

x1 to x16 PCI Express Riser

Hardware Manual

May 20, 2012

Revision 1.0

Contents

1	About this Document.....	4
	1.1 Purpose.....	4
	1.2 Feedback	4
	1.3 Revision History	4
2	General Description.....	5
	2.1 Introduction	5
3	Hardware Description.....	6
	3.1 Specification.....	6
	3.2 Layout	6
	3.3 Connectors/Jumpers.....	6
4	Ordering Information	8
	4.1 Standard package.....	8
5	Appendix A: Limited warranty.....	9

Figures

Figure 1: x1 to x16 PCI Express Riser 5

Tables

Table 1: x1 to x16 PCI Express Riser connectors 6
Table 2: x1 to x16 PCI Express Riser jumpers 7

1 About this Document

1.1 Purpose

This document describes Hardware installation, features, specification and operation for AMFELTEC x1 to x16 PCI Express Riser.

1.2 Feedback

AMFELTEC Corp. makes every effort to ensure that the information contained in this document is accurate and complete at time of release. Please contact AMFELTEC Corp. if you find any errors, inconsistency or have trouble understanding any part of this document.

To provide your feedback, please send an email to support@amfeltec.com

Your comments or corrections are greatly valued in our effort for excellence and continued improvement.

1.3 Revision History

Rev. No.	Description	Rev. Date
1.0	Initial Release.	May 20, 2012

2 General Description

2.1 Introduction

x1 to x16 PCI Express Riser (Riser) allows plug in any downstream PCI Express board (x1, x4, x8, x16) to the upstream x1 PCI Express connector.

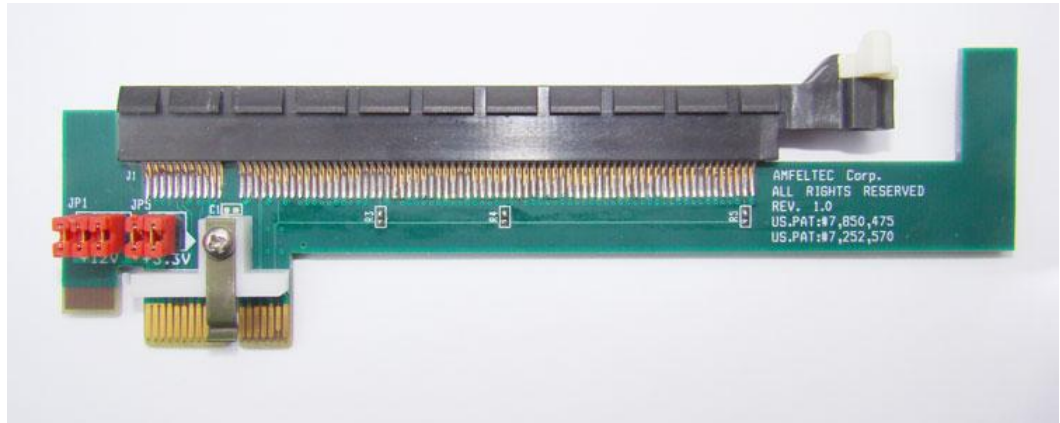


Figure 1: x1 to x16 PCI Express Riser

Riser has two support tabs for mechanical stabilization of add-in PCI Express expansion board (US Patent 7,255,570) and PCI Express retainer (US 7,850,475) that securely holds Riser inside upstream PCI Express connector.

The Riser functions right out of the box, no additional software needs to be installed.

3 Hardware Description

3.1 Specification

- Compliant with PCI Express Specification 2.1 (5 Gbit/sec. bandwidth).
- Dimensions 132 mm x 13 mm x 35 mm

3.2 Layout

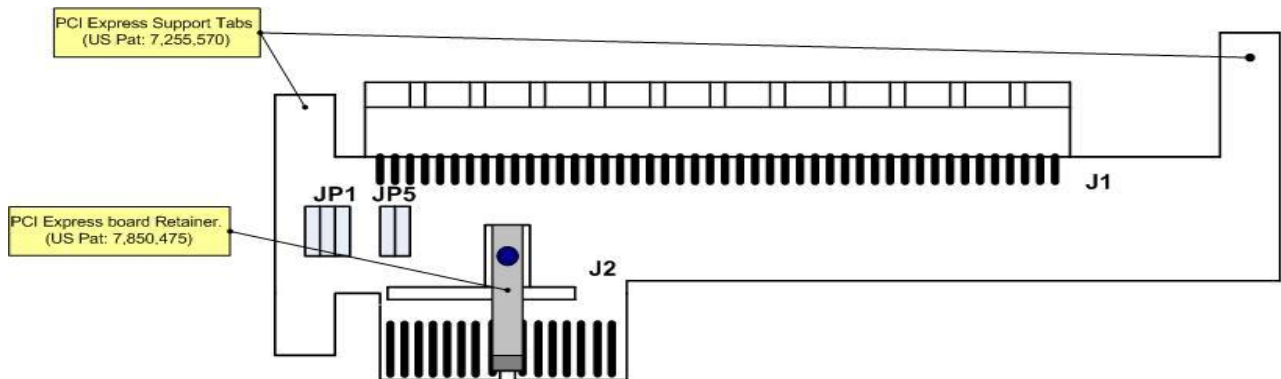


Figure 2: x1 to x16 PCI Express Riser layout

3.3 Connectors/Jumpers

RefDes	Type	Usage
J2	Upstream x1 PCI Express connector	Connection to the upstream PCI Express connector (for example motherboard)
J1	Downstream x16 PCI Express Connector	First lane of this connector is connected to the first lane of the upstream PCI Express Connector

Table 1: x1 to x16 PCI Express Riser connectors

RefDes	Type	Usage
JP1	Block of three 2 pin 2.5 mm jumpers	Via these jumpers 12V power passing from upstream to downstream PCI Express connector
JP5	Block of two 2 pin 2.5 mm jumpers	Via these jumpers 3.3V power passing from upstream to downstream PCI Express connector

Table 2: x1 to x16 PCI Express Jumpers

4 Ordering Information

4.1 Standard package

Standard package include the following components:

- x1 to x16 PCI Express Riser

5 Appendix A: Limited warranty

AMFELTEC Corporation does not warrant that the operation of the hardware, software or firmware products will be uninterrupted or error free. AMFELTEC products are not intended to be used as critical components in life support systems, aircraft, military systems or other systems whose failure to perform can reasonably be expected to cause significant injury to humans. AMFELTEC expressly disclaims liability for loss of profits and other consequential damages caused by the failure of any product which would cause interruption of work or loss of profits, such as shipboard or military attachment.

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. THE WARRANTIES PROVIDED HEREIN ARE BUYER'S SOLE REMEDIES. IN NO EVENT SHALL AMFELTEC CORPORATION BE LIABLE FOR DIRECT, SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES SUFFERED OR INCURRED AS A RESULT OF THE USE OF, OR INABILITY TO USE THESE PRODUCTS. THIS LIMITATION OF LIABILITY REMAINS IN FORCE EVEN IF AMFELTEC CORPORATION IS INFORMED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow the exclusion or limitation on incidental or consequential damages, so the above limitation and exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.