Embedded PCs

Full Range of Enclosures & Systems for Your Quick Configuration

- EPC-B Series
- EPC-C Series
- EPC-S Series
- EPC-T Series
- EPC-X Series
Advantech Embedded PCs

Advantech Embedded PCs (EPC) are a full range enclosures and systems designed for 3.5” single board computers and Mini-ITX motherboards, featuring optimized mechanical design and flexible I/O interface options, assuring maximized flexibility for design-in efficiency. Advantech Embedded PCs come with various standard form factors and scalable sizes, allowing quick integration for customer applications.

Full Range Enclosures & Systems

- Designed for 3.5” SBCs, mITX and THIN mITX boards series
- Covers low-power to extreme performance platforms
- Mini to middle-size compact design

Compact & Expandable Design

- I/O expansion module up to 7 COM port / 5 GigaLan
- Expand applications with Mini-PCIe, M.2, PCIe

Flexible I/O interface

- Reserved openings for USB, COM, antenna
- Reserve maximum I/O punch-out at rear bezel
- Supports additional I/O port expansion by MIOe or PCM modules

Easy Customization Service

- BIOS, OS and I/O ports
- Logo and ID
- Certifications

Easy Assembly & Maintenance

- Quick assembling for all accessories
- Simple steps to open enclosure for maintenance, such as mini-PCIe, mSATA, memory modules

5 EPC Series Positioning

EPC-S Series
- Featuring slim design
- Designed for entry-to-middle end 3.5” single board computers
- Fanless system with wall-mount, desk mount, VESA mount support

EPC-C Series
- Featuring compact design
- Designed for high performance 3.5” SBCs
- Fan/fanless system with wall-mount & desk mount support

EPC-X Series
- Featuring expandable design
- Designed for 3.5” SBCs with extension boards or MIOe modules
- Fanless system with wall-mount & desk mount support
Featuring scalable design
Designed for standard Mini-ITX and THIN Mini-ITX motherboards
Reserved openings for USB, COM, antenna, and low profile PCIe card

Fan-based: support high performance platform as Intel core i3 to i7
Smart fan control to reduce noise
Fanless: support Atom / ULT processors

Fanless/ Fan-based System

Multiple Mounting Capability
- Supports wall/ desk/ VESA/ Din Rail/ Rack mounting kit
- Supports bilateral VESA mounting kit to link arm and displays

Quick Integration with Local Service
Flexible System Solutions 2 Years Global Warranty Meet Your Special Needs Easy to Order, Smart Purchasing OS Expertise Safety of Quality Assurance Fast Delivery with Local Access Global Availability

Key Benefits
- Time-to-market with fully compatible boards & enclosures
- One-stop system integration
- Short design-in process
- Effectively reduce total cost of ownership

EPC-T Series
- Featuring thin design
- Designed for thin Mini-ITX motherboards, under 1U height
- Fan/ Fanless system for customer's different application/environment

EPC-B Series
- Featuring scalable design
- Designed for standard Mini-ITX and THIN Mini-ITX motherboards
- Reserved openings for USB, COM, antenna, and low profile PCIe card
Auto Teller Machine is EMEA

Application Requirements
The most beneficial thing for ATMs is extend bank services to 24 hours including cash withdrawal, account balance, deposits, wire service, loan payments and more. Due to increasing banking service requests, more devices and services are being connected to ATMs. Connected devices include cameras, touch panels, keypads, printers, scanners, card readers, cash dispensers, and bill acceptors. Because many devices are developed for the USB interface, a total of 12 USB device connections was mandatory for this project. Also, an additional 2-4 USB ports could be expanded via the mini-PCI module. In order to avoid single HDD failures crashing the system, two HDD and a PCIe RAID card were installed. Though EPC-B2274 was classified as a compact enclosure, a system audio amplifier design simplified audio connection via a passive speaker. Wireless module connectivity facilitated minimum cabling and created the flexibility to connect more devices for confidential data and VPN.

