



## **Fact Sheet**

SC-04035

### **Managing the Power Behind Your Digital Camera Designs**

Texas Instruments (TI) provides the highest level of innovation and support to fit your power design needs of today and tomorrow. TI leverages its system-level expertise and manufacturing capabilities to provide high performance, discrete and integrated power management solutions to fit any portable, isolated or non-isolated power design challenge – from cell phones to PDAs to telecom to industrial and computing applications.

#### **Power behind Battery-Powered Products**

Digital camera designers face a myriad of design challenges and pressures to deliver new products with a broad range of functionality and applications. They are asked to produce smaller form factors with faster processing power and higher quality color displays, but not to compromise battery life, performance levels or system run-times.

TI delivers a wide array of custom and “off-the-shelf” power management and intelligent battery management technology to help digital camera designers deliver differentiated designs and grow market opportunities. Understanding system and power design requirements, TI combines the right innovation and support to produce greater integration, efficiency, value and performance.

#### **Making Power Design Easier**

Power design is made easier by TI’s leading-edge support tools such as training, a broad selection of evaluation modules (EVMs), application notes, reference designs, software, comprehensive technical documentation and more. TI also offers samples and small orders (shipped within 24 hours via TI authorized distributors) that help accelerate time-to-market.

#### **Power Management Portfolio**

TI provides custom and “off-the-shelf” analog power management semiconductor technology, including:

**Power Conversion:** *Regulation, Control, Interface*

- Multifunctional or Specialized DC/DC Converters
- Switching Converters with Integrated FETs
- DC/DC Controllers
- Charge Pumps
- Linear Dropout Regulators (LDOs)
- Backlight/Color Display Drivers (for LCD, White LED, OLED displays)
- Power over Ethernet Solutions
- Plug-in Power Modules

**Battery Management:** *Charge Control, Capacity Monitoring, Battery Power Conversion*

- Charge Management ICs
- Intelligent Battery Fuel Gauges
- Battery Protection ICs

**Key Facts:**

- TI was listed as the No. 1 vendor worldwide for power supply and power management integrated circuits in 2003 (Venture Development Corporation, Dec. 2003). The total power market exceeds \$5 billion globally, and the power supply and power management segment is expected to reach nearly \$7 billion by 2006.
- TI is the leading manufacturer of next-generation battery fuel gauges, chargers and protection ICs. Almost three-fourths of notebook computers shipping today contain TI's battery management ICs.
- In 2004, TI introduced the first integrated power and battery management IC to support all power rail requirements in digital camera designs.
- TI can deliver any power management IC in a lead-free package. TI is a leader in the supply of lead-free IC packages. Currently more than 30 billion TI lead-free Nickel/Palladium components are in the field.
- TI's TPS65010 device was the industry's first fully integrated power and battery management IC for single-cell Li-Ion powered devices, announced in 2003.
  - Also in 2003, TI introduced the bqTINY™-II (bq24020), the industry first fully integrated single cell LiIon charger with automated USB/AC supply management.
- In 2003, TI introduced the industry's first IEEE 802.3af-compliant Power over Ethernet (PoE) powered device controller and power source equipment manager.

- Power supplies for the PoE market are expected to grow at 22 percent per year between 2003 and 2007, from \$29 million to \$78 million (Darnell Group).
- PoE switch penetration will result in a 100 percent growth between 2003 and 2004 (Gartner Dataquest).
- In 2002, TI introduced the first complete, Flash-based, System Management Bus (SMBus) 1.1 battery management system for Li-Ion/Li-Poly batteries, the bq2083/bq29311.
- In 2001, Palm Computer began using TI's portable power management devices.
- TI acquired Burr-Brown in 2000, Power Trends in 1999, and Unitrode in 1999 (shortly after Unitrode acquired benchmarq, Inc.). Those acquisitions, combined with new developments of TI's manufacturing capability continue to yield leading-edge breakthroughs in system power and portable power management technology.
  - benchmarq milestones:
    - In 1994, benchmarq introduced the industry's first single-chip System Management Bus (SMBus) battery fuel gauge for notebook computers, the bq2090.
    - In 1999, benchmarq introduced the industry's first SMBus 1.1 compliant battery fuel gauge with Packet Error Checking (PEC) protocol to allow verification of transmitted data.

# # #

Texas Instruments Incorporated provides innovative DSP and analog technologies to meet our customers' real world signal processing requirements. In addition to Semiconductor, the company's businesses include Sensors & Controls, and Educational & Productivity Solutions. TI is headquartered in Dallas, Texas, and has manufacturing, design or sales operations in more than 25 countries.

Texas Instruments is traded on the New York Stock Exchange under the symbol TXN. More information is located on the World Wide Web at [www.ti.com](http://www.ti.com).