

Power Integrations' New HiperTFS™ Incorporates Efficient Two-Switch-Forward Main and Flyback Standby Power Converters into Single IC

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Power converter IC family leverages high efficiency and compact form factor; targets PC, TV, and industrial power supply applications from 120 W to over 400 W

MUNICH--(BUSINESS WIRE)-- Power Integrations (Nasdaq: **POWI**), the leader in high-voltage integrated circuits for energy-efficient power conversion, today introduced **HiperTFS**, a highly integrated power supply IC family for high-power applications. Uniquely, **HiperTFS** device family members incorporate both a two-switch-forward converter and a flyback standby power converter into a single, low-profile eSIP™ power package. As well as the two controllers, **HiperTFS** devices include high- and low-side drivers and all of the high-voltage power MOSFETs for the main and standby power converters. Therefore, **HiperTFS** is an ideal product for consumer, computer, and industrial power supply designs requiring main power from 120 W to 415 W and a standby converter capable of up to 20 W. The new devices particularly target applications requiring high efficiency and compact form factor, such as desktop PCs, TVs, and video game consoles.

Two-switch-forward power converters are often selected for applications demanding cost-effective efficiency, fast transient response, and accurate tolerance to line voltage fluctuation. The two-switch-forward controller incorporated into **HiperTFS** devices improves on the classic topology by allowing operation considerably above 60% duty cycle. This improvement reduces RMS currents - and therefore conduction losses - and also minimizes the size and cost of the bulk capacitor. The advanced design also includes transformer flux reset control and charge-recovery switching of the high-side MOSFET, which reduces switching losses. This combination of innovations yields an extremely efficient power supply with smaller MOSFETs, fewer passives and discrete components, and a lower-cost transformer.

HiperTFS also includes a 20 W flyback standby controller and MOSFET based on the highly popular **TinySwitch™** technology used in billions of power converter ICs due to its simplicity of operation, light load efficiency, and rugged, reliable, performance.

Comments David New, product marketing manager at Power Integrations: "**HiperTFS** enables engineers to build power supplies that cost-effectively meet current and emerging power efficiency standards, such as 80 PLUS® Bronze for PCs and the new mandatory California Energy Commission efficiency regulations for televisions. With its high level of integration, supported by comprehensive design software, **HiperTFS** simplifies design efforts and enables engineers to quickly develop high-power power converters. We have brought the advantages of integration to applications below about 50 W for many years; now, high-power products can also benefit from the simplicity, reliability, compactness, and cost savings of a single-chip approach."

HiperTFS products include Power Integrations' standard set of comprehensive protection features, such as integrated soft-start, fault and over-load protection, and hysteretic thermal shutdown. **HiperTFS** devices are available now in PI's popular, grounded-tab, eSIP-12 power package and are priced from \$2.38 each for 10,000-piece quantities. The product datasheet, design ideas, and introductory video are available now on the Power Integrations website at www.powerint.com/hipertfs.

About Power Integrations

Power Integrations is the leading supplier of high-voltage integrated circuits used in energy-efficient power conversion. The company's innovative technology enables compact, energy-efficient power supplies in a wide range of electronic products, in AC-DC, DC-DC and LED lighting applications. Since its introduction in 1998, Power Integrations' EcoSmart™ energy-efficiency technology has saved an estimated \$4.4 billion of standby energy waste and prevented millions of tons of CO2 emissions. The company's **Green Room** web site provides a wealth of information about "energy vampires" and the issue of standby energy waste, along with a comprehensive guide to energy-efficiency standards around the world. Reflecting the environmental benefits of EcoSmart technology, Power Integrations is included in clean-technology stock indices sponsored by the **Cleantech Group** (Amex: CTIUS) and **Clean Edge** (Nasdaq: CELS). For more information, please visit www.powerint.com.

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