ООО «РЕД СОФТ»

**Отчёт о проведении тестирования оборудования DA-1100-N33 на совместимость с операционной системой РЕД ОС 7.3**

г. Москва, 2021

1. Технические характеристики АРМ:

|  |  |
| --- | --- |
| DA-1100-N33 | |
| **Процессор** | Процессор Intel(R) Celeron(R) CPU N3350 @ 1.10GHz |
| **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: DA-1100-N33 результат тестирования положительный.

1. Результаты тестирования специалистами ООО «РЕД СОФТ» и ООО "Ниеншанц-Автоматика"оборудования – DA-1100-N33

|  |  |  |  |
| --- | --- | --- | --- |
| № 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): 2

On-line CPU(s) list: 0,1

Thread(s) per core: 1

Ядер на сокет: 2

Сокетов: 1

NUMA node(s): 1

ID прроизводителя: GenuineIntel

Семейство ЦПУ: 6

Модель: 92

Имя модели: Intel(R) Celeron(R) CPU N3350 @ 1.10GHz

Степпинг: 9

CPU MHz: 2269.297

CPU max MHz: 2400,0000

CPU min MHz: 800,0000

BogoMIPS: 2188.80

Виртуализация: VT-x

L1d cache: 48 KiB

L1i cache: 64 KiB

L2 cache: 2 MiB

NUMA node0 CPU(s): 0,1

Vulnerability Itlb multihit: Not affected

Vulnerability L1tf: Not affected

Vulnerability Mds: Not affected

Vulnerability Meltdown: Not affected

Vulnerability Spec store bypass: Not affected

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

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

Vulnerability Srbds: Not affected

Vulnerability Tsx async abort: Not affected

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 tsc\_reliable nonstop\_tsc cpuid aperfmperf tsc\_known\_freq pni pclmulqdq dtes64 ds\_cpl vmx est tm2 ssse3 sdbg cx16 xtpr pdcm sse4\_1 sse4\_2 x2apic movbe popcnt tsc\_deadline\_timer aes xsave rdrand lahf\_lm 3dnowprefetch cpuid\_fault cat\_l2 ibrs ibpb stibp tpr\_shadow vnmi flexpriority ept vpid ept\_ad fsgsbase tsc\_adjust smep erms mpx rdt\_a rdseed smap clflushopt intel\_pt sha\_ni xsaveopt xsavec xgetbv1 xsaves dtherm ida arat pln pts md\_clear arch\_capabilities

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

stress-ng: info: [3219] dispatching hogs: 2 cpu

stress-ng: info: [3219] successful run completed in 90.02s (1 min, 30.02 secs)

stress-ng: info: [3219] stressor bogo ops real time usr time sys time bogo ops/s bogo ops/s

stress-ng: info: [3219] (secs) (secs) (secs) (real time) (usr+sys time)

stress-ng: info: [3219] cpu 21063 90.01 138.80 0.90 233.99 150.77

1.3 Результат выполнения команды sensors

acpitz-acpi-0

Adapter: ACPI interface

temp1: +44.0°C (crit = +111.0°C)

coretemp-isa-0000

Adapter: ISA adapter

Package id 0: +42.0°C (high = +105.0°C, crit = +105.0°C)

Core 0: +42.0°C (high = +105.0°C, crit = +105.0°C)

Core 2: +41.0°C (high = +105.0°C, crit = +105.0°C)

2 Тестирование ОЗУ

2.1 Результат выполнения команды free –h

total used free shared buff/cache available

Mem: 7,6Gi 476Mi 6,2Gi 46Mi 925Mi 6,9Gi

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

2.2 Результат выполнения команды dmidecode memory

# dmidecode 3.2

Getting SMBIOS data from sysfs.

SMBIOS 3.0.0 present.

