

# HWiNFO64 v7.14-4610

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Content:

- [CPU](#)
- [Motherboard](#)
- [Memory](#)
- [Bus](#)
- [Video](#)
- [Monitor](#)
- [Drives](#)
- [Audio](#)
- [Network](#)
- [Ports](#)

## DESKTOP-BOEJEBM

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### [Current Computer]

**Computer Name:** DESKTOP-BOEJEBM

### [Operating System]

Operating System:	Microsoft Windows 10 Home (x64) Build 19042.1348 (20H2)
UEFI Boot:	Not Present
Secure Boot:	Not Capable
Hypervisor-protected Code Integrity (HVCI):	Disabled

## Central Processor(s)

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### [CPU Unit Count]

<b>Number Of Processor Packages (Physical):</b>	<b>1</b>
<b>Number Of Processor Cores:</b>	<b>4</b>
<b>Number Of Logical Processors:</b>	<b>4</b>

## Intel Core i5-3570K

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### [General Information]

<b>Processor Name:</b>	<b>Intel Core i5-3570K</b>
<b>Original Processor Frequency:</b>	<b>3400.0 MHz</b>
<b>Original Processor Frequency [MHz]:</b>	<b>3400</b>

CPU ID:	000306A9
CPU Brand Name:	Intel(R) Core(TM) i5-3570K CPU @ 3.40GHz

CPU Vendor:	GenuineIntel
CPU Stepping:	E1
CPU Code Name:	Ivy Bridge-DT
CPU Technology:	22 nm
CPU S-Spec:	SR0PM
CPU Thermal Design Power (TDP):	77.0 W
CPU IA Cores Thermal Design Current (TDC):	150.0 A
CPU GT Cores Thermal Design Current (TDC):	46.0 A
CPU Power Limits (Max):	Power = Unlimited, Time = Unlimited
CPU Power Limit 1 - Long Duration:	Power = 77.00 W, Time = 1.00 sec [Unlocked]
CPU Power Limit 2 - Short Duration:	Power = 96.25 W, Time = Unlimited [Unlocked]
CPU Max. Junction Temperature (Tj,max):	105 °C
CPU Type:	Production Unit
CPU Platform:	Socket H2 (LGA1155)
Microcode Update Revision:	21
Number of CPU Cores:	4
Number of Logical CPUs:	4

### ***[Operating Points]***

CPU LFM (Minimum):	1600.0 MHz = 16 x 100.0 MHz
CPU HFM (Base):	3400.0 MHz = 34 x 100.0 MHz
CPU Turbo Max:	3800.0 MHz = 38 x 100.0 MHz [Unlocked]
Turbo Ratio Limits:	38x (1-2c), 37x (3c), 36x (4c)
CPU Current:	3699.9 MHz = 37 x 100.0 MHz @ 1.2810 V

CPU Bus Type:	Intel Direct Media Interface (DMI) v2.0
Maximum DMI Link Speed:	5.0 GT/s
Current DMI Link Speed:	5.0 GT/s
Number of Overclocking Bins:	Unlimited

### ***[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)	Not Present
Carryless Multiplication (PCLMULQDQ)/GFMUL	Present
CMPXCHG16B Support	Present
MOVBE Instruction	Not 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	Not 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	Not 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	Not Present
No Execute	Present
SYSCALL/SYSRET Support	Present
Bit Manipulation Instructions Set 1	Not Present
Bit Manipulation Instructions Set 2	Not Present
Advanced Vector Extensions 2 (AVX2)	Not Present
Advanced Vector Extensions 512 (AVX-512) Foundation	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	Not Present

Instructions	
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	Not Present
Supervisor Mode Execution Protection (SMEP)	Present
Supervisor Mode Access Prevention (SMAP)	Not Present
Hardware Lock Elision (HLE)	Not Present
Restricted Transactional Memory (RTM)	Not Present
Memory Protection Extensions (MPX)	Not Present
Read/Write FS/GS Base Instructions	Present
Enhanced Performance String Instruction	Present
INVPID Instruction	Not Present
RDSEED Instruction	Not Present
Multi-precision Add Carry Instructions (ADX)	Not Present
PCOMMIT Instructions	Not Present
CLFLUSHOPT Instructions	Not Present
CLWB Instructions	Not Present
TSC_THREAD_OFFSET	Not 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	Not Present
Intel Processor Trace	Not 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	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
Wait and Pause Enhancements (WAITPKG)	Not Present
Total Memory Encryption	Not Present
Key Locker	Not Present
57-bit Linear Addresses, 5-level Paging	Not Present
Read Processor ID	Not Present
Cache Line Demote	Not Present
MOVDIRI: Direct Stores	Not Present
MOVDIR64B: Direct Stores	Not Present
ENQCMD: Enqueue Stores	Not Present
SGX Launch Configuration	Not Present
Protection Keys for Supervisor-Mode Pages	Not Present
Control-Flow Enforcement Technology (CET)	Not Present
Shadow Stack	
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
Fast Short REP MOV	Not Present
User Interrupts	Not Present
AVX-512 VP2INTERSECT Support	Not Present
AVX-512 FP16	Not Present
MD_CLEAR Support	Present
SERIALIZE	Not Present

Hybrid Processor	Not Present
TSX Suspend Load Address Tracking	Not Present
Platform Configuration (PCONFIG)	Not Present
Indirect Branch Restricted Speculation (IBRS), Indirect Branch Predictor Barrier (IBPB)	Present
Single Thread Indirect Branch Predictors (STIBP)	Present
L1D_FLUSH Support	Present
IA32_ARCH_CAPABILITIES MSR	Not Present
IA32_CORE_CAPABILITIES MSR	Not Present
Speculative Store Bypass Disable (SSBD)	Present
Control-Flow Enforcement Technology (CET) Indirect Branch Tracking	Not Present
Advanced Matrix Extensions (AMX) Tile Architecture	Not Present
Advanced Matrix Extensions (AMX) bfloat16 Support	Not Present
Advanced Matrix Extensions (AMX) 8-bit Integer Operations	Not Present
AVX (VEX-encoded) Vector Neural Network Instructions	Not Present
AVX-512 BFLOAT16 Instructions	Not Present
Fast Zero-Length MOVSB	Not Present
Fast Short STOSB	Not Present
Fast Short CMPSB, SCASB	Not Present
History Reset	Not Present
Linear Address Masking	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:	Not Supported
Intel Speed Select:	Not Supported

### **[CPU IVB Features]**

Internal Graphics:	Supported
PEG Gen2 (5.0 GT/s):	Supported
DMI Gen2 (5.0 GT/s):	Supported
DMI Width:	x2
VT-d:	Not Supported
ECC:	Not Supported
DDR Overclocking:	Supported
IA Overclocking:	Supported
On-die DDR Write Vref Generation:	Supported
DDR3L:	Not Supported
DDR Write Vref:	Supported
Dual Channel:	Supported
2 DIMMS per Channel:	Supported
Camarillo Device:	Not Supported
Full ULT Information:	Supported

DDR 1N Mode Timings:	Supported
PEG x16 Port:	Supported
Link width upconfig:	Supported
DDR3 Frequency Support (133 MHz RefClk):	800 MHz (DDR3-1600)
DDR3 Frequency Support (100 MHz RefClk):	800 MHz (DDR3-1600)
Memory Size per Channel:	Unlimited (16GB)
Additive Graphics:	Supported
Additive Graphics:	Disabled
PAVP:	Enabled
HDCP:	Supported
PCIe Gen 3:	Supported
Soft Bin:	Not Supported
SMT:	Not Supported

### [Memory Ranges]

Maximum Physical Address Size:	36-bit (64 GBytes)
Maximum Virtual Address Size:	48-bit (256 TBytes)

### [MTRRs]

Range 0-400000000 (0MB-16384MB) Type:	Write Back (WB)
Range 400000000-410000000 (16384MB-16640MB) Type:	Write Back (WB)
Range 410000000-418000000 (16640MB-16768MB) Type:	Write Back (WB)
Range 418000000-41C000000 (16768MB-16832MB) Type:	Write Back (WB)
Range 41C000000-41E000000 (16832MB-16864MB) Type:	Write Back (WB)
Range 41E000000-41F000000 (16864MB-16880MB) Type:	Write Back (WB)
Range E0000000-100000000 (3584MB-4096MB) Type:	Uncacheable (UC)

## Motherboard

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### [Computer]

Computer Brand Name:	Unknown on Noname
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### [Motherboard]

<b>Motherboard Model:</b>	<b>ASRock Z77 Pro4</b>
<b>Motherboard Chipset:</b>	<b>Intel Z77 (Panther Point DH)</b>
Motherboard Slots:	3xPCI, 4xPCI Express x1, 1xPCI Express x4, 2xPCI Express x16
PCI Express Version Supported:	v3.0
USB Version Supported:	v3.0

### [PCH Features]

USB Port Count:	14 ports
RAID Capability:	RAID0/1/5/10 + Smart Response Technology
SATA Ports 2 and 3:	Supported
SATA Port 1 6 Gb/s:	Supported
SATA Port 0 6 Gb/s:	Supported
PCI Interface:	Not Supported
PCI Express Ports 5 and 6:	Supported
USB Redirect (USBBr):	Not Supported
Intel Anti-Theft Technology:	Not Supported

PCI Express Ports 7 and 8:	Supported
PCH Integrated Graphics Support:	Supported
Data Center Manageability Interface (DCMI):	Supported
Node Manager:	Supported

**[BIOS]**

BIOS Manufacturer:	American Megatrends
BIOS Date:	07/11/2013
BIOS Version:	P1.80
UEFI BIOS:	Capable
Super-IO/LPC Chip:	Winbond/Nuvoton NCT6776
Trusted Platform Module (TPM) Chip:	Not Found

## ACPI Devices

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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:	0454 - 0457
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**[Alternative 1]**

I/O Port:	0454 - 0457
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## Programmable interrupt controller

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Device Name:	Programmable interrupt controller
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**[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

## **Direct memory access controller**

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Device Name:

Direct memory access controller

### **[Assigned Resources]**

I/O Port:

0000 - 001F

### **[Alternative 1]**

I/O Port:

0000 - 001F

I/O Port:

0081 - 0091

I/O Port:

0093 - 009F

I/O Port:

00C0 - 00DF

DMA:

4

## **Kommunikationsanschluss**

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Device Name:

Kommunikationsanschluss

### **[Assigned Resources]**

I/O Port:

03F8 - 03FF

### **[Alternative 1]**

I/O Port:

03F8 - 03FF

IRQ:

4

### **[Alternative 2]**

I/O Port:

03F8 - 03FF

IRQ:

4

### **[Alternative 3]**

I/O Port:

02F8 - 02FF

IRQ:

3

### **[Alternative 4]**

I/O Port:

03E8 - 03EF

IRQ:

4

### **[Alternative 5]**

I/O Port:

02E8 - 02EF

IRQ:

3

## **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:	000D4000 - 000D3FFF
Memory Location:	000DC000 - 000DFFFF

***[Alternative 1]***

I/O Port:	0000 - 0CF7
I/O Port:	0D00 - FFFF
Memory Location:	000A0000 - 000BFFFF
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:	E0000000 - FEFFFFFF

## System CMOS/real time clock

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Device Name:	System CMOS/real time clock
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***[Assigned Resources]***

I/O Port:	0070 - 0077
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***[Alternative 1]***

I/O Port:	0070 - 0077
IRQ:	8

## System board

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Device Name:	System board
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***[Assigned Resources]***

Memory Location:	FED40000 - FED44FFF
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***[Alternative 1]***

Memory Location:	FED40000 - FED44FFF
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## Motherboard resources

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Device Name: Motherboard resources

**[Assigned Resources]**

Memory Location: FED1C000 - FED1FFFF  
Memory Location: F8000000 - FBFFFFFF  
Memory Location: FF000000 - FFFFFFFF

**[Alternative 1]**

Memory Location: FED1C000 - FED1FFFF  
Memory Location: FED10000 - FED17FFF  
Memory Location: FED18000 - FED18FFF  
Memory Location: FED19000 - FED19FFF  
Memory Location: F8000000 - FBFFFFFF  
Memory Location: FED20000 - FED3FFFF  
Memory Location: FED90000 - FED93FFF  
Memory Location: FED45000 - FED8FFFF  
Memory Location: FF000000 - FFFFFFFF  
Memory Location: FEE00000 - FEEFFFFF  
Memory Location: F0100000 - F0100FFF

**Motherboard resources**

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Device Name: Motherboard resources

**[Assigned Resources]**

I/O Port: 0010 - 001F  
I/O Port: 0065 - 006F  
I/O Port: 0088  
Memory Location: 00000000 - 0000008F

**[Alternative 1]**

I/O Port: 0010 - 001F  
I/O Port: 0022 - 003F  
I/O Port: 0044 - 005F  
I/O Port: 0062 - 0063  
I/O Port: 0065 - 006F  
I/O Port: 0072 - 007F  
I/O Port: 0080  
I/O Port: 0084 - 0086  
I/O Port: 0088  
I/O Port: 008C - 008E  
I/O Port: 0090 - 009F  
I/O Port: 00A2 - 00BF  
I/O Port: 00E0 - 00EF  
I/O Port: 04D0 - 04D1

**Motherboard resources**

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

I/O Port:	0290 - 029F
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***[Alternative 1]***

I/O Port:	0290 - 029F
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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
I/O Port:	0000 - 03FF
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:	1000 - 100F
I/O Port:	FFFF
I/O Port:	FFFF
I/O Port:	0400 - 0453
I/O Port:	0458 - 047F
I/O Port:	0500 - 057F
I/O Port:	164E - 164F

## Numeric data processor

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Device Name:	Numeric data processor
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### **[Assigned Resources]**

I/O Port:	00F0 - 00FF
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### **[Alternative 1]**

I/O Port:	00F0 - 00FF
IRQ:	13

## **SMBIOS DMI**

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## **BIOS**

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BIOS Vendor:	American Megatrends Inc.
BIOS Version:	P1.80
BIOS Release Date:	07/11/2013
BIOS Start Segment:	F000
BIOS Size:	8192 KBytes

System BIOS Version:	4.6
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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
IEE1394 Boot Support:	Not Present
Smart Battery Support:	Not 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:	To Be Filled By O.E.M.
Product Name:	To Be Filled By O.E.M.
Product Version:	To Be Filled By O.E.M.
Product Serial Number:	To Be Filled By O.E.M.
SKU Number:	To Be Filled By O.E.M.
Family:	To Be Filled By O.E.M.

## Mainboard

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Mainboard Manufacturer:	ASRock
Mainboard Name:	Z77 Pro4
Mainboard Version:	
Mainboard Serial Number:	
Asset Tag:	
Location in chassis:	

## System Enclosure

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Manufacturer:	To Be Filled By O.E.M.
Case Type:	Desktop
Version:	To Be Filled By O.E.M.
Serial Number:	To Be Filled By O.E.M.
Asset Tag Number:	To Be Filled By O.E.M.

