HUNTRON

Circuit Board Diagnostics and Test since 1976

HUNTRON

ACCESS

STOP

Common   Signal

HUNTRON Tracker

POWER   PULSE   G1   G2

Huntron Workstation Software

Huntron Workstation software is the key to developing a complete test solution. It provides you the ability to store known good information that can be used for comparison when troubleshooting printed circuit boards. This information becomes a shared knowledge base that will benefit your entire test process.

Test Development Process
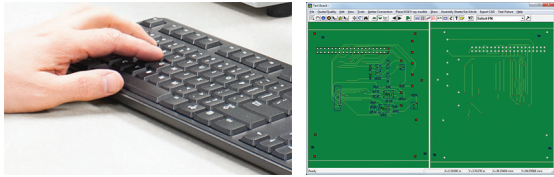
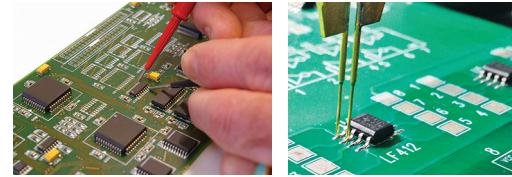### Add PCB Data manually or with CAD Layout files

Start by creating a test plan that includes the components or nets on the circuit board that you wish to test. These components and nets are part of a test Sequence. This information can be added manually or created automatically using CAD layout data.

Component information is added to a test Sequence that includes the name, package style and number of pins.

If CAD data is available, a net based test can be created for a more efficient test plan.

Capture Signatures from the PCB manually or robotically

Using a known working board, the Huntron Tracker signatures are captured at each point defined in the test plan. When scanning of the test points is completed, the signatures are stored as a baseline test for the circuit board.
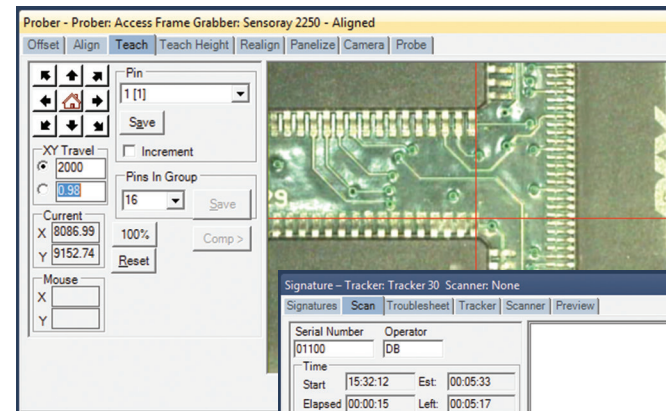
When a robotic Access Prober is used, the test point locations are placed using a camera based Teach system.

When component or net input is complete, the test is executed. The Tracker signatures are displayed as the scan progresses.
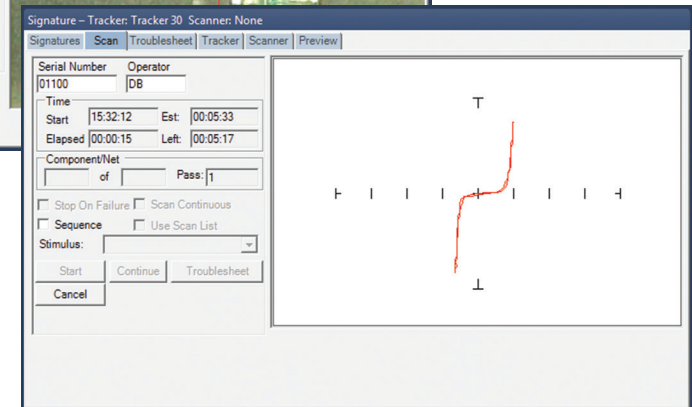
1976 - Huntron opens for business in Lynnwood, Washington, USA location manufacturing the first Huntron Trackers.

1984 - The Huntron Tracker 2000 and Switcher are introduced

Huntron Workstation Software

The Huntron Workstation software efficiently stores and manages your reference test data. The test data and organized workflow allows for a standardized repair procedure. The benefit is reduced learning time, a step by step test path for undocumented and legacy circuit boards and decreased labor costs.

Save Signatures from good circuit boards to be used for comparison

Using the test plan and captured signatures, a reliable and repeatable model of the circuit board is developed. Adjustments are made to the baseline model to set the standard for testing other identical circuit boards.

