

PE51EX

PCI Express to ExpressCard External Adapter

User's Manual

Rev.1.0



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Advisories

Three types of advisories are used throughout this manual to provide helpful information, or to alert you to the potential for hardware damage or personal injury. They are Note, Caution and Warning. The followings is an example of each type of advisory.



NOTE

Used to amplify or explain a comment related to procedural steps or text.



WARNING

Used to indicate and prevent the following step from causing injury.



CAUTION

Used to indicate and prevent the following procedure or step from causing damage to the equipment.

1 Introduction

Thank you for purchasing the RATOC PCI Express to ExpressCard Adapter. This device allows to use ExpressCard on a desktop computer. Normally ExpressCard is need to inserted into the ExpressCard slot before system boot and never allow to exchange ExpressCard after system boot both Windows PC and MAC pro. This product provide ExpressCard Hot-plug capable driver for Windows PC and MAC Pro. To install ExpressCard Hot-plug driver you can exchange ExpressCard at any time.

1-1.Feature

- To assure PCI Express signal quality signal repeater is located on the PCI Express board.
- To enable ExpressCard Hot-Plug capability Hot-Plug driver is provided for Windows PC and MAC Pro.
- Recommended as a SxS Pro compliant product on the web site below.


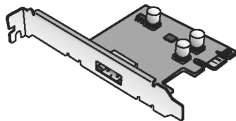
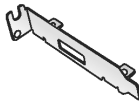
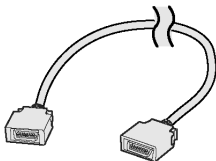
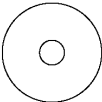
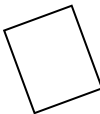

<https://www.oss-formats.org/en/sxs/outline/index.html>

1-2.Pre-Installation Information

Before using ExpressCard adapter you should perform the following steps:

1. Inventory the shipping carton contents for all of the required parts
2. Read this manual

1-3.Package Contents

			
ExpressCard Adapter	PCI Express add-in card	Low Profile bracket	PCI Express extension Cable
		<div> NOTE</div> <p>If any of these items are missing, contact the supplier immediately.</p>	
CD-ROM	Manual		

1-4.System Requirements

- Supported Operating System
 - Windows 7 / Windows Vista / Windows XP(Latest Service Pack should be installed)
 - Mac OSX 10.4.11 or later / 10.5.6 or later / 10.6 or later
- Supported Computer
 - Windows PC PCI Express slot equipped.
 - Intel Mac Pro

1-5.Supported ExpressCard

ExpressCard/34 (ExpressCard/54 is not supported.)

➤ Memory Card

Sony SxS Pro, Flash memory, Media Reader

➤ Communication Card

Wireless LAN Card, LAN Card, Data Communication Card, Mobile Communication Card

➤ Interface Card

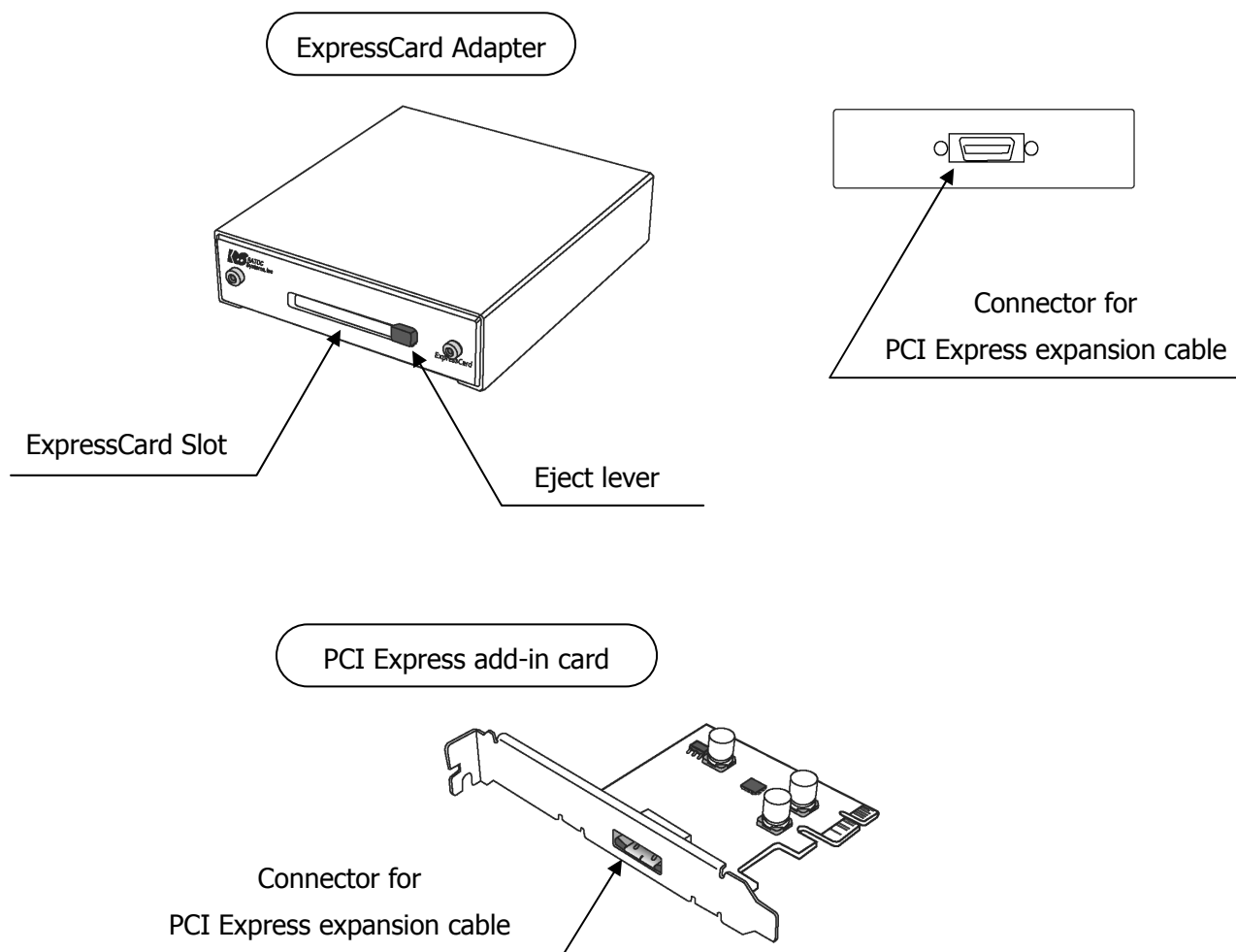
USB3.0 Host Card, Wireless USB Host Card



For the latest information, go to our web site.