## OEM Strings

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To Be Filled By O.E.M.

## System Boot Information

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Boot Status:	No error occurred
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## CPU Internal L2

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Socket Designation:	CPU Internal L2
Cache State:	Enabled
Cache Location:	Internal
Cache Type:	L2 Unified
Cache Scheme:	Write-Through
Supported SRAM Type:	
Current SRAM Type:	
Cache Speed:	Unknown
Error Correction Type:	Multi-bit ECC
Maximum Cache Size:	1024 KBytes
Installed Cache Size:	1024 KBytes
Cache Associativity:	8-way Set-Associative

## CPU Internal L1

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Socket Designation:	CPU Internal L1
Cache State:	Enabled
Cache Location:	Internal
Cache Type:	L1 Data
Cache Scheme:	Write-Through
Supported SRAM Type:	
Current SRAM Type:	
Cache Speed:	Unknown
Error Correction Type:	Parity
Maximum Cache Size:	256 KBytes
Installed Cache Size:	256 KBytes
Cache Associativity:	8-way Set-Associative

## CPU Internal L3

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Socket Designation:	CPU Internal L3
Cache State:	Enabled
Cache Location:	Internal
Cache Type:	L3 Unified
Cache Scheme:	Write-Back
Supported SRAM Type:	
Current SRAM Type:	
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) i5-3570K CPU @ 3.40GHz
External Clock:	100 MHz
Maximum Clock Supported:	3800 MHz
Current Clock:	3400 MHz
CPU Socket:	Populated
CPU Status:	Enabled
Processor Type:	Central Processor
Processor Voltage:	5 V, 3.3 V, 2.9 V
Processor Upgrade:	Socket BGA1155
Socket Designation:	CPUSocket

## 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:	v8.1, Build 1248, Hotfix 0
BIOS VT-x Support:	Not Supported
BIOS VT-d Support:	Supported
BIOS TXT Support:	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



## Memory Devices

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### Physical Memory Array

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Array Location:	System board
Array Use:	System memory
Error Detecting Method:	None
Memory Capacity:	32 GBytes
Memory Devices:	4

### Memory Device

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Total Width:	64 bits
Data Width:	64 bits
Device Size:	4096 MBytes
Device Form Factor:	DIMM
Device Locator:	ChannelA-DIMM0
Bank Locator:	BANK 0
Device Type:	DDR3 SDRAM
Device Type Detail:	Synchronous
Memory Speed:	1600 MHz
Manufacturer:	04CD
Serial Number:	00000000
Part Number:	F3-12800CL9-4GBXL
Asset Tag:	9876543210

### Memory Device Mapped Address

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Starting Address:	00000000
Ending Address:	003FFFFF
Partition Row Position:	1
Interleave Position:	1
Interleave Data Depth:	2

### Memory Device

---

Total Width:	64 bits
Data Width:	64 bits

Device Size:	4096 MBytes
Device Form Factor:	DIMM
Device Locator:	ChannelA-DIMM1
Bank Locator:	BANK 1
Device Type:	DDR3 SDRAM
Device Type Detail:	Synchronous
Memory Speed:	1600 MHz
Manufacturer:	04CD
Serial Number:	00000000
Part Number:	F3-12800CL9-4GBXL
Asset Tag:	9876543210

## Memory Device Mapped Address

---

Starting Address:	00800000
Ending Address:	00BFFFFFF
Partition Row Position:	1
Interleave Position:	1
Interleave Data Depth:	2

## Memory Device

---

Total Width:	64 bits
Data Width:	64 bits
Device Size:	4096 MBytes
Device Form Factor:	DIMM
Device Locator:	ChannelB-DIMM0
Bank Locator:	BANK 2
Device Type:	DDR3 SDRAM
Device Type Detail:	Synchronous
Memory Speed:	1600 MHz
Manufacturer:	04CD
Serial Number:	00000000
Part Number:	F3-12800CL9-4GBXL
Asset Tag:	9876543210

## Memory Device Mapped Address

---

Starting Address:	00400000
Ending Address:	007FFFFFF
Partition Row Position:	1
Interleave Position:	2
Interleave Data Depth:	2

## Memory Device

---

Total Width:	64 bits
Data Width:	64 bits
Device Size:	4096 MBytes
Device Form Factor:	DIMM
Device Locator:	ChannelB-DIMM1
Bank Locator:	BANK 3
Device Type:	DDR3 SDRAM
Device Type Detail:	Synchronous
Memory Speed:	1600 MHz
Manufacturer:	04CD
Serial Number:	00000000
Part Number:	F3-12800CL9-4GBXL
Asset Tag:	9876543210

## Memory Device Mapped Address

---

Starting Address:	00C00000
Ending Address:	00FFFFFF
Partition Row Position:	1
Interleave Position:	2
Interleave Data Depth:	2

## Memory Array Mapped Address

---

Starting Address:	00000000
Ending Address:	00FFFFFF
Partition Width:	4

## System Slots

---

### PCI1

---

Slot Designation:	PCI1
Slot Type:	PCI
Slot Usage:	Empty
Slot Data Bus Width:	32-bit
Slot Length:	Long
Base Bus:Device:Function Number:	4:2:0

PCI2

---

Slot Designation:	PCI2
Slot Type:	PCI
Slot Usage:	In use
Slot Data Bus Width:	32-bit
Slot Length:	Long
Base Bus:Device:Function Number:	4:0:0

PCI3

---

Slot Designation:	PCI3
Slot Type:	PCI
Slot Usage:	Empty
Slot Data Bus Width:	32-bit
Slot Length:	Long
Base Bus:Device:Function Number:	4:1:0

PCIE1

---

Slot Designation:	PCIE1
Slot Type:	PCI Express
Slot Usage:	In use
Slot Data Bus Width:	1x / x1
Slot Length:	Long
Base Bus:Device:Function Number:	6:0:0

PCIE2

---

Slot Designation:	PCIE2
Slot Type:	PCI Express
Slot Usage:	In use
Slot Data Bus Width:	16x / x16
Slot Length:	Long
Base Bus:Device:Function Number:	1:0:0

PCIE4

---

Slot Designation:	PCIE4
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Slot Type:	PCI Express
Slot Usage:	Empty
Slot Data Bus Width:	16x / x16
Slot Length:	Long
Base Bus:Device:Function Number:	2:0:0

## Intel ME

---

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

ME Current Working State:	Normal
Manufacturing Mode:	Not Active
ME Current Operation Mode:	Normal

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

Intel ME Version:	8.1, Build 1248
Intel ME Recovery Image Version:	8.1, Build 1248
Intel ME FITC Version:	8.1, Build 1248

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

Full Network Manageability:	Not Capable
Standard Network Manageability:	Not Capable
Manageability (AMT):	Not Capable
Small Business Advantage:	Not Capable
Manageability Upgrade:	Not Capable
Intel Anti-Theft:	Not Capable
Capability Licensing Service:	Capable
Virtualization Engine:	Not Capable
Power Sharing Technology (MPC):	Capable
ICC Over Clocking:	Capable
Protected Audio Video Path (PAVP):	Capable
Identity Protection Technology (IPT):	Not Capable
Remote PC Assist (RPAT):	Not Capable
IPV6:	Not Capable
KVM Remote Control:	Not Capable
Outbreak Containment Heuristic (OCH):	Not Capable
Virtual LAN (VLAN):	Capable
Cipher Transport Layer (TLS):	Not Capable
Wireless LAN (WLAN):	Not Capable
Platform Trust Technology (PTT):	Not 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
Manageability Upgrade:	Not Capable
Intel Anti-Theft:	Disabled
Capability Licensing Service:	Enabled
Virtualization Engine:	Disabled

Power Sharing Technology (MPC):	Enabled
ICC Over Clocking:	Enabled
Protected Audio Video Path (PAVP):	Enabled
Identity Protection Technology (IPT):	Not Capable
Remote PC Assist (RPAT):	Disabled
IPV6:	Disabled
KVM Remote Control:	Disabled
Outbreak Containment Heuristic (OCH):	Disabled
Virtual LAN (VLAN):	Capable
Cipher Transport Layer (TLS):	Disabled
Wireless LAN (WLAN):	Disabled
Platform Trust Technology (PTT):	Disabled
Near Field Communication (NFC):	Disabled

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

Platform Target Usage Type:	Desktop
Platform Target Market Type:	Consumer
SKU:	Regular SKU
ME Firmware Image Type:	1.5MB Firmware
Platform Brand:	None

Host ME Region Flash Protection Override (HMRFPO) Status:	Locked
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## **Memory**

---

### **[General information]**

Total Memory Size:	16 GBytes
Total Memory Size [MB]:	16384

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

Maximum Supported Memory Clock:	800.0 MHz
Current Memory Clock:	800.0 MHz (8 : 1 ratio)
Current Timing (tCAS-tRCD-tRP-tRAS):	9-9-9-24
Memory Channels Supported:	2
Memory Channels Active:	2
Command Rate:	2T
Read to Read Delay (tRDRD_DG/TrdrdScDlr) Different Bank Group:	1T
Read to Read Delay (tRDRD_DD) Different DIMM:	3T
Write to Write Delay (tWRWR_DG/TwrwrScDlr) Different Bank Group:	3T
Write to Write Delay (tWRWR_DD) Different DIMM:	3T
Read to Write Delay (tRDWR_SG/TrdwrScL) Same Bank Group:	3T

Read to Write Delay (tRDWR_DG/TrdwrScDlr) Different Bank Group:	5T
Read to Write Delay (tRDWR_DD) Different DIMM:	5T
Write to Read Delay (tWRRD_SG/TwrrdScL) Same Bank Group:	6T
Write to Read Delay (tWRRD_DG/TwrrdScDlr) Different Bank Group:	1T
Write to Read Delay (tWRRD_DD) Different DIMM:	1T
Read to Precharge Delay (tRTP):	6T
Write to Precharge Delay (tWTP):	23T
Write Recovery Time (tWR):	12T
RAS# to RAS# Delay (tRRD):	5T
Refresh Cycle Time (tRFC):	208T
Four Activate Window (tFAW):	24T

Row: 0 [BANK 0/ChannelA-DIMM0] - 4 GB PC3-12800 DDR3 SDRAM
G.Skill F3-12800CL9-4GBXL

---

[General Module Information]

Module Number:	0
<b>Module Size:</b>	<b>4 GBytes</b>
<b>Memory Type:</b>	<b>DDR3 SDRAM</b>
Module Type:	Unbuffered DIMM (UDIMM)
<b>Memory Speed:</b>	<b>800.0 MHz (DDR3-1600 / PC3-12800)</b>
<b>Module Manufacturer:</b>	<b>G.Skill</b>
<b>Module Part Number:</b>	<b>F3-12800CL9-4GBXL</b>
Module Revision:	256
Module Serial Number:	N/A
Module Manufacturing Date:	Year: 2000, Week: 0
Module Manufacturing Location:	0
SDRAM Manufacturer:	G.Skill
Error Check/Correction:	None

[Module characteristics]

Row Address Bits:	16
Column Address Bits:	10
Number Of Banks:	8
Module Density:	4096 Mb
Number Of Ranks:	1
Device Width:	8 bits
Bus Width:	64 bits
Module Nominal Voltage (VDD):	1.5 V

[Module timing]

Minimum SDRAM Cycle Time (tCKmin):	1.250 ns
CAS# Latencies Supported:	6, 7, 8, 9, 10, 11

Minimum CAS# Latency Time (tAAmin):	13.125 ns
Minimum RAS# to CAS# Delay (tRCDmin):	13.125 ns
Minimum Row Precharge Time (tRPmin):	13.125 ns
Minimum Active to Precharge Time (tRASmin):	35.000 ns
Supported Module Timing at 800.0 MHz:	11-11-11-28
Supported Module Timing at 666.7 MHz:	9-9-9-24
Supported Module Timing at 533.3 MHz:	7-7-7-19
Supported Module Timing at 400.0 MHz:	6-6-6-14
Minimum Write Recovery Time (tWRmin):	15.000 ns
Minimum Row Active to Row Active Delay (tRRDmin):	6.000 ns
Minimum Active to Active/Refresh Time (tRCmin):	48.125 ns
Minimum Refresh Recovery Time Delay (tRFCmin):	260.000 ns
Minimum Internal Write to Read Command Delay (tWTRmin):	7.500 ns
Minimum Internal Read to Precharge Command Delay (tRTPmin):	7.500 ns
Minimum Four Activate Window Delay Time (tFAWmin):	30.000 ns

### **[Features]**

Partial Array Self Refresh (PASR):	Not Supported
On-die Thermal Sensor (ODTS) Readout:	Not Supported
Auto Self Refresh (ASR):	Not Supported
Extended Temperature 1X Refresh Rate:	Not Supported
Extended Temperature Range:	Supported
Module Temperature Sensor:	Not Supported
Pseudo Target Row Refresh (pTRR):	Not Supported
Module Nominal Height:	29 - 30 mm
Module Maximum Thickness (Front):	1 - 2 mm
Module Maximum Thickness (Back):	<= 1 mm

### **[Intel Extreme Memory Profile (XMP)]**

XMP Revision:	1.2
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### **[Enthusiast / Certified Profile [Enabled]]**

Module VDD Voltage Level:	1.50 V
CAS# Latencies Supported:	9
Minimum SDRAM Cycle Time (tCKmin):	1.250 ns (800.0 MHz)
Minimum CAS Latency Time (tAAmin):	10.875 ns
Minimum RAS# to CAS# Delay Time (tRCDmin):	10.875 ns
Minimum Row Precharge Delay Time (tRPmin):	10.875 ns
Minimum Active to Precharge Delay Time (tRASmin):	29.625 ns
Minimum CAS Write Latency Time (tCWLmin):	8.750 ns



Minimum Write Recovery Time (tWRmin):	15.000 ns
Minimum Active to Active/Refresh Delay Time (tRCmin):	40.875 ns
Maximum tREFI Time (Average Periodic Refresh Interval):	7.875 us
Minimum Refresh Recovery Delay Time (tRFCmin):	260.000 ns
Minimum Internal Read to Precharge Command Delay Time (tRTPmin):	7.500 ns
Minimum Row Active to Row Active Delay Time (tRRDmin):	6.000 ns
Minimum Four Activate Window Delay Time (tFAWmin):	30.0 ns
Minimum Internal Write to Read Command Delay Time (tWTRmin):	7.500 ns
Supported Module Timing at 800.0 MHz:	9-9-9-24
Read to Write CMD Turn-around Time Optimization:	No adjustment
Write to Read CMD Turn-around Time Optimization:	No adjustment
Back 2 Back CMD Turn-around Time Optimization:	No adjustment
System Command Rate Mode:	2N

