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⊻ **Worldwide** (In English)

HV Bridgeless PFC Developer's Kit

(ACTIVE) TMDSHVBLPFCKIT

📄 **Description & Features** ⬇ **Technical Documents** 👥 **Support & Community** 🛒 **Order Now**

Description

CAUTION: This equipment operates at high voltages and currents which can result in hazardous electrical shock. Please make sure you understand and follow all necessary safety precautions prior to purchasing and operating.

The High Voltage Bridgeless PFC Developer's Kit uses a Piccolo microcontroller to control a 300W high efficiency BRIDGELESS PFC stage. Additions to this EVM include a fast Feed Forward (FF) control loop based on half cycle RMS measurement of the AC line. This control loop offers designers a faster response to input voltage transients without sacrificing Power Factor. This EVM is designed to operate off a universal ac line input of 85V to 265V and provides a regulated 390V dc output, with the option to power the digital circuitry from an external power supply. This kit can be used as a stand-along PFC development kit or in conjunction with the complimentary secondary side TMDSHVRESLLCKIT or TMDSHVPSFBKIT evaluation boards to build a complete PFC correct AC to high efficiency DC topology. The kit includes isolated USB JTAG emulation. Software and hardware documentation for the kit are included in controlSUITE.

Power Conditioning (also known as Active Power Filtering) can be implemented on this kit with proper configuration and minimal software modifications.

Interested in hands-on digital power training? Register for the Digital Power Three-Day Workshop by Biricha Digital Power Ltd.

Take your C2000 design to the next level
Access the vast collection of hardware, software libraries, and application specific tools with C2000 MCUs to further the learning and development of your own custom solutions.

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Features

- Piccolo F28035 Digital PFC Control
- Fast Feed Forward half cycle RMS control loop
- RMS Input voltage and frequency monitoring
- 300W Bridgeless 2-Phase Interleaved PFC
- Universal AC Line Input (85 to 265V)
- 390V Regulated DC Output
- Isolated USB JTAG Emulation Onboard USB JTAG emulation
- Detailed lab and discussion of PFC Principles.

What's Included

HV Bridgeless PFC Development Kit Software Installation CD TMDSCNCD28035ISO controlCARD

· HV Bridgeless PFC Development Kit
· Software Installation CD
· TMDSCNCD28035ISO controlCARD

Order Now

Part Number	Buy from Texas Instruments or Third Party	Buy from Authorized Distributor	Status
TMDSHVBLPFCKIT: HV Bridgeless PFC Developer's Kit	In Stock **Typically Ships in 1 to 3 Business Days** [Buy from TI]	**Pricing may vary.** [Buy from distributor]	ACTIVE

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Technical Documents

White Papers (1)

Title	Abstract	Type	Size (KB)	Date	Views
📄 Implementing peak current mode control of a switch-mode power supply		PDF	1705	22 Jun 2012	1,411

More Literature (2)

Title	Abstract	Type	Size (KB)	Date	Views
📄 Piccolo High Voltage Digital Power Supply Developers Kit		PDF	502	09 May 2011	1,020
📄 Connecting Code Composer Studio to a TMS320C2000 Device	Read Abstract	PDF	447	06 Jul 2009	1,532

Related Products

Design Kits & Evaluation Modules (1)

Name	Part Number	Tool Type
Piccolo TMS320F28035 Isolated controlCARD	TMDSCNCD28035ISO	Evaluation Modules & Boards

TI Devices (3)

Part Number	Name	Product Family
TMS320F28027	Piccolo Microcontroller	Real-time Control
TMS320F28035	Piccolo Microcontroller	Real-time Control
TMS320F2808	32-Bit Digital Signal Controller with Flash	Real-time Control

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- Tiva™ C Series ARM® Cortex-M MCUs
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- Development Tools

Training & events

Name	Type	Available During
Georgia Tech MOOC: Control of Mobile Robots Learn how to make mobile robots move in effective, safe, predictable, and collaborative ways using modern control theory.	On-Line Training	On Demand
SimpleLink™ Wi-Fi CC3100 and CC3200 Project 0 Series - 5 Part Series Learn about using Software Tools for SimpleLink™ Wi-Fi CC3100 Boosterpack and CC3200 Launchpad	On-Line Training	On Demand
TI-RTOS Update Learn about the latest TI-RTOS features and more in-depth understanding of this TI software tool.	On-Line Training	On Demand
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