ООО «РЕД СОФТ»

**Отчёт о проведении тестирования оборудования DI-1000 на совместимость с операционной системой РЕД ОС 7.3**

г. Москва, 2021

1. Технические характеристики АРМ:

|  |  |
| --- | --- |
| DI-1000 | |
| **Процессор** | Процессор Intel(R) Core(TM) i3-6100U CPU @ 2.30GHz |
| **Оперативная память** | Модуль памяти 8 ГБ |
| **Дисковый массив №1** | Накопитель 256 ГБ |

1. Результаты тестирования специалистами ООО «РЕД СОФТ» и ООО "Ниеншанц-Автоматика":

* проведена успешная установка РЕД ОС 7.3;
* проведено тестирование: DI-1000 результат тестирования положительный.

1. Результаты тестирования специалистами ООО «РЕД СОФТ» и ООО "Ниеншанц-Автоматика"оборудования – DI-1000

|  |  |  |  |
| --- | --- | --- | --- |
| № п/п | Результат тестирования | Результат | Результат выполнения |
| **1** | **Тестирование CPU** | | |
| 1.1 | Вывод информации о процессоре с помощью утилиты lscpu | Успешно | Приложение 1 п.1.1 |
| 1.2 | Стресс тест процессора с помощью утилиты stress-ng | Успешно | Приложение 1 п.1.2 |
| 1.3 | Вывод сенсоров температуры компонентов с помощью утилиты sensors | Успешно | Приложение 1 п.1.3 |
| **2** | **Тестирование оперативной памяти** | | |
| 2.1 | Просмотр объёма оперативной памяти производится командой free –h | Успешно | Приложение 1 п.2.1 |
| 2.2 | Просмотр подробной информации о модулях оперативной памяти с помощью утилиты dmidecode | Успешно | Приложение 1 п.2.2 |
| 2.3 | Стресс тест оперативной памяти с помощью утилиты stress-ng | Успешно | Приложение 1 п.2.3 |
| **3** | **Тестирование системы хранения** | | |
| 3.1 | Вывод доступных устройств хранения с помощью ls | Успешно | Приложение 1 п.3.1 |
| 3.2 | Вывод информации о примонтированных разделах c помощью df | Успешно | Приложение 1 п.3.2 |
| 3.3 | Вывод SMART всех дисков, поддерживающих данную технологию с помощью smartctl | Успешно | Приложение 1 п.3.3 |
| 3.4 | Тестирование скорости всех накопителей с помощью утилиты hdparm | Успешно | Приложение 1 п.3.4 |
| **4** | **Тестирование устройств, подключенных к шине PCI** | | |
| 4.1 | Вывод информации о PCI устройствах с помощью lspci | Успешно | Приложение 1 п.4.1 |
| 4.2 | Вывод информации о применяемых драйверах для PCI устройств с помощью утилиты lspci | Успешно | Приложение 1 п.4.2 |
| **5** | **Тестирование SCSI устройств** | | |
| 5.1 | Вывод информации о SCSI устройствах с помощью lsscsi | Успешно | Приложение 1 п.5 |
| **6** | **Тестирование USB устройств** | | |
| 6.1 | Вывод информации о подключенных USB устройствах с помощью lsusb | Успешно | Приложение 1 п.6 |
| **7** | **Дополнительные тесты** | | |
| 7.1 | Вывод подробной информации о всех имеющихся устройствах inxi | Успешно | Приложение 1 п.7.1 |
| 7.2 | Тестирование с помощью бенчмарка 7Zip | Успешно | Приложение 1 п.7.2 |
| 7.3 | Тестирование сети с помощью утилиты mtr | Успешно | Приложение 1 п.7.3 |
| 7.4 | Вывод информации DMI для всех возможных устройств | Успешно | Приложение 1 п.7.4 |

Приложение 1

1 Тестирование CPU

* 1. Результат выполнения команды lscpu:

Архитектура: x86\_64

CPU op-mode(s): 32-bit, 64-bit

Порядок байт: Little Endian

Address sizes: 39 bits physical, 48 bits virtual

CPU(s): 4

On-line CPU(s) list: 0-3

Thread(s) per core: 2

Ядер на сокет: 2

Сокетов: 1

NUMA node(s): 1

ID прроизводителя: GenuineIntel

Семейство ЦПУ: 6

Модель: 78

Имя модели: Intel(R) Core(TM) i3-6100U CPU @ 2.30GHz

Степпинг: 3

CPU MHz: 2280.804

CPU max MHz: 2300,0000

CPU min MHz: 400,0000

BogoMIPS: 4599.93

Виртуализация: VT-x

L1d cache: 64 KiB

L1i cache: 64 KiB

L2 cache: 512 KiB

L3 cache: 3 MiB

NUMA node0 CPU(s): 0-3

Vulnerability Itlb multihit: KVM: Mitigation: VMX disabled

Vulnerability L1tf: Mitigation; PTE Inversion; VMX conditional cache flushes, SMT vulnerable

Vulnerability Mds: Mitigation; Clear CPU buffers; SMT vulnerable

Vulnerability Meltdown: Mitigation; PTI

Vulnerability Spec store bypass: Mitigation; Speculative Store Bypass disabled via prctl and seccomp

Vulnerability Spectre v1: Mitigation; usercopy/swapgs barriers and \_\_user pointer sanitization

Vulnerability Spectre v2: Mitigation; Full generic retpoline, IBPB conditional, IBRS\_FW, STIBP conditional, RSB filling

Vulnerability Srbds: Mitigation; Microcode

Vulnerability Tsx async abort: Mitigation; TSX disabled

Флаги: fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx pdpe1gb rdtscp lm constant\_tsc art arch\_perfmon pebs bts rep\_good nopl xtopology nonstop\_tsc cpuid aperfmperf pni pclmulqdq dtes64 monitor ds\_cpl vmx est tm2 ssse3 sdbg fma cx16 xtpr pdcm pcid sse4\_1 sse4\_2 x2apic movbe popcnt tsc\_deadline\_timer aes xsave avx f16c rdrand lahf\_lm abm 3dnowprefetch cpuid\_fault epb invpcid\_single pti ssbd ibrs ibpb stibp tpr\_shadow vnmi flexpriority ept vpid ept\_ad fsgsbase tsc\_adjust bmi1 avx2 smep bmi2 erms invpcid mpx rdseed adx smap clflushopt intel\_pt xsaveopt xsavec xgetbv1 xsaves dtherm ida arat pln pts hwp hwp\_notify hwp\_act\_window hwp\_epp md\_clear flush\_l1d

1.2 Результат выполнения команды stress-ng --cpu 0 -t 60 --metrics-brief

stress-ng: info: [4378] dispatching hogs: 4 cpu

stress-ng: info: [4378] successful run completed in 90.08s (1 min, 30.08 secs)

stress-ng: info: [4378] stressor bogo ops real time usr time sys time bogo ops/s bogo ops/s

stress-ng: info: [4378] (secs) (secs) (secs) (real time) (usr+sys time)

stress-ng: info: [4378] cpu 56167 90.03 330.76 0.53 623.87 169.54

1.3 Результат выполнения команды sensors

coretemp-isa-0000

Adapter: ISA adapter

Package id 0: +44.0°C (high = +100.0°C, crit = +100.0°C)

Core 0: +44.0°C (high = +100.0°C, crit = +100.0°C)

Core 1: +38.0°C (high = +100.0°C, crit = +100.0°C)

acpitz-acpi-0

Adapter: ACPI interface

temp1: +27.8°C (crit = +119.0°C)

temp2: +29.8°C (crit = +119.0°C)

pch\_skylake-virtual-0

Adapter: Virtual device

temp1: +36.5°C

2 Тестирование ОЗУ

2.1 Результат выполнения команды free –h

total used free shared buff/cache available

Mem: 7,6Gi 586Mi 6,1Gi 47Mi 998Mi 6,8Gi

Swap: 7,8Gi 0B 7,8Gi

2.2 Результат выполнения команды dmidecode memory

# dmidecode 3.2

Getting SMBIOS data from sysfs.

SMBIOS 3.0.0 present.