Scan suspect circuit boards and interpret your results

Once the signatures from the baseline model are saved, suspect circuit boards are scanned and the test results viewed in the Workstation "Troublesheet". Troublesheet results can be saved to a full report or as ASCII text.
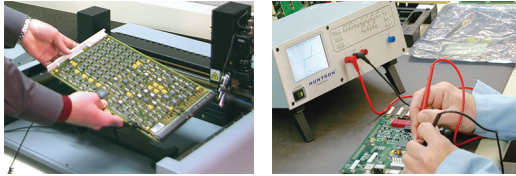

Signatures from a known good board are captured and set as a signature "Reference" that is used for comparison.

The Reference signatures can be reviewed and additional References can be saved from other working boards of the same type.

Suspect boards are scanned and the signatures are compared to the stored Reference signatures. A PASSED or FAILED indication is displayed.

The test results are displayed in the Troublesheet. The good versus bad signatures are displayed in contrasting colors for easy comparison.

1986 - Huntron moves to our current Mill Creek, Washington USA location

1988 - Huntron introduces software control and signature storage on a PC with the Tracker 5100DS

Huntron Tracker 2800 and 2800S

Key Features

- Convenient front panel controls and touch screen LCD allow for Stand-alone use
- Optional Software Control using Huntron Workstation
- Built-in DC Voltage Source for testing gated devices (i.e. SCRs, relays, etc.)
- Huntron SigAssist® display calculated values such as resistance and capacitance
- Scan up to 40 pins with the Tracker 2800S using the front panel IDC connections

The Tracker 2800S can scan up to 40 pins per channel using the front panel IDC connectors interfaced to cables and clips.

The Tracker that Complements your Benchtop

The 2800 series of Huntron® Trackers® are designed to complement conventional test instruments in the debug and troubleshooting process. Using the proven power-off test method known as Analog Signature Analysis it eliminates the risk of further circuit damage, which often occurs when power is applied. The Huntron Tracker 2800 and 2800S are suited for todays varied signal circuit boards where analog and digital are mixed together and make the perfect complement to your electronic troubleshooting workbench.

Huntron Tracker 2800 and 2800S Specifications

Open Circuit Voltage (Vs) 6 selections	200mV, 3V, 5V, 10V, 15V, 20V
Source Resistance (Rs) 9 selections	10Ω, 50Ω, 100Ω, 500Ω, 1kΩ, 5kΩ, 10kΩ, 50kΩ, 100kΩ In Tracker 2000 mode only: Low (54Ω), Med1 (1.2kΩ), Med2 (26.7kΩ)
Frequencies (Fs) 6 selections	20Hz, 50Hz, 60Hz, 200Hz, 500Hz, 2kHz
Connections	Banana jacks for Channel A, Channel B, COM and DC Voltage
Scanner Connections (2800S)	40 pin IDC connectors to Channel A and Channel B
DC Voltage Source	Variable 0 to +10VDC; 200mA maximum current (manual control only)
Physical	11.1" W x 4.4" H x 8.5" D (28.2cm W x 11.2cm H x 22.1cm D; 6lbs. (2.8kg)

1991 - Huntron introduces full test automation with the robotic RP388 Prober

1995 - Variable ranging is introduced with the Huntron ProTrack

Huntron Tracker 3200S

Key Features

- Use the included Huntron Workstation software to store Tracker signatures
- Can be used as a Stand-alone unit using the convenient front panel controls and touch screen LCD
- Built-in Pulse Generator for testing gated devices such as relays, SCRs and TRIACs
- Huntron SigAssist® displays calculated values such as resistance and capacitance
- Scan up to 128 pins with selectable commons using the front panel IDC connections
- Connect to a Huntron Access Prober for full test automation
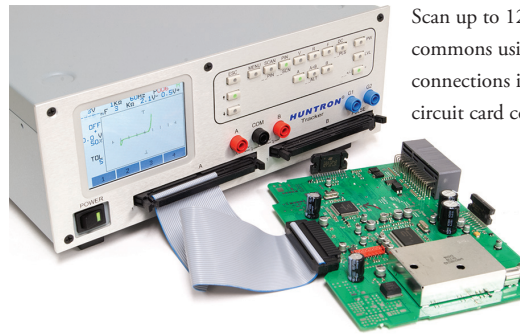
Scan up to 128 pins with selectable commons using the front panel IDC connections interfaced to circuit card connectors.

