GRIFFIN SEE-RAD Test System

Powerful Test System Specifically Designed for Single Event Effects Testing

CE

HILEVEL TECHNOLOGY, INC.

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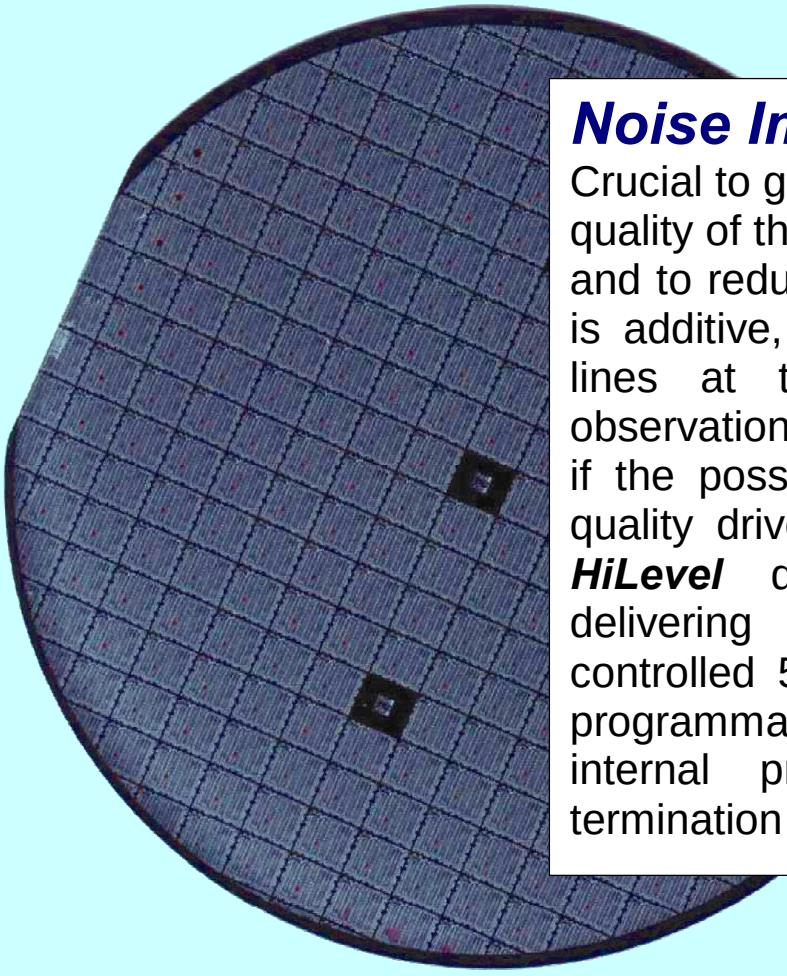
Best of Both Worlds

The ***SEE-RAD*** test system brings together the proven features of our ETS780 tester (such as true APG memory test and powerful FA tools) with the newest technology of the Griffin III. With all new high-accuracy DC Parametrics, superior precision pin drivers, and capture memory of 64M, the Griffin ***SEE-RAD*** combines the newest innovations in the test industry with our years of experience in Radiation Test.



Noise Immunity

Crucial to good signals over long cables is the quality of the pin drivers for signal consistency and to reduce noise to a minimum. For noise is additive, and noise being present on the lines at the moment of exposure and observation has a likelihood that is real, even if the possibility is low. The key is a high-quality driver and reliable environment. The ***HiLevel*** drivers are better than ever, delivering 50 mA of drive current in a controlled 50-Ohm environment, even being programmable to drive *below* 0 volts. And our internal programmable loads help with termination to keep DUT output signals clean.

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Specifications

TEST RATE
Max Data & Compare Rate: 100 MHz
Max Cycle Rate:50 MHz, all modes
(Two compares per cycle;
two level transitions per cycle)
Resolution: 25 KHz/1 MHz
Accuracy: 0.1% of programmed value
Minimum test rate: 25 KHz

TIMING
Timing Generators: 32, Globally Assigned
Time Sets on the fly: 16 programmable timing/format sets on the fly (switched dynamically during test)
Range: Entire clock cycle + 10ns
Resolution: 50ps
EPA (Edge Placement Accuracy):
Standard Calibration: ±1.5ns
Precision Calibration: ±500ps

PROGRAMMABLE PATTERN GENERATOR
Program Commands: Jump, Conditional Jump, Call, Conditional Call (four levels of Nesting), Return, Conditional Return, Loop (Repeat), Page (16 bit pages), Set Counter Value, Decrement Counter, Clear Fail Status, Trace mask On / Off, Pattern Match function.

