

Press Release For Immediate Release

New software generates high-speed, low-latency OCT images by linking waveform digitizers to GPUs using True DMA

Montreal, Canada (May 9, 2018)

AlazarTech, a manufacturer of highperformance, low-cost PC-Based Instruments, today announced the release of a new OCT Signal Processing Library called

GPU Host **True DMA** GPU Kernel **GPU** input output ADC Data buffer buffers from ATS Digitizer ATS-GMA-BASE ATS-GMA-OCT

ATS-GMA Data Flow

ATS-GMA-OCT™ for use with AMD Radeon™ Pro Graphical Processing Units (GPUs).

Click here for ATS-GMA-OCT datasheet Click here for high resolution image

ATS-GMA-OCT provides out-of-the-box OCT imaging. It consists of a library of OpenCL kernels that operate on the data acquired by AlazarTech waveform digitizers. Up to 1.9 million FFTs per second can be calculated, which is more than sufficient for existing swept sources on the market. Windowing, Zero Padding, Dispersion Compensation, and Log functions are also included.

The unique modular API for ATS-GMA-OCT allows users to customize their signal processing algorithms. The modularity provides many hooks into the GPU data path, where customers can add their own signal processing code.

ATS-GMA-OCT requires ATS-GMA-BASE, which uses True DMA with no CPU involvement in data transfer to GPU. This results in latency as low as 100 µs between data acquisition and processing by ATS-GMA-OCT. Non-DMA transfers have non-deterministic latency that can be in the range of 3.5 milliseconds.

ATS-GMA-OCT includes sample programs written in C/C++ to set-up waveform digitizer & FFT parameters, acquire data, and receive the FFT result buffer.

ATS-GMA is compatible with Windows® 7 and Windows 10.

ATS-GMA-OCT Features & Benefits:

Feature	Benefit
OpenCL OCT library with example programs in source code	Out-of-the-box OCT imaging
Up to 1.9 million FFTs per second	Future-proofing of your OCT system
Very low latency of 100 µs	More instantaneous response of your imaging system
Modular API	Easily customize signal processing algorithms

"We noticed that many OCT customers were spending a very long time developing GPU based signal processing code and not always succeeding in achieving high frame rates", stated Muneeb Khalid, President of AlazarTech. "We decided to build ATS-GMA-OCT as an out-of-the-box imaging software, but with enough hooks in it to allow customers to add their own secret sauce and create a unique solution".

Availability and Pricing

U.S. prices are listed below. International prices may be higher. Volume discounts are available.

Product	Availability	U. S. Price	
ATS-GMA-BASE: License and 1 Year support and maintenance	Immediate	US\$	995
ATS-GMA-BASE-1YR: 1 Year extended support & maintenance for ATS-GMA-BASE	Immediate	US\$	200
ATS-GMA-OCT: ATS-GMA OCT Signal Processing library. Requires ATS-GMA-BASE. Includes one license and one year support and maintenance	Immediate	US\$	1,995
1 year extended support and maintenance for ATS-GMA-OCT Signal Processing library.	Immediate	US\$	400

For Further Technical or Editorial Information

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About AlazarTech

AlazarTech, headquartered in a suburb of Montreal, Quebec, Canada, provides high performance, low cost PC Based Instruments and software for customers involved in building OEM products, manufacturing test systems and research and development.

AlazarTech's design team consists of engineers who pioneered PC-based instrumentation in the 1980s.

While AlazarTech manufactures some of the fastest PCI and PCI Express digitizers on the market, speed alone is not the differentiating factor. AlazarTech concentrates on providing usability features for its PCI and PCI Express digitizers that make them very easy to integrate into real-world OEM applications such as ultrasonic testing, medical imaging and radar signal analysis.

The key differentiation between AlazarTech products and the rest of the industry is AlazarTech's *Dual-Port Memory* technology, which enables OEMs to create systems that can capture, analyze and store data in real time.

Customers can use AlazarTech products not only for R&D, but also deploy them in the field. Competitive products use single-port memory, forcing customers to stop acquisition in order to read data, thereby limiting their usefulness to R&D and algorithm development.

AlazarTech also works with selected OEMs to customize its products based on customer requirements.

The company's line of ATS PCI and PCI Express digitizers have been recognized by leading European, Asian and North American OEMs as being superior in quality to other devices on the market.

The company's products have found applications in industries such as medical imaging, metal inspection, defense, automotive and semiconductor test.

AlazarTech sells its products directly in North America, and internationally through a distribution network.

For more information on AlazarTech, visit $\underline{www.alazartech.com}$.