DTX
Mechanical Interface Specification

Publication # **42197** Revision: **1.00**
Issue Date: **February 2007**

Contents

List of Figures

List of Tables

Revision History

Date	Revision	Description
February 2007	1.00	Initial public release.

DTX
Mechanical Interface Specification

The *DTX Mechanical Interface Specification* describes the requirements for the locations, dimensions, and keepouts of features/components on the motherboard and for the rear I/O connector panel. This document also provides the pinouts for the power connectors. This document is intended for both motherboard designers and chassis builders to assist them in independently designing compatible products.

Motherboard Requirements

Figure 1 on page 6 shows the following mechanical requirements:

- Overall size
  - DTX – 9.60 in x 8.00 in (243.84 mm x 203.20 mm)
  - Mini-DTX – 6.70 in x 8.00 in (170.18 mm x 203.20 mm)
- Mounting hole locations
- Rear I/O dimensions and locations
- PCI and/or PCI Express® connector locations

Major Connector Requirements

The designer must adhere to the requirements for the following major connectors. Also listed are the references in this document where these requirements can be found.

- Expansion Slot Connector Locations – Refer to Figure 1 on page 6.
  ***Note**: Either PCI or PCI Express® connectors can be used in the two connector locations.*
- Back Panel I/O Panel Dimension and Location – Refer to Figure 4 and Figure 5 on page 8.
- 24-Pin Power Connector Pinout – Refer to Figure 6 on page 9.
- 2x2 Power Connector Pinout – Refer to Figure 7 on page 9.

