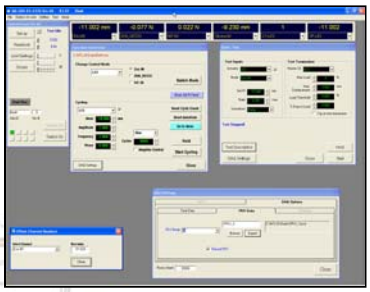
32 Bit Test Measurement & Control System

Materials & Product Test Applications
Single & Multi-channel Configurations



Applications …

- *New Test Systems*
- *Retrofits & Upgrades*
- *Multi-channel Structural Tests*
- *Enhanced Laboratory Automation*

Latest Test Technology in an affordable integrated package ..

- High Speed (300 MIPS) Digital Signal Processor
- 24 bit Analog Data Conversion
- 32 bit Data acquisition
- 40 bit Servo-Loop
- Modular Global Data Sharing (GDS) Software
- Latest analog, digital and hybrid IC's

2370 Overview

The 2370 Series offers the latest in electronic performance, functionality and cost savings. 2370 hardware, combined with Global Data Sharing (GDS) software, offers the test engineer a unique, flexible, and cost effective modular control system for mechanical testing applications. Virtually any lab or test machine scenario can be served by a 2370 configuration.

2370 features a compact 8" x 8" x 2" enclosure plus power supply and up to one expansion module. The 2370 motherboard includes two strain bridge feedback channels for load cells or extensometers and one circuit that provides user choice of AC type signal conditioner for an LVDT position transducer or any transducer that can provide a high level 10V analog input signal. A digital encoder is included as the fourth feedback and control channel.

Two servo-output channels provide 10V signals to servo controlled actuators. Eight channels of digital input and output provide drive and device control including hydraulic pump on/off or high/low pressure management in servohydraulic applications.

2370 Series Configurations

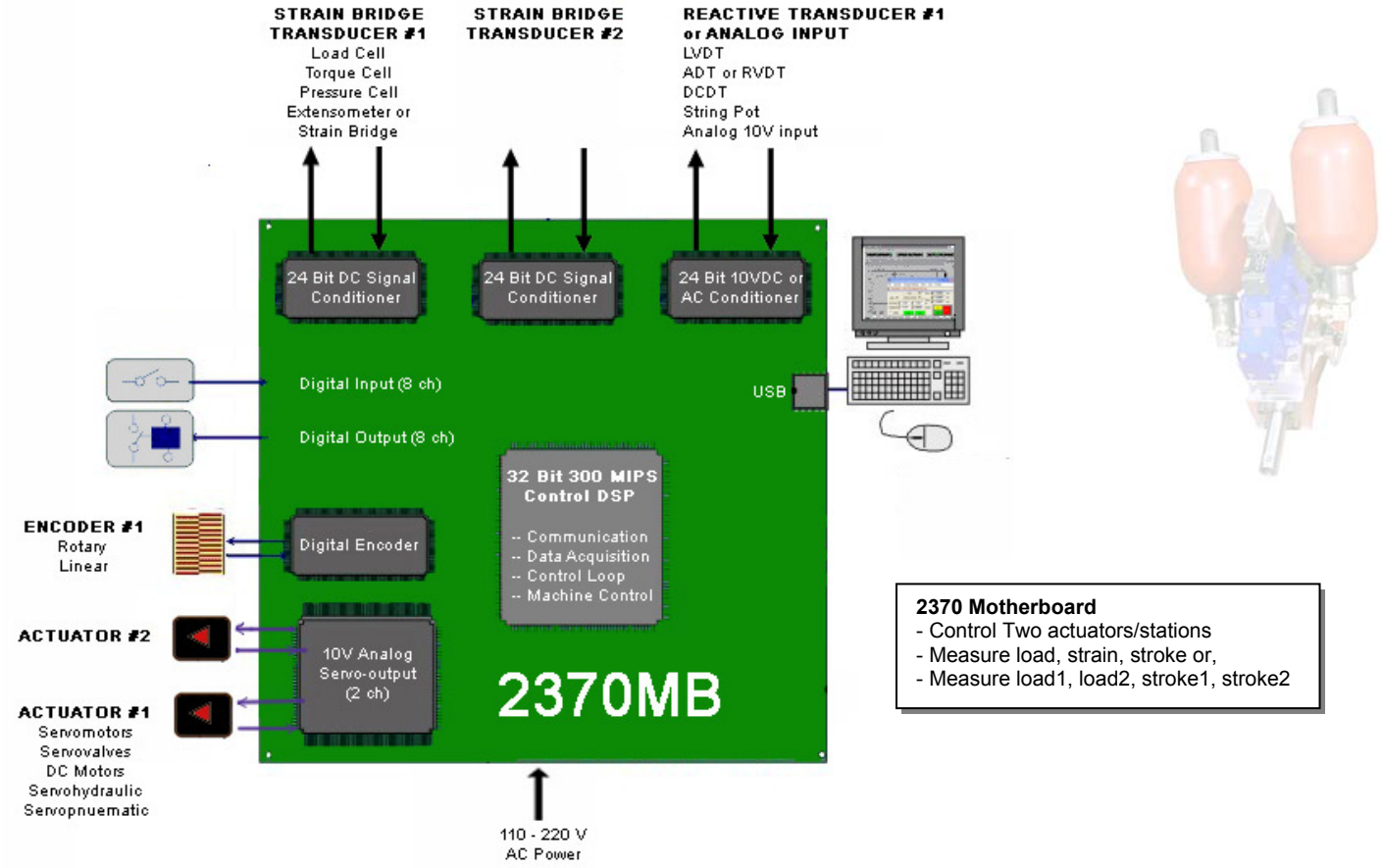
2370 8" X 8" x 2" Compact Enclosure includes

