

Nano COM-U15

P5 Test Report

| | | | | |
|-----------------|--|-------|-------|-------------|
| Summary | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Pass with Deviation Comment: _____ | | | |
| | Test Result Summary | | | |
| | Critical | Major | Minor | Enhancement |
| Defect Found | 0 | 0 | 0 | 0 |
| Defect Unsolved | 0 | 0 | 0 | 0 |

| | | |
|------------|------------|---------------|
| Issue date | Approval | Test Engineer |
| 2010/05/04 | Jansin Lee | Anderson Lin |

Platform Information:

| | |
|---------------------------|--|
| Product Model | Nano COM-U15 |
| Description | Intel Menlow COM Express CPU Module |
| Test Configuration | <input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> CPU Board : Nano COM-U15 Rev.A1.2 <input checked="" type="checkbox"/> Carrier Board : ECB-951D Rev. A1.0 <input checked="" type="checkbox"/> BIOS : COM-U15 / Nano COM-U15 Rev.1.3 for Legacy Free (12/03/2009) <input checked="" type="checkbox"/> Chipset : <input checked="" type="checkbox"/> North Bridge : Intel SCH US15W <input checked="" type="checkbox"/> South Bridge : Intel SCH US15W <input checked="" type="checkbox"/> VGA Chipset : Intel SCH US15W integrated <input checked="" type="checkbox"/> Audio Chipset : Realtek High definition audio interface <input checked="" type="checkbox"/> Ethernet Chipset : Intel 82574L Gbe Ethernet <input checked="" type="checkbox"/> Remark : Nano COM-U15 P5 Test Report |

| Item | Device Information | Test Item |
|---------------------|--|-----------------|
| CPU Board / Version | Nano COM-U15 A1.2 | 1,2,3,4,5,6,7,8 |
| Carrier Board | ECB-951D Rev. A1.0 | 1,2,3,4,5,6,7,8 |
| BIOS / Version | ECB-951D Rev. A1.0 | 1,2,3,4,5,6,7,8 |
| CPU Type | Onboard Intel Atom Z530 1.6GHzProcessor | 1,2,3,4,5,6,7,8 |
| Memory Type | Onboard 1GB | 1,2,3,4,5,6,7,8 |
| SATA HDD | Fujitsu MHZ2080BH G2 2.5 SATA HDD | 1,2,3,4,5,6,7,8 |
| Primary IDE Master | Onboard SSD Chip SST SSD 4G | 1,2,3,4,5,6,7,8 |
| Primary IDE Slave | N/A | 1,2,3,4,5,6,7,8 |
| CRT | Viewsonic E653 | 1,2,3,4,5,6,7,8 |
| LCD | N/A | 1,2,3,4,5,6,7,8 |
| Compact Flash | N/A | 1,2,3,4,5,6,7,8 |
| Riser Card | N/A | 1,2,3,4,5,6,7,8 |
| Backplane | N/A | 1,2,3,4,5,6,7,8 |
| OS Install | Windows XP Professional English Version V2002 Service Pack 3 | 1,2,3,4,5,6,7,8 |
| Power Supply | DC Adapter :FSP065-AAC – Output 19V | 1,2,3,4,5,6,7,8 |

Summary Table of contents:

| | |
|--------------------------------------|----|
| Platform Information | 2 |
| Summary Table of contents | 3 |
| 1. I/O Peripheral Function Test | 4 |
| 2. Power Consumption Test | 6 |
| 3. Timer Accuracy Test | 8 |
| 4. Network HUB / LAN Connection Test | 8 |
| 5. Hardware compatibility | 9 |
| 6. O.S. Compatibility Test | 14 |
| 7. BIOS Function Test | 16 |
| 8. Performance Test | 17 |

There are 3 test results in this document; they are described as follows:

Pass: Function worked perfectly

Fail: Function failed and must be modified in the next version

N/A: Outside of specifications or no test equipment

The test report would be tested and updated after version changed.

