

Remote Interfacing

DP900-48, -45, -43

SignalCalc 900 series offers a variety of options for test automation and integration with existing laboratory systems. Automatically executing SignalCalc 900 test profiles sequentially, interfacing SignalCalc 900 to a thermal chamber, writing your own software to control SignalCalc 900, and more – SignalCalc offers flexible tools to streamline your testing needs.

The Application Sequencer (DP900-48) is a simple tool that allows different profiles to be run sequentially without the need for an operator to be present.

The Relay Card (DP900-45) provides the ability to read and act on trigger signals coming from a thermal chamber or supervisory controller and also enables SignalCalc to return such signals.

The Application Interface option (DP900-43) enables custom user-developed software applications to control SignalCalc 900 series from anywhere on the network. SignalCalc 900 Series has the ability to streamline testing and integrate into virtually any lab environment.

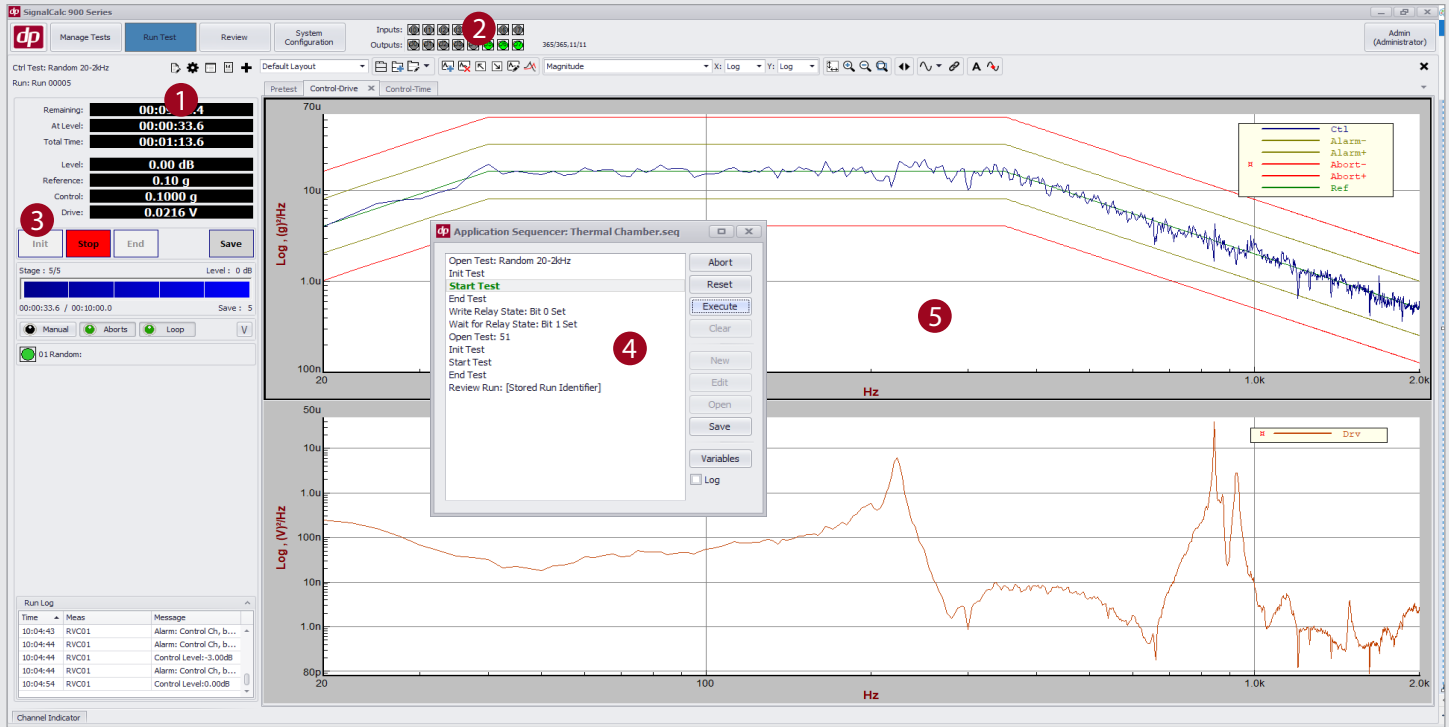
Features and Benefits

SignalCalc 900 Series' test automation features are versatile and adaptable.

Feature	Benefit
Application Sequencer (DP900-48)	
Simple Test Sequencing	Easily sequence different test profiles to run consecutively
Programmatic sequencing interface	Advanced sequences can be configured using programmatic commands (If/Else/While etc.) within the test sequencer
Interfacing with Relay Card	Test Sequencer can read Relay Card inputs, and execute commands accordingly
Relay Card (DP900-45)	
Simple communication interface	Relay Card can communicate with virtually any thermal chamber or external system using an On/Off signal
8 Input / 8 Output Relay Card	Relay Card includes 8 inputs and 8 outputs for interfacing with one or more external systems
Test status output through relay card	External systems can monitor the status of the test that is currently running
Dedicated Abort Input	Relay Card has a dedicated STOP channel. External systems can trigger a vibration test to stop at any time
Customizable Input Triggers	Inputs can have user-defined functions such as running a specific test
Customizable output triggers	Outputs can be configured to signal external systems when a vibration test has started or finished
Advanced functionality	Relay Card input/output trigger functionality can be customized using the Application Sequencer
Application Interface (DP900-43)	
Generalized Application Interface	Communicate programmatically with 900 Series software using any modern software language through a REST interface
Issue commands to 900 Series software	Programmatically issue test commands (Open, Start, etc.) to 900 Series software
Customize input channel settings	Programmatically configure a tests' input channel settings and sensitivities before running the test
Monitor Test Status	Programmatically read a vibration tests' status, such as control level or test time
Read Signals from 900 Series software	Pass signals such as PSDs from 900 Series software to your own applications

Integrate Into Any Lab Environment

The 900 Series software has versatile tools needed to automate vibration testing while interfacing with a thermal chamber or other lab systems.



1 Read Status using Application Interface
Read the test status from your own applications using the Program Interface.

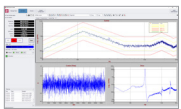
2 Relay Card Status Display
The status of the Relay Card is visually shown in the software. This status can be used to trigger a thermal chamber.

3 Control the Software Externally
Issue common commands like Open, Start, or Stop through the Application Sequencer, Relay Card, or Application Interface.

4 Simple Test Sequencing
Sequence tests to run sequentially. Send and receive commands through the Relay Card as a part of the test sequence.

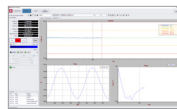
5 Application Interface Versatility
Application Interface supports virtually all programming languages including Matlab, LabVIEW, Visual Basic, C++, and more, and works across a network.

Related Applications



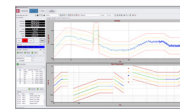
Random Vibration Control
DP960-10

Control a shaker to reproduce a specific vibration environment described by a power spectral density (PSD) profile



Sine Vibration Control
DP960-20

Control a shaker to run sine sweep or dwells and characterize a test structure's resonances



Mixed Mode Vibration Control
DP960-13

Control a shaker to simulate sine-on-random or random-on-random vibration environments

NOTE: Continued product improvement necessitates that Data Physics reserves the right to modify these specifications without notice.