



Digital Camera Systems

UNIVERSAL PCI CARDS EXPLAINED

Signaling Voltage

Most computers include a PCI expansion bus that allows for connectivity between the computer's processor and the high speed devices that are attached to the computer. This link is completed by inserting a PCI expansion card (connected to the device) into a PCI expansion slot (that connects to the bus).

These slots generally operate at one of two voltages: 5.0 Volts or 3.3 Volts. Earlier computer models utilized 5.0 Volt signaling, while the trend is toward the lower 3.3 Volt signaling in more recent computers. Cards placed in the slots must be compatible with the signaling voltage utilized.

Many computers offer multiple PCI slots, some of which operate at 5.0 Volts and some that operate at 3.3 Volts. However, some newer models offer only 3.3 Volt connectivity. Mac G5 computers, for example, utilize PCI-X and/or PCI 2.3 architecture. Both of these utilize 3.3 Volt signaling at the PCI slot.

PCI Card Options

Three voltage options on PCI plug-in cards are available: "5 Volt Cards" include a key notch in pin positions 50 and 51 to allow them to be plugged only into 5 Volt system connectors (slots). "3.3 Volt cards" include a key notch in pin positions 12 and 13 to allow them to be plugged only into 3.3 Volt system connectors. Universal PCI Cards include both key notches to allow them to be plugged into either 5V or 3.3V system connectors. By specification, Universal cards must be able to adapt to operation at either signaling level.

SPOT Cameras and Universal PCI Cards/Bus

Some SPOT cameras utilize high speed PCI bus connectivity through a PCI card that is installed in a card slot on the motherboard of your desktop computer.

In the past, SPOT offered 5.0 Volt PCI cards exclusively (RT Series cameras and Insight cameras that are not FireWire® designed). As noted above, with the advent of new computer standards, PCI cards today operate at either 5.0 Volt or 3.3 Volt signaling voltage.

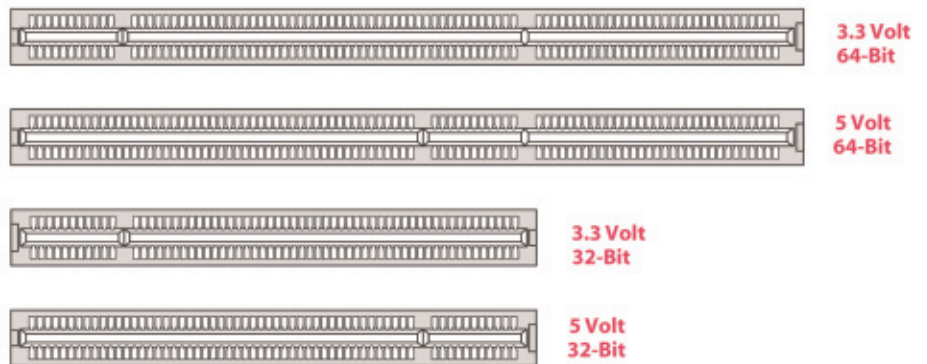
In order to ensure that our SPOT camera systems will work with the maximum number of computers, we have introduced 3.3 Volt Universal PCI cards for use with PCI based camera systems. Universal PCI cards can be used with both 3.3 Volt and 5.0 Volt PCI card slots on the motherboard of your computer.

The unique physical keying of Universal PCI cards allow them to be used with both 3.3 and 5.0 Volt PCI slots. (5.0 Volt cards cannot be inserted into 3.3 Volt card slots, and 3.3 Volt cards cannot be inserted into 5.0 Volt card slots - see the following diagrams).

This Universal PCI Card has been tested and approved by Diagnostic Instruments' engineers and programmers for use on the Mac G5 platform, including use with Panther (OS 10.3), and for PC platforms.