Test Result for Certification

1. I/O Peripheral Function Test

| I/O Peripheral Function Test –I/O Function | Result | | |
|--|--------|------|-----|
| | Pass | Fail | N/A |
| Floppy Connector / Driver A: | | | X |
| Primary IDE Master | X | | |
| Primary IDE Slave | X | | |
| Secondary IDE Master | | | X |
| Secondary IDE Slave | | | X |
| Third IDE Master | | | X |
| Third IDE Slave | | | X |
| RAID 0 Function Test | | | X |
| RAID 1 Function Test | | | X |
| SATA1 / Serial ATA Connector 1 | X | | |
| SATA2 / Serial ATA Connector 2 | | | X |
| SATA3 / Serial ATA Connector 3 | | | X |
| SATA4 / Serial ATA Connector 4 | | | X |
| Compact Flash – Type I | | | X |
| Compact Flash – Type II | | | X |
| DOC (Disk On Chip) | | | X |
| DOM (Disk On Module) – 40 Pin | | | X |
| DOM (Disk On Module) – 44 Pin | | | X |
| COM 1-232 | X | | |
| COM 2-232 | X | | |
| COM 2-422 | X | | |
| COM 2-485 | X | | |
| COM 2-Ring /+5V /+12V | X | | |
| PS/2 Mouse & Keyboard (Internal) | X | | |
| PS/2 Mouse & Keyboard (External) | | | X |
| Audio Connector | X | | |
| Audio 7.1 Channel / S/P DIF | | | X |
| LPT 1 | | | X |
| LPT 2 | | | X |
| SIR / 115.2 Kbps | | | X |
| FIR / 4M bps | | | X |
| USB 1/2 Ports | | | X |
| USB 3/4 Ports | | | X |
| USB 2.0 1/2 Ports | | | X |
| USB 2.0 3/4 Ports | | | X |
| DIO Connector | | | X |
| Card Bus | | | X |
| PC/104 | | | X |

| | | | |
|--|--------|------|-----|
| PC/104-Plus | | | X |
| PCI-104 | | | X |
| CD-In Connector | | | X |
| TFT TTL LCD | | | X |
| TFT LVDS LCD | X | | |
| CRT | | | X |
| TV-out / S Terminal | | | X |
| TV-out / AV Terminal | | | X |
| DVI | | | X |
| HDMI | | | X |
| Component Video : Y/ Pb /Pr | | | X |
| Touch Screen – 4 Wire | | | X |
| Touch Screen – 5 Wire | X | | |
| Touch Screen – 8 Wire | | | X |
| DIMM Slots | | | X |
| Watchdog IRQ n | | | X |
| Watchdog Software Control | X | | |
| CPU FAN Connector | | | X |
| System FAN Connector | | | X |
| Front Panel | Result | | |
| | Pass | Fail | N/A |
| Power On Button | X | | |
| IDE LED | X | | |
| External Buzzer | | | X |
| On Board Buzzer | | | X |
| Power LED | X | | |
| Battery LED | X | | |
| Reset Switch | X | | |
| Keyboard Lock | | | X |
| Jumpers Function | Result | | |
| | Pass | Fail | N/A |
| BIOS write protection Selection and boot Selection | X | | |
| Backlight enable level Selection and LVDS Power Selection | | | X |
| COM1 +12V/+5V/RING Selection | | | X |
| COM2 +12V/+5V/RING Selection | X | | |
| Auto Power button Selection and power on selection | | | X |
| Power source selection | | | X |

| | | | | |
|--|------|--------|------|-----|
| FAN Power Selection | | | | X |
| CMOS Clear Selection | | X | | |
| LCD Brightness and speaker level Selection | | | | X |
| Power Connector & Function | | Result | | |
| | | Pass | Fail | N/A |
| Standard AT Power Connector | | | | X |
| Standard ATX Power Connector | | | | X |
| 5V Only Power Connector | | | | X |
| DC Adapter | | X | | |
| LAN Connector & Function | | Result | | |
| | | Pass | Fail | N/A |
| LAN Link / Speed LED | LAN1 | X | | |
| | LAN2 | | | X |
| LAN Active LED | LAN1 | X | | |
| | LAN2 | | | X |
| LAN 10/100 Ethernet | | X | | |
| LAN 1G Ethernet | | X | | |
| PCI Connector & Function | | Result | | |
| | | Pass | Fail | N/A |
| Mini PCI Slots | | | | X |
| PCI Slots | | | | X |
| PCI Express | | | | X |
| Mini PCI Express card | | X | | |
| Express card | | | | X |

