THE INDUSTRY'S MOST FLEXIBLE
GENERAL-PURPOSE ANALOG INTERFACE

XILINX ANALOG MIXED SIGNAL TECHNOLOGY: ANALOG CUSTOMIZATION BUILT INTO ALL PROGRAMMABLE DEVICES

Xilinx AMS: Analog Integration with Digital Customization

- Power of programmability for flexibility, ease of integration, and reliability advantages
- Scalable analog sampling and signal-processing performance
- Cost and size advantages with integrated analog-to-digital converters
- Broadly applicable and customizable analog measuring and signal conditioning
- Improve measurements in the digital domain from on-chip filtering, calibration, oversampling, and linearization
- On-chip monitoring, for enhanced safety and reliability

Xilinx AMS: Enabling 7 Series and Zynq-7000 Signal-Processing Applications

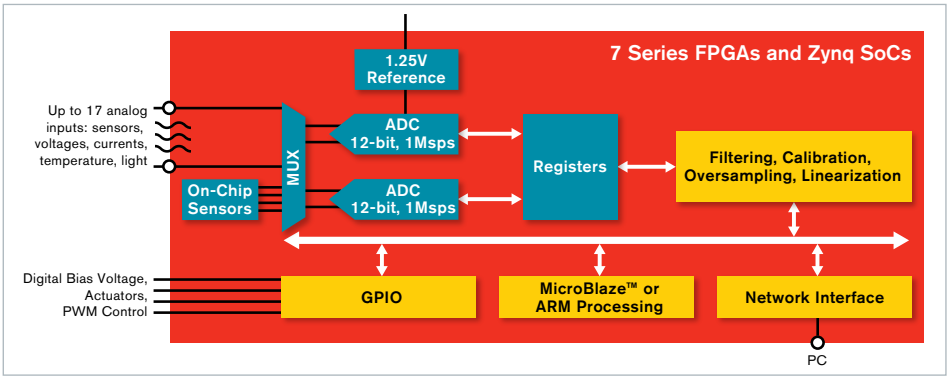
- System management, including supply voltages, currents, and temperature
- Motor control, using the integrated pair of 1Msps ADCs
- Anti-tamper security, with integrated temperature sensor and supply-voltage monitors

Analog Mixed Signal Overview

Xilinx's® Analog Mixed Signal (AMS) technology lets developers replace complex analog signal conditioning and discrete analog-to-digital converter (ADC) designs with a digitally customizable analog interface and programmable logic. Built into all Xilinx 7 series FPGAs and Zynq™-7000 SoC Platforms, AMS technology delivers the industry's most flexible general-purpose platform for discrete ADC designs. The on-chip solution boosts reliability, safety and security and significantly lowers bill of material (BOM) costs by eliminating the need for a diverse catalog of analog devices.

The combination of Xilinx AMS technology and All Programmable FPGA logic facilitates customization for highly diverse applications ranging from simple system monitoring to more signal-processing-intensive tasks such as linearization, calibration or filtering. The signal-processing capabilities of Xilinx devices can also be leveraged to enhance ADC performance with techniques like oversampling.

ANALOG MIXED SIGNAL BLOCK DIAGRAM



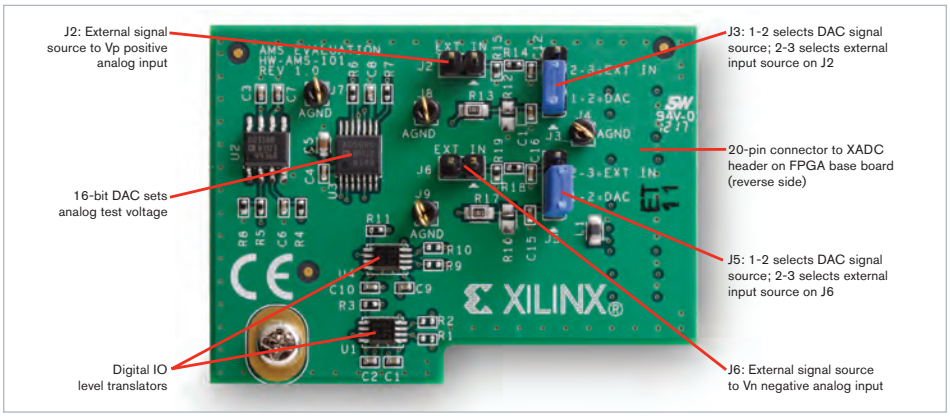
The tightly coupled ADC and programmable logic make AMS technology a versatile platform for integrating analog functionalities, digital signal processing, control logic, and monitoring.

