# **Embedded PCs**

**Full Range of Barebone Offering** 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 designin 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-PCle, M.2, PCle

### Easy Customization Service

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

#### 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 Assembly & Maintenance

- Quick assembling for all accessories
- Simple steps to open enclosure for maintenance, such as mini-PCle, 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 wallmount & desk mount support



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- Featuring expansible design
- Designed for 3.5" SBCs with extension boards or MIOe modules
- Fanless system with wall-mount & desk mount support

## **Quick Integration with Local Service**







Meet Your Special



Easy to Order, Smart Purchasing



OS Expertise





Fast Delivery with







#### • Featuring thin design

- Designed for thin Mini-ITX motherboards, under 1U height
- Fan/ Fanless system for customer's different application/environment



### • Featuring scalable design

- Designed for standard Mini-ITX and THIN Mini-ITX motherboards
- Reserved openings for USB, COM, antenna, and low profile PCle card

# Space-limited Passenger Information Display System

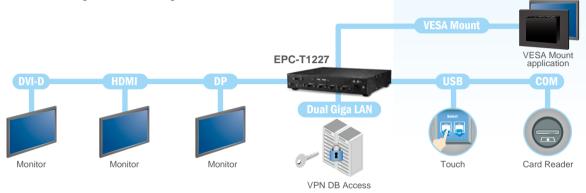
#### Application Requirements

The good graphic performance and computing power are key requirements for Passenger Information Display System (PIS) as it needs to support multiple stream video playing at the same time and quickly update internal DB for instant response. Advantech's EPC-T1227 is integrated with an AMD Radeon 3rd Generation GCN supporting up to three independently operated 4K displays DVI-D, HDMI, DP, which allow customers to display information/pictures/advertisements clearly on the big screen. In addition, two GbE LAN offer quick search response from both of internal VPN DB access network and external Internet connectivity. Moreover, EPC-T1227 combines with Advantech's WISE-PaaS/RMM which is an IoT device management software with predefined Cloud service coming with more than 100 RESTful APIs including database management.



#### **EPC-T1227**

- Supports AMD Merlin Falcon / Brown Falcon / Prairie Falcon processor
- Thin and fanless solution
- Supports triple display with DP/eDP/LVDS + DVI-D + HDMI
- Multiple IO ports: 6 x USB, 6 x COM ports
- Supports WISE-PaaS/RMM and Embedded Software APIs
- Supports Wall/VESA/Rack mounting Kit



# **Smart Dairy**

### Faster, Efficiency, and Increased Productivity

#### **Application Requirements**

To maintain quality and cost competiveness, 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.



#### EPC-X200 Built with PCM-9376

- Designed for 3.5" SBCs with extension boards or MIOe modules
- Multiple I/O ports for device usage
- Fanless system with wall-mount & desk mount support, suitable for indoor control room



# **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.



#### EPC-C300 Built with MIO-5271

- Outstanding Intel core i5 CPU and graphics performance with dual USB 3.0 Interfaces
- Multiple I/O ports for end-device usage
- Dual display support



# **Gamming Table Solution**

**Excellent Graphic Performance and Rich IOs** 

#### **Application Requirements**

A gamming market solution always need a powerful graphic output and rich IOs to connect several card readers, printers, coin slots, touch, and more related devices. EPC-B2275 is a suitable system for gamming market as it equips Intel® 7th & 6th Gen Core™ i processor (LGA1151) with Intel Q170/H110 chipset which allows to drive 4k, 3D or multiple display via VGA, HDMI, or DP ports. Except build in display interface, EPC-B2275 has a low profile expansion slot for installing another powerful graphic card which allows to perform 3D graphic or more than 3 multiple display process. Users can remotely control EPC-B2275 via dual giga LAN ports or wireless modules which installed on internal mPCle slot in the system. Also EPC-B2275's rich IOs such as 8USB ports allow users to connect touch panels, keypads, scanners, card readers, and 2 COM ports to connect printers and bill acceptors. There is another advantage which is combining Advantech WISE-PaaS/RMM . User can manage the case open detection, CPU/HDD/SSD failure prediction, CPU/System fan failure prediction. By giving so many SW and HW features which make EPC-B2275 as a total solution for gamming market.



