



# Embedded Design-in Solutions



[www.axiomtek.com](http://www.axiomtek.com)



# Accelerate Innovation with Axiomtek's Embedded SBC Solutions

Axiomtek delivers high-performance embedded single board computer (SBC) solutions that seamlessly integrate hardware, embedded operating systems, and optimized wiring into ready-to-deploy platforms. Designed to speed development, our solutions shorten time-to-market and reduce costs. With flexible customization, support for mainstream form factors, and custom baseboard design that eliminates complex core logic tuning, we help you focus on innovation without technical barriers.

## Our Design-In Service

### Support



#### Comprehensive Resources for Effortless Development

- Standard Product Offerings
- Detailed Documentation
- Expert Consultation & Technical Support
- Reference Design Guidelines

### System Integration



#### Smooth, Complete Implementation

- End-to-End System Design
- Peripheral & Chassis Integration

### Design



#### Tailored Solutions for Peak Performance

- Schematic & Layout Reviews
- Thermal Optimization
- Customized Design & Components

### Validation



#### Ensuring Excellence & Compliance

- Signal Integrity & Reliability Testing
- Regulatory Pre-Compliance Scans



# Comprehensive Design-In Services for Seamless Integration

Axiomtek's Design-In Services accelerate development with expert support from design to validation. We offer documentation, consultation, and reference guidelines to simplify projects. Services include schematic and layout reviews, thermal optimization, component sourcing, and full system integration. Validation covers signal integrity, reliability, and regulatory pre-compliance—ensuring high-quality, compliant solutions.

## Design-in Service Process



Initial Planning



Design Development



Debug



Validation



Ready to Ship

# Comprehensive Product Line for Versatile Embedded Solutions

Axiomtek offers a full range of embedded solutions, including Embedded Boards, System-on-Modules, Industrial Motherboards, Add-on Cards, and Peripherals. Built for reliability and performance, our products support storage interface migration, extended temperature ranges, and fanless, low-power operation. Key features include multiple bus extension interfaces, BIOS with Ethernet Boot ROM, RS-485 auto flow control, and M.2/Mini Card expansion. Additional capabilities such as auto power-up in AT mode, LCD backlight control, and an embedded Linux kernel enhance flexibility. A board-specific unique ID in our BIOS ensures superior security and system integrity.

## Embedded Boards

- 1.6-inch (72 x 56 mm)
- 1.8-inch (85 x 58 mm)
- Pico-ITX (100 x 72 mm)
- Nano-ITX (120 x 120 mm)
- 3.5-inch (146 x 104 mm)

## System on Modules (SoM)

- COM Express®
  - Type 6/7 Basic (125 x 95 mm)
  - Type 6 Compact (95 x 95 mm)
  - Type 10 Mini (84 x 55 mm)
- Qseven (70 x 70 mm)
- SMARC (82 x 50 mm)
- COM HPC (TBA)

## Industrial Motherboards

- Mini-ITX (170 x 170 mm)
- Micro-ATX (244 x 244 mm)
- ATX (305 x 244 mm)

## Add-on-Cards & Peripherals

- PoE Module
- ZIO Module
- I/O Board
- PCIe Mini Module



# Embedded Boards

## Compact 1.6" and 1.8" Embedded Board for Versatile Computing Unlocking the Possibilities of KIWI Series



KIWI board

NEW

### KIWI330

Ultra-Compact 1.6-inch Embedded Board with Intel® Alder Lake-N/Amston Lake Processor

- Up to 4GB LPDDR5 memory
- NVMe SSD storage, up to 64GB
- 1 M.2 Key E 2230 slot
- eDP display support
- Compatible with Linux and Windows



### KIWI310

1.8-inch Embedded Board with Intel® Celeron® N3350 Processor

- Up to 4GB onboard LPDDR4 memory
- 1 GbE LAN and 1 M.2 Key E 2230 slot
- Onboard eMMC storage, up to 64GB
- 40-pin GPIO for flexible expansion
- Compatible with Linux, Android, and Windows



