
UXN14M32KE Windows GUI Installation Guide

UXN14M32K SuperDivider

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

32-Bit Programmable Integer Divider Evaluation Board

Part number: UXN14M32K

Evaluation board: UXN14M32KE



UXN14M32K Evaluation Board

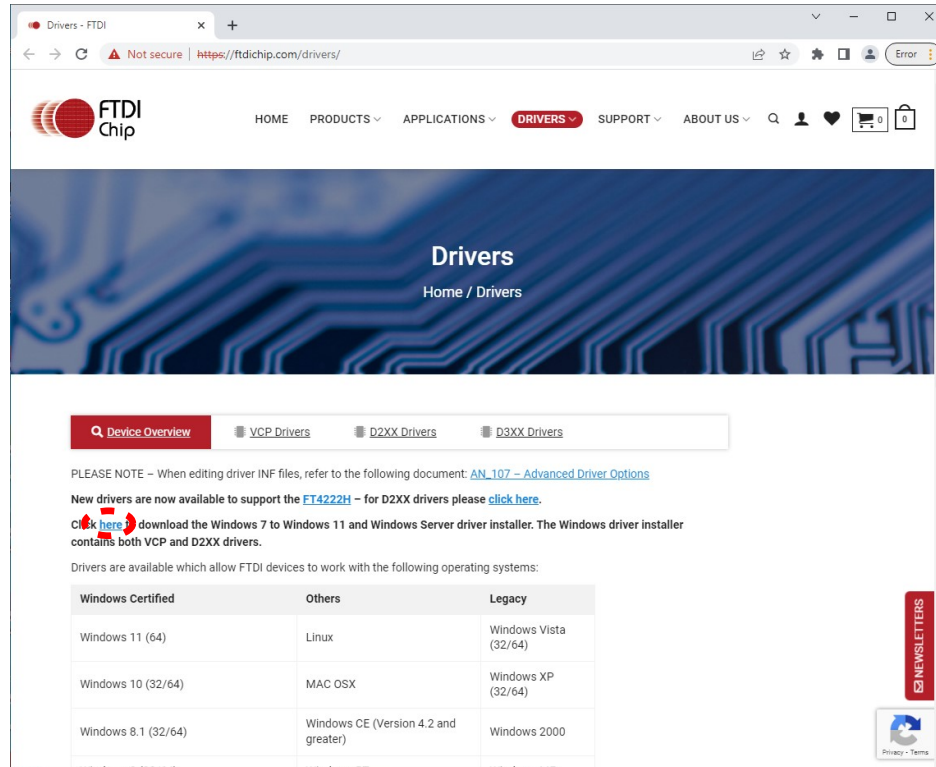
Installation Instructions

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. We begin by installing the necessary 64-bit FTDI driver and then subsequently installing the superdiv.msi application program.

