

Creation Time 17.04.2025 12:12

- Content:
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DESKTOP-U2AE9V5

[Current Computer]

Computer Name:	DESKTOP-U2AE9V5
Computer Brand Name:	MSI PE60 6QE

[Operating System]

Operating System:	Microsoft Windows 10 Professional (x64) Build 19045.5131 (22H2)
UEFI Boot:	Not Present
Secure Boot:	Not Capable
Hypervisor-protected Code Integrity (HVCI):	Disabled

Central Processor(s)

[CPU Unit Count]

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

Intel Core i7-6700HQ

[General Information]

Processor Name:	Intel Core i7-6700HQ
Original Processor Frequency:	2600.0 MHz
Original Processor Frequency [MHz]:	2600
CPU ID:	000506E3
CPU Brand Name:	Intel(R) Core(TM) i7-6700HQ CPU @ 2.60GHz
CPU Vendor:	GenuineIntel
CPU Stepping:	R0

CPU Code Name:	Skylake-H
CPU Technology:	14 nm
CPU S-Spec:	SR2FQ
CPU Thermal Design Power (TDP):	45.0 W
CPU Power Limits (Max):	Power = Unlimited, Time = Unlimited
CPU Power Limit 1 (Long Duration)/Processor Base Power (PBP):	(45.00 W) (28.00 sec) [Unlocked]
CPU Power Limit 2 (Short Duration)/Maximum Turbo Power (MTP):	(56.25 W) (2.44 ms) [Unlocked]
Configurable TDP Level 1 (Down):	35.00 W (Unlimited range), 2100 MHz
Current Configurable TDP Level:	Nominal (Legacy) [Unlocked]
CPU Max. Junction Temperature (Tj,max):	100 °C
CPU Type:	Production Unit
CPU Platform:	BGA1440
Microcode Update Revision:	CC
Number of CPU Cores:	4
Number of Logical CPUs:	8

[Operating Points]

CPU MFM (Low Power):	800.0 MHz = 8 x 100.0 MHz
CPU LFM (Minimum):	800.0 MHz = 8 x 100.0 MHz
CPU HFM (Base):	2600.0 MHz = 26 x 100.0 MHz
CPU Turbo Max:	3500.0 MHz = 35 x 100.0 MHz [Unlocked]
Turbo Ratio Limits:	35x (1c), 33x (2c), 32x (3c), 31x (4c)
CPU Current:	3094.7 MHz = 31 x 99.8 MHz @ 1.0995 V
LLC/Ring Maximum:	3500.0 MHz = 35.00 x 100.0 MHz
LLC/Ring Current:	3094.7 MHz = 31.00 x 99.8 MHz
System Agent Current:	998.3 MHz = 10.00 x 99.8 MHz
CPU Bus Type:	Intel Direct Media Interface (DMI) v3.0
Maximum DMI Link Speed:	8.0 GT/s
Current DMI Link Speed:	8.0 GT/s
Residency State Regulation (RSR):	Enabled

[IA Overclocking]

Voltage Offset:	Supported
Voltage Override:	Supported
Ratio Overclocking:	Not Supported
Fused Ratio Limit:	35x
OC Ratio Limit:	N/A
Voltage Mode:	Interpolative
Voltage Offset (Global):	0 mV
IccMax:	70.00 A

[GT (Slice) Overclocking]

Voltage Offset:	Supported
Voltage Override:	Supported
Ratio Overclocking:	Supported
Fused Ratio Limit:	60x
OC Ratio Limit:	N/A
Voltage Mode:	Interpolative
Voltage Offset (Global):	0 mV
IccMax:	60.00 A

[CLR (CBo/LLC/Ring) Overclocking]

Voltage Offset:	Supported
Voltage Override:	Supported

Ratio Overclocking:	Not Supported
Fused Ratio Limit:	35x
OC Ratio Limit:	N/A
Voltage Mode:	Interpolative
Voltage Offset (Global):	0 mV
IccMax:	70.00 A

[GT (Unslice) Overclocking]

Voltage Offset:	Supported
Voltage Override:	Supported
Ratio Overclocking:	Supported
Fused Ratio Limit:	60x
OC Ratio Limit:	N/A
Voltage Mode:	Interpolative
Voltage Offset (Global):	0 mV
IccMax:	60.00 A

[Uncore/SA Overclocking]

Voltage Offset:	Supported
Voltage Override:	Not Supported
Ratio Overclocking:	Not Supported
Fused Ratio Limit:	N/A
OC Ratio Limit:	N/A
Voltage Mode:	Interpolative
Voltage Offset (Global):	0 mV
IccMax:	12.00 A

[Cache and TLB]

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

[Standard Feature Flags]

FPU on Chip	Present
Enhanced Virtual-86 Mode	Present
I/O Breakpoints	Present
Page Size Extensions	Present
Time Stamp Counter	Present
Pentium-style Model Specific Registers	Present
Physical Address Extension	Present
Machine Check Exception	Present
CMPXCHG8B Instruction	Present
APIC On Chip / PGE (AMD)	Present
Fast System Call	Present
Memory Type Range Registers	Present
Page Global Feature	Present
Machine Check Architecture	Present
CMOV Instruction	Present
Page Attribute Table	Present
36-bit Page Size Extensions	Present
Processor Number	Not Present
CLFLUSH Instruction	Present
Debug Trace and EMON Store	Present
Internal ACPI Support	Present
MMX Technology	Present
Fast FP Save/Restore (IA MMX-2)	Present
Streaming SIMD Extensions	Present
Streaming SIMD Extensions 2	Present
Self-Snoop	Present
Multi-Threading Capable	Present

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

[Extended Feature Flags]

64-bit Extensions	Present
RDTSCL and TSC_AUX Support	Present
1 GB large page support	Present
No Execute	Present
SYSCALL/SYSRET Support	Present
Bit Manipulation Instructions Set 1	Present
Bit Manipulation Instructions Set 2	Present
Advanced Vector Extensions 2 (AVX2)	Present
Advanced Vector Extensions 512 (AVX-512) 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 Instructions	Not Present
AVX-512 Byte and Word Instructions	Not Present
AVX-512 Vector Length Extensions	Not Present
AVX-512 52-bit Integer FMA Instructions	Not Present
Secure Hash Algorithm (SHA) Extensions	Not Present
Software Guard Extensions (SGX) Support	Present
Supervisor Mode Execution Protection (SMEP)	Present
Supervisor Mode Access Prevention (SMAP)	Present
Hardware Lock Elision (HLE)	Present
Restricted Transactional Memory (RTM)	Present
Memory Protection Extensions (MPX)	Present
Read/Write FS/GS Base Instructions	Present
Enhanced Performance String Instruction	Present
INVEPCID Instruction	Present
RDSEED Instruction	Present
Multi-precision Add Carry Instructions (ADX)	Present
PCOMMIT Instructions	Not Present
CLFLUSHOPT Instructions	Present
CLWB Instructions	Not Present

Time-Stamp Counter Adjustment	Present
Platform Quality of Service Monitoring (PQM)	Not Present
Platform Quality of Service Enforcement (PQE)	Not Present
FPU Data Pointer updated only on x87 Exceptions	Not Present
Deprecated FPU CS and FPU DS	Present
Intel Processor Trace	Present
PREFETCHWT1 Instruction	Not Present
AVX-512 Vector Bit Manipulation Instructions	Not Present
AVX-512 Vector Bit Manipulation Instructions 2	Not Present
AVX-512 Galois Fields New Instructions	Not Present
AVX-512 Vector AES	Not Present
AVX-512 Vector Neural Network Instructions	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
OS Bus-Lock Detection	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) Shadow Stack	Not Present
Attestation Services for Intel SGX	Not Present
AVX-512 4 x Vector Neural Network Instructions Word Variable Precision	Not Present
AVX-512 4 x Fused Multiply Accumulation Packed Single Precision	Not Present
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
IA32_MCU_OPT_CTRL MSR Support	Not Present
Restricted Transactional Memory (RTM) Always Abort	Not Present
Restricted Transactional Memory (RTM) Force Abort	Present
SERIALIZE	Not Present
Hybrid Processor	Not Present
TSX Suspend Load Address Tracking	Not Present
Platform Configuration (PCONFIG)	Not Present
Architectural LBRs	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
SHA512 Instructions	Not Present
SM3 Instructions	Not Present
SM4 Instructions	Not Present
Advanced Matrix Extensions (AMX) FP16 Instructions	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
Linear Address Space Separation	Not Present
RAO-INT Instructions	Not Present
CMPccXADD Instructions	Not Present
Flexible Return and Event Delivery (FRED)	Not Present
LKGS Instruction	Not Present
WRMSRNS Instruction	Not Present
NMI-source Reporting	Not Present
AVX-IFMA Instructions	Not Present
RD/WR MSRLIST Instructions	Not Present
INVD Execution Prevention After BIOS-Done	Not Present
Move Read-Shared Value (MOVRS)	Not Present
Protected Processor Inventory Number (IA32_PPIN) Support	Not Present
PBNDKB Instruction	Not Present
X86S (Legacy-reduced OS ISA)	Not Present
64-bit SIPI	Not Present
RDMSR/WRMSR Immediate Forms	Not Present
AVX-VNNI-INT8 Instructions	Not Present
AVX-VNNI-INT16 Instructions	Not Present
AVX-NE-CONVERT Instructions	Not Present
PREFETCHIT0/1 Instructions	Not Present
URDMSR/UWRMSR Instructions	Not Present
AMX-COMPLEX Instructions	Not Present
CET Supervisor Shadow-Stack	Not Present
UIRET Support	Not Present
Advanced Vector Extensions 10 (AVX10)	Not Present
Advanced Performance Extensions (APX) Foundation	Not Present
Not Exhibiting MXCSR Configuration Dependent Timing (MCDT)	Not Present
UC-Lock Disable Feature	Not Present

[Enhanced Features]

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

[CPU SKU Features]

Display HD Audio:	Supported
DMI x4 Width:	Supported
DRAM ECC:	Not Supported
VT-d:	Supported
DMI in Gen2 Mode:	Supported
PEG in Gen2 Mode:	Supported
1N Mode DDR Timings:	Supported
Camarillo (DTT) Device:	Supported
2 DIMMs per Channel:	Supported
X2APIC:	Supported
Dual Memory Channel:	Supported