Handle 0x002B, DMI type 16, 23 bytes

Physical Memory Array

Location: System Board Or Motherboard

Use: System Memory

Error Correction Type: None

Maximum Capacity: 8 GB

Error Information Handle: Not Provided

Number Of Devices: 1

Handle 0x002C, DMI type 17, 40 bytes

Memory Device

Array Handle: 0x002B

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: DDR3

Type Detail: Synchronous

Speed: 1600 MT/s

Manufacturer: Unde

Serial Number: 00000000

Asset Tag: 9876543210

Part Number: CIR-S3SUSPM1608G

Rank: Unknown

Configured Memory Speed: 1600 MT/s

Minimum Voltage: 44.975 V

Maximum Voltage: 44.975 V

Configured Voltage: 1.5 V

2.3 Результат выполнения команды: stress-ng ram test

stress-ng: info: [36174] disabled 'oom-pipe' as it may hang or reboot the machine (enable it with the --pathological option)

stress-ng: info: [36174] dispatching hogs: 2 atomic, 2 bad-altstack, 2 bsearch, 2 context, 2 full, 2 heapsort, 2 hsearch, 2 judy, 2 lockbus, 2 lsearch, 2 malloc, 2 matrix, 2 matrix-3d, 2 mcontend, 2 membarrier, 2 memcpy, 2 memfd, 2 memrate, 2 memthrash, 2 mergesort, 2 mincore, 2 null, 2 numa, 2 pipe, 2 pipeherd, 2 qsort, 2 radixsort, 2 remap, 2 resources, 2 rmap, 2 shellsort, 2 skiplist, 2 stack, 2 stackmmap, 2 str, 2 stream, 2 tlb-shootdown, 2 tmpfs, 2 tree, 2 tsearch, 2 vm, 2 vm-addr, 2 vm-rw, 2 vm-segv, 2 wcs, 2 zero, 2 zlib

stress-ng: info: [41506] stress-ng-memrate: write64: 3006.74 MB/sec

stress-ng: info: [41506] stress-ng-memrate: read64: 4353.49 MB/sec

stress-ng: info: [41506] stress-ng-memrate: write32: 2902.45 MB/sec

stress-ng: info: [41506] stress-ng-memrate: read32: 3933.22 MB/sec

stress-ng: info: [41506] stress-ng-memrate: write16: 3002.69 MB/sec

stress-ng: info: [41506] stress-ng-memrate: read16: 2797.43 MB/sec

stress-ng: info: [41506] stress-ng-memrate: write8: 1823.72 MB/sec

stress-ng: info: [41506] stress-ng-memrate: read8: 1738.52 MB/sec

stress-ng: info: [41507] stress-ng-memrate: write64: 3164.06 MB/sec

stress-ng: info: [41507] stress-ng-memrate: read64: 4505.87 MB/sec

stress-ng: info: [41507] stress-ng-memrate: write32: 2931.04 MB/sec

stress-ng: info: [41507] stress-ng-memrate: read32: 3866.10 MB/sec

stress-ng: info: [41507] stress-ng-memrate: write16: 2951.42 MB/sec

stress-ng: info: [41507] stress-ng-memrate: read16: 2769.40 MB/sec

stress-ng: info: [41507] stress-ng-memrate: write8: 1833.32 MB/sec

stress-ng: info: [41507] stress-ng-memrate: read8: 1752.65 MB/sec

stress-ng: info: [41513] stress-ng-memthrash: starting 1 thread on each of the 2 stressors on a 2 CPU system

stress-ng: info: [41529] stress-ng-numa: system has 1 of a maximum 1024 memory NUMA nodes

stress-ng: info: [41539] stress-ng-pipeherd: 0.04 context switches per bogo operation (29079.45 per second)

stress-ng: info: [41538] stress-ng-pipeherd: 0.04 context switches per bogo operation (31491.09 per second)

stress-ng: info: [76654] stress-ng-stream: no L3 cache, using L2 size instead

stress-ng: info: [76654] stress-ng-stream: stressor loosely based on a variant of the STREAM benchmark code

stress-ng: info: [76654] stress-ng-stream: do NOT submit any of these results to the STREAM benchmark results

stress-ng: info: [76654] stress-ng-stream: Using CPU cache size of 1024K

stress-ng: info: [76655] stress-ng-stream: memory rate: 3832.68 MB/sec, 1533.07 Mflop/sec (instance 1)

