



Board Specification

NVIDIA Quadro Plex
Interface Card

August 2006
BD-02547-001_v01

Document Change History

Version	Date	Reason for Change
01	August 15, 2006	Initial Release

Table of Contents

NVIDIA Quadro Plex Interface Card Overview	1
Key Features.....	1
Mechanical Specifications	2
Placement of Standard I/O Connectors.....	4
Component Information.....	6
VHDCI Cable Connectors	6
USB Mini B Connector.....	8
Cooling Solution	9
Support Information	11
Certificates and Agencies	11
Certifications	11
Agencies	11

List of Figures

Figure 1.	NVIDIA Quadro Plex Interface Card with Standard Bracket.....	2
Figure 2.	NVIDIA Quadro Plex Interface Card with Low Profile Bracket.....	3
Figure 3.	Standard Connector Placement (Standard Bracket).....	4
Figure 4.	Standard Connector Placement (Low Profile Bracket).....	5
Figure 5.	VHDCI Connector Cable	7
Figure 6.	USB Mini B Connector	8
Figure 7.	Passive Heat Sink	9

List of Tables

Table 1.	USB Mini B Connector Pinout.....	9
----------	----------------------------------	---

NVIDIA Quadro Plex Interface Card Overview

The NVIDIA Quadro® Plex interface card is a PCI Express desktop add-in card used to expand a workstation server ×16 slot to an ×16 PCI Express cable connection.

Key Features

Board

- ❑ Low Profile
- ❑ Physical dimensions: 2.713 inches × 6.60 inches
- ❑ PCI Express ×16
- ❑ Power: Draws 1 A from 12 V and 0.2 A from 3.3 V through PCI express slot.
- ❑ Power: 12.6 W
- ❑ Mean time between failures (MTBF): TBD

Connectors

- ❑ Very high density cable interconnect (VHDCI) connectors dual stacked for PCI Express cable
- ❑ USB mini B connector

Mechanical Specifications

The NVIDIA Quadro Plex interface card is a 2.713 inches by 6.60 inches. PCI Express card.

Figures 1 and Figure 2 show the NVIDIA Quadro Plex interface card with the standard bracket or the low profile bracket.



Figure 1. NVIDIA Quadro Plex Interface Card with Standard Bracket



Figure 2. NVIDIA Quadro Plex Interface Card with Low Profile Bracket

Placement of Standard I/O Connectors

Figure 3 and Figure 4 show the standard locations for the connectors on a standard bracket and low profile bracket.

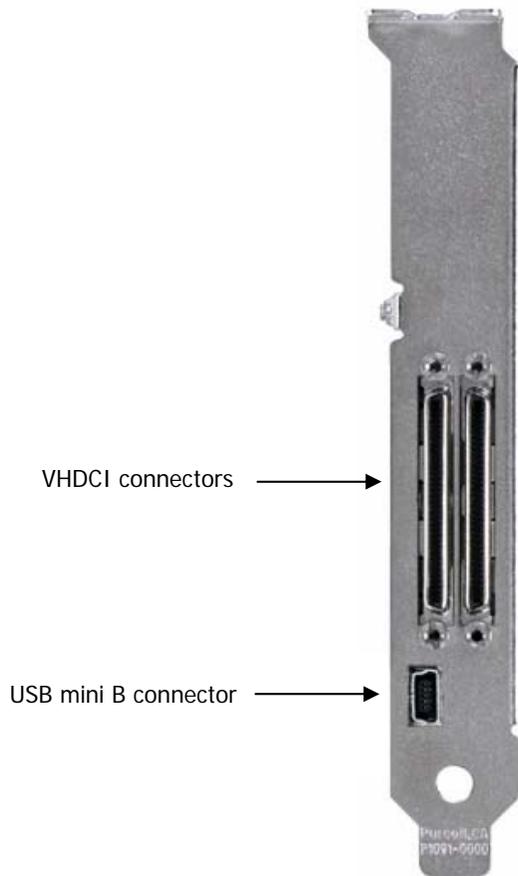


Figure 3. Standard Connector Placement (Standard Bracket)

