

### ispPAC10 Design Kit Contents

- PAC-Designer<sup>®</sup> System Software CD-ROM
- ispDOWNLOAD<sup>®</sup> Cable
- ispPAC10 Evaluation and Programming Fixture, with ispPAC10-P Device
- ispPAC10-P Device Sample
- PAC-Designer Getting Started Manual
- ispPAC Handbook
- One-Year Maintenance Agreement

### PAC-Designer Software

Lattice's PAC-Designer tools unleash the power of in-system programmable (ISP<sup>™</sup>) analog circuits. PAC-Designer is an intuitive, Microsoft Windows or NT-compatible software package. Circuit designs are entered graphically and verified all within a single environment. Full device in-system programming and reprogramming is accomplished via an ispDOWNLOAD Cable connected to the PC parallel port while the device(s) remain soldered to the printed circuit board. A library of device

configurations is included with the basic tool kit as well as a series of sophisticated circuit generator macros that automatically create ispPAC design configurations based upon high-level performance requirements such as filter response. Comprehensive on-line documentation covers all aspects of PAC-Designer operation.

The PAC-Designer schematic window provides access to all programmable features in ispPAC devices via a graphical user interface. Features such as PACblock<sup>™</sup> interconnection, gain, pole frequency, and others are easily configured in minutes from the design window. In addition, support for fast design simulation, including gain/phase plots is provided within the PAC-Designer environment as a standard feature. Once the design file is complete, it can be saved and an industry-standard JEDEC file generated for device programming.

The complete ispPAC System Design Kit contains software support for all currently available ispPAC devices. System Design Kits are orderable with an evaluation and programming fixture for one specific device included, with evaluation fixtures for additional ispPAC models available separately.

Figure 1. ispPAC10 System Design Kit



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## ispPAC10 Evaluation Fixture

To complete the design implementation and verification process, Lattice provides you with a full complement of ispPAC device evaluation boards. Each evaluation fixture is a high quality PCB designed for the easy assessment of each device's specific functional and operational attributes. These boards provide all appropriate in-system programming download connections, layout area for the ispPAC device, general-purpose prototyping area for support circuits, appropriate test point connectors and bypass components to allow quick, easy design evaluation in a real environment. In seconds you can download a pattern to your ispPAC device, hook up a power supply, signal generator, scope or analyzer and be ready to see how your circuit operates. Best of all, if you need to tweak the design, merely change your ispPAC design on the PC, download a new pattern, and see the results without pulling out the soldering iron!

## ispDOWNLOAD Cable

Also included in every ispPAC System Design kit is a standard ispDOWNLOAD Cable. The cable is connected between the user's PC parallel port and the evaluation fixture JTAG serial port interface and allows PAC-Designer to communicate directly with devices to upload/download configuration information to them. The download cable is also orderable as a separate item in case it is all the user may require.

## Support Literature

Included in the ispPAC System Design Kit are all current product datasheets, applications notes, in addition to the ispPAC Handbook, PAC-Designer Getting Started Manual and other appropriate support literature.

## Ordering Information

Ordering Number	Description
PAC-SYSTEM10	Complete System Design Kit, Including PAC10-EV and Cable.
PAC10-EV	PAC10 Evaluation and Programming Fixture Only.
pDS4102-DL2	ispDOWNLOAD Cable (PC) Only.

## Technical Support Assistance

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