
UXN14M32K Windows GUI Installation Guide

SuperDivider

15 GHz Divide-by-1 to $2^{32}-1$

32-Bit Programmable Integer Divider Evaluation Board

Part number: UXN14M32K

Evaluation board: UXN14M32KE



Figure 1. Windows GUI Installation Guide for Microsemi SuperDivider Programmable Divider

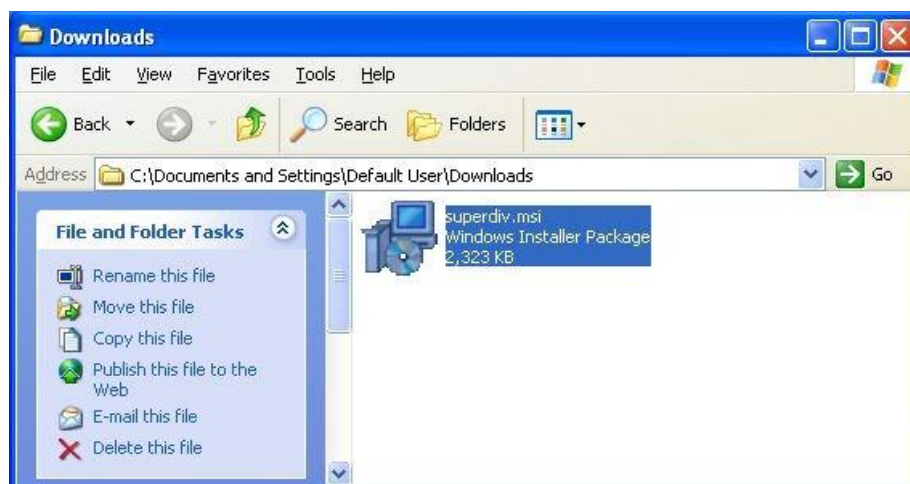
Installation Instructions

The SuperDivider can be easily programmed through a Windows PC GUI, using the evaluation board powered by USB. The SuperDivider libraries must be installed on your PC before plugging the SuperDivider on the USB Bus.

The superdiv.msi file is the Windows installer file for the new Microsemi SuperDivider. It includes the Future Technologies driver libraries. It will automatically install the Future Technologies libraries for WindowXP but they must be installed manually on Windows2000, Vista, and Windows7. For these platforms once you have finished the install you need to browse into the Microsemi SuperDivider program directory to find the FTDI installer and run it by hand (see Appendix A).

Windows XP install instructions

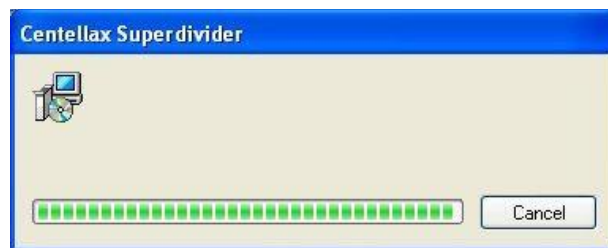
Double click on the superdiv.msi file to start the install.



The following window may come up warning you that the file is unknown. Hit Run (the SuperDivider installer file is safe from viruses but not certified by Microsoft)



The progress bar should come up showing the progress as as it installs files.



The SuperDivider program requires drivers from Future Technologies. Only the FTDI 32bit libraries are included in the superdiv.msi installer. The 32bit drivers are supported on almost all of the Windows PC platforms. Please hit Next to have the installer load the FTDI drivers.



When the Future Technologies drivers have been installed the following dialog box will appear. Just hit the Finish button.



Now you can plug the superdivider in the USB bus. When you do you will get the following message. Click on the “Install the software automatically” button since the drivers were already loaded by the Superdiv.msi file.

When the installation is done the next dialog box will appear. Just hit Finish.



Running the Superdivider

You should be able to run the SuperDivider GUI now!

