

MPLAB® Mindi™ Analog Simulator

Work Smarter by Designing with Analog Simulations

Summary

Microchip's MPLAB® Mindi™ Analog Simulator improves circuit designs and reduces design risk by simulating analog circuits prior to hardware prototyping. The simulation tool uses a SIMetrix/SIMPLIS simulation environment, with options to use SPICE or piecewise linear modeling, that can cover a very wide set of possible simulation needs. This capable simulation interface is paired with proprietary model files from Microchip, to model specific Microchip analog components in addition to generic circuit devices. Finally, this simulation tool is installed and run locally, on the user's own PC. Once downloaded, no internet connection is required, and the run time is not dependent on a remotely located server. The result is fast, accurate analog circuit simulations.

Benefits

- Run the simulation tool directly on your own PC, no internet connection required
- Choose from SPICE or piecewise linear modeling modes, for accurate results in fast simulations
- Model a wide variety of analog systems using standard or Microchip proprietary component models
- Generate time or frequency domain responses for open- and closed-loop systems
- Perform AC, DC and transient analysis
- Use sweep modes to identify circuit sensitivities to device behavior, load variation, or temperature effects
- Verify system responses, control and stability
- Identify problems before building hardware

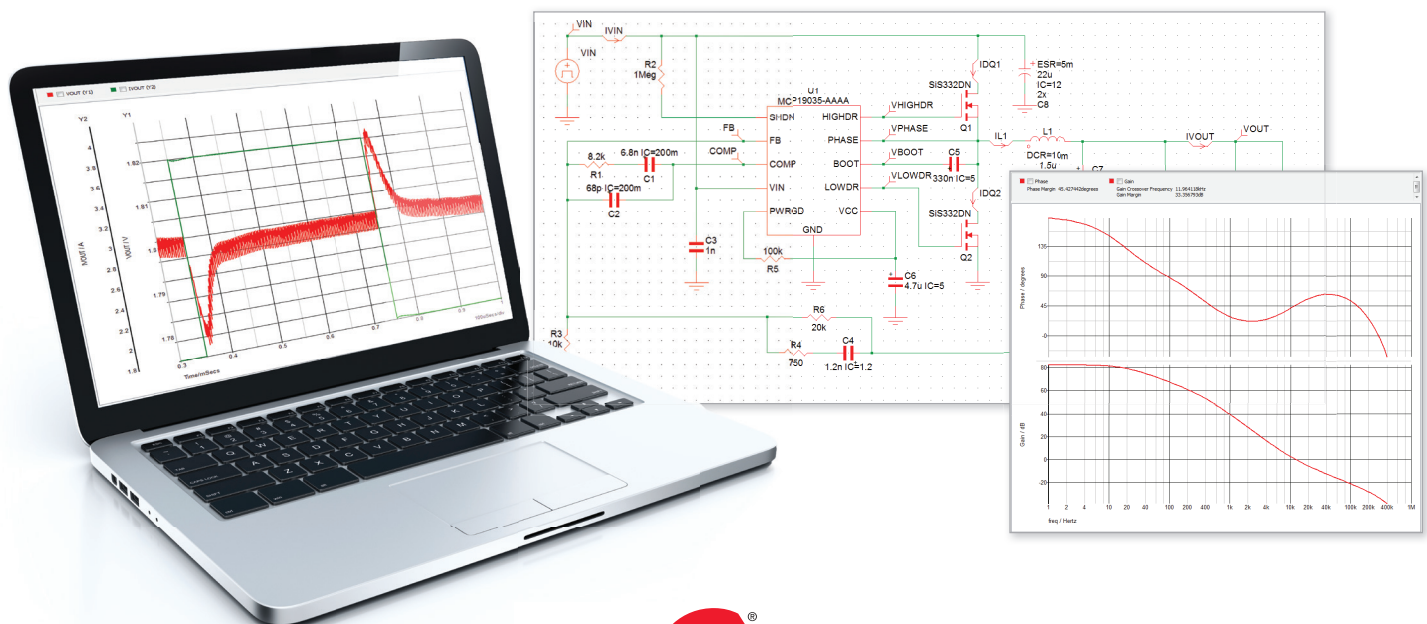


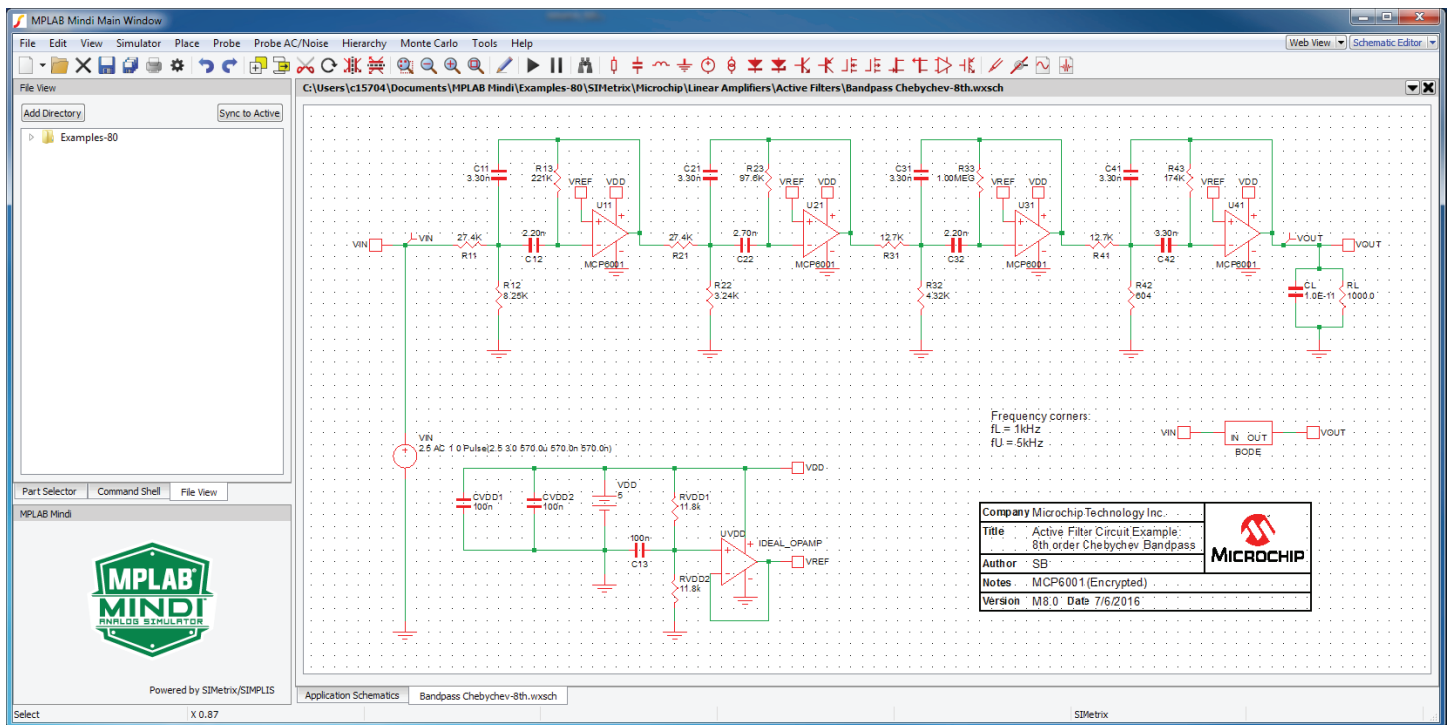
Example Applications

- Generate closed-loop stability responses for control systems, including switch mode power supplies and motor drive applications
- Generate BODE responses for active and passive filter systems
- Evaluate transient responses to a wide variety of input conditions
- Verify slew rates and drive strengths through power drive or signal conditioning chains
- Model noise effects in signal conditioning or control systems

Where to Find It

Download MPLAB Mindi Analog Simulator right now, for free at www.microchip.com/Mindi.





Model Libraries Available

- Operational amplifiers
- Instrumentation amplifiers
- Active filter circuits
- MOSFET and motor drivers
- PWM and non-PWM power controllers
