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# Technological Arts Inc.

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## NanoCore12MAXC32ST Module, TTL Interface, 40-pin

USD \$59.00



### Product Info

NanoCore12™ is an ideal low-cost platform that brings the advanced features of the 9S12C microcontroller family within easy reach of engineers, students, and hobbyists. The flexible design accommodates all aspects of training, evaluation, development, prototyping-- and even volume production.

- based on the 9S12C32 MCU
- includes 8 Mhz crystal
- 24 MHz bus speed (via PLL)
- local 5 Volt low-dropout 100 mA regulator
- **TTL-level signals for RX and TX**
- **compatible with USB2NCT module for use with USB**
- has on-chip Serial Monitor (uBug12- and CodeWarrior-compatible)
- includes CAN transceiver circuit
- supports standalone operation
- 32K Bytes Flash
- 2K Bytes Ram
- 40-pin DIP form-factor
- low profile (BDM connector omitted)

- gold-plated 0.025" square pins
- this product ships with hardcopy data sheet and schematic diagram
- data sheets, manuals, and all other resources for this product can be found at [www.NanoCore12.com](http://www.NanoCore12.com)

## Product Details

- supports programming in C, BASIC, Forth, assembler, etc.
- no special Flash programming voltage or switch required
- fast in-circuit programming
- small footprint on-chip bootloader/monitor and free uBug12 GUI for quick loading/debugging of user programs on Windows, Mac, and Linux platforms
- Run/Load switch for choice of Standalone or Monitor operation following reset
- compatible with virtually all 9S12 development tools on the market, including CodeWarrior

**Flash-based code development using on-chip debug/monitor** With a 2K Flash-resident debug/monitor program, you'll be able to load your program into the remaining 30K Flash via the serial port using nqBASIC, CodeWarrior, or uBug12. The entire 30K Flash can be programmed in about 3 seconds! To use the monitor for debugging or code-loading, just set the switch to LOAD. To run your standalone program thereafter, leave the switch at RUN. A program you load into Flash this way will run every time you apply power or reset the board in Run Mode.

**Flash-based code development using a BDM pod** By using a more advanced development tool (such as our USBDMILT), the entire 32K Flash can be used, because the Flash-resident bootloader is no longer needed.

- implements PLL loop filter circuit, supporting up to 48MHz operation (24 MHz bus speed)
- capable of 3-Volt operation (Note: CAN transceiver will not work at 3V)
- optional standard 6-pin BDM connector supports full debugging capabilities (with an optional BDM pod)
- ECLK signal is user-accessible (via pad on circuit board)
- 40-pin DIP form-factor
- up to 31 digital I/O lines, including Port M, Port T, and Port E
- access to eight 10-bit analog input or digital I/O port lines (Port AD)
- access to eight digital I/O port lines (Port T)
- up to six PWM timer channels (PT0 - PT4, PP5)
- up to eight Input Capture/Output Compare pins (Port T)
- serial peripheral interface (SPI)
- serial communications interface (SCI)

- controller area network (CAN 2.0) (on-board transceiver circuit)
- key wake-up interrupt pin (PP5)
- internal programmable pullup and pulldown resistors on most pins
- user access to MCU reset signal
- sturdy gold-plated square pins plug into standard dual-leaf DIP sockets or solderless breadboard

### [Vendor Information](#)