stress-ng: info: [76654] stress-ng-stream: memory rate: 3803.64 MB/sec, 1521.45 Mflop/sec (instance 0)

stress-ng: info: [202558] stress-ng-zlib: instance 0: compression ratio: 15.55% (6.92 MB/sec)

stress-ng: info: [202559] stress-ng-zlib: instance 1: compression ratio: 15.44% (6.70 MB/sec)

stress-ng: info: [36174] successful run completed in 2835.02s (47 mins, 15.02 secs)

stress-ng: info: [36174] stressor bogo ops real time usr time sys time bogo ops/s bogo ops/s

stress-ng: info: [36174] (secs) (secs) (secs) (real time) (usr+sys time)

stress-ng: info: [36174] atomic 22703771 60.00 119.46 0.00 378396.73 190053.33

stress-ng: info: [36174] bad-altstack 739 60.05 0.31 0.54 12.31 869.41

stress-ng: info: [36174] bsearch 26938 60.00 119.29 0.01 448.95 225.80

stress-ng: info: [36174] context 306842 60.00 60.69 58.71 5114.04 2569.87

stress-ng: info: [36174] full 12318978 60.00 52.33 63.30 205316.60 106537.91

stress-ng: info: [36174] heapsort 251 60.00 119.44 0.00 4.18 2.10

stress-ng: info: [36174] hsearch 209026 60.00 119.18 0.00 3483.77 1753.87

stress-ng: info: [36174] judy 923 60.04 116.78 2.16 15.37 7.76

stress-ng: info: [36174] lockbus 188895 60.01 119.49 0.04 3147.91 1580.31

stress-ng: info: [36174] lsearch 796 60.00 119.53 0.00 13.27 6.66

stress-ng: info: [36174] malloc 136743874 60.07 116.56 0.75 2276488.00 1165662.55

stress-ng: info: [36174] matrix 156652 60.00 119.21 0.01 2610.87 1313.97

stress-ng: info: [36174] matrix-3d 11841 60.00 117.17 0.03 197.34 101.03

stress-ng: info: [36174] mcontend 15417 60.01 118.99 0.21 256.89 129.34

stress-ng: info: [36174] membarrier 23457 60.01 1.89 1.94 390.89 6124.54

stress-ng: info: [36174] memcpy 21848 60.00 108.61 0.15 364.13 200.88

stress-ng: info: [36174] memfd 691 60.01 0.51 116.01 11.51 5.93

stress-ng: info: [36174] memrate 158 60.03 116.89 0.36 2.63 1.35

stress-ng: info: [36174] memthrash 4631 60.50 117.52 0.40 76.55 39.27

stress-ng: info: [36174] mergesort 1274 60.00 117.95 0.00 21.23 10.80

stress-ng: info: [36174] mincore 280419 60.00 16.56 102.86 4673.66 2348.17

stress-ng: info: [36174] null 11250614 60.00 9.44 109.74 187510.49 94400.18

stress-ng: info: [36174] numa 824 60.06 14.84 103.18 13.72 6.98

stress-ng: info: [36174] pipe 21858566 60.00 21.14 97.60 364307.11 184087.64

stress-ng: info: [36174] pipeherd 86485885 60.09 13.51 103.49 1439217.17 739195.60

