# **Balanced Technology Extended** (BTX) Interface Specification

Errata A

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Errata A, February 2004

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## **Revision History**

Version	Description	Date
Errata A	Errata to Balanced Technology Extended (BTX) Interface Specification, Version 1.0	February 2004

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## Introduction

The errata in this document are corrections and clarifications for the *Balanced Technology Extended (BTX) Interface Specification, Version 1.0* released September 2003.

## **Erratum 1**

To correct an error in the original figure, align the side view with the plan view as indicated in Figure 2, page 12.

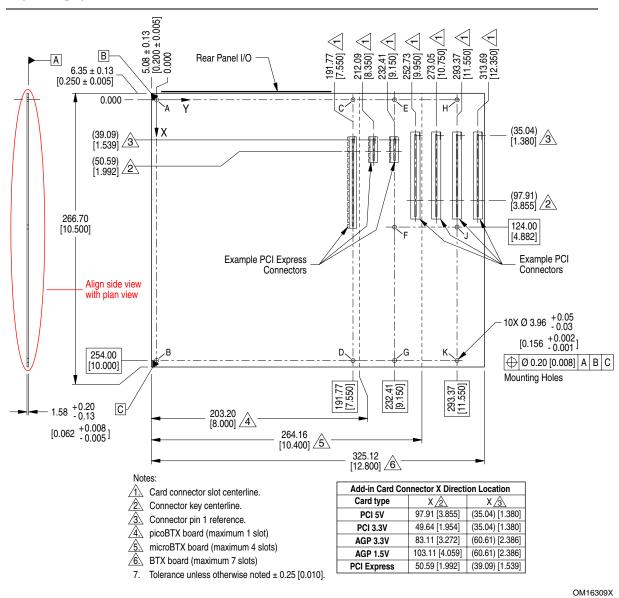


Figure 2. BTX Form Factor Board and Mounting Hole Dimensions

In order to clarify the examples and rules for the motherboard volumetric zones, make the highlighted changes shown below in Table 6 on page 14.

Table 6. Categories and Requirements for Motherboard Volumetric Zones

Category	Examples	Requirements
Motherboard components	Memory modules, processors, rear panel motherboard connectors and mating cable connectors, rigid portions of motherboard-terminated cable assemblies, component heatsinks, components soldered to motherboard	Must fit completely within the motherboard volumetric zones (primary and secondary side)
Chassis components	Chassis walls, chassis pan, motherboard mounting features, peripheral mounting brackets	Must not intersect the motherboard volumetric zone at any point. In addition, adequate clearance should be provided between the chassis, the motherboard volumetric and installed system components to avoid component interference and/or damage during shipping or other dynamic conditions.
Transition components	Add-in cards, air ducts, Thermal Module, SRM, flexible cabling from the motherboard to system components, motherboard EMI grounding feature	May cross the outer boundary of the motherboard volumetric zone. Some of these components, such as add-in cards, may have their own mechanical volumetric specifications which should be considered by the designer in addition to those specified in this document. The Thermal Module should not intersect the top boundary of Zones A and C, but will intersect the boundaries adjacent to chassis Zones F and G to extend into these zones. The Thermal Module can reside across multiple zones (typically Zones A, C, F, G, and H). The module should not intersect the top boundaries of any of the volumetric zones.
Other System components	Disk drives, front panel cards, system power supply, and other system components not listed above	Must not intersect the motherboard volumetric zone at any point. In addition, should provide adequate clearance between installed system components and the motherboard volumetric zone to avoid component interference and/or damage during shipping or other dynamic conditions.

To correct errors in the original Figure 5, page 16:

- To resolve an inconsistency between Figure 5 and the specification text, delete the references to Datum A. As stated in the text, the volumetrics in this figure should be referenced from the bottom side of the motherboard.
- To clarify the figure, simplify the side view as shown.
- 10.16 should be a "hard dimension" rather than reference.