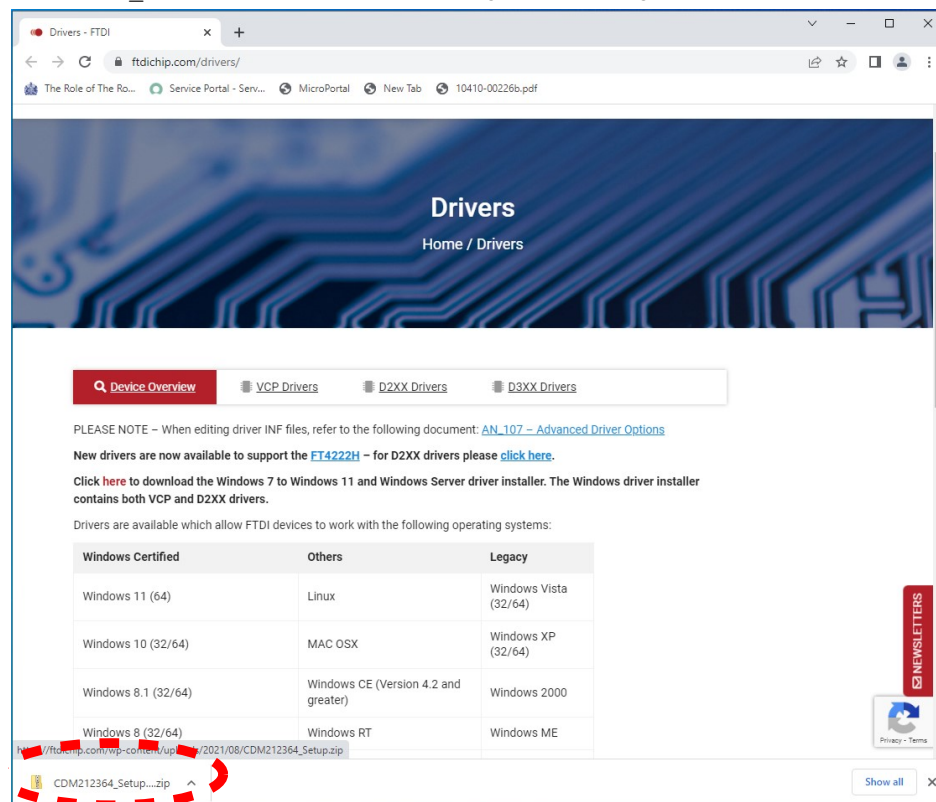
64 Bit FTDI Driver Installation Instructions

In order to install the 64-bit FTDI driver, please follow the steps detailed below:

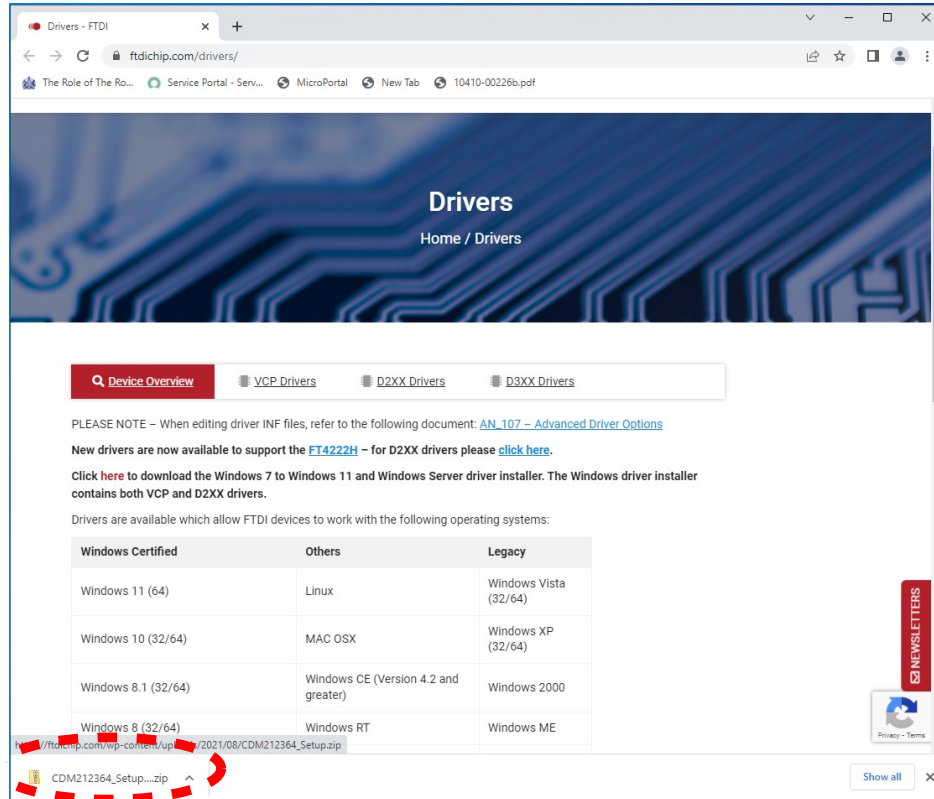
1. Go to the FTDI website. This is where we will download the 64-bit driver for the FTDI software.
ftdichip.com/drivers/
2. Click “here” as shown by the arrow below in order to download the driver.



