

TINA

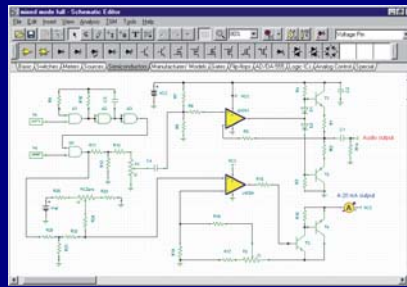
ECAD tools



Chosen by TI

TINA has been chosen by Texas Instruments as their circuit simulation tool of preference. For further information see: www.ti.com/tina-ti

For an outline specification see page 4

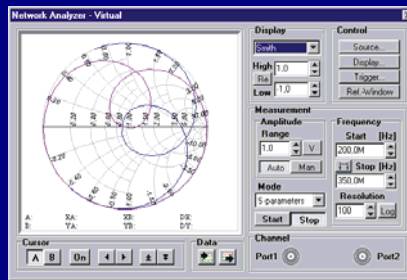


DESIGN ENTRY.....

- ◆ Schematic capture
- ◆ VHDL entry
- ◆ Microcontroller code entry

For demo version, full specification, and ordering see:

www.tina.com

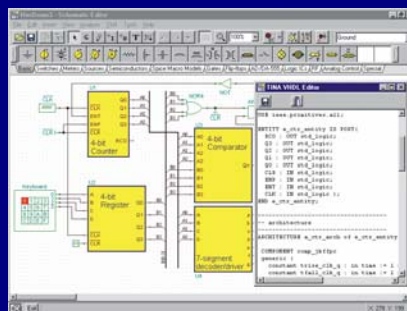


- ◆ Full SPICE analysis
- ◆ Symbolic analysis
- ◆ Network analysis
- ◆ Fourier analysis

...ANALYSIS...

For prices of all versions see:

www.tina.com



- ◆ Mixed signal
- ◆ VHDL
- ◆ Microcontroller co-simulation

...SIMULATION...

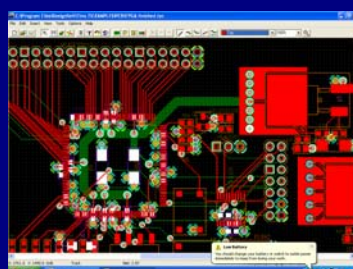


- ◆ Tinalab PC instrumentation with
- ◆ Fast 50MHz data capture
- ◆ E-blocks compatibility

For reduced rate competitive upgrade prices call:

0870 700 1831

...MEASUREMENT AND PROTOTYPING...



- ◆ Forward and back annotation
- ◆ Multilayer PCB
- ◆ Autorouter

...AND PCB CAD.

TINA for design engineers

Ease of use is built into all aspects of the TINA suite of programs. Our goal has been to produce a technically competent CAD tool that an engineer can just turn on and use, without any training or previous experience. The fact that Texas Instruments uses TINA simulation for their Analogue devices indicates that we have achieved these goals.

Shortening the design cycle is uppermost in our developers' minds. With TINA you can take a design and simulate it, analyse it, and then build it, measure its performance with our TINALab, develop code for your microcontroller, simulate your circuit with your microcontroller code running concurrently, and then test your design using E-blocks rapid prototyping boards.

And once you know it works you can even use TINA to design the circuit board.

TINA for students and teachers

TINA is used by more than 2000 educational institutions all over the world. TINA has a host of special features for educational use including unique tools for testing students' knowledge, monitoring progress and introducing troubleshooting techniques. With the optional hardware and links to E-blocks experimentation suites, TINA can be used to test real circuits for comparison with the results obtained from simulation.

Of particular benefit to students are the range of virtual instruments for simulation which include: Oscilloscope, Function Generator, Multimeter, Signal Analyzer/Bode Plotter, Network Analyzer, Spectrum Analyzer, Logic Analyzer, Digital Signal Generator, XY Recorder.

Your next step

There are far more features and benefits of TINA than it is possible to fit into a small brochure like this. If you are interested in taking advantage of TINA for your applications then please:

Request a more detailed brochure with complete description of technical and functional features onto our web site and view the 20 page TINA full spec brochure

Download a fully working copy of TINA from www.designsoftware.com and try it for yourself.

SHORTENING THE DESIGN CYCLE

- ◆ Ease of use combined with technical competence
- ◆ A host of simulation modes
- ◆ A complete solution from circuit design, rapid prototyping, measurement and PCB CAD.