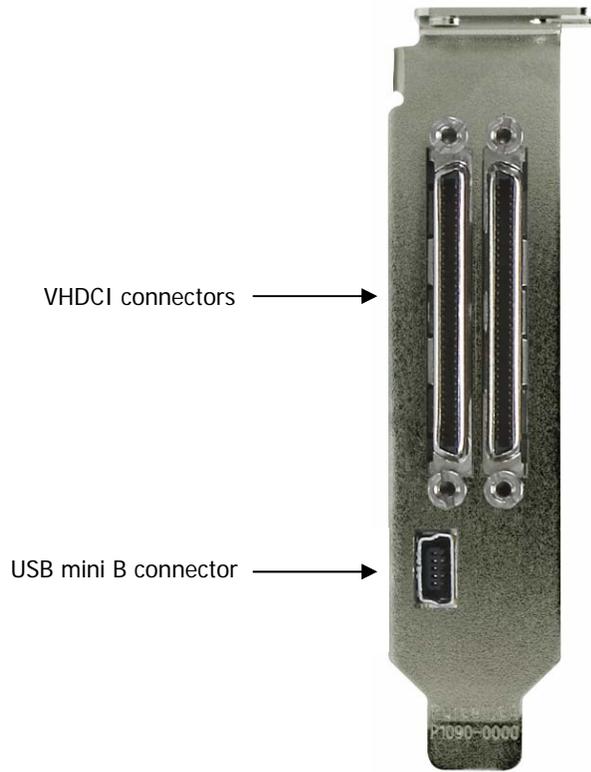


Figure 4. Standard Connector Placement (Low Profile Bracket)

Component Information

The NVIDIA Quadro Plex interface card supports the following connectors.

- VHDCI connectors dual stacked for PCI Express cable
- USB mini B for USB hub

VHDCI Cable Connectors

The NVIDIA Quadro Plex interface card supports a VHDCI cable connector (Figure 5) interface as one 16 lane interface.