- *4 Feedback channels (two DC conditioners, one AC conditioner, one 10VDC analog input channel)*
- *2 Servo-output channels*
- *8 Digital IO channels*
- *Option to add one expansion module (add control, measurement, digital IO)*

2370 MS 19" Rack Enclosure - limitations

- *Maximum 16 servo-output channels*
- *Maximum 96 channels of analog data acquisition*
- *Maximum 80 feedback channels (signal conditioners and encoder signals)*
- *48 Digital output bits*
- *32 Digital input bits*

TestResources Inc – 680 Industrial Circle South – Shakopee MN USA 55379
800.430.6536 952.944.6534 Fax 952.233.3682
www.testresources.com



2370 Expansion Options

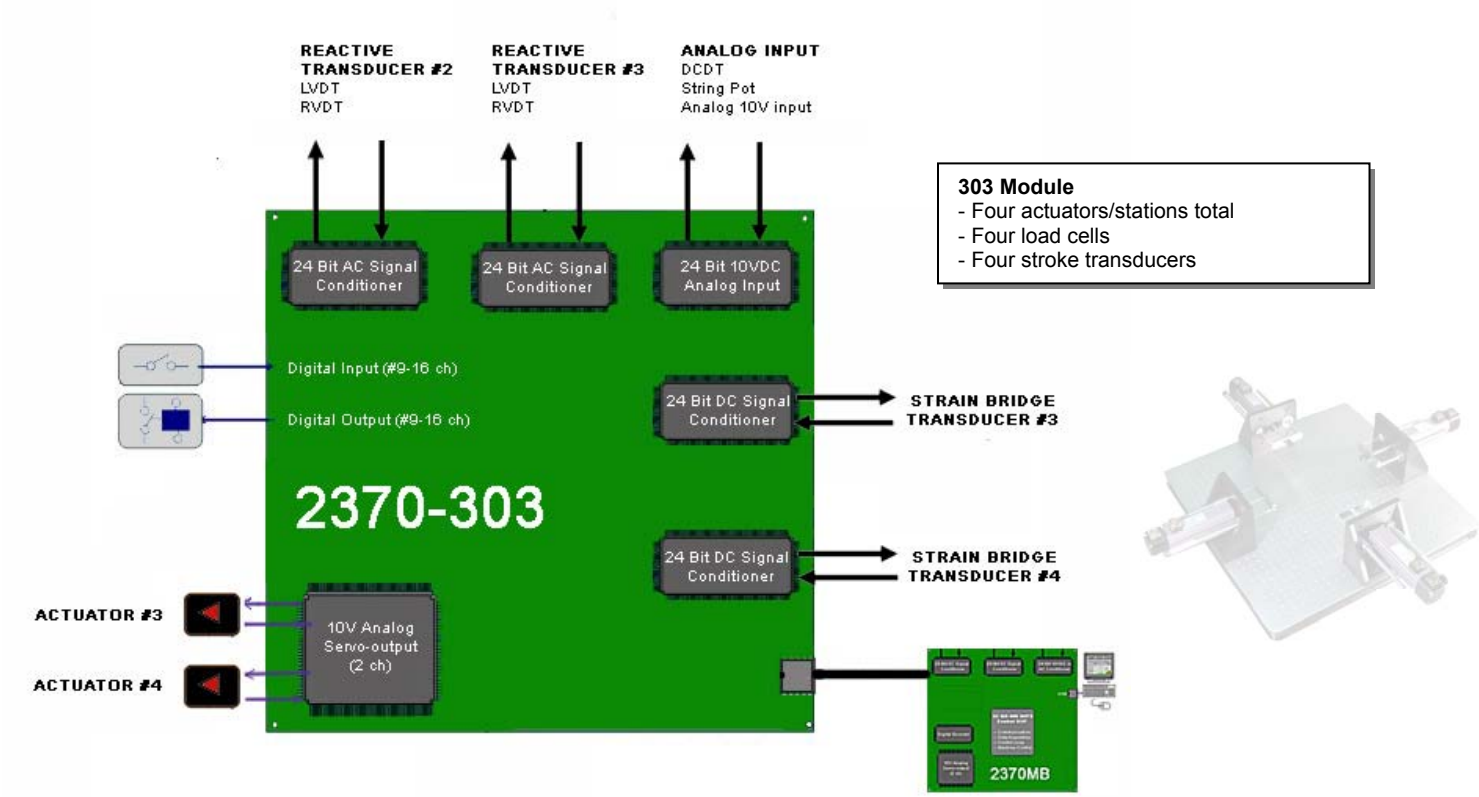
The 2370 architecture offers virtually unlimited upper bounds. Expansion modules are available and cost reduced over competing products because we offer one software product that expands with the hardware. The same affordable software handles single channel applications as well as up to 16 test stations.