Smart Dairy
Faster, Efficiency, and Increased Productivity

Application Requirements
To maintain quality and cost competitiveness, one modern dairy was looking for a smart solution to lower labor costs and increase milk quality and production efficiency. Using intelligent network technology and dynamic control systems, Advantech provided a smart dairy solution. Advantech’s EPC-X200, with AMD T16R and extension WiFi module can recognize and record each dairy cattle’s behavior by using an electronic Identification chip on each cow. With this data, managers can set up auto-feeding control and access control systems which routinely guide dairy cattle to move through the auto-milking system area. Advantech’s EPC-X200 features up to seven COM ports which also connect to the milk cooling system to ensure the milk maintains its optimum temperature before transportation. Advantech’s EPC-X200 smart dairy solution helped automate the milking process to improve production and lower cost.
Self-service Kiosk in Airport
Faster, in time information, and Efficiency

Application Requirements
New technology in airport self-service kiosks allows the processing of a significant number of passengers which reduces bottlenecks, and saves time and efficiency for both travelers and airports. Advantech’s EPC-C300, with Intel Core i5 CPU, and Intel i210 Ethernet can handle multiple tasks and massive data transmission. Built inside the self-service check-in kiosks, EPC-C300’s flexible I/O ports connect face-identify cameras, ticket printers and barcode scanner devices. What’s more, EPC-C300 can display additional LCD panels through HDMI output for additional customer information or advertisements. EPC-C300 features a powerful CPU, graphics and LAN performance, and comes with flexible I/O port expansion for multiple device applications; ideal for building a smarter and more efficient airport check in system.

Intelligent Electronic Locker (IEL)
Enhance Convenience Logistic in the future

Application Requirements
An Intelligent Electronic Locker (IEL) provides 24 hour auto logistics service, it connects to the IoT cloud via wire or wireless and users can interact with it via a touch panel. It is equipped with a payment system so users can pick up goods or ship goods via a given pass word, barcode, or other personal identification with the IEL. When goods arrive or are ready to ship, IEL connects to the logistic service via the cloud using LAN, 3G or WiFi. The logistics cloud can optimize, track, and manage these shipments. Shipping fee payments are accurate with amounts of money via cash, credit, PayPal etc. Advantech’s EPC-T1215 fanless mITX system has 6 serial ports and USB to support the customer’s multiple external devices, and it supports two mini-PCIe for 3F/WiFi modules to connect to the cloud server. Low power consumption meets green energy requirements. EPC-T1215 also has great reliability and stability which is perfect for the long-term operation of this commercial IEL application.
Choose Your Embedded PCs with Boards