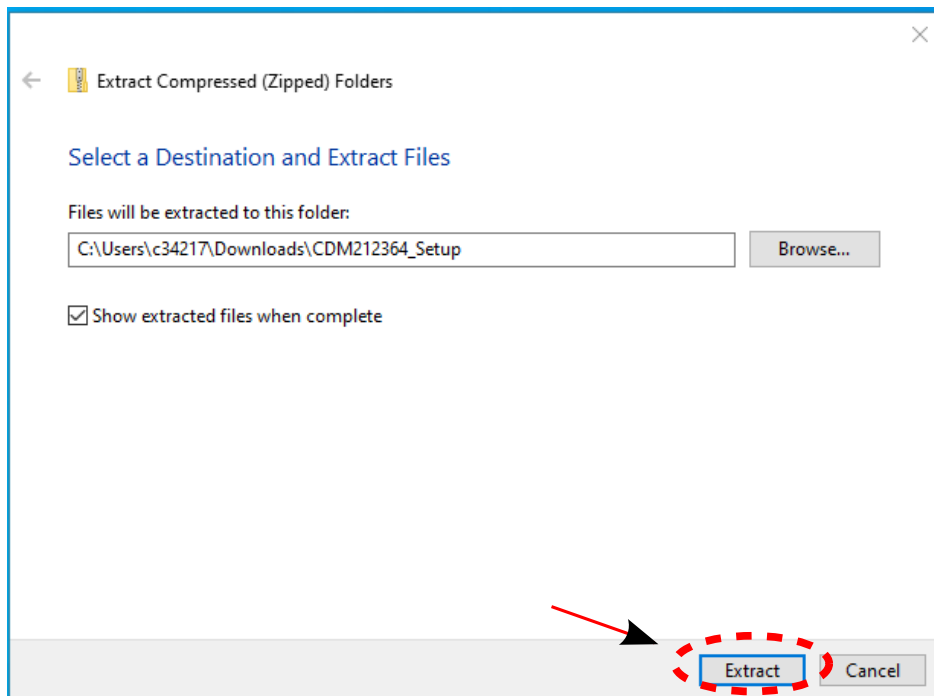
- Unzip the CDM212364_Setup.zip file outlined in the figure below. Right-click and select "Open".



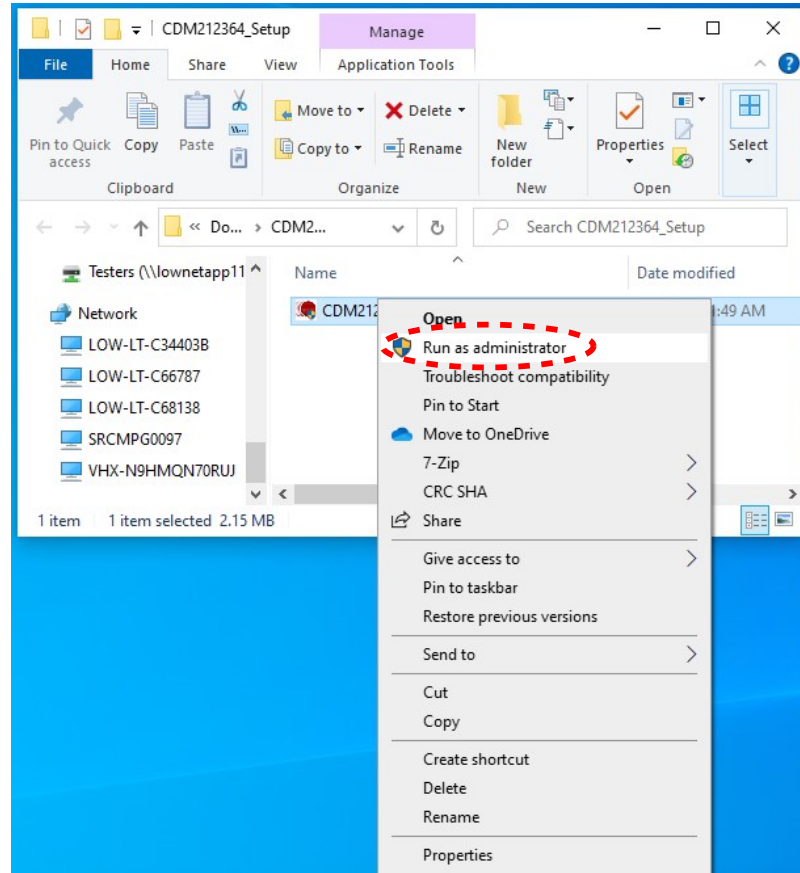
- Extract the zipped file by clicking **Extract All** and then extract into a folder of your choice (I chose the Downloads folder for this example).



