HILEVEL TECHNOLOGY, INC.

ETS788 & ETS788L Test Station

HILEVEL's ETS788 Test Station combines the most popular features of our ETS series testers with the modern technology and precision of our Griffin systems. This means that true APG memory test and single-vector pattern generator commands are available with the latest high-performance pin electronics and precision DC parametrics. Combining the benefits of cost-effective production testing with engineering analysis, the ETS788 achieves faster time to market by providing test results quickly and smoothly from design to manufacturing release.

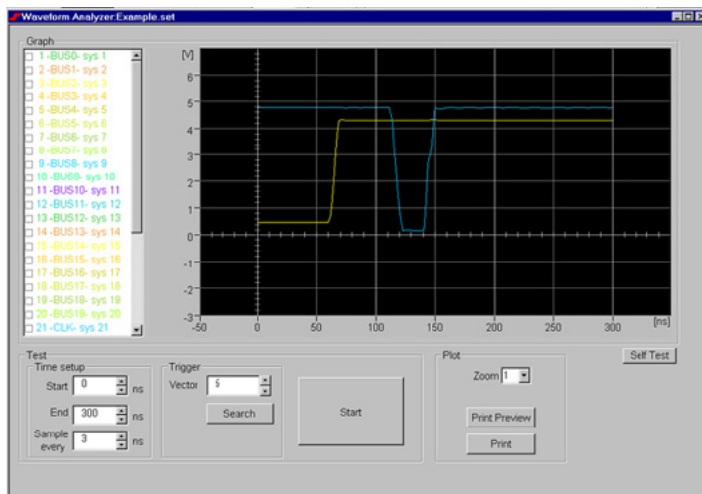*Cut the cost of test today with the ETS788 system from HILEVEL*

Our Presto Test Solution software brings real intuition to test development and operation. Running under Microsoft Windows, Presto places all of the powerful features of the ETS788 right at your fingertips. Tried and true Engineering tools have been expanded to include powerful new features. And Presto's Production Operator Console provides an easy user-friendly platform, so crucial for Manufacturing. Presto takes full advantage of Windows power with context-sensitive help, true graphics, and versatile user customizing.

The ETS788 provides the accuracy and resolution so crucial to device characterization. 50ps timing generator resolution provides superior characterization power for timing measurements. Clocks can be generated at twice the data rate using our powerful Timing On-the-Fly feature. Wafer Sort applications and full IC Handler control are supported by HILEVEL's "Auto Test" – a fast and easy Production Test automation tool. High throughput lowers cost-per-test for high volume production. Memory Test for process analysis, and Oscilloscope and Curve Trace for failure analysis are standard features. Translation and file import tools, real-time editing and quick display manipulation give our testers the reputation as the easiest to learn and quickest to setup.

The ETS788 operates at speeds up to 50MHz bi-directional data rate with 50picosecond resolution for up to 512 independently programmable pins (max 256 pins for ETS788L). The system configuration includes Presto operating software, Automation C Tools for Production, a high-performance Windows PC Workstation, USB interface, 32 globally assignable timing generators and multiple DCPMUs, along with active programmable loads per pin.

APG Memory Test

Patented HILEVEL-designed ASICs provide a highly-integrated solution for lowering the cost of memory test. Multiple APG operations are defined (including multiplication of pseudo random numbers) using *HATGOL - Hilevel Algorithmic Test Generation Oriented Language*. Effectively, the APG is a "per bit" operation. A salient feature of the HiLevel APG is the "Adaptive Addressing Method".

Road Ready!

Do you require a very portable system for exposure testing or other FA purposes? Then the ETS788L with optional Road Ready travel case is for you. Simply latch on the front and rear covers and you are ready to go.

HILEVEL's Road Ready travel case operates like a piece of luggage, with built in wheels and a telescoping handle. When you reach the lab you can just remove the front and rear covers and use the ETS788L right in the case if you wish. Whether going to the top of a mountain or deep underground, the Road Ready travel case will get you there.

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TEST RATE

Max Clock Rate: 100MHz
Max Data Rate: 50MHz
Resolution: 25kHz
Accuracy: .01% of programmed value

TIMING

Timing Generators: 32, Globally Assigned
Time Sets on the fly: Yes
Range: Entire clock cycle + 10ns
Resolution: 50ps
EPA (Edge Placement Accuracy):
     Standard Calibration: ±1ns
     Precision Calibration: ±700ps

PIN ELECTRONICS

All pins Input or Output or Bidirectional
DRIVERS
Min/Max Channels:
ETS788: 32/512
ETS788L: 32/256
Pin To Pin Skew: +/- 500ps
VIH: (VIL + 250 mV) to 6.5V
VIL: -1.5V to 6.0V
Resolution: 5mV
Rails: 1 pair per pin
Accuracy: +/- 10mV
Sink/Source Current: 50mA/50mA
Slew Rate: 2V/ns
Total Capacitance: (Lumped + Continuous) <50pF
RECEIVERS/COMPARATORS
Range: -1.5V to +6.5V
Resolution: 5mV
Rails: 1 per pin
Accuracy: +/- 10mV

PROGRAMMABLE PATTERN GENERATOR

Modes: Sequential, Programmed
Program Mode 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.

VECTOR DEPTH

4M behind every pin
Memory Test Mode: Up to 2G
Acquisition Memory: 64M per pin
Program Memory: Equal to vector depth

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)

DC PARAMETRIC MEASUREMENT UNIT

One DCPMU per 32 pins
Force Voltage Range: -8V to +8V
Resolution: 1mV
Accuracy: 0.2% ± 2mV
Voltage Measurement Range: -8V to +8V
Resolution: 1mV
Accuracy: 0.2% ± 2mV

DC PARAMETRIC MEASUREMENT UNIT

Force Current Range: -150 mA to +150 mA   Current Measurement Range: ± 150 mA
Resolution & Accuracy: Range Dependent   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	100nA	± 0.2% of Value + 400 nA
± 20 mA	1uA	± 0.3% of Value + 4 uA
± 150 mA	10uA	± 0.4% of Value + 40 uA

DUT POWER 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: 4A @ 0 to 3.7V
Resolution: 5mV, 5mA
Accuracy: +/-15mV

Current Measurement Resolution

Range dependent.
Best resolution is 1 nA.

WORKSTATION AND SOFTWARE

OS: Windows
Automation: ACT (Automation C Tools),
        TexTest for ASCII test control,
        or HILEVEL AutoTest (GUI)
Controller: PC Windows workstation, and
        HILEVEL Presto software

ENVIRONMENTAL

Power

110VAC single phase:
Max 8A @ 128 pins
Max 15A @ 256 pins

220VAC single phase:
Max 5A @ 128 pins
Max 9A @ 256 pins
Max 15A @ 512 pins

Temperature

60 to 90 °F (16 to 32°C)

Relative Humidity

20 to 80%

Dimensions

ETS788: H20.0" X W 17.25" X D 17.25"
ETS788L: H13.0" x W17.25" x D17.25"

Weight
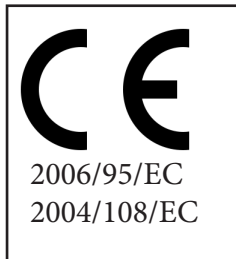
ETS788	ETS788L
128pin - 90 lbs	128pin - 75 lbs
256pin - 120 lbs	256pin - 105lbs
512pin - 150 lbs	

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CE
2006/95/EC
2004/108/EC

Call 1-800-HILEVEL for pricing and demonstrations.
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