

## CAST 8051 IP Line Expands with IAR Systems Tool Support and New Tiny 8-bit MCU

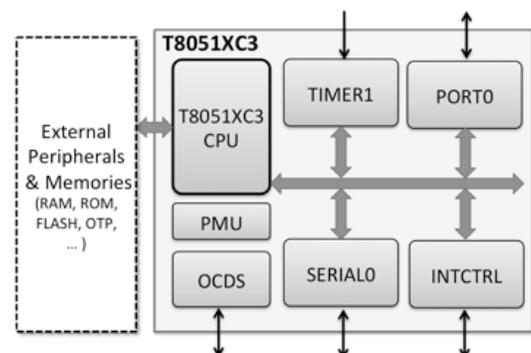
**Woodcliff Lake, NJ — January 21, 2015** — Designers of embedded control systems, Internet of Things (IoT) sensor modules, and other systems requiring small, low-power, low-cost, easy-to-program microcontrollers have new options in the 8051 IP core line from intellectual property provider CAST, Inc.

- The new [T8051XC3 Tiny 8051 IP Core](#) is among the very smallest such microcontrollers available—reducing power consumption and chip cost—yet offers both good performance and high-quality integrated peripherals.
- The 8051 cores from CAST are now supported by the popular tools from IAR Systems®, offering designers another integrated development environment (IDE) choice.

The new Tiny 8051 core is available now, and IAR Systems tool support for it is coming soon. Support for the rest of CAST's 8051 line is available immediately in the complete compiler and debugger toolchain IAR Embedded Workbench® from IAR Systems.

### The Best Tiny 8051

The T8051XC3 IP Core is sourced from long-time 8051 experts Silesia Devices. It integrates an 8-bit, MCS®51-compatible processor with several common peripherals: a serial communications controller, flexible timer/counter, multipurpose IO port, and an interrupt controller. It may also include a hardware debug unit supporting JTAG four-wire or a Single-Wire interface. Inexpensive debug pods and complete reference design boards are available.



Block diagram showing the T8051XC3 IP Core CPU, peripherals, and on-chip debug (OCDS).

“Efficiency, performance, familiarity, low cost, and miniscule silicon usage make this Tiny 8051 controller a smart choice for any system with modest computing and memory requirements but tight power, price, and time to market constraints,” said Nikos Zervas, chief operating officer for CAST. “The T8051XC3 is the ideal controller for many MEMS, sensor, RF, and other subsystems in interconnected, wearable, or IoT applications.”

Compared with other small 8051s on the market, the T8051XC3 uses about the same silicon area and provides similar peripherals, but offers 60% better performance and double the development system options.

The MCU with all peripherals uses just 6.6K gates (180nm process) and with IAR Embedded Workbench for 8051 delivers 0.1236 DMIPS/MHz for 13.15 times the speed of the original C8051. It can run at 450MHz or better (90nm technology), offering an effective 300 times speed up over the early Intel chip.

## Rapid Development with tools from IAR Systems

Developers working with the 8051s available from CAST can now use either the ARM® Keil® µVision® C51 or IAR Embedded Workbench® for 8051. The Keil tools have a long record of support for these 8051s, while the new 8051 support by IAR Systems provides a popular alternative.

“Adding IAR Systems tool support gives developers two solid IDE choices for rapidly programming and debugging our 8051s,” said Maciej Pyka, president of Silesia Devices. “The simplicity and long history of 8051 coding coupled with these great IDEs mean designers can now deliver effective 8051-based subsystems quicker—and cheaper—than possible for perhaps any other microcontroller.”

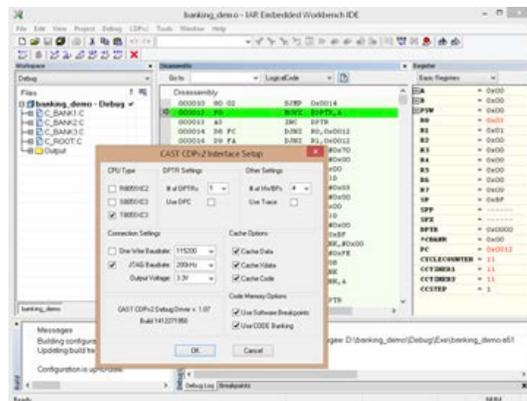
## Learn More

Visit [www.silesia-devices.com](http://www.silesia-devices.com) to learn more about Silesia Devices, the MCU design experts from whom CAST sources the T8051XC3. Click to learn about [IAR Embedded Workbench for 8051](#) or [Keil µVision for 8051](#).

CAST is a twenty-year-old provider of IP cores and subsystems for ASICs and FPGAs, and today offers low-power, high-value IP featuring 8051s and BA2x 32-bit Processors; graphics accelerators and processing units; video, image, and data compression; security, interfaces and other functions needed for complete system on chip designs. To learn more about CAST and its product line call +1 201.391.8300, visit [www.cast-inc.com](http://www.cast-inc.com), or follow [@castcores](#) on Twitter.

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Screenshot of IAR Embedded Workbench for 8051 in use with 8051 cores available from CAST.