<http://www.ratocsystems.com/english>

1-6.Layout



2 Setup

2-1. Installing the PCI Express add-in card and ExpressCard adapter

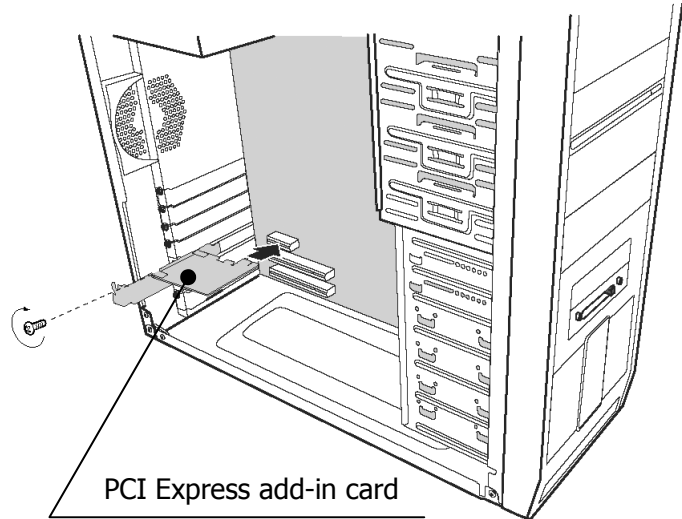
Shut down all power connected to the host computer



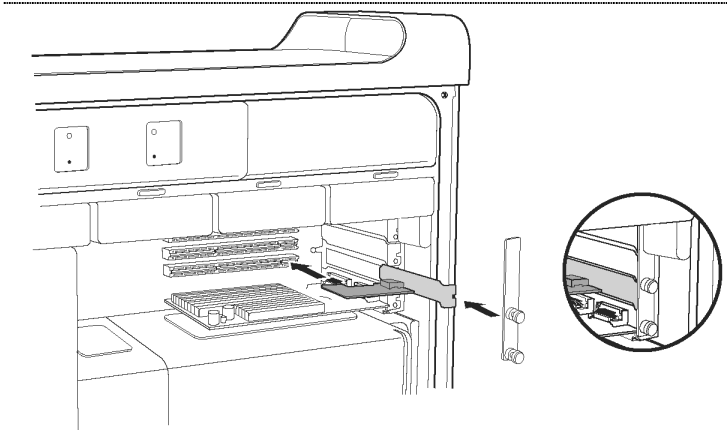
CAUTION

As an added step to ensure safe installation, unplug the power supply from the computer.

After the host computer is off and all power cords disconnected, remove the cover and insert the card into a vacant PCI Express slot by gently pushing the card until it is firmly seated. Be sure to secure the card with a retaining screw.



Windows PC



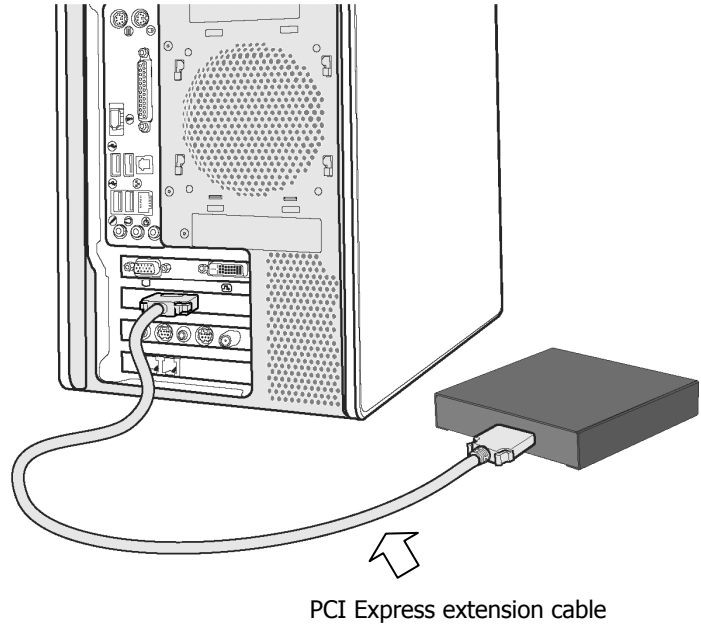
Mac Pro



CAUTION

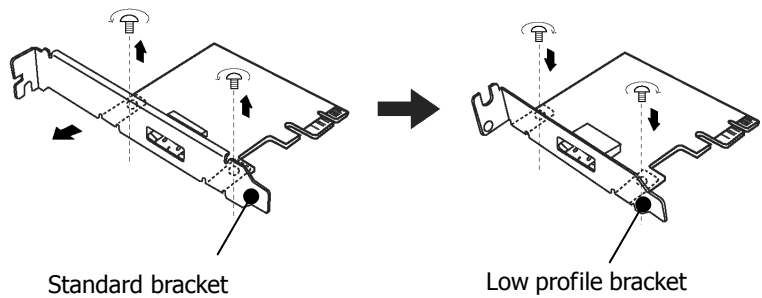
Electrostatic Discharge (ESD) is the enemy of semiconductor devices. You should always take precautions to eliminate any electrostatic charge from your body and clothing before touching any semiconductor device or card by using an electrostatic wrist strap and/or conductive mat.

Connect PCI Express add-in card and ExpressCard Adapter by the PCI Express extension cable



NOTE

If PCI Express slot of your computer is low profile, you need to change the bracket of PCI Express add-in card to low profile bracket.

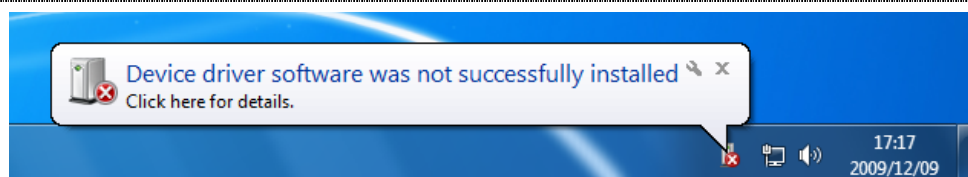


2-2.Windows Software Installation Steps



NOTE

At the first system boot you will see the balloon message below. You do not need to do anything, go ahead to the installation steps below.

