

**A.C.T.S.™**

# Chiron Automatic Curve Tracer System



**CHIRON TECHNOLOGY**

## A.C.T.S.™ HIGHLIGHTS

- ▶ Automate conventional curve tracing method.
- ▶ Provide full solution for Curve Tracing Technology (Optional IDDQ and Latch-up).
- ▶ Usable for Open/Short leakage to verify product reliability.
- ▶ Rapid and accurate results.
- ▶ Extremely flexible setup and accurate measurement.
- ▶ Optional Prober interface for wafer testing.
- ▶ A visual tool to spot defects.
- ▶ Customizable to integrate any external source and measurement unit.

## ACT FLEXI™ HIGHLIGHTS

- ▶ Windows based software, ensuring a user-friendly environment.
- ▶ Imported user-defined Excel Pinmap file or any raw data file.
- ▶ Programmable pin mapping and testing sequence.
- ▶ Data Acquisition and on-line Data Comparison.
- ▶ Real-time graphical display during testing.
- ▶ On-line tabulated test result and report file.
- ▶ Direct graphical printing.
- ▶ Security control.

# A.A.C.T.S.™™



*ACTS Desktop Version*

Curve tracing of integrated circuits is an indispensable technique used in integrated circuit failure analysis laboratory. The traditional way of manual curve tracing is a tedious and time consuming task, especially when it involves advanced high-pin count ICs. The Chiron ACTS, Chiron Automatic Curve Tracer System is a customized system designed to automate the curve tracing procedure

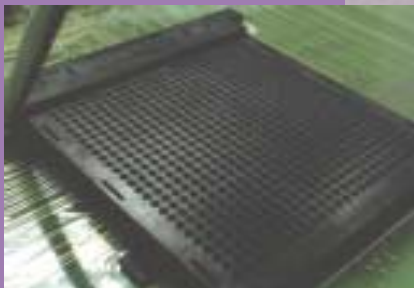
based on the user's special testing requirements in order to improve the overall efficiency of IC failure analysis. The ACTS is PC-controlled and allows the testing of ICs according to user specified pre-determined procedures.

The major breakthrough for the Chiron Automatic Curve Tracer system is having automated the conventional way of manual curve tracer, making the job easier and faster. From open/short leakage testing to verifying product reliability and quality assurance, our Standard and Parametric Automatic Curve Tracer serves as a valuable tool in semiconductor industry. Both systems provide extremely flexible setup and accurate measurement, plus an extremely user-friendly software controller with minimal training involved, saving you a whole lot of finance where total cost of ownership is concerned.



*ACTS Rack Version*

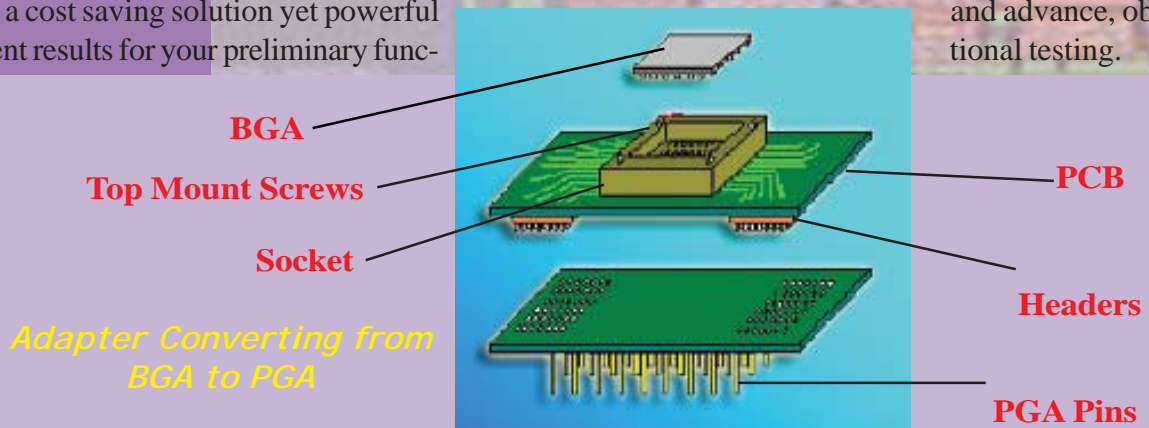
## upgrade? UPGRADE?