2. Power Consumption Test (Run Prime95 Program)

Platform Information

| | |
|------------------|---|
| CPU Board | Nano COM-U15 |
| Carrier Board | ECB-951D |
| BIOS | COM-U15 / Nano COM-U15 Rev.1.3 for Legacy Free (12/03/2009) |
| Operating System | Windows XP Professional SP3 |
| CRT | Viewsonic E653 |
| LCD | N/A |
| Expansion Board | N/A |
| Chipset Software | Intel Chipset Device software-9.0.0.1008-2008/05/01 |
| Graphics Media | Intel(R) Graphics Media Accelerator 500 -- 6.14.10.1079 -- 10/20/2008 |
| LAN Driver | Intel 82574L Gigabit Network Connection-10.3.49.0-2008/8/5 |

| | |
|--------------------|---|
| Audio Driver | Realtek High Definition Audio- 5.10.0.5772-2009/01/06 |
| Touchscreen Driver | Touchscreen Utility 4.3.7.3321 |
| Power Supply | SWITCH-MODE- 3A-621DA19 – Output 19V |

| Test Environment Model | (ECB-951D+NanoCom-U15) DC Power: SWITCH-MODE- 3A-621DA19 – Output 19V | (ECB-951D+NanoCom-U15) DC Power: SWITCH-MODE- 3A-621DA19 – Output 19V | Note |
|----------------------------------|---|---|------|
| CPU | Onboard Intel Z530 Processors 1.6GHz | Onboard Intel Z510 Processors 1.1GHz | |
| HDD | Onboard SST SSD 4G | Onboard SST SSD 4G | |
| RAM | Onboard 1GB Memory | Onboard 1GB Memory | |
| OS Environment | Windows XP Professional SP3 | Windows XP Professional SP3 | |
| S0 Mode (+19V) Run Prime 95 | 0.96 A | 0.81 A | |
| S3 Mode (+19V) | 0.35 A | 0.34 A | |
| S5 Mode(+19V) | 0.01 A | 0.01 A | |
| S0 Mode (+12.0V) Run Prime 95 | ----- | ----- | |
| S3 Mode (+12.2V) | ----- | ----- | |
| S5 Mode(+12.3V) | ----- | ----- | |

3. Timer Accuracy Test

| System Clock & RTC Clock Test | | | | |
|-------------------------------|---------------------------|--------|------|-----|
| Test Method | Margin for error | Result | | |
| | | Pass | Fail | N/A |
| RTC Clock in Power On Mode | ±3 second during 24 hours | X | | |
| RTC Clock in Power Off Mode | ±3 second during 24 hours | X | | |
| Watchdog Timer Test | | Result | | |
| | | Pass | Fail | N/A |
| Time-out Interval | 10 sec | X | | |
| | 60 sec | X | | |
| | 255 sec | X | | |

4. Network HUB / LAN Connection Test

| Location | | LED Type | | | | Result | | |
|--------------|------------------|---------------------------|--------------|-----------|-------------------|--------|------|-----|
| | | | | | | Pass | Fail | N/A |
| LAN1 LED | | Link / Speed LED | | | | X | | |
| | | Active LED | | | | X | | |
| LAN2 LED | | Link / Speed LED | | | | | | X |
| | | Active LED | | | | | | X |
| Location | Speed | HUB Type | Cable Length | HUB Speed | Onboard LAN Speed | Result | | |
| | | | | | | Pass | Fail | N/A |
| Onboard LAN1 | 10/100/1000 Mbps | D-Link DGS-1008T | 100M | 1GBps | 1000 | X | | |
| | | Accton DeskTop-3005 | 100M | 100 MBps | 100 | X | | |
| | | SVEC FD916H (10 Mbps HUB) | 100M | 10 MBps | 10 | X | | |
| Onboard LAN2 | 10/100/1000 Mbps | D-Link DGS-1008T | 100M | 1GBps | 1000 | | | X |
| | | Accton DeskTop-3005 | 100M | 100 MBps | 100 | | | X |
| | | SVEC FD916H (10 Mbps HUB) | 100M | 10 MBps | 10 | | | X |

