ADLINK
Leading EDGE COMPUTING

Industrial Grade Mini-ITX Embedded Boards



Mini-ITX

Intel® and AMD® platforms
Form Fit Function
Extreme Rugged

www.adlinktech.com
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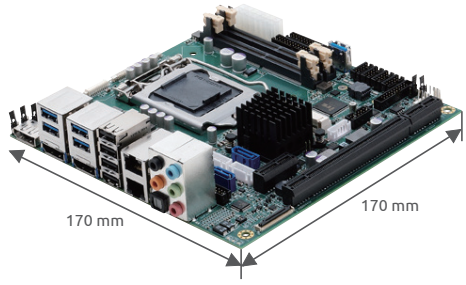
Overview

Smaller, Standard Form Factor for Today's Compact Systems

Industry trends indicate that users require a smaller and lower cost solution for their system requirements. Mini-ITX has a smaller board size and lower keep-out zones to enable a reduced chassis size for systems placed in the user's solution, mounted on a display, or installed in space-restrictive environments. Mini-ITX embedded boards bring the benefit of easy and fast development of industrial computing solutions. In addition to deployment in smaller chassis designed around the Mini-ITX form factor, these boards are compatible with ATX and micro-ATX chassis without the need to retool the I/O shield. Mini-ITX embedded boards are ideal for applications in industrial automation, medical, self-service kiosks, and infotainment driven solutions.

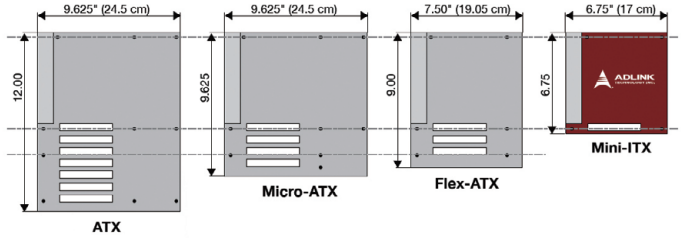
Flexible, High-Speed and Better Connectivity

ADLINK Mini-ITX embedded boards support the latest Intel® and AMD® processors to deliver a high performance and space-saving platform for a wide array of embedded computing applications. Along with its compact footprint, this product line supports high processing speeds and high-bandwidth network connectivity with PCI Express-based Gigabit Ethernet. Coupled with ample memory, diverse I/O, storage, and audio interfaces, ADLINK Mini-ITX embedded boards are suitable for multimedia, automation control, and gaming applications requiring a compact, easy-to deploy, and cost-effective mainboard.



Unique Features:

- Form Fit Function: Placement layout, IO, electrical and mechanical compatibility, CPU generation by generation, platform by platforms
- Dual PCIe expansion slots
- Unique power design for various power supply options: AT 12V DC-in and standard ATX-in

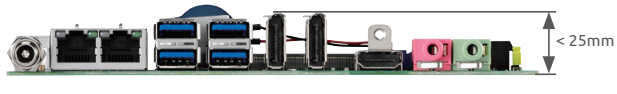


Values of Design

- Compact solution dimensions
- Vertical USB interface onboard
- SATA DOM support
- Socket BIOS and dual BIOS for fail safe operation
- TPM support
- Security solutions, BIOS and BMC customization
- Multi-display support from triple-to-quad display with 4K/2K support (up to 8 displays with PEG card)
- SEMA (Smart Embedded Management Agent)
- Low profile design
- Optional Extreme Rugged variants on AmITX-BT-I embedded with Intel® Atom™ E3800 SoC
- Super rich IO
  (up to 13x USB, 6x COM ports, two Mini PCIe and more)
- Latchable connectors

Thin Mini-ITX

The Thin Mini-ITX form factor is the "premier standard for designing and assembling all-in-one PCs" according to Intel. Measuring 170 mm square and less than 25 mm thick, Thin Mini-ITX fulfills requirements for applications in digital signage, infotainment, medical, and industrial automation that are running in limited-space environments. ADLINK's Thin Mini-ITX boards also follow the Form, Fit, Function design principle to offer standardized pinout locations and are compatible with the Micro-ATX and standard ATX chassis.