## Row: 1 [BANK 1/ChannelA-DIMM1] - 4 GB PC3-12800 DDR3 SDRAM G.Skill F3-12800CL9-4GBXL

---

### [General Module Information]

Module Number:	1
<b>Module Size:</b>	<b>4 GBytes</b>
<b>Memory Type:</b>	<b>DDR3 SDRAM</b>
Module Type:	Unbuffered DIMM (UDIMM)
<b>Memory Speed:</b>	<b>800.0 MHz (DDR3-1600 / PC3-12800)</b>
<b>Module Manufacturer:</b>	<b>G.Skill</b>
<b>Module Part Number:</b>	<b>F3-12800CL9-4GBXL</b>
Module Revision:	256
Module Serial Number:	N/A
Module Manufacturing Date:	Year: 2000, Week: 0
Module Manufacturing Location:	0
SDRAM Manufacturer:	G.Skill
Error Check/Correction:	None

### [Module characteristics]

Row Address Bits:	16
Column Address Bits:	10
Number Of Banks:	8
Module Density:	4096 Mb
Number Of Ranks:	1
Device Width:	8 bits
Bus Width:	64 bits
Module Nominal Voltage (VDD):	1.5 V

### **[Module timing]**

Minimum SDRAM Cycle Time (tCKmin):	1.250 ns
CAS# Latencies Supported:	6, 7, 8, 9, 10, 11
Minimum CAS# Latency Time (tAmin):	13.125 ns
Minimum RAS# to CAS# Delay (tRCDmin):	13.125 ns
Minimum Row Precharge Time (tRPmin):	13.125 ns
Minimum Active to Precharge Time (tRASmin):	35.000 ns

Supported Module Timing at 800.0 MHz:	11-11-11-28
Supported Module Timing at 666.7 MHz:	9-9-9-24
Supported Module Timing at 533.3 MHz:	7-7-7-19
Supported Module Timing at 400.0 MHz:	6-6-6-14

Minimum Write Recovery Time (tWRmin):	15.000 ns
Minimum Row Active to Row Active Delay (tRRDmin):	6.000 ns
Minimum Active to Active/Refresh Time (tRCmin):	48.125 ns
Minimum Refresh Recovery Time Delay (tRFCmin):	260.000 ns
Minimum Internal Write to Read Command Delay (tWTRmin):	7.500 ns
Minimum Internal Read to Precharge Command Delay (tRTPmin):	7.500 ns
Minimum Four Activate Window Delay Time (tFAWmin):	30.000 ns

### **[Features]**

Partial Array Self Refresh (PASR):	Not Supported
On-die Thermal Sensor (ODTS) Readout:	Not Supported
Auto Self Refresh (ASR):	Not Supported
Extended Temperature 1X Refresh Rate:	Not Supported
Extended Temperature Range:	Supported
Module Temperature Sensor:	Not Supported
Pseudo Target Row Refresh (pTRR):	Not Supported
Module Nominal Height:	29 - 30 mm
Module Maximum Thickness (Front):	1 - 2 mm
Module Maximum Thickness (Back):	<= 1 mm

### **[Intel Extreme Memory Profile (XMP)]**

XMP Revision:	1.2
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### **[Enthusiast / Certified Profile [Enabled]]**

Module VDD Voltage Level:	1.50 V
CAS# Latencies Supported:	9
Minimum SDRAM Cycle Time (tCKmin):	1.250 ns (800.0 MHz)
Minimum CAS Latency Time (tAmin):	10.875 ns
Minimum RAS# to CAS# Delay Time (tRCDmin):	10.875 ns
Minimum Row Precharge Delay Time (tRPmin):	10.875 ns
Minimum Active to Precharge Delay Time	29.625 ns

(tRASmin):	
Minimum CAS Write Latency Time (tCWLmin):	8.750 ns
Minimum Write Recovery Time (tWRmin):	15.000 ns
Minimum Active to Active/Refresh Delay Time (tRCmin):	40.875 ns
Maximum tREFI Time (Average Periodic Refresh Interval):	7.875 us
Minimum Refresh Recovery Delay Time (tRFCmin):	260.000 ns
Minimum Internal Read to Precharge Command Delay Time (tRTPmin):	7.500 ns
Minimum Row Active to Row Active Delay Time (tRRDmin):	6.000 ns
Minimum Four Activate Window Delay Time (tFAWmin):	30.0 ns
Minimum Internal Write to Read Command Delay Time (tWTRmin):	7.500 ns
Supported Module Timing at 800.0 MHz:	9-9-9-24
Read to Write CMD Turn-around Time Optimization:	No adjustment
Write to Read CMD Turn-around Time Optimization:	No adjustment
Back 2 Back CMD Turn-around Time Optimization:	No adjustment
System Command Rate Mode:	2N

Row: 2 [BANK 2/ChannelB-DIMM0] - 4 GB PC3-12800 DDR3 SDRAM
G.Skill F3-12800CL9-4GBXL

---

[General Module Information]

Module Number:	2
<b>Module Size:</b>	<b>4 GBytes</b>
<b>Memory Type:</b>	<b>DDR3 SDRAM</b>
Module Type:	Unbuffered DIMM (UDIMM)
<b>Memory Speed:</b>	<b>800.0 MHz (DDR3-1600 / PC3-12800)</b>
<b>Module Manufacturer:</b>	<b>G.Skill</b>
<b>Module Part Number:</b>	<b>F3-12800CL9-4GBXL</b>
Module Revision:	256
Module Serial Number:	N/A
Module Manufacturing Date:	Year: 2000, Week: 0
Module Manufacturing Location:	0
SDRAM Manufacturer:	G.Skill
Error Check/Correction:	None

[Module characteristics]

Row Address Bits:	16
Column Address Bits:	10
Number Of Banks:	8
Module Density:	4096 Mb
Number Of Ranks:	1
Device Width:	8 bits

Bus Width:	64 bits
Module Nominal Voltage (VDD):	1.5 V

### **[Module timing]**

Minimum SDRAM Cycle Time (tCKmin):	1.250 ns
CAS# Latencies Supported:	6, 7, 8, 9, 10, 11
Minimum CAS# Latency Time (tAmin):	13.125 ns
Minimum RAS# to CAS# Delay (tRCDmin):	13.125 ns
Minimum Row Precharge Time (tRPmin):	13.125 ns
Minimum Active to Precharge Time (tRASmin):	35.000 ns

Supported Module Timing at 800.0 MHz:	11-11-11-28
Supported Module Timing at 666.7 MHz:	9-9-9-24
Supported Module Timing at 533.3 MHz:	7-7-7-19
Supported Module Timing at 400.0 MHz:	6-6-6-14

Minimum Write Recovery Time (tWRmin):	15.000 ns
Minimum Row Active to Row Active Delay (tRRDmin):	6.000 ns
Minimum Active to Active/Refresh Time (tRCmin):	48.125 ns
Minimum Refresh Recovery Time Delay (tRFCmin):	260.000 ns
Minimum Internal Write to Read Command Delay (tWTRmin):	7.500 ns
Minimum Internal Read to Precharge Command Delay (tRTPmin):	7.500 ns
Minimum Four Activate Window Delay Time (tFAWmin):	30.000 ns

### **[Features]**

Partial Array Self Refresh (PASR):	Not Supported
On-die Thermal Sensor (ODTS) Readout:	Not Supported
Auto Self Refresh (ASR):	Not Supported
Extended Temperature 1X Refresh Rate:	Not Supported
Extended Temperature Range:	Supported
Module Temperature Sensor:	Not Supported
Pseudo Target Row Refresh (pTRR):	Not Supported
Module Nominal Height:	29 - 30 mm
Module Maximum Thickness (Front):	1 - 2 mm
Module Maximum Thickness (Back):	<= 1 mm

### **[Intel Extreme Memory Profile (XMP)]**

XMP Revision:	1.2
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### **[Enthusiast / Certified Profile [Enabled]]**

Module VDD Voltage Level:	1.50 V
CAS# Latencies Supported:	9
Minimum SDRAM Cycle Time (tCKmin):	1.250 ns (800.0 MHz)
Minimum CAS Latency Time (tAmin):	10.875 ns
Minimum RAS# to CAS# Delay Time (tRCDmin):	10.875 ns

Minimum Row Precharge Delay Time (tRPmin):	10.875 ns
Minimum Active to Precharge Delay Time (tRASmin):	29.625 ns
Minimum CAS Write Latency Time (tCWLmin):	8.750 ns
Minimum Write Recovery Time (tWRmin):	15.000 ns
Minimum Active to Active/Refresh Delay Time (tRCmin):	40.875 ns
Maximum tREFI Time (Average Periodic Refresh Interval):	7.875 us
Minimum Refresh Recovery Delay Time (tRFCmin):	260.000 ns
Minimum Internal Read to Precharge Command Delay Time (tRTPmin):	7.500 ns
Minimum Row Active to Row Active Delay Time (tRRDmin):	6.000 ns
Minimum Four Activate Window Delay Time (tFAWmin):	30.0 ns
Minimum Internal Write to Read Command Delay Time (tWTRmin):	7.500 ns
Supported Module Timing at 800.0 MHz:	9-9-9-24
Read to Write CMD Turn-around Time Optimization:	No adjustment
Write to Read CMD Turn-around Time Optimization:	No adjustment
Back 2 Back CMD Turn-around Time Optimization:	No adjustment
System Command Rate Mode:	2N

Row: 3 [BANK 3/ChannelB-DIMM1] - 4 GB PC3-12800 DDR3 SDRAM
G.Skill F3-12800CL9-4GBXL

[General Module Information]

Module Number:	3
<b>Module Size:</b>	<b>4 GBytes</b>
<b>Memory Type:</b>	<b>DDR3 SDRAM</b>
Module Type:	Unbuffered DIMM (UDIMM)
<b>Memory Speed:</b>	<b>800.0 MHz (DDR3-1600 / PC3-12800)</b>
<b>Module Manufacturer:</b>	<b>G.Skill</b>
<b>Module Part Number:</b>	<b>F3-12800CL9-4GBXL</b>
Module Revision:	256
Module Serial Number:	N/A
Module Manufacturing Date:	Year: 2000, Week: 0
Module Manufacturing Location:	0
SDRAM Manufacturer:	G.Skill
Error Check/Correction:	None

[Module characteristics]

Row Address Bits:	16
Column Address Bits:	10
Number Of Banks:	8

Module Density:	4096 Mb
Number Of Ranks:	1
Device Width:	8 bits
Bus Width:	64 bits
Module Nominal Voltage (VDD):	1.5 V

### **[Module timing]**

Minimum SDRAM Cycle Time (tCKmin):	1.250 ns
CAS# Latencies Supported:	6, 7, 8, 9, 10, 11
Minimum CAS# Latency Time (tAmin):	13.125 ns
Minimum RAS# to CAS# Delay (tRCDmin):	13.125 ns
Minimum Row Precharge Time (tRPmin):	13.125 ns
Minimum Active to Precharge Time (tRASmin):	35.000 ns

Supported Module Timing at 800.0 MHz:	11-11-11-28
Supported Module Timing at 666.7 MHz:	9-9-9-24
Supported Module Timing at 533.3 MHz:	7-7-7-19
Supported Module Timing at 400.0 MHz:	6-6-6-14

Minimum Write Recovery Time (tWRmin):	15.000 ns
Minimum Row Active to Row Active Delay (tRRDmin):	6.000 ns
Minimum Active to Active/Refresh Time (tRCmin):	48.125 ns
Minimum Refresh Recovery Time Delay (tRFCmin):	260.000 ns
Minimum Internal Write to Read Command Delay (tWTRmin):	7.500 ns
Minimum Internal Read to Precharge Command Delay (tRTPmin):	7.500 ns
Minimum Four Activate Window Delay Time (tFAWmin):	30.000 ns

### **[Features]**

Partial Array Self Refresh (PASR):	Not Supported
On-die Thermal Sensor (ODTS) Readout:	Not Supported
Auto Self Refresh (ASR):	Not Supported
Extended Temperature 1X Refresh Rate:	Not Supported
Extended Temperature Range:	Supported
Module Temperature Sensor:	Not Supported
Pseudo Target Row Refresh (pTRR):	Not Supported
Module Nominal Height:	29 - 30 mm
Module Maximum Thickness (Front):	1 - 2 mm
Module Maximum Thickness (Back):	<= 1 mm

### **[Intel Extreme Memory Profile (XMP)]**

XMP Revision:	1.2
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### **[Enthusiast / Certified Profile [Enabled]]**

Module VDD Voltage Level:	1.50 V
CAS# Latencies Supported:	9
Minimum SDRAM Cycle Time (tCKmin):	1.250 ns (800.0 MHz)

Minimum CAS Latency Time (tAAmin):	10.875 ns
Minimum RAS# to CAS# Delay Time (tRCDmin):	10.875 ns
Minimum Row Precharge Delay Time (tRPmin):	10.875 ns
Minimum Active to Precharge Delay Time (tRASmin):	29.625 ns
Minimum CAS Write Latency Time (tCWLmin):	8.750 ns
Minimum Write Recovery Time (tWRmin):	15.000 ns
Minimum Active to Active/Refresh Delay Time (tRCmin):	40.875 ns
Maximum tREFI Time (Average Periodic Refresh Interval):	7.875 us
Minimum Refresh Recovery Delay Time (tRFCmin):	260.000 ns
Minimum Internal Read to Precharge Command Delay Time (tRTPmin):	7.500 ns
Minimum Row Active to Row Active Delay Time (tRRDmin):	6.000 ns
Minimum Four Activate Window Delay Time (tFAWmin):	30.0 ns
Minimum Internal Write to Read Command Delay Time (tWTRmin):	7.500 ns
Supported Module Timing at 800.0 MHz:	9-9-9-24
Read to Write CMD Turn-around Time Optimization:	No adjustment
Write to Read CMD Turn-around Time Optimization:	No adjustment
Back 2 Back CMD Turn-around Time Optimization:	No adjustment
System Command Rate Mode:	2N

Bus

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PCI Bus #0

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Intel Ivy Bridge-DT - Host Bridge/DRAM Controller [E1/L1/N0/P0]

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[General Information]

Device Name:	Intel Ivy Bridge-DT - Host Bridge/DRAM Controller [E1/L1/N0/P0]
Original Device Name:	Intel Ivy Bridge-DT - Host Bridge/DRAM Controller [E1/L1/N0/P0]
Device Class:	Host-to-PCI Bridge
Revision ID:	9 [E1/L1/N0/P0]