TEACHING AND LEARNING

- ◆ Fault insertion into diagrams
- ◆ Student tracking and facilities to build worked examples as courses

DOWNLOAD A DEMONSTRATION VERSION FROM:

WWW.TINA.COM

FULL SPECIFICATION—FOR DETAILS SEE WWW.TINA.COM

	TINA industrial	TINA Educational	TINA Classic	TINA student	TINA Basic
Circuit Entry	+	+	+	+	+
Schematic Editor	+	+	+	+	+
Undo	+	+	+	+	+
Redo	+	+	+	+	+
Automatic/manual wire routing and drag support	+	+	+	+	+
Instruments as standard schematic symbols	+	+	+	+	+
Subcircuits	+	+	+	+	+
BOM	+	+	+	+	+
Bus	+	+	+	+	+
Integrated Schematic Symbol Editor	+	+	+	+	+
Integrated Netlist Editor	+	+	+	+	+
Component Toolbar Editor	+	+	+	+	+
Excitation Editor for arbitrary waveforms	+	+	+	+	+
PCB export to major packages	+	+	+	+	+
Hierarchical and Team Design with Version Control	+	+	-	-	-
Parameter Extractor/Model Maker	+	+	-	-	-
PCB Design (in Design Suite only)					
Number of pads	unlimited	1000	1000	100	100
Analyses					
Max. number of external nodes and nodes in macros	unlimited	unlimited	unlimited	100	100
DC, AC, Transient, Digital, Mixed mode Simulation	+	+	+	+	+
Steady State Solver (SMPS analysis)	+	-	-	-	-
RF Simulation	+	+	+	+	+
RF models given by S-parameters	+	+	-	-	-
Network Analysis	+	+	-	-	-
Number of components and models	20,000	20,000	10,000	10,000	10,000
Digital Simulation	+	+	+	+	+
VHDL Simulation	+	+	+	+	+
VHDL external debugger	+	+	-	-	-
MCU simulation and debugging	+	+	+	+	+
Interactive Mode	+	+	+	+	+
Circuit changes while a simulation is running	+	+	+	+	+
Symbolic Analysis (closed formulas)	+	+	+	+	+
Fourier Analysis (harmonics)	+	+	+	+	+
Fourier Analysis (spectrum)	+	+	+	+	+
Noise, Monte Carlo, Worst Case	+	+	+	+	+
Stress (Smoke) Analysis	+	-	-	-	-
Group Delay	+	+	+	+	+
Number of Optimization Targets & Parameters	any	1	1	1	1
Number of Parameters in Parameter Stepping	any	1	1	1	1
Parameter Sweeping	+	+	+	+	+
Analysis directly from Netlist	+	+	+	+	+
Output Capabilities					
Scaled Diagrams	+	+	+	+	+
Multiple Axes	+	+	+	+	+
Full Scaled Smith Diagram	+	+	-	-	-
Nyquist Diagram	+	+	+	+	+
Pole-Zero Diagram	+	+	+	+	+
Drawing tools to enhance diagrams	+	+	+	+	+
Post Processing Tools	+	+	+	+	+
Built in DTP tools	+	+	+	+	+
MathCAD and Excel export	+	+	+	+	+
Virtual Instruments					
XY Recorder	+	+	+	+	+
Oscilloscope	+	+	+	+	+
Function Generator	+	+	+	+	+
Multimeter	+	+	+	+	+
Signal Analyzer/Bode Plotter (Note 2)	+	+	+	+	+
Network Analyzer	+	+	-	-	-
Spectrum Analyzer (Note 3)	+	+	+	+	+
Logic Analyzer	+	+	+	+	+
Digital Signal Generator	+	+	+	+	+
Spectrum Analyzer	+	+	+	+	+
Window functions for Spectrum Analyzer	+	+	+	+	+
Real-time Test and Measurement					
Analog and digital data acquisition	+	+	-	-	-
Analog and digital signal generator	+	+	-	-	-
Educational Features					
Software fault simulation	+	+	+	+	+
Real-time (hardware) fault simulation	+	+	-	-	-
Experiment modules	+	+	-	-	-
Problem solver tool with simulation checking	+	+	+	+	+
Teacher utilities for problem construction	+	+	+	+	-
Class and student evaluation	+	+	+	+	-
Training and Examination Mode	+	+	+	+	-