How to Run the Vaunix LDA SDK Example Program
10/11/22

For an introduction to using the Apple macOS programs used in this explanation you can read the material provided by Apple.

Finder User Guide

https://support.apple.com/guide/mac-help/finder-mchlp2605/mac

How to go to a specific folder using Finder:

https://support.apple.com/guide/mac-help/go-directly-to-a-specific-folder-on-mac-mchlp1236/mac

Terminal User Guide

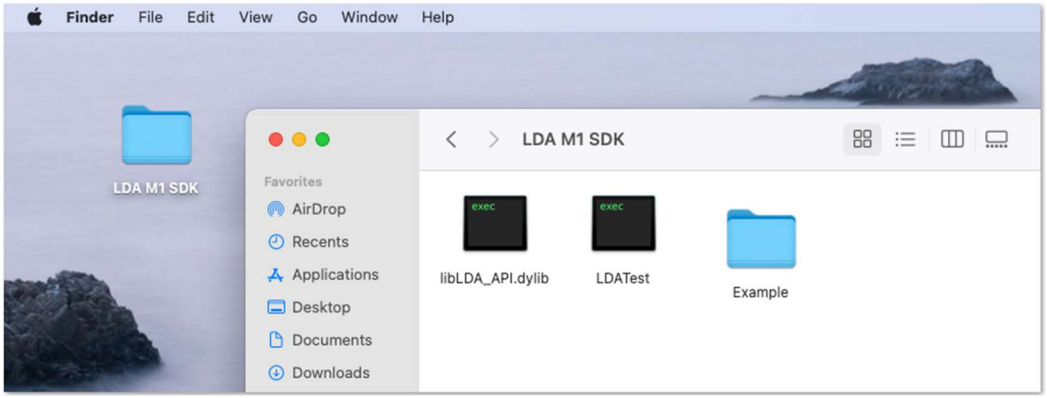
https://support.apple.com/guide/terminal/welcome/mac

More information on running command line programs using Terminal:

https://support.apple.com/guide/terminal/execute-commands-and-run-tools-apdb66b5242-0d18-49fc-9c47-a2498b7c91d5/mac

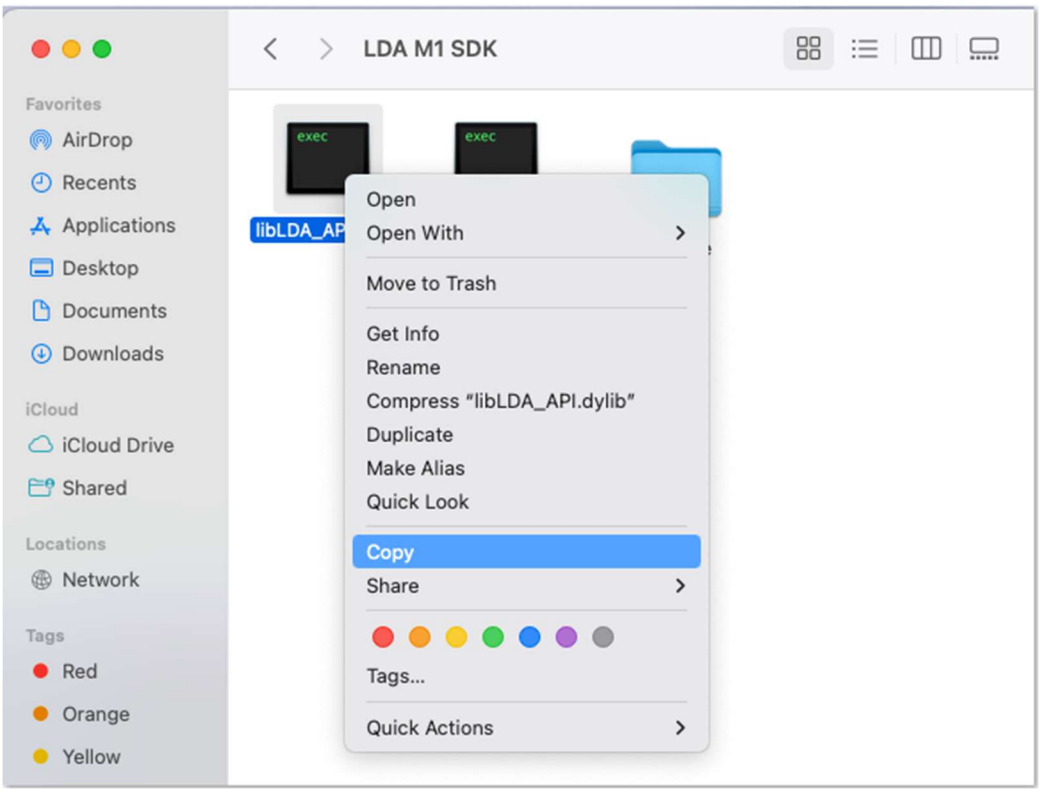
This example of how to use the Vaunix LDA SDK example program on macOS is not the only sequence of steps that you can use but shows one sequence of steps you can use.