#### **EPC-B2275**

- Supports Intel® 7th & 6th Gen Core™ i processor (LGA1151) with Intel Q170/H110 chipset
- Two 260-pin SO-DIMM up to 32GB DDR4 2133 MHz SDRAM
- Supports triple display of VGA/DP/HDMI/ LVDS(eDP)
- Supports 1 F/S miniPCle, 1 M.2 (NGFF), 6 USB 3.0 and 3 SATA III
- One expansion slot (low profile PCIe x16 Gen 3) for expansion Card
- Reserved USB, COM, and WLAN antenna punchouts on front panel

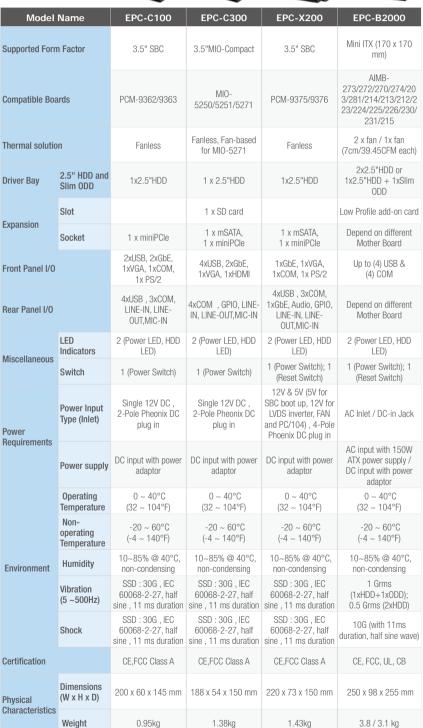


# **Choose Your Embedded PCs with Boards**

#### **EPC Enclosures**

### **EPC Barebone Systems**







Description   Fan-less barebone, w/o adapter HDD, memory	Mode	l Name	EPC-S101		
Processor   Thermal solution   Four-less   Fan-less		Description	Fan-less barebone, w/o adapter HDD, memory		
Processor System			PCM-9310		
CPU	Processor		Fan-less		
Socket		CPU	Intel® / Celeron N3160/ ATOM x5-E8000 (on board)		
Memory   Technology   DDR3L 1600MHz		BIOS			
Max. Capacity   8 GB		Socket	1 x 204-pin SODIMM		
Chipset integrated   Intel Gen8 LP	Memory	Technology	DDR3L 1600MHz		
Storage		Max. Capacity	8 GB		
Storage	Graphics		Intel Gen8 LP		
Interface	Storage	2.5" HDD bay	9.5 mm height)		
Interface		mSATA Slot			
Audio   Code   Connector   Connector   Connector   Connector   Code   Code   Realtek ALC892, High Definition Audio(HD)			10/100/1000 Mbps		
Connector   2 (RJ-45)	Ethernet		LAN2: Realtek RTL8111E		
Internal expansion Slot			2 (RJ-45)		
DP++			High Definition Audio(HD)		
DP++			2 (Full-size , 1 detault support mSATA)		
VGA   1   -			-		
COM		VGA	1		
Lan		DVI	-		
USB	Front Panel	COM	-		
Audio Jack			2		
DP++			4(USB2.U X 2 , USB3.U X 2)		
DP/HDMI			up to 1		
Rear Panel   COM		DP/HDMI	-		
Lan			-		
Lan	Rear Panel	сом	4 (2 x RS232, 2 x RS232/422/485)		
Audio Jack			110232142214031		
Antenna (optional)			Line-in . Line-out . Mic-in		
Miscellaneous   Switch   1 (Power Switch)		Antenna (optional)	up to 1		
Circular Cutouts	Miscellaneous				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	oooaiiooud				
Consumption   TBD			12V DC-in		
Certification   Physical Characteristics   Consumption   TBD     Consumption   TBD     Consumption   TBD     Consumption   TBD     Consumption   TBD     Consumption   TBD     Consumption   Consump			Pheonix DC plug in		
Operating   Temperature   O ~ 50° C (32 ~ 122° F)					
Temperature		omoumpuon	וטט		
Temperature	Environment		0 ~ 50° C (32 ~ 122° F)		
Humidity			-20 ~ 60° C (-4 ~ 140° F)		
Vibration					
Shock   SSD : 30G , IEC 60008-2-27, half sine , 11 ms duration		Vibration	SSD: 30G, IEC 60068-2-27, half sine 11 ms duration		
Certification Physical Dimensions (W x Characteristics H x D)  188 x 39 x 150 mm			SSD: 30G, IEC 60068-2-27,		
Characteristics H x D) 188 X 39 X 150 mm			ridii sirie , i i ms duration -		
			188 x 39 x 150 mm		
			TBD		