stress-ng: info: [36174] qsort 652 60.00 119.27 0.00 10.87 5.47

stress-ng: info: [36174] radixsort 515 60.00 117.65 0.00 8.58 4.38

stress-ng: info: [36174] remap 10155 60.00 3.44 115.74 169.24 85.21

stress-ng: info: [36174] resources 1351 62.00 14.82 98.20 21.79 11.95

stress-ng: info: [36174] rmap 32 60.01 0.00 0.12 0.53 266.67

stress-ng: info: [36174] shellsort 628 60.00 114.32 0.12 10.47 5.49

stress-ng: info: [36174] skiplist 526220 60.00 115.33 0.10 8770.33 4558.78

stress-ng: info: [36174] stack 477470 63.30 1.56 51.36 7543.52 9022.49

stress-ng: info: [36174] stackmmap 552 60.01 0.28 3.97 9.20 129.88

stress-ng: info: [36174] str 2076160 60.00 114.83 0.18 34602.78 18052.00

stress-ng: info: [36174] stream 22899 60.00 117.26 0.01 381.63 195.27

stress-ng: info: [36174] tlb-shootdown 9985 60.01 14.46 99.79 166.40 87.40

stress-ng: info: [36174] tmpfs 60 60.15 53.50 64.76 1.00 0.51

stress-ng: info: [36174] tree 68 60.00 117.52 0.01 1.13 0.58

stress-ng: info: [36174] tsearch 727 60.04 117.59 0.00 12.11 6.18

stress-ng: info: [36174] vm 1202681 60.02 114.76 2.77 20038.55 10232.97

stress-ng: info: [36174] vm-addr 110 65.50 126.01 2.64 1.68 0.86

stress-ng: info: [36174] vm-rw 11293 60.00 0.12 116.72 188.20 96.65

stress-ng: info: [36174] vm-segv 105876 60.00 26.00 90.33 1764.59 910.13

stress-ng: info: [36174] wcs 1132809 60.00 119.45 0.00 18880.18 9483.54

stress-ng: info: [36174] zero 1571640 60.00 10.13 105.84 26194.03 13552.13

stress-ng: info: [36174] zlib 7444 60.03 119.28 0.21 124.01 62.30

3 Тестирование жестких дисков

3.1 Результат выполнения команды ls -l /dev

brw-rw----. 1 root disk 8, 0 июл 27 2021 sda

brw-rw----. 1 root disk 8, 1 июл 27 2021 sda1

brw-rw----. 1 root disk 8, 2 июл 27 2021 sda2

brw-rw----. 1 root disk 8, 16 июл 27 2021 sdb

brw-rw----. 1 root disk 8, 17 июл 27 2021 sdb1

3.2 Результат выполнения команды df -h

Файловая система Размер Использовано Дост Использовано% Cмонтировано в

devtmpfs 3,8G 0 3,8G 0% /dev

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

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

/dev/mapper/ro\_redos-root 69G 6,2G 59G 10% /

/dev/sda1 976M 160M 750M 18% /boot

/dev/mapper/ro\_redos-home 157G 73M 149G 1% /home

tmpfs 781M 148K 781M 1% /run/user/1000

/dev/sdb1 15G 9,6G 4,9G 67% /run/media/ahv/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-5.10.29-1.el7.x86\_64] (local build)

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

=== START OF INFORMATION SECTION ===

Device Model: CIS 2S M335 256GB W

Serial Number: 204300000680

Firmware Version: S0218AS

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

Sector Size: 512 bytes logical/physical

Rotation Rate: Solid State Device

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: Tue Jul 27 15:11:59 2021 MSK

SMART support is: Available - device has SMART capability.

SMART support is: Enabled

3.4 Результат выполнения команды hdparm –Tt для каждого диска

/dev/sda:

Timing cached reads: 3772 MB in 2.00 seconds = 1886.65 MB/sec

Timing buffered disk reads: 1488 MB in 3.00 seconds = 495.20 MB/sec

4 Проверка PCI устройств

4.1 Результат выполнения команды lspci

00:00.0 Host bridge: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series Host Bridge (rev 0b)

00:02.0 VGA compatible controller: Intel Corporation HD Graphics 500 (rev 0b)

00:0e.0 Audio device: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series Audio Cluster (rev 0b)

00:0f.0 Communication controller: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series Trusted Execution Engine (rev 0b)

00:0f.1 Communication controller: Intel Corporation Device 5a9c (rev 0b)

00:0f.2 Communication controller: Intel Corporation Device 5a9e (rev 0b)

00:12.0 SATA controller: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series SATA AHCI Controller (rev 0b)

00:13.0 PCI bridge: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series PCI Express Port A #1 (rev fb)

00:13.1 PCI bridge: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series PCI Express Port A #2 (rev fb)

