

# ARK-4180

## Expandable PCI-104 Performance Solution with -40 ~ 75° C Operating Temperature



### Features

- Fanless, rugged, compact embedded box IPC
- Built-in Celeron® 1.0 GHz (512 KB L2 Cache)/600 MHz CPU
- Two serial ports and six USB 2.0 ports
- VGA, LAN, Audio, LPT and KB/MS ports
- Modularized and stackable design
- Supports 1 x PCI-104 expansion slot
- Supports -40 ~ 75° C operating temperature
- IP40

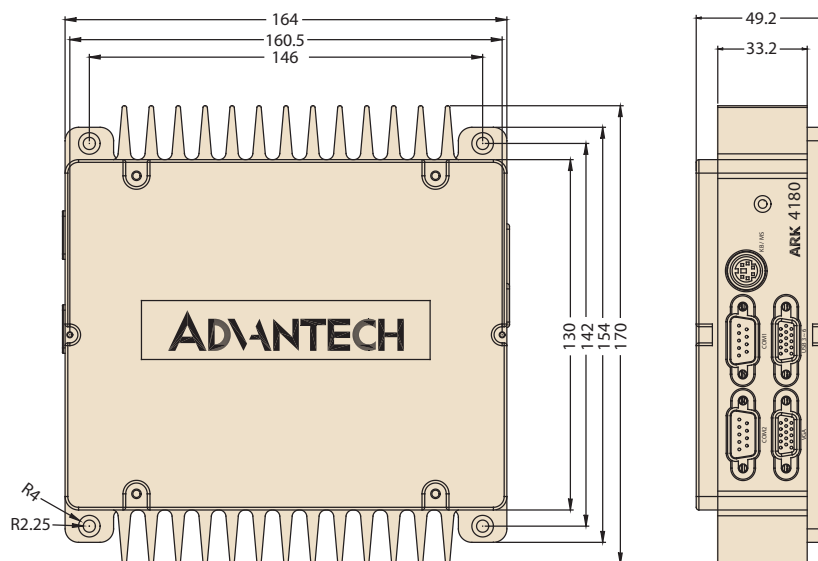


### Specifications

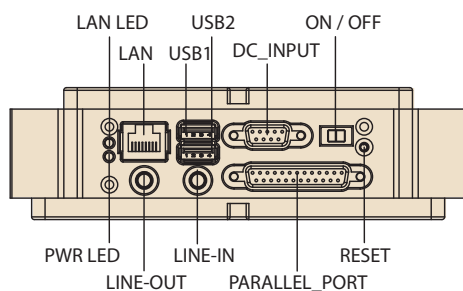
|                   |                            |                                                                                                       |                     |
|-------------------|----------------------------|-------------------------------------------------------------------------------------------------------|---------------------|
| Processor System  | CPU                        | Intel Celeron M ULV                                                                                   | Intel Celeron M ULV |
|                   | Max. Speed                 | 373 (1 GHz)                                                                                           | 600 MHz             |
|                   | Front Side Bus             | 400 MHz FSB                                                                                           | 400 MHz FSB         |
|                   | System Chipset             | 855GME                                                                                                | 852GM               |
|                   | BIOS                       | AWARD 4 Mbit, FWH                                                                                     |                     |
| Memory            | Technology                 | DDR 333/400 MHz                                                                                       |                     |
|                   | Max. Capacity              | 1 GB                                                                                                  |                     |
|                   | Socket                     | 1 x 200-pin SODIMM                                                                                    |                     |
| Graphics          | Chipset                    | Built-in Intel 855GME/852GM                                                                           |                     |
|                   | Interface                  | CRT interface<br>36-bit LVDS (optional)                                                               |                     |
| Ethernet          | LAN                        | 10/100 Mbps Ethernet Controller                                                                       |                     |
| Audio             | Interface                  | Line-in, Line-out                                                                                     |                     |
| I/O Interface     | Serial Ports               | 2 x RS-232                                                                                            |                     |
|                   | Parallel Port              | 1 x Parallel port, Compliant with IEEE1284                                                            |                     |
|                   | USB Interface              | 6 x USB ports, USB 2.0 Compliant                                                                      |                     |
|                   | Keyboard/Mouse             | 1 x PS/2 port, Supports PS/2 Mouse and Keyboard                                                       |                     |
| Other             | Watchdog Timer             | 255 level timer interval, setup by software                                                           |                     |
| Expansion         | PC/104                     | PCI-104                                                                                               |                     |
| Storage           | HDD                        | Optional                                                                                              |                     |
|                   | SSD                        | Supports CompactFlash socket for type I/II CompactFlash disk                                          |                     |
| Software Support  | Microsoft Windows          | XP Professional, XP Embedded, CE .NET 6.0                                                             |                     |
| Power Requirement | Power Type                 | AT                                                                                                    |                     |
|                   | Power Input Voltage        | AT, +5 V ± 5%, +12 V ± 5% (Optional) (5 V only, 12 V optional for PC104 add on card and LCD inverter) |                     |
|                   | Minimum Power Input        | +5 V @ 1.63 A                                                                                         |                     |
|                   | Power Adapter              | 5 V @ 7 A, 12 V @ 3 A, 65 W                                                                           |                     |
| Power Consumption | Typical                    | 10.65 W (Intel ULV Celeron M 1 GHz)                                                                   |                     |
|                   | Max                        | 12.5 W (Intel ULV Celeron M 1 GHz)                                                                    |                     |
| Mechanical        | Construction               | Aluminum housing                                                                                      |                     |
|                   | Mounting                   | DIN-rail mounting; Desk/wall-mounting; VESA mounting                                                  |                     |
|                   | Dimensions (W x H x D)     | 164 mm x 49.2 mm x 170 mm (6.46" x 1.94" x 6.69" )                                                    |                     |
|                   | Weight                     | 2 kg (4.4 lb)                                                                                         |                     |
| Environment       | Operating Temperature      | -40 ~ 75° C (-40 ~ 167° F)                                                                            |                     |
|                   | Storage Temperature        | -40 ~ 85° C (-40 ~ 185° F)                                                                            |                     |
|                   | Relative Humidity          | 95% @ 40° C (non-condensing)                                                                          |                     |
|                   | Vibration During Operation | 5 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 Oct./min, 1 hr/axis.                                    |                     |
|                   | Shock During Operation     | 50 Grms, IEC 60068-2-27, half sine, 11 ms duration                                                    |                     |
|                   | EMC                        | CE/FCC Class A, CCC, BSMI                                                                             |                     |
|                   | Safety Certifications      | UL, CCC, BSMI                                                                                         |                     |

