

Thunderbird Mini-ITX CPU Board

Application Note: Connecting two VGA Monitors

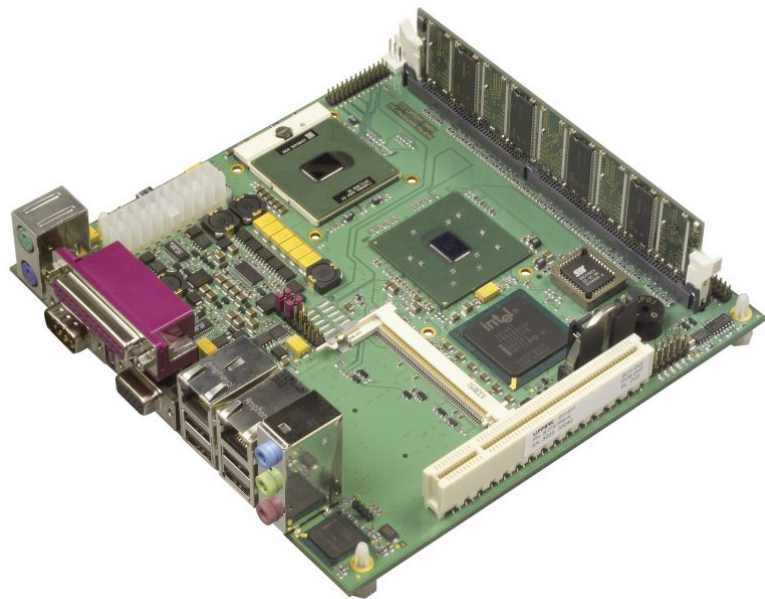


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1 OVERVIEW

In some applications it is necessary to use two independent VGA Displays/Monitors. Such a configuration is supported by the chipset. This application note describes how to setup this configuration.

In order to use an additional PCI graphics adapter you have to load the “optimized settings” in the BIOS.

Note:

This version of the document uses screen shots of a german language Windows release. The screens should be similar enough, however, so that everyone can recognize the relevant settings.
The screen shots will be changed in a future revision.

2 BIOS SETTINGS

Just to be sure that the BIOS settings do not interfere with the new graphics controller, reset all BIOS settings to the manufacturer's optimized defaults.

Press the **F2** or the **DEL** key at boot time to start the BIOS setup utility.

Please note that any previous changes made in the BIOS setup will be lost when the optimized settings are loaded. All changes made by the user will consequently be lost and need to be re-done later after the new graphics controller works as expected.

Choose “Load Optimized Settings” and exit with saving of the changes.

3 INSTALLATION

Switch the Thunderbird off and plug in the additional graphics controller. Be sure to have the necessary drivers for your operating system ready.

After Windows has booted you will be shown a dialog box requesting the installation of the driver. Perform the installation as described in the controller's manual.

You should now see your normal Windows Desktop. Please right-click onto the *Desktop* and select "properties" to show the computer's graphics properties.

Select the "settings"-tab. There should be 3 different displays shown. Number 1 and 2 are the displays provided by the internal Intel Extreme Graphics 2 adapter. Number 3 is the display connected to the new PCI card.

In our example we used an Nvidia GeForce 2 MX 400 PCI board.

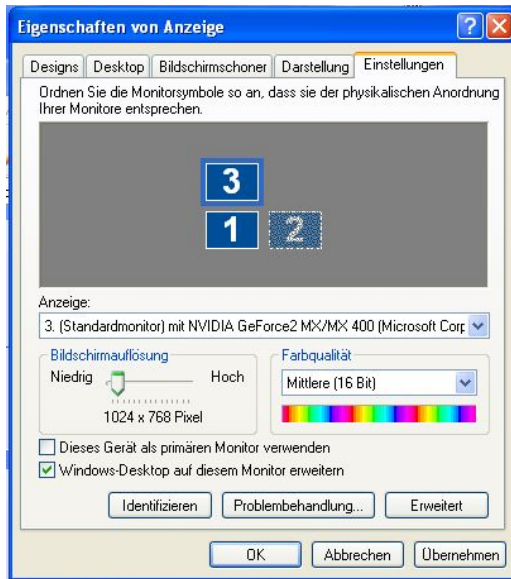
Please left-click on screen number 3 or select in the combo box. It should present your PCI cards name.



Make all your desired settings (resolution, colors) and check the option "expand desktop". It should now look similar like this, possibly with other resolution and color settings:

In the picture at the left the Windows Desktop is now expanded to the right and display 2 is disabled.

You can change the order of the displays, if needed:



We simply put the third display above our primary display. Drag and drop the displays around until you are satisfied.

Click OK to save your changes.

4 RELATED LINKS

New driver versions can be downloaded from
http://www.lippert-at.com/download/support/itx_download.html

5 DOCUMENT HISTORY

<i>File name</i>	<i>Date</i>	<i>Author</i>	<i>Changes</i>
APN-ITX-PM-003.doc	2004/01/27	Alexander Werz	created