- Power modules
- LED drivers
- Switching regulators
- Generic switch and passive components
- ...and more coming

Model Downloads

New models are being added continuously. Download our latest analog simulation models for SPICE, SIMPLIS or MPLAB Mindi Analog Simulators at www.microchip.com/AnalogSimulationLibraries.

Category	Sub-Category	Title	Updated as of
Analog Simulation	Controllers	Analog Simulation - MCP1632	08/11/2016
Analog Simulation	Controllers	Analog Simulation - MCP19035	08/11/2016
Analog Simulation	Controllers	Analog Simulation - MIC2101	08/11/2016
Analog Simulation	Controllers	Analog Simulation - MIC2102	08/11/2016
Analog Simulation	Controllers	Analog Simulation - MIC2103	08/11/2016
Analog Simulation	Controllers	Analog Simulation - MIC2104	08/11/2016
Analog Simulation	Controllers	Analog Simulation - MIC2124	08/11/2016
Analog Simulation	Controllers	Analog Simulation - MIC2164	08/11/2016
Analog Simulation	Controllers	Analog Simulation - MIC2165	08/11/2016
Analog Simulation	Controllers	Analog Simulation - MIC2166	08/11/2016
Analog Simulation	Controllers	Analog Simulation - MIC2174	08/11/2016
Analog Simulation	Controllers	Analog Simulation - MIC2176	08/11/2016
Analog Simulation	Half-Bridge Drivers	Analog Simulation - MIC4605	08/11/2016
Analog Simulation	High-Voltage LED Drivers	Analog Simulation - HV9861A	08/11/2016
Analog Simulation	High-Voltage LED Drivers	Analog Simulation - HV9910B	08/11/2016
Analog Simulation	High-Voltage LED Drivers	Analog Simulation - HV9910C	08/11/2016
Analog Simulation	High-Voltage LED Drivers	Analog Simulation - HV9911	08/11/2016
Analog Simulation	High-Voltage LED Drivers	Analog Simulation - HV9912	08/11/2016
Analog Simulation	High-Voltage LED Drivers	Analog Simulation - HV9921	08/11/2016
Analog Simulation	High-Voltage LED Drivers	Analog Simulation - HV9922	08/11/2016
Analog Simulation	High-Voltage LED Drivers	Analog Simulation - HV9923	08/11/2016
Analog Simulation	High-Voltage LED Drivers	Analog Simulation - HV9925	08/11/2016
Analog Simulation	High-Voltage LED Drivers	Analog Simulation - HV9961	08/11/2016
Analog Simulation	High-Voltage LED Drivers	Analog Simulation - HV9967B	08/11/2016
Analog Simulation	Modules	Analog Simulation - MIC28304	08/12/2016



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