

FPGA Impulse Response (FIR) Filter for Gage Digitizers

Order-No.: 250-181-000 Series/Model: eXpert / Finite Impulse Response (FIR)



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Main Product Features

- Allows Processing by an **FIR Filter** with up to **20 Taps**;
Can be Extended in Software to up to **39 Symmetric Taps**
- **FIR Filter Coefficients** can be Tailored to Emphasize
Signal Pulses of a Specific Shape
- **FIR Filtering** is Performed by **GaGe Digitizer Hardware**,
Allowing the Host-PC to Handle Other Tasks in Parallel
- Data is Filtered During Transfer to the PC, so that the
Repetitive Signal Capture Rate of the Digitizer is not Reduced
- **FIR Filter Algorithm** Covers a Wide Range of Common Numerical
Filters such as Moving Average Filters & Gaussian Filters
- Transparent to GaGe's Standard CompuScope Digitizer Drivers
for Windows, so that no Special Software is Required
- Compatible with CompuScope Digitizer Software Development Kits (SDKs) for C/C#,
LabVIEW, & MATLAB

The onboard FIR Filtering eXpert FPGA DSP feature is a powerful method for removing unwanted signal features (like noise) and emphasizing signal features of interest.

Traditional analog filters are usually limited to rather simple filtering methods, such as low-pass filtering, high-pass filtering and band-pass filtering. Numerical filtering of digitized waveform data, available on GaGe high-performance digitizers, allows much more complex filtering methods such as Moving Average Filters and Gaussian Filters to be implemented.

Applications

- Ultrasonic testing
- laser spectroscopy
- Lidar systems
- Fiber optics tests
- Radar tests
- Stimulation and response tests
- Network analysis

Manufacturer page

<http://www.gage-applied.com/>

Data Sheet Download

 [eXpert-FPGA-DSP-FIR-Filtering-for-GaGe-Digitizers \(257.5 KiB\)](#)



Opening the Download-Files May require the Adobe-Acrobat-Reader.
[Click here to download the Adobe-Acrobat-Reader.](#)

If you have questions please don't hesitate to contact us any time.

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