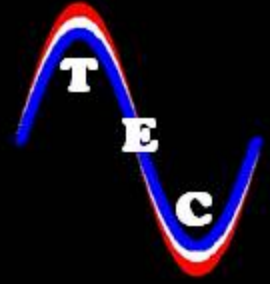


Tier Electronics

Your Future For Electronics

www.TierElectronics.com



Tier's Crystal Architecture (TCA) Power Converter Assembly

This unique architecture changes the way semi-custom converters are developed. TCA uses the advantages of Tier Electronics' building block technology which allows for rapid prototyping and production designs. TCA is a high frequency, high power, performance converter.

TCA Power Converter Features:

High frequency PWM reduces THD and extends operating range.

PWM frequency as high as 100 kHz.

48 to 2300 VAC, 1 to 4 pole, bi-level and tri-level designs.

Up to 105°C designs.

Compact, open frame converter with a very high power density.

Controller options include a 40 MHz 16 bit or 100 MHz 32 bit flash based DSP.

Transformer isolated gate driver improves ruggedness and MTBF.

Power supply options adapt to the needs of various AC and DC power source requirements.

Analog, digital, and relay I/O modules designed to meet the OEM's external signal needs.

Communication modules that fit the OEM's needs including IR, fiber optic, and hard wired styles.

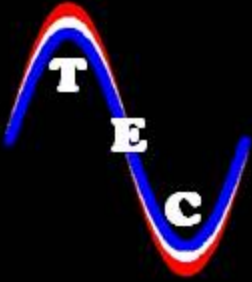
PC/104 system controller options.

Benefits of TCA Assemblies:

- Universal power design that fits almost all power electronics applications
- Standard functional control modules with multiple options to meet various OEM needs
- Cost effective low and medium volume designs
- Rapid prototype and production designs
- Air or liquid cooled designs
- High reliability pre-proven standard building blocks
- Low cost, high volume production solutions

TCA Power Converter Uses:

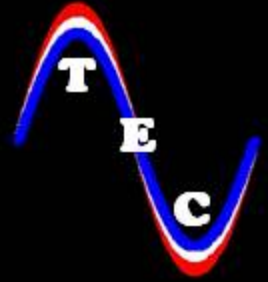
- Conversion Capabilities
 - DC to AC conversion
 - DC to DC conversion
 - AC to DC conversion
 - AC to AC conversion
- Converter Functions
 - Active Rectifiers
 - DC Power Supplies
 - Active Line Conditioners
 - AC Power Supplies
- Industry Applications
 - Mobile Equipment
 - UPS
 - Brushless DC Motor Controller
 - Motor Drives
 - Fuel Cell
 - Micro Turbine Controllers
 - Generator Starters
 - Welding
 - Flywheel Controller



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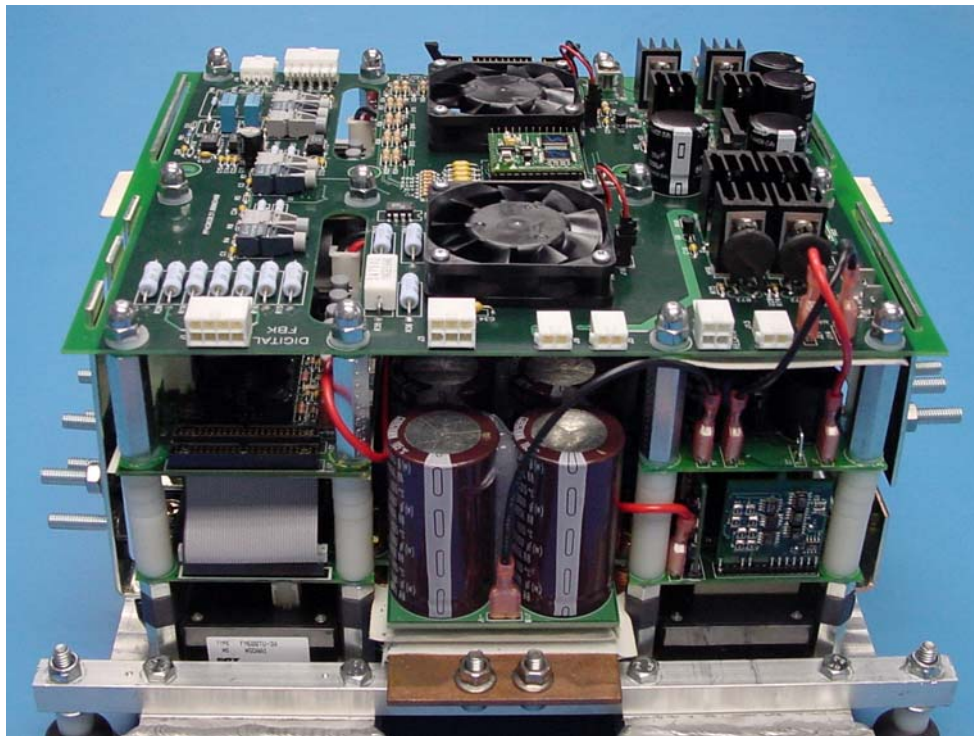
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Tier's Crystal Architecture (TCA) Power Converter Assembly

Other Advantages Include:

- A very quick to market standard yet custom converter
- Low cost set-up
- Designs based upon proven technologies
- Architecture designed to fit nearly any market
- Programmed to be used in many different applications and markets
- Optional custom input/output modules
- Ability to parallel
- TCA converters are supplied in an open frame or in an enclosure



M³

“From Mind to Market in Moments”