EPC Enclosures

<table>
<thead>
<tr>
<th>Model Name</th>
<th>EPC-C100</th>
<th>EPC-C300</th>
<th>EPC-X200</th>
<th>EPC-B2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supported Form Factor</td>
<td>3.5&quot; SBC</td>
<td>3.5&quot; MIO-Compact</td>
<td>3.5&quot; SBC</td>
<td>Mini ITX (170 x 170 mm)</td>
</tr>
<tr>
<td>Thermal solution</td>
<td>Fanless</td>
<td>Fanless, Fan-based for MIO-5271</td>
<td>Fanless</td>
<td>2 x fan / 1x fan (72m/39.45CFM each)</td>
</tr>
<tr>
<td>Driver Bay</td>
<td>2.5&quot; HDD and Slim ODD</td>
<td>1x 2.5&quot; HDD</td>
<td>1x 2.5&quot; HDD</td>
<td>2x 2.5&quot; HDD or 1x 2.5&quot; HDD + 1x Slim ODD</td>
</tr>
<tr>
<td>Expansion Slot</td>
<td>1 x SD card</td>
<td>Low Profile add-on card</td>
<td>Depend on different Mother Board</td>
<td></td>
</tr>
<tr>
<td>Socket</td>
<td>1 x mSATA, 1 x miniPCIe</td>
<td>Depend on different Mother Board</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Front Panel I/O</td>
<td>2x USB, 2x GbE, 1x VGA, 1x COM</td>
<td>4x USB, 2x GbE, 1x VGA, 1x HDMI, 1x 1Gbe, 1x VGA, 1x COM, 1x PS/2, (Up to (4) USB &amp; (4) COM)</td>
<td>Up to (4) USB &amp; (4) COM</td>
<td></td>
</tr>
<tr>
<td>Rear Panel I/O</td>
<td>4x USB, 3x COM, 1x SD card</td>
<td>4x COM, 1x 2.5&quot; HDD, 1x USB, 1x HDMI, 1x SD card, 1x 2.5&quot; HDD, 1x HDD, 1x COM, 1x PS/2</td>
<td>Depend on different Mother Board</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>2 (Power LED, HDD LED)</td>
<td>2 (Power LED, HDD LED)</td>
<td>2 (Power LED, HDD LED)</td>
<td>2 (Power LED, HDD LED)</td>
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<tr>
<td>LED Indicators</td>
<td>1 (Power Switch)</td>
<td>1 (Power Switch)</td>
<td>1 (Power Switch); 1 (Reset Switch)</td>
<td>1 (Power Switch); 1 (Reset Switch)</td>
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<tr>
<td>Switch</td>
<td>1 (Power Switch)</td>
<td>1 (Power Switch)</td>
<td>1 (Power Switch); 1 (Reset Switch)</td>
<td></td>
</tr>
<tr>
<td>Power Input Type (Inlet)</td>
<td>Single 12V DC, 2-Pole Phoenix DC plug in</td>
<td>Single 12V DC, 2-Pole Phoenix DC plug in</td>
<td>12V &amp; 5V (5V for SBC boot up, 12V for LVDS inverter, FAN and P7/104), 4-Pole Phoenix DC plug in</td>
<td>AC inlet / DC-in Jack</td>
</tr>
<tr>
<td>Power supply</td>
<td>DC input with power adaptor</td>
<td>DC input with power adaptor</td>
<td>DC input with power adaptor</td>
<td>AC input with 150W ATX power supply / DC input with power adaptor</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>0 ~ 40°C (32 ~ 104°F)</td>
<td>0 ~ 40°C (32 ~ 104°F)</td>
<td>0 ~ 40°C (32 ~ 104°F)</td>
<td>0 ~ 40°C (32 ~ 104°F)</td>
</tr>
<tr>
<td>Non-operating Temperature</td>
<td>-20 ~ 60°C (-4 ~ 140°F)</td>
<td>-20 ~ 60°C (-4 ~ 140°F)</td>
<td>-20 ~ 60°C (-4 ~ 140°F)</td>
<td>-20 ~ 60°C (-4 ~ 140°F)</td>
</tr>
<tr>
<td>Humidity</td>
<td>10~85% @ 40°C, non-condensing</td>
<td>10~85% @ 40°C, non-condensing</td>
<td>10~85% @ 40°C, non-condensing</td>
<td>10~85% @ 40°C, non-condensing</td>
</tr>
<tr>
<td>Certification</td>
<td>CE, FCC Class A</td>
<td>CE, FCC Class A</td>
<td>CE, FCC Class A</td>
<td>CE, FCC, UL, CB</td>
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<tr>
<td>Physical Characteristics</td>
<td>Dimensions (W x H x D)</td>
<td>200 x 60 x 145 mm</td>
<td>188 x 54 x 150 mm</td>
<td>220 x 73 x 150 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>0.95 kg</td>
<td>1.38 kg</td>
<td>1.43 kg</td>
<td>3.8 / 3.1 kg</td>
</tr>
</tbody>
</table>
## EPC Barebone Systems

