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What's New?

Updated Mini-ITX Addendum Version 1.1 To the microATX Motherboard Interface Specification Version 1.2 — Revision 1.1 - [387 KB]

Mini-ITX is a motherboard form factor standard developed by Via Technologies, Inc. step to the ATX form factor in path for smaller systems. This serves as an addendum to the microATX Motherboard Interface Specification and utilizes the board dimension defined by Mini–ITX. This document defines only the specific features in Intel's Mini- ITX based platforms that differ from those of microATX and should be used in conjunction with the governing microATX specification.

Updated Thermally Advantaged Small Chassis (TASC) Design Guide — Revision 1.0 - [401 KB]

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Form Factors

For information and specifications please see the following links:

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ATX Motherboard

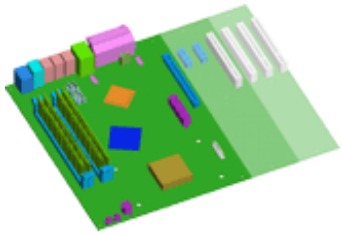
ATX was developed as an evolution of the Baby-AT form factor and was defined to address ease of use, support for current and future I/O, support for current and future processor technology, and reduced total system cost.

- ATX Specification v2.2 Revision 2.2 - [432 KB] Key changes for the ATX Specification Version 2.2 include Main Power Connector changed from 20 pin to 24 pin (2 x12) to support PCI-Express* requirements and removed Aux Power Connector Recommendation if using a power supply designed using ATX12V Power Supply Design Guide Rev 2.0 or greater. Also updated the +3.3 V tolerance.

Related Topics

- ATX Specification v2.1 Revision 2.1 - [281 KB] This specification covers both motherboards and chassis.
- ATX Riser Card Specification v1.0 Revision 1.0 - [282 KB]

Balanced Technology Extended (BTX) Form Factor



The BTX form factor specification gives developers options to balance thermal management, acoustics, system performance, and size in the system form factors and stylish designs that are desired in today's products. The BTX form factor is a clear break from previous ATX form factor layouts and was developed with emerging technologies such as Serial ATA, USB 2.0, and PCI Express*.

Thermal improvements come primarily from taking advantage of **in-line airflow**. The BTX defined **in-line airflow** layout allows many of the main board components (i.e.: processor, chipset, and graphics controller) to utilize the same primary fan airflow, thereby reducing the need for, and noise from, additional system fans. In some cases this also allows fewer and/or less expensive heat sinks to be used when compared to ATX solutions. The system level acoustics are also improved by the reduced air turbulence within the **in-line airflow** system. The BTX layout supports better component placement for back panel I/O controllers – important as the signal speed of external devices continues to increase. In addition to smaller than microATX system sizes, BTX was designed to scale up to tower size systems using the same core layout by increasing the number of system slots included.

- Balanced Technology Extended (BTX) Interface Specification Revision 1.0b - [305 KB]

Related Topics

- Balanced Technology Extended (BTX) Interface Specification v1.0a Revision 1.0a - [418 KB]
- Balanced Technology Extended (BTX) Interface Specification Errata A Revision 1.0 - [259 KB]
- Balanced Technology Extended (BTX) System Design Guide v1.1 Revision 1.1 - [5 MB]
- Balanced Technology Extended (BTX) Entertainment PC Case Study Revision 1.0 - [754 KB]