EPC-T1215	EPC-T1216	EPC-T1217	EPC-T1231	EPC-T2285	EPC-B2275	EPC-B2203
Fan-base / Fanless barebone, w/ adapter, w/o HDD, memory	Fanless barebone, w/ adapter, w/o SSD, memory	Fanless barebone, w/ adapter, w/o SSD, memory	Fan-based / Fanless barebone, w/ adapter, w/o HDD, memory	Fan-base barebone, w/ adapter, w/o HDD, memory	Fan-base barebone, w/ 150W PSU, w/o HDD, memory	Fan-base barebone, w/ 150W PSU, w/o HDD, memory
AIMB-215D-S6B1E	AIMB-216D-S6A1E	AIMB-217D-S6A1E	AIMB-231G2-U5A1E AIMB-231G2-U3A1E	AIMB-285G2-00A1E	AIMB-275G2-00A1E	AIMB-203G2-00A1E
1x chassis fan (4cm/23.8CFM) / Fanless	Fan-less	Fan-less	1x chassis fan (4cm/23.8CFM) / Fanless	2x chassis fan (4cm/23.8CFM)	2xchassis fan (7cm/28CFM)	2xchassis fan (7cm/28CFM)
Intel® Bay Trail Quad core Celeron™ J1900 (on board)	Intel Pentium N3710 (on board)	Intel Pentium N4200 (on board)	Intel Core i3-5010U / i5-5350U (on board)	Intel® 6th Gen Core™ i processor (LGA1151)	Intel® 7th & 6th Gen Core™ i processor (LGA1151)	Intel® 4th Gen Core™ i processor (LGA1150)
AMI 16 Mbit SPI 2 x 204 PIN DDR3 SODIMM (Non-ECC)	AMI 64 Mbit SPI 2 x 204 PIN DDR3 SODIMM (Non-ECC)	AMI 128 Mbit SPI 2 x 204-pin SO-DIMM (Non-ECC)	AMI 128 Mbit SPI 2 x 204 PIN DDR3 SODIMM (Non-ECC)	AMI EFI 128 Mbit, SPI 2 x 260 PIN DDR4 SO- DIMM (Non-ECC)	AMI EFI 128 Mbit, SPI 2 x 260 PIN DDR4 SO- DIMM (Non-ECC)	AMI EFI 64 Mbit SPI 2 x 204-pin DDR3 SO- DIMM (Non-ECC)
DDR3L 1066/1333 MHz SDRAM	Dual channel DDR3L 1600 MHz SDRAM	Dual channel DDR3L 1866 MHz SDRAM	DDR3L 1600 MHz SDRAM	Dual Channel DDR4 2133 MHz SDRAM	Dual Channel DDR4 2133 MHz SDRAM	Dual Channel DDR3/ DDR3L @1.5V 1333/1600 MHz SDRAM
8 GB/up to 4 GB per SODIMM	8 GB/8 GB per SO-DIMM	8 GB/8 GB per SO-DIMM	16 GB/up to 8 GB per SODIMM	32 GB/up to 16 GB per SODIMM	32 GB/up to 16 GB per SODIMM	16 GB/up to 8 GB per SODIMM
Integrated Intel HD Graphics	Intel Gen 8 Graphics Engines and media encode/decode engine	Intel Gen 9 Graphics Engines and media encode/decode engine	Intel® HD Graphics 6000	Intel® HD Graphics, Supports OpenGL 5.x, DirectX12, OpenCL 2.X	Intel® HD Graphics, Supports OpenGL 5.x, DirectX12, OpenCL 2.X	Integrated Gfx Gen. 7.5, Supports DirectX11.1, OpenGL 4.0 and OpenCL 1.2
1 (support 2.5" HDD/SSD, max 9.5 mm height)	1 (support 2.5" SSD, max 9.5 mm height)	1 (support 2.5" SSD, max 9.5 mm height)	1 (Fan-based support 2.5" HDD/ Fanless support 2.5" SSD, max 9.5 mm height)	1 (support 2.5" HDD/SSD, max 9.5 mm height)	2 (support 2 x 2.5" HDD/ SSD, or 1 slim ODD & 1 x 2.5" HDD/SSD)	2 (support 2 x 2.5" HDD/ SSD, or 1 slim ODD & 1 x 2.5" HDD/SSD)