1) Copy the LDA M1 SDK to your desktop using Finder.



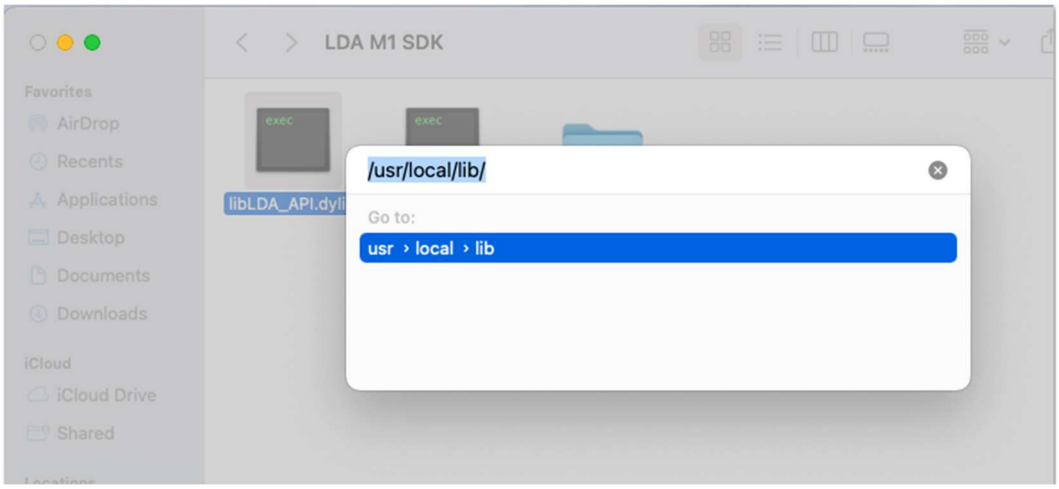
You can see the contents of the LDA M1 SDK folder. The libLDA+API.dylib contains the API functions you can use to control your LDA device. The LDATest program is a ready to run version of the example program included in the Example folder.

2) Copy the libLDA_API.dylib file to the /usr/local/lib folder on your system. Some systems already have the /usr/local/lib folder present, on other systems you will need to create the /usr/local/lib folder if it is not present. If you need to create the folder use Finder to make a new folder named lib that is located in the /usr/local folder. You may need to enter your password to enable creation of the folder.