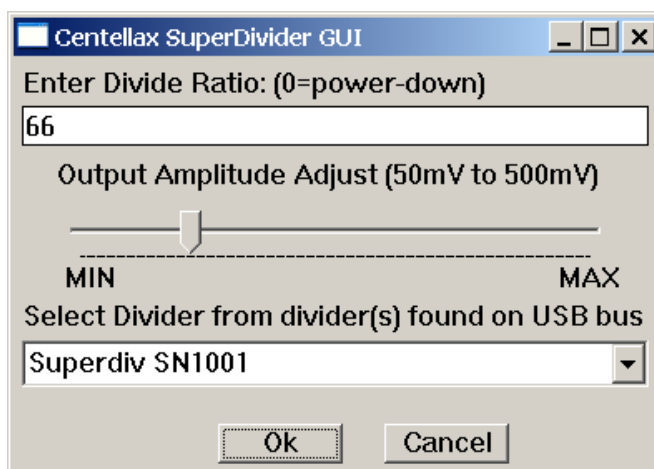
Starting the SuperDivider from the Programs menu

Just click on the Programs button on the lower left of the Windows desktop.

Select Microsemi->SuperDivider->Microsemi SuperDivider as shown in the following screenshot.



The SuperDivider GUI main window will come up. It GUI should look good with a screen resolution for 1028x768 or better.

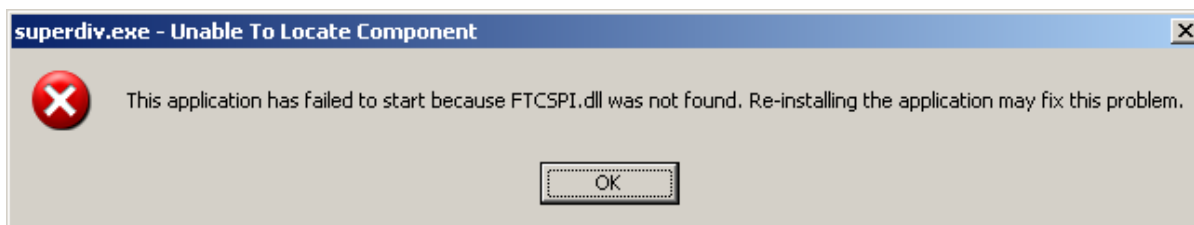


The user interface is very simple just type the divider ratio you want and click Ok. If there are multiple SuperDividers on the bus the correct one can be selected by the list box labeled “Select Divider from dividers(s) found on the USB bus” and the device will be selected by clicking the OK button. To change the amplitude just move the slider from left (Min) to right (Max). The amplitude is continuously adjusted without needing to hit OK. This provides about 20dB of adjustment range. This generally provides a range of 50-500mV (except at the highest output frequencies where the range is 25-250mV). When the correct SuperDivider is selected the front panel LED indicator will change from yellow to green. All unselected SuperDividers will have a yellow LED indicator and retain their last selected values.

NOTE: The windows GUI has no way to query the last values so when you switch SuperDivider instances with the GUI. At this point the LED will turn green and the SuperDivider setting will agree with the GUI see NOTE: The value of 0 for the divide ratio will power down the chip and reduce the power consumption.

Troubleshooting

1. If the dialog box comes up saying you are missing the DLL then you need to put the FTCSPI.dll in the same directory you run the executable from or in a standard directory where DLL's are located. This should have been done by the superdiv.msi install script.



2. If the USB cable is not connected to the SuperDivider you will get the following message



Uninstall Instructions

To uninstall click on Start button and follow the menus Star->Centellax->SuperDivider->Uninstall SuperDivider as shown in the picture below.





Microsemi Corporate Headquarters
One Enterprise, Aliso Viejo CA 92656 USA
Within the USA: +1 (800) 713-4113
Outside the USA: +1 (949) 380-6100
Sales: +1 (949) 380-6136
Fax: +1 (949) 215-4996
E-mail: sales.support@microsemi.com

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