eLab™ Design Tools

Quick, Easy, Always Available

FREE

Texas Instruments
Analog *e*LAB™
Design Center

www.ti.com/analogelab

1Q 2011

Analog eLab™ Design Center

www.ti.com/elab

At every stage of your design – from concept to production – TI's Analog eLab Design Center can make your job easier.

Learn: Free access to webcasts, seminars, conferences, and workshops where TI experts help you solve real-world analog problems.

Select: Free search tools provide guided approaches to quickly choose parts for your design.

Design: Free reference designs, calculation utilities, design tools, and TI Pro Series software tools.

Simulate: Free TINA-TI™ software schematic editor and SPICE simulator for mixed-signal circuit analysis and fast power simulation.

Sample: Order **Free** samples that ship within 24 hours.

Selection Tools

Power Quick Search

Power Quick Search

*Either Nominal OR both Min and Max is Required

Input

*Nominal Vin

⊙ [   ] (V)

OR

*Min Vin   *Max Vin

○ [   ] (V)   [   ] (V)

Output 1

Vout   Iout

[   ] (V)   [   ] (A)

Output 2

Vout   Iout

[   ] (V)   [   ] (A)

☐ Search for devices with more than two outputs

☐ Search

> TurboTra
> Battery

Audio Selection Tool

1. Select an item from the diagram
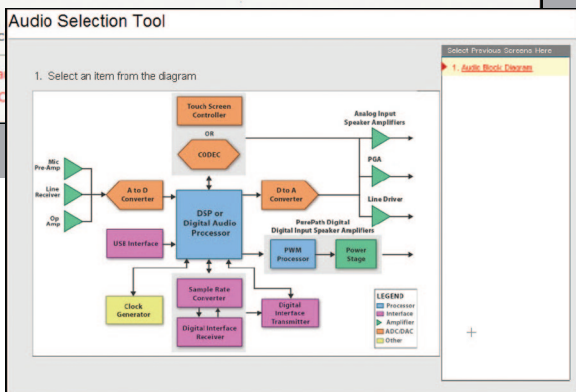
- A quick way to select a device for a design.

- Help designers quickly narrow choices.

- Created with help from product experts.

- Selection tools available for most analog product lines.

For an updated list of selection tools, go to
www.ti.com/**elab.**

SwitcherPro™ Software

www.ti.com/switcherpro

SwitcherPro™
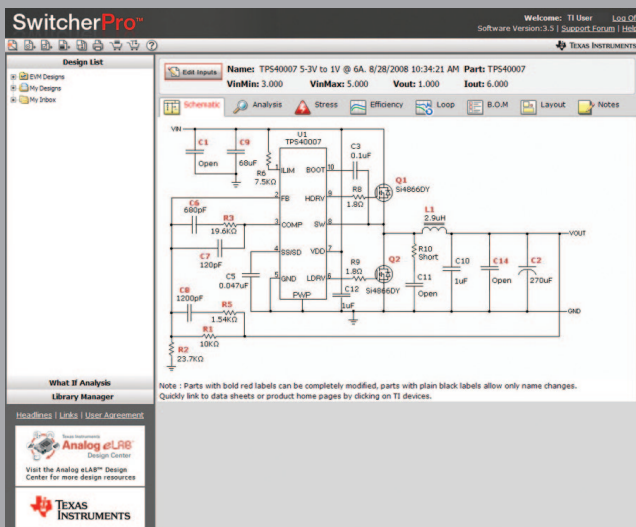
- Develop solutions for buck and boost DC/DC controllers and converters.

- Design internally and externally compensated high-performance power supply designs.

- Available online and downloadable to your desktop.

- Create and/or copy a design in about one minute using the Power Design Wizard.

- Generate schematics and bill of materials for your design and view layout suggestions.

- Calculate power supply specs, losses, and loop response. Hand-optimize designs with "What If Analysis."

- Edit your designs, customize labels, access library with built-in components and add your own components.

- Share your designs using the design report generation in pdf format.

> Get more out of your designs
> using SwitcherPro™ software.