### Model Name | EPC-S100 | EPC-T2125 | EPC-T2225 | EPC-T2321 | EPC-T2225S
--- | --- | --- | --- | --- | ---
**Barebone system**
Description | Fan-less barebone, w/o adapter H/M, memory | Fan-base / Fanless barebone, w/ adapter, w/o H/D, memory | Fan-based / Fanless barebone, w/ adapter, w/o H/D, memory | Fan-based / Fanless barebone, w/ adapter, w/o H/D, memory | Fan-base barebone, w/ adapter, w/o H/D, memory
**Processor System**
Motherboard | AMD®-880G/AM3+ | AMD®-880G/AM3+ | AMD®-880G/AM3+ | AMD®-880G/AM3+ | AMD®-880G/AM3+
Thermal solution | Fan-less | 1x chassis fan (4cm/2.8cm) / Fanless | 1x chassis fan (4cm/2.8cm) / Fanless | 1x chassis fan (4cm/2.8cm) / Fanless | 2x chassis fan (4cm/2.8cm) / Fanless
CPU | Intel® / Celeron N3160/N3060 | Intel® Bay Trail Quad core Celeron™-J3160 (on board) | Intel Core i3-5010U / i5-5350U (on board) | Intel Core i3-5010U / i5-5350U (on board) | Intel® 6th Gen Core™ processor
BIOS | AMI UEFI BIOS at 64Mbit | AMD®-880G/AM3+ | Intel® UEFI 11.0.1.0 SP1 | Intel® UEFI 11.0.1.0 SP1 | Intel® UEFI 11.0.1.0 SP1
Socket | 1 x 20-pin SODIMM | 2 x 204 PIN DDR3 200pin SODIMM (Non-ECC) | 2 x 204 PIN DDR3 SODIMM | 2 x 204 PIN DDR3 SODIMM | 2 x 204 PIN DDR3 SODIMM
**Memory**
Technology | DDR3L 1600Mhz | DDR3L 1600Mhz | DDR3L 1600Mhz | DDR3L 1600Mhz | DDR3L 1600Mhz
Max. Capacity | 8 GB | 8 GB up to 8 GB per SODIMM | 8 GB up to 8 GB per SODIMM | 16 GB up to 16 GB per SODIMM | 32 GB up to 16 GB per SODIMM
**Graphics**
Chipset & Graphics | Intel® Gen8 LP | AMD®-880G/AM3+ | AMD®-880G/AM3+ | AMD®-880G/AM3+ | AMD®-880G/AM3+
Memory | DDR3L 1600Mhz | DDR3L 1600Mhz | DDR3L 1600Mhz | DDR3L 1600Mhz | DDR3L 1600Mhz
Controller | Intel® UEFI 11.0.1.0 SP1 | Intel® UEFI 11.0.1.0 SP1 | Intel® UEFI 11.0.1.0 SP1 | Intel® UEFI 11.0.1.0 SP1 | Intel® UEFI 11.0.1.0 SP1
Connector | 1 (Support 2.5” HDD/SSD, max 9.5 mm height) | 1 (Support 2.5” HDD/SSD, max 9.5 mm height) | 1 (Support 2.5” HDD/SSD, max 9.5 mm height) | 1 (Support 2.5” HDD/SSD, max 9.5 mm height) | 1 (Support 2.5” HDD/SSD, max 9.5 mm height)
**Audio**
Audio (HD) | Realtek ALC892, High Definition Audio| Realtek ALC892, High Definition Audio| Realtek ALC892, High Definition Audio| Realtek ALC892, High Definition Audio| Realtek ALC892, High Definition Audio
**Network**
Controller | LAN1: Realtek RTL8111E | LAN2: Realtek RTL8111G | LAN2: Realtek RTL8111G | LAN2: Realtek RTL8111G | LAN2: Realtek RTL8111G
Connector | 2 (RS-485) | 2 (RS-485) | 2 (RS-485) | 2 (RS-485) | 2 (RS-485)
**Environment**
Temperature | Fan-base: 0~50°C (90~122°F) | Fan-base: 0~50°C (90~122°F) | Fan-base: 0~50°C (90~122°F) | Fan-base: 0~50°C (90~122°F) | Fan-base: 0~50°C (90~122°F)
Non-Operating Temperature | -20 ~ 60°C (4~140°F) | -40 ~ 85°C (-40 ~ 185°F) | -40 ~ 85°C (-40 ~ 185°F) | -40 ~ 85°C (-40 ~ 185°F) | -40 ~ 85°C (-40 ~ 185°F)
Humidity | 10~85% | 10~85% | 10~85% | 10~85% | 10~85%
Vibration (9.5 mm height) | 14.4W (idle with AMD G-series) | 11.5W (idle with AMD G-series) | 14.4W (idle with AMD G-series) | 11.5W (idle with AMD G-series) | 14.4W (idle with AMD G-series)
**Certification**
Physical Characteristics | Dimensions (W x H x D): 188 x 39 x 150 mm | Dimensions (W x H x D): 250 x 43 x 210 mm | Dimensions (W x H x D): 250 x 43 x 210 mm | Dimensions (W x H x D): 250 x 43 x 210 mm | Dimensions (W x H x D): 250 x 43 x 210 mm
Weight | 3.1kg | 3.1kg | 3.1kg | 3.1kg | 3.1kg