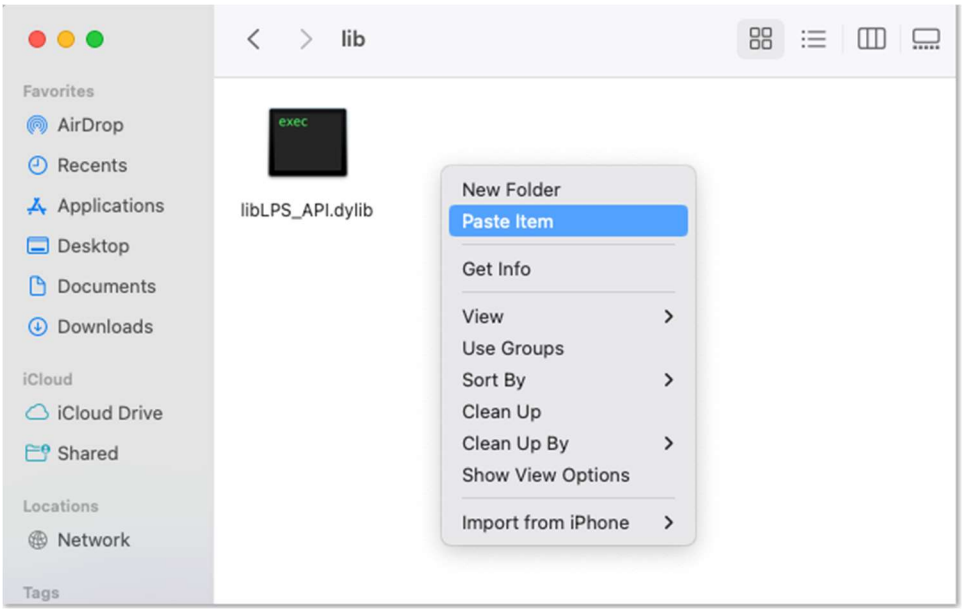


Select the libLDA_API.dylib file and copy it.

In Finder go to the /usr/local/lib folder. Choose Go > Go to Folder in Finder and then enter the path name. If the path name does not exist, use Folder to create the lib folder.



Paste the libLDA_API.dylib file into the /usr/local/lib folder.

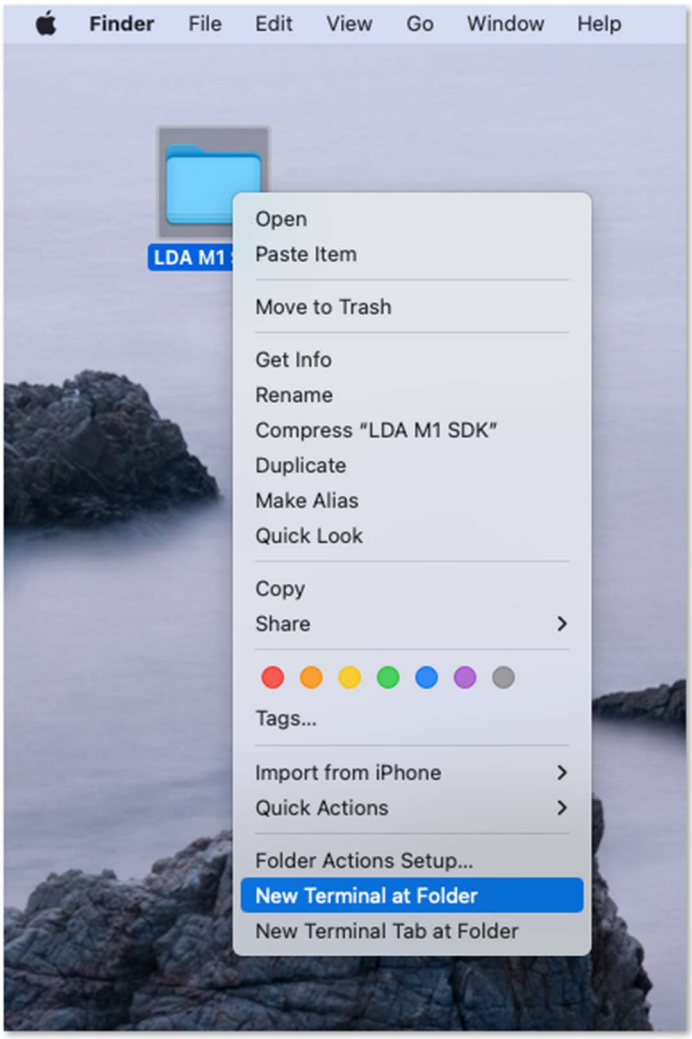


On this system the Vaunix Phase Shifter library was already present.