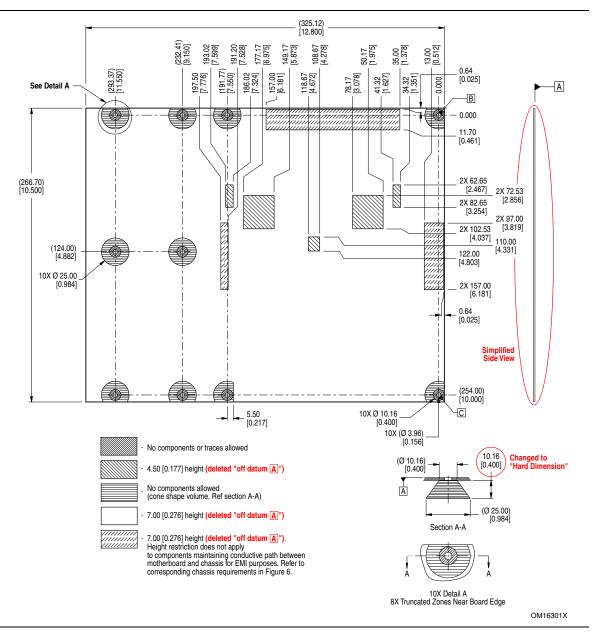


Figure 5. Motherboard Secondary Side Volumetric Zones

To clarify the examples for motherboard volumetric zones and the features allowed in Zones F, G, H, and J, make the highlighted changes shown below in Table 7 on page 17.

Table 7. Categories and Requirements for Chassis Zones

Category	Examples	Requirements
Motherboard Components	Memory modules, processors, rear panel motherboard connectors and mating cable connectors rigid portions of motherboard-terminated cable assemblies, component heatsinks, and components soldered to motherboard	Must not intersect any of the chassis volumetric zones at any point. In addition, adequate clearance should be provided between installed system components and the chassis volumetric to avoid component interference and/or damage during shipping or other dynamic conditions.
Chassis	Chassis pan, board mounting features, and drive bays	Must not intersect volumetric zones G, H, or F.
Components		Chassis features in Zone K must not intersect the upper boundary of Zone K.
		Only the features called out in Figure 6 and Figure 7 are allowed in Zone J.Only the interface features called out in Figure 7 and Figure 8 are allowed in Zones F, G, H, and J. No other chassis features should intersect this zone.
		Board mounting features should stay within the zones specified for these features.
Transition Components	SRM and Thermal Module	May cross the outer boundary of some chassis zones. Components such as an SRM may have their own requirements which should be considered by the designer in addition to those specified in this document.
Other System Components	Disk drives and system power supply	Must not intersect any of the chassis volumetric zones at any point. In addition, adequate clearance should be provided between installed system components and the chassis volumetric to avoid component interference and/or damage during shipping or other dynamic conditions.

To correct an error in the original figure, correct the side view as indicated in Figure 6, page 18.

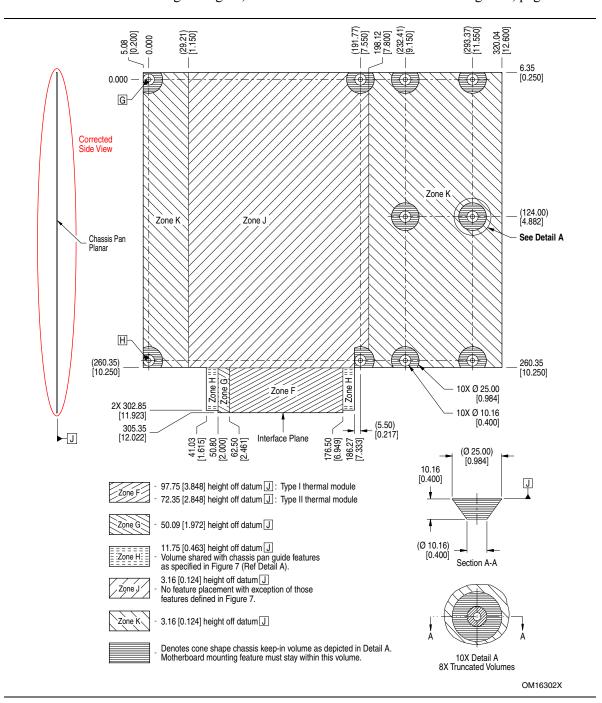


Figure 6. Chassis Volumetric Zones

To correct an error in the original figure, align the side view as indicated in Figure 7, page 20.