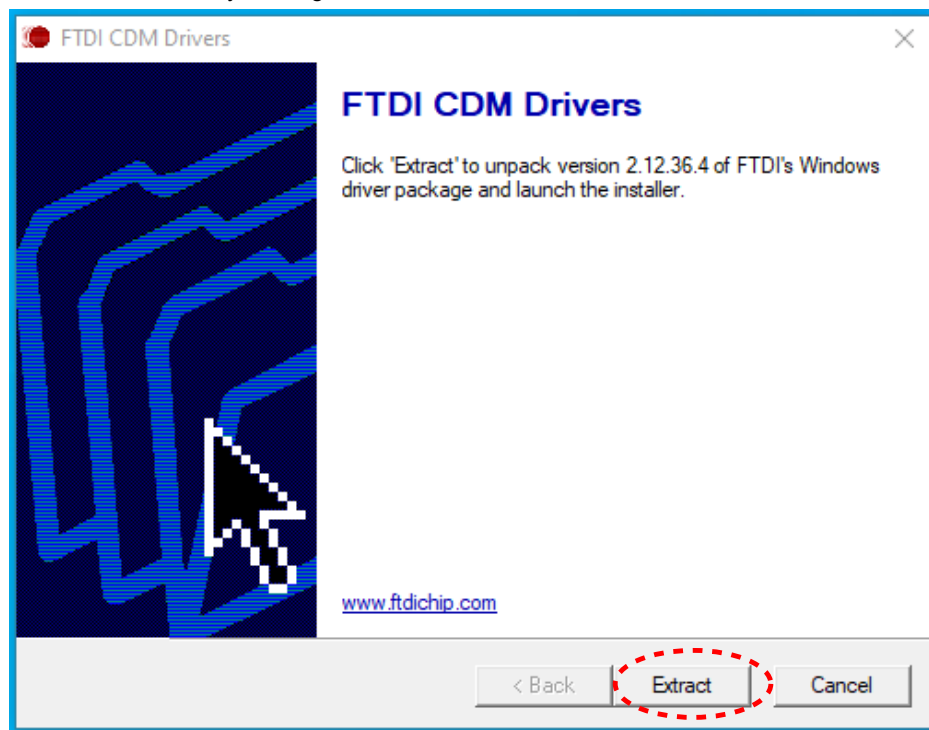
5. Once the desired folder is selected, click on **Extract**.