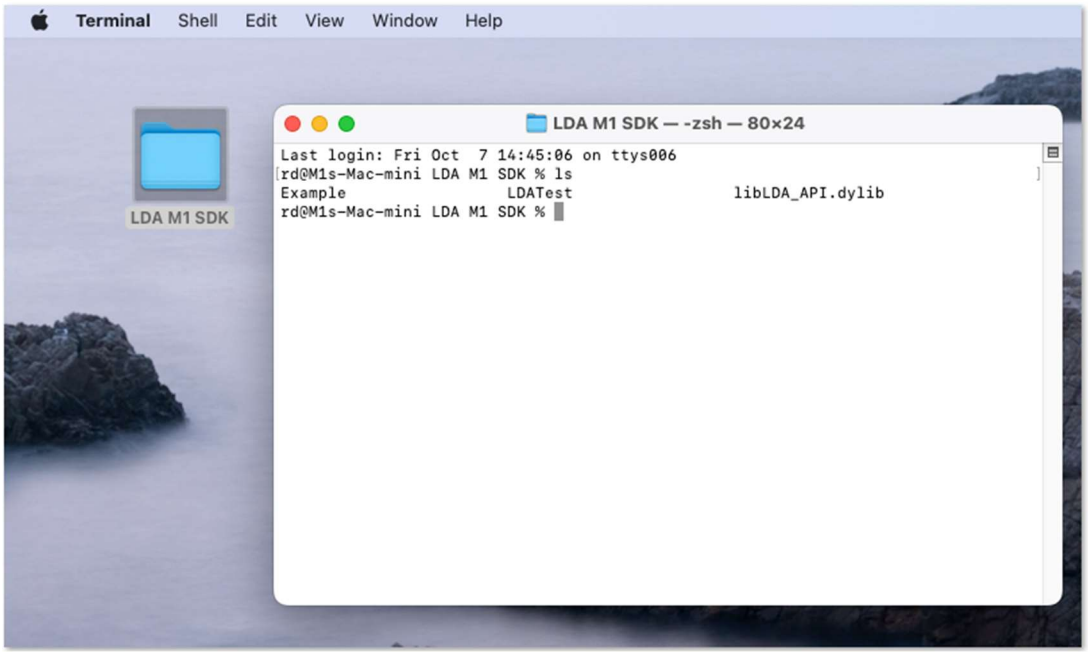
After the libLDA_API.dylib file has been copied to the /usr/local/lib folder you are ready to run the example program.

On some systems which have enhanced security settings you may need to adjust the permissions related to the library so that you can execute it. If you encounter this situation the simplest strategy will be to contact your IT department help desk for assistance.

3) Open a Terminal window at the LDA M1 SDK folder.

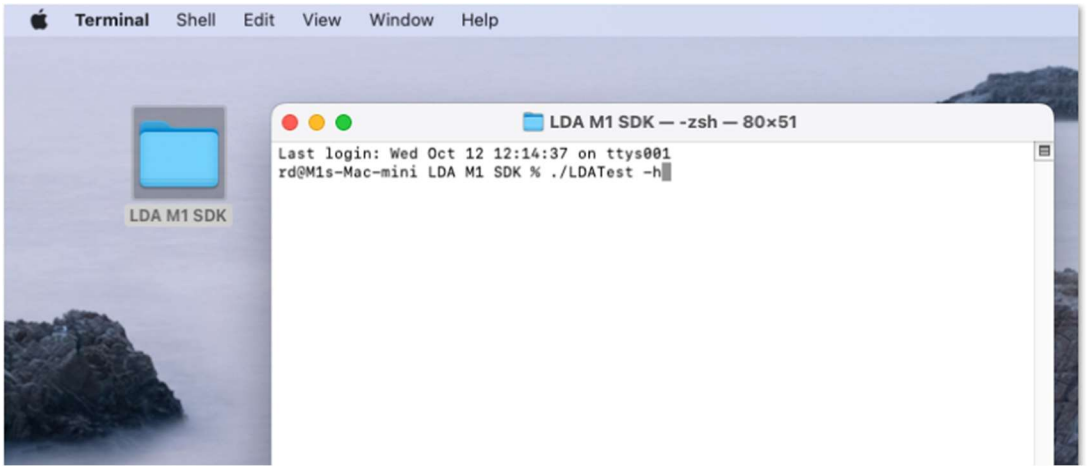


The Terminal window will show the LDA M1 SDK folder contents if you enter the ls command.

