

Press Release

Systel presents a breakthrough versatile System on Chip Controller family with the power to transform broad areas of the Electronic Industry at PowerSystems World

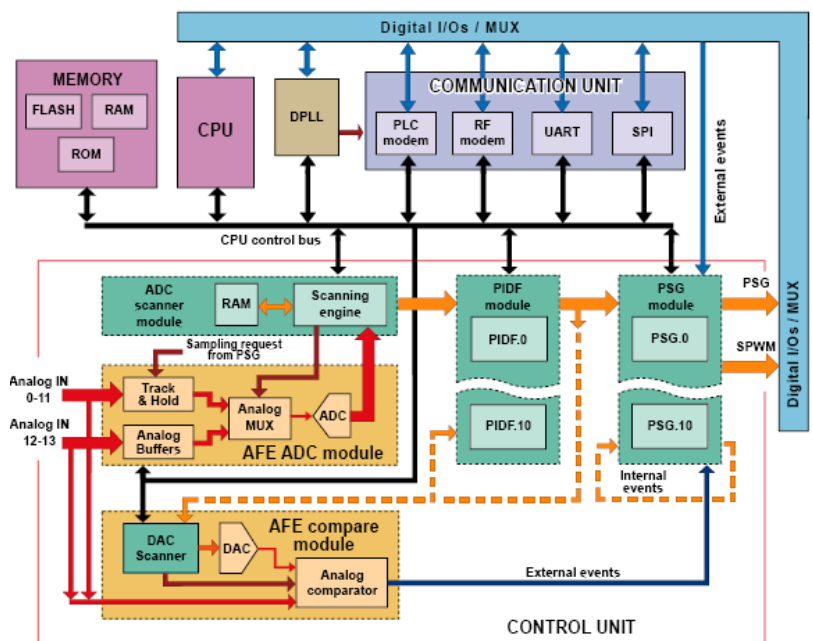
Nes Ziona, Israel, Oct. 24, 2006 - Systel Development and Industries Ltd., a mixed-signal semiconductor company that provides digital System on Chip (SoC) power control and management controller solutions for the power conversion industry, will present for the first time in the USA a series of versatile power controller ICs at the Power Electronics Technology exhibition in Long Beach, CA, October 24-26. These ICs are based on Systel's SoC platform, the IDC2000 (Integrated Digital Control) which may represent one of the most advanced core technologies for the different segments of the power electronic market in general and for Lighting, Building Automation and related field applications in particular, which will be shown at the above mentioned exhibition.

After five years of intensive development, Systel's multi disciplinary team of scientists and engineers have created a breakthrough SoC power control architecture unparalleled within the industry. This architecture combines all the advantages of Analog and DSP processors technologies 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, which excels for its negligible area overhead, Systel created the IDC2000 platform and its family of SoC power control and management controllers.

This platform comprises unique digital power control functions and methods developed by the company like the PFC (Power Factor Correction), PLC (Power Line Communication), driven signal modulation techniques, etc.

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 IDC2000 Architecture

The IDC2000 and its applications are in line with the increasing industry requirements for design affordable, efficient and energy savings building control systems with effective power consumption demand control to achieve the power conservation goals. Systel's development team has identified these requirements at a very early stage. This unique and so far unparalleled core technology which is the controlling heart and center of the applications, with a system-level approach, was first introduced at the Frankfurt Light + Building 2006 Exhibition in April 2006.



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 thereof, in an unprecedented short "Time to Market" by using the GUI (Graphical User Interface) design tools developed by Systel.

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 building 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 on Investment) 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 based on an installed power density of 15w/sq meter).

Systel experts invite you to visit them at booth 742 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 8 key patents and has more than 15 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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