HILEVEL TECHNOLOGY, INC.

Curve Master™

CurveMaster™

CurveMaster XL

Precision Curve Tracer

The *HILEVEL* CurveMaster™ brings modern technology and components to the world of curve tracing. With up to 2,048 pins and all new high-accuracy DC parametrics, the low-cost CurveMaster™ could become your favorite lab instrument!

Price and Performance

The CurveMaster™ brings new price/performance efficiency to curve tracing and Failure Analysis. Curve trace has been a standard feature in our full-power chip tester for years, so the CurveMaster™ is built with today's components and technology. With all new high-accuracy DC Parametrics, you'll enjoy the most powerful curve tracer you have ever used. Why settle for old used equipment or repackaged old technology?

CurveMaster X Max
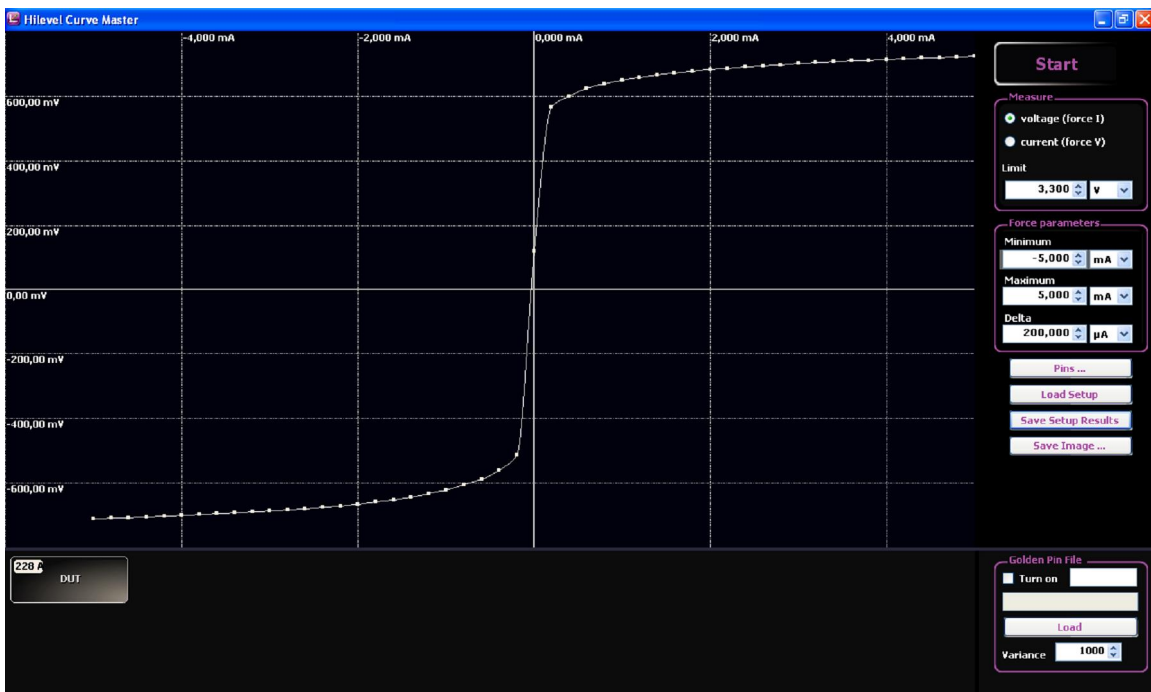
HILEVEL's CurveMaster™ software is easy to use and setup on the Windows platform, making curve tracing fast and easy.
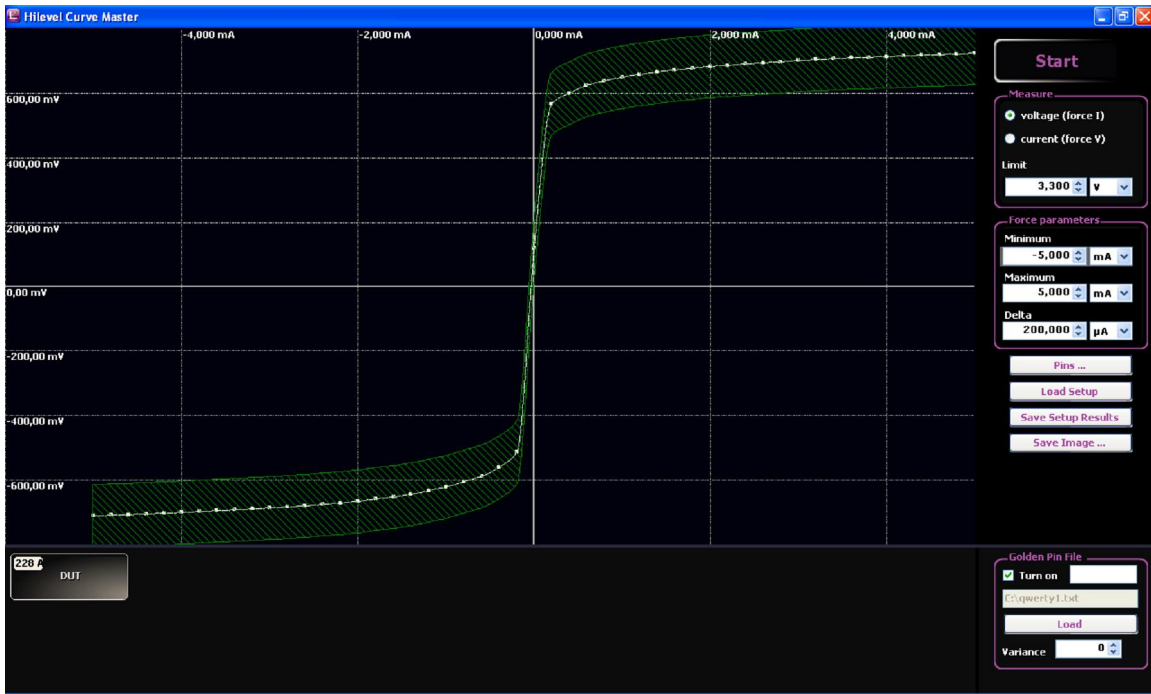
Golden Pin