Integrated GPU (IGD):	Enabled
DDR Overclocking:	Enabled
Overclocking by DSKU:	Disabled
DDR3L:	Supported
Maximum Memory Size per Channel:	64 GB (unlimited)
DDR Frequency Support (100 MHz RefClk)	Supported
Overclocking:	Disabled
Hyper-Threading (SMT):	Supported
Additive Graphics:	Enabled
PCIe Gen 3:	Supported
DMI Gen 3:	Supported
HDCP:	Supported
DDR4:	Supported
LPDDR3:	Supported
BCLK OC Limit:	100 MHz
Maximum Supported LPDDR3 Frequency:	1067 MHz
Maximum Supported DDR4 Frequency:	1067 MHz
SVID Status:	Enabled

[Voltage Regulator (SVID)]

VCC VR:	Intersil/Renesas (0x55), IMVP8
VR Thermal Sensor:	Not Supported

[Memory Ranges]

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

[MTRRs]

Range 80000000-100000000 (2048MB-4096MB) Type:	Uncacheable (UC)
Range 7C000000-80000000 (1984MB-2048MB) Type:	Uncacheable (UC)
Range 7A000000-7C000000 (1952MB-1984MB) Type:	Uncacheable (UC)
Range 79000000-7A000000 (1936MB-1952MB) Type:	Uncacheable (UC)
Range 78800000-79000000 (1928MB-1936MB) Type:	Uncacheable (UC)

Motherboard

[Computer]

Computer Brand Name:	MSI PE60 6QE
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[Motherboard]

Motherboard Model:	MSI MS-16J5
Motherboard Chipset:	Intel HM170 (Skylake PCH-H)
Motherboard Slots:	4xPCI Express x1, 1xPCI Express x16
PCI Express Version Supported:	v3.0
USB Version Supported:	v3.0

[BIOS]

BIOS Manufacturer:	American Megatrends
BIOS Date:	04/29/2016
BIOS Version:	E16J5IMS.114
UEFI BIOS:	Capable
Super-IO/LPC Chip:	Unknown
Trusted Platform Module (TPM) Chip:	Not Found

ACPI Devices

Radio Switch Device

Device Name:	Radio Switch Device
[Assigned Resources]	
Memory Location:	FC0008DB - FC0008DC
[Alternative 1]	
Memory Location:	FC0008DB - FC0008DC
Memory Location:	FC000000 - FC0008DA
Memory Location:	FC0008DD - FC00FFFF

Legacy device

Device Name:	Legacy device
[Assigned Resources]	
Memory Location:	FF000000 - FFFFFFFF
[Alternative 1]	
Memory Location:	FF000000 - FFFFFFFF

Intel(R) Watchdog Timer Driver (Intel(R) WDT)

Device Name:	Intel(R) Watchdog Timer Driver (Intel(R) WDT)
[Assigned Resources]	
I/O Port:	1854 - 1857
[Alternative 1]	
I/O Port:	1854 - 1857

Standard PS/2 Keyboard

Device Name:	Standard PS/2 Keyboard
[Assigned Resources]	
I/O Port:	0060
I/O Port:	0000
[Alternative 1]	
I/O Port:	0060

I/O Port:	0064
IRQ:	1

Programmable interrupt controller

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

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

Device Name: High precision event timer

[Assigned Resources]

Memory Location: FED00000 - FED003FF

[Alternative 1]

Memory Location: FED00000 - FED003FF

PCI Express Root Complex

Device Name: PCI Express Root Complex

[Assigned Resources]

I/O Port: 0000 - FFFFFFFF

Memory Location: 000A0000 - 000BFFFF

Memory Location: FC000000 - FBFFFFFF

[Alternative 1]

I/O Port: 0000 - 0CF7

I/O Port: 0D00 - FFFF

Memory Location: 000A0000 - 000BFFFF

Memory Location: 7D000000 - DFFFFFFF

Memory Location: FC000000 - FC00FFFF

Memory Location: FD000000 - FE7FFFFF

System CMOS/real time clock

Device Name: System CMOS/real time clock

[Assigned Resources]

I/O Port: 0070 - 0077

[Alternative 1]

I/O Port: 0070 - 0077

IRQ: 8

Motherboard resources

Device Name: Motherboard resources

[Assigned Resources]

Memory Location: FED10000 - FED17FFF

Memory Location: FED20000 - FED3FFFF

[Alternative 1]

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

Motherboard resources

Device Name:	Motherboard resources
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[Assigned Resources]

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

[Alternative 1]

I/O Port:	002E - 002F
I/O Port:	004E - 004F
I/O Port:	0061
I/O Port:	0063
I/O Port:	0065
I/O Port:	0067
I/O Port:	0070
I/O Port:	0080
I/O Port:	0092
I/O Port:	00B2 - 00B3
I/O Port:	0680 - 069F
I/O Port:	FFFF
I/O Port:	FFFF
I/O Port:	FFFF
I/O Port:	1800 - 18FE
I/O Port:	164E - 164F

Motherboard resources

Device Name:	Motherboard resources
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[Assigned Resources]

Memory Location:	FDAF0000 - FDAFFFFFFF
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[Alternative 1]

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

Motherboard resources

Device Name:	Motherboard resources
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[Assigned Resources]

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

I/O Port:	FF00 - FFFE
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Motherboard resources

Device Name:	Motherboard resources
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[Assigned Resources]

I/O Port:	0800 - 087F
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[Alternative 1]

I/O Port:	0800 - 087F
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Motherboard resources

Device Name:	Motherboard resources
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[Assigned Resources]

Memory Location:	FD000000 - FDABFFFF
Memory Location:	FE036000 - FE03BFFF

[Alternative 1]

Memory Location:	FD000000 - FDABFFFF
Memory Location:	FDAD0000 - FDADFFFF
Memory Location:	FDB00000
Memory Location:	FE000000
Memory Location:	FE036000
Memory Location:	FE03D000
Memory Location:	FE410000

Numeric data processor

Device Name:	Numeric data processor
[Assigned Resources]	
I/O Port:	00F0
[Alternative 1]	
I/O Port:	00F0
IRQ:	13

Microsoft ACPI-Compliant Embedded Controller

Device Name:	Microsoft ACPI-Compliant Embedded Controller
[Assigned Resources]	
I/O Port:	0062
[Alternative 1]	
I/O Port:	0062
I/O Port:	0066

Synaptics PS/2 Port TouchPad

Device Name:	Synaptics PS/2 Port TouchPad
[Assigned Resources]	
IRQ:	12
[Alternative 1]	
IRQ:	12

SMBIOS DMI

OEM Strings

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BIOS

BIOS Vendor:	American Megatrends Inc.
BIOS Version:	E16J5IMS.114
BIOS Release Date:	04/29/2016
BIOS Start Segment:	F000
BIOS Size:	6144 KBytes
System BIOS Version:	1.20
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:	Not 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

System Manufacturer:	Micro-Star International Co., Ltd.
Product Name:	PE60 6QE
Product Version:	REV:1.0
Product Serial Number:	9S716J5141458ZGB000008
SKU Number:	
Family:	

Mainboard

Mainboard Manufacturer:	Micro-Star International Co., Ltd.
Mainboard Name:	MS-16J5
Mainboard Version:	REV:0.A
Mainboard Serial Number:	BSS-0123456789
Asset Tag:	
Location in chassis:	

System Enclosure

Manufacturer:	Micro-Star International Co., Ltd.
Case Type:	Notebook
Version:	
Serial Number:	
Asset Tag Number:	

On Board Device

Device Description:	To Be Filled By O.E.M.
Device Type:	Video Adapter
Device Status:	Enabled

System Configuration Options

Default string

System Boot Information

Boot Status:	No error occurred
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Management Device

Device Description:	LM78-1
Device Type:	National Semiconductor LM78
Device Address:	I/O: 0

Voltage Probe

Description:	LM78A
Location:	Unknown

Status:	Unknown
Maximum Value:	Unknown
Minimum Value:	Unknown
Resolution:	Unknown
Tolerance:	Unknown
Accuracy:	Unknown

Management Device Threshold Data

Management Device Component

Temperature Probe

Description:	LM78A
Location:	Unknown
Status:	Unknown
Maximum Value:	Unknown
Minimum Value:	Unknown
Nominal Value:	Unknown
Resolution:	Unknown
Tolerance:	Unknown
Accuracy:	Unknown

Management Device Threshold Data

Management Device Component

Cooling Device

Type:	Unknown
Description:	Cooling Dev 1
Status:	Unknown

Management Device Threshold Data

Management Device Component

Cooling Device

Type:	Unknown
Description:	
Status:	Unknown

Management Device Threshold Data

Management Device Component

Electrical Current Probe

Description:	ABC
Location:	Unknown
Status:	Unknown
Maximum Value:	Unknown
Minimum Value:	Unknown
Resolution:	Unknown
Tolerance:	Unknown
Accuracy:	Unknown

Management Device Threshold Data

Management Device Component

Voltage Probe

Description:	LM78A
Location:	Power Unit
Status:	OK
Maximum Value:	Unknown
Minimum Value:	Unknown
Resolution:	Unknown
Tolerance:	Unknown
Accuracy:	Unknown

Temperature Probe

Description:	LM78A
Location:	Power Unit
Status:	OK
Maximum Value:	Unknown
Minimum Value:	OK
Nominal Value:	OK
Resolution:	OK
Tolerance:	OK
Accuracy:	Unknown

Cooling Device

Type:	Power Supply Fan
Description:	Cooling Dev 1
Status:	OK

Electrical Current Probe

Description:	ABC
Location:	Power Unit
Status:	OK
Maximum Value:	Unknown
Minimum Value:	Unknown
Resolution:	Unknown
Tolerance:	Unknown
Accuracy:	Unknown

System Power Supply

Location:	To Be Filled By O.E.M.
Device Name:	To Be Filled By O.E.M.
Manufacturer:	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.
Model Part Number:	To Be Filled By O.E.M.
Revision Level:	To Be Filled By O.E.M.
Power Supply Status:	Present
Power Supply Type:	Switching
Power Status:	OK
Hot replaceable:	No
Unplugged from wall:	No

On Board Device

Device Description:	Onboard IGD
Device Type:	Video Adapter
Device Status:	Enabled
Base Segment:Bus:Device:Function Number:	0:0:2:0

On Board Device

Device Description:	Onboard LAN
Device Type:	Ethernet Adapter
Device Status:	Enabled
Base Segment:Bus:Device:Function Number:	0:0:25:0