Handle 0x0042, DMI type 16, 23 bytes

Physical Memory Array

Location: System Board Or Motherboard

Use: System Memory

Error Correction Type: None

Maximum Capacity: 64 GB

Error Information Handle: Not Provided

Number Of Devices: 4

Handle 0x0043, DMI type 17, 40 bytes

Memory Device

Array Handle: 0x0042

Error Information Handle: Not Provided

Total Width: 64 bits

Data Width: 64 bits

Size: 8 GB

Form Factor: SODIMM

Set: None

Locator: ChannelA-DIMM0

Bank Locator: BANK 0

Type: DDR4

Type Detail: Synchronous

Speed: 2133 MT/s

Manufacturer: 8AD3

Serial Number: 00000000

Asset Tag: 9876543210

Part Number: CIR-S4SUSW2608G

Rank: 1

Configured Memory Speed: 2133 MT/s

Minimum Voltage: Unknown

Maximum Voltage: Unknown

Configured Voltage: 1.2 V

Handle 0x0044, DMI type 17, 40 bytes

Memory Device

Array Handle: 0x0042

Error Information Handle: Not Provided

Total Width: Unknown

Data Width: Unknown

Size: No Module Installed

Form Factor: Unknown

Set: None

Locator: ChannelA-DIMM1

Bank Locator: BANK 1

Type: Unknown

Type Detail: None

Speed: Unknown

Manufacturer: Not Specified

Serial Number: Not Specified

Asset Tag: Not Specified

Part Number: Not Specified

Rank: Unknown

Configured Memory Speed: Unknown

Minimum Voltage: Unknown

Maximum Voltage: Unknown

Configured Voltage: Unknown

Handle 0x0045, DMI type 17, 40 bytes

Memory Device

Array Handle: 0x0042

Error Information Handle: Not Provided

Total Width: Unknown

Data Width: Unknown

Size: No Module Installed

Form Factor: Unknown

Set: None

Locator: ChannelB-DIMM0

Bank Locator: BANK 2

Type: Unknown

Type Detail: None

Speed: Unknown

Manufacturer: Not Specified

Serial Number: Not Specified

Asset Tag: Not Specified

Part Number: Not Specified

Rank: Unknown

Configured Memory Speed: Unknown

Minimum Voltage: Unknown

Maximum Voltage: Unknown

Configured Voltage: Unknown

Handle 0x0046, DMI type 17, 40 bytes

Memory Device

Array Handle: 0x0042

Error Information Handle: Not Provided

Total Width: Unknown

Data Width: Unknown

Size: No Module Installed

Form Factor: Unknown

Set: None

Locator: ChannelB-DIMM1

Bank Locator: BANK 3

Type: Unknown

Type Detail: None

Speed: Unknown

Manufacturer: Not Specified

Serial Number: Not Specified

Asset Tag: Not Specified

Part Number: Not Specified

Rank: Unknown

Configured Memory Speed: Unknown

Minimum Voltage: Unknown

Maximum Voltage: Unknown

Configured Voltage: Unknown

2.3 Результат выполнения команды: stress-ng ram test

stress-ng: info: [36954] disabled 'oom-pipe' as it may hang or reboot the machine (enable it with the --pathological option)

stress-ng: info: [36954] dispatching hogs: 4 atomic, 4 bad-altstack, 4 bsearch, 4 context, 4 full, 4 heapsort, 4 hsearch, 4 judy, 4 lockbus, 4 lsearch, 4 malloc, 4 matrix, 4 matrix-3d, 4 mcontend, 4 membarrier, 4 memcpy, 4 memfd, 4 memrate, 4 memthrash, 4 mergesort, 4 mincore, 4 null, 4 numa, 4 pipe, 4 pipeherd, 4 qsort, 4 radixsort, 4 remap, 4 resources, 4 rmap, 4 shellsort, 4 skiplist, 4 stack, 4 stackmmap, 4 str, 4 stream, 4 tlb-shootdown, 4 tmpfs, 4 tree, 4 tsearch, 4 vm, 4 vm-addr, 4 vm-rw, 4 vm-segv, 4 wcs, 4 zero, 4 zlib

stress-ng: info: [47901] stress-ng-memrate: write64: 1600.52 MB/sec

stress-ng: info: [47901] stress-ng-memrate: read64: 3353.83 MB/sec

stress-ng: info: [47901] stress-ng-memrate: write32: 1590.78 MB/sec

stress-ng: info: [47901] stress-ng-memrate: read32: 3421.91 MB/sec

stress-ng: info: [47901] stress-ng-memrate: write16: 1569.25 MB/sec

stress-ng: info: [47902] stress-ng-memrate: write64: 1603.10 MB/sec

stress-ng: info: [47901] stress-ng-memrate: read16: 3280.80 MB/sec

stress-ng: info: [47901] stress-ng-memrate: write8: 1052.08 MB/sec

stress-ng: info: [47902] stress-ng-memrate: read64: 3303.22 MB/sec

stress-ng: info: [47901] stress-ng-memrate: read8: 1899.82 MB/sec

stress-ng: info: [47902] stress-ng-memrate: write32: 1599.99 MB/sec

stress-ng: info: [47902] stress-ng-memrate: read32: 3412.99 MB/sec

stress-ng: info: [47900] stress-ng-memrate: write64: 1644.79 MB/sec

stress-ng: info: [47902] stress-ng-memrate: write16: 1577.81 MB/sec

stress-ng: info: [47902] stress-ng-memrate: read16: 3359.14 MB/sec

stress-ng: info: [47900] stress-ng-memrate: read64: 3196.34 MB/sec

stress-ng: info: [47902] stress-ng-memrate: write8: 1051.76 MB/sec

stress-ng: info: [47899] stress-ng-memrate: write64: 1605.39 MB/sec

stress-ng: info: [47900] stress-ng-memrate: write32: 1604.69 MB/sec

stress-ng: info: [47902] stress-ng-memrate: read8: 1865.13 MB/sec

stress-ng: info: [47900] stress-ng-memrate: read32: 3241.72 MB/sec

stress-ng: info: [47899] stress-ng-memrate: read64: 3306.54 MB/sec

stress-ng: info: [47900] stress-ng-memrate: write16: 1575.66 MB/sec

stress-ng: info: [47899] stress-ng-memrate: write32: 1584.99 MB/sec

stress-ng: info: [47900] stress-ng-memrate: read16: 3179.37 MB/sec

stress-ng: info: [47899] stress-ng-memrate: read32: 3364.00 MB/sec

stress-ng: info: [47900] stress-ng-memrate: write8: 1051.91 MB/sec

stress-ng: info: [47899] stress-ng-memrate: write16: 1570.56 MB/sec

stress-ng: info: [47900] stress-ng-memrate: read8: 1964.23 MB/sec

stress-ng: info: [47899] stress-ng-memrate: read16: 3260.99 MB/sec

stress-ng: info: [47899] stress-ng-memrate: write8: 1051.51 MB/sec

stress-ng: info: [47899] stress-ng-memrate: read8: 1947.55 MB/sec

stress-ng: info: [47907] stress-ng-memthrash: starting 1 thread on each of the 4 stressors on a 4 CPU system

stress-ng: info: [47952] stress-ng-numa: system has 1 of a maximum 1024 memory NUMA nodes

stress-ng: info: [47968] stress-ng-pipeherd: 0.29 context switches per bogo operation (65466.19 per second)

stress-ng: info: [47967] stress-ng-pipeherd: 0.29 context switches per bogo operation (64859.03 per second)

stress-ng: info: [47966] stress-ng-pipeherd: 0.28 context switches per bogo operation (60301.71 per second)

stress-ng: info: [47969] stress-ng-pipeherd: 0.27 context switches per bogo operation (59413.88 per second)

stress-ng: info: [61495] stress-ng-stream: stressor loosely based on a variant of the STREAM benchmark code

stress-ng: info: [61495] stress-ng-stream: do NOT submit any of these results to the STREAM benchmark results

stress-ng: info: [61495] stress-ng-stream: Using CPU cache size of 3072K

stress-ng: info: [61495] stress-ng-stream: memory rate: 2596.07 MB/sec, 1038.43 Mflop/sec (instance 0)

stress-ng: info: [61498] stress-ng-stream: memory rate: 2465.92 MB/sec, 986.37 Mflop/sec (instance 3)

stress-ng: info: [61497] stress-ng-stream: memory rate: 2558.89 MB/sec, 1023.56 Mflop/sec (instance 2)

stress-ng: info: [61496] stress-ng-stream: memory rate: 2424.77 MB/sec, 969.91 Mflop/sec (instance 1)

stress-ng: info: [368029] stress-ng-zlib: instance 0: compression ratio: 15.31% (4.86 MB/sec)

stress-ng: info: [368033] stress-ng-zlib: instance 3: compression ratio: 15.60% (4.97 MB/sec)

