Not Present
TSC-deadline Timer	Present
Performance/Debug Capability MSR	Present
IA32 Debug Interface Support	Present
64-Bit Debug Store	Present
CPL Qualified Debug Store	Present

### ***[Extended Feature Flags]***

64-bit Extensions	Present
RDTSCP and TSC_AUX Support	Present
1 GB large page support	Present
No Execute	Present
SYSCALL/SYSRET Support	Present

Bit Manipulation Instructions Set 1	Present
Bit Manipulation Instructions Set 2	Present
Advanced Vector Extensions 2 (AVX2)	Present
Advanced Vector Extensions 512 (AVX-512)	Not Present
AVX-512 Prefetch Instructions	Not Present
AVX-512 Exponential and Reciprocal Instructions	Not Present
AVX-512 Conflict Detection Instructions	Not Present
AVX-512 Doubleword and Quadword Instructions	Not Present
AVX-512 Byte and Word Instructions	Not Present
AVX-512 Vector Length Extensions	Not Present
AVX-512 52-bit Integer FMA Instructions	Not Present
Secure Hash Algorithm (SHA) Extensions	Not Present
Software Guard Extensions (SGX) Support	Present
Supervisor Mode Execution Protection (SMEP)	Present
Supervisor Mode Access Prevention (SMAP)	Present
Hardware Lock Elision (HLE)	Present
Restricted Transactional Memory (RTM)	Present
Memory Protection Extensions (MPX)	Present
Read/Write FS/GS Base Instructions	Present
Enhanced Performance String Instruction	Present
INVPID Instruction	Present
RDSEED Instruction	Present
Multi-precision Add Carry Instructions (ADX)	Present
PCOMMIT Instructions	Not Present
CLFLUSHOPT Instructions	Present
CLWB Instructions	Not Present
TSC_THREAD_OFFSET	Present
Platform Quality of Service Monitoring (PQM)	Not Present
Platform Quality of Service Enforcement (PQE)	Not Present
FPU Data Pointer updated only on x87 Exceptions	Not Present
Deprecated FPU CS and FPU DS	Present
Intel Processor Trace	Present
PREFETCHWT1 Instruction	Not Present
AVX-512 Vector Bit Manipulation Instructions	Not Present
AVX-512 Vector Bit Manipulation Instructions 2	Not Present
AVX-512 Galois Fields New Instructions	Not Present
AVX-512 Vector AES	Not Present
AVX-512 Vector Neural Network Instructions Word	Not Present
AVX-512 Bit Algorithms	Not Present
AVX-512 Carry-Less Multiplication Quadword (VPCLMULQDQ)	Not Present
AVX-512 Vector POPCNT (VPOPCNTD/VPOPCNTQ)	Not Present
User-Mode Instruction Prevention	Not Present
Protection Keys for User-mode Pages	Not Present
OS Enabled Protection Keys	Not Present
Total Memory Encryption	Not Present

Read Processor ID	Not Present
SGX Launch Configuration	Not Present
AVX-512 4 x Vector Neural Network Instructions Word Variable Precision	Not Present
AVX-512 4 x Fused Multiply Accumulation Packed Single Precision	Not Present

### ***[Enhanced Features]***

Thermal Monitor 1:	Supported, Enabled
Thermal Monitor 2:	Supported, Enabled
Enhanced Intel SpeedStep (GV3):	Supported, Enabled
Bi-directional PROCHOT#:	Enabled
Extended Auto-HALT State C1E:	Enabled
MLC Streamer Prefetcher	Supported, Enabled
MLC Spatial Prefetcher	Supported, Enabled
DCU Streamer Prefetcher	Supported, Enabled
DCU IP Prefetcher	Supported, Enabled
Intel Dynamic Acceleration (IDA) Technology:	Not Supported
Intel Dynamic FSB Switching:	Not Supported
Intel Turbo Boost Technology:	Supported, Enabled
Programmable Ratio Limits:	Supported, Disabled
Programmable TDC/TDP Limits:	Supported, Disabled
Hardware Duty Cycling:	Supported, Enabled

### ***[CPU SKU Features]***

Display HD Audio:	Supported
DMI x4:	Supported
DRAM ECC:	Not Supported
DMI in Gen2 Mode:	Supported
PEG in Gen2 Mode:	Supported
1N Mode DDR Timings:	Supported
2 DIMMs per Channel:	Supported
X2APIC:	Supported
Dual Memory Channel:	Supported
Integrated GPU:	Enabled
DDR Overclocking:	Enabled
Overclocking by DSKU:	Disabled
DDR3L:	Supported
Maximum Memory Size per Channel:	32 GB (unlimited)
DDR Frequency Support (100 MHz RefClk):	1300 MHz
Overclocking:	Disabled
SMT:	Supported
Additive Graphics:	Supported
Additive Graphics:	Enabled
PCIe Gen 3:	Supported
DMI Gen 3:	Supported
HDCPD:	Supported
DDR4:	Supported
LPDDR3:	Supported
BCLK OC Limit:	100 MHz
Maximum Supported LPDDR3 Frequency:	1067 MHz

Maximum Supported DDR4 Frequency: 1067 MHz

### **[Memory Ranges]**

Maximum Physical Address Size: 39-bit (512 GBytes)  
Maximum Virtual Address Size: 48-bit (256 TBytes)

### **[MTRRs]**

Range 80000000-100000000 (2048MB-4096MB) Type:	Uncacheable (UC)
Range 60000000-80000000 (1536MB-2048MB) Type:	Uncacheable (UC)
Range 5C000000-60000000 (1472MB-1536MB) Type:	Uncacheable (UC)
Range 5A000000-5C000000 (1440MB-1472MB) Type:	Uncacheable (UC)
Range 59000000-5A000000 (1424MB-1440MB) Type:	Uncacheable (UC)
Range 58800000-59000000 (1416MB-1424MB) Type:	Uncacheable (UC)

## **Motherboard**

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### **[Computer]**

**Computer Brand Name:** **ASUS GL552VX**

### **[Motherboard]**

**Motherboard Model:** **ASUS GL552VX**  
**Motherboard Chipset:** **Intel HM170 (Skylake PCH-H)**  
Motherboard Slots: 2xPCI Express x1, 1xPCI Express x16  
PCI Express Version Supported: v3.0  
USB Version Supported: v3.0

### **[BIOS]**

BIOS Manufacturer: American Megatrends Inc.  
BIOS Date: 09/14/2016  
BIOS Version: GL552VX.300  
UEFI BIOS: Capable  
  
Super-IO/LPC Chip: Unknown

## **ACPI Devices**

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## **PC/AT Enhanced PS/2 Keyboard (101/102-Key)**

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Device Name:	PC/AT Enhanced PS/2 Keyboard (101/102-Key)
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***[Assigned Resources]***

I/O Port:	0060
I/O Port:	0000

***[Alternative 1]***

I/O Port:	0060
I/O Port:	0064
IRQ:	1

## **I2C HID Device**

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Device Name:	I2C HID Device
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***[Assigned Resources]***

***[Alternative 1]***

IRQ:	95
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## **Legacy device**

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Device Name:	Legacy device
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***[Assigned Resources]***

Memory Location:	FF000000 - FFFFFFFF
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***[Alternative 1]***

Memory Location:	FF000000 - FFFFFFFF
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## **Motherboard resources**

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Device Name:	Motherboard resources
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***[Assigned Resources]***

I/O Port:	1854 - 1857
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### **[Alternative 1]**

I/O Port: 1854 - 1857

## **Trusted Platform Module 2.0**

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Device Name: Trusted Platform Module 2.0

### **[Assigned Resources]**

Memory Location: FED40000 - FED4087F

### **[Alternative 1]**

Memory Location: FED40000 - FED4087F

## **Programmable interrupt controller**

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Device Name: Programmable interrupt controller

### **[Assigned Resources]**

I/O Port: 0020 - 0021  
I/O Port: 0030 - 0031  
I/O Port: 00A0 - 00A1  
I/O Port: 00B0 - 00B1  
IRQ: 1114369  
IRQ: 1114369  
IRQ: 1114369  
IRQ: 1114369

### **[Alternative 1]**

I/O Port: 0020 - 0021  
I/O Port: 0024 - 0025  
I/O Port: 0028 - 0029  
I/O Port: 002C - 002D  
I/O Port: 0030 - 0031  
I/O Port: 0034 - 0035  
I/O Port: 0038 - 0039  
I/O Port: 003C - 003D  
I/O Port: 00A0 - 00A1  
I/O Port: 00A4 - 00A5  
I/O Port: 00A8 - 00A9  
I/O Port: 00AC - 00AD  
I/O Port: 00B0 - 00B1

I/O Port:	00B4 - 00B5
I/O Port:	00B8 - 00B9
I/O Port:	00BC - 00BD
I/O Port:	04D0 - 04D1

## System timer

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Device Name:	System timer
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### **[Assigned Resources]**

I/O Port:	0040 - 0043
DMA:	0

### **[Alternative 1]**

I/O Port:	0040 - 0043
I/O Port:	0050 - 0053
IRQ:	0

## High precision event timer

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Device Name:	High precision event timer
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### **[Assigned Resources]**

Memory Location:	FED00000 - FED003FF
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### **[Alternative 1]**

Memory Location:	FED00000 - FED003FF
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## PCI Express Root Complex

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Device Name:	PCI Express Root Complex
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### **[Assigned Resources]**

I/O Port:	0000 - FFFFFFFF
Memory Location:	000A0000 - 000BFFFF
Memory Location:	000C4000 - 000C3FFF
Memory Location:	000CC000 - 000CFFFF
Memory Location:	000D4000 - 000D3FFF
Memory Location:	000DC000 - 000DFFFF

Memory Location: 000E4000 - 000E3FFF

**[Alternative 1]**

I/O Port: 0000 - 0CF7  
I/O Port: 0D00 - FFFF  
Memory Location: 000A0000 - 000BFFFF  
Memory Location: 000C0000 - 000C3FFF  
Memory Location: 000C4000 - 000C7FFF  
Memory Location: 000C8000 - 000CBFFF  
Memory Location: 000CC000 - 000CFFFF  
Memory Location: 000D0000 - 000D3FFF  
Memory Location: 000D4000 - 000D7FFF  
Memory Location: 000D8000 - 000DBFFF  
Memory Location: 000DC000 - 000DFFFF  
Memory Location: 000E0000 - 000E3FFF  
Memory Location: 000E4000 - 000E7FFF  
Memory Location: 000E8000 - 000EBFFF  
Memory Location: 000EC000 - 000EFFFF  
Memory Location: 79000000 - DFFFFFFF  
Memory Location: FD000000 - FE7FFFFF

## System CMOS/real time clock

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Device Name: System CMOS/real time clock