5. Hardware Compatibility

| CPU Compatible Test | | | | | | | |
|--|----------------|-----------------|-----------|-------------------|--------|------|-----|
| CPU Type | FSB | Prime95 Version | Result | | | | |
| | | | Pass | Fail | N/A | | |
| Intel(R) Atom(TM) CPU Z510 1.1GHz | 400 MHz | V.259 | X | | | | |
| Intel(R) Atom(TM) CPU Z530 1.6GHz | 533 MHz | V.259 | X | | | | |
| Memory Compatibility Test | | | | | | | |
| Memory Brand | Memory Chipset | Frequency | Size | MemTest86 Version | Result | | |
| | | | | | Pass | Fail | N/A |
| Onboard | | | 1GB | V3.50 | X | | |
| | | | | | | | |
| | | | | | | | |
| Audio Basic Function Test | | | | | Result | | |
| | | | | | Pass | Fail | N/A |
| System Sound | | | | | X | | |
| CD_In | | | | | | | X |
| CD_In Sound Recorder | | | | | | | X |
| Play Sound Recorder | | | | | X | | |
| Line Out | | | | | X | | |
| Line In | | | | | | | X |
| Line In Sound Record | | | | | | | X |
| MIC Speaker | | | Dynamic | | X | | |
| | | | Condenser | | X | | |
| MIC Sound Recorder | | | Dynamic | | X | | |
| | | | Condenser | | X | | |
| Audio 5.1 Channel with S/P DIF Function Test | | | | | Result | | |
| | | | | | Pass | Fail | N/A |
| 2-channel mode for stereo speaker output | | | | | X | | |
| 4-channel mode for 4 speaker output | | | | | | | X |
| 6-channel mode for 5.1 speaker output | | | | | | | X |
| 8-channel mode for 7.1 speaker output | | | | | | | X |
| S/P DIF function Test | | | Input | | | | X |
| | | | Output | | | | X |
| On Board TV Function Test | | | | | Result | | |
| | | | | | Pass | Fail | N/A |
| NTSC | | AV Terminal | | | | | X |
| PAL | | | | | | | X |
| NTSC | | S Terminal | | | | | X |
| PAL | | | | | | | X |
| On Board LCD Function Test | | | | | | | |

| TFT LCD | Type | Voltage | Result | | |
|---------|--|---------|--------|------|-----|
| | | | Pass | Fail | N/A |
| LVDS | AUO G065VN01 V.0 / 6.5" / 640x480 / 18bit (4:3) | 3.3V | X | | |
| | AUO G065VN01 V.0 / 6.5" / 640x480 / 24bit (4:3) | 3.3V | X | | |
| | Data Image 7" / 800*480 / 18bit (16:9) | 3.3V | X | | |
| | AU G084SN05 V.3 / 8.4" / 800*600 / 18bit (4:3) | 3.3V | X | | |
| | AU G150XG01 V.0 / 15" / 1024*768 / 18bit (4:3) | 3.3V | X | | |
| | AU M150XN07 V.2 / 15" / 1024x768 / 24bit (4:3) | 3.3V | | | X |
| | Toshiba /12.1"/1280 x 768 x 18bit (16:9) | 3.3V | X | | |
| | AU M170EG01 / 17" / 1280*1024 / 48bit (4:3) | 5V | | | X |
| | AU M170XW01 V.1 / 17" / 1280x768 / 24bit (16:9) | 5V | X | | |
| | AUO T260XW02 / 26" / 1366x768 / 24bit | 5V | | | X |
| | AU M201UN02 V.5 / 20.1" / 1600x1200x48bit | 5V | | | X |
| | AUO T370HW01 / 37" / 1920x1080 / 48bit | 5V | | | X |
| | AUO M190PW01 V0 / 19"/1440X900/48 bit | 5V | | | X |
| TTL | Toshiba LTM10C209A / 10.4" / 640*480 / 18bit (4:3) | 5V | | | X |
| | NEC NL8060AC31-12 / 12.1" / 800*600 / 18bit (4:3) | 3.3/5V | | | X |
| | Sharp LQ121S1DG11 / 12.1" / 800*600 / 18bit (4:3) | 3.3V | | | X |
| | LG LM151X2-C2TH / 15.1" / 1024x768 / 18bit (4:3) | 3.3V | | | X |
| | Fujitsu FLC38XGC6V-06 / 15" / 1024*768 / 36bit (4:3) | 5V | | | X |

