

ARK-3405

Intel® Celeron™ N3160 Fanless Embedded Box PC with Rich Expansion and Dual Removable 2.5" HDD Drive Bays

NEW



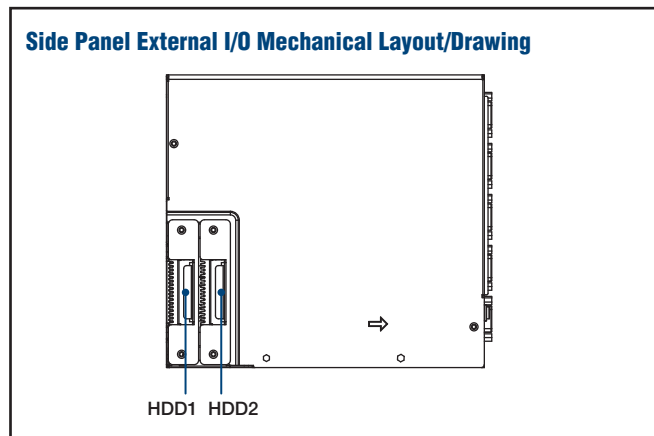
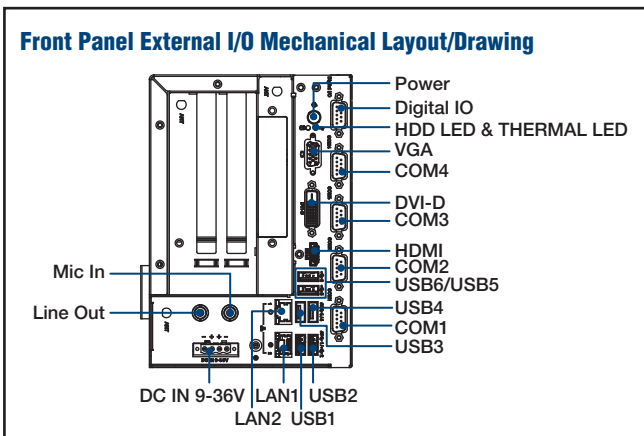
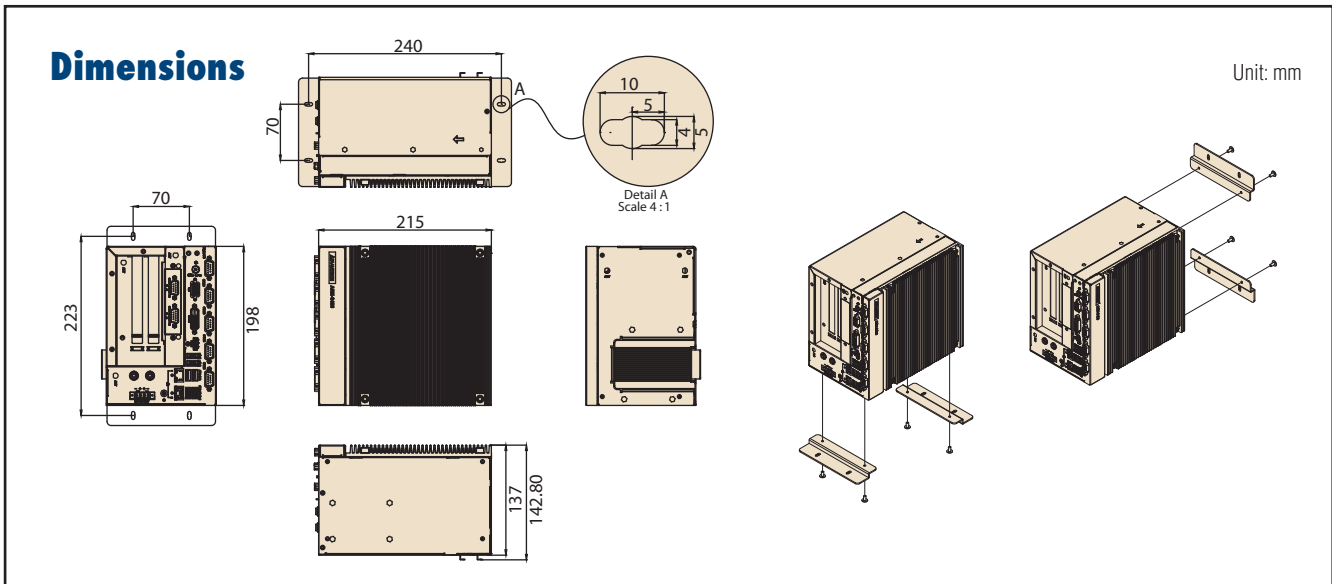
Features

