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AnalogMAX Series: Flexible Development Platforms

Arrow and Analog Devices in partnership with Trenz Electronic are introducing the AnalogMAX portfolio of boards to simplify the evaluation and design process for products needing robust sensing and analog technologies. All AnalogMAX boards have high performing sensors, analog and power technologies from Analog Devices and the Intel® MAX® 10 FPGA to provide flexibility in data processing and formatting. The combination of technologies with included demo examples provides an effective starting point got designs in a variety of end markets including industrial, medical, instrumentation, and IoT.

Benefits of the AnalogMAX Series of Boards

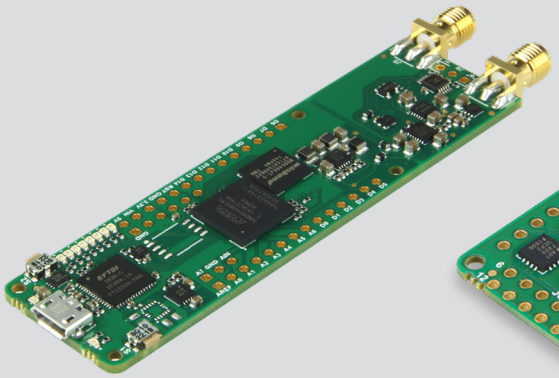
- **Flexible platform:** Featuring the programmable Intel® MAX® 10 FPGA, easily adjusts to a wide range of use cases and production needs
- **Rapid prototyping and product development:** Rapid development and testing with an out-of-the-box experience that includes a Jupyter notebook demo with Python code
- **Small form-factor:** Formatted for Arduino maker expansion
- **Quick customization services:** Add new functionality, lower BOM cost, or have the complete product designed

AnalogMAX boards are ideal for sensing and instrumentation applications in industrial, medical, scientific and IoT applications.

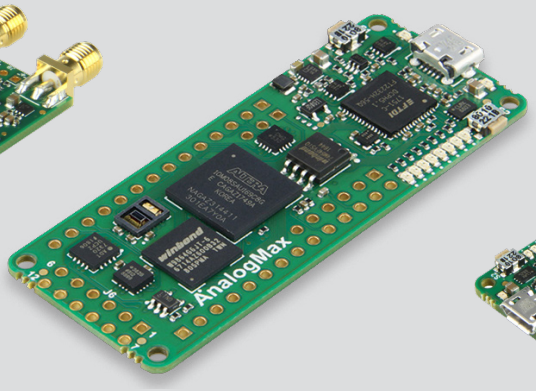
The AnalogMAX portfolio includes:

- **AnalogMAX-01:** Sensor fusion board including optical smoke and aerosol detection capabilities using the ADPD188BI
- **AnalogMAX-DAQ1:** Data acquisition system-based 18-bit, 2 MSPS, Easy Drive, Differential SAR ADC for instrumentation applications
- **AnalogMAX-DAQ2:** Data acquisition system-featuring the ADAQ7980 ADC µModule® for ideal for small-form factor applications

