New Product Announcement

September 27, 2011

Micromega Announces 64-bit Floating Point Coprocessor

Micromega Corporation announces the release of the uM-FPU64 Floating Point Coprocessor chip. The uM-FPU64 extends Micromega's family of coprocessors to provide support for IEEE 754 compatible 64-bit floating point and integer calculations, expanded digital I/O and analog input capabilities, and support for local peripheral devices. The uM-FPU64 can be interfaced to a wide range of popular microcontrollers to provide extensive floating point capabilities, and optionally control a subsystem of local peripherals. It can also be configured as a stand-alone microcontroller for embedded applications.

The precision required for GPS navigational calculations and the transformation of data from MEMS-based sensors can easily exceed the capabilities of 32-bit floating point numbers. The uM-FPU64 coprocessor, with support for both 64-bit and 32-bit floating point numbers, provides the added precision needed for these demanding applications, and can offload the floating point calculations from the microcontroller.

The uM-FPU64 is compatible with the instruction set of Micromega's popular uM-FPU V3.1 32-bit floating point coprocessor. Advanced instructions are provided for fast data transfer, matrix operations, FFT calculations, serial input/output, NMEA sentence parsing, string handling, digital input/output, analog input, and control of local devices.

Local device support includes: RAM, 1-Wire, I²C, SPI, UART, counter, servo controller, and LCD devices. A built-in real-time clock and foreground/background processing is also provided. The uM-FPU64 can act as a complete subsystem controller for sensor networks, robotic subsystems, IMUs, and other applications.

The uM-FPU64 IDE (Integrated Development Environment) makes it easy to create, debug and test code for the uM-FPU64. Code can be written in the IDE's high level language or in assembler, then compiled to generate code targeted for one of the many microcontrollers and compilers supported, or stored internally in Flash memory. The IDE provides support for editing code, compiling, tracing code execution, setting breakpoints, examining registers and programming user-defined functions in Flash memory.

The uM-FPU64 chip is RoHS compliant and has an operating voltage of 3.3V, with 5V tolerant SPI and I²C interfaces. SPI interface speeds up to 15 MHz and I²C interface speeds up to 400 kHz are supported. The chip is available in PDIP-28, SOIC-28, or TQFP-44 packages. The single unit price is $24.95 with volume discounts available.

####

- -

Link to product page on Micromega website:
http://www.micromegacorp.com/umfpu64.html

- -

For more information, contact:

Micromega Corporation
1664 St. Lawrence Ave.
Kingston, ON K7L 4V1
Tel: 613-547-5193
Web: www.micromegacorp.com

