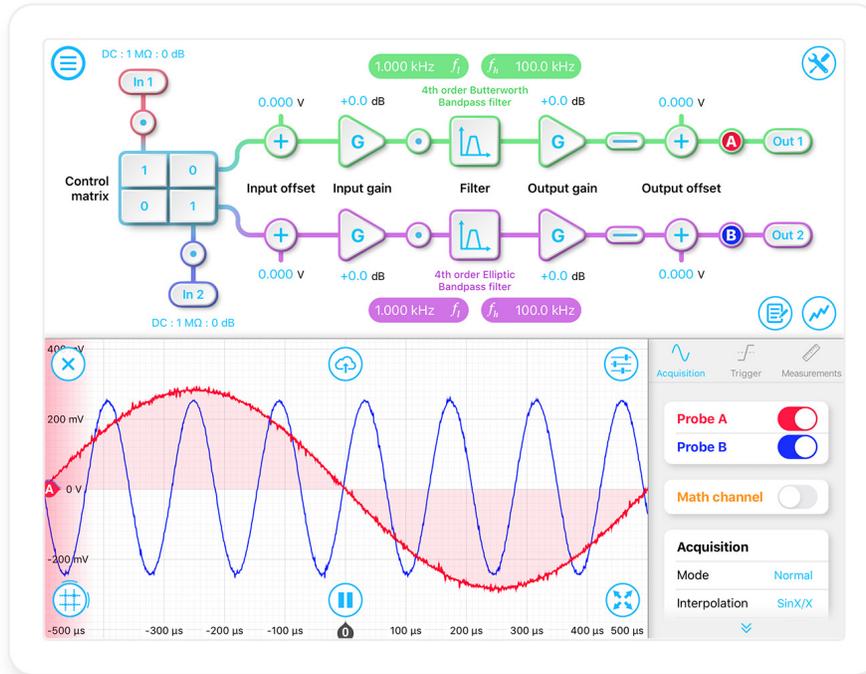




With Moku:Lab's Digital Filter Box, you can interactively design and generate different types of infinite impulse response filters with sampling rates of 122 kHz and 15.625 MHz. Select between lowpass, highpass, bandpass, and bandstop filter shapes with up to seven fully configurable types including Butterworth, Chebyshev, and Elliptical.



Sampling Rate 122 kHz or 15.625 MHz	Filter Order 2, 4, 6, 8	Input Range ± 0.5 V or ± 5 V	Output Voltage Range ± 1 V into 50 Ω	Filter Shapes Lowpass, Highpass, Bandpass, Bandstop, Custom
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Features

- Visualize your signal and configuration in real-time: design your filter's frequency response using the interactive Bode plot
- Block diagram view of the digital signal processing with built-in probe points for signal monitoring
- Versatile input and output options: 2 input channels, 2 output channels with optional blending for MIMO systems
- Supports custom filter designs

Specifications

- Filter shapes: lowpass, highpass, bandpass, bandstop
- Filter types: Butterworth, Chebyshev I, Chebyshev II, Elliptic, Bessel, Gaussian, and Legendre
- Corner frequencies: 1 Hz - 6 MHz
- Input-output latency: sub-microsecond
- Passband ripple: configurable 0.1 – 10 dB
- Stopband attenuation: configurable 10 – 100 dB
- Adjustability: independently adjustable input and output offsets and gain

Applications

- System design
- Closed-loop control
- Noise filtering
- Signal amplification