On Board Device

Device Description:	Onboard 1394
Device Type:	Unknown
Device Status:	Enabled
Base Segment:Bus:Device:Function Number:	0:3:28:2

L1 Cache

Socket Designation:	L1 Cache
Cache State:	Enabled
Cache Location:	Internal
Cache Type:	L1 Data
Cache Scheme:	Write-Back
Supported SRAM Type:	Synchronous
Current SRAM Type:	Synchronous
Cache Speed:	Unknown
Error Correction Type:	Parity
Maximum Cache Size:	128 KBytes

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

L1 Cache

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

L2 Cache

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

L3 Cache

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

Processor

Processor Manufacturer:	Intel(R) Corporation
Processor Version:	Intel(R) Core(TM) i7-6700HQ CPU @ 2.60GHz
External Clock:	100 MHz
Maximum Clock Supported:	3500 MHz
Current Clock:	3100 MHz
CPU Socket:	Populated
CPU Status:	Enabled
Processor Type:	Central Processor
Processor Voltage:	1.2 V
Processor Upgrade:	Unknown (1)
Socket Designation:	U3E1

Firmware Version Information

Reference Code - ACPI	1.5.0.0
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Intel AMT

Intel AMT Support:	Not Supported
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Intel vPro

CPU VT-x Support:	Supported
CPU VT-x Status:	Enabled
CPU VT-x2 Support:	Not Supported
CPU VT-x2 Status:	Disabled
CPU TXT Support:	Not Supported
CPU TXT Status:	Disabled
CPU VMX Status:	Enabled
CPU SMX Status:	Disabled
Intel ME Status:	Enabled
Intel OST Firmware Support:	Not Supported
Intel ASF Firmware Support:	Not Supported
Intel AMT Pro Firmware Support:	Not Supported
Intel AMT Basic Firmware Support:	Not Supported
Intel TPM Firmware Support:	Not Supported
Intel Castle Peak Support:	Not Supported
Intel WoX Support:	Not Supported
Intel Virtualization Engine Support:	Not Supported
Intel Anti-Theft Technology Support:	Not Supported
TPM On-board:	Not Supported
Intel Anti-Theft Technology Enrolled:	Not Supported

Intel ME Version:	v11.0, Build 1180, Hotfix 0
BIOS VT-x Support:	Not Supported
BIOS VT-d Support:	Supported
BIOS TXT Support:	Not Supported
BIOS TPM Support:	Not Supported
BIOS ME Support:	Not Supported
BIOS VA Extensions Support:	Supported
Intel AT PBA For Recovery Support:	Not Supported
Intel AT WWAN Support:	Not Supported

Firmware Version Information

Reference Code - CPU	1.5.0.0
uCode Version	0.0.0.132
TXT ACM version	0.5.0.0

Firmware Version Information

Reference Code - ME 11.0	1.5.0.0
MEBx version	11.0.0.5
ME Firmware Version	Consumer SKU

Firmware Version Information

Reference Code - SKL PCH	1.5.0.0
PCH-CRID Status	Disabled
PCH-CRID Original Value	0x31
PCH-CRID New Value	0x31
OPROM - RST - RAID	
SKL PCH H Bx Hsio Version	62.0.0.0
SKL PCH H Dx Hsio Version	52.0.0.0
SKL PCH LP Bx Hsio Version	62.0.0.0
SKL PCH LP Cx Hsio Version	52.0.0.0

Firmware Version Information

Reference Code - SA - System Agent	1.5.0.0
Reference Code - MRC	1.5.0.0
SA - PCIe Version	1.5.0.0
SA-CRID Status	Disabled
SA-CRID Original Value	0x7
SA-CRID New Value	0x7
OPROM - VBIOS	Build: 4134

Firmware Version Information

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

Group Associations

Group Associations

BIOS Language

en|US|iso8859-1 <Active>
zh|CN|unicode

Memory Devices

Physical Memory Array

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

Memory Device

Total Width:	64 bits
Data Width:	64 bits
Device Size:	8192 MBytes
Device Form Factor:	SODIMM
Device Locator:	ChannelA-DIMM0
Bank Locator:	BANK 0
Device Type:	DDR4
Device Type Detail:	Synchronous
Memory Speed:	2133 MT/s
Configured Memory Speed:	2133 MT/s
Manufacturer:	Samsung
Serial Number:	22241819
Part Number:	M471A1K43BB0-CPB
Asset Tag:	9876543210

Memory Device

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

Memory Device

Total Width:	64 bits
Data Width:	64 bits
Device Size:	8192 MBytes
Device Form Factor:	SODIMM
Device Locator:	ChannelB-DIMM0
Bank Locator:	BANK 2
Device Type:	DDR4
Device Type Detail:	Synchronous
Memory Speed:	2133 MT/s
Configured Memory Speed:	2133 MT/s
Manufacturer:	Samsung
Serial Number:	22231096
Part Number:	M471A1K43BB0-CPB
Asset Tag:	9876543210

Memory Device

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

Memory Array Mapped Address

Memory Array Mapped Address	
Starting Address:	00000000
Ending Address:	00FFFFFF
Partition Width:	2

Memory Device Mapped Address

Memory Device Mapped Address	
Starting Address:	00000000
Ending Address:	007FFFFFF
Partition Row Position:	Unknown
Interleave Position:	1
Interleave Data Depth:	2

Memory Device Mapped Address

Memory Device Mapped Address	
Starting Address:	00800000
Ending Address:	00FFFFFF
Partition Row Position:	Unknown
Interleave Position:	2
Interleave Data Depth:	2

Port Connectors

Mouse Port

Port Type:	Mouse Port
Internal Reference:	J1A1
Internal Connector Type:	None
External Reference:	PS2Mouse
External Connector Type:	PS/2

Keyboard Port

Port Type:	Keyboard Port
Internal Reference:	J1A1
Internal Connector Type:	None
External Reference:	Keyboard
External Connector Type:	PS/2

Port Connector

Port Type:	Unknown
Internal Reference:	J2A1
Internal Connector Type:	None
External Reference:	TV Out
External Connector Type:	Mini-Centronics Type-14

Serial Port 16550A Compatible

Port Type:	Serial Port 16550A Compatible
Internal Reference:	J2A2A
Internal Connector Type:	None
External Reference:	COM A
External Connector Type:	DB-9 pin male

Video Port

Port Type:	Video Port
Internal Reference:	J2A2B
Internal Connector Type:	None
External Reference:	Video
External Connector Type:	DB-15 pin female

USB

Port Type:	USB
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Internal Reference:	J3A1
Internal Connector Type:	None
External Reference:	USB1
External Connector Type:	Access Bus (USB)

USB

Port Type:	USB
Internal Reference:	J3A1
Internal Connector Type:	None
External Reference:	USB2
External Connector Type:	Access Bus (USB)

USB

Port Type:	USB
Internal Reference:	J3A1
Internal Connector Type:	None
External Reference:	USB3
External Connector Type:	Access Bus (USB)

Port Connector

Port Type:	Unknown
Internal Reference:	J9A1 - TPM HDR
Internal Connector Type:	Unknown
External Reference:	
External Connector Type:	None

Port Connector

Port Type:	Unknown
Internal Reference:	J9C1 - PCIE DOCKING CONN
Internal Connector Type:	Unknown
External Reference:	
External Connector Type:	None

Port Connector

Port Type:	Unknown
Internal Reference:	J2B3 - CPU FAN
Internal Connector Type:	Unknown

External Reference:

External Connector Type: None

Port Connector

Port Type:	Unknown
Internal Reference:	J6C2 - EXT HDMI
Internal Connector Type:	Unknown
External Reference:	
External Connector Type:	None

Port Connector

Port Type:	Unknown
Internal Reference:	J3C1 - GMCH FAN
Internal Connector Type:	Unknown
External Reference:	
External Connector Type:	None

Port Connector

Port Type:	Unknown
Internal Reference:	J1D1 - ITP
Internal Connector Type:	Unknown
External Reference:	
External Connector Type:	None

Port Connector

Port Type:	Unknown
Internal Reference:	J9E2 - MDC INTPSR
Internal Connector Type:	Unknown
External Reference:	
External Connector Type:	None

Port Connector

Port Type:	Unknown
Internal Reference:	J9E4 - MDC INTPSR
Internal Connector Type:	Unknown
External Reference:	
External Connector Type:	None

Port Connector

Port Type:	Unknown
Internal Reference:	J9E3 - LPC HOT DOCKING
Internal Connector Type:	Unknown
External Reference:	
External Connector Type:	None

Port Connector

Port Type:	Unknown
Internal Reference:	J9E1 - SCAN MATRIX
Internal Connector Type:	Unknown
External Reference:	
External Connector Type:	None

Port Connector

Port Type:	Unknown
Internal Reference:	J9G1 - LPC SIDE BAND
Internal Connector Type:	Unknown
External Reference:	
External Connector Type:	None

Port Connector

Port Type:	Unknown
Internal Reference:	J8F1 - UNIFIED
Internal Connector Type:	Unknown
External Reference:	
External Connector Type:	None

Port Connector

Port Type:	Unknown
Internal Reference:	J6F1 - LVDS
Internal Connector Type:	Unknown
External Reference:	
External Connector Type:	None

Port Connector

Port Type:	Unknown
Internal Reference:	J2F1 - LAI FAN
Internal Connector Type:	Unknown
External Reference:	
External Connector Type:	None

Port Connector

Port Type:	Unknown
Internal Reference:	J2G1 - GFX VID
Internal Connector Type:	Unknown
External Reference:	
External Connector Type:	None

Port Connector

Port Type:	Unknown
Internal Reference:	J1G6 - AC JACK
Internal Connector Type:	Unknown
External Reference:	
External Connector Type:	None

System Slots

J6B2

Slot Designation:	J6B2
Slot Type:	PCI Express
Slot Usage:	In use
Slot Data Bus Width:	16x / x16
Slot Length:	Long
Base Segment:Bus:Device:Function Number:	0:0:1:0

J6B1

Slot Designation:	J6B1
Slot Type:	PCI Express
Slot Usage:	In use

Slot Data Bus Width:	1x / x1
Slot Length:	Short
Base Segment:Bus:Device:Function Number:	0:0:28:3

J6D1

Slot Designation:	J6D1
Slot Type:	PCI Express
Slot Usage:	In use
Slot Data Bus Width:	1x / x1
Slot Length:	Short
Base Segment:Bus:Device:Function Number:	0:0:28:4