FilterPro™ Software

www.ti.com/filterpro
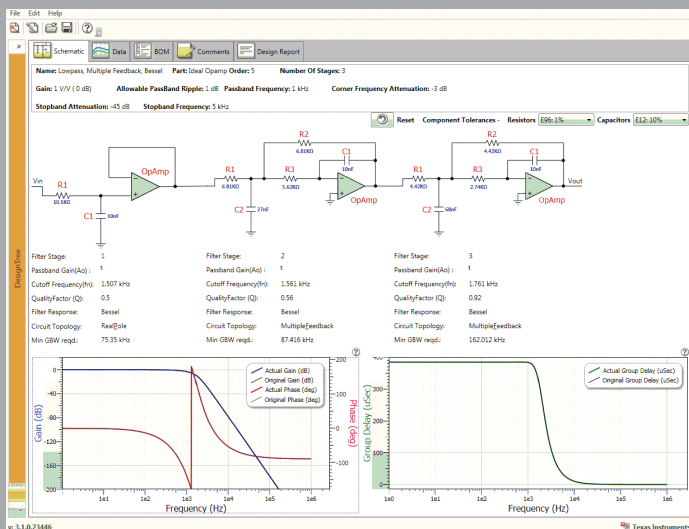
- Create and edit designs with ease using the Filter Design Wizard.

- Design Multiple Feedback (MFB) and Sallen-Key low-pass and high-pass filters using voltage feedback op amps.

- Filter response types include Bessel, Butterworth, Chebychev with arbitrary ripple, Gaussian and Linear Phase.

- Differential Multiple Feedback topology also supported for most filter types.

- Generate schematics, view frequency and time delay responses, and print a bill of materials.

- Save all data points in Excel format if needed.

- Create professional looking PDF design reports for your filter designs.

- Supports scaling of element values.

- Supports notch/band-stop, band-pass filters, all-pass phase shifter and time delay filters.

- Easy calculation of passive components for complex filters.

- Supports design file migration from FilterPro v2.0.

TINA-TI™ SPICE Simulation Software

www.ti.com/tina-ti

TINA-TI™ SPICE Simulation Software
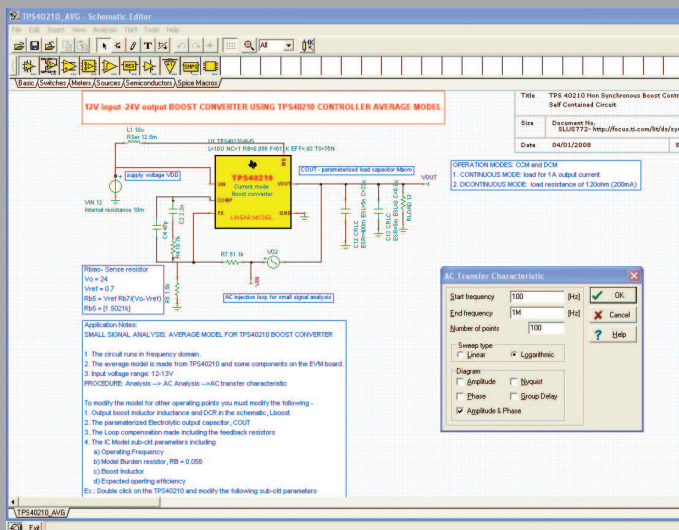
- Easy-to-use, powerful, SPICE-based analog simulation program.

- TINA-TI™ software is a fully functional version of TINA, loaded with a library of TI macromodels, including passive and active models.

- Provides support for amplifiers and switching power supply devices.

- TINA-TI simulation software has no limits to circuit size, number of nodes or number of integrated circuits (ICs).

- Generates post-simulation results in tables and plots.

- Built-in virtual oscilloscope, function generator and spectrum analyzer.

- View all TINA-TI and PSpice models at
  www.ti.com/spicerack.

Using another simulator?
TI also provides PSpice, HSpice, IBIS, and BSDL models.
Go to **www.ti.com/elab.**

ADCPro™ Software

ADCPro™
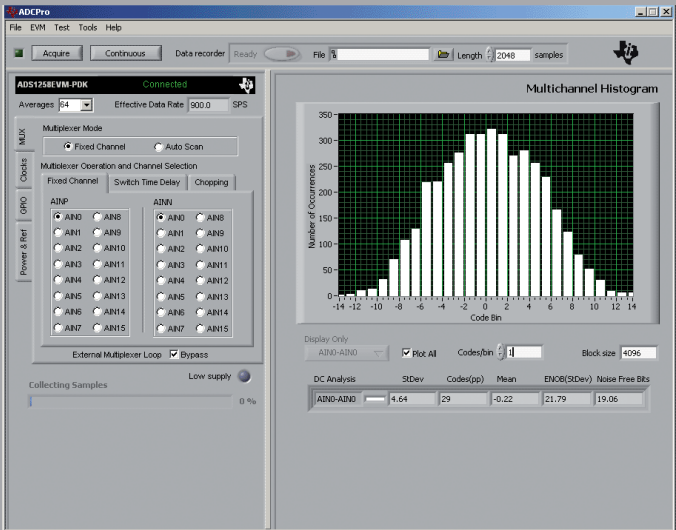
- Modular software system for evaluating analog-to-digital converters (ADCs) without need for expensive logic analyzers.

