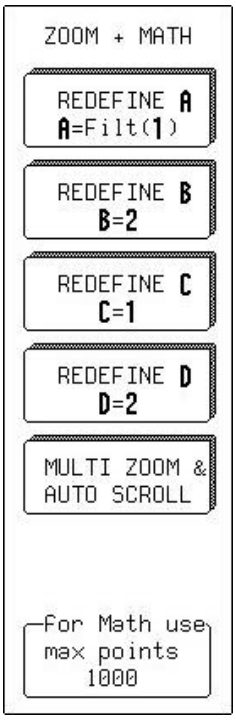
Operation

SETTING UP THE SCOPE

There are five basic steps to select and set up a filter:

1. Select MATH functions.
2. Select Filter as the Math Type
3. Select the filter type.
4. Set desired values for the frequency edge and the transition region width.
5. Select an oscilloscope channel as the filter's input.

Running DFP



To select the Math function

1. Press the **MATH** button (**MATH SETUP** or **MATH TOOLS**).
2. From the "ZOOM + MATH" menu, press the soft key alongside the desired math trace (here, Redefine A)

Pressing a Zoom + Math **TRACE ON/OFF** (A–D) button will bring up the next menu.

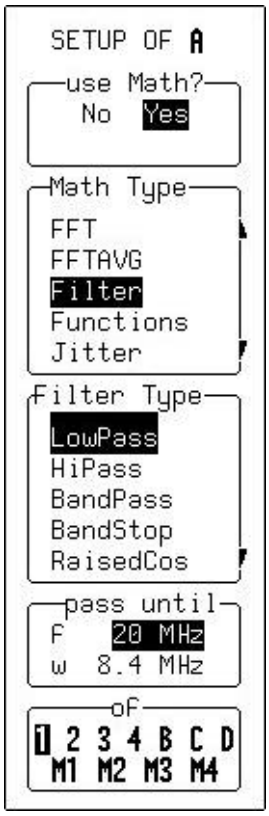
Note

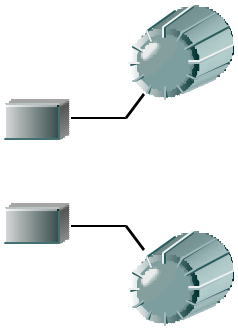
The number of "max points" displayed has no influence on filter operation.

After you select the desired trace, the following menu shown here is displayed.

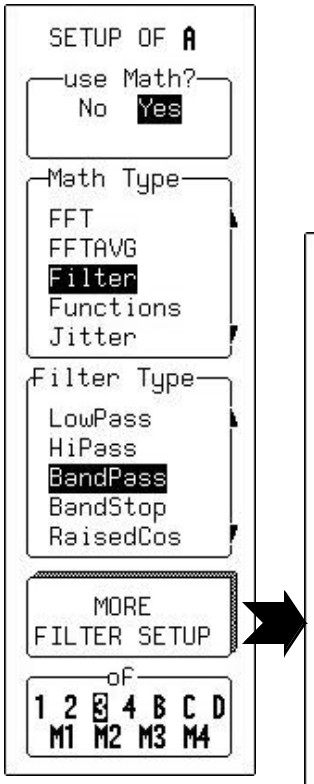
From the "SETUP OF A" menu

1. Select **Yes** from "use Math?".
2. Select the **Filter** option from the "Math Type" menu.
3. Select a filter from the "Filter Type" menu.
4. In the example at left, the **LowPass** filter was selected. The "pass until" box allows you to set the values for the frequency edge (f) and the transition region width (w). Press the corresponding soft key to switch between frequency and width.
5. Turn the associated adjustment knob to set the desired values.
6. From the "of" menu, select the channel to which the filter is to be applied.

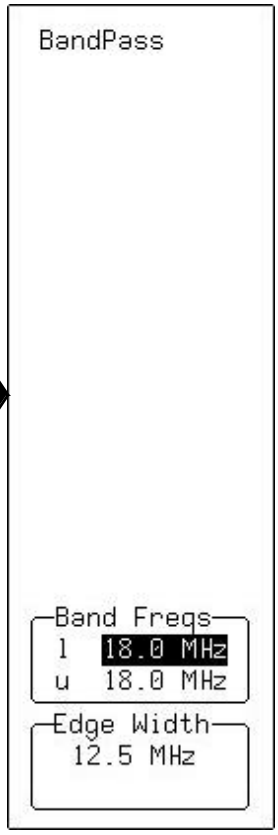




When you select the Band Pass filter, the menu at left appears:

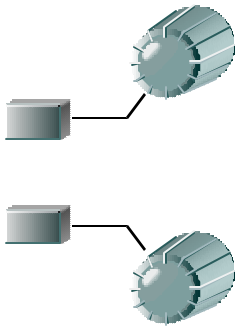


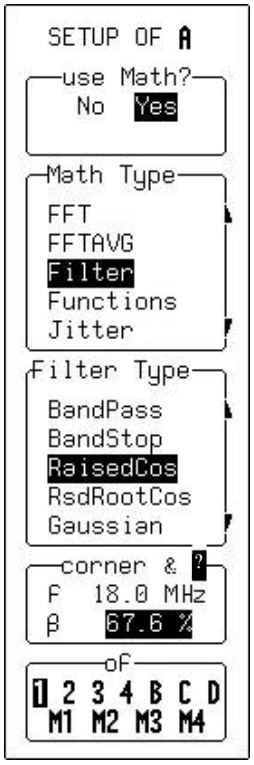
Press the "MORE FILTER SETUP" soft key. The following menu appears:



The soft key toggles between the lower (l) and upper (u) frequency edges. Use the associated adjustment knob to set values for both parameters.

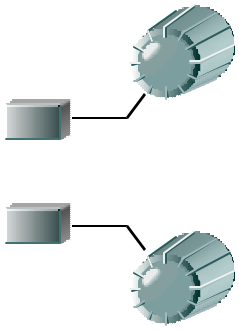
Edge Width is set from the lower box. Use the soft key to increase the width, or the knob to adjust the value.

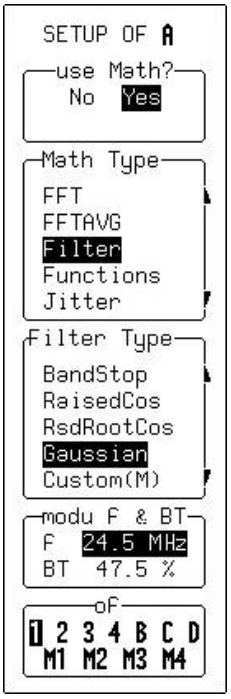




When you select Raised Cosine or Raised Root Cosine filters, the menu at left appears:

Press the corresponding soft key to switch between corner frequency (f) and beta (?). Turn the associated knob to set values for these parameters.





When you select Gaussian filters, the menu at left appears:

Press the corresponding soft key to switch between modulation frequency (f) and BT, where B = half power bandwidth expressed as a fraction of the modulation frequency and T = bit (or modulation) period. Turn the associated knob to set values for these parameters.

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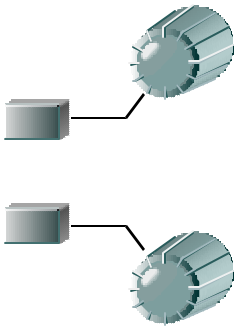

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