

NEW! ETS PurePulse™ with Automated PinScan™ ESD Discharge Simulator Test System

The **Model 9910 ETS PurePulse/PinScan Test System** is used to determine the ESD susceptibility level of electronic devices from $\pm 5V$ up to $\pm 8kV$ using Human Body Model (HBM), Machine Model (MM), and Human Metal Model (HMM) models. PinScan provides automatic sequencing of ESD testing of up to 128 pin devices, applying a discharge, then performing a curve-trace test to identify a failure. A complete computer and software system is provided with an advanced user interface which allows the creation of and reuse of scripts to control the testing.

Features:

- PurePulse utilizes proprietary ETS technology to provide clean waveforms with selectable peak Voltage from $\pm 5V$ to $\pm 8KV$.
- Built-in networks implement industry standard models:
 - HBM: $\pm 5V$ to $\pm 8KV$
 - MM: $\pm 5V$ to $\pm 1KV$
 - HMM: $\pm 5V$ to $\pm 5 KV$
- PinScan enables automated hands-free 2-pin testing of devices up to 128-pins.
- Computer control allows automated sequencing of pin connections and test voltages.
- Curve tracing (Current vs. Voltage) functionality provides real-time device evaluation before and after discharge.



Standards:

- HBM meets MIL STD.883E, ANSI/ESDA/JEDEC JS-001, AEC Q100-002
- MM meets ANSI/ESDA S5.2, JEDEC 22-A115C
- HMM meets IEC 61000-4-2

Applications:

Electrostatic discharge (ESD) is a significant factor contributing to the disruption and premature failure of microelectronic devices and electronic equipment in the field and during the manufacturing process. Since it is not always possible to control the environment where electronic devices are used or handled, the burden of product reliability falls upon the manufacturer to design and build equipment with verified ESD protection.

PurePulse and PinScan provide a valuable tool for verification of ESD robustness in today's military, industrial and consumer electronic applications. PurePulse generates precision pulses, and can be used alone in a manually-connected single test mode. PinScan automates PurePulse and adds scripted test capability, allowing the user to specify a sequence of pin pairs to be tested, ESD voltage levels, and curve-trace tests.

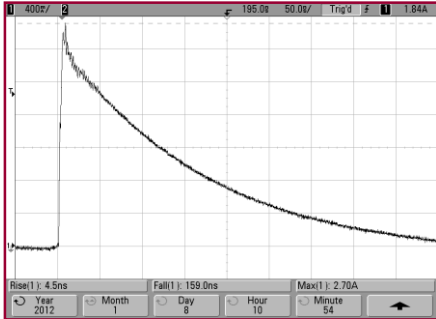
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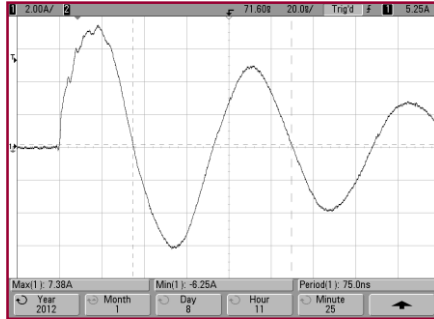
PurePulse:

The PurePulse technology provides reliable high quality, low parasitic HBM, MM, and HMM discharges utilizing a 2-pin test method to determine the susceptibility level of electronic devices from $\pm 5V$ to $\pm 8kV$. Proprietary ETS technology utilizing specialized relays creates support Human Body Model (HBM), Machine Model (MM) and Human Metal Model (HMM) all in a single unit without any need for additional modules/options.

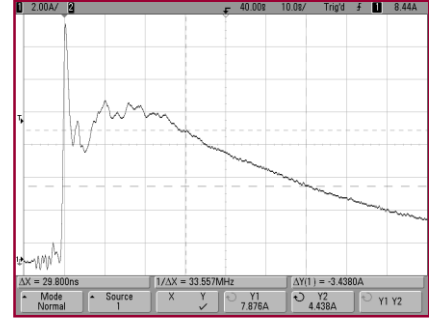
Typical discharge waveforms for HBM, MM and HMM at 4kV, 400V and 4kV respectively.



Human Body Model
(100pF/1500 Ω)



Machine Model
(200pF/0 Ω)



Human Metal Model
(330pF/150 Ω)

PinScan:

PinScan builds on the foundation of the PurePulse system, adding fully automated sequencing of discharge operations, and adds the capability to perform a curve-trace test before or after stressing the Device Under Test (DUT). The software-based platform provides a user-friendly interface which provides control of the pin locations, voltages, timing, and curve-trace testing.

A proprietary switching system provides automated connection to the DUT pins. The PurePulse discharge can be applied between any two pins of the DUT. The testing sequence can be run with no user oversight.

PinScan connects with the DUT via a 128-pin interface that enables automated connection to the device pins. A family of adapters allows direct plug-in of any desired collection of DUTs, from 2-pin devices to higher pin-count ICs to completed assemblies. A standard adapter board is included with the system and additional configurations are available from ETS.

PinScan includes the additional feature of testing the circuit during the test. A current vs. voltage plot is provided which clearly shows any change to the condition of the device.

A locking cover is included to provide interlocked safety enclosure for the DUTs and test connections during testing.

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Specifications

PurePulse:

Control: Front panel keypad or computer using User's software.

Computer Interface: Serial RS232

HV Adjustment: Keypad or computer control

HV Range: $\pm 5V$ to $\pm 8kV$

Adjustment Resolution: $\pm 1V$

Accuracy: Better than 5%

MODELS:

HBM: $\pm 5V$ to $\pm 8kV$; meets MIL STD.883E, ANSI/ESDA/JEDEC JS-001

MM: $\pm 5V$ to $\pm 1kV$; meets ANSI/ESDA S5.2, JEDEC 22-A115C

HMM: $\pm 5V$ to $\pm 4kV$; meets IEC 61000-4-2

Dimensions: 17" W x 12" D x 4.8" H (43.8 x 30.8 x 12.2cm)

Weight: 12-lbs. (5.4kg)

PinScan:

Control: Computer and software (Included)

Computer Interface: USB communication (Cable included)

Automation: Dual 128-pin selection system

Scripting: Arbitrary sequence of Pulses & Tests

Data: Save and recall test results.

Test templates: Save & recall test scripts.

DUT Interface: 128-pin Zero-Insertion-Force

DUT Adapters: (Custom adapters available)

DUT06401 Adapter Board Blank 64-pin (Included)

DUT06402 Adapter Board DIP 0.6" wide

DUT06403 Adapter Board 2- or 3-pin (Included)

Power: 90-260VAC, 50/60Hz

Dimensions: 17" W x 12" D x 8"H (43.8 x 30.8 x 20.3cm)

Weight: 19-lbs. (9kg)

Warranty: One (1) Year

Specifications subject to change without notice

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