PCI Slot Function (PCI Adapter Card) Test

| Model | Type | Result | | |
|--|--------------|--------|------|-----|
| | | Pass | Fail | N/A |
| CHANTECH NVIDIA GeForce4 MX440-8X | VGA Card | | | X |
| Creative Sound BLASTER Live5.1 | Sound Card | | | X |
| Takram DC-395U V1.02 | SCSI Card | | | X |
| ADAPTEC Ultra160 SCSI ASC-29160 | SCSI Card | | | X |
| I-VIEW CP-1400AS (with Age STD-477FAI CCD) | Capture Card | | | X |
| Intel GD82559 10/100 Mbps Fast Ethernet Adapter | LAN Card | | | X |
| 3Com 3C905C-TXM ETHERLINK 10/100 PCI | LAN Card | | | X |
| D-Link DWL-520+ Wireless LAN | LAN Card | | | X |
| ADAPTEC 1420SA RoHS 4-Port SATA II RAID | RAID Card | | | X |
| LEMEL MD V1456VQH-P2 PCI MODEM Card | Modem Card | | | X |
| D-Link DU-520 USB 2.0 | USB Hub Card | | | X |
| Tekram TR-822 Serial ATA 150 [SA-001] + SATA HDD Seagate ST3120026AS 120GB | SATA Card | | | X |
| ISA Slot Function Test | Result | | | |
| | Pass | Fail | N/A | |

| | | | |
|---|---------------|-------------|------------|
| NE2000 Compatible LAN Card (RTL8019AS) | | | X |
| Adaptec AHA-1510/20/22B SCSI Card | | | X |
| PCI-Express Function Test | | | |
| Model | Result | | |
| | Pass | Fail | N/A |
| SUNIX SATA1414 VER 1.1 PCI-Express x1 SATA Card | | | X |
| SksKonnnect SK-9E21D 10/100/1000 Base-T Adapter PCI-Express x1 LAN Card | | | X |
| Adaptec AAR-1430SA SATAII HostRAID Controllers PCI-Express x4 RAID Card | | | X |
| ASUS EAX1600PRO/TD/256M/A (ATI Chipset) PCI-Express x16 VGA Card | | | X |
| WinFast PX6200 TC TDH PCI-Express x16 VGA Card | | | X |
| HDD Compatibility Test | | | |
| Model | Result | | |
| | Pass | Fail | N/A |
| Seagate / ST3160815A / 160GB /PATA-100 | | | X |
| Fujitsu MHY2080BH 80GB 2.5" HDD / ATA-133 / SATA | | | X |
| Western Digital/WD8800AAJS / 80GB / SATA II | | | X |
| HITACHI HDP725025GLA380 / 250GB / SATA 3.0Gb/s | | | X |
| IDE Cable Function test | | | |
| IDE Model | Result | | |
| | Pass | Fail | N/A |
| 40 Pin Cable ATA100 | | | X |
| 44 Pin Cable ATA33 | | | X |
| 80 Pin Cable ATA100 | | | X |
| USB Function Test | | | |
| USB Basic Function Test | Result | | |
| | Pass | Fail | N/A |
| USB Controller | X | | |
| USB 2.0 Controller | X | | |
| USB Keyboard Support | X | | |
| USB Mouse Support | X | | |
| USB 1.1 Compatible Test | Result | | |
| | Pass | Fail | N/A |
| USB 1.1 Compatible Test | X | | |
| USB 2.0 Compatible Test | Result | | |
| | Pass | Fail | N/A |
| USB 2.0 Compatible Test | X | | |
| USB 2.0 Function Test | Result | | |
| | Pass | Fail | N/A |