## Pico-ITX Motherboards



NEW

### PICO570

Pico-ITX SBC with Intel® Core™ Ultra Series 1 Processors (Series 1)

- 1 DDR5 SO-DIMM socket, up to 64GB memory
- 2.5GbE LAN and GbE LAN
- 1 M.2 Key E 2230 slot
- 1 M.2 Key M 2280 slot



NEW

### PICO338

Pico-ITX SBC with Intel® Processor N97/ Core™ i3-N305 Processor

- 8GB LPDDR5 memory (optional 16GB)
- Two 2.5GbE LAN
- 1 M.2 Key B 3042/3052 slot
- 1 M.2 Key E 2230 slot
- NVMe SSD storage, up to 512GB (optional)

## 3.5-inch SBCs



NEW

### CAPA561

3.5" Embedded SBC with 13th/12th Gen Intel® Core™ i7/i5/i3 or Celeron® Processor

- 2 DDR5-4800 SO-DIMM sockets, up to 64GB memory
- 1 GbE LAN and two 2.5 GbE LAN
- 3 M.2 expansion slots
- Quad-display support via HDMI and DisplayPort (Type-C)



### CAPA55R

3.5" Embedded SBC with 11th Gen Intel® Core™ i7/i5/i3 or Celeron® Processor

- 2 DDR4 SO-DIMM sockets, up to 64GB memory
- GbE LAN and 2.5 GbE LAN
- 3 M.2 expansion slots
- Supports DC jack or two 2-pin connectors



NEW

### CAPA332

3.5" Embedded SBC with Intel® Processor N97/N150

- 1 DDR5-4800 SO-DIMM, up to 32GB memory
- Two 2.5GbE LAN ports
- 2 M.2 Key B 3042/3052 slots
- 1 M.2 Key E 2230 slot



### CAPA322

3.5" Embedded SBC with Intel® Celeron® N6210/J6412 or Intel Atom® x6413E

- 1 DDR4 SO-DIMM socket, up to 32GB memory
- 1 PCI Express Mini Card slot with mSATA support
- 1 M.2 Key E 2230 slot
- 1 M.2 Key B 3042/3050 slot
- Supports 12V to 24V DC input



# Industrial Motherboards

## Mini-ITX Motherboards



NEW

MANO566

Mini-ITX SBC with LGA1700 14th/13th/12th Gen Intel® Core™ i9/i7/i5/i3 Processor

- Intel® Q670E/R680E/H610 chipset
- 2 DDR5 SO-DIMM sockets, up to 96GB memory
- 4 USB 3.2 and 4 USB 2.0
- 4 COM ports
- 2 SATA-600, 1 PCIe x16
- 1 M.2 Key M 2280 slot
- 1 M.2 Key E 2230 slot
- 1 M.2 Key B 3052/3042 slot



MANO560

Mini-ITX SBC with LGA1700 14th/13th/12th Gen Intel® Core™ i9/i7/i5/i3 Processor

- Intel® H610 chipset
- 2 DDR4 SO-DIMM sockets, up to 64GB memory
- 2 USB 3.2 Gen1, 5 USB 2.0, and 4 COM ports
- 1 SATA-600, 1 PCIe x16
- 1 M.2 Key E 2230 slot
- 1 M.2 Key B 2242/3042/3052 slot
- 1 Full-size PCI Express Mini card slot



MANO561

Mini-ITX SBC with LGA1700 14th/13th/12th Gen Intel® Core™ i9/i7/i5/i3 Processor

- Intel® H610 chipset
- 2 DDR4 SO-DIMM sockets, up to 64GB memory
- 2 USB 3.2 Gen1 and 5 USB 2.0
- 2.5GbE LAN and 4 COM ports
- 1 SATA-600, 1 PCIe x16
- 1 M.2 Key E 2230 slot
- 1 M.2 Key B 2242/3042/3052 slot
- 1 Full-size PCI Express Mini card slot
- 12 to 24 VDC power input