stress-ng: info: [368032] stress-ng-zlib: instance 2: compression ratio: 15.32% (4.84 MB/sec)

stress-ng: info: [368031] stress-ng-zlib: instance 1: compression ratio: 15.57% (4.92 MB/sec)

stress-ng: info: [36954] successful run completed in 2831.75s (47 mins, 11.75 secs)

stress-ng: info: [36954] stressor bogo ops real time usr time sys time bogo ops/s bogo ops/s

stress-ng: info: [36954] (secs) (secs) (secs) (real time) (usr+sys time)

stress-ng: info: [36954] atomic 8171170 60.00 239.48 0.00 136186.35 34120.47

stress-ng: info: [36954] bad-altstack 1536 60.05 0.62 0.74 25.58 1129.41

stress-ng: info: [36954] bsearch 43924 60.00 239.50 0.00 732.04 183.40

stress-ng: info: [36954] context 198335 60.00 148.15 90.63 3305.59 830.62

stress-ng: info: [36954] full 14277080 60.00 148.82 86.41 237951.68 60694.13

stress-ng: info: [36954] heapsort 479 60.00 238.49 0.00 7.98 2.01

stress-ng: info: [36954] hsearch 410917 60.00 239.25 0.00 6848.62 1717.52

stress-ng: info: [36954] judy 1652 60.04 235.45 3.50 27.52 6.91

stress-ng: info: [36954] lockbus 712796 60.01 239.14 0.07 11878.65 2979.79

stress-ng: info: [36954] lsearch 762 60.00 239.40 0.00 12.70 3.18

stress-ng: info: [36954] malloc 373624593 60.03 237.20 0.69 6223475.96 1570577.13

stress-ng: info: [36954] matrix 355182 60.00 238.97 0.00 5919.70 1486.30

stress-ng: info: [36954] matrix-3d 19628 60.00 238.29 0.05 327.11 82.35

stress-ng: info: [36954] mcontend 32204 60.00 238.48 0.33 536.70 134.85

stress-ng: info: [36954] membarrier 32276 60.01 8.30 3.07 537.85 2838.70

stress-ng: info: [36954] memcpy 27026 60.00 237.00 0.01 450.43 114.03

stress-ng: info: [36954] memfd 3032 60.02 6.29 230.52 50.52 12.80

stress-ng: info: [36954] memrate 220 60.03 238.76 0.57 3.66 0.92

stress-ng: info: [36954] memthrash 9963 60.50 236.87 0.66 164.68 41.94

stress-ng: info: [36954] mergesort 2557 60.00 238.76 0.00 42.62 10.71

stress-ng: info: [36954] mincore 223996 60.00 91.85 147.56 3733.27 935.62

stress-ng: info: [36954] null 20320729 60.00 84.75 154.59 338679.36 84903.19

stress-ng: info: [36954] numa 1452 60.07 12.84 223.12 24.17 6.15

stress-ng: info: [36954] pipe 28498955 60.00 73.29 165.91 474977.29 119142.79

stress-ng: info: [36954] pipeherd 52765347 60.02 67.54 171.59 879081.17 220655.49

stress-ng: info: [36954] qsort 926 60.00 239.20 0.00 15.43 3.87

stress-ng: info: [36954] radixsort 1429 60.00 238.16 0.00 23.82 6.00

stress-ng: info: [36954] remap 22785 60.00 29.51 209.76 379.72 95.23

stress-ng: info: [36954] resources 9394 61.55 5.42 206.30 152.62 44.37

stress-ng: info: [36954] rmap 64 60.00 0.03 0.24 1.07 237.04

stress-ng: info: [36954] shellsort 1283 60.00 236.62 0.04 21.38 5.42

stress-ng: info: [36954] skiplist 697867 60.00 237.54 0.03 11631.09 2937.52

stress-ng: info: [36954] stack 488500 61.72 7.02 81.32 7915.19 5529.77

stress-ng: info: [36954] stackmmap 1703 60.00 2.44 18.38 28.38 81.80

stress-ng: info: [36954] str 3775810 60.00 237.62 0.03 62930.71 15888.11

stress-ng: info: [36954] stream 20080 60.00 229.81 0.26 334.64 87.28

stress-ng: info: [36954] tlb-shootdown 11704 60.01 66.35 168.67 195.02 49.80

stress-ng: info: [36954] tmpfs 197 60.08 143.33 93.39 3.28 0.83

stress-ng: info: [36954] tree 125 60.00 235.76 0.05 2.08 0.53

stress-ng: info: [36954] tsearch 1415 60.05 236.25 0.02 23.56 5.99

stress-ng: info: [36954] vm 1546313 60.01 233.16 2.31 25765.49 6566.92

stress-ng: info: [36954] vm-addr 300 63.36 241.47 6.03 4.73 1.21

stress-ng: info: [36954] vm-rw 37347 60.00 0.56 232.32 622.42 160.37

stress-ng: info: [36954] vm-segv 259636 60.00 85.23 149.62 4327.26 1105.54

stress-ng: info: [36954] wcs 2488590 60.00 238.01 0.01 41476.56 10455.38

stress-ng: info: [36954] zero 3464160 60.00 56.36 173.16 57736.06 15093.06

stress-ng: info: [36954] zlib 10648 60.02 237.42 0.27 177.40 44.80

3 Тестирование жестких дисков

3.1 Результат выполнения команды ls -l /dev

crw-------. 1 root root 2, 61 янв 14 15:34 ptysd

brw-rw----. 1 root disk 8, 0 янв 14 15:34 sda

brw-rw----. 1 root disk 8, 1 янв 14 15:34 sda1

brw-rw----. 1 root disk 8, 2 янв 14 15:34 sda2

brw-rw----. 1 root disk 8, 16 янв 14 15:37 sdb

brw-rw----. 1 root disk 8, 17 янв 14 15:37 sdb1

crw-------. 1 root root 3, 61 янв 14 15:34 ttysd

3.2 Результат выполнения команды df -h

Файловая система Размер Использовано Дост Использовано% Cмонтировано в

devtmpfs 3,9G 0 3,9G 0% /dev

tmpfs 3,9G 0 3,9G 0% /dev/shm

tmpfs 1,6G 3,6M 1,6G 1% /run

/dev/mapper/ro\_redos-root 69G 6,8G 59G 11% /

/dev/mapper/ro\_redos-home 157G 72M 149G 1% /home

/dev/sda1 976M 161M 748M 18% /boot

tmpfs 783M 148K 783M 1% /run/user/1000

/dev/sdb1 15G 12G 3,1G 79% /run/media/user/6630-DAA7

3.3 Результат выполнения команды smartctl --info для каждого диска

SMART for /dev/sda

smartctl 7.1 2019-12-30 r5022 [x86\_64-linux-5.15.10-1.el7.x86\_64] (local build)

Copyright (C) 2002-19, Bruce Allen, Christian Franke, www.smartmontools.org

=== START OF INFORMATION SECTION ===

Device Model: 256GB SATA Flash Drive

Serial Number: B0717239300000000BF2

LU WWN Device Id: 5 dc663a 07b400bf2

Firmware Version: SFDH006A

User Capacity: 256 060 514 304 bytes [256 GB]

Sector Size: 512 bytes logical/physical

Rotation Rate: Solid State Device

Form Factor: < 1.8 inches

Device is: Not in smartctl database [for details use: -P showall]

ATA Version is: ACS-2 (minor revision not indicated)

SATA Version is: SATA 3.1, 6.0 Gb/s (current: 6.0 Gb/s)

Local Time is: Fri Jan 14 16:28:00 2022 MSK

SMART support is: Available - device has SMART capability.