PCI Address (Bus:Device:Function) Number:	0:0:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_0150&SUBSYS_01501849&REV_09
<b>[System Resources]</b>	
Interrupt Line:	N/A
Interrupt Pin:	N/A
<b>[Features]</b>	
Bus Mastering:	Enabled
Running At 66 MHz:	Not Capable
Fast Back-to-Back Transactions:	Capable
<b>[Driver Information]</b>	
Driver Manufacturer:	Intel
Driver Description:	Speichercontroller
Driver Provider:	Microsoft
Driver Version:	10.0.19041.1202
Driver Date:	21-Jun-2006
DeviceInstanceId	PCI\VEN_8086&DEV_0150&SUBSYS_01501849&REV_09\3&11583659&0&00
Location Paths	PCIROOT(0)#PCI(0000)

## Intel Ivy Bridge-DT - PCI Express Graphics Root Port [E1/L1/N0/P0]

### [General Information]

Device Name:	Intel Ivy Bridge-DT - PCI Express Graphics Root Port [E1/L1/N0/P0]
Original Device Name:	Intel Ivy Bridge-DT - PCI Express Graphics Root Port [E1/L1/N0/P0]
Device Class:	PCI-to-PCI Bridge
Revision ID:	9 [E1/L1/N0/P0]
PCI Address (Bus:Device:Function) Number:	0:1:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_0151&SUBSYS_00000000&REV_09

### [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:	Disabled



L0s Exit Latency:	128 - 256 ns
L1 Exit Latency:	4 - 8 us
Maximum Payload Size Supported:	256 bytes
Maximum Payload Size:	256 bytes
Resizable BAR Support:	Not Supported

**[System Resources]**

Interrupt Line:	IRQ11
Interrupt Pin:	INTA#

**[Features]**

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

**[Driver Information]**

Driver Manufacturer:	(Standardsystemgeräte)
Driver Description:	PCI-zu-PCI-Brücke
Driver Provider:	Microsoft
Driver Version:	10.0.19041.1202
Driver Date:	21-Jun-2006
DeviceInstanceId	PCI\VEN_8086&DEV_0151&SUBSYS_01511849&REV_09\3&11583659&0&08
Location Paths	PCIROOT(0)#PCI(0100)

**PCI Express x16 Bus #1**

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**GIGABYTE Radeon HD 7970 WindForce 3X OC**

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**[General Information]**

<b>Device Name:</b>	<b>GIGABYTE Radeon HD 7970 WindForce 3X OC</b>
<b>Original Device Name:</b>	<b>ATI/AMD Radeon HD 7970/Radeon R9 280X (TAHITI XT/XTL)</b>
<b>Device Class:</b>	<b>VGA Compatible Adapter</b>
Revision ID:	0
PCI Address (Bus:Device:Function) Number:	1:0:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_1002&DEV_6798&SUBSYS_254D1458&REV_00

**[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:	Legacy PCI Express Endpoint
Slot Implemented:	No
Emergency Power Reduction:	Not Supported
Active State Power Management	L0s and L1

(ASPM) Support:  
Active State Power Management Disabled  
(ASPM) Status:  
L0s Exit Latency: < 64 ns  
L1 Exit Latency: < 1 us  
Maximum Payload Size Supported: 256 bytes  
Maximum Payload Size: 256 bytes  
Resizable BAR Support: Not Supported

### [System Resources]

Interrupt Line: N/A  
Interrupt Pin: INTA#  
Memory Base Address 0 E0000000  
Memory Base Address 2 F7E00000  
I/O Base Address 4 E000

### [Features]

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

### [Driver Information]

Driver Manufacturer: Advanced Micro Devices, Inc.  
Driver Description: AMD Radeon R9 200 / HD 7900 Series  
Driver Provider: Advanced Micro Devices, Inc.  
Driver Version: 27.20.21002.112 (Radeon Software Adrenalin 21.4.1)  
AMD Driver Package Version: 21.10.02-210413a-366490C-RadeonSoftware  
AMD Software Driver Version: 21.4.1  
Driver Date: 13-Apr-2021  
DCH/UWD Driver: Capable  
DeviceInstanceId PCI\VEN\_1002&DEV\_6798&SUBSYS\_254D1458&REV\_00\4&15001D53&0&0008  
Location Paths PCIROOT(0)#PCI(0100)#PCI(0000)

## ATI/AMD Tahiti - High Definition Audio Controller

---

### [General Information]

**Device Name:** ATI/AMD Tahiti - High Definition Audio Controller  
**Original Device Name:** ATI/AMD Tahiti - High Definition Audio Controller  
**Device Class:** High Definition Audio  
Revision ID: 0  
PCI Address (Bus:Device:Function) Number: 1:0:1  
PCI Latency Timer: 0  
Hardware ID: PCI\VEN\_1002&DEV\_AAA0&SUBSYS\_AAA01458&REV\_00

### [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:	Legacy 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:	L0s and L1 Entry
L0s Exit Latency:	< 64 ns
L1 Exit Latency:	< 1 us
Maximum Payload Size Supported:	256 bytes
Maximum Payload Size:	256 bytes
Resizable BAR Support:	Not Supported

### [System Resources]

Interrupt Line:	IRQ17
Interrupt Pin:	INTB#
Memory Base Address 0	F7E60000

### [Features]

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

### [Driver Information]

Driver Manufacturer:	AMD
Driver Description:	High Definition Audio Bus
Driver Provider:	AMD
Driver Version:	20.10.0.1
Driver Date:	14-Feb-2020
DeviceInstanceId	PCI\VEN_1002&DEV_AAA0&SUBSYS_AAA01458&REV_00\4&15001D53&0&0108
Location Paths	PCIROOT(0)#PCI(0100)#PCI(0001)

## Intel Panther Point PCH - USB 3.0 xHCI Controller [C1]

---

### [General Information]

<b>Device Name:</b>	<b>Intel Panther Point PCH - USB 3.0 xHCI Controller [C1]</b>
<b>Original Device Name:</b>	<b>Intel Panther Point PCH - USB 3.0 xHCI Controller [C1]</b>
<b>Device Class:</b>	<b>USB xHCI Controller</b>
Revision ID:	4 [C1]
PCI Address (Bus:Device:Function) Number:	0:20:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_1E31&SUBSYS_1E311849&REV_04

### [System Resources]

Interrupt Line:	N/A
Interrupt Pin:	INTA#
Memory Base Address 0	F7F00000

### [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: Generischer USB-xHCI-Hostcontroller  
Driver Description: USB-xHCI-kompatibler Hostcontroller  
Driver Provider: Microsoft  
Driver Version: 10.0.19041.1320  
Driver Date: 13-Oct-2021  
DeviceInstanceId: PCI\VEN\_8086&DEV\_1E31&SUBSYS\_1E311849&REV\_04\3&11583659&0&A0  
Location Paths: PCIROOT(0)#PCI(1400)

## **USB Root Hub**

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

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### **[Port2] : Sony, PID=1000**

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

Device Manufacturer: Sony  
Product Name: MRW-E90  
Serial Number: 118050103526  
USB Version Supported: 2.00  
USB Device Speed: USB 2.0 High-speed  
Driver Description: Generischer USB-Hub  
Hardware ID: USB\VID\_054C&PID\_0BAC

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

Driver Manufacturer: (Standardmäßige USB-HUBs)  
Driver Description: Generischer USB-Hub  
Driver Provider: Microsoft  
Driver Version: 10.0.19041.1202  
Driver Date: 25-Aug-2021  
DeviceInstanceId: USB\VID\_054C&PID\_0BAC\MSFT20118050103526  
Location Paths: PCIROOT(0)#PCI(1400)#USBROOT(0)#USB(2)

### **[Port1] : Sony, PID=1000**

---

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

Device Manufacturer: Sony

Product Name:	MRW-E90
Serial Number:	218090003228
USB Version Supported:	3.00 (Connected to a USB 2.00 Port)
USB Device Speed:	USB 2.0 High-speed
Driver Description:	USB-Massenspeichergerät
Hardware ID:	USB\VID_054C&PID_0BAE

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

Driver Manufacturer:	Kompatibles USB-Speichergerät
Driver Description:	USB-Massenspeichergerät
Driver Provider:	Microsoft
Driver Version:	10.0.19041.1288
Driver Date:	21-Jun-2006
DeviceInstanceId	USB\VID_054C&PID_0BAE\218090003228
Location Paths	PCIROOT(0)#PCI(1400)#USBROOT(0)#USB(2)#USB(1)

### **[Port2] : Sony, PID=1000**

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

Device Manufacturer:	Sony
Product Name:	MRW-E90
Serial Number:	318050201315
USB Version Supported:	3.00 (Connected to a USB 2.00 Port)
USB Device Speed:	USB 2.0 High-speed
Driver Description:	USB-Massenspeichergerät
Hardware ID:	USB\VID_054C&PID_0BAF

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

Driver Manufacturer:	Kompatibles USB-Speichergerät
Driver Description:	USB-Massenspeichergerät
Driver Provider:	Microsoft
Driver Version:	10.0.19041.1288
Driver Date:	21-Jun-2006
DeviceInstanceId	USB\VID_054C&PID_0BAF\318050201315
Location Paths	PCIROOT(0)#PCI(1400)#USBROOT(0)#USB(2)#USB(2)

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

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### **[Port4] : No Device Connected**

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

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[Port6] : No Device Connected

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[Port7] : No Device Connected

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[Port8] : No Device Connected

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Intel Panther Point PCH - Host Embedded Controller Interface 1 (HECI1) [C1]

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[General Information]

Device Name:	Intel Panther Point PCH - Host Embedded Controller Interface 1 (HECI1) [C1]
Original Device Name:	Intel Panther Point PCH - Host Embedded Controller Interface 1 (HECI1) [C1]
Device Class:	Other Communication Device
Revision ID:	4 [C1]
PCI Address (Bus:Device:Function) Number:	0:22:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_1E3A&SUBSYS_1E3A1849&REV_04

[System Resources]

Interrupt Line:	N/A
Interrupt Pin:	INTA#
Memory Base Address 0	F7F1A000

[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:	11.0.0.1157
Driver Date:	07-Jul-2015
DeviceInstanceId	PCI\VEN_8086&DEV_1E3A&SUBSYS_1E3A1849&REV_04\3&11583659&0&B0
Location Paths	PCIROOT(0)#PCI(1600)

# Intel Panther Point PCH - USB 2.0 EHCI Controller #2 [C1]

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## [General Information]

Device Name:	Intel Panther Point PCH - USB 2.0 EHCI Controller #2 [C1]
Original Device Name:	Intel Panther Point PCH - USB 2.0 EHCI Controller #2 [C1]
Device Class:	USB EHCI Controller
Revision ID:	4 [C1]
PCI Address (Bus:Device:Function) Number:	0:26:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_1E2D&SUBSYS_1E2D1849&REV_04

## [System Resources]

Interrupt Line:	IRQ16
Interrupt Pin:	INTA#
Memory Base Address 0	F7F18000

## [Features]

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

USB Version Supported:	2.0
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## [Driver Information]

Driver Manufacturer:	Intel
Driver Description:	Intel(R) 7 Series/C216-Chipsatzfamilie - USB-erweiterter Hostcontroller - 1E2D
Driver Provider:	Microsoft
Driver Version:	10.0.19041.1
Driver Date:	21-Jun-2006
DeviceInstanceId	PCI\VEN_8086&DEV_1E2D&SUBSYS_1E2D1849&REV_04\3&11583659&0&D0
Location Paths	PCIROOT(0)#PCI(1A00)

# USB Root Hub

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## [Port1] : Intel Integrated Rate Matching Hub

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## [Device Information]

Device Manufacturer:	Intel
Product Name:	Intel Integrated Rate Matching Hub
Serial Number:	
USB Version Supported:	2.00
USB Device Speed:	USB 2.0 High-speed
Driver Description:	Generic USB Hub

Hardware ID: USB\VID\_8087&PID\_0024

**[Driver Information]**

Driver Manufacturer:	(Generic USB Hub)
Driver Description:	Generic USB Hub
Driver Provider:	Microsoft
Driver Version:	10.0.19041.488
Driver Date:	21-Jun-2006
DeviceInstanceId	USB\VID_8087&PID_0024\5&210F7663&0&1
Location Paths	PCIROOT(0)#PCI(1A00)#USBROOT(0)#USB(1)

**[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] : No Device Connected**

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**[Port5] : No Device Connected**

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**[Port6] : C-MEDIA ELECTRONICS INC. Audio Adapter (Unitek Y-247A)**

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**[Device Information]**

Device Manufacturer:	C-MEDIA ELECTRONICS INC.
Product Name:	C-MEDIA ELECTRONICS INC. Audio Adapter (Unitek Y-247A)
Serial Number:	
USB Version Supported:	1.10
USB Device Speed:	USB 1.1 Full-speed
Driver Description:	USB-Verbundgerät
Hardware ID:	USB\VID_0D8C&PID_0014

**[Driver Information]**



Driver Manufacturer:	(Standard-USB-Hostcontroller)
Driver Description:	USB-Verbundgerät
Driver Provider:	Microsoft
Driver Version:	10.0.19041.488
Driver Date:	21-Jun-2006
DeviceInstanceId	USB\VID_0D8C&PID_0014\6&E3E7252&0&6
Location Paths	PCIROOT(0)#PCI(1A00)#USBROOT(0)#USB(1)#USB(6)

## [Port2] : No Device Connected

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## Intel Panther Point PCH - High Definition Audio Controller [C1]

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### [General Information]

<b>Device Name:</b>	<b>Intel Panther Point PCH - High Definition Audio Controller [C1]</b>
<b>Original Device Name:</b>	<b>Intel Panther Point PCH - High Definition Audio Controller [C1]</b>
<b>Device Class:</b>	<b>High Definition Audio</b>
Revision ID:	4 [C1]
PCI Address (Bus:Device:Function) Number:	0:27:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_1E20&SUBSYS_88921849&REV_04

### [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
Resizable BAR Support:	Not Supported

### [System Resources]

Interrupt Line:	IRQ22
Interrupt Pin:	INTA#
Memory Base Address 0	F7F10000

### [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:	10.0.19041.1081
Driver Date:	08-Jun-2021
DeviceInstanceId	PCI\VEN_8086&DEV_1E20&SUBSYS_88921849&REV_04\3&11583659&0&D8
Location Paths	PCIROOT(0)#PCI(1B00)

## Intel Panther Point PCH - PCI Express Port 1

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### [General Information]

<b>Device Name:</b>	<b>Intel Panther Point PCH - PCI Express Port 1</b>
<b>Original Device Name:</b>	<b>Intel Panther Point PCH - PCI Express Port 1</b>
<b>Device Class:</b>	<b>PCI-to-PCI Bridge</b>
Revision ID:	C4
PCI Address (Bus:Device:Function) Number:	0:28:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_1E10&SUBSYS_00000000&REV_C4