1 (share w/ full size Mini- PCle slot)	M.2 B key (2280, 2242) instead	1 (share w/ full size Mini- PCle slot)	1 (share w/ full size Mini- PCle slot)	1+1 (Full-size, Half-size)	1 (Full-size, Half size)	1 (Full-size, Half size)
10/100/1000 Mbps LAN1: Realtek RTL8111E LAN2: Realtek RTL8111E 2 (RJ-45)	10/100/1000 Mbps LAN1: Realtek 8111G LAN2: Realtek 8111G 2 (RJ-45)	10/100/1000 Mbps LAN1: Realtek 8111G LAN2: Realtek 8111G 2 (RJ-45)	10/100/1000 Mbps LAN1: Intel PHY i218-LM LAN2: Intel i210 2 (RJ-45)	10/100/1000 Mbps LAN1: Realtek RTL8111G LAN2: Realtek RTL8111G 2 (RJ-45)	10/100/1000 Mbps LAN1: Intel i219LM LAN2: Intel I211AT 2 (RJ-45)	10/100/1000 Mbps LAN1: Realtek 8111E LAN2: Realtek 8111E 2 (RJ-45)
Realtek ÅLC892, High Definition Audio(HD)	Realtek ÅLC892, High Definition Audio(HD)	Realtek ALC888S, High Definition Audio(HD)	Realtek ÅLC892, High Definition Audio(HD)	Realtek ÅLC892, High Definition Audio(HD)	Realtek ALC892, High Definition Audio(HD)	Realtek ALC892, High Definition Audio(HD) 2 (1 x F/S; 1 x H/S)
1+1 (Full-size, Half-size) 0	1+1 (Full-size, Half-size)	1+1 (Full-size, Half-size)	1+1 (Full-size, Half-size)	1+1 (Full-size, Half-size)	1+1 (Full-size, Half-size)	DP++: 0 0
0	0	0	0	0	0	0
0	0 5 (4 v RS-232 1 v	Ō	0	0 2 (1x RS-232/422/485, 1	0	0
5 (RS-232)	5 (4 x RS-232, 1 x RS232/422/485, 1 support 5V/12V)	5V/12V)	2 (1 x RS-232, 1 x RS- 232/422/485)	x RS-232/422/485 with 5V/12V)	1 (RS232/422/485)	4 (RS232; optional)
0 4 (USB2.0) 2 (Line-Out, Mic-In) up to 2	0 4 (USB2.0; optional) 2 (Line-Out, Mic-In) up to 2	0 2 (USB2.0; optional) 2 (Line-Out, Mic-In) up to 2	0 2 (USB2.0) 2 (Line-Out, Mic-In) up to 2	0 4 (USB2.0) 2 (Line-Out, Mic-In) up to 2	0 4 (USB2.0; optional) 0 up to 2	0 4 (USB2.0; optional) 0 up to 2
1	0 1/1	1 1/1	1	1 1 (HDMI 1.4)	0 1/1	0 1/0
1 0	0	0	0	0	1	1
1 (RS-232)	1 (RS232)	1 (RS232)	0	0	1 (RS232, supports 5V/12V)	1 (RS232, supports 5V/12V) 2(RJ-45)
2 (RJ-45) 1 (USB3.0); 3 (USB2.0) 1 (Line-Out)	2 (RJ-45) 4 (USB3.0) 1 (line to 0	2 (RJ-45) 4 (USB3.0) 1 (line out)	2 (RJ-45) 4 (USB3.0) 2 (Line-Out, Mic-in)	2 (RJ-45) 4 (USB3.0) 2 (Line-Out, Mic-in)	2(RJ-45) 4(USB3.0) 3 (Mic in, Line out, Line in)	4(USB3.0) 3 (Mic in, Line out, Line in)