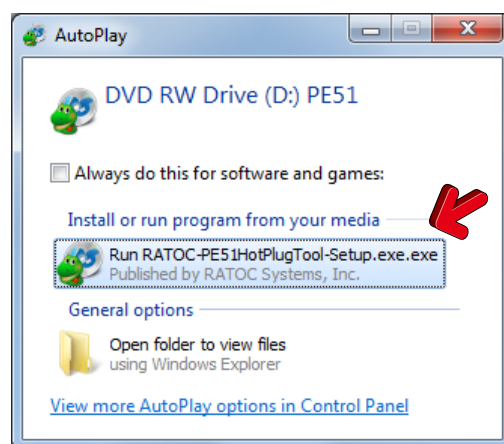


➤ Installation Steps

Following steps are example under Windows 7.

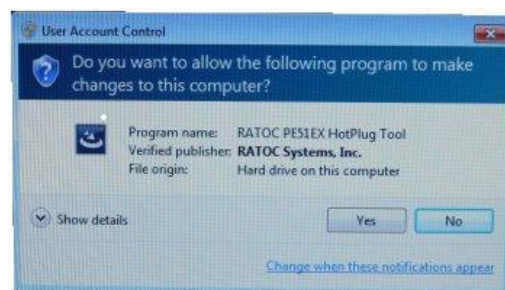
Insert the provided CD into your disc drive.

You will see the AutoPlay dialog box, click the "Run RATOC-PE51HotPlugTool-Setup.exe".

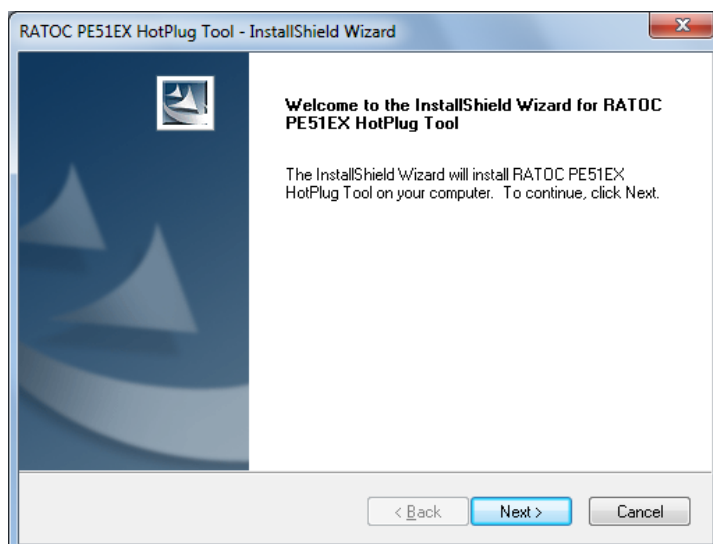


Under Windows 7 or Windows Vista you will see the "User Account Control" dialog box.

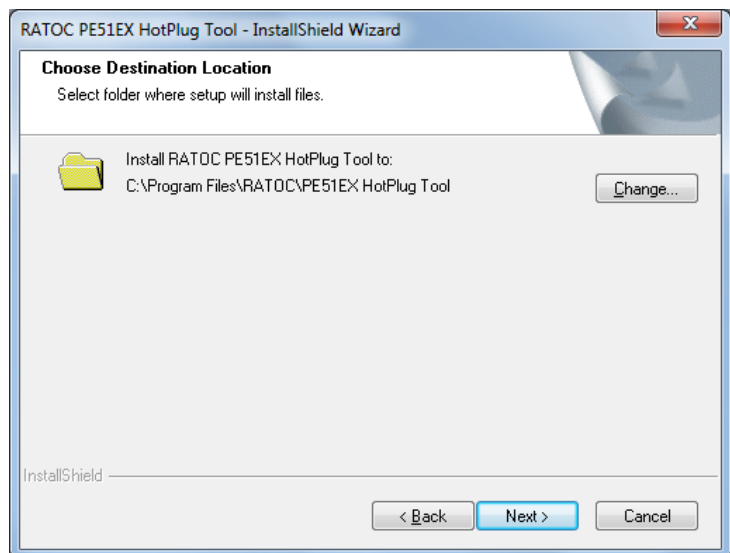
Click the "Yes" button.



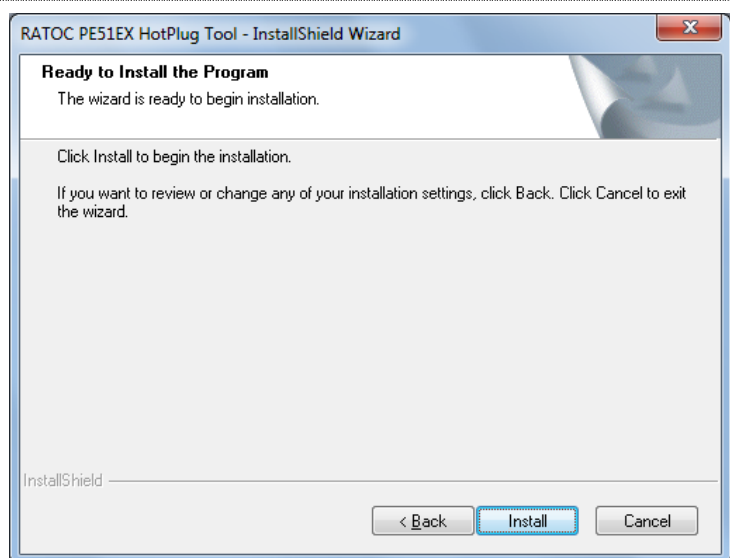
Installation will start, click the "Next >" button.



