



PCIeEXT-16

Smart PCIe Bus Extender

Product Specification and Manual – v1.00

May 2, 2007

Furaxa, Inc.

34 Canyon View, Orinda, CA 94563

(925) 253-2969

Fax (925) 253-4894

e-mail : support@furaxa.com

URL : www.furaxa.com

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1. Warranty

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Some states do not allow the exclusion or limitation of 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.

2.INTRODUCTION:

The PCIe-EXT-16 is a high-speed 16 lane PCI-express (PCIe) Bus Extender Card supporting x16, x8, x4, x2 and x1 PCIe Cards (referred to as Units-Under-Test, or UUTs). PCIe signal integrity requirements are met with high-speed trace layout parameters (controlled high impedance and low ground inductance). The PCIe-EXT-16 offers power monitoring and overcurrent indication, facilitating rapid troubleshooting and testing.

3.FEATURES:

General:

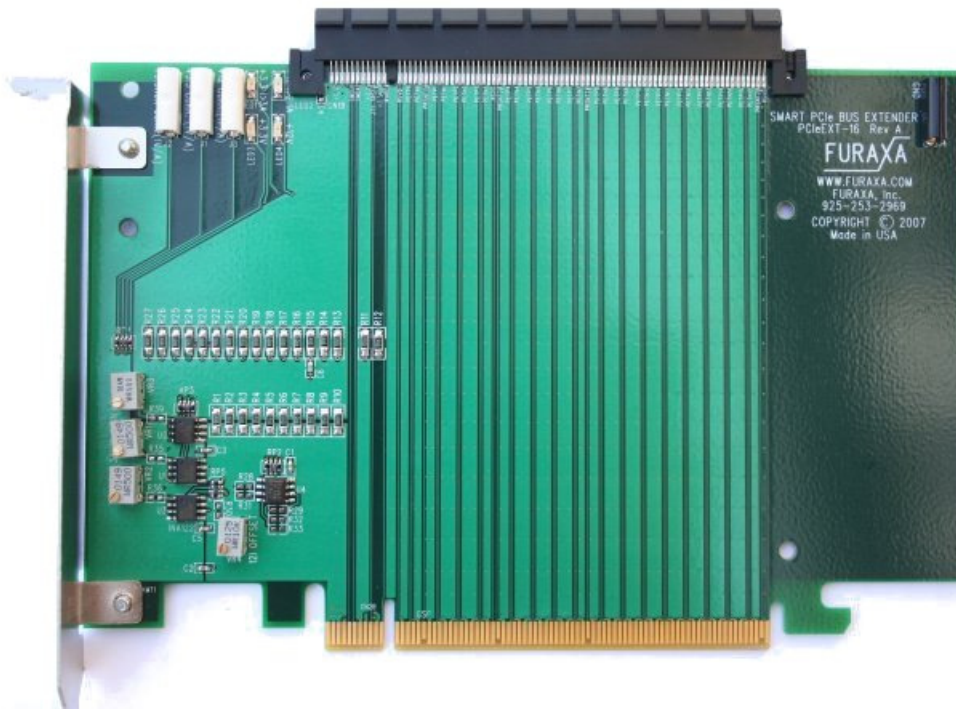
Lubricated x16 top connector enables thousands of insertions

Controlled-Impedance traces for all high-speed signals

Current Indicating test points with 1V/A output, indicate current consumption of UUT on 12 Volt, 3.3 Volt, and 3.3Vaux supplies.

Two Green LEDs indicate presence of +12V and +3.3V power.

Two red LEDs indicate overcurrent on +12V and combined +3.3V and +3.3AUX supplies.



Current Measurement Test Points:

The PCIe-EXT-16 allows real-time measurement of power consumption during board operation. A voltmeter or oscilloscope can be connected with its “+” lead to either the +12 CURR, +3.3 CURR or +3.3AUX CURR white test points, and its “-“ lead to the black GND test point. The voltage output on these test points has a 1:1 Volt-to-Ampere correspondence. Hence, a reading of 2.4V on the +3.3 CURR test point indicates that the UUT is drawing 2.4 *amperes* from the +3.3V supply.

4.Installing the PCIe-EXT-16 into a system:

To install the PCIe extender, power down the host computer and install the PCIe-EXT-16 into a x16 PCIe slot. **Secure the extender using a screw in the metal bracket, and engage the retention mechanism (if present).** Power up the host computer. Note that **for proper operation, the PCIe-EXT-16 must be installed in a PCIe slot with all PCIe voltages (+12, +3.3, +3.3aux) present.**

After insuring that the computer is operating correctly, power down the computer and plug in a **known good** Unit Under Test (UUT) into top of the extender card. Repeat the power-up process to verify that the UUT is functioning correctly.