**[Assigned Resources]**

I/O Port: 0070 - 0077

**[Alternative 1]**

I/O Port: 0070 - 0077  
IRQ: 8

## Motherboard resources

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Device Name: Motherboard resources

**[Assigned Resources]**

Memory Location: FED10000 - FED17FFF  
Memory Location: FED20000 - FED3FFFF

**[Alternative 1]**

Memory Location:	FED10000 - FED17FFF
Memory Location:	FED18000 - FED18FFF
Memory Location:	FED19000 - FED19FFF
Memory Location:	E0000000 - EFFFFFFF
Memory Location:	FED20000 - FED3FFFF
Memory Location:	FED90000 - FED93FFF
Memory Location:	FED45000 - FED8FFFF
Memory Location:	FF000000 - FFFFFFFF
Memory Location:	FEE00000 - FEEFFFFFF
Memory Location:	DFFE0000 - DFFFFFFF

## Motherboard resources

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Device Name:	Motherboard resources
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### **[Assigned Resources]**

I/O Port:	0240 - 0259
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### **[Alternative 1]**

I/O Port:	0240 - 0259
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## Motherboard resources

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Device Name:	Motherboard resources
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### **[Assigned Resources]**

I/O Port:	002E - 002F
I/O Port:	0065
I/O Port:	0000 - 006F
I/O Port:	0092
I/O Port:	FFFF
IRQ:	1114369
IRQ:	1114369

### **[Alternative 1]**

I/O Port:	002E - 002F
I/O Port:	004E - 004F
I/O Port:	0061
I/O Port:	0063
I/O Port:	0065
I/O Port:	0067

I/O Port:	0070
I/O Port:	0080
I/O Port:	0092
I/O Port:	00B2 - 00B3
I/O Port:	0680 - 069F
I/O Port:	FFFF
I/O Port:	FFFF
I/O Port:	FFFF
I/O Port:	1800 - 18FE
I/O Port:	164E - 164F

## Motherboard resources

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Device Name:	Motherboard resources
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### ***[Assigned Resources]***

Memory Location:	FDAF0000 - FDAFFFFFFF
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### ***[Alternative 1]***

Memory Location:	FDAF0000 - FDAFFFFFFF
Memory Location:	FDAE0000 - FDAFFFFFFF
Memory Location:	FDAC0000 - FDACFFFF
IRQ:	14

## Motherboard resources

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Device Name:	Motherboard resources
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### ***[Assigned Resources]***

I/O Port:	FF00 - FFFE
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### ***[Alternative 1]***

I/O Port:	FF00 - FFFE
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## Motherboard resources

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Device Name:	Motherboard resources
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### ***[Assigned Resources]***

I/O Port: 0800 - 087F

**[Alternative 1]**

I/O Port: 0800 - 087F

## Motherboard resources

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Device Name: Motherboard resources

**[Assigned Resources]**

Memory Location: FD000000 - FDABFFFF

Memory Location: FE036000 - FE03BFFF

**[Alternative 1]**

Memory Location: FD000000 - FDABFFFF

Memory Location: FDAD0000 - FDADFFFF

Memory Location: FDB00000 - FFFFFFFF

Memory Location: FE000000 - FE01FFFF

Memory Location: FE036000 - FE03BFFF

Memory Location: FE03D000 - FE3FFFFFFF

Memory Location: FE410000 - FE7FFFFFFF

## Numeric data processor

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Device Name: Numeric data processor

**[Assigned Resources]**

I/O Port: 00F0

**[Alternative 1]**

I/O Port: 00F0

IRQ: 13

## Microsoft ACPI-Compliant Embedded Controller

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Device Name: Microsoft ACPI-Compliant Embedded Controller

**[Assigned Resources]**

I/O Port: 0062

### **[Alternative 1]**

I/O Port:	0062
I/O Port:	0066

## **SMBIOS DMI**

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## **BIOS**

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BIOS Vendor:	American Megatrends Inc.
BIOS Version:	GL552VX.300
BIOS Release Date:	09/14/2016
BIOS Start Segment:	F000
BIOS Size:	6016 KBytes

System BIOS Version:	5.11
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ISA Support:	Not Present
MCA Support:	Not Present
EISA Support:	Not Present
PCI Support:	Present
PC Card (PCMCIA) Support:	Not Present
Plug-and-Play Support:	Not Present
APM Support:	Not Present
Flash BIOS:	Present
BIOS Shadow:	Present
VL-VESA Support:	Not Present
ESCD Support:	Not Present
Boot from CD:	Present
Selectable Boot:	Present
BIOS ROM Socketed:	Present
Boot from PC Card:	Not Present
EDD Support:	Present
NEC PC-98 Support:	Not Present
ACPI Support:	Present
USB Legacy Support:	Present
AGP Support:	Not Present
I2O Boot Support:	Not Present

LS-120 Boot Support:	Not Present
ATAPI ZIP Drive Boot Support:	Not Present
IEEE1394 Boot Support:	Not Present
Smart Battery Support:	Present
BIOS Boot Specification Support:	Present
Function key-initiated Network Service Boot Support:	Not Present
Targeted Content Distribution Support:	Present
UEFI Specification Support:	Present
Virtual Machine:	Not Present

## System

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System Manufacturer:	ASUSTeK COMPUTER INC.
Product Name:	GL552VX
Product Version:	1.0
Product Serial Number:	G9N0CV02Z36436A
UUID:	{51BDC0D6-414B-F04A-B0F1-BC9340EEA189}
SKU Number:	ASUS-NotebookSKU
Family:	GL

## Mainboard

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Mainboard Manufacturer:	ASUSTeK COMPUTER INC.
Mainboard Name:	GL552VX
Mainboard Version:	1.0
Mainboard Serial Number:	BSN12345678901234567
Asset Tag:	ATN12345678901234567
Location in chassis:	MIDDLE

## System Enclosure

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Manufacturer:	ASUSTeK COMPUTER INC.
Case Type:	Notebook
Version:	1.0
Serial Number:	G9N0CV02Z36436A
Asset Tag Number:	ATN12345678901234567



## On Board Device

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Device Description: VGA  
Device Type: Video Adapter  
Device Status: Enabled

Device Description: GLAN  
Device Type: Ethernet Adapter  
Device Status: Enabled

Device Description: WLAN  
Device Type: Ethernet Adapter  
Device Status: Enabled

Device Description: Audio CODEC  
Device Type: Audio Device  
Device Status: Enabled

Device Description: SATA Controller  
Device Type: SATA Controller  
Device Status: Enabled

Device Description: USB 2.0 Controller  
Device Type: Unknown  
Device Status: Enabled

Device Description: USB 3.0 Controller  
Device Type: Unknown  
Device Status: Enabled

Device Description: SMBus Controller  
Device Type: Unknown  
Device Status: Enabled

Device Description: Card Reader  
Device Type: Unknown  
Device Status: Enabled

Device Description: Cmos Camera  
Device Type: Unknown  
Device Status: Enabled

Device Description: Bluetooth  
Device Type: Unknown  
Device Status: Enabled

## OEM Strings

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90NB0AW1-M03150

## System Boot Information

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Boot Status: No error occurred

## L1 Cache

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Socket Designation:	L1 Cache
Cache State:	Enabled
Cache Type:	Internal, Data
Cache Scheme:	Write-Back
Supported SRAM Type:	Synchronous
Current SRAM Type:	Synchronous
Cache Speed:	Unknown
Error Correction Type:	Parity
Maximum Cache Size:	128 KBytes
Installed Cache Size:	128 KBytes
Cache Associativity:	8-way Set-Associative

## L1 Cache

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Socket Designation:	L1 Cache
Cache State:	Enabled
Cache Type:	Internal, Instruction
Cache Scheme:	Write-Back
Supported SRAM Type:	Synchronous
Current SRAM Type:	Synchronous
Cache Speed:	Unknown
Error Correction Type:	Parity

Maximum Cache Size:	128 KBytes
Installed Cache Size:	128 KBytes
Cache Associativity:	8-way Set-Associative

## L2 Cache

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Socket Designation:	L2 Cache
Cache State:	Enabled
Cache Type:	Internal, Unified
Cache Scheme:	Write-Back
Supported SRAM Type:	Synchronous
Current SRAM Type:	Synchronous
Cache Speed:	Unknown
Error Correction Type:	Single-bit ECC
Maximum Cache Size:	1024 KBytes
Installed Cache Size:	1024 KBytes
Cache Associativity:	4-way Set-Associative

## L3 Cache

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Socket Designation:	L3 Cache
Cache State:	Enabled
Cache Type:	Internal, Unified
Cache Scheme:	Write-Back
Supported SRAM Type:	Synchronous
Current SRAM Type:	Synchronous
Cache Speed:	Unknown
Error Correction Type:	Multi-bit ECC
Maximum Cache Size:	6144 KBytes
Installed Cache Size:	6144 KBytes
Cache Associativity:	12-way Set-Associative

## Processor

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Processor Manufacturer:	Intel(R) Corporation
Processor Version:	Intel(R) Core(TM) i7-6700HQ CPU @ 2.60GHz
External Clock:	100 MHz
Maximum Clock Supported:	8300 MHz
Current Clock:	2500 MHz

CPU Socket:	Populated
CPU Status:	Enabled
Processor Type:	Central Processor
Processor Voltage:	1.0 V
Processor Upgrade:	Unknown (1)
Socket Designation:	U3E1

## Firmware Version Information

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Reference Code - ACPI	1.7.0.0
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## Intel AMT

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Intel AMT Support:	Not Supported
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## Intel vPro

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CPU VT-x Support:	Supported
CPU VT-x Status:	Enabled
CPU VT-x2 Support:	Not Supported
CPU VT-x2 Status:	Disabled
CPU TXT Support:	Not Supported
CPU TXT Status:	Disabled
CPU VMX Status:	Enabled
CPU SMX Status:	Disabled
Intel ME Status:	Enabled
Intel OST Firmware Support:	Not Supported
Intel ASF Firmware Support:	Not Supported
Intel AMT Pro Firmware Support:	Not Supported
Intel AMT Basic Firmware Support:	Not Supported
Intel TPM Firmware Support:	Not Supported
Intel Castle Peak Support:	Not Supported
Intel WoX Support:	Not Supported
Intel Virtualization Engine Support:	Not Supported
Intel Anti-Theft Technology Support:	Not Supported
TPM On-board:	Not Supported
Intel Anti-Theft Technology Enrolled:	Not Supported
Intel ME Version:	v11.0, Build 1180, Hotfix 0
BIOS VT-x Support:	Not Supported

BIOS VT-d Support:	Supported
BIOS TXT Support:	Not Supported
BIOS TPM Support:	Not Supported
BIOS ME Support:	Not Supported
BIOS VA Extensions Support:	Supported
Intel AT PBA For Recovery Support:	Not Supported
Intel AT WWAN Support:	Not Supported

