

Support & Community

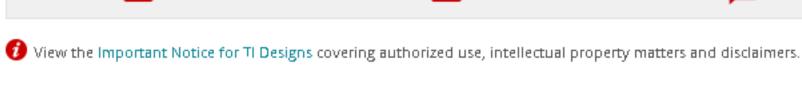
TI Home > TI Designs > Power Management > Universal AC Input, 380V/1kW CCM Boost Power Factor Regulator Reference Design

₩ Worldwide (In English).

Universal AC Input, 380V/1kW CCM Boost Power Factor Regulator Reference Design

Technical Documents

(ACTIVE) PMP11062



Key Document

Description & Features

PMP11062 Test Results (PDF 2148 KB) 13 May 2016 | 122 views

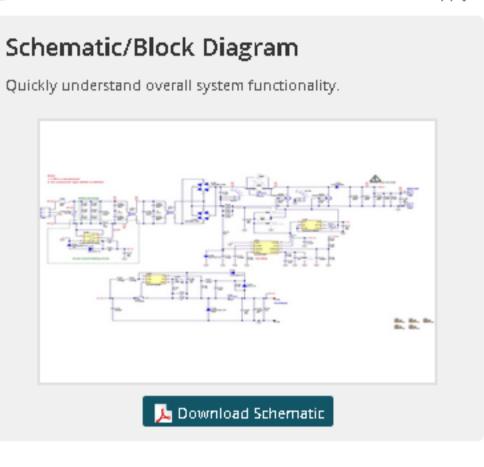
>> View All Technical Documents (7)

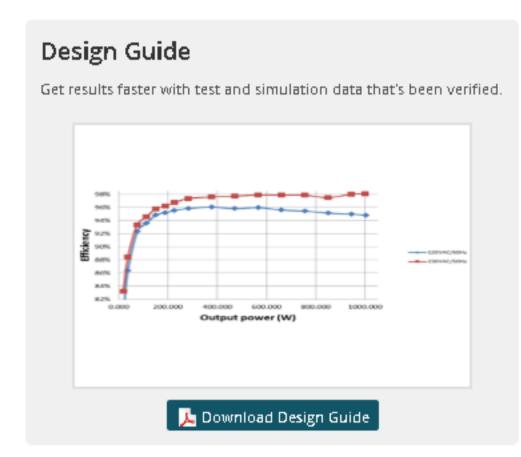
Description

The PMP11062 reference design uses the UCC28180 CCM PFC controller to generate a 380V/1kW output from a universal AC input. In addition to that, the UCC28722 PSR controller is used as bias supply in this design. Over 96% peak efficiency is achieved at 120VAC/60Hz input and over 98% efficiency is achieved at 230VAC/50Hz input.

- Features
- Continuous conduction mode boost power factor regulator
- 60kHz switching frequency
- 96% peak efficiency @ 120VAC/60Hz
- 98% peak efficiency @230VAC/50Hz Conduction EMI test result included



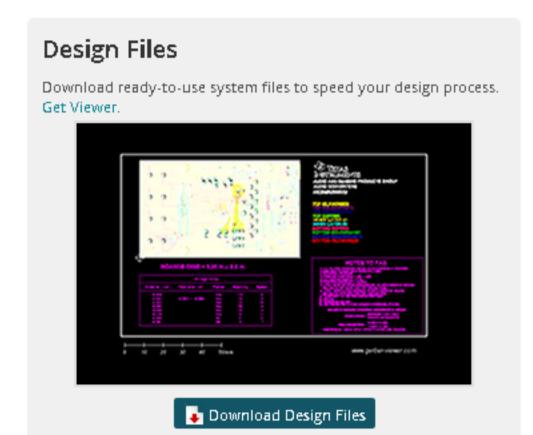






Top of Board Image

Fully assembled board (shown above) developed for testing and performance validation only, not available for sale.



Bill of Materials (BOM)

Find the complete list of components in this reference design.

🝌 Download BOM

Parametrics

	PMP11062.1 (Output Voltage 1)	PMP11062.2 (Output Voltage 2)
Vin (Min) (V)	90	90
Vin (Max) (V)	264	264
Vout (Nom) (V)	380	15
lout (Max) (A)	2.63	.2
Output Power (W)	999.4	3
Isolated/Non-Isolated	Non-Isolated	Non-Isolated
Input Type	AC	AC
Topology	Boost- PFC	Buck- Non Sync

TI Devices (3)

Order samples, get tools and find more information on the TI products in this reference design.

Part Number 💠	Name \$	Product Family \$	Sample & Buy	Design Kits & Evaluation Modules		
UCC27511	4A/8A Single Channel High-speed Low-side Gate Driver	MOSFET and IGBT Gate Drivers	Sample & Buy	View Design Kits & Evaluation Modules		
UCC28180	8-Pin Continuous Conduction Mode (CCM) PFC Controller	Offline and Isolated DC/DC Controllers and Converters	Sample & Buy	View Design Kits & Evaluation Modules		
UCC28722	Low-Cost CVCC Flyback Controller With Primary-Side Regulation for Bipolar Power Device	Offline and Isolated DC/DC Controllers and Converters	Sample & Buy	View Design Kits & Evaluation Modules		

CAD/CAE symbols

Part	#	Package Pins	CAD File (.bxl)	STEP Model (.stp)
UCC	27511	SOT (DBV) 6	Download	Download

Texas Instruments and Accelerated Designs, Inc. have collaborated together to provide TI customers with schematic symbols and PCB layout footprints for TI products. Step 1: Download and install the free download. Step 2: Download the Symbol and Footprint from the CAD.bxl file table.

- read more -

Technical Documents

User guides (1)

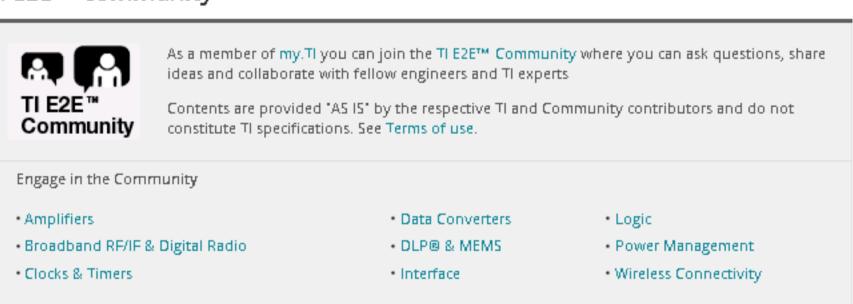
Title	Abstract	Туре	Size (KB)	Date	Views	TI Recommends
PMP11062 Test Results		PDF	2148	13 May 2016	122	~

Design files (6)

Title \$	Abstract ♦	Туре 🗢	Size (KB) ♦	Date ▼	Views ♦
PMP11062 Gerber		ZIP	618	13 May 2016	36
PMP11062 Altium		ZIP	1155	13 May 2016	56
▶ PMP11062 PCB		PDF	793	13 May 2016	54
PMP11062 Assembly Drawing		PDF	92	13 May 2016	40
▶ PMP11062 BOM		PDF	150	13 May 2016	79
PMP11062 Schematic		PDF	176	13 May 2016	227

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