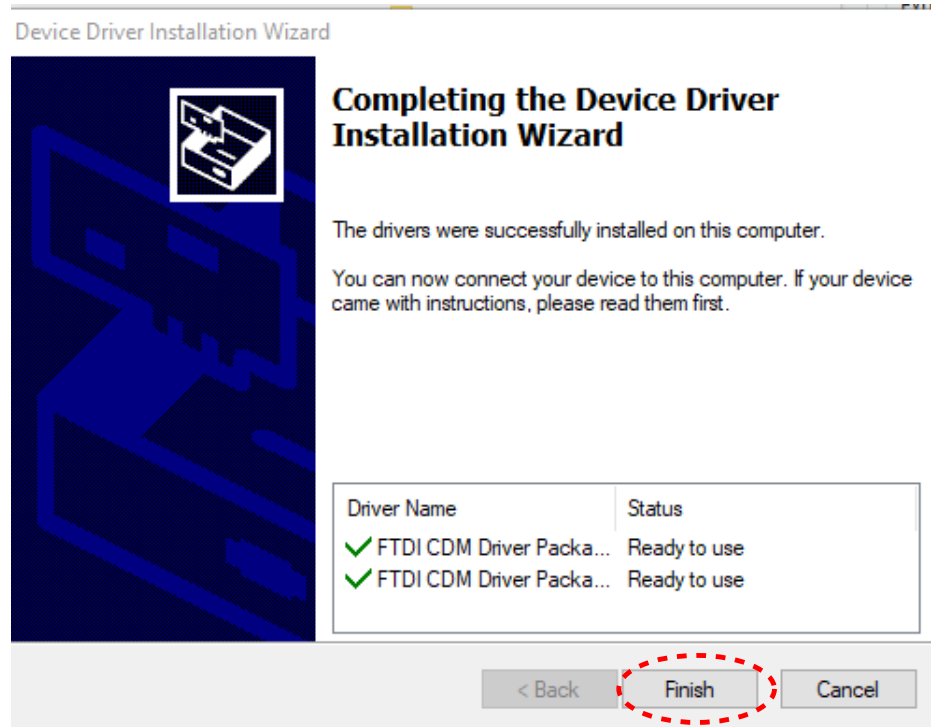
6. Right-click the `CDM212364_Setup` file to install the driver as an Administrator (you must have Administrator privileges on the PC to do this).



7. Extract the *FTDI CDM Drivers* by clicking **Extract** the driver files and launch the installer.



8. Go through the driver installation Wizard and accept the license agreement. Click **Finish** when done.

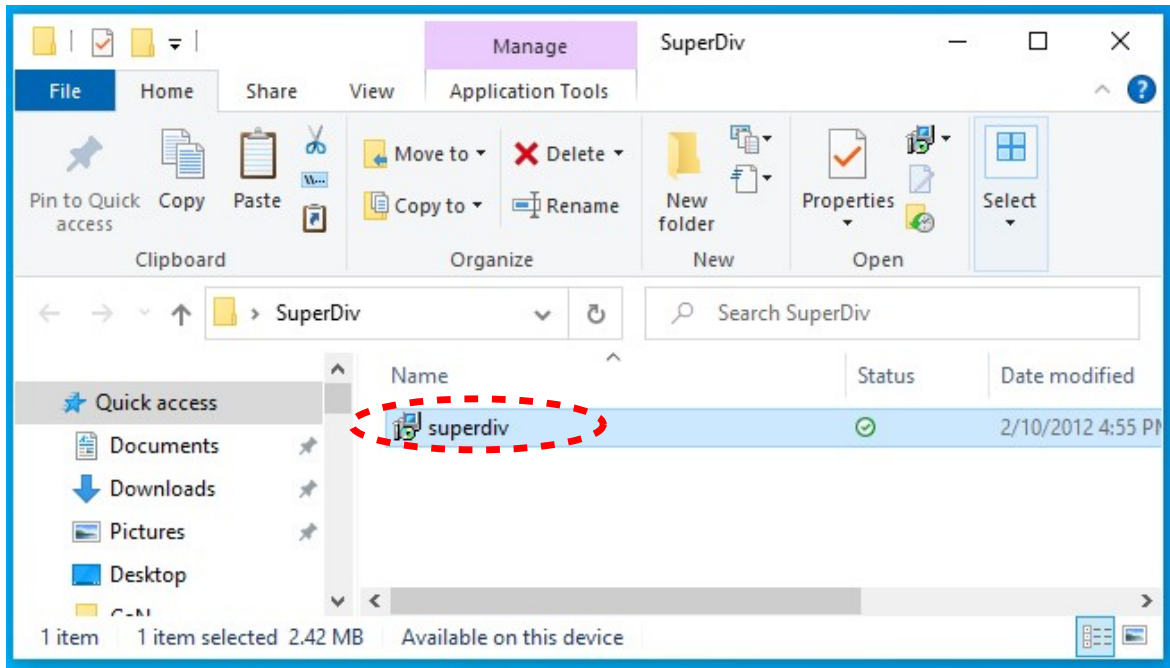


This completes the necessary driver installation instructions. Next, we will install the “superdiv.msi” application program.