SMART support is: Enabled

3.4 Результат выполнения команды hdparm –Tt для каждого диска

Speed for /dev/sda

/dev/sda:

Timing cached reads: 11018 MB in 1.99 seconds = 5532.06 MB/sec

Timing buffered disk reads: 1462 MB in 3.00 seconds = 487.13 MB/sec

4 Проверка PCI устройств

4.1 Результат выполнения команды lspci

00:00.0 Host bridge: Intel Corporation Xeon E3-1200 v5/E3-1500 v5/6th Gen Core Processor Host Bridge/DRAM Registers (rev 08)

00:02.0 VGA compatible controller: Intel Corporation Skylake GT2 [HD Graphics 520] (rev 07)

00:14.0 USB controller: Intel Corporation Sunrise Point-LP USB 3.0 xHCI Controller (rev 21)

00:14.2 Signal processing controller: Intel Corporation Sunrise Point-LP Thermal subsystem (rev 21)

00:16.0 Communication controller: Intel Corporation Sunrise Point-LP CSME HECI #1 (rev 21)

00:17.0 SATA controller: Intel Corporation Sunrise Point-LP SATA Controller [AHCI mode] (rev 21)

00:1d.0 PCI bridge: Intel Corporation Sunrise Point-LP PCI Express Root Port #10 (rev f1)

00:1d.2 PCI bridge: Intel Corporation Sunrise Point-LP PCI Express Root Port #11 (rev f1)

00:1e.0 Signal processing controller: Intel Corporation Sunrise Point-LP Serial IO UART Controller #0 (rev 21)

00:1f.0 ISA bridge: Intel Corporation Sunrise Point-LP LPC Controller (rev 21)

00:1f.2 Memory controller: Intel Corporation Sunrise Point-LP PMC (rev 21)

00:1f.3 Audio device: Intel Corporation Sunrise Point-LP HD Audio (rev 21)

00:1f.4 SMBus: Intel Corporation Sunrise Point-LP SMBus (rev 21)

00:1f.6 Ethernet controller: Intel Corporation Ethernet Connection I219-LM (rev 21)

01:00.0 Ethernet controller: Intel Corporation I210 Gigabit Network Connection (rev 03)

02:00.0 SATA controller: ASMedia Technology Inc. ASM1062 Serial ATA Controller (rev 01)

4.2 Результат выполнения команды lspci -k

00:00.0 Host bridge: Intel Corporation Xeon E3-1200 v5/E3-1500 v5/6th Gen Core Processor Host Bridge/DRAM Registers (rev 08)

Subsystem: Intel Corporation Device 2015

Kernel driver in use: skl\_uncore

00:02.0 VGA compatible controller: Intel Corporation Skylake GT2 [HD Graphics 520] (rev 07)

DeviceName: Onboard IGD

Subsystem: Intel Corporation Device 2212

Kernel driver in use: i915

Kernel modules: i915

00:14.0 USB controller: Intel Corporation Sunrise Point-LP USB 3.0 xHCI Controller (rev 21)

Subsystem: Intel Corporation Device 7270

Kernel driver in use: xhci\_hcd

00:14.2 Signal processing controller: Intel Corporation Sunrise Point-LP Thermal subsystem (rev 21)

Subsystem: Intel Corporation Device 7270

Kernel driver in use: intel\_pch\_thermal

Kernel modules: intel\_pch\_thermal

00:16.0 Communication controller: Intel Corporation Sunrise Point-LP CSME HECI #1 (rev 21)

Subsystem: Intel Corporation Device 1999

Kernel driver in use: mei\_me

Kernel modules: mei\_me

00:17.0 SATA controller: Intel Corporation Sunrise Point-LP SATA Controller [AHCI mode] (rev 21)

Subsystem: Intel Corporation Device 7270

Kernel driver in use: ahci

Kernel modules: ahci

00:1d.0 PCI bridge: Intel Corporation Sunrise Point-LP PCI Express Root Port #10 (rev f1)

Kernel driver in use: pcieport

00:1d.2 PCI bridge: Intel Corporation Sunrise Point-LP PCI Express Root Port #11 (rev f1)

Kernel driver in use: pcieport

00:1e.0 Signal processing controller: Intel Corporation Sunrise Point-LP Serial IO UART Controller #0 (rev 21)

Subsystem: Intel Corporation Device 7270

Kernel driver in use: intel-lpss

00:1f.0 ISA bridge: Intel Corporation Sunrise Point-LP LPC Controller (rev 21)

Subsystem: Intel Corporation Device 7270

00:1f.2 Memory controller: Intel Corporation Sunrise Point-LP PMC (rev 21)

Subsystem: Intel Corporation Device 7270

00:1f.3 Audio device: Intel Corporation Sunrise Point-LP HD Audio (rev 21)

Subsystem: Intel Corporation Device 7270

Kernel driver in use: snd\_hda\_intel

Kernel modules: snd\_hda\_intel, snd\_soc\_skl

00:1f.4 SMBus: Intel Corporation Sunrise Point-LP SMBus (rev 21)

Subsystem: Intel Corporation Device 7270

Kernel driver in use: i801\_smbus

Kernel modules: i2c\_i801

00:1f.6 Ethernet controller: Intel Corporation Ethernet Connection I219-LM (rev 21)

Subsystem: Intel Corporation Device 0000

Kernel driver in use: e1000e

Kernel modules: e1000e

01:00.0 Ethernet controller: Intel Corporation I210 Gigabit Network Connection (rev 03)

Kernel driver in use: igb

Kernel modules: igb

02:00.0 SATA controller: ASMedia Technology Inc. ASM1062 Serial ATA Controller (rev 01)

Subsystem: ASMedia Technology Inc. Device 1060

Kernel driver in use: ahci

Kernel modules: ahci

5 Проверка SCSI устройств

Результат выполнения команды lsscsi

[0:0:0:0] disk ATA 256GB SATA Flash 006A /dev/sda

[4:0:0:0] disk UFD 3.0 Silicon-Power16G 1.00 /dev/sdb

6 Результат выполнения

команды lsusb

Bus 002 Device 001: ID 1d6b:0003 Linux Foundation 3.0 root hub

Bus 001 Device 005: ID 1f75:0916 Innostor Technology Corporation IS916 Flash Drive

Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub

7 Комплексная проверка аппаратной составляющей компьютера

7.1 Результат выполнения команды inxi -Fx

System:

Host: localhost.localdomain Kernel: 5.15.10-1.el7.x86\_64 x86\_64 bits: 64

compiler: gcc v: 2.30-73.el7) Desktop: MATE 1.24.1 info: mate-panel

wm: marco 1.24.1 dm: GDM 3.38.2.1

Distro: RED OS release MUROM (7.3.1) DESKTOP

Machine:

Type: Laptop Mobo: CINCOZE model: DI-1000 v: 5.0.00.001 serial: N/A

UEFI [Legacy]: American Megatrends v: 5.11 date: 07/23/2021

CPU:

Info: Dual Core model: Intel Core i3-6100U bits: 64 type: MT MCP

arch: Skylake rev: 3 L1 cache: 128 KiB L2 cache: 3 MiB L3 cache: 2.9 MiB

flags: avx avx2 lm nx pae sse sse2 sse3 sse4\_1 sse4\_2 ssse3 vmx

bogomips: 18399

Speed: 500 MHz min/max: 400/2300 MHz volts: 0.8 V ext-clock: 100 MHz

Core speeds (MHz): 1: 500 2: 500 3: 500 4: 500

Graphics:

Device-1: Intel Skylake GT2 [HD Graphics 520] driver: i915 v: kernel

bus ID: 00:02.0 chip ID: 8086:1916

Display: server: X.Org 1.20.11 compositor: marco v: 1.24.1

driver: modesetting unloaded: fbdev,vesa resolution: 1024x768~60Hz

s-dpi: 96

OpenGL: renderer: Mesa Intel HD Graphics 520 (SKL GT2) v: 4.6 Mesa 20.2.4

direct render: Yes

Audio:

Device-1: Intel Sunrise Point-LP HD Audio driver: snd\_hda\_intel v: kernel

bus ID: 00:1f.3 chip ID: 8086:9d70

Sound Server: ALSA v: k5.15.10-1.el7.x86\_64

Network:

Device-1: Intel Ethernet I219-LM driver: e1000e v: kernel port: f040

bus ID: 00:1f.6 chip ID: 8086:156f

IF: enp0s31f6 state: up speed: 1000 Mbps duplex: full

mac: 2c:94:64:03:71:b0

Device-2: Intel I210 Gigabit Network driver: igb v: kernel port: e000

bus ID: 01:00.0 chip ID: 8086:1533

IF: enp1s0 state: down mac: 2c:94:64:03:71:b1

Drives:

Local Storage: total: 252.92 GiB used: 18.61 GiB (7.4%)

ID-1: /dev/sda model: 256GB SATA Flash Drive size: 238.47 GiB

speed: 6.0 Gb/s serial: B0717239300000000BF2 rev: 006A temp: 40 C

ID-2: /dev/sdb type: USB vendor: Silicon Power model: UFD 3.0 16G

size: 14.44 GiB serial: 0916100000110814960000000284 rev: 1.00

Partition:

