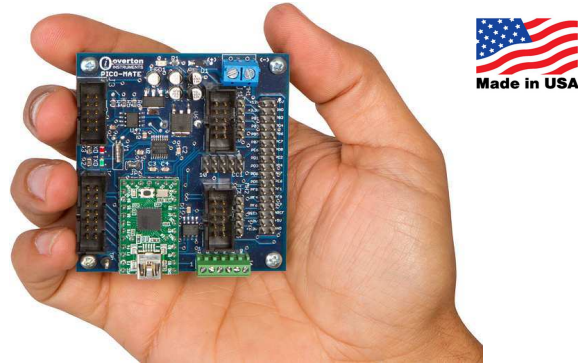


EMBEDDED TEST CONTROLLER

MARCOM20170125-01

*“Powerful
embedded
ATE control,
at your fingertips”*



Product specifications may change without notice

The evolution of ATE is now complete. Introducing the Pico-MATE™ from Overton Instruments (Oi), the first ever **EMBEDDED TEST CONTROLLER**. The Pico-MATE™ allows Test Engineers to automate virtually any test development project without using a conventional PC. That's right, the Pico-MATE™ is designed to replace the PC in a wide variety of standard test & measurement applications. As a result, the benefits include less complication, greater flexibility, enhanced performance and significantly reduced cost. Use it to test Digital, Analog, RF, Microwave & High Voltage circuits.

How does it work?

The Pico-MATE™ hardware architecture is built on a proven foundation that uses a highly integrated microcontroller from Atmel. The Atmel controller offers a fast processor, deep memory, abundant digital I/O and a wide assortment of standard serial interfaces. In addition, the Pico-MATE™ was further “optimized” for test & measurement, with the inclusion of a large serial EEPROM, Real-Time Clock, 2 (Oi) Instrument Ports, a Operator Interface and Expansion Bus. All designed to simplify and accelerate custom test development.

The Pico-MATE™ is part of a complete family of low-cost instrument modules called the ETS Series, **EMBEDDED TEST SOLUTIONS**. A sub-category within the ETS Series is called **TEST INSTRUMENT MODULES (TIM's)**. The TIM's are further broken into 5 separate groups, which includes Analog Conversion, Digital I/O, Relay Switching Solutions, Signal Generator & Measurement and Special Function modules. Like the “Lego” building block concept for kids, the Test Engineer is now free to combine the Pico-MATE™ with any of our TIM's, and create unlimited test solutions. For those Engineers new to the concept of embedded test, we invented the TDK-MATE, **TEST DEVELOPMENT KIT**. With it, you will learn everything needed to build custom ATE solutions with greater ease and economy.

Features

- ATmega32U4 - 16MHz processor
- 32KB Flash, 2K RAM, 65K EEPROM
- 25 Digital I/O lines
- 12 Analog Inputs, 7 PWM
- UART, I2C, SPI (1ea)
- USB & RS-232C COM Port
- Operator & Expansion Interface
- (Oi) Instrument Ports (2ea)
- Real Time Clock
- Compact Size, 2.50" x 2.75"
- Low cost, \$99 single qty

Applications

- Include Digital, Analog, RF, Microwave & High Voltage circuits
- Semiconductors, Hybrid Modules, Flex Circuits, Cable Assemblies PCB's, Panels and Box-level units
- Functional Test Stations
- Depot Repair Stations
- QA/QC Incoming Inspection
- ESS & Burn-In
- Design Verification

EMBEDDED TEST SOLUTIONS

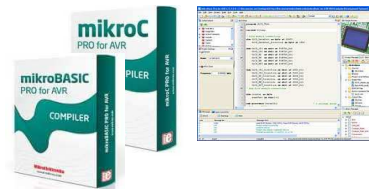
The unique capability of the Pico-MATE™ is highlighted in block diagram on the right. Like the name implies, the Pico-MATE™ is designed for embedded operation, which includes the installation into Mechanical Test Fixtures, build custom test enclosures or support larger ATE test systems.

The diagram below shows the Pico-MATE™ supporting a typical Functional Test application. The DUT-MATE switches power to the DUT (device-under-test). The MUX-MATE (relay multiplexer), is used to route test points on the DUT to the external DMM. The Pico-MATE™ is used to control all aspects of the test sequence (including Operator supervision, instrument control, data acquisition, determining Pass/Fail and data logging).

