

# EMBEDDED TEST SOLUTIONS



## DIGITAL INPUT/OUTPUT

Using general purpose Digital I/O instruments to build custom test equipment is a common, yet vitally important practice for most Test Engineers. On the input side, a myriad of logic signals are verified (including timing clocks, trigger pulses, data bits, bytes and words). Likewise, a plethora of digital outputs are designed to control, stimulate, emulate and manipulate logic circuits.

With the **Digital Input/Output** collection from OI, test developers have discovered a unique array of practical solutions that are easy-to-use, offer huge flexibility and comes with a price tag that is just a fraction of the cost for comparable PC-based test instruments.

To learn how simple our DIO products are to use and apply, just go to our website and request a demo unit for a free 10-day trial period.

### SPECIAL BENEFITS

- *Wide assortment of Digital I/O solutions*
- *Easy access to instrument resources*
- *Compact size, module just 2.50" x 2.75"*
- *Embedded or USB Interface*
- *Compatible with Lab-View, LabWindows, VB, HP-Vee, C/C++, Python & many others*
- *Low cost, OI modules can be as much as 60% less than traditional PC-based test instruments*
- *Use to build Smart Test Fixtures, create custom desktop test equipment or support larger ATE test systems*

### General Purpose DIO

The DIO-MATE and DIO-MATEII offer 24 & 48 bits (respectively). Programming allows setting for port direction and logic level (for both individual bits or bytes). You can also enable weak pull-ups on the inputs and configure interrupt options. Access to the hardware is made available thru a convenient set of screw terminals connectors and consolidated within a single header connector.

### Isolated DIO

The OPTO-MATE module offer 16 bits (8 input, 8 output), of isolated DIO. The OPTO-MATE uses 16 opto-coupler devices to perform circuit isolation. Access to the hardware is made available thru a convenient set of screw terminals connectors and consolidated within a single header connector.

### Extended DIO

More Bits - More Bytes - More DIO... The EIO-MATE module provides up to 128 bits of DIO. Programming allows setting for port direction and logic level (for both individual bits or bytes). You can also enable weak pull-ups on the inputs and configure interrupt options. Access to the hardware is made available thru a convenient set of consolidated header connectors.

#### DIO-MATE

24-Bit Digital I/O Module



- 24 digital I/O bits, TTL
- Each bit is dependently programmable
- Each bit can source/sink  $\pm 25mA$
- Easy screw terminal connections or single consolidated header

#### DIO-MATEII

48-Bit Digital I/O Module



- 48 digital I/O bits, TTL
- Each bit is dependently programmable
- Each bit can source/sink  $\pm 25mA$
- Easy screw terminal connections or single consolidated header

#### OPTO-MATE

16-Bit Isolated DIO Module



- 16 opto-couplers (8 inputs, 8 outputs)
- Isolation to 5000vrms
- Output drive, 80V@50ma
- Input voltage, 3 to 30Vdc
- Easy screw terminal connections or single consolidated header

#### EIO-MATE

128-Bit, Extended DIO Module



- 128 digital I/O bits, TTL
- Each bit is dependently programmable
- Each bit can source/sink  $\pm 25mA$
- Access hardware thru four 34-pin header connectors

### ORDER INFO

DIO-MATE,  
24-Bit Digital I/O Module  
**ETS-3010-00**

DIO-MATE,  
with optional USB Interface  
**ETS-3011-00**

DIO-MATEII,  
24-Bit Digital I/O Module  
**ETS-2060-00**

DIO-MATEII,  
with optional USB Interface  
**ETS-2061-00**

OPTO-MATE,  
16-Bit Isolated DIO Module  
**ETS-2020-00**

OPTO-MATE,  
with optional USB Interface  
**ETS-2021-00**

EIO-MATE,  
128-Bit Extended DIO Module  
**ETS-2040-00**

QDM-MATE,  
with optional USB Interface  
**ETS-2041-00**