## Firmware Version Information

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Reference Code - CPU	1.7.0.0
uCode Version	0.0.0.116
TXT ACM version	0.5.0.0

## Firmware Version Information

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Reference Code - ME 11.0	1.7.0.0
MEBx version	1.7.0.0
ME Firmware Version	Consumer SKU

## Firmware Version Information

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Reference Code - SKL PCH	1.7.0.0
PCH-CRID Status	Disabled
PCH-CRID Original Value	0x31
PCH-CRID New Value	0x31
OPROM - RST - RAID	
SKL PCH H Bx Hsio Version	62.0.0.0
SKL PCH H Dx Hsio Version	52.0.0.0
SKL PCH LP Bx Hsio Version	62.0.0.0
SKL PCH LP Cx Hsio Version	52.0.0.0

## Firmware Version Information

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Reference Code - SA - System Agent	1.7.0.0
Reference Code - MRC	1.7.0.0

SA - PCIe Version	1.7.0.0
SA-CRID Status	Disabled
SA-CRID Original Value	0x7
SA-CRID New Value	0x7
OPROM - VBIOS	

## Firmware Version Information

---

Lan Phy Version	0.0.0.0
Sensor Firmware Version	
Debug Mode Status	Enabled
Performance Mode Status	Disabled
Debug Use USB(Disabled:Serial)	Disabled
ICC Overclocking Version	0.0.0.0
UNDI Version	
EC FW Version	0.0
GOP Version	0.9.0.4150
BIOS Guard Version	2.0.0.0
Base EC FW Version	
EC-EC Protocol Version	
Royal Park Version	BP1.2.2.0_RP03

## Group Associations

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## Group Associations

---

## BIOS Language

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en|US|iso8859-1 <Active>

## Memory Devices

---

## Physical Memory Array

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Array Location:	System board
Array Use:	System memory
Error Detecting Method:	None
Memory Capacity:	64 GBytes
Memory Devices:	4

## Memory Device

---

Total Width:	64 bits
Data Width:	64 bits
Device Size:	8192 MBytes
Device Form Factor:	SODIMM
Device Locator:	ChannelA-DIMM0
Bank Locator:	BANK 0
Device Type:	DDR4
Device Type Detail:	Synchronous
Memory Speed:	2133 MHz
Manufacturer:	Samsung
Serial Number:	22564151
Part Number:	M471A1K43BB0-CPB
Asset Tag:	9876543210

## Memory Device

---

Total Width:	0 bits
Data Width:	0 bits
Device Size:	0 MBytes
Device Form Factor:	Unknown
Device Locator:	ChannelA-DIMM1
Bank Locator:	BANK 1
Device Type:	Unknown
Device Type Detail:	
Manufacturer:	Unknown
Serial Number:	Unknown
Part Number:	Unknown
Asset Tag:	Unknown

## Memory Device

---

Total Width:	0 bits
Data Width:	0 bits
Device Size:	0 MBytes
Device Form Factor:	Unknown
Device Locator:	ChannelB-DIMM0
Bank Locator:	BANK 2
Device Type:	Unknown
Device Type Detail:	
Manufacturer:	Unknown
Serial Number:	Unknown
Part Number:	Unknown
Asset Tag:	Unknown

## Memory Device

---

Total Width:	0 bits
Data Width:	0 bits
Device Size:	0 MBytes
Device Form Factor:	Unknown
Device Locator:	ChannelB-DIMM1
Bank Locator:	BANK 3
Device Type:	Unknown
Device Type Detail:	
Manufacturer:	Unknown
Serial Number:	Unknown
Part Number:	Unknown
Asset Tag:	Unknown

## Memory Array Mapped Address

---

Starting Address:	00000000
Ending Address:	007FFFFF
Partition Width:	1



## Memory Device Mapped Address

---

Starting Address:	00000000
Ending Address:	007FFFFFFF
Partition Row Position:	Unknown
Interleave Position:	Non-interleaved
Interleave Data Depth:	0

## Intel ME

---

### **[ME Host Status]**

ME Current Working State:	Normal
Manufacturing Mode:	Not Active
ME Current Operation Mode:	Normal
Boot Guard Status:	Enabled
Boot Guard Verified Boot Policy:	Disabled
Boot Guard Measured Boot Policy:	Disabled

### **[Intel Manageability Engine Features]**

Intel ME Version:	11.0, Build 1180
Intel ME Recovery Image Version:	11.0, Build 1180
Intel ME FITC Version:	11.0, Build 1180

### **[ME Firmware Capabilities]**

Full Network Manageability:	Not Capable
Standard Network Manageability:	Not Capable
Manageability (AMT):	Not Capable
Small Business Advantage:	Not Capable
Intel Integrated Touch:	Not Capable
Intel Anti-Theft:	Not Capable
Capability Licensing Service:	Capable
Virtualization Engine:	Not Capable
Intel Sensor Hub (ISH):	Not Capable
ICC Over Clocking:	Capable
Protected Audio Video Path (PAVP):	Capable
Network Frame Forwarder (NFF):	Not Capable
Remote PC Assist (RPAT):	Not Capable
IPV6:	Not Capable
KVM Remote Control:	Not Capable
Outbreak Containment Heuristic (OCH):	Not Capable
Dynamic Application Loader (DAL):	Capable

Cipher Transport Layer (TLS):	Not Capable
Wireless LAN (WLAN):	Not Capable
Platform Trust Technology (PTT):	Capable
Near Field Communication (NFC):	Not Capable

#### ***[ME Firmware Feature State]***

Full Network Manageability:	Disabled
Standard Network Manageability:	Disabled
Manageability (AMT):	Disabled
Small Business Advantage:	Not Capable
MEI3:	Not Capable
Intel Anti-Theft:	Disabled
Capability Licensing Service:	Enabled
Virtualization Engine:	Disabled
Intel Sensor Hub (ISH):	Disabled
ICC Over Clocking:	Enabled
Protected Audio Video Path (PAVP):	Enabled
Network Frame Forwarder (NFF):	Not Capable
Remote PC Assist (RPAT):	Disabled
IPV6:	Disabled
KVM Remote Control:	Disabled
Outbreak Containment Heuristic (OCH):	Disabled
Dynamic Application Loader (DAL):	Capable
Cipher Transport Layer (TLS):	Disabled
Wireless LAN (WLAN):	Disabled
Platform Trust Technology (PTT):	Enabled
Near Field Communication (NFC):	Disabled

#### ***[ME Firmware Platform Type]***

Platform Target Usage Type:	Mobile
SKU:	Regular SKU
ME Firmware Image Type:	Consumer SKU Firmware
Platform Brand:	None
Host ME Region Flash Protection Override (HMRFPO) Status:	Locked

## **Memory**

---

#### ***[General information]***

Total Memory Size:	8 GBytes
Total Memory Size [MB]:	8192

### **[Current Performance Settings]**

Maximum Supported Memory Clock: 1300.0 MHz  
Current Memory Clock: 1064.6 MHz  
Current Timing (tCAS-tRCD-tRP-tRAS): 15-15-15-36  
Memory Runs At: Single-Channel

Command Rate: 2T  
Read to Read Delay (tRD\_RD) Same Rank: 6T  
Read to Read Delay (tRD\_RD) Different Rank: 4T  
Read to Read Delay (tRD\_RD) Different DIMM: 7T  
Write to Write Delay (tWR\_WR) Same Rank: 6T  
Write to Write Delay (tWR\_WR) Different Rank: 4T  
Write to Write Delay (tWR\_WR) Different DIMM: 7T  
Read to Write Delay (tRD\_WR) Same Rank: 9T  
Read to Write Delay (tRD\_WR) Different Rank: 9T  
Read to Write Delay (tRD\_WR) Different DIMM: 11T  
Write to Read Delay (tWR\_RD) Same Rank (tWTR): 27T  
Write to Read Delay (tWR\_RD) Different Rank: 22T  
Write to Read Delay (tWR\_RD) Different DIMM: 6T  
RAS# to RAS# Delay (tRRD): 6T  
Refresh Cycle Time (tRFC): 374T  
Four Activate Window (tFAW): 23T

## **Row: 0 - 8 GB PC4-17000 DDR4 SDRAM Samsung M471A1K43BB0-CPB**

---

### **[General Module Information]**

Module Number: 0  
**Module Size:** 8 GBytes  
**Memory Type:** DDR4 SDRAM  
Module Type: SO-DIMM  
**Memory Speed:** 1066.1 MHz (DDR4-2132 / PC4-17000)  
**Module Manufacturer:** Samsung  
**Module Part Number:** M471A1K43BB0-CPB

Module Revision:	0.0
Module Serial Number:	858339350
Module Manufacturing Date:	Year: 2016, Week: 31
Module Manufacturing Location:	3
SDRAM Manufacturer:	Samsung
DRAM Stepping:	0.0
Error Check/Correction:	None

### **[Module Characteristics]**

Row Address Bits:	16
Column Address Bits:	10
Module Density:	8192 Mb
Number Of Ranks:	1
Device Width:	8 bits
Bus Width:	64 bits
Die Count:	1
Module Nominal Voltage (VDD):	1.2 V
Minimum SDRAM Cycle Time (tCKAVGmin):	0.93800 ns
Maximum SDRAM Cycle Time (tCKAVGmax):	1.50000 ns
CAS# Latencies Supported:	10, 11, 12, 13, 14, 15, 16
Minimum CAS# Latency Time (tAAmin):	13.750 ns
Minimum RAS# to CAS# Delay (tRCDmin):	13.750 ns
Minimum Row Precharge Time (tRPmin):	13.750 ns
Minimum Active to Precharge Time (tRASmin):	33.000 ns

Supported Module Timing at 1066.1 MHz:	15-15-15-36
Supported Module Timing at 1000.0 MHz:	14-14-14-33
Supported Module Timing at 933.3 MHz:	13-13-13-31
Supported Module Timing at 866.7 MHz:	12-12-12-29
Supported Module Timing at 800.0 MHz:	11-11-11-27
Supported Module Timing at 733.3 MHz:	11-11-11-25
Supported Module Timing at 666.7 MHz:	10-10-10-22

Minimum Active to Active/Refresh Time (tRCmin):	46.750 ns
	350.000 ns

Minimum Refresh Recovery Time Delay (tRFC1min):	
Minimum Refresh Recovery Time Delay (tRFC2min):	260.000 ns
Minimum Refresh Recovery Time Delay (tRFC4min):	160.000 ns
Minimum Four Activate Window Delay Time (tFAWmin):	21.000 ns
Minimum Active to Active Delay Time - Different Bank Group (tRRD_Smin):	3.700 ns
Minimum Active to Active Delay Time - Same Bank Group (tRRD_Lmin):	5.300 ns
Minimum CAS to CAS Delay Time - Same Bank Group (tCCD_Lmin):	5.625 ns