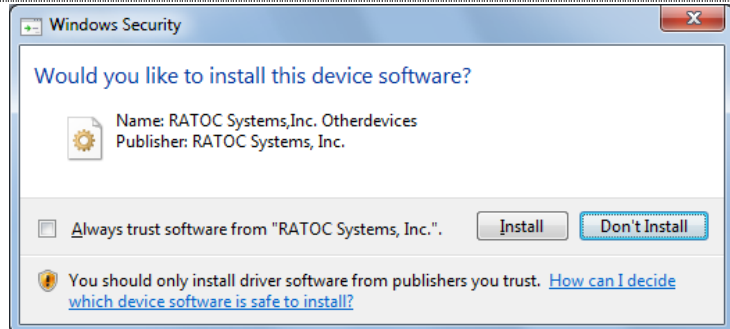
Confirm the destination location and click the "Next >" button.



Click the "Install" button.

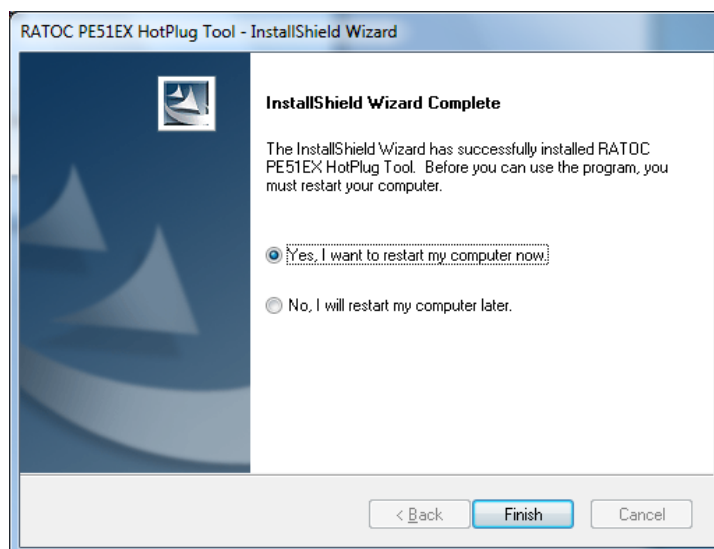


Security warning message will be displayed.
Click the "Install" button.

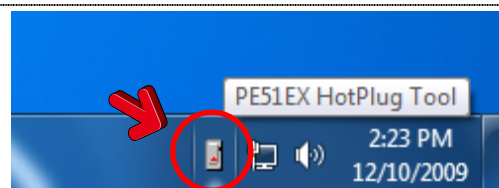


Installation complete.

Select the "Yes, I want to restart my computer now" and click the "Finish" button.

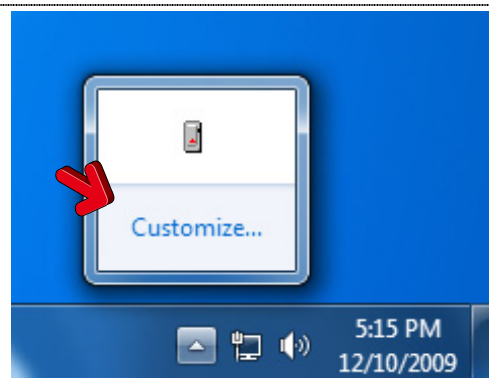


After system restart PE51EX HotPlug Tool icon is stay on the TaskBar.

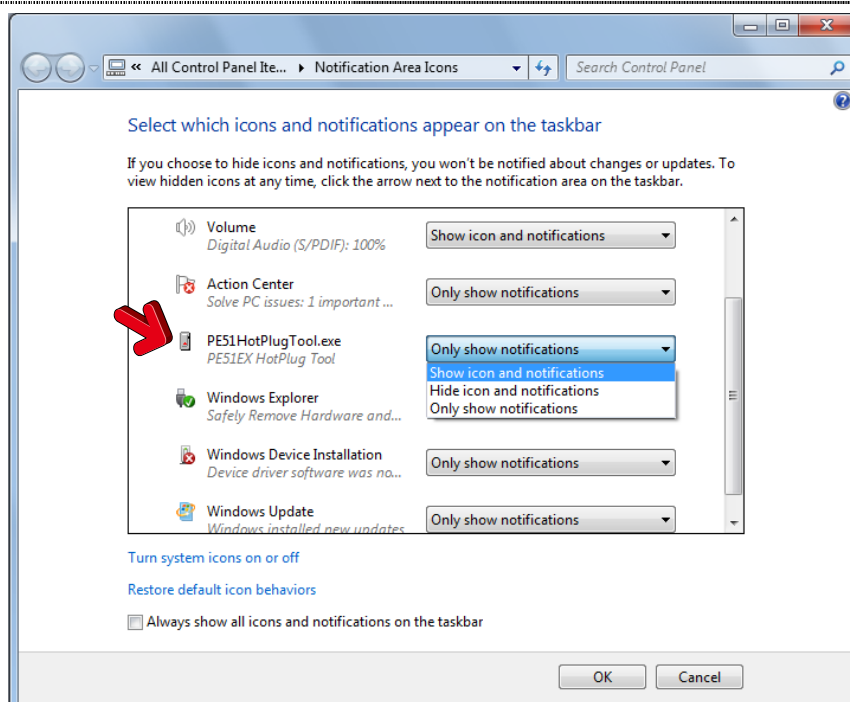


NOTE

Under Windows 7 HotPlug Tool icon is hide. You should change the setting to view hide icon at any time from the "Customize..." menu.



Change the setting from "Only show notification" to "Show icon and notifications".