Time to upgrade your existing curve tracers? Look no further. Chiron will provide you a customized system based on your testing requirements, designed to automate the curve tracing procedure speedily and accurately. We offer a total solution consisting of a dedicated and powerful software controller base and the fixture unit interfaced with your existing DUT board. It is time to break out



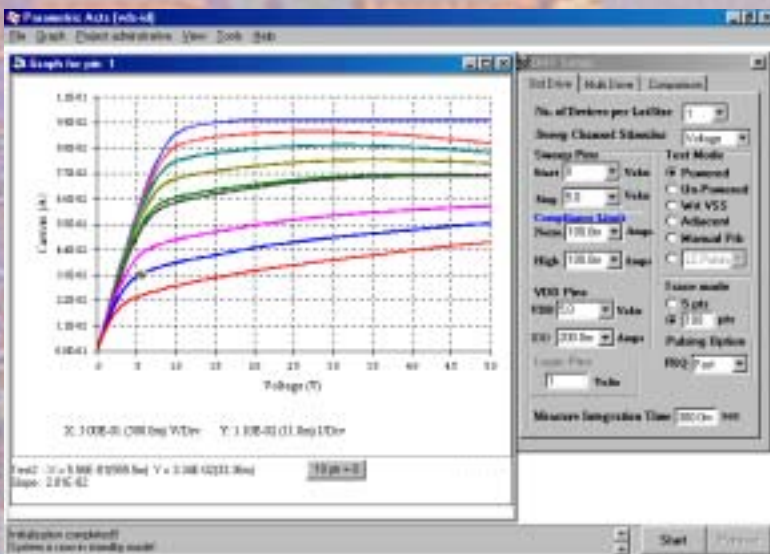
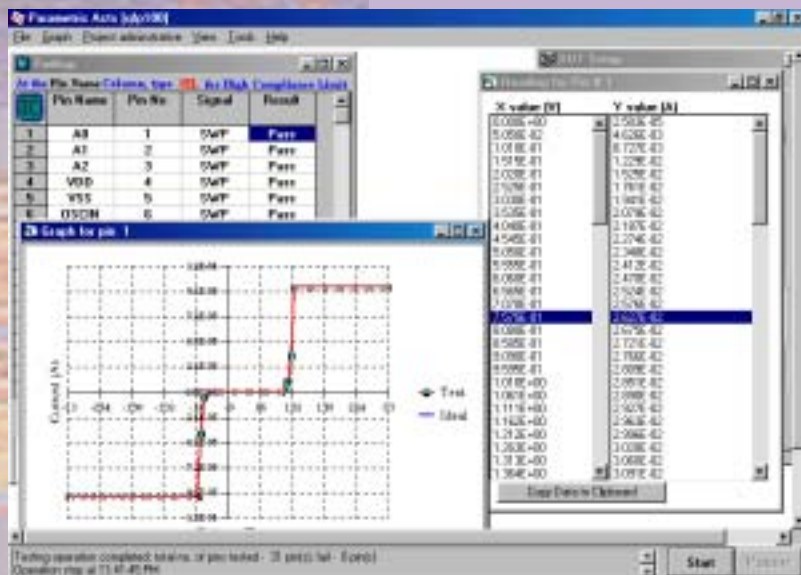
of the traditional, tedious and time consuming way of manual curve tracing involving advanced high pin count ICs. Let Chiron serve and provide you an alternative from using conventional functional testers to delivering a cost saving solution yet powerful and advance, obtaining excellent results for your preliminary functional testing.



