

# OUR GLOBAL COMPETENCE CENTRES



 APOLLO DISPLAY  
TECHNOLOGIES



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Embedded Box PC

# Box PCs & IoT Gateways for industrial use

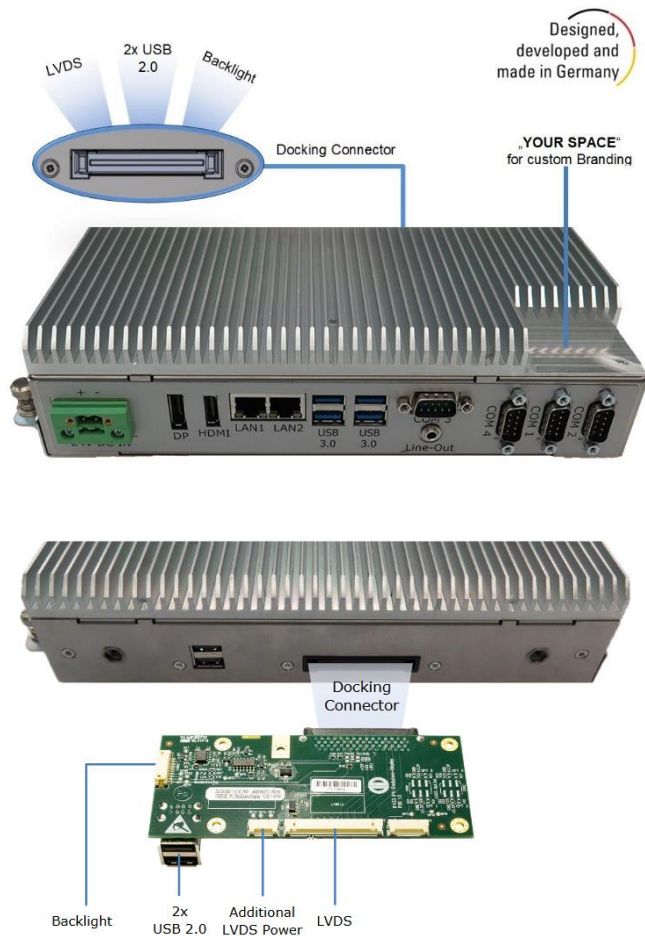
- All Systems can be delivered with custom configuration and preinstalled Operating System
- The overview is an outline of our product portfolio. Further systems on request



The information contained in this document has been carefully researched and is, to the best of our knowledge, accurate. However, we assume no liability for any product failures or damages, immediate or consequential, resulting from the use of the information provided herein. Our products are not intended for use in systems in which failures of product could result in personal injury. All trademarks mentioned herein are property of their respective owners. All specifications are subject to change without notice.

# BOXPC PRO 7300

## 7. GEN. INTEL CORE™ U-SERIES



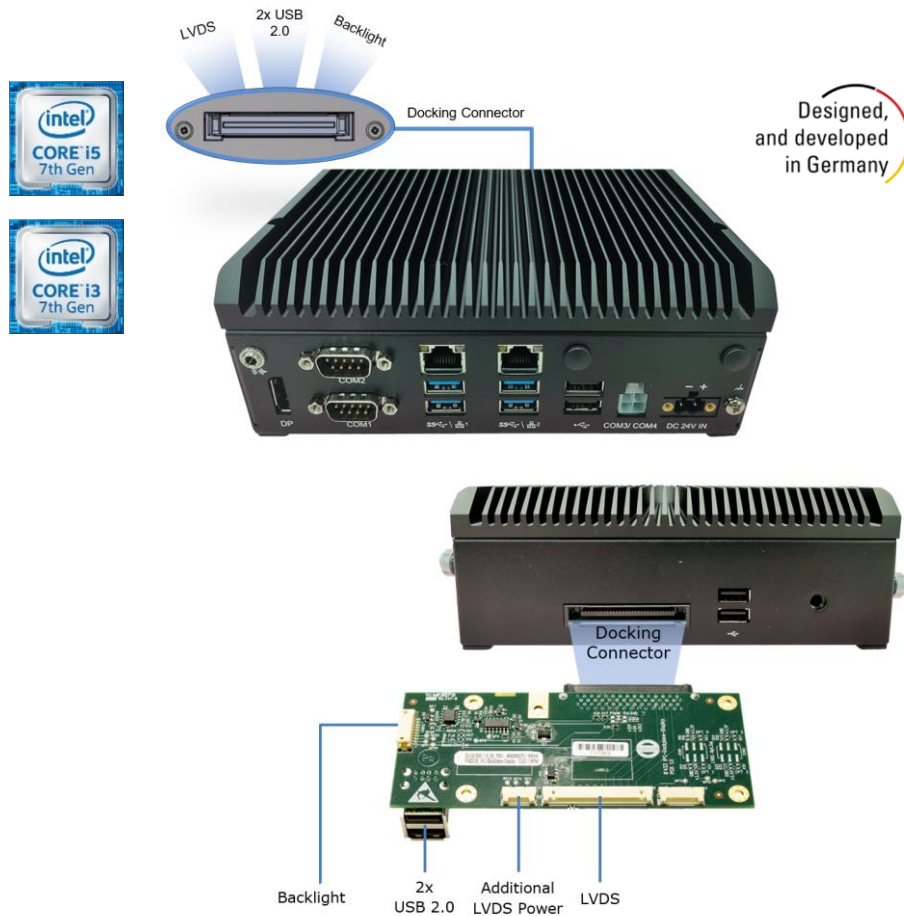
Fanless & Compact Embedded BOX PC with i5-7300U and unique Docking Connector for easy control of external LVDS TFT Displays and e.g. USB Touch Controller / Webcam.