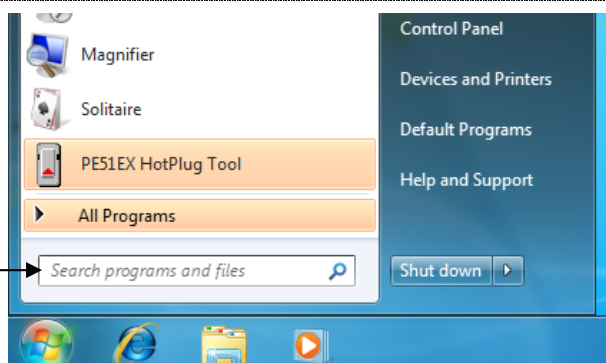


NOTE

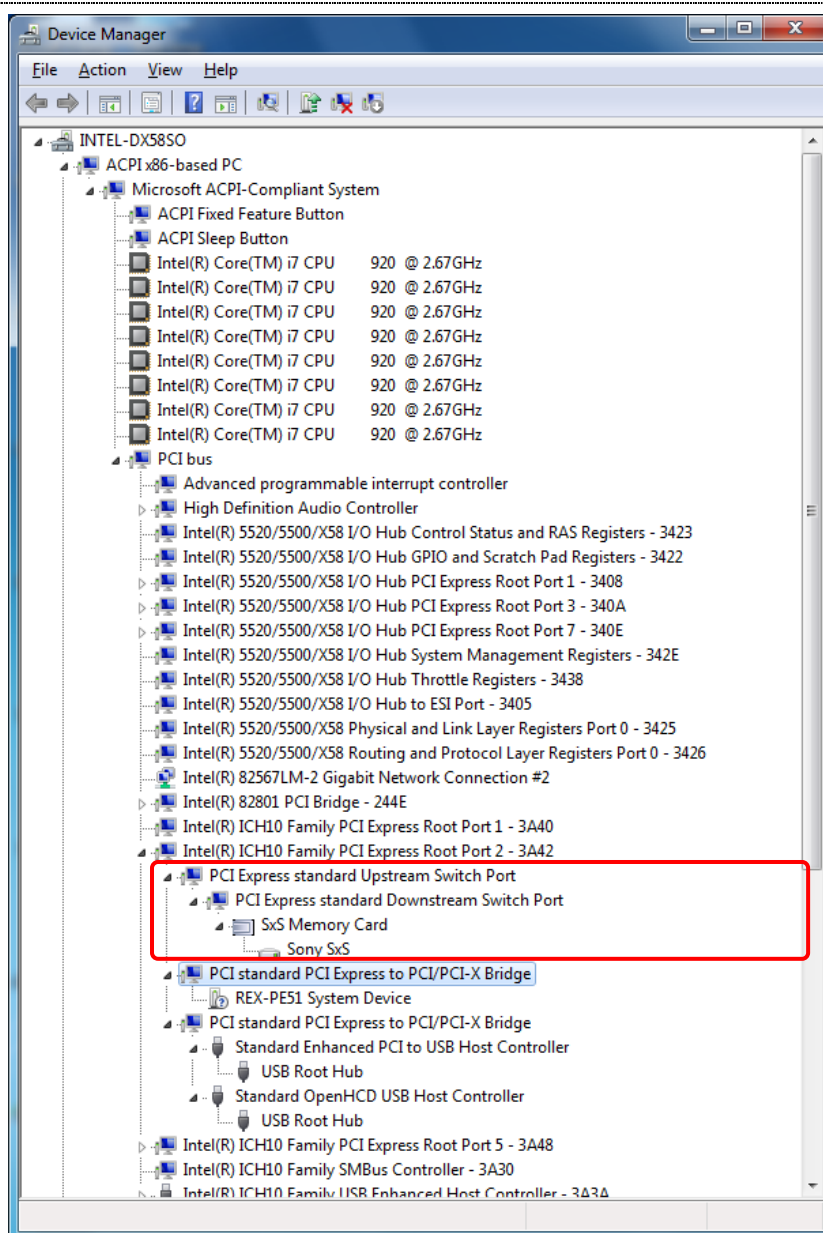
You can confirm installation complete successfully or not by the Device Manager as follows.

Open start menu and enter "devmgmt.msc" at the "Search programs and files".

devmgmt.msc



You will see the Device Manager.
Select "devices by connection"
from the view menu.
Insert ExpressCard(ex.SxS pro).
If you can find "SxS Memory Card"
under the "PCI Express standard
Upstream Switch Port", installation
complete successfully.

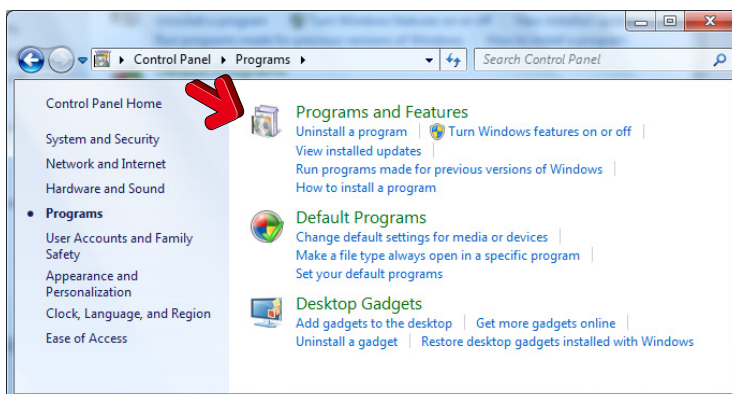


➤ Uninstallation Steps

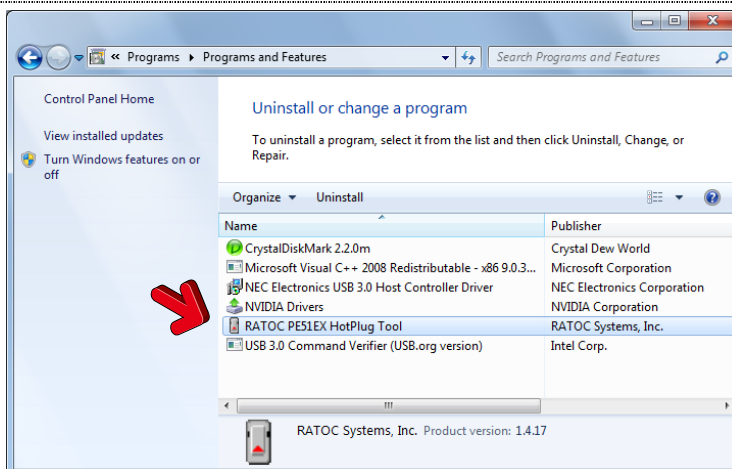
Following steps are example under Windows 7.

Open "Program" folder under control panel from start menu.

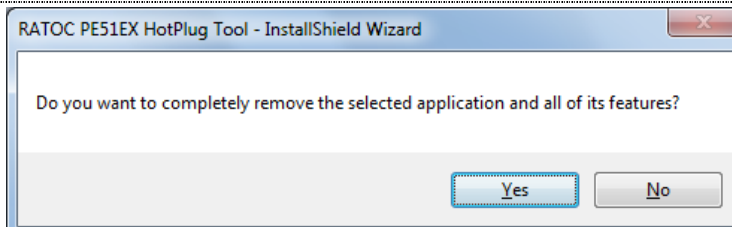
Click the "Programs and Features" icon.



