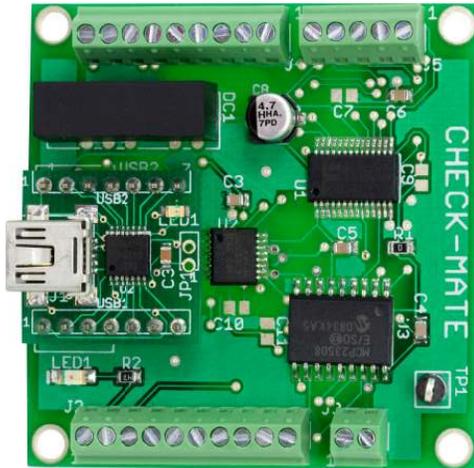


CHECK-MATE

Multifunction DAQ Module



- 8-CH, 12-bit A/D with 100ksps sample rate, programmable inputs (8) single-ended or (4) differential
- 1-CH, 12-bit D/A (unipolar/bipolar modes)
- 8 digital input/output lines, independently programmable
- Embedded control or optional USB interface
- Compact size & Low cost

DESCRIPTION

For less than \$100, Check-MATE is the perfect instrument for automating a wide variety of mix-signal test applications. Many test solutions can be quickly built by connecting the Check-MATE to a PC laptop or desktop, and then running our GUI software. No external power source is required, since power is supplied through the USB interface. Easy access to the hardware is made available through a convenient collection of screw terminal connectors.

The Check-MATE has 8 programmable single or differential analog inputs with 12-bit A/D resolution (and a sampling rate of 100ksps). The instrument has a single analog output with 12-bit D/A resolution (which can operate in both unipolar or bipolar modes). In addition, there are 8 digital input/output lines (which are independently programmable).

There are two options for controlling the Check-MATE (with a Host PC or embedded microcontroller). In the case of the PC, the Check-MATE is connected by an optional USB interface and responds to a simple set of ASCII commands. Programming is easy using Visual BASIC, LINUX, C/C++, Lab-View, LabWindows or any language that allows access to through a serial port. For embedded applications, control the Check-MATE with the Micro-MATE (our Embedded Test Controller), or any microcontroller (i.e., ARM, AVR, PIC or STAMP).

Try combining the Check-MATE with other OI test instruments (such as the FC-MATE 'frequency counter', DUT-MATE 'device-under-test DC power switch', Switch-MATE 'load switcher' and others). Use our ETS Series products to build unlimited test solutions quickly, reliably and affordably.

SPECIFICATIONS

Analog Inputs	
Number of inputs	8 SE, 4 Differential programmable
Input Ranges	0-5V, 0-10V, $\pm 5V$, $\pm 10V$, prog.
Resolution / Sample Rate	12-bit, 100ksps
Nonlinearity	± 1 LSB, no missing codes
Analog Output	
Resolution	12-bit
Range	0-10V, $\pm 10V$ programmable
Current	± 5 mA max
Settling Time	4 μ S max to $\pm 1/2$ LSB
Relative Accuracy	± 1 LSB
Digital I/O	
Number of lines	8 bits, bidirectional programmable
Logic Levels / Current	TTL level / ± 25 mA source/sink
Input Control	
Embedded	Oi_Bus interface
USB Interface	Optional USB module
General	
Power Supply	+5VDC $\pm 10\%$ @3mA
Operating Temp	0-50°C
Dimensions	2.5" x 2.5"

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Multifunction DAQ Module

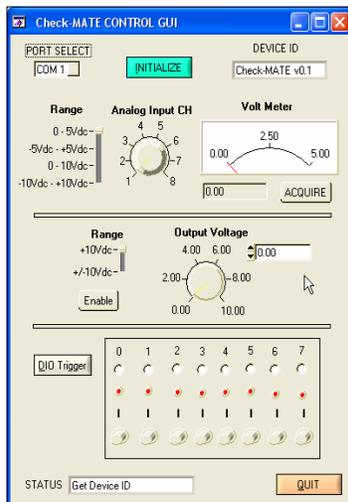
ETS SERIES

The Check-MATE is part of a new-breed of test instruments called the **ETS Series - EMBEDDED TEST SOLUTIONS**. The ETS Series was born out of a determined effort to reduce the high-cost of test. In addition, we built-in many features that enhance the development of custom "automated" test equipment. Like the name implies, the ETS Series' instruments are designed for "embedded" operation. Applications include Mechanical Test Fixtures, Burn-In Test Equipment, custom Desktop Test Instruments and conventional ATE Systems. In each case, the ETS series delivers a whole new level of control performance and cost-efficiency.



CUSTOMER SUPPORT

To ensure our customers receive the maximum benefit our products have to offer, we have prepared an extensive collection of support tools, technical manuals, application notes and programming examples. These items (and more) are conveniently located on our website. In addition, every one of our instrument modules comes with a Virtual Instrument Panel (or GUI). The Check-MATE GUI is presented on the right. It is by far the simplest way to get familiar with our product functionality. Just connect the Check-MATE to a PC (via the USB interface) and run the GUI software.



ORDER INFORMATION

Part No.	Description
ETS-1800-00	Check-MATE, Multifunction DAQ Module, 8-ch 12-bit A/D + 12-bit D/A + 8-bit Digital I/O
ETS-1801-00	Check-MATE with USB-MATE, USB Interface Module

OTHER INSTRUMENTS

Embedded Test Controller	
Micro-MATE ETS-0200-00	The Micro-MATE is the first embedded controller specifically designed to bring low-cost automation to Production Test equipment. The Mini-MATE comes loaded with a high-performance processor, 2K of SRAM and 64K of Flash memory (data and program memory), 32 Digital I/O lines and a high-speed serial RS232 communications port.
Analog Signal Acquisition & Control	
DAQ-MATE ETS-0800-00	The DAQ-MATE is a high speed 32-channel analog acquisition module. On each channel, the DAQ-MATE can be programmed to acquire either unipolar or bipolar measurements: 0 - 5Vdc, 0 - ±5Vdc, 0 - 10Vdc & 0 - ±10Vdc.
Signal Switching Solutions	
Relay-MATE ETS-1300-00	The Relay-MATE offers eight independent channels, FORM-C, 1Amp general purpose relays.
Switch-MATE ETS-1400-00	The Switch-MATE/HC offers eight independent channels, Form-A, 10 Amp general purpose relays.
MUX-MATE ETS-1500-00	The MUX-MATE is a high-performance signal switching module. Multiple MUX-MATE's can be "stacked" together and used with the DVM-MATE to form a precision voltage scanning solution.
DIO-MATE ETS-0900-00	The DIO-MATE is a basic Digital I/O module that can provide up to 48-bits. All of the 48-bits are fully programmable.
Data/Tele Communications	
COM-MATE ETS-1100-00	The COM-MATE (232), provides up to four, RS-232 com ports to support testing multiple serial devices.
DUT Power Control	
DUT-MATE ETS-0700-00	The DUT-MATE is unique 5-function module that is designed to deliver safe power to the device-under-test.

FOR MORE INFORMATION

Overton Instruments, Inc
 5431 Auburn Blvd. #196
 Sacramento, CA 95841
 Tel: 916-519-0112
 Fax: 916-344-1066