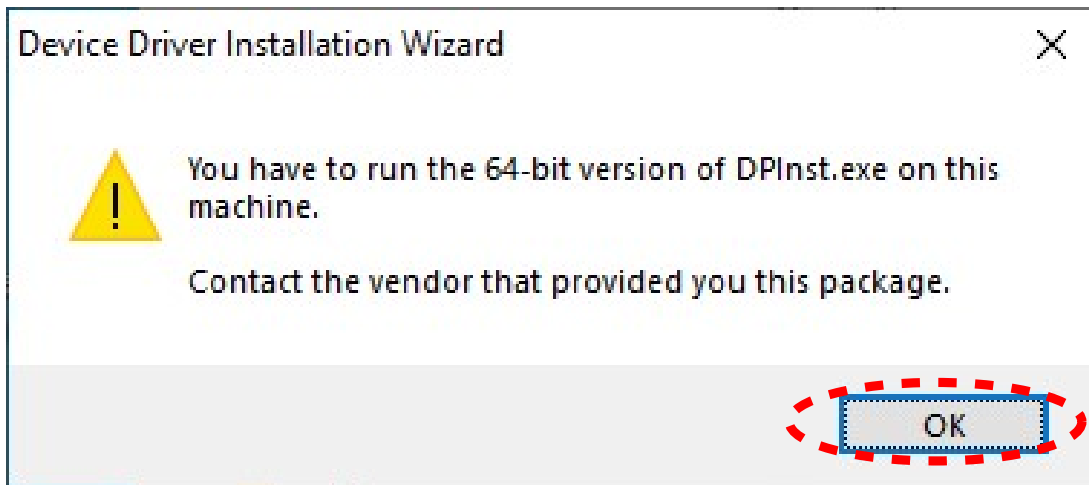
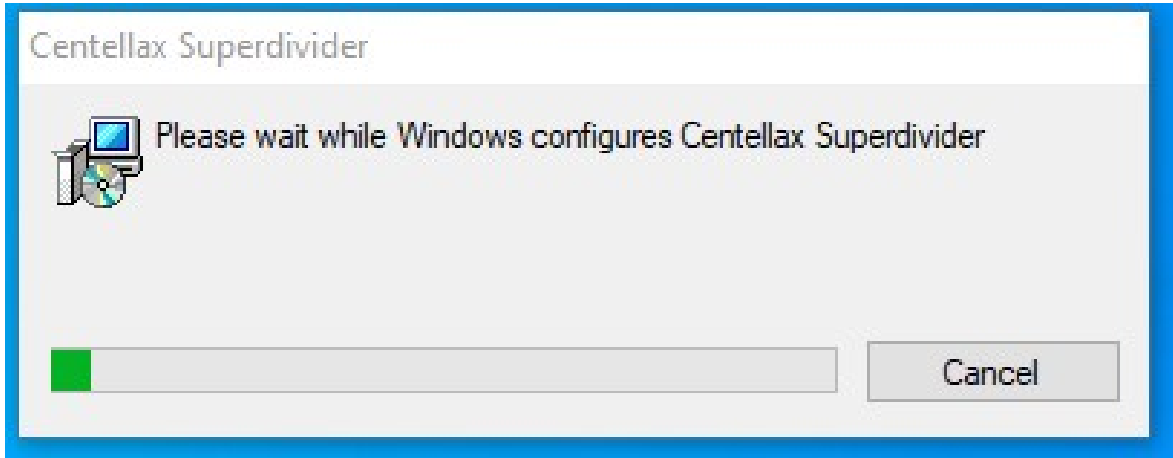
SUPERDIV.MSI Application Program Installation Instructions