Click the "RATOC PE51EX HotPlug Tool".

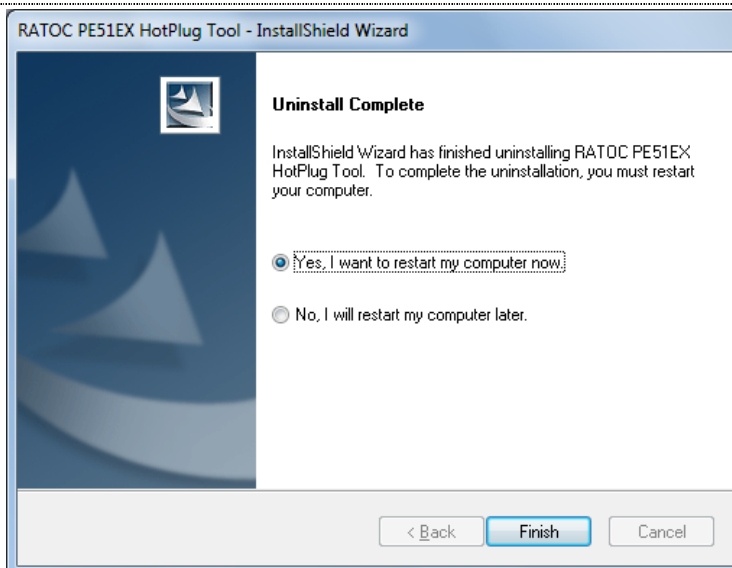


Uninstallation will be start. Click the "Yes" button.



Uninstallation complete.

Select the "Yes, I want to restart my computer now" and click the "Finish" button.



2-3.MAC Software Installation Steps

Insert the provided CD into your disc drive. You will see following file and double click.

- Mac OS 10.4 : PE51_Device_Driver104x.dmg
- Mac OS 10.5 or 10.6 : PE51_Device_Driver.dmg

➤ Installation Steps

Followings are installation steps under Mac OS 10.6.

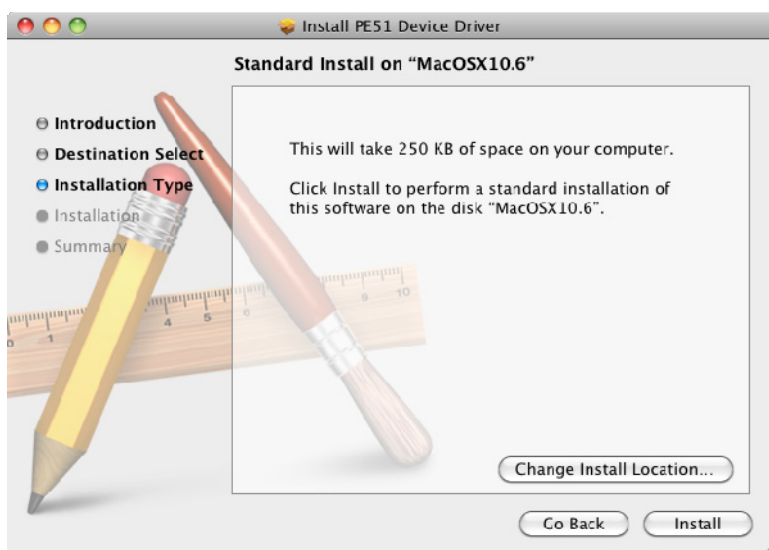
Double click the "PE51_Driver_Installer" icon and installation will be start.



Click the "Continue" button.



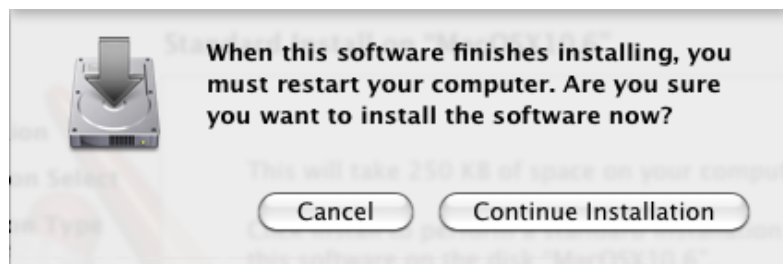
Click the "Install" button.



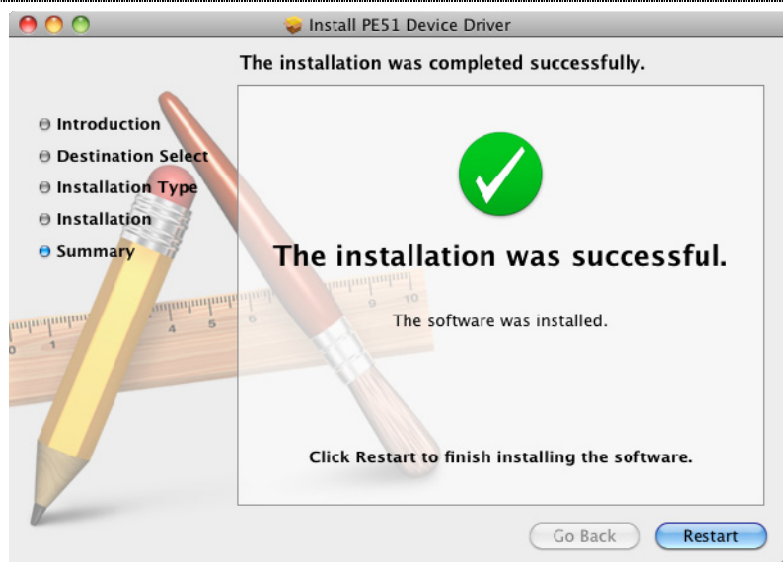
Enter your name and password.
Click the "OK" button.



Confirm the system restart message
and click the "Continue Installation"
button.



Installation complete message will be
displayed, click the "Restart" button.