ID-1: / size: 68.4 GiB used: 6.71 GiB (9.8%) fs: ext4 dev: /dev/dm-0

mapped: ro\_redos-root

ID-2: /boot size: 975.9 MiB used: 161 MiB (16.5%) fs: ext4 dev: /dev/sda1

ID-3: /home size: 156.19 GiB used: 71.9 MiB (0.0%) fs: ext4 dev: /dev/dm-2

mapped: ro\_redos-home

Swap:

ID-1: swap-1 type: partition size: 7.77 GiB used: 336.1 MiB (4.2%)

priority: -2 dev: /dev/dm-1 mapped: ro\_redos-swap

Sensors:

System Temperatures: cpu: 43.0 C mobo: 29.8 C

Fan Speeds (RPM): N/A

Info:

Processes: 195 Uptime: 53m wakeups: 0 Memory: 7.65 GiB

used: 607.6 MiB (7.8%) Init: systemd v: 246 runlevel: 5

target: graphical.target Compilers: gcc: N/A Packages: rpm: 1917

Shell: sh (sudo) default: Bash v: 5.0.17 running in: mate-terminal

inxi: 3.2.00

7.2 Результат выполнения команды 7za b -mm=\*

7-Zip (a) [64] 17.04 : Copyright (c) 1999-2021 Igor Pavlov : 2017-08-28

p7zip Version 17.04 (locale=ru\_RU.UTF-8,Utf16=on,HugeFiles=on,64 bits,4 CPUs Intel(R) Core(TM) i3-6100U CPU @ 2.30GHz (406E3),ASM,AES-NI)

Intel(R) Core(TM) i3-6100U CPU @ 2.30GHz (406E3)

CPU Freq: - - - - - - - - -

RAM size: 7828 MB, # CPU hardware threads: 4

RAM usage: 901 MB, # Benchmark threads: 4

Method Speed Usage R/U Rating E/U Effec

KiB/s % MIPS MIPS % %

CPU 393 2131 8375

CPU 393 2132 8379

CPU 396 2131 8440 101 400

LZMA:x1 24789 389 2331 9062 110 429

77104 392 1602 6279 76 298

LZMA:x5:mt1 7306 392 2331 9128 110 433

76110 391 1642 6418 78 304

LZMA:x5:mt2 7451 393 2371 9309 112 441

75924 389 1646 6403 78 303

Deflate:x1 74168 390 2417 9418 115 446

264672 391 2102 8223 100 390

Deflate:x5 22923 392 2251 8826 107 418

265640 392 2105 8247 100 391

Deflate:x7 8413 391 2385 9322 113 442

267752 392 2118 8309 100 394

Deflate64:x5 20457 391 2264 8840 107 419

266929 394 2120 8350 100 396

BZip2:x1 13261 392 2045 8012 97 380

76610 391 2124 8305 101 394

BZip2:x5 10571 393 2242 8822 106 418

44101 383 2260 8656 107 410

BZip2:x5:mt2 10558 392 2247 8812 106 418

50441 393 2520 9901 119 469

BZip2:x7 3462 394 2274 8970 108 425

43186 379 2236 8469 106 401

PPMD:x1 8242 391 2180 8525 103 404

7848 392 2359 9243 112 438

PPMD:x5 5861 391 2542 9933 120 471

5378 391 2577 10078 122 478

Delta:4 1461227 394 2276 8978 108 425

1406738 395 2190 8643 104 410

BCJ 2942154 390 3088 12051 146 571

2954394 391 3098 12101 147 573

AES256CBC:1 320660 393 2006 7881 95 373

281383 394 1757 6915 83 328

AES256CBC:2 2242222 390 4711 18368 223 871

4872896 387 2575 9980 122 473

CRC32:1 1065284 392 1976 7755 94 368

CRC32:4 3204194 390 1834 7152 87 339

CRC32:8 6074992 393 2099 8238 99 390

CRC64 2894553 393 1508 5928 71 281

SHA256 259252 395 1338 5289 63 251

SHA1 769305 393 1831 7201 87 341

BLAKE2sp

CPU 393 2131 8383

------------------------------------------------------

Tot: 391 2075 8114 98 385

7.3 Результат выполнения команды mtr -rw -c 3

Start: 2022-01-14T16:32:25+0300

HOST: localhost.localdomain Loss% Snt Last Avg Best Wrst StDev

1.|-- \_gateway 0.0% 3 0.7 0.8 0.7 0.8 0.0

7.4 Результат выполнения команды dmidecode для возможных устройств

# dmidecode 3.2

Getting SMBIOS data from sysfs.

SMBIOS 3.0.0 present.

Table at 0x8B1E9000.

Handle 0x0000, DMI type 0, 24 bytes

BIOS Information

Vendor: American Megatrends Inc.

Version: 5.11

Release Date: 07/23/2021

Address: 0xF0000

Runtime Size: 64 kB

ROM Size: 16 MB

Characteristics:

PCI is supported

BIOS is upgradeable

BIOS shadowing is allowed

Boot from CD is supported

Selectable boot is supported

BIOS ROM is socketed

EDD is supported

5.25"/1.2 MB floppy services are supported (int 13h)

3.5"/720 kB floppy services are supported (int 13h)

3.5"/2.88 MB floppy services are supported (int 13h)

Print screen service is supported (int 5h)

Serial services are supported (int 14h)

Printer services are supported (int 17h)

ACPI is supported

USB legacy is supported

BIOS boot specification is supported

Targeted content distribution is supported

UEFI is supported

BIOS Revision: 5.11

Handle 0x0001, DMI type 1, 27 bytes

System Information

Manufacturer: CINCOZE

Product Name: DI-1000

Version: 5.0.00.001

Serial Number: Default string

UUID: 03000200-0400-0500-0006-000700080009

Wake-up Type: Power Switch

SKU Number: Default string

Family: Default string

Handle 0x0002, DMI type 2, 15 bytes

Base Board Information

Manufacturer: CINCOZE

Product Name: DI-1000

Version: 5.0.00.001

Serial Number: Default string

Asset Tag: Default string

Features:

Board is a hosting board

Board is replaceable

Location In Chassis: Default string

Chassis Handle: 0x0003

Type: Motherboard

Contained Object Handles: 0

Handle 0x0003, DMI type 3, 22 bytes

Chassis Information

Manufacturer: Default string

Type: Laptop

Lock: Not Present

Version: Default string

Serial Number: Default string

Asset Tag: Default string

Boot-up State: Safe

Power Supply State: Safe

Thermal State: Safe

Security Status: None

OEM Information: 0x00000000

Height: Unspecified

Number Of Power Cords: 1

Contained Elements: 0

SKU Number: Default string

Handle 0x0004, DMI type 8, 9 bytes

Port Connector Information

Internal Reference Designator: J1A1

Internal Connector Type: None

External Reference Designator: PS2Mouse

External Connector Type: PS/2

Port Type: Mouse Port

Handle 0x0005, DMI type 8, 9 bytes

Port Connector Information

Internal Reference Designator: J1A1

Internal Connector Type: None

External Reference Designator: Keyboard

External Connector Type: PS/2

Port Type: Keyboard Port

Handle 0x0006, DMI type 8, 9 bytes

Port Connector Information

Internal Reference Designator: J2A1

Internal Connector Type: None

External Reference Designator: TV Out

External Connector Type: Mini Centronics Type-14

Port Type: Other

Handle 0x0007, DMI type 8, 9 bytes

Port Connector Information

Internal Reference Designator: J2A2A

Internal Connector Type: None

External Reference Designator: COM A

External Connector Type: DB-9 male

Port Type: Serial Port 16550A Compatible

Handle 0x0008, DMI type 8, 9 bytes

Port Connector Information

Internal Reference Designator: J2A2B

Internal Connector Type: None

External Reference Designator: Video

External Connector Type: DB-15 female

Port Type: Video Port

Handle 0x0009, DMI type 8, 9 bytes

Port Connector Information

Internal Reference Designator: J3A1

Internal Connector Type: None

External Reference Designator: USB1

External Connector Type: Access Bus (USB)

Port Type: USB

Handle 0x000A, DMI type 8, 9 bytes

Port Connector Information

Internal Reference Designator: J3A1

Internal Connector Type: None

External Reference Designator: USB2

External Connector Type: Access Bus (USB)

Port Type: USB

Handle 0x000B, DMI type 8, 9 bytes

Port Connector Information

Internal Reference Designator: J3A1

Internal Connector Type: None

External Reference Designator: USB3

External Connector Type: Access Bus (USB)

