



## Press Release

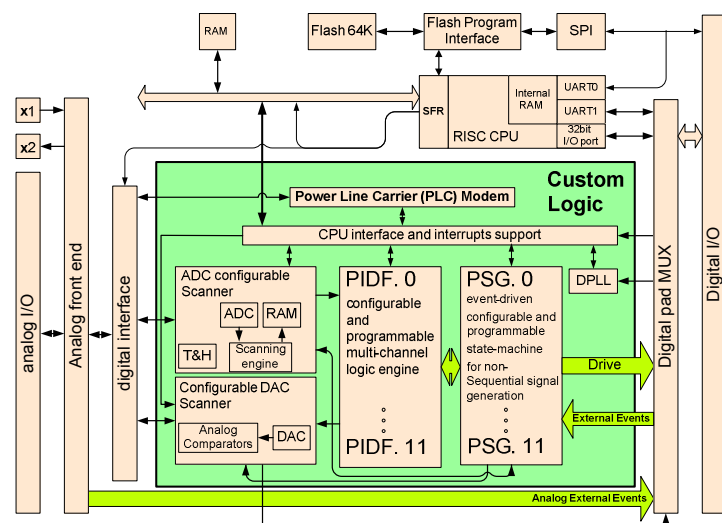
### Systel unveils a breakthrough versatile System on Chip Controller family with the power to transform broad areas of the Electronic Industry at the Light and Building Fair 2006 in Frankfurt

Nes Tziona, Israel, April 23, 2006 - Systel Development and Industries Ltd., a mixed-signal semiconductor company that provides digital System-on-Chip (SoC) power control and management controller solutions for the power conversion industry, will unveil in Frankfurt a series of versatile power controller ICs. These ICs are based on Systel's SoC platform named IDC2000 - Integrated Digital Control - which may represent the most advanced digital core technology for Lighting, Building Automation and related field applications.

After five years of intensive development, Systel's multi disciplinary team of scientists and engineers, with a strength in power electronics and extensive knowledge in control techniques, have created a breakthrough universal SoC power control architecture unparalleled within the industry. This architecture combines all the advantages of Analog and DSP processor technology with the customized attribute of an ASIC and the configuration power of an FPGA /Field Programmable Gate Array while doing away with their particular limitations.

Based on this code-free configurable architecture, that excels in its negligible area overhead, Systel created the IDC2000 platform and its family of SoC power control and power management controllers.

This platform comprises all required functions based on unique digital power control approach and methods developed by the company like the Power Factor Correction (PFC), Power Line Carrier (PLC) communication, driving signals modulation techniques; code-free close loop control functions, etc.



The IDC2000 Architecture

This platform was built from the ground up, to address in principle, all segments of the power conversion industry, offering unsurpassed performance and unequalled functions with unquestionable cost effectiveness.

The Frankfurt Light + Building 2006 focuses on the convergence and integration of subjects of lighting; building and computer systems in the building sector and 'Improving Energy Efficiency in Commercial Buildings' (IEECB).

Once a future vision, now integrated design plans and the total system interaction of different disciplines are now increasingly becoming a reality. Using the IDC2000 ICs family, manufacturers can both accelerate and boost these required integrations and create new low cost, high performance applications in an amazing short time-to-market.



Systel's development team have identified these requirements at a very early stage and is thus ready to introduce at this Frankfurt Fair a unique and so far unparalleled core technology which shall be at the controlling heart and center of these applications, with a system-level approach.

### **Lighting**

In Lighting and Building Automation the IDC2000 will allow the creation of a wide spectrum of innovative and powerful electronic ballasts with extraordinary performances and features while cutting the ropes that tie the industry from patent infringement.

The IDC2000 was built to implement any conceivable dimmable and non-dimmable electronic ballasts for any type of lamp or a combination of them, in an unprecedented short "Time to Market" by using the GUI / Graphical User Interface design tools developed by Systel. In ballasts the IDC2000 integrates all the control functions of the electronic ballast and the communication interfaces. As a result, the designs based on the IDC2000 will excel in low component cost and count due to its high integrative system concept. The smart algorithms implemented in the IDC2000 allow the diminishing of the passive component precision and further reducing the component cost of the end product.

### **Building Automation**

Systel developed a comprehensive line of networkable electronic ballast reference designs based on unique multi-channel topologies and lighting systems enabled by the IDC2000.

Extraordinary results can be achieved in decentralized bus system building control applications using the combined advantages provided by the IDC2000 SoC platform:

- No additional control wiring - no modification of existing wires.
- Innovative ballast using multi-channel solution - intensively reduces ballast item cost and extends lamp life.
- Control of the building elements down to the level of an individual lamp in a fixture.
- Embedded powerline modem for a negligible cost further reduces PLC implementation cost, allowing command of each separate element of the lighting and HVAC /Heating, Ventilating, and Air-Conditioning system at unsurpassed low costs.

All these facts allow to dramatically lower the installation and maintenance costs with the shortest ROI/Return of Investments while achieving within 5 years the largest net US\$ savings in comparison to other solutions in the market ranging??, in lighting, respectively from 49% and 28\$/sq meter at 12.5 ¢/KWh to 85% and 62\$/sq meter at 21¢/Kwh when retrofitting an electromagnetic ballast system - calculations done on the base of an installed power density of 15w/sq meter.

Systel experts invite you to visit our stand located at Hall 4.0 D92 to experience live demonstrations of the revolutionary ballast approach and controls powered by the IDC2000.

### **About Systel**

SYSTEL is a pioneer in mixed-signal power and management developing propriety comprehensive digital based solutions. Its first application in power electronics was in 1993 when it unveiled a true on-line high performance UPS system implementing unique control functions in logic engines. The first generation of its digital power management solution for lighting was unveiled in 1998. Systel holds 7 key patents and has more than 17 patent applications pending that range from core technology and power control functions and communication methods to power topologies and systems supported by digital control.

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