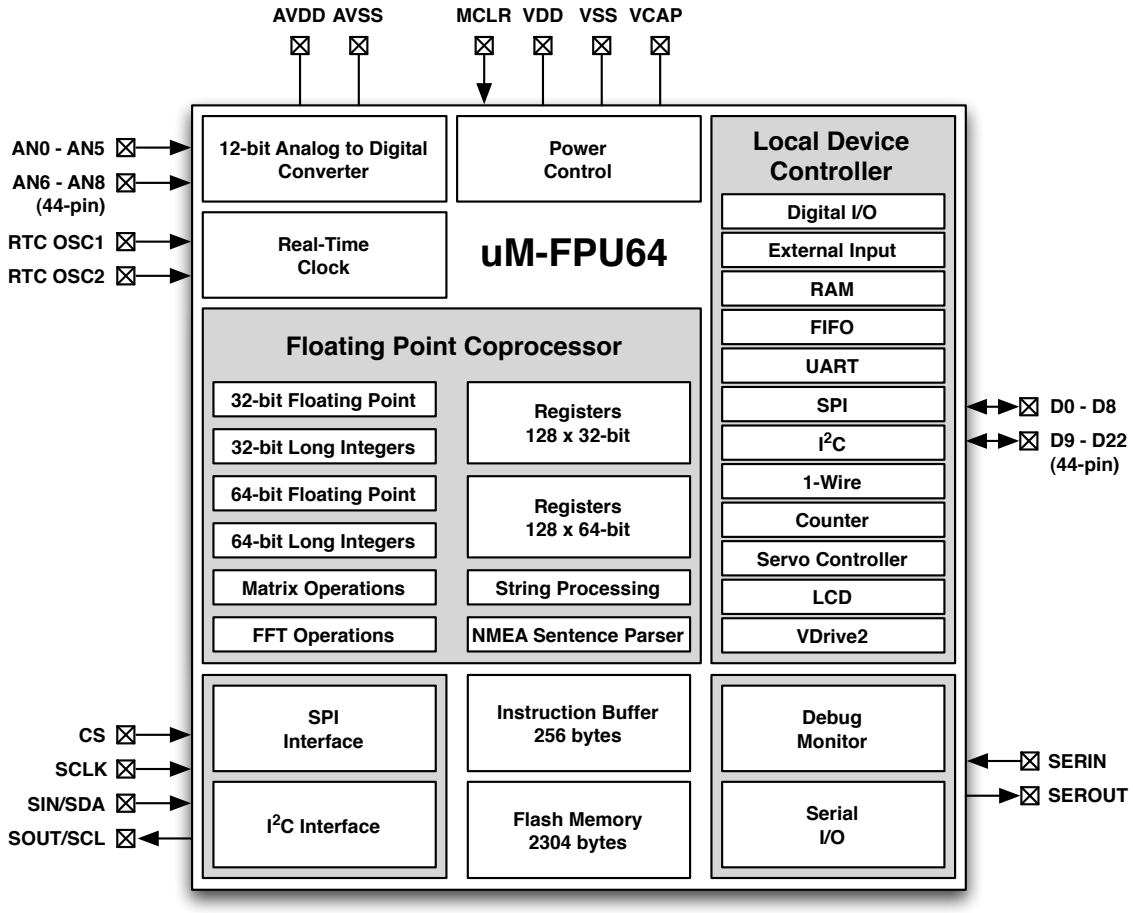
- -

For additional information regarding this product announcement please contact:

Cam Thompson
President
Micromega Corporation
Tel: 613-547-5193
Email: camt@micromegacorp.com

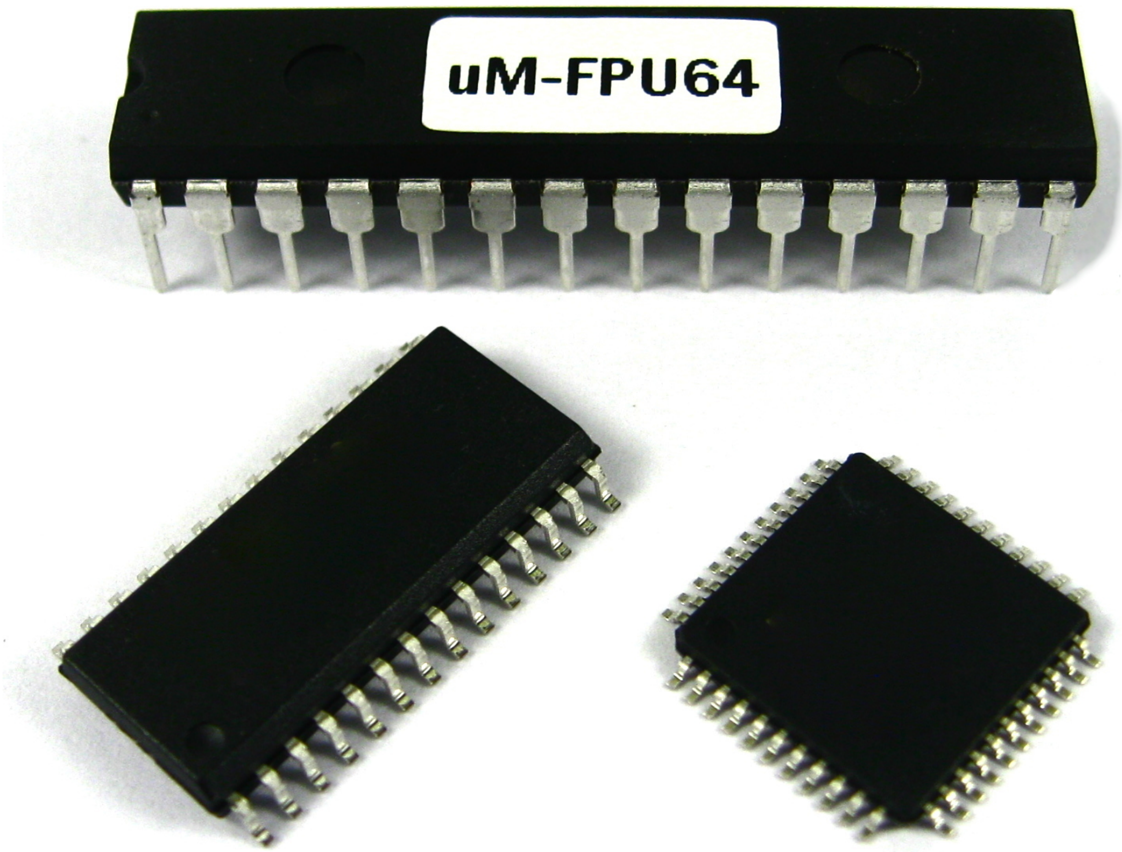
- -

Block Diagram (see attached file):



- -

Product Photo (see attached file):



- -