J7B1

Slot Designation:	J7B1
Slot Type:	PCI Express
Slot Usage:	In use
Slot Data Bus Width:	1x / x1
Slot Length:	Short
Base Segment:Bus:Device:Function Number:	0:0:28:5

J8B4

Slot Designation:	J8B4
Slot Type:	PCI Express
Slot Usage:	In use
Slot Data Bus Width:	1x / x1
Slot Length:	Short
Base Segment:Bus:Device:Function Number:	0:0:28:6

Intel ME

[ME Host Status]

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

Boot Guard Status:	Enabled
Boot Guard Verified Boot Policy:	Disabled
Boot Guard Measured Boot Policy:	Disabled

[Intel Manageability Engine Features]

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

[ME Firmware Capabilities]

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

[ME Firmware Feature State]

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

[ME Firmware Platform Type]

Platform Target Usage Type:	Mobile
SKU:	Regular SKU
ME Firmware Image Type:	Consumer SKU Firmware
Platform Brand:	None

Intel ICC

[ICC Record 0:]

Clock Usage:	BCLK/DMI/PEG/PCIe/SATA/USB3
Current Frequency:	100.000 MHz
User Frequency:	100.000 MHz
Minimum Frequency:	99.500 MHz
Maximum Frequency:	100.000 MHz
SSC Mode:	Down, 0.47%
Spread Supported:	Down
Change Allowed:	Not Supported
Halt Allowed:	Not Supported
Clock Source:	PCIe

[ICC Record 1:]

Clock Usage:	Not Used
Current Frequency:	100.000 MHz
User Frequency:	100.000 MHz
Minimum Frequency:	99.500 MHz
Maximum Frequency:	100.000 MHz
SSC Mode:	Down, 0.47%
Spread Supported:	Down
Change Allowed:	Not Supported
Halt Allowed:	Not Supported
Clock Source:	PCIe

Memory

[General Information]

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

[Current Performance Settings]

Maximum Supported Memory Clock:	1066.7 MHz
Current Memory Clock:	1064.8 MHz
Current Timing (tCAS-tRCD-tRP-tRAS):	15-15-15-36
Memory Channels Supported:	2
Memory Channels Active:	2
Command Rate (CR):	2T
Read to Read Delay (tRDRD_SG/TrdrdScL) Same Bank Group:	6T
Read to Read Delay (tRDRD_DG/TrdrdScDir) Different Bank Group:	4T
Read to Read Delay (tRDRD_SD) Same DIMM:	6T

Read to Read Delay (tRRD_DD) Different DIMM:	7T
Write to Write Delay (tWRWR_SG/TwrwrScL) Same Bank Group:	6T
Write to Write Delay (tWRWR_DG/TwrwrScDlr) Different Bank Group:	4T
Write to Write Delay (tWRWR_SD) Same DIMM:	7T
Write to Write Delay (tWRWR_DD) Different DIMM:	7T
Read to Write Delay (tRDWR_SG/TrdwrScL) Same Bank Group:	9T
Read to Write Delay (tRDWR_DG/TrdwrScDlr) Different Bank Group:	9T
Read to Write Delay (tRDWR_SD) Same DIMM:	10T
Read to Write Delay (tRDWR_DD) Different DIMM:	11T
Write to Read Delay (tWRRD_SG/TwrrdScL) Same Bank Group:	27T
Write to Read Delay (tWRRD_DG/TwrrdScDlr) Different Bank Group:	22T
Write to Read Delay (tWRRD_SD) Same DIMM:	6T
Write to Read Delay (tWRRD_DD) Different DIMM:	6T
Read to Precharge Delay (tRTP):	8T
Write to Precharge Delay (tWTP):	28T
Write Recovery Time (tWR):	17T
RAS# to RAS# Delay (tRRD_L):	6T
RAS# to RAS# Delay (tRRD_S):	18T
Row Cycle Time (tRC):	51T
Refresh Cycle Time (tRFC):	374T
Four Activate Window (tFAW):	23T

Row: 0 [BANK 0/ChannelA-DIMM0] - 8 GB PC4-17100 DDR4 SDRAM Samsung M471A1K43BB0-CPB

[General Module Information]

Module Number:	0
Module Size:	8 GBytes
Memory Type:	DDR4 SDRAM
Module Type:	SO-DIMM
Memory Speed:	1066.7 MHz (DDR4-2133 / PC4-17100)
Module Manufacturer:	Samsung
Module Part Number:	M471A1K43BB0-CPB
Module Revision:	0.0
Module Serial Number:	3317100566 (16F0B6C5)
Module Manufacturing Date:	Year: 2016, Week: 41
Module Manufacturing Location:	3
SDRAM Manufacturer:	Samsung
Error Check/Correction:	None

[Module Characteristics]

Row Address Bits:	16
Column Address Bits:	10
Module Density:	8192 Mb
Number Of Ranks:	1
Number Of Bank Groups:	4
Device Width:	8 bits
Bus Width:	64 bits

Die Count:	1
Module Nominal Voltage (VDD):	1.2 V
Minimum SDRAM Cycle Time (tCKAVGmin):	0.93800 ns (1066 MHz)
Maximum SDRAM Cycle Time (tCKAVGmax):	1.50000 ns
CAS# Latencies Supported:	10, 11, 12, 13, 14, 15, 16
Minimum CAS# Latency Time (tAmin):	13.750 ns
Minimum RAS# to CAS# Delay (tRCDmin):	13.750 ns
Minimum Row Precharge Time (tRPmin):	13.750 ns
Minimum Active to Precharge Time (tRASmin):	33.000 ns

Supported Module Timing at 1066.7 MHz:	15-15-15-36
Supported Module Timing at 933.3 MHz:	13-13-13-31
Supported Module Timing at 800.0 MHz:	11-11-11-27
Supported Module Timing at 666.7 MHz:	10-10-10-22

Minimum Active to Active/Refresh Time (tRCmin):	46.750 ns
Minimum Refresh Recovery Time Delay (tRFC1min):	350.000 ns
Minimum Refresh Recovery Time Delay (tRFC2min):	260.000 ns
Minimum Refresh Recovery Time Delay (tRFC4min):	160.000 ns
Minimum Four Activate Window Delay Time (tFAWmin):	21.000 ns
Minimum Active to Active Delay Time - Different Bank Group (tRRD_Smin):	3.700 ns
Minimum Active to Active Delay Time - Same Bank Group (tRRD_Lmin):	5.300 ns
Minimum CAS to CAS Delay Time - Same Bank Group (tCCD_Lmin):	5.625 ns

[Features]

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

Row: 2 [BANK 2/ChannelB-DIMM0] - 8 GB PC4-17100 DDR4 SDRAM Samsung M471A1K43BB0-CPB

[General Module Information]

Module Number:	2
Module Size:	8 GBytes
Memory Type:	DDR4 SDRAM
Module Type:	SO-DIMM
Memory Speed:	1066.7 MHz (DDR4-2133 / PC4-17100)
Module Manufacturer:	Samsung
Module Part Number:	M471A1K43BB0-CPB
Module Revision:	0.0
Module Serial Number:	1617487894 (16E86860)
Module Manufacturing Date:	Year: 2016, Week: 40
Module Manufacturing Location:	3
SDRAM Manufacturer:	Samsung
Error Check/Correction:	None

[Module Characteristics]

Row Address Bits:	16
Column Address Bits:	10
Module Density:	8192 Mb
Number Of Ranks:	1
Number Of Bank Groups:	4
Device Width:	8 bits
Bus Width:	64 bits
Die Count:	1
Module Nominal Voltage (VDD):	1.2 V
Minimum SDRAM Cycle Time (tCKAVGmin):	0.93800 ns (1066 MHz)
Maximum SDRAM Cycle Time (tCKAVGmax):	1.50000 ns
CAS# Latencies Supported:	10, 11, 12, 13, 14, 15, 16
Minimum CAS# Latency Time (tAmin):	13.750 ns
Minimum RAS# to CAS# Delay (tRCDmin):	13.750 ns
Minimum Row Precharge Time (tRPmin):	13.750 ns
Minimum Active to Precharge Time (tRASmin):	33.000 ns
Supported Module Timing at 1066.7 MHz:	15-15-15-36
Supported Module Timing at 933.3 MHz:	13-13-13-31
Supported Module Timing at 800.0 MHz:	11-11-11-27
Supported Module Timing at 666.7 MHz:	10-10-10-22
Minimum Active to Active/Refresh Time (tRCmin):	46.750 ns
Minimum Refresh Recovery Time Delay (tRFC1min):	350.000 ns
Minimum Refresh Recovery Time Delay (tRFC2min):	260.000 ns
Minimum Refresh Recovery Time Delay (tRFC4min):	160.000 ns
Minimum Four Activate Window Delay Time (tFAWmin):	21.000 ns
Minimum Active to Active Delay Time - Different Bank Group (tRRD_Smin):	3.700 ns
Minimum Active to Active Delay Time - Same Bank Group (tRRD_Lmin):	5.300 ns
Minimum CAS to CAS Delay Time - Same Bank Group (tCCD_Lmin):	5.625 ns

[Features]

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

Bus

PCI Bus #0

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

[General Information]

Device Name:	Intel Skylake-H - Host Bridge/DRAM Controller [R0]
Original Device Name:	Intel Skylake-H - Host Bridge/DRAM Controller [R0]
Device Class:	Host-to-PCI Bridge
Revision ID:	7 [R0]
PCI Address (Bus:Device:Function) Number:	0:0:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_1910&SUBSYS_115A1462&REV_07

[System Resources]

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

[Features]

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

[Driver Information]

Driver Manufacturer:	INTEL
Driver Description:	Intel(R) Xeon(R) E3 - 1200/1500 v5/6th Gen Intel(R) Core(TM) Host Bridge/DRAM Registers - 1910
Driver Provider:	INTEL
Driver Version:	10.1.1.38
Driver Date:	03-Oct-2016
DeviceInstanceId	PCI\VEN_8086&DEV_1910&SUBSYS_115A1462&REV_07\3&11583659&0&00
Location Paths	PCIROOT(0)#PCI(0000)

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

[General Information]

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

[PCI Express]

Version:	3.0
Maximum Link Width:	x16
Current Link Width:	x16
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:	N/A
Interrupt Pin:	INTA#

