

REFLEX 950 – FILTER CONNECTOR TEST SYSTEM Connector Test



Reflex 950 is a high pin count connector & filter capacitor connector test system providing insulation resistance, milli-ohm contact resistance, dielectric withstand voltage (DWV), capacitance, capacitance with bias and zener/transorb tests MIL-PRF-6106K and MIL-R-39016E.

Key Features

- Fully 4 terminal 'Kelvin' design
- Easily interchangeable ZIF test fixtures
- Legacy non Kelvin adaptor support
- Expandable to 160 pins
- High Voltage AC and bi-polar DC sources
- Programmable AC source frequencies
- Capacitor H.V. bias test option
- Compliant with MIL-PRF-6106K & MIL-R-39016E
- Modular high pin count architecture
- Menu software for test & programming
- Data logging & report generation tools
- Comprehensive self-test & calibration

Overview

Reflex 950 is a modular production connector and filter connector test system which can be configured for a wide variety of high throughput production and quality engineering connector test applications.

Systems can be configured for up to 160 four wire (Kelvin) contacts and for high voltage AC, DC and biased DC Capacitance testing. The system incorporates a parametric test capability for complex connectors incorporating zener diodes and transorbs.

The system is controlled using a standard Windows based PC running the dedicated Reflex 950 Artworks software package. The Artworks software environment also seamlessly integrates with an LCR meter such as the Agilent 4263B for all low voltage measurements.

Device channels	10 to 160 Kelvin pins
High voltage PSU voltage range	0 to 1,500 Vrms, 0 to \pm 2,100 Vdc
High voltage PSU current range	0 to 100 mA
High voltage PSU AC frequency range	50, 60, 190, 400 Hz
LCR meter	Agilent 4263B-001 (or equivalent)
Dimensions	793 x 673 x 935 mm (31" x 26 1/2" x 37")

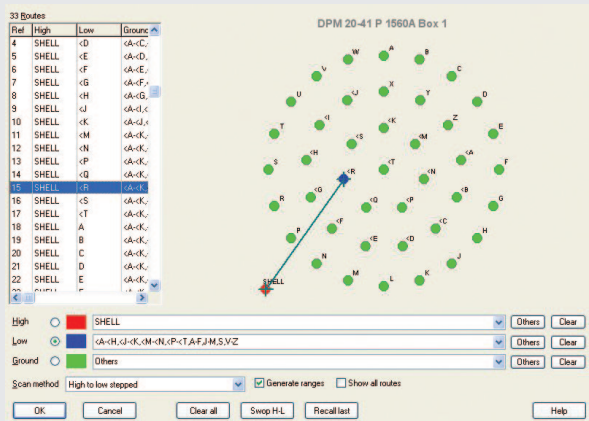
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Product Features

Operator interface and programming

The Artworks software features an easy-to-use operator interface and a flexible and intuitive test programming environment. Test sequences are built from pre-written test types using menu selection which can be run, cycled or step executed to enable fast development of a test program.



Example: Graphical route editing

Test programs can be selected quickly and correctly by manufacturer's part number and operator feedback presented for confirmation. Test programs can be quickly and simply generated using a guided series of steps requiring the entry of key data sheet parameters for the connector to be tested.

- Insulation resistance
- Milli-Ohm contact resistance (IR)
- Dielectric withstand voltage (DWV)
- Capacitance
- Capacitance with high voltage DC bias
- Zener & transorb parametric test

Pin multiplexer

Switching of system resources to specified device connector pins is achieved via a modular high voltage multiplexer which can be configured with up to 160 four wire (Kelvin) connections. The test modes are:

- Pin to ground, all other pins grounded
- Pin to ground, no other pins grounded
- Any pin to any other pin

The multiplexer is designed to ensure no system damage occurs in the event of short circuit or high voltage discharge as might occur with a defective connector.

Interchangeable test inserts

An interchangeable 4-wire "connector carrier module" is used to provide the ultimate in flexibility and allow a wide range of connector styles to be easily accommodated on the system. The system uses a zero insertion force "bed-of-nails" interface to the carrier, allowing carriers to be easily removed and replaced in seconds.

Multiple connectors can be fitted to the carriers to increase test throughput and minimise fixturing costs. For compatibility with older connector test systems and to enable existing fixtures to be used, ART can offer to supply connector carriers which will accept inserts from 2-wire connector test systems.

HV capacitor bias testing

Using a design based on ART's popular ASY0360 HV bias module, the system allows the full range of the HV DC PSU to be used during capacitor testing.

Fixturing

The Reflex950 test interface is designed to accept a variety of 4-wire and 2-wire test fixtures. Four wire fixturing allows the very latest techniques to be used fully for accurate and repeatable measurements. However the fixturing also allows 2-wire connections to be made if required.

Safety enclosure

To fully protect the operator against accidental exposure to potentially high voltages during testing, the test fixture is fully enclosed in a safety enclosure which is electrically interlocked to disable all high voltage supplies and system operation until the covers are fully closed.

Data logging and report generation

Data can be viewed, printed or exported to print or data-log files, this data can then be inserted into a wide range of spreadsheet and database packages. Using the integrated report generation package the generation of professional looking reports is only a button press away.

On line help documentation

A comprehensive self-test facility is provided which allows the full system operation to be checked under software control in a matter of minutes. This allows confidence tests to be run and data logged when required, for example: at the beginning and end of a batch, shift, day, week etc as required by company quality procedures.



See also:
Reflex 901B DWV, IR
test system