Remote Monitoring & Management Software Built-in

Device Management
System Security
Dashboard Builder
Logic Editor

WISE-PaaS/RMM

- Centralized Management
- High Availability
- Sensor/Device Connectivity

Regional Service & Customization Centers

China
Kunshan 86-512-5777-5666
Taiwan
Toll Free 886-2-2792-7818
Netherlands
Eindhoven 31-40-267-7000
Poland
Warsaw 00800-2426-8080
USA
Milpitas, CA 1-408-519-3898

Greater China

China
Toll Free 800-810-0345
Beijing 86-10-6298-4346
Shanghai 86-21-3832-1616
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Hong Kong 852-2720-5118

Taiwan
Toll Free 0800-777-111
Toll Free 0800-777-111
Nehu 886-2-2792-7818
Xindian 886-2-2218-4567
Taichung 886-4-2329-0371
Kaohsiung 886-7-229-3600

Asia Pacific

Japan
Toll Free 0800-500-1055
Tokyo 81-3-6802-1021
Osaka 81-3-6802-1021

Korea
Toll Free 080-363-9494
Seoul 82-2-3633-9494

Singapore
Singapore 65-6442-1000

Malaysia
Kuala Lumpur 60-3-7725-4188
Penang 60-4-537-9188

Thailand
Bangkok 66-2-248-3140

India
Bangalore 91-80-2545-0206
Pune 91-20-3948-2075

Indonesia
Jakarta 62-21-751-1939

Australia
Toll Free 1300-306-531
Melbourne 61-3-9797-0100
Sydney 61-2-9476-9300

Europe

Germany
Toll Free 00800-2426-8080/81
Munich 49-89-12959-0
Düsseldorf 49-210-97-855-0

France
Paris 33-1-4119-4666

Italy
Milano 39-02-9544-961

Benelex & Nordics
Breda 31-76-523-3100

UK
Newcastle 44-0-191-262-4844
London 44-0-870-493-1433

Poland
Warsaw 48-22-31-51-100

Russia
Moscow 8-800-555-01-50
St. Petersburg 8-800-555-81-20

Czech Republic
Ústí nad Orlicí 420-465-521-020

Ireland
Oranmore 353-91-792444

Americas

North America
Toll Free 1-888-576-9668
Cincinnati 1-513-742-8895
Milpitas 1-408-519-3898
Irvine 1-949-20-2500
Ottawa 1-815-434-8731

Brazil
Toll Free 0800-770-5355
São Paulo 55-11-5592-5355

Mexico
Toll Free 1-800-467-2415
Mexico City 52-55-6275-2727

Worldwide Offices

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China
Kunshan 86-512-5777-5666
Taiwan
Toll Free 886-2-2792-7818
Netherlands
Eindhoven 31-40-267-7000
Poland
Warsaw 00800-2426-8080
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Greater China

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Toll Free 800-810-0345
Beijing 86-10-6298-4346
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Hong Kong 852-2720-5118

Taiwan
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Nehu 886-2-2792-7818
Xindian 886-2-2218-4567
Taichung 886-4-2329-0371
Kaohsiung 886-7-229-3600

Asia Pacific

Japan
Toll Free 0800-500-1055
Tokyo 81-3-6802-1021
Osaka 81-3-6802-1021

Korea
Toll Free 080-363-9494
Seoul 82-2-3633-9494

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Singapore 65-6442-1000

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Kuala Lumpur 60-3-7725-4188
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India
Bangalore 91-80-2545-0206
Pune 91-20-3948-2075

Indonesia
Jakarta 62-21-751-1939

Australia
Toll Free 1300-306-531
Melbourne 61-3-9797-0100
Sydney 61-2-9476-9300

Europe

Germany
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St. Petersburg 8-800-555-81-20

Czech Republic
Ústí nad Orlicí 420-465-521-020

Ireland
Oranmore 353-91-792444

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Toll Free 1-888-576-9668
Cincinnati 1-513-742-8895
Milpitas 1-408-519-3898
Irvine 1-949-20-2500
Ottawa 1-815-434-8731

Brazil
Toll Free 0800-770-5355
São Paulo 55-11-5592-5355

Mexico
Toll Free 1-800-467-2415
Mexico City 52-55-6275-2727

www.advantech.com
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