Solutions

Medical



- High computing performance
- Powerful graphics
- Lower TDP CPUs
- Long life cycle

Industrial



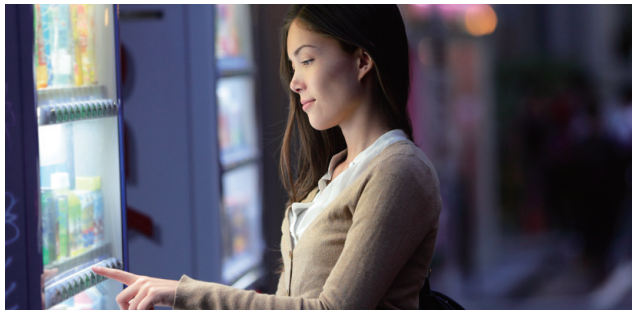
- Embedded OS, Linux, real-time OS
- Long life cycle
- Easy and fast integration

Digital Signage



- Multi-display
- Enhanced graphics performance
- Ultra slim design

Retail



- Rich serial ports and USB ports
- Multi-display with LVDS support
- Effortless connectivity

Banking



- Rich I/O and expansion with stable connection
- Extra security and system protection
- Windows based

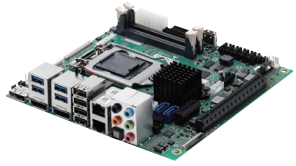
Surveillance



- Support RAID with hot plug
- Support solid video storage device
- Ample PCI Express expansion

High Performance Mini-ITX







Product Name	AmITX-SL-G (Updated)	AmITX-HL-G	AmITX-BE-G
CPU	7th Gen. Intel® Core™ i7-7700/i7-7700T i5-7500/i5-7500T i3-7101E/i3-7101TE 6th Gen. Intel® Core™ i7-6700/6700TE i5-6500/-6500TE i3-6100/6100TE Intel® Pentium® G4400/G4400TE Intel® Celeron® G3900/G3900TE	4th Gen. Intel® Core™ i7-4700S/4770TE/4790S i5-4570S/4570TE/4590S i3-4330/4330TE/4360/4350T Intel® Pentium® G3420/G3320TE Intel® Celeron® G1820/G1820TE	AMD® R series RX-427BB/425BB/225FB
Chipset	Q170 and H110	Q87 and H81	AMD A77E
Memory	Up to 32 GB Dual Channel DDR4 at 2133/1866 MHz	Up to 16 GB Dual Channel DDR3/DDRL3 at 1600/1333 MHz	Up to 16 GB Dual Channel DDRL3 at 1600/1333 MHz
Integrated Graphics	Intel® Gen 9 graphics 3 DisplayPort, LVDS co-lay with eDP (opt.)	3 DispayPort, LVDS (opt.)	AMD® Radeon HD 9000 4 DisplayPort, LVDS (opt.)
SATA	3x SATA 6 Gb/s	Q87: 3x SATA 6 Gb/s H81: 1x SATA 3 Gb/s and 2x SATA 6Gb/s	3x SATA 6.0 Gb/s
LAN	1x Intel® i219LM/i219-V, GbE 1x Intel® i211AT, GbE	1x Intel® i218LM, GbE 1x Intel® i211AT, GbE	2x Intel® i211AT, GbE
Serial Port	1x RS-232/422/485 3x RS-232		
USB	Q170: 7x USB 3.0, 4x USB 2.0 H110: 4x USB 3.0, 7x USB 2.0	Q87: 4x USB 3.0, 9x USB 2.0 H81: 2x USB 3.0, 11x USB 2.0	4x USB 3.0 9x USB 2.0
Expansion Slots	1x PCIe x16, 1x PCIe x1 1x full size Mini PCIe + USB or mSATA 1x half size Mini PCIe+USB 1x SPI header for external BIOS	1x PCIe x16, 1x PCIe x1 1x full size Mini PCIe + USB or mSATA 1x half size Mini PCIe + USB 1x SPI header for external BIOS	1x PCIe x16, 1x PCIe x1 1x full size Mini PCIe + USB or mSATA 1x half size Mini PCIe + USB 1x SPI header for external BIOS
SEMA Support	Yes		
Power Supply	12V ±5% / 5Vsb ±5% (ATX), 12V ±5% (AT) Onboard headers for fan and SATA power		
Operating Temperature	0˚C to +60˚C		
Form Factor & Compatibility	170 mm x 170 mm (L x W)		
OS support	7th Gen: Windows 10. Linux, VxWorks 6th Gen: Windows 7/8.1/10, WES 7, Linux, VxWorks	Windows 7/8, WES 7/8, Linux, VxWorks	Windows 7/8, WES 7/8, Linux