- Intel® Celeron™ N3160 Quad Core 2.24GHz SoC with Turbo boost Support
- Supports VGA /DVI-D/HDMI triple independent display
- Support 2 GbE, 3 USB 3.0, 3 USB 2.0, 1 DIO, audio and 4 COM ports
- Two removable 2.5" SATA HDD drive bays
- Flexible Expansion via PCI/PCIe x1
- Support 2 Mini PCIe with 1 SIM holder for communication module
- Wide range power input 9-36V
- Advantech iDoor module compatible



Specifications

| | | |
|-------------------|------------------------------------|--|
| Processor System | CPU | Intel Celeron N3160 processor |
| | Max. speed | 1.6GHz, Turbo boost up to 2.24GHz |
| | BIOS | AMI EFI 64 Mbit BIOS |
| Memory | Technology | DDR3L 1600MHz |
| | Max. Capacity | 8 GB |
| | Socket | 1 x 204-pin SO-DIMM |
| Graphics | Chipset | Intel HD 8 Gen Integrated Graphic Engine |
| | Interface | VGA: Up to 1920 x 1200 @ 60Hz DVI-D: 1920 x 1200 @ 60Hz HDMI: 2560 x 1600 @ 60Hz; 3840 x 2160 @ 30Hz |
| | Triple Display | VGA + DVI-D + HDMI |
| Ethernet | LAN 1 | 10/100/1000 Mbps Intel i210 Ethernet controller, support Wake on LAN |
| | LAN 2 | 10/100/1000 Mbps Intel i210 Ethernet controller, support Wake on LAN |
| Audio | Interface | Realtek ALC892; Mic-in and Line-Out |
| IO interface | Serial Interface | 2 x RS-232, 2 x RS-232/422/485 w/ auto flow control (Default) ; COM 4 support 5V/12V power supply (by jumper) |
| | USB Interface | Additional 2 x RS-232 ports support by cable and bracket (Optional by project support) |
| | Digital I/O | 3 x USB 2.0 + 3 x USB 3.0, 1 x internal USB2.0 |
| | P/S2 | 8-bit digital IO |
| Other | Watchdog Timer | 1 x PS/2 port support by cable and bracket (Optional by project support) |
| | TPM | 255-level timer interval, setup by software |
| Expansion | Add-on Card Slot | TPM 2.0 (Optional by project support) |
| | Mini PCIe | 2 Slots PCI (default) 1 Slot PCI and 1 Slot PCIe x1 (Optional: AMO-R020E); 2 Slots PCIe x1 (Optional: AMO-R019E); Maximum card size of 180mm (L) x 110mm (H) Maximum power consumption 10w for each slot |
| Storage | HDD/SSD | 2 x Full-size Mini PCIe (1 Mini PCIe with SIM holder) |
| | SD | Two 2.5" SATA removable HDD Bays with maximum device height 12.5mm |
| Software Support | Microsoft Windows | 1 internal SD Card slot support |
| | Linux | Windows 10, Windows 8.1, Windows 7, WES8.1 , WES7 |
| Power Requirement | Power Type | Support by project |
| | Power Input Voltage | AT/ATX |
| | Power Adapter | 9 V _{DC} ~ 36 V _{DC} AC to DC, DC12V/7A, 84W (Optional) |
| Power Consumption | Typical | 22.8W |
| | Max. | 9.7W |
| Mechanical | Construction | 22.8W |
| | Mounting | Aluminum housing |
| | Dimensions (W x H x D) | Desk/wall-mounting |
| | Weight | 142.8 x 198 x 215 mm (5.63" x 7.79" x 8.46") |
| Environment | Operating Temperature | 3.16 kg (6.97 lb) |
| | Storage Temperature | With extended temperature peripherals: -10 ~ 55 °C (-14 ~ 131 °F) with 0.7m/s air flow |
| | Relative Humidity | With 2.5-inch hard disk 0 ~ 40 °C (32 ~ 104 °F) with 0.7m/s air flow |
| | Vibration Loading During Operation | -40 ~ 85° C (-40 ~ 185°F) |
| | Shock During Operation | 95% @ 40° C (non-condensing) |
| | EMC | With SSD: 3 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 hr/axis |
| | Safety Certifications | With SSD: 30 G, IEC 60068-2-27, half sine, 11 ms duration |