00:13.2 PCI bridge: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series PCI Express Port A #3 (rev fb)

00:13.3 PCI bridge: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series PCI Express Port A #4 (rev fb)

00:14.0 PCI bridge: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series PCI Express Port B #1 (rev fb)

00:14.1 PCI bridge: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series PCI Express Port B #2 (rev fb)

00:15.0 USB controller: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series USB xHCI (rev 0b)

00:1a.0 Serial bus controller [0c80]: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series PWM Pin Controller (rev 0b)

00:1f.0 ISA bridge: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series Low Pin Count Interface (rev 0b)

00:1f.1 SMBus: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series SMBus Controller (rev 0b)

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

02:00.0 Ethernet controller: Intel Corporation I210 Gigabit Network Connection (rev 03)

4.2 Результат выполнения команды lspci -k

00:00.0 Host bridge: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series Host Bridge (rev 0b)

Subsystem: Intel Corporation Device 7270

00:02.0 VGA compatible controller: Intel Corporation HD Graphics 500 (rev 0b)

DeviceName: Onboard IGD

Subsystem: Intel Corporation Device 2212

Kernel driver in use: i915

Kernel modules: i915

00:0e.0 Audio device: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series Audio Cluster (rev 0b)

Subsystem: Intel Corporation Device 7270

Kernel driver in use: snd\_hda\_intel

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

00:0f.0 Communication controller: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series Trusted Execution Engine (rev 0b)

Subsystem: Intel Corporation Device 7270

Kernel driver in use: mei\_me

Kernel modules: mei\_me

00:0f.1 Communication controller: Intel Corporation Device 5a9c (rev 0b)

Subsystem: Intel Corporation Device 7270

00:0f.2 Communication controller: Intel Corporation Device 5a9e (rev 0b)

Subsystem: Intel Corporation Device 7270

00:12.0 SATA controller: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series SATA AHCI Controller (rev 0b)

Subsystem: Intel Corporation Device 7270

Kernel driver in use: ahci

00:13.0 PCI bridge: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series PCI Express Port A #1 (rev fb)

Kernel driver in use: pcieport

00:13.1 PCI bridge: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series PCI Express Port A #2 (rev fb)

Kernel driver in use: pcieport

00:13.2 PCI bridge: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series PCI Express Port A #3 (rev fb)

Kernel driver in use: pcieport

00:13.3 PCI bridge: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series PCI Express Port A #4 (rev fb)

Kernel driver in use: pcieport

00:14.0 PCI bridge: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series PCI Express Port B #1 (rev fb)

Kernel driver in use: pcieport

00:14.1 PCI bridge: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series PCI Express Port B #2 (rev fb)

Kernel driver in use: pcieport

00:15.0 USB controller: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series USB xHCI (rev 0b)

Subsystem: Intel Corporation Device 7270

Kernel driver in use: xhci\_hcd

00:1a.0 Serial bus controller [0c80]: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series PWM Pin Controller (rev 0b)

Subsystem: Intel Corporation Device 7270

Kernel driver in use: pwm-lpss

Kernel modules: pwm\_lpss\_pci

00:1f.0 ISA bridge: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series Low Pin Count Interface (rev 0b)

Subsystem: Intel Corporation Device 7270

Kernel driver in use: lpc\_ich

Kernel modules: lpc\_ich

00:1f.1 SMBus: Intel Corporation Celeron N3350/Pentium N4200/Atom E3900 Series SMBus Controller (rev 0b)

Subsystem: Intel Corporation Device 7270

Kernel driver in use: i801\_smbus

Kernel modules: i2c\_i801

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

Kernel driver in use: igb

Kernel modules: igb

02:00.0 Ethernet controller: Intel Corporation I210 Gigabit Network Connection (rev 03)

Kernel driver in use: igb

Kernel modules: igb

5 Проверка SCSI устройств

Результат выполнения команды lsscsi

[0:0:0:0] disk ATA CIS 2S M335 256G 8AS /dev/sda

[2:0:0:0] disk UFD 3.0 Silicon-Power16G 1.00 /dev/sdb

6 Результат выполнения

команды lsusb

Bus 002 Device 002: ID 1f75:0916 Innostor Technology Corporation IS916 Flash Drive