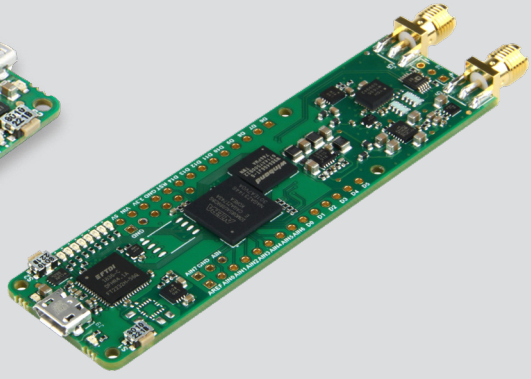
AnalogMAX Series Boards



AnalogMAX-DAQ1



AnalogMAX-01



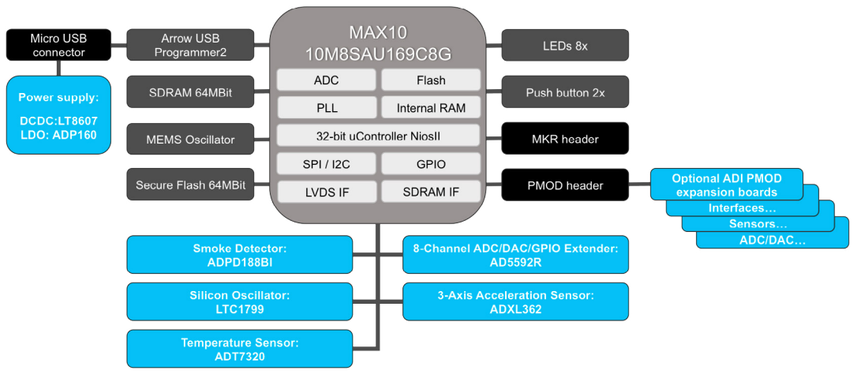
AnalogMAX-DAQ2

AnalogMAX-01: Full-featured Sensor Fusion FPGA Board with Smoke and Aerosol Detection

Featuring Analog Devices' ADPD188BI Integrated Optical Module with Dual-Wavelength Technology

The AnalogMAX-01 platform is a full-featured sensor fusion FPGA board featuring Analog Devices' ADPD188BI integrated optical module for smoke and aerosol detection and the Intel® MAX® 10 FPGA. The ADPD188BI is a complete photometric system for smoke detection using optical dual-wavelength technology. The module integrates a highly efficient photometric front end, two Light Emitting Diodes (LEDs), and two PhotoDiodes (PDs). These items are housed in a custom package that prevents light from going directly from the LED to the photodiode without first entering the smoke detection chamber.

AnalogMAX also features a fully calibrated, single-chip temperature sensor (0.25°C, 16-bit), MEMs accelerometer (3-axis), and 8 channel, 12-bit, configurable ADC/DAC/GPIO with on-chip reference.



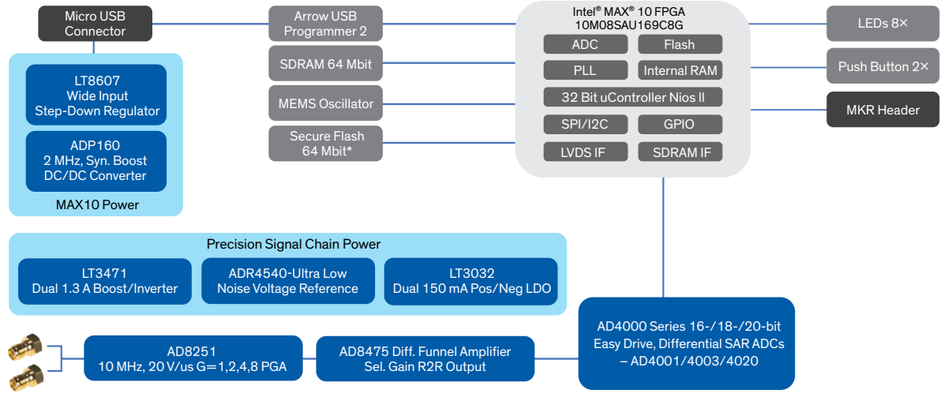
AnalogMAX-01 Block Diagram Features the ADPD188BI Integrated Optical Module for Smoke and Aerosol Detection

AnalogMAX-DAQ1: A High-Accuracy Programmable Data Acquisition Platform

Featuring Analog Devices' AD4000 Series 16-/18-/20-Bit Easy Drive, Differential SAR ADCs

AnalogMAX-DAQ1 is a high-performance, high-accuracy data acquisition platform that meets power, footprint, and reliability requirements of measurement instruments in industrial, medical, and scientific applications. The platform is featuring the high-impedance, programmable ADC driver stage using AD8251 along with AD8475 driving the Analog Devices' AD4003 Easy Drive, Differential SAR ADC.

The high throughput allows accurate capture of both high-frequency signals and decimation to achieve higher SNR (Signal-to-Noise-Ratio), while also reducing antialiasing filter challenges. The reduced non-linear input current in high input-impedance mode coupled with a long signal acquisition phase broadens the range of low power precision amplifiers that can drive the AD4003 directly, reducing the signal-chain power demands.