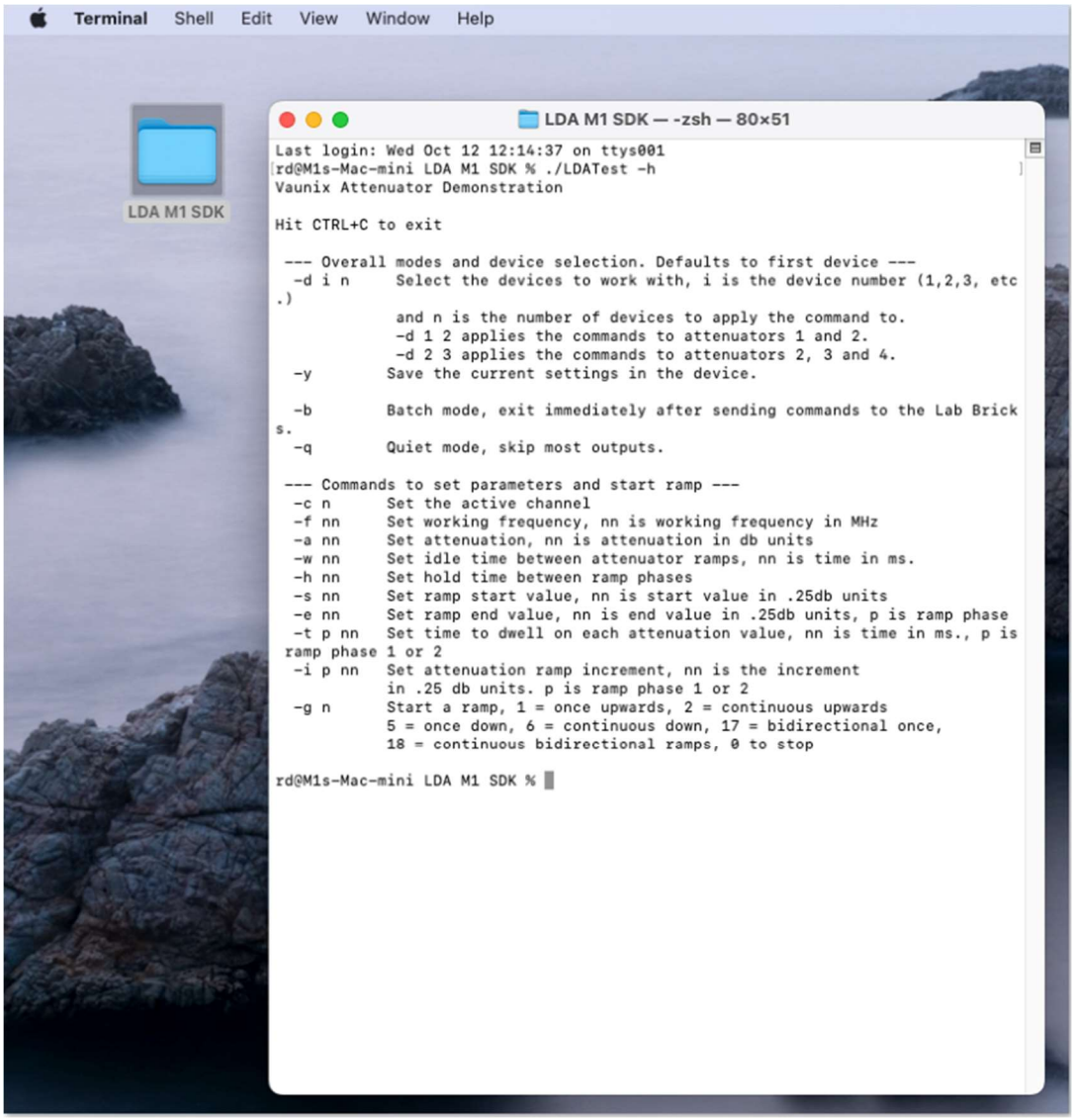


You may want to expand the Terminal window to make it easier to see the example program's output without scrolling.

4) Type the path to the LDATest program, which is ./LDATest Enter the command line arguments after the name of the program. You can use the -h command line argument to see a list of available command line arguments.