Port Type: USB

Handle 0x000C, DMI type 8, 9 bytes

Port Connector Information

Internal Reference Designator: J9A1 - TPM HDR

Internal Connector Type: Other

External Reference Designator: Not Specified

External Connector Type: None

Port Type: Other

Handle 0x000D, DMI type 8, 9 bytes

Port Connector Information

Internal Reference Designator: J9C1 - PCIE DOCKING CONN

Internal Connector Type: Other

External Reference Designator: Not Specified

External Connector Type: None

Port Type: Other

Handle 0x000E, DMI type 8, 9 bytes

Port Connector Information

Internal Reference Designator: J2B3 - CPU FAN

Internal Connector Type: Other

External Reference Designator: Not Specified

External Connector Type: None

Port Type: Other

Handle 0x000F, DMI type 8, 9 bytes

Port Connector Information

Internal Reference Designator: J6C2 - EXT HDMI

Internal Connector Type: Other

External Reference Designator: Not Specified

External Connector Type: None

Port Type: Other

Handle 0x0010, DMI type 8, 9 bytes

Port Connector Information

Internal Reference Designator: J3C1 - GMCH FAN

Internal Connector Type: Other

External Reference Designator: Not Specified

External Connector Type: None

Port Type: Other

Handle 0x0011, DMI type 8, 9 bytes

Port Connector Information

Internal Reference Designator: J1D1 - ITP

Internal Connector Type: Other

External Reference Designator: Not Specified

External Connector Type: None

Port Type: Other

Handle 0x0012, DMI type 8, 9 bytes

Port Connector Information

Internal Reference Designator: J9E2 - MDC INTPSR

Internal Connector Type: Other

External Reference Designator: Not Specified

External Connector Type: None

Port Type: Other

Handle 0x0013, DMI type 8, 9 bytes

Port Connector Information

Internal Reference Designator: J9E4 - MDC INTPSR

Internal Connector Type: Other

External Reference Designator: Not Specified

External Connector Type: None

Port Type: Other

Handle 0x0014, DMI type 8, 9 bytes

Port Connector Information

Internal Reference Designator: J9E3 - LPC HOT DOCKING

Internal Connector Type: Other

External Reference Designator: Not Specified

External Connector Type: None

Port Type: Other

Handle 0x0015, DMI type 8, 9 bytes

Port Connector Information

Internal Reference Designator: J9E1 - SCAN MATRIX

Internal Connector Type: Other

External Reference Designator: Not Specified

External Connector Type: None

Port Type: Other

Handle 0x0016, DMI type 8, 9 bytes

Port Connector Information

Internal Reference Designator: J9G1 - LPC SIDE BAND

Internal Connector Type: Other

External Reference Designator: Not Specified

External Connector Type: None

Port Type: Other

Handle 0x0017, DMI type 8, 9 bytes

Port Connector Information

Internal Reference Designator: J8F1 - UNIFIED

Internal Connector Type: Other

External Reference Designator: Not Specified

External Connector Type: None

Port Type: Other

Handle 0x0018, DMI type 8, 9 bytes

Port Connector Information

Internal Reference Designator: J6F1 - LVDS

Internal Connector Type: Other

External Reference Designator: Not Specified

External Connector Type: None

Port Type: Other

Handle 0x0019, DMI type 8, 9 bytes

Port Connector Information

Internal Reference Designator: J2F1 - LAI FAN

Internal Connector Type: Other

External Reference Designator: Not Specified

External Connector Type: None

Port Type: Other

Handle 0x001A, DMI type 8, 9 bytes

Port Connector Information

Internal Reference Designator: J2G1 - GFX VID

Internal Connector Type: Other

External Reference Designator: Not Specified

External Connector Type: None

Port Type: Other

Handle 0x001B, DMI type 8, 9 bytes

Port Connector Information

Internal Reference Designator: J1G6 - AC JACK

Internal Connector Type: Other

External Reference Designator: Not Specified

External Connector Type: None

Port Type: Other

Handle 0x001C, DMI type 9, 17 bytes

System Slot Information

Designation: J6B2

Type: x16 PCI Express

Current Usage: In Use

Length: Long

ID: 0

Characteristics:

3.3 V is provided

Opening is shared

PME signal is supported

Bus Address: 0000:00:01.0

Handle 0x001D, DMI type 9, 17 bytes

System Slot Information

Designation: J6B1

Type: x1 PCI Express

Current Usage: In Use

Length: Short

ID: 1

Characteristics:

3.3 V is provided

Opening is shared

PME signal is supported

Bus Address: 0000:00:1c.3

Handle 0x001E, DMI type 9, 17 bytes

System Slot Information

Designation: J6D1

Type: x1 PCI Express

Current Usage: In Use

Length: Short

ID: 2

Characteristics:

3.3 V is provided

Opening is shared

PME signal is supported

Bus Address: 0000:00:1c.4

Handle 0x001F, DMI type 9, 17 bytes

System Slot Information

Designation: J7B1

Type: x1 PCI Express

Current Usage: In Use

Length: Short

ID: 3

Characteristics:

3.3 V is provided

Opening is shared

PME signal is supported

Bus Address: 0000:00:1c.5

Handle 0x0020, DMI type 9, 17 bytes

System Slot Information

Designation: J8B4

Type: x1 PCI Express

Current Usage: In Use

Length: Short

ID: 4

Characteristics:

3.3 V is provided

Opening is shared

PME signal is supported

Bus Address: 0000:00:1c.6

Handle 0x0021, DMI type 10, 6 bytes

On Board Device Information

Type: Video

Status: Enabled

Description: To Be Filled By O.E.M.