| | | | | | |
|---|------------------|------------------------|---------------|-------------|------------|
| Install Windows XP Professional from HighSpeed Device: USB2.0 DRW-1604P-D/WHT/G/ASUS | | X | | | |
| USB Device Full Loading Test | | Result | | | |
| Model | | Pass | Fail | N/A | |
| BENQ 4824WI-ON2 | | | | X | |
| Mitsumi FLL3.5 D353GUE/FUE | | | | X | |
| USB HDD 20GB | | | | X | |
| USB Card Reader | | | | X | |
| USB Mouse | | | | X | |
| USB Flash drive Transcend 2GB | | | | X | |
| Floppy Disk Controller Function Test | | Result | | | |
| | | Pass | Fail | N/A | |
| Copy and compare file between C: and A / B: | | | | X | |
| Change Floppy to None value | | | | X | |
| Swap FDD | | | | X | |
| Peripheral Compatibility-Storage Device | | | | | |
| Model | Interface | Result | | | |
| | | Pass | Fail | N/A | |
| FUJITSU MCB3064SS | SCSI | | | X | |
| IOMega ZIP 100 parallel port | Parallel | | | X | |
| IOMega ZIP100MB Internal ATAPI Drive | IDE | | | X | |
| DOC | | | | X | |
| Type-I CF | Fix / PIO Mode | | | X | |
| Type-I CF | Fix / UDMA Mode | | | X | |
| Digital I/O Connector Test | | Result | | | |
| | | Pass | Fail | N/A | |
| Input Address: BF | | | | X | |
| Output Address: 33 | | | | X | |
| VCC: (5V) , Position : (801) | | | | X | |
| DIO-1 Function Test | | | | X | |
| DIO-2 Function Test | | | | X | |
| Adapter Compatibility- Industry Control Card PC/104, PC/104+, PCI-104 Modules | | | | | |
| Interface | Model | Type | Result | | |
| | | | Pass | Fail | N/A |
| PC/104 | AAEON PCM-5600 | Modem Module | | | X |
| | AAEON PCM-3115B | PCMCIA Module | | | X |
| PC/104+ | AAEON PCM-3430 | SCSI Module | | | X |
| PCI-104 | AAEON PCM-FA00 | Mini-PCI Converter | | | X |
| | AAEON PCM-3794 | SCSI Module | | | X |
| | AAEON PCM-3730 | Intel 82559 LAN Module | | | X |
| PCI/104 Express | AAEON PER-123 | | | | X |

On-Board SCSI Function Test

| Model | Interface | Result | | |
|---------------------|----------------------|--------|------|-----|
| | | Pass | Fail | N/A |
| RICOH MP7060S | SCSI-CDROM 24X | | | X |
| Fujitsu MCB3064SS | SCSI-MO Device | | | X |
| Seagate 32155W | SCSI-HDD 2.15GB | | | X |
| IBM DNES-309170 | SCSI-HDD 9GB | | | X |
| Seagate ST39205LW/P | 9GB / Ultra160 / LVD | | | X |

On-Board RAID Function Test

| Model | Interface | Result | | |
|--------------------------|-----------|--------|------|-----|
| | | Pass | Fail | N/A |
| Set SATA HDDs as RAID 0 | SATA | | | X |
| Set SATA HDDs as RAID 1 | SATA | | | X |
| Set SATA HDDs as RAID 10 | SATA | | | X |
| Set SATA HDDs as RAID 5 | SATA | | | X |

COM Function Test

| Model | Result | | |
|---------------------------------|--------|------|-----|
| | Pass | Fail | N/A |
| COM Port Burn In Test overnight | X | | |

Disk On Module [DOM] Compatibility Test

| Model | Interface | Result | | |
|----------------------------------|------------|--------|------|-----|
| | | Pass | Fail | N/A |
| Transcend / TS512MDOM40V / 512MB | IDE 40 Pin | | | X |
| Transcend / TS512MDOM44V / 512MB | IDE 44 Pin | | | X |

Mini PCI Card Compatibility Test

| Model | Interface | Result | | |
|--|-----------|--------|------|-----|
| | | Pass | Fail | N/A |
| PCI 10/100 LAN Mini PCI Card (Model:PER-C10L) | LAN | | | X |
| GM-101 WLAN 11b/g 54Mbps Mini PCI Card (Model: VNT6655AM) | WLAN | | | X |

COM/LPT Ports & RS-232/422/485 Function Test

| Model | Result | | |
|-----------------|--------|------|-----|
| | Pass | Fail | N/A |
| RS-422 for COM2 | X | | |
| RS-485 for COM2 | X | | |
| COM1 | X | | |
| COM2 | X | | |
| COM3 | | | X |
| COM4 | | | X |
| COM5 | | | X |
| COM6 | | | X |

| | | | |
|---|---------------|-------------|------------|
| LPT1 | | | X |
| LPT2 | | | X |
| Card Bus(PCMCIA) Compatibility Function Test | | | |
| Model | Result | | |
| | Pass | Fail | N/A |
| Intel PRO/Wireless 2011B LAN PC Card (WPC2011BWW) | | | X |
| PQI 16MB Compact Flash Adapter (64MB PQI CF Card inserting) | | | X |
| Kingston datapack DP-PCM2 / 2GB (PC Card Typell HDD) | | | X |
| PCi GW-NS54SG Cardbus Adapter Wireless LAN Type-II | | | X |