Flexibility that Grows with your Business

The Huntron Tracker 3200S is designed to encompass our product history and leadership in power-off troubleshooting by providing powerful test solutions. The Tracker 3200S features variable range parameters resulting in hundreds of voltage, source resistance and frequency combinations. You can create Tracker ranges to precisely fit your needs.

The built-in Pulse Generator enables you to dynamically test gated devices such as SCRs, TRIACs and relays. The Tracker 3200S features two 64 pin IDC connectors for use with cable based interfaces or take advantage of the easy upgrade path to a Huntron Access Prober for full diagnostic automation.

Huntron Tracker 3200S Specifications

|	
Open Circuit Voltage (Vs) 24 selections	200mV, 400mV, 600mV, 800mV, 1V to 20V in 1V steps, 10V (Low), 15V (Med1), 20V (Med2)
Source Resistance (Rs) 16 selections	10Ω, 20Ω, 50Ω, 100Ω, 200Ω, 500Ω, 1kΩ, 2kΩ, 5kΩ, 10kΩ, 20kΩ, 50kΩ, 100kΩ, 54Ω (Low), 1.2kΩ (Med1), 26.7kΩ (Med2)
Frequencies (Fs) 40 selections	20Hz to 190Hz in 10Hz steps, 200Hz to 1.9kHz in 100Hz steps, 2kHz to 5kHz in 1kHz steps
Connections	Front panel Banana jacks for Channel A, Channel B, COM and Pulse Generator; Rear panel BNC connectors for connecting to Huntron Access Prober
Scanner Connections	64 pin IDC connectors to Channel A and Channel B (can be combined for 128 pins)
Pulse Generator	0-10V DC or square wave output; adjustable duty cycle; Software control
Physical	11.1" W x 4.4" H x 8.5" D (28.2cm W x 11.2cm H x 22.1cm D; 8.3lbs. (3.7kg)

1997 - Huntron ships its 20,000th Tracker 2000

2003 - The Huntron Access Prober is launched providing exceptionally accurate circuit board probing
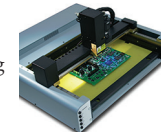
Huntron Access and Access 2 Probers
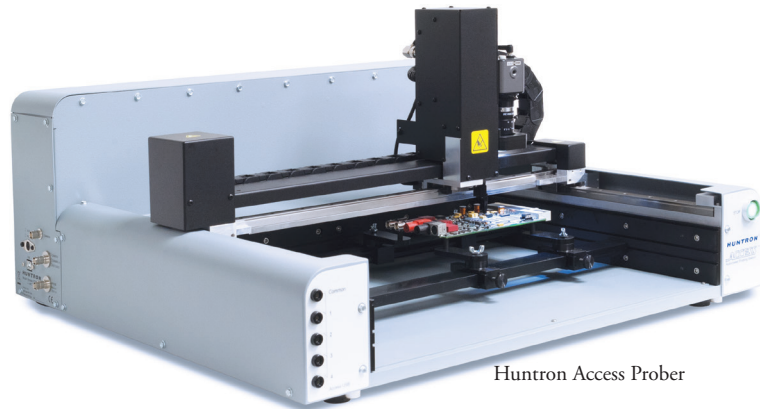
Huntron Access Prober

Huntron Access 2 Prober

Key Features

- Single head flying probe tester in a desktop sized platform
- Sized for small to large circuit boards
- Exceptional accuracy for precise probing of circuit boards
- Durable design for many years of service
- Can be configured with a Huntron Tracker® inside or connected to an external Tracker 3200S
- Workstation Remote and SDK packages allow for integration of other test instrumentation

Single Head Precision Flying Probe Platforms

Huntron Access Probers used with a Huntron Tracker allow for economical, automated testing of densely packed surface-mount and other devices on your most complex circuit boards. Automated probing will increase test speed tenfold when compared to manual probing.

Access Probers can be connected to a Tracker 3200S or they can have a Tracker installed internally for an all-in-one test platform.

All Huntron Access Probers are CE and ETL certified and come with a one year, parts and labor limited warranty.