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

Bus 001 Device 009: ID 1a2c:2124 China Resource Semico Co., Ltd Keyboard

Bus 001 Device 008: ID 046d:c06a Logitech, Inc. USB Optical Mouse

Bus 001 Device 007: ID 13ba:0018 PCPlay Barcode PCP-BCG4209

Bus 001 Device 006: ID 14cd:8601 Super Top 4-Port hub

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: 5.10.29-1.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 Distro: RED OS release MUROM (7.3) DESKTOP

Machine:

Type: Desktop Mobo: CINCOZE model: DA-1100 v: 2.0.01.001 serial: N/A

UEFI [Legacy]: American Megatrends v: 5.12 date: 01/03/2020

CPU:

Info: Dual Core model: Intel Celeron N3350 bits: 64 type: MCP

arch: Goldmont rev: 9 L1 cache: 112 KiB L2 cache: 1024 KiB

flags: lm nx pae sse sse2 sse3 sse4\_1 sse4\_2 ssse3 vmx bogomips: 4377

Speed: 796 MHz min/max: 800/2400 MHz volts: 1.2 V ext-clock: 100 MHz

Core speeds (MHz): 1: 796 2: 796

Graphics:

Device-1: Intel HD Graphics 500 driver: i915 v: kernel bus ID: 00:02.0

chip ID: 8086:5a85

Display: x11 server: RED SOFT X.org 1.20.9 compositor: marco v: 1.24.1

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

s-dpi: 96

OpenGL: renderer: Mesa Intel HD Graphics 500 (APL 2) v: 4.6 Mesa 20.2.4

direct render: Yes

Audio:

Device-1: Intel Celeron N3350/Pentium N4200/Atom E3900 Series Audio Cluster driver: snd\_hda\_intel v: kernel bus ID: 00:0e.0 chip ID: 8086:5a98

Sound Server: ALSA v: k5.10.29-1.el7.x86\_64

Network:

Device-1: Intel I210 Gigabit Network driver: igb v: kernel port: e000

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

IF: enp1s0 state: up speed: 1000 Mbps duplex: full mac: 2c:94:64:03:77:28

Device-2: Intel I210 Gigabit Network driver: igb v: kernel port: d000

bus ID: 02:00.0 chip ID: 8086:1533

IF: enp2s0 state: down mac: 2c:94:64:03:77:29

Drives:

Local Storage: total: 252.92 GiB used: 16.24 GiB (6.4%)

ID-1: /dev/sda model: CIS 2S M335 256GB W size: 238.47 GiB speed: 6.0 Gb/s

serial: 204300000680 rev: 8AS temp: 47 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: 6.11 GiB (8.9%) fs: ext4 dev: /dev/dm-0

mapped: ro\_redos-root

ID-2: /boot size: 975.9 MiB used: 159.2 MiB (16.3%) fs: ext4

dev: /dev/sda1

ID-3: /home size: 156.22 GiB used: 72.4 MiB (0.0%) fs: ext4 dev: /dev/dm-2

mapped: ro\_redos-home

Swap:

ID-1: swap-1 type: partition size: 7.75 GiB used: 326.1 MiB (4.1%)

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

Sensors:

System Temperatures: cpu: 46.0 C mobo: N/A

Fan Speeds (RPM): N/A

Info:

Processes: 180 Uptime: 56m wakeups: 0 Memory: 7.62 GiB

used: 583.5 MiB (7.5%) Init: systemd v: 246 runlevel: 5

target: graphical.target Compilers: gcc: N/A Packages: rpm: 1825

Shell: 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] 16.02 : Copyright (c) 1999-2016 Igor Pavlov : 2016-05-21

p7zip Version 16.02 (locale=ru\_RU.UTF-8,Utf16=on,HugeFiles=on,64 bits,2 CPUs Intel(R) Celeron(R) CPU N3350 @ 1.10GHz (506C9),ASM,AES-NI)