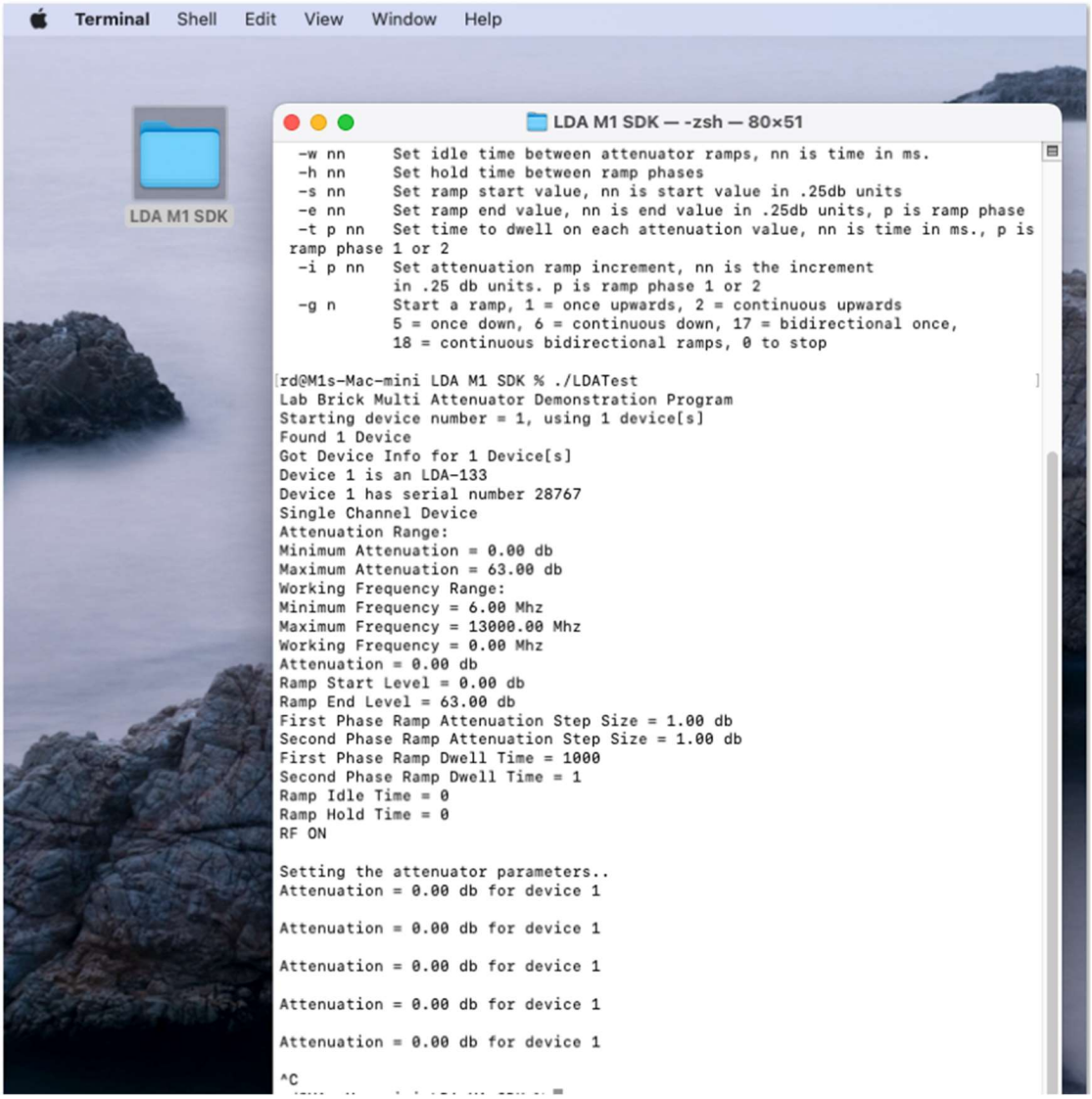


Press the Enter key to run the LDATest program.