XILINX
ALL PROGRAMMABLE™

AMS Technology Evaluation Platforms

The AMS technology can also be evaluated with a pair of ISE® and Vivado™ design suite tools, ChipScope™ Pro and the XADC Wizard. These tools allow for convenient system monitoring and let you quickly instantiate the XADC in your design today. Designers can fully exercise AMS technology using the Xilinx AMS 101 Evaluation Card, which is included with the following Xilinx kits: Zynq ZC702, Artix™-7 AC 701, Kintex™-7 KC 705 and Virtex®-7 VC707.

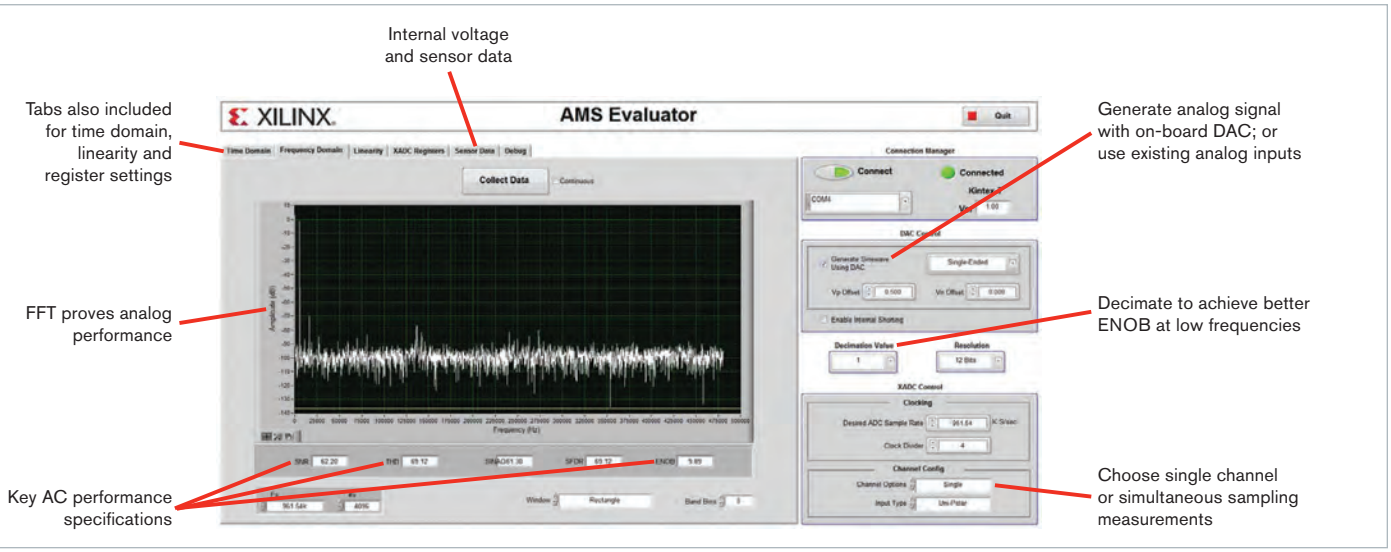
AMS101 EVALUATION CARD



Analog Measurements

To simplify evaluation, designers can leverage the AMS Evaluator tool for analog data capture and analysis using LabView. The AMS Evaluator offers a wide range of measurement options: time or frequency domain, linearity, ADC registers, sensor data, DAC settings, decimation, simultaneous sampling, sample rate, and input channel settings (single-ended or differential; unipolar or bipolar).

AMS EVALUATOR TOOL



Take the NEXT STEP

For more information about Xilinx AMS technology, please visit **www.xilinx.com/ams**. The Xilinx AMS101 Evaluation Card can be ordered separately (**www.xilinx.com/products/boards-and-kits/HW-AMS101-G.htm**) or as part of a 7 series kit, such as the Xilinx Zynq-7000 SoC ZC702 Evaluation Kit. Visit **www.xilinx.com/zc702** for complete kit details and to place an order today.

Corporate Headquarters

Xilinx, Inc.
2100 Logic Drive
San Jose, CA 95124
USA
Tel: 408-559-7778
www.xilinx.com

Europe

Xilinx Europe
One Logic Drive
Citywest Business Campus
Saggart, County Dublin
Ireland
Tel: +353-1-464-0311
www.xilinx.com

Japan

Xilinx K.K.
Art Village Osaki Central Tower 4F
1-2-2 Osaki, Shinagawa-ku
Tokyo 141-0032 Japan
Tel: +81-3-6744-7777
japan.xilinx.com

Asia Pacific Pte. Ltd.

Xilinx, Asia Pacific
5 Changi Business Park
Singapore 486040
Tel: +65-6407-3000
www.xilinx.com

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