PI Expert Suite

PI Expert® Suite v10.3 simplifies the
design of off-line power supplies and
DC-DC converters based on PI products.

New in PI Expert Suite

PI Expert Suite 10.3 improves design productivity with an enhanced schematics-manipulation tool and BOM output to enable you to quickly order the parts needed for prototyping. In addition, it includes a new Design Wizard to assist in selection of the right product for your design.

New Features in PI Expert v10.3

- PI Expert now supports the LYTSwitch-6 product family with DC input
- Enables freezing of components prior to optimization
- Component Database now includes new surface mount parts
- InnoSwitch3-CP and InnoSwitch3-Pro have a new bias winding circuit calculation for optimizing design performance
- For all InnoSwitch-3 family devices:
  • Interactive design Evaluation Report
  • Updated clamp calculations
- Improvements in PI Expert performance and stability

New Features in PI XLs Designer v10.3

- PI Xls now supports:
  • LinkSwitchTN2-900V (Buck Boost topology)
- Minor updates to InnoSwitch-CH/CE/CP/EP 900V Flyback spreadsheets
- Improvements in performance and stability

Learn more ... Watch the videos!

PI Expert Suite v10.3 consists of three components:

- PI Expert: an automated, graphical user interface (GUI) driven program that takes power supply specifications and automatically generates a power conversion solution designed around one of Power Integrations' IC families. PI Expert gives you all of the necessary information to build and test a working prototype. This includes complete interactive schematic, bill of materials (BOM), board layout recommendations and detailed electrical parameter tabulations. PI Expert also provides a complete magnetic design that includes core size, number of turns, appropriate wire thicknesses and number of parallel wires to

be used for each winding. Detailed winding instructions for mechanical assembly are also generated. The program reduces design time from days to minutes.

- PI Xls Designer: PI Xls Designer is a spreadsheet based application that gives the power supply designer more control during the design process. Transformer construction support including detailed winding instructions for mechanical assembly is also generated. PI Xls Designer takes input, output and all other necessary design specifications and performs all the necessary calculations to design and evaluate a power conversion solution using Power Integration's ICs.
- PI Viewer: a method for viewing design files created with older versions of PI Expert.

In addition, you can order transformer prototypes for PI Expert-generated designs through Power Integrations' Rapid Transformer Sample Service (RTSS). A quick-start guide describing how to create a compatible design file is available at https://ac-dc.power.com/design-support/rapid-transformer-samples/.

Design Software Support Overview

Design Software Support for PI Products	PI Expert	PI Xls
DPA-Switch	X[1]	X[2]
HiperLCS		X[5]
HiperPFS		X[6]
HiperPFS-2		X[6]
HiperPFS-3		X[6]
HiperPFS-4		X[6]
HiperTFS-2		X[7]
InnoSwitch3-CE	X[1]	X[1]
InnoSwitch3-CP	X[1]	X[1]
InnoSwitch3-EP	X[1]	X[1]
InnoSwitch3-Pro	X[1]	X[1]
InnoSwitch-CE		X[1]

InnoSwitch-CH		X^1
InnoSwitch-CP		X^1
InnoSwitch-EP		X^1
LinkSwitch-II		X^3
LinkSwitch-3		X^1
LinkSwitch-4		X^1
LinkSwitch-CV	X^1	X^3
LinkSwitch-HP	X^1	X^1
LinkSwitch-LP		X^1
LinkSwitch-PH	X^1	X^8
LinkSwitch-PL	X^1	X^{15}
LinkSwitch-TN		X^4
LinkSwitch-TN2		X^4
LinkSwitch-XT	X^1	X^1
LinkSwitch-XT2		X^1
LinkZero-AX		X^1
LinkZero-LP		X^1
LYTSwitch-0		X^{12}
LYTSwitch-1		X^{16}
LYTSwitch-2		X^1
LYTSwitch-3		X^{10}
LYTSwitch-4		X^{11}

LYTSwitch-5		X[10]
LYTSwitch-6	X[1]	X[1]
LYTSwitch-7		X[12]
TinySwitch-III	X[1]	X[1]
TinySwitch-4	X[1]	X[1]
TinySwitch-LT		X[1]
TOPSwitch-HX	X[1]	X[1]
TOPSwitch-JX	X[1]	X[1]

NOTES:

1. Only supported in the Flyback topology
2. Supported in both the Flyback and Forward topologies
3. Supported in both the Flyback and Tapped-Buck topologies
4. Supported in Flyback, Buck and Buck-Boost topologies
5. Supported in LLC Resonant topology
6. Supported in Boost topology
7. Supported in Two Switch Forward topology
8. Supported in Flyback and Buck topologies
9. Supported in Flyback, Tapped-Buck, Buck and Buck-Boost topologies
10. Supported in Flyback, Buck, Buck-Boost and Tapped-Buck Boost topologies
11. Supported in Flyback, Buck and Tapped-Buck topologies
12. Supported in Buck topology
13. Supported in Flyback, Buck, Buck Boost and Tapped-Buck topologies
14. Supported in Flyback, Buck, Boost, Buck-Boost and Tapped-Buck Boost topologies
15. Supported in Flyback, Buck, Boost, Buck-Boost and Tapped-Buck topologies
16. Supported in Buck and Buck-Boost topologies
17. Supported in Switched Valley-Fill PFC with Flyback topology
18. Supported in Flyback and Switched Valley-Fill PFC with Flyback topologies

Get *PI Expert!*

Download *PI Expert Suite v10.3* (contains PI Expert, PI Xls and PI Viewer)

Installation Instructions

1. Download and run the PI Expert Suite v10.3 installer to install all tools (PI Expert, PI Xls, and PI Viewer).
2. Assuming that you left the "Yes, check for program updates" box that appears during the install checked, the installer will check for updates before it completes the installation. To take advantage of this feature, ensure you have the "Yes, check for program updates" box checked, have an Internet connection, and then click Finish. The InstallShield program will check for updates for each tool that you installed, and automatically download and update the software to support the latest products. Follow the prompts to update all of the tools to the latest version.
3. If your machine is 64 bit compatible you can install the 64 bit version of the software which can speed up the optimization process by taking advantage of larger system memory. The 32 bit version will work on a 64 bit system but the 64 bit version will not work on a 32 bit system.

Get *PI Expert* Technical Support

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