### Features:

- 7th Gen. Intel® Core™ i5-7300U Embedded processor
- Unique docking connector (LVDS, BL & USB 2.0)
- HDMI and DisplayPort
- 2x Intel® Gigabit Ethernet
- 2x RS232/422/485 and 2x RS232
- Flexible power supply with 9-24V DC-in
- Dimensions: 147.3 x 296 x 59 mm

# BOXPC PRO NPA-1904

## 7. GEN. INTEL CORE™ U-SERIES



Fanless & Compact Embedded BOX PC with Intel® Core™ i U-Series and unique Docking Connector for easy control of external LVDS TFT Displays and e.g. USB Touch Controller / Webcam.

### Features:

- 7th Gen. Intel® Core™ i3-7100U or i5-7300U Embedded processor
- Unique docking connector (LVDS, BL & USB 2.0)
- DisplayPort
- 2x Intel® Gigabit Ethernet
- 2x RS485 and 2x RS232
- Power supply with 24V DC-in
- Dimensions: 175 x 224.5 x 65 mm

# INTEL® CORE™ CPU



| Product               | BoxPC Pro 7300   | BoxPC Pro NPA-1904   | ASB200-919   | AMI230   | ARK-3531  |
|-----------------------|--|--|--|--|---|
| Vendor                | Distec   | Distec   | iBASE  | iBASE  | ADVANTECH   |
| Processor             | Intel® Core i5-7300U   | Intel® Core i5-7300U or i3-7100U                                   | Intel® Core i7-8665UE, i5-8365UE, i3-8145UE, Celeron® 4305UE | for 9th/8th Gen. Intel® Core Processor                 | for 9th/8th Gen. Intel® Core Processor LGA1151                    |
| Chipset               | SoC Kaby Lake (7th Gen.)   | SoC Kaby Lake (7th Gen.)   | SoC Whisky Lake (8th Gen.)                                   | Intel® Q370  | Intel® H370 / Q370  |
| Memory                | 8GB built-in, 32GB DDR4 max.   | 8GB built-in, 32GB DDR4 max.                                       | 32GB DDR4 max.   | 32GB DDR4 max.   | 64GB DDR4 max.  |
| Graphic               | LVDS via <b>Dock Connector</b> , DP, HDMI                                  | LVDS via <b>Dock Connector</b> , DP                                | 2x DP (1x by Type-C)   | DVI-D, DisplayPort, HDMI                               | VGA, HDMI   |
| Storage               | 64GB MLC mSATA built-in  | 64GB MLC mSATA built-in  | M.2 (see expansion)  | 2,5" SSD or HDD<br>M.2 Key M (see expansion)           | 2x 2,5" SSD or HDD<br>mSATA (shared with miniPCIe)                |
| Ethernet              | 2x 10/100/1000Mbit   | 2x 10/100/1000Mbit   | 2x 10/100/1000Mbit   | 4 x 10/100/1000Mbit (2x PoE+)                          | 2 x 10/100/1000Mbit (opt. 4x)                                     |
| I/O                   | 4x USB 3.0, 2x USB 2.0<br><b>2x RS232/422/485, 2x RS232</b> ,<br>Audio out | 4x USB 3.0, 2x USB 2.0<br><b>2x RS485, 2x RS232</b> ,<br>Audio out | 4x USB 3.1<br>1x RS232/422/485<br>4in/4out GPIO              | 2x RS232/422/485 , 2x RS232<br>8x USB 3.1, 2x SIM Card | 4x RS232/422/485, 4x RS232<br>2x USB 3.1, 6x USB 3.0, 16-bit GPIO |
| Expansion             | miniPCIe / mSATA (see Storage)   | M.2 (see Storage)  | 2x M.2 (Key E & Key M)                                       | 3x M.2 (Key B, Key E, Key M)                           | 1x miniPCIe, 1x M.2 Key E   |
| Dimensions            | 147,3 x 296 x 59 mm  | 175 x 224,5 x 65 mm  | 180 x 150 x 46,5mm   | 210 x 285 x 77 mm                                      | 200 x 215 x 75mm  |
| Operating Temp. (max) | 0...+40°C  | 0...+45°C  | 0...+45°C  | -20...+70°C  | -20...+60°C   |
| Power                 | 9-24V DC-in  | 24V DC-in  | 12-24V DC-in   | 12V or 18V-24V DC-in                                   | 9-36V DC-in   |