### [PCI Express]

Version:	2.0
Maximum Link Width:	4x
Current Link Width:	Not negotiated
Maximum Link Speed:	5.0 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:	25.000 W
Emergency Power Reduction:	Not Supported
Active State Power Management (ASPM) Support:	L0s and L1
Active State Power Management (ASPM) Status:	Disabled
L0s Exit Latency:	512 ns - 1 us
L1 Exit Latency:	8 - 16 us
Maximum Payload Size Supported:	128 bytes
Maximum Payload Size:	128 bytes
Resizable BAR Support:	Not Supported

### [System Resources]

Interrupt Line:	IRQ11
Interrupt Pin:	INTA#

### [Features]

Bus Mastering:	Enabled
Running At 66 MHz:	Not Capable

Fast Back-to-Back Transactions:	Not Capable
<b>[Driver Information]</b>	
Driver Manufacturer:	(Standardsystemgeräte)
Driver Description:	PCI-zu-PCI-Brücke
Driver Provider:	Microsoft
Driver Version:	10.0.19041.1202
Driver Date:	21-Jun-2006
DeviceInstanceId	PCI\VEN_8086&DEV_1E10&SUBSYS_1E101849&REV_C4\3&11583659&0&E0
Location Paths	PCIROOT(0)#PCI(1C00)

PCI Express x4 Bus #2

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Intel 7 Series Chipset Direct Media Interface Bridge [C1]

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<b>[General Information]</b>	
<b>Device Name:</b>	<b>Intel 7 Series Chipset Direct Media Interface Bridge [C1]</b>
<b>Original Device Name:</b>	<b>Intel 7 Series Chipset Direct Media Interface Bridge [C1]</b>
<b>Device Class:</b>	<b>PCI-to-PCI Bridge</b>
Revision ID:	C4
PCI Address (Bus:Device:Function) Number:	0:28:4
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_244E&SUBSYS_00000000&REV_C4

<b>[PCI Express]</b>	
Version:	2.0
Maximum Link Width:	1x
Current Link Width:	1x
Maximum Link Speed:	5.0 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:	L0s and L1
Active State Power Management (ASPM) Status:	Disabled
L0s Exit Latency:	512 ns - 1 us
L1 Exit Latency:	8 - 16 us
Maximum Payload Size Supported:	128 bytes
Maximum Payload Size:	128 bytes
Resizable BAR Support:	Not Supported

**[System Resources]**

Interrupt Line:	IRQ11
Interrupt Pin:	INTA#

### **[Features]**

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

### **[Driver Information]**

Driver Manufacturer:	(Standardsystemgeräte)
Driver Description:	PCI-zu-PCI-Brücke
Driver Provider:	Microsoft
Driver Version:	10.0.19041.1202
Driver Date:	21-Jun-2006
DeviceInstanceId	PCI\VEN_8086&DEV_244E&SUBSYS_244E1849&REV_C4\3&11583659&0&E4
Location Paths	PCIROOT(0)#PCI(1C04)

### **[Hub Interface 1 Command Control [ICH4/5]]**

Hub ID [ICH4]:	2
HP Unsupported [ICH5]:	Enabled
Hub Interface Timeslice:	8
Hub Interface Width:	
Hub Interface Rate Valid:	No
Hub Interface Rate:	
Maximum Data Bursts Per Packet:	

### **[Secondary PCI Device Hiding [ICH6]]**

Device 7 Hide:	Visible
Device 6 Hide:	Visible
Device 5 Hide:	Visible
Device 4 Hide:	Hidden
Device 3 Hide:	Visible
Device 2 Hide:	Visible
Device 1 Hide:	Visible
Device 0 Hide:	Visible

### **[PCI Decode Policy [ICH6]]**

Subtractive Decode Policy:	Disabled
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### **[Secondary PCI Device Hiding [ICH4/5]]**

Device 8 Hide:	Visible
Device 7 Hide:	Visible
Device 6 Hide:	Visible
Device 5 Hide:	Visible
Device 4 Hide:	Visible
Device 3 Hide:	Visible
Device 2 Hide:	Visible
Device 1 Hide:	Visible
Device 0 Hide:	Visible

### **[Delayed Transaction Control [ICH6]]**

Discard Delayed Transactions:	Disabled
Block Delayed Transactions:	Disabled
Maximum Delayed Transactions:	2 Active, 5 pending
Auto Flush After Disconnect:	Disabled
Never Prefetch:	Disabled
Memory Read Multiple Prefetch:	Enabled
Memory Read Line Prefetch:	Enabled

Memory Read Prefetch: Enabled

**[ICH/Policy Configuration [ICH2-ICH5]]**

Prefetch Flush [ICH5]: Disabled  
High Priority PCI: Disabled  
15-16MB Hole: Disabled  
Discard Timer Mode [ICH2]: 1024 PCICLKs (32 us)  
32-Clock Retry [ICH2]/12-Clock Retry [ICH3/4/5]: Disabled

**[Policy Configuration [ICH5]]**

Async Reads: 1  
PCI Prefetch: 1

**[Multi-Transaction Timer]**

Multi-Transaction Timer Count Value: 0 PCICLKs

**[Error Command]**

SERR# On Target Abort Receive: Enabled  
SERR# On Delayed Transaction Timeout: Disabled

**PCI Express x1 Bus #3**

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**ASMedia ASM1083 PCIe-to-PCI Bridge**

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**[General Information]**

**Device Name:** ASMedia ASM1083 PCIe-to-PCI Bridge  
**Original Device Name:** ASMedia ASM1083 PCIe-to-PCI Bridge  
**Device Class:** PCI-to-PCI Bridge  
Revision ID: 3  
PCI Address (Bus:Device:Function) Number: 3:0:0  
PCI Latency Timer: 0  
Hardware ID: PCI\VEN\_1B21&DEV\_1080&SUBSYS\_00000000&REV\_03

**[System Resources]**

Interrupt Line: IRQ11  
Interrupt Pin: INTA#

**[Features]**

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

**[Driver Information]**

Driver Manufacturer: (Standardsystemgeräte)  
Driver Description: PCI-zu-PCI-Brücke  
Driver Provider: Microsoft  
Driver Version: 10.0.19041.1202

Driver Date:	21-Jun-2006
DeviceInstanceId	PCI\VEN_1B21&DEV_1080&SUBSYS_10801849&REV_03\4&34524F1D&0&00E4
Location Paths	PCIROOT(0)#PCI(1C04)#PCI(0000)

PCI Bus #4

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Texas Instruments TSB82AA2 IEEE-1394b Link Layer Controller

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[General Information]

Device Name:	Texas Instruments TSB82AA2 IEEE-1394b Link Layer Controller
Original Device Name:	Texas Instruments TSB82AA2 IEEE-1394b Link Layer Controller
Device Class:	Firewire (IEEE 1394) Serial Bus
Revision ID:	2
PCI Address (Bus:Device:Function) Number:	4:0:0
PCI Latency Timer:	32
Hardware ID:	PCI\VEN_104C&DEV_8025&SUBSYS_38840EE4&REV_02

[System Resources]

Interrupt Line:	IRQ16
Interrupt Pin:	INTA#
Memory Base Address 0	F7D04000
Memory Base Address 1	F7D00000

[Features]

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

[Driver Information]

Driver Manufacturer:	Texas Instruments
Driver Description:	OHCI-konformer Texas Instruments 1394-Hostcontroller
Driver Provider:	Microsoft
Driver Version:	10.0.19041.1
Driver Date:	21-Jun-2006
DeviceInstanceId	PCI\VEN_104C&DEV_8025&SUBSYS_38840EE4&REV_02\5&16438895&0&0000E4
Location Paths	PCIROOT(0)#PCI(1C04)#PCI(0000)#PCI(0000)

Intel Panther Point PCH - PCI Express Port 6

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[General Information]

Device Name:	Intel Panther Point PCH - PCI Express Port 6
Original Device Name:	Intel Panther Point PCH - PCI Express Port 6
Device Class:	PCI-to-PCI Bridge
Revision ID:	C4
PCI Address (Bus:Device:Function)	0:28:5

Number:	0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_1E1A&SUBSYS_00000000&REV_C4

**[PCI Express]**

Version:	2.0
Maximum Link Width:	1x
Current Link Width:	1x
Maximum Link Speed:	5.0 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:	L0s and L1
Active State Power Management (ASPM) Status:	Disabled
L0s Exit Latency:	256 - 512 ns
L1 Exit Latency:	8 - 16 us
Maximum Payload Size Supported:	128 bytes
Maximum Payload Size:	128 bytes
Resizable BAR Support:	Not Supported

**[System Resources]**

Interrupt Line:	IRQ10
Interrupt Pin:	INTB#

**[Features]**

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

**[Driver Information]**

Driver Manufacturer:	(Standardsystemgeräte)
Driver Description:	PCI-zu-PCI-Brücke
Driver Provider:	Microsoft
Driver Version:	10.0.19041.1202
Driver Date:	21-Jun-2006
DeviceInstanceId	PCI\VEN_8086&DEV_1E1A&SUBSYS_1E1A1849&REV_C4\3&11583659&0&E5
Location Paths	PCIROOT(0)#PCI(1C05)

**PCI Express x1 Bus #5**

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**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:	6
PCI Address (Bus:Device:Function) Number:	5:0:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_10EC&DEV_8168&SUBSYS_81681849&REV_06

### **[PCI Express]**

Version:	2.0
Maximum Link Width:	1x
Current Link Width:	1x
Maximum Link Speed:	5.0 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:	Disabled
L0s Exit Latency:	>4 us
L1 Exit Latency:	32 - 64 us
Maximum Payload Size Supported:	128 bytes
Maximum Payload Size:	128 bytes
Resizable BAR Support:	Not Supported

### **[System Resources]**

Interrupt Line:	N/A
Interrupt Pin:	INTA#
I/O Base Address 0	D000
Memory Base Address 2	F0004000
Memory Base Address 4	F0000000

### **[Features]**

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

### **[Driver Information]**

Driver Manufacturer:	Realtek
Driver Description:	Controller für die Realtek PCIe GbE-Familie
Driver Provider:	Microsoft
Driver Version:	9.1.410.2015
Driver Date:	10-Apr-2015
DeviceInstanceId	PCI\VEN_10EC&DEV_8168&SUBSYS_81681849&REV_06\4&C7A4F95&0&00E5
Location Paths	PCIROOT(0)#PCI(1C05)#PCI(0000)

## **Intel Panther Point PCH - PCI Express Port 7**



### [General Information]

<b>Device Name:</b>	<b>Intel Panther Point PCH - PCI Express Port 7</b>
<b>Original Device Name:</b>	<b>Intel Panther Point PCH - PCI Express Port 7</b>
<b>Device Class:</b>	<b>PCI-to-PCI Bridge</b>
Revision ID:	C4
PCI Address (Bus:Device:Function) Number:	0:28:6
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_1E1C&SUBSYS_00000000&REV_C4

### [PCI Express]

Version:	2.0
Maximum Link Width:	1x
Current Link Width:	1x
Maximum Link Speed:	5.0 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:	L0s and L1
Active State Power Management (ASPM) Status:	Disabled
L0s Exit Latency:	256 - 512 ns
L1 Exit Latency:	8 - 16 us
Maximum Payload Size Supported:	128 bytes
Maximum Payload Size:	128 bytes
Resizable BAR Support:	Not Supported

### [System Resources]

Interrupt Line:	IRQ11
Interrupt Pin:	INTC#

### [Features]

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

### [Driver Information]

Driver Manufacturer:	(Standardsystemgeräte)
Driver Description:	PCI-zu-PCI-Brücke
Driver Provider:	Microsoft
Driver Version:	10.0.19041.1202
Driver Date:	21-Jun-2006
DeviceInstanceId	PCI\VEN_8086&DEV_1E1C&SUBSYS_1E1C1849&REV_C4\3&11583659&0&E6
Location Paths	PCIROOT(0)#PCI(1C06)

## PCI Express x1 Bus #6

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## Ralink RT5392 802.11n Wireless Network Adapter

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### [General Information]

Device Name:	Ralink RT5392 802.11n Wireless Network Adapter
Original Device Name:	Ralink RT5392 802.11n Wireless Network Adapter
Device Class:	Other Network Adapter
Revision ID:	0
PCI Address (Bus:Device:Function) Number:	6:0:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_1814&DEV_5392&SUBSYS_53921814&REV_00

### [PCI Express]

Version:	2.0
Maximum Link Width:	1x
Current Link Width:	1x
Maximum Link Speed:	5.0 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:	Disabled
L0s Exit Latency:	256 - 512 ns
L1 Exit Latency:	32 - 64 us
Maximum Payload Size Supported:	128 bytes
Maximum Payload Size:	128 bytes
Resizable BAR Support:	Not Supported

### [System Resources]

Interrupt Line:	N/A
Interrupt Pin:	INTA#
Memory Base Address 0	F7C00000

### [Features]

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

### [Driver Information]

Driver Manufacturer:	Ralink Technology, Corp.
Driver Description:	802.11n-Drahtlos-LAN-Karte
Driver Provider:	Microsoft
Driver Version:	5.0.57.1
Driver Date:	18-May-2015
DeviceInstanceId	PCI\VEN_1814&DEV_5392&SUBSYS_53921814&REV_00\4&443610C&0&00E6
Location Paths	PCIROOT(0)#PCI(1C06)#PCI(0000)

# Intel Panther Point PCH - PCI Express Port 8

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## [General Information]

<b>Device Name:</b>	<b>Intel Panther Point PCH - PCI Express Port 8</b>
<b>Original Device Name:</b>	<b>Intel Panther Point PCH - PCI Express Port 8</b>
<b>Device Class:</b>	<b>PCI-to-PCI Bridge</b>
Revision ID:	C4
PCI Address (Bus:Device:Function) Number:	0:28:7
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_1E1E&SUBSYS_00000000&REV_C4

## [PCI Express]

Version:	2.0
Maximum Link Width:	1x
Current Link Width:	1x
Maximum Link Speed:	5.0 GT/s
Current Link Speed:	5.0 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:	L0s and L1
Active State Power Management (ASPM) Status:	Disabled
L0s Exit Latency:	256 - 512 ns
L1 Exit Latency:	8 - 16 us
Maximum Payload Size Supported:	128 bytes
Maximum Payload Size:	128 bytes
Resizable BAR Support:	Not Supported

## [System Resources]

Interrupt Line:	IRQ5
Interrupt Pin:	INTD#

## [Features]

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

## [Driver Information]

Driver Manufacturer:	(Standardsystemgeräte)
Driver Description:	PCI-zu-PCI-Brücke
Driver Provider:	Microsoft
Driver Version:	10.0.19041.1202
Driver Date:	21-Jun-2006
DeviceInstanceId	PCI\VEN_8086&DEV_1E1E&SUBSYS_1E1E1849&REV_C4\3&11583659&0&E7
Location Paths	PCIROOT(0)#PCI(1C07)