Huntron Access and Access 2 Specifications

Maximum PCB size	Access: 19.4" x 14" (49.3cm x 35.6cm)
	Access 2: 22" x 23" (56cm x 58cm)
Maximum Board Probing Area	Access: 15.3" x 12.9 " (38.9cm x 33.8cm)
	Access 2: 18.2" x 22.4" (46.2 cm x 56.9cm)
Maximum Component Height	Access: 2.375" (6cm)
	Access 2: 4" (10cm)
Minimum Resolution	0.0003937" (10 microns)
Camera system	High resolution color CCD camera interfaced through internal USB frame grabber
Physical	Access: 26.5" W x 13" H x 24.5" D (67.3cm W x 33.1cm H x 62.3cm D)
	Access 2: 36" W x 15.7" H x 29" D (91.4cm W x 39.9cm H x 73.7cm D)

2006 - Huntron Workstation 4 is released bringing a new level of efficiency to power-off test development

2008 - Huntron introduces the Tracker 2800 and 2800S
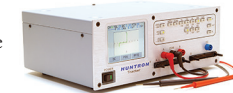
Huntron Access DH2

Key Features

- Dual head flying probe interface for true point-to-point testing
- Sized for small to large circuit boards
- Exceptional accuracy for precise probing of circuit boards
- Durable, standalone cabinet design for many years of service
- Dual 19" racks provides plenty of space for PC and integrated test instrumentation
- Ships with a Huntron Tracker® inside and a preconfigured Controller
- Workstation Remote and SDK packages allow for integration of other test instrumentation
- High frequency RG360 cable to the probes connected through high quality SMA connectors
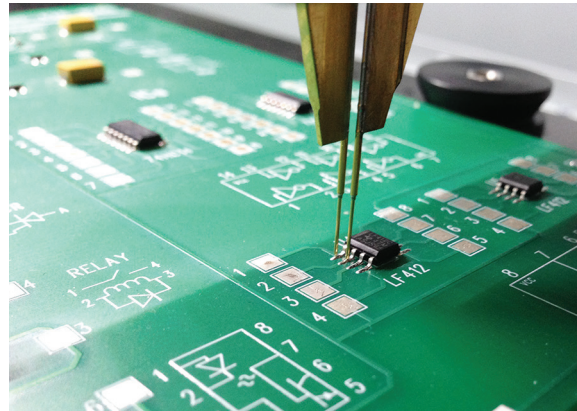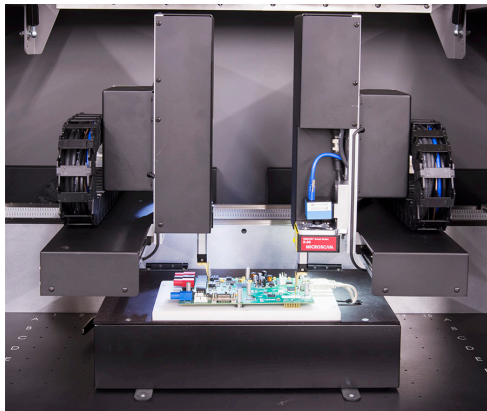
Dual Head Probing and Integrations

The Access DH2 Prober is a dual head Robotic Flying Probe system that is best suited for circuit board testing where interfacing between two points is necessary. The Access DH2 stands in it's own cabinet with plenty of space underneath for the rack mounted Controller and other test instrumentation. The open architecture design of the Access DH2 makes it possible for you to utilize flying probe technology with many different test methods where automated probing of the circuit board under test makes sense.

Huntron Access DH2 Specifications

Maximum PCB size	27" x 23" (68.6cm x 58cm)
Maximum Board Probing Area	19" x 12" (48.3cm x 30.5cm)
Maximum Component Height	4.8" (15.2cm)
Minimum Resolution	0.00002" (0.4 microns)
Probe to Probe spacing	0.05" (1.27mm) minimum
Camera system	Two high resolution, auto focus USB cameras
Physical	47" W x 61.5" H x 35.75" D (w/handle) (119.4cm W x 156.2cm H x 90.8cm D)