**[Features]**

Module Temperature Sensor (TSOD):	Not Supported
Module Nominal Height:	29 - 30 mm
Module Maximum Thickness (Front):	1 - 2 mm
Module Maximum Thickness (Back):	1 - 2 mm
Address Mapping from Edge Connector to DRAM:	Standard

**Bus**

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**PCI Bus #0**

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**Intel Skylake-H - Host Bridge/DRAM Controller [R0]**

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**[General Information]**

<b>Device Name:</b>	<b>Intel Skylake-H - Host Bridge/DRAM Controller [R0]</b>
<b>Original Device Name:</b>	<b>Intel Skylake-H - Host Bridge/DRAM Controller [R0]</b>
<b>Device Class:</b>	<b>Host-to-PCI Bridge</b>
Revision ID:	7 [R0]
PCI Address (Bus:Device:Function) Number:	0:0:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_1910&SUBSYS_10601043&REV_07

### **[System Resources]**

Interrupt Line:	N/A
Interrupt Pin:	N/A

### **[Features]**

Bus Mastering:	Enabled
Running At 66 MHz:	Not Capable
Fast Back-to-Back Transactions:	Capable

### **[Driver Information]**

Driver Manufacturer:	(Standard system devices)
Driver Description:	PCI standard host CPU bridge
Driver Provider:	Microsoft
Driver Version:	10.0.16299.15
Driver Date:	21-Jun-2006
DeviceInstanceId	PCI\VEN_8086&DEV_1910&SUBSYS_10601043&REV_07 \3&11583659&0&00

## **Intel Skylake/Kaby Lake/Coffee Lake - PCI Express x16 Controller [R0]**

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### **[General Information]**

<b>Device Name:</b>	<b>Intel Skylake/Kaby Lake/Coffee Lake - PCI Express x16 Controller [R0]</b>
<b>Original Device Name:</b>	<b>Intel Skylake/Kaby Lake/Coffee Lake - PCI Express x16 Controller [R0]</b>
<b>Device Class:</b>	<b>PCI-to-PCI Bridge</b>
Revision ID:	7 [R0]
PCI Address (Bus:Device:Function) Number:	0:1:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_1901&SUBSYS_00000000&REV_07

### **[PCI Express]**

Version:	3.0
Maximum Link Width:	16x
Current Link Width:	16x
Maximum Link Speed:	8.0 GT/s
Current Link Speed:	2.5 GT/s
Device/Port Type:	Root Port of PCI Express Root Complex
Slot Implemented:	Yes
Hot-Plug:	Not Capable
Hot-Plug Surprise:	Not Capable
Slot Power Limit:	75.000 W
Emergency Power Reduction:	Not Supported

Active State Power Management (ASPM) Support:	L0s and L1
Active State Power Management (ASPM) Status:	L0s and L1 Entry
L0s Exit Latency:	128 - 256 ns
L1 Exit Latency:	4 - 8 us
Maximum Payload Size Supported:	256 bytes
Maximum Payload Size:	256 bytes

### **[System Resources]**

Interrupt Line:	N/A
Interrupt Pin:	INTA#

### **[Features]**

Bus Mastering:	Enabled
Running At 66 MHz:	Not Capable
Fast Back-to-Back Transactions:	Not Capable

### **[Driver Information]**

Driver Manufacturer:	INTEL
Driver Description:	Intel(R) Xeon(R) E3 - 1200/1500 v5/6th Gen Intel(R) Core(TM) PCIe Controller (x16) - 1901
Driver Provider:	INTEL
Driver Version:	10.1.1.11
Driver Date:	17-Aug-2015
DeviceInstanceId	PCI\VEN_8086&DEV_1901&SUBSYS_10601043&REV_07\3&11583659&0&08

## **PCI Express x16 Bus #1**

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## **NVIDIA GeForce GTX 950M [ASUS]**

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### **[General Information]**

<b>Device Name:</b>	<b>NVIDIA GeForce GTX 950M [ASUS]</b>
<b>Original Device Name:</b>	<b>NVIDIA GeForce GTX 950M (GM107M)</b>
<b>Device Class:</b>	<b>3D Adapter</b>
Revision ID:	A2
PCI Address (Bus:Device:Function) Number:	1:0:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_10DE&DEV_139A&SUBSYS_10601043&REV_A2

### **[PCI Express]**

Version:	3.0
Maximum Link Width:	16x
Current Link Width:	16x
Maximum Link Speed:	8.0 GT/s
Current Link Speed:	2.5 GT/s
Device/Port Type:	PCI Express Endpoint
Slot Implemented:	No
Emergency Power Reduction:	Not Supported
Active State Power Management (ASPM) Support:	L0s and L1
Active State Power Management (ASPM) Status:	L1 Entry
L0s Exit Latency:	256 - 512 ns
L1 Exit Latency:	>64 us
Maximum Payload Size Supported:	256 bytes
Maximum Payload Size:	256 bytes

### **[System Resources]**

Interrupt Line:	N/A
Interrupt Pin:	INTA#
Memory Base Address 0	DE000000
Memory Base Address 1	C0000000
Memory Base Address 3	D0000000
I/O Base Address 5	0

### **[Features]**

Bus Mastering:	Enabled
Running At 66 MHz:	Not Capable
Fast Back-to-Back Transactions:	Not Capable

### **[Driver Information]**

Driver Manufacturer:	NVIDIA
Driver Description:	NVIDIA GeForce GTX 950M
Driver Provider:	NVIDIA
Driver Version:	23.21.13.8800 (GeForce 388.0)
Driver Date:	12-Oct-2017
DeviceInstanceId	PCI\VEN_10DE&DEV_139A&SUBSYS_10601043&REV_A2 \4&720F58F&0&0008

## **Intel HD Graphics 530 (Skylake-H GT2) - Integrated Graphics Controller [S0/R0]**

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### **[General Information]**

<b>Device Name:</b>	<b>Intel HD Graphics 530 (Skylake-H GT2) - Integrated Graphics Controller [S0/R0]</b>
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<b>Original Device Name:</b>	<b>Intel HD Graphics 530 (Skylake-H GT2) - Integrated Graphics Controller [S0/R0]</b>
<b>Device Class:</b>	<b>VGA Compatible Adapter</b>
Revision ID:	6 [S0/R0]
PCI Address (Bus:Device:Function) Number:	0:2:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_191B&SUBSYS_10601043&REV_06

**[PCI Express]**

Version:	1.1
Current Link Width:	Not negotiated
Device/Port Type:	Root Complex Integrated Endpoint
Slot Implemented:	No
Emergency Power Reduction:	Not Supported
Active State Power Management (ASPM) Support:	None
Active State Power Management (ASPM) Status:	Disabled
L0s Exit Latency:	< 64 ns
L1 Exit Latency:	< 1 us
Maximum Payload Size Supported:	128 bytes
Maximum Payload Size:	128 bytes

**[System Resources]**

Interrupt Line:	N/A
Interrupt Pin:	INTA#
Memory Base Address 0	DD000000
Memory Base Address 2	B0000000
I/O Base Address 4	F000

**[Features]**

Bus Mastering:	Enabled
Running At 66 MHz:	Not Capable
Fast Back-to-Back Transactions:	Not Capable

**[Driver Information]**

Driver Manufacturer:	Intel Corporation
Driver Description:	Intel(R) HD Graphics 530
Driver Provider:	Intel Corporation
Driver Version:	21.20.16.4550
Driver Date:	11-Nov-2016
DeviceInstanceId	PCI\VEN_8086&DEV_191B&SUBSYS_10601043&REV_06\3&11583659&0&10

**Intel Skylake - Dynamic Platform & Thermal Framework  
Processor Participant**

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### **[General Information]**

<b>Device Name:</b>	<b>Intel Skylake - Dynamic Platform &amp; Thermal Framework Processor Participant</b>
<b>Original Device Name:</b>	<b>Intel Skylake - Dynamic Platform &amp; Thermal Framework Processor Participant</b>
<b>Device Class:</b>	<b>Unknown Data Acquisition/Signal Processing Controller</b>
Revision ID:	7
PCI Address (Bus:Device:Function) Number:	0:4:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_1903&SUBSYS_10601043&REV_07

### **[System Resources]**

Interrupt Line:	IRQ16
Interrupt Pin:	INTA#
Memory Base Address 0	DF320000

### **[Features]**

Bus Mastering:	Enabled
Running At 66 MHz:	Not Capable
Fast Back-to-Back Transactions:	Capable

### **[Driver Information]**

Driver Manufacturer:	Intel
Driver Description:	Intel(R) Dynamic Platform and Thermal Framework Processor Participant
Driver Provider:	Intel
Driver Version:	8.1.10603.192
Driver Date:	07-Aug-2015
DeviceInstanceId	PCI\VEN_8086&DEV_1903&SUBSYS_10601043&REV_07\3&11583659&0&20

## **Intel Skylake PCH-H - USB 3.0 xHCI Controller [D1]**

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### **[General Information]**

<b>Device Name:</b>	<b>Intel Skylake PCH-H - USB 3.0 xHCI Controller [D1]</b>
<b>Original Device Name:</b>	<b>Intel Skylake PCH-H - USB 3.0 xHCI Controller [D1]</b>
<b>Device Class:</b>	<b>USB xHCI Controller</b>
Revision ID:	31 [D1]
PCI Address (Bus:Device:Function) Number:	0:20:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_A12F&SUBSYS_201F1043&REV_31

### ***[System Resources]***

Interrupt Line:	N/A
Interrupt Pin:	INTA#
Memory Base Address 0	DF310000

### ***[Features]***

Bus Mastering:	Enabled
Running At 66 MHz:	Not Capable
Fast Back-to-Back Transactions:	Capable

USB Version Supported:	3.0
------------------------	-----

### ***[Driver Information]***

Driver Manufacturer:	Generic USB xHCI Host Controller
Driver Description:	USB xHCI Compliant Host Controller
Driver Provider:	Microsoft
Driver Version:	10.0.16299.125
Driver Date:	07-Dec-2017
DeviceInstanceId	PCI\VEN_8086&DEV_A12F&SUBSYS_201F1043&REV_31 \3&11583659&0&A0

## **USB Root Hub**

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### **[Port1] : No Device Connected**

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### **[Port2] : No Device Connected**

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### **[Port3] : No Device Connected**

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### **[Port4] : USB Composite Device**

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### **[Device Information]**

Device Manufacturer:	TwinHan Technology
Product Name:	-
Serial Number:	-
USB Version Supported:	2.00
USB Device Speed:	USB 2.0 High-speed
Driver Description:	USB Composite Device
Hardware ID:	USB\VID_13D3&PID_5654