## PCI Express x1 Bus #7

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### ASMedia ASM1061 PCI-E x1 SATA 6Gbps Controller

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**[General Information]**

Device Name:	ASMedia ASM1061 PCI-E x1 SATA 6Gbps Controller
Original Device Name:	ASMedia ASM1061 PCI-E x1 SATA 6Gbps Controller
Device Class:	SATA AHCI Controller
Revision ID:	1
PCI Address (Bus:Device:Function) Number:	7:0:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_1B21&DEV_0612&SUBSYS_06121849&REV_01

**[PCI Express]**

Version:	2.0
Maximum Link Width:	1x
Current Link Width:	1x
Maximum Link Speed:	5.0 GT/s
Current Link Speed:	5.0 GT/s
Device/Port Type:	Legacy PCI Express Endpoint
Slot Implemented:	No
Emergency Power Reduction:	Not Supported
Active State Power Management (ASPM) Support:	L0s
Active State Power Management (ASPM) Status:	Disabled
L0s Exit Latency:	256 - 512 ns
L1 Exit Latency:	1 - 2 us
Maximum Payload Size Supported:	512 bytes
Maximum Payload Size:	128 bytes
Resizable BAR Support:	Not Supported

**[System Resources]**

Interrupt Line:	N/A
Interrupt Pin:	INTA#
I/O Base Address 0	C050
I/O Base Address 1	C040
I/O Base Address 2	C030
I/O Base Address 3	C020
I/O Base Address 4	C000
Memory Base Address 5	F7B00000

**[Features]**

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

[SATA Host Controller]

Interface Speed Supported:	Gen3 6.0 Gbps
Number Of Ports:	2
External SATA Support:	Capable
Aggressive Link Power Management:	Not Capable
Staggered Spin-up:	Capable
Mechanical Presence Switch:	Not Capable
Command Queue Acceleration:	Capable
64-bit Addressing:	Capable
AHCI Status:	Enabled
AHCI Version:	1.20
Ports Implemented:	0, 1

[SATA Port#0]

Port Status:	Device Present, Phy communication established
Current Interface Speed:	Gen2 3.0 Gbps
External SATA Port:	Not Capable
Hot Plug:	Capable
Device Type:	SATA

[SATA Port#1]

Port Status:	No Device Present
External SATA Port:	Not Capable
Hot Plug:	Capable

[Driver Information]

Driver Manufacturer:	Standardmäßiger SATA AHCI- Controller
Driver Description:	Standardmäßiger SATA AHCI- Controller
Driver Provider:	Microsoft
Driver Version:	10.0.19041.1288
Driver Date:	21-Jun-2006
DeviceInstanceId	PCI\VEN_1B21&DEV_0612&SUBSYS_06121849&REV_01\4&37A73C8A&0&00E7
Location Paths	PCIROOT(0)#PCI(1C07)#PCI(0000)

Intel Panther Point PCH - USB 2.0 EHCI Controller #1 [C1]

[General Information]

Device Name:	Intel Panther Point PCH - USB 2.0 EHCI Controller #1 [C1]
Original Device Name:	Intel Panther Point PCH - USB 2.0 EHCI Controller #1 [C1]
Device Class:	USB EHCI Controller
Revision ID:	4 [C1]
PCI Address (Bus:Device:Function) Number:	0:29:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_1E26&SUBSYS_1E261849&REV_04

[System Resources]

Interrupt Line:	IRQ23
Interrupt Pin:	INTA#
Memory Base Address 0	F7F17000

[Features]

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

Not Capable  
Capable

USB Version Supported: 2.0

**[Driver Information]**

Driver Manufacturer:	Intel
Driver Description:	Intel(R) 7 Series/C216-Chipsatzfamilie - USB-erweiterter Hostcontroller - 1E26
Driver Provider:	Microsoft
Driver Version:	10.0.19041.1
Driver Date:	21-Jun-2006
DeviceInstanceId	PCI\VEN_8086&DEV_1E26&SUBSYS_1E261849&REV_04\3&11583659&0&E8
Location Paths	PCIROOT(0)#PCI(1D00)

## USB Root Hub

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### [Port1] : Intel Integrated Rate Matching Hub

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**[Device Information]**

Device Manufacturer:	Intel
Product Name:	Intel Integrated Rate Matching Hub
Serial Number:	
USB Version Supported:	2.00
USB Device Speed:	USB 2.0 High-speed
Driver Description:	Generic USB Hub
Hardware ID:	USB\VID_8087&PID_0024

**[Driver Information]**

Driver Manufacturer:	(Generic USB Hub)
Driver Description:	Generic USB Hub
Driver Provider:	Microsoft
Driver Version:	10.0.19041.488
Driver Date:	21-Jun-2006
DeviceInstanceId	USB\VID_8087&PID_0024\5&21D3F4F7&0&1
Location Paths	PCIROOT(0)#PCI(1D00)#USBROOT(0)#USB(1)

### [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] : No Device Connected**

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**[Port5] : No Device Connected**

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**[Port6] : No Device Connected**

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**[Port7] : No Device Connected**

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**[Port8] : Genesys Logic USB V2.0 4-Port Hub**

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**[Device Information]**

Device Manufacturer:	Genesys Logic
Product Name:	Genesys Logic USB V2.0 4-Port Hub
Serial Number:	
USB Version Supported:	2.00
USB Device Speed:	USB 2.0 High-speed
Driver Description:	Generic USB Hub
Hardware ID:	USB\VID_05E3&PID_0608

**[Driver Information]**

Driver Manufacturer:	(Generic USB Hub)
Driver Description:	Generic USB Hub
Driver Provider:	Microsoft
Driver Version:	10.0.19041.488
Driver Date:	21-Jun-2006
DeviceInstanceId	USB\VID_05E3&PID_0608\6&1A8123C&0&8
Location Paths	PCIROOT(0)#PCI(1D00)#USBROOT(0)#USB(1)#USB(8)

**[Port1] : Genesys Logic USB V2.0 4-Port Hub**

---

**[Device Information]**

Device Manufacturer:	Genesys Logic
Product Name:	Genesys Logic USB V2.0 4-Port Hub
Serial Number:	
USB Version Supported:	2.00
USB Device Speed:	USB 2.0 High-speed
Driver Description:	Generic USB Hub
Hardware ID:	USB\VID_05E3&PID_0608

**[Driver Information]**

Driver Manufacturer:	(Generic USB Hub)
Driver Description:	Generic USB Hub
Driver Provider:	Microsoft
Driver Version:	10.0.19041.488
Driver Date:	21-Jun-2006
DeviceInstanceId	USB\VID_05E3&PID_0608\7&237C6A24&0&1
Location Paths	PCIROOT(0)#PCI(1D00)#USBROOT(0)#USB(1)#USB(8)#USB(1)

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**[Port1] : No Device Connected**

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**[Port2] : No Device Connected**

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**[Port3] : No Device Connected**

---

**[Port4] : No Device Connected**

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**[Port2] : No Device Connected**

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**[Port3] : Logitech DeLuxe 250 Keyboard**

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**[Device Information]**



Device Manufacturer:	BTC
Product Name:	USB Multimedia Keyboard
Serial Number:	N/A
USB Version Supported:	1.10
USB Device Speed:	USB 1.1 Low-speed
Driver Description:	USB-Verbundgerät
Hardware ID:	USB\VID_046D&PID_C312

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

Driver Manufacturer:	(Standard-USB-Hostcontroller)
Driver Description:	USB-Verbundgerät
Driver Provider:	Microsoft
Driver Version:	10.0.19041.488
Driver Date:	21-Jun-2006
DeviceInstanceId	USB\VID_046D&PID_C312\7&237C6A24&0&3
Location Paths	PCIROOT(0)#PCI(1D00)#USBROOT(0)#USB(1)#USB(8)#USB(3)

### **[Port4] : Pixart Imaging Hama Optical Mouse**

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

Device Manufacturer:	PixArt
Product Name:	USB Optical Mouse
Serial Number:	N/A
USB Version Supported:	2.00
USB Device Speed:	USB 1.1 Low-speed
Driver Description:	USB-Eingabegerät
Hardware ID:	USB\VID_093A&PID_2510

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

Driver Manufacturer:	(Standardsystemgeräte)
Driver Description:	USB-Eingabegerät
Driver Provider:	Microsoft
Driver Version:	10.0.19041.868
Driver Date:	21-Jun-2006
DeviceInstanceId	USB\VID_093A&PID_2510\7&237C6A24&0&4
Location Paths	PCIROOT(0)#PCI(1D00)#USBROOT(0)#USB(1)#USB(8)#USB(4)

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

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### **Intel Z77 Express Chipset - LPC Interface Controller [C1]**

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

<b>Device Name:</b>	<b>Intel Z77 Express Chipset - LPC Interface Controller [C1]</b>
<b>Original Device Name:</b>	<b>Intel Z77 Express Chipset - LPC Interface Controller [C1]</b>

<b>Device Class:</b>	<b>PCI-to-ISA Bridge</b>
Revision ID:	4 [C1]
PCI Address (Bus:Device:Function) Number:	0:31:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_1E44&SUBSYS_1E441849&REV_04
<b>[System Resources]</b>	
Interrupt Line:	N/A
Interrupt Pin:	N/A
<b>[Features]</b>	
Bus Mastering:	Enabled
Running At 66 MHz:	Not Capable
Fast Back-to-Back Transactions:	Not Capable
<b>[Driver Information]</b>	
Driver Manufacturer:	Intel
Driver Description:	LPC-Controller
Driver Provider:	Microsoft
Driver Version:	10.0.19041.1202
Driver Date:	21-Jun-2006
DeviceInstanceId	PCI\VEN_8086&DEV_1E44&SUBSYS_1E441849&REV_04\3&11583659&0&F8
Location Paths	PCIROOT(0)#PCI(1F00)

## Intel Panther Point PCH - SATA AHCI Controller [C1]

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<b>[General Information]</b>	
<b>Device Name:</b>	<b>Intel Panther Point PCH - SATA AHCI Controller [C1]</b>
<b>Original Device Name:</b>	<b>Intel Panther Point PCH - SATA AHCI Controller [C1]</b>
<b>Device Class:</b>	<b>SATA AHCI Controller</b>
Revision ID:	4 [C1]
PCI Address (Bus:Device:Function) Number:	0:31:2
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_1E02&SUBSYS_1E021849&REV_04
<b>[System Resources]</b>	
Interrupt Line:	N/A
Interrupt Pin:	INTB#
I/O Base Address 0	F070
I/O Base Address 1	F060
I/O Base Address 2	F050
I/O Base Address 3	F040
I/O Base Address 4	F020
Memory Base Address 5	F7F16000
<b>[Features]</b>	
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:	6
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:	1.30
Ports Implemented:	0, 1, 2, 3, 4, 5

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

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

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

Port Status:	Device Present, Phy communication established
Current Interface Speed:	Gen2 3.0 Gbps
External SATA Port:	Not Capable
Hot Plug:	Capable
Device Type:	SATA

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

Port Status:	Device Present, Phy communication established
Current Interface Speed:	Gen2 3.0 Gbps
External SATA Port:	Not Capable
Hot Plug:	Capable
Device Type:	SATA

### **[SATA Port#3]**

Port Status:	No Device Present
External SATA Port:	Not Capable
Hot Plug:	Capable

### **[SATA Port#4]**

Port Status:	No Device Present
External SATA Port:	Not Capable
Hot Plug:	Capable

### **[SATA Port#5]**

Port Status:	No Device Present
External SATA Port:	Not Capable
Hot Plug:	Capable

### **[Driver Information]**

Driver Manufacturer:	Standardmäßiger SATA AHCI- Controller
Driver Description:	Standardmäßiger SATA AHCI- Controller
Driver Provider:	Microsoft
Driver Version:	10.0.19041.1288
Driver Date:	21-Jun-2006
DeviceInstanceId	PCI\VEN_8086&DEV_1E02&SUBSYS_1E021849&REV_04\3&11583659&0&FA
Location Paths	PCIROOT(0)#PCI(1F02)

# Intel Panther Point PCH - SMBus Controller [C1]

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## [General Information]

Device Name:	Intel Panther Point PCH - SMBus Controller [C1]
Original Device Name:	Intel Panther Point PCH - SMBus Controller [C1]
Device Class:	SMBus (System Management Bus)
Revision ID:	4 [C1]
PCI Address (Bus:Device:Function) Number:	0:31:3
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_1E22&SUBSYS_1E221849&REV_04

## [System Resources]

Interrupt Line:	IRQ11
Interrupt Pin:	INTC#
Memory Base Address 0	F7F15000
I/O Base Address 4	F000

## [Features]

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

## [Driver Information]

Driver Manufacturer:	Intel
Driver Description:	SM-Bus-Controller
Driver Provider:	Microsoft
Driver Version:	10.0.19041.1202
Driver Date:	21-Jun-2006
DeviceInstanceId	PCI\VEN_8086&DEV_1E22&SUBSYS_1E221849&REV_04\3&11583659&0&FB
Location Paths	PCIROOT(0)#PCI(1F03)

# Video Adapter

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# AMD Radeon HD 7970/R9 280X

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## [Video chipset]

Video Chipset:	AMD Radeon HD 7970/R9 280X
Video Chipset Codename:	TAHITI XT/XTL
Video Memory:	3072 MBytes of GDDR5 SDRAM [Hynix]

## [Video Card]

Video Card:	GIGABYTE Radeon HD 7970 WindForce 3X OC
Video Bus:	PCIe v3.0 x16 (8.0 GT/s) @ x16 (2.5 GT/s)

Video RAMDAC:	Internal DAC(400MHz)
Video BIOS Version:	015.012.000.006

### [Performance]

Graphics Processor Clock:	300.0 MHz
Graphics Memory Clock:	150.0 MHz (Effective 600.0 MHz)
Graphics Memory Bus Width:	384-bit
Number Of ROPs:	32
Number Of Unified Shaders:	2048
Number Of TMUs (Texture Mapping Units):	128

ASIC Quality:	65.9 %
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ASIC Serial Number:	564222238652224
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Resizable BAR Support:	Not Supported
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Hardware ID:	PCI\VEN_1002&DEV_6798&SUBSYS_254D1458&REV_00
PCI Location (Bus:Dev:Fnc):	1:00:0

### [Driver Information]

Driver Manufacturer:	Advanced Micro Devices, Inc.
Driver Description:	AMD Radeon R9 200 / HD 7900 Series
Driver Provider:	Advanced Micro Devices, Inc.
Driver Version:	27.20.21002.112 (Radeon Software Adrenalin 21.4.1)
AMD Driver Package Version:	21.10.02-210413a-366490C-RadeonSoftware
AMD Software Driver Version:	21.4.1
Driver Date:	13-Apr-2021
DCH/UWD Driver:	Capable
DeviceInstanceID	PCI\VEN_1002&DEV_6798&SUBSYS_254D1458&REV_00\4&15001D53&0&0008
Location Paths	PCIROOT(0)#PCI(0100)#PCI(0000)