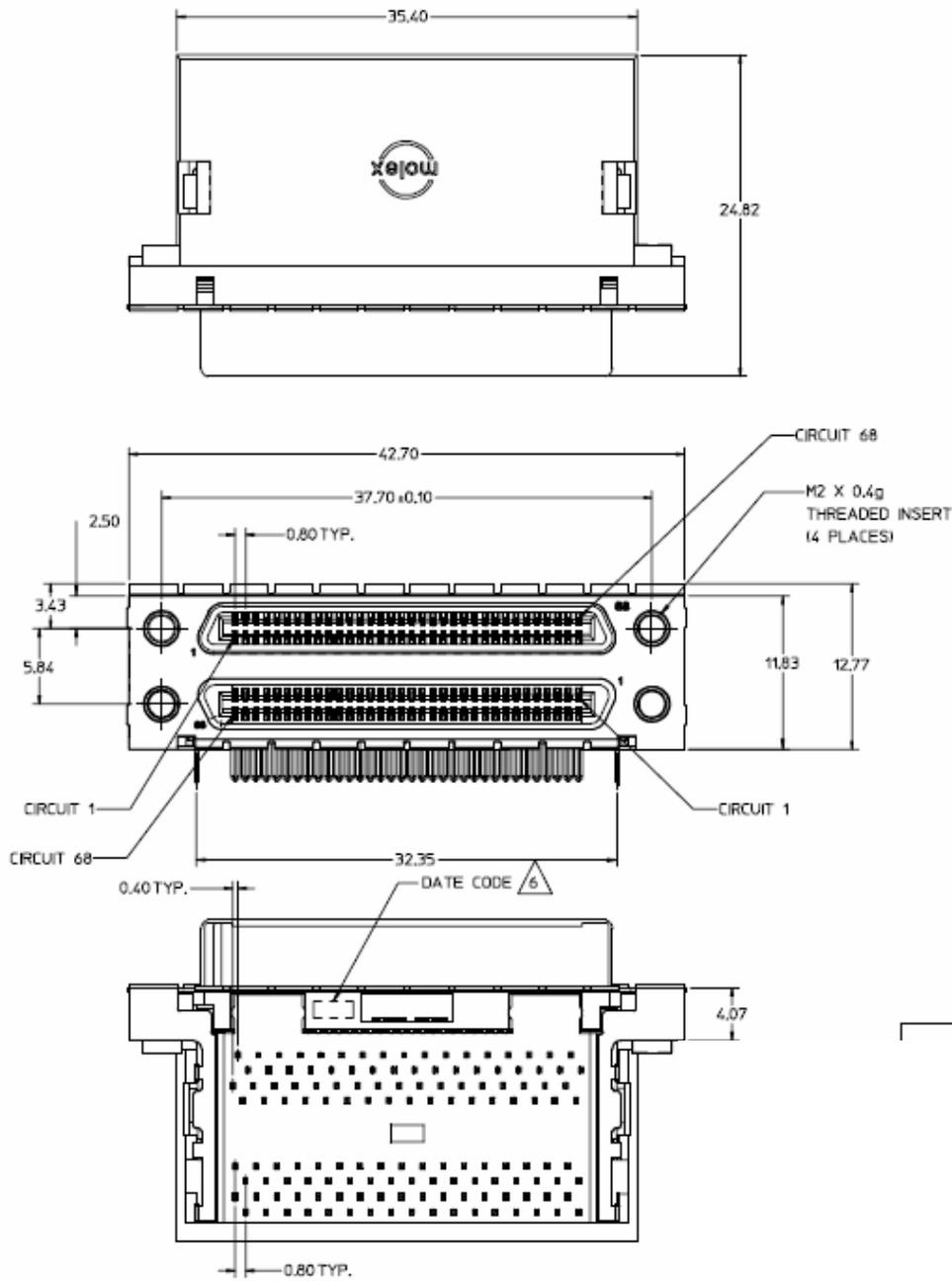


Figure 5. VHDCI Connector Cable

USB Mini B Connector

The NVIDIA Quadro Plex interface card uses a USB connector (Figure 6) with a mini B plug on the card, to help enable full speed USB functionality on the NVIDIA Quadro Plex system. Table 1 lists the pinout of the USB mini B connector.