MANO321

Thin Mini-ITX SBC with Intel® Celeron® Processor

- 2 DDR4 SO-DIMM sockets, up to 32GB memory
- 4 USB 3.2 Gen 2 and 4 USB 2.0
- 1 SATA-600 and 1 M.2 Key B 2242/3042/3052 slot
- 1 PCIe x2 and 1 PCIe x1 slot
- 1 PCI Express Mini Card slot
- Up to 6 COM ports
- 9 to 20V DC power input
- Triple-display support via HDMI, VGA, and LVDS

## Micro-ATX Motherboards



NEW

MMB566

Micro ATX Motherboard with LGA1700 14th/13th/12th Gen Intel® Core™ i9/i7/i5/i3 or Celeron® Processor

- Intel® Q670E/R680E/H610E chipset
- 4 DDR4-3200 Long DIMM sockets, up to 128GB memory
- Two 2.5GbE LAN and two 10GbE LAN (optional)
- 10 USB 3.2 Gen1, and 6 COM ports
- 6 SATA 3.0 with RAID 0/1/5/10 support
- 1 PCIe x16, 2 PCIe x4, and 1 PCIe x1
- 1 M.2 Key M 2280 and 1 M.2 Key E 2230 slot



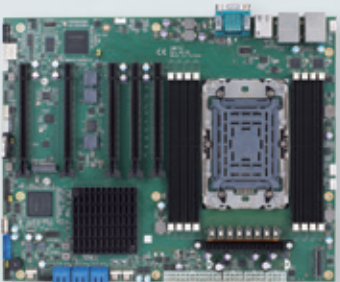
NEW

MMB541

Micro ATX Motherboard with LGA1700 14th/13th/12th Gen Intel® Core™ Processor

- Dual 288-pin DDR4-3200 Long-DIMM sockets, up to 64GB memory
- USB 3.2 Gen1x1 and USB 2.0
- Triple-view display support via DisplayPort, VGA, and DVI-D
- 1 M.2 Key M 2280/2242

## ATX Motherboards

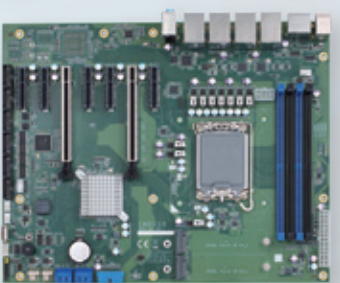


NEW

IMB701

ATX Motherboard with LGA4677 5th/4th Gen Intel® Xeon® Scalable Processors (up to 350W TDP)

- 8 DDR5-5600 R-DIMM ECC, up to 512GB memory
- 5 PCIe x16
- Supports IPMI 2.0 and Redfish API
- Supports multiple graphic cards and internal USB dongle
- 1 M.2 Key M 2280 slot and 1 MCIO



NEW

IMB550

ATX Motherboard with LGA1851 15th Gen Intel® Core™ Ultra 9/7/5 Processors

- Four 288-pin DDR5-4400 ECC/non-ECC unbuffered Long-DIMM, up to 192GB memory
- Supports DisplayPort++ and HDMI
- 2 M.2 Key M 2280 slot
- 2 PCIe Gen 5 x16 slots, supporting GPU cards
- Supports IPMI 2.0
- CPU socket layout optimized for rackmount system airflow



# System on Modules (SoM)

## COM Express® - Modules

NEW

CEM570



COM Express Type 6 Basic Module with Intel® Core™ Ultra Processors Family

- Dual-channel DDR5-5600 SO-DIMM sockets, up to 96GB
- Up to 20 PCIe lanes
- 2 SATA Gen3
- 4 USB 3.2 Gen2 and 8 USB 2.0
- Supports up to 1TB NVMe storage

NEW

CEM561



COM Express Type 6 Compact Module with 13th/12th Gen Intel® Core™ or Celeron® Processor

- 2 dual-channel DDR4-3200 SO-DIMM sockets, up to 64GB memory
- Up to 8 PCIe lanes
- 2 SATA Gen3
- 4 USB 3.2 Gen1 and 8 USB 2.0
- Supports onboard NVMe storage up to 512GB