## Monitor

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## PHILIPS 246EL2SBH

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### [General information]

<b>Monitor Name:</b>	<b>PHILIPS 246EL2SBH</b>
<b>Monitor Name (Manuf):</b>	<b>246EL2SBH</b>
Serial Number:	F5A1104003434
Date Of Manufacture:	Week: 4, Year: 2011
Monitor Hardware ID:	Monitor\PHLC074

Max. Vertical Size:	29 cm
Max. Horizontal Size:	52 cm
Horizontal Frequency:	30 - 83 kHz

Vertical Frequency:	56 - 76 Hz
Maximum Pixel Clock:	170 MHz

**[Advanced parameters]**

Input Signal:	Digital
Gamma Factor:	2.20

**[DPMS Modes]**

Standby:	Supported
Suspend:	Supported
Active Off:	Supported
Standard Colour Space (sRGB) Default:	Supported
Preferred Timing Mode:	Supported
Default GTF (Continuous Frequency):	Not Supported
DFP 1.x Compatible:	No

**[Supported Video Modes]**

1920 x 1080	60 Hz
1440 x 900	60 Hz
1600 x 1200	60 Hz
1680 x 1050	60 Hz
1280 x 1024	60 Hz
1920 x 1080	521 x 293 mm, Pixel Clock 148.50 MHz

## Drives

### (S)ATA/ATAPI Drives

### WDC WD10EARS-22Y5B1

**[General Information]**

Drive Controller:	Serial ATA 3Gb/s
Host Controller:	ASMedia ASM1061 PCI-E x1 SATA 6Gbps Controller
<b>Drive Model:</b>	<b>WDC WD10EARS-22Y5B1</b>
Drive Firmware Revision:	80.00A80
Drive Serial Number:	WD-WCAV5H657655
World Wide Name:	50014EE25A59BE4A
<b>Drive Capacity:</b>	<b>953,869 MBytes (1000 GB)</b>
<b>Drive Capacity [MB]:</b>	<b>953869</b>
ATA Major Version Supported:	ATA/ATAPI-5, ATA/ATAPI-6, ATA/ATAPI-7, ATA8-ACS
ATA Transport Version Supported:	SATA 2.6

**[Drive Geometry]**

Number of Cylinders:	16383
Number of Heads:	16
Sectors Per Track:	63

Number Of ECC Bytes:	50
Number of Sectors:	16514064
Total 48-bit LBA Sectors:	1953525168
Logical Sector Size:	512 Bytes
Cache Buffer Size:	N/A

### **[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
Transfer Width:	16-bit
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, Inactive
Security Feature:	Present, Inactive
Removable Media Feature:	Not Present, Disabled
Power Management:	Present, Active
Advanced Power Management:	Not Present, Inactive
Packet Interface:	Not Present, Disabled
Look-Ahead Buffer:	Present, Active
Host Protected Area:	Present, Enabled
Power-Up In Standby:	Supported, Inactive
Automatic Acoustic Management:	Supported, Active
48-bit LBA:	Supported, Active
Host-Initiated Link Power Management:	Supported
Device-Initiated Link Power Management:	Not Supported
In-Order Data Delivery:	Not Supported
Hardware Feature Control:	Not Supported
Software Settings Preservation:	Supported, Enabled
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

Out Of Band Management Interface:	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:	200/51, Worst: 200
[03] Spin Up Time:	123/21, Worst: 119 (Data = 6841,0)
[04] Start/Stop Count:	97/Always OK, Worst: 97 (Data = 3595,0)
[05] Reallocated Sector Count:	200/140, Worst: 200
[07] Seek Error Rate:	200/Always OK, Worst: 200
[09] Power-On Hours/Cycle Count:	96/Always OK, Worst: 96 (3630 hours / 151.3 days)
[0A] Spin Retry Count:	100/Always OK, Worst: 100
[0B] Calibration Retry Count:	100/Always OK, Worst: 100
[0C] Power Cycle Count:	98/Always OK, Worst: 98 (Data = 2375,0)
[C0] Power-Off Retract Count:	200/Always OK, Worst: 200 (Data = 57,0)
[C1] Load/Unload Cycle Count:	193/Always OK, Worst: 193 (Data = 23046,0)
[C2] Temperature	121/Always OK, Worst: 94 (26.0 °C)
[C4] Reallocation Event Count:	200/Always OK, Worst: 200
[C5] Current Pending Sector Count:	200/Always OK, Worst: 200
[C6] Off-Line Uncorrectable Sector Count:	200/Always OK, Worst: 200
[C7] UltraDMA/SATA CRC Error Rate:	200/Always OK, Worst: 200
[C8] Write/Multi-Zone Error Rate:	200/Always OK, Worst: 200

## Samsung SSD 840 EVO 500GB

---

### [General Information]

Drive Controller:	Serial ATA 6Gb/s @ 6Gb/s
Host Controller:	Intel Panther Point PCH - SATA AHCI Controller [C1]
<b>Drive Model:</b>	<b>Samsung SSD 840 EVO 500GB</b>
Drive Firmware Revision:	EXT0CB6Q
Drive Serial Number:	S1DHNSAF682762A
World Wide Name:	50025388A050D419
<b>Drive Capacity:</b>	<b>476,940 MBytes (500 GB)</b>
<b>Drive Capacity [MB]:</b>	<b>476940</b>
<b>Media Rotation Rate:</b>	<b>SSD Drive (Non-rotating)</b>
ATA Major Version Supported:	ATA/ATAPI-5, ATA/ATAPI-6, ATA/ATAPI-7, ATA8-ACS, ACS-2
ATA Minor Version Supported:	ATA8-ACS version 4c
ATA Transport Version Supported:	SATA 3.1



### **[Drive Geometry]**

Number of Cylinders:	16383
Number of Heads:	16
Sectors Per Track:	63
Number of Sectors:	16514064
Total 48-bit LBA Sectors:	976773168
Logical Sector Size:	512 Bytes
Cache Buffer Size:	N/A

### **[Transfer Modes]**

Sectors Per Interrupt:	Total: 1, Active: 1
Max. PIO Transfer Mode:	4
Multiword DMA Mode:	Total: 2, Active: -
Singleword DMA Mode:	Total: -, Active: -
Ultra-DMA Mode:	Total: 6 (ATA-133), Active: 5 (ATA-100)
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:	Supported (Indeterminate Read After TRIM)

### **[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, Inactive
Security Feature:	Present, Inactive
Removable Media Feature:	Not Present, Disabled
Power Management:	Present, Active
Advanced Power Management:	Not Present, Inactive
Packet Interface:	Not Present, Disabled
Look-Ahead Buffer:	Present, Active
Host Protected Area:	Present, Enabled
Power-Up In Standby:	Not Supported, Inactive
Automatic Acoustic Management:	Not Supported, Inactive
48-bit LBA:	Supported, Active
Host-Initiated Link Power Management:	Not Supported
Device-Initiated Link Power Management:	Supported, Disabled
In-Order Data Delivery:	Not Supported
Hardware Feature Control:	Supported, Enabled
Software Settings Preservation:	Supported, Enabled
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:	Not 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
Out Of Band Management Interface:	Not Supported
Extended Power Conditions Feature:	Not Supported
Sense Data Reporting Feature:	Not Supported
Free-Fall Control Feature:	Not Supported
Write-Read-Verify Feature:	Supported, Disabled

### [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:	Supported
Trusted Computing:	Supported

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

[05] Reallocated Sector Count:	100/10, Worst: 100
[09] Power-On Hours/Cycle Count:	99/Always OK, Worst: 99 (3109 hours / 129.5 days)
[0C] Power Cycle Count:	97/Always OK, Worst: 97 (Data = 2362,0)
[B1] Wear Leveling Count:	97/Always OK, Worst: 97 (Data = 33,0)
[B3] Used Reserved Block Count (Total):	100/10, Worst: 100
[B5] Program Fail Count (Total):	100/10, Worst: 100
[B6] Erase Fail Count (Total):	100/10, Worst: 100
[B7] Runtime Bad Block (Total):	100/10, Worst: 100
[BB] Uncorrectable Error Count:	100/Always OK, Worst: 100
[BE] Airflow Temperature:	70/Always OK, Worst: 42 (30.0 °C)
[C3] ECC Error Rate:	200/Always OK, Worst: 200
[C7] SATA CRC Error Count:	99/Always OK, Worst: 99 (Data = 1,0)
[EB] POR Recovery Count:	99/Always OK, Worst: 99 (Data = 85,0)
[F1] Total Host Writes:	99/Always OK, Worst: 99 (Data = 2978513169,8)

Drive Remaining Life	97%
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## WDC WD15EARS-00Z5B1

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### [General Information]

Drive Controller:	Serial ATA 3Gb/s
Host Controller:	Intel Panther Point PCH - SATA AHCI Controller [C1]
<b>Drive Model:</b>	<b>WDC WD15EARS-00Z5B1</b>
Drive Firmware Revision:	80.00A80
Drive Serial Number:	WD-WMAVU2044725
World Wide Name:	50014EE0208B82D
<b>Drive Capacity:</b>	<b>1,430,799 MBytes (1500 GB)</b>
<b>Drive Capacity [MB]:</b>	<b>1430799</b>
ATA Major Version Supported:	ATA/ATAPI-5, ATA/ATAPI-6, ATA/ATAPI-7, ATA8-ACS
ATA Transport Version Supported:	SATA 2.6

### **[Drive Geometry]**

Number of Cylinders:	16383
Number of Heads:	16
Sectors Per Track:	63
Number Of ECC Bytes:	50
Number of Sectors:	16514064
Total 48-bit LBA Sectors:	2930277168
Logical Sector Size:	512 Bytes
Cache Buffer Size:	N/A

### **[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: 5 (ATA-100)
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
Transfer Width:	16-bit
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, Inactive
Security Feature:	Present, Inactive
Removable Media Feature:	Not Present, Disabled
Power Management:	Present, Active
Advanced Power Management:	Not Present, Inactive
Packet Interface:	Not Present, Disabled
Look-Ahead Buffer:	Present, Active
Host Protected Area:	Present, Enabled
Power-Up In Standby:	Supported, Inactive
Automatic Acoustic Management:	Supported, Inactive
48-bit LBA:	Supported, Active
Host-Initiated Link Power Management:	Supported
Device-Initiated Link Power Management:	Not Supported
In-Order Data Delivery:	Not Supported
Hardware Feature Control:	Not Supported
Software Settings Preservation:	Supported, Enabled
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
Out Of Band Management Interface:	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:	200/51, Worst: 200 (Data = 1,0)
[03] Spin Up Time:	182/21, Worst: 180 (Data = 5875,0)
[04] Start/Stop Count:	92/Always OK, Worst: 92 (Data = 8164,0)
[05] Reallocated Sector Count:	200/140, Worst: 200
[07] Seek Error Rate:	200/Always OK, Worst: 200
[09] Power-On Hours/Cycle Count:	64/Always OK, Worst: 64 (26381 hours / 3.01 years)
[0A] Spin Retry Count:	100/Always OK, Worst: 100
[0B] Calibration Retry Count:	100/Always OK, Worst: 100
[0C] Power Cycle Count:	97/Always OK, Worst: 97 (Data = 3063,0)
[C0] Power-Off Retract Count:	200/Always OK, Worst: 200 (Data = 217,0)
[C1] Load/Unload Cycle Count:	87/Always OK, Worst: 87 (Data = 340190,0)
[C2] Temperature	122/Always OK, Worst: 99 (28.0 °C)
[C4] Reallocation Event Count:	200/Always OK, Worst: 200
[C5] Current Pending Sector Count:	195/Always OK, Worst: 195 (Data = 1288,0)
[C6] Off-Line Uncorrectable Sector Count:	200/Always OK, Worst: 200
[C7] UltraDMA/SATA CRC Error Rate:	200/Always OK, Worst: 200
[C8] Write/Multi-Zone Error Rate:	200/Always OK, Worst: 198

## SAMSUNG HD501LJ

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### [General Information]

Drive Controller:	Serial ATA 3Gb/s
Host Controller:	Intel Panther Point PCH - SATA AHCI Controller [C1]
<b>Drive Model:</b>	<b>SAMSUNG HD501LJ</b>
Drive Firmware Revision:	CR100-12
Drive Serial Number:	S0MUJDWQ285193
World Wide Name:	5000F00DB285193
<b>Drive Capacity:</b>	<b>476,940 MBytes (500 GB)</b>
<b>Drive Capacity [MB]:</b>	<b>476940</b>
ATA Major Version Supported:	ATA/ATAPI-5, ATA/ATAPI-6, ATA/ATAPI-7, ATA8-ACS

ATA Minor Version Supported:  
ATA Transport Version Supported:

ATA8-ACS version 3b  
SATA 2.5

### **[Drive Geometry]**

Number of Cylinders:	16383
Number of Heads:	16
Sectors Per Track:	63
Bytes Per Sector:	554
Bytes Per Track:	34902
Number Of ECC Bytes:	4
Number of Sectors:	16514064
Total 48-bit LBA Sectors:	976773168
Logical Sector Size:	512 Bytes
Cache Buffer Size:	16384 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: 7 (SATA), Active: 5 (ATA-100)
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
Transfer Width:	16-bit
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, Inactive
Security Feature:	Present, Inactive
Removable Media Feature:	Not Present, Disabled
Power Management:	Present, Active
Advanced Power Management:	Not Present, Inactive
Packet Interface:	Not Present, Disabled
Look-Ahead Buffer:	Present, Active
Host Protected Area:	Present, Enabled
Power-Up In Standby:	Not Supported, Inactive
Automatic Acoustic Management:	Supported, Inactive
48-bit LBA:	Supported, Active
Host-Initiated Link Power Management:	Supported
Device-Initiated Link Power Management:	Supported, Disabled
In-Order Data Delivery:	Not Supported
Hardware Feature Control:	Not Supported
Software Settings Preservation:	Supported, Enabled
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:	Not 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
Out Of Band Management Interface:	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:	253/51, Worst: 100
[03] Spin Up Time:	100/15, Worst: 100 (Data = 7488,0)
[04] Start/Stop Count:	97/Always OK, Worst: 97 (Data = 3089,0)
[05] Reallocated Sector Count:	253/10, Worst: 253
[07] Seek Error Rate:	253/51, Worst: 253
[08] Seek Time Performance:	253/15, Worst: 253
[09] Power-On Hours/Cycle Count:	100/Always OK, Worst: 100 (1402 hours / 58.4 days)
[0A] Spin Retry Count:	253/51, Worst: 253
[0B] Calibration Retry Count:	253/Always OK, Worst: 100
[0C] Power Cycle Count:	99/Always OK, Worst: 99 (Data = 1380,0)
[0D] Soft Read Error Rate:	253/Always OK, Worst: 100
[BB] Reported Uncorrectable Errors:	253/Always OK, Worst: 253
[BC] Command Timeout Count:	100/Always OK, Worst: 100 (Data = 1,0)
[BE] Airflow Temperature / Exceed Count:	75/Always OK, Worst: 58 (25.0 °C)
[C2] Temperature	157/Always OK, Worst: 112 (27.0 °C)
[C3] Hardware ECC Recovered:	253/Always OK, Worst: 100
[C4] Reallocation Event Count:	253/Always OK, Worst: 253
[C5] Current Pending Sector Count:	253/Always OK, Worst: 253
[C6] Off-Line Uncorrectable Sector Count:	253/Always OK, Worst: 253
[C7] UltraDMA/SATA CRC Error Rate:	200/Always OK, Worst: 200
[C8] Write/Multi-Zone Error Rate:	253/Always OK, Worst: 100
[C9] Soft Read Error Rate:	253/Always OK, Worst: 100
[CA] Data Address Mark Errors	253/Always OK, Worst: 253