6. O.S. Compatibility Test

| | | | | | |
|--|------------------------|----------------|---------------|-------------|------------|
| Installation Operation System Compatibility Test | | Result | | | |
| | | Pass | Fail | N/A | |
| [<input type="checkbox"/>] Linux-Red Hat 9.0 or [<input checked="" type="checkbox"/>] Fedora Core 10 | | X | | | |
| Windows Vista TM Ultimate English Version | | | | X | |
| Windows Vista TM Ultimate x64 Edition English Version | | | | X | |
| Windows XP Professional English Version V2002 Service Pack 3 | | X | | | |
| Windows XP Professional English Version /Standard x64 Edition | | | | X | |
| Windows 2000 Professional English Version V5.00.2195 Service Pack4 | | | | X | |
| Windows 2000 Professional Simplified-Chinese Version V5.00.2195 Service Pack4 | | | | X | |
| Windows 2000 Professional Japanese Version V5.00.2195 Service Pack4 | | | | X | |
| Windows Server 2000 English Version | | | | X | |
| Windows Server 2003 English Version / Standard Edition 5.2.3790 | | | | X | |
| Windows Server 2003 English Version /Standard x64 Edition | | | | X | |
| Windows 98SE English Version V4.10.2222A | | | | X | |
| DOS 6.22 English Version | | | | X | |
| Utility and Driver Test | | | | | |
| OS | Drivers Version | | Result | | |
| | | | Pass | Fail | N/A |
| Linux-Fedora 9 / Kernel- 2.6.25-14-FC9 | Chipset Software | Default Driver | | | X |
| | Graphics Media | Default Driver | | | X |
| | LAN Driver | Default Driver | | | X |
| | Audio Driver | Default Driver | | | X |
| Windows Vista TM Ultimate English Version | Chipset Software | | | | X |
| | Graphics Media | | | | X |
| | LAN Driver | | | | X |
| | Audio Driver | | | | X |
| Windows Vista TM Ultimate x64 Edition English Version | Chipset Software | | | | X |
| | Graphics Media | | | | X |

| | | | | | |
|---|------------------|---|---|--|---|
| | LAN Driver | | | | X |
| | Audio Driver | | | | X |
| Windows XP Professional English Version V2002 Service Pack 3 | Chipset Software | Intel Chipset Device software-9.0.0.1008-2008/05/01 | X | | |
| | Graphics Media | Intel(R) Graphics Media Accelerator 500 -- 6.14.10.1079 -- 10/20/2008 | X | | |
| | LAN Driver | Intel 82574L Gigabit Network Connection-10.3.49.0-2008/8/5 | X | | |
| | Audio Driver | Realtek High Definition Audio-5.10.0.5772-2009/01/06 | X | | |
| Windows XP Professional x64 Edition English Version Service Pack 2 V2002 | Chipset Software | | | | X |
| | Graphics Media | | | | X |
| | LAN Driver | | | | X |
| | Audio Driver | | | | X |
| Windows 2000 Professional English Version V5.00.2195 Service Pack 4 | Chipset Software | | | | X |
| | Graphics Media | | | | X |
| | LAN Driver | | | | X |
| | Audio Driver | | | | X |
| Windows 2000 Professional Simplified-Chinese Version V5.00.2195 Service Pack4 | Chipset Software | | | | X |
| | Graphics Media | | | | X |
| | LAN Driver | | | | X |
| | Audio Driver | | | | X |
| Windows 2000 Professional Japanese Version V5.00.2195 Service Pack4 | Chipset Software | | | | X |
| | Graphics Media | | | | X |
| | LAN Driver | | | | X |
| | Audio Driver | | | | X |
| Windows Server 2000 English Version | Chipset Software | | | | X |
| | Graphics Media | | | | X |
| | LAN Driver | | | | X |
| | Audio Driver | | | | X |
| Windows Server 2003 English Version Standard Edition 5.2.3790 | Chipset Software | | | | X |
| | Graphics Media | | | | X |
| | LAN Driver | | | | X |
| | Audio Driver | | | | X |
| Windows Server 2003 English Version Standard x64 Edition | Chipset Software | | | | X |
| | Graphics Media | | | | X |
| | LAN Driver | | | | X |

| | | | | | |
|--|---------------------|--|--|--|---|
| | Audio Driver | | | | X |
| Windows 98SE English Version V4.10.2222A | Chipset Software | | | | X |
| | Graphics Media | | | | X |
| | LAN Driver | | | | X |
| | Audio Driver | | | | X |