Golden Pin is a definable "tolerance" that can be used to capture the traces of all the pins on a golden (known good) device. The results are saved and used by the software to verify compliance of more devices. Test results can be saved/viewed as a table or graphic image, or both.

```
;Curve Trace File Result
VOLTAGE ; Force mode

SysCh    2        3
;Force   2        3

NAME
-1.0000 -10000.0000    -10000.0000
-0.9000 -10000.0000    -10000.0000
-0.8000 -10000.0000    -10000.0000
-0.7000 -6578.8267     -6480.9015
-0.6000 -2026.3070     -2000.4268
-0.5000 -624.1113      -617.4615
-0.4000 -192.2290      -190.5887
-0.3000 -59.2074       -58.8280
-0.2000 -18.2361       -18.1582
-0.1000 -5.6168 -5.6048
0.0000  -1.7300 -1.7300
0.1000  0.0000  0.0000
0.2000  0.0003  0.0003
0.3000  0.0068  0.0068
0.4000  0.1341  0.1352
0.5000  2.6565  2.6851
0.6000  52.6349 53.3158
0.7000  1042.8755      1058.6332
```
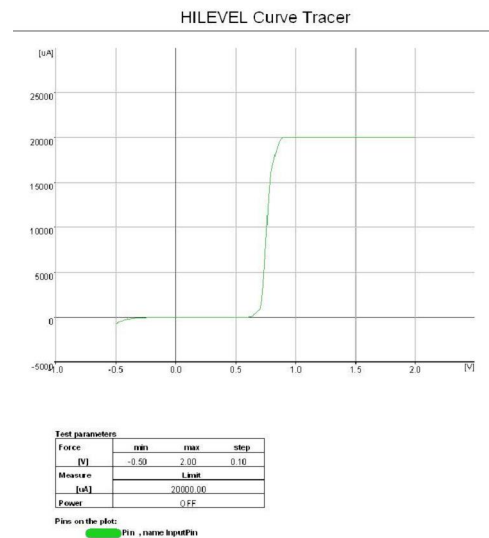
High Voltage Testing

The Hilevel CurveMaster^{TM} supports high-voltage devices up to ±120 volts using our DCHiV boards. Each board provides 8 outputs with individual sense and guard signals to allow for low current measurements without introducing any leakage current. These outputs are also accessible from the rear of the chassis using 4 banana jacks for full Kelvin 4-wire measurements. The DCHiV boards can plug into any available slot pair and can be mixed with our standard DC128 resource boards in the same CurveMaster^{TM} chassis.

Specifications

DCHiV PARAMETRIC MEASUREMENTS
One HVSMU switched among 8 outputs on each DCHiV board
Two Force Voltage Ranges: ±120V up to 200mA, ±30V up to 1A, Maximum power 25W
Force Voltage Resolution: 5mV   Current Limit Resolution: 50µA
Voltage Measurement Resolution: 15µV

Current Measurement Range: 200nA to 2A
Resolution & Accuracy: Range Dependent

Current Ranges	Resolution	Accuracy
± 200 nA	20 fA	± 0.4% of Value + 40 pA
± 2 µA	200 fA	± 0.3% of Value + 200 pA
± 20 µA	2 pA	± 0.2% of Value + 1 nA
± 200 µA	20 pA	± 0.1% of Value + 10 nA
± 2 mA	200 pA	± 0.1% of Value + 100 nA
± 20 mA	2 nA	± 0.1% of Value + 1 µA
± 200 mA	20 nA	± 0.1% of Value + 10 µA
± 2 A	200 nA	± 0.1% of Value + 100 µA

Specifications

DC128 PARAMETRIC MEASUREMENTS

One DCPMU per 32 pins, four per DC128 Module, plus one main DCPMU

Force Voltage Range: -8V to +8V	Voltage Measurement Range: -8V to +8V
Resolution: 1mV	Accuracy: 0.2% ± 2mV
Force Current Range: -150 mA to +150 mA	Current Measurement Range: ± 200 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	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

CURVE TRACER RANGE, RESOLUTION AND ACCURACY

Same as DC PARAMETRIC MEASUREMENT specifications above.

ENVIRONMENTAL

Power

120VAC single phase, Max 15A

Max Weight

CurveMaster X Max: 49kg (107 lbs) 2048 pins
Chassis only: 75 lbs, *Each 128 pins*: 2 lbs
CurveMaster XL: 28kg (61 lbs) 1024 pins
Chassis only: 45 lbs, *Each 128 pins*: 2 lbs

Dimensions (Test head only)

H508mm x W438mm x D438mm (2048 model)
H330mm x W438mm x D438mm (1024 model)

Cooling

9 fans

Temperature

60 to 80 °F (16 to 27°C)

C E
2006/95/EC
2004/108/EC

Excellence In Test Since 1979

HILEVEL TECHNOLOGY, INC.

www.hilevel.com

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