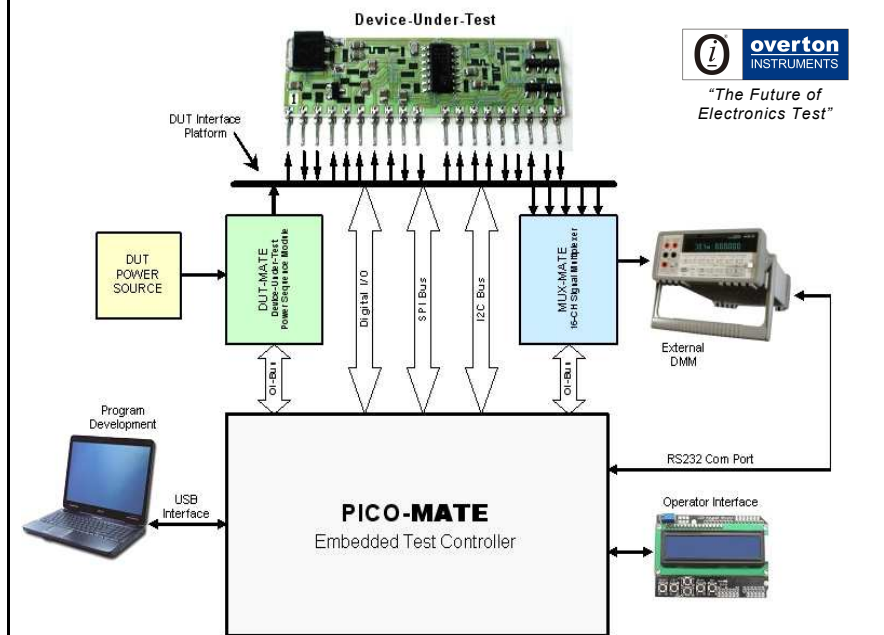
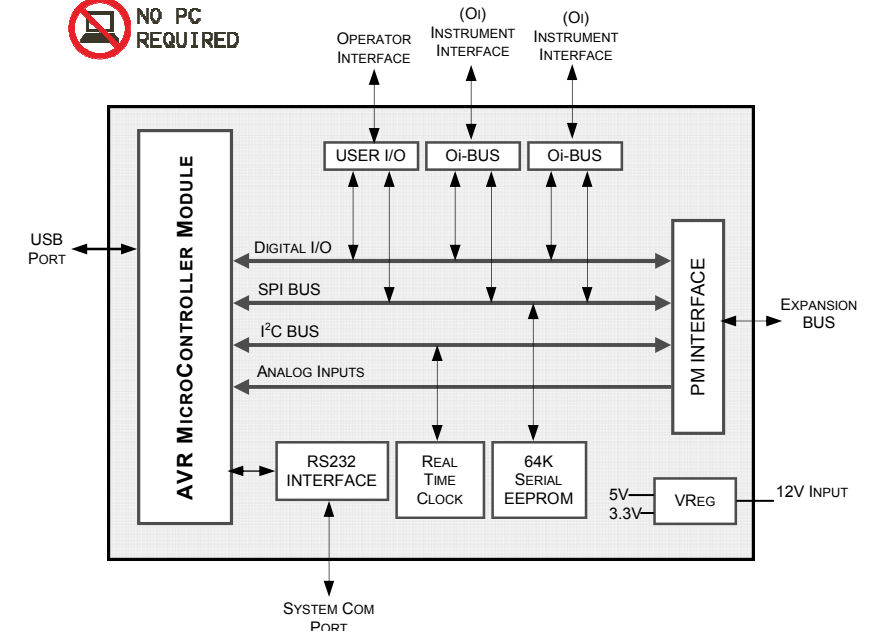
SOFTWARE DEVELOPMENT

Support for programming the Pico-MATE™ is provided by a set of superb compilers (BASIC & 'C'), from MikroElektronika.

In addition, code development is further accelerated by **TES-MATE™, TEST EXECUTIVE SUITE**. TES-MATE™ is a comprehensive software library from (Oi), which includes a robust collection of general purpose utilities, support routines and instrument drivers (all designed to provide maximum visibility and control).



NO PC REQUIRED



overton
INSTRUMENTS
“The Future of
Electronics Test”