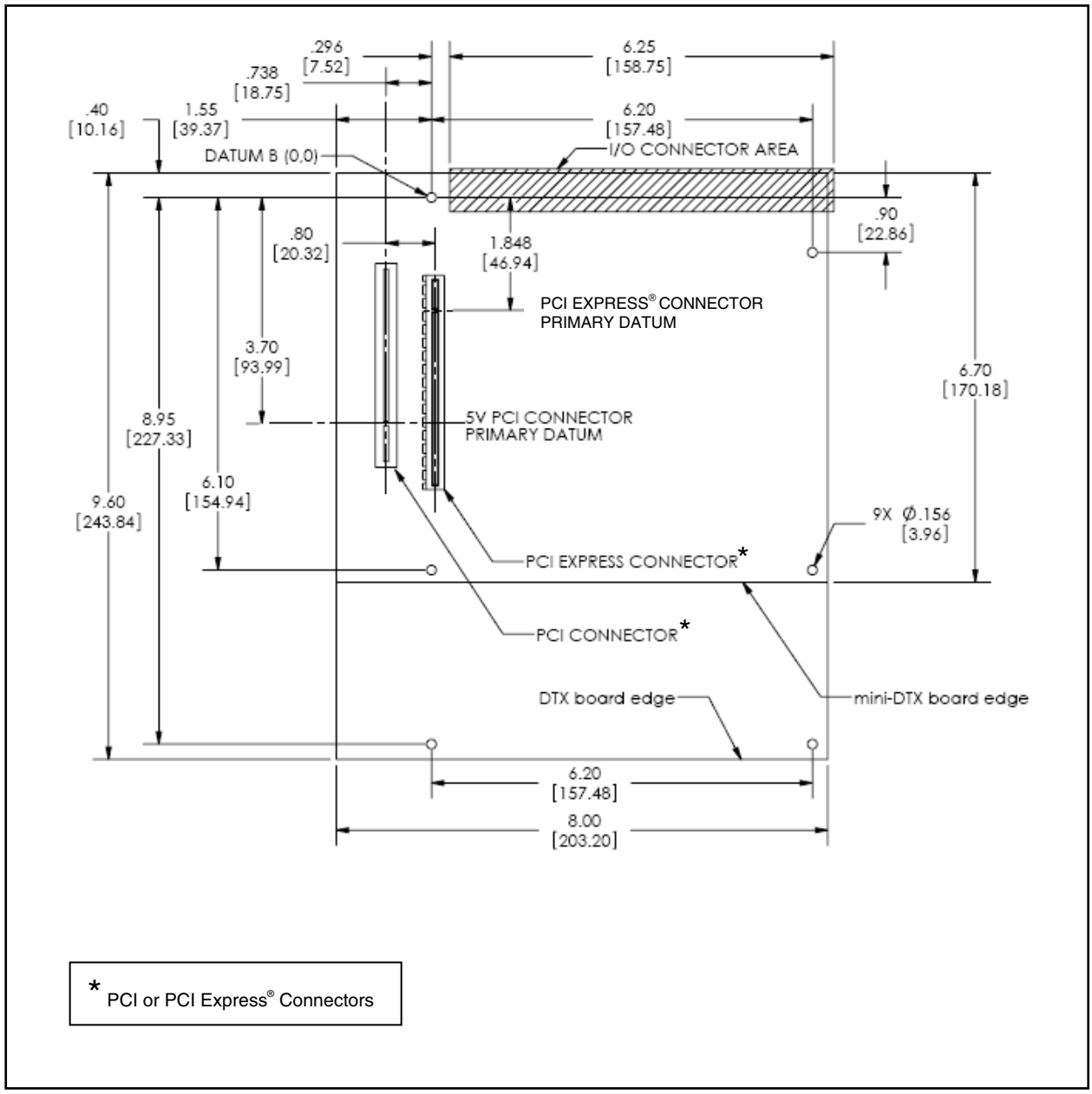

Figure 1. Mechanical Requirements

Keepouts

Figures 2 and 3 on page 7 show the primary and secondary sides of the motherboard respectively. Table 1, also on page 7, lists the maximum component height by area (denoted by letters A through E shown in these figures).

