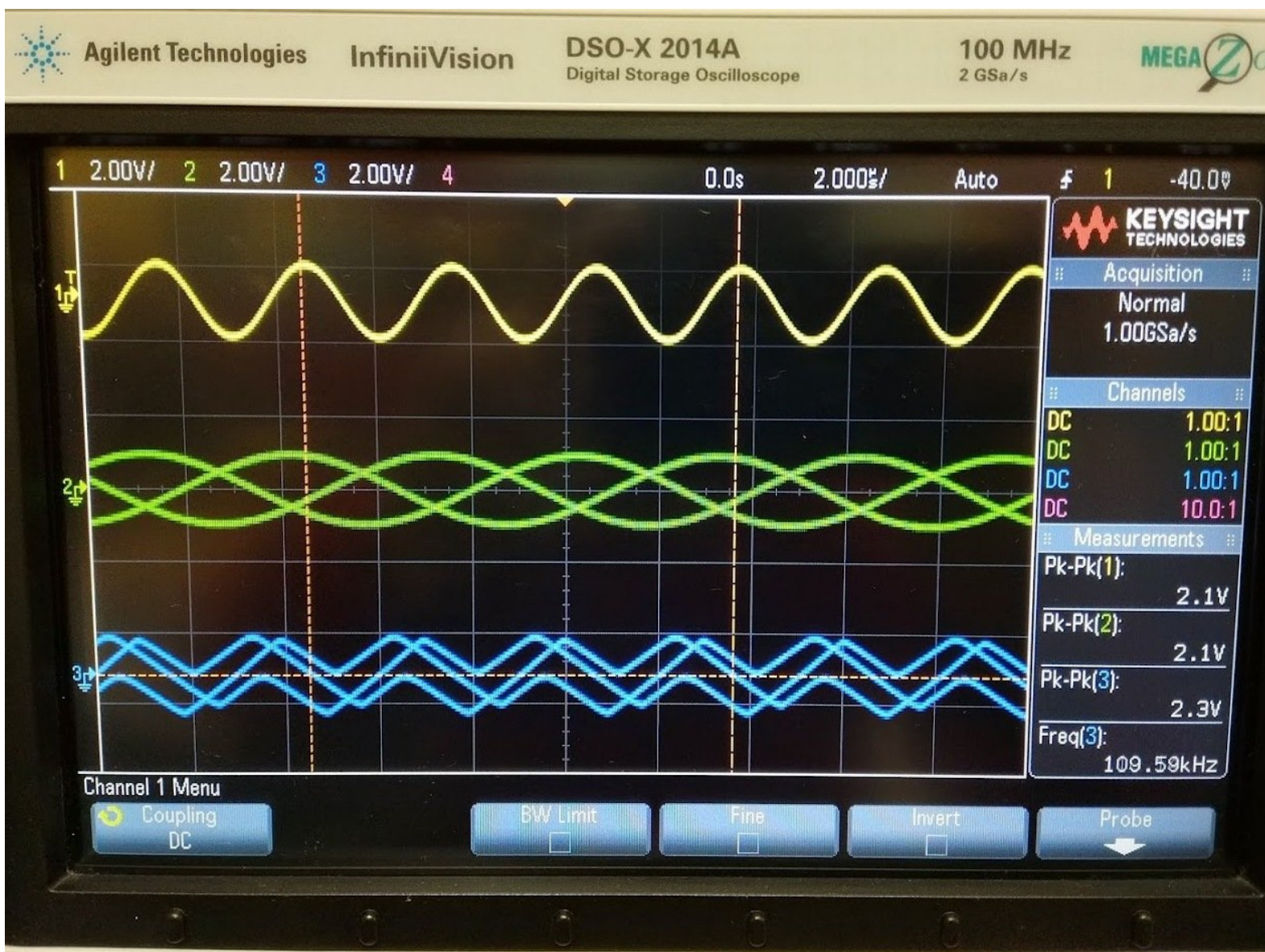




# Oscilloscope Advanced Usage (Math Functions)

This guide teaches how to perform display mathematical operations on waveforms.

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## Introduction

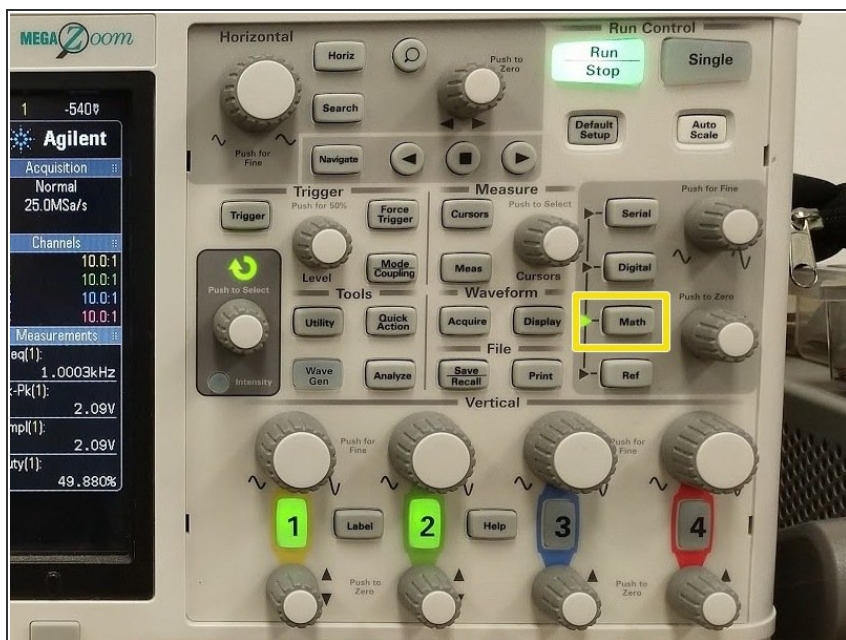
This guide teaches how to perform display mathematical operations on waveforms.