301 Module (Bi-04-DQSC-301)
Adds 4 servo-output channels, five 24-bit digital signal conditioners for LVDT stroke, and 8 Digital IO channels. The result is a 2370 controller capable of 6 position control channels.

302 Module (Bi-04-DQSC-302)
Adds 4 servo-output channels, six 24-bit digital signal conditioners for load measurement, six encoders for position control, and 8 Digital IO channels. The result is a 2370 controller capable of 6 load and position control channels.

303 Module (Bi-04-DQSC-303)
Adds 2 servo-output channels (four total), two 24-bit digital signal conditioners for load cells (four total), three 24-bit digital signal conditioners for LVDT stroke (four total), and eight Digital IO channels (sixteen total). The result is a 2370 controller capable of 4 load and position control channels. This means up to four test stations or four actuators on one station or a mix of both can be handled.

Both 2370 and 2370MS feature 24 bit hardware resolution on all inputs and outputs which deliver unmatched measurement quality. Internal 40 bit computations update the control loop, delivering unmatched servo-output control quality. Data acquisition speed is very high (e.g. 12.5 kHz on 4 channels continuous and 50 kHz total throughput)



Need More? Consider the 2370MS Package

For higher channel count requirements, consider the 2370MS Controller. The 2370MS is enclosed in a 19"rack enclosure and delivers the same high speed high quality measurement and control as the 2370 with increased control and feedback channels. The 2370MS handles up to 80 signal conditioners, 96 analog data channels, and 16 servoactuators. Each feedback channel features 24 bit analog to digital hardware.

2370 Software

2370 Software products are compatible with global data sharing (GDS) compatibility and require a PC with Microsoft Operating System (XP or Vista).

MachineBuilder Software (MTL32) enables user setup and association of machine resources (e.g. transducers) to test stations or actuators. It includes panels for servotuning, calibration, and global limit setting. The user may set up and switch test station configurations easily.

MS TestBuilder Software (MS32) is an application program which enables users to set up, launch, monitor tests. Test data may be saved and exported for reports. Separate user panels are available for static and fatigue tests. Users create, store and execute tests including command signal, data acquisition and export of data to Excel.

Global Data Sharing Toolkit is an optional application developer's support program that facilitates software components and full applications development. GDS is a powerful capability that shortens the test development process and brings significant advantages to customers. Ask for more information on GDS.

Standard Test Application programs are available for common standardized test methods.

Engineered to Order Application Software serves the needs of speeding the creation of complex test protocols or analyses, or creating software for specific needs. Application programs are made to order.

Multi-Station Applications

The 2370 can be user configured to control multiple test stations. For example, a laboratory with several independent test frames or test rigs can be controlled by a properly configured 2370 controller. In that case, MTL32 software in the

Global Data Sharing environment can run all machines in a central location or low cost Windows user-interface terminals can be placed at each test frame, connected to the host PC through a network interface. The operator at each station could then enjoy complete access to the interactive real-time graphics environment associated with individual tests in progress. Sixteen stations are possible. The GDS environment converts the control system into an application server, permitting the connection of up to 16 total networked terminals, each with a keyboard, mouse and Windows desktop.

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Customer Service

- Each order is handled as a project – with a project engineer responsible to you – the customer.
- We offer up-front experienced application engineering support to configure a solution matched to your needs.
- On site or field services are available to install and integrate the controller with existing on site hardware. Our support includes real-time online troubleshooting which ensures rapid response to problems.

About TestResources …

TestResources has provided advanced servocontrolled testing controllers and test systems to engineers in industry, government and research organizations for more than a decade. Our core competence is in the application engineering of servocontrol technology to single and multichannel control of mechanical testing applications, and the supply of static, dynamic and fatigue test machines.

Want more information?

Call 1.800.430.6536 or send email to info@testresources.com

Ask for an online demo!

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