[Features]

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

[Driver Information]

Driver Manufacturer:	INTEL
Driver Description:	Intel(R) Xeon(R) E3 - 1200/1500 v5/6th Gen Intel(R) Core(TM) PCIe Controller (x16) - 1901
Driver Provider:	INTEL
Driver Version:	10.1.1.38
Driver Date:	03-Oct-2016
DeviceInstanceId	PCI\VEN_8086&DEV_1901&SUBSYS_115A1462&REV_07\3&11583659&0&08
Location Paths	PCIROOT(0)#PCI(0100)

PCI Express x16 Bus #1 [J6B2]

NVIDIA GeForce GTX 960M [MSI]

[General Information]

Device Name:	NVIDIA GeForce GTX 960M [MSI]
Original Device Name:	NVIDIA GeForce GTX 960M (GM107M)
Device Class:	3D Adapter
Revision ID:	A2
PCI Address (Bus:Device:Function) Number:	1:0:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_10DE&DEV_139B&SUBSYS_115A1462&REV_A2

[PCI Express]

Version:	3.0
Maximum Link Width:	x16
Current Link Width:	x16
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:	Disabled
L0s Exit Latency:	256 - 512 ns
L1 Exit Latency:	>64 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	DE000000
Memory Base Address 1	C0000000
Memory Base Address 3	D0000000
I/O Base Address 5	0

[Features]

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

[Driver Information]

Driver Manufacturer:	NVIDIA
Driver Description:	NVIDIA GeForce GTX 960M
Driver Provider:	NVIDIA
Driver Version:	30.0.15.1277 (GeForce 512.77)
Driver Date:	04-May-2022
DCH/UWD Driver:	Capable
DeviceInstanceId	PCI\VEN_10DE&DEV_139B&SUBSYS_115A1462&REV_A2\4&A2CD78&0&0008
Location Paths	PCIROOT(0)#PCI(0100)#PCI(0000)

Intel HD Graphics 530 (Skylake-H GT2) [S0/R0]

[General Information]

Device Name:	Intel HD Graphics 530 (Skylake-H GT2) [S0/R0]
Original Device Name:	Intel HD Graphics 530 (Skylake-H GT2) [S0/R0]
Device Class:	VGA Compatible Adapter
Revision ID:	6 [S0/R0]
PCI Address (Bus:Device:Function) Number:	0:2:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_191B&SUBSYS_115A1462&REV_06

[PCI Express]

Version:	2.0
Current Link Width:	Not negotiated
Maximum Link Speed:	5.0 GT/s
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:	N/A
Interrupt Pin:	INTA#
Memory Base Address 0	DD000000
Memory Base Address 2	B0000000
I/O Base Address 4	F000

[Features]

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

[Driver Information]

Driver Manufacturer:	Intel Corporation
Driver Description:	Intel(R) HD Graphics 530
Driver Provider:	Intel Corporation
Driver Version:	27.20.100.8476
Driver Date:	08-Jul-2020
DCH/UWD Driver:	Capable
DeviceInstanceID	PCI\VEN_8086&DEV_191B&SUBSYS_115A1462&REV_06\3&11583659&0&10
Location Paths	PCIROOT(0)#PCI(0200)

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

[General Information]

Device Name:	Intel Skylake PCH-H - USB 3.0 xHCI Controller [D1]
Original Device Name:	Intel Skylake PCH-H - USB 3.0 xHCI Controller [D1]
Device Class:	USB xHCI Controller
Revision ID:	31 [D1]
PCI Address (Bus:Device:Function) Number:	0:20:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_A12F&SUBSYS_115A1462&REV_31

[System Resources]

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

[Features]

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

USB Version Supported:	3.0
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[Driver Information]

Driver Manufacturer:	Microsoft
Driver Description:	USB xHCI Compliant Host Controller
Driver Provider:	Microsoft
Driver Version:	10.0.19041.4355
Driver Date:	12-Apr-2024
DeviceInstanceID	PCI\VEN_8086&DEV_A12F&SUBSYS_115A1462&REV_31\3&11583659&0&A0
Location Paths	PCIROOT(0)#PCI(1400)

USB Root Hub

[Port1] : No Device Connected

[Port2] : No Device Connected

[Port3] : Logitech, PID=C336

[Device Information]

Device Manufacturer:	Logitech
Product Name:	Gaming Keyboard G213
Serial Number:	107C31493238
USB Version Supported:	2.00
USB Device Speed:	USB 1.1 Full-speed
Driver Description:	USB Composite Device
Hardware ID:	USB\VID_046D&PID_C336

[Driver Information]

Driver Manufacturer:	Microsoft
Driver Description:	USB Composite Device
Driver Provider:	Microsoft
Driver Version:	10.0.19041.4474
Driver Date:	21-Jun-2006
DeviceInstanceId	USB\VID_046D&PID_C336\107C31493238
Location Paths	PCIROOT(0)#PCI(1400)#USBROOT(0)#USB(3)

[Port4] : No Device Connected

[Port5] : No Device Connected

[Port6] : No Device Connected

[Port7] : precisionWave, PID=FF00

[Device Information]

Device Manufacturer:	precisionWave
Product Name:	precisionWave, PID=FF00
Serial Number:	-
USB Version Supported:	1.10
USB Device Speed:	USB 1.1 Full-speed
Driver Description:	USB Input Device
Hardware ID:	USB\VID_1770&PID_FF00

[Driver Information]

Driver Manufacturer:	Microsoft
Driver Description:	USB Input Device
Driver Provider:	Microsoft
Driver Version:	10.0.19041.3636
Driver Date:	21-Jun-2006
DeviceInstanceID	USB\VID_1770&PID_FF00\MSI_EPF_USB
Location Paths	PCIROOT(0)#PCI(1400)#USBROOT(0)#USB(7)

[Port8] : No Device Connected

[Port9] : No Device Connected

[Port10] : Intel Bluetooth V4.0 Module

[Device Information]

Device Manufacturer:	Intel
Product Name:	Intel Bluetooth V4.0 Module
Serial Number:	-
USB Version Supported:	2.00
USB Device Speed:	USB 1.1 Full-speed
Driver Description:	Intel(R) Wireless Bluetooth(R)
Hardware ID:	USB\VID_8087&PID_0A2A

[Driver Information]

Driver Manufacturer:	Intel Corporation
Driver Description:	Intel(R) Wireless Bluetooth(R)
Driver Provider:	Intel Corporation
Driver Version:	20.100.10.7
Driver Date:	22-Dec-2021
DeviceInstanceID	USB\VID_8087&PID_0A2A\5&2A2FDE03&0&10
Location Paths	PCIROOT(0)#PCI(1400)#USBROOT(0)#USB(10)

[Port11] : No Device Connected

[Port12] : No Device Connected

[Port13] : No Device Connected

[Port14] : No Device Connected

[Port15] : No Device Connected

[Port16] : No Device Connected

[Port17] : No Device Connected

[Port18] : No Device Connected

[Port19] : No Device Connected

[Port20] : No Device Connected

[Port21] : No Device Connected

[Port22] : No Device Connected

[Port23] : No Device Connected

[Port24] : No Device Connected

Intel Skylake PCH-H - Thermal Subsystem [D1]

[General Information]

Device Name:	Intel Skylake PCH-H - Thermal Subsystem [D1]
Original Device Name:	Intel Skylake PCH-H - Thermal Subsystem [D1]
Device Class:	Other Data Acquisition/Signal Processing Controller
Revision ID:	31 [D1]
PCI Address (Bus:Device:Function) Number:	0:20:2
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_A131&SUBSYS_115A1462&REV_31

[System Resources]

Interrupt Line:	IRQ11
Interrupt Pin:	INTC#
Memory Base Address 0	DF32E000

[Features]

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

[Driver Information]

Driver Manufacturer:	INTEL
Driver Description:	Intel(R) 100 Series/C230 Series Chipset Family Thermal subsystem - A131
Driver Provider:	INTEL
Driver Version:	10.1.1.13
Driver Date:	28-Oct-2015
DeviceInstanceId	PCI\VEN_8086&DEV_A131&SUBSYS_115A1462&REV_31\3&11583659&0&A2
Location Paths	PCIROOT(0)#PCI(1402)

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

[General Information]

Device Name:	Intel Skylake PCH-H - CSME: HECI #1 [D1]
Original Device Name:	Intel Skylake PCH-H - CSME: HECI #1 [D1]
Device Class:	Other Communication Device
Revision ID:	31 [D1]
PCI Address (Bus:Device:Function) Number:	0:22:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_A13A&SUBSYS_115A1462&REV_31

[System Resources]

Interrupt Line:	N/A
Interrupt Pin:	INTA#
Memory Base Address 0	FE40F000

[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:	1952.14.0.1470
Driver Date:	25-Dec-2019
DeviceInstanceId	PCI\VEN_8086&DEV_A13A&SUBSYS_115A1462&REV_31\3&11583659&0&B0
Location Paths	PCIROOT(0)#PCI(1600)

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

[General Information]

Device Name:	Intel Skylake PCH-H MB - SATA AHCI Controller [D1]
Original Device Name:	Intel Skylake PCH-H MB - SATA AHCI Controller [D1]
Device Class:	SATA AHCI Controller
Revision ID:	31 [D1]
PCI Address (Bus:Device:Function) Number:	0:23:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_A103&SUBSYS_115A1462&REV_31

[System Resources]

Interrupt Line:	N/A
Interrupt Pin:	INTA#
Memory Base Address 0	DF328000
Memory Base Address 1	DF32C000
I/O Base Address 2	F090
I/O Base Address 3	F080
I/O Base Address 4	F060
Memory Base Address 5	DF32B000

[Features]

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

[SATA Host Controller]

Interface Speed Supported:	Gen3 6.0 Gbps
Number Of Ports:	4
External SATA Support:	Not Capable
Aggressive Link Power Management:	Capable
Staggered Spin-up:	Not Capable
Mechanical Presence Switch:	Not Capable
Command Queue Acceleration:	Capable
64-bit Addressing:	Capable
AHCI Status:	Enabled
AHCI Version:	1.31
Ports Implemented:	0, 1, 2, 3

[SATA Port#0]

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

[SATA Port#1]

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

[SATA Port#2]

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

[SATA Port#3]

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

[Driver Information]

