

Digitally Controlled, Interleaved Power Factor Correction (PFC)

This DesignCore™ PFC Reference Design speeds development of custom digital power and motor control systems for performance-critical applications.

We implement this PFC along with main system functions, such as DC/DC conversion or motor control, in a single microcontroller with shared ADC. This yields efficient, cost-saving board assemblies for our OEM customers.

The DesignCore™ Platform enables fast development of production-ready design verification test units. Along with our proven Reference Designs, we use calculation sheets and template schematics to speed up hardware design and firmware that is portable across architectures. D3 Engineering's Design Services give you the best of design flexibility, speed of development, and cost-effectiveness of your final product.

FEATURES

Designed for implementation in shared MCU with motor controllers, DC/DC converters, or other main systems functions

All-digital control

TI C2000 or Infineon XMC microcontroller

Interleaved design

Reduced external component count compared to analog designs

Configurable and scalable

Design flexibility—runtime adjustments of output voltage, compensator, etc.

Soft start

Phase shedding

Average current mode control

APPLICATIONS

Performance-critical digital power and motion

HVAC

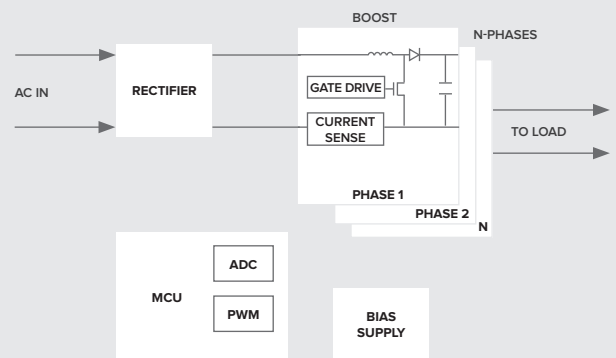
Industrial

Automotive

Offline charging

Designed for fast, efficient implementation with main system functions in a single MCU

DESIGNCORE™ PFC REFERENCE DESIGN



ACCELERATE TIME TO MARKET

D3 Engineering leverages our industry-proven DesignCore™ Platforms to meet your product goals, while minimizing technical and schedule risk for your development program. The DesignCore™ foundation allows you to easily integrate your IP and get your product to market fast. Contact us today about custom embedded product development for digital power control.

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