NEW

CEM322



COM Express Type 6 Compact Module with Intel® Pentium®/ Celeron® or Atom® x6000 Series Processors

- Dual-channel DDR4-3200 SO-DIMM sockets, up to 32GB
- Up to 6 PCIe lanes
- 2 SATA Gen3
- 2 USB 3.2 Gen1 and 8 USB 2.0

NEW

CEM710



COM Express Type 7 Basic Module with Intel® Xeon® D-1700 Processor

- Up to 16 cores
- Up to 128GB DDR4-2400 via 4 SO-DIMM sockets with ECC support
- 1 PCIe x16 Gen4, 1 PCIe x8 Gen3 and 8 PCIe x1 Gen2
- 2 SATA-600
- 4 USB 3.2 Gen1 and 4 USB 2.0
- Dual 10GBASE-KR with Intel® 10G Ethernet controller

NEW

CEM330



COM Express Type 10 Mini Module with Intel Atom® X7000 or Intel® Core™ i3 N-Series Processors

- 8GB or 16GB LPDDR5 memory onboard
- Up to 4 PCIe lanes
- 2 SATA Gen3
- 2 USB 3.2 Gen1 and 8 USB 2.0

NEW

CEM568



COM Express Type 10 Mini Module with 13th Gen Intel® Core™ or Processor U300E

- LPDDR5-6400, up to 32GB
- Up to 4 PCIe lanes
- 2 SATA Gen3
- 2 USB 3.2 Gen 2 and 8 USB 2.0
- NVMe SSD storage, up to 512GB

## COM Express® - Baseboards



NEW

CEB94017

COM Express Type 10 Development Board

- 2 SATA-300
- 3 PCIe expansion slots
- 2 USB 3.2 and 8 USB 2.0
- Port 80 display for debugging



CEB94021

COM Express Type 6 Application Board

- 2 GbE LAN
- 1 SATA-600
- Supports LVDS, VGA, and DDI
- 2 USB 3.2 Gen1 and 4 USB 2.0
- 2 PCI Express Mini Card slots
- 3 RS-232/422/485, 1 RS-232



CEB94022

COM Express Type 6 Application Board

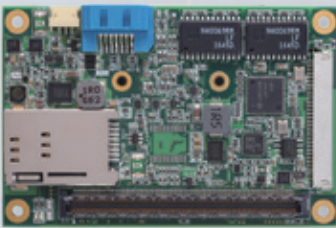
- Supports MXM Type-A GPU Cards (50W)
- 1 SATA-600
- Supports LVDS, VGA, HDMI, and DisplayPort
- 2 USB 3.2 Gen1 and 4 USB 2.0
- 2 PCI Express Mini Card slots
- 3 RS-232/422/485, 1 RS-232



CEB94701

COM Express Type 7 Development Baseboard

- Dual 10GBASE-KR SFP+
- 2 SATA-600
- 1 VGA
- 4 × USB 3.2 Gen1
- 1 PCIe x1, 1 PCIe x4, 1 PCIe x8, 1 PCIe x16 slots
- 2 RS-232/422/485



CEB94018

COM Express Type 10 Mini Application Board

- 2 GbE LAN
- SATA and mSATA support
- 1 LVDS, 1 VGA
- 6 USB 2.0
- 2 PCI Express Mini Card slots
- 6 GPIO (4-in/4-out)



## Qseven - Modules

### Q7M311

Qseven Module with Intel® Pentium® Processor N4200 or Celeron® Processor N3350



- 4GB DDR3L onboard memory
- 4 PCIe lanes
- 2 SATA-600
- 3 USB 3.2 Gen1 and 4 USB 2.0
- Dual-display support via LVDS (eDP optional) and DDI interfaces

### Q7M310

Qseven Module with Intel Atom® x5/x7 Processor



- 8GB DDR3L onboard memory
- 4 PCIe lanes
- 2 SATA-600
- 3 USB 3.2 Gen1 and 4 USB 2.0 (or 2 USB 3.2 Gen1 and 6 USB 2.0 optional)
- Dual-display support via LVDS (eDP optional) and DDI interfaces