Driver Manufacturer:	Intel Corporation
Driver Description:	Intel(R) 100 Series/C230 Chipset Family SATA AHCI Controller
Driver Provider:	Intel Corporation
Driver Version:	14.5.0.1081
Driver Date:	03-Jun-2015
DeviceInstanceId	PCI\VEN_8086&DEV_A103&SUBSYS_115A1462&REV_31\3&11583659&0&B8
Location Paths	PCIROOT(0)#PCI(1700)

Intel Skylake PCH-H - PCI Express Root Port #1 [D1]

[General Information]

Device Name:	Intel Skylake PCH-H - PCI Express Root Port #1 [D1]
Original Device Name:	Intel Skylake PCH-H - PCI Express Root Port #1 [D1]
Device Class:	PCI-to-PCI Bridge
Revision ID:	F1 [D1]

PCI Address (Bus:Device:Function) Number:	0:28:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_A110&SUBSYS_00000000&REV_F1

[PCI Express]

Version:	3.0
Maximum Link Width:	x1
Current Link Width:	x1
Maximum Link Speed:	8.0 GT/s
Current Link Speed:	2.5 GT/s
Device/Port Type:	Root Port of PCI Express Root Complex
Slot Implemented:	Yes
Hot-Plug:	Not Capable
Hot-Plug Surprise:	Not Capable
Slot Power Limit:	10.000 W
Emergency Power Reduction:	Not Supported
Active State Power Management (ASPM) Support:	None
Active State Power Management (ASPM) Status:	Disabled
L0s Exit Latency:	512 ns - 1 us
L1 Exit Latency:	8 - 16 us
Maximum Payload Size Supported:	256 bytes
Maximum Payload Size:	128 bytes
Resizable BAR Support:	Not Supported

[System Resources]

Interrupt Line:	N/A
Interrupt Pin:	INTA#

[Features]

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

[Driver Information]

Driver Manufacturer:	INTEL
Driver Description:	Intel(R) 100 Series/C230 Series Chipset Family PCI Express Root Port #1 - A110
Driver Provider:	INTEL
Driver Version:	10.1.1.38
Driver Date:	03-Oct-2016
DeviceInstanceId	PCI\VEN_8086&DEV_A110&SUBSYS_115A1462&REV_F1\3&11583659&0&E0
Location Paths	PCIROOT(0)#PCI(1C00)

PCI Express x1 Bus #2

Intel Dual Band Wireless-AC 3165

[General Information]

Device Name:	Intel Dual Band Wireless-AC 3165
Original Device Name:	Intel Dual Band Wireless-AC 3165 (Stone Peak)
Device Class:	Other Network Adapter

Revision ID:	81
PCI Address (Bus:Device:Function) Number:	2:0:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_3165&SUBSYS_40108086&REV_81

[PCI Express]

Version:	2.0
Maximum Link Width:	x1
Current Link Width:	x1
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:	L1
Active State Power Management (ASPM) Status:	Disabled
L0s Exit Latency:	2 - 4 us
L1 Exit Latency:	16 - 32 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	DF200000

[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) Dual Band Wireless-AC 3165
Driver Provider:	Intel
Driver Version:	19.51.40.1
Driver Date:	20-Feb-2022
DeviceInstanceID	PCI\VEN_8086&DEV_3165&SUBSYS_40108086&REV_81\58FB84FFFF6C17B800
Location Paths	PCIROOT(0)#PCI(1C00)#PCI(0000)

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

[General Information]

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

[PCI Express]

Version:	3.0
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Maximum Link Width:	x1
Current Link Width:	x1
Maximum Link Speed:	8.0 GT/s
Current Link Speed:	2.5 GT/s
Device/Port Type:	Root Port of PCI Express Root Complex
Slot Implemented:	Yes
Hot-Plug:	Not Capable
Hot-Plug Surprise:	Not Capable
Slot Power Limit:	10.000 W
Emergency Power Reduction:	Not Supported
Active State Power Management (ASPM) Support:	None
Active State Power Management (ASPM) Status:	Disabled
L0s Exit Latency:	512 ns - 1 us
L1 Exit Latency:	8 - 16 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:	INTD#

[Features]

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

[Driver Information]

Driver Manufacturer:	INTEL
Driver Description:	Intel(R) 100 Series/C230 Series Chipset Family PCI Express Root Port #4 - A113
Driver Provider:	INTEL
Driver Version:	10.1.1.38
Driver Date:	03-Oct-2016
DeviceInstanceId	PCI\VEN_8086&DEV_A113&SUBSYS_115A1462&REV_F1\3&11583659&0&E3
Location Paths	PCIROOT(0)#PCI(1C03)

PCI Express x1 Bus #3 [J6B1]

Qualcomm/Atheros AR8171/8175 PCI-E Gigabit Ethernet Controller

[General Information]

Device Name:	Qualcomm/Atheros AR8171/8175 PCI-E Gigabit Ethernet Controller
Original Device Name:	Qualcomm/Atheros AR8171/8175 PCI-E Gigabit Ethernet Controller
Device Class:	Ethernet Adapter
Revision ID:	10
PCI Address (Bus:Device:Function) Number:	3:0:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_1969&DEV_10A1&SUBSYS_115A1462&REV_10

[PCI Express]

Version:	1.1
Maximum Link Width:	x1
Current Link Width:	x1
Maximum Link Speed:	2.5 GT/s
Current Link Speed:	2.5 GT/s
Device/Port Type:	PCI Express Endpoint
Slot Implemented:	No
Emergency Power Reduction:	Not Supported
Active State Power Management (ASPM) Support:	L0s and L1
Active State Power Management (ASPM) Status:	Disabled
L0s Exit Latency:	>4 us
L1 Exit Latency:	>64 us
Maximum Payload Size Supported:	4096 bytes
Maximum Payload Size:	256 bytes
Resizable BAR Support:	Not Supported

[System Resources]

Interrupt Line:	IRQ19
Interrupt Pin:	INTA#
Memory Base Address 0	DF100000
I/O Base Address 2	D000

[Features]

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

[Driver Information]

Driver Manufacturer:	Qualcomm Atheros
Driver Description:	Qualcomm Atheros AR8171/8175 PCI-E Gigabit Ethernet Controller (NDIS 6.30)
Driver Provider:	Qualcomm Atheros
Driver Version:	2.1.0.27
Driver Date:	18-Sep-2017
DeviceInstanceId	PCI\VEN_1969&DEV_10A1&SUBSYS_115A1462&REV_10\FF8233034CCC6AFF00
Location Paths	PCIROOT(0)#PCI(1C03)#PCI(0000)

Intel HM170 PCH - LPC/eSPI Controller [D1]

[General Information]

Device Name:	Intel HM170 PCH - LPC/eSPI Controller [D1]
Original Device Name:	Intel HM170 PCH - LPC/eSPI Controller [D1]
Device Class:	PCI-to-ISA Bridge
Revision ID:	31 [D1]
PCI Address (Bus:Device:Function) Number:	0:31:0
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_A14E&SUBSYS_115A1462&REV_31

[System Resources]

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

[Features]

Bus Mastering:	Enabled
Running At 66 MHz:	Not Capable

Fast Back-to-Back Transactions:

Not Capable

[Driver Information]

Driver Manufacturer:	INTEL
Driver Description:	Intel(R) 100 Series/C230 Series Chipset Family LPC Controller (HM170) - A14E
Driver Provider:	INTEL
Driver Version:	10.1.1.38
Driver Date:	03-Oct-2016
DeviceInstanceId	PCI\VEN_8086&DEV_A14E&SUBSYS_115A1462&REV_31\3&11583659&0&F8
Location Paths	PCIROOT(0)#PCI(1F00)

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

[General Information]

Device Name:	Intel Skylake PCH-H - Power Management Controller [D1]
Original Device Name:	Intel Skylake PCH-H - Power Management Controller [D1]
Device Class:	Other Memory
Revision ID:	31 [D1]
PCI Address (Bus:Device:Function) Number:	0:31:2
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_A121&SUBSYS_115A1462&REV_31

[System Resources]

Interrupt Line:	N/A
Interrupt Pin:	N/A
Memory Base Address 0	DF324000

[Features]

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

[Driver Information]

Driver Manufacturer:	INTEL
Driver Description:	Intel(R) 100 Series/C230 Series Chipset Family PMC - A121
Driver Provider:	INTEL
Driver Version:	10.1.1.38
Driver Date:	03-Oct-2016
DeviceInstanceId	PCI\VEN_8086&DEV_A121&SUBSYS_115A1462&REV_31\3&11583659&0&FA
Location Paths	PCIROOT(0)#PCI(1F02)

Intel Skylake PCH-H - High Definition Audio Controller

[General Information]

Device Name:	Intel Skylake PCH-H - High Definition Audio Controller
Original Device Name:	Intel Skylake PCH-H - High Definition Audio Controller
Device Class:	High Definition Audio
Revision ID:	31
PCI Address (Bus:Device:Function) Number:	0:31:3
PCI Latency Timer:	32
Hardware ID:	PCI\VEN_8086&DEV_A170&SUBSYS_115A1462&REV_31

[System Resources]

Interrupt Line:	IRQ16
Interrupt Pin:	INTA#
Memory Base Address 0	DF320000
Memory Base Address 4	DF300000

[Features]

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

[Driver Information]

Driver Manufacturer:	Microsoft
Driver Description:	High Definition Audio Controller
Driver Provider:	Microsoft
Driver Version:	10.0.19041.4957
Driver Date:	18-Sep-2024
DeviceInstanceId	PCI\VEN_8086&DEV_A170&SUBSYS_115A1462&REV_31\3&11583659&0&FB
Location Paths	PCIROOT(0)#PCI(1F03)

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

[General Information]

Device Name:	Intel Skylake PCH-H - SMBus Host Controller [D1]
Original Device Name:	Intel Skylake PCH-H - SMBus Host Controller [D1]
Device Class:	SMBus (System Management Bus)
Revision ID:	31 [D1]
PCI Address (Bus:Device:Function) Number:	0:31:4
PCI Latency Timer:	0
Hardware ID:	PCI\VEN_8086&DEV_A123&SUBSYS_115A1462&REV_31

[System Resources]

Interrupt Line:	IRQ16
Interrupt Pin:	INTA#
Memory Base Address 0	DF32A000
I/O Base Address 4	F040

[Features]

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

[Driver Information]