# AI SYSTEMS



|                              |   |
|------------------------------|---|
| <b>Product</b>               | <b>EC-3200</b>  |
| <b>Vendor</b>                | iBASE   |
| <b>Processor</b>             | NVIDIA Jetson Tegra TX2   |
| <b>Chipset</b>               | SoC   |
| <b>Memory</b>                | 8GB LPDDR4 onboard  |
| <b>Graphic</b>               | HDMI  |
| <b>Storage</b>               | 32GB eMMC onboard   |
| <b>Ethernet</b>              | 1x 10/100/1000Mbit  |
| <b>I/O</b>                   | 1x RS232 or CAN<br>2x USB 3.0, 2x USB 2.0, USB OTG<br>4in/4out GPIO |
| <b>Expansion</b>             | 2x M.2 (Key B & Key M)  |
| <b>Dimensions</b>            | 127 x 137 x 46mm  |
| <b>Operating Temp. (max)</b> | -20...+60°C   |
| <b>Power</b>                 | tbd   |

# AMD® RYZEN™



|   |
|---|
| <b>ASB200-918</b>   |
| iBASE   |
| AMD® Ryzen V1605B, V1202B,<br>R1606G, R1505G                          |
| SoC Ryzen Embedded  |
| 32GB DDR4 max.  |
| 2x HDMI   |
| 2,5" SSD or HDD<br>M.2 (see expansion)                                |
| 2 x 10/100/1000Mbit   |
| 4x USB 3.1, 1x USB 3.0<br>1x RS232/422/485, 3x RS232<br>4in/4out GPIO |
| 2x M.2 (Key E & Key M)  |
| 240 x 162 x 42mm  |
| 0...+45°C   |
| 12-24V DC-in  |

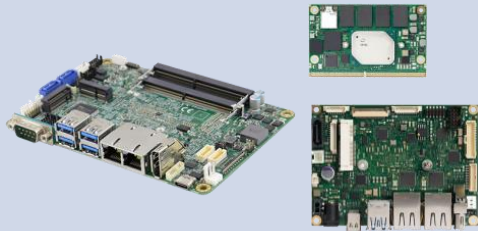
# INTEL APOLLO LAKE CPU



| Product               | AGS102  | AGS100   | ARK-1124 C (H/U)   | UTX-3117   | QBiX-Pro-APLB4200H-A1                                |
|-----------------------|---|--|--|--|--|
| Vendor                | iBASE   | iBASE  | ADVANTECH  | ADVANTECH  | GigaIPC  |
| Processor             | Intel® Pentium® N4200, Celeron® N3350 & Atom E3950/E3930                | Intel® Pentium® N4200, Celeron® N3350 & Atom E3950/E3930 | Intel® Celeron® N3350, (Atom E3940)                                | Intel® Pentium® N4200, Celeron® N3350 & Atom E3940 | Intel® Pentium® N4200                                |
| Chipset               | SoC Apollo Lake   | SoC Apollo Lake  | SoC Apollo Lake  | SoC Apollo Lake                                    | SoC Apollo Lake                                      |
| Memory                | 8GB DDR3L max.  | 8GB DDR3L max.   | 8GB DDR3L max.   | 8GB DDR3L max.                                     | 8GB DDR3L max.                                       |
| Graphic               | DVI-I, DisplayPort  | DVI-I, DisplayPort                                       | VGA (H: VGA, HDMI)   | HDMI, DisplayPort                                  | HDMI, VGA  |
| Storage               | 1x mSATA (shared w. FS miniPCIe)<br>1x M.2 2242 (shared)                | 1x mSATA (shared w. FS miniPCIe)<br>1x M.2 2242 (shared) | 2,5" SSD or HDD<br>mSATA (optional)                                | 2,5" SSD or HDD,<br>mSATA (shared w. miniPCIe)     | 2,5" SSD or HDD,<br>1x M.2 2240 (NGFF SATA)          |
| Ethernet              | 2x 10/100/1000Mbit  | 2 x 10/100/1000Mbit                                      | 1 x 10/100/1000Mbit (H/U: 2 x)                                     | 2 x 10/100/1000Mbit                                | 2 x 10/100/1000Mbit                                  |
| I/O                   | 2x RS232, 2x RS232/422/485<br>4x USB 3.0, 1x USB 2.0                    | 2x RS232/422/485<br>4x USB 3.0                           | 4x (H: 1x / U: 2x) RS232/422/485<br>2x USB 3.0 (H/U: 4x), (U: TPM) | 1x RS232, 2x USB 3.0                               | 1x RS232/422/485, 3x RS232<br>2x USB 3.0, 2x USB 2.0 |
| Expansion             | 1x FS miniPCIe, 1x M.2 2230 E-Key,<br>1x M.2 2242 B-Key, GPIO, SIM Slot | 1x FS miniPCIe, 1x M.2 2230 E-Key,<br>1x M.2 2242 B-Key  | 1x FS miniPCIe, (H/U: M.2 E-Key)<br>Optional iDoor & ARK-Plus,     | 2x miniPCIe (HS & FS), M.2 Key E,<br>TPM           | 1x miniPCIe,   |
| Dimensions            | 160 x 110 x 44mm  | 160 x 110 x 44mm   | 133 x 94,2 x 46,4 (83,60)mm  | 128 x 152 x 37mm                                   | 178 x 125 x 52,7mm                                   |
| Operating Temp. (max) | -40...+70°C   | -40...+70°C  | -20...+60°C  | -20...+60°C  | 0...+50°C  |
| Power                 | 9-36V DC-in   | 9-36V DC-in  | 12V (12-24V optional) DC-in  | 12-24V DC-in                                       | 9-36V DC-in  |