up to 2 2 (Power LED, HDD LED) 1 (Power Switch); 1 (Reset Switch)	Switch)	up to 2 2 (Power LED, HDD LED) 1 (Power Switch); 1 (Reset Switch)	up to 2 2 (Power LED, HDD LED) 1 (Power Switch); 1 (Reset Switch)	up to 2 2 (Power LED, HDD LED) 1 (Power Switch); 1 (Reset Switch)	up to 2 2 (Power LED, HDD LED) 1 (Power Switch); 1 (Reset Switch)	up to 2 2 (Power LED, HDD LED) 1 (Power Switch); 1 (Reset Switch)
0 12V DC-in	0 12V DC-in	0 12V DC-in	0 12V DC-in	1(Reserved for LVDS cable) 12V DC-in	1(Reserved for LVDS cable) Power Voltage: 100V~240V AC input	1(Reserved for LVDS cable) Power Voltage: 100V~240V AC input
2.5ø DC jack	2.5ø DC jack	2.5ø DC jack	2.5ø DC jack	2.5ø DC jack	Power Code input	Power Code input
10.17W (idle with Intel Celeron J1900)	14.41W(idle with N3710)	TBD	14.4W (idle with Inte ULT i5 Processor) 13.4W (idle with Inte ULT i3 Processor)	TBD	TBD	TBD
Fan-base: 0 ~ 50° C (32 ~ 122° F) Fanless: 0 ~ 40° C (32 ~ 104° F)	Fanless: 0~45° C	Fanless: 0~45° C	Fan-base: 0 ~ 50° C (32 ~ 122° F) Fanless: 0 ~ 45° C (32 ~ 104° F)	HDD: 0 ~ 45°C (32 ~ 113°F) SSD: 0 ~ 50°C (32 ~ 122°F)	0~40°C	0~40°C
-40 ~ 85 °C (-40 ~ 185 °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)	-29~60°C	-29~60°C
10~95% @ 40°C, non-condensing	10~95% @ 40°C, non-condensing	10~95% @ 40°C, non-condensing	10~95% @ 40°C, non-condensing	10~95% @ 40°C, non-condensing	10~95%	10~95%
1 Grms (HDD x 1); 3 Grms (SSD x 1)	3 Grms (SSD x 1)	3 Grms (SSD x 1)	1 Grms (HDD x 1); 3 Grms (SSD x 1)	1 Grms (HDD x 1); 3 Grms (SSD x 1)	1 Grms (HDD*1+0DD*1); 0.5 Grms (HDD*2)	1 Grms (HDD*1+0DD*1); 0.5 Grms (HDD*2)
CE, FCC, CCC 250 x 43 x 210 mm (9.84" x 1.69" x 8.27") 3.1kg	CE, FCC 250 x 43 x 210 mm (9.84" x 1.69" x 8.27") 3.1kg	CE, FCC 250 x 43 x 210 mm (9.84" x 1.69" x 8.27") 3.1kg	CE, FCC 250 x 43 x 210 mm (9.84" x 1.69" x 8.27") 3.1kg	CE, FCC 250 x 44.2 x 225 mm (9.84" x 1.74" x 8.85") 3.68kg	CE/FCC/CCC 250 x 98 x 255 mm (9.84" x 3.86" x 10.04") 3.8kg	CE/FCC/CCC 250 x 98 x 255 mm (9.84" x 3.86" x 10.04") 3.8kg

# Remote Monitoring & Management Software Built-in



#### **Regional Service & Customization Centers**

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

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India

Bangalore Pune 91-20-3948-2075

Indonesia

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Brazil

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

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Enabling an Intelligent Planet