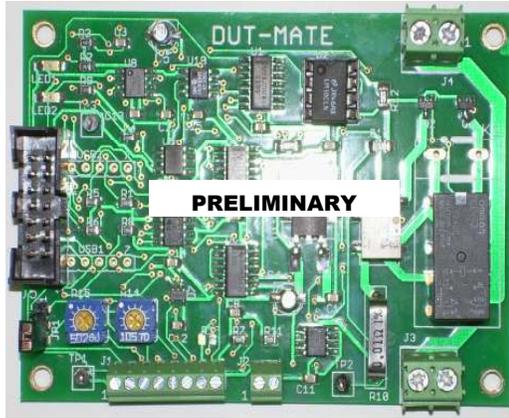


DUT-MATE

Device-Under-Test Power Sequence Module



- Automate DUT Power
- Check for short-circuits on input power rails
- Over-current circuit breaker
- Read-back DUT current drain
- Manual or Computer control
- USB or Embedded interface
- Compact size
- Low cost

MARCOM-01-2009-06-12-OI

Specifications are subject to change without notice

DESCRIPTION

What is fundamental to testing any electronic device is the need to apply DC power. The DUT-MATE is a unique power control instrument that is used to deliver "safe" power to virtually any DUT, "Device-Under-Test". The DUT-MATE performs (5) critical functions.

Short Finder

The DUT-MATE contains a special electronic sensor that is used to detect a short-circuit (which may be located across the DUT power-rails). By checking for "shorts" prior to applying power, the DUT-MATE prevents damage to the device-under-test, the adjoining test equipment and possible injury to the test Operator.

Versatile Power Switch

The DUT-MATE provides a DPDT Relay to switch power to the DUT. The relay is offered in 3 different current ranges (1amp, 5amp or 10amp). And, are also 3 methods for switching power, Manually (external toggle switch), Embedded (microcontroller), or via PC (optional USB interface).

Over-Current Detector

The DUT-MATE has an adjustable circuit-breaker. Once power is applied to the DUT, the circuit-breaker provides a safeguard to avoid over-current conditions. An on-board potentiometer or a remotely settable DAC circuit is used to establish a set-point which limits the output current.

Current Monitor

The DUT-MATE includes a current measurement circuit, which generates a voltage that is proportional to the current-drain (0-1Vdc). An ADC circuit converts the voltage to a 16 bit word which can be remotely 'read back'.

Residual Voltage Discharge

The DUT-MATE offers a second relay that is tied across the DUT power rails to provide a residual voltage discharge function. This feature is s important because it ensures any lingering voltages are completely removed from the DUT, before power is applied.

SPECIFICATIONS

MODEL	0701	0702	0703
Switch Power (max)	30W	150W	300W
Load Switching			
Voltage (max)	30Vdc	30Vdc	30Vdc
Current (min)	10uA	10mA	100mA
Current (max)	1A	5A	10A
Over-Current Limit, Programming Accuracy	0.1%FS		
Current Read-Back Accuracy (25°C±5°)	0.1%FS		
DUT Current Drain Output	0-1.25Vdc FS		
Variable Over-Current Detection Delay	~ 0 - 1.5sec		
Control Interface	Manual	J1(9-pin terminal)	
	Embedded	J5(14-pin header)	
	Computer	USB Interface	
DC Input	12Vdc, 1Amp		
Operating Environment	0 - 50°, 80% RH		
Weight	xxxkg		
Dimensions	2.5" W x 3.5" L		

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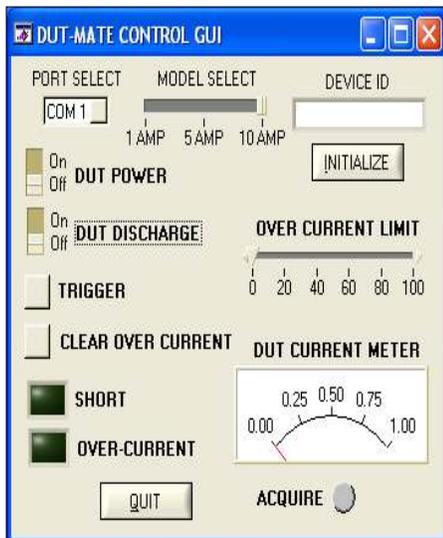
ETS SERIES

The DUT-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 DUT-MATE GUI is presented on the right. It is by far the simplest way to get familiar with our product functionality. Just connect the DUT-MATE to a PC (via the USB interface) and run the GUI software.



ORDER INFORMATION

Part No.	Mode	Description
ETS-0701-01	Manual	DUT-MATE, 1Amp load
ETS-0701-02	Manual	DUT-MATE, 5Amp load
ETS-0701-03	Manual	DUT-MATE, 10Amp load
ETS-0702-01	Embedded	DUT-MATE, 1Amp load
ETS-0702-02	Embedded	DUT-MATE, 5Amp load
ETS-0702-03	Embedded	DUT-MATE, 10Amp load
ETS-0703-01	Computer	DUT-MATE, 1Amp load, USB option
ETS-0703-02	Computer	DUT-MATE, 5Amp load, USB option
ETS-0703-03	Computer	DUT-MATE, 10Amp load, USB option

OTHER INSTRUMENTS

Analog Signal Acquisition & Control	
DAQ-MATE	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.
Check-MATE	The Check-MATE is complete Data-Acquisition module. The Check-MATE includes a 8-ch 12-bit ADC, a 12-bit DAC and 8-bits of Digital I/O.
Signal Switching Solutions	
Relay-MATE	The Relay-MATE offers eight independent channels, FORM-C, 1Amp general purpose relays.
Switch-MATE	The Switch-MATE offers eight independent channels, Form-A, 10 Amp general purpose relays.
4WIRE-MATE	The 4Wire-MATE offers eight Form-C relay channels that are used to switch telecom signals (RS-232 or Ethernet), or to support to 4-wire Kelvin measurements.
Digital Input/Output	
DIO-MATE	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.
Signal Counters & Generators	
FREQ-MATE	The Freq-MATE is a programmable frequency counter capable of measuring frequencies from 1hz to 100Mhz, with 9-digits of resolution.

FOR MORE INFORMATION

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DUT-MATE

Power Sequence Module