## Qseven - Baseboard

### Q7B301

Qseven Rev 2.1 Application Board



- 100 x 72 mini size form factor
- 2 GbE LAN
- SATA-600
- LVDS and HDMI
- 1 USB 2.0 and 2 USB 3.2 Gen1
- 2 PCI Express Mini Card slots

## SMARC Module

### SCM330

SMARC Module with Intel® Core™/Pentium®/Celeron® or Intel Atom® Processors x7000 Series



- LPDDR5-4800 with IBECC support, up to 16GB memory
- Up to 4 PCIe lanes
- 1 SATA Gen3
- 2 USB 3.2 Gen1 and 6 USB 2.0
- SMARC2.1.1 pinout compliance

## Add-on-Cards & Peripherals

### AX92903

Full-Size PCI Express Mini Module with CANBus

- USB to single-channel CANBus port
- Supports CANBus



### AX92902 + AX93287

Full-size PCI Express Mini Module with Gigabit LAN

- Supports 10/100/1000 Mbps transfer rates
- Supports Wake-on LAN
- Supports PXE Boot ROM



### AX92904

Full-size PCI Express Mini Module with 32-bit DIO

- Supports four 8-bit TTL level DIO ports with +5V power
- Each bit is programmable as input or output



### AX92905

Full-size PCI Express Mini Module with Audio

- USB to audio interface with Mic-in, Line-in, and Line-Out
- Supports 1 half-size PCI Express Mini Card slot (PCIe only)



### AX92906

Full-size PCI Express Mini Module with COM

- USB to dual-channel high-speed RS-232 ports
- Supports 1 half-size PCI Express Mini Card slot (PCIe only)



### AX92907

Full-size PCI Express Mini Module with SATA

- 2 independent SATA channels
- Fully compatible with SATA 2.0 and 3.0 HDDs and SSDs
- Supports RAID 0/1
- 2 SATA power connectors with +5V



### AX92920

M.2 Key E Module for 16-bit DIO

- Supports two 8-bit TTL-level DIO ports with +5V power
- Each bit is programmable as input or output



### AX92917

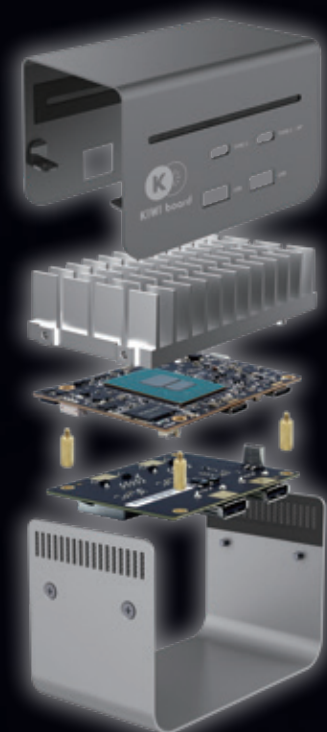
M.2 Key E Module for Gigabit LAN

- Supports 10/100/1000 Mbps transfer rates
- Supports Wake-on LAN
- Supports PXE Boot ROM





# APC Series



## Versatile, Durable, and High-Performance Chassis

Axiomtek's Industrial and Fanless Chassis (APC Series) are designed for seamless integration, reliable performance, and broad compatibility, supporting 1.8", 2.5", and 3.5" SBCs. Scalable for both entry-level and high-performance applications, they enhance functionality with integrated peripherals while remaining cost-effective. Built for durability, these chassis undergo rigorous vibration and shock resistance testing and are EMI/ESD pre-scan certified, ensuring safety and long-term reliability in demanding environments.