DATA FORMATS

NRZ	Non-return to zero
R0	Return to zero
R1	Return to one
RI	Return to inhibit
RC	Return to compliment (Surround by compliment)

PIN ELECTRONICS (32 PE channels per slot)

Logic Pins: DRIVERS
All pins Input or Output or Bi-directional
Min/Max Channels: 32/512
Increments of: 32
Pin To Pin Skew: +/- 500ps
VIH: (VIL + 100 mV) to +6.5V
VIL: -1.5V to (VIH ï 100mV)
Resolution: 5mV
Rails: 1 pair per pin
Accuracy: +/- 10mV
Sink/Source Current: 50mA/50mA
Slew Rate: 1.5V/ns
Capacitance: (Lumped + Continuous) <50pF

Logic Pins: RECEIVERS/COMPARATORS
Range: -1.5V to +6.5
Resolution: 5mV
Rails: 1 per pin/per threshold
Accuracy: +/- 15mV

PE Memory:
Vector Depth: 4M per pin
Acquisition Depth: 64M in Sequential mode
16M in Programmed mode
Scan (Optional):
Scan depth: Up to 8Gbit
Up to 128 scan chains
Full scan capture capability up to 64M.

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Specifications

WORKSTATION AND SOFTWARE

Controller: PC workstation, Windows 7, and HILEVEL Symphony III software
Automation: ACT (Automation C Tools), or HILEVEL AutoTest (GUI)
Interface: USB

DC PARAMETRIC MEASUREMENTS

One DCPMU per 32 pins (PE cards)

Force Voltage Range: -8V to +8V
Resolution: 1mV
Force Current Range: -150 mA to +150 mA
Resolution & Accuracy: Range Dependent

Voltage Measurement Range: -8V to +8V
Accuracy: 0.2% ± 2mV
Current Measurement Range: ± 150 mA
Resolution & Accuracy: Range Dependent

Current Ranges	Resolution	Accuracy
± 200 nA	10 pA	± 0.4% of Value + 40 pA
± 2 µA	100 pA	± 0.3% of Value + 400 pA
± 20 µA	1 nA	± 0.2% of Value + 4 nA
± 200 µA	10 nA	± 0.2% of Value + 40 nA
± 2 mA	100 nA	± 0.2% of Value + 400 nA
± 20 mA	1 µA	± 0.3% of Value + 4 µA
± 150 mA	10 µA	± 0.4% of Value + 40 µA

ENVIRONMENTAL

Power
110V/220VAC single phase, Max 20A
(220V required for >256 pins installed)
Max Weight
85kg approx. (512 pins installed)
Manipulator Adapter Option: 10kg
Dimensions (Test head only)
H508mm x W438mm x D438mm
Cooling
9 fans
Temperature
60 to 80 °F (16 to 27°C)

OTHER FEATURES

Real time Failure Counter
Shows number of fails while running

Display Capture Fails Only
Acquisition Memory Compression

High-speed Acquisition Search:
Search 64M of capture in <3 sec.

APG Memory Test

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DUT POWER SUPPLIES

Main Internal Supplies
PS1
Range: 0 to 8V, 0 to 2A
Resolution: 10mV, 5mA
Accuracy: +/-15mV

PS2 & PS3
Range: +/-16V, 0 to 1A
Resolution: 5mV, 5mA
Accuracy: +/-15mV

PS4
Range: 0 to 3.7V, 0 to 4A
Resolution: 5mV, 5mA
Accuracy: +/-10mV

Multi-Site Supplies
One Supply per Pin Electronics Board (site)
Voltage Range: 0-8V
Resolution: 10mV
Accuracy: 10mV
Current Range: 0-1A
Resolution: 10mA
Accuracy: see table below

Current Measurement Resolution
Range dependent. Best resolution is 1 nA.

DUT SUPPLY MEASUREMENT RANGES

One Measurement Unit per system
Voltage Measurement Range: -16V to +16V, Resolution: 5mV, Accuracy: 0.2% ± 2mV

Current Ranges	Resolution	Accuracy
± 200 nA	10 pA	± 0.5% of Value + 100 pA
± 2 µA	100 pA	± 0.4% of Value + 500 pA
± 20 µA	1 nA	± 0.2% of Value + 4 nA
± 200 µA	10 nA	± 0.2% of Value + 40 nA
± 2 mA	100 nA	± 0.2% of Value + 400 nA
± 20 mA	1 µA	± 0.4% of Value + 4 µA
± 200 mA	10 µA	± 0.4% of Value + 40 µA
± 2 A	100 µA	± 0.5% of Value + 400 µA
± 5 A	250 µA	± 0.5% of Value + 1 mA

CE
2006/95/EC
2004/108/EC

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Excellence in test since 1979

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