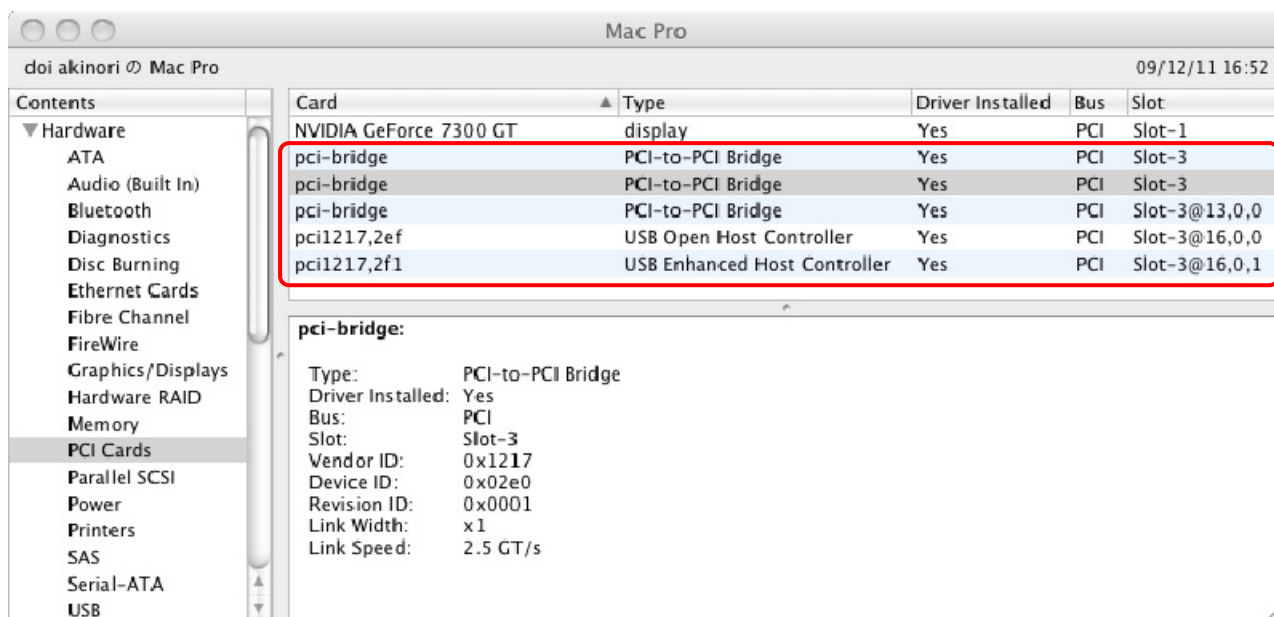




NOTE

You can confirm installation complete successfully or not by the system profiler as follows.

1. Run the system profiler under utility folder of application.
2. Open the "PCI Cards" on the Hardware as show below.
3. If five kinds of driver is installed, installation complete successfully.



➤ Uninstallation Steps

Followings are uninstallation steps under Mac OS 10.6.

Insert the provided CD into your disc drive. You will see following file and double click.

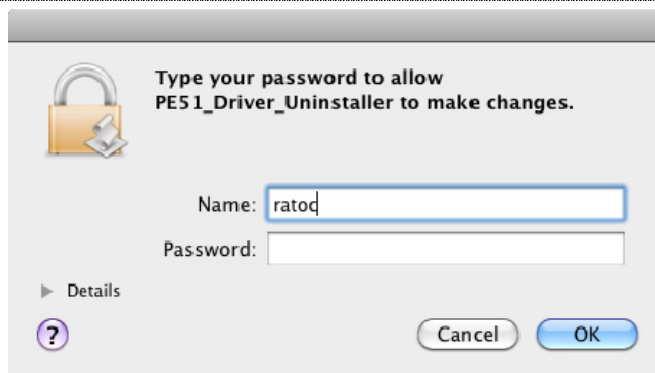
- Mac OS 10.4 PE51_Device_Driver104x.dmg
- Mac OS 10.5 or 10.6 PE51_Device_Driver.dmg

Double click the "PE51_Driver_Uninstaller" icon and uninstallation will be start.

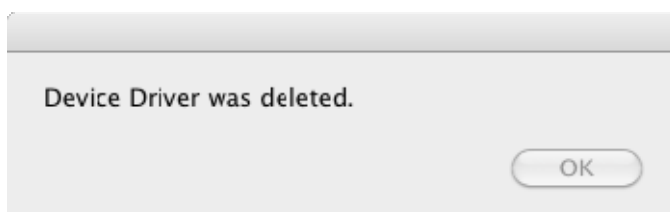


Enter your name and password.

Click the "OK" button.



Uninstallation complete message will be displayed and click the "OK" button.



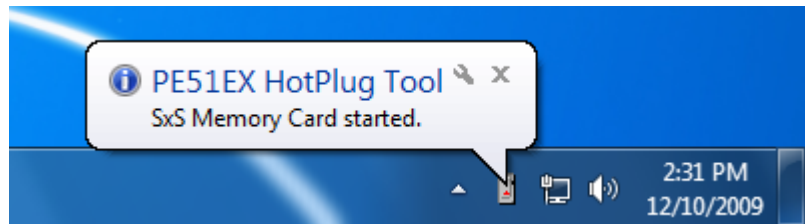
3 ExpressCard HotPlug Operation

3-1. Install 3rd Party ExpressCard driver

Install ExpressCard driver following 3rd party manufacturer's recommendations. Some ExpressCard manufacturers recommend that you install their software driver(s), if required, prior to insert ExpressCard to ExpressCard slot.

➤ Example (Windows PC)

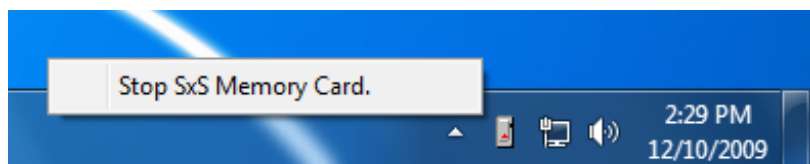
Insert ExpressCard to the slot and start balloon message will be displayed.



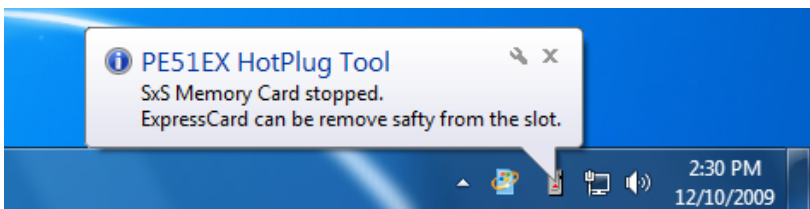
3-2. Windows PC ExpressCard Remove operation

Step.1

You must stop ExpressCard from HotPlug Tool icon menu first before remove ExpressCard from the slot.

