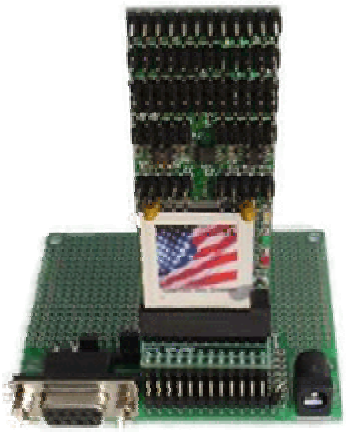
NEW REAL TIME STAMP CARD

The New Real Time Stamp card has 16-bit Digital Signal Processor on a small, user-accessible board along with supply circuits, RS232 (or RS-422/485) drivers, CAN bus drivers.

Features



* Up to 40 MIPS at 80 MHZ core frequency

* Extensive on-chip Flash w/100,000 write cycles typical life

    32K x 16-bits words Program Flash
    2K x 16-bit words Boot Flash
    4K x 16-bit words Data Flash
    Word write (16-bit) 20us
    Page erase (512 bytes) 40ms
    Block erase (mass) 100 ms

* On Chip RAM
    512 x 16-bit words Program Ram
    2K x 16-bit words Data Ram

* JTAG/OnCE port for debugging (BDM)
    Examine registers, memory, of peripherals
    Set breakpoints
    Step or trace instructions

* Serial Peripheral Interface (SPI)
    Full-duplex synchronous operation on four-wire interface
    Master or Slave

* Two Serial Communication Interface (SCI)
    Two full-duplex serial Channel,
    w/Optional Driver, either: TTL, or RS-232, or RS422/485

* CAN 2.0 A/B module
    Programmable bit rate up to 1Mbit
    Low power sleep mode
    TJA 1050 CAN Transceiver
    Multiple boards can be network (MSCA)
    Ideal for harsh or noisy environments, like automotive applications

* 40 shared GPIO lines (depending on other features used)
    Programmable Edge sensitive interrupts

* Two 4-channel 12-bit ADCs
    Single Conversion is 1.7us (8.5 ADC cycles)
    Continuous Conversion is 1.2us (6 ADC cycles)
    Simultaneous conversion on each ADC
    Single ended or differential inputs
    Signed or unsigned results
    ADC can be sync'd with PWM
    Optional interrupts:

at end of scan
out-of-range limit
zero crossing
Programmable high limit
Programmable low limit
Programmable offset

* Up to six General Purpose Quad Timers
Each channel has its own timebase, 4 16-bit timers
Count up/down
Cascadable
Four channels, each programmable
as input capture or output compare
Input capture trigger
rising edge, falling edge, or any edge
Output capture action
Set, reset or toggle
External sync input

* Two Quadrature Decoder
32-bit position counter
16-bit position counter
16-bit revolution counter (initialize by SW or external event)
40MHZ count frequency (up to)
Logic to decoder quadrature signals
Configurable digital filter for inputs
Watchdog timer to detect stalled shaft

* 12-channel PWM module
15-bit counter with programmable resolutions down to 25ns
12 independent outputs
or six complementary pairs of outputs
Center aligned or Edge aligned pulses
Automatic dead time insertion for complementary outputs
6-current sense pins
6-fault pins

* WatchDog Timer/COP module
12-bit counter for Watchdog time out
COP is CPU clock divided by 16384

* Low voltage, stop and Wait Modes

The New Real Time Card is a complete system and ready to run dedicated applications.
Development of the user programming in internal **FLASH** facilitated through JTAG/OnCE
Connections to host. The New Real Time Stamp Card makes a very cost effective solution.
Suitable for dedicated control of DC motors, BDCM, stepper motors, solenoids, and other bipolar power outputs, such as general converter/inverter applications, data collection and many networked control applications.