Note:
- Optional TPM support for special bill of materials
- Optional -40°C to +85°C support: Standard product with 100% ETT screening available for selected CPU SKUs and std. 12V power supply only
- All specifications are subject to change without further notice.

Low Power Consumption Mini-ITX







Product Name	AmITX-AL-I	AmITX-BW-I	AmITX-BT-I
CPU	Intel® Atom™ E3900 series SoC Intel® Pentium® N4200 Intel® Celeron® N3350	Intel® Pentium® N3710 Intel® Celeron® N3160/N3060/N3010 Intel® Atom™ x5-E8000	Intel® Atom™ E3800 series SoC Intel® Celeron® N2930/J1900
Memory	Up to 16 GB non-ECC Dual Channel DDR3L at 1866/1600 MHz	Up to 8GB non-ECC Dual Channel DDR3L at 1600/1333 MHz	Up to 8 GB non-ECC Dual Channel DDRL3 at 1333/1066 MHz
LAN	2x Intel® i211AT, GbE		
Serial port	2x RS-232/422/485 4x RS-232	2x RS-232/422/485 4x RS-232	3x RS-232/422/485 3x RS-232
USB	4x USB 1.1/2.0/3.0 4x USB 1.1/2.0		
Integrated Graphics	1x HDMI, 1x DisplayPort (2x DP is opt.), LVDS, eDP (opt.)	1x HDMI, 2 DisplayPort, LVDS, eDP (opt.)	VGA, HDMI, LVDS
Expansion slots	1x PCIe x1, 1x Mini-PCIe, 1x mSATA 1x SPI header for external BIOS	1x PCIe x1, 1x Mini-PCIe, 1x mSATA 1x SPI header for external BIOS	1x PCIe x1, 1x Mini-PCIe, 1x mSATA 1x SPI header for external BIOS
SEMA Support	Yes		
Power Supply	12V ±5% Supports ATX/AT mode Onboard headers for fan and SATA power	12V ±5% Supports ATX/AT mode Onboard headers for fan and SATA power	Std: 12V ±5% / 5Vsb ±5% (ATX), 12V ±5% (AT) Supports ATX/AT mode Onboard headers for fan and SATA power
Operating Temperature	0°C to +60°C -40°C to +85°C (opt.)	0˚C to +60˚C	0°C to 60°C -40°C to + 85°C (opt.)
Form Factor & Compatibility	170 mm x 170 mm (L x W)		
OS support	Windows 10, Linux, VxWorks	Windows 7/8.1/10, WES 7, Linux, VxWorks	Windows 7/8, Linux, VxWorks

Note:
- Optional TPM support for special bill of materials
- Optional -40°C to +85°C support: Standard product with 100% ETT screening available for selected CPU SKUs and std. 12V power supply only
- All specifications are subject to change without further notice.

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