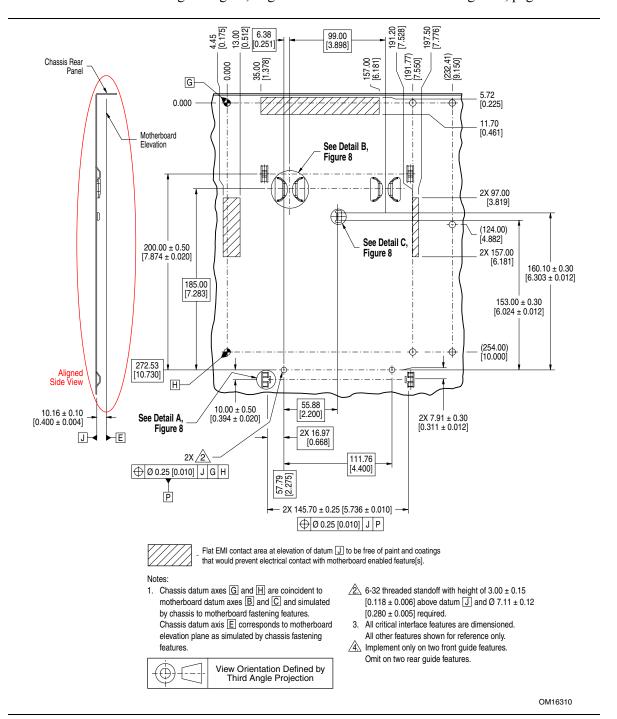


Figure 7. Chassis Interface to SRM Requirements

To correct errors in the original Figure 8, page 21:

- Change the dimensions as indicated.
- Clarify Note 4 as shown.
- Correct Section A-A. In the original figure, the cut was made in the wrong orientation. (No dimensions were changed in Section A-A.)

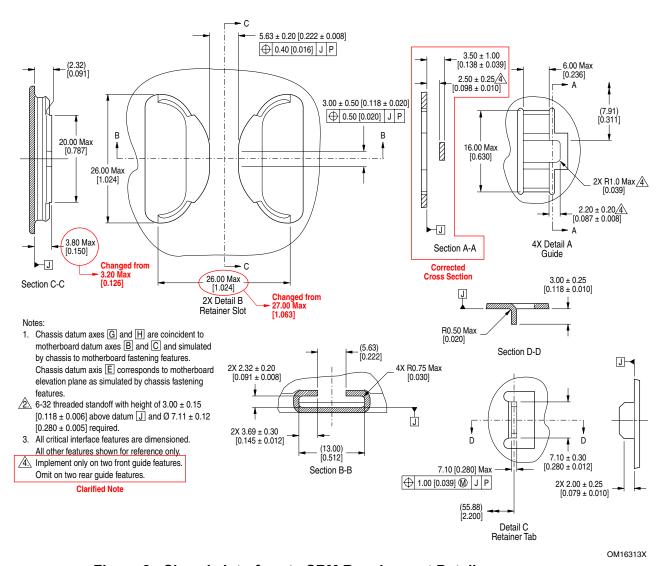


Figure 8. Chassis Interface to SRM Requirement Details

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To correct errors in the original figure, add Datum Axes G and H to the side view and Datum Axis G to the plan view as indicated, in red, in Figure 10, page 23.

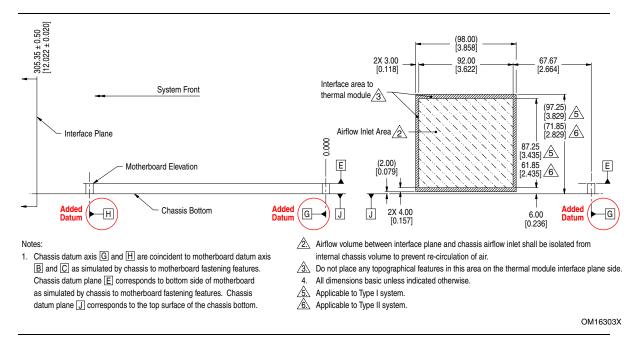


Figure 10. Chassis Requirements for Thermal Module Interface Definition

## **Erratum 9**

To correct an error in the original Figure 11, page 24, delete the reference to Figure 12 in Note 2. This reference was not correct due to a publishing error. The reference is not critical to the drawing so it is being removed to prevent similar cross reference issues in the future.

#### **Erratum 10**

To correct errors in the original Figure 12, page 25, delete the references to Figure 11 in Note 1 and Note 2. These references were not correct due to a publishing error. The references are not critical to the drawing so they are being removed to prevent similar cross reference issues in the future.