Driver Manufacturer:	Synaptics
Driver Description:	Synaptics SMBus Driver
Driver Provider:	Synaptics
Driver Version:	19.0.19.1
Driver Date:	05-Aug-2015
DeviceInstanceId	PCI\VEN_8086&DEV_A123&SUBSYS_115A1462&REV_31\3&11583659&0&FC
Location Paths	PCIROOT(0)#PCI(1F04)

Video Adapter

Intel HD Graphics 530

[Video Chipset]

Video Chipset:	Intel HD Graphics 530
Video Chipset Codename:	Skylake-H GT2
Video Memory:	1024 MBytes

[Video Card]

Video Card:	Intel HD Graphics 530 (Skylake-H GT2) [S0/R0] [MSI]
Video Bus:	PCIe v2.0 x0 (5.0 GT/s) @ [DISABLED]
GPU Type:	Integrated
Video RAMDAC:	Internal

[Performance]

Graphics Processor Clock:	349.4 MHz
Graphics Memory Clock:	1064.0 MHz

Resizable BAR (ReBAR) Support:	Not Supported
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Hardware ID:	PCI\VEN_8086&DEV_191B&SUBSYS_115A1462&REV_06
PCI Location (Bus:Dev:Fnc):	0:02:0

[Driver Information]

Driver Manufacturer:	Intel Corporation
Driver Description:	Intel(R) HD Graphics 530
Driver Provider:	Intel Corporation
Driver Version:	27.20.100.8476
Driver Date:	08-Jul-2020
DCH/UWD Driver:	Capable
DeviceInstanceId	PCI\VEN_8086&DEV_191B&SUBSYS_115A1462&REV_06\3&11583659&0&10
Location Paths	PCIROOT(0)#PCI(0200)

NVIDIA GeForce GTX 960M

[Video Chipset]

Video Chipset:	NVIDIA GeForce GTX 960M
Video Chipset Codename:	GM107M
Video Memory:	2048 MBytes of GDDR5 SDRAM [Samsung]

[Video Card]

Video Card:	NVIDIA GeForce GTX 960M [MSI]
Video Bus:	PCIe v3.0 x16 (8.0 GT/s) @ x16 (2.5 GT/s)
GPU Type:	Discrete
Video BIOS Version:	82.07.94.00.1c
Video Chipset Revision:	A2

[Performance]

Graphics Processor Clock:	135.0 MHz
Video Unit Clock:	405.0 MHz

Graphics Memory Clock:	202.5 MHz (Effective 810.0 MHz)
Graphics Memory Bus Width:	128-bit
Number Of ROPs:	16
Number Of Unified Shaders:	640
Number Of TMUs (Texture Mapping Units):	40
ASIC Manufacturer:	TSMC
ASIC Quality:	77.0 %
ASIC Serial Number:	300941644241
NVIDIA SLI Status:	Not Present
Resizable BAR (ReBAR) Support:	Not Supported
Hardware ID:	PCI\VEN_10DE&DEV_139B&SUBSYS_115A1462&REV_A2
PCI Location (Bus:Dev:Fnc):	1:00:0

[Driver Information]

Driver Manufacturer:	NVIDIA
Driver Description:	NVIDIA GeForce GTX 960M
Driver Provider:	NVIDIA
Driver Version:	30.0.15.1277 (GeForce 512.77)
Driver Date:	04-May-2022
DCH/UWD Driver:	Capable
DeviceInstanceId	PCI\VEN_10DE&DEV_139B&SUBSYS_115A1462&REV_A2\4&A2CD78&0&0008
Location Paths	PCIROOT(0)#PCI(0100)#PCI(0000)

Monitor

Chi Mei [Unknown Model: CMN15D2]

[General Information]

Monitor Name:	Chi Mei [Unknown Model: CMN15D2]
Monitor Name (Manuf):	N156HGE-EAL CMN N156HGE-EAL
Serial Number:	Unknown
Date Of Manufacture:	Week: 18, Year: 2015
Monitor Hardware ID:	Monitor\CMN15D2
Max. Vertical Size:	19 cm
Max. Horizontal Size:	34 cm

[Advanced parameters]

Input Signal:	Digital
Color Bit Depth:	6 Bits per Primary Color
Digital Video Interface Standard Supported:	DisplayPort
Gamma Factor:	2.20

[DPMS Modes]

Standby:	Not Supported
Suspend:	Not Supported
Active Off:	Not Supported
Standard Colour Space (sRGB) Default:	Not Supported

Preferred Timing Mode:	Supported
Default GTF (Continuous Frequency):	Not Supported
DFP 1.x Compatible:	Yes
[Supported Video Modes]	
1920 x 1080	344 x 193 mm, Pixel Clock 152.84 MHz
[Driver Information]	
Driver Manufacturer:	Microsoft
Driver Description:	Generic PnP Monitor
Driver Provider:	Microsoft
Driver Version:	10.0.19041.4355
Driver Date:	21-Jun-2006
DeviceInstanceId	DISPLAY\CMN15D2\4&17D067BF&0&UID265988
Location Paths	ACPI(_SB_)#ACPI(PCI0)#ACPI(GFX0)#ACPI(DD1F)

Drives

(S)ATA/ATAPI Drives

WDC WDS500G2B0B

[General Information]	
Drive Controller:	Serial ATA 6Gb/s @ 6Gb/s
Host Controller:	Intel Skylake PCH-H MB - SATA AHCI Controller [D1]
Drive Model:	WDC WDS500G2B0B
Drive Firmware Revision:	X61190WD
Drive Serial Number:	19141F804604
World Wide Name:	5001B448B89FA101
Drive Capacity:	476,940 MBytes (500 GB)
Drive Capacity [MB]:	476940
Media Rotation Rate:	SSD Drive (Non-rotating)
Nominal Form Factor:	M.2
ATA Major Version Supported:	ATA/ATAPI-5, ATA/ATAPI-6, ATA/ATAPI-7, ATA8-ACS, ACS-2, ACS-3, ACS-4
ATA Minor Version Supported:	ACS-4 Revision 5
ATA Transport Version Supported:	SATA 3.3
Drive Letter(s):	C:

[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: 6 (ATA-133)
Max. Multiword DMA Transfer Rate:	16.7 MBytes/s
Max. PIO with IORDY Transfer Rate:	16.7 MBytes/s
Max. PIO w/o IORDY Transfer Rate:	16.7 MBytes/s
Native Command Queuing:	Supported, Max. Depth: 32
TRIM Command:	Supported (Deterministic Read After TRIM, Words = 0)

[Device flags]

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

[Features]

Write Cache:	Present, Active
S.M.A.R.T. Feature:	Present, Active
Security Feature:	Present, Inactive
Removable Media Feature:	Not Present, Disabled
Power Management:	Present, Active
Advanced Power Management:	Present, Active
Packet Interface:	Not Present, Disabled
Look-Ahead Buffer:	Present, Active
Host Protected Area:	Not Present, Disabled
Power-Up In Standby:	Not Supported, Inactive
Automatic Acoustic Management:	Not Supported, Inactive
48-bit LBA:	Supported, Active
Host-Initiated Link Power Management (HIPM):	Not Supported
Device-Initiated Link Power Management (DIPM):	Supported, Enabled
In-Order Data Delivery:	Not Supported
Hardware Feature Control:	Supported, Disabled
Software Settings Preservation:	Supported, Enabled
NCQ Autosense:	Not Supported
Link Power State Device Sleep:	Supported, Disabled
Hybrid Information Feature:	Not Supported
Rebuild Assist:	Not Supported
Power Disable:	Not Supported
Zoned Device ATA Command Set:	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:	Supported
Sanitize Device - Crypto Scramble:	Not Supported
Sanitize Device - Overwrite:	Not Supported
Sanitize Device - Block Erase:	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.)]

[05] Reallocated Sector Count:	100/Always OK, Worst: 100
[09] Power-on Hours/Cycle Count:	100/Always OK, Worst: 100 (5105 hours / 212.7 days)
[0C] Power Cycle Count:	100/Always OK, Worst: 100 (Data = 2373, 0)
[A5] Initial Bad Block Count:	100/Always OK, Worst: 100 (Data = 85066828, 28)
[A6] Min W/E Cycle:	100/Always OK, Worst: 100 (Data = 2, 0)
[A7] SSD Protect Mode:	100/Always OK, Worst: 100 (Data = 47, 0)
[A8] SATA PHY Error Count:	100/Always OK, Worst: 100 (Data = 24, 0)
[A9] Total Bad Block Count:	100/Always OK, Worst: 100 (Data = 474, 0)
[AA] Available Reserved Space/Block Count:	100/Always OK, Worst: 100
[AB] Program Fail Count (Total):	100/Always OK, Worst: 100
[AC] Erase Fail Count:	100/Always OK, Worst: 100
[AD] Average P/E Cycles:	100/Always OK, Worst: 100 (Data = 9, 0)
[AE] Unexpected Power Loss Count:	100/Always OK, Worst: 100 (Data = 104, 0)
[B8] End-to-End Data Errors Corrected:	100/Always OK, Worst: 100
[BB] Uncorrectable Error Count:	100/Always OK, Worst: 100
[BC] Command Timeout Count:	100/Always OK, Worst: 100
[C2] Temperature:	49/Always OK, Worst: 72 (51.0 °C)
[C7] SATA CRC Error Count:	100/Always OK, Worst: 100
[E6] Media Wearout Indicator:	100/Always OK, Worst: 100 (Data = 5898772, 532)
[E8] Available Reserved Space:	100/4, Worst: 100 (Data = 100, 0)
[E9] NAND GB Written:	100/Always OK, Worst: 100 (Data = 4795, 0)
[EA] NAND GB Written (SLC):	100/Always OK, Worst: 100 (Data = 13349, 0)
[F1] Total GB Written:	253/Always OK, Worst: 253 (Data = 10213, 0)
[F2] Total GB Read:	253/Always OK, Worst: 253 (Data = 15825, 0)
[F4] Temperature Throttle Status:	0/Always OK, Worst: 100

Drive Remaining Life 98%

[Device Statistics]

Lifetime Power-On Resets:	2373
Power-on Hours:	0
Logical Sectors Written:	21420122660
Logical Sectors Read:	33188871838
Number of Write Commands:	383357295
Number of Read Commands:	715704033

Used Endurance Indicator: 0%

WDC WD10JPVX-22JC3T0

[General Information]