Handle 0x0022, DMI type 11, 5 bytes

OEM Strings

String 1: Default string

Handle 0x0023, DMI type 12, 5 bytes

System Configuration Options

Option 1: Default string

Handle 0x0024, DMI type 32, 20 bytes

System Boot Information

Status: No errors detected

Handle 0x0025, DMI type 34, 11 bytes

Management Device

Description: LM78-1

Type: LM78

Address: 0x00000000

Address Type: I/O Port

Handle 0x0026, DMI type 26, 22 bytes

Voltage Probe

Description: LM78A

Location: Motherboard

Status: OK

Maximum Value: Unknown

Minimum Value: Unknown

Resolution: Unknown

Tolerance: Unknown

Accuracy: Unknown

OEM-specific Information: 0x00000000

Nominal Value: Unknown

Handle 0x0027, DMI type 36, 16 bytes

Management Device Threshold Data

Lower Non-critical Threshold: 1

Upper Non-critical Threshold: 2

Lower Critical Threshold: 3

Upper Critical Threshold: 4

Lower Non-recoverable Threshold: 5

Upper Non-recoverable Threshold: 6

Handle 0x0028, DMI type 35, 11 bytes

Management Device Component

Description: Default string

Management Device Handle: 0x0025

Component Handle: 0x0026

Threshold Handle: 0x0027

Handle 0x0029, DMI type 28, 22 bytes

Temperature Probe

Description: LM78A

Location: Motherboard

Status: OK

Maximum Value: Unknown

Minimum Value: Unknown

Resolution: Unknown

Tolerance: Unknown

Accuracy: Unknown

OEM-specific Information: 0x00000000

Nominal Value: Unknown

Handle 0x002A, DMI type 36, 16 bytes

Management Device Threshold Data

Lower Non-critical Threshold: 1

Upper Non-critical Threshold: 2

Lower Critical Threshold: 3

Upper Critical Threshold: 4

Lower Non-recoverable Threshold: 5

Upper Non-recoverable Threshold: 6

Handle 0x002B, DMI type 35, 11 bytes

Management Device Component

Description: Default string

Management Device Handle: 0x0025

Component Handle: 0x0029

Threshold Handle: 0x002A

Handle 0x002C, DMI type 27, 15 bytes

Cooling Device

Temperature Probe Handle: 0x0029

Type: Power Supply Fan

Status: OK

Cooling Unit Group: 1

OEM-specific Information: 0x00000000

Nominal Speed: Unknown Or Non-rotating

Description: Cooling Dev 1

Handle 0x002D, DMI type 36, 16 bytes

Management Device Threshold Data

Lower Non-critical Threshold: 1

Upper Non-critical Threshold: 2

Lower Critical Threshold: 3

Upper Critical Threshold: 4

Lower Non-recoverable Threshold: 5

Upper Non-recoverable Threshold: 6

Handle 0x002E, DMI type 35, 11 bytes

Management Device Component

Description: Default string

Management Device Handle: 0x0025

Component Handle: 0x002C

Threshold Handle: 0x002D

Handle 0x002F, DMI type 27, 15 bytes

Cooling Device

Temperature Probe Handle: 0x0029

Type: Power Supply Fan

Status: OK

Cooling Unit Group: 1

OEM-specific Information: 0x00000000

Nominal Speed: Unknown Or Non-rotating

Description: Not Specified

Handle 0x0030, DMI type 36, 16 bytes

Management Device Threshold Data

Lower Non-critical Threshold: 1

Upper Non-critical Threshold: 2

Lower Critical Threshold: 3

Upper Critical Threshold: 4

Lower Non-recoverable Threshold: 5

Upper Non-recoverable Threshold: 6

Handle 0x0031, DMI type 35, 11 bytes

Management Device Component

Description: Default string

Management Device Handle: 0x0025

Component Handle: 0x002F

Threshold Handle: 0x0030

Handle 0x0032, DMI type 29, 22 bytes

Electrical Current Probe

Description: ABC

Location: Motherboard

Status: OK

Maximum Value: Unknown

Minimum Value: Unknown

Resolution: Unknown

Tolerance: Unknown

Accuracy: Unknown

OEM-specific Information: 0x00000000

Nominal Value: Unknown

Handle 0x0033, DMI type 36, 16 bytes

Management Device Threshold Data

Handle 0x0034, DMI type 35, 11 bytes

Management Device Component

Description: Default string

Management Device Handle: 0x0025

Component Handle: 0x0032

Threshold Handle: 0x0033

Handle 0x0035, DMI type 26, 22 bytes

Voltage Probe

Description: LM78A

Location: Power Unit

Status: OK

Maximum Value: Unknown

Minimum Value: Unknown

Resolution: Unknown

Tolerance: Unknown

Accuracy: Unknown

OEM-specific Information: 0x00000000

Nominal Value: Unknown

Handle 0x0036, DMI type 28, 22 bytes

Temperature Probe

Description: LM78A

Location: Power Unit

Status: OK

Maximum Value: Unknown

Minimum Value: Unknown

Resolution: Unknown

Tolerance: Unknown

Accuracy: Unknown

OEM-specific Information: 0x00000000

Nominal Value: Unknown

Handle 0x0037, DMI type 27, 15 bytes

Cooling Device

Temperature Probe Handle: 0x0036

Type: Power Supply Fan

Status: OK

Cooling Unit Group: 1

OEM-specific Information: 0x00000000

Nominal Speed: Unknown Or Non-rotating

Description: Cooling Dev 1

Handle 0x0038, DMI type 29, 22 bytes

Electrical Current Probe

Description: ABC

Location: Power Unit

Status: OK

Maximum Value: Unknown

Minimum Value: Unknown

Resolution: Unknown

Tolerance: Unknown

Accuracy: Unknown

OEM-specific Information: 0x00000000

Nominal Value: Unknown

Handle 0x0039, DMI type 39, 22 bytes

System Power Supply

Power Unit Group: 1

Location: To Be Filled By O.E.M.

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: To Be Filled By O.E.M.

Model Part Number: To Be Filled By O.E.M.

Revision: To Be Filled By O.E.M.

Max Power Capacity: Unknown

Status: Present, OK

Type: Switching

Input Voltage Range Switching: Auto-switch

Plugged: Yes

Hot Replaceable: No

Input Voltage Probe Handle: 0x0035

Cooling Device Handle: 0x0037

Input Current Probe Handle: 0x0038

Handle 0x003A, DMI type 41, 11 bytes

Onboard Device

Reference Designation: Onboard IGD

Type: Video

Status: Enabled

Type Instance: 1

Bus Address: 0000:00:02.0

Handle 0x003B, DMI type 41, 11 bytes

Onboard Device

Reference Designation: Onboard LAN

Type: Ethernet

Status: Enabled

Type Instance: 1

Bus Address: 0000:00:19.0

Handle 0x003C, DMI type 41, 11 bytes

Onboard Device

Reference Designation: Onboard 1394

Type: Other

Status: Enabled

Type Instance: 1

Bus Address: 0000:03:1c.2

Handle 0x003D, DMI type 7, 19 bytes

Cache Information

Socket Designation: L1 Cache

Configuration: Enabled, Not Socketed, Level 1

Operational Mode: Write Back

Location: Internal

Installed Size: 64 kB

Maximum Size: 64 kB

Supported SRAM Types:

Synchronous

Installed SRAM Type: Synchronous

Speed: Unknown

Error Correction Type: Parity

System Type: Data

Associativity: 8-way Set-associative

Handle 0x003E, DMI type 7, 19 bytes

Cache Information

Socket Designation: L1 Cache

Configuration: Enabled, Not Socketed, Level 1

Operational Mode: Write Back

Location: Internal

Installed Size: 64 kB

Maximum Size: 64 kB

Supported SRAM Types:

Synchronous

Installed SRAM Type: Synchronous

Speed: Unknown

Error Correction Type: Parity

System Type: Instruction

Associativity: 8-way Set-associative

Handle 0x003F, DMI type 7, 19 bytes

Cache Information

Socket Designation: L2 Cache

Configuration: Enabled, Not Socketed, Level 2

Operational Mode: Write Back

Location: Internal

Installed Size: 512 kB

Maximum Size: 512 kB

Supported SRAM Types:

Synchronous

Installed SRAM Type: Synchronous

Speed: Unknown

Error Correction Type: Single-bit ECC

System Type: Unified

Associativity: 4-way Set-associative

Handle 0x0040, DMI type 7, 19 bytes

Cache Information

Socket Designation: L3 Cache

Configuration: Enabled, Not Socketed, Level 3

Operational Mode: Write Back

Location: Internal

Installed Size: 3 MB

Maximum Size: 3 MB

Supported SRAM Types:

Synchronous

Installed SRAM Type: Synchronous

Speed: Unknown

Error Correction Type: Multi-bit ECC

System Type: Unified

Associativity: 12-way Set-associative

Handle 0x0041, DMI type 4, 48 bytes

Processor Information

Socket Designation: U3E1

Type: Central Processor

Family: Core i3

Manufacturer: Intel(R) Corporation

ID: E3 06 04 00 FF FB EB BF

Signature: Type 0, Family 6, Model 78, Stepping 3

Flags:

FPU (Floating-point unit on-chip)

VME (Virtual mode extension)

DE (Debugging extension)

PSE (Page size extension)

TSC (Time stamp counter)

MSR (Model specific registers)

PAE (Physical address extension)

MCE (Machine check exception)

CX8 (CMPXCHG8 instruction supported)

APIC (On-chip APIC hardware supported)

SEP (Fast system call)

MTRR (Memory type range registers)

PGE (Page global enable)

MCA (Machine check architecture)

CMOV (Conditional move instruction supported)

PAT (Page attribute table)

PSE-36 (36-bit page size extension)

CLFSH (CLFLUSH instruction supported)

DS (Debug store)

ACPI (ACPI supported)

MMX (MMX technology supported)

FXSR (FXSAVE and FXSTOR instructions supported)

SSE (Streaming SIMD extensions)

SSE2 (Streaming SIMD extensions 2)

SS (Self-snoop)

HTT (Multi-threading)

TM (Thermal monitor supported)

PBE (Pending break enabled)

Version: Intel(R) Core(TM) i3-6100U CPU @ 2.30GHz

Voltage: 0.8 V

External Clock: 100 MHz

Max Speed: 8300 MHz

Current Speed: 2200 MHz

Status: Populated, Enabled

Upgrade: Other

L1 Cache Handle: 0x003E

L2 Cache Handle: 0x003F

L3 Cache Handle: 0x0040

Serial Number: To Be Filled By O.E.M.

Asset Tag: To Be Filled By O.E.M.

Part Number: To Be Filled By O.E.M.