7. BIOS Function Test

| Test Item | Result | | |
|-----------------------------------|--------|------|-----|
| | Pass | Fail | N/A |
| Memory Beep Test | | | X |
| Standard CMOS Setup Test | X | | |
| Boot Sequence Test | X | | |
| Power Management Test | | | |
| APM Power Management Test | | | X |
| ACPI Power Management Test | X | | |
| Power On Function Test | | | X |
| Wake Up Event Test | X | | |
| Power On after Power Failure Test | | | X |
| CMOS Backup / Clear CMOS Test | X | | |
| Boot ROM Test (PXE) | | | X |
| Supervisor / User Password Test | X | | |
| Init Display First Function Test | X | | |
| On-Chip Serial ATA Function Test | X | | |
| SATA Mode-IDE/RAID Function Test | | | X |
| LPT Address / IRQ Test | | | X |
| BIOS AWDFLASH Program Test | X | | |

8. Performance Test

Platform Information

| | |
|--------------------|---|
| PCB Board | Nano COM-U15 |
| Carrier Board | ECB-951D |
| BIOS | COM-U15 / Nano COM-U15 Rev.1.3 for Legacy Free (12/03/2009) |
| Operating System | English Windows XP Professional Service Pack 3 |
| CPU | Intel(R) Atom(TM) CPU Z530 1.6GHz / Z510 1.1GHz |
| Memory | Onboard 1GB Memory |
| SATA HDD | N/A |
| Primary IDE Master | Onboard SSD Chip SST SSD 4G |
| Primary IDE Slave | N/A |
| CRT | Viewsonic E653 |
| DVI | LG L1753T 17" DVI Monitor |
| LCD | Data Image-FG0700A2DSSWAG01/ 800*480/ 18bit |
| Compact Flash | N/A |
| Expansion Board | N/A |
| Chipset Software | Intel Chipset Device software-9.0.0.1008-2008/05/01 |
| Graphics Media | Intel(R) Graphics Media Accelerator 500 -- 6.14.10.1079 -- 10/20/2008 |
| LAN Driver | Intel 82574L Gigabit Network Connection-10.3.49.0-2008/8/5 |
| Audio Driver | Realtek High Definition Audio- 5.10.0.5772-2009/01/06 |
| Touchscreen Driver | Touchscreen Utility 4.3.7.3321 |
| Power Supply | SWITCH-MODE- 3A-621DA19 – Output 19V |

Test result:

| Testing Software | Result(CPU:1.6GHz/1.1 GHz) | Unit |
|---|----------------------------|---------------|
| PCMark2002 | | |
| CPU | 1324 / 961 | |
| Memory | 3862 / 1819 | |
| HDD | 319 / 366 | |
| Final Reality V1.01—BenchMark Test | | |
| 2D image | 10.14 / 5.56 | |
| 3D | 2.37 / 2.16 | |
| Bus transfer | 11.99 / 2.76 | |
| Overall | 6.14 / 3.27 | Reality marks |

3Dmark2001

| | | |
|---------------------------------------|-----------|--|
| 3DMark2001SE Build 330_Benchmark mode | 661 / 519 | |
|---------------------------------------|-----------|--|

Test Result:

| Testing Software | Result | Unit |
|------------------------|-------------|---------|
| PCMark05 | | |
| PCMark | 652 / N/A | PCMarks |
| CPU | 741 / 440 | |
| Memory | 1471 / 1023 | |
| Graphics | 224 /N/A | |
| HDD | N/A / 1107 | |
| 3Dmark2003 v360 | | |
| 3Dmark Score | 436/375 | |
| CPU Score | 81/57 | |

Remark: Please uses below two performance software to test main board if the chipset is new enough.
(ex. Intel Core 2 Duo CPU)