- Stand-alone tool suitable for analyzing data sets captured during ADC testing.

- Ability to save and recall data sets.

- Modular design allows support for additional evaluation modules (EVMs) and tests.

- Time, histogram and frequency domain testing.

- Able to analyze data sets without any hardware.

PCB Thermal Calculator

www.ti.com/pcbthermalcalc

- Input package characteristics, such as ThetaJ, power dissipation and ambient temperature to obtain tradeoffs between PCB copper area and temperature.

- Estimates how much power can be dissipated in the design.

- Check it out at www.ti.com/pcbthermalcalc.

ClockPro™ Software

ClockPro™

- ClockPro™ software allows you to program/configure these clocking devices:

  ° CDCE949/937/925/913/906/706

  ° CDCEL949/937/925/913

- Easy and fast programming.

- Friendly graphical user interface (GUI).

Other Tools and Samples

Reference Designs
- A wide variety of reference designs developed by TI.
- Solutions vary in their target applications and uses.
- Contain schematic and bill of materials.
- Many provide additional detailed technical information.

System Block Diagrams
- End equipment solutions support.
- More than 140 block diagrams guiding you to the best-fit TI devices for your application.
- Select from specific applications within Computing, Communications, Medical, Industrial, Consumer and other areas.

Calculators and Other Utilities
- Design, component, and software design calculators speed calculations to a fraction of the time of manual calculations.
- Plug-ins, design and loop filter utilities available.

Samples
- Order free samples any time—more than 15,000 analog devices available—samples shipped in 24 hours.
- Order evaluation modules (EVMs) from TI's eStore.
- More than 1,000 analog and power EVMs available.

Other Tools and Samples

Analog eLab™ E2E™ Community

www.ti.com/e2e-elab

The Analog eLab™ E2E™ community provides you with technical support forums, videos, blogs and interaction with the designers who helped develop eLab tools. Forums are broken out into specific areas for your convenience:

- www.ti.com/e2e-elab
  General forum where you can submit any eLab related question or comment.

- www.ti.com/e2e-simulation
  Simulation and modeling forum where you can discuss simulation needs.

- www.ti.com/e2e-switcherpro
  Forum where you can talk to designers about issues, questions and comments about SwitcherPro™ software.

- www.ti.com/e2e-filterpro
  Forum where you can talk to designers about issues, questions and comments about FilterPro™ software.

TI Worldwide Technical Support

Internet

TI Semiconductor Product Information Center Home Page
support.ti.com

TI E2E™ Community Home Page
e2e.ti.com

Product Information Centers

Americas	Phone	+1(972) 644-5580
Brazil	Phone	0800-891-2616
Mexico	Phone	0800-670-7544
	Fax	+1(972) 927-6377
	Internet/Email	support.ti.com/sc/pic/americas.htm

Europe, Middle East, and Africa
Phone

European Free Call	00800-ASK-TEXAS
	(00800 275 83927)
International	+49 (0) 8161 80 2121
Russian Support	+7 (4) 95 98 10 701

Note: The European Free Call (Toll Free) number is not active in all countries. If you have technical difficulty calling the free call number, please use the international number above.

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Domestic	www.tij.co.jp/pic		

Asia

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International	+91-80-41381665		
Domestic	Toll-Free Number		Toll-Free Number
Australia	1-800-999-084	Malaysia	1-800-80-3973
China	800-820-8682	New Zealand	0800-446-934
Hong Kong	800-96-5941	Philippines	1-800-765-7404
India	1-800-425-7888	Singapore	800-886-1028
Indonesia	001-803-8861-1006	Taiwan	0800-006800
Korea	080-551-2804	Thailand	001-800-886-0010
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TEXAS INSTRUMENTS

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IMPORTANT NOTICE