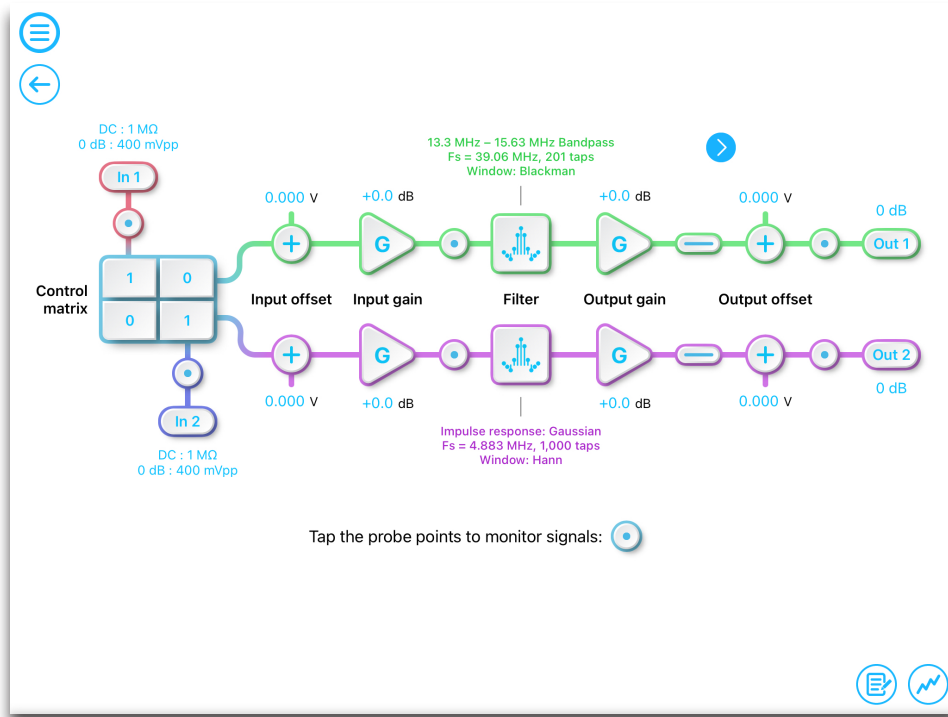




With the Moku:Pro FIR Filter Builder, you can design and implement lowpass, highpass, bandpass, and bandstop finite impulse response (FIR) filters with up to 14,819 coefficients. The Moku:Pro desktop interface allows you to fine-tune your filter's response in the frequency and time domains to suit your specific application. Select between four frequency response shapes, five common impulse responses, and eight window functions.



| | | | | |
|---|--|------------------------------------|--|--|
| Sampling Rate Up to 39.06 MHz | Filter Coefficients Up to 14,819 | Input Range Up to 40 Vpp | Output Voltage Range Up to 10 Vpp (50 Ω) | Integrated Oscilloscope 1.25 GSa/s |
|---|--|------------------------------------|--|--|

Features

- Visualize your signal and configuration in real-time: design filters in the time domain or in the frequency domain
- Visualize the filter's transfer function, impulse and step response, or group and phase delay
- Block diagram view of the digital signal processing chain with built-in probe points for signal monitoring and logging
- Load your own filter coefficients or enter an equation to create a customized impulse response

Specifications

- Independent channels: 2
- Coefficient count at various sampling rates:
 - 2 to 232 @ 39.06 MHz
 - 2 to 928 @ 9.766 MHz
 - 2 to 7424 @ 1.221 MHz
 - 2 to 14819 @ 610.4 kHz
 - 2 to 14819 @ 305.2 kHz
- Design domains: time (impulse response), frequency (frequency response)
- Impulse response: rectangular, sinc, equation input, custom, etc.
- Frequency response: lowpass, highpass, bandpass, bandstop
- Window functions: Blackman, Hanning, Barlett, etc.

Applications

- Impulse response simulation
- DSP system design
- Noise filtering
- Signal amplification
- Fractional delay generation