## **Audio**

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## Intel Panther Point PCH - High Definition Audio Controller [C1]

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**Audio Adapter:** Intel Panther Point PCH - High Definition Audio Controller [C1]

Audio Controller  
Hardware ID: PCI\VEN\_8086&DEV\_1E20&SUBSYS\_88921849&REV\_04

**High Definition Audio Codec:** RealTek ALC892

Audio Codec  
Hardware ID: HDAUDIO\FUNC\_01&VEN\_10EC&DEV\_0892&SUBSYS\_18498892&REV\_1003

### [Driver Information]

Driver  
Manufacturer: Microsoft  
Driver  
Description: High Definition Audio-Gerät  
Driver Provider: Microsoft  
Driver Version: 10.0.19041.264  
Driver Date: 09-May-2020  
DeviceInstanceId: HDAUDIO\FUNC\_01&VEN\_10EC&DEV\_0892&SUBSYS\_18498892&REV\_1003\4&1EABB83B&0&0001

## ATI/AMD Tahiti - High Definition Audio Controller

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**Audio Adapter:** ATI/AMD Tahiti - High Definition Audio Controller

Audio Controller  
Hardware ID: PCI\VEN\_1002&DEV\_AAA0&SUBSYS\_AAA01458&REV\_00

**High Definition Audio Codec:** ATi RADEON HDMI

Audio Codec  
Hardware ID: HDAUDIO\FUNC\_01&VEN\_1002&DEV\_AA01&SUBSYS\_00AA0100&REV\_1003

### [Driver Information]

Driver  
Manufacturer: Advanced Micro Devices  
Driver  
Description: AMD High Definition Audio Device  
Driver Provider: Advanced Micro Devices  
Driver Version: 10.0.1.18  
Driver Date: 16-Oct-2020  
DeviceInstanceId: HDAUDIO\FUNC\_01&VEN\_1002&DEV\_AA01&SUBSYS\_00AA0100&REV\_1003\5&1B6FCA2C&0&0001

## Network

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# 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:	BC-5F-F4-6B-E6-81

## [Capabilities]

Maximum Link Speed:	100 Mbps
Transmit Buffer Size:	193792 Bytes
Receive Buffer Size:	775168 Bytes
Hardware ID:	PCI\VEN_10EC&DEV_8168&SUBSYS_81681849&REV_06

## [Driver Information]

Driver Manufacturer:	Realtek
Driver Description:	Controller für die Realtek PCIe GbE-Familie
Driver Provider:	Microsoft
Driver Version:	9.1.410.2015
Driver Date:	10-Apr-2015
DeviceInstanceId	PCI\VEN_10EC&DEV_8168&SUBSYS_81681849&REV_06\4&C7A4F95&0&00E5
Location Paths	PCIROOT(0)#PCI(1C05)#PCI(0000)

# Ralink RT5392 802.11n Wireless Network Adapter

---

## [General information]

Network Card:	Ralink RT5392 802.11n Wireless Network Adapter
Vendor Description:	Microsoft
MAC Address:	00-0C-0B-46-B1-01

## [Capabilities]

Maximum Link Speed:	600 Mbps
Transmit Buffer Size:	6201344 Bytes
Receive Buffer Size:	6201344 Bytes
Hardware ID:	PCI\VEN_1814&DEV_5392&SUBSYS_53921814&REV_00

## [Driver Information]

Driver Manufacturer:	Ralink Technology, Corp.
Driver Description:	802.11n-Drahtlos-LAN-Karte
Driver Provider:	Microsoft
Driver Version:	5.0.57.1
Driver Date:	18-May-2015
DeviceInstanceId	PCI\VEN_1814&DEV_5392&SUBSYS_53921814&REV_00\4&443610C&0&00E6
Location Paths	PCIROOT(0)#PCI(1C06)#PCI(0000)

# Ports

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# Serial Ports

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## COM1

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## USB

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### Intel(R) 7 Series/C216-Chipsatzfamilie - USB-erweiterter Hostcontroller - 1E2D

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## Root Hub

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### [Port1] : Intel Integrated Rate Matching Hub

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**[Device Information]**

Device Manufacturer:	Intel
Product Name:	Intel Integrated Rate Matching Hub
Serial Number:	-
USB Version Supported:	2.00
USB Device Speed:	USB 2.0 High-speed
Driver Description:	Generic USB Hub
Hardware ID:	USB\VID_8087&PID_0024

**[Driver Information]**

Driver Manufacturer:	(Generic USB Hub)
Driver Description:	Generic USB Hub
Driver Provider:	Microsoft
Driver Version:	10.0.19041.488
Driver Date:	21-Jun-2006
DeviceInstanceId	USB\VID_8087&PID_0024\5&210F7663&0&1
Location Paths	PCIROOT(0)#PCI(1A00)#USBROOT(0)#USB(1)

**[Port1] : No Device Connected**

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**[Port2] : No Device Connected**

---

**[Port3] : No Device Connected**

---

**[Port4] : No Device Connected**

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**[Port5] : No Device Connected**

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**[Port6] : C-MEDIA ELECTRONICS INC. Audio Adapter (Unitek Y-247A)**

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**[Device Information]**

Device Manufacturer:	C-MEDIA ELECTRONICS INC.
Product Name:	C-MEDIA ELECTRONICS INC. Audio Adapter (Unitek Y-247A)
Serial Number:	
USB Version Supported:	1.10
USB Device Speed:	USB 1.1 Full-speed
Driver Description:	USB-Verbundgerät
Hardware ID:	USB\VID_0D8C&PID_0014

**[Driver Information]**

Driver Manufacturer:	(Standard-USB-Hostcontroller)
Driver Description:	USB-Verbundgerät
Driver Provider:	Microsoft
Driver Version:	10.0.19041.488
Driver Date:	21-Jun-2006
DeviceInstanceId	USB\VID_0D8C&PID_0014\6&E3E7252&0&6
Location Paths	PCIROOT(0)#PCI(1A00)#USBROOT(0)#USB(1)#USB(6)

**[Port2] : No Device Connected**

---

# Intel(R) USB 3.0 eXtensible-Hostcontroller – 1.0 (Microsoft)

---

## Root Hub

---

### [Port1] : No Device Connected

---

### [Port2] : Sony, PID=1000

---

#### [Device Information]

Device Manufacturer:	Sony
Product Name:	MRW-E90
Serial Number:	118050103526
USB Version Supported:	2.00
USB Device Speed:	USB 2.0 High-speed
Driver Description:	Generischer USB-Hub
Hardware ID:	USB\VID_054C&PID_0BAC

#### [Driver Information]

Driver Manufacturer:	(Standardmäßige USB-HUBs)
Driver Description:	Generischer USB-Hub
Driver Provider:	Microsoft
Driver Version:	10.0.19041.1202
Driver Date:	25-Aug-2021
DeviceInstanceId	USB\VID_054C&PID_0BAC\MSFT20118050103526
Location Paths	PCIROOT(0)#PCI(1400)#USBROOT(0)#USB(2)

### [Port1] : Sony, PID=1000

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#### [Device Information]

Device Manufacturer:	Sony
Product Name:	MRW-E90
Serial Number:	218090003228
USB Version Supported:	3.00 (Connected to a USB 2.00 Port)
USB Device Speed:	USB 2.0 High-speed
Driver Description:	USB-Massenspeichergerät

Hardware ID: USB\VID\_054C&PID\_0BAE

**[Driver Information]**

Driver Manufacturer:	Kompatibles USB-Speichergerät
Driver Description:	USB-Massenspeichergerät
Driver Provider:	Microsoft
Driver Version:	10.0.19041.1288
Driver Date:	21-Jun-2006
DeviceInstanceId	USB\VID_054C&PID_0BAE\218090003228
Location Paths	PCIROOT(0)#PCI(1400)#USBROOT(0)#USB(2)#USB(1)

**[Port2] : Sony, PID=1000**

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**[Device Information]**

Device Manufacturer:	Sony
Product Name:	MRW-E90
Serial Number:	318050201315
USB Version Supported:	3.00 (Connected to a USB 2.00 Port)
USB Device Speed:	USB 2.0 High-speed
Driver Description:	USB-Massenspeichergerät
Hardware ID:	USB\VID_054C&PID_0BAF

**[Driver Information]**

Driver Manufacturer:	Kompatibles USB-Speichergerät
Driver Description:	USB-Massenspeichergerät
Driver Provider:	Microsoft
Driver Version:	10.0.19041.1288
Driver Date:	21-Jun-2006
DeviceInstanceId	USB\VID_054C&PID_0BAF\318050201315
Location Paths	PCIROOT(0)#PCI(1400)#USBROOT(0)#USB(2)#USB(2)

**[Port3] : No Device Connected**

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**[Port4] : No Device Connected**

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**[Port5] : No Device Connected**

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**[Port6] : No Device Connected**

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**[Port7] : No Device Connected**

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**[Port8] : No Device Connected**

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**Intel(R) 7 Series/C216-Chipsatzfamilie - USB-erweiterter Hostcontroller - 1E26**

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**Root Hub**

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**[Port1] : Intel Integrated Rate Matching Hub**

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**[Device Information]**

Device Manufacturer:	Intel
Product Name:	Intel Integrated Rate Matching Hub
Serial Number:	
USB Version Supported:	2.00
USB Device Speed:	USB 2.0 High-speed
Driver Description:	Generic USB Hub
Hardware ID:	USB\VID_8087&PID_0024

**[Driver Information]**

Driver Manufacturer:	(Generic USB Hub)
Driver Description:	Generic USB Hub
Driver Provider:	Microsoft
Driver Version:	10.0.19041.488
Driver Date:	21-Jun-2006
DeviceInstanceId	USB\VID_8087&PID_0024\5&21D3F4F7&0&1
Location Paths	PCIROOT(0)#PCI(1D00)#USBROOT(0)#USB(1)

**[Port1] : No Device Connected**

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**[Port2] : No Device Connected**

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**[Port3] : No Device Connected**

---

**[Port4] : No Device Connected**

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**[Port5] : No Device Connected**

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**[Port6] : No Device Connected**

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**[Port7] : No Device Connected**

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**[Port8] : Genesys Logic USB V2.0 4-Port Hub**

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**[Device Information]**

Device Manufacturer:	N/A
Product Name:	USB2.0 Hub
Serial Number:	N/A
USB Version Supported:	2.00
USB Device Speed:	USB 2.0 High-speed
Driver Description:	Generic USB Hub
Hardware ID:	USB\VID_05E3&PID_0608

**[Driver Information]**

Driver Manufacturer:	(Generic USB Hub)
Driver Description:	Generic USB Hub
Driver Provider:	Microsoft
Driver Version:	10.0.19041.488

Driver Date:	21-Jun-2006
DeviceInstanceId	USB\VID_05E3&PID_0608\6&1A8123C&0&8
Location Paths	PCIROOT(0)#PCI(1D00)#USBROOT(0)#USB(1)#USB(8)

## [Port1] : Genesys Logic USB V2.0 4-Port Hub

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### [Device Information]

Device Manufacturer:	Genesys Logic
Product Name:	Genesys Logic USB V2.0 4-Port Hub
Serial Number:	
USB Version Supported:	2.00
USB Device Speed:	USB 2.0 High-speed
Driver Description:	Generic USB Hub
Hardware ID:	USB\VID_05E3&PID_0608

### [Driver Information]

Driver Manufacturer:	(Generic USB Hub)
Driver Description:	Generic USB Hub
Driver Provider:	Microsoft
Driver Version:	10.0.19041.488
Driver Date:	21-Jun-2006
DeviceInstanceId	USB\VID_05E3&PID_0608\7&237C6A24&0&1
Location Paths	PCIROOT(0)#PCI(1D00)#USBROOT(0)#USB(1)#USB(8)#USB(1)

## [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] : No Device Connected

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## [Port2] : No Device Connected

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## [Port3] : Logitech DeLuxe 250 Keyboard

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### [Device Information]

Device Manufacturer:	BTC
Product Name:	USB Multimedia Keyboard
Serial Number:	N/A
USB Version Supported:	1.10
USB Device Speed:	USB 1.1 Low-speed
Driver Description:	USB-Verbundgerät
Hardware ID:	USB\VID_046D&PID_C312

### [Driver Information]

Driver Manufacturer:	(Standard-USB-Hostcontroller)
Driver Description:	USB-Verbundgerät
Driver Provider:	Microsoft
Driver Version:	10.0.19041.488
Driver Date:	21-Jun-2006
DeviceInstanceId	USB\VID_046D&PID_C312\7&237C6A24&0&3
Location Paths	PCIROOT(0)#PCI(1D00)#USBROOT(0)#USB(1)#USB(8)#USB(3)

## [Port4] : Pixart Imaging Hama Optical Mouse

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### [Device Information]

Device Manufacturer:	PixArt
Product Name:	USB Optical Mouse
Serial Number:	N/A
USB Version Supported:	2.00
USB Device Speed:	USB 1.1 Low-speed
Driver Description:	USB-Eingabegerät
Hardware ID:	USB\VID_093A&PID_2510

### [Driver Information]

Driver Manufacturer:	(Standardsystemgeräte)
Driver Description:	USB-Eingabegerät
Driver Provider:	Microsoft
Driver Version:	10.0.19041.868
Driver Date:	21-Jun-2006
DeviceInstanceId	USB\VID_093A&PID_2510\7&237C6A24&0&4
Location Paths	PCIROOT(0)#PCI(1D00)#USBROOT(0)#USB(1)#USB(8)#USB(4)

## [Port2] : No Device Connected

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