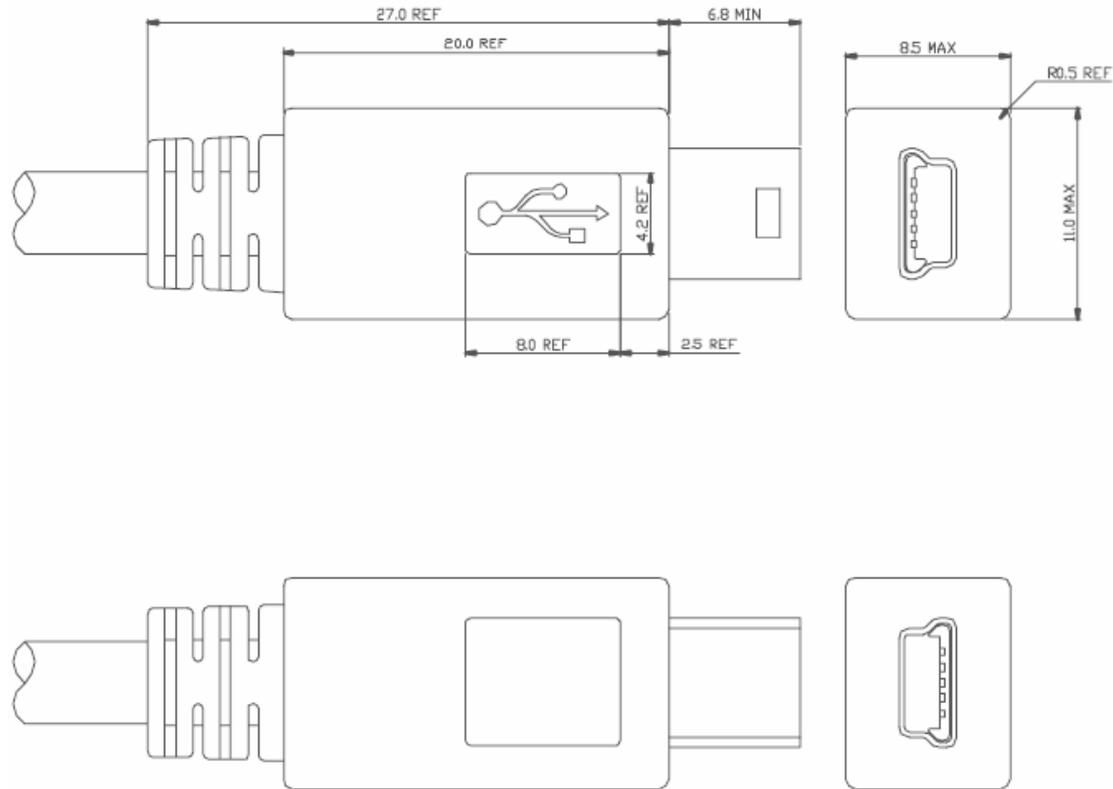


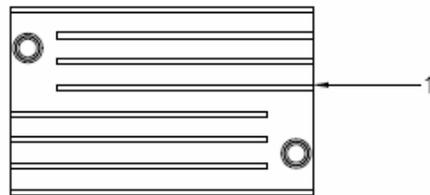
Figure 6. USB Mini B Connector

Table 1. USB Mini B Connector Pinout

Pin	Signal
1	VBUS
2	D-
3	D+
4	ID
5	GND

Cooling Solution

NVIDIA will utilize a passive heat sink for cooling (Figure 7). The heat sink includes an extruded heat sink, interface material and push pin fasteners.



No.	Description
1	Heat sink
2	Push pin
3	Bumper
4	T725

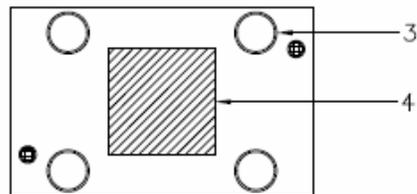


Figure 7. Passive Heat Sink

The thermal cooling system uses thermally enhanced polymers designed to minimize the thermal resistance between power dissipating electronic components and their associated heat sinks.

Some of the key features and benefits are:

- ❑ Low thermal impedance, .049 °C-In²/W at 10 psi
- ❑ Electrically non-conductive
- ❑ Interface material is self adhering allowing for "peel and stick" installation
- ❑ Operating temperature range: 0 °C to 55 °C

Certificates and Agencies

Certifications

Windows Hardware Quality Lab (WHQL): Certified Windows XP and Windows 2000.

Note: Windows XP is the only operating system that Microsoft requires to ship with a digital signature. Legacy operating systems can be submitted and tested on WHQL's DCT test.

Agencies

- ❑ Bureau of Standards, Metrology, and Inspection (BSMI)
- ❑ C-Tick
- ❑ Conformité Européenne (CE)
- ❑ Federal Communications Commission (FCC)
- ❑ Interference-Causing Equipment Standard (ICES)
- ❑ Ministry of Information and Communication (MIC)
- ❑ Underwriters Laboratories (UL)
- ❑ Voluntary Control Council for Interference (VCCI)



Notice

ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS, AND OTHER DOCUMENTS (TOGETHER AND SEPARATELY, "MATERIALS") ARE BEING PROVIDED "AS IS." NVIDIA MAKES NO WARRANTIES, EXPRESSED, IMPLIED, STATUTORY, OR OTHERWISE WITH RESPECT TO THE MATERIALS, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES OF NONINFRINGEMENT, MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE.

Information furnished is believed to be accurate and reliable. However, NVIDIA Corporation assumes no responsibility for the consequences of use of such information or for any infringement of patents or other rights of third parties that may result from its use. No license is granted by implication or otherwise under any patent or patent rights of NVIDIA Corporation. Specifications mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information previously supplied. NVIDIA Corporation products are not authorized for use as critical components in life support devices or systems without express written approval of NVIDIA Corporation.

Trademarks

NVIDIA, the NVIDIA logo, and NVIDIA Quadro are trademarks or registered trademarks of NVIDIA Corporation in the United States and other countries. Other company and product names may be trademarks of the respective companies with which they are associated.

Copyright

© 2006 NVIDIA Corporation. All rights reserved



NVIDIA.

NVIDIA Corporation
2701 San Tomas Expressway
Santa Clara, CA 95050
www.nvidia.com