Power Manager II Hercules Development Kit

The Power Manager II Hercules Development Kits are versatile, ready to use hardware platforms for evaluating and designing with Power Manager II devices. A **Standard and Advanced Edition** of each kit is available. Using the preloaded Board Digital Management design provided with the development kit, you can test within minutes power management functions such as power supply hot swap control, redundant supply selection and payload power management. You can then build your own designs using the free downloadable **reference design** source code, implementing these features in less than an hour.

Provisions are included to emulate power supply monitoring, temperature monitoring, supply fault logging, and reset generation. The kits also demonstrate enhanced power management features such as closed loop margining. The Advanced Edition of the Hercules Development Kit provides an accessory backplane board with CompactPCI connections for evaluation with live hot-swap scenarios.

The core of the Hercules evaluation board is the combination of a **Power Manager II ispPAC-POWR1220AT8** and a **MachXO LCMXO2280 PLD**. The MachXO can be configured to provide digital management and interface functions such as interface to a CompactPCI backplane, LCD display, PC Host, SPI Flash, memory interface, VID decode and fault logging. Power for the board comes from a 12VDC wall plug supply. Power for Advanced Edition of the Hercules evaluation board can be sourced by a CompactPCI 12V backplane power supply.

Development Kit Contents

The Standard Edition Hercules Development Kit features the following:

- Preloaded Board Digital Management demo
- Hercules Standard Edition evaluation board
- Power Manager II ispPAC-POWR1220AT8 and MachXO LCMXO2280 PLD

The Advanced Edition Hercules Development Kit features the following:

- Preloaded Board Digital Management demo
- Hercules Advanced Edition evaluation board with CompactPCI headers
- Power Manager II ispPAC-POWR1220AT8 and MachXO LCMXO2280 PLD
- Backplane accessory evaluation board and power supply for live hot-swap demonstrations

- AC adapter (international plugs)

- USB Connector Cable

- RoHS-compliant packaging and process

Ordering Information

PAC-POWR1220AT8-HS-EVN (Standard)
To purchase, please visit our **online store**.

PAC-POWR1220AT8-HA-EVN (Advanced)
To purchase, please visit our **online store**.

Power Manager II Hercules Development Kit Resources

	Download

Windows Hardware Drivers USB interface support for the Power Manager II Hercules Development Kit Evaluation Board.	**Windows Hardware Drivers**
Power Manager II Hercules Development Kit Quick Start Documentation	**QuickSTART Guide (PDF)**
Power Manager II Hercules Development Kit User's Guide The Hercules Development Kit User's Guide describes all included (pre-programmed) demonstrations supplied with the kit and schematics associated with the eval board, etc.: Main and external 12V supply connections 12V Hot Swap for Hot Swap Demo 12V OR'ing for Redundant Power Supply Demo 1.2V DC-DC supply for Margin, Trim, and VID Demos SPI memory for Fault Logging Demo	**User's Guide (PDF)**
Power Manager II Hercules Development Kit Evaluation Board Demonstration Source Code Download the source code for the demonstration loaded into the Power Manager II Hercules evaluation board. Run it through the software flow, recompile it and reprogram the evaluation board and have a known good starting point for doing your own designs.	**Demo Source (ZIP)**
PAC-Designer Software To modify a demo or download your own designs into the Hercules Evaluation Board requires PAC-Designer software. To program the evaluation board download ispVM System Device Programming Software.	**PAC-Designer**

Power Manager II Hercules Development Kit Features

Board Power Management Demos	Standard Edition	Advanced Edition
+12V Power Hot Swap	✔	✔
+12V Power OR'ing	✔	✔
Power Supply Sequencing	✔	✔
Power Supply Margining	✔	✔
Power Supply Trimming	✔	✔
5.5V and 3.3V Power Hot Swap		✔
Plugs into cPCI and cPCIe Slots		✔
Board Digital Management Demos		
Fault Logging	✔	✔
Digital Reset Distribution	✔	✔
I2C Interface	✔	✔
SPI Interface	✔	✔

Board Power Management Demos	Standard Edition	Advanced Edition
Voltage Scaling	✔	✔
cPCI/cPCIe Interface		✔
Development Kit Contents		
Standard Evaluation Board	✔	
Advanced Evaluation Board		✔
USB Connector Cable	✔	✔
User's Guide	✔	✔
12V Wall Plug Power Supply	✔	✔
cPCI/cPCIe Backplane Board		✔
PC Power Supply for Backplane Board		✔