GRIFFIN III

Powerful Test System for Production, Engineering, Failure Analysis

The *HILEVEL* Griffin III is a breakthrough in performance, precision, and reliability. Up to 512 logic pins, 64M vector depth and capture depth, all new high-accuracy DC parametrics, and optional mixed signal instrumentation in a multi-site system.

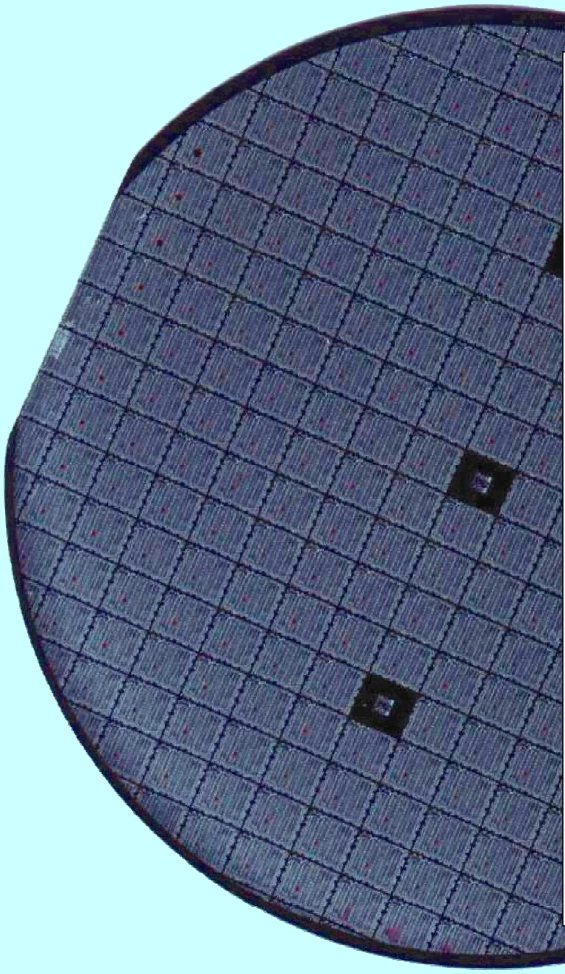
HILEVEL TECHNOLOGY, INC.

HILEVEL TECHNOLOGY, INC.

GRIFFIN III

Price and Performance

The **Griffin III** system brings new price/performance efficiency to the Tester-in-a-Head tradition, a concept created and introduced by ***HILEVEL*** in 1987. This tester is a superior solution for Mass Production, Engineering, and Failure Analysis test applications. With all new high-accuracy DC Parametrics, and capture memory of 64M to match the vector memory, this system takes the lead in the Price/Performance marathon.



Symphony III

HILEVELôs Symphony III software takes advantage of the ability to integrate external instruments into the **Griffin III** test flow, easily and efficiently. Rich in GUI functions for engineering and FA, plus all of the C++ programming capabilities that make a mass production tester fast. Symphonyôs built-in analysis tools make characterization fast and easy.

Specifications

TEST RATE
Max Data & Compare Rate: 200 MHz
Max Cycle Rate:100 MHz, all modes
(Two compares per cycle;
two level transitions per cycle)
Resolution: 125 KHz/1 MHz
Accuracy: 0.1% of programmed value
Minimum test rate: 125 KHz

TIMING
Timing Generators: 32, Globally Assigned
Time Sets on the fly: 16 programmable timing/format sets on the fly (switched dynamically during test) 128 timing sets total
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: 64M 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.

HILEVEL TECHNOLOGY, INC.

Specifications

FCB: HIGH-SPEED CLOCKS
Eight fast clocks per FCB board with complementary outputs, up to 500MHz with programmable fractional ratio to the test rate (from 1:1 up to 8:1, in 0.5 steps). One FCB per system maximum.

WORKSTATION AND SOFTWARE
OS: Windows
Automation: ACT (Automation C Tools), TexTest for ASCII test control, or HILEVEL AutoTest (GUI)
Controller: PC workstation, Windows, and HILEVEL Symphony III software
Interface: USB 3

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
220VAC single phase, Max 20A
Max Weight
49kg (107 lbs) 512 pins installed
Chassis only: 75 lbs, Each PEB: 2lbs
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.

Full ñNext Cycleò Operation
Data Valid for the full next cycle

HILEVEL TECHNOLOGY, INC.

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

PS per PE
0 to 8V, 1A per PE card/ 16 max.

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

HILEVEL TECHNOLOGY, INC.

Excellence in test since 1979

HILEVEL TECHNOLOGY, INC.

17805 Sky Park Circle, Suite E
Irvine CA, 92614
1-800-HILEVEL