

FPGA Impulse Response (FIR) Filter for Gage Digitizers

Order-No.: 250-181-000 Series/Model: eXpert / Finite Impuls 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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