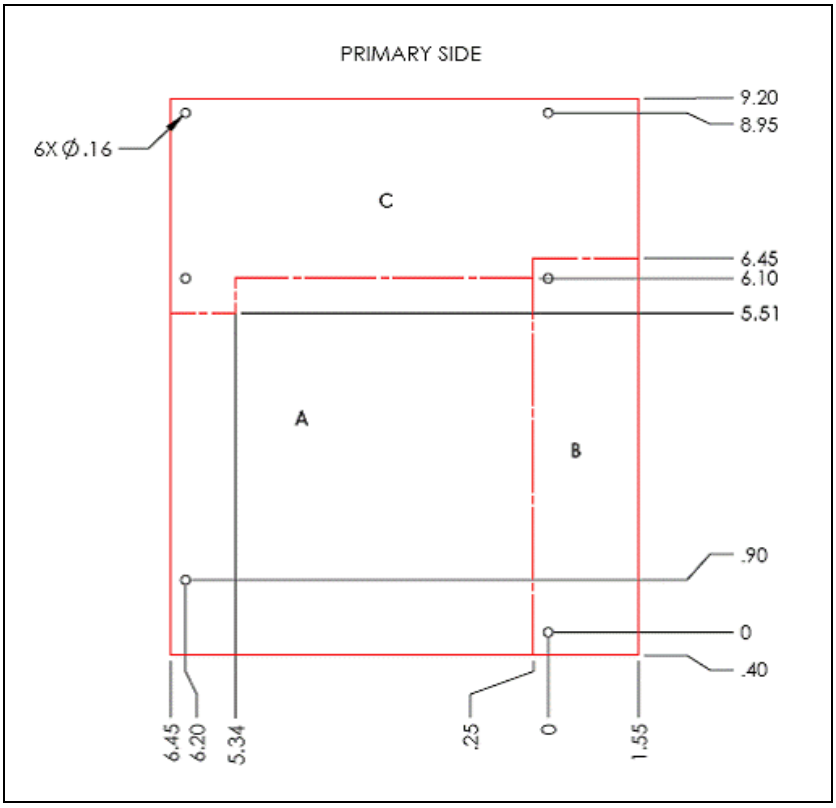

Figure 2. Keepouts – Primary Side

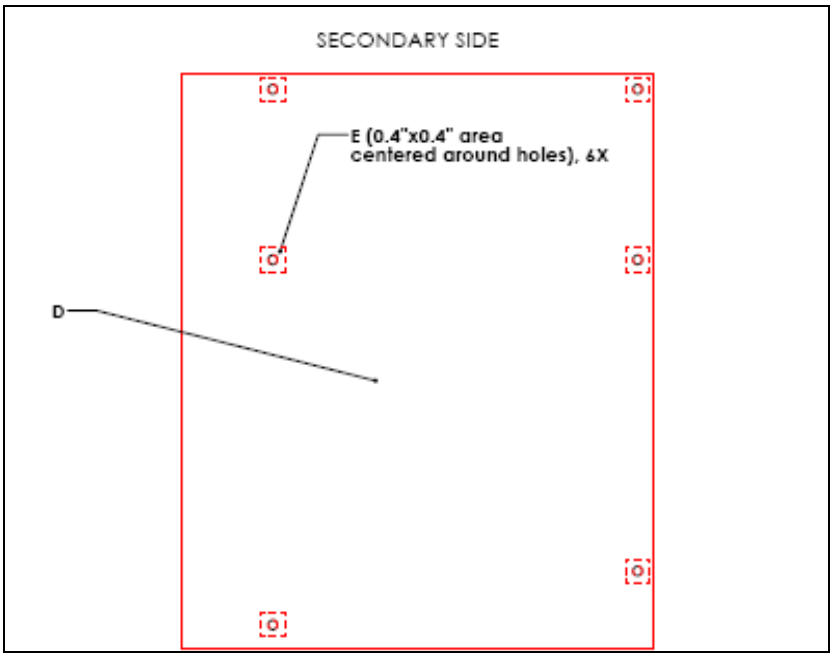

Figure 3. Keepouts – Secondary Side

Table 1. Keepouts

Area	Maximum Component Height
A	2.8 in (71.12 mm)
B	0.60 in (15.24 mm)
C	1.38 in (35 mm)
D	0.098 in (2.49 mm)
E	0.010 in (0.254 mm)

Rear I/O Connector Panel Requirements

Figure 4 and Figure 5 show the requirements for the opening of the rear I/O connector panel.

