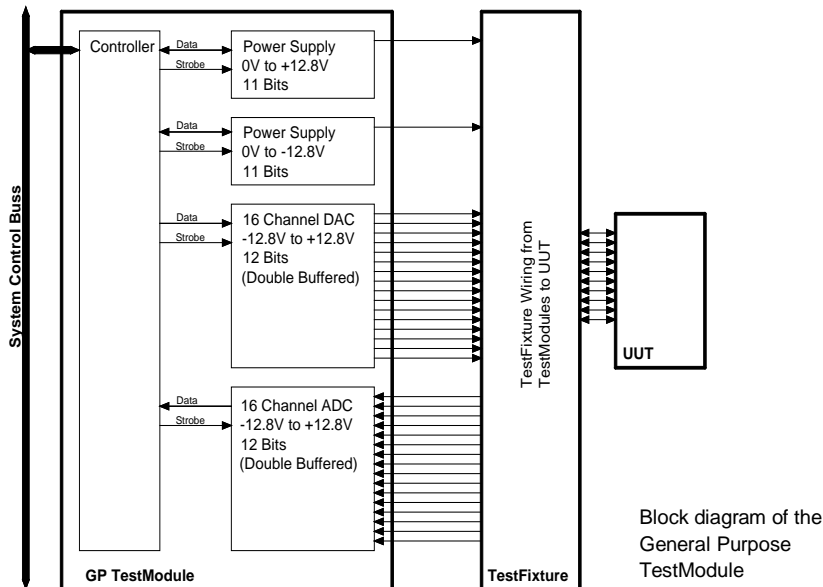
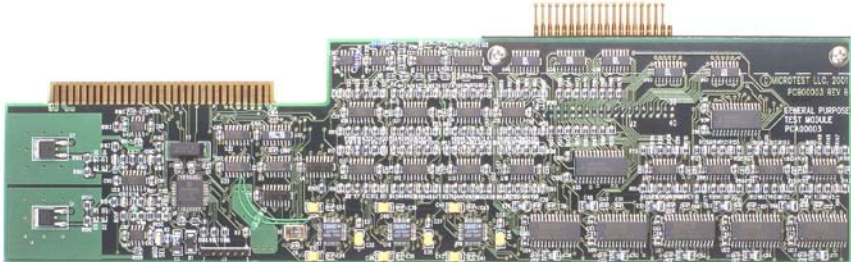


Measurement Systems

Overview

The General Purpose TestModule is the workhorse TestModule for the Circuit-Traq PRO Test System. It provides a total of 32 test signal channels -- 16 outputs and 16 inputs -- for use in a wide range of medium accuracy analog and digital functional test applications.

With TestWare software, Users can configure any I/O pin to be either an analog voltage signal or a digital logic signal.



Architecture

The Automatiq TestStation holds up to 20 TestModules in plug-in card slots. The System Control TestModule always occupies Slot 0. TestModules may be placed in any of the 19 additional slots.

Each slot supports up to 60 pogo pin connections from signals on a TestModule, through TestFixture wiring, to the UUT; consequently, the Automatiq Test System supports up to 1,200 signal connections to the UUT.

TestModules communicate test information over the System Control Bus (see diagram at left), a proprietary passive backplane bus. Since the System Control TestModule manages this bus, test data communication is essentially transparent to the User.

The diagram shows signal connections between a General Purpose TestModule, through the TestFixture, to the UUT.

The 16 DAC and 16 ADC I/O channels are all independent and double buffered.

Any DAC/ADC pin on the General Purpose TestModule can be declared in software to be either an analog signal or a digital logic signal. This feature gives Users the ability to choose the best mix of signals to test the UUT.

All logic conventions are supported (5V, 3.3V, 2.5V, 1.8V, and User-defined logic systems).

Test Signals

The General Purpose TestModule provides the following test signals:

- 16 independent DAC outputs, ± 12.8 Volts, 12 bits, software programmable to be either an analog output signal or a digital logic signal
- 16 independent ADC inputs, ± 12.8 Volts, 12 bits, software programmable to be either an analog input signal or a digital logic signal
- A positive programmable power supply, 0 to +12.8 Volts, 11 bits, 250 mA
- A negative programmable power supply, 0 to -12.8 Volts, 11 bits, 250 mA

Measurement Systems

SPECIFICATIONS

Test Module	General Purpose TestModule
Part Number	PCA00003 Rev B
Mfg. Code	0
Module Code	3

PIN ASSIGNMENTS

The table below gives pin assignments, signal names, and functions for all I/O pins on the General Purpose TestModule, including range, accuracy, and resolution specifications.