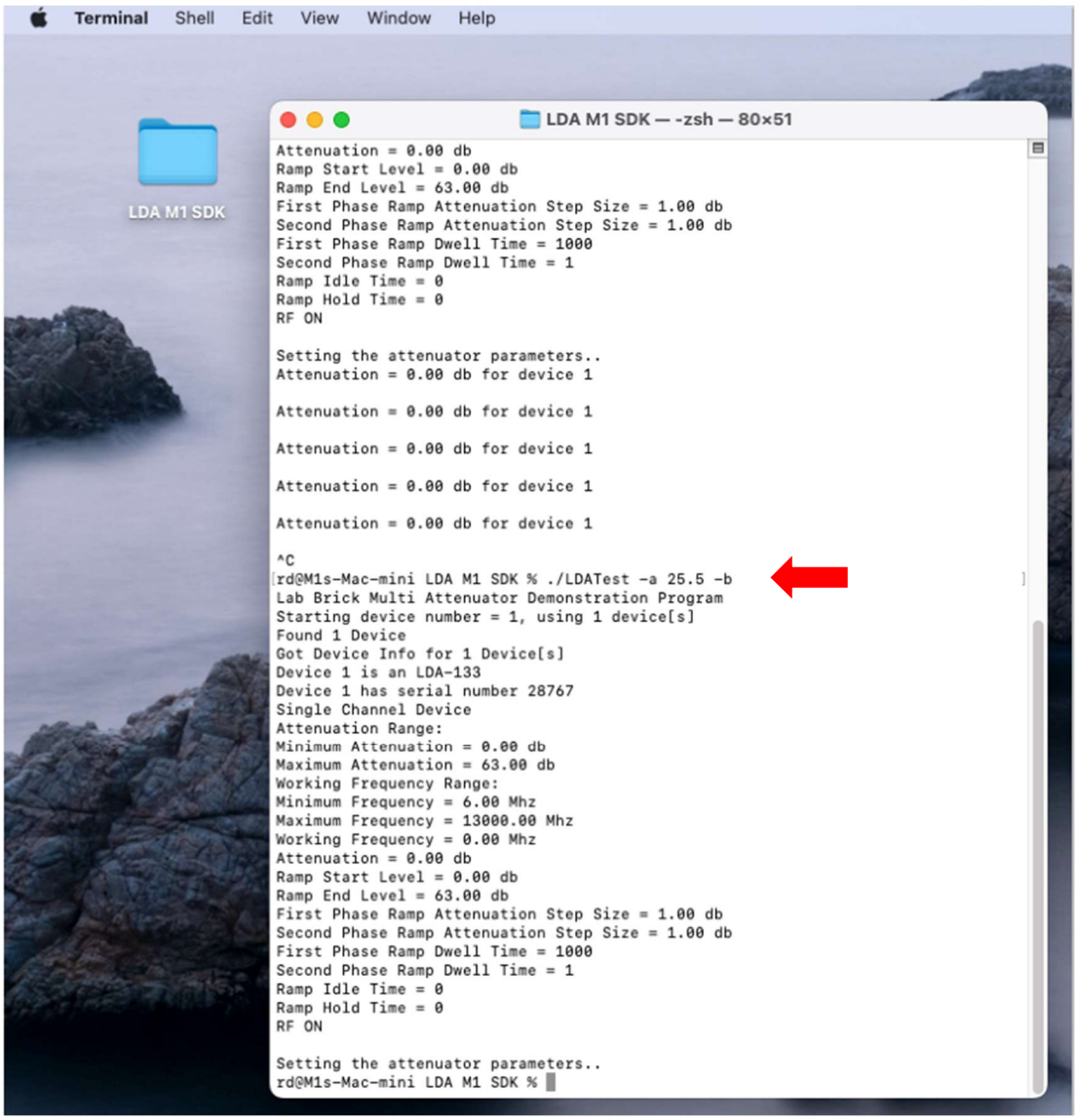
5) Running the LDATest program with no options will show the settings of the attached attenuators. In this case an LDA-133 attenuator is being used. Because there is not an active