Intel(R) Celeron(R) CPU N3350 @ 1.10GHz (506C9)

CPU Freq: - - 64000000 - - - - - -

RAM size: 7801 MB, # CPU hardware threads: 2

RAM usage: 450 MB, # Benchmark threads: 2

Method Speed Usage R/U Rating E/U Effec

KiB/s % MIPS MIPS % %

CPU 198 2291 4542

CPU 199 2291 4557

CPU 199 2291 4564 100 200

LZMA:x1 14427 193 2738 5274 120 231

52502 199 2152 4276 94 187

LZMA:x5:mt1 2901 195 1857 3625 81 159

49459 198 2102 4171 92 183

LZMA:x5:mt2 3200 195 2046 3999 90 175

49676 199 2110 4190 92 184

Deflate:x1 39790 197 2570 5052 113 221

174346 199 2722 5417 119 237

Deflate:x5 12792 197 2502 4925 110 216

174814 199 2727 5427 119 238

Deflate:x7 4925 199 2749 5457 120 239

176090 199 2747 5464 120 239

Deflate64:x5 11361 197 2488 4910 109 215

174941 198 2759 5473 121 240

BZip2:x1 7179 198 2186 4338 96 190

39679 199 2166 4301 95 189

BZip2:x5 4876 196 2080 4069 91 178

19169 197 1912 3762 84 165

BZip2:x5:mt2 4716 195 2016 3936 88 173

18708 196 1871 3672 82 161

BZip2:x7 1698 197 2235 4401 98 193

19266 197 1920 3778 84 166

PPMD:x1 4580 199 2384 4737 104 208

3578 199 2120 4214 93 185

PPMD:x5 2775 196 2396 4704 105 206

2325 197 2215 4358 97 191

Delta:4 845074 199 2607 5192 114 228

891365 199 2751 5477 121 240

BCJ 1409872 199 2908 5775 127 253

1428581 199 2947 5851 129 256

AES256CBC:1 159484 199 1969 3920 86 172

152864 199 1886 3757 83 165

AES256CBC:2 791449 199 3256 6484 143 284

2127764 198 2196 4358 96 191

CRC32:1 738585 199 2700 5377 118 236

CRC32:4 1944814 199 2179 4341 96 190

CRC32:8 3346060 199 2280 4537 100 199

CRC64 1747228 199 1797 3578 79 157

SHA256 172715 196 1800 3523 79 154

SHA1 451197 199 2120 4223 93 185

BLAKE2sp

CPU 199 2291 4564

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

Tot: 197 2187 4311 96 189

7.3 Результат выполнения команды mtr -rw -c 3

Start: 2021-07-27T15:16:20+0300

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

1.|-- \_gateway 0.0% 3 0.7 0.8 0.7 0.9 0.1

7.4 Результат выполнения команды dmidecode для возможных устройств

# dmidecode 3.2

Getting SMBIOS data from sysfs.

SMBIOS 3.0.0 present.

Table at 0x000EC630.

Handle 0x0000, DMI type 0, 24 bytes

BIOS Information

Vendor: American Megatrends Inc.

Version: 5.12

Release Date: 01/03/2020

Address: 0xF0000

Runtime Size: 64 kB

ROM Size: 5 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)

8042 keyboard services are supported (int 9h)

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: 5.12

Handle 0x0001, DMI type 1, 27 bytes

System Information

Manufacturer: CINCOZE

Product Name: DA-1100

Version: 2.0.01.001

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: DA-1100

Version: 2.0.01.001

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: Desktop

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 0x0008, 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 0x0009, 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 0x000A, 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 0x000B, 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 0x000C, 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 0x000D, 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 0x000E, 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 0x000F, 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 0x0010, 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 0x0011, 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 0x0012, 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 0x0013, 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 0x0014, 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 0x0015, 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 0x0016, 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 0x0017, 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 0x0018, 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 0x0019, 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 0x001A, 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 0x001B, 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 0x001C, 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 0x001D, 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 0x001E, 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 0x001F, 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 0x0020, 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 0x0021, 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 0x0022, DMI type 10, 6 bytes

