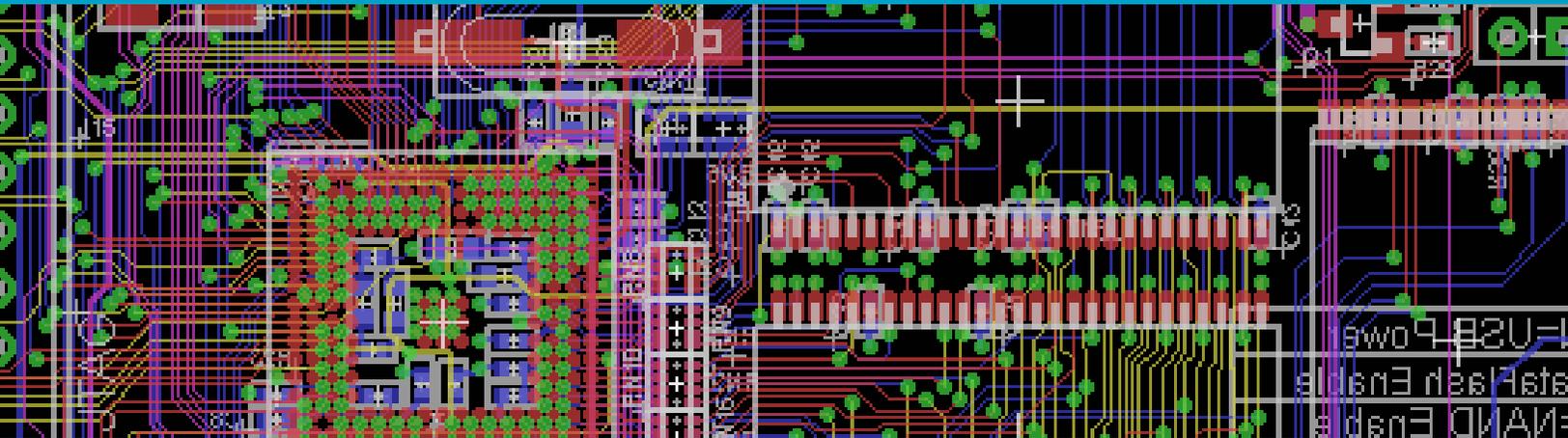




## Embedded System Solutions



ARM Controllers | Custom Designs | Turnkey Systems

## Micromint Industrial Controllers

Microcontroller designs engineered to be high performance, reliable and cost effective.

[www.micromint.com](http://www.micromint.com)



Lincoln

iPhone Interface

Eagle

pico J TAG

Prototyping Board

## ARM Cortex-M SBCs

Our Lincoln and Eagle lines of single board computers (SBCs) take advantage of the high efficiency and low cost of ARM Cortex-M microcontrollers by NXP and Texas Instruments. Starting below \$40 in single quantities, these controllers are a great choice for data loggers, process controllers, smart instruments and many other applications. Get the performance and scalability of a 32-bit ARM designs at the cost of 8-bit designs!

### Data Acquisition

With its Micro-SD and USB interfaces, our ARM Cortex-M SBCs provide large removable storage to data loggers, sensor monitors, alarm systems and many other applications that rely on data acquisition.

### Networking

The Ethernet and USB interfaces allow our ARM Cortex-M SBCs to be remotely monitored and controlled over a local network or the Internet, with web and command line interfaces. A sample iPhone interface shows how to manage I/O remotely from a smartphone. Code examples include standard HTTP, SNMP, TELNET and TFTP protocols.

### Micromint Lincoln

Our Lincoln SBCs are designed for high performance embedded real time applications that require networking, extensive I/O and low power consumption. Powered by NXP ARM Cortex-M microcontrollers, the Lincoln SBCs can fulfill demanding requirements in signal processing, instrumentation, data acquisition, process control and many other applications. The Lincoln uses the picolTX form factor and starts under \$55 in single quantities.

### Signal Processing

The high performance of the Micromint Lincoln SBCs allows integration of control and signal processing functions at a low cost. Digital filters, FFT and PID algorithms can be implemented without dedicated DSP hardware.

### Micromint Eagle

Our Eagle SBCs are designed for cost-sensitive control applications that require real-time performance, networking, and extensive support of popular peripherals. Powered by Texas Instruments LM3S ARM Cortex-M microcontrollers, the Eagle SBCs are a great solution for monitoring, instrumentation, data acquisition, process control, factory automation and many other applications. The Eagle uses the picolTX form factor and starts under \$40 in single quantities.



### StellarisWare

The Texas Instrument StellarisWare driver library provides an easy to use API to manage the LM3S processor functions, accelerating application development and debugging.



## ARM Linux SBCs

### Micromint Electrum

The Micromint Electrum single board computers are based on the the ARM9 with Debian Linux. They are the cornerstone of our ARM Linux product line. With a 400 MHz Atmel AT91SAM9G20 and starting below \$100 in single quantities, the Electrum offers unparalleled price/performance for applications that require reliable multitasking and extensive networking functionality. It can fulfill the most demanding requirements in monitoring, instrumentation, data acquisition, process control and many other applications. Secure remote access can be implemented via web or command line interfaces, providing off-site monitoring and maintenance capabilities.

Using Debian Linux allows you to leverage thousands of tools and applications, greatly accelerating your software development efforts. PC Linux is the recommended development environment with ARM cross compilers readily available. Cross development in Windows PCs is supported for user space (non-kernel) applications.

### Process Control

Control applications can use the high performance of the Electrum SBCs in practical digital filters and PID control algorithms for process and motor control.

### Data Acquisition

With its Micro-SD and USB interfaces, the Electrum SBCs provide large removable storage to data loggers, sensor monitors, alarm systems and many other applications that rely on data acquisition.