Pin	Name (Note 1)	Function	Range	Accuracy	Resolution	Notes
1	[UUT Ground]					Note 2
2	[UUT Ground]					Note 2
3	[UUT Ref Gnd]					Note 3
4	Power Supply (+)	Voltage Output	0 to 12.8V	±25mV	11 bits	Note 4
		Current Limit	0 to 250 mA	±3mA	11 bits	Note 4
		Measured Current	0 to 250 mA	±1mA	11 bits	Note 4
5	Power Supply (-)	Voltage Output	0 to -12.8V	±25mV	11 bits	Note 4
		Current Limit	0 to -250 mA	±3mA	11 bits	Note 4
		Measured Current	0 to -250 mA	±1mA	11 bits	Note 4
6	Input 07	Voltage Input	-12.8 to 12.8V	±25mV	12 bits	Note 5
7	Input 06	Voltage Input	-12.8 to 12.8V	±25mV	12 bits	Note 5
8	Input 05	Voltage Input	-12.8 to 12.8V	±25mV	12 bits	Note 5
9	Input 04	Voltage Input	-12.8 to 12.8V	±25mV	12 bits	Note 5
10	Input 03	Voltage Input	-12.8 to 12.8V	±25mV	12 bits	Note 5
11	Input 02	Voltage Input	-12.8 to 12.8V	±25mV	12 bits	Note 5
12	Input 01	Voltage Input	-12.8 to 12.8V	±25mV	12 bits	Note 5
13	Input 00	Voltage Input	-12.8 to 12.8V	±25mV	12 bits	Note 5
14	Input 15	Voltage Input	-12.8 to 12.8V	±25mV	12 bits	Note 5
15	Input 14	Voltage Input	-12.8 to 12.8V	±25mV	12 bits	Note 5
16	Input 13	Voltage Input	-12.8 to 12.8V	±25mV	12 bits	Note 5
17	Input 12	Voltage Input	-12.8 to 12.8V	±25mV	12 bits	Note 5
18	Input 11	Voltage Input	-12.8 to 12.8V	±25mV	12 bits	Note 5
19	Input 10	Voltage Input	-12.8 to 12.8V	±25mV	12 bits	Note 5
20	Input 09	Voltage Input	-12.8 to 12.8V	±25mV	12 bits	Note 5
21	Input 08	Voltage Input	-12.8 to 12.8V	±25mV	12 bits	Note 5
22	Output 07	Voltage Output	-12.8 to 12.8V	±25mV	12 bits	Note 6
23	Output 06	Voltage Output	-12.8 to 12.8V	±25mV	12 bits	Note 6
24	Output 05	Voltage Output	-12.8 to 12.8V	±25mV	12 bits	Note 6
25	Output 04	Voltage Output	-12.8 to 12.8V	±25mV	12 bits	Note 6
26	Output 03	Voltage Output	-12.8 to 12.8V	±25mV	12 bits	Note 6
27	Output 02	Voltage Output	-12.8 to 12.8V	±25mV	12 bits	Note 6
28	Output 01	Voltage Output	-12.8 to 12.8V	±25mV	12 bits	Note 6
29	Output 00	Voltage Output	-12.8 to 12.8V	±25mV	12 bits	Note 6
30	Output 15	Voltage Output	-12.8 to 12.8V	±25mV	12 bits	Note 6
31	Output 14	Voltage Output	-12.8 to 12.8V	±25mV	12 bits	Note 6
32	Output 13	Voltage Output	-12.8 to 12.8V	±25mV	12 bits	Note 6
33	Output 12	Voltage Output	-12.8 to 12.8V	±25mV	12 bits	Note 6

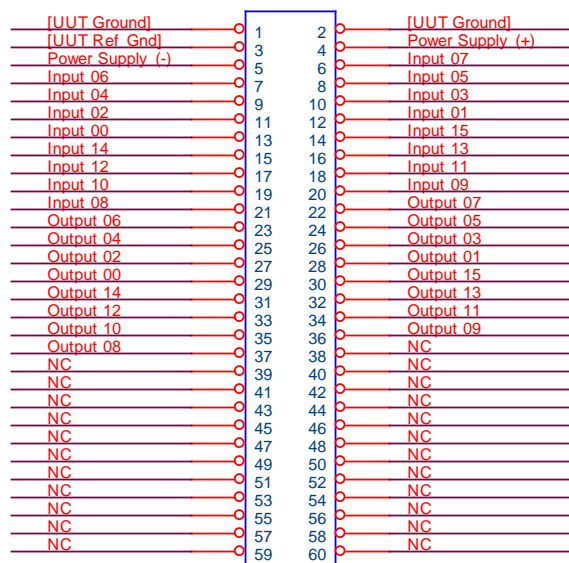
Measurement Systems

Pin	Name (Note 1)	Function	Range	Accuracy	Resolution	Notes
34	Output 11	Voltage Output	-12.8 to 12.8V	±25mV	12 bits	Note 6
35	Output 10	Voltage Output	-12.8 to 12.8V	±25mV	12 bits	Note 6
36	Output 09	Voltage Output	-12.8 to 12.8V	±25mV	12 bits	Note 6
37	Output 08	Voltage Output	-12.8 to 12.8V	±25mV	12 bits	Note 6
38	NC					
39	NC					
40	NC					

NOTES

- Names in brackets [] are not available for programming.
- UUT Grounds are bused together on the TestFixture Interconnect Board. They should be connected to the UUT Ground directly. Use as many wires as necessary to insure minimum line drop.
- All outputs are set and inputs are measured with respect to UUT Ref Gnd. Connect directly to the UUT ground at the UUT to avoid voltage drops in the UUT Ground lead.
- Note that the programmable power supplies have three functions for the same pin.
- Input impedance 1 Meg or greater. Inputs are designed to withstand continuous application of any voltage between -15V and +15V and normal ESD discharges without damage.
- Outputs will drive up to ±15 mA over the full output range. The output impedance is less than 0.1 ohm over the full output range. The short circuit current is limited to ±35 mA over the full output range. Outputs are designed to withstand continuous connection to any voltage between -15V and +15V and normal ESD discharges without damage.

PINOUTS Names in brackets [] are not available for programming.



HEADER 30X2

MODULE 1-19

ORDERING INFORMATION

Part Number: PCA00003

Price: \$1,295.00

Availability: Stock

Note: Two General Purpose TestModules are installed as standard equipment in the basic configuration of the Circuit-Traq PRO Test System

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