The `superdiv.msi` file is the Windows installer file for the Microchip SuperDivider. It includes the Future Technologies driver libraries. To install the `superdiv.msi` application program, please follow the steps detailed below:

1. Double-click the `superdiv.msi` file to start the installation (you must have admin privileges on the PC to do this).

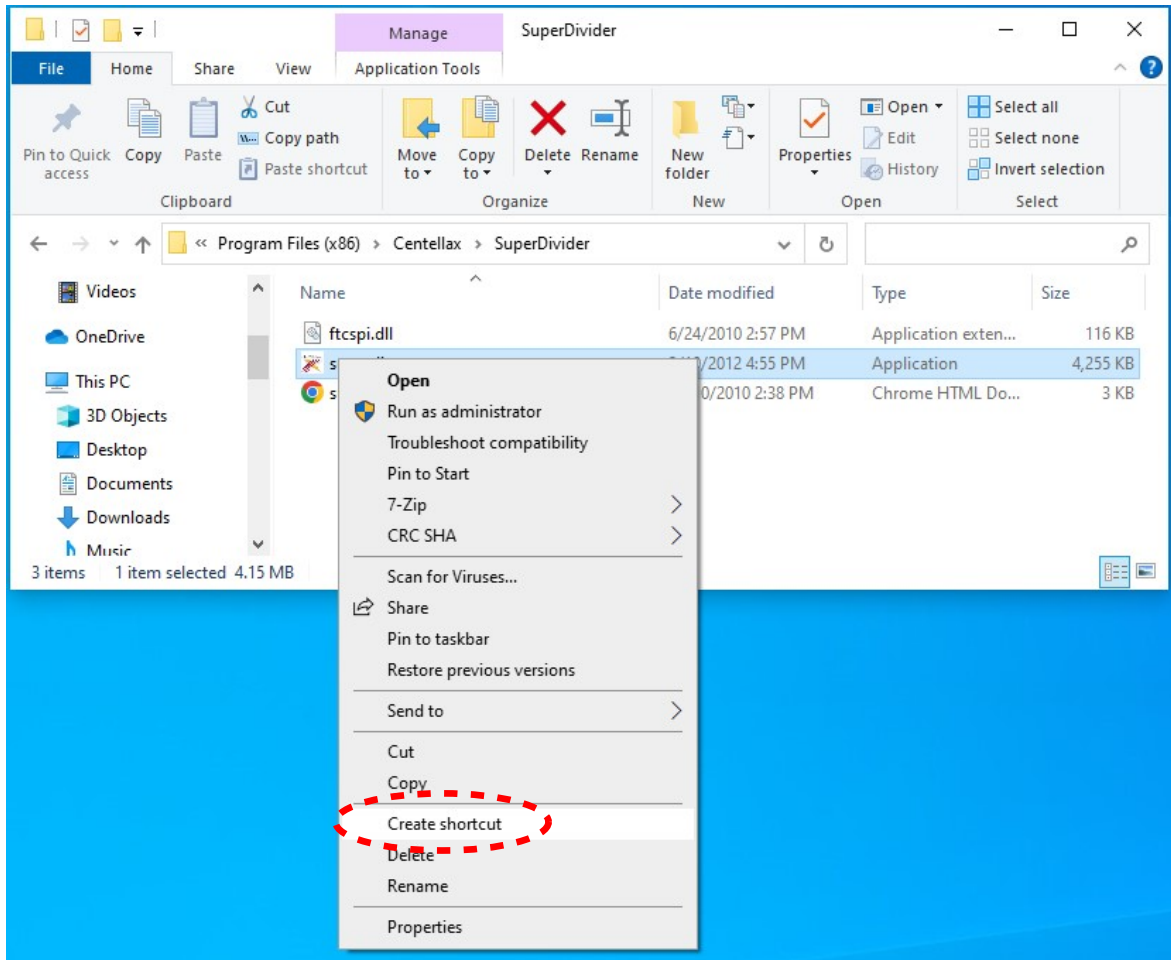


2. Watch the installation as it will make some progress and then display a pop-up warning stating, "You have to run the 64-bit version of DPInst.exe on this machine". Click OK to ignore this pop-up warning