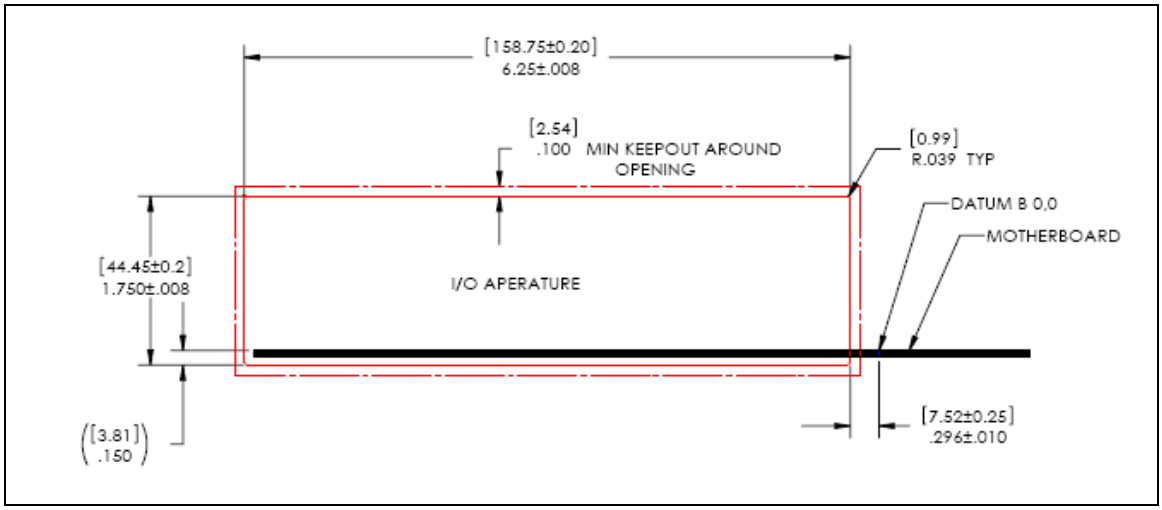

Figure 4. Chassis I/O Aperture Requirements

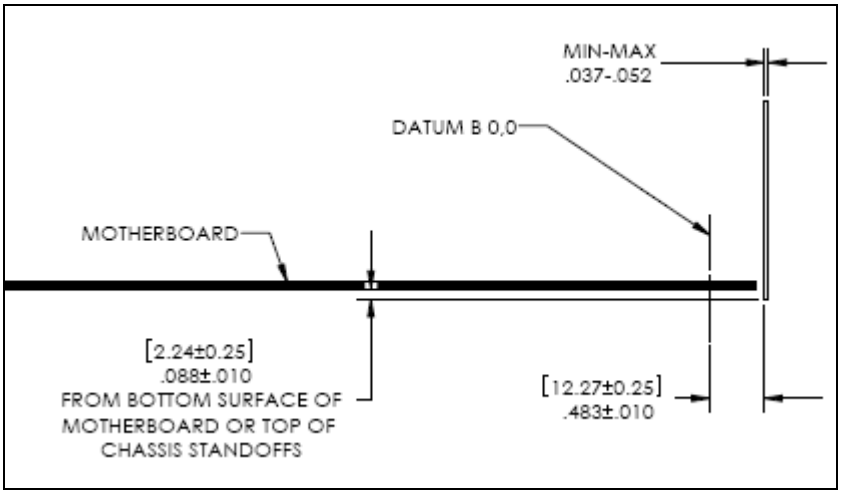

Figure 5. Chassis I/O Rear Panel Location

Power Supply Pinouts

DTX uses the standard 24-pin power connector (Molex 44206-0007 or equivalent motherboard header) and 2x2 power connector (Molex 39-29-9042 or equivalent motherboard header). Figure 6 and Figure 7 show the pinouts for the 24-pin main connector and 2x2 +12V power connectors respectively.

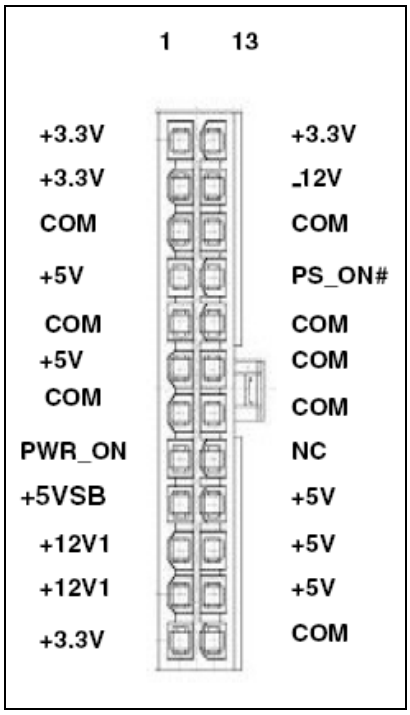

Figure 6. 24-Pin Power Connector Pinout

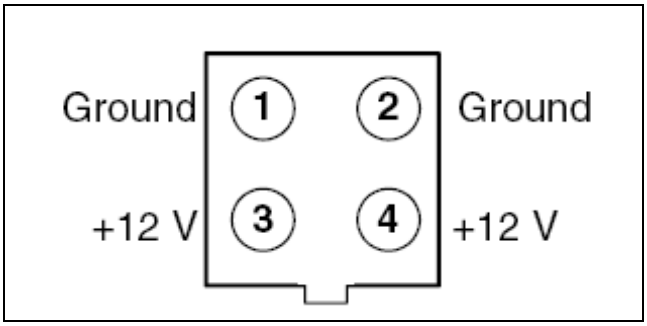

Figure 7. 2x2 Power Connector Pinout

References

For additional information, refer to the following documents:

- *PCI and PCI Express® Specifications* (http://www.pcisig.com/specifications)
- *DTX System Reference Design Guidelines*