

# Model ATS 6000 Component Test System

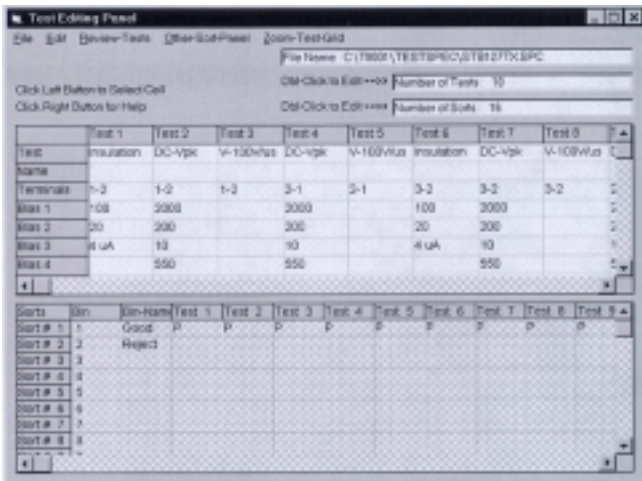


**AETRIUM**<sup>®</sup>

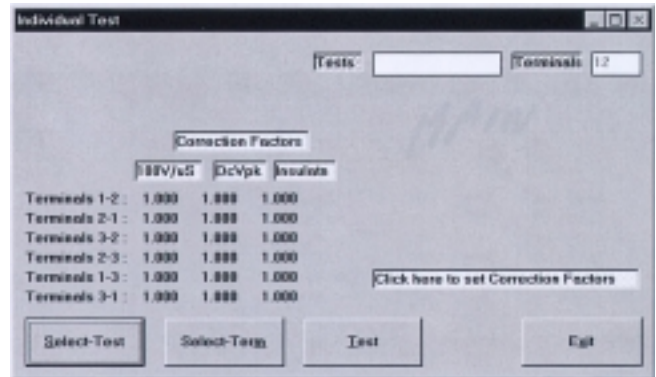
*Experience, Technology, Solutions*

*The Aetrium® ATS 6000 Component Test System is designed with an open hardware architecture to perform device testing with the total flexibility needed to characterize devices. Its combination of state-of-the-art technology and proprietary measurement algorithm circuitry provides excellent resolution and high speed for voltage, current and resistance parametric test measurements.*

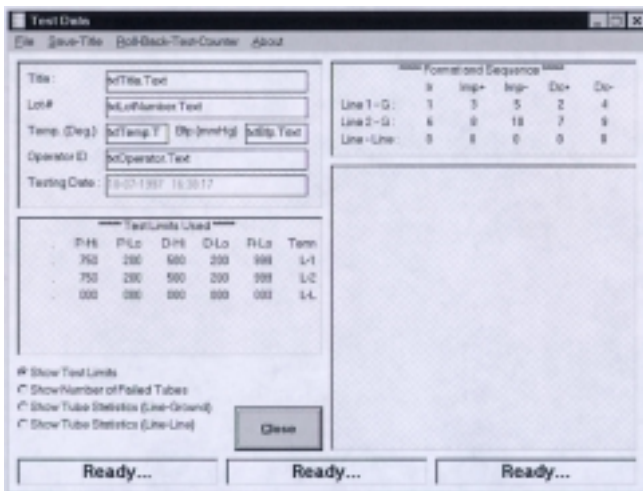
Main Screen



Individual Test Screen



Results Screen



# Powerful, Flexible, Modular Architecture

## *Devices Applications*

Triacs	SCRs	Diacs	Diodes
FET	MOSFET	IGBT	J-FET
Power	Resistors	Transistors	Regulator
Zener	Quadrac	Relay	Opto-logic
MOV	SSVOP	OCP	CVP

## *Parametric Standard Ranges*

Voltage	Up to 1KV
Current	Up to 50 Amps

## *Advance Testing Features*

Voltage Surge Generation  
Current Surge Generation  
Custom Wave Form Generation  
High Speed (Nanosecond) Peak Detection

## *Optional Test Functions*

Switching matrix for simultaneous multiple testing  
HP Model 4279A Capacitance meter  
HP Model 4284A meter

## *Handling Interface*

TTL (mutually exclusive, binary and parallel)  
GPIB  
RS-232

## *Real Time Data*

### *Analysis Applications*

Statistical Process Control (SPC)  
Results graphs  
Automated test handler status  
Data manipulation prior to result display

Specifications subject to change without notice

# Specifications

## Basic Specifications – ATS 6000

Functions	Capacity	Capacity	Resolution	Accuracy	Polarity	Compliance
DC Voltage	100V	200mA	0.025V	1%	Both	Yes
& Current	250V	200mA	0.125V	1%	Both	Yes
	1000V	100mA, 2A pulse	0.25V	1%	Negative	Yes
	1500V	10mA	0.50V	1%	Negative	No
	20V	50A		1%	Both	No
	10V	2A		1%	Both	No
	20V	2A		1%	Both	Yes

Functions	Capabilities	Resolution	Accuracy	Polarity
Voltage Rise Time	100V/uS max.			
Voltage Fall Time	100 V/mS max.			
Current Rise Time	1 Amp/uS max.			
Current Fall Time	10 Amp/mS max.			
D/A Converter	16 bits		0.1%	Pos./Neg.
Current Sensing	0.40mA...100mA	0.40nA	1%	Negative
A/D Converter	16 bits		0.1%	Positive
I/O Interface	Aetrium-FSA Parallel interface <PIO-72T> PC add-in board			
Peak Detection	Proprietary Circuitry		1%	Positive Negative

