



Technological Arts Inc.

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Adapt9S12C128 MCU Module

USD \$79.00



Product Info

Adapt9S12C128 is a next-generation version of the immensely popular Adapt11 product originally introduced by Technological Arts almost 20 years ago. The flexible design, wide range of connector options, and breadboard pluggability address all facets of training, evaluation, development, and application prototyping.

If you are migrating from the 68HC11, you'll appreciate the backward-compatibility. At the same time, you'll love the powerful HCS12 instruction superset, with its advanced DSP-like instructions, 16-bit arithmetic, memory-to-memory moves, and many powerful addressing modes.

Product Details

Adapt9S12C128 Highlights:

- based on the Freescale 9S12C MCU (80-pin QFP version)
- includes 8 Mhz crystal
- up to 24 MHz bus speed (via PLL)
- low-dropout 1.5 Amp regulator, selectable for 3.3V or 5V operation (NOTE: when operated at 3.3V, the on-board CAN transceiver is not functional)
- includes RS232 transceiver circuit (9-pin D-sub connector)
- includes CAN transceiver circuit (not functional when board is operated at 3.3V)

- has small footprint (2K) on-chip Serial Monitor for easy code-loading and simple debug capability via uBug12JE or CodeWarrior
- supports standalone operation
- 128K Bytes Flash
- 4K Bytes Ram
- standard 50-pin Adapt11 form-factor board (1.7" x 2.8")
- plug it into a solderless breadboard! (choose "SB" connector option)
- compatible with Adapt11 backplanes and prototyping cards
- an extra eight I/O pins accessible via auxilliary 10-pin connector

What's in the package:

- assembled module
- power cable assembly (#PCJ1-8)
- printed pinout/schematic
- data sheets, manuals, and all other resources for this product can be found by clicking on the Resources link, above

Note: *the connector option shown in the product photo is "SB". Other popular connector styles are RA , RA1, and M. Be sure to make your [connector option](#) selection before adding to your cart.*

Ease-of-use Features

- 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 uBug12JE multi-platform GUI for quick loading/debugging of user programs
- Run/Load switch for selection of Standalone or Monitor operation
- compatible with virtually all 9S12 development tools on the market

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 126K Flash via the serial port using the CodeWarrior or uBug12 user interface for Windows. The entire 126K Flash can be programmed in about 12 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 in the RUN position. Your code runs from Flash, and interrupts are supported (via Flash-based pseudo vectors, since the monitor resides in the vector space of the MCU). 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 Background Debug Mode (BDM) pod If you use a more advanced development tool (such as our USBDM12LX5 pod), the entire 128K Flash can be

used, because the Flash-resident bootloader is no longer needed (therefore pseudo-vectors aren't required either). You'll also need to use this method if you are using a non-Windows development platform. More Features:

- standard 6-pin BDM connector for full debugging capabilities (when used with an optional BDM pod)
- up to 44 digital I/O lines on primary I/O connector
- eight can be used as 10-bit analog inputs (Port AD)
- auxilliary I/O connector brings out 8 more I/O pins (Port P)
- up to six PWM channels (Port P)
- up to eight Input Capture/Output Compare pins (Port T)
- serial peripheral interface (SPI)
- serial communications interface (SCI)
- controller area network (CAN 2.0) with on-board transceiver circuit
- up to ten key wake-up interrupt pins
- internal programmable pullup and pulldown resistors on most pins
- user access to MCU reset signal

[Vendor Information](#)