### Networking

The Ethernet and USB interfaces allow Electrum applications to be remotely monitored and controlled over a local network or the Internet, with web and command line interfaces. Debian Linux provides standard HTTP, SNMP, SSH and FTP protocols.

## BASIC Controllers

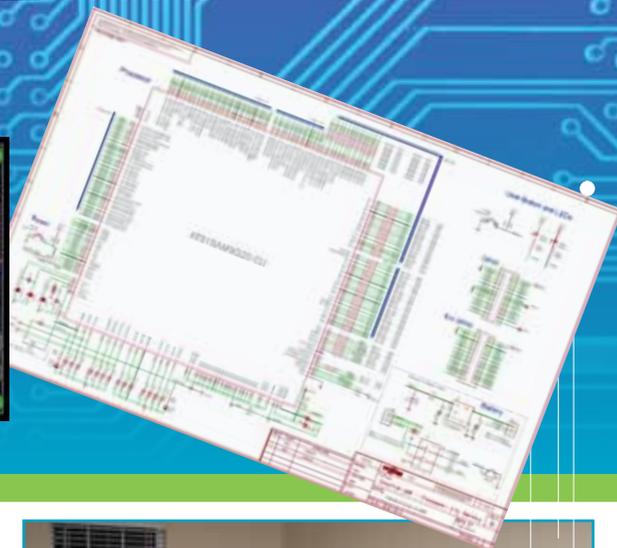
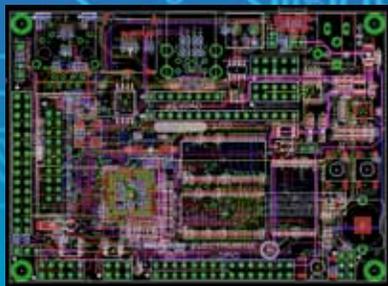
### BASIC Modules

The Micromint Domino, Picstic and RTC52 Modules allow you to develop embedded applications with the easy to use BASIC programming language.

Our highly popular Domino modules are used in thousands of installations worldwide. In a very small package, Domino is fully RS-232A, RS-422, and RS-485 compatible without extra components. Besides the two interrupts and three timers provided in the hardware, Domino is further enhanced by firmware which delivers an I2C bus, two PWM outputs, and direct period and frequency measurement. Programmable in BASIC and with the most popular I/O interfaces, you can get your embedded application up and running very quickly!

PicStic is a low-cost, industrial oriented controller on a 0.85-square-inch SIP or a DIP package. Included options, PicStic integrates digital inputs and outputs, analog inputs, real-time monitoring, power-input regulation, and serial communication (provided through software) in a single module. PicStics can be used independently or networked together. The basic PicStic offers both compatibility and improved performance over the BASIC Stamp

The RTC52 has been one of our most popular products with thousands of deployments in different industries. The RTC52 is a real-time controller that uses a Micromint 80C52-BASIC processor. With BASIC, the RTC52 is software compatible with our BCC52 series, as well as allowing for onboard program development using a common RS-232 terminal. The RTC52 was designed to provide a minimal configuration for cost-conscious applications. It can be greatly expanded to perform more extensive control and data-acquisition tasks while maintaining the same small footprint by using a stacked-board expansion system.



## Design/Manufacturing

### Custom Designs

While our products are off-the-shelf controllers and peripherals, everything starts as an idea to solve a problem. If your control problems can't be directly solved by the products you see on our website, please contact us with your design needs. We are also quite amenable to modifying an existing board or designing and manufacturing a custom solution for you.

### Turnkey Solutions

Do you have a product idea but don't know how to proceed? Let Micromint provide you with a Turnkey Solution. We can save you time and money by providing everything from design to manufacturing to shipment of the product to your customer. Let Micromint's engineers design the best solution for your needs. Don't spend your valuable time shopping around for the lowest price on components. For over three decades Micromint has developed strong alliances with component distributors allowing us to reduce manufacturing costs and in turn raise your profit margin. No need to worry about finding the right assembler, we can take care of that in-house for you. When your product is ready for market, just let us know when you need it and it will be there.

### Manufacturing

Most of our products are manufactured in Florida following ISO 9001 standards. The same high standards applied to our engineering design are applied to the assembly, quality and test processes in manufacturing to insure we deliver a reliable quality product on time. High volume SMT and through hole assembly equipment insure consistency and keeps costs competitive to meet our customer's requirements. Attention to detail is followed on all stages, from preventive and post operation inspections, to rigorous process control and stress testing.



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## Company

### History

Founded in 1979, Micromint is a leading supplier of single-board computers and industrial embedded controllers to the worldwide OEM market with over 500,000 controllers in the marketplace. Micromint provides standard components, versatile semi-custom configurations, and fully engineered custom solutions to OEMs, consultants, and end users alike.

### Quality and Service

Micromint has built a reputation based on the highest quality standards on engineering, manufacturing, and support. For over three decades, Micromint has developed close ties with its customers through its policies of close customer contact and readily available engineering support. When you buy a Micromint product you know that the people who designed the product are there to help you fulfill your business goal. The stability of these long-lasting relationships is the key to our longevity.

### Reliability

Micromint's hardware and software are designed to be the cornerstone of reliability in an OEM application. Our products specifically include features such as watchdog timers, battery-backed RAM, flash memory, and overrated component selection to enhance survival in the real-world environment. One environmental consideration is temperature. While the process and specifications published herein refer to commercial temperature performance, virtually all of our control products can be ordered for industrial temperature range (-40°C to +85°C).

### Support

Micromint fully stands behind its products and provides the technical support required to make your project successful. Our support line is staffed by engineers and has direct access to the design team. In many instances, the support you receive after the sale can make a significant difference in the successful deployment of your embedded system.