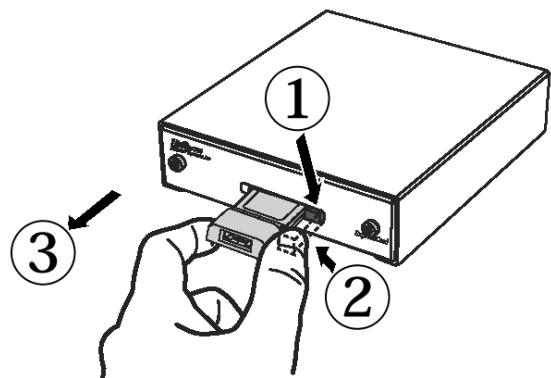


ExpressCard stop balloon message will be displayed. Now you can remove ExpressCard from the slot safely.



Step.2

Push out the eject lever(①), push the eject lever(②) again and pull out the ExpressCard(③).



CAUTION

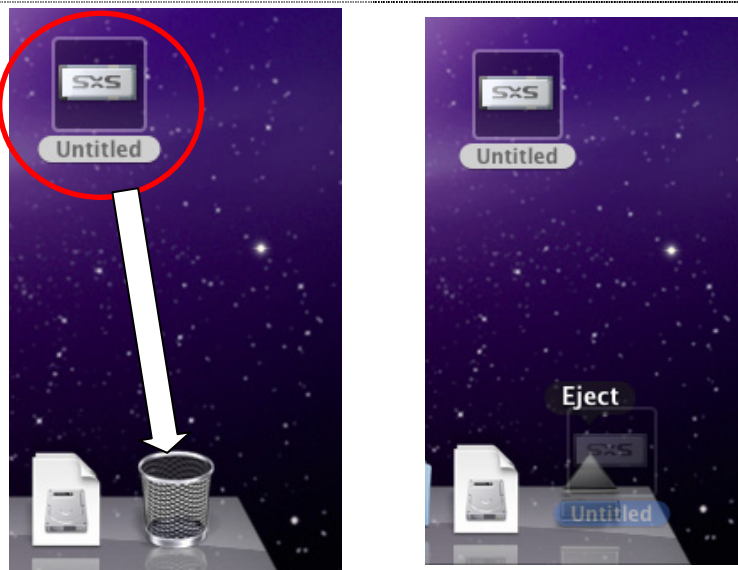
If you remove ExpressCard without above step.1 operation, Windows system will be freeze. Don't remove ExpressCard suddenly.

3-3. Mac Pro ExpressCard Remove operation

➤ Sony SxS Pro ExpressCard

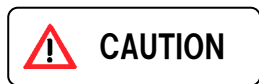
Step.1

Drop the mounted drive icon to the trash box.

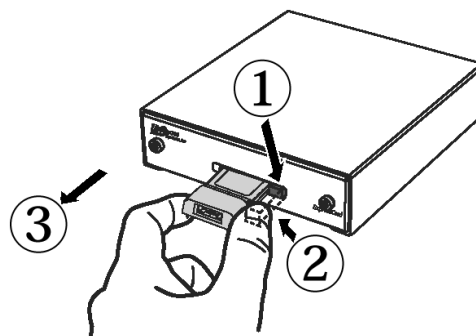


Step.2

Push out the eject lever(①), push the eject lever(②) again and pull out the ExpressCard(③).



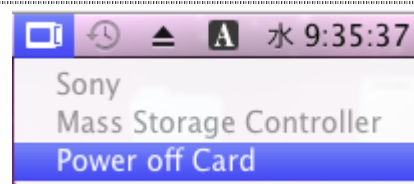
If you remove ExpressCard without above step.1 operation, system will be freeze. Don't remove ExpressCard suddenly.



➤ Other ExpressCard

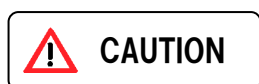
Step.1

Select "Power off Card" from the PC Card icon of menu bar.

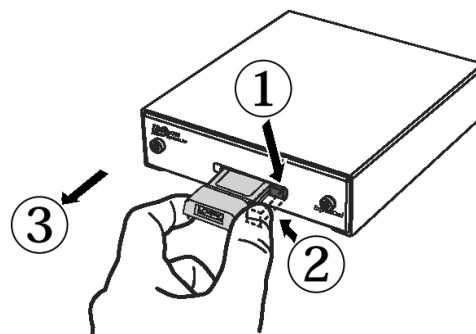


Step.2

Push out the eject lever(①), push the eject lever(②) again and pull out the ExpressCard(③).



If you remove ExpressCard without above step.1 operation, system will be freeze. Don't remove ExpressCard suddenly.



➤ Technical Specification

Model Number	PE51EX
Product name	PCI Express to ExpressCard External Adapter
PCI Express BUS Interface	PCI Express Specification Revision 1.1 PCI Express x1 Lane, 2.5Gbps
ExpressCard BUS Interface	ExpressCard Standard Release 1.0 PCI Express(2.5Gbps), USB2.0(480Mbps)
ExpressCard slot	1 slot ExpressCard/34
Max power supply capability (to ExpressCard)	Max.1300mA/3.3V Max.275mA/3.3Vaux Max.650mA/1.5V
Dimension	ExpressCard Adapter 120(L) X 103.6(W) X 27.4(H) PCI Express add-in card 65.3(L) X 69.8(W) X 1.6(T)
Weight	Total 760g
Operating Environment	0°C to 40°C Operating Temperature -20°C to 60°C Storage Temperature
Operational Humidity	20 to 85% Relative Humidity, Non-condensing
Support OS	Windows 7 / Windows Vista (Latest Service Pack should be installed) Mac OSX 10.4.11 or later / 10.5.6 or later / 10.6 or later
Supported Computer	Windows PC PCI Express slot equipped. Intel Mac Pro
Regulatory Compliance	RoHS FCC Class B Verified
Warranty	1 Year

➤ Compliance

- FCC

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- . Reorient or relocate the receiving antenna
- . Increase the separation between the equipment and receiver
- . Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- . Consult the dealer or an experienced radio/TV technician for help.



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