### **[Driver Information]**

Driver Manufacturer:	(Standard USB Host Controller)
Driver Description:	USB Composite Device
Driver Provider:	Microsoft
Driver Version:	10.0.16299.15
Driver Date:	21-Jun-2006
DeviceInstanceId	USB\VID_13D3&PID_5654\NULL

## **[Port5] : No Device Connected**

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## **[Port6] : USB Composite Device**

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### **[Device Information]**

Device Manufacturer:	Logitech
Product Name:	Dell Wireless Mouse WM123
Serial Number:	N/A
USB Version Supported:	2.00
USB Device Speed:	USB 1.1 Full-speed
Driver Description:	USB Composite Device
Hardware ID:	USB\VID_046D&PID_C535

### **[Driver Information]**

Driver Manufacturer:	(Standard USB Host Controller)
Driver Description:	USB Composite Device
Driver Provider:	Microsoft
Driver Version:	10.0.16299.15
Driver Date:	21-Jun-2006
DeviceInstanceId	USB\VID_046D&PID_C535\5&16BDD27B&0&6

## **[Port7] : No Device Connected**

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## **[Port8] : No Device Connected**

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## **[Port9] : Intel(R) Wireless Bluetooth(R)**

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### ***[Device Information]***

Device Manufacturer:	Intel
Product Name:	-
Serial Number:	-
USB Version Supported:	2.00
USB Device Speed:	USB 1.1 Full-speed
Driver Description:	Intel(R) Wireless Bluetooth(R)
Hardware ID:	USB\VID_8087&PID_0A2B

### ***[Driver Information]***

Driver Manufacturer:	Intel Corporation
Driver Description:	Intel(R) Wireless Bluetooth(R)
Driver Provider:	Intel Corporation
Driver Version:	19.10.1635.483
Driver Date:	02-Sep-2016
DeviceInstanceId	USB\VID_8087&PID_0A2B\5&16BDD27B&0&9

## **[Port10] : No Device Connected**

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## **[Port11] : No Device Connected**

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## **[Port12] : No Device Connected**

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**[Port13] : No Device Connected**

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**[Port14] : No Device Connected**

---

**[Port15] : No Device Connected**

---

**[Port16] : No Device Connected**

---

**[Port17] : No Device Connected**

---

**[Port18] : No Device Connected**

---

**[Port19] : No Device Connected**

---

**[Port20] : No Device Connected**

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## **[Port21] : No Device Connected**

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## **[Port22] : No Device Connected**

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## **[Port23] : No Device Connected**

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## **[Port24] : No Device Connected**

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## **Intel Skylake PCH-H - Thermal Subsystem [D1]**

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### ***[General Information]***

<b>Device Name:</b>	<b>Intel Skylake PCH-H - Thermal Subsystem [D1]</b>
<b>Original Device Name:</b>	<b>Intel Skylake PCH-H - Thermal Subsystem [D1]</b>
<b>Device Class:</b>	<b>Unknown Data Acquisition/Signal Processing Controller</b>
Revision ID:	31 [D1]
PCI Address (Bus:Device:Function) Number:	0:20:2
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_A131&SUBSYS_10601043&REV_31

### ***[System Resources]***

Interrupt Line:	N/A
Interrupt Pin:	INTC#
Memory Base Address 0	DF338000

### ***[Features]***

Bus Mastering:	Enabled
Running At 66 MHz:	Not Capable
Fast Back-to-Back Transactions:	Not Capable

### **[Driver Information]**

Driver Manufacturer:	INTEL
Driver Description:	Intel(R) 100 Series/C230 Series Chipset Family Thermal subsystem - A131
Driver Provider:	INTEL
Driver Version:	10.1.1.11
Driver Date:	17-Aug-2015
DeviceInstanceId	PCI\VEN_8086&DEV_A131&SUBSYS_10601043&REV_31\3&11583659&0&A2

## **Intel Skylake PCH-H - LPSS: I2C Controller #0 [D1]**

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### **[General Information]**

<b>Device Name:</b>	<b>Intel Skylake PCH-H - LPSS: I2C Controller #0 [D1]</b>
<b>Original Device Name:</b>	<b>Intel Skylake PCH-H - LPSS: I2C Controller #0 [D1]</b>
<b>Device Class:</b>	<b>Unknown Data Acquisition/Signal Processing Controller</b>
Revision ID:	31 [D1]
PCI Address (Bus:Device:Function) Number:	0:21:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_A160&SUBSYS_10601043&REV_31

### **[System Resources]**

Interrupt Line:	IRQ16
Interrupt Pin:	INTA#
Memory Base Address 0	FE40E000

### **[Features]**

Bus Mastering:	Disabled
Running At 66 MHz:	Not Capable
Fast Back-to-Back Transactions:	Not Capable

### **[Driver Information]**

Driver Manufacturer:	Intel Corporation
Driver Description:	Intel(R) Serial IO I2C Host Controller - A160
Driver Provider:	Intel Corporation
Driver Version:	30.100.1724.1
Driver Date:	14-Jun-2017
DeviceInstanceId	PCI\VEN_8086&DEV_A160&SUBSYS_10601043&REV_31\3&11583659&0&A8

## **Intel Skylake PCH-H - LPSS: I2C Controller #1 [D1]**

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### **[General Information]**

<b>Device Name:</b>	<b>Intel Skylake PCH-H - LPSS: I2C Controller #1 [D1]</b>
<b>Original Device Name:</b>	<b>Intel Skylake PCH-H - LPSS: I2C Controller #1 [D1]</b>
<b>Device Class:</b>	<b>Unknown Data Acquisition/Signal Processing Controller</b>
Revision ID:	31 [D1]
PCI Address (Bus:Device:Function) Number:	0:21:1
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_A161&SUBSYS_10601043&REV_31

### **[System Resources]**

Interrupt Line:	IRQ17
Interrupt Pin:	INTB#
Memory Base Address 0	FE40D000

### **[Features]**

Bus Mastering:	Disabled
Running At 66 MHz:	Not Capable
Fast Back-to-Back Transactions:	Not Capable

### **[Driver Information]**

Driver Manufacturer:	Intel Corporation
Driver Description:	Intel(R) Serial IO I2C Host Controller - A161
Driver Provider:	Intel Corporation
Driver Version:	30.100.1724.1
Driver Date:	14-Jun-2017
DeviceInstanceId	PCI\VEN_8086&DEV_A161&SUBSYS_10601043&REV_31 \3&11583659&0&A9

## **Intel Skylake PCH-H - CSME: HECI #1 [D1]**

---

### **[General Information]**

<b>Device Name:</b>	<b>Intel Skylake PCH-H - CSME: HECI #1 [D1]</b>
<b>Original Device Name:</b>	<b>Intel Skylake PCH-H - CSME: HECI #1 [D1]</b>
<b>Device Class:</b>	<b>Unknown Communication Device</b>
Revision ID:	31 [D1]
PCI Address (Bus:Device:Function) Number:	0:22:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_A13A&SUBSYS_10601043&REV_31

### **[System Resources]**

Interrupt Line:	N/A
Interrupt Pin:	INTA#

Memory Base Address 0	FE40F000
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**[Features]**

Bus Mastering:	Enabled
Running At 66 MHz:	Not Capable
Fast Back-to-Back Transactions:	Not Capable

**[Driver Information]**

Driver Manufacturer:	Intel
Driver Description:	Intel(R) Management Engine Interface
Driver Provider:	Intel
Driver Version:	11.0.0.1166
Driver Date:	31-Aug-2015
DeviceInstanceId	PCI\VEN_8086&DEV_A13A&SUBSYS_10601043&REV_31 \3&11583659&0&B0

## Intel Skylake PCH-H MB - SATA AHCI Controller [D1]

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**[General Information]**

<b>Device Name:</b>	<b>Intel Skylake PCH-H MB - SATA AHCI Controller [D1]</b>
<b>Original Device Name:</b>	<b>Intel Skylake PCH-H MB - SATA AHCI Controller [D1]</b>
<b>Device Class:</b>	<b>SATA AHCI Controller</b>
Revision ID:	31 [D1]
PCI Address (Bus:Device:Function) Number:	0:23:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_A103&SUBSYS_10601043&REV_31

**[System Resources]**

Interrupt Line:	N/A
Interrupt Pin:	INTA#
Memory Base Address 0	DF330000
Memory Base Address 1	DF334000
I/O Base Address 2	F090
I/O Base Address 3	F080
I/O Base Address 4	F060
Memory Base Address 5	DF333000

**[Features]**

Bus Mastering:	Enabled
Running At 66 MHz:	Capable
Fast Back-to-Back Transactions:	Capable

**[SATA Host Controller]**

Interface Speed Supported:	Gen3 6.0 Gbps
----------------------------	---------------

Number Of Ports:	3
External SATA Support:	Not Capable
Aggressive Link Power Management:	Capable
Staggered Spin-up:	Not Capable
Mechanical Presence Switch:	Not Capable
Command Queue Acceleration:	Capable
64-bit Addressing:	Capable
AHCI Status:	Enabled
AHCI Version:	1.31
Ports Implemented:	0, 1, 2

#### **[SATA Port#0]**

Port Status:	Device Present, Phy communication not established
Current Interface Speed:	Gen3 6.0 Gbps
External SATA Port:	Not Capable
Hot Plug:	Not Capable
Device Type:	SATA

#### **[SATA Port#1]**

Port Status:	Device Present, Phy communication not established
Current Interface Speed:	Gen1 1.5 Gbps
External SATA Port:	Not Capable
Hot Plug:	Not Capable
Device Type:	ATAPI

#### **[SATA Port#2]**

Port Status:	Phy in offline mode
External SATA Port:	Not Capable
Hot Plug:	Not Capable

#### **[Driver Information]**

Driver Manufacturer:	Intel Corporation
Driver Description:	Intel(R) 100 Series/C230 Chipset Family SATA AHCI Controller
Driver Provider:	Intel Corporation
Driver Version:	14.6.1.1030
Driver Date:	18-Aug-2015
DeviceInstanceId	PCI\VEN_8086&DEV_A103&SUBSYS_10601043&REV_31 \3&11583659&0&B8

## **Intel Skylake PCH-H - PCI Express Root Port #3 [D1]**

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#### **[General Information]**

Device Name:	Intel Skylake PCH-H - PCI Express Root Port #3 [D1]
Original Device Name:	Intel Skylake PCH-H - PCI Express Root Port #3 [D1]

**Device Class:****PCI-to-PCI Bridge**

Revision ID:

F1 [D1]

PCI Address (Bus:Device:Function) Number:

0:28:0

PCI Latency Timer:

0

Hardware ID:

PCI\VEN\_8086&amp;DEV\_A112&amp;SUBSYS\_00000000&amp;REV\_F1

**[PCI Express]**

Version:

3.0

Maximum Link Width:

1x

Current Link Width:

1x

Maximum Link Speed:

8.0 GT/s

Current Link Speed:

2.5 GT/s

Device/Port Type:

Root Port of PCI Express Root Complex

Slot Implemented:

Yes

Hot-Plug:

Not Capable

Hot-Plug Surprise:

Not Capable

Slot Power Limit:

10.000 W

Emergency Power Reduction:

Not Supported

Active State Power Management  
(ASPM) Support:

L1

Active State Power Management  
(ASPM) Status:

L1 Entry

L0s Exit Latency:

512 ns - 1 us

L1 Exit Latency:

8 - 16 us

Maximum Payload Size Supported:

256 bytes

Maximum Payload Size:

128 bytes

**[System Resources]**

Interrupt Line:

N/A

Interrupt Pin:

INTC#

**[Features]**

Bus Mastering:

Enabled

Running At 66 MHz:

Not Capable

Fast Back-to-Back Transactions:

Not Capable

**[Driver Information]**

Driver Manufacturer:

INTEL

Driver Description:

Intel(R) 100 Series/C230 Series Chipset Family PCI  
Express Root Port #3 - A112

Driver Provider:

INTEL

Driver Version:

10.1.1.11

Driver Date:

17-Aug-2015

DeviceInstanceId

PCI\VEN\_8086&DEV\_A112&SUBSYS\_10601043&REV\_F1  
\3&11583659&0&E0**PCI Express x1 Bus #2**

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## Intel Dual Band Wireless-AC 8260 AC 2x2 HMC WiFi Adapter

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### [General Information]

<b>Device Name:</b>	<b>Intel Dual Band Wireless-AC 8260 AC 2x2 HMC WiFi Adapter</b>
<b>Original Device Name:</b>	<b>Intel 8260 Tri-Band WiFi (Douglas Peak) Network Adapter</b>
<b>Device Class:</b>	<b>Unknown Network Adapter</b>
Revision ID:	3A
PCI Address (Bus:Device:Function) Number:	2:0:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_24F3&SUBSYS_00108086&REV_3A

### [PCI Express]

Version:	1.1
Maximum Link Width:	1x
Current Link Width:	1x
Maximum Link Speed:	2.5 GT/s
Current Link Speed:	2.5 GT/s
Device/Port Type:	PCI Express Endpoint
Slot Implemented:	No
Emergency Power Reduction:	Not Supported
Active State Power Management (ASPM) Support:	L1
Active State Power Management (ASPM) Status:	L1 Entry
L0s Exit Latency:	2 - 4 us
L1 Exit Latency:	4 - 8 us
Maximum Payload Size Supported:	128 bytes
Maximum Payload Size:	128 bytes

### [System Resources]

Interrupt Line:	N/A
Interrupt Pin:	INTA#
Memory Base Address 0	DF200000

### [Features]

Bus Mastering:	Enabled
Running At 66 MHz:	Not Capable
Fast Back-to-Back Transactions:	Not Capable

### [Driver Information]

Driver Manufacturer:	Intel Corporation
Driver Description:	Intel(R) Dual Band Wireless-AC 8260
Driver Provider:	Microsoft
Driver Version:	19.50.1.6
Driver Date:	01-Jun-2017
DeviceInstanceId	PCI\VEN_8086&DEV_24F3&SUBSYS_00108086&REV_3A\4&B6D4971&0&00E0

## Intel Skylake PCH-H - PCI Express Root Port #4 [D1]

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### [General Information]

<b>Device Name:</b>	<b>Intel Skylake PCH-H - PCI Express Root Port #4 [D1]</b>
<b>Original Device Name:</b>	<b>Intel Skylake PCH-H - PCI Express Root Port #4 [D1]</b>
<b>Device Class:</b>	<b>PCI-to-PCI Bridge</b>
Revision ID:	F1 [D1]
PCI Address (Bus:Device:Function) Number:	0:28:3
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_A113&SUBSYS_00000000&REV_F1

### [PCI Express]

Version:	3.0
Maximum Link Width:	1x
Current Link Width:	1x
Maximum Link Speed:	8.0 GT/s
Current Link Speed:	2.5 GT/s
Device/Port Type:	Root Port of PCI Express Root Complex
Slot Implemented:	Yes
Hot-Plug:	Not Capable
Hot-Plug Surprise:	Not Capable
Slot Power Limit:	10.000 W
Emergency Power Reduction:	Not Supported
Active State Power Management (ASPM) Support:	L1
Active State Power Management (ASPM) Status:	L1 Entry
L0s Exit Latency:	512 ns - 1 us
L1 Exit Latency:	8 - 16 us
Maximum Payload Size Supported:	256 bytes
Maximum Payload Size:	128 bytes

### [System Resources]

Interrupt Line:	N/A
Interrupt Pin:	INTD#

### **[Features]**

Bus Mastering:	Enabled
Running At 66 MHz:	Not Capable
Fast Back-to-Back Transactions:	Not Capable

### **[Driver Information]**

Driver Manufacturer:	INTEL
Driver Description:	Intel(R) 100 Series/C230 Series Chipset Family PCI Express Root Port #4 - A113
Driver Provider:	INTEL
Driver Version:	10.1.1.11
Driver Date:	17-Aug-2015
DeviceInstanceId	PCI\VEN_8086&DEV_A113&SUBSYS_10601043&REV_F1\3&11583659&0&E3

## **PCI Express x1 Bus #3**

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## **RealTek Semiconductor RTS5287 PCI-E Card Reader**

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### **[General Information]**

<b>Device Name:</b>	<b>RealTek Semiconductor RTS5287 PCI-E Card Reader</b>
<b>Original Device Name:</b>	<b>RealTek Semiconductor RTS5287 PCI-E Card Reader</b>
<b>Device Class:</b>	<b>Unknown</b>
Revision ID:	1
PCI Address (Bus:Device:Function) Number:	3:0:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_10EC&DEV_5287&SUBSYS_528710EC&REV_01

### **[PCI Express]**

Version:	1.1
Maximum Link Width:	1x
Current Link Width:	1x
Maximum Link Speed:	2.5 GT/s
Current Link Speed:	2.5 GT/s
Device/Port Type:	PCI Express Endpoint
Slot Implemented:	No
Emergency Power Reduction:	Not Supported
Active State Power Management (ASPM) Support:	L0s and L1

Active State Power Management (ASPM) Status:	L1 Entry
L0s Exit Latency:	>4 us
L1 Exit Latency:	32 - 64 us
Maximum Payload Size Supported:	128 bytes
Maximum Payload Size:	128 bytes

**[System Resources]**

Interrupt Line:	N/A
Interrupt Pin:	INTB#
Memory Base Address 0	DF115000

**[Features]**

Bus Mastering:	Enabled
Running At 66 MHz:	Not Capable
Fast Back-to-Back Transactions:	Not Capable

**[Driver Information]**

Driver Manufacturer:	Realtek Semiconduct Corp.
Driver Description:	Realtek PCIE CardReader
Driver Provider:	Realtek Semiconduct Corp.
Driver Version:	10.0.10143.21278
Driver Date:	01-Jul-2015
DeviceInstanceId	PCI\VEN_10EC&DEV_5287&SUBSYS_528710EC&REV_01\4&202967BF&0&00E3

**RealTek Semiconductor RTL8168/8111 PCI-E Gigabit Ethernet NIC**

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**[General Information]**

<b>Device Name:</b>	<b>RealTek Semiconductor RTL8168/8111 PCI-E Gigabit Ethernet NIC</b>
<b>Original Device Name:</b>	<b>RealTek Semiconductor RTL8168/8111 PCI-E Gigabit Ethernet NIC</b>
<b>Device Class:</b>	<b>Ethernet Adapter</b>
Revision ID:	12
PCI Address (Bus:Device:Function) Number:	3:0:1
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_10EC&DEV_8168&SUBSYS_200F1043&REV_12

**[PCI Express]**

Version:	1.1
Maximum Link Width:	1x
Current Link Width:	1x
Maximum Link Speed:	2.5 GT/s



Current Link Speed:	2.5 GT/s
Device/Port Type:	PCI Express Endpoint
Slot Implemented:	No
Emergency Power Reduction:	Not Supported
Active State Power Management (ASPM) Support:	L0s and L1
Active State Power Management (ASPM) Status:	L1 Entry
L0s Exit Latency:	>4 us
L1 Exit Latency:	32 - 64 us
Maximum Payload Size Supported:	128 bytes
Maximum Payload Size:	128 bytes

### **[System Resources]**

Interrupt Line:	N/A
Interrupt Pin:	INTA#
I/O Base Address 0	D000
Memory Base Address 2	DF114000
Memory Base Address 4	DF110000

### **[Features]**

Bus Mastering:	Enabled
Running At 66 MHz:	Not Capable
Fast Back-to-Back Transactions:	Not Capable

### **[Driver Information]**

Driver Manufacturer:	Realtek
Driver Description:	Realtek PCIe GBE Family Controller
Driver Provider:	Realtek
Driver Version:	10.3.723.2015
Driver Date:	23-Jul-2015
DeviceInstanceId	PCI\VEN_10EC&DEV_8168&SUBSYS_200F1043&REV_12 \4&202967BF&0&01E3

## **Intel HM170 PCH - LPC/eSPI Controller [D1]**

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### **[General Information]**

<b>Device Name:</b>	<b>Intel HM170 PCH - LPC/eSPI Controller [D1]</b>
<b>Original Device Name:</b>	<b>Intel HM170 PCH - LPC/eSPI Controller [D1]</b>
<b>Device Class:</b>	<b>PCI-to-ISA Bridge</b>
Revision ID:	31 [D1]
PCI Address (Bus:Device:Function) Number:	0:31:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_A14E&SUBSYS_10601043&REV_31

### **[System Resources]**

Interrupt Line:	N/A
Interrupt Pin:	N/A

### **[Features]**

Bus Mastering:	Enabled
Running At 66 MHz:	Not Capable
Fast Back-to-Back Transactions:	Not Capable

### **[Driver Information]**

Driver Manufacturer:	INTEL
Driver Description:	Intel(R) 100 Series/C230 Series Chipset Family LPC Controller - A14E
Driver Provider:	INTEL
Driver Version:	10.1.1.11
Driver Date:	17-Aug-2015
DeviceInstanceId	PCI\VEN_8086&DEV_A14E&SUBSYS_10601043&REV_31\3&11583659&0&F8

## **Intel Skylake PCH-H - Power Management Controller [D1]**

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### **[General Information]**

<b>Device Name:</b>	<b>Intel Skylake PCH-H - Power Management Controller [D1]</b>
<b>Original Device Name:</b>	<b>Intel Skylake PCH-H - Power Management Controller [D1]</b>
<b>Device Class:</b>	<b>Unknown Memory</b>
Revision ID:	31 [D1]
PCI Address (Bus:Device:Function) Number:	0:31:2
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_A121&SUBSYS_10601043&REV_31