On Board Device Information

Type: Video

Status: Enabled

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

Handle 0x0023, DMI type 11, 5 bytes

OEM Strings

String 1: Default string

Handle 0x0024, DMI type 12, 5 bytes

System Configuration Options

Option 1: Default string

Handle 0x0025, DMI type 20, 35 bytes

Memory Device Mapped Address

Starting Address: 0x00000000000

Ending Address: 0x001FFFFFFFF

Range Size: 8 GB

Physical Device Handle: 0x002C

Memory Array Mapped Address Handle: 0x002D

Partition Row Position: Unknown

Interleave Position: 1

Interleaved Data Depth: 1

Handle 0x0026, DMI type 20, 35 bytes

Memory Device Mapped Address

Starting Address: 0x00000000000

Ending Address: 0x000000003FF

Range Size: 1 kB

Physical Device Handle: 0x0000

Memory Array Mapped Address Handle: 0x0000

Partition Row Position: 1

Handle 0x0027, DMI type 32, 20 bytes

System Boot Information

Status: No errors detected

Handle 0x0028, 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 0x0029, 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 0x002A, 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 0x002B, DMI type 16, 23 bytes

Physical Memory Array

Location: System Board Or Motherboard

Use: System Memory

Error Correction Type: None

Maximum Capacity: 8 GB

Error Information Handle: Not Provided

Number Of Devices: 1

Handle 0x002C, DMI type 17, 40 bytes

Memory Device

Array Handle: 0x002B

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: DDR3

Type Detail: Synchronous

Speed: 1600 MT/s

Manufacturer: Unde

Serial Number: 00000000

Asset Tag: 9876543210

Part Number: CIR-S3SUSPM1608G

Rank: Unknown

Configured Memory Speed: 1600 MT/s

Minimum Voltage: 44.975 V

Maximum Voltage: 44.975 V

Configured Voltage: 1.5 V

Handle 0x002D, DMI type 19, 31 bytes

Memory Array Mapped Address

Starting Address: 0x00000000000

Ending Address: 0x001FFFFFFFF

Range Size: 8 GB

Physical Array Handle: 0x002B

Partition Width: 1

Handle 0x002E, DMI type 7, 19 bytes

Cache Information

Socket Designation: CPU Internal L1

Configuration: Enabled, Not Socketed, Level 1

Operational Mode: Write Back

Location: Internal

Installed Size: 112 kB

Maximum Size: 112 kB

Supported SRAM Types:

Synchronous

Installed SRAM Type: Synchronous

Speed: Unknown

Error Correction Type: Parity

System Type: Other

Associativity: Other

Handle 0x002F, DMI type 7, 19 bytes

Cache Information

Socket Designation: CPU Internal L2

Configuration: Enabled, Not Socketed, Level 2

Operational Mode: Write Back

Location: Internal

Installed Size: 2 MB

Maximum Size: 2 MB

Supported SRAM Types:

Synchronous

Installed SRAM Type: Synchronous

Speed: Unknown

Error Correction Type: Single-bit ECC

System Type: Unified

Associativity: 16-way Set-associative

Handle 0x0030, DMI type 4, 48 bytes

Processor Information

Socket Designation: SOCKET 0

Type: Central Processor

Family: Celeron

Manufacturer: Intel

ID: C9 06 05 00 FF FB EB BF

Signature: Type 0, Family 6, Model 92, Stepping 9

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) Celeron(R) CPU N3350 @ 1.10GHz

Voltage: 1.2 V

External Clock: 100 MHz

Max Speed: 2400 MHz

Current Speed: 1100 MHz

Status: Populated, Enabled

Upgrade: Other

L1 Cache Handle: 0x002E

L2 Cache Handle: 0x002F

L3 Cache Handle: Not Provided

Serial Number: Not Specified

Asset Tag: Fill By OEM

Part Number: Fill By OEM

Core Count: 2

Core Enabled: 2

Thread Count: 2

Characteristics:

64-bit capable

Handle 0x0031, 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 0x0032, DMI type 127, 4 bytes

End Of Table