2010 - The dual head Access DH Prober is introduced

2015 - Huntron introduces the Tracker 3200S

Test System Integration Tools from Huntron

Vision, **Dexterity** and **Distractions** continually limit the effectiveness and reliability of diagnostic measurements. Technicians and engineers equipped with the most advanced test instruments still have to locate the test point, place the probe, take the measurement and record the measurement. Maintaining focus throughout the entire process is difficult especially when many test points are involved. These issues can be addressed by defining an effective test strategy that involves automation.
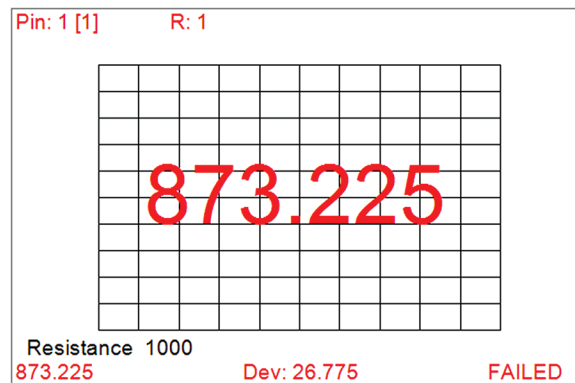
Start by identifying the process that needs to be automated and then consider the requirements that will fit your needs. Define the accuracy, speed and number of test points you require then look at the robotic platform options available. Lastly, consider the cost savings in reduced test time, more accurate probing, more accurate data and lower burden on engineering resources. Also consider the ability to bring several different types of test strategies into the mix instead of settling on one.

Huntron provides options that open the measurement spectrum to automated robotic probing. Single or dual head systems provide accurate one or two point measurements. Huntron Access Probers can be configured to work with almost any standard measurement instrument such as Huntron Trackers, multimeters, oscilloscopes and spectrum analyzers.

Find the Right Automation Solution to Meet Your Needs

Huntron Workstation software used with Access Probers help you to automate test measurements that are difficult to perform using manual methods. Huntron offers three different developer options to assist you with your automated test integration.
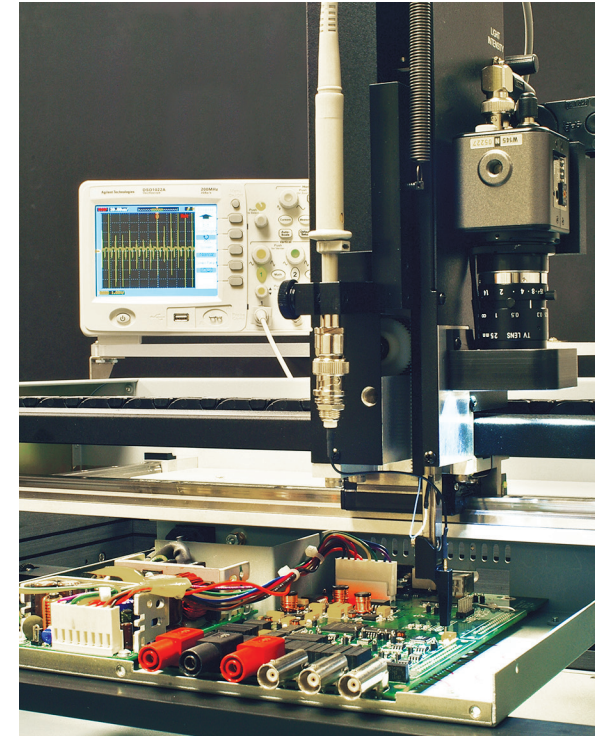
- **Huntron Remote Control:** Create your own test executive that controls your selected test instrumentation and sends commands to Huntron Workstation running "remotely" in the background. Huntron Workstation manages the test point database and Prober controls to help you automate your test process with minimal programming.
- **Huntron Workstation SDK:** Integrating your test instrument directly into Huntron Workstation allows you to manage the test point and measurement database, compares to expected measurements and documents test results.
- **Huntron Hardware SDK:** Huntron provides the DLL files, documentation and source code for sample applications to assist you in developing your own custom application.

Oscilloscope probe mounted to a custom holder on a Huntron Access Prober allowing for higher frequency measurements.

Digital multimeter integration using the Huntron Workstation SDK shows the expected and recorded mesaurements and the deviation between them.
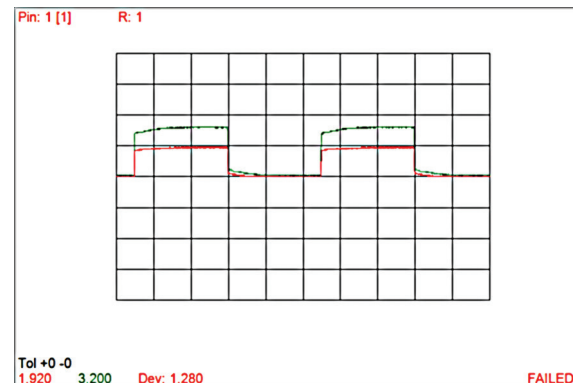
The waveform, recorded and expected measurement and measurement deviation are displayed in this Workstation SDK oscilloscope integration.

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