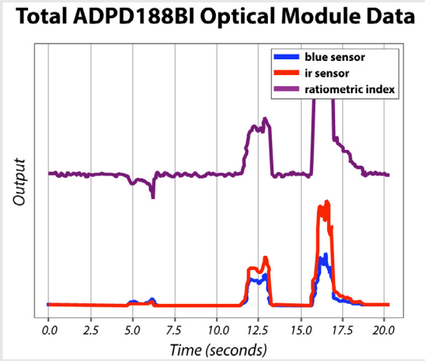
AnalogMAX-DAQ1 Block Diagram Features the AD4000 Series 16-/18-/20-Bit Easy Drive, Differential SAR ADCs

AnalogMAX Series User Experience

Getting started is easy!

User experience includes intuitive demos featuring the Jupyter Notebook software tools

- Works out-of-the-box with the latest code and documentation all available on Wiki and Github
- Python code is executed within a Jupyter notebook file allowing easy customizations and an intuitive graphical interface



Jupyter Notebook based demo using Python code allows for easy visualization

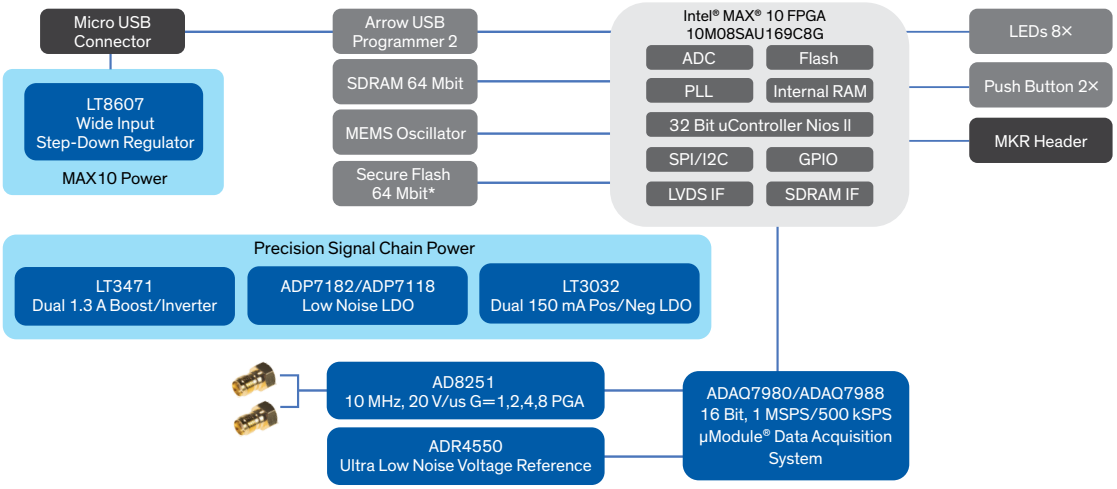
AnalogMAX Series: Flexible Development Platforms

AnalogMAX-DAQ2: A Programmable 16-Bit µModule®-Based Data Acquisition Platform

Featuring Analog Devices' ADAQ7980/ADAQ7988 16-Bit, 1 MSPS/500 kSPS, µModule® Data Acquisition System

AnalogMAX-DAQ2 is a high-accuracy data acquisition platform that meets the footprint, power, and reliability requirements of measurement instruments in industrial, medical, and scientific applications. The data acquisition platform is featuring the high-impedance, programmable ADC driver stage using AD8251 driving the ADAQ7988, a 16-bit µModule® that integrates several signal chain components into a tiny LGA 4 mm x 5 mm package.

The ADAQ7988 µModule® solution contains a high accuracy, low power, 16-bit SAR ADC, a low power, high bandwidth, high input impedance ADC driver, a low power, stable reference buffer, and an efficient power management block. This platform is ideal for small form factor systems that require accurate and reliable operation over long periods of time.



AnalogMAX-DAQ2 Block Diagram Features of the ADAQ7980/ ADAQ7988 16-Bit 1 MSPS/500 kSPS, µModule® Data Acquisition System

Ordering Information

Part #: AnalogMAX-DAQ1
Part #: AnalogMAX-DAQ2
Part #: AnalogMAX-01

Chat live and in real-time on arrow.com or connect with a Customer Support team:

Online

www.arrow.com/analogMAX

Five Years Out