## Dimensions

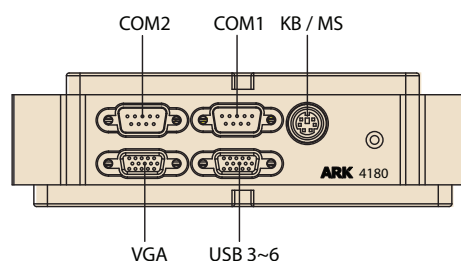
Unit: mm



## Front Panel External I/O Mechanical Layout/Drawing



## Rear Panel External I/O Mechanical Layout/Drawing



## Packing List

| Part Number | Description                                         |
|-------------|-----------------------------------------------------|
| -           | 1 x ARK-4180 unit                                   |
| 1700003933  | 1 x Wire 9P 20 cm D-SUB TO AT POWER ARK-4170/80 use |
| 1700060202  | CABLE 6P-6P-6P PS/2 KB & MOUSE 20 cm                |
| 1700005456  | Cable DSUB15 (F) to 4*USB 20 cm for ARK-4180        |
|             | 1 x Driver/Utility CD/manual                        |

## Ordering Information

| Part Number      | Description                                                       |
|------------------|-------------------------------------------------------------------|
| ARK-4180Y-1S0A1E | Intel Celeron M ULV 1 GHz Rugged embedded box IPC                 |
| ARK-4180Y-AS0A1E | ARK-4180Y-1S0A1E with 512 MB memory, 1 GB CF, Windows XP Embedded |
| ARK-4180Y-1M0A1E | Intel Celeron M ULV 600 MHz Rugged embedded box IPC               |
| ARK-4180Y-AM0A1E | ARK-4180Y-1M0A1E with 512 MB memory, 1 GB CF, Windows XP Embedded |

## Optional Items

| Part Number    | Description                                      |
|----------------|--------------------------------------------------|
| 1757001117     | Adapter 5 V/10 A, 12 V/5 A 110 W, 100 ~ 240 V    |
| 1757001817     | Adapter 5 V/7 A, 12 V/3 A 65 W for ARK-4153/4180 |
| 1702002600     | Power cord (USA)                                 |
| 1702002605     | Power cord (Europe)                              |
| 1702031801     | Power cord (UK)                                  |
| 1700000596     | Power cord (China)                               |
| 196002533N00N  | VESA mounting for ARK-1000, 3000, 4000           |
| ARK-4100-00A1E | ARK-4100 2nd stacking kit                        |

## Embedded OS (Only available for T-Parts OEM, and CTOS service)

| Part Number | Description                            |
|-------------|----------------------------------------|
| 2070001573  | XPE FP2007 P4 & PM-A (to 915) V3.0 ENG |
| 2070001580  | CE60 Pro P-M (852/855) 2Com V1.0 ENG   |