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### **QP Semiconductor Launches Monolithic Dual Comparator That Outperforms Classic Two-Chip LH2111 Device**

*Tightly matched thermal coefficients over full temperature range combine with hermetic packaging to meet military/aerospace requirements*

**SANTA CLARA, Calif. – May 31, 2005** – QP Semiconductor today introduced the industry's first single-chip implementation of two identical comparators based on the classic LM111 device originated by National Semiconductor. The new QP2111 dual brings to market an enhanced version of National's LH2111 device, a once-popular, two-chip hybrid solution that is no longer being manufactured but is still needed in existing high reliability and military/aerospace systems.

According to Edwin Slipher, chief technologist and director of engineering for QP Semi, the new dual QP2111 specifies significant performance improvements over the classic LH2111 that it supersedes. "By integrating two LM111 devices on a single die, we were able to tightly match the thermal coefficients of each over the full military temperature range. In addition to achieving better matched performance, other benefits include improved in-system reliability and reduced cost for repairs/replacements."

#### **Targeting Precision Applications**

The QP2111 promises to regenerate interest in using LM111-based dual comparators for numerous precision applications including zero crossing detectors, voltage-to-frequency converters, free-running multivibrators, voltage controlled oscillators (VCOs), crystal oscillator controllers, precision squarers, low voltage adjustable reference supplies, positive (or negative) peak detectors, and precision photodiode comparators, among others.

With universally compatible outputs, the QP2111 can drive lamps or relays, switching voltages up to 50V at currents as high as 50 mA. Offered in a hermetically sealed 16-lead package (CerDIP/DIP or CerPACK/FLATPACK), the QP2111 specifies matching offset voltages/currents which make it ideally suited for precision applications.

"We expect military/aerospace system manufacturers to welcome QP Semi as a qualified source for an LM111-based dual comparator," added Slipher. He noted that the QP2111 is immediately available with pricing dependent on quantity purchased. A 9-page PDF data sheet can be accessed at: <http://www.qpsemi.com/literature.html>.

Commenting on today's launch, John Stannard, president of QP Semi, said, "With the QP2111, we now offer a portfolio of 15 re-engineered classic devices, including four DS163X series dual peripheral drivers, also originated by National Semiconductor, which we implement using a 50V Bipolar process. He noted that QP Semi currently ranks as one of the industry's largest specialty military IC suppliers with 1,540 ICs in its QML (Qualified Manufacturers Listing) portfolio.

**About QP Semiconductor**

Founded in 1985 as a test services company, QP Semiconductor ranks today as one of the largest fabless manufacturers of high-reliability ICs for military/aerospace systems. From its headquarters in Santa Clara, California, QP Semiconductor applies design, re-engineering and a full range of manufacturing capabilities to extend the life of classic ICs for a host of mission-critical programs. For more information, visit [www.qpsemi.com](http://www.qpsemi.com).

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