

## **Isolated Quarter Brick DC/DC Converter Delivers 50A 250W of regulated 5.0V output for IBA and DPA Applications**



FDK Corporation introduces a new high power regulated quarter brick to its Sensei Series of isolated dc/dc converters. The FPQR48T5R050 converter provides 50 Amps of output current (250 Watts) with outstanding thermal performance. This converter is designed for Intermediate Bus Architecture (IBA) and Distributed Power Architecture (DPA) in telecommunications, WiMAX, data processing, computing, and storage applications that require a regulated 5V distribution bus.

The FPQR48T5R050 converter operates from a 36 Vdc to 75 Vdc input and provides a tightly regulated 5 Vdc output with an efficiency in excess of 92.5%. It is offered in a 2.30" x 1.45" x 0.555" (58.4mm x 36.8mm x 14.1mm) industry-standard quarter brick footprint and pin-out. As an available option, the FPQR48T5R050 converter can support parallel operation of multiple units without the need for external components, with a load sharing accuracy within +/- 10%.

Standard features include input under-voltage lockout (UVLO), output over-current protection (OCP), output over-voltage protection (OVP), over-temperature protection (OTP), remote output voltage sense, and output voltage trim using industry-standard trim equations. The FPQR48T5R050 converter meets the basic insulation requirements of EN60950 and features input to output dc isolation of 1500 Vdc.

The Sensei Series converters require little or no derating at high ambient temperatures without the need for heat sinks. With a 48 Vdc input, the FPQR48T5R050 converter delivers the full-rated output of 50A (250W) at ambient temperatures up to 55 degrees Celsius with 500LFM (2.5m/s) airflow. This excellent thermal performance is the result of electrical, thermal, and packaging design that is optimized for high density circuit card conditions, realized using FDK's advanced circuit and thermal design techniques. Isolated Quarter Brick DC/DC Converter Delivers 50A 250W of regulated 5.0V output for IBA and DPA applications.

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