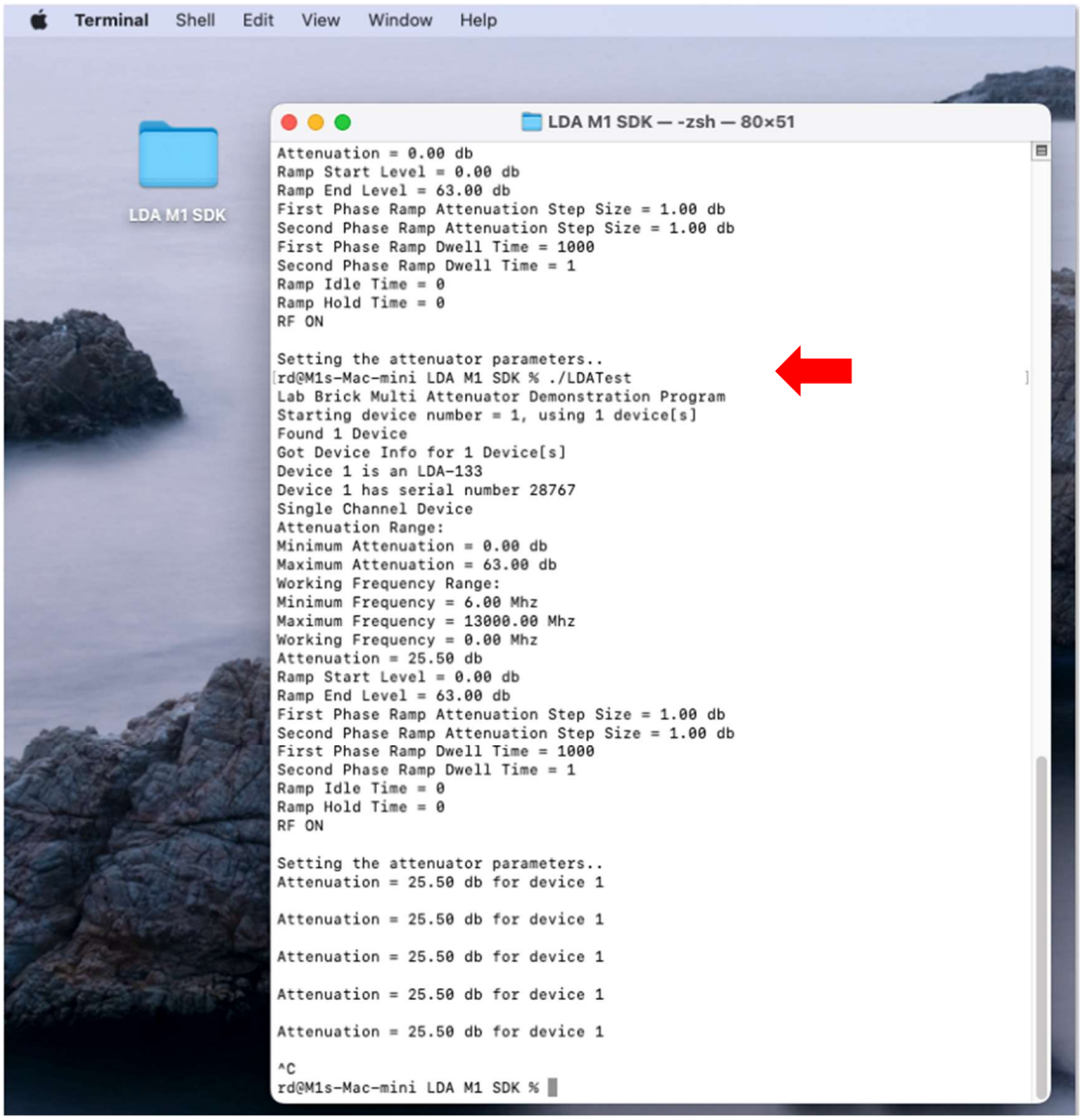
ramp or profile the attenuation does not change. A Control-C was pressed to exit from the LDATest program.



6) In the examples shown here the attenuation is set to 25.5 db on an LDA-133 attenuator. The -b option allows you to have the example program exit immediately after setting the attenuator parameters, the -q option reduces the amount of information displayed. If you enter neither

option the example program will display the attenuation value repeatedly. You can press Control-C to exit from the program.



The command line option -a will set the attenuation. In this case 25.5 db was chosen.

The LDA device's settings can be displayed by running the LDATest program with no command line options.