### TOOLS:

- [Keysight DSOX2024A Oscilloscope](#) (1)
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## Step 1 — Access math functions menu



- You can display mathematical operations on your plotted waveforms (e.g. subtract two waveforms)
- Press the Math button

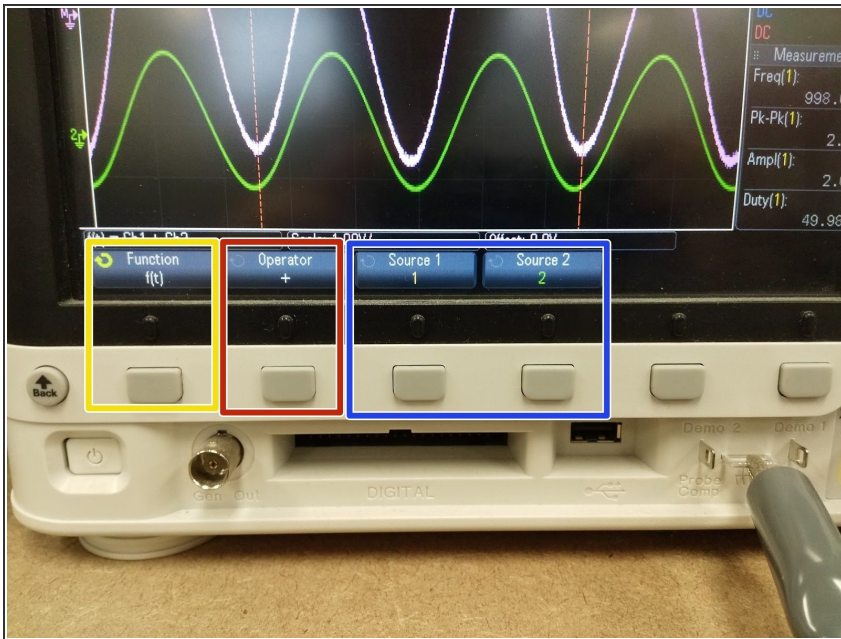


## Step 2 — Select on-screen options



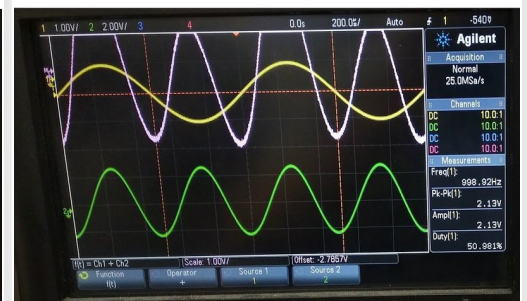
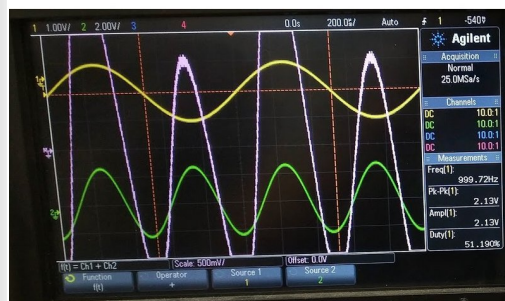
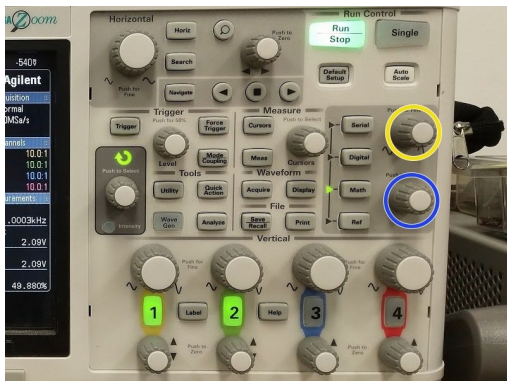
- You should now see a set of on-screen options which modify different parameters such as what type of function is being performed, on which signals, and in what order.
- Press a softkey (one of the buttons under the on-screen options) under the parameter you wish to change to pull up a pop-up menu for selection of options.
  - Press again to toggle/scroll through the options. Once the scrolling menu is on the option you want to select, simply stop scrolling, and the pop-up menu will disappear.
- Alternatively, you can use the select wheel in the “Trigger” section of buttons to scroll through the lists in the pop-up menus.

### Step 3 — Math function options



- The first button toggles between displayed and internal
- The second scrolls through different operators to be used in the following way:
  - Source 1 (operator) Source 2
- The last two toggle which signals/probes should be used for Sources 1 and 2

### Step 4 — Adjust math function scale and position on screen



- Math functions, can be rescaled vertically and repositioned vertically, just like the signals captured by the probes
  - The top knob is for vertical scale adjustment
  - The bottom knob is for vertical offset adjustment
- ① Reposition the math function as well as your signals in such a way that it is easy for you to read.