### Industrial Chassis for 3.5" Embedded SBC



|                        | APC200                                                                              | APC202                                                                                     | APC205                                                                        |
|------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| SBC Option             | CAPA13R with fan                                                                    | CAPA312 with heatsink                                                                      | CAPA520                                                                       |
| I/O                    | 2 x GbE LAN<br>2 x USB 3.2 Gen2<br>1 x DisplayPort++<br>2 x HDMI<br>1 x 12V DC Jack | 2 x GbE LAN<br>4 x USB 3.2 Gen1<br>1 x HDMI<br>1 x COM (RS-232/422/485)<br>1 x 12V DC Jack | 2 x GbE LAN<br>3 x USB 3.2 Gen1<br>1 x USB 2.0<br>1 x DisplayPort<br>1 x HDMI |
| Dimensions (W x D x H) | 197.4 x 139.6 x 49.6 mm<br>(7.77" x 5.5" x 1.95")                                   | 197.4 x 139.6 x 49.6 mm<br>(7.77" x 5.5" x 1.95")                                          | 197.4 x 139.6 x 43 mm<br>(7.77" x 5.50" x 1.69")                              |
| Operating Temperature  | -10°C to +50°C<br>(+14°F to +122°F)                                                 | -10°C to +50°C<br>(+14°F to +122°F)                                                        | -10°C to +50°C<br>(+14°F to +122°F)                                           |

### Industrial Chassis for Pico-ITX SBC



|                        | APC201                                                                              | APC203                                                                  | APC204                                                       |
|------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------|
| SBC Option             | PICO52R with fan                                                                    | PICO318                                                                 | PICO316                                                      |
| I/O                    | 1 x GbE LAN<br>2 x USB 3.2 Gen2<br>1 x DisplayPort++<br>1 x HDMI<br>1 x 12V DC Jack | 2 x GbE LAN<br>2 x USB 3.2 Gen1<br>1 x DisplayPort++<br>1 x 12V DC Jack | 1 x GbE LAN<br>1 x USB 3.2 Gen1<br>1 x HDMI<br>1 x Audio out |
| Dimensions (W x D x H) | 152.5 x 107.5 x 50 mm<br>(6" x 4.23" x 1.97")                                       | 152.5 x 107.5 x 37.5 mm<br>(6" x 4.23" x 1.48")                         | 152.4 x 107.3 x 38.3 mm<br>(6" x 4.22" x 1.51")              |
| Operating Temperature  | -10°C to +50°C<br>(+14°F to +122°F)                                                 | -10°C to +50°C<br>(+14°F to +122°F)                                     | -10°C to +50°C<br>(+14°F to +122°F)                          |

### Industrial Chassis for 3.5" Embedded SBC

### Fanless Chassis for 1.8" SBC



|                        | APC206                                                                                   | APC207                                                                        |                        | APC208                                                                                    |
|------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|------------------------|-------------------------------------------------------------------------------------------|
| SBC Option             | CAPA55R                                                                                  | CAPA322                                                                       | SBC Option             | KIWI310                                                                                   |
| I/O                    | 2 x GbE LAN<br>3 x USB 3.2 Gen2<br>1 x DisplayPort<br>1 x HDMI<br>1 x 12V to 24V DC Jack | 2 x GbE LAN<br>3 x USB 3.2 Gen2<br>2 x USB 2.0<br>1 x DisplayPort<br>1 x HDMI | I/O                    | 1 x GbE LAN<br>2 x USB 3.2<br>2 x USB 2.0<br>1 x Micro-HDMI<br>1 x USB Type-C power input |
| Dimensions (W x D x H) | 197.4 x 139.8 x 49.6 mm<br>(7.77" x 5.50" x 1.95")                                       | 197.4 x 139.8 x 43 mm<br>(7.77" x 5.50" x 1.69")                              | Dimensions (W x D x H) | 60 x 96 x 37 mm<br>(2.36" x 3.78" x 1.46")                                                |
| Operating Temperature  | -10°C to +40°C<br>(+14°F to +104°F)                                                      | -10°C to +50°C<br>(+14°F to +122°F)                                           | Operating Temperature  | 0°C to +40°C<br>(+32° F to 104° F)                                                        |





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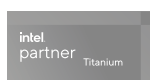
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