### **[System Resources]**

Interrupt Line:	N/A
Interrupt Pin:	N/A
Memory Base Address 0	DF32C000

### **[Features]**

Bus Mastering:	Enabled
Running At 66 MHz:	Not Capable
Fast Back-to-Back Transactions:	Not Capable

### **[Driver Information]**

Driver Manufacturer:	INTEL
Driver Description:	Intel(R) 100 Series/C230 Series Chipset Family PMC - A121

Driver Provider:	INTEL
Driver Version:	10.1.1.11
Driver Date:	17-Aug-2015
DeviceInstanceId	PCI\VEN_8086&DEV_A121&SUBSYS_10601043&REV_31 \3&11583659&0&FA

## Intel Skylake PCH-H - High Definition Audio Controller

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### [General Information]

<b>Device Name:</b>	<b>Intel Skylake PCH-H - High Definition Audio Controller</b>
<b>Original Device Name:</b>	<b>Intel Skylake PCH-H - High Definition Audio Controller</b>
<b>Device Class:</b>	<b>Mixed mode device</b>
Revision ID:	31
PCI Address (Bus:Device:Function) Number:	0:31:3
PCI Latency Timer:	32
Hardware ID:	PCI\VEN_8086&DEV_A170&SUBSYS_10601043&REV_31

### [System Resources]

Interrupt Line:	IRQ16
Interrupt Pin:	INTA#
Memory Base Address 0	DF328000
Memory Base Address 4	DF300000

### [Features]

Bus Mastering:	Enabled
Running At 66 MHz:	Not Capable
Fast Back-to-Back Transactions:	Not Capable

### [Driver Information]

Driver Manufacturer:	Microsoft
Driver Description:	High Definition Audio Controller
Driver Provider:	Microsoft
Driver Version:	10.0.16299.15
Driver Date:	28-Sep-2017
DeviceInstanceId	PCI\VEN_8086&DEV_A170&SUBSYS_10601043&REV_31 \3&11583659&0&FB

## Intel Skylake PCH-H - SMBus Host Controller [D1]

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### [General Information]

<b>Device Name:</b>	<b>Intel Skylake PCH-H - SMBus Host Controller [D1]</b>
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<b>Original Device Name:</b>	<b>Intel Skylake PCH-H - SMBus Host Controller [D1]</b>
<b>Device Class:</b>	<b>SMBus (System Management Bus)</b>
Revision ID:	31 [D1]
PCI Address (Bus:Device:Function) Number:	0:31:4
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_A123&SUBSYS_10601043&REV_31

**[System Resources]**

Interrupt Line:	N/A
Interrupt Pin:	INTA#
Memory Base Address 0	DF332000
I/O Base Address 4	F040

**[Features]**

Bus Mastering:	Disabled
Running At 66 MHz:	Not Capable
Fast Back-to-Back Transactions:	Capable

**[Driver Information]**

Driver Manufacturer:	INTEL
Driver Description:	Intel(R) 100 Series/C230 Series Chipset Family SMBus - A123
Driver Provider:	INTEL
Driver Version:	10.1.1.11
Driver Date:	17-Aug-2015
DeviceInstanceId	PCI\VEN_8086&DEV_A123&SUBSYS_10601043&REV_31\3&11583659&0&FC

## Video Adapter

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## Intel HD Graphics 530

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**[Video chipset]**

<b>Video Chipset:</b>	<b>Intel HD Graphics 530</b>
<b>Video Chipset Codename:</b>	<b>Skylake-H GT2</b>
Video Memory:	1024 MBytes

**[Video Card]**

<b>Video Card:</b>	<b>Intel HD Graphics 530 (Skylake-H GT2) - Integrated Graphics Controller [S0/R0] [AsusTek]</b>
Video Bus:	Integrated
Video RAMDAC:	Internal

Video BIOS Version: Unknown

### [Performance]

Memory Clock: 1064.0 MHz

Hardware ID: PCI\VEN\_8086&DEV\_191B&SUBSYS\_10601043&REV\_06  
PCI Location (Bus:Dev:Fnc): 0:02:0

### [Driver Information]

Driver Manufacturer: Intel Corporation  
Driver Description: Intel(R) HD Graphics 530  
Driver Provider: Intel Corporation  
Driver Version: 21.20.16.4550  
Driver Date: 11-Nov-2016  
DeviceInstanceId: PCI\VEN\_8086&DEV\_191B&SUBSYS\_10601043&REV\_06  
\3&11583659&0&10

## NVIDIA GeForce GTX 950M

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### [Video chipset]

**Video Chipset:** NVIDIA GeForce GTX 950M  
**Video Chipset Codename:** GM107M  
Video Memory: 4096 MBytes of GDDR5 SDRAM [Samsung]

### [Video Card]

**Video Card:** NVIDIA GeForce GTX 950M [ASUS]  
Video Bus: PCIe v3.0 x16 (8.0 GT/s) @ x16 (2.5 GT/s)  
Video BIOS Version: 82.07.97.00.0a  
Video Chipset Revision: A2

### [Performance]

Processor Clock: 405.0 MHz  
Video Unit Clock: 405.0 MHz  
Memory Clock: 202.5 MHz (Effective 810.0 MHz)  
Memory Bus Width: 128-bit  
Number Of ROPs: 16  
Number Of Unified Shaders: 640  
Number Of TMUs (Texture Mapping Units): 40

ASIC Quality: 78.8 %

NVIDIA SLI Capability: Capable

Hardware ID: PCI\VEN\_10DE&DEV\_139A&SUBSYS\_10601043&REV\_A2

PCI Location (Bus:Dev:Fnc):	1:00:0
<b>[Driver Information]</b>	
Driver Manufacturer:	NVIDIA
Driver Description:	NVIDIA GeForce GTX 950M
Driver Provider:	NVIDIA
Driver Version:	23.21.13.8800 (GeForce 388.0)
Driver Date:	12-Oct-2017
DeviceInstanceId	PCI\VEN_10DE&DEV_139A&SUBSYS_10601043&REV_A2 \4&720F58F&0&0008

## Monitor

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### AU Optronics [Unknown Model: AUO38ED]

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<b>[General information]</b>	
<b>Monitor Name:</b>	<b>AU Optronics [Unknown Model: AUO38ED]</b>
<b>Monitor Name (Manuf):</b>	<b>AUO B156HTN03.8</b>
Serial Number:	Unknown
Date Of Manufacture:	Week: 43, Year: 2014
Monitor Hardware ID:	Monitor\AUO38ED
Max. Vertical Size:	19 cm
Max. Horizontal Size:	34 cm

<b>[Advanced parameters]</b>	
Input Signal:	Digital
Color Bit Depth:	6 Bits per Primary Color
Digital Video Interface Standard Supported:	DisplayPort
Display Type:	Monochrome/grey scale
Gamma Factor:	2.20

<b>[DPMS Modes]</b>	
Standby:	Not Supported
Suspend:	Not Supported
Active Off:	Not Supported
Standard Colour Space:	Not Supported
Preferred Timing Mode:	Supported
Default GTF Supported:	Not Supported
DFP 1.x Compatible:	Yes

### [Supported Video Modes]

1920 x 1080

344 x 193 mm, Pixel Clock 142.00 MHz

## Drives

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## Floppy Drives

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## 1.44 MB 3 1/2

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## (S)ATA/ATAPI Drives

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## HGST HTS721010A9E630

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### [General Information]

Drive Controller:	Serial ATA 6Gb/s @ 6Gb/s
<b>Drive Model:</b>	<b>HGST HTS721010A9E630</b>
Drive Revision:	JB00A3J0
Drive Serial Number:	JR10004M37HPJE
World Wide Name:	5000CCA8A8EDB006
<b>Drive Capacity:</b>	<b>953,869 MBytes (1000 GB)</b>
<b>Drive Capacity [MB]:</b>	<b>953869</b>
<b>Media Rotation Rate:</b>	<b>7200 RPM</b>
Nominal Form Factor:	2.5"
ATA Major Version Supported:	ATA/ATAPI-5, ATA/ATAPI-6, ATA/ATAPI-7, ATA8-ACS
ATA Minor Version Supported:	ATA8-ACS version 6
ATA Transport Version Supported:	SATA 3.0

### [Drive Geometry]

Number of Cylinders:	16383
Number of Heads:	16
Sectors Per Track:	63
Number Of ECC Bytes:	4

Number of Sectors:	16514064
Total 32-bit LBA Sectors:	268435455
Total 48-bit LBA Sectors:	1953525168
Logical Sector Size:	512 Bytes
Cache Buffer Size:	32768 KBytes
Controller Type:	Dual Ported, Multiple Sector Buffer, Read Cache

### **[Transfer Modes]**

Sectors Per Interrupt:	Total: 16, Active: 16
Max. PIO Transfer Mode:	4
Multiword DMA Mode:	Total: 2, Active: -
Singleword DMA Mode:	Total: -, Active: -
Ultra-DMA Mode:	Total: 6 (ATA-133), Active: 6 (ATA-133)
Max. Multiword DMA Transfer Rate:	16.7 MBytes/s
Max. PIO with IORDY Transfer Rate:	16.7 MBytes/s
Max. PIO w/o IORDY Transfer Rate:	16.7 MBytes/s
Native Command Queuing:	Supported, Max. Depth: 32
TRIM Command:	Not Supported

### **[Device flags]**

Fixed Drive:	Present
Removable Drive:	Not Present
Magnetic Storage:	Present
LBA Mode:	Supported
DMA Mode:	Supported
IORDY:	Supported
IORDY Disableable:	Supported

### **[Features]**

Write Cache:	Present, Active
S.M.A.R.T. Feature:	Present, Active
Security Feature:	Present, Inactive
Removable Media Feature:	Not Present, Disabled
Power Management:	Present, Active
Advanced Power Management:	Present, Active
Packet Interface:	Not Present, Disabled
Look-Ahead Buffer:	Present, Active
Host Protected Area:	Present, Enabled
Power-Up In Standby:	Supported, Inactive
Automatic Acoustic Management:	Not Supported, Inactive
48-bit LBA:	Supported, Active
Host-Initiated Link Power Management:	Supported
Device-Initiated Link Power Management:	Supported, Enabled
In-Order Data Delivery:	Supported, Disabled
Hardware Feature Control:	Not Supported
Software Settings Preservation:	Supported, Disabled
NCQ Autosense:	Not Supported
Link Power State Device Sleep:	Not Supported
Hybrid Information Feature:	Not Supported
Rebuild Assist:	Not Supported