# ACT Flexi™

## Our Areas of Expertise

- \* Hardware customization. Direct interface to any existing Source Measuring Unit (SMU) or customized fixture unit to suit your own devices with ease.
- \* Software customization to incorporate more Testing Methodologies for better variety of testing devices, or even to enhance the Graphical User Interface (GUI) for ease of system operation.



- \* Pioneer in conversion of different package types; BGA, PLCC, MQFP, LQFP, etc., to a common base in PGA format. Economical method in working with different packages.

Our System supports 5 modes of operation: Open/ Short Comparison, Data Acquisition, All Points Comparison, 10 Points Comparison and Treshold Comparison. Life couldn't be easier when it comes to the setup procedure. Just enter the voltage and current compliance, select the pin(s) to be tested, and simply run the test. The system will then do all the necessary tests automatically and results will be displayed on screen. The setup settings can be saved for future use, saving your time and increasing productivity.

Whatever solution that's needed for your system, we will be on our feet to do extensive research and development to facilitate your needs. Our in-house software engineers are readily available to meet whatever requirements your company or business requires, putting you ahead of your competitors.

## features

### Hardware

- ↪ The basic system consists of four integrated sub-systems:
  - Source and Measurement Unit (SMU)
  - The Switching Matrix Unit
  - The Fixture Unit
  - The PC acts as a Controller for ACTS system
- ↪ 16 or more plug-in Switching Matrix Cards - supporting high pin 512, 1024, 2048, etc.
- ↪ Up to 8 channels
- ↪ Modular Internal Power Supply
- ↪ Utilizes full Kelvin Remote Sensing method on each SMU
- ↪ Highly reliable Reed Relays
  - Contact resistance of row to column up to 1 ohm
  - Maximum Current Capacity - static 0.1A, switching 1A

### Software

- ↪ Imported user-defined Excel Pinmap file or any raw data file
- ↪ Programmable pin mapping and testing sequence
- ↪ Data Acquisition and on-line Data Comparison
- ↪ Real-time graphical display during testing
- ↪ On-line tabulated test result and report file
- ↪ Direct graphical printing
- ↪ Security control



# specifications

## SPECIFICATIONS

	<b>Chiron Switch Matrix</b>	<b>Standard Curve Tracer</b>				<b>Parametric</b>			
<b>ACTS Software</b>	<b>Switch Matrix System</b>	Open/Short	ACT Flexi	Semi Parametric		ACT-Parametric			
<b>SMU Type</b>	--	Keithley 2400 Standard	Keithley 2410 High Voltage	Keithley 2430 High Current	Keithley 6430 High Accurray	Agilent 4155/56	Keithley 4200	Tehtronic 370A	Any analyzer that support GPIB/serial interface
<b>Power Supply</b>	--	Agilent Single Channel E3643A	Agilent Dual Channel E3649A	Agilent High Current E3633A	Agilent High Voltage 6645A	Agilent High Resolution 6613C	Agilent Dual Channel E3649A		
<b>Switch Matrix</b>	CHIRON				KEITHLEY Low Current				
<b>Universal DUT Board Base</b>	17 x 17 Base	21 x 21 Base	25 x 25 Matrix	32 x 32 Matrix	Customized DUT Board				

	Switch Matrix Model	Benefits	Offset Leakage	Maximum Voltage	Maximum Current
<b>CHIRON</b>	M32--4	32x4 channels	100nA/V	200V	1A
	M32--8	32x8 channels	50nA/V	200V	1A
<b>KEITHLEY</b>	9174	8x12 channels, Low leakage	10fA/V	200V	1A
	7074-HSM	Fast, Low leakage	10fA/V	200V	2A
	7074-A	Low leakage (GPIB)	10fA/V	200V	2A
	7072	General purpose	100fA/V	200V	1A
	7071	Low cost	100pA/V	200V	1A



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