Core Count: 2

Core Enabled: 2

Thread Count: 4

Characteristics:

64-bit capable

Multi-Core

Hardware Thread

Execute Protection

Enhanced Virtualization

Power/Performance Control

Handle 0x0042, DMI type 16, 23 bytes

Physical Memory Array

Location: System Board Or Motherboard

Use: System Memory

Error Correction Type: None

Maximum Capacity: 64 GB

Error Information Handle: Not Provided

Number Of Devices: 4

Handle 0x0043, DMI type 17, 40 bytes

Memory Device

Array Handle: 0x0042

Error Information Handle: Not Provided

Total Width: 64 bits

Data Width: 64 bits

Size: 8 GB

Form Factor: SODIMM

Set: None

Locator: ChannelA-DIMM0

Bank Locator: BANK 0

Type: DDR4

Type Detail: Synchronous

Speed: 2133 MT/s

Manufacturer: 8AD3

Serial Number: 00000000

Asset Tag: 9876543210

Part Number: CIR-S4SUSW2608G

Rank: 1

Configured Memory Speed: 2133 MT/s

Minimum Voltage: Unknown

Maximum Voltage: Unknown

Configured Voltage: 1.2 V

Handle 0x0044, DMI type 17, 40 bytes

Memory Device

Array Handle: 0x0042

Error Information Handle: Not Provided

Total Width: Unknown

Data Width: Unknown

Size: No Module Installed

Form Factor: Unknown

Set: None

Locator: ChannelA-DIMM1

Bank Locator: BANK 1

Type: Unknown

Type Detail: None

Speed: Unknown

Manufacturer: Not Specified

Serial Number: Not Specified

Asset Tag: Not Specified

Part Number: Not Specified

Rank: Unknown

Configured Memory Speed: Unknown

Minimum Voltage: Unknown

Maximum Voltage: Unknown

Configured Voltage: Unknown

Handle 0x0045, DMI type 17, 40 bytes

Memory Device

Array Handle: 0x0042

Error Information Handle: Not Provided

Total Width: Unknown

Data Width: Unknown

Size: No Module Installed

Form Factor: Unknown

Set: None

Locator: ChannelB-DIMM0

Bank Locator: BANK 2

Type: Unknown

Type Detail: None

Speed: Unknown

Manufacturer: Not Specified

Serial Number: Not Specified

Asset Tag: Not Specified

Part Number: Not Specified

Rank: Unknown

Configured Memory Speed: Unknown

Minimum Voltage: Unknown

Maximum Voltage: Unknown

Configured Voltage: Unknown

Handle 0x0046, DMI type 17, 40 bytes

Memory Device

Array Handle: 0x0042

Error Information Handle: Not Provided

Total Width: Unknown

Data Width: Unknown

Size: No Module Installed

Form Factor: Unknown

Set: None

Locator: ChannelB-DIMM1

Bank Locator: BANK 3

Type: Unknown

Type Detail: None

Speed: Unknown

Manufacturer: Not Specified

Serial Number: Not Specified

Asset Tag: Not Specified

Part Number: Not Specified

Rank: Unknown

Configured Memory Speed: Unknown

Minimum Voltage: Unknown

Maximum Voltage: Unknown

Configured Voltage: Unknown

Handle 0x0047, DMI type 19, 31 bytes

Memory Array Mapped Address

Starting Address: 0x00000000000

Ending Address: 0x001FFFFFFFF

Range Size: 8 GB

Physical Array Handle: 0x0042

Partition Width: 1

Handle 0x0048, DMI type 43, 31 bytes

TPM Device

Vendor ID: CTNI

Specification Version: 2.0

Firmware Revision: 302.12

Description: INTEL

Characteristics:

Family configurable via platform software support

OEM-specific Information: 0x00000000

Handle 0x0049, DMI type 20, 35 bytes

Memory Device Mapped Address

Starting Address: 0x00000000000

Ending Address: 0x001FFFFFFFF

Range Size: 8 GB

Physical Device Handle: 0x0043

Memory Array Mapped Address Handle: 0x0047

Partition Row Position: Unknown

Handle 0x004A, DMI type 130, 20 bytes

OEM-specific Type

Header and Data:

82 14 4A 00 24 41 4D 54 00 00 00 00 00 A5 AF 02

C0 00 00 00

Handle 0x004B, DMI type 131, 64 bytes

OEM-specific Type

Header and Data:

83 40 4B 00 31 00 00 00 0B 00 00 00 00 00 0B 00

F8 00 48 9D 00 00 00 00 21 00 00 00 08 00 0B 00

45 0F 56 00 00 00 00 00 FE 00 6F 15 00 00 00 00

00 00 00 00 22 00 00 00 76 50 72 6F 00 00 00 00

Handle 0x004C, DMI type 221, 26 bytes

OEM-specific Type

Header and Data:

DD 1A 4C 00 03 01 00 02 00 00 00 00 02 00 00 00

00 EA 00 03 00 00 05 00 00 00

Strings:

Reference Code - CPU

uCode Version

TXT ACM version

Handle 0x004D, DMI type 221, 26 bytes

OEM-specific Type

Header and Data:

DD 1A 4D 00 03 01 00 02 00 00 00 00 02 00 0B 00

00 0B 00 03 04 0B 08 56 45 0F

Strings:

Reference Code - ME 11.0

MEBx version

ME Firmware Version

Corporate SKU

Handle 0x004E, DMI type 221, 68 bytes

OEM-specific Type

Header and Data:

DD 44 4E 00 09 01 00 02 00 00 00 00 02 03 FF FF

FF FF FF 04 00 FF FF FF 21 00 05 00 FF FF FF 21

00 06 00 02 01 00 00 00 07 00 3E 00 00 00 00 08

00 34 00 00 00 00 09 00 3E 00 00 00 00 0A 00 34

00 00 00 00

Strings:

Reference Code - SKL PCH

PCH-CRID Status

Disabled

PCH-CRID Original Value

PCH-CRID New Value

OPROM - RST - RAID

SKL PCH H Bx Hsio Version

SKL PCH H Dx Hsio Version

SKL PCH LP Bx Hsio Version

SKL PCH LP Cx Hsio Version

Handle 0x004F, DMI type 221, 54 bytes

OEM-specific Type

Header and Data:

DD 36 4F 00 07 01 00 02 00 00 00 00 02 00 02 00

00 01 00 03 00 02 00 00 00 00 04 05 FF FF FF FF

FF 06 00 FF FF FF 08 00 07 00 FF FF FF 08 00 08

00 FF FF FF 45 10

Strings:

Reference Code - SA - System Agent

Reference Code - MRC

SA - PCIe Version

SA-CRID Status

Disabled

SA-CRID Original Value

SA-CRID New Value

OPROM - VBIOS

Handle 0x0050, DMI type 221, 96 bytes

OEM-specific Type

Header and Data:

DD 60 50 00 0D 01 00 00 00 00 A6 00 02 00 FF FF

FF FF FF 03 04 FF FF FF FF FF 05 06 FF FF FF FF

FF 07 08 FF FF FF FF FF 09 00 00 00 00 00 00 0A

00 FF FF FF FF FF 0B 00 FF FF 00 00 00 0C 00 FF

FF FF FF FF 0D 00 FF FF FF FF FF 0E 00 FF FF FF

FF FF 0F 00 FF FF FF FF FF 10 11 01 02 02 01 01

Strings:

Lan Phy Version

Sensor Firmware Version

Debug Mode Status

Disabled

Performance Mode Status

Disabled

Debug Use USB(Disabled:Serial)

Disabled

ICC Overclocking Version

UNDI Version

EC FW Version

GOP Version

BIOS Guard Version

Base EC FW Version

EC-EC Protocol Version

Royal Park Version

BP1.2.2.1\_RP01

Handle 0x0051, DMI type 136, 6 bytes

OEM-specific Type

Header and Data:

88 06 51 00 00 00

Handle 0x0052, DMI type 14, 20 bytes

Group Associations

Name: Firmware Version Info

Items: 5

0x004C (OEM-specific)

0x004D (OEM-specific)

0x004E (OEM-specific)

0x004F (OEM-specific)

0x0050 (OEM-specific)

Handle 0x0053, DMI type 13, 22 bytes

BIOS Language Information

Language Description Format: Long

Installable Languages: 1

en|US|iso8859-1

Currently Installed Language: en|US|iso8859-1

Handle 0x0054, DMI type 14, 8 bytes

Group Associations

Name: $MEI

Items: 1

0x0000 (OEM-specific)

Handle 0x0055, DMI type 219, 81 bytes

OEM-specific Type

Header and Data:

DB 51 55 00 01 03 01 55 02 00 90 06 81 10 81 30

00 00 00 00 40 88 00 00 00 00 00 00 00 00 00 02

FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

FF FF FF FF FF FF FF FF 03 00 00 00 80 00 00 00

00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

00

Strings:

MEI1

MEI2

MEI3

Handle 0x0056, DMI type 127, 4 bytes

End Of Table