Power Disable:	Not Supported
All Write Cache Non-Volatile:	Not Supported
Extended Number of User Addressable Sectors:	Not Supported
CFast Specification:	Not Supported
NCQ Priority Information:	Supported
Host Automatic Partial to Slumber Transitions:	Not Supported
Device Automatic Partial to Slumber Transitions:	Not Supported
NCQ Streaming:	Not Supported
NCQ Queue Management Command:	Not Supported
DevSleep to Reduced Power State:	Not Supported
Extended Power Conditions Feature:	Not Supported
Sense Data Reporting Feature:	Not Supported
Free-Fall Control Feature:	Not Supported
Write-Read-Verify Feature:	Not Supported

### **[Security]**

Security Feature:	Supported
Security Status:	Disabled
Security Locked:	Disabled
Security Frozen:	Enabled
Enhanced Security Erase:	Supported
Sanitize Feature:	Not Supported
Sanitize Device - Crypto Scramble:	Not Supported
Sanitize Device - Overwrite:	Not Supported
Sanitize Device - Block Erase:	Not Supported
Sanitize Device - Antifreeze Lock:	Not Supported
Device Encrypts All User Data:	Not Supported
Trusted Computing:	Not Supported

### **[Self-Monitoring, Analysis and Reporting Technology (S.M.A.R.T.)]**

[01] Raw Read Error Rate:	100/62, Worst: 100
[02] Throughput Performance:	100/40, Worst: 100
[03] Spin Up Time:	125/33, Worst: 125 (Data = 2,22)
[04] Start/Stop Count:	99/Always OK, Worst: 99 (Data = 1800,0)
[05] Reallocated Sector Count:	100/5, Worst: 100
[07] Seek Error Rate:	100/67, Worst: 100
[08] Seek Time Performance:	100/40, Worst: 100
[09] Power-On Hours/Cycle Count:	94/Always OK, Worst: 94 (2892 hours / 120.5 days)
[0A] Spin Retry Count:	100/60, Worst: 100
[0C] Power Cycle Count:	99/Always OK, Worst: 99 (Data = 1799,0)
[BF] G-Sense Error Rate:	100/Always OK, Worst: 100
[C0] Power-Off Retract Count:	100/Always OK, Worst: 100 (Data = 42,0)
[C1] Load/Unload Cycle Count:	99/Always OK, Worst: 99 (Data = 13831,0)
[C2] Temperature	222/Always OK, Worst: 222 (27.0 °C)
[C4] Reallocation Event Count:	100/Always OK, Worst: 100
[C5] Current Pending Sector Count:	100/Always OK, Worst: 100
[C6] Off-Line Uncorrectable Sector Count:	100/Always OK, Worst: 100
[C7] UltraDMA/SATA CRC Error Rate:	200/Always OK, Worst: 200
[DF] Load/Unload Retry Count:	100/Always OK, Worst: 100

## SlimtypeDVD A DA8AESH

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### [General Information]

<b>Drive Model:</b>	<b>SlimtypeDVD A DA8AESH</b>
Drive Revision:	XAA1
Drive Serial Number:	3508A17 426627510498
Serial Number:	3733508A17 426627510498
Drive Type:	DVD+R DL
Drive Controller:	Serial ATA 1.5Gb/s

### [Transfer Modes]

Max. PIO Transfer Mode:	4
Multiword DMA Mode:	Total: 2, Active: -
Singleword DMA Mode:	Total: -, Active: -
Ultra-DMA Mode:	Total: 6 (ATA-133), Active: 6 (ATA-133)
Max. Multiword DMA Transfer Rate:	16.7 MBytes/s
Max. PIO with IORDY Transfer Rate:	16.7 MBytes/s
Max. PIO w/o IORDY Transfer Rate:	16.7 MBytes/s

### [Device flags]

Fixed Drive:	Present
Removable Drive:	Present
Magnetic Storage:	Not Present
LBA Mode:	Supported
DMA Mode:	Supported
IORDY:	Supported
IORDY Disableable:	Supported

### [Device capabilities]

Drive can read:	CD-R, CD-RW, DVD-R, DVD-RW, DVD+R, DVD+RW, DVD+R DL
Drive can write:	CD-RW, DVD-R, DVD-RW, DVD+R, DVD+RW, DVD+R DL

## Audio

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## Intel Skylake PCH-H - High Definition Audio Controller

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<b>Audio Adapter:</b>	<b>Intel Skylake PCH-H - High Definition Audio Controller</b>
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Audio Controller Hardware ID: PCI\VEN\_8086&DEV\_A170&SUBSYS\_10601043&REV\_31

High Definition Audio Codec: Conexant

Audio Codec Hardware ID: HDAUDIO\FUNC\_01&VEN\_14F1&DEV\_510F&SUBSYS\_00000000

#### **[Driver Information]**

Driver Manufacturer: Conexant

Driver Description: Conexant SmartAudio HD

Driver Provider: Conexant

Driver Version: 8.66.30.60

Driver Date: 12-Apr-2016

DeviceInstanceId: HDAUDIO\FUNC\_01&VEN\_14F1&DEV\_510F&SUBSYS\_10431C5D&REV\_1001\4&10B1C7DE&0&0001

## **Network**

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### **Intel Dual Band Wireless-AC 8260 AC 2x2 HMC WiFi Adapter**

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#### **[General information]**

**Network Card:** Intel Dual Band Wireless-AC 8260 AC 2x2 HMC WiFi Adapter

**Vendor Description:** Microsoft

MAC Address: CE-11-D6-15-D2-71

#### **[Capabilities]**

Maximum Link Speed: 135 Mbps

Transmit Buffer Size: 9 Bytes

Receive Buffer Size: 9 Bytes

Hardware ID: PCI\VEN\_8086&DEV\_24F3&SUBSYS\_00108086&REV\_3A

#### **[Driver Information]**

Driver Manufacturer: Intel Corporation

Driver Description: Intel(R) Dual Band Wireless-AC 8260

Driver Provider: Microsoft

Driver Version: 19.50.1.6

Driver Date: 01-Jun-2017

DeviceInstanceId: PCI\VEN\_8086&DEV\_24F3&SUBSYS\_00108086&REV\_3A\4&B6D4971&0&00E0

## **RealTek Semiconductor RTL8168/8111 PCI-E Gigabit Ethernet NIC**

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### ***[General information]***

**Network Card:**

**RealTek Semiconductor RTL8168/8111 PCI-E  
Gigabit Ethernet NIC**

**Vendor Description:**

**Realtek PCIe GBE Family Controller**

MAC Address:

38-D5-47-8B-A4-A3

### ***[Capabilities]***

Maximum Link Speed:

1000 Mbps

Transmit Buffer Size:

193792 Bytes

Receive Buffer Size:

775168 Bytes

Hardware ID:

PCI\VEN\_10EC&DEV\_8168&SUBSYS\_200F1043&REV\_12

### ***[Driver Information]***

Driver Manufacturer:

Realtek

Driver Description:

Realtek PCIe GBE Family Controller

Driver Provider:

Realtek

Driver Version:

10.3.723.2015

Driver Date:

23-Jul-2015

DeviceInstanceId

PCI\VEN\_10EC&DEV\_8168&SUBSYS\_200F1043&REV\_12  
\4&202967BF&0&01E3

## **Ports**

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## **Serial Ports**

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## **Parallel Ports**

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## **USB**

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## **USB xHCI Compliant Host Controller**

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## Root Hub

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**[Port1] : No Device Connected**

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**[Port2] : No Device Connected**

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**[Port3] : No Device Connected**

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**[Port4] : USB Composite Device**

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### **[Device Information]**

Device Manufacturer:	TwinHan Technology
Product Name:	-
Serial Number:	-
USB Version Supported:	2.00
USB Device Speed:	USB 2.0 High-speed
Driver Description:	USB Composite Device
Hardware ID:	USB\VID_13D3&PID_5654

### **[Driver Information]**

Driver Manufacturer:	(Standard USB Host Controller)
Driver Description:	USB Composite Device
Driver Provider:	Microsoft
Driver Version:	10.0.16299.15
Driver Date:	21-Jun-2006
DeviceInstanceId	USB\VID_13D3&PID_5654\NULL

## **[Port5] : No Device Connected**

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## **[Port6] : USB Composite Device**

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### **[Device Information]**

Device Manufacturer:	Logitech
Product Name:	Dell Wireless Mouse WM123
Serial Number:	N/A
USB Version Supported:	2.00
USB Device Speed:	USB 1.1 Full-speed
Driver Description:	USB Composite Device
Hardware ID:	USB\VID_046D&PID_C535

### **[Driver Information]**

Driver Manufacturer:	(Standard USB Host Controller)
Driver Description:	USB Composite Device
Driver Provider:	Microsoft
Driver Version:	10.0.16299.15
Driver Date:	21-Jun-2006
DeviceInstanceId	USB\VID_046D&PID_C535\5&16BDD27B&0&6

## **[Port7] : No Device Connected**

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## **[Port8] : No Device Connected**

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## **[Port9] : Intel(R) Wireless Bluetooth(R)**

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### **[Device Information]**

Device Manufacturer:	Intel
Product Name:	-
Serial Number:	-
USB Version Supported:	2.00

USB Device Speed:	USB 1.1 Full-speed
Driver Description:	Intel(R) Wireless Bluetooth(R)
Hardware ID:	USB\VID_8087&PID_0A2B

***[Driver Information]***

Driver Manufacturer:	Intel Corporation
Driver Description:	Intel(R) Wireless Bluetooth(R)
Driver Provider:	Intel Corporation
Driver Version:	19.10.1635.483
Driver Date:	02-Sep-2016
DeviceInstanceId	USB\VID_8087&PID_0A2B\5&16BDD27B&0&9

**[Port10] : No Device Connected**

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**[Port11] : No Device Connected**

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**[Port12] : No Device Connected**

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**[Port13] : No Device Connected**

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**[Port14] : No Device Connected**

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**[Port15] : No Device Connected**

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**[Port16] : No Device Connected**

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**[Port17] : No Device Connected**

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**[Port18] : No Device Connected**

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**[Port19] : No Device Connected**

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**[Port20] : No Device Connected**

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**[Port21] : No Device Connected**

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**[Port22] : No Device Connected**

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**[Port23] : No Device Connected**

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**[Port24] : No Device Connected**

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## Smart Battery

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### Battery #0

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#### ***[General Properties]***

Device Name:	ASUS Battery
Manufacturer Name:	ASUSTeK
Serial Number:	
Unique ID:	ASUSTeKASUS Battery
Chemistry:	
Designed Capacity:	48240 mWh
Full Charged Capacity:	31219 mWh
Wear Level:	35.3 %
Cycle Count:	187

#### ***[Current Power Status]***

Power Status:	Discharging
Current Capacity:	27604 mWh (88.4 %)
Current Voltage:	14.400 V
Discharge Rate:	-35121 mW