Ordering Information

| Part No. | CPU | DDR3L | VGA | DVI-D | HDMI | RS-232 | RS-232/422/485 | DIO | USB 3.0 | USB 2.0 | MiniPCIe | SIM | Expansion | iDoor |
|-----------------|-------|-----------|-----|-------|------|--------|----------------|-------|---------|---------|----------|-----|-----------|-------|
| ARK-3405R-S6A1E | N3160 | up to 8GB | 1 | 1 | 1 | 2 | 2 | 8-bit | 3 | 3 | 2 | 1 | 2 x PCI | 1 |

Packing List

| Part Number | Description |
|----------------|--------------------------------------|
| - | 1 x China RoHS for ARK-3405 |
| - | 1 x User Manual (Simplified Chinese) |
| 2190000902 | 1 x CARDBOARD-WARRANTY |
| 1652003234 | 1 x 4-pin PLUG-IN BLOCK |
| 1990021361N000 | 2 x HDD Thermal-Pad |
| 1960069484N000 | 2 x LAN Clip Bracket |
| 1960073853N001 | 2 x Mounting Bracket |
| 1990027474N000 | 1 x CPU Thermal-Pad |
| 9680015173 | 1 x L type Wrench for top cover |

Embedded OS

| Part Number | Description |
|-------------|--|
| 2070014220 | WES7E 64bit ENG/CHT/CHS/JPN |
| 2070014248 | WES8.1E 64bit ENG/CHT/CHS/JPN |
| 2070014270 | Win 10 Enterprise 64bit with EN/JP/TC/SC |

Optional MOS modules for iDoor Expansion

| Part Number | Description |
|-----------------|--|
| MOS-1120Y-0201E | Isolated RS-232, 2-Ch, DB9, PCIe I/F |
| MOS-1121Y-0201E | Isolated RS-422/485, 2-Ch, DB9, PCIe I/F |
| MOS-1120Y-1401E | Non-Isolated RS-232, 4-Ch, DB9, PCIe I/F |
| MOS-1121Y-1401E | Non-Isolated RS-422/485, 4-Ch, DB9, PCIe I/F |
| MOS-2120-Z1101E | Giga LAN Ethernet module, 1-Ch, PCIe I/F |
| MOS-2220-Z1101E | High Speed Serial COM module, 1-Ch, USB I/F |
| MOS-2220-X1101E | Parallel LPT module, 1-Ch, USB I/F |
| MOS-2230-Z1201E | CANBus module, 2-Ch, USB I/F |
| MOS-1130Y-0201E | Isolated CANBus, 2-Ch, DB9, PCIe I/F |
| MOS-1110Y-0101E | Isolated 16 DI/8 DO, 1-Ch, DB37, PCIe I/F |
| MOS-2110Z-1201E | USB module, 2-Ch, PCIe I/F |

Option Item Information

| Part Number | Description |
|----------------|--|
| AMO-R019E | 2x PCIe1 riser card |
| AMO-R020E | 1x PCI + 1x PCIe1 riser card |
| 96PSA-A84W12P4 | AC to DC Adaptor, DC12V/7A, 84W, 0 - 40° C |
| 1702002600 | Power Cord, 3-Pin 183cm, USA type |
| 1702002605 | Power Cord, 3-Pin 183cm, EU type |
| 1702031801 | Power Cord, 3-Pin 183cm, UK type |
| 1700000237 | Power Cord, 3-Pin 183cm, PSE type |