The Tinker's Toolbox - Analog Devices' Dan Ledger on Reference Designs

Hosted by ECN's Editorial Director, Alix Paultre, the Tinker's Toolbox is ECN's web-based interview show where we talk about the latest technology, components, and design issues for the electronic design engineering community.

In this episode, we talk with Dan Ledger of Analog Devices about reference designs and what ADI is doing to help the engineer use reference designs to create their products and solve engineering issues. ADI’s *Circuits from the Lab* reference circuits are detailed, yet easy-to-understand, building blocks engineered and tested for quick system integration.

Right-click to download the podcast [1]

Here is another link to the podcast: ADI Interview [1]

Engineers throughout the world are being asked to design products more quickly, with fewer iterations and using an ever broadening range of technologies requiring analog, RF, power and mixed-signal expertise. Analog

Here is a recent release on the subject:

Devices [2], Inc. is helping engineers save weeks of research and design time with *Circuits from the Lab™* reference circuits [3].

Learn more: www.analog.com/circuits/about [4]. Watch a one-minute video [5]:http://ow.ly/4bP8e [6].

With more than 150 solutions, ADI's *Circuits from the Lab* reference circuits are detailed, yet easy-to-understand, building blocks engineered and tested for quick system integration. For reliable, repeatable circuit performance, reference circuits are carefully documented with test data, design considerations and trade-offs, and design guidelines. A growing number now also include schematics, PCB (Gerber) layout files, software device drivers, and evaluation hardware.

ADI's reference circuits, including circuit notes, schematics, layout files, and device drivers, are available for free download at http://www.analog.com/pr/circuits [7]. Hardware, when available with a circuit, can be ordered through ADI and its authorized distributors.

"Customers everywhere tell us they are juggling responsibilities across a growing range of system and engineering disciplines and have severe time-to-market pressures," said Emre Onder, vice president of Core Markets and Marketing, Analog Devices. "This means that engineers need something better than trial-and-error iterations or untested recommendations. With that in mind, Analog Devices application engineers are identifying the circuit design challenges our customers face and are providing tested solutions."

Inspired by Customers' Real-world Needs

Circuits from the Lab

reference circuits anticipate practical issues related to moving a design into real-world production with minimum time to market. ADI's market-leading technical support teams identify which circuits and end-use applications are the most challenging for engineers. *Circuits from the Lab* are available for many of ADI's product technologies and span various applications areas, including industrial automation and instrumentation systems. Download a brochure: http://www.analog.com/static/imported-files/overviews/CftL_Reference_Circuits.pdf [8].

Find *Circuits from the Lab* Reference Circuits

Circuit Type				
ADC Drivers				http://www.analog.com/pr/circuits/ADCs [9]
DAC Output Circuits				http://www.analog.com/pr/circuits/DACs [10]
Isolation				http://www.analog.com/pr/circuits/isolation [11]
RF/IF				http://www.analog.com/pr/circuits/RF [12]

All *Circuits from the Lab* reference circuits include circuit notes and provide test data to help designers quickly and accurately select components. Many also include the following, all of which can save additional days to weeks of engineering time:

Design and integration files

-- includes schematics, PCB and EDA interface files, and bill of materials listing active and passive components by manufacturer and model number.

Software device driver

s -- allows communication with and control by external processors.

Evaluation hardware

-- allows designers to stress the circuit and see how it performs.

Lab-Tested by Analog Devices

ADI's *Circuits from the Lab* reference circuits include fully documented test bench configurations and operating parameters to help engineers rapidly recreate, customize and integrate their circuit designs.*Circuits from the Lab* reference circuits use a testing protocol that is specific to each applied technology and end-use scenario. The test protocol anticipates and approximates engineers' application needs and tests for the most relevant performance characteristics.

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