3. If a shortcut is desired, we need to make that shortcut from the directory in which the application was installed. The shortcut will be available to other users for copying to desktop as desired. The user will simply go to the installation directory, and copy the shortcut onto their own user's desktop. The path to the installation directory is: `C:\Program Files (x86)\Centellax\SuperDivider` Right-click the application file and create the shortcut. Then, copy the shortcut onto the desktop. This shortcut will be available to all users for copying to

respective desktops.



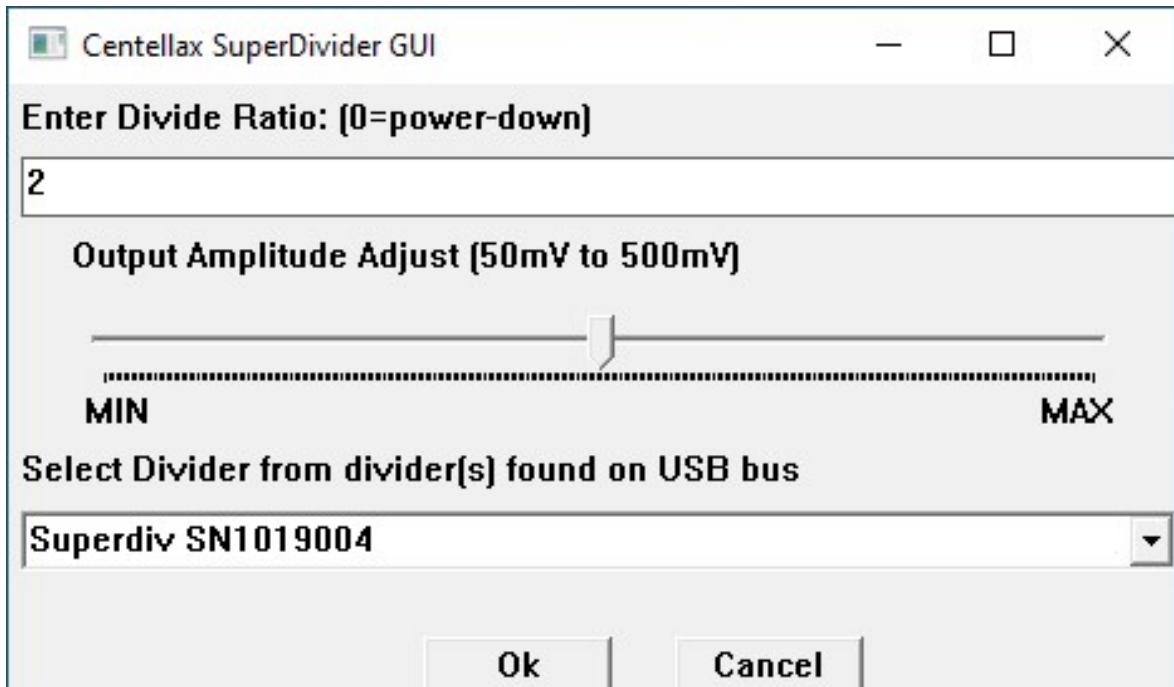
Running the SuperDiv Application Program

1. Double-click the superdiv-Shortcut that was copied to your desktop. Make sure the USB cable is plugged into the board so that the application can find the USB device.



Note: Any other users can access the shortcut by accessing the installation directory and copying the superdiv-Shortcut to their own user desktop

- This will open the application as shown below.



You should be able to run the `SuperDivider` GUI now!

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.

Note: The value of 0 for the divide ratio will power down the chip and reduce the power consumption.

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