With Moku:Go’s FIR Filter Builder, you can design and implement lowpass, highpass, bandpass, and bandstop finite impulse response (FIR) filters with up to 14,819 coefficients. Moku:Go’s 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.

**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 @ 3.906 MHz
  - 2 to 928 @ 976.6 kHz
  - 2 to 7424 @ 244.1 kHz
  - 2 to 14,819 @ 61.04 kHz
  - 2 to 14,819 @ 30.52 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.