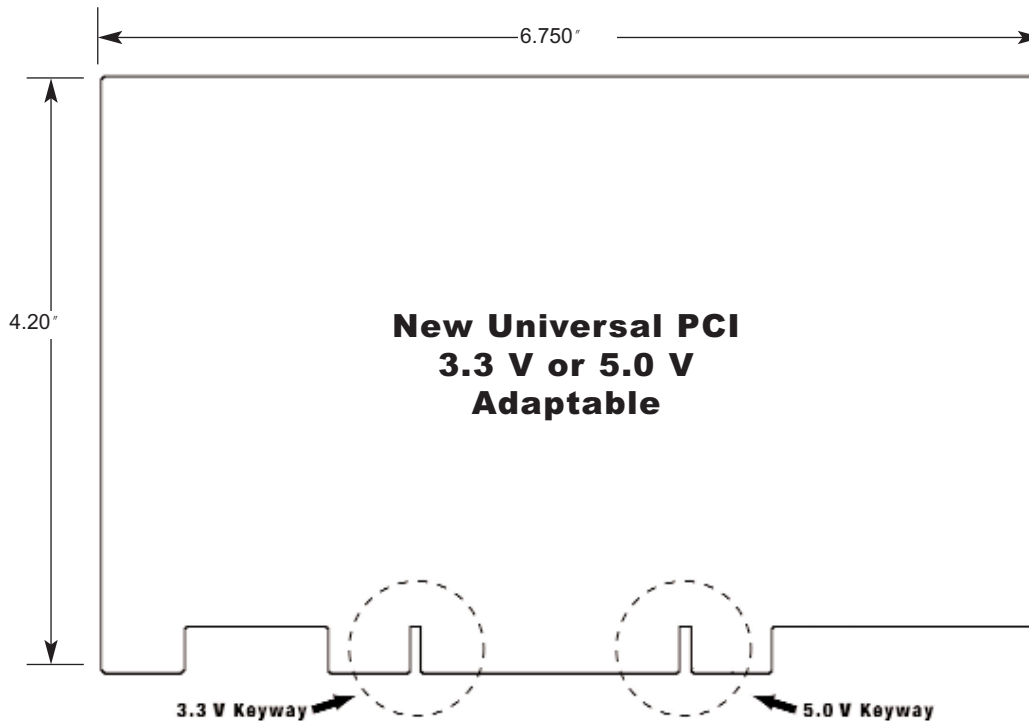
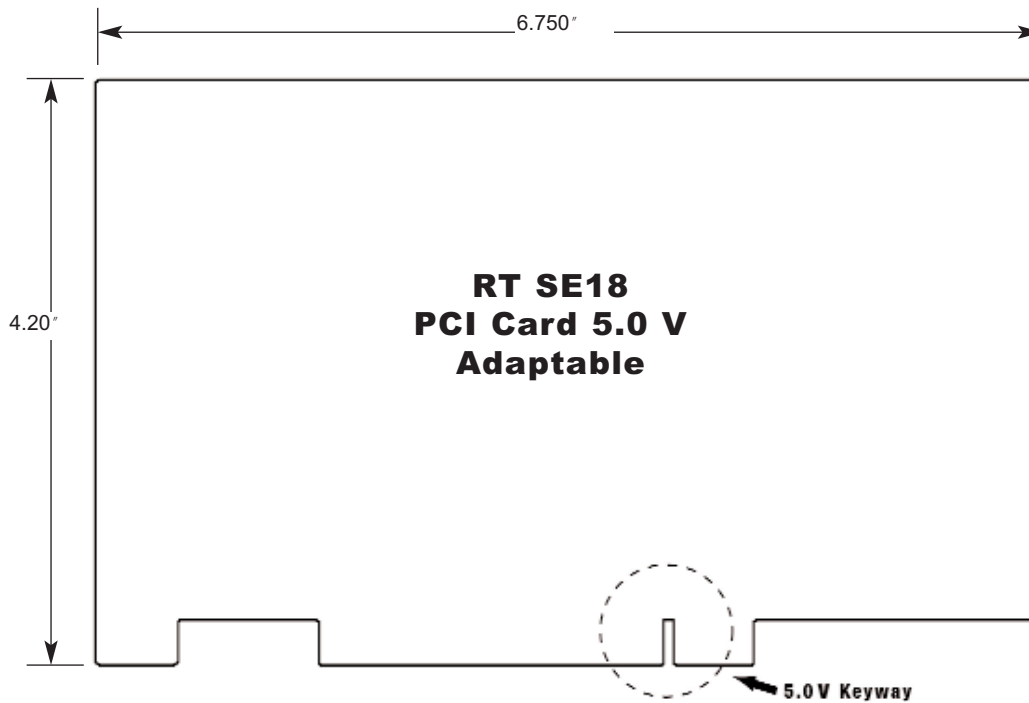
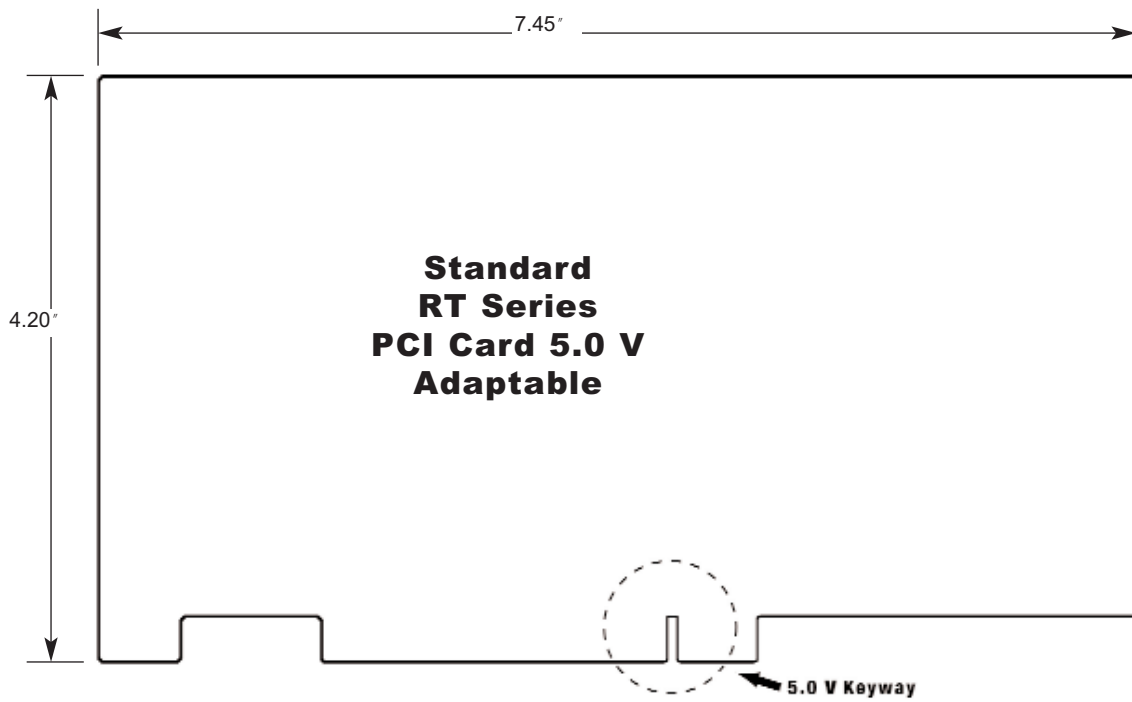
For legacy camera owners with 5.0 Volt PCI cards, who have chosen a new MacG5 computer, please contact your SPOT dealer or call our technical sales representatives to order this new Universal PCI Card exclusively for your SPOT camera type.

In addition to PCI connectivity, FireWire connectivity is offered as the standard with all new SPOT Insight cameras. FireWire allows for fast data transfer with the ease of plug-and-play connection to either Mac or PC computer systems that include FireWire ports.



PCI Connector Configurations

SPOT PCI Cards



Universal PCI “fits all slots”