# EMBEDDED

## Embedded Boards



2,5" Pico-ITX™  
Single-Board Computer  
PC/104  
COM Express® Module  
COM HPC® Module  
SMARC™ Module  
Qseven® Module

## Industrial Mainboards



Mini-ITX™  
Micro-ATX  
Flex-ATX  
ATX

## Embedded Systems



Embedded Box PCs  
Embedded Panel PCs  
Embedded Server  
Embedded Desktop PCs  
Digital Signage Player  
Industrial Monitors

## Accessories & IoT



Memory, SSD, CPUs  
Extension Cards  
Cables  
Power Supplies  
Gateways  
Switches  
Router

### Available Features & Options:

- Designed for Industrial Applications
- Extended Temperature -40°C...+85°C
- Design-in Support
- Kits (Board with OS, Display & Cables)
- Long-term Availability
- Custom Design
- Fixed Bill of Material
- EOL / PCN Handling



# CONTACT FORTEC GROUP

## Headquarters

Germany



**FORTEC**  
ELEKTRONIK AG

**FORTEC Elektronik AG**  
Augsburger Str. 2b  
82110 Germering

Phone: +49 89 894450-0  
E-Mail: [info@fortecag.de](mailto:info@fortecag.de)  
Internet: [www.fortecag.de](http://www.fortecag.de)

## Fortec Group Members

Austria



**DISTEC**  
A FORTEC GROUP MEMBER

**Distec GmbH Office Vienna**  
Nuschingasse 12  
1230 Wien

Phone: +43 1 8673492-0  
E-Mail: [info@distec.de](mailto:info@distec.de)  
Internet: [www.distec.de](http://www.distec.de)

Germany



**DISTEC**  
A FORTEC GROUP MEMBER

**Distec GmbH**  
Augsburger Str. 2b  
82110 Germering

Phone: +49 89 894363-0  
E-Mail: [info@distec.de](mailto:info@distec.de)  
Internet: [www.distec.de](http://www.distec.de)

Switzerland



**ALTRAC**  
A FORTEC GROUP MEMBER

**ALTRAC AG**  
Bahnhofstraße 3  
5436 Würenlos

Phone: +41 44 7446111  
E-Mail: [info@altrac.ch](mailto:info@altrac.ch)  
Internet: [www.altrac.ch](http://www.altrac.ch)

United Kingdom



**DISPLAY TECHNOLOGY**  
A FORTEC GROUP MEMBER

**Display Technology Ltd.**  
Osprey House, 1 Osprey Court  
Hichingbrooke Business Park  
Huntingdon, Cambridgeshire, PE29 6FN

Phone: +44 1480 411600  
E-Mail: [info@displaytechnology.co.uk](mailto:info@displaytechnology.co.uk)  
Internet: [www.displaytechnology.co.uk](http://www.displaytechnology.co.uk)

USA



**APOLLO DISPLAY TECHNOLOGIES**  
A FORTEC GROUP MEMBER

**Apollo Display Technologies, Corp.**  
87 Raynor Avenue,  
Unit 1 Ronkonkoma,  
NY 11779

Phone: +1 631 5804360  
E-Mail: [info@apolloDisplays.com](mailto:info@apolloDisplays.com)  
Internet: [www.apolloDisplays.com](http://www.apolloDisplays.com)

**DISTEC**  
A FORTEC GROUP MEMBER