## Gas Tube Tester Specifications (in addition to base specifications)

Functions	Capacity	Capacity	Resolution	Accuracy	Polarity	Compliance
DC Slope(Dv/Dt)	100-2000	10mA		1%	Negative	Yes
	V/sec.					
Leakage Current	Up to 10mA		0.4nA	± 2nA	Negative	
Fast Dv/Dt	100V/uS	Range 250-1200V		5%	Negative	No
Peak Voltage Detection	Range 250-1200V		0.5V	±5V		

Tests	Capacity	Capacity	Resolution	Accuracy	Polarity	Compliance
Impulse	100V/uS	1200V		Slope: 5%	Negative	
		Range 250-1200V				
Insulation	500V		1M-Ohm	1%		
DC-Vpeak	2000V/sec.	1500V		1%		Negative

## MOSFET Tester Specifications (in addition to base specifications)

Tests	Capacity	Capacity	Resolution	Accuracy	Polarity	Compliance
IDSS	Up to 10mA	200V	0.4nA	± 2nA	Both	
BVDSS	Up to 200V	100uA		1%	Both	Yes
IDON	1A	10V		1%	Both	
VDSO	10V	1A		1%	Both	
BVDGO	Up to 200V	100uA		1%	Both	Yes
IDGO	Up to 10mA	200V	0.4nA	± 2nA	Both	
IGDO	Up to 10mA	200V	0.4nA	± 2nA	Both	
ISGS	Up to 10mA	10V	0.4nA	± 2nA	Both	
IGSS	Up to 10mA	10V	0.4nA	± 2nA	Both	
IGSX	Up to 10mA	10V	0.4nA	± 2nA	Both	
IDSX	Up to 10mA	200V	0.4nA	± 2nA	Both	

## SSOVP Tester Specifications (in addition to base specifications)

Functions	Capacity	Capacity	Resolution	Accuracy	Polarity	Compliance
DC Slope (Dv/Dt)	100-2000V/sec.	10mA		1%	Negative	Yes
Leakage Current	Up to 10mA		0.4nA	± 2nA	Negative	
Impulse Dv/Dt	100V/uS	Range 250-1200V		5%	Negative	No
Peak Voltage Detection		Range 250-1200V	0.5V	±5V		
Current Pulse	10A peak					Negative
(10 x 1000 bus)						

Tests	Capacity	Capacity	Resolution	Accuracy	Polarity	Compliance
Impulse	100V/uS	1200V		Slope 5%	Negative	
		Range 250-1200V				
Insulation	500V		1M-Ohm	1%		
DC-Vpeak	2000V/sec.	1200V		1%	Negative	
Ih	2A			1%	Negative	
Ih-over	2A			1%	Negative	
Vbo	1200V	100uA	0.5V	1%	Negative	No
Ibo	100uA	1200	1uA	1%	Negative	
Isw	1000mA	1000V	1mA	1%	Negative	
Vsw	1000V	1000mA	1V	1%	Negative	

## SCR, TRIAC, THYRISTOR Tester Specifications (in addition to base specifications)

Tests	Capacity	Capacity	Resolution	Accuracy	Polarity	Compliance
VDRM, VRRM	Up to 1200V	100uA		1%	Both	Yes
IDRM, IRRM	Up to 10mA	1200V	0.4nA	±2nA	Both	
IGT (All 4 quadrants)	2A	10V		1%	Both	
IHOLD	2A	10V		1%	Both	
ILATCH (All 4 quadrants)	2A	10V		1%	Both	
VF, VT, VON	50A	10V		1%	Both	
PIV (rev. gate voltage)	100V	100uA		1%	Both	

Consult factory for more specifications

## IGBT Tester Specifications (in addition to base specifications)

Tests	Capacity	Capacity	Resolution	Accuracy	Polarity	Compliance
BVCEO	Up to 1200V	100uA		1%	Both	Yes
ICEX	Up to 10mA	1200V	0.4nA	±2nA	Both	
ICEO	Up to 10mA	1200V	0.4nA	±2nA	Both	
BVEBO	10V	100uA		1%	Both	
IEB	Up to 10mA	10V	0.4nA	±2nA	Both	Yes
ICBO	Up to 10mA	1200V	0.4nA	±2nA	Both	
BVCBO	Up to 1200V	100uA		1%	Both	Yes
VBESAT	Up to 2A	10V		1%	Both	

Consult factory for more specifications

## Transistor Tester Specifications (in addition to base specifications)

Tests	Capacity	Capacity	Resolution	Accuracy	Polarity	Compliance
BVCEO	Up to 200V	100uA		1%	Both	Yes
ICEX	Up to 10mA	200V	0.4nA	±2nA	Both	
ICEO	Up to 10mA	200V	0.4nA	±2nA	Both	
BVEBO		10V	100uA	1%	Both	
IEB	Up to 10mA	10V	0.4nA	±2nA	Both	Yes
ICBO	Up to 10mA	200V	0.4nA	±2nA	Both	
BVCBO	Up to 200V	100uA		1%	Both	Yes
VBESAT	Up to 2A	10V		1%	Both	
Hfe	500mA	10V		1%	Both	



World Headquarters Aetrium Incorporated  
 2350 Helen Street  
 North St. Paul, MN 55109 USA  
 651-770-2000  
 Fax: 651-770-7975  
 www.aetrium.com  
 e-mail: info@aetrium.com