Drive Controller:	Serial ATA 6Gb/s @ 6Gb/s
Host Controller:	Intel Skylake PCH-H MB - SATA AHCI Controller [D1]
Drive Model:	WDC WD10JPVX-22JC3T0
Drive Firmware Revision:	01.01A01
Drive Serial Number:	WD-WX71A76EFCHE
World Wide Name:	50014EE6B1915240
Drive Capacity:	953,869 MBytes (1000 GB)
Drive Capacity [MB]:	953869

Media Rotation Rate:	5400 RPM
ATA Major Version Supported:	ATA/ATAPI-5, ATA/ATAPI-6, ATA/ATAPI-7, ATA8-ACS, ACS-2
ATA Transport Version Supported:	SATA 3.0
Drive Letter(s):	D:

[Drive Geometry]

Number of Cylinders:	16383
Number of Heads:	16
Sectors Per Track:	63
Number of Sectors:	16514064
Total 48-bit LBA Sectors:	1953525168
Logical Sector Size:	512 Bytes
Cache Buffer Size:	8192 KBytes

[Transfer Modes]

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

[Device flags]

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

[Features]

Write Cache:	Present, Active
S.M.A.R.T. Feature:	Present, Active
Security Feature:	Present, Inactive
Removable Media Feature:	Not Present, Disabled
Power Management:	Present, Active
Advanced Power Management:	Present, Active
Packet Interface:	Not Present, Disabled
Look-Ahead Buffer:	Present, Active
Host Protected Area:	Present, Enabled
Power-Up In Standby:	Supported, Inactive
Automatic Acoustic Management:	Not Supported, Inactive
48-bit LBA:	Supported, Active
Host-Initiated Link Power Management (HIPM):	Supported
Device-Initiated Link Power Management (DIPM):	Supported, Enabled
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
Zoned Device ATA Command Set:	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:	Supported
Device Automatic Partial to Slumber Transitions:	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:	183/21, Worst: 175 (Data = 1833, 0)
[04] Start/Stop Count:	49/Always OK, Worst: 49 (Data = 51709, 0)
[05] Reallocated Sector Count:	200/140, Worst: 200
[07] Seek Error Rate:	200/Always OK, Worst: 200
[09] Power-on Hours/Cycle Count:	88/Always OK, Worst: 88 (8961 hours / 1.02 years)
[0A] Spin Retry Count:	100/Always OK, Worst: 100
[0B] Calibration Retry Count:	100/Always OK, Worst: 100
[0C] Power Cycle Count:	96/Always OK, Worst: 96 (Data = 4762, 0)
[BF] G-Sense Error Rate:	1/Always OK, Worst: 1 (Data = 407, 0)
[C0] Power-Off Retract Count:	200/Always OK, Worst: 200 (Data = 654, 0)
[C1] Load/Unload Cycle Count:	159/Always OK, Worst: 159 (Data = 125252, 0)
[C2] Temperature:	106/Always OK, Worst: 83 (41.0 °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:	100/Always OK, Worst: 253
[C7] UltraDMA/SATA CRC Error Rate:	200/Always OK, Worst: 200
[C8] Write/Multi-Zone Error Rate:	100/Always OK, Worst: 253

Audio

Intel Skylake PCH-H - High Definition Audio Controller

Audio Adapter:

Audio Controller Hardware ID:

Intel Skylake PCH-H - High Definition Audio Controller

PCIIVEN_8086&DEV_A170&SUBSYS_115A1462&REV_31

High Definition Audio Codec:

Audio Codec Hardware ID:

RealTek ALC899

HDAUDIO\FUNC_01&VEN_10EC&DEV_0899&SUBSYS_1462115A&REV_1000

[Driver Information]

Driver Manufacturer:	Realtek Semiconductor Corp.
Driver Description:	Realtek High Definition Audio
Driver Provider:	Realtek Semiconductor Corp.
Driver Version:	6.0.1.8328
Driver Date:	19-Dec-2017
DeviceInstanceID	HDAUDIO\FUNC_01&VEN_10EC&DEV_0899&SUBSYS_1462115A&REV_1000\4&A339FC7&0&0001

High Definition Audio Codec:	Intel
Audio Codec Hardware ID:	HDAUDIO\FUNC_01&VEN_8086&DEV_2809&SUBSYS_80860101&REV_1000

[Driver Information]

Driver Manufacturer:	Intel(R) Corporation
Driver Description:	Intel(R) Display Audio
Driver Provider:	Intel(R) Corporation
Driver Version:	10.26.0.9
Driver Date:	03-Dec-2019
DeviceInstanceID	HDAUDIO\FUNC_01&VEN_8086&DEV_2809&SUBSYS_80860101&REV_1000\4&A339FC7&0&0201

Network

Intel Dual Band Wireless-AC 3165

[General Information]

Network Card:	Intel Dual Band Wireless-AC 3165
Vendor Description:	Microsoft
MAC Address:	58-FB-84-6C-17-B8

[Capabilities]

Maximum Link Speed:	433 Mbps
Current Link Speed:	433 Mbps
Transmit Buffer Size:	Unknown
Receive Buffer Size:	Unknown
Hardware ID:	PCI\VEN_8086&DEV_3165&SUBSYS_40108086&REV_81

[Driver Information]

Driver Manufacturer:	Intel
Driver Description:	Intel(R) Dual Band Wireless-AC 3165
Driver Provider:	Intel
Driver Version:	19.51.40.1
Driver Date:	20-Feb-2022
DeviceInstanceID	PCI\VEN_8086&DEV_3165&SUBSYS_40108086&REV_81\58FB84FFFF6C17B800
Location Paths	PCIROOT(0)#PCI(1C00)#PCI(0000)

Qualcomm/Atheros AR8171/8175 PCI-E Gigabit Ethernet Controller

[General Information]

Network Card:	Qualcomm/Atheros AR8171/8175 PCI-E Gigabit Ethernet Controller
Vendor Description:	Qualcomm Atheros Ar81xx series PCI-E Ethernet Controller

MAC Address:	4C-CC-6A-82-33-03
[Capabilities]	
Maximum Link Speed:	1 Gbps
Current Link Speed:	1 Gbps
Transmit Buffer Size:	389632 Bytes
Receive Buffer Size:	779264 Bytes
Hardware ID:	PCI\VEN_1969&DEV_10A1&SUBSYS_115A1462&REV_10

[Driver Information]

Driver Manufacturer:	Qualcomm Atheros
Driver Description:	Qualcomm Atheros AR8171/8175 PCI-E Gigabit Ethernet Controller (NDIS 6.30)
Driver Provider:	Qualcomm Atheros
Driver Version:	2.1.0.27
Driver Date:	18-Sep-2017
DeviceInstanceId	PCI\VEN_1969&DEV_10A1&SUBSYS_115A1462&REV_10\FF8233034CCC6AFF00
Location Paths	PCIROOT(0)#PCI(1C03)#PCI(0000)

Ports

Serial Ports

USB

Intel(R) USB 3.0 eXtensible Host Controller - 1.0 (Microsoft)

Root Hub

[Port1] : No Device Connected

[Port2] : No Device Connected

[Port3] : Logitech, PID=C336

[Device Information]

Device Manufacturer:	Logitech
Product Name:	Gaming Keyboard G213
Serial Number:	107C31493238
USB Version Supported:	2.00
USB Device Speed:	USB 1.1 Full-speed
Driver Description:	USB Composite Device
Hardware ID:	USB\VID_046D&PID_C336

[Driver Information]

Driver Manufacturer:	Microsoft
Driver Description:	USB Composite Device
Driver Provider:	Microsoft
Driver Version:	10.0.19041.4474
Driver Date:	21-Jun-2006
DeviceInstanceID	USB\VID_046D&PID_C336\107C31493238
Location Paths	PCIROOT(0)#PCI(1400)#USBROOT(0)#USB(3)

[Port4] : No Device Connected

[Port5] : No Device Connected

[Port6] : No Device Connected

[Port7] : precisionWave, PID=FF00

[Device Information]

Device Manufacturer:	precisionWave
Product Name:	precisionWave, PID=FF00
Serial Number:	-
USB Version Supported:	1.10
USB Device Speed:	USB 1.1 Full-speed
Driver Description:	USB Input Device
Hardware ID:	USB\VID_1770&PID_FF00

[Driver Information]

Driver Manufacturer:	Microsoft
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Driver Description:	USB Input Device
Driver Provider:	Microsoft
Driver Version:	10.0.19041.3636
Driver Date:	21-Jun-2006
DeviceInstanceId	USB\VID_1770&PID_FF00\MSI_EPF_USB
Location Paths	PCIROOT(0)#PCI(1400)#USBROOT(0)#USB(7)

[Port8] : No Device Connected

[Port9] : No Device Connected

[Port10] : Intel Bluetooth V4.0 Module

[Device Information]

Device Manufacturer:	Intel
Product Name:	Intel Bluetooth V4.0 Module
Serial Number:	-
USB Version Supported:	2.00
USB Device Speed:	USB 1.1 Full-speed
Driver Description:	Intel(R) Wireless Bluetooth(R)
Hardware ID:	USB\VID_8087&PID_0A2A

[Driver Information]

Driver Manufacturer:	Intel Corporation
Driver Description:	Intel(R) Wireless Bluetooth(R)
Driver Provider:	Intel Corporation
Driver Version:	20.100.10.7
Driver Date:	22-Dec-2021
DeviceInstanceId	USB\VID_8087&PID_0A2A\5&2A2FDE03&0&10
Location Paths	PCIROOT(0)#PCI(1400)#USBROOT(0)#USB(10)

[Port11] : No Device Connected

[Port12] : No Device Connected

[Port13] : No Device Connected

[Port14] : No Device Connected

[Port15] : No Device Connected

[Port16] : No Device Connected

[Port17] : No Device Connected

[Port18] : No Device Connected

[Port19] : No Device Connected

[Port20] : No Device Connected

[Port21] : No Device Connected

[Port22] : No Device Connected

[Port23] : No Device Connected

[Port24] : No Device Connected

Smart Battery

Battery #0

[General Properties]

Device Name:	BIF0_9
Manufacturer Name:	MSI
Serial Number:	
Unique ID:	MSIBIF0_9
Chemistry:	Lithium Ion
Designed Capacity:	43200 mWh
Full Charged Capacity:	30197 mWh
Wear Level:	30.1 %

[Current Power Status]

Power Status:	On AC Power
Current Capacity:	28436 mWh (94.2 %)
Current Voltage:	11.980 V